RSF: The Russell Sage Foundation Journal of the Social Sciences

The Socioeconomic Impacts of the COVID-19 Pandemic

VOLUME 9, ISSUE 3, MAY 2023

copublished with
The JPB Foundation

RSF: The Russell Sage Foundation Journal of the Social Sciences

The Socioeconomic Impacts of the COVID-19 Pandemic

VOLUME 9, ISSUE 3, MAY 2023

RSF: The Russell Sage Foundation Journal of the Social Sciences ISSN 2377-8261

The Russell Sage Foundation

The Russell Sage Foundation, one of the oldest of America's general purpose foundations, was established in 1907 by Mrs. Margaret Olivia Sage for "the improvement of social and living conditions in the United States." The foundation seeks to fulfill this mandate by fostering the development and dissemination of knowledge about the country's political, social, and economic problems. While the foundation endeavors to assure the accuracy and objectivity of each book it publishes, the conclusions and interpretations in Russell Sage Foundation publications are those of the authors and not of the foundation, its trustees, or its staff. Publication by Russell Sage, therefore, does not imply foundation endorsement.

Mission Statement

RSF: The Russell Sage Foundation Journal of the Social Sciences is a peer-reviewed, open-access journal of original empirical research articles by both established and emerging scholars. It is designed to promote cross-disciplinary collaborations on timely issues of interest to academics, policymakers, and the public at large. Each issue is thematic in nature and focuses on a specific research question or area of interest. The introduction to each issue will include an accessible, broad, and synthetic overview of the research question under consideration and the current thinking from the various social sciences.

We invite scholars to submit proposals for potential issues to journal@rsage.org. Submissions should be addressed to Suzanne Nichols, Director of Publications.

To view the complete text and additional features online please go to **www.rsfjournal.org**.

Russell Sage Foundation
112 East 64th Street
New York, NY 10065

ISSN (print): **2377-8253**
ISSN (electronic): **2377-8261**
ISBN: **978-0-87154-726-2**

The JPB Foundation

The JPB Foundation and our partners work to advance opportunity and justice in the US by reducing poverty, sustaining and enriching our environments, and furthering breakthrough medical research. We work alongside local leaders, national movements, and world-changing research organizations to make people's lives better.

Through our three core areas of focus—Poverty, Environment, and Medical Research—we work to eliminate systemic injustices that prevent people from thriving. The JPB Foundation provides emergency grants to support communities facing immediate crises including disaster response and recovery efforts, such as the COVID-19 pandemic. This nimble and responsive spirit has allowed The JPB Foundation to provide critical support to our partners to help them meet the pressing needs in the communities they serve and in which they work and live.

At The JPB Foundation, we are dedicated to long-lasting, systemic change. That means we commit to our partners for the long haul, trusting in the strength and vision of the organizations we support to address some of our country's most entrenched problems. We are collaborative, bringing together leaders and people with lived experiences, scaling the best programs and solutions. And we are responsive, making investments when crises arise and putting communities with the most need first.

RSF: The Russell Sage Foundation Journal of the Social Sciences

VOLUME 9, ISSUE 3, MAY 2023

The Socioeconomic Impacts of the COVID-19 Pandemic

ISSUE EDITORS
Steven Raphael and Daniel Schneider

CONTENTS

Introduction: The Socioeconomic Impacts of COVID-19

STEVEN RAPHAEL AND DANIEL SCHNEIDER

The COVID-19 pandemic has exacted a historic toll on Americans' health and longevity. It has also shaped socioeconomic inequalities along the lines of gender, race, ethnicity, nativity, and class in America. The effects of COVID-19 are evident in the stratified experiences of Americans in work, unemployment, and unpaid labor; in stark inequalities in wealth and income; in the historic expansions and retrenchments in social welfare spending; and in the increase in violence and changes in the criminal justice system. While there has been an outpouring of research on the social and economic consequences of COVID-19, far less work draws together research across these varied, but interrelated, domains. In this introduction, we provide a broad narrative of how the COVID-19 pandemic unfolded in America and reshaped, in some instances fleetingly and in others more permanently, the landscape of socioeconomic inequality in America.

Keywords: COVID-19, inequality, gender, unemployment, violence, work

By now, the timing of the coronavirus pandemic in the United States is familiar. The first COVID-19 case in the United States was confirmed by the Centers for Disease Control and Prevention (CDC) in late January 2020. President Donald Trump declared a national health crisis on March 13, after which several states implemented mandatory stay-at-home orders, and businesses, government agencies, and schools across the country closed to in-person activity. The initial wave of infections crested in July 2020, followed by a much larger second wave of infections that peaked in January 2021 (CDC 2021; *New York Times* 2021).

Meanwhile, the Food and Drug Administration granted emergency use authorization for first the Pfizer and then the Moderna COVID-19 vaccine in December 2020, and a mass vaccination effort commenced shortly thereafter. The combination of vaccinations, continued social distancing, and warmer weather caused new infections to decline to low levels by summer

Steven Raphael is a professor of public policy at UC Berkeley and holds the James D. Marver Chair at the Goldman School of Public Policy, United States. **Daniel Schneider** is the Malcolm Wiener Professor of Social Policy at the Harvard Kennedy School and professor of sociology at Harvard University, United States.

 Raphael, Steven, and Daniel Schneider. 2023. "Introduction: The Socioeconomic Impacts of COVID-19." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 9(3): 1–30. DOI: 10.7758/RSF.2023.9.3.01. We are grateful to Annette Gailliot, Evelyn Bellew, and Ismael Soto for excellent research assistance. Direct correspondence to: Steven Raphael, at stevenraphael@berkeley.edu, Goldman School of Public Policy, University of California, Berkeley, 1893 LeRoy, Room 343, Berkeley, CA 94720, United States; Daniel Schneider, at dschneider@hks.harvard.edu, Harvard Kennedy School & Department of Sociology, Harvard University, 79 JFK Street, Cambridge, MA 02138, United States.

of 2021 (Syal and Miller 2021). This relative lull then gave rise to a third wave of infections and deaths driven by the Delta variant, and largely focused among the unvaccinated (Smith and Bosman 2021) and then the fourth and largest wave through the beginning of 2022 driven by the Omicron variant. As of October 2022, more than one million people in the United States have died from COVID (CDC 2022a). Cumulative crude death rates are generally highest for racial and ethnic minorities. Adjusting for age differences reveals large disparities in the risk of death: the highest age-adjusted death rates are among Native Americans, who are followed by Latinos, Pacific Islanders, African Americans, White Americans, and Asian Americans.[1]

Incorporating excess deaths driven by delayed medical care, stress, and other residual consequences of the pandemic yields an even greater toll in terms of excess mortality (Findling, Blendon, and Benson 2020).

We know that the pandemic has had a disproportionate impact on institutionalized and marginalized populations who are resource poor and in some instances politically disenfranchised. African Americans and Latinos are disproportionately represented among documented COVID-19 cases and fatalities, in part because of existing disparities in health problems, differential access to health care, and differential exposure to essential work (Wrigley-Field et al. 2020). Many of the largest and deadliest early outbreaks occurred in institutionalized settings such as nursing homes, rehabilitation facilities, state and federal prisons, and local jails (Dosa et al. 2020; Nelson and Kaminsky 2020). The pandemic has hit Native American communities particularly hard because they tend to be located in rural areas with poor access to adequate health services (Hathaway 2021).

Alongside these epidemiological trends were major changes to employment and work arrangements that broke down along the lines of race-ethnicity, class, and gender. Disparate impacts of employment and of an expanded social safety net also reshaped poverty, income inequality, and wealth inequality. We observed differential resistance to public health measures intended to reduce the reproduction rate of the disease as well as differential vaccination hesitancy that appears to break along socioeconomic, racial, and political lines. Finally, the increase in lethal violence in the United States has disproportionately affected specific demographic groups.

The sudden onset of the COVID-19 pandemic and these changes in economic and social outcomes laid bare many of the structural inequalities in American society. Within a few months of the first documented community transmission, nearly one-quarter of the workforce filed for unemployment benefits; low-income workers and those with less flexibility in scheduling and the ability to work remotely disproportionately lost their jobs. Meanwhile, workers deemed essential, from health-care providers to supermarket employees to delivery workers, bore the brunt of the early exposure to infection; others sheltered in place under state and local orders. Early in the pandemic, these unequal labor-market experiences exacerbated inequalities in material hardship, household economic insecurity, and poverty. Over the following year and a half, expansionary fiscal policy (operating through expansions of the unemployment insurance system), enhanced in-kind benefits and transfers (such as earned income and child tax credits), federal renter assistance funds, and direct and repeated stimulus payments likely dulled the adverse effects of the pandemic on the poorest U.S. households.

Beyond differential impacts by socioeco-

1. The APM Research Labs' Color of Covid (Gawthrop 2022) project documents cumulative death rates by race-ethnicity both in terms of crude deaths per hundred thousand as well as age-adjusted deaths per hundred thousand benchmarking against the 2020 age distribution. As of April 6, 2022, the crude death rate from highest to lowest is 447 for Indigenous persons, 344 for Pacific Islanders, 339 for African Americans, 322 for White Americans, 259 for Latinos, and 159 for Asians. The age-adjusted cumulative mortality rates from highest to lowest are 548 for Indigenous persons, 471 for Latinos, 460 for Pacific Islanders, 440 for African Americans, 263 for White Americans, and 195 for Asians. Interestingly, age-adjusting increases the death rate for all groups with the exception of White Americans. Age-adjusting causes the largest increase in death rates for Latinos.

nomic status (SES), the pandemic brought into sharp relief the difference in home and work responsibilities by gender and the extent to which women still bear disproportionate responsibility for childcare and other household tasks. The disruption to childcare and K–12 schooling led to larger employment declines among women relative to men and shifted the amount and division of housework and carework.

These rapid transformations have been dramatic and may portend durable change in American society. Looking back over the years since the onset of the pandemic, the contributions in this issue collectively document the socioeconomic impacts, the nature and efficacy of federal and local responses, and the distributional consequences of what is arguably the largest economic and health shock in generations. The articles in this issue provide both a broad portrait of the causal effects and of the lived experiences of the pandemic across a set of key socioeconomic inequality domains.

The articles paint a portrait of early economic distress that disproportionately affected the most vulnerable households and was followed by a massive federal response that largely countered the adverse effects of the pandemic on material hardship. Despite massive increases in unemployment and declining labor-force participation, total disposable income increased considerably, largely in response to increases in transfer income and consequent declines in overall poverty and childhood poverty. Moreover, measures of housing distress, though still common among renter households, such as being behind on rent or being subjected to eviction proceedings, did not appear to increase and in some instances declined over the course of the pandemic largely because of the moratorium on evictions and federal rental assistance. These developments illustrate the power and capacity of the federal government to respond to a crisis of this magnitude when the political will to do so is sufficient.

Simultaneously, we see evidence that the pandemic disproportionately affected working women with children, appears to have permanently altered spatial arrangements of work for relatively higher educated workers, and has at least temporarily buttressed the labor-market power of lower-SES workers. How these changes ultimately play out and reshape living arrangements, internal migration, and power relations has yet to be determined. It does appear, however, that for knowledge workers place of work and place of residence are becoming increasingly decoupled. We have also observed a sizable increase in lethal violence and gun violence more generally that loosely coincides with the onset of the pandemic, especially following the social upheavals unleashed by the murder of George Floyd in May 2020. This increase in lethal violence has been largely driven by increase in homicide rates where African American males are the victims.

The collection of articles in this issue provides a comprehensive assessment of the socioeconomic consequences of the pandemic in the United States. In this introduction, we provide a broad overview of these developments, most of which are developed further in the quantitative and qualitative studies that follow. Specifically, we document and discuss broad developments in work arrangements and employment, income inequality and other measures of economic insecurity, and the increase in violence. Finally, we offer some speculative thoughts on the likely longer-term and even permanent impacts of the pandemic on the U.S. economy.

REMOTE WORK, ESSENTIAL WORK, AND UNEMPLOYMENT

Initially hailed as a "great equalizer" (Adams-Prassl et al. 2020), for much of 2020, the COVID-19 pandemic appeared to be anything but that. The labor-market dynamics of the period exemplify the stark inequalities that emerged along the lines of class, gender, and race-ethnicity. We present a stylized description of the three faces of work during the pandemic—remote work, essential work, and unemployment.

Remote Work

Even though professional workplaces had experimented with telework and flexible schedules (Moen et al. 2017), such arrangements remained relatively uncommon before the COVID-19 pandemic (Galinsky, Bond, and

Friedman 1996). In the first months of the pandemic, however, white-collar workplaces made a rapid shift to work-from-home arrangements (Dunatchik et al. 2021). We expect that perhaps one of the most enduring effects of the pandemic will be to reorient the spatial organization of work.

The necessity to socially distance encouraged a wave of organizational, managerial, and technological innovation aimed at facilitating remote work, asynchronous collaboration, and high-quality video communication. Anecdotes abound concerning the profound impacts of these developments on business travel, formal court proceedings, work meetings, and other aspects of the workplace in many sectors (Pearson, Patel, and Wilkes 2021; Tashea 2020). Moreover, these changes have greatly affected the economies of areas such as central business districts that thrive on spatially concentrated workplaces (Florida 2021; Ramani and Bloom 2021).

Of course, from day one of the pandemic it was apparent that not everyone was able to work from home. Frontline workers ranging from health-care workers to grocery store clerks worked throughout and bore much of the risk of providing essential services and keeping the economy moving. Moreover, many retail trade employees and key service employees, given the nature of their jobs, could not work from home.

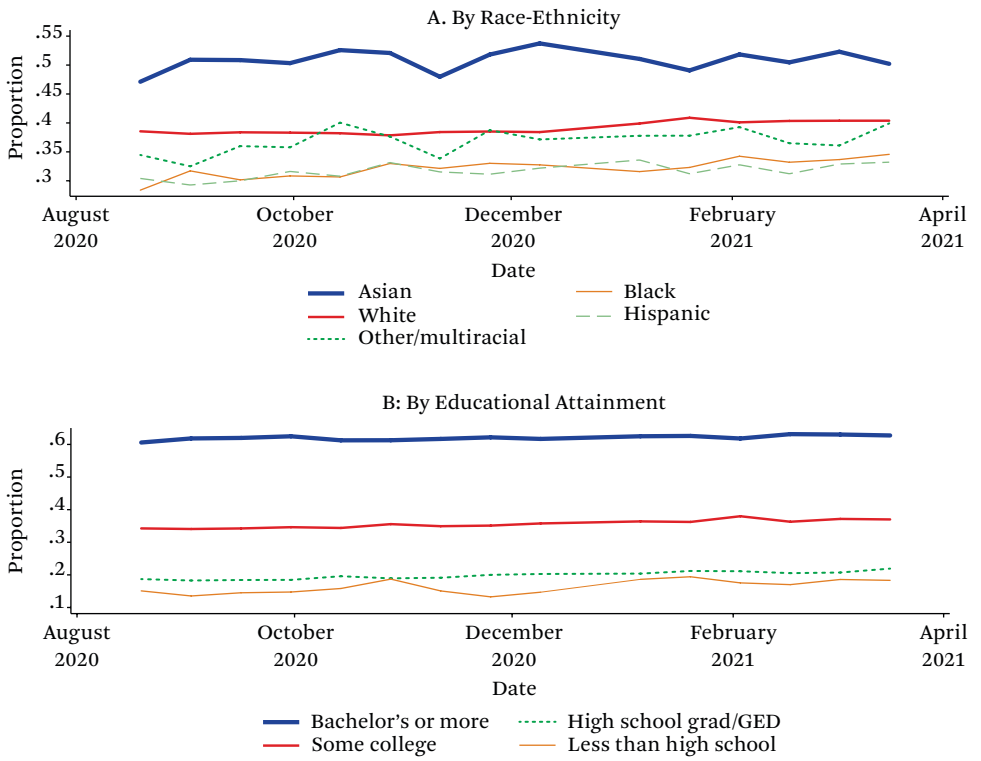
Data from the U.S. Census Bureau's Household Pulse Survey (a weekly survey fielded during the pandemic to provide quick gauges of the impact of COVID on the American public) clearly illustrate large SES differences in the proportion of people able to work from home. Figure 1 presents the proportion of respondents indicating that someone in their households worked from home between September 2020 and late February 2021. Regarding interracial and interethnic differences (panel A),[2] Asian respondents had the highest proportion of household members working from home, followed by white respondents; black and Hispanic respondents have the lowest values. By educational attainment (panel B), college graduates are by far more likely to live in homes where someone is telecommuting; the least educated adults are the least likely.

Although the question in the Pulse survey about working from home changes over the waves of this data collection effort (and thus comparability qualifications should be kept in mind), the tabulation for this version of the question for the last available week of the survey provides some indication of the durability of the change. Table 1 presents the proportions of respondents in households where someone works at home, stratified by education, stratified by race-ethnicity, and stratified by education and race-ethnicity. Interestingly, for all racial-ethnic groups, we see a strong relationship between educational attainment and the likelihood of working at home, and the education gradients in working at home are quite similar across racial-ethnic groups. Hence the average differences in the likelihood of working at home should reflect intergroup differences in the educational attainment distributions.

Clearly, those who work from home were less exposed to virus transmission, generating clear inequalities in the impact of the pandemic along the socioeconomic and demographic dimensions used in table 1. This was especially important during the prevaccination phase of the pandemic, when the potential health consequences of contracting COVID-19 were more serious. Although we cannot use the Pulse survey to chart the time path of COVID-19 infections, we can estimate the percentage of different subpopulations that indicate a COVID-19 diagnosis by a medical professional. Table 2 presents tabulations by education, race-ethnicity, and the interaction of education and race-ethnicity of the percentage of respondents indicating that they have had COVID-19 as of the end of September 2021. Overall, 18 percent of respondents indicated that they have had COVID. The percentage is the highest for Hispanic respondents, followed by other, black, white, and Asian respondents. Although the relationship is not monotonic, we see that people with more education generally have lower percentages of infections. Comparing tables 1 and

2. We code respondents into the following categories: non-Hispanic white, non-Hispanic black, non-Hispanic Asian, non-Hispanic Other-multiracial, and Hispanic.

Figure 1. Proportion Indicating That Someone in Household Works from Home



Source: Authors' tabulations based on U.S. Census Bureau Household Pulse Survey (U.S. Census Bureau 2022).

2 suggests that infections rates are lower among demographic and educational groups that indicate they are more likely to be in households where adults are working from home.

This pivot to remote work effectively protected white-collar workers from furlough and layoff during the pandemic. Although the unemployment rate rose to 21 percent among workers with less than a high school degree and to 17 percent among those with only a high school degree, it rose to 8.4 percent among college graduates and to 7 percent among those with a professional degree. Moreover, unemployment rates had essentially returned to pre-

Table 1. Someone in Household Works from Home, Week of September 29, 2021

	All	Less than High School	High School Graduate/GED	Some College	Bachelor's or Higher
All	31	11	16	27	52
NH White	32	11	16	28	51
NH Black	27	9	17	27	47
NH Asian	45	10	25	26	59
NH Other	31	32	15	26	55
Hispanic	24	9	16	24	52

Source: Authors' tabulation based on the U.S. Census Bureau Household Pulse Survey (U.S. Census Bureau 2022).
Note: All numbers in percentages. NH = non-Hispanic.

Table 2. Have Had COVID, Week of September 29, 2021

	All	Less than High School	High School Graduate/GED	Some College	Bachelor's or Higher
All	18	21	19	20	15
NH white	17	13	19	19	14
NH Black	19	14	21	20	17
NH Asian	11	18	10	14	9
NH Other	22	17	20	25	19
Hispanic	23	30	21	23	20

Source: Authors' tabulations based on the U.S. Census Bureau Household Pulse Survey (U.S. Census Bureau 2022).
Note: All numbers in percentages. NH = non-Hispanic.

pandemic levels for workers with at least a college degree by October 2021, yet remained elevated above their pre-pandemic lows for less-educated workers (FRED 2021b).

Even though the ability to work from home shielded many professional workers from job loss and may have protected them from infection, remote work was a double-edged sword. Professional workers, long subject to intense cultures of office-face-time and limited work-life flexibility (Schieman, Glavin, and Milkie 2009), now reported greater flexibility and schedule control (Parker, Horowitz, and Minkin 2020). With widespread remote work, however, also came exposure to the well-documented drawbacks of spillover, intensification, and the blurring of work-life balance (Chesley 2005; Kelly and Moen 2020; Schieman, Glavin, and Milkie 2009). During COVID-19, it appears that work hours increased for remote workers (Fan and Moen 2022), making it difficult to maintain a family-life balance and leading mothers to exit the labor force (Alon et al. 2020; Collins et al. 2020, 2021; Landivar et al. 2020)

Essential Work

The story for lower-SES workers is more complex and more precarious. At the outset of the pandemic, many frontline workers were deemed essential, including those in health care, transportation, food processing, and public safety, as well as service-sector workers in grocery, pharmacy, and logistics (Kane and Tomer 2020). Although some frontline workers, such as physicians, are socioeconomically advantaged, essential workers are disproportionately low-wage earners (Kane and Tomer 2020) and people of color (Fremstad, Brown, and Rho 2020; Huang et al. 2020). Initially a fairly clear distinction, as the pandemic wore on, the line between essential workers and all other workers whose jobs forestalled remote work became increasingly blurred. Against a backdrop of widespread household economic insecurity, workers' whose establishments had reopened, whether casual dining establishments or retail stores, often had no choice but to return to in-person work.

These workers faced significant direct risks of COVID-19 infection from staying on the job (Chen et al. 2021), and in the early days of the pandemic, struggled to access enough personal protective equipment, such as masks (Harknett and Schneider 2020; Kamerow 2020). Unlike many white-collar workers who were able to work remotely, frontline staff worked in close proximity to others and had little capacity for social distancing (Hammonds and Kerrissey 2020b; Ho, Harknett, and Schneider 2020). Staffing the frontline, these workers also contended with emotional, contentious, and at times dangerous interactions with clients and customers. Frontline workers helped the sick, the very young, and the very old in carework settings, enforced mask mandates in stores and restaurants, and in general dealt with a polarized and often angry public (Hammonds and Kerrissey 2020a).

Despite being hailed as frontline heroes, workers received only modest material recognition of their efforts. Some large firms introduced "hero pay" or bonus pay (Stateler and

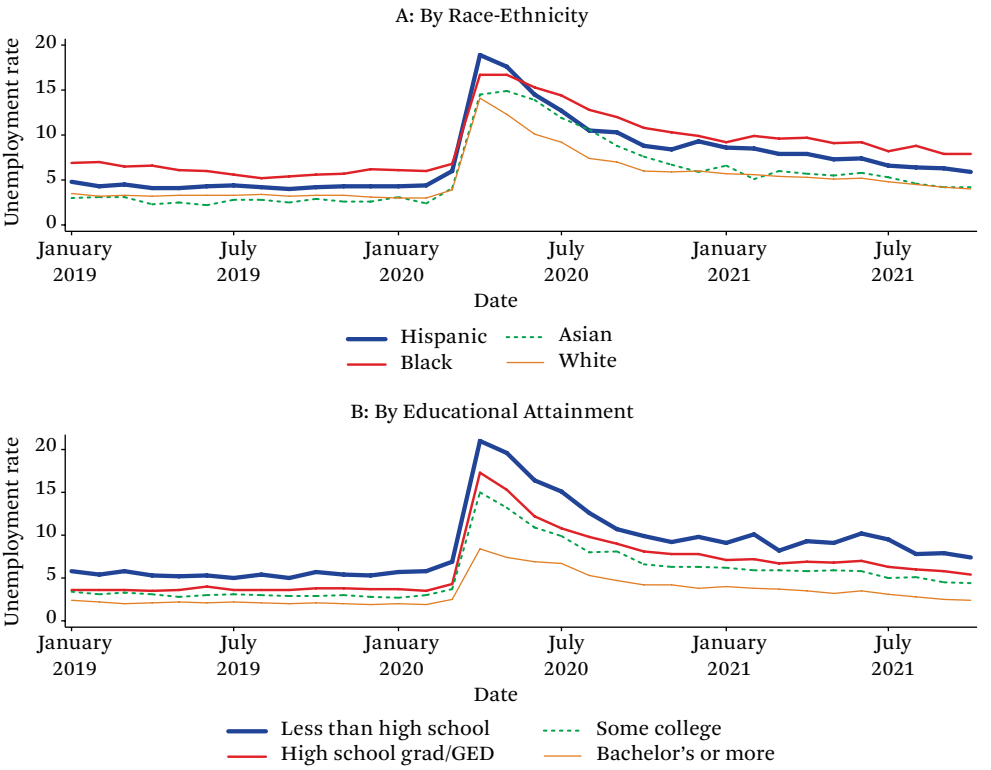
Kinder 2021), but these compensation supplements were generally short lived (Du, Stateler, and Kinder 2020). Before the pandemic, service-sector workers were among the least likely to have access to paid sick leave through their employers (Schneider and Harknett 2020) and outside a patchwork of state and local laws, paid leave for workers was not mandated (Drie 2021). This lack of paid leave posed both a personal risk to in-person workers and a public health risk because sick workers without paid leave could not stay home while they were sick. The federal response, the Family First Coronavirus Response Act (FFCRA), was historic in being the first federally mandated paid sick leave in the United States and helpful in reducing COVID-19 infections (Pichler, Wen, and Ziebarth 2020), but it was limited. The FFCRA exempted employers with fewer than fifty or more than five hundred workers, leaving frontline service-sector workers at the nation's largest firms without guaranteed coverage (Schneider and Harknett 2020). Voluntary expansions of personal sick leave, such as at Olive Garden, helped workers to stay home while sick, but such expansions were unusual (Schneider, Harknett, and Vivas-Portillo 2021).

Unemployment

In parallel to the experiences of essential and in-person workers, as Americans heeded public health guidance to stay home and public health orders restricted business operations in order to arrest the spread of the virus, millions of other workers saw dramatic reductions in work hours and spikes in furloughs and unemployment, which were concentrated among generally low-wage workers in hospitality, food service, and retail (Bartik et al. 2020; Gould and Kassa 2021).

Figure 2 presents monthly unemployment rates by race and ethnicity (panel A) and by

Figure 2. Unemployment Rates



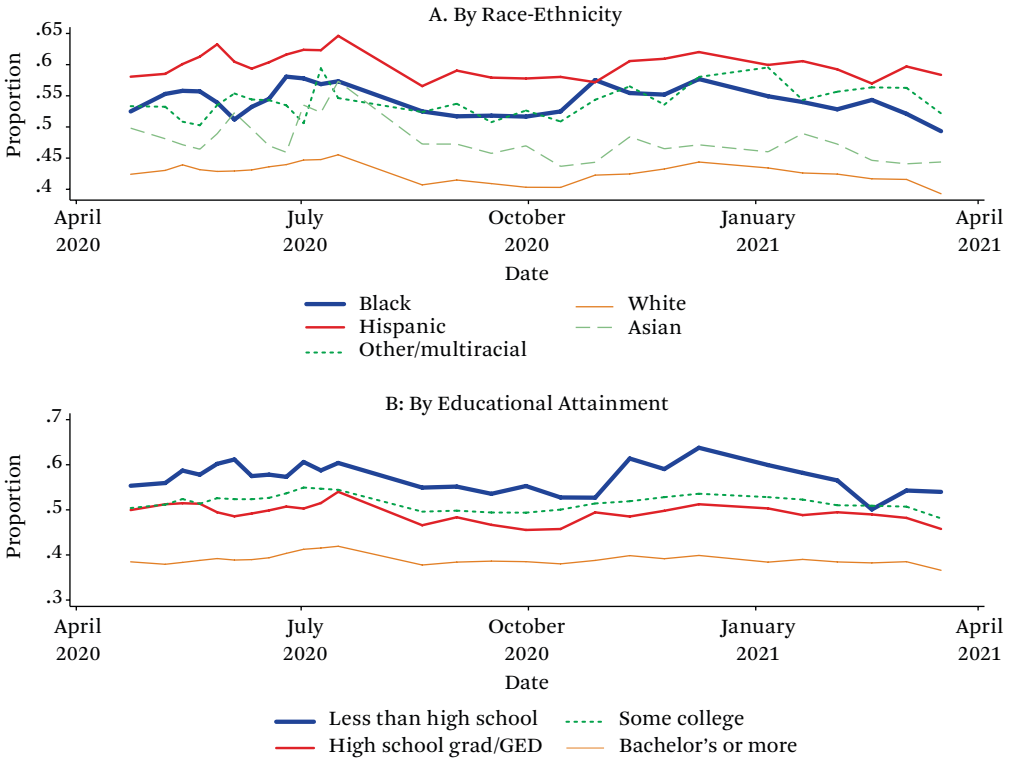
Source: BLS 2021a.

Note: Race-ethnicity (sixteen and older); educational attainment (twenty-five and older).

broad levels of educational attainment (panel B) for the period from January 2019 through October 2021. The onset of social distancing measures in March 2020 followed several years of historically low unemployment rates for all racial-ethnic groups as well as groups stratified by level of education. By April 2020, we observe sharp increases in unemployment for everyone, though the increases were particularly large for Hispanic and African American participants as well as for those with less than a college education. The onset of the pandemic also led to a reversal of racial-ethnicity disparities in unemployment. Although the black unemployment rate exceeded the Hispanic in all months before April 2020, the Hispanic rate rose to the top for a month before dropping below the black rate once again. This likely reflected greater representation of Hispanic workers among industries hardest hit by social distancing measures. Increases in the unemployment rates were particularly large for those with less than a high school education, exceeding 20 percent in April 2020, and also very high for those with a high school degree. Rates have declined considerably since, but for racial and ethnic minorities as well as the less educated, current unemployment rates still exceed prepandemic levels.

Figure 3 further documents disparities in job loss by households employing data from the Household Pulse Survey. The figure displays the proportion of respondents indicating that someone in the household experienced job loss since March 2020, for each week that this question was asked. Panel A presents results by race-ethnicity of the respondent while panel B presents results by level of educational attainment. Households of Hispanic respondents are by far the most likely to experience some job loss with more than 60 percent indicating as much in several of the survey weeks. This is followed by African American households, Other-multiracial, Asian, and white

Figure 3. Proportion Indicating That Someone in Household Lost a Job Since March 13, 2020



Source: Authors' tabulations based on U.S. Census Bureau Household Pulse Survey (U.S. Census Bureau 2022).

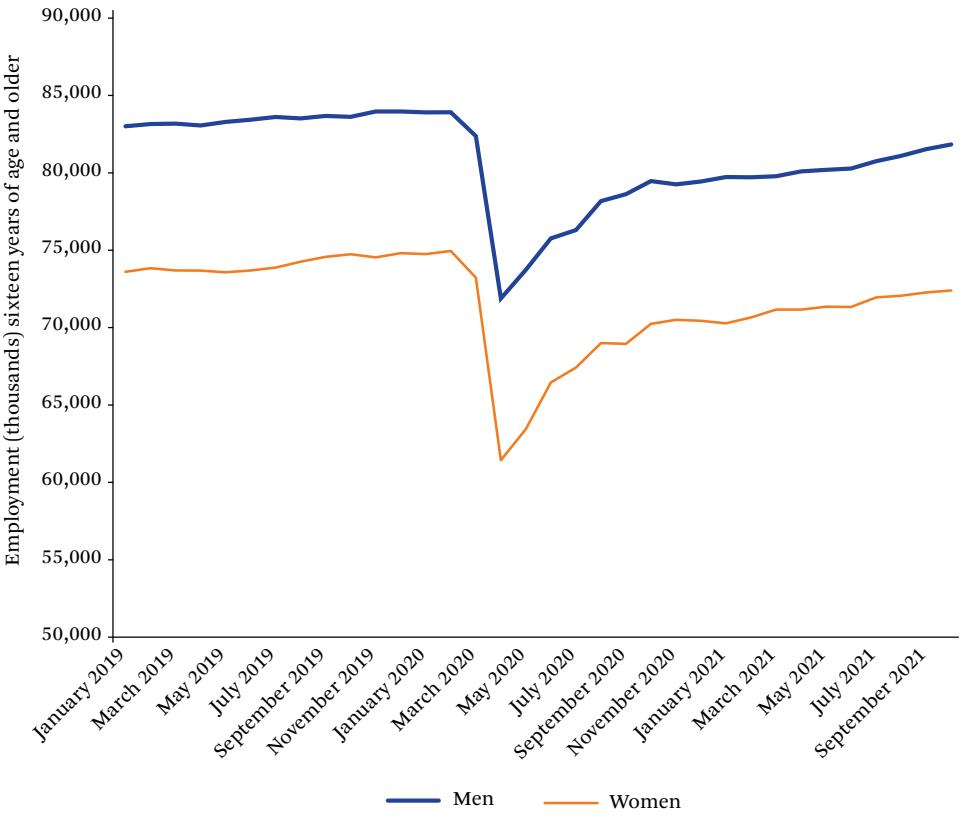
households. We see higher incidence of job loss among less-educated households, though surprisingly, households in which the respondent had less than high school diploma experienced less job loss than those who self-identify as having some college education but less than a bachelor's degree. This may reflect a higher proportion of frontline workers among the former relative to the latter.

The immediate effects of the COVID-19 crisis were also sharply demarcated by gender. Here we focus on total employment rather than unemployment because Liana Landivar and her colleagues (2023, this issue) present compelling evidence of a disproportionate impact of school closures on labor-force participation among mothers of school-age and younger children. In figure 4 we see that on the eve of the pandemic (February 2020), male and female employment stand at 83.9 and 74.9 million respectively. Both drop sharply between March and April 2020. The decline for women, from approximately 74.9 million to 61.4 million, however, is larger than the comparable decline for men, approximately 83.9 million to 73.7 million.

These inequalities were the reverse of those of the Great Recession, during which male unemployment rates rose from 5 percent in February 2008 to 11.1 percent in October 2009, even as the female rate rose only from 4.7 percent to 8.7 percent over the same period. The result is that female labor-force participation rate fell to the lowest levels since 1985 (FRED 2021a). This decline was most pronounced among black women, whose unemployment rate was 16.4 percent (Holder, Jones, and Masterson 2021).

This reversal in gender inequality in unemployment is in part explained by compositional factors. Although the employment shocks of the Great Recession were most pronounced in male-dominated industries, including construction, management, and manufacturing

Figure 4. Total Employment



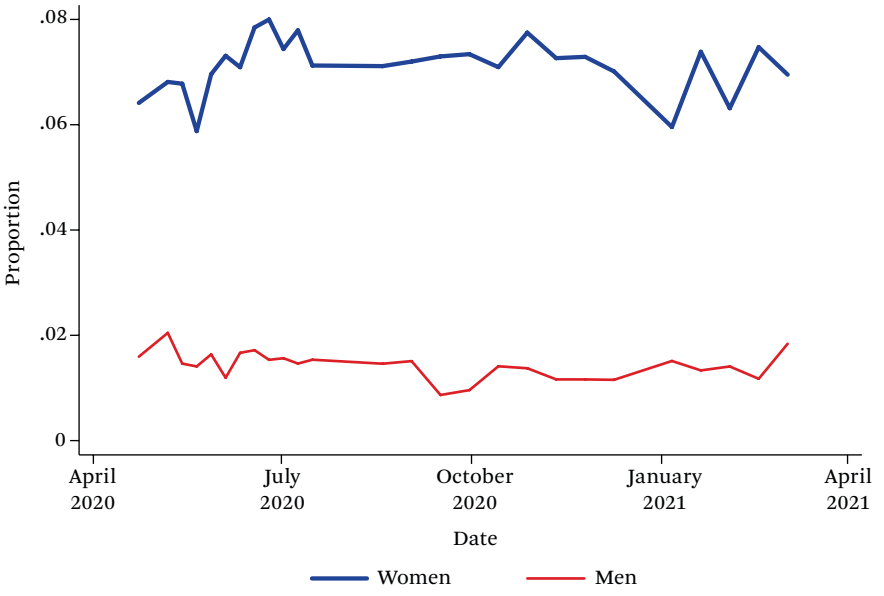
Source: BLS 2022.

(Goodman and Mance 2011; Meade 2012), the COVID-19 employment shocks were concentrated in female-dominated industries, such as hospitality, childcare, health care, and education (Alon et al. 2020). It appears that this compositional difference accounts for approximately one-third of the gender gap in unemployment that emerged in the first months of COVID-19 (Albanesi and Kim 2021).

In addition to occupational segregation, widespread school and childcare closures and existing gender inequalities in childcare (Bianchi et al. 2012) have interacted to significantly depress women's labor-force participation. We certainly see evidence in the Household Pulse Survey suggesting that childcare responsibilities have disparately impacted labor-force participation rates for women. Specifically, for people who indicate that they are currently not working for pay, the Census Bureau asks whether they are not working because they have children at home and not in school. Figure 5 presents the proportion of respondents by gender who are not working for pay and who indicate that they are not working for this reason for all weeks when this question is asked. Between 6 and 8 percent of women responding to this question between April 2020 and January 2021 indicate that having to care for children not in school was the reason they were not working for pay. Among men, fewer than 2 percent in each week said the same.

Social scientists have quickly amassed a detailed literature on the role of school and childcare closures, gender inequality in domestic labor, and inequities in COVID-19 labor-force participation. Looking across the early months of the pandemic, it appears that mothers' work hours fell more than fathers' (Collins et al. 2020), perhaps especially among the college educated (Zamarro and Prados 2021). These overall changes in work hours appear to mask even larger gender differences in taking temporary leave from work (Heggeness 2020; Landivar et al. 2020). Although research conducted early in the pandemic found that the decline in employment for mothers was on par with that of childless women and childless men (only fathers experienced smaller drops) (Dias and Buchanan 2020), recent research that looks across the first nine months of the pandemic, through December 2020, in fact finds

Figure 5. Respondents Not Working Because Children Are at Home



Source: Authors' tabulations based on U.S. Census Bureau Household Pulse Survey (U.S. Census Bureau 2022).

Note: Respondents between eighteen and fifty; children at home and not in school or daycare.

that mothers stand out as experiencing the largest declines in employment and in hours worked, on the order of a 5 percentage point reduction in the employment-to-population ratio (Fairlie, Couch, and Xu 2021).

Other research contributes to the case that women's disproportionate increase in labor-force exit is driven at least in part by rising childcare and housework demands in the context of durable inequalities in domestic labor (Bianchi et al. 2012; Sayer 2005). When surveyed, both men and women reported increasing their time spent on childcare and housework; further, many men and even some women reported increasingly egalitarian divisions of domestic labor, at least initially (Adams-Prassl et al. 2020; Carlson, Petts, and Pepin 2021; Dunatchik et al. 2021). However, where men did somewhat more housework and childcare, it appears that women did much more, shifting housework gaps in levels, but not necessarily narrowing them much (Adams-Prassl et al. 2020; Carlson, Petts, and Pepin 2021; Dunatchik et al. 2021; Zamarro and Prados 2021). In fact, in structuring a shift toward more highly gendered domestic production, the COVID-19 pandemic may have shifted gendered attitudes about parenting in a more regressive direction (Mize, Kaufman, and Petts 2021). Correspondingly, among those age twenty-five to forty-four, women were significantly more likely (33 percent) than men (12 percent) to self-report that childcare demands were the main reason for not working during the early months of COVID-19 (Heggeness and Fields 2020). Mothers of young children who used at least forty hours of nonparental childcare before the pandemic and lost that time (only about 5 percent of the sample) were more likely to report not working for pay during the pandemic, whereas such shocks to childcare did not affect fathers' employment (Petts, Carlson, and Pepin 2020)

In an attempt to derive a more precise estimate of the effects of school closures on employment, Landivar and her colleagues (2023, this issue), construct novel measures of the geography of school operating status, which they merge with American Community Survey and Current Population Survey (CPS) data. They find that mothers' employment was significantly lower when schools were operating remotely. These effects were most pronounced for mothers with less education as well as for black and Hispanic mothers.

It is important to distinguish this question—whether school and childcare closures disproportionately affected women—from the broader question of whether the lingering reduction in the employment-to-population ratio seen through the end of 2022 is in large part due to the inability of mothers to return to work given ongoing childcare problems. Although Landivar and colleagues (2023, this issue) convincingly show disproportionate impacts of school and childcare closures on women's work, other research makes a strong case that these impacts do not ultimately explain the persistent fall-off in the employment-to-population ratio (see Furman, Kearney, and Powell 2021).

WEALTH, INCOME, AND ECONOMIC INSECURITY

At the onset of the pandemic, it appeared that all households in the United States were likely to experience losses in both wealth and income. A precipitous decline in the value of equities in the first quarter of 2020 likely reduced wealth levels for the highest income and highest wealth households and the sharp employment declines clearly caused a reduction in wage and salary income for everyone, especially lower-income households. However, over time equities recovered their value with stock prices and equity wealth appreciating considerably over the course of the pandemic. Moreover, massive federal stimulus in the form of direct cash payment, expanded unemployment insurance benefits, an expanded Child Tax Credit, enhanced Supplemental Nutrition Assistance Program (SNAP) benefits, and rental assistance caused an unprecedented increase in transfer payment that more than offset declines in wage and salary income. Because declines in spending were associated with stay-at-home orders, savings actually increased for many U.S. households throughout the income distribution (Babson 2021).

Michael Batty, Ella Deaken, and Alice Henriques Volz (2021) document that over the year

2020, U.S. households experienced a collective increase in wealth of roughly $18 trillion, most of which took the form of higher equity valuations, a source of wealth disproportionately realized by higher-income and higher-wealth households. Using historical relationships between macro-aggregate wealth totals and household wealth by income percentile, the authors project an increase in net worth for the top one percent of households of roughly $1 trillion, while wealth for the bottom 50 percent of households increased by roughly $0.8 trillion. Compositionally, higher equity prices account for the largest share of wealth gains among the richest households; meanwhile, bank deposits, higher pension valuations, and real estate appreciations account for greater proportions of the wealth increases among the bottom 50 percent.

Equity and real estate valuations will have little impact on the poorest households, which often have little savings, little equity wealth, and overwhelmingly rent their homes. Given the large sustained increases in unemployment, one might have expected increased hardship among the poorest households. To be sure, the nation's unemployment insurance system should partially offset lost wage and salary income, as would other elements of the social safety net, such as the SNAP program, for which, given the contraction in economic activity, more of the population would quality. However, unemployment insurance (UI) coverage before the pandemic was far from universal, benefits are typically limited in time absent emergency extension, and benefit replacement ratios are below one for all workers, and far below for higher-wage workers. Even in conjunction with greater eligibility and take-up of SNAP, the net effect of the sharp increase in unemployment would have squeezed the budgets of many households absent federal intervention.

At the outset of the pandemic, unemployed workers did suffer economically, reporting greater food insecurity, delayed rent or mortgage payments, problems paying utility bills, deferred medical care (Karpman and Acs 2020), and significantly more household financial fragility (Schneider, Tufano, and Lusardi 2020). These shocks were particularly strong for service-sector workers who had contended with low wages before the pandemic (Osterman and Shulman 2011) and generally had few financial reserves to draw on (Schneider, Harknett, and Gailliot 2020). These workers experienced significantly more hardship than those who remained employed (Gassman-Pines, Ananat, and Fitz-Henley 2020; Schneider, Harknett, and Gailliot 2020) and experienced reductions in health and well-being (Schneider, Harknett, and Gailliot 2021).

However, the federal government did respond to the crisis with several rounds of stimulus payments. UI benefits were greatly expanded early in the pandemic to include an additional $600 per week through July 2020, raising the benefit replacement ratio for many well above one. In addition, UI benefits were extended to gig workers and the self-employed, and an additional $300 per week in benefits authorized in March 2021 through the end of summer 2021.

At least initially, many of these workers struggled to access unemployment insurance, contending with administrative burdens (Herd and Moynihan 2020) and limited state UI administrative capacity in the face of a historic flood of claims (Carey et al. 2021). Moreover, as Alex Bell and his colleagues (2023, this issue) demonstrate, access to UI tends to be greater in more affluent states (and affluent areas within a state), is correlated with broadband access and the ability to negotiate the application process online during a pandemic when both offices shut and the number of applications soared, and tended to be lower in areas where the residents are predominantly black and Hispanic. Difficulty accessing UI was higher for low-wage workers and varied across states depending on the strength of the unemployment system before the pandemic (Carey et al. 2021). For those workers who were able to access UI, however, these benefits were substantial, often more than replacing lost wages at the bottom of the earnings distribution (Ganong and Noel 2019) and effectively buffering many workers from both the economic and the health consequences of unemployment (Karpman and Acs 2020; Schneider, Harknett, and

Gailliot 2021, 2020). Collectively, this research suggests a considerable role for policy in increasing accessibility to this particularly important element of the social safety net.

Unemployment assistance provided crucial economic support for workers. This sudden generosity in assistance, however, may have also posed a challenge to workers' identity and self-concept. Alexandrea Ravenelle and Susannah Knoble (2023, this issue), take up precisely this question. Drawing on surveys and on in-depth interviews with nearly two hundred gig and precarious workers, they find that workers were profoundly unsettled by making more on UI than they did when working and that the security the Coronavirus Aid, Relief, and Economic Security (CARES) Act and the Pandemic Unemployment Assistance offered was tempered by deep and, as it turns out, well-warranted uncertainty about the continuity of the programs in the context of fears of future unemployment.

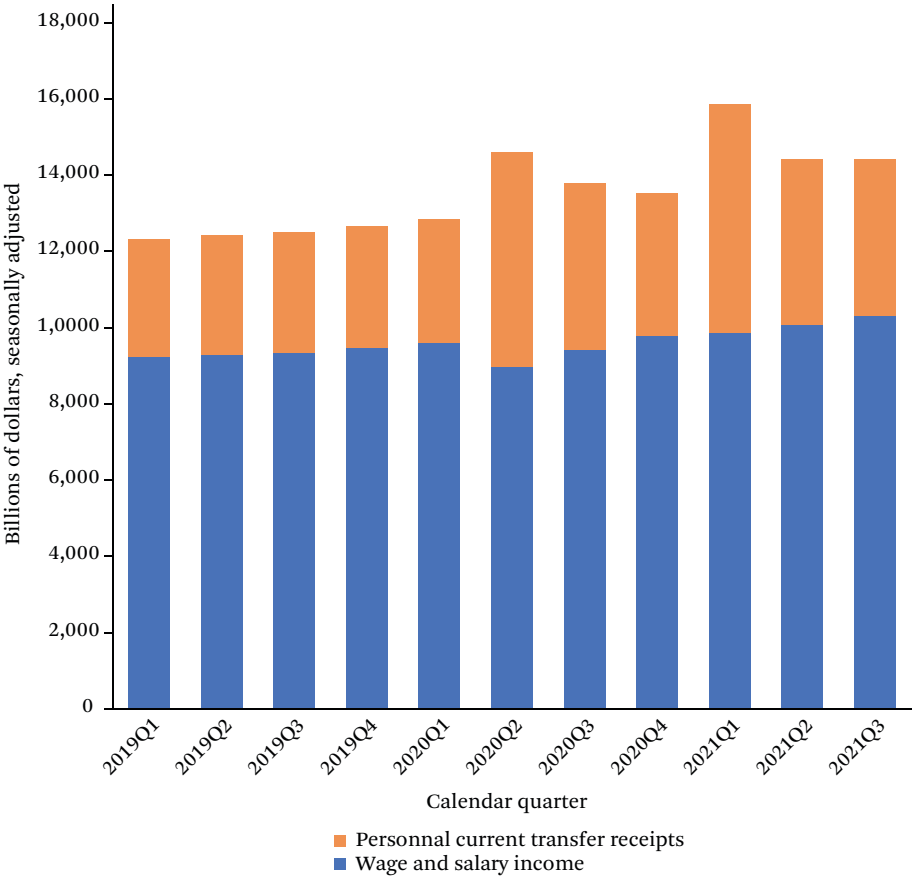
Along with augmented UI, the vast majority of Americans received stimulus checks from the federal government. Three separate stimulus packages—the Coronavirus Aid Relief and Economic Security Act of March 2020 (CARES Act), the December 2020 Stimulus Act, and the American Rescue Plan of March 2021—provided direct cash stimulus to individuals, from $600 to $1,400 per eligible person. In addition, the Child Tax Credit was expanded from $2,000 to $3,000 for children six to seventeen and to $3,600 for children younger than six in March 2021, made fully refundable, made free of any requirement for labor earnings for eligibility, and could be paid in advance in monthly installments. Most parents received Advance Child Tax Credit Payments beginning in July 2021. Together, these programs successfully delivered vital economic support to American families. The scope of these transfers was significant, totaling $819 billion over approximately eighteen months.

At the beginning of the pandemic, demand for food assistance and palpable material hardship were undeniable (Ayllón and Lado 2022; Waxman, Gupta, and Gonzalez 2021), but this constellation of stimulus packages appears to have more than offset any potential losses in income from declining employment. Figure 6 draws on National Income and Product Account (NIPA) data from the Bureau of Economic Analysis. The figure presents the sum of wage and salary income and personal income received via transfer programs for each quarter between the first of 2019 and the third of 2021. Despite a notable break in trend and decline in wage and salary income between the first and second quarters of 2020, the large increase in transfer income more than offsets the decline in wage and salary income. In fact, quarterly wages and salaries plus transfers during the pandemic exceeds pre-pandemic levels for all of the quarters displayed in figure 5. The same is true if one looks at total disposable personal income by quarter (effectively accounting for all other income sources in the NIPA data).

Given the income trends displayed in figure 6, it is not surprising to see relatively stable patterns in measures of distress such as not having enough food or not being current on rent or mortgage payments. Figure 7 presents the proportion of respondents indicating that over the last seven days they sometimes or often did not have enough to eat. This question is asked in a consistent manner in all weeks of the Household Pulse Survey. Despite notable differences across race-ethnicity groups (black and Hispanic respondents are the most likely to indicate that they do not have enough food and white and Asian respondents are the least likely), no notable trends in the response to this question are evident. Similarly, for educational attainment, we see much higher food insufficiency for households in which the respondent has less than a high school education or a high school diploma and lower incident of food insufficiency among households in which the respondent is more educated. However, we do not detect notable trends in this outcome.

Despite little evidence of overall trends in these data, figures 6 and 7 do show some evidence of increases in hardship around December 2020, the period after the expiration of the CARES Act, but before the passage of the second relief bill, which is consistent with earlier analysis (Berkowitz and Basu 2021; Cooney and Shaefer 2021; Waxman, Gupta, and Gonzalez 2020).

Figure 6. Quarterly Wage and Salary and Personnel Transfer Income

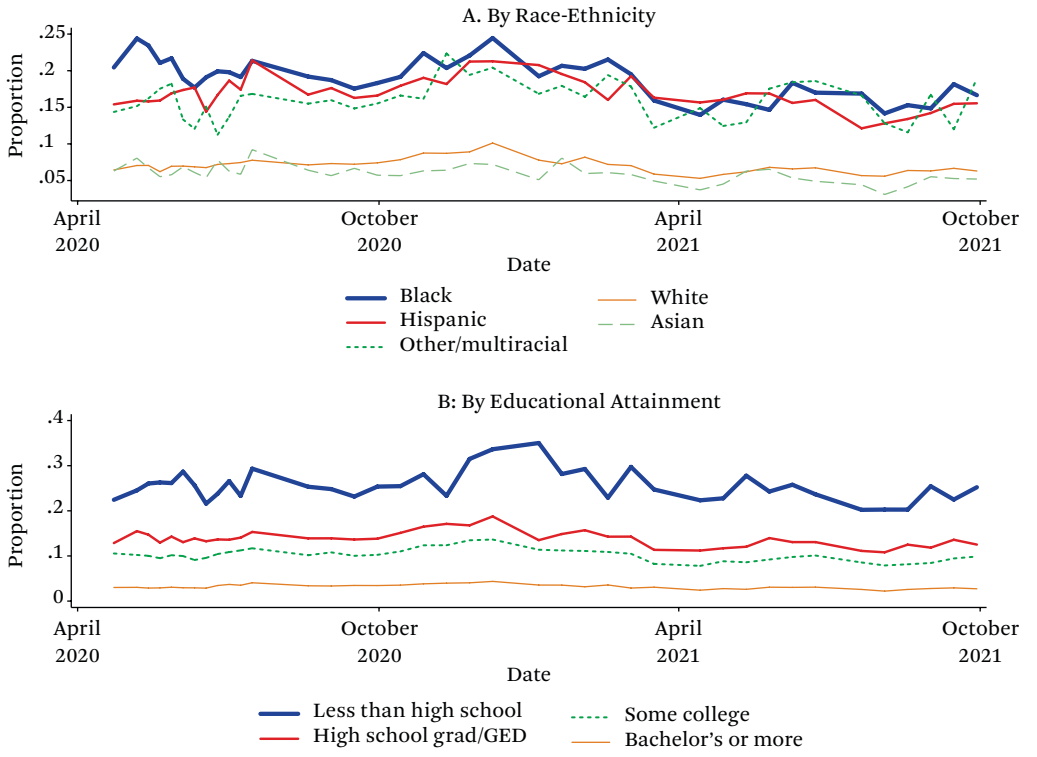


Source: U.S. Bureau of Economic Analysis 2021.

Similar patterns are observed for the proportion of people who are current on their mortgage payments (figure 8) and the proportion of people who are current on their rent (figure 9). Again, we see that racial and ethnic minority homeowners are somewhat less likely to be current on their mortgage relative to white homeowners, and relatively less educated homeowners are less likely to be current than more educated homeowners. Figure 9 documents similar relative patterns for renter households.

The Household Pulse Survey, however, tracks material hardship only beginning in April 2020, after the onset of the pandemic. If the pandemic significantly and durably increased hardship, then this left-truncation could skew understanding of the effects of the pandemic on hardship. Here, the research is not definitive. On the one hand, comparing estimates of hardship before the pandemic as measured in the CPS and National Health Interview Survey (NHIS) against measures of hardship early in the pandemic measured in the Census Pulse, Diane Schanzenbach and Abigail Pitts (2020a, 2020b) and James Ziliak (2020) find a dramatic increase in hardship through the first months of the pandemic. However, comparing material hardship in December 2019 and December 2020 using the Well-Being and Basic Needs Survey, Michael Karpman and Stephen Zuckerman (2021) find significant reductions in food insecurity, bill payment hardship, problems paying medical bills, and deferring medical care because of costs. The discrepancy between these estimates could be due to an acute period of hardship at the onset of the pandemic, before aid

Figure 7. Respondents Indicating Not Enough Food



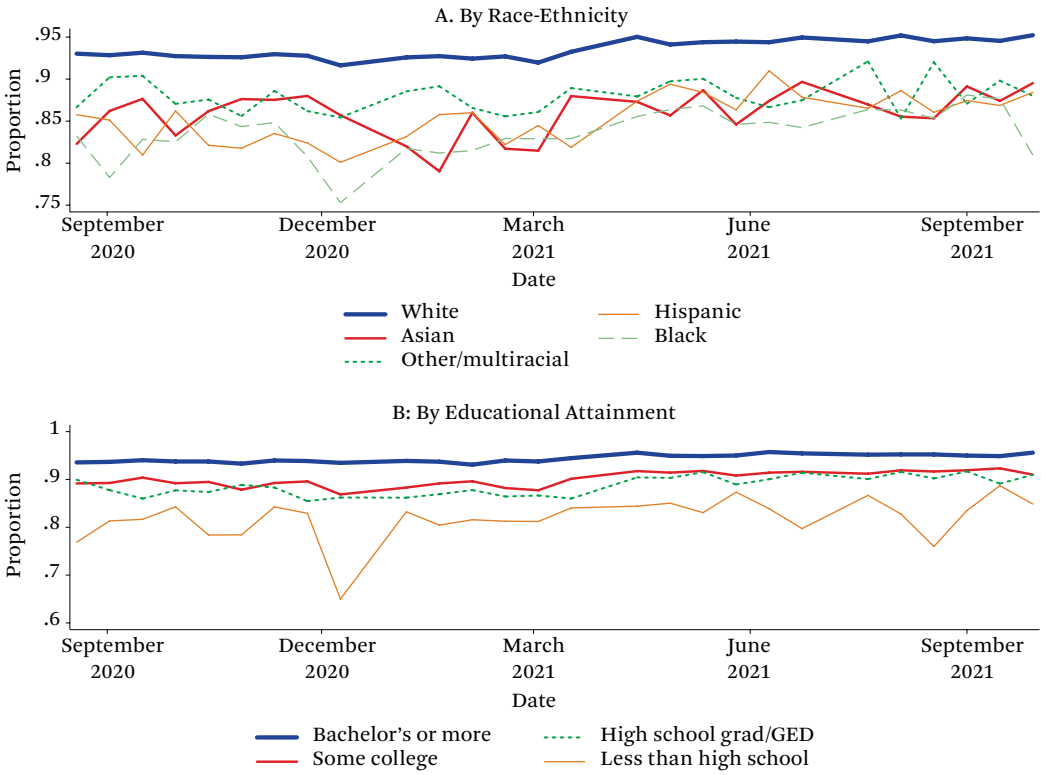
Source: Authors' tabulations based on U.S. Census Bureau Household Pulse Survey (U.S. Census Bureau 2022).

reached the neediest families (Bitler, Hoynes, and Schanzenbach 2020), or to artifacts introduced by the pronounced differences in data collection between the NHIS and CPS on the one hand and the Census Pulse Survey on the other.

Marianne Bitler, Hilary Hoynes, and Diane Whitmore Schanzenbach (2023, this issue) describe the high levels of food hardship in the Census Pulse data and the stark inequalities in hardship by race and ethnicity. They also provide a valuable comparison of rates of food hardship in the 2019 and 2020 December CPS, finding the overall rate of food hardship was unchanged (in contrast to comparisons of CPS and Pulse early in the pandemic) but that this stasis masked substantial heterogeneity: black and Hispanic respondents reported increases in food hardship and white respondents reported reductions.

Further, that the safety net response may have effectively buffered households on average almost certainly conceals the fact that some households disproportionately suffered. Rocío Calvo and Mary Waters (2023, this issue), draw on in-depth interviews with older Latinx immigrants to describe the difficulties this group faced when excluded or deterred from pandemic supports, the adaptive strategies they developed, and the hardships they nevertheless encountered. Marci Ybarra and Frania Mendoza Lua (2023, this issue) analyze longitudinal data from in-depth interviews with forty-two mothers who identified as immigrants or as black and Latina. These immigrant and racialized mothers faced precarious economic circumstances before the pandemic and often struggled to access the safety net, contending with exclusion, disrespect, stigma, and administrative burdens that bred institutional distrust. When the pandemic arrived, mothers who were undocumented faced exclusion from related supports; even some who were eligible

Figure 8. Homeowner Households Indicating Mortgage Payments Up to Date



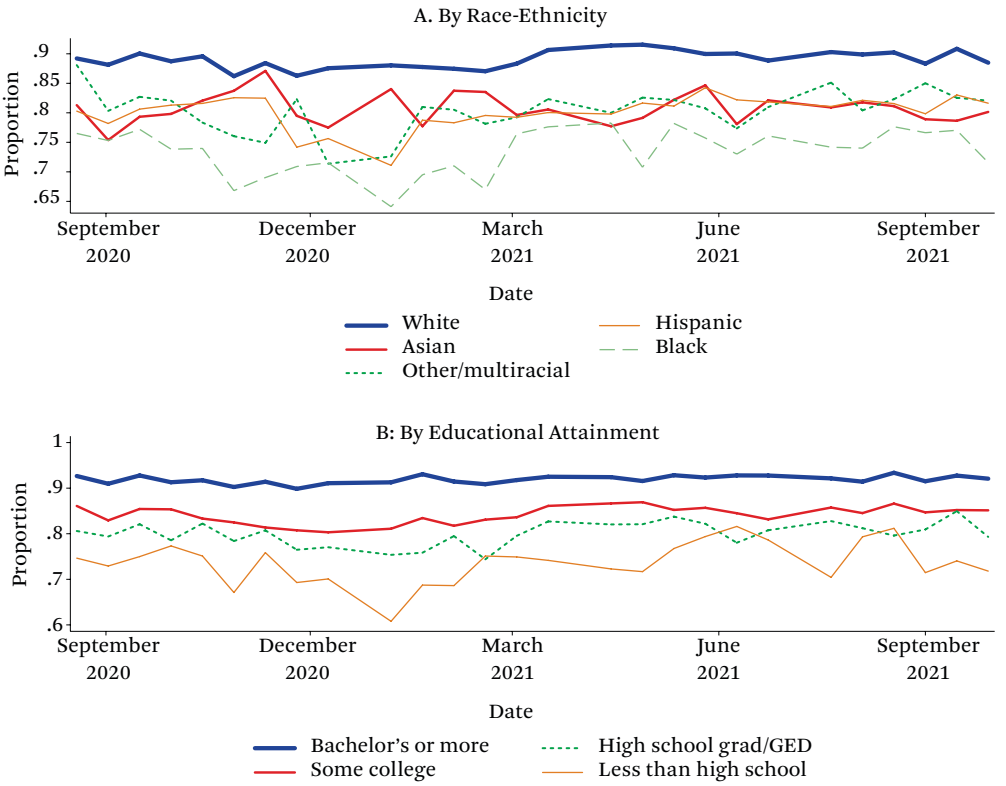
Source: Authors' tabulations based on U.S. Census Bureau Household Pulse Survey (U.S. Census Bureau 2022).

struggled to navigate these programs and receive much-needed assistance.

Material hardship measures provide one view of household economic security during the pandemic. The supplemental poverty measure (SPM), which accounts for the kinds of taxes and transfers implemented during the pandemic to aid families that are missed by the official poverty measure, provides another view. Although early projections warned of a sharp increase in poverty (Parolin and Wimer 2020), other analysis indicates that the safety net response was remarkably successful (Bitler, Hoynes, and Schanzenbach 2023). Poverty declined between 2019 and 2020, showing sizable reductions in material poverty among households with children. Direct stimulus payments, expanded UI benefits, and participation in SNAP contributed greatly to these decreases.

In 2020, 9.1 percent of the population was impoverished by the SPM benchmark, a full 2.7 percentage points lower than in the 2019 pre-pandemic year and the lowest poverty rate recorded since 2009 when the SPM were first published (Fox and Burns 2021). The pandemic era programs of stimulus payments and UI benefits played a crucial role, lifting more than 17 million people out of poverty (Fox and Burns 2021; Han, Meyer, and Sullivan 2020). Although it is possible that differential nonresponse to the CPS ASEC, the core source of data for SPM calculations, during COVID-19 might have downwardly biased the estimate of the SPM, the Census Bureau work constructing weights from complete administrative data suggests this was not in fact the case (Rothbaum and Bee 2021). However, because the timing of stimulus payments and of UI expansions was uneven across 2020, the reductions in poverty also varied by month, and were largest from April through July and then smaller in August and September (Parolin and Wimer 2020). Such monthly disaggregation is valuable, but it also appears that households across the income dis-

Figure 9. Renter Households Indicating Rent Payments Up to Date



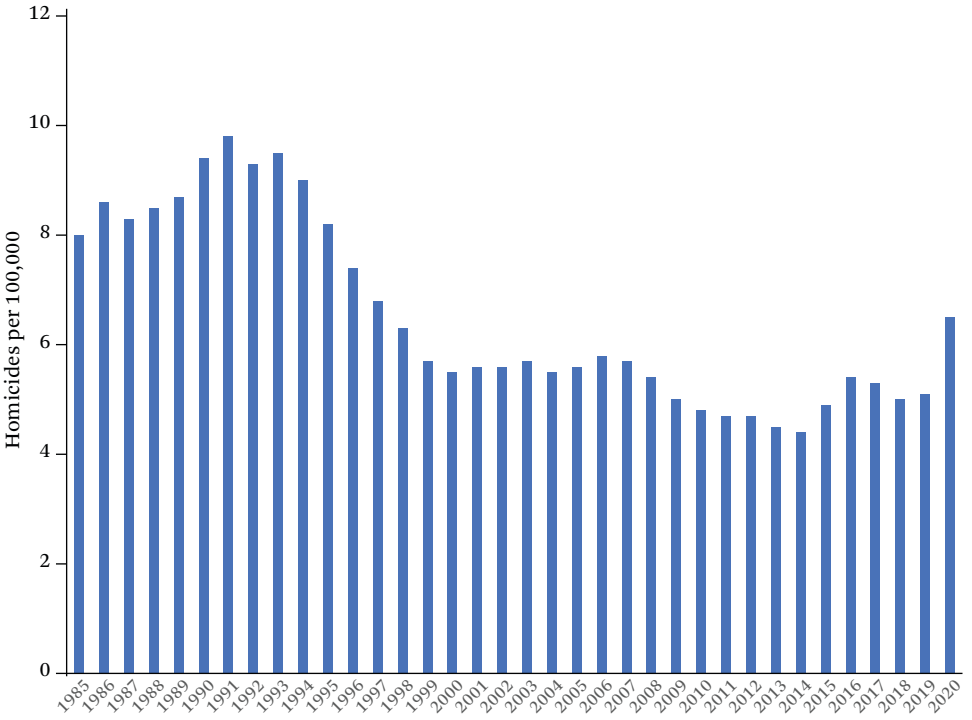
Source: Authors' tabulations based on U.S. Census Bureau Household Pulse Survey (U.S. Census Bureau 2022).

tribution managed to save at least some pandemic support funds—checking account balances of low-income households were as much as 50 percent higher in December 2020 than in 2019 (Farrell et al. 2020), though the external validity of these estimates is likely limited as the data only pertain to JP Morgan Chase customers. This private savings of public support likely allowed many households to smooth essential consumption across the pandemic period.

Peter Hepburn and his colleagues (2023, this issue) and Vincent Reina and Yeonhwa Lee (2023, this issue) provide direct evidence of the effectiveness of federal efforts to stabilize renter households. Using an expansion of federal assistance targeted at supporting households behind in their rent payments as well as federal and state moratoria on evictions, Hepburn and his colleagues document sizable declines in eviction filings, the largest effects concentrated in majority-black neighborhoods. Reina and Lee investigate the effect of a housing assistance lottery in Philadelphia on the likelihood that recipient households are behind in their rent, the extent of their arrears, and the degree to which renter households experience anxiety associated with their housing insecurity. Although the limited assistance certainly did not eliminate the housing distress of households that received assistance, recipient households owed less in back rent, were less likely to have recently borrowed funds from others to pay rent, and were less anxious. Interestingly, the treatment effect on back rent was substantially less than the amount of the grant, suggesting that some of the assistance was allocated toward other households budget categories.

Overall, despite the sharp contraction associated with the onset of the pandemic, the federal government's direct cash payments, expan-

Figure 10. Homicides in the United States



Source: FBI n.d.

sion of UI, Child Tax Credits, as well as SNAP and Earned Income Tax Credit (EITC) benefits appears to have more than offset the lost earnings, and likely prevented considerable suffering.

VIOLENCE AND ITS IMPACTS ON CRIMINAL JUSTICE

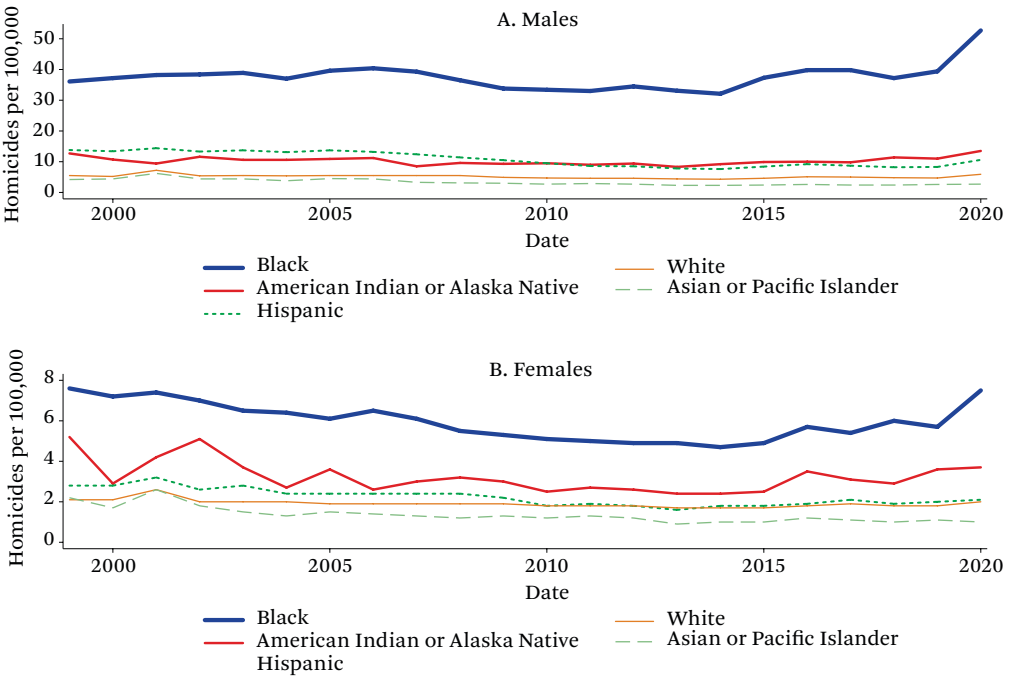
2020 was a violent year. Most forms of property crimes and violent crime actually declined relative to 2019 (Abrams 2020; Bird, Nguyen, and Grattet 2021).[3] Homicide rates, however, increased sharply from 5.1 to 6.5 per hundred thousand. This increase reflects a sharp departure in rates from recent years, as presented in figure 10. Following years of historically low rates, that for 2020 reflects a level of violence not seen since the late 1990s.

This increase in lethal violence was both simultaneously widespread and concentrated. Nearly all regions of the country experienced higher homicide rates (Lopez and Rosenfeld 2021). However, the increases were extremely concentrated demographically. Figure 11 presents homicides per 100,000 for each year from 1999 through 2020 for males (panel A) and for females (panel B) by race-ethnicity.[4] Before the pandemic gender disparities in homicide rates were already large (men are much more likely to be murdered than women) and within gender by race-ethnicity (African Americans have the highest homicide rates followed by Native Americans, Hispanics, whites, and Asians). However, figure 11 reveals a notable widening in race-ethnicity disparities in homicide with the onset of the pandemic; increases in rates

3. Although property crime overall declined sharply between 2019 and 2020, auto theft increased sharply across a wide geographic area (Abrams 2020; Bird, Nguyen, and Grattet 2021). Despite considerable speculation regarding cause, the source of this increase is not well understood.

4. Because Hispanics-Latinos may be of any race, the Hispanic-Latino time series is not independent of the other time series depicted in these graphs.

Figure 11. Homicide Rates by Gender



Source: Authors' tabulation based on CDC wonder data system (CDC 2022a).

for African Americans, in particular, African American males, were especially large.

The increase in violence has generated much attention and is an active area of research. While the homicide increase roughly corresponds with the timing of the pandemic, a closer look at data on the change suggests that the timing of the pandemic does not align with the increase in violence. Several researchers have documented that city-level homicide counts initially were suppressed by stay-at-home orders and then began to rise during early summer 2020 (Bird, Nguyen, and Grattet 2021; Lopez and Rosenfeld 2021). Similarly, the UN Office of Drugs and Crime documents similar patterns in several countries, homicide rates staying below average for much of 2020, though for most countries not increasing as in the United States (UNODC 2020).

Among the possible explanations for this increase are higher unemployment, declining effectiveness of policing due to either withdrawal of effort or a decrease in cooperation after the murder of George Floyd in May 2020, efforts to defund local police departments, and high proportions of existing officers leaving police work, among other explanations.

Despite the tenuous link between the pandemic and homicide, the pandemic certainly at least temporarily and perhaps permanently changed criminal justice practices and had disparate impacts on correctional populations. Early in the pandemic, correctional institutions saw some of the largest and most quickly spreading COVID-19 outbreaks, leading the National Academies of Sciences to issue a quickly drafted consensus report on steps correctional departments could take to decarcerate to minimize the spread of COVID and facilitate the ability to implement disease control procedures within what are normally quite crowded institutional settings (Wang et al. 2020). Heather Harris (2023, this issue) documents the steps taken within California's fifty-eight circuit courts to keep criminal case processing moving through remote proceedings, time extensions pertaining to key steps in the adjudication process, and the implementation of a zero-bail schedule for misdemeanors and in some instances less serious felonies. Interestingly, she

finds that some of these innovations affected case outcomes (for example, the likelihood of conviction, sentence length) and may have had disparate impacts on criminal defendants from different racial and ethnic groups.

Samantha Plummer and her colleagues (2023, this issue) document how COVID affected New Yorkers incarcerated at Rikers Island. The analysis provides a vivid example of how unprepared the nation's jails were to address the challenges created by a highly infectious virus and that poor conditions and crowding likely elevated the speed of transmission. The analysis also demonstrates the general poverty and co-occurring challenges that New Yorkers most likely to be incarcerated in the city's jail system face.

THE GREAT RESIGNATION

By the second quarter of 2021, the labor-market dynamics of widespread unemployment that characterized the beginning of the pandemic had essentially inverted. In June 2021, a government report noted a record high 10.1 million job openings and 3.9 million quits (BLS 2021c). Prominent service-sector firms announced that they were unable to fill openings (Haddon 2021). In all, approximately 1.6 million workers who were in the labor force before the pandemic were not in the labor force as of October 2021 (BLS 2021a) The causes of this rather dramatic reversal are not yet well understood. It appears likely that reductions in immigration to the United States drove some of this shortfall (Smialek 2021) as might have retirements or a slowdown in transitions from retirement back to employment (Omeokwe 2021). As discussed earlier, ongoing challenges of care provision may also have contributed to the shortfall by reducing women's labor-force participation (Hegewisch 2020).

Beyond these compositional effects, many scholars, policymakers, and worker advocates suggest that the COVID-19 pandemic represented an inflection point in both workers' tolerance for precarious working conditions and their ability to exercise power to demand better jobs. The evidence for this argument is largely circumstantial. First, it appears that workers are quitting their jobs, especially in the service sector, at a significantly higher rate than before (BLS 2021b). Second, although the job vacancy rate is high and some employers report difficulty filling their positions, firms that offer "good" jobs are apparently facing far fewer problems in recruitment and retention. For example, although UPS has maintained a strong workforce with its higher-paid unionized drivers, FedEx's low-pay contract worker model has led the company to significant losses due to labor shortages (Black 2021). Third, wages at the bottom of the distribution appear to be rising (Aeppli and Wilmers 2022) and several prominent firms have publicly announced wage increases in response to perceived labor shortages to great fanfare (Rosenburg 2021). Fourth, although still rare given the overall size of the labor market, organizing campaigns have been prominent recently, including at Amazon, which has had mixed results, and at Starbucks, where workers held a series of successful votes through May 2022 (Scheiber and Marcos 2021).

Is this activity consistent with changing worker standards and rising labor power? The former, changing standards, would not be surprising. Workers have long contended with job conditions that were highly precarious, characterized by low wages, limited fringe benefits, and unstable and unpredictable work schedules (Kalleberg 2013; Schneider and Harknett 2021). That the difficult and dangerous conditions of the COVID-19 pandemic, the social comparison to the working conditions of professionals during the pandemic, and the public rhetoric lauding frontline heroes might have sparked a new consciousness among precarious workers is plausible. Since the pandemic, significant anecdotal evidence pointing to workers' increased standards for their working conditions has emerged (Goldberg 2021; Lipman 2021). Survey data on this phenomenon, however, are still limited. One Pew Research study finds that since the pandemic, two-thirds of unemployed Americans have seriously considered changing their occupation or field of work and one-third have already taken steps to reskill for new types of work (Parker et al. 2020). Although Pew does not have earlier data on this survey question, it did report in 2016 that 80 percent workers were either somewhat or very satisfied with their jobs, suggesting a change

in worker expectations (Pew Research Center 2016).

Rising worker power is more speculative. The low-SES American workforce is economically insecure and, before the pandemic, had few economic resources to draw on in the event of prolonged unemployment (Schneider, Tufano, and Lusardi 2020). However, the combination of pandemic augmentations of UI, stimulus checks, and even Advance CTC payments could have buttressed household finances and in so doing provided low-SES workers with a degree of holdout power (Casselman 2021; Irwin 2021; Miller 2021). That checking account balances of households in the bottom quartile and the second quartile of income remained almost 40 percent above pre-pandemic levels through late 2021 is consistent with this idea (Greig et al. 2022). Studies that have exploited variation in the expiration of UI supplements, however, find little evidence that such reductions led to any increase in employment (Bunker 2016; Chodorow-Reich and Karabarbounis 2016; Marinescu and Skandalis 2021).

DISCUSSION

Nearly three years into the pandemic, we attempt to draw some conclusions about what it has revealed about inequality and the effectiveness of the response of U.S. public institutions. As is in all emergencies, those with the fewest resources stood to suffer the most from the health risks posed by the emergency and from the economic risks posed by the shutdown. Although we did not have a set of programs in place sufficient to automatically offset the earnings loss from the sharp contraction, federal policymakers exhibited and acted on the will to mobilize resources to limit human suffering to the extent possible. Although certainly poorer households likely suffered increased economic insecurity at the start of the pandemic, the worst was likely avoided through direct stimulus payments, enhancing the generosity of our existing social safety net programs, and targeted efforts to provide in-kind support. The articles in this issue point to the limits of these ambitious programs in reaching all of those in need (Calvo and Waters; Ybarra and Lua; Ravenelle and Knoble; Bell et al.), but also clearly show the broad efficacy of this response for reducing eviction (Hepburn et al.), poverty, and material hardship (Bitler, Hoynes, and Schanzenbach).

Nevertheless, the evidence assembled in this issue is clear that the pandemic reinscribed racial inequality in many respects. The shocks to unemployment were most severe for black and Hispanic workers and remote school operating procedures had the largest effects on reducing black mothers' employment (Landivar et al). Although the safety net and stimulus response to the pandemic was broad based, undocumented Hispanic immigrants were excluded from these supports and even some Hispanic immigrants with lawful immigration status struggled to access many of these benefits (Calvo and Waters; Ybarra and Lua) as did racialized mothers who at times struggled to navigate the safety net (Ybarra and Lua). Moreover, Bell and his colleagues demonstrate how access to the unemployment insurance system (one of the principal avenues of support, especially during the first phase of the pandemic) seemed to correlate with access to technology, information, and geographically concentrated affluence. Despite broad-based reductions in poverty as measured by the SPM and even though food insecurity declined overall as a result of the enormously successful government response, black and Hispanic families experienced increases in food hardship over the first year of the pandemic (Bitler, Hoynes, and Schanzenbach). As we learned from both New York (Plummer et al.) and California (Harris), criminal justice systems scrambled to address the logistic challenges created by the pandemic as well as the consequences for those most likely to be involved with these systems.

Some aspects of the COVID-19 response, however, also appear to have effectively reduced racial inequality. As Peter Hepburn and his colleagues show, pandemic era supports, eviction moratoria, and emergency rental assistance significantly reduced evictions in large cities, with the largest effects in majority-black neighborhoods, with the result that racial inequalities in eviction were narrowed, even if by no means eliminated.

Will any of these temporary policy choices survive the pandemic? Some signs suggest that certain expansions of the social safety net, the

Child Tax Credit, and the expanded EITC for childless adults in particular are popular. But, despite concerted efforts, they as of now have not been instituted permanently. The Child Tax Credit in particular affected a wide swath of children in the country and would go far to reduce material poverty among the poorest households with children if extended and made permanent. Moreover, the steady source of additional income created by the expanded Child Tax Credit, albeit an income transfer that on its own is not enough to raise a family, may improve the bargaining position of low-wage workers with children in the United States, perhaps leading to permanent wage gains at the bottom of the earnings distribution and a reduction in overall inequality. However, the politics of permanency have proven challenging and, as of this writing, the expanded Child Tax Credit was not extended beyond the temporary increase.

The pandemic has likely sped up the transition to greater remote work, especially for workers with more education. The implications of this development for housing markets, internal migration, residential choice, and the nature and health of some of the country's largest cities are potentially profound. Changes have been dramatic in the labor-market conditions that workers (who generally have less education) face in retail sales, food service, hospitality, transportation, and health-care industries. These workers have seen pronounced wage growth over the course of the pandemic (Aeppli and Wilmers 2022) and evidence of their rising power is clear in the successful union vote at Amazon's JFK-8 warehouse and in the string of successful organizing campaigns in Starbucks stores across the country throughout 2022. These improvements in working conditions and successful organizing campaigns appear to be the product of tight labor markets, perhaps resulting from reduced immigration (Grittayaphong and Bandyopadhyay 2022), exit or nonrentry of older workers (Quinby, Rutledge, and Wettstein 2021), and the debilitating effects of COVID-19 (Bach 2022). These campaigns, so far focused on a small subset of employers, could spark broader organizing (Biggs 2005) and some are likely to prove persistent. Other working conditions, however, such as the degree of exposure to work schedule instability and unpredictability have not changed over the course of the pandemic (Zundl et al. 2022) and it is not clear how durable this newfound worker power will prove to be given concerted Federal Reserve action in 2022 to reduce inflation.

The focus of this issue and this introduction is on the socioeconomic consequences of the pandemic. We have not addressed the obvious first-order effect on overall mortality. As noted, nearly one million people have died as a direct result of the pandemic, the number of excess deaths attributable to COVID infections and other sources likely to be much higher. The crude-death rate per hundred thousand as of April 2022 (slightly more than two years into the pandemic) stands at nearly three hundred. For comparison purposes, murders per hundred thousand in 2020 (a violent year relative to the low levels of the past decade) stood at 7.8. Hence cumulative documented COVID deaths over the past two years is thirty-eight times the annual murder rate in 2020. As noted, death rates differ considerably across demographic groups, racial and ethnic minorities having higher rates, especially after adjusting for differences in the age distribution, relative to white Americans. This wave mortality leaves behind many grieving relatives and orphaned children who will disproportionately be the children of frontline workers and other adults who were unable to shelter in place and continue with their lives with little interruption. The consequences and trauma of this high human toll will be felt for generations.

REFERENCES

Abrams, David. 2020. "COVID and Crime: An Early Empirical Look." Faculty Scholarship at Penn Law. Accessed October 26, 2022. https://scholarship.law.upenn.edu/faculty_scholarship/2204.

Adams-Prassl, Abi, Teodora Boneva, Marta Golin, and Christopher Rauh. 2020. "Inequality in the Impact of the Coronavirus Shock: Evidence from Real Time Surveys." *Journal of Public Economics* 189 (September): 104245. DOI: https://doi.org/10.1016/j.jpubeco.2020.104245.

Aeppli, Clem, and Nathan Wilmers. 2022. "Rapid Wage Growth at the Bottom Has Offset Rising

US Inequality." *Proceedings of the National Academy of Sciences* 119(42): e2204305119.

Albanesi, Stefania, and Jiyeon Kim. 2021. "Effects of the COVID-19 Recession on the US Labor Market: Occupation, Family, and Gender." *Journal of Economic Perspectives* 35(3): 3–24. DOI: https://doi.org/10.1257/jep.35.3.3.

Alon, Titan, Matthias Doepke, Jane Olmstead-Rumsey, and Michèle Tertilt. 2020. "The Impact of COVID-19 on Gender Equality." *NBER* working paper no. 26947. Cambridge, Mass.: National Bureau of Economic Research. DOI: https://doi.org/10.3386/w26947.

Ayllón, Sara, and Samuel Lado. 2022. "Food Hardship in the US During the Pandemic: What Can We Learn from Real-Time Data?" *Review of Income and Wealth* 68(2): 518–40. DOI: https://doi.org/10.1111/roiw.12564.

Babson, Rick. 2021. "Study Shows Surge in Savings During the Pandemic." Kansas City: Federal Reserve Bank. Accessed October 26, 2022. https://www.kansascityfed.org/ten/2021-spring-ten-magazine/study-shows-surge-in-savings-during-the-pandemic/.

Bach, Katie. 2022. "New Data Shows Long Covid Is Keeping as Many as 4 Million People out of Work." Washington, D.C.: Brookings Insititution. Accessed October 26, 2022. https://www.brookings.edu/research/new-data-shows-long-covid-is-keeping-as-many-as-4-million-people-out-of-work/.

Bartik, Alexander, Jesse Rothstein, Marianne Bertrand, Matthew Unrath, and Feng Lin. 2020. "Measuring the Labor Market at the Onset of the COVID-19 Crisis." Brookings Papers on Economic Activity. Washington, D.C.: Brookings Insititution. Accessed October 26, 2022. https://www.brookings.edu/wp-content/uploads/2020/06/SU20_S4_Bartik-et-al_-final-paper-1.pdf.

Batty, Michael, Ella Deeken, and Alice Henriques Volz. 2021. "Wealth Inequality and COVID-19: Evidence from the Distributional Financial Accounts." FEDS Notes. Washington, D.C.: Board of Governors of the Federal Reserve System. DOI: https://doi.org/10.17016/2380-7172.2980.

Bell, Alex, Thomas J. Hedin, Peter Mannino, Roozbeh Moghadam, Geoffrey Schnorr, and Till von Wachter. 2023. "Disparities in Access to Unemployment Insurance During the COVID-19 Pandemic: Lessons from U.S. and California Claims Data." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 9(3): 78–109. DOI: https://doi.org/10.7758/RSF.2023.9.3.04.

Berkowitz, Seth, and Sanjay Basu. 2021. "Unmet Social Needs and Worse Mental Health After Expiration of COVID-19 Federal Pandemic Unemployment Compensation." *Health Affairs* 40(3): 426–34.

Bianchi, Suzanne M., Liana C. Sayer, Melissa A. Milkie, and John P. Robinson. 2012. "Housework: Who Did, Does or Will Do It, and How Much Does It Matter?" *Social Forces; a Scientific Medium of Social Study and Interpretation* 91(1): 55–63. DOI: https://doi.org/10.1093/sf/sos120.

Biggs, Michael. 2005. "Strikes as Forest Fires: Chicago and Paris in the Late Nineteenth Century." *American Journal of Sociology* 110(6): 1684–714. DOI: https://doi.org/10.1086/427675.

Bird, Mia, Viet Nguyen, and Ryken Grattet. 2021. "Realignment and Recidivism Revisited: A Closer Look at the Effects of California's Historic Correctional Reform on Recidivism Outcomes." *Criminal Justice Policy Review* 33(5): 455–79. DOI: https://doi.org/10.1177/0887403411058705.

Bitler, Marianne P., Hilary W. Hoynes, and Diane Whitmore Schanzenbach. 2020. "The Social Safety Net in the Wake of COVID-19." Brookings Papers on Economic Activity. Washington, D.C.: Brookings Institution. DOI: https://doi.org/10.1353/eca.2020.0008.

———. 2023. "Suffering, the Safety Net, and Disparities During COVID-19." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 9(3): 32–59. DOI: https://doi.org/10.7758/RSF.2023.9.3.02.

Black, Thomas. 2021. "Highly Paid Union Workers Give UPS a Surprise Win in Delivery Wars." *Bloomberg*, November 4. Accessed October 26, 2022. https://www.bloomberg.com/news/articles/2021-11-04/labor-shortage-ups-union-drivers-give-delivery-service-edge-over-fedex-fdx.

Bunker, Nick. 2016. "Unemployment Insurance Might Increase Unemployment, but Only Slightly." Washington, D.C.: Washington Center for Equitable Growth. Accessed October 26, 2022. https://equitablegrowth.org/unemployment-insurance-might-increase-unemployment-but-only-slightly/.

Calvo, Rocío, and Mary C. Waters. 2023. "The Impact of the COVID-19 Pandemic on Older Latino

Immigrants." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 9(3): 60–76. DOI: https://doi.org/10.7758/RSF.2023.9.3.03.

Carey, Patrick, Jeffrey Groen, Bradley Jensen, Thomas Krolik, and Anne Polivka. 2021. "Applying for and Receiving Unemployment Insurance Benefits during the Coronavirus Pandemic." *BLS Monthly Labor Review*, September. Accessed October 26, 2022. https://www.bls.gov/opub/mlr/2021/article/applying-for-and-receiving-unemployment-insurance-benefits-during-the-coronavirus-pandemic.htm.

Carlson, Daniel, Richard Petts, and Joanna Pepin. 2021. "Changes in US Parents' Domestic Labor During the Early Days of the COVID-19 Pandemic." *Sociological Inquiry* 92(3): 1217–244.

Casselman, Ben. 2021. "The Economic Rebound Is Still Waiting for Workers." *New York Times*, October 19. Accessed October 26, 2022. https://www.nytimes.com/2021/10/19/business/economy/us-economy.html.

Centers for Disease Control and Prevention (CDC). 2021. "COVID Data Tracker." Accessed November 22, 2021. https://covid.cdc.gov/covid-data-tracker.

———. 2022a. "CDC Wonder." Accessed October 6, 2022. https://wonder.cdc.gov/controller/saved/D76/D266F068.

———. 2022b. "COVID Data Tracker." Accessed October 7, 2022. https://covid.cdc.gov/covid-data-tracker/#datatracker-home.

Chen, Yea-Hung, Maria Glymour, Alicia Riley, John Balmes, Kate Duchowny, Robert Harrison, Ellicott Matthay, and Kirsten Bibbins-Domingo. 2021. "Excess Mortality Associated with the COVID-19 Pandemic Among Californians 18–65 Years of Age, by Occupational Sector and Occupation: March Through November 2020." *PLOS ONE* 16(6):e0252454. DOI: https://doi.org/10.1371/journal.pone.0252454.

Chesley, Noelle. 2005. "Blurring Boundaries? Linking Technology Use, Spillover, Individual Distress, and Family Satisfaction." *Journal of Marriage and Family* 67(5): 1237–48. DOI: https://doi.org/10.1111/j.1741-3737.2005.00213.x.

Chodorow-Reich, Gabriel, and Loukas Karabarbounis. 2016. "The Limited Macroeconomic Effects of Unemployment Benefit Extensions." *NBER* working paper no. 22163. Cambridge, Mass.: National Bureau of Economic Research. DOI: https://doi.org/10.3386/w22163.

Collins, Caitlyn, Liana Christin Landivar, Leah Ruppanner, and William Scarborough. 2020. "COVID-19 and the Gender Gap in Work Hours." *Gender, Work, & Organization* 28(S1): 101–12.

Collins, Caitlyn, Leah Ruppanner, Liana Christin Landivar, and William Scarborough. 2021. "The Gendered Consequences of a Weak Infrastructure of Care: School Reopening Plans and Parents' Employment During the COVID-19 Pandemic." *Gender & Society* 35(2): 180–93. DOI: https://doi.org/10.4477/08912432211001300.

Cooney, Patrick, and H. Luke Shaefer. 2021. "Trends in Hardship and Mental Health in the United States at the End of 2020." Poverty Solutions policy brief. Ann Arbor: University of Michigan. Accessed October 26, 2022. https://poverty.umich.edu/files/2021/02/PovertySolutionsMaterialHardshipEndof2020-Feb2021.pdf.

Dias, Felipe, and Arianna Buchanan. 2020. "The Motherhood Penalty and The Fatherhood Premium in Employment During COVID-19: Evidence from the United States." *Research in Social Stratification and Mobility* 69 (October): 100542. DOI: https://doi.org/10.1016/j.rssm.2020.100542.

Dosa, David, Robin L.P. Jump, Kerry LaPlante, and Stefan Gravenstein. 2020. "Long-Term Care Facilities and the Coronavirus Epidemic: Practical Guidelines for a Population at Highest Risk." *Journal of the American Medical Directors Association* 21(5): 569–71. DOI: https://doi.org/10.1016/j.jamda.2020.03.004.

Drie, Hannah Van. 2021. "Guarantee 20 Days of Paid Leave." *Up Front* (Brookings Institution blog), May 19. Accessed November 22, 2021 https://www.brookings.edu/blog/up-front/2021/05/19/guarantee-20-days-of-paid-leave/.

Du, Julia, Laura Stateler, and Molly Kinder. 2020. "The COVID-19 Hazard Continues, but the Hazard Pay Does Not: Why America's Essential Workers Need a Raise." Washington, D.C.: Brookings Institution. Accessed November 22, 2021 https://www.brookings.edu/research/the-covid-19-hazard-continues-but-the-hazard-pay-does-not-why-americas-frontline-workers-need-a-raise/.

Dunatchik, Allison, Kathleen Gerson, Jennifer Glass, Jerry A. Jacobs, and Haley Stritzel. 2021. "Gender, Parenting, and the Rise of Remote Work During the Pandemic: Implications for Domestic Inequality in the United States." *Gender & Society* 35(2):

194–205. DOI: https://doi.org/10.1177/08912432211001301.

Fairlie, Robert, Kenneth Couch, and Huanan Xu. 2021. "The Evolving Impacts of the COVID-19 Pandemic on Gender Inequality in the U.S. Labor Market: The COVID Motherhood Penalty." *NBER* working paper no. 29426. Cambridge, Mass.: National Bureau of Economic Research.

Fan, Wen, and Phyllis Moen 2022. "Working More, Less or the Same During COVID-19? A Mixed Method, Intersectional Analysis of Remote Workers." *Work and Occupations* 49(2): 143–86.

Farrell, Diana, Erica Deadman, Fiona Greig, and Pascal Noel. 2020. "Household Cash Balances During COVID-19: A Distributional Perspective." *JPMorgan Chase Institute Take,* December. Accessed October 27, 2022. https://www.jpmorganchase.com/institute/research/household-income-spending/household-cash-balances-during-covid-19-a-distributional-perspective.

Federal Bureau of Investigation (FBI). n.d. "Federal Bureau of Investigation Crime Data Explorer." Accessed November 17, 2021. https://crime-data-explorer.app.cloud.gov/pages/explorer/crime/crime-trend.

Federal Reserve Economic Data (FRED). 2021a. "Labor Force Participation Rate—Women." St. Louis: Federal Reserve Bank. Accessed November 17, 2021. https://fred.stlouisfed.org/series/LNS11300002.

———. 2021b. "Unemployment Rate." St. Louis: Federal Reserve Bank. Accessed November 17, 2021. https://fred.stlouisfed.org/series/UNRATE.

Findling, Mary G., Robert J. Blendon, and John M. Benson. 2020. "Delayed Care with Harmful Health Consequences—Reported Experiences from National Surveys During Coronavirus Disease 2019." *JAMA Health Forum* 1(12): e201463. DOI: https://doi.org/10.1001/jamahealthforum.2020.1463.

Florida, Richard. 2021. "The Death and Life of the Central Business District." Bloomberg Citylab, May 14. Accessed October 27, 2022. https://www.bloomberg.com/news/features/2021-05-14/the-post-pandemic-future-of-central-business-districts.

Fox, Liana, and Kalee Burns. 2021. "The Supplemental Poverty Measure: 2020." *Current Population Report* no. P60-275. Washington: U.S. Census Bureau.

Fremstad, Shawn, Hayley Brown, and Hye Jin Rho. 2020. "A Basic Demographic Profile of Workers in Frontline Industries." Washington, D.C.: Center for Economic and Policy Research. Accessed October 27, 2022. https://www.cepr.net/a-basic-demographic-profile-of-workers-in-frontline-industries/.

Furman, Jason, Melissa Schettini Kearney, and Wilson Powell. 2021. "The Role of Childcare Challenges in the US Jobs Market Recovery During the COVID-19 Pandemic." *NBER* Working Paper no. 28934. Cambridge, Mass.: National Bureau of Economic Research.

Galinsky, Ellen, Justin T. Bond, and Dana Friedman. 1996. "The Role of Employers in Addressing the Needs of Employed Parents." *Journal of Social Issues* 52(3): 111–36. DOI: https://doi.org/10.1111/j.1540-4560.1996.tb01582.x.

Ganong, Peter, and Pascal Noel. 2019. "Consumer Spending During Unemployment: Positive and Normative Implications." *American Economic Review* 109(7): 2383–424. DOI: https://doi.org/10.1257/aer.20170537.

Gassman-Pines, Anna, Elizabeth Oltmans Ananat, and John Fitz-Henley. 2020. "COVID-19 and Parent-Child Psychological Well-Being." *Pediatrics* 146(4): e2020007294. DOI: https://doi.org/10.1542/peds.2020-007294.

Gawthrop, Elisabeth. 2022. "The Color of Coronavirus: COVID-19 Deaths by Race and Ethnicity in the U.S." *APM Research Lab*. Accessed December 2, 2022. https://www.apmresearchlab.org/covid/deaths-by-race.

Goldberg, Emma. 2021. "In a 'Workers Economy,' Who Really Holds the Cards?" *New York Times*, November 3. Accessed October 27, 2022. https://www.nytimes.com/2021/11/03/business/jobs-workers-economy.html.

Goodman, Christopher J., and Steven Mance. 2011. "Employment Loss and the 2007–09 Recession: An Overview." *Monthly Labor Review*, April. Accessed October 27, 2022. https://www.bls.gov/opub/mlr/2011/article/employment-loss-and-the-2007-09-recession-an-overview.htm.

Gould, Elise, and Melat Kassa. 2021. "Low-Wage, Low-Hours Workers Were Hit Hardest in the COVID-19 Recession." Washington, D.C.: Economic Policy Institute. Accessed October 27, 2022. https://www.epi.org/publication/swa-2020-employment-report/.

Grieg, Fiona, Erica Deadman, Tonya Sonthalia. 2022.

"Household Pulse: The State of Cash Balances at Year-End." Preprint, posted May 1. DOI: http://dx.doi.org/10.2139/ssrn.4072018.

Grittayaphong, Praew, and Subhayu Bandyopadhyay. 2022. "Immigrant Employment Patterns During the Pandemic." St. Louis, Mo.: Federal Reserve Bank of St. Louis. Accessed October 27, 2022. https://www.stlouisfed.org/publications/regional-economist/2022/may/immigrant-unemployment-patterns-pandemic.

Haddon, Heather. 2021. "Restaurants Serve Up Signing Bonuses, Higher Pay to Win Back Workers." *Wall Street Journal*, April 25. Accessed October 27, 2022. https://www.wsj.com/articles/restaurants-serve-up-signing-bonuses-higher-pay-to-win-back-workers-11619359201.

Hammonds, Clare, and Jasmine Kerrissey. 2020a. "At the Frontlines of the Debate on Masks: Worker Experiences Enforcing COVID-19 Safety Protocols." Amherst: University of Massachusetts Amherst Labor Center.

———. 2020b. "'We Are Not Heroes Because It Is Not a Choice': A Survey of Essential Workers' Safety and Security During COVID-19." Amherst: University of Massachusetts Amherst Labor Center.

Han, Jeehoon, Bruce Meyer, and James Sullivan. 2020. "Income and Poverty in the COVID-19 Pandemic." *NBER* working paper no. 27729. Cambridge, Mass.: National Bureau of Economic Research.

Harknett, Kristen, and Daniel Schneider. 2020. "Essential and Unprotected: COVID-19-Related Health and Safety Procedures for Service-Sector Workers." Cambridge, Mass.: Harvard Kennedy School, The Shift Project. Accessed November 22, 2021. https://shift.hks.harvard.edu/essential-and-unprotected-covid-19-related-health-and-safety-procedures-for-service-sector-workers/.

Harris, Heather M. 2023. "The Impact of Remote Hearing Policies on Racial Equity in Criminal Case Outcomes During the Pandemic." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 9(3): 252–79. DOI: https://doi.org/10.7758/RSF.2023.9.3.11.

Hathaway, Elizabeth D. 2021. "American Indian and Alaska Native People: Social Vulnerability and COVID-19." *Journal of Rural Health* 37(1): 256–59. DOI: https://doi.org/10.1111/jrh.12505.

Hegewisch, Ariane. 2020. "Women Fall Further Behind Men in Recovery and Are 5.8 Million Jobs Below Pre-COVID Employment Level." IWPR No. Q089. Washington, D.C.: Institute for Women's Policy Research. Accessed October 27, 2022. https://iwpr.org/iwpr-issues/esme/women-are-falling-further-behind-men-in-the-recovery-and-are-5-8-million-jobs-below-pre-covid-employment-levels-compared-with-5-0-million-fewer-jobs-for-men/.

Heggeness, Misty. 2020. "Why Is Mommy So Stressed? Estimating the Immediate Impact of the COVID-19 Shock on Parental Attachment to the Labor Market and the Double Bind of Mothers." Institute Working Paper no. 33. Minneapolis: Federal Reserve Bank of Minneapolis. Accessed October 27, 2022. https://www.minneapolisfed.org/research/institute-working-papers/why-is-mommy-so-stressed-estimating-the-immediate-impact-of-the-covid-19-shock-on-parental-attachment-to-the-labor-market-and-the-double-bind-of-mothers.

Heggeness, Misty, and Jason Fields. 2020. "Working Moms Bear Brunt of Home Schooling While Working During COVID-19." Washington: U.S. Census Bureau. Accessed October 27, 2022. https://www.census.gov/library/stories/2020/08/parents-juggle-work-and-child-care-during-pandemic.html.

Hepburn, Peter, Jacob Haas, Nick Graetz, Renee Louis, Devin Q. Rutan, Anne Kat Alexander, Jasmine Rangel, Olivia Jin, Emily Benfer, and Matthew Desmond. 2023. "Protecting the Most Vulnerable: Policy Response and Eviction Filing Patterns During the COVID-19 Pandemic." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 9(3): 186–207. DOI: https://doi.org/10.7758/RSF.2023.9.3.08.

Herd, Pamela, and Donald Moynihan. 2020. *Administrative Burden: Policymaking by Other Means*. New York: Russell Sage Foundation.

Ho, Helen, Kristen Harknett, and Daniel Schneider. 2020. "COVID-19 Safety Measures Update." Cambridge, Mass.: Harvard Kennedy School, The Shift Project. Accessed October 22, 2021. https://shift.hks.harvard.edu/covid-19-safety-measures-update/.

Holder, Michelle, Janelle Jones, and Thomas Masterson. 2021. "The Early Impact of Covid-19 on Job Losses among Black Women in the United States." *Feminist Economics* 27(1–2): 103–16. DOI: https://doi.org/10.1080/13545701.2020.1849766.

Huang, Kuochih, Tom Lindman, Annette Bernhardt,

and Sarah Thomson. 2020. "Physical Proximity to Others in California's Workplaces: Occupational Estimates and Demographic and Job Characteristics." Research Brief. Berkeley: University of California Labor Center. Accessed October 27, 2022. https://laborcenter.berkeley.edu/physical-proximity-to-others-in-californias-workplaces/.

Irwin, Neil. 2021. "Unemployment Is High. Why Are Businesses Struggling to Hire?" *New York Times*, April 16. Accessed October 27, 2022. https://www.nytimes.com/2021/04/16/upshot/unemployment-pandemic-worker-shortages.html.

Kalleberg, Arne. 2013. *Good Jobs, Bad Jobs: The Rise of Polarized and Precarious Employment Systems in the United States, 1970s to 2000s*. New York: Russell Sage Foundation.

Kamerow, Douglas. 2020. "Covid-19: The Crisis of Personal Protective Equipment in the US." *British Medical Journal* 369(8241): m1367. DOI: https://doi.org/10.1136/bmj.m1367.

Kane, Joseph, and Adie Tomer. 2020. "To Protect Frontline Workers during and after COVID-19, We Must Define Who They Are." Washington, D.C.: Brookings Institution. Accessed November 22, 2021. https://www.brookings.edu/research/to-protect-frontline-workers-during-and-after-covid-19-we-must-define-who-they-are/.

Karpman, Michael, and Gregory Acs. 2020. "Unemployment Insurance and Economic Impact Payments Associated with Reduced Hardship Following CARES Act." Washington, D.C.: Urban Institute. Accessed October 27, 2022. https://www.urban.org/research/publication/unemployment-insurance-and-economic-impact-payments-associated-reduced-hardship-following-cares-act.

Karpman, Michael, and Stephen Zuckerman. 2021. "Average Decline in Material Hardship During the Pandemic Conceals Unequal Circumstances." Washington, D.C.: Urban Institute. Accessed October 27, 2022. https://www.urban.org/research/publication/average-decline-material-hardship-during-pandemic-conceals-unequal-circumstances.

Kelly, Erin, and Phyllis Moen. 2020. *Overload: How Good Jobs Went Bad and What We Can Do About It*. Princeton, N.J.: Princeton University Press.

Landivar, Liana Christin, Leah Ruppanner, William Scarborough, and Caitlyn Collins. 2020. "Early Signs Indicate that COVID-19 Is Exacerbating Gender Inequality in the Labor Force." *Socius* 6. DOI: https://doi.org/10.1177/2378023120947997.

Landivar, Liana Christin, William J. Scarborough, Leah Ruppanner, Caitlyn M. Collins, and Lloyd Rouse. 2023. "Remote Schooling and Mothers' Employment During the COVID-19 Pandemic by Race, Education, and Marital Status." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 9(3): 134–58. DOI: https://doi.org/10.7758/RSF.2023.9.3.06.

Lipman, Joanne. 2021. "The Pandemic Revealed How Much We Hate Our Jobs. Now We Have a Chance to Reinvent Work." *TIME*, June 1. Accessed October 27, 2022. https://time.com/6051955/work-after-covid-19/.

Lopez, Ernesto, and Richard Rosenfeld. 2021. "Crime, Quarantine, and the U.S. Coronavirus Pandemic." *Criminology & Public Policy* 20(3): 401–22. DOI: https://doi.org/10.1111/1745-9133.12557.

Marinescu, Ioana, and Daphné Skandalis. 2021. "Unemployment Insurance and Job Search Behavior." *Quarterly Journal of Economics* 136(2): 887–931. DOI: https://doi.org/10.1093/qje/qjaa037.

Meade, Erica. 2012. "Men Hit Harder During the Recession, but Are Recovering Jobs Faster Than Women." Washington, D.C.: Urban Institute. Accessed December 1, 2021. https://www.urban.org/urban-wire/men-hit-harder-during-recession-are-recovering-jobs-faster-women.

Miller, Karla. 2021. "Record Number of Americans Are Quitting Their Jobs. Here's How They Make Money After They Quit." *Washington Post*, October 14. Accessed October 27, 2022. https://www.washingtonpost.com/business/2021/10/14/getting-by-financially-quitting-job/.

Mize, Trenton, Gayle Kaufman, and Richard Petts. 2021. "Visualizing Shifts in Gendered Parenting Attitudes During COVID-19." *Socius* 7(1–3). DOI: https://doi.org/10.1177/23780231211013128.

Moen, Phyllis, Erin L. Kelly, Shi-Rong Lee, J. Michael Oakes, Wen Fan, Jeremy Bray, David Almeida, Leslie Hammer, David Hurtado, and Orfeu Buxton. 2017. "Can a Flexibility/Support Initiative Reduce Turnover Intentions and Exits? Results from the Work, Family, and Health Network." *Social Problems* 64(1): 53–85.

Nelson, Bryn, and David B. Kaminsky. 2020. "A COVID-19 Crisis in US Jails and Prisons." *Cancer Cytopathology* 128(8): 513–14. DOI: https://doi.org/10.1002/cncy.22335.

New York Times. 2021. "Covid in the U.S.: Latest Map and Case Count." Accessed November 17, 2021. https://www.nytimes.com/interactive/2021/us/covid-cases.html.

Omeokwe, Amara. 2021. "Covid-19 Pushed Many Americans to Retire. The Economy Needs Them Back." *Wall Street Journal*, October 31. Accessed October 28, 2022. https://www.wsj.com/articles/covid-19-pushed-many-americans-to-retire-the-economy-needs-them-back-11635691340.

Osterman, Paul, and Beth Shulman. 2011. *Good Jobs America: Making Work Better for Everyone*. New York: Russell Sage Foundation.

Parker, Kim, Juliana Horowitz, and Rachel Minkin. 2020. "How the Coronavirus Outbreak Has—and Hasn't—Changed the Way Americans Work." Washington, D.C.: Pew Research Center. Accessed October 27, 2022. https://www.pewresearch.org/social-trends/2020/12/09/how-the-coronavirus-outbreak-has-and-hasnt-changed-the-way-americans-work/.

Parolin, Zachary, and Christopher Wimer. 2020. "Poverty in the United States Could Reach Highest Levels in over 50 Years." *Poverty & Social Policy Brief* 4(6): 12–18.

Pearson, Alexander Michael, Tara Patel, and William Wilkes. 2021. "'Forever Changed': CEOs Are Dooming Business Travel — Maybe for Good." *Bloomberg*, September 1. Accessed October 27, 2022. https://www.bnnbloomberg.ca/forever-changed-ceos-are-dooming-business-travel-maybe-for-good-1.1646468.

Petts, Richard, Daniel Carlson, and Pepin. 2020. "A Gendered Pandemic: Childcare, Homeschooling, and Parents' Employment During COVID-19." *Gender, Work & Organization* 28(S2): 515–34.

Pew Research Center. 2016. *The State of American Jobs*. Washington, D.C.: Pew Research Center. Accesssed October 28, 2022. https://www.pewresearch.org/social-trends/2016/10/06/the-state-of-american-jobs/.

Pichler, Stefan, Katherine Wen, and Nicolas R. Ziebarth. 2020. "COVID-19 Emergency Sick Leave Has Helped Flatten the Curve in the United States." *Health Affairs* 39(12): 2197–204. DOI: https:/doi.org/10.1377/hlthaff.2020.00863.

Plummer, Samantha, Timothy Ittner, Angie Monreal, Jasmin Sandelson, and Bruce Western. 2023. "Life During COVID for Court-Involved People." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 9(3): 232–51. DOI: https://doi.org/10.7758/RSF.2023.9.3.10.

Quinby, Laura, Matthew Rutledge, and Gal Wettstein. 2021. "How Has COVID-19 Affected Older Workers' Labor Force Participation?" IB#21-20. Cambridge, Mass.: Boston College, Center for Retirement Research. Accessed October 27, 2022. https://crr.bc.edu/briefs/how-has-covid-19-affected-older-workers-labor-force-participation/.

Ramani, Arjun, and Nicholas Bloom. 2021. "The Donut Effect of COVID-19 on Cities." *NBER* working paper no. 28876. Cambridge, Mass.: National Bureau of Economic Research.

Ravenelle, Alexandrea J., and Savannah Knoble. 2023. "'I Could Be Unemployed the Rest of the Year': Unprecedented Times and the Challenges of 'Making More.'" *RSF: The Russell Sage Foundation Journal of the Social Sciences* 9(3): 110–31. DOI: https://doi.org/10.7758/RSF.2023.9.3.05.

Reina, Vincent J., and Yeonhwa Lee. 2023. "COVID-19 and Emergency Rental Assistance: Impact on Rent Arrears, Debt, and the Well-Being of Renters in Philadelphia." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 9(3): 208–29. DOI: https://doi.org/10.7758/RSF.2023.9.3.09.

Rosenburg, Eli. 2021. "These Businesses Found a Way around the Worker Shortage: Raising Wages to $15 an Hour or More." *Washington Post,* June 10. Accessed October 27, 2022. https://www.washingtonpost.com/business/2021/06/10/worker-shortage-raising-wages/,

Rothbaum, Jonathan, and Adam Bee. 2021. "Coronavirus Infects Surveys, Too: Survey Nonresponse Bias and the Coronavirus Pandemic." Working paper no. SEHSD WP2020-10. Washington: U.S. Census Bureau. Accessed October 27, 2022. https://www.census.gov/library/working-papers/2020/demo/SEHSD-WP2020-10.html.

Sayer, Liana C. 2005. "Gender, Time and Inequality: Trends in Women's and Men's Paid Work, Unpaid Work and Free Time." *Social Forces* 84(1): 285–303.

Schanzenbach, Diane, and Abigail Pitts. 2020a. "Food Insecurity in the Census Household Pulse Survey Data Tables." Evanston, Ill.: Northwestern Institute for Policy Research. Accessed October 27, 2022. https://www.ipr.northwestern.edu

/news/2020/schanzenbach-household-pulse-survey-analysis.html.

———. 2020b. "How Much Has Food Insecurity Risen? Evidence from the Census Household Pulse Survey." Evanston, Ill.: Northwestern Institute for Policy Research. Accessed October 27, 2022. https://www.ipr.northwestern.edu/documents/reports/ipr-rapid-research-reports-pulse-hh-data-10-june-2020.pdf.

Scheiber, Noam, and Coral Murphy Marcos. 2021. "A Union Election Is Set for Starbucks Workers in the Buffalo Area." *New York Times*, October 29. Accessed October 27, 2022. https://www.nytimes.com/live/2021/10/28/business/news-business-stock-market.

Schieman, Scott, Paul Glavin, and Melissa A. Milkie. 2009. "When Work Interferes with Life: Work-Nonwork Interference and the Influence of Work-Related Demands and Resources." *American Sociological Review* 74(6): 966–88. DOI: https://doi.org/10.1177/000312240907400606.

Schneider, Daniel, and Kristen Harknett. 2020. "Essential and Vulnerable: Service-Sector Workers and Paid Sick Leave." Research Brief. Cambridge, Mass.: Harvard Kennedy School, The Shift Project. Accessed October 27, 2022. https://shift.hks.harvard.edu/essential-and-vulnerable-service-sector-workers-and-paid-sick-leave/.

———. 2021. "Hard Times: Routine Schedule Unpredictability and Material Hardship Among Service Sector Workers." *Social Forces* 99(4): 1682–709. DOI: https://doi.org/10.1093/sf/soaa079.

Schneider, Daniel, Kristen Harknett, and Annette Gailliot. 2020. "Unemployed Without a Net: Few Unemployed Service Sector Workers Received UI and Many Experienced Hardships." Research Brief. Cambridge, Mass.: Harvard Kennedy School, The Shift Project. Accessed October 27, 2022. https://www.hks.harvard.edu/publications/unemployed-without-net-few-unemployed-service-sector-workers-received-ui-and-many.

———. 2021. "COVID-19 Employment Shocks and Safety Net Expansions: Health Effects on Displaced Workers." Paper presented at the 2022 Annual Meeting of the Population Association of America, Atlanta, Georgia.

Schneider, Daniel, Kristen Harknett, and Elmer Vivas-Portillo. 2021. "Olive Garden's Expansion of Paid Sick Leave During COVID-19 Reduced the Share of Employees Working While Sick." *Health Affairs* 40(8): 1328–36. DOI: https://doi.org/10.1377/hlthaff.2020.02320.

Schneider, Daniel, Peter Tufano, and Annamaria Lusardi. 2020. "Household Financial Fragility During COVID-19: Rising Inequality and Unemployment Insurance Benefit Reductions." *GFLEC* working paper no. WP2020-4. Washington, D.C.: The George Washington University School of Business.

Smialek, Jeanna. 2021. "Missing Foreign Workers Add to Hiring Challenges." *New York Times*, October 25. Accessed October 27, 2022. https://www.nytimes.com/2021/10/25/business/economy/foreign-workers-shortage-hiring.html.

Smith, Mitch, and Julie Bosman. 2021. "Covid Deaths Surge Across a Weary America as a Once-Hopeful Summer Ends." *New York Times*, September 5. Accessed October 27, 2022. https://www.nytimes.com/2021/09/05/us/covid-surge-united-states.html.

Stateler, Laura, and Molly Kinder. 2021. "Local COVID-19 Hazard Pay Mandates Are Doing What Congress and Most Corporations Aren't for Essential Workers." *The Avenue* (Brookings Institution blog), January 27. Accessed November 22, 2021. https://www.brookings.edu/blog/the-avenue/2021/01/27/local-covid-19-hazard-pay-mandates-are-doing-what-congress-and-most-corporations-arent-for-essential-workers/.

Syal, Akshay, and Sara Miller. 2021. "Covid Cases in U.S. Fall to Levels Not Seen Since March 2020." NBC News, June 3. Accessed October 27, 2022. https://www.nbcnews.com/health/health-news/covid-cases-u-s-fall-levels-not-seen-march-2020-n1268955.

Tashea, Jason. 2020. "The Legal and Technical Danger in Moving Criminal Courts Online." Brookings TechStream, August 6. Accessed October 27, 2022. https://www.brookings.edu/techstream/the-legal-and-technical-danger-in-moving-criminal-courts-online/.

UN Office on Drugs and Crime (UNODC). 2020. "Effect of the COVID-19 Pandemic and Related Restrictions on Homicide and Property Crime." Research brief. New York: UNODC. Accessed October 26, 2022. https://www.unodc.org/documents/data-and-analysis/covid/Property_Crime_Brief_2020.pdf.

U.S. Bureau of Economic Analysis. 2021. "Personal Income and Its Disposition, Seasonally Adjusted

at Annual Rates." Revised October 28, 2021. Accessed October 7, 2022. https://www.bea.gov/data.

U.S. Bureau of Labor Statistics (BLS). 2021a. "Civilian Unemployment." Accessed November 17, 2021. https://www.bls.gov/charts/employment-situation/civilian-unemployment.htm. Data extracted using the "data tools" link.

———. 2021b. "Job Openings and Labor Turnover Summary." Accessed October 27, 2022. https://www.bls.gov/schedule/2021/home.htm.

———. 2021c. "Job Openings up to 10.1 Million in June 2021." *TED: The Economics Daily*, August 12. Accessed October 27, 2022. https://www.bls.gov/opub/ted/2021/job-openings-up-to-10-1-million-in-june-2021.htm.

———. 2022. "Labor Force Statistics from the Current Population Survey." Accessed December 14, 2022. https://data.bls.gov/PDQWeb/ln.

U.S. Census Bureau. 2022. "Household Pulse Survey: Measuring Social and Economic Impacts During the Coronavirus Pandemic." Accessed October 27, 2022. https://www.census.gov/programs-surveys/household-pulse-survey.html.

Wang, Emily A., Bruce Western, Emily P. Backes, and Julie Schuck, eds. 2020. *Decarcerating Correctional Facilities During COVID-19: Advancing Health, Equity, and Safety*. Washington, D.C.: National Academies Press.

Waxman, Elaine, Poonam Gupta, and Dulce Gonzalez. 2020. "Food Insecurity Edged Back up After COVID-19 Relief Expired." Washington, D.C.: Urban Institute. Accessed October 27, 2022. https://www.urban.org/research/publication/food-insecurity-edged-back-after-covid-19-relief-expired.

———. 2021. "Charitable Food Use Increased Nearly 50 Percent from 2019 to 2020." Washington, D.C.: Urban Institute. Accessed October 27, 2022. https://www.urban.org/research/publication/charitable-food-use-increased-nearly-50-percent-2019-2020.

Wrigley-Field, Elizabeth, Sarah Garcia, Jonathon P. Leider, Christopher Robertson, and Rebecca Wurtz. 2020. "Racial Disparities in COVID-19 and Excess Mortality in Minnesota." *Socius* 6. DOI: https://doi.org/10.1177/23780231209 80918.

Ybarra, Marci, and Frania Mendoza Lua. 2023. "No Calm Before the Storm: Low-Income Latina Immigrant and Citizen Mothers Before and After COVID-19." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 9(3): 159–83. DOI: https://doi.org/10.7758/RSF.2023.9.3.07.

Zamarro, Gema, and María Prados. 2021. "Gender Differences in Couples' Division of Childcare, Work and Mental Health During COVID-19." *Review of Economics of the Household* 19(1): 11–40.

Ziliak, James. 2020. "Food Hardship During the COVID-19 Pandemic and Great Recession." *Applied Economic Perspectives and Policy* 43(1): 132–52.

Zundl, Elaine, Daniel Schneider, Kristen Harknett, and Evelyn Bellew. 2022. "Still Unstable: The Persistence of Scheduling Uncertainty During the Pandemic." Cambridge, Mass.: Harvard Kennedy School, The Shift Project.

PART I

Household Economic Insecurity and the Safety Net

Suffering, the Safety Net, and Disparities During COVID-19

MARIANNE P. BITLER, HILARY W. HOYNES, AND DIANE WHITMORE SCHANZENBACH

The economic and public health crisis caused by COVID-19 was devastating and disproportionately hurt Blacks and Hispanics and some other groups. Unemployment rates and other measures of material hardship were higher and increased more during the crisis among Blacks and Hispanics than among non-Hispanic Whites. Congress authorized a historic policy response, incorporating both targeted and universal supports, and expanding both the level and duration of benefits. This response yielded the remarkable result of an estimated decline in the Supplemental Poverty Measure between 2019 and 2020. We study administrative data to investigate the impact of the Supplemental Nutrition Assistance Program (SNAP) during the crisis. We find that participation in SNAP increased more in counties that experienced a larger employment shock. By contrast, the increase in total SNAP benefits was inversely related to the employment shock. The SNAP benefit increases were less generous to Black and Hispanic SNAP participants than to White.

Keywords: COVID-19, SNAP, Child Tax Credit; unemployment insurance, Economic Impact payments, racial-ethnic disparities, poverty, safety net

The COVID-19 crisis led to spiking unemployment rates and unprecedented levels of food hardship that fell disproportionately on low-income families and among non-Hispanic Black and Hispanic or Latino people. This occurred in addition to the large increases in mortality and morbidity from COVID, which also fell disproportionately on Blacks and Hispanics (Hill and Artiga 2022).[1] Food banks and food pantries reported spikes in need. The re-

Marianne P. Bitler is professor of economics at the University of California, Davis. **Hilary W. Hoynes** is Haas Distinguished Chair in Economic Disparities and professor of economics and public policy at the University of California, Berkeley. **Diane Whitmore Schanzenbach** is Margaret Walker Alexander Professor of Human Development and Social Policy and director of the Institute of Policy Research at Northwestern University.

 Bitler, Marianne P., Hilary W. Hoynes, and Diane Whitmore Schanzenbach. 2023. "Suffering, the Safety Net, and Disparities During COVID-19." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 9(3): 32–59. DOI: 10.7758/RSF.2023.9.3.02. The authors thank Ted Carter, Nick Fleming, Amelia Vasquez, and especially Raheem Chaudhry for excellent research assistance, and Dottie Rosenbaum, Danny Schneider, Steve Raphael, and Sheldon Danziger for helpful comments. Direct correspondence to: Marianne Bitler, bitler@ucdavis.edu, Department of Economics, University of California, Davis, 1 Shields Avenue, Davis, CA 95616.

1. Members of several other racial and ethnic groups, such as Native Americans and Alaska Natives, Hawaiians, and Other Pacific Islanders, also suffered more than White and Asian Americans did. For example, after accounting for differences by age; adult persons who were Alaska Native or Native American or Hawaiian or Other

sponse to this crisis from the formal and informal safety net was robust (Bitler, Hoynes, and Schanzenbach 2020). Unemployment insurance (UI) participation soared as Congress expanded eligibility for the program, the length of time for which some UI benefits could be received, and payment levels via a series of top-up payments. Participation in the Supplemental Nutrition Assistance Program (SNAP) and benefit levels increased. A series of relief payments provided cash to qualifying individuals.

In this article, we examine the impact of the economic shock and the safety net response to the COVID-19 crisis, focusing on differences across race and ethnicity. We also investigate the relationship between safety net responses and the alleviation of suffering; attempting to better understand the extent to which different groups experienced hardship at different levels, the extent to which the safety net responded differently across groups, and who fell through the many holes in the safety net.

We start by analyzing the shock and levels of hardship overall and by race and ethnicity, using a combination of the monthly Current Population Survey (CPS) to measure the economic shock, the CPS Annual Social and Economic Supplement to measure poverty, and the December CPS Food Security Supplement (CPS-FSS) and the Census Household Pulse (Census Pulse) survey data to measure hardship. It is well known that even in strong labor markets, levels of unemployment and hardship are higher for some racial and ethnic groups than for others. We add to this by characterizing the incidence of the COVID economic shock by race and ethnicity. We then turn to examine the extraordinary safety net response, how it affected different groups, and who was left out. We characterize suffering with data from two sources. First, the Census Pulse provided frequent, real-time data on economic well-being that were not captured by our usual data collection approaches (much of which became available for the COVID period only with a long lag, or only provides an annual snapshot). For example, food insufficiency in the Pulse decreases in response to relief payments, including economic impact payments (EIPs) and pandemic electronic benefit transfer (EBT) payments (Bauer et al. 2020). Detecting these policy impacts would not be possible without the frequent, real-time data. We then examine the change in annual food insecurity between 2019 and 2020, using reported estimates from the CPS-FSS, the usual snapshot measure of annual food insecurity. The annual food insecurity data show that whereas non-Hispanic Whites (Whites) and White-headed families with children experienced a reduction in food insecurity from 2019 to 2020, non-Hispanic Black (Black) and Hispanic families and Black and Hispanic families with children faced substantial increases in food insecurity from 2019 to 2020, suggesting uneven impacts of both COVID and of the ability of the safety net to provide protection against shocks. Both sources of food hardship data show large disparities between Whites and Black or Hispanic families both before and during the pandemic.

Next, we turn to a discussion of what we would have expected from the safety net based on previous downturns, and contrast that with the COVID policy changes. The COVID response marked an unprecedented expansion in spending. We present changes in aggregate spending over time on UI, SNAP (EBT benefits for food for low-income persons), the Child Tax Credit (CTC) (expanded during COVID to provide most families with children with tax rebates), and the EIPs (the relatively universal stimulus payments offered to most families with low and moderate incomes); using Monthly Treasury Statement data tracking federal spending. We also discuss the policy responses in these programs. We turn to survey data from the CPS to investigate the incidence of economic hardship using the Supplemental Poverty Measure (SPM). We also document the individual contributions—holding other factors constant—of each of our key safety net programs to the reduction in SPM poverty experienced in 2020. We find that the EIPs, the Earned Income Tax Credit (EITC), and UI made

Hispanic Islanders had higher excess death rates due to COVID per hundred thousand in 2020 (relative to normal rates from 2015 to before COVID) than Whites or Asian Americans (Zalla et al. 2022). These groups are small in the general population and estimates of their characteristics in survey data are extremely noisy.

the largest contributions to the decline in poverty for all groups except Black children, who experienced a larger poverty reduction from SNAP than from UI. However, the SPM measures only annual poverty and has other limitations, such as underreporting safety net benefits and nonrandom declines in response rates during the pandemic (for a discussion of the challenges with CPS response rates during COVID, see Rothbaum and Bee 2021).

We conclude with a detailed examination of the responsiveness of SNAP participation and benefit payments over the COVID crisis for several reasons. First, various sources of administrative data on SNAP allow us more accurately to measure the role of SNAP than that of other programs that do not report such data. Through 2019, we can describe SNAP receipt by characteristics such as race, ethnicity, and presence of children. Further, through January 2021 we can track—using administrative data—participation and benefits received by county, allowing us to correlate county changes in SNAP with factors, including the magnitude of the labor-market shock and health shock as well as a variety of demographic and other characteristics. Second, SNAP is a relatively large program even in good times, so state-level implementation challenges in responding and adjusting to the crisis were likely less significant than for the UI program. Third, SNAP makes a particularly interesting case study because it was expanded during COVID to increase payment levels and to allow for some temporary waiving of other rules about program administration. We explore the extent to which these policy expansions have offset the economic shock and their likely impact on different demographic groups. Even though areas that experienced a greater economic shock generally experienced larger increases in SNAP participation levels, because of the unusual design of the benefits expansions, they also saw smaller increases in SNAP benefit payments.

This article contributes to a large literature examining the response of the social safety net to economic cycles (Bitler and Hoynes 2010, 2016; Bitler, Hoynes, and Iselin 2020; Hardy, Smeeding, and Ziliak 2018; Mueller, Rothstein, and von Wachter 2016; Ziliak 2015). In particular, it builds on work early in the COVID pandemic (Bitler, Hoynes, and Schanzenbach 2020). We make several contributions to this literature. First, we update this earlier work with a focus on the COVID crisis. Second, this is the first article to examine the response of the social safety net to economic downturns with a focus on examining the impacts across race and ethnicity groups. Third, we focus on families with children, a group characterized by high poverty rates and economic vulnerability. Finally, this article is the first to use county-level SNAP data to correlate changes in participation and benefit payments with county characteristics and the extent of the shock.

Economic Suffering During COVID-19, by Race and Ethnicity

Economic suffering was widespread and disparate during COVID-19. In this section we demonstrate large differences across race and ethnicity in the labor-market shock, as well as in material hardship as measured by food insecurity and related measures.

The Labor-Market Shock

COVID-19 hit the United States hard in March 2020 and President Trump declared a national emergency on March 13. After reaching a business cycle peak in February, the economy plunged as COVID spread, reaching a trough in April (and representing the shortest peak to trough period since 1957, the start of the National Bureau of Economic Research business cycle dates). The seasonally adjusted unemployment rate rose to 14.7 percent in April from 3.5 percent in February and 4.4 percent in March. By October 2021, the unemployment rate was back down to 4.6 percent, but still statistically elevated relative to February 2020.

Not only did traditional unemployment go up to extraordinary levels, but also the number of persons reporting they had a job but were not at work increased substantially. The Bureau of Labor Statistics concludes that most of the increase in reports of being employed but not at work are miscategorized and should be counted as unemployed—a miscategorization that occurred in part because of confusion in the early days of the pandemic on how workers who expected to experience only a temporary spell of joblessness due to pandemic shut-

downs would answer accurately labor-force status questions. In addition, millions left the labor force as schools closed and care responsibilities for children and others increased.

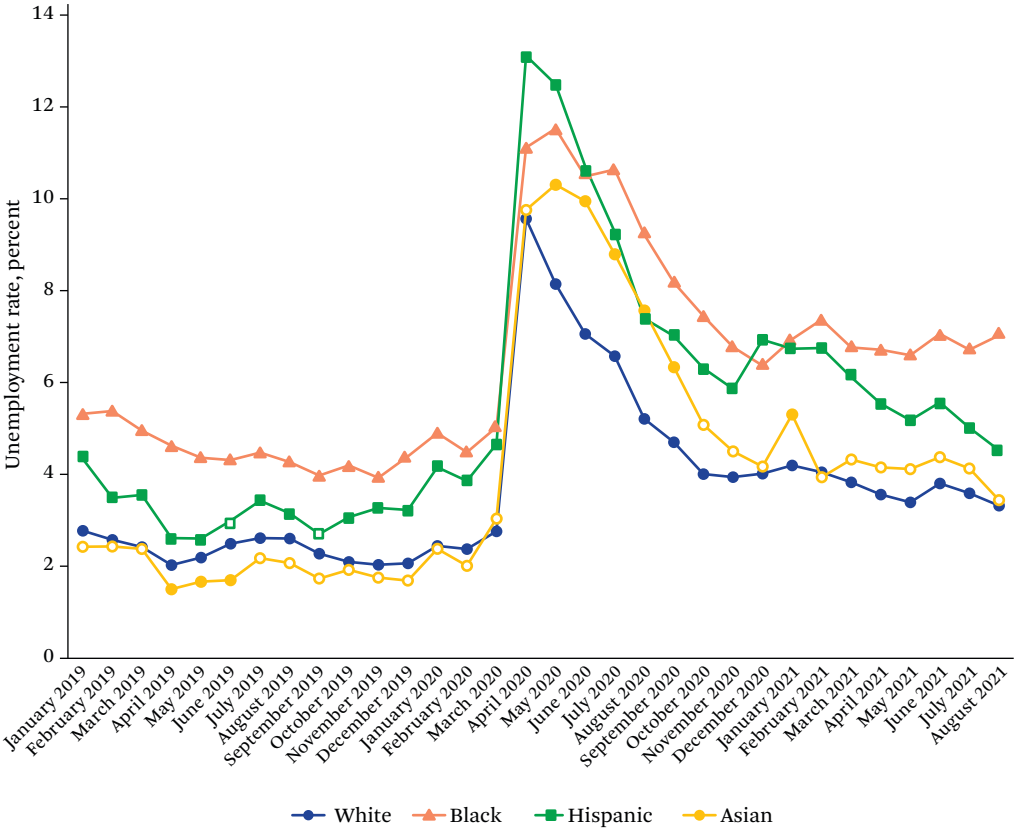
These unprecedented labor-market fluctuations mask large differences across race and ethnicity. Even in strong labor markets, differences across groups are clear, with Black and Hispanic Americans experiencing higher unemployment rates—and often nearly twice as high—than White Americans. We use monthly CPS micro data to compare unemployment outcomes for race-ethnicity groups over time (Flood et al. 2021). We compare four groups including those reporting they are Hispanic and of any race, and those who are non-Hispanic and reporting that they are only White, Black, or Asian. Based on the February 2020 CPS, 62 percent of the population reported being White, 15 percent reported being Hispanic, 12 percent reported being Black, and 6 percent reported being Asian.[2]

We begin by showing trends in unemployment levels by race-ethnicity. Figure 1 shows the seasonally unadjusted monthly unemployment rate among adults ages eighteen through sixty-four for every month from January 2019 through August 2021, by race-ethnicity. We show these rates for White, Black, Hispanic, and Asian adults. The *x*-axis denotes calendar time, and the y-axis is the unemployment rate (in percentage points) for each group. The filled-in markers for Black, Hispanic, and Asian adults indicate the estimate is statistically significantly different from the value for Whites (for that month). Several facts are notable. First, Black and Hispanic adults have persistently higher unemployment rates than White adults, even in the booming labor market leading up to the COVID crisis. In March 2020, White adults experienced an unemployment rate of 2.8 percent, versus 5.0 percent for Black adults and 4.7 percent for Hispanic adults. Asian adults tended to have lower unemployment rates than White adults in the months leading up to COVID, but not statistically significantly so. Second, figure 1 also shows the enormous shock to unemployment rates after COVID hit in March 2020, with Hispanic and Black adults experiencing the largest impacts. Third, by the end of August 2021, Black adult unemployment rates remain the most elevated (relative to White or Asian adults), followed by Hispanic adult rates.

Many analysts conclude that this unemployment rate was understated in the early months of the COVID-19 pandemic (see, for example, Aaronson 2021). The share of workers reporting to be "employed, but not at work" increased dramatically, and many of these workers were likely affected by closures of their place of work due to COVID-19 and would have been more appropriately classified as unemployed (Bureau of Labor Statistics 2020). Furthermore, early in the pandemic, when stay-at-home orders were in place, the unemployed were less likely to search for a new job than is typical for a host of reasons, which led to a spike in the share of people reporting being not in the labor force (Bureau of Labor Statistics 2020). Further, some adults may have left the labor force to care for family members. All three of these data issues mean that the measured unemployment rate understates the true experience of COVID-inflicted labor-market shocks. Thus we also look at an alternative measure of the shock—changes over time in the share of adults who are unemployed, not in the labor force, or have a job and are not at work during the survey week, where we difference out the shares relative to the same calendar month during the twelve months before March 2020. In particular, for each race-ethnicity group we estimate a regression model with indicator variables for each month in the COVID period (March 2020 through August 2021) along with indicator variables for each calendar month. We adjust the standard errors for clustering at the state level. Figure 2 shows these estimated monthly shocks for each race-ethnicity group. As with figure 1, solid (hollow) symbols for Black, Hispanic, and Asian adults indicate that the coefficient is (is

2. Because of the small shares of the population, our analysis excludes those reporting non-Hispanic American Indian, Alaska Native, Hawaiian Native, or Pacific Islander (1 percent) and those reporting non-Hispanic multiple race (2 percent). We omit them and those who refused or did not know or did not answer (1.8 percent) from the graphs, but include them in all the regressions and comparisons.

Figure 1. Unemployment Rate, by Race and Ethnicity



Source: Authors' calculations from Current Population Survey, as compiled by IPUMS (Flood et al. 2021).

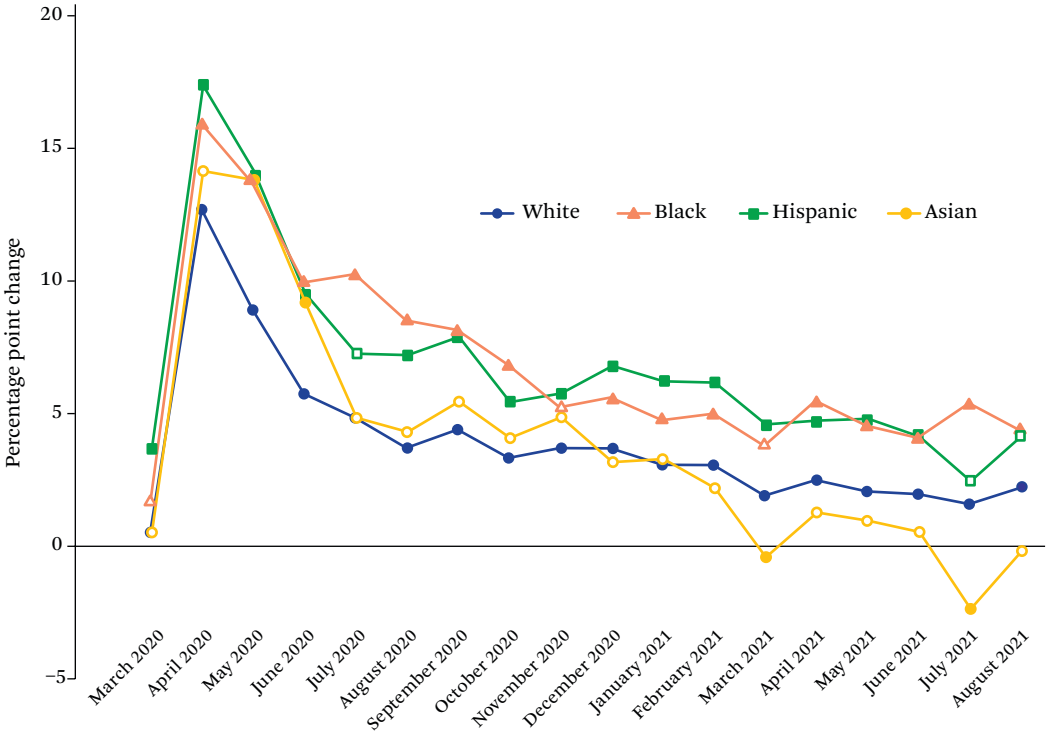
Note: Data for adults ages eighteen through sixty-four. Solid (hollow) symbols for Black adults, Hispanic adults, and Asian adults indicate that the coefficient is (is not) statistically significantly different from the unemployment rate among White adults in the same month. Calculations use sample weights and cluster the standard errors at the state level. Groups are mutually exclusive (with, for example, Black being short for non-Hispanic Black).

not) statistically significantly different from the unemployment rate among White adults in the same month.

Figure 2 shows that this broader shock hit Hispanic adults and Black adults even harder than White adults, who already experienced an enormous shock. In April 2020, the increase in the sum of those unemployed plus those reporting being not in the labor force plus those reporting having a job and not at work was 12.7 percentage points among White adults, 15.9 percentage points among Black adults, 17.4 percentage points among Hispanic adults, and 14.1 percentage points among Asian adults. A year later, in April 2021, the increase among White adults had fallen to 2.5 percentage points, versus 5.5 and 4.7 percentage points among Black and Hispanic adults, respectively. Asian adults generally returned to values no different from White adults by August 2020.[3]

3. American Indians, Alaska Natives, Hawaiian Natives, and Pacific Islanders generally had higher levels of unemployment pre-COVID and had had increases in unemployment (relative to pre-crisis monthly averages) that were statistically indistinguishable from Whites, and Multiple Race adults had higher levels pre-COVID and higher increases than Whites (not shown on graph).

Figure 2. Broader Labor Market Shock, by Race and Ethnicity



Source: Authors' calculations from Current Population Survey, as compiled by IPUMS (Flood et al. 2021).

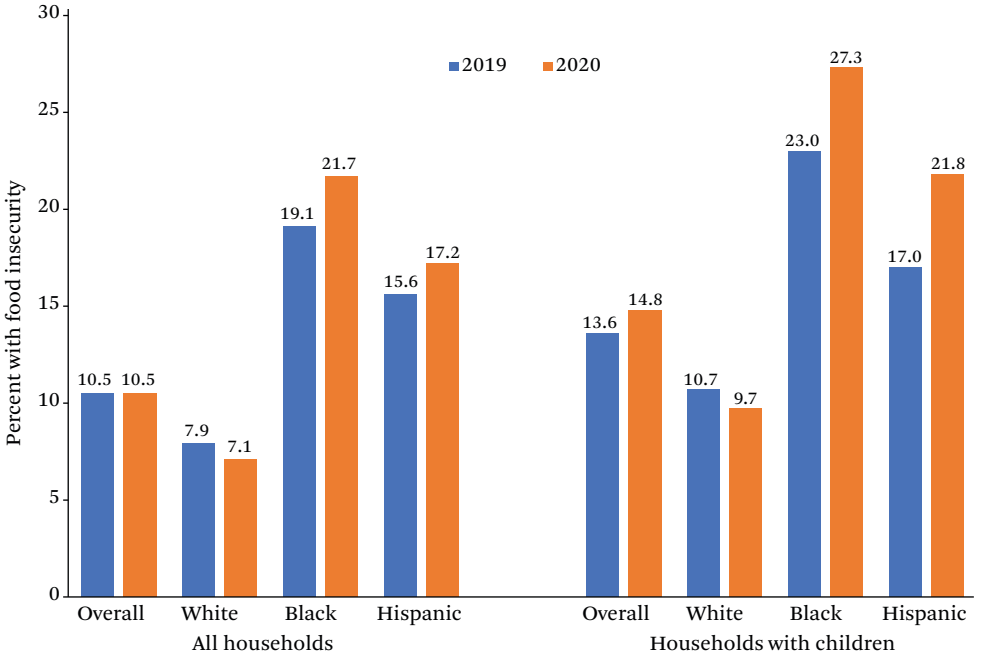
Note: Labor-market shock calculated as the change in the rates of "unemployment, not in labor force, and employed but not at work" relative to the same month in the year prior to March 2020. Data for adults ages eighteen through sixty-four. For White adults, solid (hollow) symbols indicate the change in the unemployment measure is statistically (not) different from zero. For the other groups, solid (hollow) symbols indicate that the coefficient is (is not) statistically significantly different from the unemployment measure among White adults in the same month. Calculations use sample weights and cluster the standard errors at the state level.

Measures of Material Hardship

In the early days of the pandemic, food banks reported dramatic surges in need for emergency relief. Within weeks, survey data became available to track food hardship over the course of the pandemic. One of the most important sources of real-time data on economic hardship is the Census Bureau's experimental Household Pulse Survey, which released new data first every week then subsequently every two weeks during the course of the pandemic. To be sure, the data are imperfect, characterized by low response rates (not atypical for online surveys) and imperfect sample designs and, in some cases, cannot be directly compared with other sources (U.S. Census Bureau 2020c). Nonetheless, the data—especially the food hardship data—have been shown to be sensitive to changes in economic conditions and receipt of relief payments. For example, Lauren Bauer and her colleagues (2020) show that reported food hardship declines among low-income families in the weeks after pandemic EBT payments for missed school meals are received across states.

The share of adult respondents with children, by race and ethnicity, and adult respondents, by race and ethnicity, who answered that they sometimes or often did not have enough to eat during the prior week from April 2020 through October 2021 are presented in the on-

Figure 3. Annual Food Insecurity, by Race, Ethnicity, and Presence of Children, 2019–2020



Source: Coleman-Jensen et al. 2020, 2021.

line appendix (see figures 1a and 1b).[4] Despite period-to-period variation, the share generally climbed during the fall of 2020 and fell—sometimes sharply when relief payments were paid—starting in January 2021. Rates of food hardship are generally twice as high among Black and Hispanic families with children as they are among White and Asian families with children. Food hardship rates among those with children are uniformly higher than for the overall population. Rates among Blacks and Hispanics in the general population are generally two to three times those among Whites and Asians.

Similar patterns across race and ethnicity are found in the Census Household Pulse data in other financial hardship domains. Relative to White and Asian respondents, Black and Hispanic respondents are substantially more likely to report that it was somewhat or very difficult to pay for their usual household expenses, and a higher share reported that they had only slight or no confidence in their ability to pay their next housing payment. Between 8 and 9 percent of Black and Hispanic respondents reported that they received food from a food pantry in the prior week, relative to around 2 percent of White and Asian respondents.

Annual food insecurity data have been collected in the December Current Population Survey for nearly twenty years and provide a consistently measured annual snapshot of food hardship. Rates by race and ethnicity, and by presence of children, in 2019 and 2020 are presented in figure 3. The overall household food insecurity rate was unchanged across the two years, but the average masks heterogeneous experiences across groups. Black and Hispanic persons experienced higher food insecurity in 2020 relative to 2019; Whites experienced a decline. Among households with children, the same pattern holds but the magnitudes of the increases among Black and Hispanic families is larger.[5]

4. See the online appendix (https://www.rsfjournal.org/content/9/3/32/tab-supplemental).

5. Jonathan Rothbaum and Adam Bee (2021) suggest disruptions to some CPS response rates, with those expected to have lower incomes having lower response rates.

SAFETY NET AND SOCIAL INSURANCE RESPONSE TO THE PANDEMIC

This section presents existing evidence on how our safety net responds in economic recessions and how the response has changed over time before discussing the relief bills implemented during the COVID crisis.

Programs and Evidence from Prior Recessions

The United States has many programs that help low-income families smooth their consumption in economic downturns and avoid hunger, poverty, or other negative outcomes. These include social insurance programs—with the most relevant such program being unemployment insurance. These social insurance programs are universal (not income targeted), are paid for using payroll taxes while working, and are triggered by an event, such as losing one's job through no fault of one's own for UI. Additionally, means-tested safety net programs such as SNAP, a program for low-income, low-asset individuals and families, provide benefits in the form of grocery vouchers, which are delivered by EBT card. It also includes tax credits such as the EITC or the CTC, which provide refundable (or partially refundable) tax credits to eligible families with earned income as well as cash benefits through Temporary Assistance for Needy Families (TANF).

In response to the massive economic shock and increase in material hardship associated with the COVID crisis, the pre-COVID U.S. safety net, under then-current law, would have provided some protection. In addition, in severe downturns, Congress often enhances the generosity of existing programs. For example, Congress can authorize emergency unemployment compensation (which tends to be fully federally funded), such as the program providing greatly extended duration for UI benefits during the Great Recession. During the Great Recession, Congress also temporarily raised maximum SNAP benefits. Congress has also authorized relatively universal tax credits or rebates, such as the Recovery Rebates in response to the Great Recession, which provided credits of $600 for individuals or $1,200 for joint filers.

Research documents whether the social safety net expands and contracts with economic recessions and expansions and the extent to which it does. In particular, the literature examines the extent to which safety net programs are countercyclical (spending and participation rise during recessions and fall during expansions) thereby providing needed assistance during economic downturns or procyclical (the opposite pattern). For example, Marianne Bitler and Hilary Hoynes (2016) use data through 2012 to explore how per capita real spending on various safety net programs responds to changes in local labor-market conditions measured by state-year unemployment rates. They find that UI, including the fully federally funded extensions and emergency programs as well as the usual state and state-federal program, is the most countercyclical program, although SNAP also has a strong countercyclical response. Bitler, Hoynes, and John Iselin (2020) extend that work and document the countercyclical nature of a host of programs pre-COVID using data through 2019. They find that since 2007, UI has shown a particularly robust countercyclical response, with a 1 percentage point increase in the unemployment rate leading to an 18 percent increase in UI spending. SNAP has a significant economically meaningful but weaker response, with a 1 percentage point increase in the unemployment rate leading to a 7 percent increase in SNAP spending. Interestingly, neither the work-conditioned tax credits (EITC) nor cash welfare for families with children (TANF) provide any countercyclical response to economic downturns, as might be expected given their eligibility rules and timing of EITC payout and the fact that TANF spending has been fixed in nominal terms since 1996.

To put these responses into context, we highlight how the U.S. social safety net has changed over time. In many cases, the programs have been redesigned in recent decades in ways that have made it less responsive to economic downturns. In the years following the Great Recession, many states reduced the generosity of their UI programs with the stated goal of reducing taxes for firms. In 2019, UI replacement rates—measured as the share of pre-unemployment earnings replaced by UI—averaged 45 percent, and many states had replacement rates below 40 percent including

Arkansas (31 percent), Arizona (37 percent), Indiana (37 percent), and Louisiana (34 percent).[6] Elira Kuka and Bryan Stuart (2021) document systematically lower UI replacement rates among Black than among White workers. Further, UI coverage is not complete and excludes unauthorized immigrants, those with inconsistent work histories, new labor-market entrants, and the self-employed.[7] More generally, the social safety net has shifted toward being more work conditioned, using earnings subsidies to increase incomes among workers with children but offering relatively little out-of-work assistance to those not elderly or disabled (Hoynes and Schanzenbach 2018). These changes were ushered in through the 1996 federal welfare reform law; expansions to the EITC; and, for some populations (notably able-bodied adults without dependents), work requirements for SNAP.[8] The result is a social safety net with a strong emphasis on promoting and rewarding work—a system that may be adequate during times of low unemployment but provides too little insurance against job loss and economic shocks.

The EITC provides an important example of why these work-conditioned programs may not provide much protection. The EITC is the largest antipoverty program for children in the United States, but eligibility requires earned income. Bitler, Hoynes, and Kuka (2017) analyze Internal Revenue Service data on EITC payments and find no relationship between local unemployment rates and EITC spending. In fact, for single filers with children (the largest group of recipients), the point estimates suggest the EITC is pro-cyclical: spending per filer rises in economic expansions. Further, the EITC is paid out in a lump sum tax refund in February or March in the year after the earnings which qualify individuals are accrued, and thus unlikely to be responsive to current need. Thus, despite its important role in reducing poverty, the EITC is poorly suited to insure consumption against job loss. More generally, the authors show that the move from the previous out-of-work safety net (higher participation in Aid to Families with Dependent Children and limited tax credits for working) to the current in-work safety net (the EITC providing substantive tax credits for workers) led to a reduced overall cyclical response from the means-tested safety net.

In sum, the literature shows that before COVID-19, the safety net was providing uneven and incomplete protection during economic downturns. The EITC is not designed to provide insurance against job loss and TANF no longer responds to aggregate economic need and benefits are extended to few households. While UI is strongly countercyclical overall, its coverage is incomplete. SNAP expands during economic downturns, but SNAP benefits are more modest than UI, and because SNAP provides vouchers for food, benefits are only partially fungible and cannot be used for many other needs.

COVID-19 Pandemic Recession

To date, five federal laws responded directly to the COVID-19 economic crisis. These include the Families First Coronavirus Response Act

6. For data on replacement rates, see U.S. Department of Labor 2004.

7. Bitler, Hoynes, and Diane Schanzenbach (2020) use a UI calculator (Ganong, Noel, and Vavra 2020) and the 2019 CPS-ASEC and document that 4 percent of workers (14 percent of workers in poverty) would be ineligible for UI if they lost their jobs because they were likely unauthorized, 4 percent (7 percent of those in poverty) would be ineligible because they are self-employed, and 5 percent (17 percent of those in poverty) would be ineligible because of insufficient earnings. The latter two groups were covered by the PUA program but the unauthorized were left out of the UI expansions and are ineligible for SNAP. They are also ineligible for the economic impact payments and their citizen and authorized family members were excluded from the first EIP.

8. In addition, policy changes during the end of the Trump administration risked further reducing the protective effects of SNAP by imposing stricter work requirements and discouraging participation among immigrants and families with mixed immigration status with proposals to include SNAP in public charge rules about immigrants attempting to convert their immigration status. Many of these policies have been rescinded by the Biden administration.

(FFCRA), enacted March 18, 2020; the Coronavirus Aid, Relief, and Economic Security (CARES) Act, enacted March 27, 2020; the Continuing Appropriations Act 2021 and Other Extensions Act, enacted October 1, 2020; the Consolidated Appropriations Act 2021, enacted December 27, 2020; and the American Rescue Plan Act of 2021 (ARPA), enacted March 11, 2021).[9] As of August 31, 2021, these laws are reported to have resulted in $3.4 trillion in spending.[10] In this article, we focus on a subset of safety net programs for which the response to the COVID crisis was substantial and some administrative data are available. Four elements of this response are particularly important for lower-income families: expansions to SNAP, expansions to UI, the EIPs, and the refundable monthly CTC payments. As we show, these four policies account for almost $1.4 trillion in new spending from April 2020 through December 2021 and were the main sources of direct payments to households during COVID-19.[11] Wherever possible, we examine data on participation and benefits by race and ethnicity.

SNAP is structured to respond quickly to increased need because the program is an entitlement (not subject to annual funding limits), benefits are fully federally funded, and households that newly become eligible due to unemployment or other loss of income can apply and generally receive benefits with thirty days (Hoynes and Schanzenbach 2019). During the pandemic, Congress made temporary changes that increased both participation and (for many participants) benefit levels. Like those of most income support programs, SNAP benefits are typically reduced as a household's income increases—a maximum monthly benefit of about $170 per person is reduced by 30 cents for each additional dollar in income. The FFCRA authorized states to increase benefits for all SNAP participants to the maximum benefit, a provision known as the Emergency Allotment (EA), while state and federal health emergency declarations are in place. Notably, this expansion provides an increase in benefits to SNAP recipients who were not already receiving the maximum; these are the more "advantaged" of the SNAP population and include those with earned income and those with other income support (such as the elderly receiving Social Security). Therefore, even though SNAP's general structure is progressive (the highest benefits accrue to the lowest-income groups), the first COVID-era expansion of SNAP was regressive, at least within the SNAP population. Subsequent expansions to SNAP during COVID were not regressive, however. The Consolidated Appropriations Act (December 2020) increased maximum benefit amounts for all recipients by 15 percent from January through September 2021. Later, the previously enacted EA payments were revised upward to require that all recipients received a monthly benefit increase of at least $95, giving the lowest-income families who previously received no EA payments a boost in benefit levels. In addition, states were temporarily allowed to extend eligibility periods for currently participating households for six months (under normal circumstances, recipients are required to reapply for benefits every six to twelve months), allowing offices already stretched by health-related office closures and the need to socially distance to concentrate on screening new appli-

9. This section draws on Randy Aussenberg and Kara Billings (2021), Julia Whittaker and Katelin Isaacs (2021), and Margot Crandall-Hollick (2021).

10. Of the agencies whose programs we focus on, the Treasury had disbursed $1.4 trillion in new spending tied to the recovery by this point, the Department of Agriculture distributed $81 billion, and the Department of Labor distributed $650 billion. A large amount of SNAP and other Department of Agriculture and UI spending automatically increases in bad times, and much of this additional Treasury spending is the tax credits (USASpending 2021).

11. Other spending through nutrition programs included pandemic EBT (replacement payments for school meals while schools were closed), enhanced WIC benefits, directly provided school meals, and other meals. Eviction moratoria and housing spending also likely helped a host of families. Further, many of these safety net programs reduced or suspended recertification requirements temporarily, likely increasing participation.

cants. This temporary policy increased SNAP participation by reducing the flows out of the program during the pandemic.[12]

Congressional policy responses also included expansive changes to the joint state-federal UI program. The Federal Pandemic Unemployment Compensation (FPUC) program increased weekly benefits by $600 for weeks of unemployment through the end of July 2020. This was followed by the Lost Wages Assistance program, which allowed participating states to increase benefits by $300 to $400 per week for up to six additional weeks, for unemployment spells from the expiration of FPUC through early fall (weeks of unemployment ending September 5, 2020). After a period with no benefit top-ups, benefits were again increased by $300 per week for spells from December 26, 2020, through early September 2021.[13] All of these benefit increases were federally funded. The length of eligibility for UI was also extended, including an initial thirteen-week extension of fully federally funded benefits (Pandemic Emergency Unemployment Compensation) that was eventually expanded to provide up to thirty-nine additional weeks through early September 2021 for those exhausting other benefits. Overall, through October 1, 2022, total spending on UI from the federal government from the CARES Act and subsequent laws totaled $674 billion above and beyond the regular UI program spending (U.S. Department of Labor 2022).

Additionally, important expansions were made to the eligibility criteria for UI. The Pandemic Unemployment Assistance (PUA) program expanded UI eligibility to the self-employed and gig-economy workers and other workers who were previously excluded from eligibility on the basis of low earnings or insufficient work history.[14] Initial UI claims surged, rising from 221,000 for the week of March 14, 2020, to 5.9 million the week of March 28, 2020, and maxing out at 6.1 million the week of April 4, 2020. Ongoing claims went up nearly sevenfold, before returning to pre-pandemic levels by December 2021.

The largest and most universal of the relief efforts came through direct payments to families. The EIP included in the CARES Act provided $1,200 per adult ($2,400 for a married couple filing jointly) and $500 per dependent under age seventeen. This was structured as a fully refundable tax credit, phased out beginning at annual incomes of $150,000 for married couples, $112,000 for head of household filers, and $75,000 for single filers. Treasury provided automatic payments for all who filed federal taxes in tax years 2018 or 2019 as well as to those receiving payments through Social Security or Veteran's Affairs programs.[15] The initial payments were made to those with direct deposit information during the week of April 17, 2020, and paper checks followed more slowly after that. However, nonmilitary families that included any immigrant adult without a Social Security number were ineligible, thus excluding many citizen children and spouses.

A second round of direct payments went out as part of Consolidated Appropriations Act of 2021 (enacted December 27, 2020, payments starting in January 2021). This was a smaller payment of $600 for each eligible individual and $1,200 for joint married filers, and an ad-

12. A revised Thrifty Food Plan, on which SNAP benefits are based, was announced in the summer of 2021 and took effect on October 1. This increased regular SNAP benefits by about 27 percent relative to basic benefits without pandemic-related increases. Because the 15 percent pandemic increase ended at the same time, net benefits went up by a smaller amount.

13. States had to opt in to participate in the UI expansions and twenty-six ended some of these other programs before they expired in September 2021, citing concerns about work disincentives. Additionally, the Mixed Earner Unemployment Compensation program provided $100 additional per week for unemployed workers with self-employment and wage and salary income not getting UI for weeks of unemployment from December 27, 2020, to early September 2021.

14. The federal government also funded the waiting week for UI so that benefits would get out more quickly and most states suspended search requirements for obtaining UI during the health crisis through May 2020.

15. Some of the Social Security Administration groups had to submit forms to receive dependent payments.

ditional $600 per qualifying child under age seventeen. It also phased out for higher income individuals. A third round went out starting in March 2021 as part of the ARPA; phase-outs were similar but payments were higher, $1,400 per individual or dependent (and including all dependents, not just those under seventeen).

In addition, the ARPA included a considerable expansion of the CTC for tax year 2021. The National Academies (Duncan and Le Menestre 2019) and other researchers (Shaefer et al. 2018; Bitler, Hines, and Page 2018) have laid out evidence about the benefits of a child allowance in reducing poverty, and the CTC expansion was modeled after these proposals. The maximum CTC was expanded from $2,000 to $3,000 per year per child ($3,600 for children ages five and younger) and payments were made fully refundable so children in households with no or low earnings were eligible for the full benefit. ARPA also changed the timing of payments so half of the annual credit would be issued monthly starting in July (2021), and the rest would come when filing 2021 taxes in early 2022. Eligibility was also extended to seventeen-year-olds (who are usually ineligible). Real-time analysis has shown that these expansions substantially reduced child poverty and child food insufficiency (Parolin, Curran, et al. 2021; Parolin, Ananat, et al. 2021).

Figure 4 displays the timing and magnitude of new spending on these programs, reported monthly between April 2020 and December 2021. The information is drawn from Monthly Treasury Statements from the Department of the Treasury, which provide information on monthly receipts and outlays of the federal government (U.S. Department of the Treasury 2022). For SNAP and UI, we measure the change in spending relative to the programs' February 2020 levels, which were $4.9 billion and $2.8 billion, respectively.[16] Spending on the EIPs is reported directly, as are payments of the CTC that exceed tax liabilities (the refundable portion of the CTC). Cumulatively, throughout these twenty-one months, nearly 60 percent of the new spending came from the EIPs—the benefits least targeted to those who experienced a direct economic shock or who have low levels of income. More than 25 percent came from UI, 9 percent came from SNAP, and 7 percent came from the monthly CTC payments that started in July 2021.

As shown in figure 4, variation in new monthly spending is driven by the timing of the EIPs, and most new spending occurred in April 2020 and January and March 2021. Unemployment insurance payments are generally smooth across months, averaging $23 billion per month from April 2020 through March 2021 but increasing and decreasing somewhat in relation to the availability of federal top-up payments. From April through August 2021, UI payments averaged $13 billion per month, declining further in the months that followed with the expiration of COVID-era policies. SNAP payments, the program most targeted to the low-income population, grew over this period: spending increases were driven by an increase in participation levels in the first months of COVID, then by subsequent increases in benefits levels. The refundable monthly CTC payments were relatively stable across July to December 2021, and in magnitude were about three times the new monthly spending on SNAP and 80 percent of the monthly average new UI spending.

THE PANDEMIC, THE SOCIAL SAFETY NET, AND POVERTY

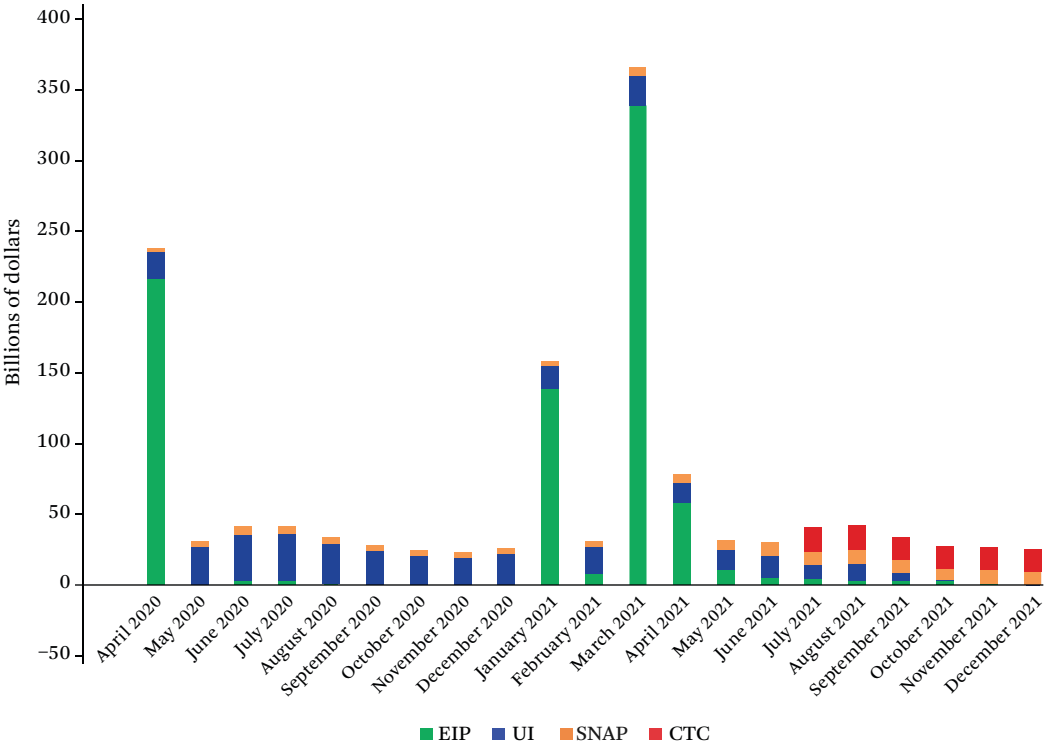
The Annual Social and Economic Supplement (ASEC) to the Current Population Survey is administered to most households in March every year and is an annual survey that collects labor market, income, and program participation information for individuals for the previous calendar year; as well as demographic information from the time of the survey.

We begin by examining poverty rates by race and ethnicity for calendar years 2019 and 2020.[17] We measure poverty using the SPM, which is available from the Census Bureau beginning in 2009 and is released alongside the official pov-

16. Payments to SNAP participants of the pandemic EBT benefits to replace missed school meals are also included in the Monthly Treasury Statements. Pandemic EBT payments to SNAP nonparticipants are not included.

17. The CPS faced challenges with interviewing in COVID. Rothbaum and Bee (2021) document nonresponse issues in the 2020 ASEC used for measuring 2019 poverty. Their adjusted 2020 measure adjusting for lagged

Figure 4. New Monthly Spending in Economic Impact Payments, Unemployment Insurance, SNAP, and the Child Tax Credit



Source: Authors' tabulations of Monthly Treasury Statements, February 2020 through December 2021 (U.S. Department of the Treasury 2022).
Note: We difference monthly expenditures relative to their February 2020 level to net out new payments.

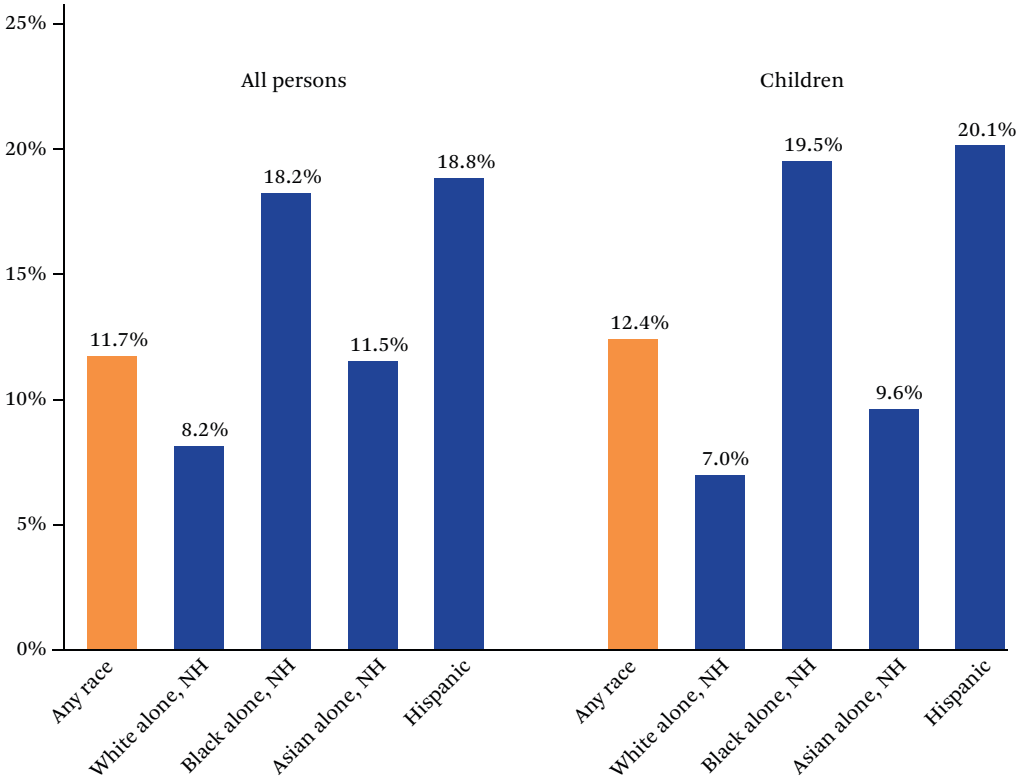
erty measure.[18] A person is in poverty if their family's SPM resources are below their SPM threshold. SPM resources include all cash income (earnings, pensions, cash transfers, Social Security Administration payments for disability, retirement and supplemental security income) plus the cash value of in-kind transfers (SNAP, the National School Lunch Program, housing subsidies, energy assistance, WIC [the Special Supplemental Nutrition Program for Women, Infants, and Children]) minus deductions (medical out-of-pocket expenditures, child support paid, work expenses, childcare) and taxes (payroll taxes, federal and state income taxes including the tax credits—EITC, CTC—and the EIPs). The Census Bureau's SPM Thresholds are the average between the 30th and 36th percentiles of the distribution of consumer expenditures on food, clothing, shelter, and utilities, plus an additional 20 percent to account for additional necessary expenditures. Additionally, the thresholds are adjusted to reflect family size, owner versus renter status, and geographic variation in housing costs (for more detail on the SPM, see Fox and Burns 2021).

Figure 5 presents the share in poverty for all persons (left) and for children (right), by race

administrative and historical responses suggests the nonrespondents were lower-income individuals (pre-pandemic), and thus that official poverty might have been underestimated.

18. The official poverty measure is of limited use to understand hardship because it is based only on cash pretax income, thus not inclusive of SNAP, EITC, CTC, or EIPs.

Figure 5. Supplemental Poverty Measure 2019, All Persons and Children



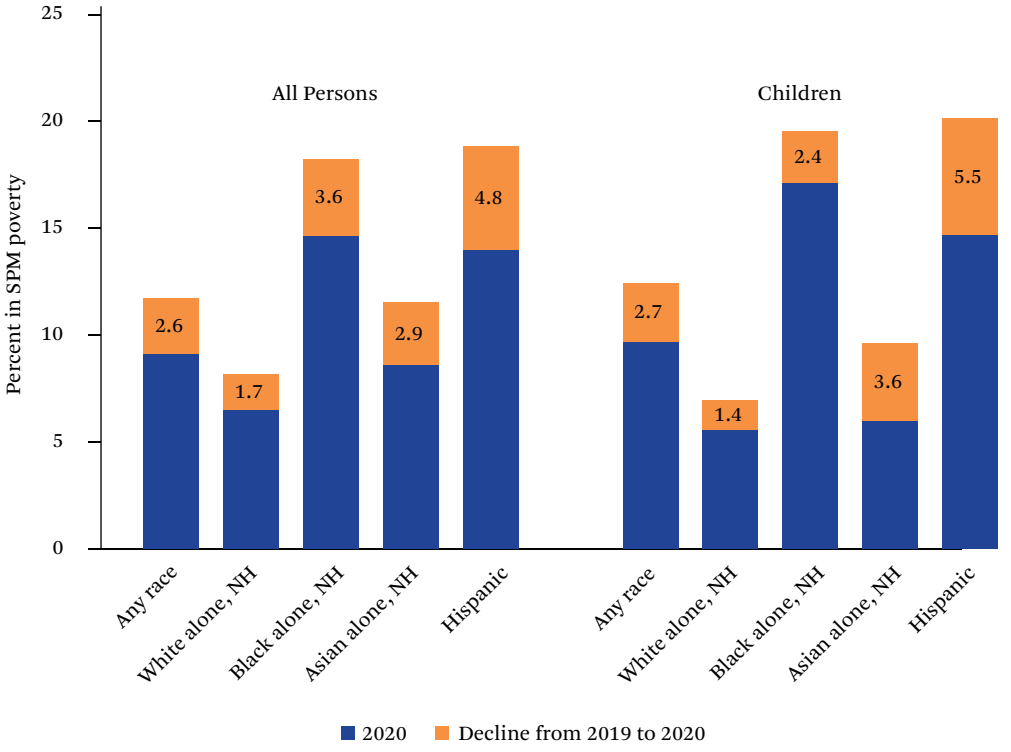
Source: Authors' tabulations using 2020 and 2021 Annual Social and Economic Supplement to the Current Population Survey (U.S. Census Bureau 2020b; U.S. Census Bureau 2021a).

and ethnicity, in the pre-pandemic baseline of calendar year 2019. Overall, in 2019, 11.7 percent of all persons, and 12.4 percent of children, were poor in the United States. The disparities across race and ethnicity are striking. For example, 19.5 percent of Black children and 20.1 percent of Hispanic children are poor, versus 7.0 percent of White children and 9.6 percent of Asian children.

Despite the dramatic increases in unemployment, between 2019 and 2020–2021, annual poverty rates across all groups declined (see figure 6); for a partial caveat related to differential nonresponse by income groups, see note 17. The overall poverty rate fell by 2.6 percentage points (from 11.7 to 9.1 percent) for all persons and by 2.7 percentage points for children. Declines in poverty rates were experienced across all race and ethnic groups. For example, the share of Black children in poverty fell by 2.4 percentage points, and for Hispanic children it fell by 5.5 points. Across all groups, these represent significant declines on the order of 20 to 25 percent of the pre-pandemic level (the lowest percentage decline was 12 percent for Black children).

Clearly, a decline in poverty in the midst of an economic crisis is not a typical finding. Although UI and SNAP are strong automatic stabilizers (Bitler and Hoynes 2010, 2016; Bitler, Hoynes, and Iselin 2020), poverty has consistently increased during recessions in the United States (Bitler and Hoynes 2010, 2015; Bitler, Hoynes, and Kuka 2017). The 2019 to 2020 decline in poverty is a direct result of the dramatic pandemic policy response. Figure 7 presents the effect of individual policies on SPM poverty rates in 2020 for all persons (panel A) and all children (panel B). To make these calculations, we zero out a given tax or transfer program and recalculate the poverty rate assuming no change in behavior. We also in-

Figure 6. Reduction in SPM Between 2019 and 2020 (Percentage Points)



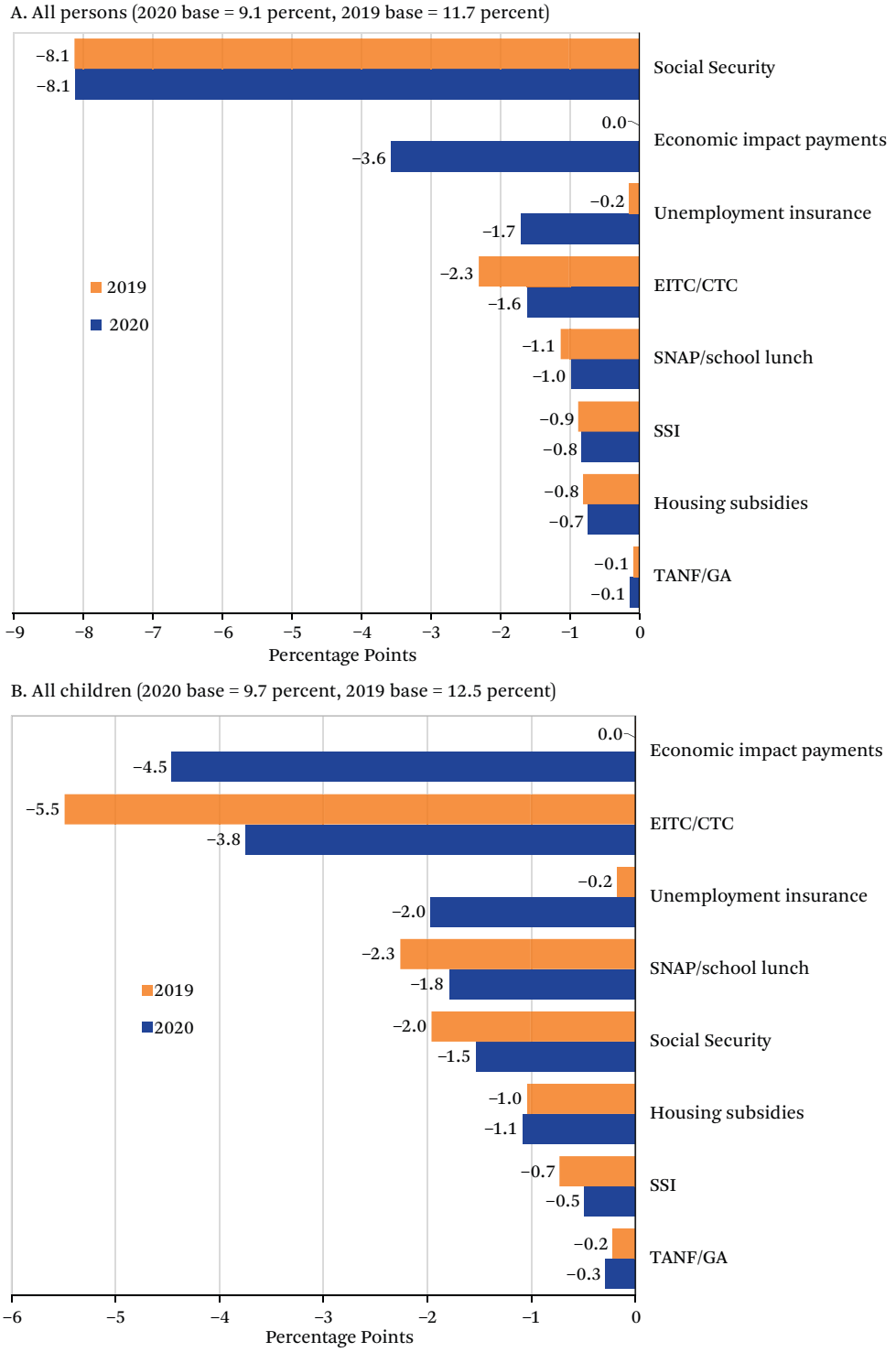
Source: Authors' calculations based on 2020 and 2021 Annual Social and Economic Supplement to the CPS (U.S. Census Bureau 2020b and U.S. Census Bureau 2021a).

clude the antipoverty effects for 2019 as a pre-pandemic baseline comparison.

For all persons, Social Security leads to the largest poverty reduction at a staggering 8.1 percentage points (the same poverty reduction for both 2019 and 2020). Focusing on 2020, we see the EIPs reduced poverty by 3.6 percentage points, followed by UI at 1.7 percentage points, the combined effect of the EITC and the CTC at 1.6 percentage points and the combination of SNAP and school lunch at 1 percentage point. Among children, the largest poverty reduction resulted from the EIPs at 4.5 percentage points, followed by the combined impact of the EITC and CTC at 3.8 percentage points, UI at 2.0 percentage points and SNAP and school lunch at 1.8 percentage points. Social Security plays a smaller role in poverty reduction among children. Comparing these poverty reductions to 2019, we note several findings. First, the effects of the EITC-CTC are smaller in 2020 than in 2019 (consistent with Bitler, Hoynes, and Kuka 2017), illustrating that the EITC is pro-cyclical (decreases during recessions) for single-parent families. (Importantly, the ARPA-expanded CTC did not take place until July 2021 and thus is not reflected in these calculations.) Second, in 2019 UI played a very small role in poverty reduction whereas in 2020 it was the third largest antipoverty program for all persons and for children.[19] This highlights the significance of the COVID-era UI expansions, particularly the benefit top-ups. These calculations make it very clear that without the increase in pandemic aid, poverty rates in 2020 would have increased dramatically. Of course, these are static comparisons, limited because they simply compare poverty calculated with and without

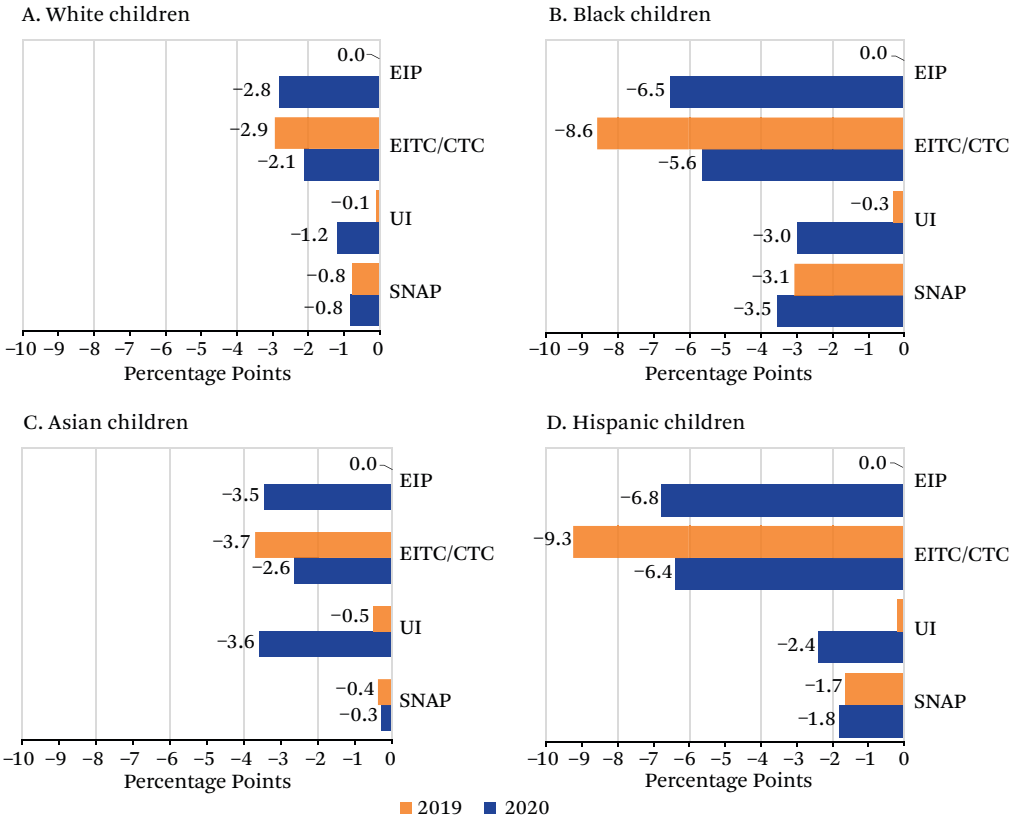
19. The CPS greatly understated receipt of UI, suggesting an even larger role of UI during COVID (Larrimore, Mortensen, and Splinter 2022).

Figure 7. Effect of Individual Elements of Social Safety Net on 2020 Versus 2019, Percentage Point Change in SPM Rate



Source: Authors' calculations based on Fox 2020; Fox and Burns 2021.
Note: We suppress very small changes in poverty rates for LIHEAP, worker's compensation, and WIC.

Figure 8. Effect of Individual Elements of Social Safety Net on the 2019 and 2020 Child SPM Rates, by Race and Ethnicity



Source: Authors' calculations based on 2020 and 2021 Annual Social and Economic Supplement to the CPS (U.S. Census Bureau 2020b; U.S. Census Bureau 2021a).

various income components but do not include any behavioral responses were the programs to be removed.[20]

The program-driven reductions in poverty are experienced across all groups. Figure 8 shows the effects of individual policies on child poverty, separately for White, Black, Asian, and Hispanic children. We include estimates for 2019 and 2020, as before, to highlight the effects of the COVID era policies. Focusing on the data for 2020, among Black children, the EIPs reduced poverty by 6.5 percentage points, followed by EITC-CTC at 5.6 percentage points, SNAP at 3.5 percentage points, and UI at 3 percentage points (we have suppressed the other safety net policies for clarity). EIPs had the largest impact on poverty for White, Black, and Hispanic children; UI had the largest impact for Asian children. The effects of SNAP and UI are lower for Hispanic than for Black children despite their similar baseline poverty rates. This is likely a result of incomplete eligibility or lower take-up of these programs among families with unauthorized members.[21] Overall, these results show that universal policies, such as the uniform $300 to $600 UI top-up and the

20. Zachary Parolin, Meghan Curran, and colleagues (2022) present an approach to calculating a monthly SPM and use it to explore well-being through the beginning of COVID. Parolin, Elizabeth Ananat, and colleagues (2021) and Parolin, Sophie Collyer, and colleagues (2021) explore the effects of the CTC.

21. The EIPs and EITC-CTC are not measured directly in the ASEC and are imputed by the census. This may generate somewhat higher antipoverty effects than are realized if true participation is not 100 percent.

relatively universal EIPs, can reduce disparities across groups.

A CLOSER LOOK AT SNAP'S RESPONSE TO COVID-19

The ASEC is useful given the ability to measure family resources and to identify race and ethnic groups, but has disadvantages in regard to survey measures of poverty and well-being. One concern is the well-documented misreporting (typically underreporting) of various programs (such as Meyer, Mok, and Sullivan 2015) as well as earnings (Bollinger et al. 2019). The Census Pulse data were extremely valuable by providing real-time information about hardship but are not comparable to pre-COVID measures. Further, all survey measures may have differential nonresponse (Rothbaum and Bee 2021). This leads us to examine administrative data, which do not suffer from this underreporting issue and do not require individuals to report program use. Ideally, we would look at all sources of administrative data, but this is not possible. In the case of SNAP, we use administrative data on county-level participation and benefits, as well as case-level data that includes information on benefits, income sources, and demographic characteristics such as race-ethnicity; some data extend to January 2021. SNAP is also an important case study because of its central role in the social safety net and the many policy changes made in response to COVID.

Thus we more closely investigate SNAP's response to the COVID-19 crisis, paying special attention to impacts across racial and ethnic groups (overall and among children) and by geographic area. As shown in figure 9, administrative data from the Department of Agriculture shows that SNAP participation increased sharply after COVID's onset, likely a function of both increased need and the policy change that temporarily allowed states to automatically recertify existing SNAP cases so their administrators could concentrate on serving those made newly eligible due to the economic shock. Participation increased by 11 percent in April 2020 and through December 2021 remained elevated by an average of 13 percent relative to the February 2020 level.[22]

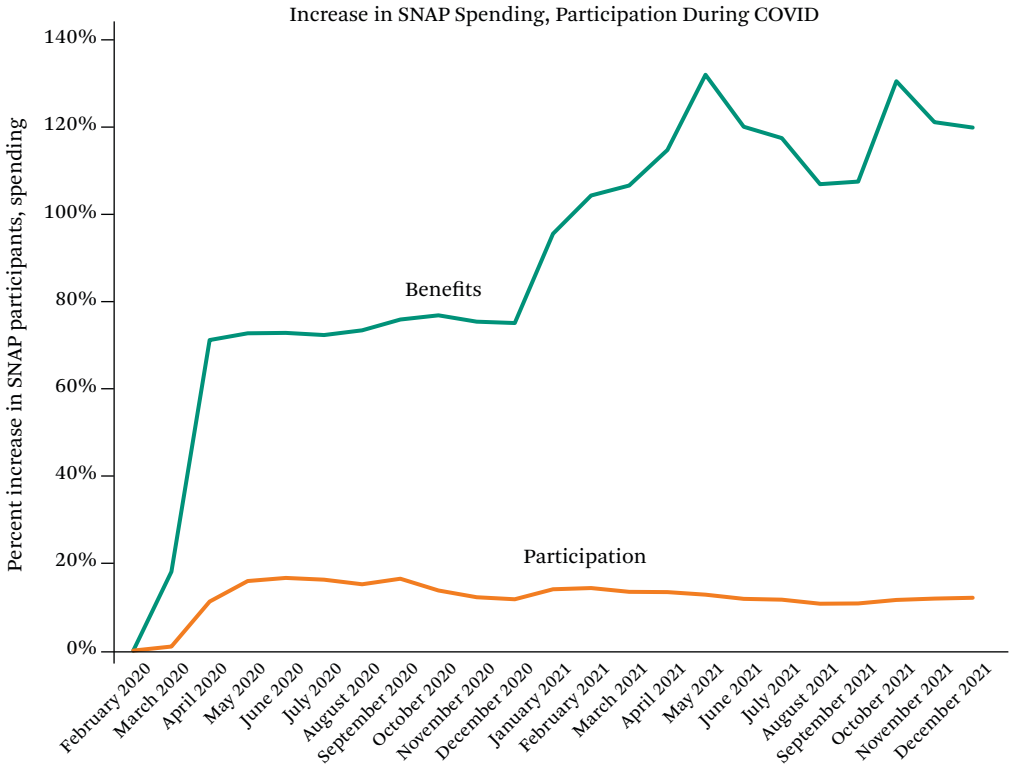
In addition to the increase in SNAP participation, total SNAP expenditures increased due to legislated increases in benefit payments, as described in more detail above. First, all participants were awarded the maximum SNAP benefit through the EA payments starting in April 2020. Next, there was an across-the-board 15 percent increase in maximum benefits in January 2021. This was followed by action that set minimum EA payments equal to $95 per month, awarding these additional EA payments for the first time to those who had previously been receiving maximum SNAP benefits, rolled out in April and May 2021. Each of these increases can be seen clearly in the time series of total benefits, which peaked at a 130 percent increase relative to February 2020 spending.[23] Some states opted to terminate their EA payments in the summer months in 2021, reducing benefit payments in those months. The 15 percent increase in maximum benefits ended in October 2021, coinciding with the increase in maximum benefits resulting from a recalibration of the Thrifty Food Plan (Food and Nutrition Service 2021c).

We rely primarily on two sources of SNAP administrative data. The first source is the quality control (QC) data, which for a sample of cases have detailed administrative information on benefits, resources, and household composition (including race-ethnicity). At the time of this analysis, the QC data are available only during the pre-COVID era through 2019. The second source is the Department of Agriculture's Bi-Annual State Project Area and County Level Participation and Issuance data, reported for January and July of each year and available through January 2021 (Food and Nutrition Service 2021a). This source provides county-level data from most states but a few states report only state-level data. Together, we use these data sources to both see how spend-

22. Average monthly participation in SNAP in calendar year 2019 was thirty-five million persons, and benefits spending was $4.57 billion.

23. Unlike the monthly Treasury statement data in figure 4, which include P-EBT payments to SNAP participants in SNAP spending, Department of Agriculture benefits data in figure 9 include only SNAP benefits.

Figure 9. Percentage Increase in SNAP Participation and Spending Relative to February 2020, February 2020–July 2021



Source: Authors' calculations from USDA, Food and Nutrition Service, SNAP National Level Monthly Data (Food and Nutrition Service 2021b).

ing and participation vary with the characteristics of areas and simulate who obtained more generous increases to their average benefit by race/ethnicity.

We start by investigating the change in SNAP participation during COVID-19. Participation can grow from two sources: those who are eligible but not participating in SNAP can enroll, and more people can become eligible to participate due to income losses. Table 1 shows baseline participation rates (where the denominator is households with incomes below 150 percent of poverty), averaged across calendar years 2017 through 2019, by race-ethnicity and presence of children, to demonstrate variation in room to grow through increased participation rates. We take two approaches to calculating the numerator in this rate: calculating the number of SNAP participants by race-ethnicity in the nationally representative QC data and in the CPS ASEC. For both calculations, the denominator is based on population counts by race-ethnicity in the CPS-ASEC, limited to those with incomes below 150 percent of the federal poverty line to proxy the number of persons likely eligible for SNAP.

Using the QC data as the numerator, the SNAP participation rate overall is 62 percent. Variation in participation across racial and ethnic groups is wide: averages are 77 percent among Blacks, 52 percent among Whites, and 35 percent among Hispanics. Estimated participation rates are substantially lower across the board when the CPS is used for the numerator, as expected given the known underreporting of SNAP participation in the data. We present this to highlight the drawbacks to relying on CPS survey data (as we did earlier) and the

Table 1. SNAP Participation Rates, by Group (2017–2019)

	Overall (1)	White (2)	Black (3)	Hispanic (4)
Panel A. All participants				
SNAP admin data	61.6	51.6	76.5	35.3
CPS survey data	31.9	27.3	44.7	30.6
Panel B. Participants in families with children				
SNAP admin data	77.6	76.7	93.6	38.2
CPS survey data	39.2	37.4	53.5	32.9

Source: Authors' calculations based on 2017–2019 CPS-ASEC (U.S. Census Bureau 2018, 2019, and 2020b) and SNAP Quality Control data (Mathematica Policy Research, 2018, 2019, and 2020).
Note: Participation is calculated relative to a denominator of population counts in households with incomes below 150 percent of the poverty threshold calculated from the CPS-ASEC. The first row in each pair calculates the numerator (SNAP participation) from SNAP administrative data, and the second row in each pair calculates it from the CPS-ASEC.

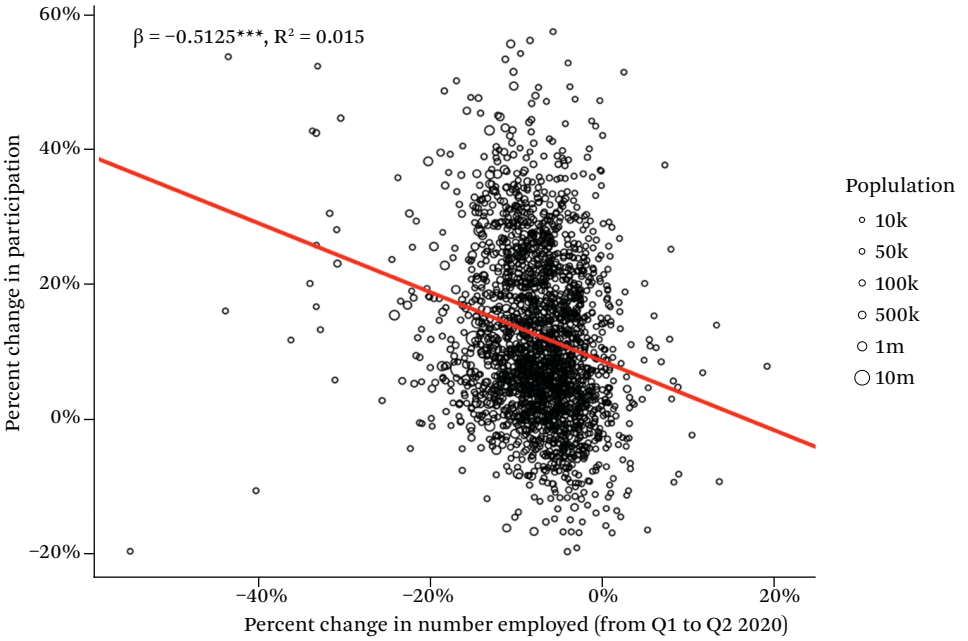
desirability of using administrative data when possible to understand program spending. Panel B repeats the exercise for families with children. Participation rates are higher across the board among those with children: an estimated 78 percent overall and nearly 94 percent among Black families with children. All else equal, then, the opportunity for participation to grow was higher among childless families, and among Whites and Hispanics relative to Blacks.

We next explore determinants of the magnitude of participation changes from January 2020 to January 2021. We first test the correlation between the state-level increase in SNAP participation and state-level participation rates among eligible persons from 2017 (the most recent available) calculated by Mathematica Policy Research (Cunnyngham 2020). The hypothesized relationship could go in either direction. We may expect the increase in participation to be larger in states that previously had lower participation rates among eligibles, given more room to grow. On the other hand, if high participation rates in part reflect an efficient and inclusive state administrative system, we may expect participation to increase more in these states as they are better equipped to process applications among those newly eligible due to the economic shock. We find evidence consistent with the latter hypothesis (see online appendix figure 2), with a weak but positive relationship between baseline participation rates among eligibles and percentage growth during COVID.

We also measure the relationship between the magnitude of the COVID economic shock and changes in SNAP participation, using county-level data, as shown in figure 10. The *x*-axis shows the percentage change in number of people employed from quarter 1 to quarter 2, 2020 and the *y*-axis shows the percentage change in SNAP participation from January 2020 to January 2021. As we would expect, we find counties that experienced a larger employment loss also had a larger increase in SNAP participation.

We next analyze changes in total SNAP benefit payments, exploring by how much, when, and for whom benefits increased. Because data were at the time of our writing available only through January 2021, we observed only the period for which the original EA payments were in place—a policy that paid everyone the maximum benefit but provided no additional benefits to those who had already been receiving the maximum benefit. But we can model the likely impacts of the series of payment changes using participant characteristics from the 2017–19 SNAP QC data. The first two rows of table 2 show the average benefit amount (as a share of the maximum benefit) and the share of house-

Figure 10. Percent Change in SNAP Participation (January 2020–January 2021) Versus Number Employed (2020, Quarter 1 to 2020, Quarter 2)



Source: Authors' calculations based on USDA's Bi-Annual State Project Area and County Level Participation and Issuance data and the U.S. Bureau of Labor Statistics Quarterly Census of Employment and Wages (U.S. BLS 2021).

Note: The figure indicates the ordinary least squares estimate of the effect of the county employment shock on SNAP participation (β) and the fit of that regression (R^2), and *** indicates that beta is statistically significant at the 1 percent level.

holds receiving the maximum benefit (who did not receive a payment increase under the original EA policy).[24] Under the regular SNAP benefits schedule, benefits are awarded as the difference between the maximum benefit and 30 percent of a household's net income after a series of deductions including a portion of earnings and some expenses such as dependent care and excess shelter cost (Center on Budget and Policy Priorities 2022). Those with zero net income receive the maximum SNAP benefit. Understanding benefits receipt at baseline clarifies who received extra resources, and how many, during the COVID policy changes to SNAP.

As shown in table 2, 32 percent of households and 29 percent of those with children were already receiving the maximum SNAP benefit at baseline, and therefore would not have received any benefit increase under the original EA policy implemented in March 2020.[25] Black recipients were more likely to be receiving the maximum benefit at baseline, meaning that more of this population would not have received a benefit increase under the original EA policy. Within each racial-ethnic group, households with children were less likely to be receiving the maximum benefit at baseline.

The original EA policy increased benefits by 44 percent overall and by 39 percent for those with children. We project that White recipients received larger percentage increases than

24. Maximum benefits depend on family size, and in 2019 were $192 per month for a household of 1, increasing by approximately $142 per month for each additional household member (Center on Budget and Policy Priorities 2019).

25. Some states implemented EAs in April 2020.

Table 2. SNAP Benefits and COVID-Era Increases, by Race and Ethnicity and Presence of Children

	Overall (1)	White (2)	Black (3)	Hispanic (4)
Panel A. All participants				
Baseline receiving max benefit	31.6	31.0	34.3	31.6
Baseline benefits, maximum	69.3	66.9	71.0	73.1
Benefit increase, EA only	44.4	49.4	40.8	36.7
Increase, all policy changes	87.5	94.5	84.0	78.1
Panel B. Participants in families with children				
Baseline receiving maximum benefit	28.9	28.3	31.4	27.8
Baseline benefits, maximum	72.0	70.4	73.2	73.8
Benefit increase, EA only	39.0	42.0	36.6	35.6
Increase, all policy changes	71.7	74.8	69.2	69.2

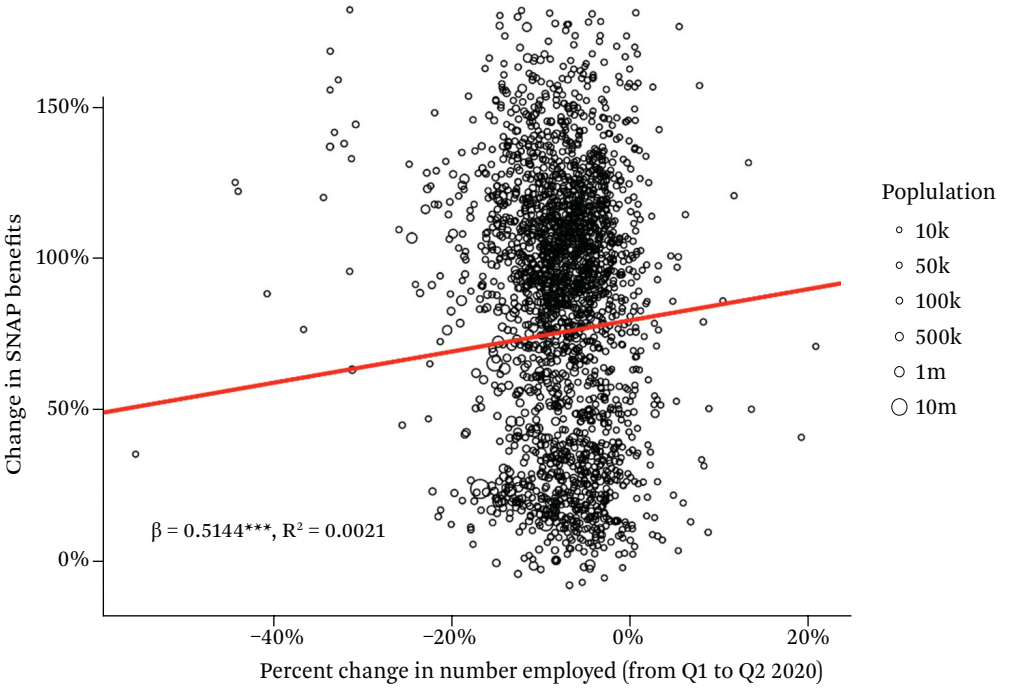
Source: Authors' calculations based on SNAP quality control data (Mathematica Policy Research, 2018, 2019, and 2020) corresponding to years 2017 to 2019.
Note: All figures in percentages. The first row in each panel is average pre-pandemic benefits as a share of the maximum benefit. The second row calculates the share of participants receiving the maximum benefit. The third row predicts the benefit increase from the original Emergency Assistance policy change enacted in March–April 2020 that moved all participants to the maximum benefit. The final row predicts benefit increases from additional COVID-era policy changes (original EA, 15 percent maximum benefit increase, and new EA requiring a $95 monthly minimum enacted in March–April 2020, January 2021, and March–April 2021, respectively).

Black or Hispanic recipients did, a direct result of their lower baseline SNAP benefits (relative to the maximum benefit, shown in row 2).[26] Subsequently, benefits were increased across the board in January 2021 and the EA payments were reformed so that all households received a minimum of a $95 payment starting (depending on the state of residence) in April or May 2021. Together, these policy changes boosted benefits relative to their pre-pandemic levels by 88 percent overall and 72 percent for households with children, and for the first time provided additional resources to those previously receiving the maximum benefit allotment. Cumulatively, under all of the policy changes, White participants still saw a larger percentage increase in their benefits than Black and Hispanic participants did, in part because a larger share of Black and Hispanic participants were already receiving the maximum allotment before the EA. Overall, the SNAP policy changes were regressive within the SNAP population, providing larger increases for those who were already better off.

Given this background, figure 11 shows the relationship between the county-level employment shock (change in number employed from Q1 to Q2 2020) and county-level change in SNAP benefits (from January 2020 to January 2021, and only includes the EA expansion). Recall that the measure of SNAP benefits includes additional resources from both increased participation and the EA benefits, and we previously demonstrated in figure 10 that participation increased more in counties with larger employment shocks. The relationship between the employment shock and change in SNAP benefits is the inverse of what is expected—that is, counties that experienced a smaller drop in employment received larger increases in SNAP benefits. In other words, the policy-induced benefit increases were more generous to counties less affected by the economic shock. Unfortunately, at the time of this writing the SNAP

26. As a check, we compare our predictions of SNAP benefit increases based on pre-pandemic SNAP caseload characteristics with actual benefit increases from January 2020 to January 2021 at the state level in appendix figure 3. We predict benefit increases from EAs only and do not model increases due to higher enrollment. We find that the actual benefit increase is positively correlated with our prediction.

Figure 11. Percent Change in SNAP Benefits (January 2020–January 2021) Versus Number Employed (2020, Quarter 1 to 2020, Quarter 2)



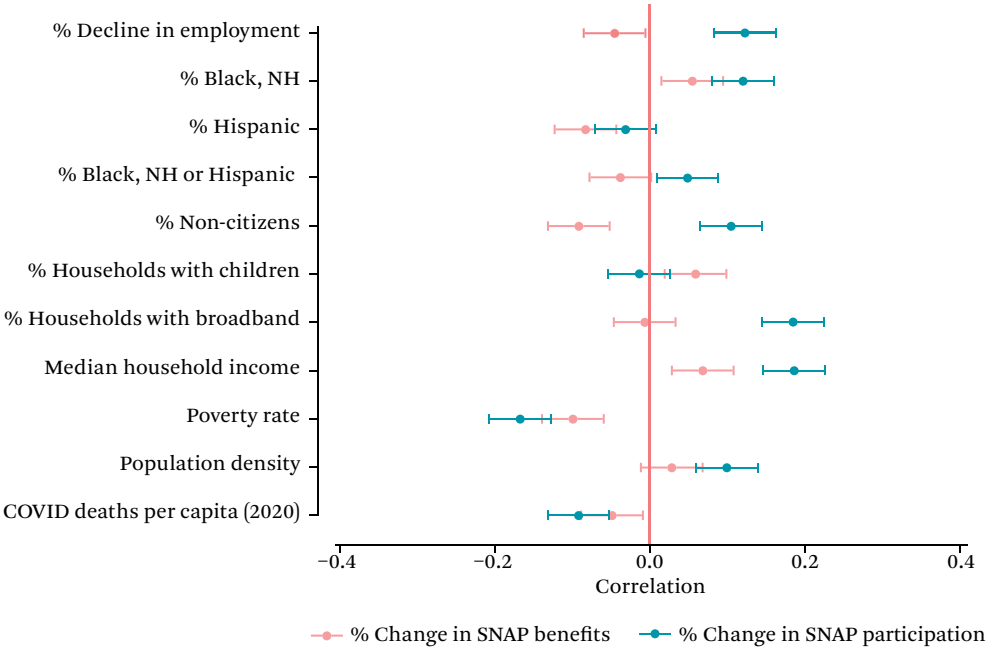
Source: Authors' calculations based on USDA (Food and Nutrition Service 2021a) and the U.S. Bureau of Labor Statistics Quarterly Census of Employment and Wages (U.S. BLS 2021).
Note: The figure indicates the ordinary least squares estimate of the effect of the county employment shock on the SNAP benefits (β) and the fit of that regression (R^2), and *** indicates that β is statistically significant at the 1 percent level.

data do not yet extend to the later and more progressive SNAP increases.

We estimate population-weighted bivariate correlations to further explore how SNAP participation and benefit changes from January 2020 to January 2021 are related to county characteristics. Figure 12 reports point estimates and 95 percent confidence intervals from these bivariate regressions. As shown in figure 10, the top row indicates that counties that experienced larger declines in employment had larger increases in SNAP participation. Counties with a higher share of the population identifying as Black also saw larger increases in participation. The Hispanic population share is weakly negatively related to increases in SNAP participation, as is the share of households with children. More advantaged counties—measured as higher median household incomes or lower poverty rates—saw larger increases in SNAP participation. The share of households with broadband, which may be a proxy for the ability to sign up online for SNAP during COVID, is positively correlated with the increase in SNAP participation. Places with higher population density also had more SNAP participation growth. Places with more COVID deaths per capita experienced less SNAP participation growth.

The increase in county-level SNAP benefits is often less strongly correlated with characteristics than the increase in participation, likely because of the policy changes that made the program more generous to those among the SNAP population who were somewhat better off. As shown in figure 11, counties that experienced larger declines in employment had smaller increases in SNAP benefits. Although the change in SNAP benefits is positively related to the Black share of the population, it is

Figure 12. Correlations Between County Characteristics and Percent Changes in SNAP Outcomes



Source: Authors' calculations based on USDA (Food and Nutrition Service 2021a), Bureau of the Census American Community Survey 2015–2019 5-Year Data Release (U.S. Census Bureau 2020a), Census Bureau 2020 Census Population Density (U.S. Census Bureau 2021b), and 2020 Covid Deaths from USAFacts (USAFacts 2022).

negatively related to the Hispanic share, the combined Black and Hispanic share, and the share of noncitizens. Counties with higher median incomes, lower poverty rates, and lower COVID death rates saw larger SNAP benefit increases.

In summary, the response from SNAP—in terms of participation and monthly payments—was sizable. While data are not yet available to know whether participation increased disproportionately across racial and ethnic groups, we find that participation increased more in counties with a higher share of the population that is Black but is unrelated to the population's Hispanic share. We also find that because the design of the EA payment increases was more generous to those who were already better off (among a disadvantaged SNAP population), these increases provided less assistance to places with larger shares of Blacks and Hispanics and larger shares of children. Further, counties that received larger increases in SNAP benefits during COVID experienced smaller employment shocks. Future work can extend this analysis through the full COVID policy response period.

SUMMARY AND CONCLUSIONS

The economic and public health crisis caused by COVID-19 was devastating and disproportionately hurt Blacks and Hispanics. We show that unemployment rates were higher and increased more during the crisis among Blacks and Hispanics than among Whites. Other measures of material hardship, including lack of access to adequate food, being behind on housing payments, and use of food banks, were two to three times as prevalent among Blacks and Hispanics as among Whites and Asians.

Without policy intervention, the U.S. safety net is not well designed for an economic downturn, let alone a crisis of this magnitude. The replacement rates and duration of state unemployment insurance benefits are on the decline, and our means-tested social safety net

has grown increasingly conditional on work. The result is less insurance against job loss. Congress authorized a historic policy response, incorporating both targeted and universal supports and expanding the reach, duration, and level of benefits. This response yielded the unusual outcome of a decline in the poverty rate between 2019 and 2020 (measured using the Supplemental Poverty Measure) amid an historic recession.

This article also examines changes in these poverty rates across groups as well as the poverty-alleviating impacts of the array of social safety net benefits. We find that in 2020 the near-universal economic impact payments reduced overall poverty by 3.6 percentage points and the children's poverty rate by 4.5 percentage points. The EIPs reduced poverty among children by more than any other targeted program for Whites, Blacks, and Hispanics; for Asians, UI had a slightly larger impact. This suggests that universal programs can reduce disparities between groups. The increases in unemployment insurance protected millions of families from falling into poverty.

We augment the findings, based on survey data, with detailed administrative data on SNAP participation and benefit payments. SNAP is of particular interest for several reasons. First, it is the only program that is quite large when times are good; UI is small outside recessions and the other programs did not exist in the form they took during COVID. Second, SNAP had both more targeted and less targeted expansions during COVID. The more targeted expansion resulted from suspending temporarily rules that require participants to recertify for the program regularly—a feature of the program shown to decrease participation (Homonoff and Somerville 2021; Gray 2019). The less targeted expansion involved paying everyone the maximum benefit for much of the pandemic, which increased benefits for the participants who were relatively better off but did not change them for the worst off. We find that participation in SNAP increased more in counties that experienced a larger employment shock, consistent with the standard countercyclical role of SNAP. By contrast, the increase in total SNAP benefits received was inversely related to the employment shock. This likely occurred because the less-targeted SNAP benefit increases were more generous to SNAP participants who were already better off. Simulating the benefits increases from pre-COVID administrative data, we predict that Black and Hispanic SNAP participants received a smaller percentage increase in their benefits than White participants, as families with children across the board did. Overall, this suggests that the targeting in SNAP may not have been ideal.

REFERENCES

Aaronson, Stephanie. 2021. "What Does the Unemployment Rate Measure?" *Up Front* (Brookings Institution blog), February 18. Accessed November 2, 2022. https://www.brookings.edu/blog/up-front/2021/02/18/what-does-the-unemployment-rate-measure/.

Aussenberg, Randy, and Kara Billings. 2021. "USDA Nutrition Assistance Programs: Response to the COVID-19 Pandemic." *CRS* Report no. R46681. Washington, D.C.: Congressional Research Service. Accessed November 2, 2022. https://crsreports.congress.gov/product/pdf/R/R46681/4.

Bauer, Lauren, Abigail Pitts, Krista Ruffini, and Diane Whitmore Schanzenbach. 2020. "The Effect of Pandemic EBT on Measures of Food Hardship." The Hamilton Project, Economic Analysis. Washington, D.C.: Brookings Institution. Accessed November 2, 2022. https://www.brookings.edu/wp-content/uploads/2020/07/P-EBT_LO_7.30.pdf.

Bitler, Marianne P., Annie Laurie Hines, and Marianne Page. 2018. "Cash for Kids." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 4(2): 43–73. DOI: https://doi.org/10.7758/RSF.2018.4.2.03.

Bitler, Marianne P., and Hilary W. Hoynes. 2010. "The State of the Safety Net in the Post-Welfare Reform Era." *Brookings Papers on Economic Activity* No. 2 (Fall): 71–127. Accessed November 2, 2022. https://www.brookings.edu/bpea-articles/the-state-of-the-social-safety-net-in-the-post-welfare-reform-era-with-comments-and-discussion/.

———. 2015. "Heterogeneity in the Impact of Economic Cycles and the Great Recession: Effects Within and Across the Income Distribution. " *American Economic Review* 105(5): 154–60.

———. 2016. "The More Things Change, the More They Stay the Same? The Safety Net and Poverty in the Great Recession." *Journal of Labor*

Economics 34(S1): 403–44. DOI: https://doi.org/10.1086/683096.

Bitler, Marianne P., Hilary W. Hoynes, and John Iselin. 2020. "The Cyclicality of Cash and Near Cash Transfer Programs." *National Tax Journal* 73(3): 759–70.

Bitler, Marianne P., Hilary W. Hoynes, and Elira Kuka. 2017. "Do In-Work Tax Credits Serve as a Safety Net?" *Journal of Human Resources* 36(2): 358–89.

Bitler, Marianne P., Hilary W. Hoynes, and Diane Whitmore Schanzenbach. 2020. "The Social Safety Net in the Wake of COVID-19." *Brookings Papers on Economic Activity* No. 2: 119–58. Accessed November 2, 2022. https://www.brookings.edu/wp-content/uploads/2020/06/SU20_S2_Bitler-et-al_-final-paper.pdf.

Bollinger, Christopher, Barry Hirsch, Charles Hokayem, and James Ziliak. 2019. "Trouble in the Talks: What We Know about Earnings Non-Response Thirty Years after Lillard, Smith, and Welch." *Journal of Political Economy* 127(5): 2143–85.

Center on Budget and Policy Priorities. 2019. "Policy Basics: The Supplemental Nutrition Assistance Program." Updated June 25, 2019. Washington, D.C.: Center on Budget and Policy Priorities. Accessed November 2, 2022. https://www.cbpp.org/research/food-assistance/the-supplemental-nutrition-assistance-program-snap.

———. 2022. "A Quick Guide to SNAP Eligibility and Benefits." Updated January 6, 2022. Washington, D.C.: Center on Budget and Policy Priorities. Accessed November 2, 2022. https://www.cbpp.org/research/food-assistance/a-quick-guide-to-snap-eligibility-and-benefits.

Coleman-Jensen, Alisha, Matthew P. Rabbitt, Christian A. Gregory, and Anita Singh. 2020. "Household Food Security in the United States in 2019." Report no. ERR-275. Washington: U.S. Department of Agriculture, Economic Research Service.

———. 2021. "Household Food Security in the United States in 2020." Report no. ERR-298. Washington: U.S. Department of Agriculture, Economic Research Service.

Crandall-Hollick, Margot L. 2021. "The Child Tax Credit: Temporary Expansion for 2021 Under the American Rescue Plan Act of 2021." *CRS* Insight #IN11613. Washington, D.C.: Congressional Research Service. Accessed November 2, 2022. https://crsreports.congress.gov/product/pdf/IN/IN11613/10.

Cunnyngham, Karen. 2020. "Reaching Those in Need: Estimates of State Supplemental Nutrition Assistance Program Participation Rates in 2017." Washington: U.S. Department of Agriculture, Food and Nutrition Service.

Duncan, Greg, and Suzanne Le Menestre, eds.. 2019. *A Roadmap to Reducing Child Poverty.* Washington, D.C.: National Academies Press. DOI: https://doi.org/10.17226/25246.

Flood, Sarah, Miriam King, Renae Rodgers, Steven Ruggles, J. Robert Warren, and Michael Westberry. 2021. Integrated Public Use Microdata Series, Current Population Survey: Version 9.0 [dataset]. Minneapolis, Minn.: IPUMS. https://doi.org/10.18128/D030.V9.0.

Food and Nutrition Service. 2021a. "Bi-Annual (January and July) State Project Area/County Level Participation and Issuance Data." Washington: U.S. Department of Agriculture. [dataset]. Accessed November 2, 2022. https://www.fns.usda.gov/pd/supplemental-nutrition-assistance-program-snap.

———. 2021b. "SNAP National Level Monthly Data." Washington: U.S. Department of Agriculture. Accessed November 2, 2022. https://www.fns.usda.gov/pd/supplemental-nutrition-assistance-program-snap.

———. 2021c. *Thrifty Food Plan, 2021*. Report no. FNS-916. Washington: U.S. Department of Agriculture. Accessed November 2, 2022. https://FNS.usda.gov/TFP.

Fox, Liana 2020. "The Supplemental Poverty Measure: 2019." *Current Population Report* P60-272, Washington: U.S. Census Bureau. Accessed February 18, 2023. https://www.census.gov/content/dam/Census/library/publications/2020/demo/p60-272.pdf.

Fox, Liana, and Kalee Burns. 2021. "The Supplemental Poverty Measure: 2020." *Current Population Report* No. P60-27. Washington: U.S. Census Bureau. Accessed November 2, 2022. https://www.census.gov/library/publications/2021/demo/p60-275.html.

Ganong, Peter, Pascal Noel, and Joseph Vavra. 2020. "US Unemployment Insurance Replacement Rates during the Pandemic." *NBER* working paper no. w27216. Cambridge, Mass.: National Bureau of Economic Research. Accessed November 2, 2022. https://www.nber.org/papers/w27216.

Gray, Colin. 2019. "Leaving Benefits on the Table: Evidence from SNAP." *Journal of Public Economics* 179 (November): 104054. DOI: https://doi.org/10.1016/j.jpubeco.2019.104054.

Hardy, Bradley, Tim Smeeding, and James Ziliak. 2018. "The Changing Safety Net for Low-Income Parents and Their Children: Structural or Cyclical Changes in Income Support Policy." *Demography* 55 (February): 189–221.

Hill, Latoya, and Samantha Artiga. 2022. "COVID-19 Cases and Deaths by Race/Ethnicity: Current Data and Changes over Time." *KFF* Issue Brief, August 22. San Francisco: Kaiser Family Foundation. Accessed November 2, 2022. https://www.kff.org/coronavirus-covid-19/issue-brief/covid-19-cases-and-deaths-by-race-ethnicity-current-data-and-changes-over-time/.

Homonoff, Tatiana, and Jason Somerville, 2021. "Program Recertification Costs: Evidence from SNAP." *American Economic Journal: Economic Policy* 13(4): 271–98.

Hoynes, Hilary W., and Diane Whitmore Schanzenbach 2018. "Safety Net Investments in Children." *Brookings Papers on Economic Activity* No. 1 (Spring): 89–150.

———. 2019. "Strengthening SNAP as an Automatic Stabilizer." In *Recession Ready: Fiscal Policies to Stabilize the American Economy*, edited by Heather Boushey, Ryan Nunn, and Jay Shambaugh. Washington, D.C.: Brookings Institution.

Kuka, Elira, and Bryan A. Stuart. 2021. "Racial Inequality in Unemployment Insurance Receipt and Take-Up." *NBER* working paper no. w29595. Cambridge, Mass.: National Bureau of Economic Research.

Larrimore, Jeff, Jacob Mortenson, and David Splinter. 2022. "Unemployment Insurance in Survey and Administrative Data." FEDS Notes. Washington, D.C.: Board of Governors of the Federal Reserve System. DOI: https://doi.org/10.17016/2380-7172.3135.

Mathematica Policy Research. 2018. FY 2017 SNAP QC database. Accessed January 3, 2023. https://snapqcdata.net/datafiles.

———. 2019. FY 2018 SNAP QC database. Accessed January 3, 2023. https://snapqcdata.net/datafiles.

———. 2020. FY 2019 SNAP QC database. Accessed January 3, 2023. https://snapqcdata.net/datafiles.

Meyer, Bruce, Wallace Mok, and James Sullivan. 2015. "Household Surveys in Crisis." *Journal of Economic Perspectives* 29(4): 199–226.

Mueller, Andreas, Jesse Rothstein, and Till von Wachter. 2016. "Unemployment Insurance and Disability Insurance in the Great Recession." *Journal of Labor Economics* 34(S1): S445–75.

Parolin, Zachary, Elizabeth Ananat, Sophie Collyer, Megan Curran, and Christopher Wimer. 2021. "The Initial Effects of the Expanded Child Tax Credit on Material Hardship." Brief no. 20413. New York: Columbia University, Center on Poverty and Social Policy.

Parolin, Zachary, Sophie Collyer, Megan Curran, and Christopher Wimer. 2021. "Monthly Poverty Rates Among Children After the Expansion of the Child Tax Credit." Brief no. 20412. New York: Columbia University, Center on Poverty and Social Policy.

Parolin, Zachary, Megan Curran, Jordan Matsudaira, Jane Waldfogel, and Christopher Wimer. 2022. "Estimating Monthly Poverty Rates in the US." Discussion paper. New York: Columbia University, Center on Poverty and Social Policy.

Rothbaum, Jonathan, and Adam Bee. 2021. "Coronavirus Infects Surveys Too: Survey Nonresponse Bias and the Coronavirus Pandemic." Working Paper no. SEHSD WP2020-10. Washington: U.S. Census Bureau. Accessed November 2, 2022. https://www.census.gov/library/working-papers/2020/demo/SEHSD-WP2020-10.html.

Shaefer, H. Luke, Sophie Collyer, Greg Duncan, Kathryn Edin, Irwin Garfinkel, David Harris, Timothy Smeeding, Jane Waldfogel, Christopher Wimer, and Hirokazu Yoshikawa. 2018. "A Universal Child Allowance: A Plan to Reduce Poverty and Income Instability Among Children in the United States." *RSF: The Russell Sage Foundation Journal of the Social Sciences*. 4(2): 22–42. DOI: https://doi.org/10.7758/RSF.2018.4.2.02.

USAFacts. 2022. "Deaths from COVID_19." Downloadable data file. Accessed January 3, 2023. https://usafacts.org/visualizations/coronavirus-covid-19-spread-map.

USASpending.gov. 2021. "The Federal Response to COVID-19." Accessed November 8, 2021. https://www.usaspending.gov/disaster/covid-19?publicLaw=all.

U.S. Bureau of Labor Statistics (BLS). 2020. "Frequently Asked Questions: The Impact of the Coronavirus (COVID-19) Pandemic on the Employment Situation for April 2020." Accessed October 8, 2022. https://www.bls.gov/covid19

/employment-situation-covid19-faq-april-2020.htm.

———. 2021. "Quarterly Census of Employment and Wages." QCEW Open Data Access. Accessed January 3, 2023. https://www.bls.gov/cew/additional-resources/open-data/home.htm.

U.S. Census Bureau. 2018. "Current Population Survey, 2017 Annual Social and Economic (ASEC)." Supplement conducted by the Bureau of the Census for the Bureau of Labor Statistics. Washington: U.S. Department of Commerce. Accessed January 3, 2023. https://www.census.gov/data/datasets/time-series/demo/cps/cps-asec.2017.html#list-tab-QZJHN1DP8SLZ903PMP.

———. 2019. "Current Population Survey, 2018 Annual Social and Economic (ASEC)." Supplement conducted by the Bureau of the Census for the Bureau of Labor Statistics. Washington: U.S. Department of Commerce. Accessed January 3, 2023. https://www.census.gov/data/datasets/time-series/demo/cps/cps-asec.2018.html#list-tab-LOWBNPSTB2TGIHZ7BR.

———. 2020a. "American Community Survey 2015–2019 5-Year Data Release." Washington: U.S. Department of Commerce. Accessed January 3, 2023. https://www.census.gov/newsroom/press-kits/2020/acs-5-year.html.

———. 2020b. "Current Population Survey, 2020 Annual Social and Economic (ASEC)." Supplement conducted by the Bureau of the Census for the Bureau of Labor Statistics. Washington: U.S. Department of Commerce. Accessed January 3, 2023. https://www.census.gov/data/datasets/time-series/demo/cps/cps-asec.2020.html#list-tab-TLBI8972WSCHODVSVO.

———. 2020c. "Source of the Data and Accuracy of the Estimates for the 2020 Household Pulse Survey." Washington: U.S. Department of Commerce. Accessed November 2, 2022. https://www2.census.gov/programs-surveys/demo/technical-documentation/hhp/Source-and-Accuracy-Statement-May-14-May-19.pdf.

———. 2021a. "Current Population Survey, 2021 Annual Social and Economic (ASEC)." Supplement conducted by the Bureau of the Census for the Bureau of Labor Statistics. Washington: U.S. Department of Commerce. Accessed January 3, 2023. https://www.census.gov/data/datasets/time-series/demo/cps/cps-asec.2021.html#list-tab-OGPJT8V40Y9IK01AGX.

———. 2021b. "Population Density, from 2020 Census Demographic Data Map Viewer." Washington: U.S. Department of Commerce. Accessed January 3, 2023. https://www.census.gov/library/visualizations/2021/geo/demographicmapviewer.html.

U.S. Department of Labor. 2004. "UI Replacement Rates Report." Created March 29, 2004. Updates July 7, 2022. Accessed November 1, 2022. https://oui.doleta.gov/unemploy/ui_replacement_rates.asp.

———. 2022. "Families First Coronavirus Response Act and Coronavirus Aid, Relief, and Economic Security (CARES) Act Funding to States through October 8, 2022." Accessed October 7, 2022. https://oui.doleta.gov/unemploy/docs/cares_act_funding_state.html.

U.S. Department of the Treasury. Bureau of the Fiscal Service. 2022. "Monthly Treasury Statement," November 30. Accessed January 3, 2023. https://fiscaldata.treasury.gov/datasets/monthly-treasury-statement/summary-of-receipts-outlays-and-the-deficit-surplus-of-the-u-s-government.

Whittaker, Julia M., and Katelin P. Isaacs. 2021. "Unemployment Insurance: Legislative Issues in the 116th Congress." *CRS* Report no. R45478. Washington, D.C.: Congressional Research Service.

Zalla, Lauren, Grace Mulholland, Lindsey Filatreau, and Jessie Edwards. 2022. "Racial/Ethnic and Age Differences in the Direct and Indirect Effects of the COVID-19 Pandemic on US Mortality." *American Journal of Public Health* 112(1): 154–64.

Ziliak, James, 2015. "Why Are So Many Americans on Food Stamps? The Role of the Economy, Policy, and Demographics." In *SNAP Matters: How Food Stamps Affect Health and Well-Being*, edited by Judith Bartfeld, Craig Gundersen, Timothy Smeeding, and James Ziliak. Palo Alto, Calif.: Stanford University Press.

The Impact of the COVID-19 Pandemic on Older Latino Immigrants

ROCÍO CALVO AND MARY C. WATERS

This article examines the impact of the COVID-19 pandemic on Latino immigrants age sixty and older from Cuba, Dominican Republic, El Salvador, Mexico, Puerto Rico, and Venezuela. Based on 178 interviews with immigrants in Florida and Massachusetts, this study identifies the financial and health hardships they endured, the kinds of government and nonprofit aid they accessed, the factors keeping many from accessing aid, and the coping strategies they adopted. Respondents faced unemployment, hunger, and loss of income. Unauthorized immigrants and people in mixed-status families were deliberately excluded from federal aid. Many other immigrants who qualified were reluctant or refused it. Immigrants without legal status and those who had more recently arrived were the most severely affected. Individuals and families responded to these challenges by doubling up, going without food and medicine, and working while sick. Greater outreach and more humane public policies could have prevented much of this suffering.

Keywords: older adults, COVID-19, Latino, late-age, immigrants

The pandemic, like other epidemics and disasters, laid bare structural inequalities in society. COVID-19 had highly unequal socioeconomic, health, and mortality impacts across the U.S. population. Socially marginalized populations, including the poor and racial and ethnic minorities, suffered a higher disease and mortality burden and were more likely to experience financial hardships because of the pandemic. In addition, workers who could not isolate and work from home, including those in service occupations, health care, and other essential jobs, were put at greater risk of getting sick. These social vulnerabilities were in addition to biological vulnerabilities. People with underlying poor health and existing conditions and older adults were also in greater danger from this disease. It became evident early in the pandemic that older adults were at risk of becoming severely ill from the new coronavirus. In countries with the highest number of cases, including the United States, the mortality rate of

Rocío Calvo is an associate professor at the Boston College School of Social Work, United States. **Mary C. Waters** is the John L. Loeb Professor of Sociology at Harvard University, United States.

 Calvo, Rocío, and Mary C. Waters. 2023. "The Impact of the COVID-19 Pandemic on Older Latino Immigrants." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 9(3): 60–76. DOI: 10.7758/RSF.2023.9.3.03. Our work was supported by the Russell Sage Foundation grant number 1902-11556 for support of the project "How Social Protection Policies and Institutions Contribute to Older Immigrants' Wellbeing and Sense of Belonging in America." The grant was funded in part by the Carnegie Corporation of New York. Direct correspondence to: Rocío Calvo, at rocio.calvo@bc.edu, Boston College School of Social Work, 140 Commonwealth Avenue, Chestnut Hill, MA United States.

adults age sixty-five and older doubled that of younger segments of the population and increased with each year of age (Yanez et al. 2020).

We were in the middle of a study about how older Latino immigrants in the United States access government services and private charities when the pandemic hit. We added questions about coping and help-seeking to investigate how the pandemic affected their daily lives and to identify the strategies they used to deal with this new reality. This article explores the problems older Latinos from different origins and diverse migratory pathways faced during the pandemic. We investigate the difficulties they had accessing safety nets, exploring how the fear of immigration enforcement led many older Latinos to avoid any government services even as they dealt with extreme hardship. We document the consequences of the pandemic and their exclusion from some forms of aid for the well-being of these older immigrants

OLDER LATINO IMMIGRANTS AND COVID-19

Older Latino immigrants to the United States have been understudied. Most immigration-related research focuses on younger immigrants and their children. Yet Latinos are the largest group of older immigrants in the country. Forecasted to increase by 161 percent and make up 15 percent of the population age sixty-five and older by 2040 and 21 percent (twenty million people) by 2060, Latinos are also the fastest-growing segment of the older US population (ACL 2021; Gassoumis et al. 2010; Olshansky 2015).

Latinos were disproportionately affected by the pandemic. The Centers for Disease Control and Prevention (CDC) found that compared with non-Hispanic whites, Hispanics had 1.5 times the rate of COVID-19 infection, 2.3 times the rate of hospitalization, and 1.8 times the death rate (CDC 2022). Although research on the impact of the pandemic on older Latinos is still scarce, particularly among the foreign born, recent studies show that they were the most likely group to miss rent or mortgage payments, to lack money for food or medicines (Garcia, Thierry, and Pendergrast 2022), and to be in poor health and without access to health care even if they lived in multigenerational families (Ankuda et al. 2021). Other evidence shows that older Latinos experienced the highest death rates of any ethnoracial group (Sáenz and Garcia 2021) and that nursing homes where Latinos concentrated were significantly more likely to have coronavirus infections than nursing homes with non-Hispanic people (Gebeloff et al. 2020).

Besides underlying health conditions such as diabetes and cardiovascular disorders that increased older Latinos' susceptibility to the negative effects of the new coronavirus, people faced a high risk of infection because they worked in essential occupations that precluded remote work and did not offer paid sick leave (Asfaw 2022). Additionally, many Latinos had little access to COVID-related information and health care and lived in communities where infection and death rates were high (Garcia et al. 2021). These systemic challenges may have been compounded by restricted opportunities to tap into the safety nets. Some immigrants are undocumented and thus barred from benefits. Others are recent arrivals without a work history in the United States or with one not long enough to qualify for services, including COVID-19 relief measures (Calvo 2020).

The U.S. federal government deployed a series of relief provisions in 2020 under the Coronavirus Aid, Relief, & Economic Security (CARES) Act to ameliorate the financial hardship caused by the pandemic. Americans with incomes under a certain threshold received direct relief payments: $1,200 for individuals, $2,400 for couples filing taxes jointly, and $500 per child. Unemployment assistance was extended, and the Emergency Rental Assistance Program was created to assist households with difficulties paying rent or utilities (Gonzalez et al. 2020). Additionally, the Families First Coronavirus Response Act included a temporary boost of Supplemental Nutrition Assistance Program (SNAP) or food stamps to beneficiaries and allocated extra funds for Aging and Disability Services Programs for nutrition services including home-delivered meals and congregated nutrition services. It also gave states the authority to make it easier for families to continue participating in the program by allowing people to stay on SNAP without having to re-

apply after reaching the maximum amount of time allowed (Gelatt 2020). Not all Americans, however, had access to these benefits. The CARES Act was designed to exclude mixed-status families (spouses of unauthorized immigrants and immigrant children with one unauthorized immigrant parent and the other a U.S. citizen or green card holder) and undocumented immigrants. Only people with a Social Security number were eligible for relief payments; this included a provision that spouses and dependent children listed in a tax filing had to have Social Security numbers, thus excluding an estimated 14.4 million individuals in mixed-status families (Gelatt 2020). Undocumented immigrants, who use individual taxpayer identification numbers to file taxes, were ineligible for relief payments. Immigrants also had to provide evidence of work authorization to qualify for the expanded unemployment benefits (Gonzalez et al. 2020). Although the CARES Act was later modified (in December 2020) to include documented individuals in mixed-status families, unauthorized immigrants remained excluded from any emergency aid tied to the pandemic.

One other federal policy proposal shaped the experiences of immigrants in regard to pandemic relief measures. The Donald Trump administration announced an anti-immigrant public policy—the enforcement of a public charge rule—just as the pandemic was beginning, in February 2020 (Capps et al. 2018). For more than a hundred years, immigration law has stated that people who are not able to support themselves and are thus likely to be a "public charge" could be barred admission to the country. This rule has been selectively applied to bar the entry of different immigrants over the years and was used to justify deportations of Mexican immigrants and Mexican American citizens during the Great Depression (Fox 2012). The Trump administration sought to use this rule to block immigrants from getting permanent residence if they received any government benefits, including Medicaid or SNAP. This new administrative rule was immediately challenged in court. At least nine lawsuits were filed challenging it and while they were ongoing it was not enacted. In 2020 the Biden administration announced they were withdrawing the regulations. However, the threat was widely talked about in immigrant communities and a great deal of confusion and fear surrounded the issue. Most people heard the words "public charge" but were unclear about what it would do to their or their family's futures to be labeled as such. Because of the lack of specific information, many immigrants, including citizens, legal residents, and the undocumented were wary of any contact with the government.

We know very little about how these immigrants fared during the pandemic. Drawing on 178 in-depth interviews conducted in Massachusetts and Florida, this article highlights the socioeconomic and related health impacts of the pandemic on immigrants sixty years of age and older from Cuba, Dominican Republic, El Salvador, Mexico, Puerto Rico, and Venezuela.

OLDER LATINO IMMIGRANTS ARE DIVERSE

Leaving one's country to move to America is a major life event all of our respondents shared.[1] But people come from different countries, arrive at various stages in life, and follow unique pathways that create both inequities and opportunities. The dramatic increase of older Latino immigrants in the United States can be traced to two provisions included in the 1965 Immigration and Nationality Act (INA). The first one replaced the national-origins quota system with a preference for family reunification, which resulted in large-scale immigration in the 1970s and 1980s of working-age people from Latin America who have aged in America (Tienda 2017; Tienda and Sánchez 2013). The second one is that the INA exempted parents of citizens from the annual immigration caps imposed on countries, allowing adult children to sponsor their foreign-born parents to come to the United States, which explains the last de-

1. Puerto Ricans are included in the study but they are not immigrants, and they are all U.S. citizens. As a large Latino group in both states we include their experiences, but we recognize they face very different circumstances than the other respondents, all of whom are foreign born.

cade's surge of late-age immigrants (Carr and Tienda 2013).

Besides country of origin and immigration pathways, older Latinos are also heterogeneous in the opportunities they encounter in America. For instance, the historical ties between the United States and Mexico established patterns of circular migration from Mexicans who responded to the high demand for agricultural workers, particularly in the Southwest (Massey, Durand, and Malone 2003). Some used the family reunification channel established by the 1965 INA to settle in the United States. Others simply stayed and have aged in an undocumented status (Tienda 2017). Cubans, by contrast, had a privileged position concerning immigration regulations. Political exiles from Castro's regime aligned with America's interests. The Cuban Adjustment Act of 1966 fostered their arrival and settlement by granting asylees permanent residency status, and therefore access to the same social rights as citizens, just twelve months after arrival (Tienda and Sánchez 2013). As citizens of a U.S. territory, Puerto Ricans also had full social membership since arrival. Their influx to "the Mainland" was bolstered by the postwar economic expansion that heightened the need for manual labor (De Genova and Ramón-Zayas 2003). The economic and political unrest after the assassination of the dictator Rafael Trujillo in 1961, accelerated the migration of Dominicans. Dominicans constitute the fifth-largest group of Latinos in the United States, after Mexicans, Puerto Ricans, Cubans, and Salvadorans. Concerning social citizenship, Dominicans have the largest share of naturalized U.S. citizens, which facilitates access to social benefits (Zong and Batalova 2018). By contrast, the precarious legal status of Salvadorans makes them vulnerable to restrictions on immigration and welfare policies. Migrants from El Salvador have mostly been people fleeing violence, the profound social inequalities in their country of origin, and natural disasters. However, during the 1980s, just 2 percent of Salvadorans' asylum applications were approved. As a result, most Salvadorans are treated in the United States as unauthorized immigrants rather than as refugees, which has historically barred them from access to social rights (Menjívar and Gómez Cervantes 2018). Some have remained unauthorized but an estimated 198,000 have Temporary Protected Status, which was first granted to Salvadoran immigrants in 2001 (Mathema and Martinez 2021).

Venezuelan immigrants have tripled in number since 2000 and now total an estimated 394,000 people (Hassan Gallardo and Batalova 2020). Venezuela has experienced an economic and political crisis that has led to millions of migrants leaving for neighboring states as well as the United States. Inflation, economic collapse, food shortages and corruption, political persecution, and murders of opponents to the government led Venezuelans who could make it to the United States to come without authorization. In March 2021, the Biden administration recognized the dire situation by granting Temporary Protected Status to Venezuelans in the United States. This change in status came a year after the pandemic began, and thus is only now offering some relief to the immigrants who qualify for it.

The great uncertainty created by the pandemic is likely to have a different impact on these groups of immigrants. Their financial ability to deal with lockdowns and unemployment will depend on their personal assets, including public and private pension plans, and on their ability to tap into public safety nets. Arriving at working age, long-term immigrants may be more favorably positioned to surmount pandemic challenges than recent arrivals because they are more firmly embedded in America. They had more time to acculturate, learn the language and the ways to operate in America, and to build networks of support and safeguards, such as employer contributions, that give them access to late-life entitlements such as Social Security and Medicare. By contrast, less familiar with American society and without access to financial and health-care entitlements, additional factors may complicate the ability of recent immigrants to deal with the pandemic. The Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA) made immigrants ineligible for federally funded entitlements at least for five years after arrival (Angel and Berlinger 2018; Treas and Gubernskaya 2015).

Little information is available on how older

immigrants manage and navigate services in light of these restrictions to tap into public safety nets. Although the family has traditionally been a primary caregiving source for older Latinos, smaller families, the relocation of adult children away from their parents, and the increasing participation of women in the labor force have shifted the responsibility for the care of older adults to the state (Angel 2018). Additionally, older Latinos reach later life with more functional limitations and fewer resources to face long-term care than any other group of older Americans (Angel et al. 2014; Hummer and Hayward 2015). Even immigrants with access to social benefits may have experienced financial insecurity during the pandemic as older Latinos rely mainly on Social Security and Supplemental Security Income as their main sources of income late in life (Angel and Angel 2015). Social Security represents more than 90 percent of the total income later in the life of more than half of Latinos (Angel 2015).

In addition to national origin, other important characteristics vary among this population that affect their vulnerability to the pandemic and their responses:

Legal status. Respondents can be undocumented, legal permanent residents, Temporary Protected Status, or citizens.

Working or retirement status. Many older immigrants are still in the labor force and the types of occupations they had put them at risk of the virus. Others are no longer working, but may not have savings, pensions, or Social Security. Still, others are comfortably retired.

Health-care eligibility. Some older Latinos do not qualify for Medicare and have no health insurance; others are covered by public and or private insurance.

Living arrangements. Some respondents lived alone, some with a spouse, and others in multigenerational households.

English-language ability. Access to information and aid was affected by linguistic isolation.

Length of time in the United States. Recent arrivals have had less time to form social networks, learn how to operate in the United States, and may be less eligible for government aid. More established residents are more integrated and have a better understanding of how to navigate public and private sources of support and aid.

We also compare immigrants' experiences navigating COVID-related aid in Massachusetts and Florida. The CARES Act provisions were federal, but states had leeway concerning benefits such as food stamps stemming from the Families First Coronavirus Response Act. The U.S. Department of Agriculture granted waivers to states who wished to issue emergency nutrition supplements. While Florida extended supplements until July 2021, Massachusetts continued the emergency nutrition aid until March 2022.

DATA AND METHODS

This study is based on 178 in-depth semistructured interviews with Mexicans, Puerto Ricans, Cubans, Dominicans, Salvadorans, and Venezuelans in Massachusetts and Florida (see table 1 for sample characteristics).

We focus on people from these countries because they are among the largest groups of older Latino immigrants in the United States and in each of the data collection sites. Massachusetts is home to more than thirty-five thousand Puerto Ricans and a similar number of Dominicans. Almost fifteen thousand Salvadorans, six thousand Mexicans, and three thousand Cubans also live in Boston. By contrast, Cubans are the largest group in Miami, numbering more than 150,000. Additionally, almost fifteen thousand Puerto Ricans, twelve thousand Dominicans, four thousand Salvadorans, and a similar number of Mexicans live in Miami (U.S. Census Bureau 2020). Because Venezuelans are so recently arrived, the numbers living in each state are not as up to date. Nationally an estimated 394,000 Venezuelans live in the United States (Hassan Gallardo and Batalova 2020). For information on immigrant origin by state, see table 2.

Most research conducted with older Latinos in the United States has focused on immigrants of Mexican origin. To include people from other countries and a range of experiences nav-

Table 1. Summary of Respondents by Characteristics

Massachusetts	Citizen	Permanent Resident	Asylum Seeker	Undocumented	Migrated at 55+
Cuba	5	1	0	0	1
Dominican Republic	6	10	0	1	9
El Salvador	2	0	1	11	0
Mexico	1	1	0	10	3
Puerto Rico	17	0	0	0	0
Venezuela	0	13	3	4	20
Florida	**Citizen**	**Permanent Resident**	**Asylum Seeker**	**Undocumented**	**Migrated at 55+**
Cuba	13	5	0	0	3
Dominican Republic	5	2	0	2	1
El Salvador	0	1	0	0	0
Mexico	5	2	0	8	2
Puerto Rico	9	0	0	0	3
Venezuela	0	5	9	26	20

Source: Authors' tabulation.

Table 2. Immigrants as Share of State Population

Country of Origin	Massachusetts	Florida
Cuba	15,985 (0.22%)	1,532,516 (7.11%)
Dominican Republic	157,444 (2.23%)	246,209 (1.14%)
El Salvador	65,729 (0.93%)	76,313 (0.35%)
Mexico	47,720 (0.67%)	709,870 (3.29%)
Puerto Rico	325,186 (4.62%)	1,155,423 (5.36%)
Venezuela	6,333 (0.09%)	242,869 (1.27%)

Source: Authors' tabulation based on ACS (U.S. Census Bureau 2020).

igating social services we used a purposive sample strategy (Etikan, Musa, and Alkassim 2016). People with liminal statuses, who do not have access to social and community services, and recently arrived older adults are hard-to-reach groups often excluded from research if they are not intentionally recruited. Our long-established relationship with the Latino community in Massachusetts through our work with immigrant-led organizations facilitated access to potential participants. In Florida, we relied on an extensive network of colleagues who work in community-based organizations to serve as liaisons. To identify participants in both states, we used networks of institutions that provide home and community-based services to older adults, as well as churches and neighborhood associations led by members of the Latino community. Recent arrivals are often best found through churches because they are typically regular attendees at religious services. It is a gateway to the community and sometimes the only access to help. As a result, religious communities are also a good place to identify especially vulnerable isolated immigrants, such as people with disabilities or who live alone, and those who do not use any social services. Similarly, vulnerable unauthorized older adults tend to concentrate in shelters, soup kitchens, and health-safety net community clinics.

Trusted community leaders (pastors, community health workers, board members of neighborhood associations, and soup kitchen

organizers), served as liaisons by explaining the project in their communities, including people who avoided contact with social services and those who lived with family members or alone but rely on family support or private support and facilitated the telephone numbers of the research assistants and of the principal investigator who speaks Spanish. When potential participants called, researchers asked about people's age, country of origin, and time in the United States to ensure that potential participants aligned with the project parameters. Qualifying participants provided verbal consent and received $50 for their time. Interviews were conducted by a team of Latino bilingual research assistants.

Analysis

First we coded the a priori themes, index codes, included in the instrument (for the steps to this analysis, see Deterding and Waters 2018). We then searched for recurrent themes related to participants' experiences with COVID. These themes constituted our analytic codes, which were identified and refined by coding all interviews and having weekly discussions with the coding team. We also coded each individual respondent with attribute codes, which allowed the association of themes with attributes of the individual such as city of residence, national origin, gender, time in the United States, and other variables (Deterding and Waters 2018). The final thematic map of the data was developed through periodic discussions between the two principal investigators and a team of four doctoral students. To maintain a balance between data categorization (coding and searching for themes), and preserving the narrative qualities of the interviews we wrote brief profiles of the interviewees and chronological summaries of their lives (Maxwell and Miller 2008).

RESULTS

The older adults who participated in our study shared major life events, such as moving to another country and adapting to new ways to conduct their lives, but they also have unique immigration pathways and incorporation experiences that are key to understanding the impact of the pandemic on their lives.

Legacy of Cumulative (Dis)Advantage

COVID was a compounder of both advantage and disadvantage. Immigrants who struggled economically before the pandemic experienced financial insecurity to the greatest extent. Within this group, the economic fallout was felt most strongly by noncitizens and recent arrivals. Not eligible for pensions, these immigrants were more likely to work before the pandemic and to concentrate in industries most affected by the outbreak. When restaurants and offices closed down, these workers lost their jobs. Those who were undocumented and working under the table often did not qualify for unemployment benefits or COVID relief payments that kept other workers afloat. Many lost their jobs and remained unemployed. Others experienced a severe reduction of work hours with the ensuing loss of income. Without savings, limited by work options due to lockdowns and age-related discrimination, immigrants turned to jobs performed under exploitative conditions.

Take, for instance, the case of Rita. Having arrived at age sixty-three in Miami from her native Venezuela as an asylum seeker, she had spent the last three years working as a live-in nanny. She lost that job during the pandemic outbreak but did not receive unemployment benefits because she was paid in cash. To get to her current job, also as a nanny, she has a long commute by public transportation. Her hours were reduced relative to her previous job, from full-time to ten hours a week, and so was her salary. She is still paid under the table and receives no benefits. This is what she told us when we asked her about her working conditions:

> I leave home at 5:30 am to get the bus that comes at 5:40. I get to work at 7 am to stay with the children. The house is a mess. It is horrible. The parents toss their clothes everywhere and expect me to pick them up, the underwear too. Besides helping with the kids, I have to clean, cook, and take care of the laundry, including the ironing. I asked the lady of the house if I could get an increase because I couldn't make it with what they were giving me. Besides, I was supposed to take care of the children, not do all the housework. She

> said that she was going to give me only $20 more per week because I was having breakfast and lunch at the house. I told her that I was hungry and that's why I eat during the day. I cried for over four hours. I was so humiliated. I was a mechanical engineer in Venezuela. I love my country. I came here because I couldn't stay there any longer. I was very vocal against the government. They made my life very difficult in the end. I don't know what it is with the young women here. I understand that not everyone is like that, but how can they treat people who are suffering so much so badly?

Most respondents struggled to get by before the pandemic and those who had to work were forced into dangerous situations. Lack of savings and access to COVID relief measures channeled participants to poorly paid ad hoc jobs usually performed near other people. Work was performed without adequate protective equipment. Dangerous working conditions, plus daily use of public transportation to go to work and crowded living conditions, increased immigrants' vulnerability to the virus. Many got infected but did not get tested or seek health care for fear of being forced to quarantine. For instance, Josefa is a sixty-three-year-old undocumented Mexican who lived by herself having left her children at home to work in the fields of Florida. Unable to miss work because of her need for the money, and wary of giving away information that could be used by immigration enforcement, Josefa decided not to get tested for COVID or seek medical care when she got very sick working in close contact with other immigrants. She explained it this way: "I felt very bad like I had a bad flu. It started on a Friday. I stayed at home over the weekend. On Sunday I still felt bad, but I went to work on Monday. I didn't say anything because they don't let you work if you are sick." When we asked whether she was tested for COVID or sought medical care she explained, "No, in the hospital they put your information on a little sheet of paper. What if ICE [Immigration and Customs Enforcement] gets it and comes for me?"

Unlike Rita and Josefa, Pedro, a seventy-year-old asylum seeker who moved to Boston two decades ago to escape the spread of violence in El Salvador, was still looking for a job when we talked to him. Having walked across the border when he first moved to America, Pedro regularized his migratory status only four years ago after a long and convoluted process. A work permit through the Temporary Protected Status program gave Pedro access to jobs that contributed to his Social Security benefits. He was working as a janitor for a company that cleaned offices when the pandemic hit. The offices closed. He was laid-off and received unemployment for a brief period of time. However, he did not qualify for a Social Security pension because he had not reached the forty quarters minimum contribution, or ten years, required by law. He is the family breadwinner. His disabled wife cannot work but does not qualify for benefits because she is undocumented. Making rent and sending money to his ninety-year-old mother in El Salvador are Pedro's main concerns:

> Here I am. Looking for a job. If they want to give it to me. All this [the pandemic] hurts me. When I fill out applications, they say they will call me. They never do. They think I'm too old. Many people have told me that I don't get a job because I look too old. They think that because I'm seventy I cannot do anything. But I'm fine. If they give me the chance they will see that I can still work. I need to work. I came to this country because things were very difficult in El Salvador, but now with this virus, things are very difficult here too. I'm very concerned about rent. Rent has to be on time, always! I live with my disabled wife. She cannot move. Thanks to God she can hear. She understands everything, but she cannot talk. I need to feed her with a spoon. Only soft foods. I need to take care of her. She doesn't get any help because she doesn't have a social [Social Security number]. And then my mother. She is very old. Lives in El Salvador. I need to send her money. I need to make money to survive.

Ramona and Amancio were also struggling when we talked to them. Although Amancio receives a $700 disability pension and $160 in food stamps because he can no longer work,

having lost a foot, it is not enough to make ends meet because Ramona, who is sixty-eight and undocumented, lost her farm job at the onset of the pandemic. We asked whether the pandemic had affected them economically. Ramona explained: "Oh, yes. I didn't work at the beginning. I just went back [to work], but they only want me for three or four hours a day. . . . It is very difficult [to make ends meet because] they raised our rent and our electric bill."

In contrast, take the case of Soledad, a seventy-eight-year-old Cuban who moved to Miami at age eighteen with her family fleeing Castro's communist regime. Soon after arrival, Soledad got a full scholarship to attend college, where she decided to pursue a career in medicine. She worked in the private practices of other physicians until she accrued enough experience to establish her own practice, where she worked for thirty-five years. Single and without children, Soledad was the main caregiver to her aging parents. Both passed away a few years ago, leaving her a substantial estate. She also has a Social Security pension, a private retirement portfolio, and healthy savings. We asked her whether her life had changed with the pandemic:

> Girl no!, because my life is secured. Nothing has changed. I'm all set because besides my own retirement and Social Security I have my parents' inheritance in the bank. They came here with nothing but worked hard. Cubans from those years came with studies. It is different when you compare it with other immigrants that come from a context of poverty. Not only economic poverty but educational deficits. The only thing that has changed is that before the virus I was never at home. I went to the gym, I visited friends, went to the mall to the shops. I loved it! Now I stay home, but I talk to my friends on the phone all the time. I don't like to watch TV that much, but I love to read and to tend to my garden. I work in my garden every day. I'm fine.

Across respondents, those who have been in the United States the longest, who have legal status, and who have family support were more likely to be retired, and more likely to have a financial cushion to survive the economic shock of COVID. For those who lived close to the edge and had no savings, the pandemic caused desperate economic shocks. How did these immigrants, who already had limited opportunities to engage with community resources, fare during the pandemic?

Navigating Institutional Protection

For older people who relied on institutional services before the pandemic, such as SNAP or food stamps, the federal increase in response to COVID-19 allowed them to avoid food insecurity and maintain a healthy diet that included fresh foods. Pedro, an eighty-three-year-old Cuban from Florida who before the pandemic received the minimum benefit, $16 a month, started receiving more than $200 a month in food stamps with the onset of the pandemic. We asked whether the pandemic had affected his food intake: "The virus has not changed me nothing, they [the government] have increased a lot the help with food." Rosario, a sixty-nine-year-old Dominican who was sheltering at home to avoid getting infected by COVID, told us, "My health insurance brings me food every week: fruits, vegetables, rice, juices. Different things every week. We are well taken care of."

Additional institutional protection was distributed among low-income, legal immigrants. When we asked people whether they had received government help to deal with the pandemic, most permanent residents (green card holders) and naturalized citizens mentioned that they had received direct cash transfers. As Evelyn said, "Yes, we got the checks that everybody is getting [stimulus checks] from the government. We are fine."

The expansion of federal benefits helped some immigrants deal with the impact of the pandemic. Other eligible participants, however, were too confused or afraid to interact with the government. Juana, a long-term permanent resident (green card holder) from Mexico, and her partner Miguel explained: "Yes, we got the check. But we are thinking of asking the government not to send us more money because we don't know how we are going to pay it back." Confused about the meaning of the public charge rule, Manuel, a sixty-two-year-old Dominican who moved to Boston two years ago

as a permanent resident to live with his daughter and who has worked as a part-time janitor since then, was still waiting for his stimulus check: "I didn't get the [stimulus] check because I depend on my daughter. I think I'm a public charge here. That's why they didn't send me nothing." Like Manuel, Altagracia moved from the Dominican Republic to Boston six years ago as a permanent resident to live with her son and his family. She had just turned seventy when we spoke. She had never worked in the United States or received social benefits. Her son lost his job because he contracted COVID. The daycare that her daughter-in-law ran from their home had to close after the pandemic began. Without savings and unable to work, Altagracia's family was in dire need of financial support. Altagracia wanted to help, but she was too afraid that asking for benefits would jeopardize her children's chances to come to America:

> Friends told me that I can ask for help with my age. But I'm worried that it will affect me for my children. There is a woman that I know that they went to her house and put her down as disabled. She is getting money every month. She asked for her children before me but she has not heard anything. I think that they [the government] believe that she is going to use the money to help her children when they get here. That is why she has not heard anything. I told myself, be careful! Asking for help can affect my children.

Inmaculada's family was also in need. Although she received Social Security, Medicaid, and food stamps, the entire family—three adult children and six grandchildren—depended on Inmaculada's husband's salary as a security guard to cover their basic needs in Florida. Inmaculada's children are undocumented but her husband is a permanent resident. We asked her whether he has sought help. She told us, "No, my husband doesn't take anything. When I asked for the coupons [food stamps] they said he could have them too, but he said no. Not to bother him. He says that if one day he wants to become a citizen he doesn't want that they say that he got help. And that they don't give him his citizenship because of that."

Undocumented respondents correctly perceived that they were ineligible for governmental aid. We asked Ramón, a sixty-two-year-old undocumented Venezuelan who had recently arrived in Boston, whether he had received the stimulus check. "No," he told us, "because I don't take any of those things so they don't come to my house to grab me to send me home. They know everything here. They can find you even under a rock." Having walked across the Mexican border four years earlier to live with her daughter and grandchildren in Boston, Mariana was unable to work any longer because of COVID's disabling long-lasting effects. Without savings, she could not cover her portion of the rent or shop for groceries. She was rationing her food when we spoke with her. We asked whether she had looked for help: "They offered me [food] stamps and help with housing at the clinic but I said no, no, because if my daughter asks for my papers [green card] the government won't get me the papers because I got the help. I don't take anything."

Even recently arrived immigrants have heard about the public charge rule. Most people did not know what will disqualify them from benefits, future legalization, and from sponsoring relatives to come to the United States. People did not want to give away personal information that could be used by immigration enforcement to find them. Regardless of immigration status, many respondents cited the public charge rule as a primary reason to avoid seeking services. They did not want themselves or their family members to be excluded from a potential immigration amnesty by using services. The expansion of governmental aid to deal with the pandemic economic downturn benefited respondents with lawful immigration status who were already receiving institutional assistance prior to the pandemic. However, even long-term immigrants who had aged in the United States were afraid to have to deal with the government. For respondents like Juana and Miguel, instead of bringing relief, the expansion of benefits brought fear that they would have to repay it. Others who were in need of help and were entitled to benefits, such as Altagracia in Boston and Inmaculada's husband in Miami, refused to seek assistance because they were afraid it

could jeopardize their chances for naturalization and family reunification. The chilling effect concerning public benefits steaming from the public charge rule was similar across participants from Massachusetts and Florida regardless of migratory status or time in the country.

Nongovernmental Aid

As immigrants lost their jobs and food insecurity soared, respondents had to come up with ways of procuring food while avoiding giving away information that could jeopardize their immigration status or their chances of family reunification. The mistrust toward the government extended to nongovernmental and community-led institutions. Some people turned to food pantries, but only if they did not require registration or identification. María had been living in Boston for less than a year when we interviewed her. She came with a tourist visa, which she had overstayed, to flee Venezuela's violence. A fashion designer by training, she helped her daughter cover rent and other expenses by mending clothes and cleaning apartments. After the pandemic began, people did not want her to come to their houses and stopped giving her clothes to mend. She had no income and her debt was mounting when we found her. We asked whether she had looked for help. She told us this: "I don't dare to go to the government, but I have gone to churches and to the Salvation Army because they don't ask anything. They only ask how many people are in the house to give you the help. They don't ask where I'm from or what is my status in this country."

Not everyone in need turned to nongovernmental organizations for help. Some people believed that they did not deserve the services. Adeline had Temporary Protection Status and thus a work permit. Being able to work, she thought that she had to fend for herself, even though at age sixty-six work was scarce and she was experiencing food insecurity when she spoke with us: "I avoid taking benefits that are for American citizens because I'm not a citizen. I don't want to be a burden to this country. I don't even go to those places that give food for free because I don't believe that I deserve it. Those services are for people that are Americans and that need help. Thank God I can work." Others perceived that resources were scarce and that some people needed the help more than they did. Take Enrique, a seventy-five-year-old from the Dominican Republic who lived with his wife and, from the onset of the pandemic, his mother-in-law. Although they were having difficulties making ends meet even before the pandemic, when we asked whether he has sought help, he said this: "I used to go to a church. They gave me a lot of food and other things. They also helped my mother-in-law. But I'm ashamed to go back. Things are very bad. There are people who are worse than us. We at least got our money [food stamps and the stimulus checks]. I stopped going [to get food to the church] when the pandemic started." Mariela shared a similar view when we asked whether she had experienced hunger during the pandemic: "No, thank God. I had a lot of cans [from before the pandemic] that they gave me in church. Although it is hard sometimes because you eat what you have. What are we going to do. My stove has not been lit in a long time." To the question of whether she had gone back to church for other types of food, vegetables, fruits, or meat, Mariela explained, "No, there are other people that need it more than us. That's why I have not come back."

As well as points of distribution of emergency aid, nonprofit and community-led organizations also served as information hubs and crucial intermediaries to services for immigrants, especially for people without access to governmental aid. María Gabriela crossed the southern border two decades ago from her native Mexico with five of her ten children to escape her abusive husband. Now sixty-six, she provides for herself and her disabled adult son, who is also undocumented, by working in the fields of Florida harvesting vegetables. She lost her job with the onset of the pandemic. We asked how she was managing. She told us this:

> People from the [mentions community-led organization] help me. Everybody knows about my son's situation. They bring me food, diapers, ... There is also a man, God sent him, who comes and leaves us $500 or $600. I don't know who he is or where does he work. The

> people from [the community-led organization] talked to him about my son. He came to see him and left us money. I thought only one time he was going to help us, but he has kept helping us. I don't bother him or ask for anything but he gave me his phone number and told me to call him if we need help. I have never called him. When he wants, all by himself, he calls me and tells me that he is going to come to bring us something. He comes, talks to me, and leaves us some help [money]. I don't know anything else.

Caridad, who had been living in Miami with her daughter for a couple of years when we spoke with her and did not have health coverage, said that she found medical care during the pandemic through church: "It is very difficult to migrate when you are old. My son and my daughter-in-law lost their jobs with the pandemic, and they have teenage sons who need a lot of food. Things have become quite difficult at home. I have hypertension and diabetes, and the church looking here and there helped me to find a doctor that saw me."

Respondents from Florida perceived that help, particularly food, was abundant. Several participants mentioned getting overloaded with information about where to go for food. "That [where to go for food] was published everywhere, on the TV, on the radio. They are still at it. Here in Miami, there are a lot of places that still give you food, either in churches or in community centers. That is in all the [television] channels, in all the local channels, tomorrow at X time in Y place they are going to distribute food. They even include the next county that is more to the north!"

To cope with food insecurity and to meet basic needs during the pandemic, respondents sought assistance from nonprofit and community-led organizations. Some people who received pandemic-related assistance, such as food stamps or stimulus checks, were reluctant to seek additional aid because they perceived that other people without access to the same benefits might need the assistance more than they did. Regardless of their immigration status, people preferred organizations that did not require identification. Florida's participants perceived an abundance of resources probably because it has a larger population of older adults who speak Spanish than Massachusetts and media that catered to this population.

Isolation from Caregivers and from Resources

Although some respondents lived in intergenerational households and relied on family for support, many lived on their own. The pandemic reduced their contact with family, caregivers, and the community organizations that help older adults navigate services and get help. Most respondents spoke only Spanish and were unaware or afraid of COVID-specific benefits that they might have been eligible for. Fernando is a seventy-one-year-old permanent resident (green card holder) from the Dominican Republic who moved to Boston five years ago with the help of his daughter. He rents a room in a house attic that includes a little bathroom but no kitchen. The local Spanish-language television news reported that the laundry where Fernando worked had a COVID outbreak. The other families who lived in the house saw the news and asked him to change jobs if he wished to remain living there. Fernando got COVID two days after leaving the laundry and had to quarantine in his room for a month because his tests kept coming back positive. He had no family support (his daughter lives out of state), savings, or even access to a kitchen. When we found him, he explained how he manages: "I do everything I see on social media. I got an electric kettle so I can drink a lot of hot teas and aspirins." Fernando believed that very hot foods helped kill the virus. When we asked what he did about food, he said, "The city calls me and sends me stuff, but not always. I order things from the corner bodega, but I'm mortified because I have a debt and I have to pay the rent. I don't know what I'm going to do." As to whether he had sought COVID-related help, Fernando told us, "No, no. I'm very careful. I don't like illegal things. Those things bring you trouble later. I don't want anything."

Public health mandates for social distancing and physical isolation complicated respondents' access to pre-pandemic networks of support such as neighbors or church members, making it difficult for immigrants to obtain

food, medicines, or arrange for medical visits. Jesús has lived in Florida for more than two decades working in construction and agriculture jobs. He is now sixty-eight years old and his back pain keeps him away from physically demanding jobs. He raises chickens and goats to make ends meet, though it is difficult, especially making rent. He lives in a two-bedroom trailer with two roommates. The rent is $2,100 a month. Although there is a convenience store two miles from his home, it is expensive. The closest supermarket is in the nearest city twenty-five miles away. Jesús used to take public transportation to go to a community center for food, and to a local clinic that treats undocumented immigrants like him for his back pain. The pandemic has had a serious impact on his daily life, as he explained: "They closed the clinic [with the pandemic]. They canceled all the appointments. I have no place to go. If I get sick I have to go to the emergency room, but you get a bill of $1,000 or $2,000 for a five-minute visit." When we asked how he gets food, he said, "The bus only comes twice a day now, at one and at six. One of my roommates has a car and sometimes he takes me. I only go [to the community center that distributes free food] once or twice a month there."

During discussions about strategies to navigate resources and meet basic needs during the pandemic, participants who lived in intergenerational families often mentioned getting help from their children or grandchildren. People living on their own, even if they had children living near them, faced a different reality. Carmen lives on her own in Massachusetts since she lost her husband twenty years ago. Her daughter lives close by and used to visit her often, but since the pandemic started, they have not seen each other. At eight-four years of age, Carmen does not want to risk getting COVID. Although she receives Social Security benefits, her budget is tight, and sometimes she has to choose what expenses to cover. When we asked Carmen whether she had talked to her daughter about her situation, she said, "I don't ask. I make my budget and live with that. Life is very difficult these days. Everything is very expensive. [My daughter] has children too and things to pay for, you know? It is sad that a child feels like she has to help her mother. If she is rich, ok, but when they live paycheck to paycheck like me, one cannot be a burden for their children."

Public health measures of social distance and fear of getting sick among a population particularly vulnerable to COVID-19 contributed to the isolation of older adults who lived on their own. Unreliable or absent public transportation services and reduced support networks, such as congregated meals or free clinics, complicated immigrants' access to basic needs such as food, medicines, or medical care during the pandemic.

Coping with Loss of Income and Resources

The lockdown plus a shift to remote services complicated immigrants' access to resources to cover basic needs. Even those with Social Security benefits needed additional resources to pay for the higher cost of utilities. A substantial proportion experienced food insecurity from a combination of factors. People could not go grocery shopping independently because public transportation was severely reduced from the beginning of the pandemic. Family members had to deal with additional stressors of unemployment, homeschooling, and relocation; which reduced their ability to help older adults. In fact, respondents with pensions mentioned sharing it with family members. As a result, older adults had to reduce the amount and the quality of their food.

When we talked to Guadalupe, she was living in a three-bedroom house with her husband, three adult children, and six grandchildren. The grandchildren slept in the garage. She had worked in seasonal agriculture jobs since she walked across the U.S.-Mexico border with her fourteen-year-old son nearly three decades ago. Now, at sixty-five, chronic health conditions and a mobility impairment stemming from years working in the fields of Florida make her unemployable. Thanks to the 1986 amnesty, Guadalupe became a permanent resident and eventually a U.S. citizen. She receives a monthly Social Security check of $630. Her children, who are undocumented, lost their jobs after the outbreak. The only other household income comes from Guadalupe's husband, who was making $700 a month as a security guard when we spoke with her. When we

asked Guadalupe what they did for money, she explained, "I got two loans and my son got another. We had to pay for the house! We also have a lot of debt because my son was in the intensive care unit for a week with COVID. I don't know how much we owe to the hospital but it is a lot." As to whether they had sought help, she answered, "No, because my husband is a [legal permanent] resident and they started saying that if we got help like the stamps or food he was not going to get his citizenship." We asked how they managed: "We are very careful with money. Everything is very expensive. We only buy what we need. If I get a pack of chicken I shred it in very tiny pieces so it lasts longer. I mix it with rice and tortillas for the children. We only didn't eat when they cut out our electricity, but now we don't go to bed without eating nothing." Another strategy Guadalupe practiced was to ration medications: "I'm not taking my insulin now because the insurance doesn't pay for it all. I just do the diet."

The rapid shift to remote services made it very difficult to treat and manage chronic conditions such as diabetes, cancer, or hypertension, which increased the risk of complications and mortality from COVID-19. The economic hardship stemming from the pandemic rendered medications unaffordable. These barriers are compounded by experiences of systemic discrimination due to race, ethnicity, immigration status, and age in their experiences with the health-care system. This led people to alternative health-seeking strategies, such as self-medication and home remedies given by family members and friends, such as *botellas* made with herbs bought in *boticas*, to treat chronic conditions such as diabetes or coronary diseases. Other strategies to deal with the consequences of unemployment, such as homelessness and food insecurity included consolidating households and pooling resources with other immigrants to buy groceries and pay bills.

For instance, María Gabriela was an eighty-year-old retired professor from Venezuela who came to Miami to visit her daughter three years ago and decided to stay because of the terrible conditions in Venezuela. The pandemic left her granddaughters unemployed. Unable to make rent, they moved with their partners to María Gabriela's daughter's apartment. Only her daughter and her son-in-law were working when we talked with María Gabriela. Most of their income went to pay the monthly $3,000 for rent and food for seven adults. Because they had other sources of income, no money was left for María Gabriela's glaucoma medicine. She explained her situation: "Here the eye drops are very expensive. My daughter got me the Obamacare, but it doesn't cover the eye drops. They are $900 a month. So I sent money to Venezuela and friends send me the drops. I also have friends in Spain that send the drops when they know of someone that is coming to Miami. That's how I manage."

CONCLUSION

In normal times, poor elderly immigrants have a safety net, however precarious it might be. Our respondents relied on adult children and grandchildren, income from low-wage work, pensions and Social Security, and assistance from food pantries and churches. The pandemic disrupted many of these supports and turned some from support to burdens. When children and grandchildren lost employment and income, they sometimes doubled up with elderly relatives and depended on their meager incomes to buy food for their families. When income from work was reduced or disappeared, elderly immigrants had to choose between medicines and food, and fell back on cheaper folk remedies or went without. Many of our respondents reduced their food intake and went hungry. Although federal pandemic aid kept many Americans from such dire straits, our respondents were often unaware of whether they were eligible, were afraid of asking for help, or asked for it and learned that they were specifically excluded because they had no Social Security number.

The Trump administration's threat to use the public charge rule to deny citizenship or legal status to people who received any government aid was widely talked about in immigrant communities and a great deal of confusion and fear surrounded the issue. Most people heard the words *public charge* but were unclear about what it would do to their or their families futures to be labeled as such. Given the lack of specific information, many respondents were wary of any contact with the government. For

the undocumented, this fear was exacerbated by one of any contact with any institution that might share information with ICE and lead to their capture and deportation. The twin burdens of poverty and fear of ICE led some people with COVID to avoid testing and to work while sick, thus endangering public health. Vaccine hesitancy was also widespread, especially at the beginning of the program, because of these fears.

We found that many respondents had heard rumors and misinformation that affected their behaviors. They did not trust that their immigration status would not be shared with ICE by health-care providers. They heard rumors that the vaccines were unsafe or that those who administered them were inserting chips into people to be able to locate them later.

We designed our study to examine differences between Massachusetts, a more generous social welfare and health-care state, and Florida, a more restrictive state. We were surprised to find only slight differences in response to COVID between people living in these states. Most programs to deal with COVID were national in scope and comparatively generous. The chilling effect of the threat of the public charge rule was national in scope, however, and affected our respondents in the same way regardless of where they lived. The one difference we did find was in an unexpected direction. Elderly Florida residents reported more availability of Spanish-language media describing free food resources. Massachusetts residents were more isolated and did not have as many.

The differences we did find reflected our respondents' national origins, their time in the United States, and their socioeconomic status. These three characteristics were decidedly interrelated. Cubans, on average, had immigrated a long time ago, aged in the United States, were in higher paying jobs when they were younger, qualified for government benefits, and had access to savings and pensions. The special, only recently terminated, status of Cuban immigrants, which gave them legal status and a path to citizenship on arrival in the United States, without a penalty for arriving without authorization, had long-lasting positive benefits for the people we interviewed.

The Salvadorans, Mexicans, and Dominicans we interviewed had a mix of legal statuses. Some were citizens or legal permanent residents or had Temporary Protected Status. Yet they all had members of their families or communities who were undocumented and most of them were severely affected by the fears engendered by the proposed public charge rule. In many cases this fear prevented people who were eligible for COVID relief from receiving it. Among these immigrants, those who had arrived more recently were more at risk for isolation and severe deprivation. Those who had lived in the country for a long time had more knowledge of how to access services and were more integrated into communities where help from churches and nonprofits were discussed.

Venezuelan immigrants were especially deprived. They had only recently arrived, almost all of them without legal authorization. They were working at jobs that disappeared during the pandemic, and they had no access to government aid. Families tried to support each other, but they reported severe hardships.

The consequences of the pandemic for immigrants were made much worse by some policy decisions. Excluding immigrants from the federal pandemic relief money made their economic situation worse. The fear of the public charge rule meant that immigrants who were eligible for help often were hesitant to apply. The assumption that the elderly were not working in essential occupations meant that they were not targeted in messaging about the importance of following public health guidelines. All of these areas were public policy failures that made the pandemic much worse for our respondents than it had to be.

Our research points to specific steps that could help these vulnerable older immigrants. Florida did a better job than Massachusetts in providing information in Spanish, targeted at older people, on how to find food aid. Massachusetts did not have the robust Spanish-language outreach necessary to reach isolated older people and could develop better communications. In both states, nonprofits and government aid should target immigrants who have less time in the United States and are more likely to be isolated. Churches are the one institution we identified that touches the lives

of these immigrants and can be instrumental in connecting them to help.

When targeting help to unauthorized people, it is clear that fear of giving any information to the government stops some from applying for food or medicine. Nonprofits and churches should provide such aid without asking for any personal information, such as names or addresses. This research also shows the large impact of the Trump administration's anti-immigrant messaging and executive actions. The public charge rule was not enacted, but it had an oversize effect on immigrant behavior, preventing many vulnerable people from getting the humanitarian food and medicine they needed. The cruelty of this policy, unfortunately, had a strong and intended effect.

REFERENCES

Administration for Community Living (ACL). 2021. "Profile of Older Americans." Washington: U.S. Department of Health and Human Services. Accessed November 4, 2022. https://acl.gov/sites/default/files/Profile%20of%20OA/2020ProfileOlderAmericans_RevisedFinal.pdf

Angel, Jacqueline L. 2018. "Aging Policy in a Majority-Minority Nation." *Public Policy & Aging Report* 28(17): 19–23.

Angel, Jacqueline L., and Nancy Berlinger. 2018. "The Trump Administration's Assault on Health and Social Programs: Potential Consequences for Older Hispanics." *Journal of Aging and Social Policy* 30(3-4): 300–315.

Angel, Jacqueline L., Sunshine M. Rote, Dustin C. Brown, Ronald J. Angel, and Kyriakos S. Markides. 2014. "Nativity Status and Sources of Care Assistance Among Elderly Mexican-Origin Adults." *Journal of Cross-Cultural Gerontology* 29(3): 243–58.

Angel, Ronald J. 2015. "The Consequences of Social Welfare Policy for Older Hispanic Families." *The Gerontological Society of America* 25(3): 113–16.

Angel, Ronald J., and Jacqueline L. Angel. 2015. *Latinos in an Aging World: Social, Psychological, and Economic Perspectives*. New York: Routledge.

Ankuda, Claire K., Joyce Fogel, Amy S. Kelley, and Elena Byhoff. 2021. "Patterns of Material Hardship and Food Insecurity Among Older Adults During the COVID-19 Pandemic." *Journal of General Internal Medicine* 36(11): 3639–41. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8141363/.

Asfaw, Abay. 2022. "Racial and Ethnic Disparities in Teleworking During the COVID-19 Pandemic." *NIOSH Science Blog*, April 26. Accessed November 4, 2022. https://blogs.cdc.gov/niosh-science-blog/2022/04/26/telework-race-covid/.

Calvo, Rocío. 2020. "Older Latinx Immigrants and COVID-19: A Call to Action." *Journal of Gerontological Social Work* 63(6-7): 592–94.

Capps, Randy, Mark Greenberg, Michael Fix, and Jie Zong. 2018. "Gauging the Impact of DHS' Proposed Public-Charge Rule on U.S. Immigration." Policy Brief. Washington, D.C.: Migration Policy Institute.

Carr, Stacie, and Marta Tienda. 2013. "Family Sponsorship and Late-Age Immigration in Aging America: Revised and Expanded Estimates of Chained Migration." *Population Research and Policy Review* 32(6): 825–49.

Centers for Disease Control and Prevention (CDC). 2022. "Risk for COVID Infection, Hospitalization and Death by Race and Ethnicity." Updated September 15, 2022. Accessed November 4, 2022. https://www.cdc.gov/coronavirus/2019-ncov/covid-data/investigations-discovery/hospitalization-death-by-race-ethnicity.html.

De Genova, Nicholas, and Ana Y. Ramos-Zayas. 2003. *Latino Crossings: Mexicans, Puerto Ricans, and the Politics of Race and Citizenship*. New York: Routledge.

Deterding, Nicole, and Mary C. Waters. 2018. "Flexible Coding of In-Depth Interviews: A Twenty-First-Century Approach." *Sociological Methods and Research* 50(2): 708–39. DOI: https://doi.org/10.1177/0049124118799377.

Etikan, Ilker, Sulaiman Abubakar Musa, and Rukayya Sunusi Alkassim. 2016. "Comparison of Convenience Sampling and Purposive Sampling." *American Journal of Theoretical and Applied Statistics* 5(1): 1–4.

Fox, Cybelle. 2012. *Three Worlds of Relief: Race, Immigration, and the American Welfare State from the Progressive Era to the New Deal*. Princeton, N.J.: Princeton University Press.

Garcia, Marc, Patricia A. Homan, Catherine García, and Tyson H. Brown 2021. "The Color of COVID-19: Structural Racism and the Disproportionate Impact of the Pandemic on Older Black and Latinx Adults." *Journals of Gerontology: Social Sciences* 76(3): e75–e80.

Garcia, Marc, Amy D. Thierry, and Claire Pendergrast. 2022. "The Devastating Economic Impact of COVID-19 on Older Black and Latinx Adults: Implications for Health and Well-Being." *Journals of Gerontology: Social Sciences* 77(8): 1501–507.

Gassoumis, Zachary D., Kathleen H. Wilber, Lindsey A. Baker, and Fernando M. Torres-Gil. 2010. "Who Are the Latino Baby Boomers? Demographic and Economic Characteristics of a Hidden Population." *Journal of Aging & Social Policy* 22(1): 53–68.

Gebeloff, Robert, Danielle Ivory, Matt Richtel, Mitch Smith, Karen Yourish, Scott Dance, Jackie Fortiér, Elly Yu, and Molly Parker. 2020. "The Striking Racial Divide in How COVID-19 Has Hit Nursing Homes." *New York Times*, May 21. Accessed November 4, 2022. https://www.nytimes.com/2020/05/21/us/coronavirus-nursing-homes-racial-disparity.html.

Gelatt, Julia. 2020. "Mixed-Status Families Ineligible for CARES Act Federal Pandemic Stimulus Checks." Washington, D.C.: Migration Policy Institute. Accessed November 4, 2022. https://www.migrationpolicy.org/content/mixed-status-families-ineligible-pandemic-stimulus-checks.

Gonzalez, Dulce, Michael Karpman, Genevieve M. Kenney, and Stephen Zuckerman. 2020. *Hispanic Adults in Families with Noncitizens Disproportionately Feel the Economic Fallout from COVID-19*. Washington, D.C.: Urban Institute.

Hassan Gallardo, Luis, and Jeanne Batalova. 2020. "Venezuelan Immigrants in the United States. Migration Information Source." Washington, D.C.: Migration Policy Institute. Accessed November 4, 2022. https://www.migrationpolicy.org/article/venezuelan-immigrants-united-states-2018.

Hummer, Robert A., and Mark D. Hayward. 2015. "Hispanic Older Adult Health & Longevity in the United States: Current Patterns & Concerns for the Future." *Daedalus* 144(2): 20–30.

Massey, Douglas S., Jorge Durand, and Nolan J. Malone. 2003. *Beyond Smoke and Mirrors: Mexican Immigration in an Era of Economic Integration*. New York: Russell Sage Foundation.

Mathema, Siva, and Joel Martinez. 2021. "Temporary Protected Status is Critical to Tackling the Root Causes of Migration in the Americans." Washington, D.C.: Center for American Progress. https://www.americanprogress.org/article/temporary-protected-status-critical-tackling-root-causes-migration-americas/.

Maxwell, Joseph A., and Barbara A. Miller. 2008. "Categorizing and Connecting Strategies in Qualitative Data Analysis." In *Handbook of Emergent Methods*, edited by S. N. Hesse-Biber and P. Leavy. New York: Guilford Press.

Menjívar, Cecilia, and Andrea Gómez Cervantes. 2018. *El Salvador: Civil War, Natural Disasters, and Gang Violence Drive Migration.* Washington, D.C.: Migration Policy Institute.

Olshansky, S. Jay. 2015. "The Demographic Transformation of America." *Daedalus* 144(2): 13–19.

Sáenz, Rogelio, and Marc A. Garcia. 2021. "The Disproportionate Impact of COVID-19 on Older Latino Mortality: The Rapidly Diminishing Latino Paradox." *Journals of Gerontology: Social Sciences* 76(3): e81–e87.

Tienda, Marta. 2017. "Multiplying Diversity: Family Unification and the Regional Origins of Late-Age US Immigrants." *International Immigration Review* 51(3): 227–56.

Tienda, Marta, and Susana Sánchez. 2013. "Latin American Immigration to the United States." *Daedalus* 142(3): 48–64.

Treas, Judith, and Zoya Gubernskaya. 2015. "Policy Contradictions and Immigrant Families." *Public Policy & Aging Report* 25(3): 107–12.

U.S. Census Bureau. 2020. "American Community Survey (ACS) 5-Year Estimates: Hispanic or Latino Origin by Specific Origin." Washington: U.S. Census Bureau. Accessed November 4, 2022. https://data.census.gov/cedsci/table?q=B03001%3A%20HISPANIC%20OR%20LATINO%20ORIGIN%20BY%20SPECIFIC%20ORIGIN&g=0400000US12,25&tid=ACSDT5Y2020.B03001.

Yanez, N. David, Noel S. Weiss, Jaques-Andre Romand, and Miriam M. Treggiari. 2020. "COVID-19 Mortality Risk for Older Men and Women." *BMC Public Health* 20: Article 1742. Accessed November 4, 2022. https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-020-09826-8.

Zong, Jie, and Jeanne Batalova. 2018. "Dominican Immigrants in the United States." Washington, D.C.: Migration Policy Institute. November 4, 2022. https://www.migrationpolicy.org/article/dominican-immigrants-united-states-2016.

PART II

Unemployment and Unemployment Insurance

Disparities in Access to Unemployment Insurance During the COVID-19 Pandemic: Lessons from U.S. and California Claims Data

ALEX BELL, THOMAS J. HEDIN, PETER MANNINO, ROOZBEH MOGHADAM, GEOFFREY SCHNORR, AND TILL VON WACHTER

To what extent did jobless Americans benefit from unemployment insurance (UI) during the COVID-19 pandemic? This article documents geographic disparities in access to UI during 2020. We leverage aggregated and individual-level claims data to perform an integrated analysis across four measures of access to UI. In addition to the traditional UI recipiency rate, we construct rates of application among the unemployed, rates of first payment among applicants, and exhaustion rates among paid claimants. Through correlations across California counties and across states, we show that areas with more disadvantaged residents had less access to UI during the pandemic. Although these disparities are large in magnitude, cross-state analysis suggests that policy can play a salient role in mitigating them.

Keywords: unemployment insurance, disparities, pandemic, geography, California

Alex Bell is a postdoctoral scholar at the California Policy Lab at the University of California Los Angeles, United States. **Thomas J. Hedin** is a PhD student in economics at the University of California Los Angeles, United States. **Peter Mannino** is a data analyst at the California Policy Lab at the University of California Los Angeles, United States. **Roozbeh Moghadam** is a PhD student at the University of California Davis, United States. **Geoffrey Schnorr** is a postdoctoral scholar at the California Policy Lab at the University of California Los Angeles, United States. **Till von Wachter** is a professor of economics at the University of California Los Angeles, United States.

 Bell, Alex, Thomas J. Hedin, Peter Mannino, Roozbeh Moghadam, Geoffrey Schnorr, and Till von Wachter. 2023. "Disparities in Access to Unemployment Insurance During the COVID-19 Pandemic: Lessons from U.S. and California Claims Data." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 9(3): 78–109. DOI: 10.7758/RSF.2023.9.3.04. The California Policy Lab produced the figures and calculations through an ongoing partnership with the Labor Market Information Division of the California Employment Development Department. Any statements should only be attributed to the California Policy Lab, and do not reflect the views of the Labor Market Information Division of the California Employment Development Department. The calculations were performed solely by the California Policy Lab, and any errors or omissions are the responsibility of the California Policy Lab, not of the Labor Market Information Division of the California Employment Development Department. We thank the participants of the RSF Socioeconomic Impacts of COVID-19 conference for their valuable feedback on this project. We also thank Matthew Forbes and Ziqi Zhao for providing helpful research assistance. Direct correspondence to: Till von Wachter, at tvwachter@econ.ucla.edu, 283 Bunche Hall MC 147703, Los Angeles, CA 90095, United States.

The unemployment insurance (UI) system is a key part of the U.S. social safety net. It provides assistance to unemployed workers and becomes increasingly important during recessions, when the number of jobless workers and the time they spend unemployed increase. UI offers workers who lose their jobs both weekly payments to replace part of their lost income and assistance in finding a new job. The program can be difficult to access, however, and unemployed workers frequently do not receive benefits. For example, before the pandemic the share of all unemployed workers who received UI was only around 20 percent on average across states. Even among workers who filed for UI before the pandemic, nearly a quarter never received benefits (either because they were denied benefits or quickly found a new job) in California.

Researchers have studied the disparate impacts of both formal and informal barriers to access on different types of workers during periods before the COVID-19 pandemic (Blank and Card 1991; Anderson and Meyer 1997). For example, formal eligibility rules require workers to have earned a minimum level of income to qualify for the program. Informal administrative burdens also prevent otherwise eligible workers from receiving benefits such as language or technological assistance. These hurdles can prove to be significant barriers for workers from disadvantaged backgrounds (O'Leary, Spriggs, and Wandner 2021; Shaefer 2010).

The unprecedented surge in job losses and UI claims during the COVID-19 pandemic, and the surge in unemployment among lower-wage workers from sectors directly affected by the pandemic, refocused these long-standing concerns about equity and access to the UI system (see, for example, White House 2021). In response to the pandemic, states eased certain formal eligibility rules, such as job search requirements, that could improve access for some workers, but public health orders that closed government offices could exacerbate the informal barriers to access for others. Additionally, federal policymakers created new programs that increased the duration and generosity of UI benefits, which could have affected workers differently.

This article makes three contributions toward measuring disparities in access to UI during the COVID-19 pandemic. First, we introduce a broader conceptual framework to track a jobless worker's access to UI benefits across the main stages in the lifecycle of a potential UI claim. Second, we use publicly available UI claims data and confidential administrative claims data from California to build and refine measures for each of our four stages of access across states and at more local levels within California. Third, we use these measures to document key patterns of community-level disparities in access to UI during the pandemic by correlating them with state- and county-level attributes reflecting policy regimes and socioeconomic characteristics, among others.

We find that, on average, access to UI increased substantially during the pandemic, but that differences in access were significant across states and demographic groups. During the pandemic, the share of unemployed workers receiving UI (called the recipiency rate) reached 60 percent on average across the United States, up from around 20 percent before the pandemic. However, the pandemic also saw substantial variation in recipiency rates across states, from over 90 percent in California to less than 25 percent in Florida. We also find that states with higher average incomes and lower Black population shares have higher recipiency rates and that states with more generous UI policies, such as alternate base periods and longer potential benefit durations, have higher recipiency rates. The correlation between policy and access indicates that states may have a great deal of discretion in how generous they make access to UI, and that state UI programs could support a larger share of unemployed workers if the state chose to.

We find similar demographic patterns within California where counties with higher incomes saw higher recipiency rates and counties with more Black and Hispanic residents had lower recipiency rates. We provide additional evidence on differences in access across the three other stages of access described in our conceptual framework, but they are broadly consistent with the recipiency rate findings that more advantaged groups have higher access and states with more generous policies

have greater access. Despite the disparities in access, the overall increase in recipiency rates in our results and the poverty reduction benefits found in Marianne Bitler, Hilary Hoynes, and Diane Schanzenbach (2023, this issue) indicates that the UI system responded well to the challenges of the pandemic and effectively provided support to many distressed workers.

For this analysis, we use public data from the U.S. Department of Labor (DOL) Employment and Training Administration and the Current Population Survey (CPS) as well as our team's unique access to California's UI claims micro data, facilitated by a partnership with the state's Employment Development Department (EDD). We combine these data with detailed demographic, labor market, and public health characteristics across states for the entire United States and at the county level in California. We also collected information on state-level differences in the UI programs and states' tax and benefit systems.[1]

UI SYSTEM DURING THE PANDEMIC AND CONCEPTUAL FRAMEWORK

In the United States, the unemployment insurance system is operated by the states within a federal framework. As a result, states can differ in eligibility requirements or benefit generosity. In general, if a worker loses their job through no fault of their own and has earned a minimum level of income (known as the monetary eligibility limit), in a certain base period, they are eligible to receive payments that replace a portion of their previous income (weekly benefit amount, or WBA) for a certain number of weeks (potential benefit duration, or PBD). Some restrictions are universal across programs, for example self-employed workers and undocumented workers are not eligible for UI in any state. Further, all states have work search rules that require claimants to prove they are searching for work for each week that they receive benefits.

However, many other aspects of the program differ across states. Eligibility can vary on four attributes. First are differences in the minimum income a worker had to earn to be eligible for the program (the monetary eligibility limit). Second are differences in the type of employment covered, such as the treatment of agricultural workers differs across states. Third are differences in the types of transitions to unemployment that are covered; for example, in some states a worker who quit their job to move to the state for their spouse's job can be eligible for UI. Fourth are differences, once a worker enters the UI system, in the number of work search activities they are required to do to maintain eligibility. Last, as true of other social insurance programs, are differences less easily quantified but that can influence accessibility, including technology, staffing levels, and internal procedures. In addition to differences in eligibility criteria, other characteristics of the program, such as the maximum WBA or the total PBD, differ across states and may influence which workers apply to UI (differences in UI programs across states, published each year, see DOL 2021a).

California provides a useful example of how the UI system operates. First, a worker had to be in a job that is covered by the UI system, meaning they are not self-employed (small business owners) or contractors (Uber drivers), and they had to be working legally (are not undocumented immigrants). They had to lose their job through no fault of their own, which means they could not quit their job or be fired for cause. As noted, the details of who is eligible based on the type of employment and how they lost their job can be different in California than in other states.

In addition, they have to meet California's monetary eligible limit on earnings in a base period to be eligible for UI. In California, the base period is the first four of the last five completed calendar quarters before application to UI. The monetary eligibility limits are that a worker either had to earn at least $1,300 in their

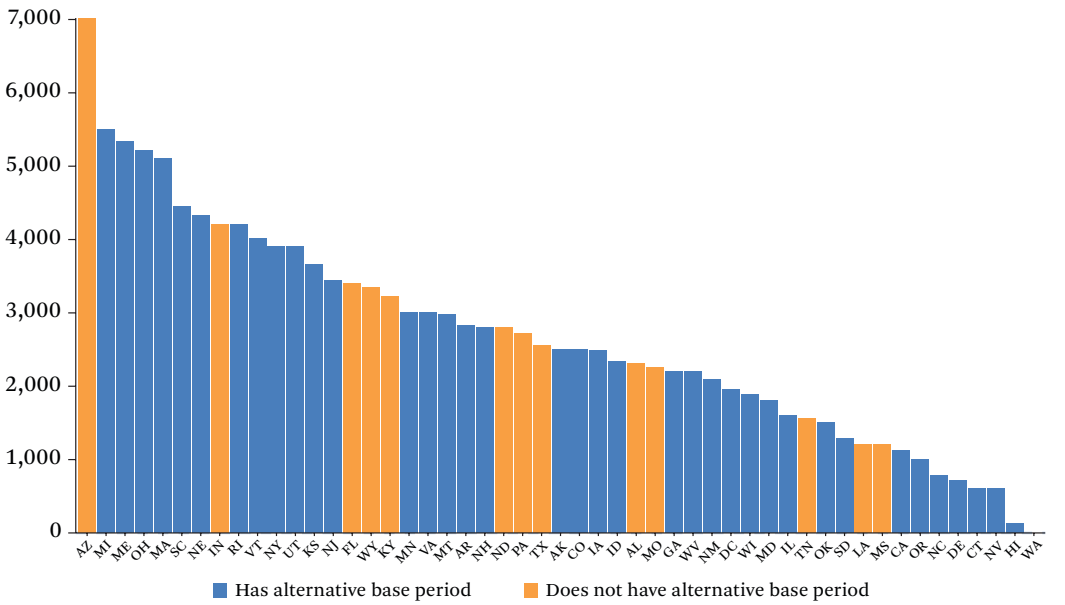
1. Our online appendix (https://www.rsfjournal.org/content/9/3/78/tab-supplemental) contains more details on data sources of socioeconomic and policy variables. We draw on the work of many others, including Raj Chetty, John Friedman, and colleagues (2020); Raj Chetty, Nathaniel Hendren, and colleagues (2014); Alix Gould-Werth and H. Luke Shaefer (2013); Cassidy Viser and colleagues (2021); Pew Research Center (2019); New York Times (2021); and Cook Political Report (2021).

highest earning quarter or $900 in their highest earning quarter and $1,125 in the entire base period. If they do not meet the criteria in the standard base period, they can use an alternate base period (ABP), which applies the same monetary thresholds to the last four completed calendar quarters. Monetary eligibility limits and whether a worker can use an ABP varies by state. Figure 1 shows how monetary eligibility differs by state and which states allow ABPs.

After workers meet these criteria, they are eligible for UI and receive a WBA and a PBD. In California, the WBA is equal to 50 percent of weekly wages in the worker's highest earning quarter up to a limit of $450. This upper limit varies by state, Massachusetts having an upper limit of $850 and Louisiana having an upper limit of only $221. In California, a worker's PBD will be between fourteen and twenty-six weeks. Although the maximum PBD in most states is twenty-six weeks, in some states it is substantially lower, Georgia and Alabama providing only fourteen weeks. To continue receiving benefits each week, claimants have to report their work search activities. California does not specify the number or type of work search activities that must be taken, but some states do, Utah, for example, requires four job searches each week.

During the pandemic, federal and state policymakers introduced a large number of temporary changes to the program. Federal policymakers introduced the Pandemic Emergency Unemployment Compensation (PEUC) program that provided additional weeks of UI to claimants who used all their regular UI benefits. They also provided supplemental weekly payments that added either $300 or $600 to claimants' normal WBAs. They introduced a new insurance program called the Pandemic Unemployment Assistance (PUA) program that provided benefits to workers who are normally not eligible for regular UI such as self-employed workers. In addition to federal benefit extensions, in many states workers exhausting their regular UI benefits had access to the Extended Benefits (EB) program. The EB program varies across states but typically provides between thirteen and twenty weeks of additional UI benefits when a state's unemployment rate rises

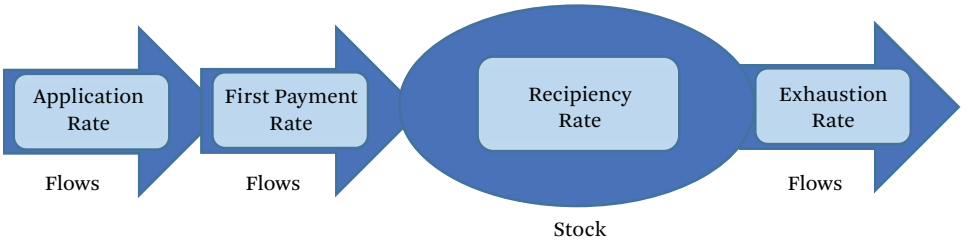
Figure 1. Monetary Eligibility and Alternative Base Periods



Source: U.S. Department of Labor 2020.

Note: The height of each bar represents the minimum income a worker needed to earn to qualify for unemployment insurance. The dark bars represent states with Alternative Base Periods and the light bars represent states that do not have alternative base periods.

Figure 2. Measuring Access in UI Claims Data



Source: Authors' tabulation.

above a certain level (for a discussion of the program, see Bell et al. 2022).

State policymakers also made temporary changes to the programs; for example, nearly all states suspended work search requirements at the beginning of the pandemic. Although these temporary federal programs had uniform eligibility rules, the ability to access them varied across states, partly due to administrative difficulties in implementing them, partly to existing differences in eligibility and access. Moreover, states ended reliance on these programs and reintroduced job search requirements at different times as the pandemic evolved.

Conceptual Framework

To study access to unemployment insurance, this article relies on an integrated conceptual framework for measuring community-level access based on four metrics—a traditional measure that considers the stock of workers receiving UI and three new measures based on flows of workers entering and exiting the UI system. Figure 2 provides a high-level overview of our data-driven framework.

Our framework begins with the traditional measure of UI access, the recipiency rate. The recipiency rate is the share of unemployed (or underemployed) workers in a given week who were collecting regular UI benefits. In this article, given issues of data quality, we focus only on measuring the recipiency rate of regular UI, not of PUA. Further details on why we exclude PUA and how we implement this and other measures is provided later in the article.

The first of our three flow measures in the framework is the application rate, which begins at the point of a job separation.[2] On becoming unemployed, the unemployed worker chooses whether to file a new initial claim for UI benefits. The rate at which they do so is our earliest measure of access. Completion of this step requires the worker to know about the UI system, comprehend the language in which the application is written, and in many cases (particularly during the pandemic) perform an identity verification check involving a smartphone with a camera. In general, the recipiency rate will be higher whenever the application rate is higher.

The second flow measure of our model starts after an unemployed worker has filed a new initial claim. We then check to see the rate at which new initial claims are paid at least once. Reasons for a claim to be rejected can be either monetary (such as insufficient prior earnings) or nonmonetary (such as quitting a job without good cause). We define this measure of the rate at which new initial claimants receive a first payment as the first payment rate.[3] Although for the limited scope of this article we refer to the share of claims paid as a measure of access, in future work this measure can be further refined by removing from the denominator any claimants whose claim was not paid because the claimant found alternative work. As true of the applica-

2. Not all separations result in a worker being qualified for UI. In robustness checks, we define this event more stringently in terms of layoffs.

3. Although the focus here is whether claims are paid, important questions have arisen during the pandemic concerning the timeliness of payments (for more, see Century Foundation 2022).

tion rate, the recipiency rate will be higher whenever the first payment rate is higher, all else equal.

Whereas the first two flow measures represent workers entering UI, the last measure represents unemployed workers leaving UI. The exhaustion rate measures the share of workers who received UI and used all the benefits for which they were eligible. The exhaustion rate is a useful measure of access because it reflects how fully insured workers were against the length of job loss they experienced. Still, like first payment rates, exhaustion rates are not solely a measure of access because they can also be influenced by claimant decisions around searching for and returning to employment. Future work should examine the reemployment prospects of workers who exhausted benefits during the pandemic. In contrast to the previous two flow variables, the recipiency rate will be higher when the exhaustion rate is lower.[4]

OPERATIONALIZING THE MEASURES OF ACCESS

The data for this article stems from the DOL and California's EDD. Data from the DOL was taken from its Office of Unemployment Insurance through the publicly available Data Downloads portal on the office's website, which is updated daily (DOL 2021b). The data extracted from this portal dates to 1984 and includes state-level employment information for all fifty states. The variables in these extracted datasets are reported on either a weekly or monthly basis. Several of our measures combine variables within the DOL data, such as our first payment rate.

For our within-California analysis, we use administrative data from EDD on initial and continuing claims. The initial claims data include all claims filed in the state of California. For each claim, the dataset has information on the date of claim filing, the benefit amount, and demographics, among other information. The continuing claims data include payments information for all claims filed in the state of California. The continuing claims data also contains information about the last payment of each claim for all available programs, allowing us to measure exhaustion rates. The administrative data on continuing claims and exhaustions offers several measurement advantages over the publicly available DOL data we describe in the appendix. Table 1 describes at a high level how each of the four measures of access are operationalized in the DOL and EDD datasets.

Finally, the PUA program is excluded from the analysis because the high levels of reported fraud make it difficult to estimate how many workers actually used the program. For example, in California, the PUA program accounted for 95 percent of all identified fraudulent claims in the state. Additionally, the DOL has also said that the program was more vulnerable to fraud (for detail on California, see EDD 2021a). How the PUA program affected access to UI is an important topic, which we will return to later when discussing avenues of future research.

Measurement of Recipiency Rates

We measure the UI recipiency rate as the number of people collecting regular UI benefits divided by the number of U-6 (Unemployment) unemployed workers in an area. The numerator is the number of people collecting regular UI benefits, and is taken from both the DOL for the state-level analysis and EDD for the within-California analysis. The denominator is the number of U-6 unemployed derived from the Current Population Survey.[5]

Our numerator excludes claimants receiving

4. In table A.1, we show that the raw correlations between the recipiency rate and other three measures of access are consistent with the mechanisms described here.

5. If a substantial number of workers receive partial UI for noneconomic reasons, the recipiency rate could rise above 100 percent (as seen in figure 3), because these workers can collect UI (and thus be counted in the numerator), but because their reduced hours are for noneconomic reasons, they may not be counted as unemployed in the CPS. Furthermore, because DOL's continuing claims are reported in the week payments are processed, and not the corresponding week of unemployment, some state-level estimates of recipiency may be artificially high or low, depending on the backlog of claims in the state. This timing issue is discussed in the appendix.

Table 1. Definitions of Key Access Measures, Employment Development Department, and Department of Labor

Access Measure	Definition in Microdata	Definition in State Aggregates
Application rate	N/A	New initial UI claims in a month divided by the number of newly separated workers in a month.
Initial claims payment rate	Number of regular UI-paid claimants divided by regular claimants at quarterly level. Drop anyone who filed a PUA claim in that quarter from the sample.	First payments for regular UI divided by new regular initial claims, at the monthly level.
Recipiency rate	Number of claimants who claimed regular UI benefits for unemployment experienced in a given week divided by our U6 estimate.	Number of weeks paid across regular UI programs divided by number of (U6) unemployed people in CPS.
Exhaustion rate	Number of exhausted claimants divided by number of people who claimed UI for unemployment in a given week. First, we exclude claimants who have received only PUA payments in the time period of analysis. We code exhaustions when a claimant receives a final payment for a program and does not receive another payment for any UI program for four weeks. For the case of claimants who receive regular and then PUA payments, transitions that occur within four weeks are not coded as exhaustions.	The denominator for exhaustions is calculated by summing the number of people paid in a week for regular UI, including extensions. The numerator is equal to the number of final payments for the final extension in a given time period. During periods with no extension programs, the numerator is final payments for state UI.

Source: Authors' tabulation based on DOL and CPS (U.S. Department of Labor 2021b; U.S. Census Bureau 2020).
Note: UI = unemployment, PUA = pandemic unemployment assistance, CPS = Current Population Survey

PUA benefits, not only to reduce complications related to reports of fraudulent PUA claims in certain states, but also because some PUA claimants may be working reduced hours for noneconomic reasons, and thus would not be included in the denominator (for CPS definitions of unemployment, see BLS 2021).[6] Furthermore, many business owners would be counted as employed if they worked just a single hour during the CPS reference week, but would still be eligible to receive PUA benefits if their business was affected by the pandemic (for California, see EDD 2021b; for the United States, see BLS 2021). Thus, by focusing just on claimants receiving regular UI benefits, we are able to form a more apples-to-apples comparison (for more on the construction of the measures, see table A.1).

6. In addition, certain states had substantial delays in reporting PUA claims, particularly in the first several months of the pandemic.

Measurement of Application Rates

Whereas our analysis of recipiency rates during the pandemic focused on December 2020, when analyzing application rates we focus on claimants during the first half of 2020. This timing better aligns with when the pandemic-driven surge of unemployment began and peaked.

At present, we are able to measure application rates only at the state level. Our baseline measure of application rates at the state level divides the number of new initial claims in a state by the number of total separations in that state and month as reported by the Job Openings and Labor Turnover Survey (JOLTS) administered by the Bureau of Labor Statistics.[7] The appendix provides details on alternative measures of the application rate that we use in robustness checks.

Measurement of First Payment Rates

Our state-level measure of first payment rates from the DOL data is constructed by dividing the total number of first payments in each state in each month by the total number of new initial claims in each state in each month.[8] In the individual-level EDD data, the first payment rate is constructed by measuring the share of new initial claimants in each month who eventually receive a first payment, regardless of when that payment is made. Similar to the application rate, the first payment rate is also measured during the first half of 2020 to align with the surge in new initial claims filed. The appendix provides additional detail on two important caveats of this analysis when applied to the DOL data that can be assessed and remedied with microdata when the analysis focuses on California.

Measurement of Exhaustion Rates

Exhaustion rates have proven particularly difficult to measure, especially in the DOL data. Whereas the term *exhaustion* has at times been used to refer to claimants who exhausted their regular nonextension state UI benefits and moved on to extension programs, in this article we define exhaustions as those cases in which a claimant has exhausted all available UI benefits (including PEUC and EB), which is a more meaningful measure of access given policy changes during the pandemic.

The numerator of our exhaustion rate is an estimate of the number of claimants in a week who exhausted the final week of regular UI benefits available to them (including PEUC and EB). The appendix provides details on how the number of exhaustions is generated in the DOL and EDD data.

Whereas the numerator of our exhaustion rate in either dataset derives from the issuance of final payments, a question remains about what an appropriate at-risk group should serve as the denominator. In the DOL data, we use the number of continuing claimants as a denominator with which to construct an exhaustion rate. This choice of denominator is chosen largely for convenience. The aggregated nature of the DOL data makes it nearly impossible to relate the number of claimants who exhaust in a given week to any other group that is plausibly at risk of exhausting.

In the EDD microdata, we are able to construct two separate measures of exhaustion. In addition to relating the number of individuals exhausting benefits in a given week to the total number of individuals receiving benefits in that week (to compare with DOL results), we also see what share of claimants who estab-

7. The number of new initial claims has been a small subset of the number of initial claims during most of the pandemic. For a more detailed investigation of the ways in which initial claims overstate entrances to unemployment, see Bell et al. 2021.

8. For the full definition of a new initial claim in California, see EDD 2022a. In general, one can divide initial claims into two main categories: new initial claims and additional claims. New initial claims correspond to "an application for the establishment of a benefit year," and an unemployed person who wants to collect UI benefits must file a new initial claim. Additional claims correspond to claimants who experience an interruption in their benefit certification for one or more weeks because they are employed. Claimants still must be within their benefit year and have remaining benefits to file an additional claim. Because additional claims represent only re-entries to UI, we exclude them from our analysis and focus on new initial claims.

Table 2. Comparisons of Key Access Measures, EDD, and DOL

Period	Measure	DOL Estimate for CA	EDD Estimate
December 2019 (first week)	first payment rate	0.8485	0.78
	recipiency rate	0.2279	0.2098
	exhaustion rate	0.0287	0.0257
	application rate	0.226	N/A
December 2020 (first week)	first payment rate	0.8028	0.75
	recipiency rate	0.9664	0.8500
	exhaustion rate	0.0022	0.0029
	application rate	0.156	N/A

Source: Authors' tabulation based on EDD, DOL and CPS (EDD 2022b; U.S. Department of Labor 2021b; U.S. Census Bureau 2020).
Note: Each cell represents the mean of the measure of access. EDD = Employment Development Department; DOL = Department of Labor.

lished benefit years in a given week have eventually exhausted benefits. We call this measure the cohort exhaustion rate. In calculating the cohort exhaustion rate, we count all exhausted claimants within a cohort and report that number by date of the established benefit year. In the other measure, we report the number of exhausted claimants (regardless of their cohort) by the week they experienced exhaustion.

DESCRIPTIVE STATISTICS ON MEASURES OF ACCESS

Table 2 presents descriptive statistics on our four access measures from the EDD and DOL datasets for California. We present means of each measure before and during the pandemic, in the first weeks of December 2019 and 2020. Because the structure of data in DOL and EDD are different, we did not expect to observe identical estimates. Despite these differences, the estimates are in general reasonably close.

The only case in which the EDD estimate is significantly larger (32 percent) is the exhaustion rate in 2020. In this case, we suspect our approach in the DOL data underestimates the exhaustion rate. To calculate the number of claimants exhausting in the DOL data, we use the number of final payments for the program that would be the last one available to most claimants, which was EB in December 2020. This likely misses some claimants who exhausted PEUC and were not eligible for EB (for more on EB eligibility in California, see EDD 2021c).

Aside from exhaustion rates, the remaining EDD estimates are about 5 to 10 percent smaller than DOL. The main differences in estimates for recipiency rates and 2019 exhaustion rates arise from the fact that the DOL data for continuing claims are reported by the processing week whereas EDD uses the week of unemployment to count continuing claims. Finally, the basis of discrepancy in the first payment measure is that in the EDD data we link individual-level data for new claimants to payment information to find the first payment rate; however, in the DOL data, we rely on aggregate monthly numbers.

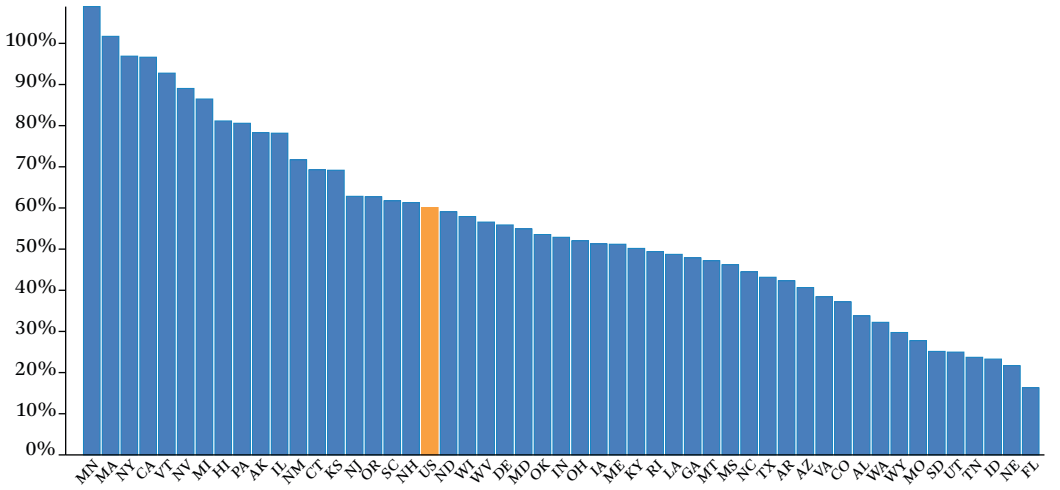
RECIPIENCY RATES AMONG THE UNEMPLOYED

Recipiency Rates Across the United States

Across the United States, we estimate that 60 percent of Americans who were unemployed in December of 2020 collected regular UI benefits.[9] Figure 3 shows that the national average

9. Figure A.1 shows that this U-6 recipiency rate in December 2020 is a large increase from the pre-pandemic period, when the U-6 recipiency rate was around 20 percent. In December 2020, the average U-3 recipiency rate was near 100 percent (see figure OA1 in the online appendix). Averaging across the year, DOL estimates

Figure 3. Recipiency Rates Across States



Source: Authors' calculations based on DOL, CPS (U.S. Department of Labor 2021b; U.S. Census Bureau 2020).

Note: N = 50. The dark bars represent the recipiency rates across states for the week of December 5, 2020. The light bar represents the U.S. average recipiency rate weighted by population in 2019. The recipiency rate is the number of continuing claims paid from the DOL divided by the number of U6 unemployed from the CPS.

masks substantial heterogeneity across states. In some states—such as Minnesota, Massachusetts, New York, and California—the number of UI claimants was essentially comparable to the number of people thought to be unemployed (a recipiency rate of at least 90 percent). In contrast, Tennessee, Idaho, Nebraska, and Florida all saw recipiency rates of less than 25 percent, meaning that even at the height of the pandemic, the vast majority of unemployed workers were not collecting benefits.[10]

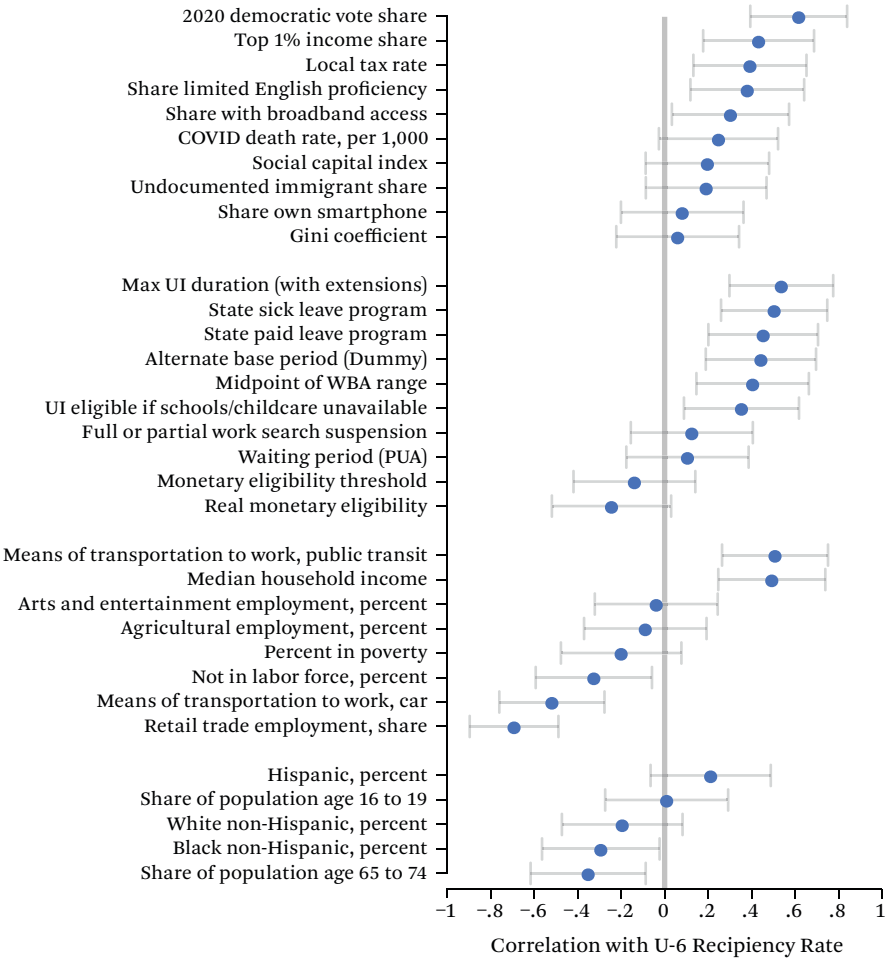
To clarify the sources of this state-level variation, figure 4 presents correlations of recipiency rates with other state-level policy and socioeconomic factors. On the socioeconomic side, states that experienced higher recipiency rates during the pandemic tended to be wealthier, as evidenced by a strong positive correlation with median household income. States that had a higher Democratic vote share in the last presidential election also had higher recipiency rates. States with higher shares of Black residents had lower recipiency rates during the pandemic. This pattern shines light on racial disparities in access to the UI system documented by a growing historical and qualitative literature (Edwards 2020; Fields-White et al. 2020).[11] A number of state-level policies were also strongly predictive of differences in recipiency rates. States that afforded claimants longer PBDs had substantially higher recipiency rates, as did states that allow the use of alternative

that the U-3 recipiency rate for the country was 78 percent, a substantial increase from 28 percent in 2019, and 24 percentage points above the previous peak of 54 percent, occurring in 1952 (DOL 2004).

10. Figure A.1 demonstrates how this state variation changed over time.

11. An original aim of this study was to quantify the extent to which racial and ethnic disparities at the national level could be explained by low rates of access in states with certain racial and ethnic demographic compositions. We were unable to answer this question because the race and ethnicity information contained in the DOL data are not comparable with the race and ethnicity information available in the Current Population Survey (from which unemployment estimates are constructed).

Figure 4. Recipiency Rates Across States, Correlations



Source: Authors' calculations based on DOL, CPS, ACS (U.S. Department of Labor 2021b; U.S. Census Bureau 2019, 2020).

Note: N = 50. Each dot represents the correlation between the covariate and recipiency rate in December 2020 weighted by population in 2019. All variables are measured at the state level. Error bars represent the 95 percent confidence interval. The recipiency rate is the number of continuing claims paid from the DOL divided by the number of U6 Unemployed from the CPS. For more details of covariates, see online data appendix.

base periods to establish monetary eligibility. States with public sick or paid leave programs also had higher rates of recipiency, which in this case could reflect that states with generous UI policies also have other generous labor-related policies.[12] After including the vote share control the paid leave coefficient drops from 0.48 to 0.09 and loses significance. This provides some support for the theory that the bivariate correlations between sick or family leave and recipiency rates simply reflect more generous labor and UI policies overall. Although this is not a causal analysis, the correlations suggest significant scope for state-level policies to affect

12. Regressing the recipiency rate on a dummy for whether a state has sick or family leave policies and Democratic vote share as a signal for more generous UI policies provides a limited test of this hypothesis (see table OA1 in the online appendix).

access to UI, and that states' differing policies have resulted in geographic disparities in access to UI during the pandemic.[13]

Although these findings are correlational, the magnitudes of the correlations of recipiency rates with policy variables are substantial in many cases. Consider, for instance, the cross-state relationship observed between state PBD and recipiency rates. In December of 2020, the state UI maximum PBD in North Carolina was twelve weeks, whereas Massachusetts offered up to thirty weeks.[14] Unsurprisingly, recipiency rates were substantially lower in North Carolina than in Massachusetts—44 percent versus 102 percent. Suppose that the observational correlation between state maximum PBD and recipiency were causal. If all states had a PBD of thirty weeks, the national recipiency rate would grow from 60 percent to 77 percent—a 28 percent increase. This would result in about three million more jobless workers collecting UI benefits each week, totaling about $1.7 billion in benefits. Online appendix table 2 shows that the association between the PBD and recipiency rates is robust to the inclusion of economic, demographic, and other policy controls, but nonetheless, such a calculation should be interpreted with caution as there are many other factors that differ across states. Still, the magnitude of this difference suggests likely great scope for state-level policies to influence recipiency rates during the pandemic.

Insights from California

Measuring recipiency rates for regions within California is an important but difficult task. Although we have precise measures of how many Californians collected benefits from a given geographic unit, estimating the number of unemployed workers in that place at that time is more cumbersome. In this analysis, we rely on official county-level estimates from the Bureau of Labor Statistics Local Area Unemployment Statistics (LAUS). However, estimating recipiency rates this way is far from ideal because—given the small sample size of the Current Population Survey—the LAUS estimates for unemployment at the substate level rely on certain measures of UI claims themselves (for more, see BLS 2022a). Although we have contrasted the LAUS county unemployment rates to comparable estimates based on the CPS microdata and found them to be similar, the fact remains that for many smaller geographic units the estimates are based on small samples and hence are prone to statistical noise. For this reason, the county-level estimates of UI recipiency rates presented below should be interpreted with caution.[15]

Analogous to figure 3, figure 5 shows how recipiency rates varied within California. Based on the comparisons of UI claimants to LAUS unemployment rates (rescaled to mirror U-6), Los Angeles County has by far the lowest recipiency rate among large counties in California. Figure 5 also demonstrates substantially less variation in recipiency rates across counties than across states.[16] This could be a consequence of the UI program parameters being constant across counties, but substantially different across states.

Figure 6 shows county-level correlations of recipiency rates with socioeconomic indicators. Similar to states, higher-income counties also saw higher rates of UI recipiency. Counties with higher rates of COVID-19 deaths saw lower rates of recipiency, as did counties with higher shares of Hispanic residents. Counties with more broadband access had substantially higher rates of UI recipiency, which points to the importance of technological gaps in access to UI during the pandemic. Counties with more

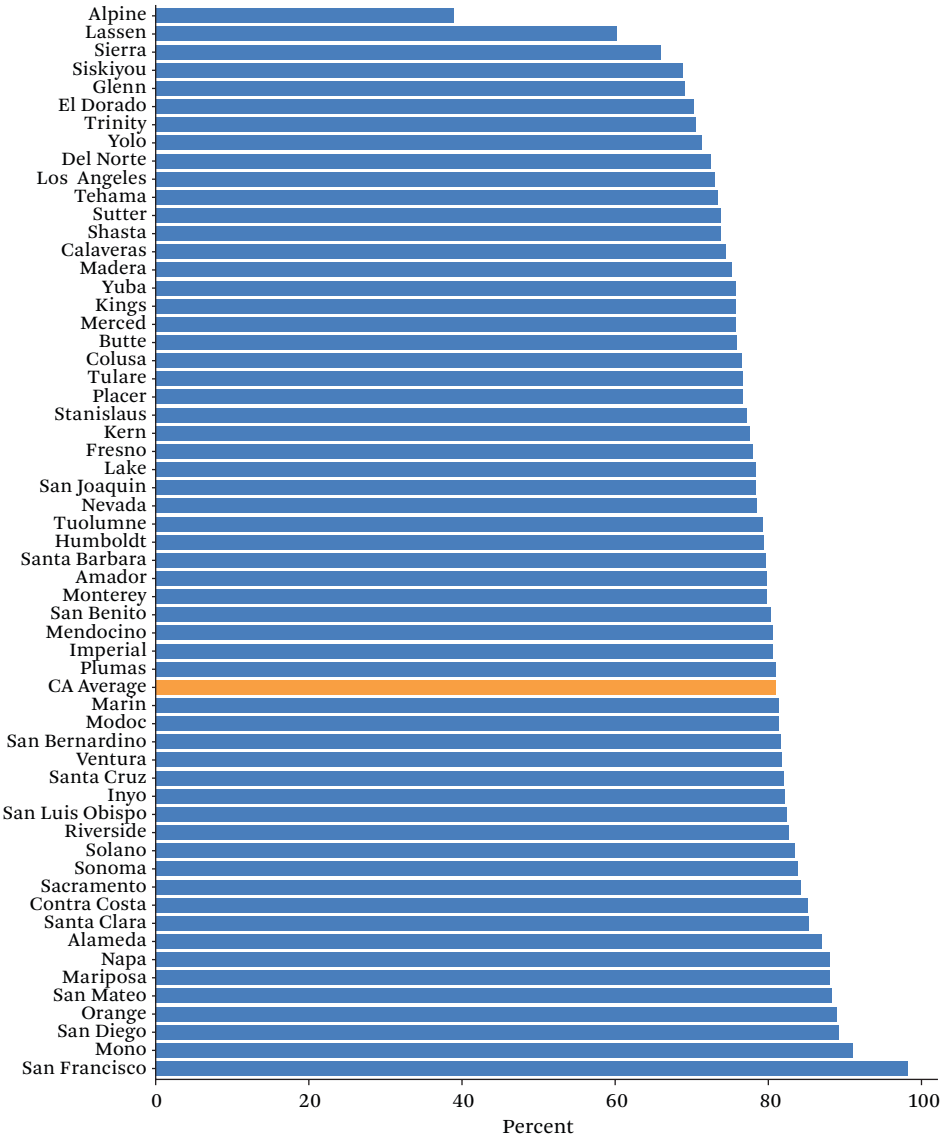
13. Figure OA2 plots the correlations between each covariate and the U3-based version of the recipiency rate (see online appendix). The results are nearly identical.

14. The Massachusetts UI PBD increases from twenty-six to thirty weeks when unemployment is high.

15. In our ongoing series of policy briefs, we compare geographic patterns of recipiency rates using the LAUS county-level definition of unemployment to the tract-level unemployment estimates near the start of the pandemic (Ghitza and Steitz 2020). We have not detected meaningful differences in the spatial correlations using either measure of unemployment.

16. Figure A.2 also demonstrates how this county variation changed over time.

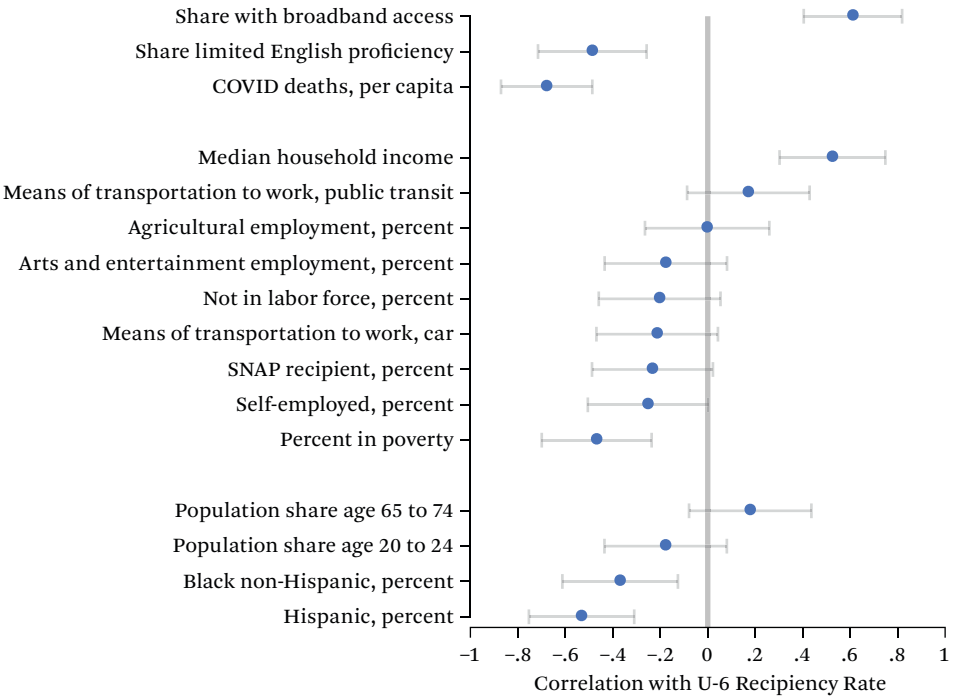
Figure 5. Recipiency Rates Within California, County-Level



Source: Authors' calculations based on EDD, CPS (EDD 2022b; U.S. Census Bureau 2020).
Note: N = 58. The dark bars represent the recipiency rates for all the counties in December 2020. The light bar represents the California average recipiency rate weighted by population. The recipiency rate is the number of continuing claims paid from EDD divided by the number of U6 unemployed from the CPS and LAUS.

residents with limited English proficiency also had lower rates of UI recipiency, suggesting that language barriers may also have played a role in limiting access. Many of these correlational findings corroborate more qualitative conclusions on the role that barriers to access during the pandemic have played in widening racial disparities, including stigma, burdens to produce documentation, and the digital divide (Fields-White et al. 2020). Although an authoritative dissection of the roots of these differences is beyond the scope of this article, a growing body of quantitative and qualitative evidence suggests that both legal eligibility and

Figure 6. Recipiency Rates Within California, County-Level Correlations



Source: Authors' calculations based on EDD, CPS, ACS (EDD 2022b; U.S. Census Bureau 2019, 2020).
Note: N = 58. Each dot represents the correlation between the covariate and UI recipiency rate in December 2020 weighted by population in 2019. All variables are measured at the county level. Error bars represent the 95 percent confidence interval. The recipiency rate is the number of continuing claims paid from EDD divided by the number of U6 Unemployed from the CPS and LAUS. For more details of covariates, see online data appendix.

more nuanced barriers to accessibility of UI have played important roles in determining UI recipiency rates.

Given the stark differences across geographic regions in UI recipiency rates, we next turn to analyzing geographic differences in rates of first payments.

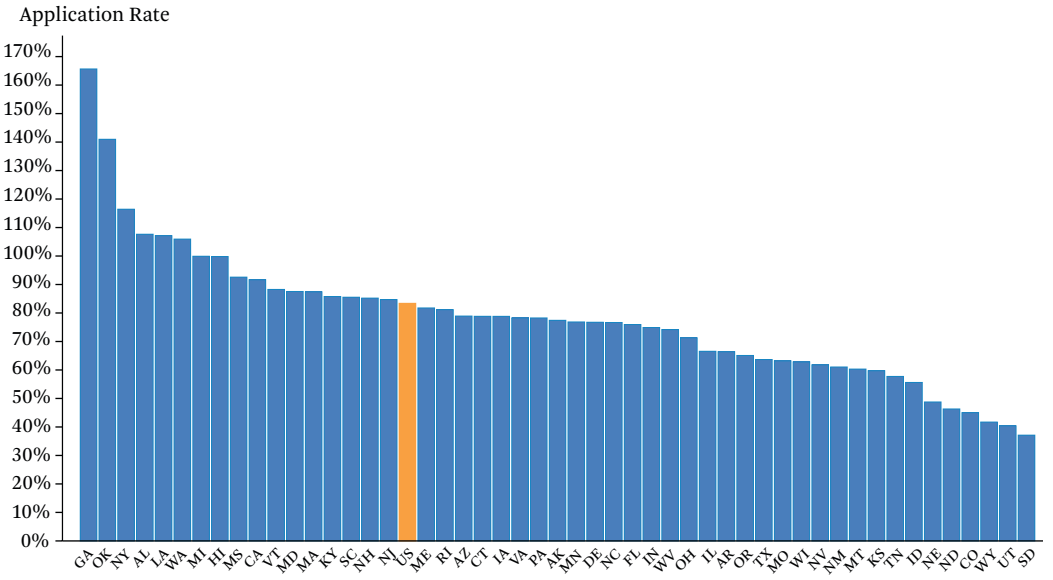
APPLICATION RATES AMONG THE UNEMPLOYED

Application Rates Across the United States

At the national level, we estimate that 83 percent of workers who were separated from their employer in the first or second quarter of 2020 filed an unemployment insurance claim. The application rate varied substantially across states, from 63 percent to 87 percent. These estimates should be interpreted with some caution because we are relating separations in a month to new initial claims in a month even though the claims filed could be the result of separations in a previous month.[17] One additional note of caution is that the high application rates in 2020 could be explained by high levels of fraud that was reported during the pandemic (Podkul 2021). Nevertheless, figure 7 shows the spread of application rates across states in the first half of 2020. Among the states that had the highest share of separated workers filing new claims were Georgia, Oklahoma,

17. For example, a large increase in separations at the end of a month could lead to a large increase in new UI claims filed at the beginning of the next month depending on how long it takes a worker to file for UI after separating from their employer.

Figure 7. Application Rate, Across States



Source: Authors' calculations based on DOL, ACS, JOLTS (U.S. Department of Labor 2021b; U.S. Census Bureau 2019, BLS 2022c).

Note: N = 50. The dark bars represent the application rates across states for the first and second quarter of 2020. The light bar represents the U.S. average application rate weighted by population in 2019. The application rate is the number of new UI claims from the DOL divided by the number of separations from JOLTS.

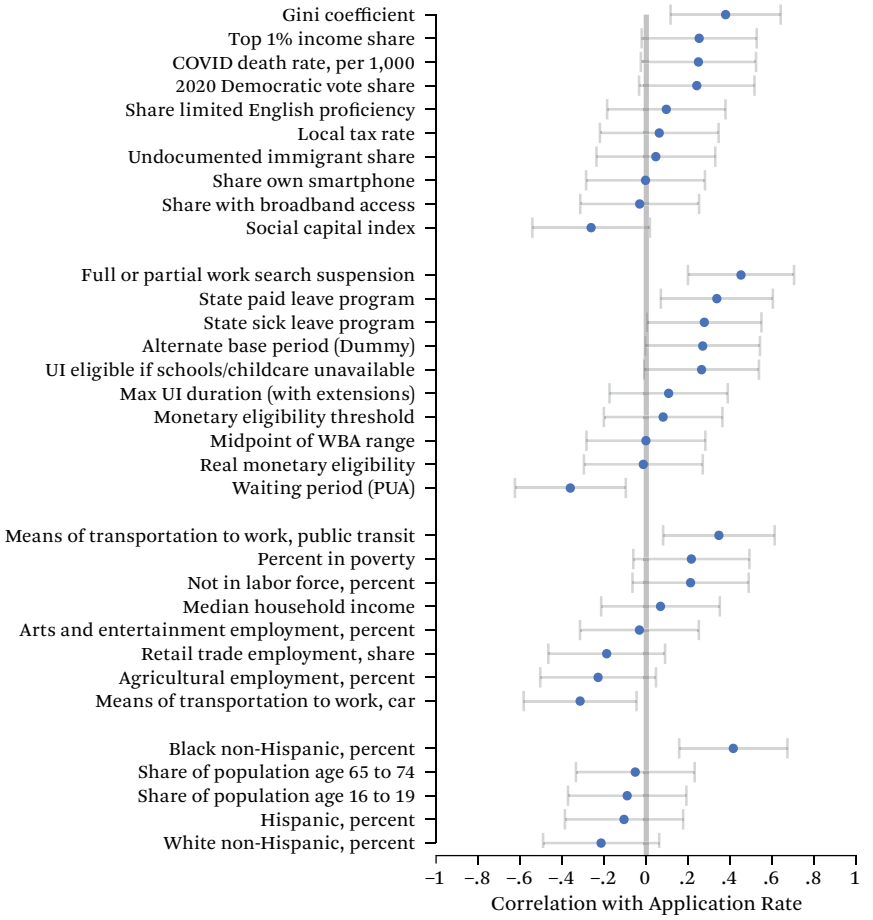
New York, Alabama, and Louisiana; among those that had the lowest share were South Dakota, Utah, Wyoming, and Colorado. Interestingly, some of the states with the highest application rates, such as Georgia, Oklahoma, Alabama, and Louisiana, also had some of the lowest first payment rates.[18] This pattern is consistent with high levels of fraudulent claims in some states being appropriately rejected and leading to lower first payment rates.

Figure 8 explores disparities in application rates by measuring the correlation between application rates and a set of state-level characteristics.[19] Some state-level policies are statistically significantly correlated with application rates. States that either fully or partially suspended work search requirements were correlated with higher application rates. Although we cannot interpret this relationship as causal, one hypothesis that could be tested further is that suspending work search requirements could have encouraged people who were no longer in the labor force to file claims thereby raising the new UI claims without increasing new separations. In contrast to the other three other measures of access, economic affluence was not associated with greater application rates in 2020. Similarly, the share of the state that is Black is actually associated with greater application rates even though it is typically associated with lower access in the other three measures.

18. Georgia's high application rate is possibly the result of their unique PUA application process. In Georgia, applicants who wanted to sign up for PUA benefits had to first apply and be rejected for regular UI benefits before applying for PUA; in other states, applicants could directly apply for PUA benefits. This would mechanically increase the application rate and decrease the first payment rate in Georgia.

19. Figures OA3 and OA4 depict the same correlations but using the alternative layoffs and recently unemployed denominators discussed in the measurement appendix (see online appendix). The pattern of results is very similar.

Figure 8. Application Rates Across States, Correlations



Source: Authors' calculations based on DOL, ACS, JOLTS (U.S. Department of Labor 2021b; U.S. Census Bureau 2019, BLS 2022c).

Note: N = 50. Each dot represents the correlation between the covariate and the application rate in the first and second quarter of 2020 weighted by population in 2019. All variables are measured at the state level. Error bars represent the 95 percent confidence interval. The application rate is the number of new UI claims from the DOL divided by the number of separations from JOLTS. For more details of covariates, see online data appendix.

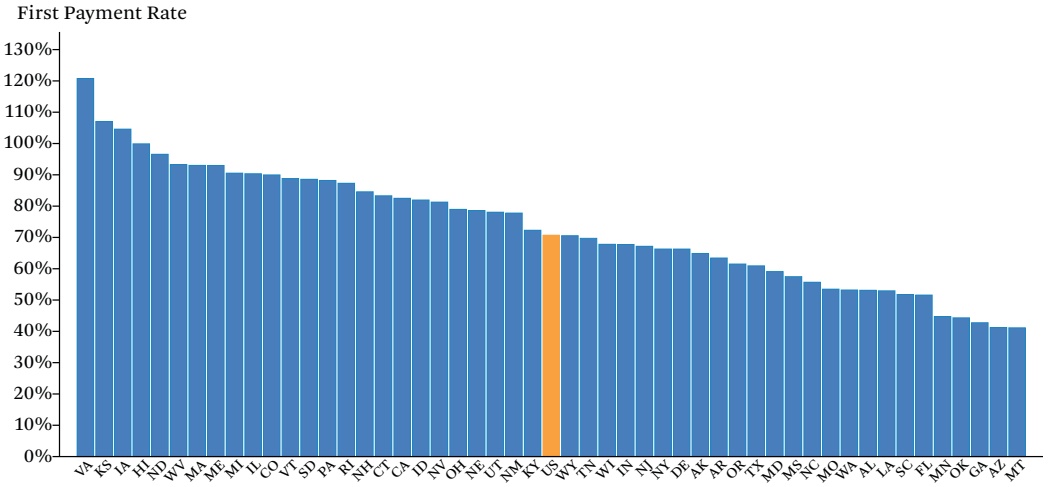
FIRST PAYMENT RATES AMONG CLAIMANTS

First Payment Rates Across the United States

At the national level, we estimate that about 70 percent of new initial claims filed in the first two quarters of 2020 resulted in first payments. This measure of access varied dramatically across states, although this calculation shows noise in the DOL data because we are relating first payments issued in a month to new initial claims filed in a month (which are not necessarily the same claims). Still, figure 9 shows that states essentially span the entire range, from nearly 40 percent to approximately 100 percent.[20] Among the states that

20. That some states are above 100 percent is an artifact of how DOL reports claims filed in a month and claims paid in a month, but these are not necessarily the same claims. This is a limitation we face in our cross-state analysis but not in our within-California analysis relying on microdata.

Figure 9. First Payment Rates Across States



Source: Authors' calculations based on DOL (U.S. Department of Labor 2021b).
Note: N = 50. The dark bars represent the first payment rate across states for the first and second quarter of 2020 (January through June). The light bar represents the U.S. population weighted average. The first payment rate is the number of first claim payments divided by the number of new initial claims.

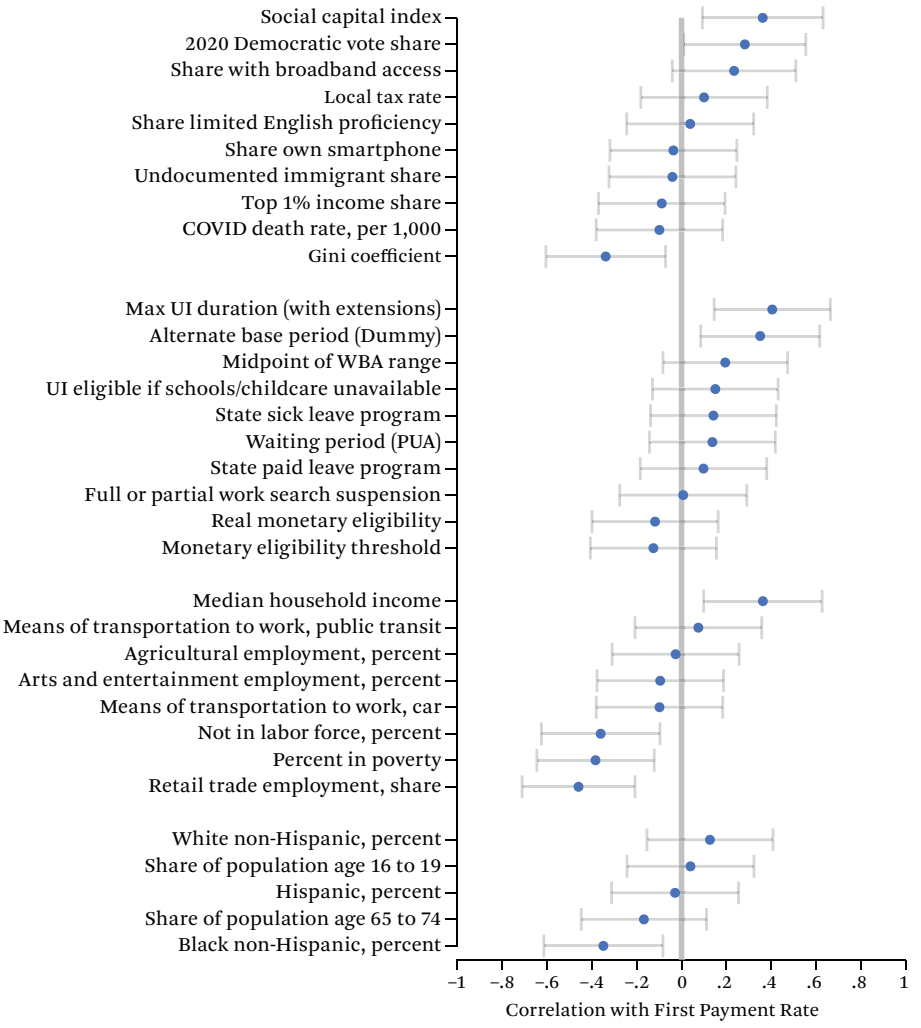
paid the highest share of claims in the first half of 2020 were Virginia, Kansas, Iowa, and Hawaii; Montana, Arizona, and Georgia were among the lowest.

Figure 10 shows how the heterogeneity in first payment rates covaries with our set of state-level covariates. Certain state-level policies appear to relate to first payment rates in the expected directions. In states that allow claims to be established under alternative base period formulas, more claimants get paid. Although states with longer UI durations also see a larger share of claimants paid, we do not detect a significant correlation between the share of claimants paid and monetary eligibility thresholds. This is surprising given that a higher monetary eligibility threshold implies that (all else equal) fewer claimants are monetary eligible and therefore fewer claims will receive a first payment.[21] However, a claim could go unpaid for other reasons, including nonmonetary eligibility criteria, short unemployment spells, or claimants failing to certify for benefits. These scenarios may be less common in states with higher monetary eligibility thresholds. Ultimately, the large variation in first payment rates across states and correlation with policy variables implies that state governments have a great deal of discretion in how generous they want to make access to UI. Another example is the use of facial recognition tools such as ID.me for identity verification, which may have helped reduce fraud but also made it harder for people to legitimately access benefits. In response, some states stopped using ID.me and others continued, illustrating the discretion that states have in making it easier or harder for unemployed workers to access benefits. Massachusetts, for example, stopped in early 2020 (Sokolow 2022).

In general, states that paid a higher share of claims during the start of the pandemic tended to be more affluent (as measured by

21. A monetary eligibility threshold is the minimum amount of earnings that a jobless worker must have earned in the base period to establish a UI claim. The monetary eligibility threshold in January 2020 ranged from $130 in Hawaii to $7,000 in Arizona.

Figure 10. First Payment Rates Across States, Correlations



Source: Authors' calculations based on DOL, ACS (U.S. Department of Labor 2021b; U.S. Census Bureau 2019).

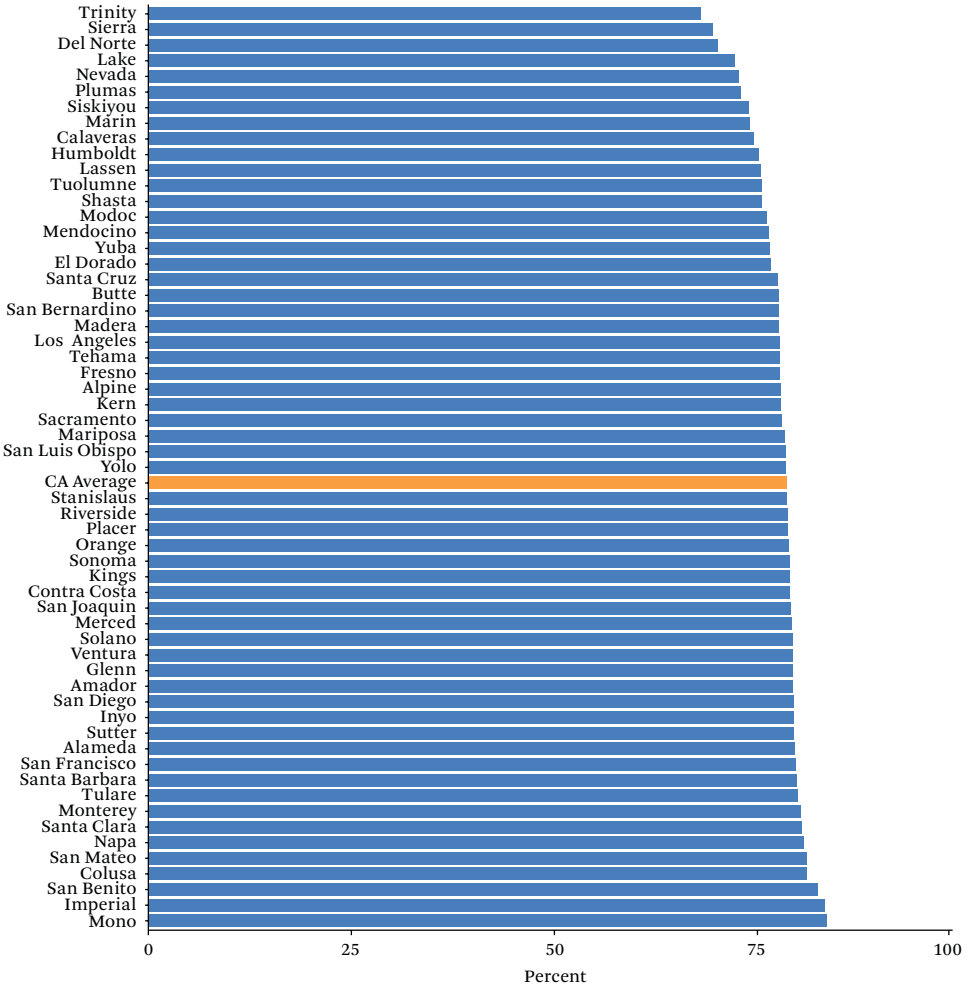
Note: N = 50. Each dot represents the correlation between the covariate and the first payment rate in the first and second quarters of 2020 weighted by population in 2019. All variables are measured at the state level. Error bars represent the 95 percent confidence interval. The first payment rate is the number of first claim payments divided by the number of new initial claims. For more details of covariates, see online data appendix.

median household income or poverty rates) and slightly more economically unequal (evidenced by the negative correlation of first payment rates with the Gini coefficient). States with a higher share of Black workers paid out significantly lower shares of claims, though we did not detect a significant correlation with Hispanic share.

Insights from within CA

Relative to the amount of variation in first payment rates across states, the variation in first payment rates across California's counties is more modest. The sample of the first payment analysis includes claimants with regular new initial claims in the second quarter of 2020. Figure 11 plots the rate of first payments in each of

Figure 11. First Payment Rates Within California, County-Level



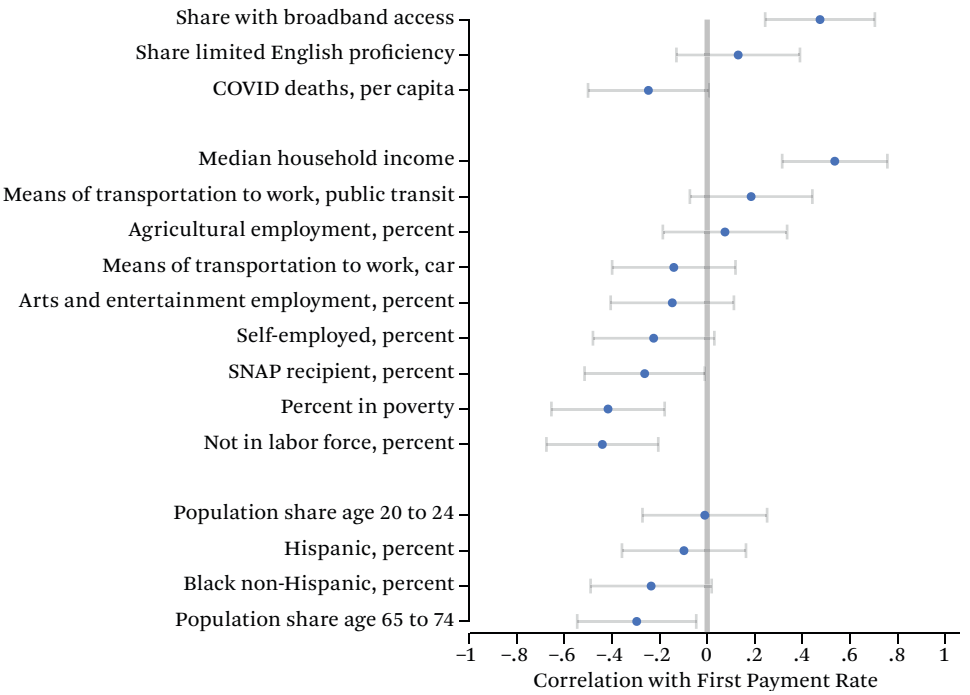
Source: Authors' calculations based on EDD (EDD 2022b).
Note: N = 58. Each dark bar represents the first payment rate in each county in the second quarter of 2020. The light bar represents the California average weighted by population in December 2019. The first payment rate is the number of first claim payments divided by the number of new initial claims.

California's fifty-eight counties. Trinity County saw the lowest rate of first payments in the second quarter of 2020 (about 68 percent); Sierra, Del Norte, and Lake also had low rates. Among the counties with the highest share of claims paid were Mono, Imperial, and San Benito (83, 83, and 82 percent, respectively). Los Angeles County, which ranked among the lowest counties in terms of recipiency rates as benchmarked in relation to LAUS estimates of unemployed people, ranked near the middle in terms of the share of claims from its residents that have been paid.

Figure 12 correlates counties' first payment rates with our standard county-level set of covariates. By several measures, more affluent counties saw substantially higher rates of payments. Counties with higher-income and fewer Supplemental Nutrition Assistance Program recipients or those in poverty saw higher rates of payments among claimants. We also detect a positive relationship between broadband access and first payment rates.

Having established geographic heterogeneity in the rate at which first payments were issued during and before the pandemic, the

Figure 12. First Payment Rates Within California, County-Level Correlations



Source: Authors' calculations based on EDD, ACS (EDD 2022b; U.S. Census Bureau 2019).
Note: N = 58. Each dot represents the correlation between the covariate and the first payment rate in the second quarter of 2020 weighted by population in 2019. All variables are measured at the county level. Error bars represent the 95 percent confidence interval. The first payment rate is the number of new initial claimants who received at least one payment divided by the total number of new initial claimants in the second quarter of 2020. For more details of covariates, see online data appendix.

final stage of our analysis turns to exhaustion rates.

EXHAUSTION RATES

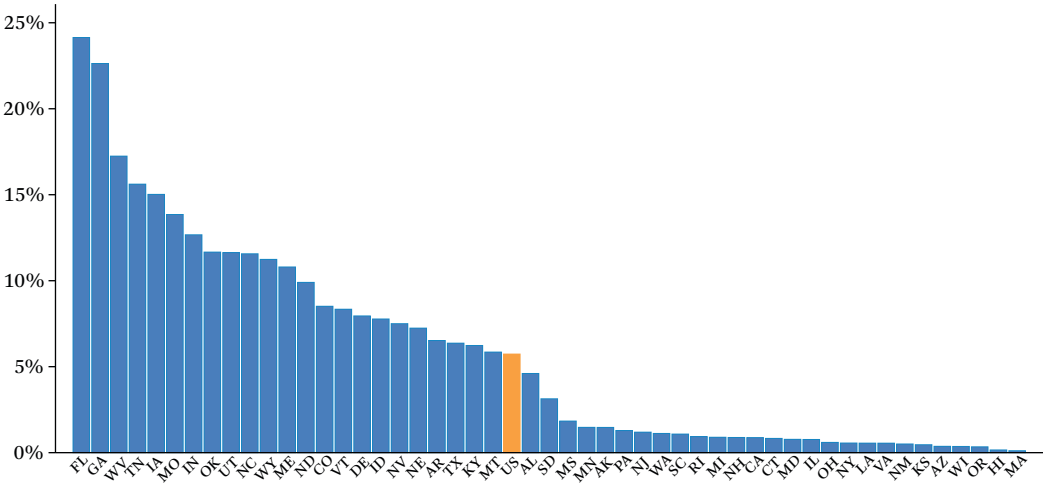
We estimate that in the first week of December of 2020, approximately 6 percent of Americans who were claiming UI benefits exhausted their benefits. The exhaustion rate varied substantially across states; Florida and Georgia, for example, saw more than 20 percent of their claimants exhausting. In contrast, about half of states saw exhaustion rates of 3 percent or less. The top five states with the most exhaustions in December 2020 were Georgia, Texas, Florida, North Carolina, and California, and together they accounted for 52 percent of all exhaustions nationwide that month. Figure 13 plots a bar graph of exhaustion rates across states.

A wide variety of socioeconomic and policy variables are significant predictors of differences in state-level differences in exhaustion rates during the pandemic. Figure 14 presents these correlations. Of the covariates we studied, the strongest predictor was the maximum duration of UI benefits. Exhaustion rates were lower in states with more generous benefits (either in terms of duration or levels) and those that provided workers with sick leave programs (which may have functioned as alternatives to UI). In general, exhaustion rates were also substantially lower in more Democratic-leaning states and states with more high earners. Rates were slightly higher in states with more Black residents and older residents.

Insights from within CA

For our within-California analysis, we put forward two distinct measures of exhaustion rates. To mirror the definition of exhaustion rates we were able to operationalize in the DOL data, we

Figure 13. Exhaustion Rates Across States



Source: Authors' calculations based on DOL (U.S. Department of Labor 2021b).
Note: N = 50. The dark bars represent the percent of claimants who exhausted their benefits across states for the month of December 2020. The light bar represents the U.S. average weighted by population. The exhaustion rate is the number of claimants who exhaust their benefits divided by the number who received payments.

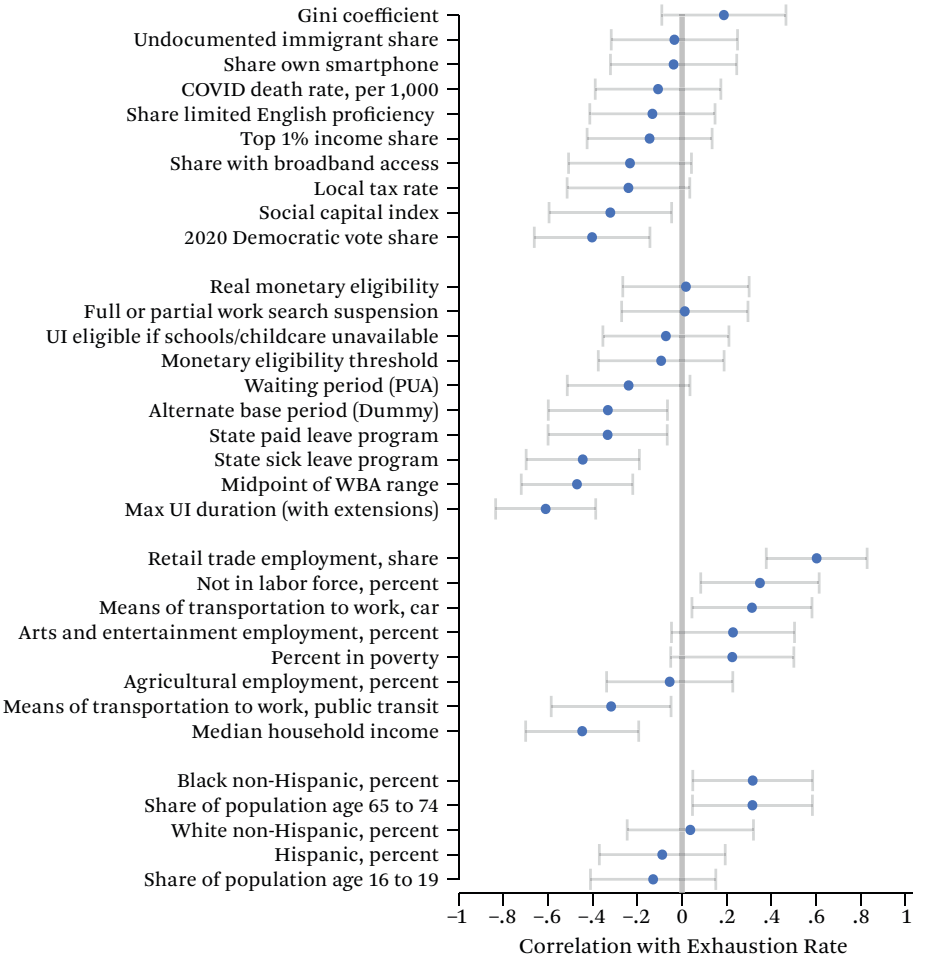
first divide the number of claimants who exhausted UI in a given week by the total number of claimants who certified that week. Conceptually, this ratio is difficult to interpret. Although each claimant can count at most once in the numerator (during the week of exhaustion), the same individual would count toward the denominator for multiple weeks (during each week claimed). A more readily interpretable statistic is the share of UI entrants in a given week who will eventually exhaust UI. Because this statistic counts each claimant exactly once in the denominator (during the week of entry), it is more accurate. For the same reason, the more accurate measure tends to be higher than the traditional measure. A potential drawback is that it cannot be implemented nationally with available data.

Figure 15 plots how these two definitions of exhaustion rates have evolved in California during the pandemic. Whereas the number of California's claimants exhausting each week has typically amounted to less than 1 percent of that week's continuing claimants (panel A), a different story emerges when analyzing exhaustees as a share of the weekly entry cohort (panel B). Among Californians whose benefit years began during the pandemic, between 10 and 20 percent of these claimants have already exhausted benefits as of the end of June 2021. However, we anticipate these cohort exhaustion rates to rise considerably as time goes on because this analysis does not take into account the large effects the recent September 2021 benefits expiration had on these cohorts.[22]

So far, our cohort-level exhaustion rate estimates during the pandemic have been somewhat lower than what prior literature has found during past recessions, though direct comparisons are difficult because our analysis focuses on California whereas other work has estimated national averages. Walter Nicholson and Karen Needels (2006) look at cohort exhaustion

22. We do not estimate the cohort exhaustion rate at the state level. To estimate the cohort exhaustion rate, one needs to find the size of each cohort and the number of exhausted claimants in the related cohort. To calculate such a rate, we need to make assumptions based on PBD. The main reason for avoiding using DOL data to calculate cohort exhaustion rate is the substantial disparities in PBD, especially after COVID under extension programs.

Figure 14. Exhaustion Rates Across States, Correlations



Source: Authors' calculations based on DOL and ACS (U.S. Department of Labor 2021b; U.S. Census Bureau 2019).

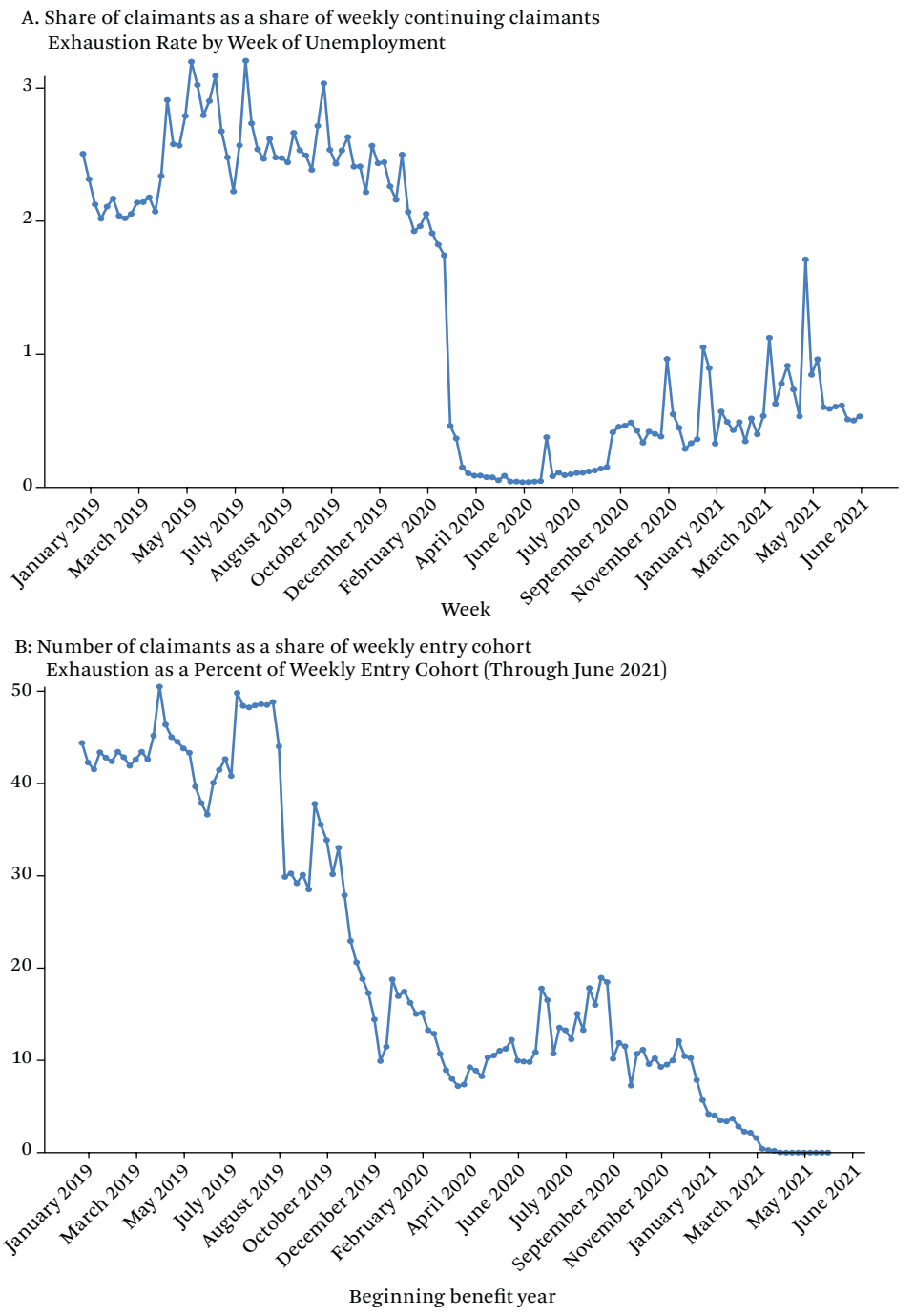
Note: N = 50. Each dot represents the correlation between the covariate and the exhaustion rate in December 2020 weighted by population in 2019. All variables are measured at the state level. Error bars represent the 95 percent confidence interval. The exhaustion rate is the number of claimants who exhaust their benefits divided by the number who received payments. For more details of covariates, see online data appendix.

rates during recession years between 1970 and 2003. They show that the (national) exhaustion rate for the early 2000s recession was on average 32 percent. In general, it is difficult to predict the direction of exhaustion rates during recessions because when unemployment duration increases, the benefit duration also increases because of extension programs.

Andreas Mueller, Jesse Rothstein, and Till von Wachter (2016) estimate cohort exhaustion during the Great Recession. They show that, at the beginning of the recession, exhaustion rates decreased because of Extended Benefits, but eventually they started to increase because of the rise of unemployment durations.

Our estimates for cohort exhaustion rates in 2020 must be interpreted with caution because as of June 2021 a vast number of claimants still have remaining benefit durations. Ending extension benefits in September 2021 without a

Figure 15. Exhaustion Rates Within California, Weekly Resolution, 2019–present



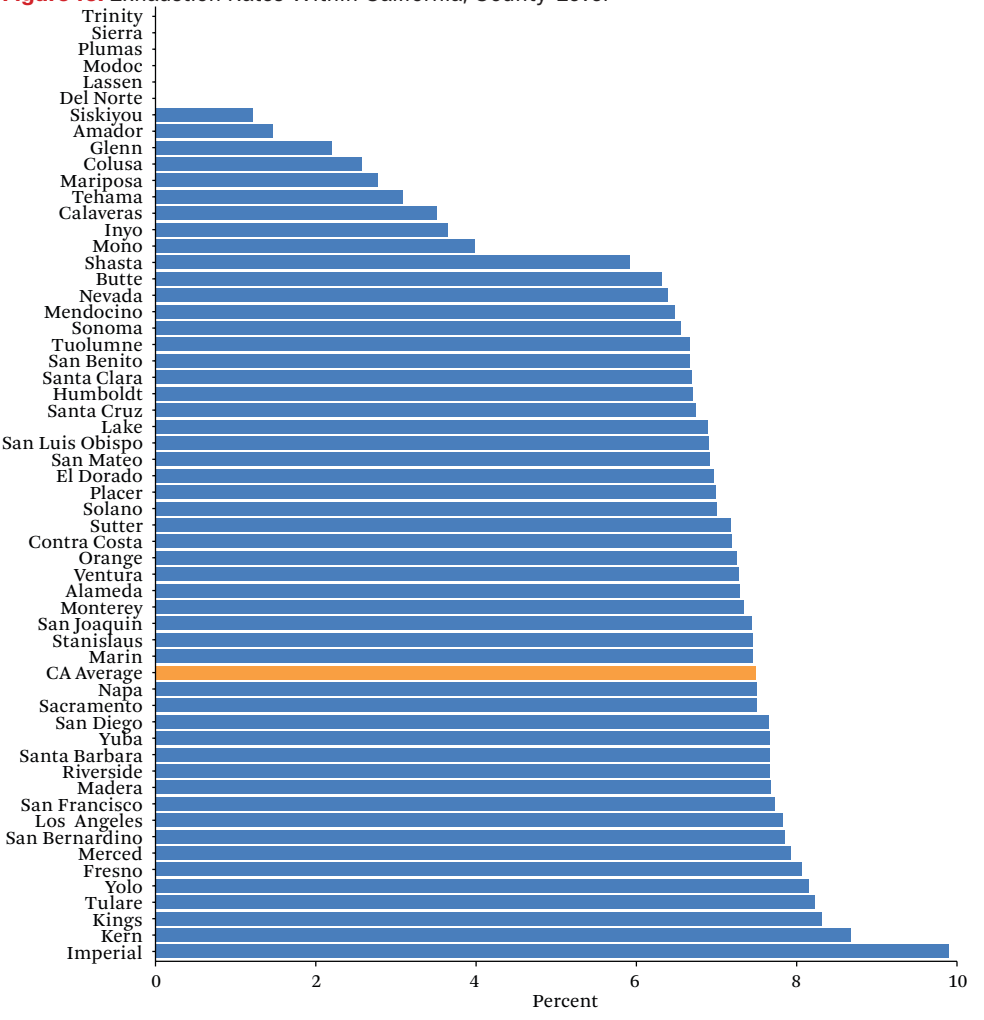
Source: Authors' calculations based on EDD (EDD 2022b).
Note: N = 79. The line in panel A represents the number of claimants who exhausted benefits each week as a percentage of the number of continuing claims each week; the figure does not include claimants who only ever received PUA benefits. The line in panel B shows the share of all claimants who entered UI each week and who ultimately received all the benefits they were eligible for before and during the pandemic.

correspondingly meaningful decrease in unemployment duration will likely increase the cohort exhaustion rates significantly for 2020 cohorts.

In contrast to our cross-state analysis of exhaustions as a share of continuing claimants in December 2020 in the DOL data, when examining geographic differences in exhaustion rates within California, we analyze the cohort-specific exhaustion rates of claimants who entered UI in March 2020. Figure 16 plots cohort exhaustion rates by county in California. Some of the highest rates of exhaustion among March 2020 entrants were in the counties of Imperial, Kern, and King.

Figure 17 describes how exhaustion rates vary across counties in relation to our standard set of county-level covariates. Exhaustion rates have been substantially higher in counties with more limited-English speakers, as well as those that reported more COVID-19 deaths. Poorer counties have also seen higher rates of exhaustion, as have those with higher share of Black or Hispanic residents. Interestingly, whereas

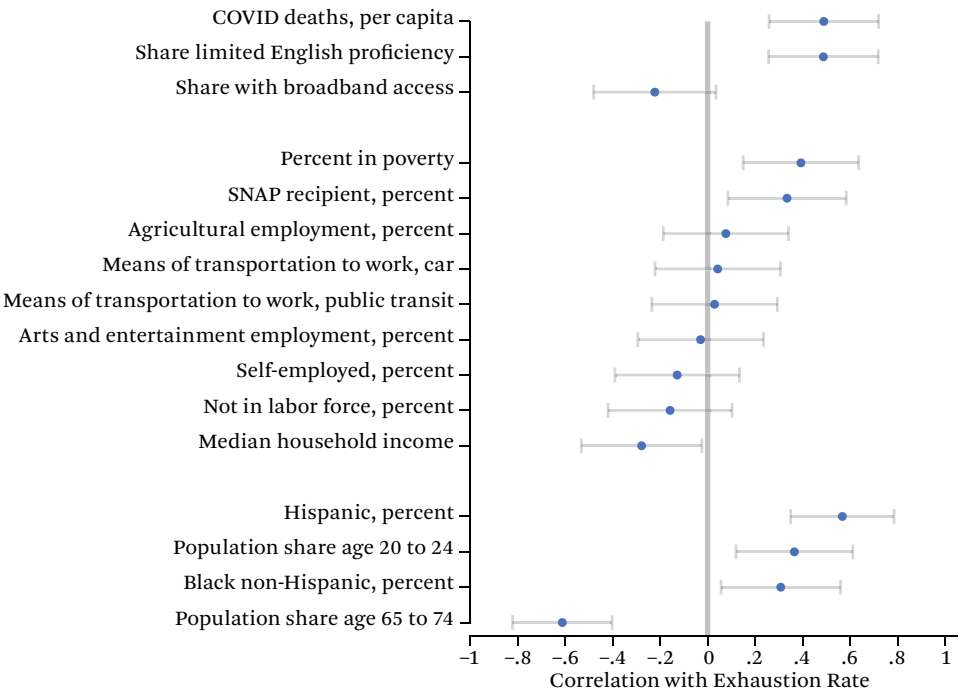
Figure 16. Exhaustion Rates Within California, County-Level



Source: Authors' calculations based on EDD (EDD 2022b).

Note: N = 58. Each dark bar represents the exhaustion rate in each county for claimants whose benefit year began in March of 2020, and who exhausted by the end of the second quarter of 2021. The light bar represents the California average weighted by population in December 2019.

Figure 17. Exhaustion Rates Within California, County-Level Correlations



Source: Authors' calculations based on EDD and ACS (EDD 2022b; U.S. Census Bureau 2019).
Note: N = 58. Each dot represents the correlation between the covariate and the exhaustion rate weighted by population in 2019. All variables are measured at the county level. Error bars represent the 95 percent confidence interval. The exhaustion rate is the number of claimants whose benefit year began during the week of March 15, 2020 or March 22, 2020, and exhausted benefits by the second quarter of 2021, divided by the number of total claimants whose benefit year began those weeks. For more details of covariates, see online data appendix.

states with more elderly residents had higher exhaustion rates, we find within California that counties with more elderly residents have substantially lower exhaustion rates.

CONCLUSION

Using a broader set of measures that move beyond and complement the traditional measure of UI recipiency, this article examines the geographic correlates of access to regular UI during the pandemic. We generated four measures of access to UI that can be operationalized in commonly accessible datasets based on public DOL aggregated data: application rates, first payment rates, recipiency rates, and exhaustion rates. In the context of California, we have validated and explored extensions to these measures using UI claims microdata. We produced these measures for the pandemic period, before the vaccine rollout from March to December 2020.

Several key patterns have emerged when comparing our measures of UI access during the pandemic across states and across counties within California. Across states, a clear pattern emerges that residents of states with more generous UI policies have seen higher rates of UI access during the pandemic. Demographic and socioeconomic patterns have also emerged, both across states and within California. Our metrics of access to UI generally indicate higher access in areas with more affluent residents, more access to broadband internet, and more English-speaking residents, and less access in areas with more Black or Hispanic residents. The findings are strongly suggestive that policy has played an important role in driving disparities in access to UI across states. Further

research would be needed to establish a causal link between particular policies, programs, or practices and differences in UI access. This is of course a difficult question, given that policies themselves may be affected by the fundamental forces helping to determine UI access.

The potential impact of state policies and the substantial discretion states have in choosing program parameters and administrative procedure within the federal framework has implications for efforts to improve access to the UI program nationwide. In the past, the federal government has provided monetary incentives to encourage states to make their programs more inclusive. The ongoing disparities provide some support to the notion that stronger federal guidelines, or the establishment of federally managed components (such as a common application portal), may be required to broaden access to UI throughout the country.

Several important questions remain. A key question for future research will be how access to unemployment insurance changed when several states terminated PEUC and PUA early in the summer of 2021. Similarly, more research will be needed to understand the impacts of the September 2021 benefits expiration. Comparing the magnitudes of these turn-offs to those of the Great Recession would be useful in this context. Additionally, the data used in this article are also not recent enough to ascertain how vaccination efforts have affected the role of UI in the economy. Also, research into how the PUA program has shaped access to UI during the pandemic would be valuable. Researchers should estimate recipiency rates of PUA, with a focus on self-employed workers and wage workers not eligible for regular UI. Comparisons of the effect of the PUA program on labor supply choices would also be valuable for policymaking. Finally, this analysis is largely cross-sectional in that it compares differences in access across space. Given the vast number of state-level policy changes (such as changes in benefit levels or durations, changes in monetary and nonmonetary eligibility), that have occurred during the decades for which data are available, additional work implementing difference-in-differences strategies would provide policy-relevant estimates of the effects of UI policy changes on various measures of access.

APPENDIX

This appendix discusses in greater depth the various measures used in this study and mentioned in this article.

Recipiency Rates

We measure the UI recipiency rate as the number of people collecting regular UI benefits divided by the number of U-6 unemployed workers in an area. In the EDD data, the number of people collecting benefits in a week is defined as the number who were paid for unemployment experienced in a given week, regardless of when the benefits were paid. This definition more accurately represents the number of unemployed people receiving UI benefits in a given week, and is the natural counterpart to the number of unemployed people as measured in survey data (Bell et al. 2022). In contrast, in the DOL data, the number of people collecting benefits in a week corresponds to the number of payments that were issued that week for regular state UI, PEUC, or EB.[23] Discrepancies can arise when a large number of individuals file and are paid for multiple weeks retroactively. During the crisis, this led to large discrepancies between the two measures; before the crisis, however, the number of payments issued in a given week was on average similar to the number of individuals receiving payments for unemployment in a given week (for more, see Bell et al. 2022).

Our denominator—an estimate of the number of people who experienced unemployment in a week—is derived from CPS microdata. We use the so-called U-6 measure of unemployment, which is broader than the traditional number of unemployed published by the Bureau of Labor Statistics, also called U-3. As we discuss elsewhere in our series of unemployment policy briefs, we use this broader measure to account for the fact that workers working part time involuntarily can receive UI benefits, and that during the crisis, individuals

23. Georgia and Florida did not report any PEUC claims during 2020.

available for work but not actively searching for a job could receive UI benefits.[24]

Application Rates

In addition to our baseline specification that normalizes new initial claims by total separations, we also assess robustness of results to two alternative denominators. First, because an employee would separate from an employer for many reasons that would not constitute basis for a UI claim—most quits—we also evaluate robustness to using layoffs from JOLTS as the denominator rather than the broader category of total separations. Second, whereas the JOLTS data is derived from firm-level surveys, we also constructed an alternative denominator from the CPS worker-level survey. In particular, we evaluated robustness of our correlational results to normalizing new initial claims relative to CPS respondents in a state who reported having been unemployed for less than five weeks. Although the levels of the three measures differ—total separations showing the largest counts—we did not detect meaningful differences in the spatial correlations when applying different denominator measures.

First Payment Rates

First, in the DOL data, payment timing issues are substantial. We are only able to look at each state's number of first payments issued in a given month relative to the number of new initial claims filed in that month. To the extent that not all first payments are paid in the month in which the claim was filed, we expect this measure to be relatively noisy at the state level, which would be a particular problem near the start of the pandemic, when long payment lags were common. This timing issue can help explain the inflated (greater than 100 percent) first payment rates reported in figure 12. This is not an issue in the EDD data, where we can see whether each individual received a first payment regardless of when the claim was filed or the first payment received.

Second, during the pandemic cases are likely in which a claim does not result in a first payment under the regular UI program, but the claimant is later able to receive payment under the PUA program. In the DOL data, we are unable to account for these cases because we cannot observe whether the same person applied for, or was paid under multiple programs. In the individual-level analysis from EDD, we drop anyone who ever filed a PUA claim so as to make this measure comparable across time, given that the PUA program did not exist before the pandemic. An important avenue for future work, which is beyond the scope of this article, is to document the role the PUA program played in expanding access to UI.

Exhaustion Rates

During periods when no extensions are available, the number of people exhausting is the number of final payments issued for the regular UI program.

When extensions are available, we follow different strategies in the two datasets to count exhaustions. In the DOL data, we infer exhaustions based on the number of final payments made under the program that we believed was the last extension program available to most claimants at the time. For instance, because claimants in California were eligible for Extended Benefits during most of the pandemic,

24. According to the BLS definition, the U-6 measure of unemployment includes workers who fall under the traditional measure of unemployed (U-3), along with those working part time for economic reasons and with those marginally attached to the labor force. We supplement the U-6 measure to include workers the BLS believes may have been misclassified as employed despite not being at work during the reference week for reasons related to the pandemic (These workers instead should have been classified as *unemployed on temporary layoff*). We follow the methodology outlined in question 5 of the December Employment Situation FAQ to adjust our unemployment estimate for these misclassifications (BLS 2022b). In the text, when we refer to using U-6, we reference this adjusted version of U-6, which includes these misclassified workers. The BLS does not publish a monthly estimate of U-6 at the state level, so the study team generated a measure of U-6 for California based on the CPS micro data following the definition of the national U-6 measure. Although we use U-6 exclusively for the main analysis, we also calculate state recipiency rates using U-3 unemployment and present the figures in the online appendix. Results using either measure are typically similar and comparisons are highlighted in the notes throughout the recipiency rate section.

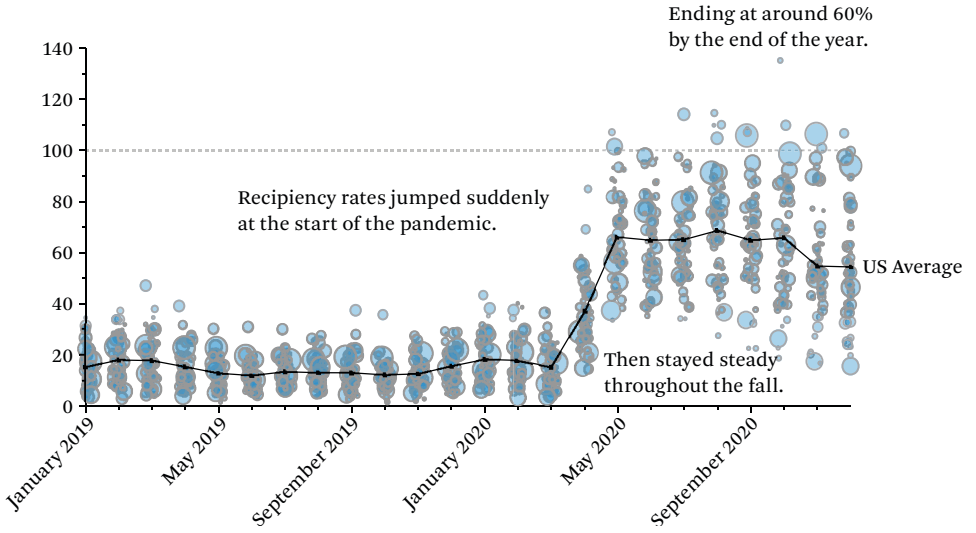
we infer the number of exhaustions based on the number of final payments for EB processed that week.[25] In the EDD data, we improve on this measure by counting exhaustions as the co-occurrence of two separate events. The first event is that a final payment flag was set for a particular UI program, and the second is that another payment does not follow within four weeks.[26] Similar to the other access measurements in this analysis, we study only regular (non-PUA) claimants. However, in the EDD data, in cases when claimants receive their last regular payment and then transit to PUA within four weeks, we do not count them as exhausted because they are still receiving payments—just under a different program. The number of such cases is small, but including them improves the accuracy of our exhaustion rate measurement.

In either dataset, counts of exhaustions should be handled with caution. As pandemic-era extensions have temporarily lapsed and restarted, it is possible that some claimants may be coded as having exhausted, but have in reality been eligible to resume collecting payments after new policies came into effect. Furthermore, even if a claimant exhausts all of their benefits available under one benefit year, if their earnings were high enough, they may be able to establish a new claim. Moreover, the data for exhaustion analysis is up to June 2021. Changes in extension programs afterward will likely affect our estimates.

25. This is a less-than-ideal approximation, as not all claimants are eligible for EB. For instance, our earlier work found that approximately 7 percent of those claimants who would have exhausted regular UI benefits in December of 2020 had PEUC not been extended then would have not been eligible for EB (Bell et al. 2020).

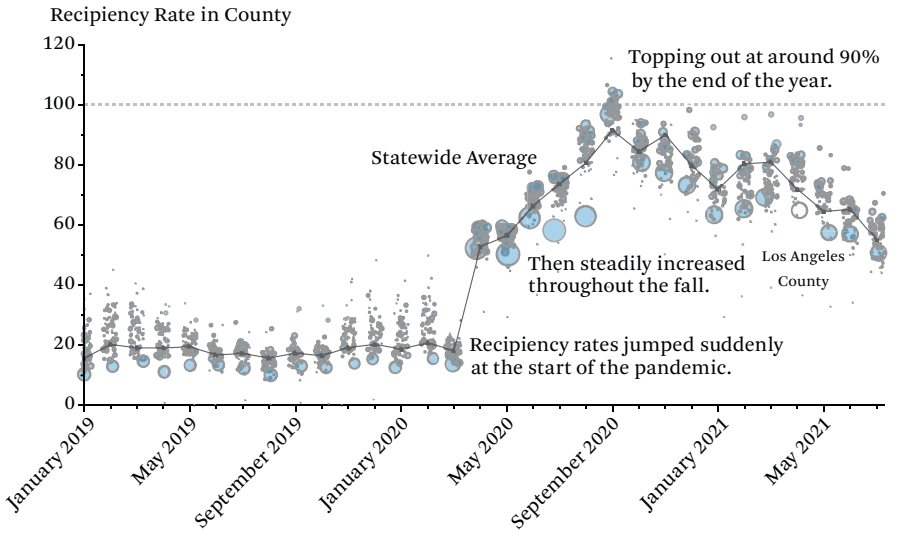
26. In the EDD data, both the final payment flag and gap weeks in payment are based on the week of unemployment.

Figure A.1. Recipiency Rates by State and Month



Source: Authors' calculations based on DOL, CPS (U.S. Department of Labor 2021b; U.S. Census Bureau 2020).
Note: N = 1,200. Each dot represents the recipiency rate in each month for each of the fifty U.S. states. The size of the dot corresponds to the population in each state. The line represents the weighted average recipiency rate in the United States for each month. The recipiency rate is the number of continuing claims paid from the Department of Labor divided by the number of U-6 Unemployed from the Current Population Survey.

Figure A.2. Recipiency Rates by County and Month



Source: Authors' calculations based on EDD, CPS (EDD 2022b; U.S. Census Bureau 2020).
Note: N = 1,798. Each dot represents the recipiency rate in each month for each of the fifty-eight counties in California. The size of the dot corresponds to the number of U-6 unemployed in each county. The line represents the weighted average recipiency rate in California for each month. The recipiency rate is the number of continuing claims paid from Employment Development Department divided by the number of U-6 unemployed from the Current Population Survey and Local Area Unemployment Statistics.

Table A.1. Correlations Among Key Access Measures, December 2020

	Recipiency Rate	First Payment Rate	Exhaustion Rate
A. Within California (county-level)			
Recipiency rate	1		
First payment rate	0.1589	1	
Exhaustion rate	−0.0149	0.2353	1
B. Across states			
Recipiency rate	1		
First payment rate	0.2884	1	
Exhaustion rate	−0.6394	−0.2551	1

Source: Authors' calculations.
Note: Each cell represents the correlation between the two measures of access, weighted by population in 2019.

REFERENCES

Anderson, Patricia M., and Bruce D. Meyer. 1997. "Unemployment Insurance Takeup Rates and the After-Tax Value of Benefits." *Quarterly Journal of Economics* 112(3): 913–37.

Bell, Alex, Thomas J. Hedin, Peter Mannino, Roozbeh Moghadam, Geoffrey Schnoor, and Till von Wachter. 2022. "Increasing Equity and Improving Measurement in the U.S. Unemployment System: 10 Key Insights from the COVID-19 Pandemic." Policy Brief. Berkeley: California Policy Lab. https://www.capolicylab.org/publications/increasing-equity-and-improving-measurement-in-the-us-unemployment-system-10-key-insights/.

Bell, Alex, Thomas J. Hedin, Roozbeh Moghadam, Geoffrey Schnoor, and Till von Wachter. 2021. "June 30th, 2021 Analysis of Unemployment Insurance Claims in California During the COVID-19 Pandemic." Policy Brief. Berkeley: California Policy Lab. Accessed November 4, 2022. https://www.capolicylab.org/publications/june-30th-analysis-of-unemployment-insurance-claims-in-california-during-the-covid-19-pandemic/.

Bell, Alex, Thomas J. Hedin, Geoffrey Schnorr, and Till von Wachter. 2020. "The Impact of Extending Unemployment Insurance Benefits in California." Policy Brief. Berkeley: California Policy Lab. Accessed November 4, 2022. https://www.capolicylab.org/wp-content/uploads/2022/08/Impact-of-Extending-UI-Benefits-in-California.pdf.

Bitler, Marianne P., Hilary W. Hoynes, and Diane Whitmore Schanzenbach. 2023. "Suffering, the Safety Net, and Disparities During COVID-19." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 9(3): 32–59. DOI: https://doi.org/10.7758/RSF.2023.9.3.02.

Blank, Rebecca M., and David E. Card. 1991. "Recent Trends in Insured and Uninsured Unemployment: Is There an Explanation?" *Quarterly Journal of Economics* 106(4): 1157–89. DOI: https://doi.org/10.2307/2937960.

The Century Foundation. 2022. "Unemployment Insurance Data Dashboard." August 18. New York: The Century Foundation. Accessed November 4, 2022. https://tcf.org/content/data/unemployment-insurance-data-dashboard.

Chetty, Raj, John Friedman, Nathaniel Hendren, Michael Stepner, and The Opportunity Insights Team. 2020. "The Economic Impacts of COVID-19: Evidence from a New Public Database Built Using Private Sector Data." *NBER* working paper no. w27431. Cambridge, Mass.: National Bureau of Economic Research. DOI: https://doi.org/10.3386/w27431.

Chetty, Raj, Nathaniel Hendren, Patrick Kline, and Emmanuel Saez. 2014. "Where Is the Land of Opportunity? The Geography of Intergenerational Mobility in the United States." *Quarterly Journal of Economics* 129(4): 1553–623. DOI: https://doi.org/10.1093/qje/qju022.

Cook Political Report. 2021. "2020 National Popular Vote Tracker." Accessed November 4, 2020. https://cookpolitical.com/2020-national-popular-vote-tracker.

Edwards, Kathryn A. 2020. "The Racial Disparity in

Unemployment Benefits." *The Rand Blog*, July 15. Accessed November 4, 2022. https://www.rand.org/blog/2020/07/the-racial-disparity-in-unemployment-benefits.html.

Employment Development Department (EDD) of California. 2021a. "California Unemployment: Fraud by the Numbers." State of California. Accessed November 4, 2022. https://edd.ca.gov/siteassets/files/Unemployment/pdf/fraud-info-sheet.pdf.

———. 2021b. "Pandemic Unemployment Assistance." State of California. Accessed November 4, 2022. https://edd.ca.gov/en/about_edd/coronavirus-2019/pandemic-unemployment-assistance.

———. 2021c. "FED-ED Extension." State of California. Accessed November 4, 2022. https://edd.ca.gov/en/about_edd/coronavirus-2019/fed-ed.

———. 2022a. "Miscellaneous MI 5 - Claim Filing Requirements." State of California. Accessed November 4, 2022. https://edd.ca.gov/en/uibdg/Miscellaneous_MI_5.

———. 2022b. "UI Claims and Quarterly Wages." State of California. Data set. Accessed in 2022.

Fields-White, Monee, Vivian Graubard, Alberto Rodriguez, Nikki Zeichner, and Cassandra Robertson. 2020. "Unpacking Inequities in Unemployment Insurance." Public Interest Technology New Practice Lab. Washington, D.C.: New America. Accessed November 4, 2022. http://newamerica.org/pit/reports/unpacking-inequities-unemployment-insurance/.

Ghitza, Yair, and Mark Steitz. 2020. "DEEP-MAPS Model of the Labor Force." Catalist-LLC. Accessed November 4, 2022. https://github.com/Catalist-LLC/unemployment/blob/master/deep_maps_20200804.pdf.

Gould-Werth, Alix, and H. Luke Shaefer. 2013. "Do Alternative Base Periods Increase Unemployment Insurance Receipt Among Low-Educated Unemployed Workers?" *Journal of Policy Analysis and Management* 32(4): 835–52. DOI: https://doi.org/10.1002/pam.21708.

Mueller, Andreas I., Jesse Rothstein, and Till M. von Wachter. 2016. "Unemployment Insurance and Disability Insurance in the Great Recession." *Journal of Labor Economics* 34(S1): S445–75. DOI: https://doi.org/10.1086/683140.

New York Times. 2021. "Coronavirus (Covid-19) Data in the United States." Accessed November 4, 2022. https://github.com/nytimes/covid-19-data.

Nicholson, Walter, and Karen Needels. 2006. "Unemployment Insurance: Strengthening the Relationship Between Theory and Policy." *Journal of Economic Perspectives* 20(3): 47–70. DOI: https://doi.org/10.1257/jep.20.3.47.

O'Leary, Christopher, William Spriggs, and Stephen Wandner. 2021. "Equity in Unemployment Insurance Benefit Access." Policy paper no. 2021-026. Kalamazoo, Mich.: W.E. Upjohn Institute for Employment Research. DOI: https://doi.org/10.17848/pol2021-026.

Pew Research Center. 2019. "U.S. Unauthorized Immigrant Population Estimates by State, 2016." February 5. Accessed November 4, 2022. https://www.pewresearch.org/hispanic/interactives/u-s-unauthorized-immigrants-by-state/.

Podkul, Cezary. 2021. "How Unemployment Insurance Fraud Exploded During the Pandemic." New York: ProPublica. Accessed November 4, 2022. https://www.propublica.org/article/how-unemployment-insurance-fraud-exploded-during-the-pandemic.

Shaefer, H. Luke. 2010. "Identifying Key Barriers to Unemployment Insurance for Disadvantaged Workers in the United States." *Journal of Social Policy* 39(3): 439–60. DOI: https://doi.org/10.1017/S0047279410000218.

Sokolow, Amy. 2022. "Massachusetts Unemployment Office Plans to Drop Facial Recognition Technology in Coming Weeks." *Boston Herald*, February 23. Accessed November 4, 2022. https://www.bostonherald.com/2022/02/23/massachusetts-unemployment-office-plans-to-drop-facial-recognition-technology-in-coming-weeks/.

U.S. Bureau of Labor Statistics (BLS). 2021. "Concepts and Definitions." Washington: U.S. Bureau of Labor Statistics. Accessed November 4, 2022. https://www.bls.gov/cps/definitions.htm.

———. 2022a. "Local Area Unemployment Statistics: Estimation Methodology." Washington: U.S. Bureau of Labor Statistics. Accessed November 4, 2022. https://www.bls.gov/lau/laumthd.htm.

———. 2022b. "BLS COVID-19 Questions and Answers." Last modified September 1, 2022. Accessed November 4, 2022. https://www.bls.gov/covid19/.

———. 2022c. "Job Openings and Labor Turnover Survey." Data set. Accessed in 2022. https://www.bls.gov/jlt.

U.S. Census Bureau. 2019. "Summary File." 2015–2019 American Community Survey. U.S. Census Bureau's American Community Survey Office, 2019. Data set. Accessed September 1, 2021. https://www.census.gov/programs-surveys/acs.

———. 2020. "Basic Monthly CPS 2020" U.S. Census Bureau's Current Population Survey Office, 2020. Data set. Accessed September 1, 2021. https://www.census.gov/programs-surveys/cps.html.

U.S. Department of Labor (DOL). 2004. "ChartBook Result: Regular Program Insured Unemployment." Washington: U.S. Department of Labor, Employment and Training Administration. Last updated July 2, 2022. Accessed November 4, 2022. https://oui.doleta.gov/unemploy/Chartbook/a12.asp.

———. 2020. *Comparison of State Unemployment Laws 2020*. Washington: U.S. Department of Labor. Accessed November 4, 2022. https://oui.doleta.gov/unemploy/pdf/uilawcompar/2020/complete.pdf.

———. 2021a. "Comparison of State Unemployment Laws 2021." Washington: U.S. Department of Labor, Employment and Training Division. Accessed November 4, 2022. https://oui.doleta.gov/unemploy/comparison/2020-2029/comparison2021.asp.

———. 2021b. "Data Downloads." Washington: U.S. Department of Labor, Employment and Training Division. Accessed November 4, 2022. https://oui.doleta.gov/unemploy/DataDownloads.asp.

Viser, Cassidy, Isabella Camacho-Craft, Indi Dutta-Gupta, and Kali Grant. 2021. "No Choice: The Implications of Unmet Child Care Needs for Unemployment Assistance & Paid Leave Access During the COVID-19 Pandemic." Washington, D.C.: Georgetown Center on Poverty and Inequality. Accessed November 4, 2022. https://www.georgetownpoverty.org/issues/state-by-state-implications-of-unmet-child-care-needs/.

The White House. 2021. "January 21, 2021, Executive Order on Advancing Racial Equity and Support for Underserved Communities Through the Federal Government." Washington, D.C.: The White House. Accessed November 4, 2022. https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/20/executive-order-advancing-racial-equity-and-support-for-underserved-communities-through-the-federal-government/.

"I Could Be Unemployed the Rest of the Year": Unprecedented Times and the Challenges of "Making More"

ALEXANDREA J. RAVENELLE AND SAVANNAH KNOBLE

The COVID-19 pandemic has been unprecedented in many ways, but perhaps no more so than in the sudden expansion of—and increase in—unemployment assistance benefits. We ask how precarious workers, many of whom were "hustling" for money or engaged in creative fields, feel about making more on unemployment. How are they using the funds? We draw on remote interviews and online surveys with 199 gig and precarious workers in New York City during the first wave of the pandemic. We find that workers are ambivalent about unemployment assistance and concerned that a financial influx today portends a shortage tomorrow. This "specter of the unknown" affected workers' use of their benefits. As a result, even though the Coronavirus Aid, Relief, and Economic Security Act was intended to mitigate the social and economic impact of the pandemic, these programs—despite being helpful—may have also contributed to precarious workers becoming even more certain of their insecurity.

Keywords: precarious, unemployment, COVID, coronavirus, gig work

The COVID-19 pandemic has been unprecedented in many ways, but perhaps no more so than in the sudden expansion of—and increase in—unemployment assistance benefits (DeParle 2021; Edwards 2021; Liu 2020). Under the Coronavirus Aid, Relief, and Economic Security Act (CARES Act) Pandemic Unemployment Assistance (PUA), independent contractors, such as those doing freelance or gig work, were for the first time eligible for unemployment assistance (Brumberg 2020). Partnered with the $600 a week Pandemic Emergency Unemployment Compensation (PEUC), many low-wage workers found themselves in the unique position of making more on unemployment assistance than they had been earning while working (Ganong, Noel, and Vavra 2020). The goal of this support was to inject a "coun-

Alexandrea J. Ravenelle is an assistant professor in sociology at the University of North Carolina at Chapel Hill, United States. **Savannah Knoble** is administrative project coordinator at North Carolina for Community and Justice, United States.

 Ravenelle, Alexandrea J., and Savannah Knoble 2023. "'I Could Be Unemployed the Rest of the Year': Unprecedented Times and the Challenges of 'Making More.'" *RSF: The Russell Sage Foundation Journal of the Social Sciences* 9(3): 110–31. DOI: 10.7758/RSF.2023.9.3.05. We thank Dawn Culton for her work in index coding this data, and Erica Janko and Ken Cai Kowalski for their work in respondent recruitment and interviewing. This material is based on work supported by the National Science Foundation under Grant no. 2029924. Direct correspondence to: Alexandrea Ravenelle, at aravenelle@unc.edu, University of North Carolina at Chapel Hill, Sociology Department, Hamilton Hall, Campus Box 3210, Chapel Hill, NC 27599, United States.

tercyclical stimulus into a declining economy" and encourage workers to stay at home (Burtless 2020).

The COVID recession began suddenly and ended almost as quickly, lasting just two months, becoming the shortest recession on record (Fazio et al. 2021). At the same time, the need to socially distance to "flatten the curve" (Chow and Abbruzzese 2020) and the continuing pandemic led to a service economy meltdown (Porter 2020). Many of the low-wage jobs that unemployed workers might turn to during an economic downturn—such as restaurant server, retail worker, or TaskRabbit assistant—have faced disproportionately high job losses or decreased demand for services (Bateman and Ross 2021; Iacurci 2021; Tomaskovic-Devey, Dominguez-Villegas, and Hoyt 2021). During most of 2020 and into early 2021, with restaurants and bars closed or operating at reduced capacity, entertainment venues shuttered, shops limited to "curbside pick-up," increasing supply chain issues, and the pandemic ongoing; the opportunity to "grow the economy" was semi-limited (Babson 2021; Horowitz, Brown, and Minkin 2021; FRED 2021). The question arises, during these extraordinary times, have our ordinary expectations regarding unemployment assistance also been turned upside down?

In this article, we draw on a mixed methods panel study of 199 precarious and gig-based workers. Our data includes in-depth remote interviews and online surveys conducted mostly from April 2020 through June 2020, during the height of the first wave of the pandemic, and 168 follow-up interviews conducted between November 2020 and June 2021. We ask how precarious workers, many of whom were "hustling" for money or engaged in creative fields, feel about making more on unemployment. How is this income influx affecting worker perceptions of their jobs or careers and how are workers using the funds?

We find that although many workers were "grateful" for the increased unemployment insurance eligibility and $600 per week supplement, they also felt uncomfortable making more without working for pay. Additionally, respondents also reported fear that the PEUC supplement would not be renewed, a fear borne out by reality for most of the second half of 2020. As a result, the "specter of the unknown" regarding the potential length of the pandemic—and the potentially short-lived nature of the supplement—affected unemployed workers' use of their benefits. Contrary to the expectation that unemployment assistance is quickly spent, many respondents reported a concerted effort to save a significant portion of their aid in order to survive the months ahead. We also find that some workers who faced extensive delays in receiving unemployment assistance reported long-term feelings of financial insecurity and a sense that they would never again feel financially secure. As a result, although the PUA and PEUC were intended to mitigate the impact of the pandemic on social and economic outcomes, these programs—despite being helpful—may have also had the inadvertent effect of making precarious workers feel even more certain about their financial insecurity. In the following section, we provide a brief history of unemployment assistance in the United States.

THEORETICAL BACKGROUND

The federal unemployment insurance program was created in 1935. One impetus for the creation of state unemployment programs was to reduce the pressure that local communities were experiencing when suddenly unemployed workers found themselves reliant on soup kitchens and community largess. Early literature, created by the Social Security Board (Friedman 1937), explained the program by noting that "unemployment is incalculably expensive. Its cost to workers, to business, to government, and society at large can hardly be exaggerated. . . [unemployment insurance] more equitably distributes a part of the unavoidable cost of unemployment."

The structuring of state unemployment plans was a compromise between a subsidy plan, where the federal government would grant funds to states that passed laws that met federal standards, and a credit-off set plan, where the tax would be levied on all employers, with credits against the tax available (DeWitt 2003). Employers who maintained stable employment were rewarded with rebates on the theory that unemployment was largely the re-

sult of employer decisions (DeWitt 2003). Unemployment was intended to replace 50 percent of salaries, the exact level set by states (Price 1985). In 1955, the secretary of labor recommended a federal policy of covering individuals through twenty-six weeks of unemployment benefits (Price 1985), a six-month standard that remains today.

Unemployment assistance is generally viewed as an automatic economic stabilizer for its role in helping unemployed workers maintain some of their purchasing power and to prevent a more severe economic downturn (Chodorow-Reich and Coglianese 2019; Maggio and Kermani 2016; Vroman 2010). The Center for American Progress describes unemployment assistance as providing "the biggest bang for the buck of the various kinds of government spending." During the Great Recession, every dollar spent on unemployment insurance benefits "grew the economy by $2 since recipients typically spend—not save—those dollars" (Boushe and Separa 2011).

Research on Unemployment

One of the earliest interview studies focused on the impact of unemployment was Mirra Komarovsky's (1940) book *The Unemployed Man and His Family*. Based on Depression-era interviews with fifty-nine relief families in a large industrial city just outside New York City. Komarovsky found that unemployment "made explicit unsatisfactory sentiments" that had existed in families before the Depression and that in many cases affected the husband's status, mental health, or authority within the family, and affected the couple's social life.

More recent research focuses on the differing experiences of men and women in their decision-making around attempting to return to work after a lay-off and how they viewed unemployment assistance (Damaske 2020). Intriguingly, Sarah Damaske finds that unemployed white-collar male workers consider unemployment benefits as their due, treating early periods of unemployment as a respite, whereas lower-income workers were more likely to begin job searching immediately. Indeed, work by Katherine Newman (1999, 2008) and Kathryn Edin and Maria Kefalas (2005) makes clear that the vast majority of the urban poor want to work—even when their lives would be easier if they relied on public assistance. In her two-year study, Newman (1999) finds a strong commitment to the work ethic, even as so-called minimum wage "McJobs" offer few chances for advancement.

Although unemployment itself is not new, "repeated layoffs have become part of working life" since the 1980s (Lane 2011). Research suggests that somewhere between 65 to 70 percent of Americans will experience unemployment at least once during their careers, some experiencing numerous bouts (Damaske and Frech 2014). Although unemployment itself can generate and reproduce inequalities between the employed and unemployed, it can also affect inequality among the unemployed (Damaske 2021). As Damaske (2021, 10) writes, "differences in the path one takes to a job loss shape the job loss experience itself." For instance, Ofer Sharone's (2014) *Flawed System/Flawed Self* finds that American white-collar workers blamed themselves for their failed job searches, whereas Israeli white-collar and American blue-collar workers blamed the employment system. Meanwhile Allison Pugh's (2015) *Tumbleweed Society*, finds that as part of the "one way honor system," workers expect that they will remain positive, continue to put forth their best effort, and "move on" without a fuss to the next "opportunity."

Although workers may be expected to take the "challenge" of unemployment in stride as they move onto the next "opportunity," much as Komarovsky (1940) found, unemployment in the United States is linked to "deep and intractable hardship," where unemployment assistance is a "poor substitute for work" and does not fully mitigate the impact of job loss (Young 2012). Research demonstrates that job losses have significant negative effects on incomes. Earnings are estimated to drop by 25 percent in the first year and to linger for years afterward (East and Kuka 2015; Stevens 1997). Job losses also lead to negative impacts on health and mortality and children's academic achievement (Kuka 2020; Schaller and Stevens 2015; Stevens and Schaller 2011; Sullivan and von Wachter 2009). Part of the challenge is that many unemployment insurance recipients do not find new jobs before exhausting their ben-

efits, even when those benefits are extended (Rothstein and Valletta 2017).

As Chloe East and Elira Kuka (2015) note, during the Great Recession, when more than ten million workers received unemployment assistance, some for as long as ninety-nine weeks, attention increased to the "moral hazard" of unemployment assistance and the optimal level, and length, of benefits (Schmieder, Von Wachter, and Bender 2012; Rothstein, Aaronson, and Kahn 2011; Landais, Michaillat, and Saez 2010). Peter Ganong and Pascal Noel (2019) suggest that extending weeks of benefits leads to more successful "consumption-smoothing" than increasing benefits, whereas Kuka (2020) finds that "higher unemployment insurance generosity" leads to improvements in self-reported health, especially when the unemployment rate is high. Likewise, work by Pinghui Wu and Michael Evangelist (2022) and Jonathan Cylus, Maria Glymour, and Mauricio Avendano (2014) suggests that increasing levels of unemployment assistance may decrease deaths of despair, such as from opioid overdoses or suicide, and "significantly alleviate the adverse health effects of unemployment among men" (Cylus, Gylmou, and Avendano 2015).

Yet, as Johannes Schmieder and Till von Wachter (2016) note, more generous unemployment tends to increase unemployment duration, perhaps by increasing the reserve wage of recipients (Marinescu 2017) or reducing job search efforts (Marinescu and Skandalis 2021). However, during the pandemic, job postings decreased even as applications remained relatively stable after the CARES Act was passed (Marinescu, Skandalis, and Zhao 2020). As a result, the number of applications per vacancy increased, leading to the observation that it may be "socially optimal" to increase benefits in order to decrease job applications (Landais, Michaillat, and Saez 2018). Or as Iona Marinescu, Daphné Skandalis, and Daniel Zhao (2020, 3) write, "when there are too many applicants per job, one person not applying makes no material difference to the job being filled."

Finally, although research has examined the impact of unemployment on former tech workers impacted by the dot-com bubble (Lane 2011), low-income urban youth (Newman 2008, 1999), unemployed autoworkers (Chen 2015), and married couples (Rao 2020), little is known about how 1099 workers—a group that traditionally is not eligible for unemployment benefits—may be affected by such assistance.

Unemployment, Independent Contractors and the PUA

Independent contractors, gig workers, and freelancers are traditionally excluded from the safety net offered by unemployment insurance under the logic that they seek their own work and are less dependent on the vagaries of a single employer. Additionally, employers classify workers as independent contractors as a savings mechanism to avoid paying into unemployment or Social Security, a strategy that outsources risk to workers (Ravenelle 2019; Hacker 2006). It wasn't until the March 2020 CARES Act, which established Pandemic Unemployment Assistance, that these workers were included. Independent workers were included in the CARES Act because it included broader language that allowed anyone, regardless of employment type, to receive benefits if they could prove their work was affected by the pandemic (Bellon 2020). The CARES Act, as mentioned earlier, also created the PEUC, which provided an additional $600 a week supplement until the end of July 2020 (Adamczyk 2020).

The weekly supplement of $600 a week was based on the premise that unemployed workers typically receive about 40 percent to 45 percent of their previous earnings. Given a median weekly wage of $1,000, the supplement was intended to ensure that workers did not experience a drastic income fluctuation (Evermore 2020; Long 2020). This relatively generous unemployment assistance had two purposes: to moderate the financial impact of the widespread business closures necessary under social distancing efforts and to reduce the impetus for workers to find a new job quickly (Long 2020). Given the original policy decision to structure unemployment systems as state-run programs, benefits are not consistent, from as low as $101 weekly in Oklahoma to as high as $531 a week in Massachusetts (Stone and Chen 2014; Long 2020). In an effort to account for this variation, the authors of the bill slightly over-

shot: approximately 76 percent of U.S. workers received an income that exceeded their lost wages due to the pandemic from April to July 2020 (Ganong, Noel, and Vavra 2020). In New York, where the maximum weekly unemployment benefit in New York is $504, the receipt of the PEUC funding more than doubled the unemployment incomes of the workers who received it. As Alex Bell and his colleagues (2023, this issue) note, states with higher levels of benefits—such as New York—had higher rates of unemployment insurance access during the pandemic.

PEUC, Earned Income Credit, Negative Income Tax, and Universal Basic Income

The PEUC benefit of an additional $600 a week, by seeking to approximate the median wage, sought to reduce the impact of widespread and considerable income volatility due to the pandemic. However, extensive delays in the processing of the benefits meant that for some unemployed workers, their initial deposits included thousands of dollars of back benefits, making the program—at first—similar to the Earned Income Credit (EIC). The EIC is a tax credit that was intended to "make work pay" (Edin and Shafer 2015) for low-income earners. Expanded in the 1990s as part of welfare reform, it provides a financial boost to low-wage workers. Research suggests that the credit, which may amount to as much as six weeks of take-home pay (Farrell, Greig, and Hamoudi 2019), is often used to purchase big-ticket items, pay for educational expenses, or to set aside savings (Parker et al. 2013; Beverly, Schneider, and Tufano 2006; Beverly 2002).

However, once payments were regularized, for recipients, the program was similar to the negative income tax (NIT) experiments of the 1970s, a "cousin" to universal basic income (UBI) programs (Marinescu 2018). Whereas a UBI offers universal, unconditional cash payments that are paid to individuals on a periodic basis (Hasdell 2020), NIT schemes include a maximum cash benefit that is reduced by earned income.[1] Cash injections into households, such as an NIT, UBI, or even Earned Income Tax Credits, can increase household expenditures (Baird, McKenzie, and Özler 2018; Jones and Marinescu 2018; Marinescu 2018) and have been linked to increased food expenditures and significant impacts on health and educational outcomes, including a reduction in hospitalizations and a decrease in self-reported criminal activity (Hoynes and Rothstein 2019; Marinescu 2018; Forget 2011; Akee et al. 2010). UBI and NIT programs remain controversial, and a research gap remains in the establishment of an experimental, sustained UBI "guaranteed income" program aimed at addressing economic and racial injustices (Hasdell 2020).

Additionally, research suggests that access to a financial safety net can increase rates of entrepreneurship or small business creation. For instance, Gareth Olds (2016) finds that an awareness of the availability of food stamps increased entrepreneurship, suggesting that financial risk from leaving wage employment may be a primary barrier to small business creation. Additionally, revisions to the French unemployment system that allowed workers to remain eligible for benefits while starting a business also contributed to a growth in entrepreneurship (Hombert et al. 2020). The Alaska Permanent Fund Dividend program, established in 1982, also suggested a positive effect on entrepreneurship although the results appeared to dissipate over time (Feinberg and Kuehn 2020). The question arises, did the PUA and PEUC money—as a guaranteed, weekly income for unemployed workers—function like a universal basic income and provide the same benefits and opportunities? Or was it too short-lived, or delayed, to have the same possibilities?

METHODOLOGY

This article is based on the first two waves of data collected in a mixed methods panel study. The first phase was from April through August 2020, during the initial outbreak of the virus in New York City, when New York was regularly

1. Although unemployment assistance is generally limited to those without work, the CARES Act allowed anyone who could prove that their work was affected by the pandemic to receive benefits, even if they continued working or earning money up to a state-set limit.

described as an "epicenter" of the outbreak in the United States (McKinley 2020; Thompson et al. 2020).[2] A second wave was undertaken from November 2020 through June 2021, to coincide with the second surge of the virus and early stages of the coronavirus vaccine roll-out. A third wave of data collection, ongoing from November 2021 through 2022, focuses on the impact of the end of these unemployment supports.

Gig-based and precarious workers were recruited via Facebook groups for gig workers and unemployed workers; advertisements on Craigslist, OffStageJobs.com, and Dance/NYC; posts on New York City–focused Reddit, and snowball sampling. One worker was recruited when he was found busking in a local park. Workers in the New York metropolitan area (broadly defined as Westchester to Newark, New Jersey) who used gig platforms for work, or were in precarious jobs such as retail, restaurants and bars, or freelance work were eligible to participate. For the second wave, only respondents who had participated in the first wave were eligible to participate.

Similar to Pugh's (2015) work on work insecurity, our interview sample deliberately draws on three groups: creative freelancers, who are generally well educated but still often paid as 1099 workers; low-wage W-2 employees in both essential (grocery store and drugstore) and nonessential (personal care and restaurant workers) fields; and gig economy workers. The goal of this three-group sample is to tease out whether the challenges experienced by precarious workers during this unprecedented time are due to their status as 1099 workers or their status as low-wage workers.

In the first round of data collection, 199 precarious workers participated: including sixty creative freelancers, thirty-three restaurant workers, and thirty-one nonmedical low-wage workers. Sixty gig-based workers were included from platforms such as TaskRabbit, Doordash, Instacart, and Uber, in addition to fifteen nonplatform-based gig workers who secured work via websites such as Craigslist. All workers had worked face-to-face before the pandemic; and more than three-quarters (76.5 percent) reported job or income losses due to the pandemic. In the second phase, respondents included fifty-five creative freelancers, twenty-six restaurant workers, twenty-eight nonmedical low-wage workers, forty-seven gig workers, and twelve non-platform-based gig workers. The attrition rate between the first and second phase was 15.6 percent.

In both waves of data collection, participants completed a short online survey and participated in a respondent-directed telephone interview (Weiss 1994). The first round of interviews sought to identify the immediate impact of the pandemic on workers: what they were doing before the coronavirus and their income source or sources before and during the pandemic; their experiences (if any) in applying to unemployment; how their daily routine had been affected; and their perceptions of how platforms, clients, or employers were handling the situation. The second round focused on changes or continuances in sources of income or jobs, how respondents thought political changes may have affected the pandemic, and their views on the COVID-19 vaccine.

All interviews were recorded before being transcribed and analyzed. Given the quantity of data, transcripts were analyzed using flexible coding (Deterding and Waters 2018), an iterative coding method well suited for collaborative analysis of in-depth interviews. In the first round of coding for both phases of data collection, an undergraduate research assistant "indexed" the interviews at a broad level by coding by interview question (Deterding and Waters 2018, 15). A second stage involved the development and application of conceptual codes. Respondents were assigned pseudonyms based on popular baby names for their generation, and given a $25 gift card incentive for phase 1 participation, and a $50 gift card after phase 2 participation.

In phase 1, 103 of the respondents (51.8 percent) were women, 46.2 percent were men, and 2 percent identified as gender-nonconforming, transgender, or nonbinary. Fewer than half (41.2 percent) identified as white, 15.6 percent as Black, 14.1 percent as Hispanic, 14.6 percent as Asian, and 14.5 percent as multiple races.

2. More than 95 percent of the interviews and surveys were conducted between April and June 2020.

The interviewees ranged in age from nineteen to sixty-four years old, averaging thirty-three. Equal numbers had an associate's degree (9 percent) or a high school diploma (9.0 percent). Just over 25 percent had some college experience, 36.2 percent held a bachelor's degree, and 19.6 percent either held a graduate degree or had some graduate school experience. Nearly two-thirds (60.7 percent) made less than $40,000 per year; 28.5 percent earned less than $20,000. Slightly less than a quarter (23.5 percent) made between $40,000 and $70,000 per year before the pandemic.[3]

Some differences across these three groups were evident: the low-wage workers were the most likely to report having some college or below (53 percent) relative to gig workers (34.7 percent) and creative freelancers (16.7 percent). The creative freelancers in the sample reported higher levels of education, 45 percent reporting a bachelor's degree relative to gig workers (30.7 percent) and low-wage workers (34.4 percent). Although gig workers (18.6 percent) and creative freelancers (20 percent) had nearly equal percentages of graduate degrees, only gig-based respondents reported having PhDs or medical degrees (5.3 percent). However, contrary to the assumption that their higher levels of cultural capital increased their incomes, creative freelancer respondents generally reported slightly lower incomes than gig workers; 73.3 percent reported incomes under $50,000, versus 70.8 percent of gig workers and 76.6 percent of low-wage workers.

FINDINGS

Many workers expressed a sense of gratitude for the CARES Act, PUA, PEUC, and assorted stimulus payments. "Thank you, thank you, thank you, unemployment and food stamps. The thing is, I hope they can continue to the first of the year, because I'm making more money in unemployment," said Bernice, age sixty-four, an unemployed creative director. "When unemployment gives you more money—and I'm a Buddhist, I chant that they keep it up for everybody—that plus the stimulus for everybody. That would be fabulous." Most respondents were less effusive, but still expressed appreciation, such as Aretha, age fifty-two, an unemployed TaskRabbit worker, who explained, "I did get a stimulus check. I did. That didn't last very long, but I'm thankful for that."

Workers also compared what they were making through the CARES Act with what they would have made previously on unemployment, a comparison that contributed to a sense of thankfulness. As Kelsey, a twenty-eight-year-old unemployed dancer, choreographer, and production manager, explained, "The CARES Act, that is immensely helpful. Unemployment in general is not very much money at all. I would have lost my apartment if I was only on unemployment. With the CARES Act, I'm able to at least hold onto my apartment for a little while longer, but that is ending at the end of July," she said. "And so that's why I'm already preparing myself to lose my apartment and to leave New York because I won't be able to keep it without that money. Unemployment alone is so little."

Workers also expressed a sense of discomfort with making more money on unemployment than they were making working multiple jobs, as was true for Jennifer, twenty-eight, a furloughed events center worker and an unemployed grocery store worker. As she explained, "It's infuriating. But I'll take it because I'm making way more by being unemployed than I was working three jobs." For workers who were in the arts or in creative fields that they often described as a passion (DePalma 2020; Ocejo 2017; Leidner 2016), being paid more to not perform or produce further highlighted their low incomes. "Obviously I didn't go into the arts to necessarily make a bunch of money. . . . And it didn't necessarily feel great to get money without working," said Gabriel, a twenty-two-year-old unemployed dancer. "If I could make that much money while working, I would feel better, but I also just took it as sort of a weird ten

3. Although $60,000 annually might sound like a considerable income, the 2015–2019 median individual income in New York City was $63,998 (U.S. Census Bureau 2021). Additionally, illustrative of the high cost of living in New York, single residents are considered eligible for subsidized or public housing if they make $66,850 or less annually (NYCHA n.d.).

weeks where I was able to save all this extra money, but not sort of think about it too much in the grand scheme of things, because that was just going to make me feel very sad."

This sense of gratitude, which was especially prevalent among the creative freelancers who would not normally be eligible for any unemployment assistance, is especially striking relative to research on other unemployed workers. For instance, Damaske (2021) finds that even though one white male respondent referred to a "nice unemployment" benefit from the state and was also able to rely on severance and a spouse for support, most workers find unemployment benefits low, in some cases putting them below the poverty line.

However, as Kelsey, the unemployed dancer and production manager, noted, the CARES Act funds were short-term solutions. Three common issues often accompanied the sense of gratitude for the unemployment funds: first, workers faced a strong sense of uncertainty about how their future income would compare with their future needs; second, the funds were temporary; and, third, the money came after extensive delays and difficulties.

The Specter of the Unknown: "I Could Be Unemployed the Rest of the Year"

Although the CARES Act enhanced unemployment benefits of $600 a week was intended to end at the end of July, many experts believed that it would be extended (Bauer, Edleburg, and Parsons 2020; Stewart 2020), especially as other regions of the country faced their own summertime surges. New York provided several weeks of a $300 supplement during August from Federal Emergency Management Agency (FEMA) funds, but an additional $300 a week Federal Pandemic Unemployment Compensation (FPUC) benefit, lasting through August 2021, wasn't authorized until December 2020 (FEMA 2021; Iacurci 2020).

As a result, the specter of the unknown regarding the potential length of the pandemic—and the short-lived nature of the supplement and potentially of unemployment assistance for workers classified as independent contractors—affected how unemployed workers viewed their benefits. Unemployment assistance is usually viewed as high-velocity money, which quickly transfers from buyers to sellers, but respondents reported spending little of it. Part of the issue was that with much of New York under so-called lockdown, opportunities to spend on shopping binges or travel were limited. As Theresa, age twenty-seven, an unemployed early childhood education teacher explained, "I've been able to save a lot of money, actually."

But for many respondents, saving money was not simply a response to few spending opportunities, but part of a concerted effort to reserve funds for the future. Contrary to the expectation that unemployment assistance is quickly spent, or research that has found income volatility to be associated with a preference for more immediate spending (Peetz, Robson, and Xuereb 2021; West and DeVoe 2020), respondents often reported a concerted effort to save their unemployment benefits. For instance, Olivia, thirty-two, an unemployed voice actor, was excited when she began receiving her unemployment assistance, but soon realized the influx of cash was far from a carte blanche.

> So I was like, "Oh, all this is extra money I'm going to have, I'm going to do fun things with it." And then I think, what did I do? I had to get something from Sephora for like a face wash, I don't know. Something that I needed to get anyway. And so I think that's the only thing I bought because I realized, "Wait, what if this doesn't end as soon as everyone thinks it does, and I have to start saving for the time when I might not have money or whatever?" So it felt really good for a couple of days. And then I was, "Oh no, now I have to be responsible."

Similarly, Claudia, thirty-three, an unemployed actor, filmmaker, and telemarketer, received a small grant of $100 from an arts organization and some money from her parents while waiting for unemployment assistance. When she finally received her unemployment assistance, she felt "okay," but it didn't assuage her concerns about the future.

> I'm making a little bit more money each week and I'm putting that money mostly in savings because I'm not sure. I could be unemployed

> the rest of the year, so I'm paying off a little bit of debt, a few credit cards that . . . And then just putting that money away because the potential to not go back to work for many more months could be there. So I'm trying to be smart about that extra money that I'm getting because I think the reason they're giving me that extra money is because there's a potential that businesses might close. If my telemarketing job—if they close down—I don't have anything to go back to.

For Claudia, the unemployment assistance was seen not just as a way for her to stay afloat during the early months of the pandemic, but also as portending future financial calamity if her main source of income were to close permanently.

This desire to save the funds, not often found with unemployment benefits, is common with both EIC and UBI. Sondra Beverly, Daniel Schneider, and Peter Tufano (2006) reveal that EIC recipients often planned to save a portion of their refunds although they faced challenges with the lack of options for splitting refunds into both savings and checking accounts. Ruby Mendenhall and her colleagues (2012) also find that the majority of households receiving EIC planned to allocate a significant portion to their savings. Similarly, individuals receiving UBI payments, such as through the Magnolia Mothers Trust, also reported saving a portion of their benefits for future food and household expenses (Kaufman 2018).

Claudia was not alone in perceiving the additional unemployment funds not as an incentive to stay home, but as a hedge against the future. Katelynn, a twenty-four-year-old unemployed bartender who turned to essential work while awaiting unemployment funds, also spoke about saving her stimulus funds and, later, her unemployment assistance. As a bartender, Katelynn had previously stored her savings in an assortment of empty Jameson bottles hidden in her home. "Yeah, I mean now I'm definitely working on my savings account just because whatever I get now, I try to squirrel it away." For Katelynn, who was used to stockpiling funds in whiskey bottles, squirreling away excess funds was not a new phenomenon, but the unknown future of the pandemic gave it new meaning.

The idea of saving the funds for an unknown future was a common theme among unemployed precarious workers. "It was nice, but it was also something that you realize that you have to save because there's no idea of when it's going to end. So it was nice," said Rueben, twenty-seven, a college student and unemployed restaurant worker. "But it's also like, 'Hey, you've just got to squirrel it away because you have no idea when things are going to quote unquote return to business as usual.' Although there's no business as usual in this thing, when we're all adapting, but you know what I mean." Even in the follow-up interviews conducted during the second surge of the pandemic, and after the $600 a week supplement had long since ended, workers spoke about their efforts to conserve the funds. As Angelica, thirty-four, an unemployed actress and part-time nanny, explained in her phase 2 follow-up interview, "I mean I live a pretty simple life, but it's still living in a city that's quite expensive. And so I knew that [the supplement] was ending, and so I did a really good job of squirreling as much money as I could."

The phrase *squirreling away* is particularly instructive. Much as a squirrel hides away reserves of acorns in preparation for a long winter, our unemployed precarious respondents also saw themselves as preparing for a long road ahead. Indeed, Ruben, the unemployed restaurant worker, took the squirrel metaphor to a new level. His first stimulus check—$1,200—was received during the gap between his last paycheck and before he began receiving unemployment assistance, as his money was running out. He explained, "The first thing I did when I got that was I just bought a bunch of groceries and I filled the freezer and everything. So that's the first thing I did. And then the rest I just squirreled away." For Ruben, his preparations for a long pandemic included not just reserves of funds, but also reserves of food that he stored in his freezer, itself a site for long-term storage. This squirreling away of funds and foods is similar to findings by Laura Tach and her colleagues (2019) that respon-

dents used their income tax refunds to stockpile household staples and pay off debts, essentially leveraging their tax refunds in "multiple forms of self-insurance."

The sense that the money needed to be saved and not spent is especially emphasized when workers discussed the purchases that they later viewed as frivolous and regretful. Ruben noted that he "probably spent $100 on random stupid things but other than that, I saved it." Lauren, twenty-five, an unemployed waitress, also described her early unemployment expenditures in a negative light. "Yeah, so I got unemployment, which was really nice but I was kind of an idiot with it . . . especially in New York when you get that extra $600," she said. "Most of us are like, 'This is more money than we normally make when we're actually working!' . . . I've saved a good amount, but I've also spent way more than I ever should have. . . . I do have a fair amount saved, but it's not what I would have liked." For Lauren, being "kind of an idiot" with the funds meant that she did not have as much saved as she would have preferred.

Disparaging one's purchases as "random stupid things" or describing one's self as being "kind of an idiot" with the money suggests that respondents did not just support the saving of the funds, but also believed that any spending needed to be careful and only on items of importance. Research suggests that increased uncertainty about future income decreases consumption and increases savings (Fisher 2010; Sandmo 1970). The challenges recipients experienced in managing the funds are further supported by Jonathan Murdoch and Rachel Schneider's (2017) work on income volatility, which finds that influxes of cash—although better than a sudden effluence—are also disruptive. A lack of funds can cause problems paying bills, but an influx can also cause budgeting issues as recipients attempt to determine how likely the funds are expected to last and whether an influx today might mean less in the future. Alessandra Guariglia (2001) finds that households save more if they expect their future financial situation to deteriorate. Meanwhile, the theory of precautionary saving posits that saving is seen as offering protection from income shocks, such as the loss of unemployment assistance, and households facing higher income risks are more likely to save (Lusardi 1998).

Although the temporary nature of the funds contributed to respondents' perceived need to save the money, early delays in receiving the funds also contributed to a sense of unknown and challenges in how the assistance was perceived and used, as the next section demonstrates.

Delays: "It Was a Horrible, Horrible Time"

Bell and his colleagues (2023, this issue) highlight the geographic disparities that reduced access to unemployment insurance during the pandemic, noting that areas with more disadvantaged residents had less access to benefits. Alexandrea Ravenelle, Ken Kowalski, and Erica Janko (2021) find that workers experienced three main hurdles in regard to accessing unemployment assistance: knowledge, sociological, and temporal-financial barriers—or *didn't know*, *didn't want*, and *can't wait*. Workers often did not know that they qualified for unemployment benefits, or did not understand how the benefit worked. As Adira, twenty-three, a food delivery worker on the app Caviar explained, "I don't get it. You just sign up, say 'I don't have a job' and the government gives you money? What is that about? If it was that easy, wouldn't everybody do it? I don't get it" (Ravenelle, Kowalski, and Janko 2021). For immigrant workers, even those with work visas or green cards, receiving unemployment assistance was seen as potentially risking a claim of *public charge* that could affect their ability to remain in the country or future citizenship applications (Selyukh 2020; Smith 2020).

Additionally, workers face a sociological barrier to receiving the benefits, professing a lack of desire to receive unemployment funds. One respondent, a private investigator turned delivery worker, described unemployment assistance as a benefit that "doesn't really benefit people like me or people who work" (Ravenelle, Kowalski, and Janko 2021). Finally, much as Marci Ybarra and Frania Mendoza Lua (2023, this issue) found, disenfranchisement from multiple sources of government, including the

safety net, was common. Some workers, experiencing weeks or months of delays, simply felt that they could not wait any longer for unemployment assistance and opted for the "side hustle safety net" of gig economy work on food delivery and grocery shopping apps.

This temporal-financial barrier of extensive delays also affected how respondents viewed their unemployment assistance when they did finally receive it. Many reported extensive delays in completing their application for unemployment assistance. The initial application could be completed online, but respondents often reported that the website regularly crashed or froze during periods of high demand, requiring them to enter their information repeatedly. In many cases, claims information had to be confirmed over the phone with a representative from the Department of Labor, leading some respondents to spend days continually calling the office. As William, forty-two, an unemployed TaskRabbit, explained in his April 2020 interview, "I've basically been calling them almost every day, multiple times, hundreds of times even, and can never get through. I'm still waiting to hear back from them actually."

As a result of these delays, when the funds finally arrived, workers found themselves playing catch-up with their bills. "I struggled with the website for the first three weeks being unemployed. So that is when I had to just use the money that I had to pay basic bills and had to come to my grandparents' house in Rhode Island to cut back on expenses," said Kelsey, the unemployed dancer and production manager. Once she received the unemployment assistance, she was able to pay off debt accrued during the early days of the pandemic, but was not able to get ahead of the expenses and replenish her savings. She explained:

> So in the end it's not that I'm making more money. I would get to that point if the CARES Act continued for a little bit longer. And then I wouldn't feel like this whole situation was such a financial blow. I could feel like I could at least hang on to my apartment and earn back the savings that I've had to dip into. And then I would feel better supported and better equipped to step back out into the world, into my career and not have to feel I am now living back with my grandparents because I don't have the means to move forward.

Similarly, Amir, twenty-six, the unemployed owner of entertainment-focused small business turned food delivery worker, experienced extensive delays in receiving financial assistance during the pandemic.

> Thankfully my wife and I, it was delayed for quite a bit, but we did get our [stimulus] share, which is $2,400. But at this point that $2,400 because it's been so delayed, there have been so many bills that have piled up. There's so many. . . . It was money that just disappeared. It wasn't even . . . We couldn't use it towards food, we couldn't use it toward our general livelihood, because there's so many credit cards that are being just maxed out, because people have to live, people have to eat, people have to get food.

At one point, Amir tried to obtain free food from local schools, part of the Community Meals program, but was discouraged by the number of people also seeking meals. Eventually he turned to the side hustle safety net of food delivery apps. "We're like, 'I might as well just do deliveries and make an extra couple of dollars, if I have to make . . . If I can just . . . Even if I make a three dollar order in one hour . . . with three dollars I can buy myself a White Castle meal or something.'"

The experiences of Kelsey and Amir, while poignant, are not unusual. Vance Larsen and his colleagues (2021, 2) find that income shocks (such as unemployment), rather than expense shocks (a sudden car repair) are harder to cope with, have more impact on daily life, and are "perceived as more of a loss than expense shocks of the same amount."

In some cases, the delays that workers experienced in receiving assistance were so considerable that they reported long-term implications in terms of their sense of security. For instance, Marissa, twenty-five, an unemployed server and performer, applied for unemployment assistance soon after New York's shutdown began.

> The problem I had though was I didn't receive my stimulus check or a single unemployment payment until I believe the second week of May. So I went from March 15th to about May. . . . So it was about a full two months without. . . . My stimulus was behind. And my whole family, who was still working, received their [stimulus] before me, who was unemployed. That was hurtful. No one's fault, of course. But I'm like looking around, seeing all these people talk about their [stimulus] money, "I'm going to buy this and go on vacation." I'm like, "I haven't received a dime from the government in two months. I am struggling here."

A writer friend, living out of state, sent her money every few weeks so she could purchase groceries.

> It was a horrible, horrible time. I just remember every day thinking, "I don't know how I'm going to make it another week. How am I going to get my cat's food? How am I going to get my own food? How am I going to pay rent next month? Am I going to get evicted?" It was the most uncertain time I've experienced probably ever . . . And it was for about two straight months. I lost 20 pounds right away. Everyone kept commenting: "Oh, you look so good. You look so good." I wasn't eating. I wasn't sleeping. I was afraid to eat cause I didn't know if I could afford to eat. I was afraid to pay my rent because if I paid my rent, I wouldn't afford to eat. You know, it was horrible, horrible, horrible.

When she finally received her unemployment assistance, it included several weeks of payments at once. "And then all of a sudden, I was kind of rich," she said. She paid some medical bills, her taxes, and several months of back rent. This need to use a lump sum of unemployment assistance to pay bills that had piled up previously is similar to how EIC funds are often used. Shawn Cole, John Thompson, and Peter Tufano (2008) find that more credit-constrained individuals spend their funds more quickly and that a greater fraction of their refund is used to pay for necessities such as food and transportation expenses. Research examining a two-week delay in 2017 of more than $40 billion in tax refunds found that the delay led to a notable change in the timing of spending. Aditya Aladangady and colleagues (2018) find that the delay also affected spending on nondurable necessities, such as groceries.

For Marissa, the months of being destitute have taken their toll. She explained:

> Ironically, now I have more money in my savings account than I've ever had in my whole life. And I still don't feel secure. I feel every week, even with that unemployment coming in, it doesn't ever feel like it would be enough. 'Cause I think I'm a little bit traumatized from having the ground ripped out from under me like that. You could hand me a million dollars a day and I'd be like, "Oh my God, put it in savings. Don't touch it." Like it's never going to be enough. I feel that trauma now of like, I could never have enough money. I'll never feel secure because I still don't even know if I'll have a job in a few months. Like yeah, my savings account looks pretty right now, but I'm going to be living off of that probably for the rest of 2020. So, that's scary.

Although Marissa's delays in receiving unemployment were extensive, her concerns about the future were not unique. Research suggests that uncertainty regarding income, employment, or health affect savings behavior (Fisher 2010; Lusardi 1998; Carroll 1994; Deaton 1991; Sandmo 1970). As the next section demonstrates, for some workers, concerns about the future—partnered with the short-term nature of the CARES Act, were a deterrent to receiving unemployment assistance, or increased the desirability of employment, even if it paid less.

It's Only Short Term: "It's More About Longevity."

A good deal of media attention and conservative handwringing was paid to the weekly $600 week unemployment enhancement, which enabled 76 percent of workers eligible for benefits to make more on unemployment than they had previously been making (Ganong, Noel, and Vavra 2020). Even among the unemployed workers interviewed, the concern was that their

cash assistance was disproportionately high and would lead to mass layoffs or resignations as other workers attempted to secure the same benefits.

"I am making more than the grocery store workers with my unemployment. . . . I've talked to a lot of people that make minimum wage, or don't make that much money. And they would make a lot more on unemployment," said Cody, age thirty, an unemployed dog walker. "Has the government provided a lot of subsidies to businesses so they don't furlough people? . . . They could easily furlough these people . . . and they would make more money on unemployment."

Cody's concerns—that receiving enhanced unemployment was more desirable than working, especially when making minimum wage—was also echoed by state governors in various states that voted to end their participation in the CARES Act early in an effort to reduce local labor shortages (Goger 2021; Mills 2021; Romm and Rosenberg 2021). Yet, among the respondents we interviewed, although many were aware that they would make more on unemployment, the time-limited nature of the assistance was a deterrent. For instance, Jessie, thirty-one, was working full time as a drug store bike courier during the early days of the pandemic. "So yeah, I'd be making more on unemployment," he said, noting that he had chosen to continue working instead. "Which would be nice, but then I tell myself, it's like, 'oh, it's only until July that that $600 a week is coming in, right?'"

Likewise, Vilma, a laid-off hotel cleaner, was receiving unemployment assistance, but for some reason not the additional $600 a week when she was interviewed in the spring of 2020. She noted that the additional funds would be helpful, but the short-term nature of the assistance affected her views on whether she should seek the help. "Well, it would be comfortable at the beginning but I would still be looking for something else to do to work. Because I can't depend on that, that might be for a little bit and then all of a sudden, guess what? They're not sending it anymore," she said. "I'm still going to look for a job."

Respondents saw work, even precarious work, as more stable and secure than the temporary uptick in income that the enhanced unemployment assistance provided. "For me, it's more about longevity. I also have a child, so those things are important to me," said Alonzo, thirty-seven, a TaskRabbit-turned-janitor. Alonzo also noted that he would be making almost $100 more weekly on unemployment, but returning to work was preferable because it offered him the sense of "still being able to have some security that I'll have a job within the next two or three months." Although low-wage work is generally seen as unstable, undependable, and offering few opportunities for advancement or benefits (Kalleberg 2011), even low-wage jobs provide a sense of daily order and stability, and a sense of dignity that is not often associated with governmental assistance, even temporary unemployment benefits (Newman 1999).

Interestingly, much as Newman (1999) finds in her research on low-income urban workers, the respondents who were currently or previously paid as W-2 workers were especially reluctant to be on unemployment and espoused a strong work ethic. Jennifer, twenty-eight, an unemployed events worker and former grocery store employee, is perhaps the most notable example of a worker reluctant to go on unemployment benefits instead of working. Early in the pandemic, Jennifer believed that she might have COVID-19, and then began experiencing panic attacks from the stress of public-facing essential work. "I feel this obligation to work. It's an essential service and I felt pride in that," she said. "The fact that I would be making twice as much and also not be putting myself in a situation that would either get me exposed or make me have panic attacks. I just figured it was the right thing to do, but I still feel really guilty and weird about it."

Uncertainty Now, Entrepreneurship Later: "Maybe There's Some Opportunity Here"

Although many workers remained focused on the temporary nature of the assistance and how quickly they could return to work, some also took advantage of the increase in their income and lack of work obligations to focus on artistic pursuits or pursue entrepreneurial ventures. Much as the EIC is seen as "springboard for upward mobility" (Sykes et al. 2015) or how NITs and UBIs lead to significant impacts on

education outcomes (Hoynes and Rothstein 2019; Marinescu 2018), the PEUC was seen as providing recipients with an opportunity to pursue additional opportunities. For these workers, the enhanced unemployment assistance functioned as a guaranteed income that allowed them to begin creating a small business, or further invest in themselves.

For instance, thirty-six-year-old Josh, an unemployed artist who had spent the last few years working in a self-described "dead-end job" in food service, used his time on unemployment to take free classes in computer coding and website development. "My time is better spent kind of trying to work on bigger professional goals, so it feels like a big opportunity for me," he said. "I feel like this is giving me an opportunity to build my skills back up without any capital output."

After years of struggling on minimum wage or close to it, the influx of funds and his growing savings account also allowed Josh to begin envisioning new possibilities. "I'm like, 'Oh, maybe there's some opportunity here,'" he said. "People are going to be selling stuff to try to raise money, maybe this is an opportunity for me to kind of get some of the things that I've wanted for a long time and haven't been able to."

Similarly, Crystal, twenty-seven, a married, unemployed TaskRabbit cleaner with toddler twins, used her PUA and PEUC funds to invest in a microgreens business that she planned to run from her home, offering her a chance to save on childcare expenses while also earning money. "It's pretty exciting. Like I said, if it wasn't for the COVID, I probably wouldn't have been able to do this," she said. "We just got our LLC for it. We have to finish our good standing paperwork and stuff like that, but we're pretty much legally ready to go."

The one other respondent who started a business during the pandemic did not receive unemployment, but was in a similar situation in regard to income security when his boss refused to lay him off despite a lack of business. Colton, twenty-one, a spa manager, took advantage of his secure employment to purchase a programmable sewing machine and to start an Etsy business selling embroidered sweatshirts, making a few extra thousand dollars per month.[4] "This is also a job, but I actually enjoy doing it. It's cathartic and peaceful, it's even satisfying to hear the needle going up and down really fast," he said. " I'm trying to find a place where I can have space to potentially run my own business out of and make that my full-time thing if it could work. So I'm trying to work that into my lifestyle."

These business starts may not be unusual. Even though "the CARES Act did not directly support new business formation," the distribution of relief "was followed by a relative increase in start-up formation rates, particularly in neighborhoods with higher median incomes and a higher proportion of Black residents" (Fazio et al. 2021, abstract). For all of the upheaval, nearly a million more new business applications were filed in 2020 than in 2019 (Anagnos 2021; Fox 2021). One possibility is that, much like in France where workers could continue to receive unemployment while starting a business, workers felt financially secure enough to take a risk on new business development (Hombert et al. 2020).

Although most of the respondents did not start businesses with their unemployment assistance, their focus on laying the framework for a career change or more successful entrepreneurial venture was not unique. Creative freelancers in particular often focused on taking their time on unemployment to "make the future" that workers wanted to have after the pandemic (Ravenelle and Kowalski 2022). For many workers this meant getting back in shape, or taking classes in preparation for future auditions or roles. In the most extreme cases, future planning involved reaching out to former contacts with letters of introduction, to ensure that they wouldn't "forget" them, and pitching future travel stories along with definitive plans for 2021 (Ravenelle and Kowalski 2022).

4. The title of spa manager suggests a relatively secure middle-management job but is a bit of a misnomer. A recent college graduate, Colton's pay was never particularly high, but during the pandemic it was reduced to New York's minimum wage of $15 an hour, garnering him an annual salary of $31,200. Additionally, during the pandemic, any cash bonuses he had previously received were discontinued.

CONCLUSION

To describe the COVID-19 pandemic as unprecedented has become a truism. Yet never before in American society have the majority of unemployed workers found themselves making more on unemployment than they had been making while working (Ganong, Noel, and Vavra 2020). Additionally, the pandemic was the first time when gig workers and the self-employed could receive unemployment assistance, albeit at half the level of their unemployed employee peers. At the same time, social distancing efforts and local lockdown orders also resulted in widespread business closures and a sense of anxiety about the future. As a result of these factors, we ask, how do precarious workers, many of whom were hustling for money or engaged in creative fields, feel about making more on unemployment? How are they using the funds?

We find that workers, though they expressed a sense of gratitude for the funds, explained that it "didn't feel great" to be paid more for not working, especially when their previous work involved juggling multiple jobs or pursuing artistic passions. Additionally, the specter of the unknown affected workers' use of their benefits, and generated concerns that a financial influx today was simply preceding a shortage tomorrow. As a result, workers emphasized the importance of squirreling away their unemployment funds—upending the expectation that unemployment assistance is high-velocity money quickly spent on necessities. Finally, delays in securing unemployment assistance—and the penury that workers sometimes endured first—also contributed to the sense that the financial scars from their experiences would linger.

In some cases, the additional funds were used to start businesses, lay the framework for a career change, or contribute to efforts to jumpstart the workers' careers whenever the pandemic ended. In this way, and for some workers, the enhanced unemployment assistance served as a guaranteed income that allowed them to begin investing in a small business venture, or further invest in themselves, and may have allowed for a major career reset. Future follow-up interviews, funded by a Russell Sage Foundation Future of Work grant, will allow us to see the long-term implications of this assistance—and its end in September 2021—on worker careers.

Within a sample that comprised three distinct groups of workers—creative freelancers, low-wage W-2 employees, and gig economy workers—two differences were notable: creative freelancers were more likely to express a sense of gratitude for the unemployment benefits that they would not typically be eligible for, and low-wage W-2 workers were more likely to express a reluctance to be on unemployment and a desire to be working. We theorize that part of this issue is that low-wage workers were cognizant of the challenges of job searching (Newman 2008) and that the typically higher wage creative freelancers often used unemployment funds to enable an investment in personal growth (Ravenelle and Kowalski 2022).

We caution here that even with these challenges, we do not suggest—nor does the research support—that the PUA, PEUC, or FPUC were problematic policy decisions in terms of the experience of precarious workers. Our longitudinal interviews with respondents highlight the challenges that workers experienced early in the pandemic, including sudden job loss, a sense of anxiety and uncertainty regarding the coronavirus, and challenges in accessing unemployment assistance (Ravenelle, Kowalski, and Janko 2021). Indeed, the experience of Marissa, for whom delays in receiving unemployment funds and anxiety about feeding herself had resulted in a sense that she'll "never feel secure," suggests that, if anything, the problem with the PUA was that it simply wasn't distributed fast enough, or long enough.

However, these findings suggest that although enhanced and expanded unemployment assistance is crucial in a sudden and significant economic downturn, it is not enough to simply give workers more unemployment funds and assume that it will immediately be spent "stimulating" the economy. Instead, we find that worker uncertainty about the future of the pandemic supports, partnered with delays and administrative burdens, led to a savings response. The implications for public policy are clear: easy-to-understand guidance—such as publicizing when, and how, unemployment assistance limits are extended, and the likelihood of continuing PUA funds—would

strengthen the economic security of workers and their ability to move forward in novel times. Otherwise, additional funds without transparency could simply make workers ever more certain of their insecurity.

REFERENCES

Adamczyk, Alicia. 2020. "The Extra $600 in Weekly Unemployment Benefits Runs Out at the End of July—Here's What You Need to Know." CNBC, May 28. Accessed November 5, 2022. https://www.cnbc.com/2020/05/28/extra-600-dollars-in-weekly-unemployment-benefits-runs-out-in-july.html.

Akee, Randall K.Q., William E. Copeland, Gordon Keeler, Adrian Angold, and E. Jane Costello. 2010. "Parents' Incomes and Children's Outcomes: A Quasi-experiment Using Transfer Payments from Casino Profits." *American Economic Journal: Applied Economics* 2(1): 86–115. DOI: https://doi.org/10.1257/app.2.1.86.

Aladangady, Aditya, Shifrah Aron-Dine, David Cashin, Wendy Dunn, Laura Feiveson, Paul Lengermann, Katherine Richard, and Claudia Sahm. 2018. "High-Frequency Spending Responses to the Earned Income Tax Credit." *National Tax Association Proceedings* 111(2018): 1–10. Accessed November 5, 2022. https://www.jstor.org/stable/26939408.

Anagnos, Chloe. 2021. "Lockdowns Were a Disaster, but They May Have Rekindled American's Entrepreneurial Spirit." *FEE Stories*, November 9. Accessed November 5, 2022. https://fee.org/articles/lockdowns-were-a-disaster-but-they-may-have-rekindled-americans-entrepreneurial-spirit/.

Babson, Rick. 2021. "Study Shows Surge in Savings During the Pandemic." *Kansas City Federal Reserve*, April 29. Accessed November 5, 2022. https://www.kansascityfed.org/ten/2021-spring-ten-magazine/study-shows-surge-in-savings-during-the-pandemic/.

Baird, Sarah, David McKenzie, and Berk Özler. 2018. "The Effects of Cash Transfers on Adult Labor Market Outcomes." *IZA Journal of Development and Migration* 8(1): 22. DOI: https://doi.org/10.1186/s40176-018-0131-9.

Bateman, Nicole, and Martha Ross. 2021. "The Pandemic Hurt Low-Wage Workers the Most—and So Far, the Recovery Has Helped Them the Least." Washington, D.C.: Brookings Institution. Accessed November 5, 2022. https://www.brookings.edu/research/the-pandemic-hurt-low-wage-workers-the-most-and-so-far-the-recovery-has-helped-them-the-least/.

Bauer, Lauren, Wendy Edelberg, and Jana Parsons. 2020. "Unemployment Insurance Extended Benefits Will Lapse Too Soon Without Policy Changes." *Up Front* (Brookings Institution blog), August 6. Accessed November 5, 2022. https://www.brookings.edu/blog/up-front/2020/08/06/unemployment-insurance-extended-benefits-will-lapse-too-soon-without-policy-changes/.

Bell, Alex, Thomas J. Hedin, Peter Mannino, Roozbeh Moghadam, Geoffrey Schnorr, and Till von Wachter. 2023. "Disparities in Access to Unemployment Insurance During the COVID-19 Pandemic: Lessons from U.S. and California Claims Data." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 9(3): 78–109. DOI: https://doi.org/10.7758/RSF.2023.9.3.04.

Bellon, Tina. 2020. "Why U.S. Gig Economy Workers Need an Act of Congress to Get Jobless Pay." Reuters, March 27. Accessed November 5, 2022. https://www.reuters.com/article/us-health-coronavirus-gig-benefits-expla/explainer-why-u-s-gig-economy-workers-need-an-act-of-congress-to-get-jobless-pay-idUSKBN21E2B9.

Beverly, Sondra G. 2002. "What Social Workers Need to Know About the Earned Income Tax Credit." *Social Work* 47(3): 259–66. DOI: https://doi.org/10.1093/sw/47.3.259.

Beverly, Sondra, Daniel Schneider, and Peter Tufano. 2006. "Splitting Tax Refunds and Building Savings: An Empirical Test." *Tax Policy and the Economy* 20(2006): 111–62. Accessed November 5, 2022. https://www.journals.uchicago.edu/doi/pdf/10.1086/tpe.20.20061906.

Boushey, Heather, and Matt Separa. 2011. "Unemployment Insurance Dollars Create Millions of Jobs." Center for American Progress, September 21. Accessed November 5, 2022. https://www.americanprogress.org/issues/economy/news/2011/09/21/10367/unemployment-insurance-dollars-create-millions-of-jobs/.

Brumberg, Bruce. 2020. "Unemployment Benefits for the Self-Employed, Independent Contractors, and Gig-Economy Workers: Lawyer on the Front Lines Answers Common Questions." *Forbes*, May 1. Accessed November 5, 2022. https://www.forbes.com/sites/brucebrumberg/2020/05/01/unemployment-benefits-for-the-self-employed

-independent-contractors-and-gig-economy-workers-lawyer-on-the-front-lines-answers-common-questions.

Burtless, Gary. 2020. "Unemployment Insurance as Social Protection and Stimulus During the Coronavirus Crisis." Washington, D.C.: Brookings Institution. Accessed November 5, 2022. https://www.brookings.edu/research/unemployment-insurance-as-social-protection-and-stimulus-during-the-coronavirus-crisis/.

Carroll, Christopher D. 1994. "How Does Future Income Affect Current Consumption?" *Quarterly Journal of Economics* 109(1): 111–47. DOI: https://doi.org/10.2307/2118430.

Chen, Victor Tan. 2015. *Cut Loose: Jobless and Hopeless in an Unfair Economy*. Oakland: University of California Press.

Chodorow-Reich, Gabriel, and John M. Coglianese. 2019. "Unemployment Insurance and Macroeconomic Stabilization" In *Recession Ready: Fiscal Policies to Stablize the American Economy*, edited by Heather Boushey, Ryan Nunn, and Jay Shambaugh. Washington, D.C.: Brookings Institution Press.

Chow, Denise, and Jason Abburzzese. 2020. "What Is 'Flatten the Curve'? The Chart That Shows How Critical It Is for Everyone to Fight Coronavirus Spread." NBC News, March 11. Accessed November 5, 2022. https://www.nbcnews.com/science/science-news/what-flatten-curve-chart-shows-how-critical-it-everyone-fight-n1155636.

Cole, Shawn Allen, John Thompson, and Peter Tufano. 2008. "Where Does It Go? Spending by the Financially Constrained." Working paper no. 08-083. Boston, Mass.: Harvard Business School Finance.

Cylus, Jonathan, M. Maria Glymour, and Mauricio Avendano. 2014. "Do Generous Unemployment Benefit Programs Reduce Suicide Rates? A State Fixed-Effect Analysis Covering 1968–2008." *American Journal of Epidemiology* 180(1): 45–52. DOI: https://doi.org/10.1093/aje/kwu106.

———. 2015. "Health Effects of Unemployment Benefit Program Generosity." *American Journal of Public Health* 105(2): 317–23. DOI: https://doi.org/10.2105/AJPH.2014.302253.

Damaske, Sarah. 2020. "Job Loss and Attempts to Return to Work: Complicating Inequalities Across Gender and Class." *Gender & Society* 34(1): 7–30. DOI: https://doi.org/10.1177/0891243219869381.

———. 2021. *The Tolls of Uncertainty: How Privilege and the Guilt Gap Shape Unemployment in America*. Princeton, N.J.: Princeton University Press.

Damaske, Sarah, and Adrianne Frech. 2014. "The Life Course of Unemployment: The Timing and Relative Degree of Risk for Baby Boomers." Unpublished manuscript. Pennsylvania State University.

Deaton, Angus. 1991. "Saving and Liquidity Constraints." *Econometrica* 59(5): 1221–48. DOI: https://doi.org/10.2307/2938366.

DePalma, Lindsay. 2020. "The Passion Paradigm: Why the Ideology of Work Passion Thrives in the New Economy." Ph.D. diss., University of California San Diego.

DeParle, Jason. 2021. "Vast Federal Aid Has Capped Rise in Poverty Studies Find." *New York Times*, June 21. Accessed November 5, 2022. https://www.nytimes.com/2020/06/21/us/politics/coronavirus-poverty.html.

Deterding, Nicole M., and Mary C. Waters. 2018. "Flexible Coding of In-Depth Interviews: A Twenty-First-Century Approach." *Sociological Methods & Research* 50(2): 708–39. DOI: https://doi.org/10.1177/0049124118799377.

Dewitt, Larry. 2003. "Review: Protecting Soldiers and Mothers: The Political Origins of Social Policy in the United States by Theda Skocpol." *American Historical Review* 98(2): 458–60. DOI: https://doi.org/10.2307/2166848.

East, Chloe N., and Elira Kuka. 2015. "Reexamining the Consumption Smoothing Benefits of Unemployment Insurance." *Journal of Public Economics* 132(1): 32–50. DOI: https://doi.org/10.1016/j.jpubeco.2015.09.008.

Edin, Kathryn J., and Maria J. Kefalas. 2005. *Promises I Can Keep: Why Poor Women Put Motherhood Before Marriage*. Berkeley: University of California Press.

Edin, Kathryn J., and H. Luke Shaefer. 2015. *$2.00 a Day: Living on Almost Nothing in America*. Boston, Mass.: Houghton Mifflin Harcourt.

Edwards, Kathryn Anne. 2021. "Americans Can Find A Smarter Way to Help Workers Who Have Lost Their Jobs." *New York Times*, September 13. Accessed November 5, 2022. https://www.nytimes.com/2021/09/13/opinion/unemployment-reform-covid-biden.html.

Evermore, Michele. 2020. "Unemployment Insurance During COVID-19: The CARES Act and the Role of Unemployment Insurance During the Pandemic." *National Employment Law Project*, June

9. Accessed November 5, 2022. https://www.nelp.org/publication/unemployment-insurance-covid-19-cares-act-role-ui-pandemic/.

Farrell, Diana, Fiona Greig, and Amar Hamoudi. 2019. "Tax Time: How Families Manage Tax Refunds and Payments." New York: JP Morgan Chase Institute. DOI: http://dx.doi.org/10.2139/ssrn.3348019.

Fazio, Catherine E., Jorge Guzman, Yupeng Liu, and Scott Stern. 2021. "How Is COVID Changing the Geography of Entrepreneurship Evidence from the Startup Cartography Project." *NBER* working paper 28787. Cambridge, Mass.: National Bureau of Economic Research.

Federal Emergency Management Agency (FEMA). 2021. "Lost Wages Supplemental Payments Assistance Guidelines." Washington: U.S. Department of Homeland Security. Last modified April 22, 2022. Accessed October 9, 2022. https://www.fema.gov/disaster/coronavirus/governments/supplemental-payments-lost-wages-guidelines.

Federal Reserve Economic Data (FRED). 2021. "Personal Consumption Expenditures (PCE)." St. Louis: Federal Reserve Bank. Accessed November 11, 2021. https://fred.stlouisfed.org/series/PCE.

Feinberg, Robert M., and Daniel Kuehn. 2020. "Does a Guaranteed Basic Income Encourage Entrepreneurship? Evidence from Alaska." *Review of Industrial Organization* 57(2020): 607–26. DOI: https://doi.org/10.1007/s11151-020-09786-8.

Fisher, Patti J. 2010. "Income Uncertainty and Household Saving in the United States." *Family and Consumer Sciences Research Journal* 39(1): 57–74. DOI: https://doi.org/10.1111/j.1552-3934.2010.02045.x.

Forget, Evelyn L. 2011. "The Town with No Poverty: The Health Effects of a Canadian Guaranteed Annual Income Field Experiment." *Canadian Public Policy* 37(3): 283–305. DOI: https://doi.org/10.3138/cpp.37.3.283.

Fox, Michelle. 2021. "Start-Ups Boomed During the Pandemic. Here's How Some Entrepreneurs Found a Niche." CNBC, May 27. Accessed November 5, 2022. https://www.cnbc.com/2021/05/27/how-entrepreneurs-found-their-start-up-niche-during-covid-19.html.

Friedman, Gladys R. 1937. *Unemployment Compensation: What and Why?* Publication no. 14. Washington: U.S. Government Printing Office for the Social Security Board.

Ganong, Peter, and Pascal Noel. 2019. "Consumer Spending During Unemployment: Positive and Normative Implications." *American Economic Review* 109(7): 2382–424. DOI: https://doi.org/10.1257/aer.20170537.

Ganong, Peter, Pascal Noel, and Joseph S. Vavra. 2020. "UI Benefits Exceed Lost Earnings for Most Unemployed." Chicago: Becker Friedman Institute. Accessed November 5, 2022. https://bfi.uchicago.edu/insight/finding/ui-benefits-exceed-lost-earnings-for-most-unemployed/.

Goger, Annelies. 2021. "Millions of Workers Will Lose Their Safety Net This Labor Day If Congress Doesn't Act." *The Avenue* (Brookings Institution blog), August 18. https://www.brookings.edu/blog/the-avenue/2021/08/18/millions-of-workers-will-lose-their-safety-net-this-labor-day-if-congress-doesnt-act/.

Guariglia, Alessandra 2001. "Saving Behaviour and Earnings Uncertainty: Evidence from the British Household Panel Survey." *Journal of Population Economics* 14(4): 619–34. Accessed November 5, 2022. http://www.jstor.org/stable/20007787.

Hacker, Jacob. 2006. *The Great Risk Shift: The Assault on American Jobs, Families, Health Care, and Retirement and How You Can Fight Back*. New York: Oxford University Press.

Hasdell, Rebecca. 2020. "What We Know About Universal Basic Income: A Cross-Synthesis of Reviews." Stanford, Calif.: Stanford Basic Income Lab. Accessed November 5, 2022. https://basicincome.stanford.edu/uploads/Umbrella%20Review%20BI_final.pdf.

Hombert, Johan, Antoinette Schoar, David Sraer, and David Thesmar. 2020. "Can Unemployment Insurance Spur Entrepreneurial Activity? Evidence from France." *Journal of Finance* 75(3): 1247–85. DOI: https://doi.org/10.1111/jofi.12880.

Horowitz, Juliana Menasce, Anna Brown, and Rachel Minkin. 2021. "A Year Into the Pandemic, Long-Term Financial Impact Weighs Heavily on Many Americans." Washington, D.C.: Pew Research Center. Accessed November 5, 2022. https://www.pewresearch.org/social-trends/2021/03/05/a-year-into-the-pandemic-long-term-financial-impact-weighs-heavily-on-many-americans/.

Hoynes, Hilary W., and Jesse Rothstein. 2019. "Universal Basic Income in the US and Advanced Countries." *NBER* working paper 25538. Cambridge, Mass.: National Bureau of Economic Research. DOI: https://doi.org/10.3386/w25538.

Iacurci, Greg. 2020. "Covid Relief Bill Pays Extra $300 a Week in Jobless Benefits, Extends Aid for 4 Months." CNBC, December 15. Accessed November 5, 2022. https://www.cnbc.com/2020/12/15/unemployment-benefits-covid-bill-pays-extra-300-a-week-extends-aid.html.

———. 2021. "Jobs Are Still Down 22% for Low-Wage Workers. They're Up for Everyone Else." CNBC, August 16. Accessed November 5, 2022. https://www.cnbc.com/2021/08/16/jobs-still-down-22-percent-for-low-wage-workers-theyre-up-for-everyone-else.html.

Jones, Damon, and Ioana Marinescu. 2018. "The Labor Market Impacts of Universal and Permanent Cash Transfers: Evidence from the Alaska Permanent Fund." *NBER* working paper no. 24312. Cambridge, Mass.: The National Bureau of Economic Research. DOI: https://doi.org/10.3386/w24312.

Kalleberg, Arne L. 2011. *Good Jobs, Bad Jobs: The Rise of Polarized and Precarious Employment Systems in the United States, 1970s–2000s*. New York: Russell Sage Foundation.

Kaufman, Greg. 2018. "How a Guaranteed Income Could Relieve the 'Pressure Cooker' of Poverty." *The Nation*, October 1. Accessed November 5, 2022. https://www.thenation.com/article/archive/how-a-guaranteed-income-could-relieve-the-pressure-cooker-of-poverty/.

Komarovsky, Mirra. 1940. *The Unemployed Man and His Family.* Walnut Creek, Calif.: Rowman & Littlefield.

Kuka, Elira. 2020. "Quantifying the Benefits of Social Insurance: Unemployment Insurance and Health." *Review of Economics and Statistics* 102(3): 490–505. DOI: https://doi.org/10.1162/rest_a_00865.

Landais, Camille, Pascal Michaillat, and Emmanuel Saez. 2010. "Optimal Unemployment Insurance over the Business Cycle." *NBER* working paper no. 16526. Cambridge, Mass.: National Bureau of Economic Research. DOI: https://doi.org/10.3386/w16526.

———. 2018. "A Macroeconomic Approach to Optimal Unemployment Insurance: Theory." *American Economic Journal: Economic Policy* 10(2): 152–81. DOI: https://doi.org/10.1257/pol.20150088.

Lane, Carrie M. 2011. *A Company of One: Insecurity, Independence, and the New World of White-Collar Unemployment.* Ithaca, N.Y.: Cornell University Press.

Larsen, Vance J., Riona Carriaga, Hilary Wething, Jiaying Zhao, and Crystal C. Hall. 2021. "Behavioral Consequences and Intervention of Financial Shocks." *PsyArXiv.* DOI: https://doi.org/10.31234/osf.io/eq3gw.

Leidner, Robert. 2016. "Work Identity Without Steady Work: Lessons from Stage Actors." In *Research in the Sociology of Work*, edited by Steven Vallas. Bingley, UK: Emerald Group Publishing.

Liu, Jennifer. 2020. "New Relief Bill Boosts Unemployment Insurance by $600 a Week for Gig Workers, Freelancers and More." CNBC, March 26. Accessed November 5, 2022. https://www.cnbc.com/2020/03/26/coronavirus-relief-act-expanded-unemployment-payment-and-eligibility.html.

Long, Heather. 2020. "The Controversial $600 Unemployment Aid Debate, Explained." *Washington Post*, August 6. Accessed November 5, 2022. https://www.washingtonpost.com/business/2020/08/06/600-dollar-unemployment-benefit/.

Lusardi, Annamaria. 1998. "On the Importance of the Precautionary Saving Motive." *American Economic Review* 88(2): 449–53. Accessed November 5, 2022. https://www.jstor.org/stable/116965.

Maggio, Marco Di, and Amir Kermani. 2016. "The Importance of Unemployment Insurances as Automatic Stabilizers." *NBER* working paper no. 22625. Cambridge, Mass.: National Bureau of Economic Research. DOI: https://doi.org/10.3386/w22625.

Marinescu, Ioana. 2017. "The General Equilibrium Impacts of Unemployment Insurance: Evidence from a Large Online Job Board." *Journal of Public Economics* 150(1): 14–29. DOI: https://doi.org/10.1016/j.jpubeco.2017.02.012.

———. 2018. "No Strings Attached: The Behavioral Effects of U.S. Unconditional Cash Transfer Programs." *NBER* working paper no. 24337. Cambridge, Mass.: National Bureau of Economic Research. DOI: https://doi.org/10.3386/w24337.

Marinescu, Ioana, and Daphané Skandalis. 2021. "Unemployment Insurance and Job Search Behavior." *Quarterly Journal of Economics* 136(2): 887–931. DOI: https://doi.org/10.1093/qje/qjaa037.

Marinescu, Ioana, Daphné Skandalis, and Daniel Zhao. 2020. "Job Search, Job Posting and Unemployment Insurance During the COVID-19 Crisis."

Social Science Research Network. DOI: http://dx.doi.org/10.2139/ssrn.3664265.

McKinley, Jesse. 2020. "New York City Region Is Now an Epicenter of the Coronavirus Pandemic." *New York Times*, March 22. Accessed November 5, 2022. https://www.nytimes.com/2020/03/22/nyregion/coronavirus-new-york-epicenter.html.

Mendenhall, Ruby, Kathryn Edin, Susan Crowley, Jennifer Sykes, Laura Tach, Katrin Kriz, and Jeffrey R. Kling. 2012. "The Role of Earned Income Tax Credit in the Budgets of Low-Income Households." *Social Services Review* 86(3): 367–400. DOI: https://doi.org/10.1086/667972.

Mills, Shamane. 2021. "Evers: End of Pandemic Unemployment Will Not Solve Worker Shortage." Wisconsin Public Radio, September 8. Accessed November 5, 2022. https://www.wpr.org/evers-end-pandemic-unemployment-will-not-solve-worker-shortage.

Morduch, Jonathan, and Rachel Schneider. 2017. *The Financial Diaries: How American Families Cope in a World of Uncertainty*. Princeton, N.J.: Princeton University Press.

Newman, Katherine S. 1999. *No Shame in My Game: The Working Poor in the Inner City.* New York: Vintage Books.

———. 2008. *Chutes and Ladders: Navigating the Low-Wage Labor Market*. Cambridge, Mass.: Harvard University Press.

New York City Housing Authority (NYCHA). n.d. "Never Pay Money to Apply for Public Housing or Section 8." Accessed October 9, 2022. https://www1.nyc.gov/site/nycha/eligibility/eligibility.page.

Ocejo, Richard E. 2017. *Masters of Craft: Old Jobs in the New Urban Economy*. Princeton, N.J.: Princeton University Press.

Olds, Gareth. 2016. "Food Stamp Entrepreneurs." Working paper no. 16-143. Boston, Mass.: Harvard Business School.

Parker, Jonathan A., Nicholas S. Souleles, David S. Johnson, and Robert McClelland. 2013. "Consumer Spending and the Economic Stimulus Payments of 2008." *American Economic Review* 103(6): 2530–53. DOI: https://doi.org/10.1257/aer.103.6.2530.

Peetz, Johanna, Jennifer Robson, and Silas Xuereb. 2021. "The Role of Income Volatility and Perceived Locus of Control in Financial Decisions." *Frontiers in Psychology*, May 31. DOI: https://doi.org/10.3389/fpsyg.2021.638043.

Porter, Eduardo. 2020. "The Service Economy Meltdown." *New York Times*, September 4. Accessed December 22, 2020. https://www.nytimes.com/2020/09/04/business/economy/service-economy-workers.html.

Price, Daniel. 1985. "Unemployment Insurance, Then and Now, 1935–1985." *Social Security Bulletin* 48(10): 22–32. Accessed November 5, 2022. https://www.ssa.gov/policy/docs/ssb/v48n10/v48n10p22.pdf.

Pugh, Allison J. 2015. *The Tumbleweed Society: Working and Caring in an Age of Insecurity.* Oxford: Oxford University Press.

Rao, Aliya Hamid. 2020. *Crunch Time: How Married Couples Confront Unemployment.* Oakland: University of California Press.

Ravenelle, Alexandrea J. 2019. *Hustle and Gig: Struggling and Surviving in the Sharing Economy.* Oakland: University of California Press.

Ravenelle, Alexandrea J., and Ken Cai Kowalski. 2022. "It's Not Like Chasing Chanel: Spending Time, Investing in the Self, and Pandemic Epiphanies." *Work and Occupations*. First published online: September 15, 2022. DOI: https://doi.org/10.1177/07308884221125246.

Ravenelle, Alexandrea J., Ken Cai Kowalski, and Erica Janko. 2021. "The Side Hustle Safety Net: Precarious Workers and Gig Work During COVID-19." *Sociological Perspectives* 64(5)*:* 898–919. DOI: https://doi.org/10.1177/0731121421100548 9.

Romm, Tony, and Eli Rosenberg. 2021. "As GOP-Run States Slash Jobless Aid, the Biden Administration Finds It Has Few Options." *Washington Post*, May 20. Accessed November 5, 2022. https://www.washingtonpost.com/us-policy/2021/05/20/unemployment-benefits-states-biden/.

Rothstein, Jesse, Stephanie Aaronson, and Lisa B. Kahn. 2011. "Unemployment Insurance and Job Search in the Great Recession." *Brookings Paper on Economics Activity* (Fall 2021): 143–214. Accessed November 5, 2022. https://www.jstor.org/stable/41473599.

Rothstein, Jesse, and Robert G. Valletta. 2017. "Scraping by: Income and Program Participation After the Loss of Extended Unemployment Benefits." *Journal of Policy Analysis and Management* 36(4): 880–908. DOI: https://doi.org/10.1002/pam.22018.

Sandmo, Agnar. 1970. "The Effect of Uncertainty on Saving Decisions." *Review of Economic Studies*

37(3): 353–60. DOI: https://doi.org/10.2307/2296725.

Schaller, Jessamyn, and Ann Huff Stevens. 2015. "Short-Run Effects of Job Loss on Health Conditions, Health Insurance, and Health Care Utilization." *Journal of Health Economics* 43 (September): 190–203. DOI: https://doi.org/10.1016/j.jhealeco.2015.07.003.

Schmieder, Johannes F., and Till von Wachter. 2016. "The Effects of Unemployment Insurance Benefits: New Evidence and Interpretation." *Annual Review of Economics* 8(1): 547–81.

Schmieder, Johannes F., Till von Wachter, and Stefan Bender. 2012. "The Effects of Extended Unemployment Insurance over the Business Cycle: Evidence from Regression Discontinuity Estimates Over 20 Years." *Quarterly Journal of Economics* 127(2): 701–52. Accessed November 5, 2022. https://www.jstor.org/stable/23251996.

Selyukh, Alina. 2020. "Will Filing for Unemployment Hurt My Green Card? Legal Immigrants Are Afraid." National Public Radio, May 11. Accessed November 5, 2022. https://www.npr.org/2020/05/11/851463729/will-filing-for-unemployment-hurt-my-green-card-legal-immigrants-are-afraid.

Sharone, Ofer. 2014. *Flawed System, Flawed Self: Job Searching and Unemployment Experiences.* Chicago: University of Chicago Press.

Smith, Rebecca. 2020. "Immigrant Workers' Eligibility for Unemployment Insurance." Fact Sheet, March 31. New York: National Employment Law Project. Accessed November 5, 2022. https://www.nelp.org/publication/immigrant-workers-eligibility-unemployment-insurance/.

Stevens, Ann Huff. 1997. "Persistent Effects of Job Displacement: The Importance of Multiple Job Losses." *Journal of Labor Economics* 15(1): 165–88. Accessed November 5, 2022. http://www.jstor.org/stable/2535319.

Stevens, Ann Huff, and Jessamyn Schaller. 2011. "Short-Run Effects of Parental Job Loss on Children's Academic Achievement." *Economics Review of Education* 30(2): 289–99. DOI: https://doi.org/10.1016/j.econedurev.2010.10.002.

Stewart, Jack. 2020. "When Does the Expanded COVID-19 Unemployment Insurance Run Out?" Marketplace, June 5. Accessed November 5, 2022. https://www.marketplace.org/2020/06/05/when-does-the-expanded-covid-19-unemployment-insurance-run-out/.

Stone, Chad, and William Chen. 2014. "Introduction to Unemployment Insurance." Washington, D.C.: Center on Budget and Policy Priorities. Accessed November 5, 2022. https://www.cbpp.org/research/introduction-to-unemployment-insurance.

Sullivan, Daniel, and Till von Watcher. 2009. "Job Displacement and Mortality: An Analysis Using Administrative Data." *Quarterly Journal of Economics* 124(3): 1265–306. Accessed November 5, 2022. http://www.jstor.org/stable/40506257.

Sykes, Jennifer, Katrin Križ, Kathryn Edin, and Sarah Halpern-Meekin. 2015. "Dignity and Dreams: What the Earned Income Tax Credit (EITC) Means to Low-Income Families." *American Sociological Review* 80(2): 243–67. DOI: https://doi.org/10.1177/0003122414551552.

Tach, Laura, Sarah Halpern-Meekin, Kathryn Edin, and Mariana Amorim. 2019. "As Good as Money in the Bank": Building a Personal Safety Net with the Earned Income Tax Credit." *Social Problems* 66(2): 274–93. DOI: https://doi.org/10.1093/socpro/spy001.

Thompson, Corinne N., Jennifer Baumgartner, Carolina Pichardo, Robert Arciuolo, Pui Ying Chan, Judy Chen, et al. 2020. "COVID-19 Outbreak-New York City, February 29–June 1, 2020." *Morbidity and Mortality Weekly Report* 69(46): 1725–29. Accessed November 5, 2022. https://www.cdc.gov/mmwr/volumes/69/wr/mm6946a2.htm

Tomaskovic-Devey, Donald, Rodrigo Dominquz-Villegas, and Eric Hoyt. 2021. "The COVID-19 Recession: An Opportunity to Reform Our Low Wage Economy?" Amherst: University of Massachusetts. Accessed November 5, 2022. https://www.umass.edu/employmentequity/covid-19-recession-opportunity-reform-our-low-wage-economy.

U.S. Census Bureau. 2021. "Quick Facts: New York City, New York." Washington: U.S. Census Bureau. Accessed November 11, 2021. https://www.census.gov/quickfacts/fact/table/newyorkcitynewyork/HSG010219.

Vroman, Wayne. 2010. "The Role of Unemployment Insurance as an Automatic Stabilizer During a Recession." Washington, D.C.: Urban Institute and IMPAQ International. Accessed November 5, 2022. https://wdr.doleta.gov/research/FullText_Documents/ETAOP2010-10.pdf.

Weiss, Robert S. 1994. *Learning from Strangers: The*

Art and Method of Qualitative Interview Studies. New York: Free Press.

West, Colin, and Sanford E. DeVoe. 2020. "Income Volatility Increases Financial Impatience." Working paper no. 21-053. Boston, Mass.: Harvard Business School.

Wu, Pinghui, and Michael Evangelist. 2022. "Unemployment Insurance and Opioid Overdose Mortality in the United States." *Demography* 59(2): 485–509. DOI: 10.1215/00703370-9772414.

Ybarra, Marci, and Frania Mendoza Lua. 2023. "No Calm Before the Storm: Low-Income Latina Immigrant and Citizen Mothers Before and After COVID-19." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 9(3): 159–83. DOI: https://doi.org/10.7758/RSF.2023.9.3.07.

Young, Cristobal. 2012. "Losing a Job: The Nonpecuniary Cost of Unemployment in the United States." *Social Forces* 91(2): 609–34. DOI: https://doi.org/10.1093/sf/sos071.

PART III

Gender, Parenting, and Inequality

Remote Schooling and Mothers' Employment During the COVID-19 Pandemic by Race, Education, and Marital Status

LIANA CHRISTIN LANDIVAR, WILLIAM J. SCARBOROUGH, LEAH RUPPANNER, CAITLYN M. COLLINS, AND LLOYD ROUSE

Public schools in the United States saw unprecedented reductions to in-person instruction during the 2020–2021 school year. Using the Elementary School Operating Status database, the American Community Survey, and the Current Population Survey, we show remote instruction was associated with reduced employment among mothers compared with fathers and women without children. The gender gap in employment between mothers and fathers grew as much as 5 percentage points in areas with remote instruction. Compared to women without children, mothers' employment fell by as much as 2 percentage points under remote schooling. Employment disparities among mothers deepened by race, educational attainment, and marital status. We show employment disparities endured through spring 2021, even as many school districts returned to in-person instruction.

Keywords: employment, race and ethnicity, gender, education, COVID-19

During the COVID-19 pandemic, U.S. public schools experienced widespread closures and schedule disruptions. These upheavals left many parents with unprecedented care demands and limited alternative care arrangements. Mothers picked up much of this added work—for some, even at the expense of their employment (Calarco et al. 2021; Collins et al.

Liana Christin Landivar is an affiliate with the Maryland Population Research Center and Senior Researcher at the Women's Bureau in the U.S. Department of Labor, United States. **William J. Scarborough** is an assistant professor of sociology at the University of North Texas, United States. **Leah Ruppanner** is a professor of sociology at the University of Melbourne, Australia. **Caitlyn Collins** is an associate professor of sociology at Washington University in St. Louis, United States. **Lloyd Rouse** is an honors student in the School of Social and Political Sciences at the University of Melbourne, Australia.

 Landivar, Liana Christin, William J. Scarborough, Leah Ruppanner, Caitlyn M. Collins, and Lloyd Rouse 2023. "Remote Schooling and Mothers' Employment During the COVID-19 Pandemic by Race, Education, and Marital Status." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 9(3): 134–58. DOI: 10.7758/RSF.2023.9.3.06. Funding for this project comes from the Russell Sage Foundation Presidential Grant R-2007-26580, the Faculty of Arts at the University of Melbourne, and the Weidenbaum Center on the Economy, Government, and Public Policy at Washington University in St. Louis. We thank Director of Publications Suzanne Nichols, editors Steven Raphael and Daniel Schneider, reviewers, and participants of the RSF Socioeconomic Impacts of COVID-19 conference for their valuable feedback on this project. Direct correspondence to: Liana Christin Landivar, at landivar.liana.c@dol.gov. Views expressed are those of the authors and not necessarily those of the U.S. Department of Labor.

2021; Landivar et al. 2022; Zamarro and Prados 2021). One in three U.S. women who left their jobs early in the pandemic cited childcare demands as a primary reason for their departure (Heggeness and Fields 2020). More than a year into the COVID-19 crisis, 1.3 million fewer mothers of prime working age (twenty-five through fifty-four) were employed than before the pandemic (Collins, Ruppanner, and Scarborough 2021).

Using the Elementary School Operating Status (ESOS) database—the most comprehensive data on public elementary school instructional modes available for the 2020–2021 school year (Landivar et al. 2022)—combined with the 2020 American Community Survey (ACS) and 2018–2021 Current Population Survey (CPS), we assess how school operating status was associated with mothers' employment relative to fathers within the same household and to women without children. We offer three key findings. First, we show remote instruction was associated with reduced maternal employment, both relative to fathers and to women without children. Second, we uncover important differences by race, education level, and marital status. Among couples with less than a bachelor's degree, the gender gap in employment grew substantially, as mothers were an additional 5 percentage points less likely to be employed than fathers in areas with remote instruction. Comparing mothers with women without children, remote schooling was most detrimental to Black, Hispanic, and less than college-educated mothers' employment compared with White mothers and mothers with a bachelor's degree. Third, we show that the association between employment and remote schooling was persistent, because less-educated mothers who lived in remote-instruction districts in fall 2020 remained less likely to be employed in spring 2021 even as many schools reopened. Collectively, our results underscore the importance of schools as a critical family and care support and highlight the necessity of a robust care infrastructure in pandemic recovery efforts.

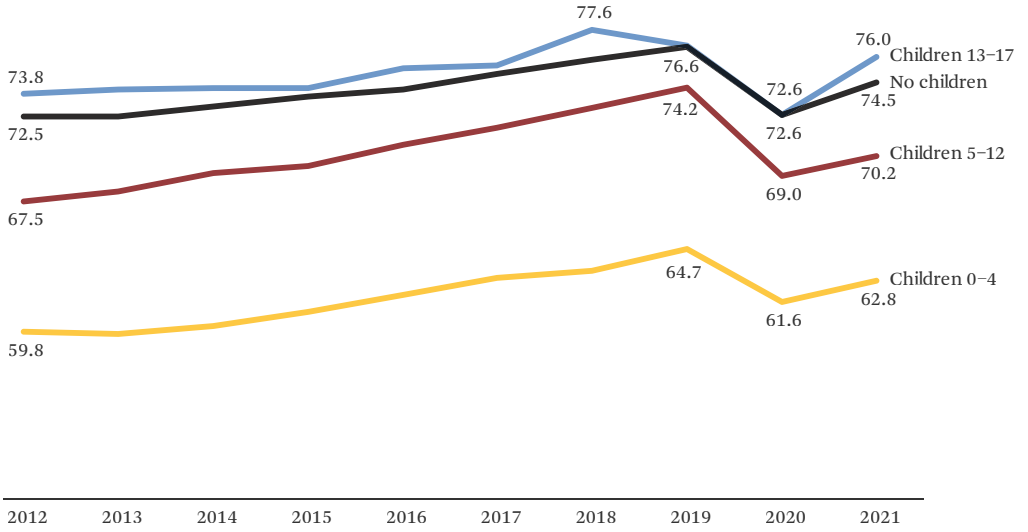
MATERNAL EMPLOYMENT BEFORE AND DURING THE COVID-19 PANDEMIC

Before the pandemic, maternal employment had been on a gradual upward trend following more than a decade of stagnation or slight decline (Women's Bureau 2021). Up through 2018, employment had been declining among women with lower levels of educational attainment (Abraham and Kearney 2021). Some evidence, though, indicates that in the few years just before the pandemic, employment increased among mothers with younger children and less educational attainment (Goldin 2022). Because of their shorter job tenure, weaker employment attachment, and lower earnings, these labor force entrants were particularly vulnerable to job loss. As the pandemic started, employment losses were more highly concentrated among mothers in service occupations, with less educational attainment, and with children under the age of thirteen (Landivar and deWolf 2022).

Evaluating employment losses by age of children before and during the pandemic, we show that employment reductions were largest among women with young school-age children (figure 1). Between 2019 and 2020, employment fell by 7 percent among mothers whose youngest child was between ages five and twelve, 4.8 percent among mothers whose youngest child was four or younger, and 5.3 percent among mothers of children ages thirteen to seventeen.[1] By 2021, employment losses remained highest for mothers of children ages five to twelve at 5.4 percent; mothers of the youngest children were 2.9 percent below their 2019 employment levels; and mothers of children ages thirteen to seventeen had nearly recovered to pre-pandemic levels. Maternal employment likely remained much lower for mothers of young school-age children because school closures were more extensive and prolonged than formal and informal childcare provider closures. This limited mothers' ability to return to work while children remained out of school and in need of educational assistance and supervision (Petts, Carlson, and Pepin 2021;

1. Derived estimates are presented as a percentage rather than percentage point to account for differing employment levels across these groups.

Figure 1. Mothers' Employment Rate by Presence and Age of Youngest Child



Source: Authors' calculations based on Current Population Survey, 2012–2021 (Flood et al. 2022).

Zamarro and Prados 2021). Given these trends, we focus on elementary school closures and its association with maternal employment in this article.

PUBLIC SCHOOLS AS CHILDCARE INFRASTRUCTURE SUPPORTING MATERNAL EMPLOYMENT

Never before had schools closed to the extent or duration observed during the COVID-19 pandemic. Scholars are only beginning to assess what the loss of in-person education means for parents' work outcomes. Early research has shown that the transition to remote and hybrid instruction during the pandemic was associated with reductions in maternal employment, both in relation to fathers who usually perform less childcare and women without children who are not directly influenced by the loss of in-person schooling (Landivar et al. 2022). Because mothers provide the bulk of family caregiving, transitions to remote learning during the pandemic were particularly detrimental to maternal employment. Yet the experience of remote schooling was not uniform across the country because states and local school districts varied widely in instructional modes (Collins et al. 2021; Landivar et al. 2022). Furthermore, some mothers may have been more vulnerable to the impacts of remote schooling than others. In the following section, we examine these possibilities by focusing on race, education, and marital status as key characteristics that may moderate the relationship between remote instruction and maternal employment. We also consider whether remote schooling had an enduring effect on mothers' employment persisting months after schools returned to in-person instruction.

Racial Differences in Maternal Employment and Remote Schooling

Few studies have directly examined the relationship of remote schooling to maternal employment by race, but some evidence indicates that Black and Hispanic mothers may have been more vulnerable to these shifts in schools' operations. Black and Hispanic mothers are overrepresented in frontline service-sector jobs that continued on-site during the pandemic and they are underrepresented in positions with telecommuting and other flexible work options that helped mothers balance competing care and employment demands during remote schooling (U.S. Bureau of Labor Statistics 2019; Pirtle and Wright 2021; Yavorsky, Qian, and Sargent 2021). Schools were also more likely to operate remotely in areas with a greater concentration of Black and Hispanic families

(Landivar et al. 2022). Because alternative care arrangements became more difficult to secure and more expensive during the pandemic, Black and Hispanic mothers may have been more vulnerable to job loss given that they were overrepresented in inflexible jobs with lower wages (Frye 2020).

Even as Black and Hispanic mothers may have been at high risk to the detrimental effects of remote schooling on employment, countervailing forces within households depend on these mothers' employment. More than 70 percent of Black mothers and 40 percent of Hispanic mothers are primary earners in their homes, relative to just under 25 percent of White mothers (Glynn 2019). Furthermore, Black and Hispanic families disproportionately experienced employment insecurity (Bitler, Hoynes, and Schanzenbach 2023, this issue; Ybarra and Lua 2023, this issue), including disproportionate job loss and unemployment among Black and Hispanic men (Falk et al. 2021). These disparities reflect the pandemic's differential impact on sectors with a higher percentage of workers from marginalized communities and disparities in unemployment insurance and other social safety net benefit access (Lee and Parolin 2021; Bell et al. 2023, this issue; Ybarra and Lua 2023, this issue). Combined, these patterns may sustain Black and Hispanic mothers' employment because their families relied on their income and, among those married, the husbands were less likely to be working and therefore more available to help with childcare.

Collectively, research suggests that Black and Hispanic mothers may be particularly challenged by remote schooling, but that families may also rely on their employment for financial stability and receive greater support from Black and Hispanic fathers. We therefore do not expect remote schooling to worsen gender gaps in employment among Black and Hispanic parents as it did among White parents. Instead, the negative association between remote schooling and Black and Hispanic mothers' employment will be observed primarily in comparison with Black and Hispanic women without children who are not directly affected by reductions to in-person instruction.

Educational Differences in Maternal Employment and Remote Schooling

Across gender and race, those with less educational attainment have had poorer employment outcomes during the pandemic (Kim et al. 2022). This pattern matches previous recession trends. One key difference, however, is that the COVID-19 pandemic was also a care crisis that resulted in added burdens for mothers who lost access to in-person public education for their children. Workers with less education are more likely to hold jobs that require physical contact and in-person presence and to lack the employment security and benefits (such as remote work and paid leave) provided to employees with more education (Dey et al. 2020; Kim et al. 2022; Schneider and Harknett 2022). Women with children in these jobs faced the added challenge of maintaining work and caregiving through pandemic-related school closures and requirements of in-person work attendance with little flexibility. We argue that remote instruction will be particularly detrimental to less-educated mothers, both relative to fathers and to women without children who are not directly affected by remote schooling.

Single Mothers' Employment and Remote Schooling

The final group likely affected by prolonged remote learning is single mothers. One in four children in the United States live with a single mother (Kramer 2019). During the pandemic, these mothers reported more extensive challenges balancing childcare and work than their married counterparts (Radey et al. 2022; Yip et al. 2022). Single mothers are overrepresented in jobs that provide less flexibility, security, and telework options (Blau, Koebe, and Meyerhofer 2020). For example, 20 percent of single parents worked remotely in 2020, versus 40 percent of married parents (Karageorge 2020). Consequently, single parents have fewer employment resources to balance competing work and care demands as well as fewer family supports, particularly during periods of social distancing, when extended family members were unable to provide supplemental care (Barroso and Kochhar 2020; Kalenkoski and Pabilonia 2020; Yavorsky, Qian, and Sargent

2021). At the same time, single mothers also bear significant financial responsibility for their families, a potentially strong driver of sustained employment even under the difficult conditions of remote schooling. Despite these countervailing pressures, we expect that remote schooling will reduce employment among single mothers.

THE ENDURING IMPACTS OF REMOTE SCHOOLING ON MATERNAL EMPLOYMENT

By spring 2021, most U.S. school districts had returned to in-person instruction. Yet maternal employment remained below pre-pandemic levels (Collins, Ruppanner, and Scarborough 2021). Reduced days or hours of operation (such as four-day weeks, school days shorter than pre-pandemic days) or intermittent periods of remote instruction in response to COVID-19 infection peaks continued to make it difficult for parents to return to work. Loss of employment may also entail a protracted job search to find a position with similar wages and working conditions (Meekes and Hassink 2020). Another barrier are negative perceptions among employers toward applicants who have employment gaps for caregiving reasons (Weisshaar 2021) making it more difficult for mothers to become employed again. Mothers who left work in 2020 in response to remote schooling may, therefore, face challenges to re-entry well after schools return to in-person instruction. Further, the influx of cash from the federal government—stimulus payments and the Child Tax Credit—may have allowed mothers to be more selective in their employment re-entries. Using new data from the Elementary School Operating Status database, we test for these enduring effects of remote schooling across two periods.

DATA AND METHODS

We use a series of linear probability models to test whether the relationship of remote schooling to employment differs between mothers and fathers as well as between mothers and women without children. Our strategy follows the hierarchical linear probability model outlined in equation (1):

$$y_{ij} = \gamma_{00} + \beta_1 m_{ij} + \beta_2 c_j + \beta_3 (c_j \times m_{ij}) + \lambda R_{ij} + \lambda D_j + U_{0j} + \varepsilon_{ij} \quad (1)$$

where i indexes respondents and j references districts. Focal to our model, we predict employment (y), measured by whether an individual is currently working,[2] with motherhood status (m), whether school districts operated remotely in fall 2020 (c), the interaction of motherhood and operating status ($c \times m$), as well as individual-level (R) and district-level (D) control variables. In analyses comparing fathers and mothers, the referent for m is fathers, whereas when comparing nonmothers and mothers the referent for this variable is women who do not have children. The coefficient for the interaction, $c \times m$, estimates the difference in the effect of remote schooling on respondents' probability of employment for mothers relative to fathers and women without children. Linear probability models violate the assumption of homoscedasticity in standard least squares regression, but provide consistent estimates for the partial effects of covariates on binary outcomes and are well suited for group comparisons, aims central to our study (Breen, Karlson, and Holm 2018). All results are confirmed with logistic regression models from which we calculated average marginal effects on the probability of employment.

Individual-level controls, R, in equation (1) include: age, race (White, Black, Hispanic, other race), education (bachelor's degree or less than bachelor's degree), marital status (married or not married), family income (by quintile), whether respondents received any form of public assistance, and whether co-resident grandparents assisted with children's basic needs. District-level controls, D, include COVID-19 prevalence (cases per hundred thousand residents in September 2020), percentage voting Republican in the 2020 presidential election, geographic locale (city, suburban, or rural), and school district racial composition (percentage White). Last, equation (1) includes

2. We omit those who are unemployed but seeking work because it is difficult to assess the role of school operating status for this group who would become employed if offered a job.

a varying intercept, *U*, to account for the hierarchical structure of our data. When testing differences in employment between parents, household-level residuals are estimated from the intercept separately from the individual-level error term. When testing differences in employment between mothers and women without children, these residuals are estimated at the district level.

To estimate equation (1), we combine data from the 2020 American Community Survey with spatial data measuring schools' operating status. The ACS is the largest household survey in the United States, providing a sufficient sample to analyze labor force and family characteristics at small levels of geography. We obtained ACS data through the Integrated Public Use Microdata Series (IPUMS) (Ruggles et al. 2022). The pandemic posed significant challenges to ACS data collection, including sampling bias in the 2020 data (Rothbaum et al. 2021; U.S. Census Bureau 2021). The Census Bureau released 2020 estimates as an experimental data release, unlike prior years, and recommends against combining 2020 data with prior ACS samples. However, 2020 data remain appropriate for group comparisons within the same year when using the accompanying experimental weights (U.S. Census Bureau 2021). We therefore rely on cross-sectional data from 2020 for our district-level analysis using equation (1). Our universe restrictions generate two samples. In comparing the relationship of school operating status between mothers and fathers, our sample includes 693,944 married parents in prime working ages of twenty-five through fifty-four with at least one elementary-age child, between five and twelve years old. Within this sample, we analyze differences between mothers and fathers by race and education. In these subgroup analyses, we include only married parents holding the same race or education to isolate the differential effect of remote schooling on mothers and fathers. Second, to compare mothers with women without children, our sample consists of 1,450,229 women age twenty-five through fifty-four who either have at least one elementary-school-age child or have no children. In these second analyses, we explore patterns by race and education, as well as marital status where we compare single mothers with single women without children.

To measure districts' operating status, we developed the Elementary School Operating Status database. ESOS is the most comprehensive database on school district operating status for elementary-age students (kindergarten to grade 6), covering all public school districts that serve a minimum of five hundred students.[3] This includes 9,195 districts, covering 72 percent of all public school districts and 98 percent of elementary school students across all fifty states, the District of Columbia, and Puerto Rico. We collected ESOS data from extensive materials available in the public domain. We located school districts' reopening plans and operating status on school district websites, school social media accounts, local newspapers, and, when available, on state government websites. Data were collected to correspond with the primary operating status during the first grading period (September 2020) and the last (April 2021) of the school year. Districts were coded as operating remotely if they offered zero days of in-person instruction for the majority of elementary school students; hybrid if they provided limited in-person attendance to students on alternating times, days, or weeks; and in person if the majority of students were offered at least four days of in-person instruction per week. For quality assurance, all large school districts were verified by at least two team members, including a lead researcher, and an additional minimum of 10 percent of school districts per

3. For comparison, *Education Week* tracked 900 of approximately thirteen thousand public school districts, Burbio actively monitored 1,200 districts (including the largest two hundred), MCH Strategic Data had an 18 percent response rate to its school operating survey, and the COVID-19 School Data Hub is missing all data for fourteen states. Another effort used cell phone data to infer school operating status (U.S. School Closure & Distance Learning Database), but does not offer the granularity needed to determine which hybrid plans have been implemented and lacks precision in determining the share of students allowed to attend under various learning plans.

state were selected for reverification by a lead researcher.[4]

We linked 2020 ACS respondents to data from ESOS on districts' operating status in September 2020 by geospatially matching PUMAs (Public Use Microdata Areas)—the smallest public-use geographic identifier available in ACS microdata—to districts. In cases where PUMAs straddled the borders of districts, we adopted an approach used in previous research (Autor and Dorn 2013; Dorn 2009; Scarborough and Sin 2020) and weighted respondents based on the likelihood of belonging to a school district, calculated from the proportion of the PUMA population residing in each district, determined at the census-block level with the Geocorr application from the Missouri Census Data Center.[5]

Covariates measuring school district racial composition and geographic locale were obtained from the National Center for Education Statistics (2022). COVID-19 prevalence and percentage voting Republican were obtained from the Johns Hopkins University Novel Coronavirus Visual Dashboard (Dong, Du, and Gardner 2020) and the MIT Election Data and Science Lab (2017), respectively. These sources were measured at the county level and linked to districts. When districts overlapped multiple counties, COVID-19 cases and Republican vote share were weighted by the proportion of district residents residing in each county (see appendix).

Limitations in the 2020 ACS data prevent us from constructing a multiyear dataset to examine how longitudinal changes in schools' operating status related to parents' employment. We therefore use data from the Current Population Survey in an additional set of analyses to examine change from before to during the pandemic and compare the relationship of school operating status with employment in both the fall of 2020 and the spring of 2021. The CPS is the primary source of data for monthly labor statistics in the United States, covering approximately sixty thousand households from all fifty states and the District of Columbia. Repeated monthly, the CPS is well suited for analyzing detailed periods and shifts over time. The smaller sample size relative to the ACS, however, limits our ability to link these data to local school districts. We accordingly use state-level aggregates of school district operating status, measured as the proportion of students in each state who are learning remotely, to examine mothers' employment during the pandemic (fall 2020 and spring 2021) compared with the pre-pandemic years of 2018 and 2019. Our estimation strategy for these analyses is outlined in equation (2):

$$y_{imts} = \gamma_{00} + \beta_1 m_{imts} + \beta_2 c_{ts} + \beta_3 (c_{ts} \times m_{imts}) + \lambda R_{imts} + \beta_4 d_{mts} + w_m + l_t + \alpha_s + \varepsilon_{ij} \quad (2)$$

where i indexes respondents, m survey month, t year, and s states. In this equation, employment (y) is predicted by motherhood status relative to fathers or nonmothers (m), the prevalence of remote schooling in respondents' state (c), and the interaction of these variables ($c \times m$). Equation (2) also includes fixed effects for month of survey (w), year (l), and state (α), which together isolate the effect of β_3 to estimate whether the shift to remote schooling during the pandemic uniquely impacted mothers. Individual controls (R) include age, race, education, marital status, and family income.[6] We also include a control for monthly rates of COVID-19 per hundred thousand residents (d) because the CPS data pool multiple months of data.

State aggregates are less precise measures of whether respondents were directly affected by remote schooling given that school schedules varied by district within many states. We therefore first validate the use of state aggre-

4. For additional ESOS data collection details, technical documentation, and data access, see Landivar et al. 2021.

5. Additional details on the matching of ACS respondents to districts are included in the appendix.

6. We do not include controls for welfare receipt or the presence of grandparents providing for children's basic needs because these variables are not available in the CPS data we analyze.

gates by examining the relationship of employment to remote schooling in the fall of 2020, a period that overlaps with the more detailed district-level analyses conducted with the ACS and discussed above. We then apply equation (2) to assess how remote schooling in the spring of 2021 related to within-state differences in employment relative to spring 2018 and spring 2019. We exclude spring 2020 from these models because the beginning of the pandemic was a period when nearly all schools closed or went remote. In a last set of models, we predict employment shifts in spring 2021 relative to spring 2018 and 2019 with a measure of remote schooling at the state level in fall 2020. Our aim in these analyses is to determine whether the relationship of remote schooling to mothers' employment persisted after most schools returned to in-person instruction.[7] We restricted our sample to respondents age twenty-five to fifty-four. In comparing mothers with fathers, we include only respondents with elementary-age children, age five to twelve years old, resulting in 100,159 respondents for the fall (August through November 2018, 2019, and 2020) and 94,468 for the spring (February through May 2018, 2019, and 2021). Comparing mothers with women without children, we restricted our sample to women who have children ages five to twelve and women with no children, providing 162,675 respondents in the fall months and 151,711 in the spring months. We explore patterns by education but do not report results by race or marital status due to the smaller sample of the CPS.

RESULTS

Figure 2 illustrates elementary school operating status across the United States at two timepoints: September 2020 (panel A) and April 2021 (panel B). Table 1 reports key district characteristics by elementary school operating status. In September 2020, half of school districts provided in-person instruction, a quarter were primarily remote, and about 20 percent operated hybrid schedules (table 1). By student population, 45 percent of elementary school students were attending districts with remote instruction, whereas 38 percent attended in-person districts and 17 percent attended hybrid instruction districts. Remote learning was more common in urban school districts, Black and Hispanic serving districts, districts with higher COVID-19 rates, and districts with a greater share of Democrat voters. By contrast, in-person learning was more common in rural districts, majority White districts, and Republican voting areas.

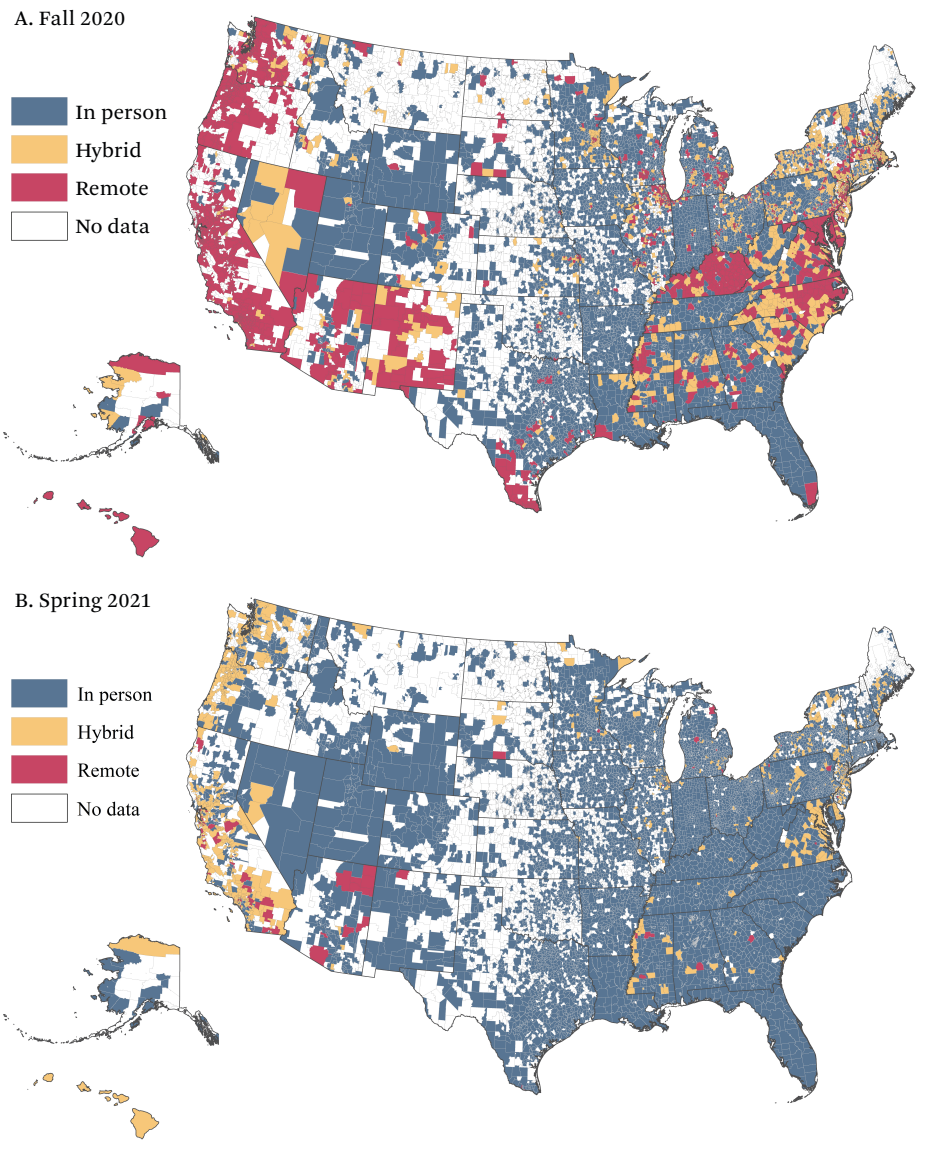
By April 2021, 86 percent of all districts serving about 76 percent of students returned to in-person instruction; only 1.2 percent of districts remained fully remote. These districts were more likely to be in cities and places with higher rates of COVID-19, have higher Black and Hispanic student enrollment, and have a smaller share of Republican voters. Although the percentage of districts in remote learning declined by the spring, those operating remotely at this time had similar characteristics as those operating remotely the previous fall.

Descriptive Employment Patterns

In table 2, we report employment rates from the 2020 ACS for our three comparison groups: mothers, fathers, and women without children. Overall, mothers are about 14 percentage points less likely to be employed than fathers and 2 percentage points less likely than women without children. Employment gaps between mothers and fathers are observed across race and education, but are substantially smaller for Black respondents and absent between single mothers and fathers. Differences in employment between mothers and women without children showed greater variability by race and education. White, Hispanic, college-educated,

7. In analyses not presented, we examined both fall and spring operating status in the same model. Fall operating status fully mediated the effects of spring operating status. These two measures are highly correlated (r = 0.6) because nearly all districts remote in spring 2021 were also remote in fall 2020. Three-way interactions between motherhood, fall operating status, and spring operating status were nonsignificant. We analyze fall and spring operating status separately to underscore that remote schooling in the spring posed an ongoing challenge to mothers' employment.

Figure 2. Elementary School Operating Status by District



Source: Elementary School Operating Status waves 1 and 2 (Landivar et al. 2022).

and married women without children were more likely to be employed than mothers with similar characteristics. In contrast, Black, single, and (to a lesser extent) less than college-educated mothers had higher rates of employment than their counterparts without children. To explore whether these employment patterns are affected by remote schooling, we report the results of our analyses testing whether mothers were uniquely affected by these changes experienced during the pandemic.

Mothers' and Fathers' Employment and Remote Learning

Table 3 presents the results of equation (1) testing the relationship of remote schooling in the fall of 2020 to mothers' and fathers' employment. Our results confirm a substantial employment gap between mothers and fathers in 2020 across all regions, but also indicate that this gap grew more in areas with remote schooling. In districts that implemented remote instruction in the fall of 2020, the gap

Table 1. School District Characteristics by Operating Status

	Fall 2020			Spring 2021		
	In-Person	Hybrid	Remote	In-Person	Hybrid	Remote
Share of all districts (%)	55.7	19.7	24.6	85.9	12.9	1.2
Share of all students (%)	38.2	17.1	44.8	76.1	21.8	2.1
Average elementary student population	1,818	2,310	4,850	2,355	4,498	4,551
Geographic locale						
Urban	30.9	15.1	54.2	73.7	23.0	3.3
Suburban	32.8	31.1	36.1	78.2	20.1	1.7
Rural	69.6	14.9	15.5	91.0	8.3	0.7
District racial composition (%)						
≥25% Black students	41.5	20.2	38.4	81.1	15.9	3.0
≥25% Hispanic students	37.5	12.4	50.1	71.5	24.7	3.7
≥75% White students	68.2	21.1	10.7	93.5	6.3	0.1
Average cumulative COVID-19 cases per 100,000 residents	1,833	1,737	2,003	9,882	8,643	10,515
Republican vote in 2020 presidential election (%)	64.0	50.1	43.8	58.7	42.4	36.6

Source: Authors' calculations based on Elementary School Operating Status waves 1 and 2 (Landivar et al. 2022); Johns Hopkins University Novel Coronavirus Visual Dashboard (Dong et al. 2020); and MIT Election Data and Science Lab (2017).

Table 2. 2020 Employment Rates

	Mothers	Fathers	Women Without Children
Overall	76.5	90.6	78.5
By race			
White	77.1	95.3	79.9
Black	84.3	91.3	72.4
Hispanic	60.8	94.6	77.1
By education			
Less than college	68.3	92.7	67.7
College or more	77.7	97.2	90.7
By marital status			
Married	74.3	92.2	81.0
Single	82.3	82.0	76.9

Source: Authors' calculations based on American Community Survey 2020 (Ruggles et al. 2022).

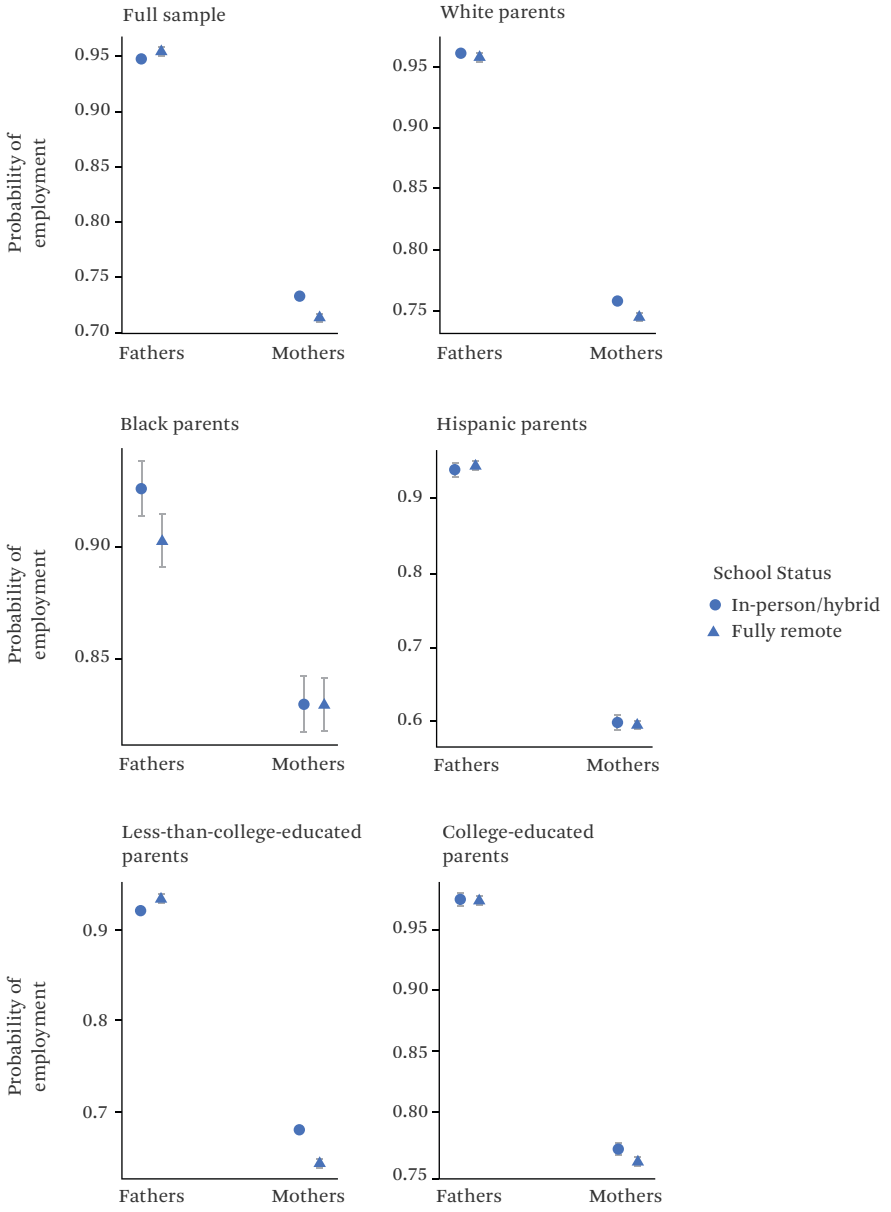
between mothers' and fathers' employment was larger by about 2.6 percentage points than in districts that maintained in-person instruction ($p < .001$). This pattern is illustrated in figure 3, where we plot predicted probabilities of employment calculated from equation (1) for the full sample and across respondent race and education. For the full sample, fathers' probability of employment remained around 0.95 regardless of schools' operating status,

Table 3. Results, Linear Probability Models Predicting Gender Differences in Parents' Employment

	Full Sample	White Household	Black Household	Hispanic Household	Less than College Household	College-Educated Household
Gender (Fathers)						
Mothers	−0.215***	−0.202***	−0.097***	−0.347***	−0.241***	−0.203***
	(0.001)	(0.001)	(0.007)	(0.005)	(0.002)	(0.002)
School district is remote, fall 2020	0.006***	−0.004*	−0.023**	0.006	0.013***	−0.0003
	(0.002)	(0.002)	(0.009)	(0.006)	(0.003)	(0.003)
Mothers * remote schooling	−0.026***	−0.010***	0.023*	−0.006	−0.050***	−0.010***
	(0.001)	(0.002)	(0.009)	(0.006)	(0.002)	(0.002)
Controls	age, race, education, welfare receipt, family income, grandparent support, COVID-19 prevalence, percent Republican, locale status, district racial composition	age, education, welfare receipt, family income, grandparent support, COVID-19 prevalence, percent Republican, locale status, district racial composition	age, education, welfare receipt, family income, grandparent support, COVID-19 prevalence, percent Republican, locale status, district racial composition	age, education, welfare receipt, family income, grandparent support, COVID-19 prevalence, percent Republican, locale status, district racial composition	age, race, welfare receipt, family income, grandparent support, COVID-19 prevalence, percent Republican, locale status, district racial composition	age, race, welfare receipt, family income, grandparent support, COVID-19 prevalence, percent Republican, locale status, district racial composition
Constant	0.689***	0.700***	0.686***	0.711***	0.711***	0.763***
	(0.006)	(0.007)	(0.033)	(0.018)	(0.009)	(0.014)
SD of intercept (by household)	0.152	0.147	0.140	0.158	0.158	0.145
N	693,944	486,718	13,930	57,792	299,882	212,084

Source: Authors' calculations based on American Community Survey 2020 (Ruggles et al. 2022).
Standard errors in parentheses.
*$p < .05$; **$p < .01$; ***$p < .001$

Figure 3. Parents' Predicted Employment



Source: Authors' calculations.

whereas mothers' probability of employment was predicted to be 0.73 when in-person schooling was available and 0.71 under remote schooling.

Comparing racial groups, we find that White mothers' probability of employment declined by an additional percentage point relative to White fathers' employment in districts with remote schooling ($p < .001$), leading to a worsening of the gender employment gap. Figure 3 shows that White fathers' employment is predicted to fall from 0.96 when in-person schooling is available to 0.95 under remote schooling, a nonsignificant difference. The relationship of remote schooling to employment is roughly 2 percentage points for White moth-

ers, whose probability of employment is 0.76 with in-person schooling and 0.74 under remote schooling.

We observe opposite trends for Black mothers and fathers. Illustrated in figure 3, remote schooling was associated with a 2.3 percentage point reduction in Black fathers' probability of employment and null for Black mothers, whose probability of employment remained at 0.83 regardless of schools' operating status. Among Hispanic parents, we find that remote schooling was not associated with mothers' or fathers' employment, which remained at similar levels regardless of whether schools were remote. Thus, among married parents with elementary-age children, remote schooling widened gender gaps in employment for White but not for Black or Hispanic couples.

Across education levels, we find that remote instruction was associated with a 5 percentage point increase in the employment gap between mothers and fathers without a bachelor's degree, a pattern driven by a substantially negative relationship of remote schooling to less-educated mothers' employment ($p < .001$). Among less-educated respondents, mothers' probability of employment is 3.7 percentage points lower when districts were remote (0.64 probability of employment) than in person (0.68), whereas fathers' probability was predicted to be higher under remote learning (0.93) than when in-person instruction was available (0.92). The gender gap in parents' employment was also larger under remote learning for college-educated parents, but to a smaller extent than observed among the less educated. The probability of college-educated fathers' employment was 0.97 regardless of schools' operating status, whereas similarly educated mothers' employment was predicted to be about a percentage point lower under remote learning ($p < .001$), at 0.76, relative to 0.77 when in-person instruction was available.

Overall, our models provide evidence that remote schooling was associated with a reduction in mothers' employment relative to fathers. This relationship is strongest among White parents and parents with less education.

Mothers' and Women Without Children's Employment and Remote Learning

In table 4 we report our results from equation (1) applied to our sample of mothers and women with no children. In addition to exploring patterns by race and education, we also examine differences between single mothers and single women without children. Focusing first on the full sample, we find that mothers' probability of employment was lower by 1.3 percentage points relative to nonmothers' in districts that instituted remote instruction in fall 2020 relative to districts that offered in-person or hybrid instruction ($p < .001$). This is illustrated in figure 4. The probability of employment for both women without children and mothers was lower in districts with remote schooling, but this pattern was more pronounced for mothers. Whereas nonmothers' employment was predicted to be lower by 1 percentage point in places with remote schooling (from a probability of 0.78 to 0.77), mothers' employment fell by about 2 percentage points (from an employment probability of 0.77 to 0.75).

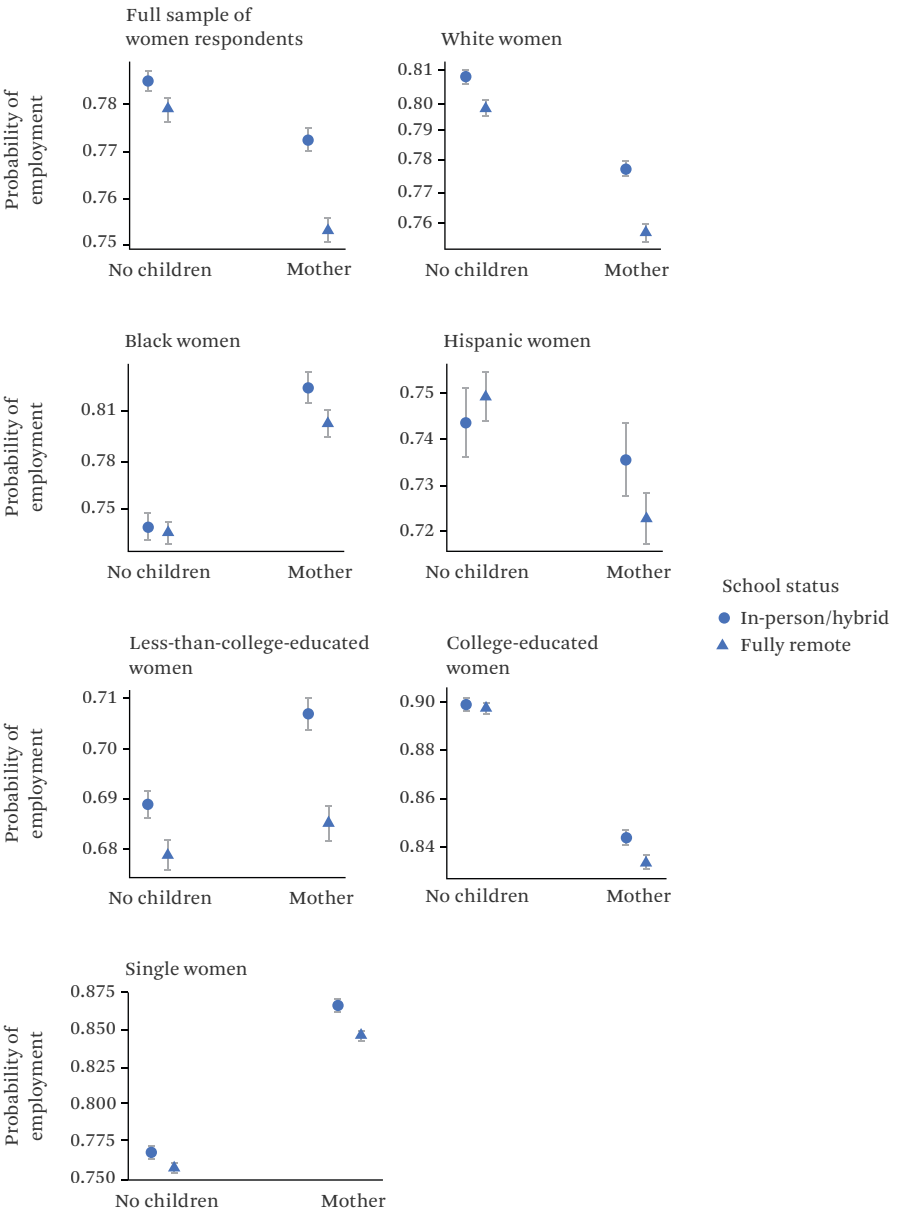
Remote schooling predicted lower probabilities of employment for mothers relative to women without children across all racial groups. Consistent with research (Dow 2019; U.S. Bureau of Labor Statistics 2019), Black mothers were more commonly employed than White and Hispanic mothers as well as Black women without children. Yet our results show that Black mothers' employment was lower by about 2 percentage points in places where schools went remote ($p < .01$). When in-person schooling was available, Black mothers' predicted probability of employment was 0.82 versus 0.80 when schools were remote. In contrast, Black women without children remained employed at similar levels regardless of schools' operating status. Hispanic mothers' employment was also lower under remote schooling, even though overall employment rates were lower than those observed for Black mothers. The probability of employment for Hispanic mothers was 0.74 when in-person schooling was available and 0.72 under remote education, whereas Hispanic women without children saw a negligible increase in employment under remote schooling. In remote districts, White

Table 4. Results, Linear Probability Models Predicting Parental Status Differences in Women's Employment

	Full Sample	White	Black	Hispanic	Less Than College	College Educated	Single Women
Parental status (no children)							
Mother	−0.013***	−0.030***	0.085***	−0.008*	0.018***	−0.055***	0.100**
	(0.001)	(0.001)	(0.004)	(0.004)	(0.001)	(0.001)	(0.002)
School district is remote, fall 2020	−0.006***	−0.010***	−0.004	0.006	−0.010***	−0.002	−0.010**
	(0.002)	(0.002)	(0.005)	(0.005)	(0.002)	(0.002)	(0.002)
Mother * remote schooling	−0.013***	−0.010***	−0.018**	−0.018***	−0.012***	−0.009***	−0.010***
	(0.001)	(0.002)	(0.006)	(0.004)	(0.002)	(0.002)	(0.002)
Controls	age, race, education, marital status, welfare receipt, family income, grandparent support, COVID-19 prevalence, percent Republican, locale status, district racial composition	age, education, marital status, welfare receipt, family income, grandparent support, COVID-19 prevalence, percent Republican, locale status, district racial composition	age, education, marital status, welfare receipt, family income, grandparent support, COVID-19 prevalence, percent Republican, locale status, district racial composition	age, education, marital status, welfare receipt, family income, grandparent support, COVID-19 prevalence, percent Republican, locale status, district racial composition	age, race, marital status, welfare receipt, family income, grandparent support, COVID-19 prevalence, percent Republican, locale status, district racial composition	age, race, marital status, welfare receipt, family income, grandparent support, COVID-19 prevalence, percent republican, locale status, district racial composition	age, race, education, welfare receipt, family income, grandparent support, COVID-19 prevalence, percent Republican, locale status, district racial composition
Constant	0.579***	0.572***	0.567***	0.617***	0.561***	0.741***	0.568***
	(0.004)	(0.004)	(0.013)	(0.011)	(0.005)	(0.005)	(0.005)
SD of intercept (by district)	0.032	0.036	0.050	0.047	0.042	0.028	0.034
N	1,450,229	1,053,770	85,253	156,266	872,955	577,274	664,545

Source: Authors' tabulation based on American Community Survey 2020 (Ruggles et al. 2022).
Standard errors in parentheses.
*$p < .05$; **$p < .01$; ***$p < .001$

Figure 4. Women's Predicted Employment



Source: Authors' calculations.

mothers' employment was predicted to be lower by 2 percentage points, versus 1 percentage point among White women without children. Collectively, these results indicate that mothers' employment significantly dropped relative to women without children in districts with remote learning.

Table 4 and figure 4 also show patterns by education. Even though college-educated women reported higher rates of employment than those without a college degree, the relationship of remote schooling to mothers' employment relative to nonmothers was consistent across these groups. Relative to women

without children, both college and less than college-educated mothers' employment fell by about 1 percentage point in places with remote schooling relative to areas that continued to offer in-person education ($p < .001$). A similar pattern was observed among single mothers, who reported the highest rates of employment among mothers. When in-person schooling was available, single mothers' probability of employment was predicted to be 0.86, whereas under remote schooling this figure fell by 2 percentage points, to 0.84. The relationship of remote schooling to single mothers' employment was twice as large as what we observed among single women without children.

Lingering Effect of School Closures: Mothers' Employment Versus Fathers'

Large-scale data allowing for district-level analysis for 2021 are not yet available. We therefore use state-level data from ESOS and the CPS to identify how schools' operating status was associated with mothers' employment in the spring of 2021. We also evaluate a possible lingering effect on maternal employment from school closures in the fall of 2020 carrying into the spring of 2021 even as most schools reopened to in-person instruction. We first examine the relationship between school district operating status in fall 2020 and mothers' and fathers' employment during this time to ensure that our district-level findings are robust at the state level. Results are reported in the first column of table 5. Consistent with the change observed in our district-level analyses, the gap between mothers' and fathers' employment grew in states with more remote learning. For example, in states that implemented fully remote learning in fall 2020 (such as Oregon and Hawaii), the gap between mothers' and fathers' employment grew by about 6 percentage points relative to that in states that had only hybrid or

Table 5. Results, Linear Probability Models Predicting Gender Differences in Parents' Employment

	School Operating Status in Fall 2020 on Employment in Fall 2020		
CPS sample: fall 2020	Full Sample	Less than College Degree	College Degree or More
Gender (fathers)			
Mothers	−0.184***	−0.213***	−0.141***
	(0.003)	(0.004)	(0.004)
Proportion remote in state, fall 2020	0.003	−0.001	0.012
	(0.009)	(0.014)	(0.012)
Mothers * proportion remote in state, fall 2020	−0.063***	−0.066***	−0.065***
	(0.010)	(0.014)	(0.013)
Controls	age, race, education, marital status, family income, COVID-19 prevalence	age, race, education, marital status, family income, COVID-19 prevalence	age, race, education, marital status, family income, COVID-19 prevalence
Fixed effects	year, month, state	year, month, state	year, month, state
Constant	0.882***	0.910***	0.897***
	(0.013)	(0.017)	(0.023)
N	100,159	60,261	39,898

Source: Authors' calculations based on Current Population Survey 2018, 2019, and 2020 (Flood et al. 2022).

Note: Standard errors in parentheses.

*$p < .05$; **$p < .01$; ***$p < .001$

in-person instruction (such as Arkansas and Maine). These patterns were consistent by level of education.

Next we examine the relationship between states' prevalence of remote schooling in the spring of 2021 to parents' employment during this period in table 6. We find that remote schooling has a large and negative relationship to mothers' employment relative to fathers ($p < .001$), but that this pattern is restricted to those with less education. For the spring of 2021, our results indicate that less than college-educated mothers' employment was nearly 8 percentage points lower than that of similarly educated fathers in states where remote schooling was most common—where at least 10 percent of districts were fully remote, such as New Jersey and California—than in states with no remote districts ($p < .001$). Among college-educated mothers, we do not observe a significant relationship of remote schooling in the spring of 2021 to employment during the same period.

To understand the relationship between remote learning in the fall of 2020 and maternal employment in the spring of 2021, the last results in table 6 show that mothers' employment remained about 5.6 percentage points lower than fathers' in states that fully instituted remote instruction in the fall than in states that did not implement remote instruction ($p < .001$)—a large effect lingering into the spring of 2021 even after schools reopened. Examining this pattern across levels of education, however, reveals that it is primarily restricted to those with less education. In states with widespread remote instruction in the fall of 2020, less than college-educated mothers' employment was predicted to be 8.7 percentage points lower the following spring than similarly educated fathers' ($p < .001$). In contrast, remote schooling in the fall of 2020 did not have a significant lingering impact on college-educated mothers' employment relative to college-educated fathers'. In other words, our results suggest that college-educated mothers' employment fell immediately as remote schooling was instituted, but rebounded by the following spring. In contrast, less-educated mothers' employment in the spring of 2021 had yet to fully recover from remote schooling instituted the previous fall.

Mothers' Employment Relative to Women Without Children's Employment

To validate our district-level results, we first examine the relationship between remote schooling in fall 2020 to women without children and mothers' employment during the same period (see table 7). We find that patterns are substantively similar, mothers' probability of employment falling 3.9 percentage points relative to women without children in states where remote schooling was universal versus states that had no remote schooling ($p < .001$). This pattern was consistent across levels of education.

Table 8 presents our analysis of schools' operating status in the spring of 2021. We again find mothers' employment is lower than that of nonmothers' in states where remote schooling was more common. Testing these patterns by level of education, however, reveals that the trend is significant only for less-educated mothers. Less than college-educated mothers were about 3 percentage points less likely to be employed than similarly educated women without children in states where remote schooling was most common (10 percent of school districts were remote) compared to states where there was no remote instruction ($p < .05$). For college-educated mothers, the relative impact of remote schooling on employment was not statistically significant.

Assessing whether school operating status in the fall of 2020 was related to employment the following spring, Table 8 shows that mothers were less likely to be employed than women without children in states with higher rates of remote instruction. Yet these patterns were again concentrated among the less educated. Mothers with less than a college degree were 5.4 percentage points less likely to be employed than similarly educated nonmothers in spring 2021 in states that had widespread remote learning in fall 2020 ($p < .05$). The relationship of remote schooling to mothers' employment was not significant among those with college degrees. These findings lend further evidence that college-educated mothers' employment declined initially when schools went remote, in

Table 6. Results, Linear Probability Models Predicting Gender Differences in Parents' Employment

	School Operating Status in Spring 2021			School Operating Status in Fall 2020		
CPS Sample: Spring 2021	Full Sample	Less than College Degree	College Degree or More	Full Sample	Less than College Degree	College Degree or More
Gender (fathers)						
Mothers	−0.193***	−0.220***	−0.155***	−0.190***	−0.214***	−0.153***
	(0.003)	(0.004)	(0.004)	(0.003)	(0.004)	(0.004)
Proportion remote in state, fall 2020				0.027*	0.030	0.029*
				(0.011)	(0.016)	(0.015)
Proportion remote in state, spring 2021	0.278**	0.283*	0.312**			
	(0.085)	(0.122)	(0.110)			
Mothers * proportion remote in state, fall 2020				−0.056***	−0.087***	−0.024
				(0.010)	(0.015)	(0.014)
Mothers * proportion remote in state, spring 2021	−0.515***	−0.778***	−0.192			
	(0.125)	(0.177)	(0.167)			
Controls	age, race, education, marital status, family income, COVID-19 prevalence	age, race, education, marital status, family income, COVID-19 prevalence	age, race, education, marital status, family income, COVID-19 prevalence	age, race, education, marital status, family income, COVID-19 prevalence	age, race, education, marital status, family income, COVID-19 prevalence	age, race, education, marital status, family income, COVID-19 prevalence
Fixed effects	year, month, state	year, month, state	year, month, state	year, month, state	year, month, state	year, month, state
Constant	0.878***	0.903***	0.927***	0.876***	0.899***	0.926***
	(0.014)	(0.018)	(0.023)	(0.014)	(0.018)	(0.023)
N	94,468	56,981	37,487	94,468	56,981	37,487

Source: Authors' calculations based on Current Population Survey 2018, 2019, and 2021 (Flood et al. 2022).

Note: Standard errors in parentheses.

*$p < .05$; **$p < .01$; ***$p < .001$

Table 7. Results, Linear Probability Models Predicting Differences in Employment

	School Operating Status in Fall 2020 on Employment in Fall 2020		
CPS sample: fall 2020	Full Sample	Less than College Degree	College Degree or More
Parental status (nonmothers)			
Mothers	0.005	0.025***	−0.025***
	(0.005)	(0.007)	(0.007)
Proportion remote in state, fall 2020	0.000	−0.005	−0.001
	(0.012)	(0.016)	(0.014)
Mothers * proportion remote in state, fall 2020	−0.039***	−0.034*	−0.036*
	(0.008)	(0.014)	(0.014)
Controls	age, race, education, marital status, family income, COVID-19 prevalence	age, race, education, marital status, family income, COVID-19 prevalence	age, race, education, marital status, family income, COVID-19 prevalence
Fixed effects	year, month, state	year, month, state	year, month, state
Constant	0.627***	0.600***	0.750***
	(0.010)	(0.019)	(0.021)
N	162,675	89,780	72,895

Source: Authors' calculations based on Current Population Survey 2018, 2019, and 2020 (Flood et al. 2022).
Note: Standard errors in parentheses.
*$p < .05$; **$p < .01$; ***$p < .001$

the fall of 2020, but rebounded by the following spring. In contrast, less-educated mothers' employment remained at lower levels several months after states implemented remote schooling.

DISCUSSION AND CONCLUSION

Our analyses provide further evidence that remote instruction is detrimental to maternal employment, but with important variation across subgroups. In general, we find that maternal employment fell relative to fathers and women without children in states and school districts that instituted remote learning during the 2020–2021 school year. Expanding on earlier research, we use data from the ACS to test whether this pattern varied across race, education, and marital status. We also use data from the CPS spanning multiple years and to uncover enduring effects of remote schooling taking place several months after many schools returned to in-person learning. Remote schooling in the fall of 2020 predicted not only a contemporaneous reduction in mothers' employment, but also an ongoing negative effect six months later, particularly among less-educated mothers.

The most consistent negative associations between remote learning and employment relative to both fathers and women without children were observed among mothers with less than a college education. The mothers have less access to workplace benefits that would have helped maintain employment (such as paid leave) and not enough income to pay for additional childcare (such as nannies, tutors, and pods) that could have offered critical support during remote schooling. Telecommuting was also a vital benefit to help parents continue paid work during the pandemic (Collins et al. 2021; Landivar et al. 2020) and mothers with less education were less likely to have access

Table 8. Results, Linear Probability Models Predicting Differences in Employment

	School Operating Status in Spring 2021			School Operating Status in Fall 2020		
CPS sample: spring 2021	Full Sample	Less than College Degree	College Degree or More	Full Sample	Less than College Degree	College Degree or More
Parental status (nonmothers)						
mothers	−0.006	0.004	−0.026***	−0.003	0.008	−0.023**
	(0.006)	(0.008)	(0.006)	(0.007)	(0.009)	(0.007)
Proportion remote in state, fall 2020				−0.003	−0.033	0.029
				(0.012)	(0.022)	(0.021)
Proportion remote in state, spring 2021	−0.015	−0.339***	0.305***			
	(0.050)	(0.071)	(0.070)			
Mothers * proportion remote in state, fall 2020				−0.045**	−0.054*	−0.025
				(0.013)	(0.024)	(0.016)
Mothers * proportion remote in state, spring 2021	−0.291***	−0.289*	−0.161			
	(0.067)	(0.119)	(0.148)			
Controls	age, race, education, marital status, family income, COVID-19 prevalence	age, race, education, marital status, family income, COVID-19 prevalence	age, race, education, marital status, family income, COVID-19 prevalence	age, race, education, marital status, family income, COVID-19 prevalence	age, race, education, marital status, family income, COVID-19 prevalence	age, race, education, marital status, family income, COVID-19 prevalence
Fixed effects	year, month, state	year, month, state	year, month, state	year, month, state	year, month, state	year, month, state
Constant	0.615***	0.602***	0.732***	0.613***	0.598***	0.732***
	(0.011)	(0.017)	(0.021)	(0.011)	(0.017)	(0.021)
N	151,711	84,877	66,834	151,711	84,877	66,834

Source: Authors' calculations based on Current Population Survey 2018, 2019, and 2021 (Flood et al. 2022).

Note: Standard errors in parentheses.

*$p < .05$; **$p < .01$; ***$p < .001$

(Crowley, Doran, and Ryan 2021). In short, less-educated mothers had the fewest individual resources to overcome the challenges posed by remote schooling on care demands. Remote schooling posed an immediate challenge to their employment, but evidence also indicated enduring negative effects several months later. Less-educated mothers were less likely to be employed by the spring of 2021 when they lived in states where remote learning was common the previous fall.

On average, Black and Hispanic mothers have fewer workplace resources than their White counterparts, such as access to telecommuting, that support mothers balancing work and childcare during periods of remote schooling (Pirtle and Wright 2021; Yavorsky, Qian, and Sargent 2021). Reflecting these differences, remote schooling had a larger negative association with Black and Hispanic mothers' employment than White mothers' relative to women without children. To this end, we find evidence that remote schooling was harmful for Black and Hispanic mothers' work attachment, particularly considering that these individuals were also four to five times more likely to live in districts that implemented remote instruction (Landivar et al. 2022). Although Black and Hispanic mothers may have had less access to workplace resources, research also suggests that they provide a larger share of their household's income. In addition, Black and Hispanic men were more vulnerable to unemployment during the pandemic (Falk et al. 2021), and may have taken on added caregiving while out of work. Studies show that recently unemployed men contributed more to childcare early in the pandemic (Petts, Carlson, and Pepin 2021; Ruppanner et al. 2021). These patterns may explain why remote schooling did not increase the gender gap in Black and Hispanic parents' employment but did widen it in White parents' employment. Whereas caregiving inequalities among White parents worsened under remote learning, Black and Hispanic fathers may have contributed more and supported Black and Hispanic mothers' employment.

If responses to remote learning are moderated by access to workplace and family resources, they may be influenced by financial necessity as well. We found that remote schooling predicted a reduction in single mothers' probability of employment relative to single women without children. This pattern reflects the difficulty sole caregivers face when a major source of childcare during working hours is removed. Yet the effect size of remote instruction on single mothers was smaller than observed for the full sample. This pattern likely reflects the financial necessity of single parents' employment. Along with being sole caregivers, they are also likely to be sole providers (Glynn 2019). Under these circumstances, it is likely that single mothers endured tremendous challenges to remain employed. Our results reflect both the cost of remote learning to these mothers' employment as well as their resilience in overcoming the challenges posed by remote work to remain employed, albeit at lower rates under remote schooling.

This study includes several notable limitations. Our analysis of the 2020 ACS data is necessarily cross-sectional due to data restrictions stemming from sampling issues during the pandemic (Rothbaum et al. 2021; U.S. Census Bureau 2021). Our comparison of mothers' employment to fathers' and women without children's employment is intended to identify the distinct impact of remote schooling on mothers who commonly shoulder the majority of childcare and would therefore be more directly affected. Nonetheless, our results are still vulnerable to omitted variable bias related to unmeasured factors that may also shape mothers' employment. In addition, although we identify an enduring effect of remote schooling in the fall of 2020 on less-educated mothers' employment the following spring, we are limited in examining the underlying mechanisms behind this pattern. It is possible that less-educated mothers face prolonged job searches or that they are opting out of employment for a longer duration following remote schooling. Additional research formally testing these findings is necessary to identify the causes behind the patterns we have illustrated.

Examining the relationship of remote schooling to mothers' employment by race, education, and marital status, our study revealed

a dynamic set of individual-level resources and necessities shaping how pandemic-related changes affected individuals' lives. Our findings affirm the importance of workplace resources to mitigate negative repercussions associated with the increased childcare requirements, especially for mothers, during remote learning. In addition, our results underscore the value of family resources as an important source of support for Black and Hispanic mothers who were less commonly in telecommuting or flexible occupations. Whereas remote schooling posed a tremendous challenge to these mothers, it did not necessarily increase inequality in their homes. Necessity also shaped responses to remote schooling. For single mothers, some left work in response to remote learning, but a surprising share remained employed despite intense challenges, likely because their family's financial stability depended on it. Collectively, these results highlight the importance of schools as a critical component of care infrastructure in supporting maternal employment and family well-being.

APPENDIX. MATCHING PUBLIC USE MICRODATA SAMPLE RESPONDENTS TO SCHOOL DISTRICTS

We adopted the procedures that David Dorn (2009) outlined and have been used in research (Autor and Dorn 2013; Dorn 2009; Scarborough and Sin 2020) to assign ACS Public Use Microdata Sample (PUMS) respondents to school districts. The most precise geocode for respondents' place of residence in the PUMS data is the Public Use Microdata Area. For each respondent, we calculated the probability that they lived in a school district based on the location of their associated PUMA. For respondents in PUMAs located entirely within school districts (23 percent of the 2020 ACS sample), their associated probability was 1. For those in PUMAs straddling districts or with multiple school districts within their boundaries, their probability of district assignment was determined by the proportion of PUMA residents living in each district. To determine this figure, we used the Geocorr application from the Missouri Census Data Center that calculated the proportion of PUMA residents in each school district using detailed census-block level population estimates. Respondents in PUMAs straddling multiple school districts have a probability between 0 and 1 for more than one district. These respondents are duplicated in the dataset and weighted by their probability of assignment. This approach allows us to retain full information when generating district estimates while accounting for the fact that the Census Bureau keeps precise geocodes for ACS respondents confidential.

REFERENCES

Abraham, Katharine G., and Melissa S. Kearney. 2021. "Explaining the Decline in the US Employment-to-Population Ratio: A Review of the Evidence." *Journal of Economic Literature* 58(3): 585–643.

Autor, David H., and David Dorn. 2013. "The Growth of Low-Skill Service Jobs and the Polarization of the US Labor Market." *American Economic Review* 103(5): 1553–97.

Barroso, Amanda, and Rakesh Kochhar. 2020. "In the Pandemic, the Share of Unpartnered Moms at Work Fell More Sharply than Among Other Parents." *FactTank* (Pew Research Center blog), November 24. Accessed April 18, 2022. https://www.pewresearch.org/fact-tank/2020/11/24/in-the-pandemic-the-share-of-unpartnered-moms-at-work-fell-more-sharply-than-among-other-parents/.

Bell, Alex, Thomas J. Hedin, Peter Mannino, Roozbeh Moghadam, Geoffrey Schnorr, and Till von Wachter. 2023. "Disparities in Access to Unemployment Insurance During the COVID-19 Pandemic: Lessons from U.S. and California Claims Data." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 9(3): 78–109. DOI: https://doi.org/10.7758/RSF.2023.9.3.04.

Bitler, Marianne P., Hilary W. Hoynes, and Diane Whitmore Schanzenbach. 2023. "Suffering, the Safety Net, and Disparities During COVID-19." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 9(3): 32–59. DOI: https://doi.org/10.7758/RSF.2023.9.3.02.

Blau, Francine D., Josefine Koebe, and Pamela A. Meyerhofer. 2020. "Who Are the Essential and Frontline Workers?" *NBER* working paper no. 27791. Cambridge, Mass.: National Bureau of Economic Research.

Breen, Richard, Kristian Bernt Karlson, and Anders Holm. 2018. "Interpreting and Understanding Logits, Probits, and Other Nonlinear Probability Models." *Annual Review of Sociology* 44(1): 39–54.

Calarco, Jessica McCrory, Emily Meanwell, Elizabeth M. Anderson, and Amelia S. Knopf. 2021. "By Default: How Mothers in Different-Sex Dual-Earner Couples Account for Inequalities in Pandemic Parenting." *Socius* 7. DOI: https://doi.org/10.1177/23780231211038783.

Collins, Caitlyn, Leah Ruppanner, Liana Christin Landivar, and William J. Scarborough. 2021. "The Gendered Consequences of a Weak Infrastructure of Care: School Reopening Plans and Parents' Employment During the COVID-19 Pandemic." *Gender & Society* 35(2): 180–93.

Collins, Caitlyn, Leah Ruppanner, and William J. Scarborough. 2021. "Why Haven't U.S. Mothers Returned to Work? The Child-Care Infrastructure They Need Is Still Missing." *Washington Post*, November 8. Accessed November 8, 2022. https://www.washingtonpost.com/politics/2021/11/08/why-havent-us-mothers-returned-work-child-care-infrastructure-they-need-is-still-missing/.

Crowley, Frank, Justin Doran, and Geraldine Ryan. 2021. "COVID-19: How Important Is Education for Social Distancing and Remote Work." *Economic and Social Review* 52(2): 217–39.

Dey, Matthew, Mark A. Loewenstein, David S. Piccone Jr., and Anne E. Polivka. 2020. "Demographics, Earnings, and Family Characteristics of Workers in Sectors Initially Affected by COVID-19 Shutdowns." *Monthly Labor Review* (June). Accessed November 8, 2022. https://www.bls.gov/opub/mlr/2020/article/demographics-earnings-and-family-characteristics-of-workers-in-sectors-initially-affected-by-covid-19-shutdowns.htm.

Dong, Ensheng, Hongru Du, and Lauren Gardner. 2020. "An Interactive Web-Based Dashboard to Track COVID-19 in Real Time." *The Lancet: Infectious Diseases* 20(5): 533–34.

Dorn, David. 2009. *Essays on Inequality, Spatial Interaction, and the Demand for Skills*. Ph.D. diss., University of St. Gallen.

Dow, Dawn M. 2019. *Mothering While Black: Boundaries and Burdens of Middle-Class Parenthood*. Oakland: University of California Press.

Falk, Gene, Paul Romero, Isaac A. Nicchitta, and Emma C. Nyhof. 2021. "Unemployment Rates During the COVID-19 Pandemic." *CRS* Report no. R46554. Washington, D.C.: Congressional Research Service.

Flood, Sarah, Miriam King, Renae Rodgers, Steven Ruggles, J. Robert Warren, and Michael Westberry. 2022. "Integrated Public Use Microdata Series, Current Population Survey: Version 10.0 [dataset]." Minneapolis, Minn. Accessed November 18, 2022. https://cps.ipums.org/cps/.

Frye, Jocelyn. 2020. "On the Frontlines at Work and at Home: The Disproportionate Economic Effects of the Coronavirus Pandemic on Women of Color." Washington, D.C.: Center for American Progress. Accessed March 30, 2022. https://www.americanprogress.org/article/frontlines-work-home/.

Glynn, Sarah Jane. 2019. "Breadwinning Mothers Continue to Be the U.S. Norm." Washington, D.C.: Center for American Progress. Retrieved March 2, 2022. https://www.americanprogress.org/article/breadwinning-mothers-continue-u-s-norm/.

Goldin, Claudia. 2022. "Understanding the Economic Impact of COVID-19 on Women." *NBER* working paper no. 29974. Cambridge, Mass.: National Bureau of Economic Research. Accessed September 9, 2022. https://www.nber.org/papers/w29974.

Heggeness, Misty L., and Jason M. Fields. 2020. "Working Moms Bear Brunt of Home Schooling While Working During COVID-19." Washington: U.S. Census Bureau. Last modified October 30, 2020. Accessed November 8, 2022. https://www.census.gov/library/stories/2020/08/parents-juggle-work-and-child-care-during-pandemic.html.

Kalenkoski, Charlene Marie, and Sabrina Wulff Pabilonia. 2020. "Initial Impact of the COVID-19 Pandemic on the Employment and Hours of Self-Employed Coupled and Single Workers by Gender and Parental Status." *IZA* discussion paper no. 13443. Bonn: Institute of Labor Economics. Accessed March 30, 2022. https://ftp.iza.org/dp13443.pdf.

Karageorge, Eleni. 2020. "COVID-19 Recession Is Tougher on Women." *Monthly Labor Review* (September). Accessed March 30, 2022. https://www.bls.gov/opub/mlr/2020/beyond-bls/covid-19-recession-is-tougher-on-women.htm.

Kim, Andrew Taeho, Matt Erickson, Yurong Zhang,

and ChangHwan Kim. 2022. "Who Is the 'She' in the Pandemic 'She-Cession'? Variation in COVID-19 Labor Market Outcomes by Gender and Family Status." *Population Research and Policy Review* 41(3): 1325–58.

Kramer, Stephanie. 2019. "U.S. Has World's Highest Rate of Children Living in Single-Parent Households." *Fact Tank* (Pew Research Center blog), December 12. Accessed April 14, 2022. https://www.pewresearch.org/fact-tank/2019/12/12/u-s-children-more-likely-than-children-in-other-countries-to-live-with-just-one-parent/.

Landivar, Liana Christin, Leah Ruppanner, Lloyd Rouse, William J. Scarborough, and Caitlyn Collins. 2022. "Research Note: School Reopenings During the COVID-19 Pandemic and Implications for Gender and Racial Equity." *Demography* 59(1): 1–12.

Landivar, Liana Christin, Leah Ruppanner, William J. Scarborough, and Caitlyn Collins. 2020. "Early Signs Indicate That COVID-19 Is Exacerbating Gender Inequality in the Labor Force." *Socius* 6: 407–13. DOI: https://doi.org/10.1177/2378023120947997.

Landivar, Liana Christin, and Mark deWolf. 2022. *Mothers' Employment Two Years Later: An Assessment of Employment Loss and Recovery During the COVID-19 Pandemic.* U.S. Department of Labor, May 6. Accessed November 8, 2022. https://www.dol.gov/sites/dolgov/files/WB/media/Mothers-employment-2%20-years-later-may2022.pdf.

Landivar, Liana Christin, Leah Ruppanner, William J. Scarborough, Caitlyn Collins, Jake Sower Lloyd Rouse, Mary Ntalianis, et al. 2021. "Elementary School Operating Status (ESOS)." Database. Last updated January 12, 2022. Open Science Framework. DOI: https://doi.org/10.17605/OSF.IO/ZEQRJ. Accessed November 6, 2022. https://osf.io/zeqrj/.

Lee, Emma K., and Zachary Parolin. 2021. "The Care Burden During COVID-19: A National Database of Child Care Closures in the United States." *Socius* 7. DOI: https://doi.org/10.1177/2378023121 1032028.

Meekes, Jordy, and Wolter Hassink. 2020. "Fired and Pregnant: Gender Differences in Job Flexibility Outcomes After Job Loss." *Life Course Centre* working paper no. 2020–06. Queensland, AU: Institute for Social Science, University of Queensland.

MIT Election Data and Science Lab. 2017. "U.S. President 1976–2020 [Data]." https://doi.org/10.7910/DVN/42MVDX.

Petts, Richard J., Daniel L. Carlson, and Joanna R. Pepin. 2021. "A Gendered Pandemic: Childcare, Homeschooling, and Parents' Employment During COVID-19." *Gender, Work & Organization* 28(S2): 515–34.

Pirtle, Whitney N. Laster, and Tashelle Wright. 2021. "Structural Gendered Racism Revealed in Pandemic Times: Intersectional Approaches to Understanding Race and Gender Health Inequities in COVID-19." *Gender & Society* 35(2): 168–79.

Radey, Melissa, Sarah Lowe, Lisa Langenderfer-Magruder, and Kristine Posada. 2022. "'Showing Everybody's True Colors': Informal Networks of Low-Income Single Mothers and Their Young Children During the COVID-19 Pandemic." *Children and Youth Services Review* 137 (June): 106479.

Rothbaum, Jonathan, Jonathan Eggleston, Adam Bee, Mark Klee, and Brian Mendez-Smith. 2021. "Addressing Nonresponse Bias in the American Community Survey During the Pandemic Using Administrative Data." Working paper no. 2021–24. Washington: U.S. Census Bureau. Accessed November 8, 2022. https://www.census.gov/library/working-papers/2021/acs/2021_Rothbaum_01.html.

Ruggles, Steven, Sarah Flood, Sophia Foster, Ronald Goeken, Jose Pacas, Megan Schouweiler, and Matthew Sobek. 2022. "IPUMS USA: Version 11.0 [Dataset]." Accessed November 8, 2022. https://www.ipums.org/projects/ipums-usa/d010.v11.0.

Ruppanner, Leah, Xiao Tan, William J. Scarborough, Liana Christin Landivar, and Caitlyn Collins. 2021. "Shifting Inequalities? Parents' Sleep, Anxiety, and Calm During the COVID-19 Pandemic in Australia and the United States." *Men and Masculinities* 24(1): 181–88.

Scarborough, William J., and Ray Sin. 2020. "Gendered Places: The Dimensions of Local Gender Norms Across the United States." *Gender & Society* 34(5): 705–35.

Schneider, Daniel, and Kristen Harknett. 2022. "Good If You Can Get It: Benefits and Inequalities in the Expansion of Paid Sick Leave During COVID-19." Boston, Mass.: Federal Reserve Bank of Boston. Accessed April 17, 2022. https://www.bostonfed.org/publications/community-development-issue-briefs/2022/good-if-you-can-get-it

-benefits-and-inequalities-in-the-expansion-of-paid-sick-leave-during-covid-19.

U.S. Bureau of Labor Statistics. 2019. "Job Flexibilities and Work Schedules—2017–2018: Data from the American Time Use Survey." USDL-19-1619. Washington: U. S. Department of Labor.

U.S. Census Bureau. 2021. "Census Bureau Releases Experimental 2020 American Community Survey 1-Year Data." Press Release CB21-TPS.139. Washington: U.S. Census Bureau. Accessed March 9, 2022. https://www.census.gov/newsroom/press-releases/2021/experimental-2020-acs-1-year-data.html.

Weisshaar, Katherine. 2021. "Employment Lapses and Subsequent Hiring Disadvantages: An Experimental Approach Examining Types of Discrimination and Mechanisms." *Socius* 7. DOI: https://doi.org/10.1177/23780231211019861.

Women's Bureau. 2021. "Women's Labor Force Participation Rates by Age of Youngest Child." Washington: U.S. Department of Labor. Accessed September 9, 2022. https://www.dol.gov/agencies/wb/data/mothers-families/Laborforceparticipationrates-women-ageyoungestchild.

Yavorsky, Jill E., Yue Qian, and Amanda C. Sargent. 2021. "The Gendered Pandemic: The Implications of COVID-19 for Work and Family." *Sociology Compass* 15(6): e12881.

Ybarra, Marci, and Frania Mendoza Lua. 2023. "No Calm Before the Storm: Low-Income Latina Immigrant and Citizen Mothers Before and After COVID-19." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 9(3): 159–83. DOI: https://doi.org/10.7758/RSF.2023.9.3.07.

Yip, Sarah W., Ayana Jordan, Robert J. Kohler, Avram Holmes, and Danilo Bzdok. 2022. "Multivariate, Transgenerational Associations of the COVID-19 Pandemic Across Minoritized and Marginalized Communities." *JAMA Psychiatry* 79(4): 350–58.

Zamarro, Gema, and Maria Jose Prados. 2021. "Gender Differences in Couples' Division of Childcare, Work and Mental Health During COVID-19." *Review of Economics of the Household* 19(1): 11–40.

No Calm Before the Storm: Low-Income Latina Immigrant and Citizen Mothers Before and After COVID-19

MARCI YBARRA AND FRANIA MENDOZA LUA

*Government pandemic provisions occurred alongside a safety net that excludes or dissuades Latina mothers from participation. These families are also disproportionately exposed to punitive immigration policies and rhetoric that may shape their views on such provisions and, in turn, influence their post-pandemic well-being. To understand these complexities, we draw on interviews before and after COVID-19 with thirty-eight Latina immigrant and citizen mothers, most of whom are undocumented (*N *= 29). We find that pre-pandemic distrust of public institutions and the safety net was common, increased after COVID-19, and negatively affected undocumented respondents' post-pandemic circumstances relative to that of citizen mothers. Findings suggest that safety net expansion on its own will not offset pandemic effects for these families without addressing exclusion from public benefits and alienation from and distrust of government.*

Keywords: COVID-19, safety net, undocumented, immigrant, government trust

The pandemic brought unprecedented interruptions in work (Holzer 2020) and family life along with ensuing hardships for many, especially women with children, who fared comparatively worse than men in reported mental health deterioration (Kantor and Kantor 2020; Anderson 2021) and under- or unemployment (Dias, Chance, and Buchanan 2020; Alon et al. 2021; Yavorsky, Qian, and Sargent 2021). Gendered pandemic disparities are associated with women's disproportionate pandemic-era childcare responsibilities, even in dual-partner households (Bateman and Ross 2020; Calarco et al. 2021). The pandemic was particularly deleterious, however, for low-income women with children (Ranji et al. 2021), who endured some of the largest work and income reductions following COVID-19 (Ananat and Gassman-Pines

Marci Ybarra is an associate professor in the Sandra Rosenbaum School of Social Work at the University of Wisconsin–Madison, United States. **Frania Mendoza Lua** is a PhD candidate in the Crown Family School of Social Work, Policy, and Practice at the University of Chicago, United States.

 Ybarra, Marci, and Frania Mendoza Lua. 2023. "No Calm Before the Storm: Low-Income Latina Immigrant and Citizen Mothers Before and After COVID-19." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 9(3): 159–83. DOI: 10.7758/RSF.2023.9.3.07. We are grateful to co-principal investigators of the original project from which this study is drawn, Angela S. García and Yanilda María González. We also thank our funders including the University of Chicago's Crown Family School of Social Work, Policy, and Practice, The Center for Race, Politics, and Culture, and the Pozen Center for Human Rights, as well as the Chicago Community Trust and the Russell Sage Foundation. Direct correspondence to: Marci Ybarra, at ybarra@wisc.edu, 1350 University Avenue, Sandra Rosenbaum School of Social Work, University of Wisconsin–Madison, Madison, WI 53706, United States.

2020), although the implementation of federal pandemic provisions reduced poverty and hardships for many (Raphael and Schneider 2023, this issue; Bitler, Hoynes, and Schanzenbach 2023, this issue) including low-income families (Cooney and Shaefer 2021; Wahdat 2022; Acs and Karpman 2020).

Emerging evidence, however, suggests that low-income Latine families endured comparatively higher job losses and rates of material and food hardships in the aftermath of COVID-19 (Gupta, Gonzalez, and Waxman 2020; Parolin, Curran, and Wimer 2020). These patterns of hardship among Latine families continued even after pandemic provisions were made available (Hernandez-Castro et al. 2022; Hibel et al. 2021), especially among Latina immigrant women (Sáenz and Sparks 2020) who were disproportionately less likely to enroll in safety net programs in the aftermath of the pandemic, potentially further exacerbating socioeconomic hardships (Touw et al. 2021; Elliott et al. 2021; for pandemic effects, including resource seeking, among Latine elder immigrants, see Calvo and Waters 2023, this issue).

Some evidence points to inequities in eligibility determination and program treatment as a barrier to safety net enrollment for Latina immigrant and citizen mothers following COVID-19 (Elliott et al. 2021). Although this line of scholarship confirms long-standing inequitable treatment of this group in means-tested programs (see, for example, Schram et al. 2009) remains common in the pandemic era, it does not consider pre-pandemic views on or experiences with the state, nor the common exclusion or dissuasion of Latina mothers from safety net participation. Indeed, from the Great Depression to the 1996 Personal Responsibility and Work Opportunity Reconciliation Act and its aftermath (PRWORA), an expansive literature demonstrates exclusion or dissuasion of Latina mothers, especially those who are undocumented, and citizen mothers from public provisions through formal policy rules (Quadagno 1994; Bitler and Hoynes 2011; Kullgren 2003; Fix and Passel 1999; Ellwood and Ku 1998; Fox 2016) or treatment by frontline staff (Schram et al. 2009; Fording, Schram, and Soss 2013; Einstein and Glick 2017; Monnat 2010; Gooden 2004). This context suggests that experiences with and perceptions of government and public provisions prior to the pandemic may have influenced low-income Latina immigrant and citizen mothers' resource seeking in the aftermath of COVID-19.

Social and political factors also shape low-income Latina mothers use of public provisions. For instance, deportation threat, the constant threat of deportation shaped by immigration status and potential enforcement, significantly reduces Latina immigrant mothers' enrollment in safety net programs such as the Special Supplemental Nutrition Program (SNAP), SNAP for Women, Infants, and Children (WIC) (Vargas and Pirog 2016), Supplemental Security Income (Alsan and Yang 2018), parental employment (East et al. 2018) and Latino children's school enrollment (Dee and Murphy 2020). These reductions occur even when undocumented mothers' citizen children are eligible for such supports including childcare (Yoshikawa and Kalil 2011; Ha and Ybarra 2014), and public health insurance (Ybarra, Ha, and Chang 2017). Anti-immigration political rhetoric has also been found to instill fear among immigrants and, in turn, reduce use of public provisions (Vernice et al. 2020; Hatzenbuehler et al. 2017; Blackburn and Sierra 2021), which was further exacerbated during the Donald Trump administration (Callaghan et al. 2019; Canizales and Vallejo 2021; Morey 2018). These factors might also contribute to distrust of government, which in turn affects trust in other public institutions (Cruz Nichols, LeBrón, and Pedraza 2018). Thus, in addition to safety net restrictions, a confluence of factors may influence public program participation and well-being among low-income Latine immigrant and citizen families.

This article expands the literature on the socioeconomic well-being of low-income Latina immigrant and citizen mothers with children in the early pandemic period by considering safety net restrictions and social and political contexts that might also affect program participation and well-being more generally. To this end, we consider the exclusionary or dissuasive nature of the safety net for low-income Latina undocumented immigrant and citizen women and trust in public institutions as these factors likely shape pandemic-era resource seeking. To

do so, we draw on semistructured interviews with thirty-eight Latina immigrant and citizen mothers in Chicago, most of whom are undocumented ($N = 29$) in the year before and six months after COVID-19.

EARLY PANDEMIC AND SOCIOECONOMIC WELL-BEING AMONG IMMIGRANT FAMILIES

Work and income losses were significant in the early aftermath of the pandemic—by May 2020 a substantial minority of workers, 43.4 percent, reported someone in their family had experienced a job loss (for more on employment and the pandemic, see Raphael and Schneider 2023, this issue; Landivar et al. 2023, this issue; Ravenelle and Newton 2023, this issue). Rates of job and income losses were most pronounced among low-income Latine families (Acs and Karpman 2020), especially those with at least one noncitizen in the household (Gonzalez et al. 2020; Sáenz and Sparks 2020), suggesting that immigrant households were at a comparatively distinct socioeconomic disadvantage. Moreover, Latina women were significantly more likely than white women to experience job loss (Gezici and Ozay 2020; Gould, Perez, and Rawlston-Wilson 2020; Gould and Rawlston-Wilson 2020; Hegewisch 2021; BLS 2020; see also Raphael and Schneider 2023, this issue; Landivar et al. 2023, this issue). It is therefore perhaps unsurprising that low-income Latina immigrant and citizen women reported comparatively higher rates of material hardship (Karpman et al. 2020; Gonzalez et al. 2020) and food insecurity (Lauren et al. 2021; Schanzenbach 2021) in the early aftermath of COVID-19.

Despite scholarship demonstrating deep job and income losses and high rates of poverty and hardship among Latine families and immigrant women in particular, we have little information on how low-income Latina immigrant, especially those who are undocumented, and citizen women coped with pandemic-era socioeconomic duress. This oversight is critical given that scholars point to the multilayered systems of marginalization low-income Latina women with children endure. These women were more likely to work in industries hardest hit by the pandemic and incur job losses or work in essential jobs that may have kept them employed but also raised the risk of COVID-19 infections (Touw et al. 2021; Clark et al. 2020; Olayo-Méndez et al. 2021; Hernandez-Castro et al. 2022). Latina immigrant women, and immigrants in general, are excluded from public provisions, with few exceptions, including pandemic-era provisions (Kolker 2022). Taken together, these factors suggest that low-income Latina women with children, especially immigrants and those who are undocumented immigrants, may have had few places to turn in the aftermath of COVID-19, portending hardships for them and their children that likely affect their ability to recover from the pandemic era in the near and long term.

Federal Assistance

In response to the pandemic, the federal government instituted a host of provisions to attenuate economic hardships in the United States, including three rounds of stimulus checks to qualifying individuals and families, emergency SNAP benefits, and a dramatic expansion to unemployment insurance (UI) and other safety net benefits via the Coronavirus Aid, Relief, and Economic Security Act. Stimulus payments provided immediate cash to qualifying individuals and families—$1,200 to individuals, $2,400 to married couples, and an additional $500 for each qualifying child.[1] These provisions proved essential to moderate and low-income households (see Bitler, Hoynes, and Schanzenbach 2023, this issue), but most immigrants were excluded from participation (Kolker 2022; Parmet 2021). These exclusions mirror those established as part of welfare reform that excluded undocumented immigrants entirely, placing a five-year ban on means-tested program participation for most other immigrants with few exceptions (Fix 2009).

At the same time, the citizen children of ineligible or excluded immigrants were and are still eligible to receive safety net benefits. None-

1. Moderate and low-income individuals and families received the full stimulus payment; higher income groups' stimulus payments were reduced by 5 percent of income above the cutoff.

theless, a large body of evidence finds that welfare reform's immigrant restrictions resulted in a chilling effect in program take-up among eligible immigrant families and the citizen children of immigrants (Van Hook 2003; Fix and Passel 1999; Kaushal and Kaestner 2005; Fix, Capps, and Kaushal 2009; Ziol-Guest and Kalil 2012). In the case of pandemic provisions that occurred during this study's time frame, immigrants were excluded from receipt of stimulus payments and UI benefits; traditional safety net restrictions remained in place unless states used their resources to provide support to immigrant families, except for emergency Medicaid provisions (Kolker 2022). Stimulus payments were restricted even from households in which one parent was a citizen but the other was not, and for those who filed taxes with an individual taxpayer identification number (ITIN, a common filing procedure for workers who are undocumented), thereby excluding not only working immigrant adults but also their children, who are overwhelmingly U.S. citizens (Kolker 2022).

Further hampering immigrant families' access to resources were the Trump administration's changes to the public charge rule that went into effect in February 2020, just as the pandemic was unfolding. The rule rendered immigrants who received most any public benefit ineligible for future legal status. It further exacerbated the chilling effects of the welfare reform era on immigrants and their children's participation in public programs despite citizen children's continued eligibility (Artiga and Rae 2020; Touw et al. 2021; Capps, Fix, and Batalova 2020; Barofsky et al. 2020; Galletly et al. 2022; Bustamante et al. 2022).

The Study

Evidence on pandemic provisions and safety net use paints a mixed picture of how low-income Latina immigrant and citizen mother families fared in the aftermath of COVID-19. Traditionally, these are women who have been excluded from safety net participation or dissuaded by punitive actions such as the sanctioning of benefits or poor caseworker treatment (Schram et al. 2009; Monnat 2010; Ernst, Nguyen, and Taylor 2013; Lee and Yoon 2012; Jennings and Santiago 2004). Yet low-income Latina mothers are also disproportionately subject to other marginalizing forces such as deportation threat (Asad 2020; García Hernández 2014; Menjívar, Gómez Cervantes, and Alvord 2018) and anti-immigrant rhetoric, both of which have been found to reduce program participation among immigrant and citizen Latine families (Asad 2020; Vargas and Pirog 2016; Alsan and Yang 2018; Blackburn and Sierra 2021).

Taken together, these complexities suggest the convergence of distinct social positions bounded by citizenship status, the path dependency of a punitive or restrictive safety net, and social and political dynamics as influential in the socioeconomic well-being of low-income Latina mothers due to their exposure to overlapping systems of marginalization (Crenshaw 1991; Fox 2016). In this study, we account for a diversity of factors that might shape these families' well-being before and immediately after the pandemic. To do so, we explore three questions while considering differences that may emerge based on maternal immigration status: How were low-income Latina immigrant and citizen mothers' faring in the lead up to the pandemic in work, family, and safety net participation? What were the socioeconomic consequences of the early pandemic for these families? Did experiences with other related institutions influence socioeconomic well-being before and after COVID-19?

DATA AND METHODS

This study draws on data originally collected from a larger project on Chicago's municipal identification program, CityKey. Launched in May 2018, it originated in the Chicago City Clerk's office after collaboration with community-based organizations to determine how to structure the program to be inclusive of marginalized Chicagoans who are often without formal identification (ID), such as residents who are returning citizens or immigrants (including those who are undocumented) or residents who are low-income, living with a disability, housing insecure, or LGBTQI. To foster broad inclusion among a diversity of marginalized Chicagoans, CityKey was free to the first hundred thousand enrollees, did not retain any data on enrollees of the program, provided gender-affirming identifiers as options, was

distributed citywide at numerous locations (such as libraries, council offices, city hall, nonprofits, homes for the aged, and schools), and allowed for a host of documents as proof of residency, such as "care of" letters from local homeless shelters or letters from a landlord when formal leases were not in place.

In addition to fielding a survey with CityKey enrollees (May 2018–May 2019, $N = 7{,}459$), we also conducted in-depth, semistructured interviews with a stratified random sample of survey respondents in the year after program enrollment. Because we expected the positive effects of a municipal ID to primarily benefit those marginalized from the state such as immigrants, returning citizens, and Black and Latine citizens, we stratified our original interview sample across these groups ($N = 196$). In response to the pandemic, we reinterviewed our original interview sample in the months following the onset of COVID-19 (April 2020–September 2020). Overall, we reinterviewed 78 percent of our original interview sample ($N = 153$). For this study, we selected all interview respondents who participated in pre- and post-pandemic interviews, identified as women, had a minor dependent child, and were Latina immigrant or citizen respondents ($N = 38$).[2] Among our selected respondents, twenty-nine reported being undocumented, six were U.S. citizens, and three had a visa to live in the United States at the time of interview (see table A.1).

Semistructured individual interviews were conducted and audio recorded in the participant's selected location for pre-pandemic interviews, and by phone for post-pandemic interviews. On average, pre-pandemic interviews lasted seventy-two minutes and post-pandemic ninety minutes. Both asked respondents about their perceptions of and experiences with political and institutional trust at the local, state, and national level; neighborhood quality; work; health and well-being, and the social safety net. Post-pandemic interviews also asked about knowledge of public health measures, sources of information on the pandemic, and sources of trust and concern. Trained bicultural and bilingual interviewers were matched to respondents based on language competency (Spanish or English). When possible, interviewers who conducted pre-pandemic interviews were paired with the same respondent for post-pandemic interviews. For pre-pandemic interviews, respondents received $50 compensation for their time; post-pandemic interviews were compensated at a rate of $60.

Selected interviews were transcribed verbatim and coded using Dedoose, a qualitative analysis software program. Our analytic approach draws from Nicole Deterding and Mary Waters (2018), and involves first indexing transcripts and anchoring content to interview protocol questions and then applying analytic codes to emergent themes. Thus we created a set of a priori codes based on our interview protocol and then generated new codes for emergent themes and patterns. The codebook was refined in an iterative process of coding transcripts independently, discussing coding decisions as a team, modifying codebook rules, and finalizing the codebook. We then identified topics and patterns while refining our interpretations to understand pre- and post-pandemic patterns in institutional distrust, perspectives on and experiences with public provisions and resource seeking, socioeconomic well-being, and variations in these outcomes relative to citizenship and race across these two periods.[3]

RESULTS

Our findings highlight experiences with work and family, the safety net including pandemic provisions, government trust, and nonprofits

2. Undocumented status was determined by asking respondents a series of questions about their immigration status. Respondents were asked whether they were a citizen of the United States or were willing to share their immigration status. Responses included explicit answers such as "I am undocumented" or more colloquial references in Spanish of being undocumented, such as *aqui mojado*, *sin papeles*, or *no tengo nada*. If the participant did not respond, we drew on additional questions including whether they had a temporary Illinois driver's license, which undocumented drivers in the state of Illinois carry, or an indication of their primary form of identification, whether foreign identification card such as a consular identification card or passport.

3. Respondent names are pseudonyms.

before and immediately after the pandemic, paying attention to differences relative to respondents' immigration status. Overall, our respondents were struggling before the onset of COVID-19, though this varied relative to immigration and marital status, and that overall, respondents expressed deep distrust of government institutions and associated provisions due to experiences with or perceptions of discriminatory and/or xenophobic treatment. In the aftermath of COVID-19, we observed divergence in access and use of social provisions between citizen and undocumented mothers, exacerbating existing alienation and distrust of government among undocumented mothers.

Work and Family

Respondents work and family responsibilities were complicated at the onset of the pandemic given that mothers who lost their jobs found themselves responsible for trying to prevent COVID-19 in their home and for attending to their caregiving responsibilities. Mothers who were still working in the pandemic's aftermath often had to negotiate work while struggling to protect their children from the virus and locating resources to stem post-pandemic hardships, including government provisions.

Before the pandemic, respondents regardless of citizenship status often had multiple strategies to support work and caregiving that included arrangements with partners, spouses, and other family members. For instance, Reina, a forty-seven-year-old undocumented married Mexican immigrant mother of one, was a waitress at a local restaurant during her first interview who scheduled work around childcare with her husband, allowing them both to work and support their family "We take turns [with childcare], with my husband. . . . We have not needed childcare thank God." By the time of our second interview with Reina, during the pandemic, she had lost her waitressing job and her family was struggling: "I was a waitress, and I wanted to help my husband by working, we wanted to better our lives . . . but the close of all restaurants, all of that affected us. . . . We are seeing the consequences of everything right now."

Similarly, before the pandemic Regina, a twenty-eight-year-old married Latina citizen mother of two, chose work that was flexible, such as babysitting and cleaning, that allowed her to arrange her schedule around her children's needs: "I love to work, but it's hard because I take responsibility for my kids. My kids are with me 24/7. . . . Their father works, which is good because that's our provider. But I won't take a 9:00 to 5:00 just because I want to make sure my kids get home from school safe."

At the onset of the pandemic, however, Regina was no longer working as an informal babysitter or house cleaner due to fears of the virus:

> As far as the cleaning, I haven't wanted to, just because like I said, I haven't wanted to go to other people— I'm like, "I have no idea what's in places." A couple of people have called me [since the pandemic], to see if I wanted to clean and I told them, "I'm not going to do it right now." Just because I'm going to clean somebody else's house, I don't know if they have . . . It's just a worry if you don't know. . . . I have lost out on money, but I feel like my health and my safety is more important right now. We're managing.

Respondents who were essential workers often described their fear of COVID-19 exposure as shaping work and childcare decisions, again, regardless of immigration status. Raquel was a thirty-year-old married undocumented Mexican immigrant mother of two who worked full time in housekeeping before the pandemic but whose hours were reduced during the pandemic. She told us, "I'm still working there. I go maybe two, three days a week, because I have the kids in the house, I don't like to take them to the babysitter. I don't take them to the babysitter no more . . . because I'd rather for my kids to stay home and don't go in other people's house."

Similarly, Jasmine, a forty-five-year-old Latina citizen married mother of one shared that she changed jobs after COVID-19 because she felt unsafe commuting on the train because of possible COVID-19 exposure, which led to her taking a similar job but with less pay: "It [former job] was downtown. I was feeling like I was risking my life when I was going on the train. I

was like, "I'm not going to do this anymore because it's risky."

The Safety Net

Before the pandemic, respondents were able to piece together some stability from their work and the safety net, yet repeatedly expressed the poor treatment they received as a condition of engaging the state. Even though mothers' immigrant and racialized social positions influenced their interpretation of motivations behind the disrespect they encountered while seeking safety net benefits, it was common across groups to cite poor treatment, discontent, and fear in application processes before and after the pandemic. These experiences were compounded by job losses or hourly work reductions and shaped how and the extent to which they sought safety net and other resources. For instance, during her first interview, Viviana, a twenty-one-year-old undocumented Honduran immigrant mother of two, described her experience with caseworkers when visiting a public aid office to apply for food stamps for her children before the pandemic, "Sometimes they think that because we go there, they [caseworkers] have to be mean about it. They think that those stuff are coming out of their pocket and treat people bad."

After the pandemic, and despite enduring discriminatory treatment while successfully receiving food stamps, Viviana explained that it was not enough to feed her children adequately or offset pandemic hardships: "They help us with the LINK card and stuff like that, but there's not much help for us . . . I eat different food, my daughters eat different food, my partner is not working." Similarly, Regina, a twenty-eight-year-old Latina citizen married mother who received a $9 increase in SNAP benefits following COVID-19, struggled to afford food in the pandemic environment: "There's no sales or anything as before. Everything is full price. Before, I was always a good shopper. I would buy stuff on sale. . . . I would make sure that my benefits would last me the whole month. Now, nobody has no sales. . . . so you have to just get what you can get."

New pandemic provisions and loss of work and income motivated some respondents to seek social safety net resources. However, respondents who shared challenges with qualifying for safety net benefits before the pandemic found themselves at a disadvantage in applying in its immediate aftermath due to learning costs, including among citizen mothers, (Herd and Moynihan 2019) in how to apply. For example, Lorena, a married Latina citizen mother, thirty-seven years old with two children, described being denied Medicaid benefits for her children before the pandemic, "I came out of that office angry because I was not asking for anything for myself, I was asking for medical insurance for my daughters, which I believe is a right of theirs as U.S. citizens."

Despite this experience, she was interested in applying at the onset of the pandemic but was unsure where to apply, "Where does one even apply now that everything is closed? If there was an opportunity to apply, I would do it, but I have no idea how this works."

Similarly, Denise, a twenty-nine-year-old undocumented married Mexican mother of one, wanted to apply for SNAP for her citizen son due to losing her job but had never applied before. As she explained, "Well, up to now I have not asked for help, but I am thinking of asking for food stamps, the LINK card, [for my child] and was thinking of going to the benefits office. However, what happens if I go and they do not give me food stamps . . . I saw on the news that the offices are closed, and I am unsure if they are closed now, so that is a reason why I have not gone."

Jasmine, a forty-five-year-old Latina citizen mother of one related in her pre-pandemic interview that she had been deterred from SNAP after multiple denial letters. By the second interview, she had lost her job and feared an eviction, and therefore reapplied for SNAP. However, her experience applying during the pandemic led to growing concerns about surveillance and delays in benefit receipt: "I applied for assistance, and they told me no. They said that they have to investigate me. They got to come home and check the home to see who's living here, who's not living. How long I've been without a job. They have to do so many investigations, by the time they give me the money, they will throw me to the street."

Respondents did not take a wholesale approach to assessing all safety net interactions

as suboptimal; instead, they often discerned between punitive and positive encounters with the state, levels of risk between different programs, and the administrative burdens required to participate (Herd and Moynihan 2019). As a result, respondents, especially undocumented mothers, mostly identified Medicaid and WIC programs as distinct from welfare programs, which they largely viewed as SNAP and Temporary Assistance for Needy Families (TANF). For instance, Elodia, a thirty-four-year-old Mexican immigrant single mother of two, explained that treatment by frontline staff varied between programs. "I think the WIC people are nice, they are helpful. They help you with completing applications and anything else you might need. But I think the people that do the medical card they treat you racially. They think that you are going to ask for something for yourself, when no, I went to go ask for benefits for my children, not for me."

Public Charge

Between her first and second interviews, Elodia's work permit was approved, cementing her unwillingness to apply for SNAP during the pandemic due to Trump's public charge rule: "I haven't applied because if I become a resident in the future, I may not qualify because they [the government] may think I am a public charge to this country. I have thought about this recently a lot more since they have recently approved my work permit, and I now have a real driver's license, not the temporary one, so that is why."

Elodia was not alone in her concern about the effect of the public charge rule on her and her family's hopes for legal status and how safety net participation, even during a pandemic, might thwart their future in the United States. Indeed, even though it was common for our respondents regardless of immigration status to report distrust, mistreatment, or administrative burdens as part of decision-making in safety net and pandemic provision use, undocumented mothers overwhelmingly indicated that the political context exacerbated their fears of resource seeking. For instance, as Cecilia, a thirty-three-year-old undocumented Guatemalan immigrant mother in a domestic partnership who lost her job during the pandemic, explained, "I don't think I would apply [for UI] they ask for too much information and sometimes I get scared. I would say no." Yet pandemic hardship left some undocumented mothers contemplating enrolling their children despite public charge. Benita, a married fifty-year-old undocumented Mexican immigrant and mother of one who was not receiving SNAP for her child in the immediate aftermath of the pandemic despite losing her full-time job, explained it this way in her pandemic interview:

> Well, if we continue like this, I think we will need to apply since there will be no jobs like we had prior. I think that even though it may affect us as undocumented persons in the future to adjust our status—because with this president (Trump) you never know, he is looking for all kinds of possibilities—we will need to reach out to those resources too, because if they do not give us any support to adjust our status or fix our papers, and be stable in this country, that we pay taxes too, then I guess we also need a little help too.

For some undocumented mothers, negative experiences with the safety net before the pandemic coupled with fears of the public charge rule shaped their decision whether to apply for help afterward, as Isaura, a forty-year-old married Honduran immigrant mother of four, explained:

> My children were telling me to apply to student LINK, because they were not going to school and they were giving student LINK, but in the past when I have applied for LINK the social worker had told me that my family does not need LINK because we need to have (legal) status, and she said that to me in a very mean way . . . she gave me the application but she said if you are an immigrant, you should not fill it out because it will affect you . . . I didn't want to fill it out after, I got scared.

Antonia, forty-two-year-old undocumented Mexican mother of two, said much the same: "I honestly do not apply, because on TV they said that if you do not have papers, or social

security, you cannot receive any help. On Univision they say that undocumented people do not have rights to those resources because the president said, so why bother applying for these resources, if they will say no matter what. We just stay at home."

Some mothers reported fears of program enrollment and eligibility related to their immigration status; others, though, understood despite their immigrations status their children were eligible for benefits yet still would not apply. Gabriela, forty-five-year-old undocumented Mexican mother of two whose husband's hours were reduced after COVID-19, explained:

> Do you remember the last time [pre-pandemic interview] when my husband was working real well, and we did not qualify [SNAP] because his income was too high. Well now, I know we can apply, since he is making less. I have not done it . . . in the future it might affect the kids right? Through their social security? I am unsure if it's true or not . . . Right now, even though I want to apply, I probably won't because it may affect us in the future.

Institutional Distrust

Negative safety net experiences, even among those who received support, is but one point of distrust we found among our sample. Respondents expressed deep distrust of and alienation from local law enforcement, public education, and local and national political leaders during both interviews, revealing the convergence of myriad government institutions that they view as (sometimes) necessary but also coercive, punitive, uncaring, and exploitive primarily on the basis of their low-income, immigrant and racialized social positions. However, distrust varied across institutions, pre- and post-pandemic interviews, and often by citizenship status. For instance, across both interviews, undocumented mothers commonly expressed the need for law enforcement but also their fear of exploitation by this system. Magdalena, a forty-seven-year-old widowed undocumented Mexican immigrant with two children, highlighted this concern: "The community (undocumented immigrants) is afraid, mainly because the police is in contact with ICE [Immigration and Customs Enforcement]. If they see something, people do not call the police because they are afraid. Everyone stays quiet, they put up with it, oftentimes related to domestic violence and other things that you see on the streets."

Despite this fear and threat of policing, Magdalena still believed policing was necessary to reduce crime in her community in the aftermath of COVID-19: "I know that there is a lot of money going to the police department, it's a lot, but we really need them here, there is so much crime that we really need them."

Distrust of policing was not unique to undocumented mothers, though the degree or reasons were different for citizen respondents. For instance, Regina, a twenty-eight-year-old married Latina citizen mother of two, indicated both her need to depend on police before the pandemic to address gang activity that threatened her children and her skepticism that police would be responsive. During her pandemic interview, Regina's views of law enforcement did not change, highlighting harassment she experienced during the pandemic but also noting a particular incident:

> In my neighborhood, I would say it's pretty much the same. It's still the same. I know they [the police] try to do the best they can, it's just some officers are kinder than others, and that's just what it is. Depending on what situation or what happens like the police arrive on scene, it depends on them. Like I said, I have gotten pulled over a couple of times. Yesterday, I don't know, something happened in the neighborhood. We were driving to Walgreens. They pulled up on the side of us. They were just there staring and staring and I'm like, "Oh my God. I'm with my family. What are you staring at us for?" I just feel it depends. Some officers are rude and some are kind.

Institutional distrust was reflected in not only policing but also other public institutions, including differences in educational quality between marginalized and advantaged children. For instance, Felipa, a forty-one-year-old single Latina citizen mother of one who separated from her partner during the pandemic, de-

scribed her opinion of public schooling in Chicago: "In my opinion, public schools are completely corrupt, and it needs to change. Sadly, the level of education in the United States, and especially in the city of Chicago is bad, very bad and poorly administered. There are so many politics and corruption, and people give each other jobs without doing the actual job. This needs to change. . . . they need to offer equitable education to all children not only in certain areas of the city."

Local and Federal Government

Some respondents said that their trust in public institutions was strengthened based on decisions and policies implemented during the pandemic. Yet for others, the pandemic decreased their trust in institutions, typically among local government officials. For example, Elodia, a thirty-four-year-old Mexican immigrant single mother of two who previously trusted both federal and local politicians, lost trust in local officials after the city of Chicago approved a demolition project that affected air quality in her community during the pandemic:

> Here in [my neighborhood], we didn't hear about there being a demolition of an energy plant. There was so much contamination here], and no one ever told us "there will be contamination, do not leave your house." They did this at 8 am, the alderman came until day three to discuss the situation, for what? If the city of Chicago agreed to do this during a pandemic, why should I believe they care about me, it's all just to benefit themselves. The alderman doesn't care, they come to talk about the injustice, and they would do something about it and investigate, but they never did anything.

We observed a deepening of distrust in local government for mothers who previously felt represented and had some form of immigration status (U.S. citizenship or visa). Linda, a thirty-nine-year-old Latina citizen married mother with three children, was an active participant in local community politics before the pandemic. During the first interview, she felt her local alderperson respected her views but observed that undocumented immigrants were ignored and made efforts to bring this problem to community meetings. However, by the second interview, she did not feel represented because of the limited contact she now had with her alderperson: "We have had—as residents we have not being able to talk with the public servants because we are all in our own house. We have not been able to get together to share what or how we have been affected, we have not had a direct conversation with them."

Conversely, Edna, an undocumented thirty-seven-year-old mother, had pre-pandemic concerns with the Trump administration's plans to remove the SNAP program for her children: I feel that the government doesn't really care about the poor, or the needy. Right now, they want to end help provided by the LINK card, I have seen on the news that they want to take it away. There are people that really need these resources, we are the poorest people, and we earn less than most people, we do need this help."

By the time of the second interview, Edna had applied for food stamps for her children and was immediately approved, improving her trust of government after COVID-19, "I think they [government] are concerned about us, because of this virus and everything that is happening."

Edna was one of the few mothers whose feelings about institutions improved during the pandemic. In most instances, existing feelings of distrust grew stronger. Liliana, a thirty-nine-year-old undocumented Mexican immigrant single mother who worked full time before and after the pandemic, said this: "They do not care what I think, they do not care about my well-being because we are immigrants, we are a burden for them." Meanwhile, Isaura, a forty-year-old married undocumented Honduran immigrant mother of four, related similar disillusionment and alienation from government during the first interview, in part because of the federal government's inaction to pass an amnesty bill and city's inaction to answer her requests via the 311-reporting system. These experiences shaped the extent to which she felt confident to seek resources during the pandemic:

> I have not contacted anyone. I have not been able to fill out any applications for help because they always ask for a social security number, something that we do not have. For example, the city was giving out rent support and when we wanted to apply and go on the application, it was already full. It's a lottery system, they do not help the people that most need the resources. Everyone applies, especially people with computers. The most intelligent people are the people who use a computer, the people that study or went to school they are the ones that have the most benefits.

Stimulus Benefits

In addition to existing fears of public charge and anti-immigrant rhetoric prior to the pandemic, pandemic stimulus benefit restrictions for undocumented immigrants increased hardship and alienation for undocumented respondents and those in mixed-status families. Angelica, a forty-seven-year-old undocumented Mexican single mother of two who has lived in the United States for twenty-two years, had her work hours cut in half. She shared her thoughts on not being eligible for stimulus payments: "I fulfill all my obligations like any person from this country, but I am not from this country. That bothers me, because I do everything I need to do as a resident who lives here. . . . however I am not able to receive this assistance [stimulus payments]. You ask yourself 'why not me?' No one in my social circle is in my situation, everyone has received this help, except for me." Arlene, a forty-six-year-old undocumented Honduran immigrant who had lost her restaurant job after COVID-19, expressed similar feelings:

> Imagine if they would have given citizen children a fraction of what they gave families—they are citizens they have rights, residents too, us [undocumented] no, but I pay taxes, I pay everything that is asked of me, I do not have any issues with the government, so why didn't they give my daughter $500, she is a citizen, its fine if they didn't give me $1,200 because I am not a citizen, but she is a citizen . . . because we are immigrants, we do not have rights. I am dragging my daughter down because my only sin is being an immigrant, but to the government I pay everything I need to pay, because for me, the government does not provide charity, they deduct whatever they need to deduct.

Similar feelings occurred in mixed-status families in which U.S. citizen mothers were married to individuals with liminal immigration status (temporary work permit, undocumented). For example, Lorena, a thirty-seven-year-old Latina citizen mother of two with an undocumented immigrant husband who had lost his job with the onset of the COVID-19 pandemic, felt a strong sense of support and representation in government prior to the pandemic. This changed when she learned she and her daughters would not receive a stimulus check because she and her undocumented husband had filed taxes jointly the previous year in preparation for his petition for an immigration status adjustment: "They don't care; if they cared, they would take more consideration of us. For example, returning to the stimulus check, I understand that my husband does not qualify, buy why did they exclude my daughters and me. We are American citizens, that's where I feel the discrimination. . . . They excluded my daughters and I, and we are American citizens, we should have the same rights as everyone else."

Stimulus benefits were overwhelmingly helpful to citizen mother respondents, exemplified by Regina, a twenty-eight-year-old Latina citizen married mother who was working full time before the pandemic but lost her job after the onset of COVID-19: "I did have money issues at first as far as paying the bills because it there was less work, because the money that I was receiving from the babysitting or the cleaning, I was contributing to the bills. We were struggling at first, and then we did receive those stimulus checks, so we paid all our bills. The light, the gas, the cable bill, the car insurance, the rent, everything we just took care of."

Role of Nonprofits

It may be that nonprofit resources helped fill the resource gap left for many of our respondents in the wake of the pandemic, especially undocumented mothers. We find suggestive

evidence that a nontrivial minority did turn to nonprofits before and in the immediate aftermath. Among our sample, fifteen mothers reported receiving nonprofit assistance before and following COVID-19, thirteen did not receive any in either period, and the remainder received assistance in only one period. Reasons for seeking nonprofit resources (or not) were mixed. Respondents who reported accessing nonprofit resources before COVID-19 often sought out or were contacted directly by these agencies. For some respondents, connections to schools, childcare, or community centers facilitated information on nonprofits and, in turn, led to nonprofit support seeking, which aligns with other research on the importance of adjacent organizations' facilitating social network information sharing (Small 2009; Lubbers, Small, and Garcia 2020). For others unfamiliar with nonprofits before the pandemic, kith and kin networks or social media provided information that enabled them to seek nonprofit support after its onset. Respondents disconnected from nonprofits before and after COVID-19 reported lacking knowledge in this domain at both times.

Among those having a pre-pandemic relationship with a local nonprofit, it was more common to seek such resources after, worker outreach often playing a key role. Cecilia, a thirty-three-year-old undocumented Latina, is representative. She explained when asked whether she received help from any community organizations following COVID-19:

> Yes. From [the nonprofit] they provided us with a $50 food card, they were calling families there and giving it to them . . . the manager, the one in charge is the one who is dedicated, she was the one who was calling us to ask how we were, if everything was fine and she called . . . and I didn't have to provide ID, since they already know me, my family, they visit my house. They also would leave the food outside my house . . . they leave me three boxes of lunch for the children.

Others relied on their children's schools, such as Martha, a fifty-year-old undocumented immigrant from Mexico. She had received help from the school before the pandemic but her restaurant job work hours were reduced after its onset. The school reached out to the family to offer support and information on locating resources: "I tell you that they [the school] even told us that if we needed food, to call a number. All of that, the money thing [stimulus payments], it just seems to me that they applied purely by people who were . . . who have a social security [number]. But, thank God that they were here for us. . . . Food was sent to my son, from the school too."

At the same time, some who were disconnected from nonprofits prior to the pandemic, such as Felipa, learned about such resources through social media:

> Through Facebook I am [connected to local nonprofits], I have got in touch with [immigrant serving nonprofit]. They have been a source, they put out a lot of information . . . So, there are resources to offer food to people who need it and resources about mental health . . . because of all this that is happening . . . That's what I rely on. So . . . I have been able to have a little more information about what resources currently exist due to the pandemic, has been through [local nonprofit] because they are constantly stating if they are going to have a workshop through Zoom or through Facebook.

Respondents disconnected from nonprofits before the pandemic often explained that balancing work, family, and children's schooling did not allow them time to engage nonprofits. In turn, some of these mothers, regardless of immigration status, did not have the requisite information needed to seek out nonprofit support after the onset of the pandemic. Jasmine, a forty-five-year-old Latina citizen, explained in her pre-pandemic interview: "No [I am not connected to these organizations] because my job doesn't allow me. I would like to . . . maybe later on when I have another job that allows me to do that. When I have to work, I work from three to eleven." After the onset of the pandemic, Jasmine reported still being unaware of local nonprofits: "I don't hear nothing around here [from local nonprofits]. Nobody going around finding out anything about anybody here. The only thing that I've seen along here

is somebody that came around about daycare for the kids."

Other respondents who were unaware of nonprofits prior to the pandemic were connected following COVID-19 through their social networks. Linda, a thirty-nine-year-old Latina citizen who lost her job after COVID-19, was introduced to a local nonprofit by a coworker: "I have a colleague who works for an organization, and she continues to work, not directly with people but by phone, she alerts us to some resources [from nonprofits] that are available."

Seeking nonprofit assistance was important for our respondents but varied mostly because those unfamiliar with them before the pandemic found their access thwarted afterward. Not knowing about nonprofit services is common (Smith 2010). Further, the ability of nonprofits to connect with those unfamiliar with their services was likely hampered by lockdowns that tempered effective outreach. Although other institutions, such as schools, mitigated some of these hurdles, important questions arise about fostering visibility and direct access and knowledge of such resources. We did not hear any reports of distrust of nonprofit services or reports of fear of poor treatment by frontline staff as reasons for not seeking nonprofit resources unlike state-sponsored provisions.

DISCUSSION

This study contributes to the growing literature on the pandemic's socioeconomic consequences for Latina immigrant citizen mothers with children and the role of public provisions in buffering (or not) economic hardships for this group. We depart from earlier research by examining pre-pandemic socioeconomic circumstances among this group to assess its relationship to post-pandemic experiences in work and family, safety net and nonprofit resource seeking, and institutional trust. We also consider the roles of other public institutions and social and political factors relative to feelings of alienation from and distrust in government and associated provisions. Drawing on qualitative interviews with thirty-eight low-income Latina citizen, undocumented, and immigrant women in Chicago, this study finds that these mothers' pandemic-era well-being is in many instances related to pre-pandemic experiences with the state but also concurrent social and political factors that shaped resource seeking and trust in public institutions. Considering these domains relative to socioeconomic well-being before and after COVID-19 is crucial to understanding how these contexts may shape future decisions to seek assistance and recover from the pandemic.

Our respondents were "just making it" in the run-up to the pandemic, most working in low-wage jobs and struggling to juggle childcare and other family obligations while making ends meet, which aligns with an extensive line of research on low-income mothers' in the post–welfare reform era. Pandemic-era job losses among our respondents were substantial—about half of those who were working full time or part time pre-pandemic were now unemployed (fourteen of thirty-one) in the early aftermath of COVID-19. In married or partnered households, it was common for at least one partner to lose a job, especially among undocumented mothers. Widespread job losses led some undocumented mothers to reconsider applying for safety net provisions for their children despite its potential to place these families at risk given their immigration status and common fear of the public charge rule during our study's time frame. At the same time, undocumented mothers were ineligible for stimulus payments, which led many to assert that such exclusion was contradictory to their status as taxpayers and their children's status as U.S. citizens. Most Latina citizen mothers received pandemic provisions, particularly stimulus payments, which provided their families with a "lifeline" that helped pay for housing, food, and essential goods and utilities. Nonetheless, it was common for respondents to report poor treatment by frontline workers when seeking public benefits; in some instances, these experiences shaped resource seeking decision-making following COVID-19. In the aftermath of the pandemic, many reported economic duress, especially those who lost a job or did not receive pandemic stimulus payments, especially undocumented mothers. Among mothers who did receive pandemic benefits, especially UI and stimulus payments, some of these provisions allowed them to re-

duce work hours or forgo work altogether. Of note, respondents who chose to reduce work hours or to not work during the pandemic did so to eliminate the need for childcare, which they viewed as protecting their children from COVID-19.

Another contribution of this study is revealing that even though negative experiences with safety net programs were common before and after the onset of the pandemic, undocumented mothers in particular face overlapping systems of marginalization that contribute to their assessments of socioeconomic well-being and trust in public institutions. This speaks to their well-being as a reflection of not only exclusionary or dissuasive safety net encounters but also marginalizing social and political forces. The culmination of overlapping marginalization from multiple systems influenced a deep sense of distrust in government, including political actors at the national and local level and rhetoric aimed at immigrant communities. The influence of these factors varied relative to respondents' social status—Latina citizen mothers often pointed to their racialized status as driving negative safety net interactions, the quality of public schools their children attend, and alienation from law enforcement due to punitive policing. Undocumented mothers systematically expressed that their liminal immigration status rendered them and their children unworthy of public supports even during a catastrophic pandemic. These different forms of marginalization worked together to sow distrust in public institutions among our respondents. Even though institutional distrust, especially in government, is not a new issue in the United States, evidence suggests that it is a growing phenomenon, especially since the 2016 election. Distrust in government has important implications for a range of issues including democratic processes and trust in other public institutions. Thus, we contribute to a broader understanding of how a convergence of factors contributes to immigrant mothers' assessment of their socioeconomic well-being and engagement with the state.

Our study offers suggestive evidence on the utility of means-tested support versus cash supports, particularly pandemic stimulus payments. It was common for respondents to cite poor treatment in safety net programs before and after the pandemic. However, respondents mostly noted SNAP and TANF when identifying program mistreatment while highlighting different experiences or perceptions with Medicaid and WIC, which transcended citizenship status. It may be that Latina mothers have internalized broader perspectives on the stigmatization of means-tested cash or near-cash provisions that may not be as salient as programs that offer in-kind assistance, such as Medicaid and WIC. It was also clear that among citizen respondents who received stimulus payments, these benefits were preferable to means-tested provisions in enabling them to receive support quickly, without bureaucratic hassles or poor treatment, and pay for essential goods. These findings are instructive for future debates about unrestricted cash benefits such as the monthly Child Tax Credit, which unfortunately was dispersed after our study time frame.

Nonprofit resources may have attenuated some of these challenges with government-sponsored provisions for undocumented mothers. Indeed, this panned out to be true for many: fifteen of thirty-eight respondents reported receiving nonprofit assistance before and after the pandemic. Although these respondents are a substantial minority of the sample, our study was based in Chicago, which has a large nonprofit industry. Respondents disconnected from nonprofits before COVID-19 who received nonprofit assistance after the pandemic were able to do so through social network information, a valuable but often unstable information source. These findings suggest that even though nonprofits reached many of our respondents, room for more effective engagement strategies remains, particularly with the hard-to-reach and those particularly fearful of state engagement, such as undocumented immigrants.

Our findings hold implications for potential paths forward in attenuating deleterious pandemic effects for low-income Latino families. Our respondents were struggling with work and childcare before the pandemic. In its aftermath, the childcare industry lost a nontrivial share of its workforce, which may exacer-

bate recovery for these families if childcare is even more constrained in the post–pandemic era. Like other research, we find that undocumented immigration status influences decisions to use safety net provisions. However, many undocumented mothers in our sample received some noncash safety net provisions for their children, such as Medicaid, which suggests that despite their liminal status and associated risk in engaging the state, undocumented mothers often prioritize their children's well-being in decisions to seek public supports. Moreover, undocumented mothers keenly discerned the contradiction of their status as "undeserving," and its transcription onto their children, while contributing to the polity through work and taxes. These feelings of alienation from government while contributing to society were exacerbated after the onset of the pandemic due to exclusion from pandemic provisions, particularly stimulus payments for undocumented mother's citizen children. Undocumented mothers who expressed these views also indicated reconsidering engaging the state to seek support. Restricting benefits by parent's immigration status may have consequences for the children of immigrants in the near and long-term of pandemic recovery. To enhance recovery prospects for immigrant families, consideration of children's program eligibility regardless of parental immigration status is therefore critical.

The context of this study was Chicago, the year before and the six months after the onset of COVID-19. We would be remiss if we overlooked the implications of our findings relative to place and time. As mentioned, it was common for respondents to identify multiple political and social factors that further marginalized them such as policing, inequitable public education for their children, and perceptions that government did not care about nor adequately respond to their needs. Given Chicago's history of policing,[4] it is not surprising that our respondents not only identified this domain as a source of institutional distrust but also reported complex feelings about their need for a police presence in their communities to feel safe even while recognizing disparate punitive policing of Latinos, immigrants, and other marginalized groups.

Respondents' views that political actors do not care about them occurred during the Trump administration, which passed a number of punitive immigration laws and participated in or spurred xenophobic rhetoric that further marginalized immigrants.[5] President Trump was also vocal about his unwavering support for law enforcement regardless of racialized lethal force cases throughout his tenure.[6] Indeed, the Trump administration policy and rhetoric disproportionately targeting immigrants and racialized citizens likely shaped the institutional distrust observed among many of our respondents.

Limitations and Future Research

This study is limited in several ways. First, the sample was derived from an original survey of enrollees in Chicago's municipal ID program, CityKey. It could be that obtaining a municipal ID reflects broader marginalization because those without any other form of government-issued ID are disproportionately immigrant, Black, and formerly incarcerated as well as low income (Brennan Center for Justice 2006). The sample is relatively small and diverse along citizenship lines but includes only six low-income Latina citizen mothers, limiting the utility of these findings for revealing patterns of inequitable treatment and socioeconomic well-being for this group. Nonetheless, this study offers a nuanced understanding of the myriad influences that shape not only Latina immigrant and citizen mothers' socioeconomic well-being and access to public supports in the pandemic era but also the importance of attenuating growing institutional distrust. The findings suggest areas for future research. First, as scholars continue theorizing and conducting

4. Cox and Freivogel 2021.

5. During the Trump administration, there were over 400 executive actions restricting and excluding immigrants, refugees, and asylum seekers (Pierce and Bolter 2020)

6. Cowan 2020.

research on low-income families, policy histories and sociopolitical contexts warrant more consideration such as foregrounding immigrant and racialized citizen mothers' longstanding exclusion and dissuasion from social provisions and experiences with the punitive arm of the state. It is also important to consider how the unique social positions between low-income mothers may lead to within group differences and experiences with the state and well-being (Crenshaw 1991). Finally, although many of our respondents lost their jobs with the onset pandemic, several respondents chose to reduce work or quit altogether. Those who did so reported they did because of their fears for their own and their children's safety. This suggests that scholars who consider the effects of pandemic-era cash provisions on work disincentives should account for a diversity of factors aside from government provisions.

Table A.1. Respondent Demographics, Work, and Safety Net Use Before and After COVID-19

Pseudonym	Age	Race	Immigration status	Wave 2 Marital Status	# of Dependent Children	Employment Status at Wave 1	Occupation at Wave 1	Employment Status at Wave 2	Occupation at Wave 2	Safety Net Use Wave 1	Safety Net Use Wave 2
Linda	39	Latina	citizen	married	2	part time	works at children's school	unemployed	N/A	None	None
Carina	29	Latina	citizen	married	3	homemaker		homemaker	N/A	WIC, Medicaid	SNAP, WIC, Medicaid
Felipa	41	Latina	citizen	separated	1	full time	for-profit community org	full time	works from home at for profit community org	None	None
Lorena	37	Latina	citizen	married	2	full time	employment center	full time	works from home at employment center	None	None
Denise	29	Latina	undocumented	married	1	full time	housekeeping, janitorial services	unemployed	N/A	Medicaid	Medicaid
Jasmine	45	Latina	citizen	married	1	full time	security guard	full time	security at new location	Medicaid	Medicaid
Teresa	46	Latina	LPR[b]	married	5	homemaker	N/A	homemaker	N/A	SNAP, Medicaid	SNAP, Medicaid
Gabriela	45	Latina	undocumented	married	2	homemaker	N/A	homemaker	N/A	WIC, Medicaid	Medicaid
Hilda[d]	38	Latina	undocumented	single	2	full time	pizza restaurant	full time	pizza restaurant	WIC, Medicaid	Medicaid
Mariana	36	Latina	U-visa[e]	partnered	4	full time	housekeeping, janitorial services	unemployed	N/A	SNAP, WIC, Medicaid	SNAP, WIC, Medicaid
Elodia	34	Latina	visa	separated[c]	2	full time	bus aid cps	unemployed	N/A	Medicaid	Medicaid
Edna	37	Latina	undocumented	partnered	3	full time	restaurant delivery	unemployed	N/A	Medicaid	SNAP, Medicaid

(*continued*)

Table A.1. (*continued*)

Pseudonym	Age	Race	Immigration status	Wave 2 Marital Status	# of Dependent Children	Employment Status at Wave 1	Occupation at Wave 1	Employment Status at Wave 2	Occupation at Wave 2	Safety Net Use Wave 1	Safety Net Use Wave 2
Magdalena	47	Latina	undocumented	widowed	2	part time	census worker	part time	census worker	SNAP, Medicaid	SNAP, Medicaid
Norma	54	Latina	undocumented	single	1	full time	factory work	full time	factory worker	SNAP, Medicaid	SNAP, Medicaid
Antonia	42	Latina	undocumented	married	2	self-employed	Mary Kay	unemployed	N/A	SNAP, Medicaid	SNAP, Medicaid
Benita	50	Latina	undocumented	married	1	full-time	babysitter	unemployed	N/A	Medicaid	Medicaid
Reina	47	Latina	undocumented	partnered	1	full-time	restaurant	unemployed	N/A	Medicaid	Medicaid
Cecilia	33	Latina	undocumented	partnered	3	homemaker	N/A	homemaker	N/A	SNAP, WIC, Medicaid	SNAP, WIC, Medicaid
Viviana	21	Latina	undocumented	partnered	2	homemaker	N/A	homemaker	N/A	SNAP, WIC, Medicaid	SNAP, WIC, Medicaid
Arlene	46	Latina	undocumented	single	1	part time	restaurant	full time	new job: poultry factory	SNAP, Medicaid	SNAP, Medicaid
Leonor	42	Latina	undocumented	partnered	1	full time	produce factory	full time	produce factory	Medicaid	Medicaid
Isaura	40	Latina	undocumented	married	4	full time	housekeeping, janitorial services	full time	new job: canning factory	Medicaid	Medicaid
Celeste	41	Latina	undocumented	married	1	part time	newspaper delivery	part time	newspaper delivery	None	None
Regina	28	Latina	citizen	married	2	full time	babysitter	unemployed	N/A	SNAP, Medicaid	SNAP, Medicaid
Rocio	38	Latina	undocumented	married	1	full time	housekeeping, janitorial services	unemployed	N/A	SNAP, WIC, Medicaid	SNAP, WIC, Medicaid

Ana	48	Latina	undocumented	partnered	1	full time	babysitter and home-care	unemployed	N/A	Medicaid	SNAP, Medicaid
Raquel	42	Latina	undocumented	married	2	full time	housekeeping, janitorial services	part time	housekeeping	SNAP, Medicaid	SNAP, Medicaid
Mayra	41	Latina	undocumented	married	2	full time	fast food restaurant	full time	fast food restaurant	SNAP, Medicaid	SNAP, Medicaid
Liliana	39	Latina	undocumented	single	2	full time	Tortilla Factory	full time	Tortilla Factory	SNAP, Medicaid	SNAP, Medicaid
Cristina	46	Latina	undocumented	married	1	homemaker	N/A	homemaker	N/A	Medicaid	Medicaid
Maria	42	Latina	undocumented	married	2	homemaker	N/A	homemaker	N/A	WIC, Medicaid	WIC, Medicaid
Fabiola	30	Latina	undocumented	single	1	part time	restaurant	unemployed	N/A	SNAP, Medicaid	SNAP, Medicaid
Diana	44	Latina	undocumented	married	3	self-employed	Avon	unemployed	N/A	Medicaid	Medicaid
Elvira	43	Latina	undocumented	single	2	part time	retail store	part time	retail store	Medicaid	Medicaid
Martha	50	Latina	undocumented	married	1	part time	restaurant/singer	part time	restaurant	Medicaid	Medicaid
Angelica	47	Latina	undocumented	single	1	full time	domestic work for a family	part time	domestic work	Medicaid	Medicaid
Laura	38	Latina	undocumented	married	2	self-employed	clothing sales	unemployed	N/A	Medicaid	Medicaid
Sofia	47	White/ Latina[a]	undocumented	single	1	full time	janitorial services	full time	janitorial services	None	None

Source: Authors' tabulation.

Note: SNAP = Supplemental Nutrition Assistance Program, WIC = Special supplemental Nutrition Program for woman, Infants, and Children, TANF = Temporary Assistance for Need Families.

N/A: Not applicable. Respondents do not have an occupation indicated because of their employment status of being unemployed or homemaker.

[a] Participant indicated White under race, but also identified country of origin from El Salvador (CITE).

[b] LPR = legal permanent residency

[c] Separated yet legally married

[d] Partnered at wave 1 and single at wave 2

[e] U-visa–nonimmigrant visa that allows noncitizen crime victims and certain qualifying family members to live and work in the United States for up to four years.

REFERENCES

Acs, Gregory, and Michael Karpman. 2020. "Employment, Income, and Unemployment Insurance During the Covid-19 Pandemic: From Safety Net to Solid Ground." Washington, D.C.: Urban Institute.

Alon, Titan, Sena Coskun, Matthias Doepke, David Koll, and Michèle Tertilt. 2021. "From Mancession to Shecession: Women's Employment in Regular and Pandemic Recessions." *NBER* working paper no. w28632. Cambridge, Mass.: National Bureau of Economic Research. DOI: https://doi.org/10.3386/w28632.

Alsan, Marcella, and Crystal Yang. 2018. "Fear and the Safety Net: Evidence from Secure Communities." *NBER* working paper no. w24731. Cambridge, Mass.: National Bureau of Economic Research. DOI: https://doi.org/10.3386/w24731.

Ananat, Elizabeth., and Anna Gassman-Pines. 2020. "Snapshot of the COVID Crisis Impact on Working Families. Econofact." Econofact, March 20. Accessed November 9, 2022. https://econofact.org/snapshot-of-the-covid-crisis-impact-on-working-families.

Anderson, Emma. 2021. "From Accessing Healthcare to Work, Childcare, and Caregiving, the COVID-19 Pandemic Continues to Disproportionately Impact Women." San Francisco: Kaiser Family Foundation. Accessed November 9, 2022. https://www.kff.org/womens-health-policy/press-release/from-accessing-health-care-to-work-childcare-and-caregiving-the-covid-19-pandemic-continues-to-disproportionately-impact-women/.

Artiga, Samantha, and Matthew Rae. 2020. "Health and Financial Risks for Noncitizen Immigrants due to the COVID-19 Pandemic." San Francisco: Kaiser Family Foundation. Accessed November 9, 2022. https://www.kff.org/report-section/health-and-financial-risks-for-noncitizen-immigrants-due-to-the-covid-19-pandemic-issue-brief/.

Asad, Asad L. 2020. "Latinos' Deportation Fears by Citizenship and Legal Status, 2007 to 2018." *Proceedings of the National Academy of Sciences* 117(16): 8836–44. DOI: https://doi.org/10.1073/pnas.1915460117.

Barofsky, Jeremy, Ariadna Vargas, Dinardo Rodriguez, and Anthony Barrows. 2020. "Spreading Fear: The Announcement of the Public Charge Rule Reduced Enrollment in Child Safety-Net Programs." *Health Affairs* 39(10): 1752–61. DOI: https://doi.org/10.1377/hlthaff.2020.00763.

Bateman, Nicole, and Martha M. Ross. 2020. "Why Has COVID-19 Been Especially Harmful for Working Women?" 19A: The Brookings Gender Equality Series. Washington, D.C.: Brookings Institution. Accessed November 9, 2022. https://www.brookings.edu/essay/why-has-covid-19-been-especially-harmful-for-working-women/.

Bitler, Marianne, and Hilary W. Hoynes. 2011. "Immigrants, Welfare Reform, and the US Safety Net." *NBER* working paper no. w17667. Cambridge, Mass. National Bureau of Economic Research.

Bitler, Marianne P., Hilary W. Hoynes, and Diane Whitmore Schanzenbach. 2023. "Suffering, the Safety Net, and Disparities During COVID-19." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 9(3): 32–59. DOI: https://doi.org/10.7758/RSF.2023.9.3.02.

Blackburn, Christine Crudo, and Lidia Azurdia Sierra. 2021. "Anti-Immigrant Rhetoric, Deteriorating Health Access, and COVID-19 in the Rio Grande Valley, Texas." *Health Security 19*(S1): S50–S56. DOI: https://doi.org/10.1089/hs.2021.0005.

Brennan Center for Justice. 2006. "Citizens Without Proof: A Survey of Americans' Possession of Documentary Proof of Citizenship and Photo Identification." New York: Brennan Center for Justice at New York School of Law.

Bustamante, Arturo Vargas, Lucía Félix-Beltrán, Joseph Nwadiuko, and Alexander N. Ortega. 2022. "Avoiding Medicaid Enrollment after the Reversal of the Changes in the Public Charge Rule among Latino and Asian Immigrants." *Health Services Research* 2022 (July): 1475–6773.14020. DOI: https://doi.org/10.1111/1475-6773.14020.

Calarco, Jessica McCrory, Emily Meanwell, Elizabeth M. Anderson, and Amelia S. Knopf. 2021. "By Default: How Mothers in Different-Sex Dual-Earner Couples Account for Inequalities in Pandemic Parenting." *Socius: Sociological Research for a Dynamic World* 7 (January): 237802312110387. DOI: https://doi.org/10.1177/23780231211038783.

Callaghan, Timothy, David J. Washburn, Katharine Nimmons, Delia Duchicela, Anoop Gurram, and James Burdine. 2019. "Immigrant Health Access in Texas: Policy, Rhetoric, and Fear in the Trump Era." *BMC Health Services Research* 19(1): 342. DOI: https://doi.org/10.1186/s12913-019-4167-1.

Calvo, Rocío, and Mary C. Waters. "The Impact of the COVID-19 Pandemic on Older Latino Immigrants." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 9(3): 60–76. DOI: https://doi.org/10.7758/RSF.2023.9.3.03.

Canizales, Stephanie L., and Jody Agius Vallejo. 2021. "Latinos & Racism in the Trump Era." *Daedalus* 150(2): 150–64. DOI: https://doi.org/10.1162/daed_a_01852.

Capps, Randy, Michael E. Fix, and Jeanne Batalova. 2020. "Anticipated 'Chilling Effects' of the Public-Charge Rule Are Real: Census Data Reflect Steep Decline in Benefits Use by Immigrant Families." Washington, D.C.: Migration Policy Institute. Accessed November 9, 2022. https://www.migrationpolicy.org/news/anticipated-chilling-effects-public-charge-rule-are-real.

Clark, Eva, Karla Fredricks, Laila Woc-Colburn, Maria Elena Bottazzi, and Jill Weatherhead. 2020. "Disproportionate Impact of the COVID-19 Pandemic on Immigrant Communities in the United States." *PLoS Neglected Tropical Diseases* 14(7): e0008484.

Cooney, Patrick, and H. Luke Shaefer. 2021. "Material Hardship and Mental Health Following the COVID-19 Relief Bill and American Rescue Plan Act." Ann Arbor: Poverty Solutions, University of Michigan. https://sites.fordschool.umich.edu/poverty2021/files/2021/05/PovertySolutions-Hardship-After-COVID-19-Relief-Bill-PolicyBrief-r1.pdf.

Cowan, Richard. 2020. "Trump Downplays Police Violence Against Black People, Says 'More White People' Killed." Reuters, July 14. Accessed January 6, 2022. https://www.reuters.com/article/us-global-race-trump/trump-downplays-police-violence-against-black-people-says-more-white-people-killed-idUSKCN24F2WQ.

Cox, Kallie, and William Freivogel. 2021. "Records Show Illinois Fails to Hold Police Accountable for Misconduct." Pulitzer Center, October 19. Accessed January 6, 2022. https://pulitzercenter.org/stories/records-show-illinois-fails-hold-police-accountable-misconduct.

Crenshaw, Kimberle. 1991. "Mapping the Margins: Intersectionality, Identity Politics, and Violence Against Women of Color." *Stanford Law Review* 43(6): 1241. DOI: https://doi.org/10.2307/1229039.

Cruz Nichols, Vanessa, Alana M. W. LeBrón, and Francisco I. Pedraza. 2018. "Spillover Effects: Immigrant Policing and Government Skepticism in Matters of Health for Latinos." *Public Administration Review* 78(3): 432–43. DOI: https://doi.org/10.1111/puar.12916.

Dee, Thomas S., and Mark Murphy. 2020. "Vanished Classmates: The Effects of Local Immigration Enforcement on School Enrollment." *American Educational Research Journal* 57(2): 694–727. DOI: https://doi.org/10.3102/0002831219860816.

Deterding, Nicole M., and Mary C. Waters. 2018. "Flexible Coding of In-Depth Interviews: A Twenty-First-Century Approach." *Sociological Methods & Research* 50(2): 708–39. DOI: https://doi.org/10.1177/0049124118799377.

Dias, Felipe A., Joseph Chance, and Arianna Buchanan. 2020. "The Motherhood Penalty and the Fatherhood Premium in Employment During Covid-19: Evidence from the United States." *Research in Social Stratification and Mobility* 69 (October): 100542. DOI: https://doi.org/10.1016/j.rssm.2020.100542.

East, Chloe, Phillip Luck, Hani Mansour, and Andrea Velazquez. 2018. "The Labor Market Effects of Immigration Enforcement." *IZA* discussion paper no. 11486." Bonn: Institute of Labor Economics. Accessed November 9, 2022. https://www.econstor.eu/bitstream/10419/180504/1/dp11486.pdf.

Einstein, Katherine Levine, and David M. Glick. 2017. "Does Race Affect Access to Government Services? An Experiment Exploring Street-Level Bureaucrats and Access to Public Housing." *American Journal of Political Science* 61(1): 100–16. DOI: https://doi.org/10.1111/ajps.12252.

Elliott, Sinikka, Sierra J. Satterfield, G. Solorzano, Sarah Bowen, Annie Hardison-Moody, and Latasha Williams. 2021. "Disenfranchised: How Lower Income Mothers Navigated the Social Safety Net During the COVID-19 Pandemic." *Socius: Sociological Research for a Dynamic World* 7 (January): 237802312110316. DOI: https://doi.org/10.1177/23780231211031690.

Ellwood, Marilyn, and Leighton Ku. 1998. "Welfare and Immigration Reforms: Unintended Side Effects for Medicaid: Medicaid Caseloads Have Been Shrinking as Federal Welfare Reform and Immigration Restrictions Begin to Take Effect."

Health Affairs 17(3): 137–51. DOI: https://doi.org/10.1377/hlthaff.17.3.137.

Ernst, Rose, Linda Nguyen, and Kamilah C. Taylor. 2013. "Citizen Control: Race at the Welfare Office: Citizen Control." *Social Science Quarterly* 94(5): 1283–307. DOI: https://doi.org/10.1111/ssqu.12013.

Fix, Michael E. 2009. *Immigrants and Welfare: The Impact of Welfare Reform on America's Newcomers*. New York: Migration Policy Institute and Russell Sage Foundation.

Fix, Michael E., Randy Capps, and Neeraj Kaushal. 2009. "Immigrants and Welfare: Overview." In *Immigrants and Welfare: The Impact of Welfare Reform on America's Newcomers*, edited by Michael Fix. New York: Migration Policy Institute and Russell Sage Foundation.

Fix, Michael E., and Jeffrey S. Passel. 1999. "Trends in Noncitizens' and Citizens' Use of Public Benefits Following Welfare Reform." Washington, D.C.: Urban Institute.

Fording, Richard C., Sanford F. Schram, and Joe Soss. 2013. "Do Welfare Sanctions Help or Hurt the Poor? Estimating the Causal Effect of Sanctioning on Client Earnings." *Social Service Review* 87(4): 641–76. DOI: https://doi.org/10.1086/674111.

Fox, Cybelle. 2016. "Unauthorized Welfare: The Origins of Immigrant Status Restrictions in American Social Policy." *Journal of American History* 102(4): 1051–74.

Galletly, Carol L., Joanna L. Barreras, Julia Lechuga, Laura R. Glasman, Gerardo Cruz, Julia B. Dickson-Gomez, Ronald A. Brooks, Dulce Maria Ruelas, Beth Stringfield, and Iván Espinoza-Madrigal. 2022. "US Public Charge Policy and Latinx Immigrants' Thoughts about Health and Healthcare Utilization." *Ethnicity & Health.* First published online: February 15, 2022. DOI: https://doi.org/10.1080/13557858.2022.2027879.

García Hernández, César C. 2014. "Creating Crimmigration." *BYU Law Review* 6: Article 4, 1457.

Gezici, Armagan, and Ozge Ozay. 2020. "An Intersectional Analysis of COVID-19 Unemployment." *Journal of Economics, Race, and Policy* 3(4): 270–81. DOI: https://doi.org/10.1007/s41996-020-00075-w.

Gonzalez, Dulce, Michael Karpman, Genevieve M. Kenney, and Stephen Zuckerman. 2020. "Hispanic Adults in Families with Noncitizens Disproportionately Feel the Economic Fallout from COVID-19." Washington, D.C.: Urban Institute.

Gooden, Susan Tinsley. 2004. "Examining the Implementation of Welfare Reform by Race: Do Blacks, Hispanics and Whites Report Similar Experiences with Welfare Agencies?" *Review of Black Political Economy* 32(2): 27–53. DOI: https://doi.org/10.1007/s12114-004-1023-1.

Gould, Elise, Daniel Perez, and Valerie Rawlston-Wilson. 2020. "Latinx Workers—Particularly Women—Face Devastating Job Losses in the COVID-19 Recession." Washington, D.C.: Economic Policy Institute. Accessed November 2, 2022. https://www.epi.org/publication/latinx-workers-covid/.

Gould, Elise, and Valerie Rawlston-Wilson. 2020. "Black Workers Face Two of the Most Lethal Preexisting Conditions for Coronavirus–Racism and Economic Inequality: Report." Washington, D.C.: Economic Policy Institute. Accessed November 9, 2022. https://www.epi.org/publication/black-workers-covid/.

Gupta, Poonam, Dulce Gonzalez, and Elaine Waxman. 2020. "Forty Percent of Black and Hispanic Parents of School-Age Children." Washington, D.C.: Urban Institute. Accessed November 8, 2022. https://www.urban.org/research/publication/forty-percent-black-and-hispanic-parents-school-age-children-are-food-insecure.

Ha, Yoonsook, and Marci Ybarra. 2014. "The Role of Parental Immigration Status in Latino Families' Child Care Selection." *Children and Youth Services Review* 47 (December): 342–51. DOI: https://doi.org/10.1016/j.childyouth.2014.10.011.

Hatzenbuehler, Mark L., Seth J. Prins, Morgan Flake, Morgan Philbin, M. Somjen Frazer, Daniel Hagen, and Jennifer Hirsch. 2017. "Immigration Policies and Mental Health Morbidity among Latinos: A State-Level Analysis." *Social Science & Medicine* 174 (February): 169–78. DOI: https://doi.org/10.1016/j.socscimed.2016.11.040.

Hegewisch, Ariane. 2021. "Women and the COVID-19 Pandemic: Five Charts and a Table Tracking the 2020 Shecession by Race and Gender." Washington, D.C.: Institute for Women's Policy Research.

Herd, Pamela, and Donald P. Moynihan. 2019. *Administrative Burden: Policymaking by Other Means*. New York: Russell Sage Foundation.

Hernandez-Castro, Ixel, Claudia N. Toledo-Corral,

Thomas Chavez, Rima Habre, Brendan Grubbs, Laila Al-Marayati, Deborah Lerner, et al. 2022. "Perceived Vulnerability to Immigration Policies Among Postpartum Hispanic/Latina Women in the MADRES Pregnancy Cohort Before and During the COVID-19 Pandemic." *Women's Health* 18: 17455057221125103.

Hibel, Leah C., Chase J. Boyer, Andrea C. Buhler-Wassmann, and Blake J. Shaw. 2021. "The Psychological and Economic Toll of the COVID-19 Pandemic on Latina Mothers in Primarily Low-Income Essential Worker Families." *Traumatology* 27(1): 40–47. DOI: https://doi.org/10.1037/trm0000293.

Holzer, Harry J. 2020. "COVID Outcomes Update: Health and Employment Impacts in the US Compared to Other Countries." Washington, D.C.: Brookings Institution. Accessed November 9, 2022. https://www.brookings.edu/research/covid-outcomes-update-health-and-employment-impacts-in-the-us-compared-to-other-countries/.

Jennings, James, and Jorge Santiago. 2004. "Welfare Reform and 'Welfare to Work' as Non-Sequitur: A Case Study of the Experiences of Latina Women in Massachusetts." *Journal of Poverty* 8(1): 23–42. DOI: https://doi.org/10.1300/J134v08n01_02.

Kantor, Bella Nichole, and Jonathan Kantor. 2020. "Mental Health Outcomes and Associations During the COVID-19 Pandemic: A Cross-Sectional Population-Based Study in the United States." *Frontiers in Psychiatry* 11 (December): 569083. DOI: https://doi.org/10.3389/fpsyt.2020.569083.

Karpman, Michael, Stephen Zuckerman, Dulce Gonzalez, and Genevieve M. Kenney. 2020. "The COVID-19 Pandemic Is Straining Families' Abilities to Afford Basic Needs." Washington, D.C.: Urban Institute.

Kaushal, Neeraj, and Robert Kaestner. 2005. "Welfare Reform and Health Insurance of Immigrants: Welfare Reform and Health Insurance of Immigrants." *Health Services Research* 40(3): 697–722. DOI: https://doi.org/10.1111/j.1475-6773.2005.00381.x.

Kolker, Abigail F. 2022. "Unauthorized Immigrants' Eligibility for COVID-19 Relief Benefits: In Brief." *CRS* Report no. 46339. Washington: Congressional Research Service. Accessed November 9, 2022. https://crsreports.congress.gov/product/pdf/R/R46339.

Kullgren, Jeffrey T. 2003. "Restrictions on Undocumented Immigrants' Access to Health Services: The Public Health Implications of Welfare Reform." *American Journal of Public Health* 93(10): 1630–33. DOI: https://doi.org/10.2105/AJPH.93.10.1630.

Landivar, Liana Christin, William J. Scarborough, Leah Ruppanner, Caitlyn M. Collins, and Lloyd Rouse. 2023. "Remote Schooling and Mothers' Employment During the COVID-19 Pandemic by Race, Education, and Marital Status." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 9(3): 134–58. DOI: https://doi.org/10.7758.RSF.2023.9.3.06.

Lauren, Brianna N., Elisabeth R. Silver, Adam S. Faye, Alexandra M. Rogers, Jennifer A. Woo-Baidal, Elissa M. Ozanne, and Chin Hur. 2021. "Predictors of Households at Risk for Food Insecurity in the United States During the COVID-19 Pandemic." *Public Health Nutrition* 24(12): 3929–36. DOI: https://doi.org/10.1017/S1368980021000355.

Lee, Kyoung Hag, and Dong Pil Yoon. 2012. "A Comparison of Sanctions in African American and White TANF Leavers." *Journal of Evidence-Based Social Work* 9(4): 396–413. DOI: https://doi.org/10.1080/15433714.2011.552035.

Lubbers, Miranda J., Mario Luis Small, and Hugo Valenzuela García. 2020. "Do Networks Help People to Manage Poverty? Perspectives from the Field." *Annals of the American Academy of Political and Social Science* 689(1): 7–25. DOI: https://doi.org/10.1177/0002716220923959.

Menjívar, Cecilia, Andrea Gómez Cervantes, and Daniel Alvord. 2018. "The Expansion of 'Crimmigration,' Mass Detention, and Deportation." *Sociology Compass* 12(4): e12573. DOI: https://doi.org/10.1111/soc4.12573.

Monnat, Shannon M. 2010. "The Color of Welfare Sanctioning: Exploring the Individual and Contextual Roles of Race on TANF Case Closures and Benefit Reductions." *Sociological Quarterly* 51(4): 678–707. DOI: https://doi.org/10.1111/j.1533-8525.2010.01188.x.

Morey, Brittany N. 2018. "Mechanisms by Which Anti-Immigrant Stigma Exacerbates Racial/Ethnic Health Disparities." *American Journal of Public Health* 108(4): 460–63. DOI: https://doi.org/10.2105/AJPH.2017.304266.

Olayo-Méndez, Alejandro, Maria Vidal De Haymes, Maricela García, and Llewellyn Joseph Cornelius.

2021. "Essential, Disposable, and Excluded: The Experience of Latino Immigrant Workers in the US During COVID-19." *Journal of Poverty* 25(7): 612–28.

Parmet, Wendy E. 2021. "Excluding Non-Citizens from the Social Safety Net." *Georgia Journal of International and Comparative Law* 49(3): 525.

Parolin, Zachary, Megan Curran, and Christopher Wimer. 2020. "The CARES ACT and Poverty in the COVID-19 Crisis: Promises and Pitfalls of the Recovery Rebates and Expanded Unemployment Benefits." Poverty and Social Policy Brief no. 2048. New York: Center on Poverty and Social Policy, Columbia University. Accessed November 9, 2022. https://ideas.repec.org/p/aji/briefs/2048.html.

Pierce, Sarah, and Jessica Bolter. 2020. "Dismantling and Reconstructing the US Immigration System." *A Catalog of Changes under the Trump Presidency.* Washington, D.C.: Migration Policy Institute.

Quadagno, Jill S. 1994. *The Color of Welfare: How Racism Undermined the War on Poverty*. Oxford Paperbacks. New York: Oxford University Press.

Ranji, Usha, Brittni Frederiksen, Alina Salganicoff, and Michelle Long. 2021. "Women, Work, and Family During COVID-19: Findings from the KFF Women's Health Survey." San Francisco: Kaiser Family Foundation. Accessed November 9, 2022. https://www.kff.org/womens-health-policy/issue-brief/women-work-and-family-during-covid-19-findings-from-the-kff-womens-health-survey/.

Raphael, Steven, and Daniel Schneider. 2023. "Introduction: The Socioeconomic Impacts of COVID-19." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 9(3): 1–30. DOI: https://doi.org/10.7758/RSF.2023.9.3.01.

Ravenelle, Alexandrea J., and Savannah Knoble. 2023. "'I Could Be Unemployed the Rest of the Year': Unprecedented Times and the Challenges of 'Making More.'" *RSF: The Russell Sage Foundation Journal of the Social Sciences* 9(3): 110–31. DOI: https://doi.org/10.7758.RSF.2023.9.3.05.

Sáenz, Rogelio, and Corey Sparks. 2020. "The Inequities of Job Loss and Recovery Amid the COVID-19 Pandemic." Durham: Carey School of Public Policy, University of New Hampshire. DOI: https://doi.org/10.34051/p/2021.3.

Schanzenbach, Diane Whitmore. 2021. "Not Enough to Eat: COVID-19 Deepens America's Hunger Crisis." Washington, D.C.: Food Research & Action Center. Accessed November 9, 2022. https://frac.org/wp-content/uploads/Not-Enough-to-Eat_Hunger-and-COVID.pdf.

Schram, Sanford F., Joe Soss, Richard C. Fording, and Linda Houser. 2009. "Deciding to Discipline: Race, Choice, and Punishment at the Frontlines of Welfare Reform." *American Sociological Review* 74(3): 398–422. DOI: https://doi.org/10.1177/000312240907400304.

Small, Mario Luis. 2009. *Unanticipated Gains: Origins of Network Inequality in Everyday Life*. New York: Oxford University Press.

Smith, Steven Rathgeb. 2010. "Nonprofit Organizations and Government: Implications for Policy and Practice: Nonprofit Organizations and Government: Implications for Policy and Practice." *Journal of Policy Analysis and Management* 29(3): 621–25. DOI: https://doi.org/10.1002/pam.20517.

Touw, Sharon, Grace McCormack, David U. Himmelstein, Steffie Woolhandler, and Leah Zallman. 2021. "Immigrant Essential Workers Likely Avoided Medicaid and SNAP Because of a Change to the Public Charge Rule." *Health Affairs* 40(7): 1090–98. DOI: https://doi.org/10.1377/hlthaff.2021.00059.

U.S. Bureau of Labor Statistics (BLS). 2020. "Labor Force Characteristics by Race and Ethnicity." BLS Report 1095. Washington: U.S. Bureau of Labor Statistics. Accessed November 9, 2022. https://www.bls.gov/opub/reports/race-and-ethnicity/2020/home.htm.

Van Hook, Jennifer. 2003. "Welfare Reform's Chilling Effects on Noncitizens: Changes in Noncitizen Welfare Recipiency or Shifts in Citizenship Status?: Welfare Reform's Effects on Noncitizens." *Social Science Quarterly* 84(3): 613–31. DOI: https://doi.org/10.1111/1540-6237.8403008.

Vargas, Edward D., and Maureen A. Pirog. 2016. "Mixed-Status Families and WIC Uptake: The Effects of Risk of Deportation on Program Use." *Social Science Quarterly* 97(3): 555–72. DOI: https://doi.org/10.1111/ssqu.12286.

Vernice, Nicholas A., Nicola M. Pereira, Anson Wang, Michelle Demetres, and Lisa V. Adams. 2020. "The Adverse Health Effects of Punitive Immigrant Policies in the United States: A Systematic Review." *PLOS One* 15(12): e0244054. DOI: https://doi.org/10.1371/journal.pone.0244054.

Wahdat, Ahmad Zia. 2022. "Economic Impact Pay-

ments and Household Food Insufficiency During COVID-19: The Case of Late Recipients." *Economics of Disasters and Climate Change* 6(3): 451–69. DOI: https://doi.org/10.1007/s41885-022-00115-9.

Yavorsky, Jill E., Yue Qian, and Amanda C. Sargent. 2021. "The Gendered Pandemic: The Implications of COVID-19 for Work and Family." *Sociology Compass* 15(6). DOI: https://doi.org/10.1111/soc4.12881.

Ybarra, Marci, Yoonsook Ha, and Jina Chang. 2017. "Health Insurance Coverage and Routine Health Care Use among Children by Family Immigration Status." *Children and Youth Services* Review 79 (August): 97–106. DOI: https://doi.org/10.1016/j.childyouth.2017.05.027.

Yoshikawa, Hirokazu, and Ariel Kalil. 2011. "The Effects of Parental Undocumented Status on the Developmental Contexts of Young Children in Immigrant Families." *Child Development Perspectives* 5(4): 291–97. DOI: https://doi.org/10.1111/j.1750-8606.2011.00204.x.

Ziol-Guest, Kathleen M., and Ariel Kalil. 2012. "Health and Medical Care Among the Children of Immigrants: Health and Medical Care Among Children." *Child Development* 83(5): 1494–1500. DOI: https://doi.org/10.1111/j.1467-8624.2012.01795.x.

PART IV

Housing and COVID-19

Protecting the Most Vulnerable: Policy Response and Eviction Filing Patterns During the COVID-19 Pandemic

PETER HEPBURN, JACOB HAAS, NICK GRAETZ, RENEE LOUIS, DEVIN Q. RUTAN, ANNE KAT ALEXANDER, JASMINE RANGEL, OLIVIA JIN, EMILY BENFER, AND MATTHEW DESMOND

The COVID-19 pandemic and resulting economic crisis exposed the U.S. rental housing market to extraordinary stress. Policymakers at the federal, state, and local levels established eviction moratoria and a number of additional direct and indirect renter-supportive measures in a bid to prevent a surge in evictions and associated public health risks. This article assesses the net efficacy of these interventions, analyzing changes in eviction filing patterns in 2020–2021 in thirty-one cities across the country. We find that eviction filings were dramatically reduced over this period. The largest reductions were in places that previously experienced highest eviction filing rates, particularly majority-Black and low-income neighborhoods. Although these changes did not ameliorate racial, gender, and income inequalities in relative risk of eviction, they did significantly reduce rates across the board, resulting in especially large absolute gains in previously high-risk communities.

Keywords: COVID-19, eviction, housing instability, inequality

Peter Hepburn is an assistant professor of sociology at Rutgers University-Newark, United States. **Jacob Haas** is a research specialist at the Eviction Lab at Princeton University, United States. **Nick Graetz** is a postdoctoral fellow at the Eviction Lab at Princeton University, United States. **Renee Louis** is a graduate student in the department of sociology at Stanford University, United States. **Devin Q. Rutan** is a Ph.D. candidate in sociology and social policy at Princeton University, United States. **Anne Kat Alexander** is a law student at the University of Maryland Carey School of Law, United States. **Jasmine Rangel** is a senior housing associate at PolicyLink, United States. **Olivia Jin** is a graduate student in the department of sociology at Stanford University, United States. **Emily Benfer** is a visiting professor of clinical law at George Washington University Law School, United States. **Matthew Desmond** is the Maurice P. During Professor of Sociology at Princeton University, United States.

 Hepburn, Peter, Jacob Haas, Nick Graetz, Renee Louis, Devin Q. Rutan, Anne Kat Alexander, Jasmine Rangel, Olivia Jin, Emily Benfer, and Matthew Desmond. 2023. "Protecting the Most Vulnerable: Policy Response and Eviction Filing Patterns During the COVID-19 Pandemic." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 9(3): 186–207. DOI: 10.7758/RSF.2023.9.3.08. Support for the Eviction Tracking System is provided by the Russell Sage Foundation, the C3.ai Digital Transformation Institute, and the Pew Charitable Trusts. The Eviction Lab is supported by the JPB and Bill & Melinda Gates Foundations, the Chan Zuckerberg Initiative, and the Eunice Kennedy Shriver National Institute of Child Health & Human Development of the National Institutes of Health (NIH) under Award No. P2CHD047879. Direct correspondence to Peter Hepburn, at peter.hepburn@rutgers.edu. 618 Hill Hall, 360 Dr. Martin Luther King Jr. Blvd., Newark, NJ 07103, United States.

The COVID-19 pandemic precipitated an economic collapse that threatened to spiral into a housing crisis, particularly among renters. Job losses in the early weeks of the pandemic were concentrated in industries and occupations—particularly in the retail, service, and tourism sectors—that disproportionately employ renters (Kneebone and Murray 2020). Because few jobs were available and savings with which to weather unemployment were limited (Pew Charitable Trusts 2018), these tenants were at imminent risk of eviction if they could not meet the next month's rent. Evictions in turn raised the prospect of more households ending up homeless or doubled-up with friends or relatives, conditions that foster the spread of COVID-19. In responding to the unfolding economic emergency, policymakers at the federal, state, and local levels enacted a range of policies that offered income support and reduced housing instability. These included general benefits such as economic impact payments (EIPs) and expanded unemployment insurance (UI) as well as measures targeted at preventing evictions, most notably federal and state eviction moratoria and emergency rental assistance (ERA).

In this article we assess the cumulative effects of these policies, analyzing changes in eviction filing patterns over the first two years of the COVID-19 pandemic in thirty-one cities across the United States. We address four primary questions. First, did these policies prevent an increase in eviction cases? Second, were these cumulative effects felt equally across cities? Third, who benefited most from these policies? We describe the populations that saw most dramatic changes in eviction risk since the start of the pandemic, show where gains accrued, and assess how existing inequalities in rental housing precarity changed. Finally, fourth, which policies had most pronounced effects? Although we cannot estimate the effects of each policy separately given their temporal co-occurrence, we leverage variation in the timing of state and local eviction moratoria to estimate the effects of these measures in reducing eviction risk.

To answer these questions, we use administrative data on case filings collected through the Eviction Tracking System (ETS), a tool we developed in response to the pandemic (Hepburn, Louis, and Desmond 2020a). We find that eviction filings were dramatically reduced between March 15, 2020, and December 31, 2021: some 57.6 percent fewer eviction cases than normal were filed over this period. The largest reductions were in places that previously had the highest eviction filing rates, particularly majority-Black and low-income neighborhoods. Although these changes did not eliminate racial, gender, and income inequalities in the relative risk of eviction exposure, they did significantly reduce rates across the board, resulting in especially large absolute gains in previously high-risk communities. We find that eviction moratoria, particularly those that halted the earliest stages of the eviction process, resulted in significant and durable reductions in eviction filing rates.

Our findings highlight both the potential and the limitations of public policies aimed at reducing the prevalence of eviction. We show that an unprecedented combination of income supports, restrictions to the eviction process, and direct payments of rental arrearages to landlords resulted in a significant reduction in eviction caseloads for a prolonged period. This effect appears to have been achieved without fundamentally undermining the financial stability of landlords overall (ATTOM 2021; Choi, Pang, and Goodman 2022; Greig, Zhao, and Lefevre 2021). The full cost of these prevented eviction cases remains unclear, however, and variations in the efficacy of policies across jurisdictions are a reminder of the challenges that arise when attempting to reform established regulatory frameworks, especially in states with a history of pro-business landlord-tenant policies (Hatch 2017).

EXTRAORDINARY REACTIONS TO A MOMENT OF CRISIS

In response to the COVID-19 pandemic, the federal government established a range of policies that supported renters and, directly or indirectly, may have helped reduce the number of eviction cases filed during the pandemic. Many of these policies were not specifically developed to prevent evictions. For instance, although not framed as anti-eviction measures, EIPs and temporary expansion of both UI and

the Child Tax Credit significantly improved household finances during the pandemic. These measures lifted millions of households out of poverty (Parolin et al. 2021), and likely helped keep rent paid for many families.

Policymakers pursued two sets of policies that were directly targeted at reducing eviction filing rates: eviction moratoria and ERA. The federal government established two eviction moratoria in the first year of the pandemic. The first, which Congress enacted in the CARES Act, restricted eviction filings between March 27 and August 23, 2020, from buildings that were financed, insured, subsidized, guaranteed, or otherwise supported by the federal government.[1] Determining building-level eligibility under this policy proved complicated (Ernsthausen, Simani, and Shaw 2020); the best estimates suggest that between 28.1 and 45.6 percent of all rental housing was covered (Stein and Sutaria 2020). The second moratorium, established by the Centers for Disease Control and Prevention (CDC) on September 4, 2020, limited evictions when tenants provided a declaration attesting that they qualified for protections. The order was initially set to expire on December 31, 2020, but was repeatedly extended. The Supreme Court found the order unconstitutional and struck it down on August 26, 2021. In addition to these federal measures, forty-three states and the District of Columbia established their own eviction moratoria in the early weeks of the pandemic, as did a number of county and municipal governments.[2] The vast majority of these orders were rescinded or allowed to expire by late summer of 2020 (Benfer et al. 2022). Neither federal nor any state eviction moratoria unilaterally halted all eviction cases, but in most cases the policies afforded protections to the majority of renters.

Recognizing that eviction moratoria delayed but did not remove rent obligations, Congress implemented a large-scale ERA program to repay rental arrears that accrued due to pandemic-related hardship. Between the Consolidated Appropriations Act of 2021 (December 2020) and the American Rescue Plan (March 2021), Congress appropriated $46.6 billion in ERA funds. These funds were distributed to more than four hundred state, county, local, and tribal grantees throughout the country; they, in turn, developed application and payment processes (Yae et al. 2020). The earliest ERA payments to landlords were made in the first quarter of 2021, distribution increasing rapidly as the year progressed. By the end of 2021, 3.8 million households had received assistance and the Treasury Department reported that between $25 and $30 billion was either spent or allocated (U.S. Department of the Treasury 2022).

This article explores the net efficacy of these interventions. Taken jointly, were eviction moratoria, ERA, and other policies enacted in response to the pandemic successful in reducing eviction filings? Were reductions in eviction filings evenly distributed across cities and, if not, what inequalities emerged between jurisdictions? If these policies worked, which neighborhoods and which renters saw largest reductions in filings?

We are particularly interested in analyzing what, if anything, these measures did to ameliorate socioeconomic, racial-ethnic, and gender disparities in eviction risk that predated COVID-19 (Hepburn, Louis, and Desmond 2020b; Desmond and Gershenson 2017). Many of the policies enacted to address the pandemic, including most eviction moratoria, offered universal or near-universal benefits.[3] Universalistic policies, however, do not necessarily result in a progressive distribution of benefits and indeed are often more regressive than targeted or means-tested programs (Hoynes and

1. The moratorium ended on July 24, 2020, but protections remained in place for thirty days.

2. An untold number of courts shut down in the early weeks of the pandemic, establishing de facto moratoria on eviction cases even in jurisdictions in which no de jure moratorium was established. Courts quickly reopened, however, many using video-conference technology to hold hearings remotely.

3. The exception is ERA, which was targeted to low-income renters. Treasury Department guidelines specified that recipient households needed to fall at or below 80 percent of area median income. Over the course of 2021, nearly two-thirds of all ERA applicants (64 percent) were from households with income below 30 percent of area median income (U.S. Department of the Treasury 2022).

Rothstein 2019). For example, research on clean energy tax credits finds that the top income quintile receives 60 percent of the benefits from the program relative to only 10 percent in the bottom three quintiles (Borenstein and Davis 2016). The pandemic presents a test case for understanding the effects of a much broader set of universalistic policies on existing inequalities across a range of domains (see Bitler, Hoynes, and Schanzenbach 2023, this issue; Bell et al. 2023, this issue). In the case of housing instability, did these policies help to close gaps in eviction risk between groups, leave them unchanged, or widen them?

Disentangling the relative effects of these various policies is also critical, both in understanding what transpired during the pandemic and for future policymaking. Could we have achieved a significant reduction in eviction filing rates through income supports alone or were eviction moratoria necessary? How many eviction cases were avoided as a function of rental assistance and at what cost? As a function of policy co-occurrence and limited data availability, we are unable to address all of these questions or assess the relative contribution of each pandemic-era program, but we do offer multiple tests of the causal effects of strong state and local eviction moratoria in reducing filings.

DATA AND METHODS

We draw on the records of eviction case filings collected through the ETS (Hepburn, Louis, and Desmond 2020a), a tool we built to better understand real-time trends in eviction filings. The ETS relies primarily on web-scraping techniques to monitor the filing of new eviction cases in a set of jurisdictions across the country. It allows us to observe case numbers, filing dates, plaintiff and defendant names, and addresses associated with eviction filings.[4] We clean the data, removing duplicate cases and filings against commercial defendants, geocode addresses, and associate them with census tracts. Using these data, we produce counts of new eviction cases that feed into the ETS website, where we make aggregate data publicly available for download.

The ETS currently collects data from thirty-six court systems: six at the state level (covering 338 counties or county-equivalents), twenty-seven at the county level, and three at the municipal level. This is a purposive sample of court systems that met two inclusion criteria.[5] First, the court must make the necessary data available. In most sites these data were collected from public court websites, though in several jurisdictions the courts share data directly (such as Maricopa County, Arizona). Second, in each site we must have historical data, either taken from the Eviction Lab's national database (Desmond et al. 2018) or collected directly from the court systems. These historical data allow us to establish a baseline against which pandemic-era eviction filings can be compared. Roughly one in every four renter households in the United States lives in a jurisdiction covered by the ETS.

To facilitate comparison across similar units, we limit analysis here to counties or cities in metropolitan areas. We list these thirty-one cities in table 1, detailing the exact jurisdictions covered, the historical eviction filing rate (EFR) in each, and the years of baseline comparison data. Using information about emergency landlord-tenant policies enacted in response to the pandemic (Benfer and Koehler 2022), we list the days, if any, when each site established weak or strong eviction protections. The eviction process generally consists of five steps. First, landlords give notice to tenants that they intend to evict them. Second, landlords file an eviction case with the courts.

4. In four court systems—Allegheny County, Pennsylvania, Travis County, Texas, Richmond, Virginia, and New York, New York—we rely on zip codes rather than exact defendant addresses. In New York, we do not observe defendant names.

5. This sample was not designed to provide robust generalizability nationwide. Notably, coverage of Western jurisdictions is limited, extending only as far West as Las Vegas, Nevada, and we do not include any sites that never implemented an eviction moratorium. In table 1 of the online supplementary materials we assess characteristics of ETS cities included in analyses here relative to metro areas nationwide and to the United States as a whole (see https://www.rsfjournal.org/content/9/3/186/tab-supplemental).

Third, a court hearing is held. Fourth, if the court finds in the landlord's favor, an eviction judgment is issued against the tenant. Fifth and finally, the eviction is executed. We classified those moratoria that blocked eviction cases for nonpayment of rent at one of the first three stages without requiring tenant action as offering strong protections. All other moratoria—those that blocked only one of the last two stages or that required renters to submit an affirmative declaration of hardship—we classified as providing weak protection.

As table 1 shows, we draw on data from a wide variety of jurisdictions. We have coverage in five of the ten largest cities in the country—Dallas, Houston, New York City, Philadelphia, and Phoenix—but also include a number of smaller places, such as Gainesville, Florida, and Wilmington, Delaware. Cities such as Richmond, Virginia, and Charleston, South Carolina, had extremely high eviction filing rates before the pandemic; in others, however, such cases were relatively rare. All sites enacted moratoria at the start of the pandemic, often closing courts due to concerns over the spread of COVID-19. However, many state and local governments began rolling back these protections in mid-2020: roughly half of all cities (fifteen) had no meaningful emergency eviction protections in place after August 31, 2020; seven maintained strong protections.

Eviction Filing Patterns During the Pandemic

Using these data, we document the extent to which eviction filings were reduced from the start of the COVID-19 pandemic, measured as March 15, 2020, through the end of 2021. We show, first, how total caseloads fell, month by month, across this period. Second, we demonstrate heterogeneity across cities in the scale of these reductions. These analyses demonstrate the cumulative effects of pandemic-specific policies that reduced eviction risk and highlight the inequalities that emerged between cities as a function of both more or less robust local policy response and variations in local interpretation and implementation of federal policies.

Court filings are *thin* records; that is, they contain relatively little information about those facing the threat of eviction or the buildings or neighborhoods in which they live. Turning to intracity variations in eviction filing reductions, we augment these data in two ways, each of which in turn forms the basis for a set of analyses.

First, at the neighborhood level, we assign eviction filings to either census tracts or, in those sites in which exact addresses were not available, zip codes. This allows us to compare eviction filing rates over time within stable geographic units and to merge in tract- or zip-level data from five-year American Community Survey (ACS) estimates. We analyze changes in the distribution of filings, demonstrating the extent to which reductions in eviction cases were evenly or unevenly spread within jurisdictions. We pay particular attention to differences in reductions in eviction filings by neighborhood racial-ethnic composition and median income. These descriptive analyses allow us to show which neighborhoods experienced the largest and smallest reductions in case filings during the pandemic.

Second, we conduct a series of analyses at the individual level. Because defendant gender and race-ethnicity are not listed in eviction records, we imputed demographic characteristics on the basis of defendants' names and addresses (Hepburn, Louis, and Desmond 2020b; Hepburn et al. 2021). We produced three predictions of defendant gender using the R packages gender (Mullen 2018) and genderizeR (Wais 2016), and the web service Gender API (2022). Drawing on first names, each method produces a prediction (0 to 1) that the defendant is female and the inverse probability they are male. We took the mean across available predictions. To impute defendants' race-ethnicity, we used a Bayesian predictor algorithm—the wru package in R (Khanna, Imai, and Jin 2017)—that calculates race-ethnicity probabilities on the basis of two Census Bureau data sets: the Surname List and the 2010 Census. These data sets provide, respectively, the frequencies with which common surnames are associated with racial-ethnic groups and the racial-ethnic composition of each tract in the United States. Jointly, they enable us to estimate the conditional probability of a defendant's race-ethnicity, given their surname and geolocation. This process produces counts of eviction filings disag-

Table 1. ETS Sample Characteristics

City	Jurisdiction(s)	Region	Renter Households	Baseline Filing Rate	Baseline Years	Weak Mor. Dates[d]	Strong Mor. Dates[d]
Albuquerque, NM	Bernalillo County	W	99,091	11.0	2017–2019	3/24/2020–Ongoing	
Austin, TX	Travis County	S	225,010	4.1	2014–2019		3/17/2020–Ongoing
Boston, MA	City of Boston and several surrounding towns[a]	NE	292,933	2.7	2012, 2013, 2015, 2016[c]	12/31/2020–Ongoing	03/13/2020–10/18/2020
Bridgeport, CT	Fairfield County	NE	112,078	3.6	2017–2019		3/16/2020–7/1/2021
Charleston, SC	Charleston County	S	61,209	24.4	2016–2019		3/16/2020–5/15/2020
Cincinnati, OH	Hamilton County	MW	143,889	8.9	2012–2016		3/13/2020–6/7/2020
Cleveland, OH	City of Cleveland	MW	99,850	9.8	2012, 2013, 2015, 2016		3/16/2020–6/15/2020
Columbus, OH	Franklin County	MW	238,402	7.7	2012, 2013, 2015		3/17/2020–6/1/2020
Dallas, TX	Dallas County	S	464,121	8.7	2017–2019		3/18/2020–6/16/2020
Fort Worth and Denton, TX	Tarrant and Denton Counties	S	381,009	9.9	2016–2019	5/20/2020–5/28/2020	3/17/2020–5/19/2020
Gainesville, FL	Alachua County	S	44,082	3.6	2017–2019	8/4/2020–10/1/2020	4/2/2020–8/3/2020
Greenville, SC	Greenville County	S	62,747	23.1	2016–2019	3/17/2020–3/18/2020	3/18/2020–5/15/2020
Hartford, CT	Hartford County	NE	125,768	4.8	2017–2019		3/16/2020–7/1/2021

(*continued*)

Table 1. (*continued*)

City	Jurisdiction(s)	Region	Renter Households	Baseline Filing Rate	Baseline Years	Weak Mor. Dates[d]	Strong Mor. Dates[d]
Houston and Galveston, TX	Harris and Galveston Counties	S	768,357	7.6	2012–2015	5/20/2020–5/28/2020; 2/17/2021–4/1/2021	3/19/2020–5/19/2020
Indianapolis, IN	Marion County	MW	171,814	16.7	2016–2019		3/19/2020–8/15/2020
Jacksonville, FL	Duval County	S	155,567	7.7	2012–2016	3/19/2020–4/2/2020; 7/28/2020–10/1/2020	4/2/2020–7/28/2020
Kansas City, MO	Jackson County	MW	119,674	7.5	2012–2015	3/19/2020–6/1/2020	1/11/2021–1/24/2021
Las Vegas, NV	Clark County[b]	W	362,272	10.1	2016–2019	12/15/2020–5/31/2021	3/17/2020–10/15/2020
Memphis, TN	Shelby County	S	157,847	17.1	2016–2019		3/13/2020–6/15/2020
Milwaukee, WI	Milwaukee County	MW	193,121	6.7	2012–2016		3/23/2020–5/26/2020
Minneapolis-St. Paul, MN	Hennepin and Ramsey Counties	MW	275,972	2.9	2012–2019		3/16/2020–Ongoing
New Orleans, LA	Orleans Parish	S	79,579	7.7	2019	3/13/2020–3/16/2020	3/17/2020–6/16/2020
New York, NY	Bronx, Kings, New York, Queens, and Richmond Counties	NE	2,132,397	10.6	2016–2018	10/13/2020–12/27/2020; 2/27/2021–Ongoing	3/16/2020–10/12/2020; 12/28/2020–2/27/2021
Philadelphia, PA	Philadelphia County	NE	282,465	7.5	2016–2019	3/16/2020; 9/2/2020–7/1/2021	3/17/2020–9/1/2020
Phoenix, AZ	Maricopa County	W	586,804	10.9	2015–2019	3/24/2020–10/31/2020	

Pittsburgh, PA	Allegheny County	NE	193,411	7.1	2012–2019	3/16/2020–3/18/2020; 3/5/2021–8/3/2021	3/19/2020–9/1/2020; 11/24/2020–2/28/2021
Richmond, VA	Richmond City and Chesterfield County	S	82,080	24.8	2016	6/30/2020–Ongoing	3/13/2020–5/25/2020; 6/8/2020–6/29/2020
South Bend, IN	St. Joseph County	MW	32,420	9.1	2016–2019		3/19/2020–8/15/2020
St. Louis, MO	St. Louis City and County	MW	207,619	7.2	2012, 2013, 2015, 2016[c]	3/25/2020–4/5/2021; 4/27/2021–6/30–2021; 9/8/2021–10/3/2021; 12/22/2021–Ongoing	3/16/2020–3/24/2020
Tampa, FL	Hillsborough and Pinellas Counties	S	352,376	5.0	2016–2019	3/20/2020–4/1/2020; 8/12/2020–10/1/2020	4/2/2020–8/11/2020
Wilmington, DE	New Castle County	NE	66,082	17.1	2016–2019		3/17/2020–7/1/2020

Source: Authors' calculations based on the American Community Survey, 2015–2019 (U.S. Census Bureau 2020); Desmond et al. 2018; Benfer and Koehler 2022.

[a] Boston covers cases in Boston Municipal Court, Brookline District Court, Cambridge District Court, Chelsea District Court, Eastern Housing Court, Newton District Court, and Somerville District Court. This covers Arlington, Boston, Brookline, Belmont, Cambridge, Chelsea, Medford, Newton, Revere, Somerville, and Winthrop Town.

[b] Filings in Las Vegas are collected from Las Vegas, North Las Vegas, and Henderson Justice Courts. These are the three most active courts in Clark County but do not provide complete coverage for the county.

[c] Baseline years differ within site depending on county of court.

[d] Ongoing is as of the end of 2021.

gregated by gender and race-ethnicity. We divide these counts by the number of renters in the respective group to produce EFRs, which we in turn use to demonstrate differences by race-ethnicity and gender.[6]

Causal Effects of Eviction Prevention Policies

We leverage the staggered roll-out and repeal of state and local eviction moratoria to isolate the causal effects of these policies on eviction filings.[7] To do so, we use a difference-in-differences (DID) framework, identifying the effect of strong moratoria on eviction filings relative to historical averages. We use ordinary least squares (OLS) regression to model eviction filings as a percent of historical average (Y) in a given site (s) and week (t) as follows:

$$Y_{st} = \alpha + \sum_{y=-53}^{-2}\beta_y^1 m_{sy} + \sum_{y=0}^{93}\beta_y^2 m_{sy} + \boldsymbol{\gamma X}_{st} + \lambda_s + \phi_t + \varepsilon_{st} \quad (1)$$

In equation 1, $\boldsymbol{X}_{st}$ is a vector of time-varying covariates and λ_s and ϕ_t are site and week fixed effects, respectively. Covariates included are unweighted county-level monthly unemployment rates and the state's percent of ERA disbursed from the December 2020 federal relief package. The m terms in this equation are binary indicators of moratoria status. We define a moratorium as an order that halted the eviction process for nonpayment of rent at any stage between the notice stage and the execution of an eviction.[8] In the main results presented here, we focus on the effects of strong moratoria: those that halted the eviction process at either the notice, filing, or court hearing stage of the eviction process without requiring tenant action.[9] The subscript y on these terms refers to *event time*, which are weekly intervals relative to the week when moratoria were enacted (for example, –2 refers to two weeks before moratoria were enacted). Thus the variable m_{sy} denotes a series of binary indicators equal to 1 if the moratoria for a given site had occurred during or before the week associated with event-time period y.

This model estimates the difference in outcomes for leads ($\sum_{y=-53}^{-2}\beta_y^1 m_{sy}$) and lags ($\sum_{y=0}^{93}\beta_y^2 m_{sy}$) of moratoria enactment relative to a reference week ($y = -1$) and relative to all sites that did not enact moratoria during the study period (where $m_{sy} = 0$ for all event periods). These relative differences are captured by the coefficients β_y. By allowing associations between exposure and the outcome to vary over time, our specification represents a generalization of the method of difference-in-differences, often referred to as the *event study specification* (Goodman-Bacon 2021; Venkataramani et al. 2020; Sandoval-Olascoaga, Venkataramani, and Arcaya 2021). In addition to allowing for time-varying exposure and treatment effects, the event study specification provides a more transparent test of violations of the parallel trends assumptions (by examining trends in the event time coefficients leading up to moratoria). For ease of visualization and to reduce week-to-week variation, we bin event-time y as follows: –3 (less than minus eight weeks), –2 (minus eight to minus five weeks), –1 (minus four to minus one weeks), 0, 1 (one to four weeks), 2 (five to eight weeks), 3 (nine to twelve weeks), and 4 (more

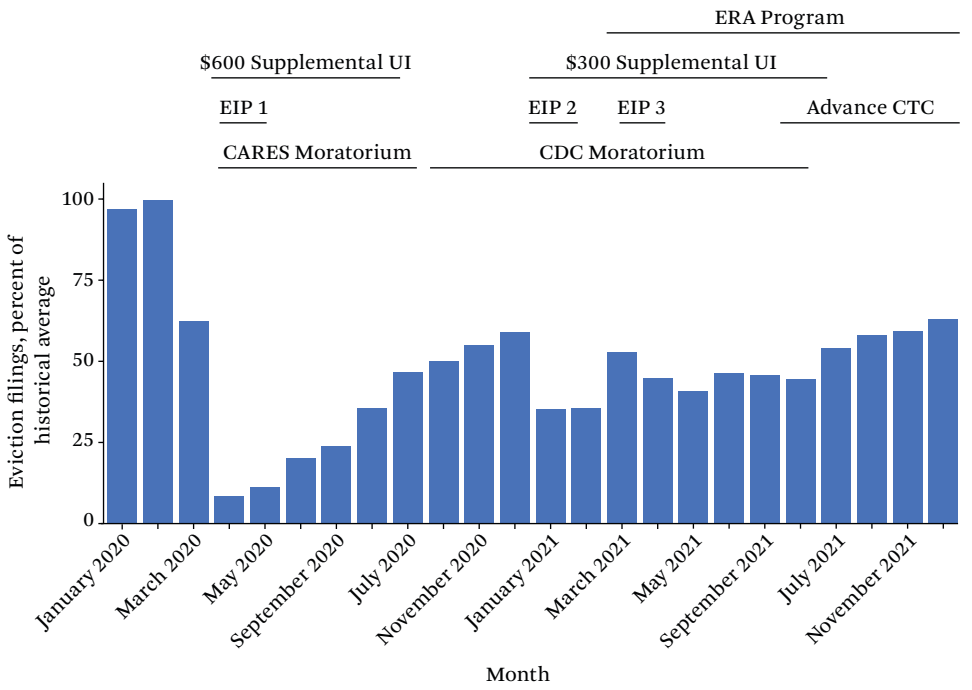
6. For details on the calculation of denominators for these rate estimates, see Hepburn et al. 2020b.

7. Researchers have used similar methods and variation in the timing of these policies to estimate the effects of eviction moratoria on health outcomes, such as COVID-19 incidence and mortality or mental health indicators (Leifheit, Linton, et al. 2021; Leifheit, Pollack, et al. 2021).

8. Information on state and local moratoria were collected using legal mapping and policy surveillance techniques (Benfer and Koehler 2022). We assign a site's moratorium level based on the maximum strength of an order in the geography, enacted for the majority of a given week. For example, if St. Louis County has a strong moratorium for four of seven days of a given week and St. Louis City only has a weak moratorium during that time, we define St. Louis as having a strong moratorium. Unemployment rate data comes from Federal Reserve Economic Data and the Bureau of Labor Statistics. Data on ERA distribution comes from the National Low Income Housing Coalition's ERA Dashboard, and represents the maximum percentage of ERA distributed among all programs available in a given site.

9. Results analyzing the effects of any moratorium are presented in the online supplementary materials.

Figure 1. Eviction Filings Relative to Historical Average Across All Sites



Source: Authors' calculations based on baseline and pandemic-era eviction filing data collected through the ETS (Hepburn, Louis, and Desmond 2020a).

than twelve weeks) (results with unbinned week-time are presented in the supplementary materials). Some sites enacted a second moratorium after the expiration of their first order, and we include both sets of moratoria in analyses.

The majority of moratoria were enacted at around the same time at the start of the pandemic, which limits the power of our model. We therefore also present results from a period between April and November 2020 when initial state and local moratoria expired in staggered weeks. Because these analyses focus on the period when moratoria were being rolled back, treatment in these specifications is flipped from our earlier models: in this period, we define treatment as going from a strong moratorium to no strong moratorium.

Results are substantively similar across several alternative specifications (for example, testing count models in place of OLS, testing the effects of any moratoria rather than just strong moratoria, and using alternative estimators to two-way fixed effects).[10]

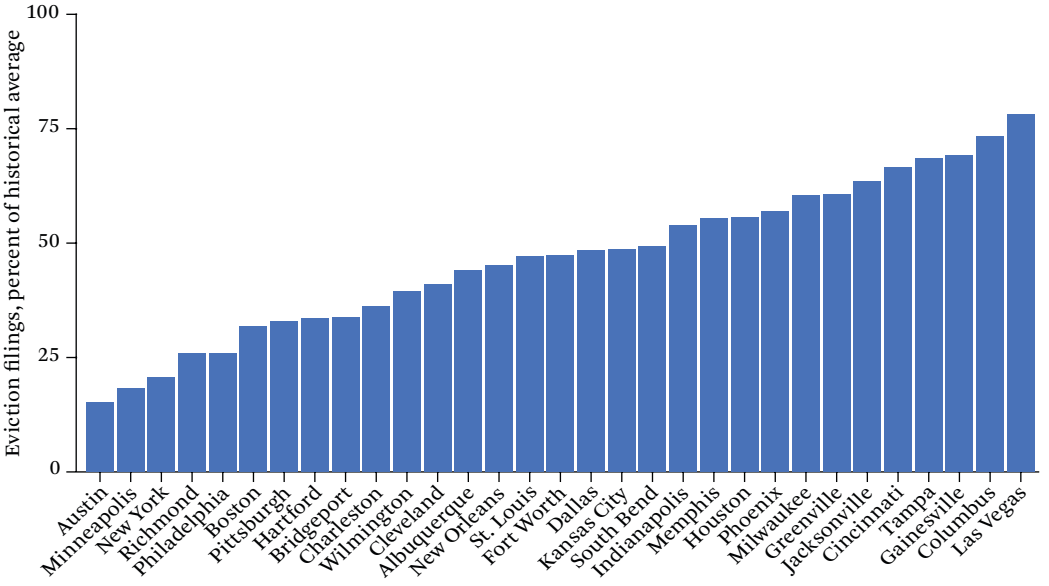
RESULTS

Between March 15, 2020, and December 31, 2021, we recorded the filing of 594,352 eviction cases in the thirty-one cities in our sample. Historical data from the same sites indicate that this was 57.6 percent lower than average for this period (42.4 percent of the 1,401,081 cases typically filed). In figure 1, we plot eviction filings relative to normal from January 2020 through December 2021. The figure also provides a timeline of when major federal policies that could have reduced eviction risk were implemented.

Filings were reduced most dramatically in the early months of the pandemic, dropping as low as 8.6 percent of historical average in April 2020. By fall 2020—with the CDC eviction moratorium in place nationwide—this rate had increased to approximately 50 percent of his-

10. For more, see the online supplementary materials.

Figure 2. Eviction Filings, First Eighteen Months of Pandemic Relative to Historical Average



Source: Authors' calculations based on baseline and pandemic-era eviction filing data collected through the ETS (Hepburn, Louis, and Desmond 2020a).

torical average (Hepburn et al. 2021). Filings remained around this level throughout the duration of the CDC moratorium, and increased slightly after it was struck down by the Supreme Court in late August 2021 (Rangel et al. 2021).

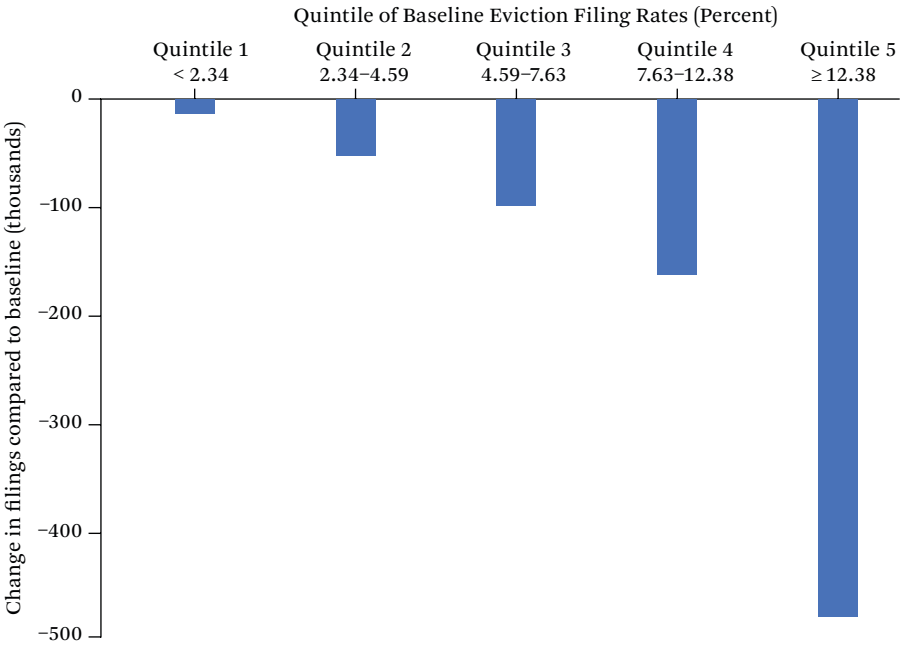
Variation Between Cities

Just as cities' eviction filing rates varied before the pandemic, we also observed differences between cities in the scale of eviction filing reductions during the pandemic. Variations in local interpretation and implementation of federal eviction moratoria—as well as establishment of additional state- or local-level eviction protections—led to considerable heterogeneity in eviction filing rates (Hepburn et al. 2021; Rangel et al. 2021). Simply as a function of where they lived, tenants struggling to pay rent were at much greater risk of receiving an eviction filing in some cities than in others. In figure 2, we plot cumulative eviction filings over the study period relative to historical average in each city. Case filings ranged from 15.2 percent of historical average in Austin to 78.2 percent in Las Vegas.

Cities that enacted the most stringent and longest-duration eviction moratoria cluster on the left side of figure 2. Of the ten cities with lowest filings relative to average, all were covered by strong eviction moratoria in the early days of the pandemic and eight maintained these protections through at least summer 2020. For example, apart from exceptional circumstances (such as tenants engaged in criminal activity or creating unsafe living conditions), landlords in Minneapolis-St. Paul could not start the eviction process between March 16, 2020, and June 30, 2021. Over the full study period, eviction filings fell by 81.7 percent in the Twin Cities. By comparison, of the ten cities with the highest filings relative to average, four ended all state and local protections by early June 2020, and only one (Las Vegas) had strong protections in place after August 2020. In Las Vegas, filings were generally below historical averages when Nevada had strong protections in place but skyrocketed well above average during periods when protections lifted.

Even among cities that enacted similar protections—or where protections were in place only for a relatively short period—variation in the rate of eviction filings relative to normal

Figure 3. Absolute Reduction in Eviction Case Filings, by Baseline Eviction Filing Rate



Source: Authors' calculations based on baseline and pandemic-era eviction filing data collected through the ETS (Hepburn, Louis, and Desmond 2020a).

was considerable. For example, neither Greenville nor Columbus had eviction moratoria in place after June 1, 2020, but filings were reduced by two-thirds overall in the former compared to one-third in the latter. These inequalities played out within as well as between states: renters in Cleveland were far better insulated from the threat of eviction during the pandemic than their peers in Cincinnati and Columbus, even though none had a moratorium in place after June 15, 2020.

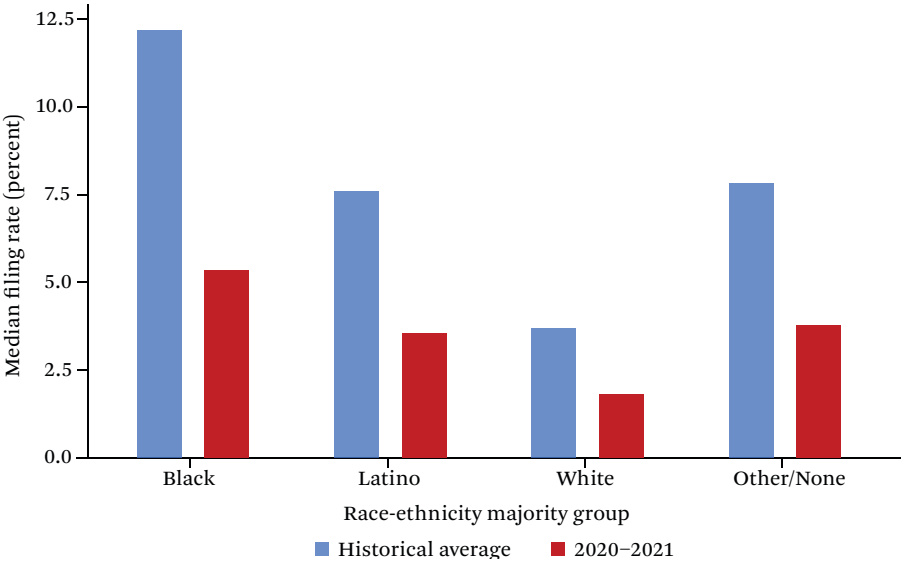
Variation Between Neighborhoods

Reductions in eviction filings were far larger in areas that typically see very high EFRs. In neighborhoods that normally see the fewest eviction filings—those in the first quintile of historical baseline EFRs—filings fell 38.9 percent during the pandemic. By comparison, filings fell 62.4 percent in neighborhoods that normally see the highest filing rates (fifth quintile of baseline EFR). Because such neighborhoods experience far more filings under normal conditions, these larger proportional reductions translated into very large reductions in absolute caseloads. In figure 3, we categorize all neighborhoods by their pre-pandemic EFR and plot the total number of "missing" eviction filings (number of cases avoided) over this period.

In total, about 476,000 eviction cases were likely averted in neighborhoods with baseline EFRs in the top quintile. Under normal circumstances, the median EFR among such neighborhoods was 17.4 percent. During the pandemic it fell to 8.3 percent.[11] In other words, more than one in six residents of these neighborhoods typically faced an eviction filing each year, but only about one in twelve risked eviction during the pandemic. Approximately 325,000 cases were averted across the other four quintiles of the distribution. Each saw a relative reduction in filing rates, but the vast majority of cases prevented during the pandemic were

11. None of the EFR estimates presented here correct for serial eviction filings—cases filed repeatedly against the same household at the same address over a series of months (Leung, Hepburn, and Desmond 2021).

Figure 4. Median Eviction Filing Rates Prior to and During the COVID-19 Pandemic by Neighborhood Racial-Ethnic Majority



Source: Authors' calculations based on American Community Survey, 2015–2019 (U.S. Census Bureau 2020) and baseline and pandemic-era eviction filing data collected through the ETS (Hepburn, Louis, and Desmond 2020a).

from neighborhoods that normally saw very high filing rates.

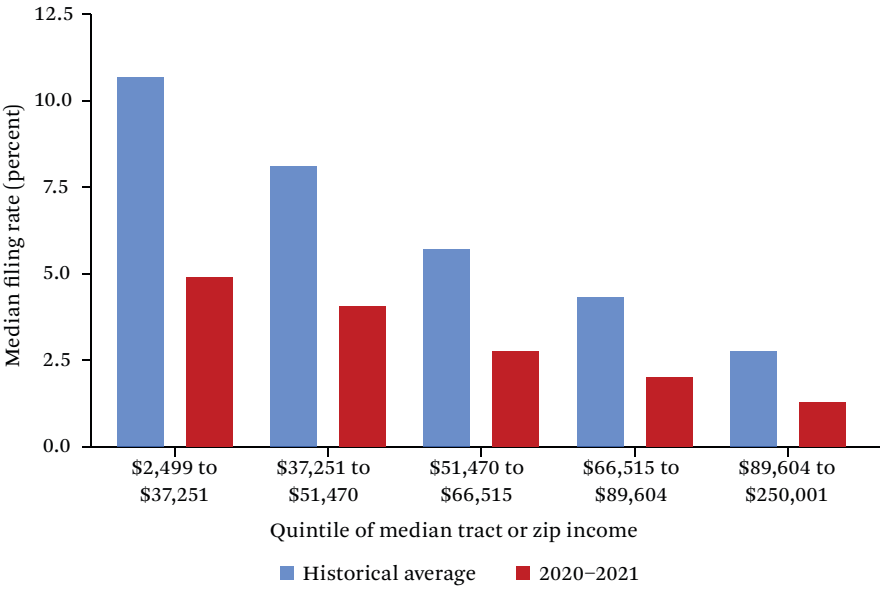
Were these changes evenly distributed depending on the racial-ethnic composition of neighborhoods? Again, the largest relative reductions accrued to areas that typically see highest eviction filing rates: majority-Black neighborhoods. Filings fell by 56.0 percent in the typical majority-Black neighborhood, relative to 51.2 percent in majority-White neighborhoods, 49.9 percent in majority-Latino neighborhoods, and 51.3 percent in neighborhoods with no racial-ethnic majority. Among majority-Black neighborhoods, around one in eight (12 percent) saw eviction filings exceed 75 percent of historical average during the pandemic, but this was true for more than one in four majority-White neighborhoods (26.1 percent). Although this did not eliminate racial-ethnic disparities in the risk of eviction, it reduced their scale considerably. In figure 4, we plot baseline and pandemic-era median EFRs in majority-Black, majority-Latino, and majority-White neighborhoods, as well as those neighborhoods with no racial-ethnic majority.[12]

Under normal circumstances, the typical majority-Black neighborhood in our sample had an EFR of 12.2 percent, 8.5 percentage points higher than that in a majority-White neighborhood (3.7 percent). That gap narrowed to 3.5 percentage points during the pandemic. Still, the typical majority-Black neighborhood had an EFR during the pandemic that was higher than the typical White neighborhood pre-pandemic (5.3 percent versus 3.7 percent). Even with filing rates cut by more than half, the risk of eviction in majority-Black neighborhoods was greater than equivalent risk in majority-White spaces before the pandemic.

We also examined changes in filing rates by neighborhood income. We computed quintiles of neighborhood median household income across all cities in our sample and calculated baseline and pandemic-era EFRs for neighbor-

12. Neighborhood racial-ethnic majority and median incomes were determined on the basis of ACS five-year estimates from 2015 to 2019 for the full population (not just those living in rental housing).

Figure 5. Median Eviction Filing Rates Prior to and During the COVID-19 Pandemic by Neighborhood Median Annual Household Income



Source: Authors' calculations based on American Community Survey, 2015–2019 (U.S. Census Bureau 2020) and baseline and pandemic-era eviction filing data collected through the ETS (Hepburn, Louis, and Desmond 2020a).

hoods in each category. We plot median rates in figure 5.

The income gradient on eviction risk is steep. Under normal circumstances, the median EFR in a neighborhood where annual household incomes fell below $37,251 (quintile one) was almost four times higher than in a neighborhood with household incomes above $89,604 (quintile five; 10.7 percent versus 2.8 percent). Even as filings were reduced during the pandemic, the shape and scale of the distribution remained the same. Put another way, relative disparities in eviction filing rates by neighborhood income were maintained throughout the pandemic. Still, the absolute reduction in case filings meant that a neighborhood in the first quintile of the household income distribution experienced a filing rate during the pandemic that was greater than normal, pre-pandemic EFR in a neighborhood in quintile four (4.9 percent versus 4.3 percent).

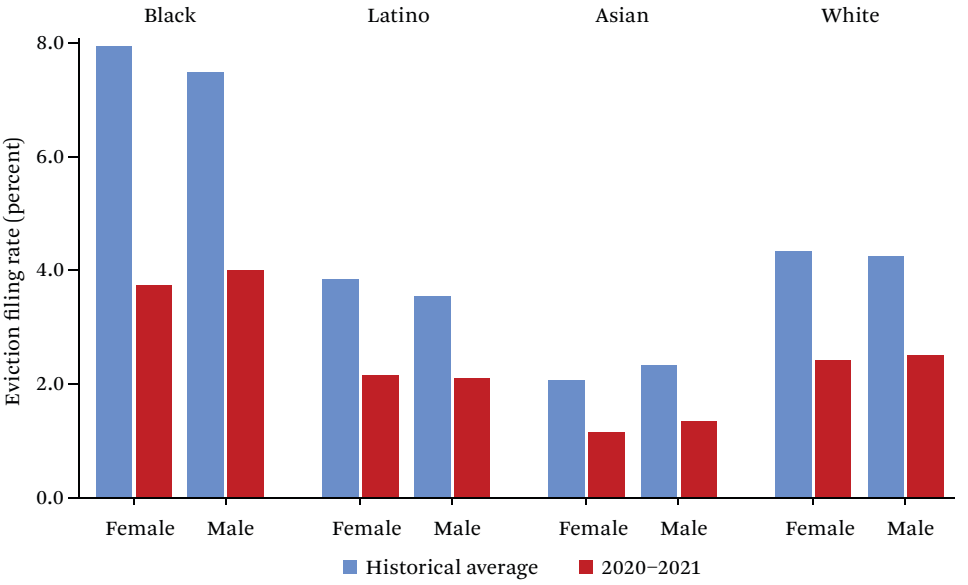
Variation in Individual Risk

We now turn to the individual level to assess the extent of changes in eviction patterns depending on the race-ethnicity and gender of defendants.[13] During the study period, we found that Asian renters in these cities faced an average EFR of 1.3 percent, Black renters 4.2 percent, Latino renters 2.2 percent, and White renters 2.6 percent.

Across ETS cities, the Black EFR during the pandemic fell by between 9.5 percent in Las Vegas and 87.8 percent in Austin. Generally, reductions relative to average were similar within cities regardless of race-ethnicity. In Albuquerque, for example, pandemic EFRs were approximately 60 percent below historical average for members of all racial-ethnic groups. In several sites, however, the reductions for Black renters were notably larger than for White renters. This was true of Boston, Bridgeport, Gainesville, Hartford, Houston, Milwaukee, and New Or-

13. Estimates for the denominators for filing rates are based on ACS five-year data from 2014 to 2018 in Public Use Microdata Areas (for more information, see Hepburn, Louis, and Desmond 2020b).

Figure 6. Eviction Filing Rates by Defendant Race-Ethnicity and Gender, Before and During the COVID-19 Pandemic



Source: Author's calculations based on American Community Survey, 2015–2019 (U.S. Census Bureau 2020); Mullen 2018; Wais 2016; Gender API 2022; Khanna, Imai, and Jin 2017; and baseline and pandemic-era eviction filing data collected through the ETS (Hepburn, Louis, and Desmond 2020a).

leans. Still, baseline filing rates were generally much higher for Black renters than White renters in these sites. Even with larger relative reductions, the EFRs recorded for Black renters during the pandemic were higher—often considerably higher—than among their White peers.

Eviction filings disproportionately target women (Desmond 2016; Hepburn, Louis, and Desmond 2020b). This remained true during the pandemic, but the gender disparity was reduced. Normally, we estimate that 51.9 percent of people facing eviction across these cities were women and 43.5 percent were men (gender predictions cannot be made for the remaining 4.7 percent of defendants).[14] During the pandemic, we estimate that 49.2 percent of filings were against women, that 45.2 percent were against men, and that no prediction was possible for the remaining 5.6 percent.

In figure 6, we combine these estimates to show how the distribution of eviction filings has shifted during the pandemic. We plot EFRs before and during the pandemic, cross-classified by defendant race-ethnicity and gender.

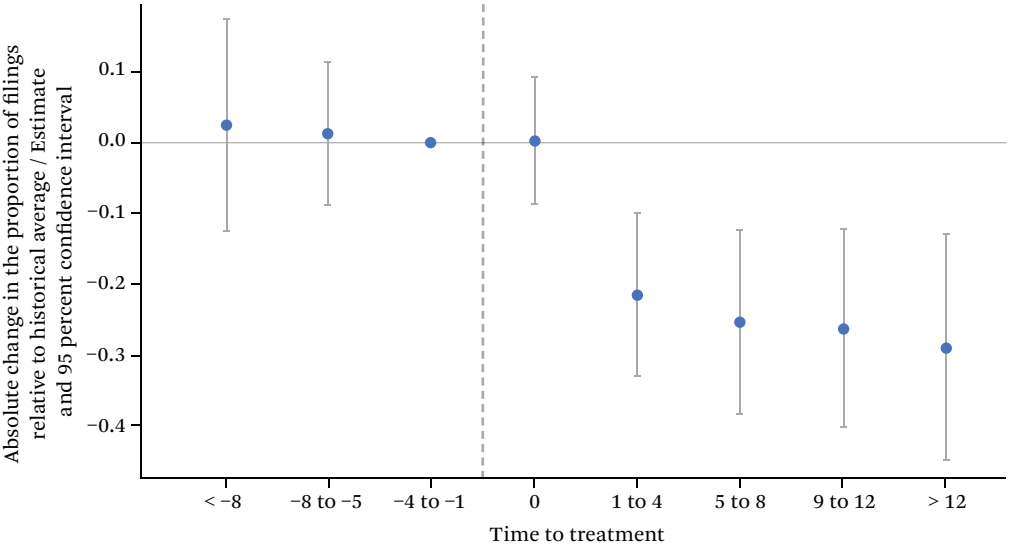
Before the pandemic, Black women in these cities faced a median EFR of 7.9 percent, meaning that approximately one in twelve would face the risk of eviction annually. During the pandemic, that figure was reduced to 3.7 percent, or a risk of about one in twenty-seven. Before the pandemic, gender disparities in eviction filing rates were largest among Black renters (7.9 percent for Black women versus 7.5 percent for Black men). That gap was reversed during the pandemic, leaving Black men at highest risk of facing eviction (4.0 percent).

Assessing the Efficacy of Eviction Moratoria

Finally, we examine the effects that moratoria had in reducing the filings of eviction cases. As specified in equation (1), we identified the effects of strong moratoria on eviction filings relative to historical averages, comparing eviction filings before and after treatment of a strong

14. The sample comprises thirty rather than thirty-one cities because New York City is excluded from these analyses. We do not collect defendant names in New York.

Figure 7. Event Study of Enactment of Strong Moratoria, 2020–21



Source: Authors' calculations.

state or local moratorium.[15] We define a strong moratorium as one that halted the notice, filing, or hearing stage of the eviction process unless it required a declaration of hardship due to COVID-19. Results are presented in figure 7.

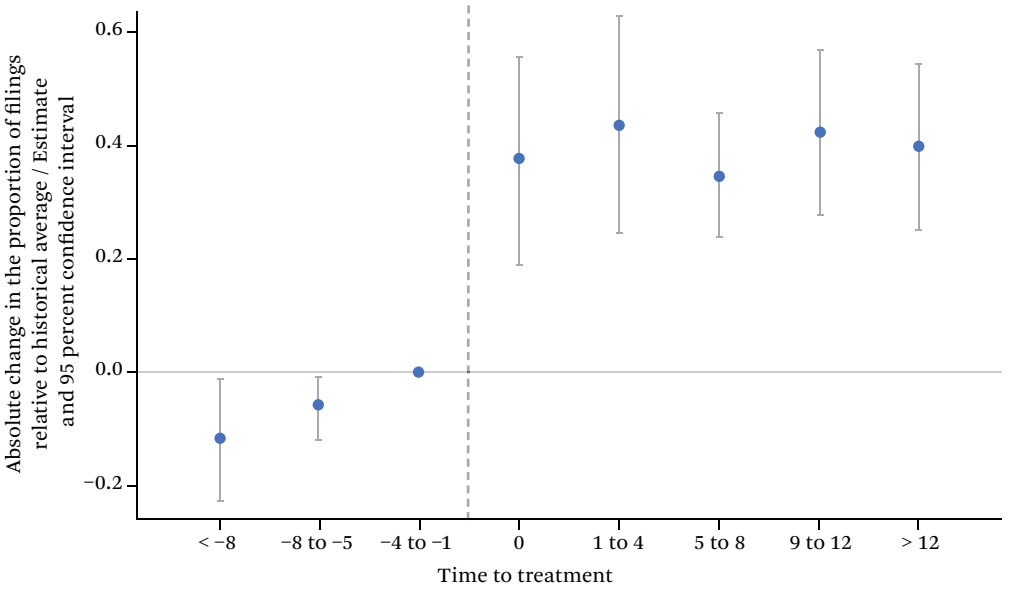
Strong state and local eviction moratoria significantly reduced eviction filings relative to historical averages. Point estimates imply that a strong moratorium reduced eviction filings as a percent of historical averages by 21.3 percentage points (CI [confidence interval]: 9.5, 33.2) in a given site in the four weeks immediately after implementation and gradually increased to 28.7 percentage points (CI: 12.2, 45.2) for more than twelve weeks after implementation. In other words, given an area at 70 percent of historical baseline levels, establishing a strong state or local moratorium would have reduced filings, on average, to around 41 to 49 percent of baseline. Parallel trends assumptions are plausible given pre-treatment trends.

The majority of strong moratoria were enacted over the course of a few weeks at the start of the pandemic. Just four cities were not fully covered by a strong moratorium over the length of this initial period, and each of them was covered at least by a weak eviction moratorium (that is, no sites in our sample failed to implement a moratorium). Thus our control group does not represent a situation lacking eviction prevention measures or supports available to renters. Even in the control setting, weak moratoria and site-invariant federal policies reduced filings. Our results, therefore, are a measure of the additional protection against eviction filings that strong state and local policies afforded during the study period above and beyond concurrent pandemic policies.

The lack of a robust control group limits our ability to identify precise estimates in the above results. We therefore also present results from the six months between April and November 2020, when initial state and local moratoria expired in a more staggered time frame. Of the twenty-seven sites in our sample with strong moratoria on April 12, 2020, only four still had that order in place by November 14, 2020. We exploit variation in the timing of sites lifting their moratoria to estimate the effects of these policies. Treatment in this specification is flipped from our earlier models: for these results, we define treatment as going from a

15. In these analyses, we include filings from January 5, 2020, through January 1, 2022, in order to start and end our analysis period at the bookends of calendar weeks. Unlike in our descriptive analyses, we do not begin our period of analysis on March 15, 2020.

Figure 8. Event Study of Expiration of Strong Moratoria, April 12 to November 14, 2020



Source: Authors' calculations.

strong moratorium to no strong moratorium. Thus, a positive coefficient on a post-treatment period would indicate that the expiration of a moratorium led to an increase in filings relative to historical averages. Results are presented in figure 8.[16]

As strong eviction moratoria were repealed, eviction filings increased markedly. Estimates imply that the rolling back of a strong moratorium increased eviction filings as a percentage of historical averages by 43.6 percentage points (CI: 23.4, 63.8) in a given site in the four weeks immediately after implementation. Effects fluctuated modestly in following periods but ranged from 34.7 to 42.4 percentage points. Alternative specifications—using a Poisson model; with a relaxed definition of moratoria; where no covariates were included; where weeks were not binned; where the dependent variable was log-transformed; where we removed trailing non-treated weeks from treated sites; and results that follow the methods of Liyang Sun and Sarah Abraham (2021) and Clément de Chaisemartin and Xavier D'Haultfœuille (2020)—are largely consistent with those presented here (see the online supplementary materials). Overall, our results indicate that state and local moratoria significantly reduced eviction filings relative to historical averages.[17]

DISCUSSION

The COVID-19 pandemic and resulting economic fallout exposed the U.S. rental housing market to an extraordinary level of stress. Before the pandemic, nearly half of all renters were cost burdened (JCHS 2020), and few had the personal savings to weather an unexpected financial shortfall (Pew Charitable Trusts 2018). As millions lost their jobs in March and April of 2020, the concern that a surge in eviction

16. Sites that never enacted a strong moratorium and sites that switched on and off during this period are excluded from the analysis. Within this period, the federal CARES Act moratorium expired and the CDC moratorium began. Though time fixed effects are included in these models to control for such site-invariant conditions, results are robust to further limiting the period to before the expiration of the CARES Act. Only the unemployment rate covariate is included in these regressions.

17. An assumption made in this reverse-DID specification is that effects of a moratorium do not carry over to future untreated periods.

cases might follow was well founded. Under strong economic conditions, millions annually risk losing their homes to eviction (Gromis et al. 2022), a threat felt most acutely by Black renters in poor, urban communities (Hepburn, Louis, and Desmond 2020b; Desmond and Gershenson 2017). How much worse would it get?

In this article, we demonstrate the extent to which, cumulatively, policies enacted at the local, state, and federal levels averted this potential calamity. In the thirty-one cities we analyzed, 57.6 percent fewer eviction cases than usual were filed during the pandemic. This reduction was concentrated in neighborhoods that normally see the most evictions. In raw numbers, 476,000 fewer cases were filed than usual just in the fifth of neighborhoods that typically see the highest eviction filing rates. Rates were cut by more than half in majority-Black neighborhoods and in neighborhoods with the lowest median incomes. Black women saw the largest absolute reduction in rates.

Despite massive reductions, though, inequalities in eviction risk remained. We documented significant heterogeneity between cities in the extent to which filings were reduced. During the pandemic, a tenant in Minneapolis struggling to pay rent would have been much better protected from the threat of eviction than an equivalent tenant in Columbus. State and local eviction moratoria can explain some of the variation, but hardly all of it. Indeed, even among cities in which local protections were short lived, variation in the scale of reductions was considerable.

Although the absolute reduction in case filings was largest in majority-Black and lower-income neighborhoods, these changes did not eliminate inequalities that existed before the pandemic. Poor and majority-Black neighborhoods saw large reductions in eviction case filings, but so did wealthier, whiter spaces (see figures 4 and 5). Lower-income neighborhoods still saw much higher rates than more affluent neighborhoods. The reduction in filing rates in majority-Black neighborhoods (documented in figure 4) still left them with a higher median filing rate than among majority-White neighborhoods before the pandemic.

Still, that inequalities endured should not distract from the fact that hundreds of thousands fewer households than usual in these cities faced the threat of eviction during the worst months of the pandemic. Take the Hill District in Pittsburgh as an example (zip code 15219). The neighborhood has a median household income of around $25,000 and, during a typical period extending from mid-March to the end of December of the following year, would be the site of nearly one thousand eviction case filings. Between March 15, 2020, and December 31, 2021, only 186 cases were filed (81.2 percent less than usual). Future research should aim to explore the full significance of that sort of reduction, both for households who avoided displacement and for communities seeing far less churn. Against a backdrop of tremendous economic and public health uncertainty, what did that increased residential stability entail for individuals' health and well-being? For children's educational attainment? For the neighborhood's collective efficacy?

As detailed, a wide variety of policies implemented at the federal, state, and local levels either restricted the eviction process (such as moratoria) or improved tenants' odds of being able to pay rent (such as ERA, stimulus payments, expanded unemployment), thereby reducing eviction risk. Which of these policies were most significant in reducing eviction filing rates? Answering this question is critical to the design of effective housing stabilization policies, both in response to future crises and under normal conditions. The co-occurrence of these policies, however, makes accurately assessing the marginal contribution of each difficult if not impossible (Matthay, Hagan, et al. 2022; Matthay, Gottlieb, et al. 2022). We were able to exploit temporal variation in enactment and repeal of strong state and local eviction moratoria to demonstrate that such policies reduced eviction filings by around 20 to 45 percentage points relative to a baseline with no strong protections in place.[18] These findings are

18. In the supplementary materials, we exploit the staggered expiration of expanded UI benefits between May and December 2021 to conduct a similar analysis, controlling for county-level unemployment rate, strength of state/local moratorium, and ERA distribution. We find little or no effect of the cessation of these benefits.

context dependent and should be interpreted as conservative: effect sizes may be larger in future contexts in which no other federal or local policies are concurrent.

Future research should bring similar methods to bear in analyzing the effects of ERA in reducing eviction filings. The ERA allocation formula—based on state population but requiring a sizable minimum payment—resulted in large disparities between states, far more funding being available in small, rural states than in large, urban states. State, county, and local grantee programs also established differing qualification standards and application processes, and varied in how efficiently they were able to distribute funds (Yae et al. 2020; Reina et al. 2021). Data are not currently available that demonstrate the pace of ERA distribution at the tract-month or county-month level. As such data become available, however, it should be possible to leverage variations in the generosity of benefits to estimate a dose-response relationship. These analyses are particularly significant in making a case for the long-term viability of rental assistance.

It remains unclear what lasting changes to housing policy will emerge from the pandemic. The Supreme Court's decision striking down the CDC moratorium—coupled with landlords' vocal opposition to such policies—makes it likely that eviction moratoria will be reserved for emergency situations. The long-term potential of ERA depends on proof of efficacy and the availability of federal funding. Landlord-tenant law varies primarily at the state level and has significant implications for eviction rates (Hatch 2017; Gromis et al. 2022). A number of states established policies during the pandemic to afford tenants greater protections, including the expansion of record sealing laws, eviction mediation, and programs to provide legal counsel to those facing eviction. These programs, however, were clustered in states that already had more tenant protections in place. The divide between renters living in states with more or less landlord-friendly eviction laws likely grew during the pandemic, leaving millions of renters returning to the prepandemic status quo as emergency policies expire and ERA funding runs out.

Our reliance on administrative data entails a potential liability: we miss extrajudicial informal evictions that may have occurred over this period. Collecting data on informal evictions is notoriously difficult. Previous studies in Milwaukee and New York City indicate that the rate of formal-to-informal evictions varies across jurisdictions (Desmond and Shollenberger 2015; Collyer and Bushman-Copp 2019), but we know little about how it varies over time. Landlords might have more readily turned to informal evictions with access to the courts limited, but little or no evidence exists to support the hypothesis. If the "missing" eviction filings documented here were simply replaced by lock-outs and informal forced moves, the net benefits of pandemic renter protections would clearly deserve to be reevaluated. Likewise, our analysis of changes to eviction filing patterns during the pandemic is limited to the thirty-one cities analyzed and is not intended to be representative of all urban spaces in the United States. The findings of our study indicate the importance of attending to local variation (figure 2), and we hope that future research can expand the map to include other jurisdictions.

At a moment of generational instability and uncertainty, new policies and regulatory changes were rolled out that kept an extraordinary number of households out of court and safely in their homes. We find that 807,000 fewer eviction cases than usual were filed in just thirty-one cities between mid-March 2020 and December 31, 2021. The largest reductions were in majority-Black and low-income neighborhoods, signaling the relatively progressive benefits of economic and housing policies enacted in response to the pandemic. Strong eviction moratoria were instrumental in reducing eviction filing rates (figures 7 and 8). Despite landlord outcry, available evidence suggests that such policies had limited effect on rent collection rates, even in places where strong moratoria were in place for extended periods (Choi, Pang, and Goodman 2022; NMHC 2022). Even with moratoria in place, tenants routinely prioritized rent payment above almost all other expenses, going so far as to take on debt to keep current on rent (Keene et al. 2022; Manville et al. 2022). Landlords offset any losses to revenue by reducing expenses, resulting in increases,

year over year, in their overall balances (Greig, Zhao, and Lefevre 2021). They also benefited from mortgage forbearance programs—some aimed at multifamily properties made permanent during the pandemic (Jensen 2021)—that resulted in record-low foreclosure rates (ATTOM 2021). Future analyses should attend to the costs and benefits of rental assistance, which may prove to be a more politically viable long-term policy option. Taken as a whole, the pandemic response makes clear that significant reductions to eviction filing rates are feasible. The challenges of establishing lasting reforms of this sort given the jurisdictional patchwork of civil law are significant, but so are the potential benefits to millions of renters nationwide who face the risk of eviction each year.

REFERENCES

ATTOM. 2021. "U.S. Properties with Foreclosure Filings in First Six Months of 2021 Hit All-Time Low of 65,082." *Cision PR Newswire*, July 15. Accessed November 11, 2022. https://www.prnewswire.com/news-releases/us-properties-with-foreclosure-filings-in-first-six-months-of-2021-hit-all-time-low-of-65-082--301334336.html.

Bell, Alex, Thomas J. Hedin, Peter Mannino, Roozbeh Moghadam, Geoffrey Schnorr, and Till von Wachter. 2023. "Disparities in Access to Unemployment Insurance During the COVID-19 Pandemic: Lessons from U.S. and California Claims Data." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 9(3): 78–109. DOI: https://doi.org/10.7758/RSF.2023.9.3.04.

Benfer, Emily A., and Robert Koehler. 2022. "COVID-19 Eviction Moratoria & Housing Policy: Federal, State, Commonwealth, and Territory." Ann Arbor, Mich.: Inter-university Consortium for Political and Social Research [distributor], 2022-05-22. DOI: https://doi.org/10.3886/E157201V1.

Benfer, Emily A., Robert Koehler, Alyx Mark, Valerie Nazzaro, Anne Kat Alexander, Peter Hepburn, Danya Keene, and Matthew Desmond. 2022. "COVID-19 Housing Policy: State and Federal Eviction Moratoria and Supportive Measures in the United States During the Pandemic." *Housing Policy Debate*. Published online: 10 June 2022. DOI: https://doi.org/10.1080/10511482.2022.2076713.

Bitler, Marianne P., Hilary W. Hoynes, and Diane Whitmore Schanzenbach. 2023. "Suffering, the Safety Net, and Disparities During COVID-19." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 9(3): 32–59. DOI: https://doi.org/10.7758/RSF.2023.9.3.02.

Borenstein, Severin, and Lucas W. Davis. 2016. "The Distributional Effects of US Clean Energy Tax Credits." *Tax Policy and the Economy* 30(1): 191–234. DOI: https://doi.org/10.1086/685597.

Chaisemartin, Clément de, and Xavier D'Haultfœuille. 2020. "Two-Way Fixed Effects Estimators with Heterogeneous Treatment Effects." *American Economic Review* 110(9): 2964–96. DOI: https://doi.org/10.1257/aer.20181169.

Choi, Jung Hyun, Daniel Pang, and Laurie Goodman. 2022. "Tracking Rent Payments to Mom-and-Pop Landlords." Washington, D.C.: Urban Institute. Accessed November 11, 2022. https://www.urban.org/features/tracking-rent-payments-mom-and-pop-landlords.

Collyer, Sophie, and Lily Bushman-Copp. 2019. "Forced Moves and Eviction in New York City." Housing Report, Spring 2019. New York: Robin Hood. Accessed November 11, 2022. https://robinhoodorg-production.s3.amazonaws.com/uploads/2019/08/HOUSING-REPORT_8.5.pdf.

Desmond, Matthew. 2016. *Evicted: Poverty and Profit in the American City*. New York: Broadway Books.

Desmond, Matthew, and Carl Gershenson. 2017. "Who Gets Evicted? Assessing Individual, Neighborhood, and Network Factors." *Social Science Research* 62 (February): 362–77. DOI: https://doi.org/10.1016/j.ssresearch.2016.08.017.

Desmond, Matthew, Ashley Gromis, Lavar Edmonds, James Hendrickson, Katie Krywokulski, Lillian Leung, and Adam Porton. 2018. *Eviction Lab National Database: Version 1.0*. Princeton, N.J.: Princeton University. Accessed December 1, 2022. www.evictionlab.org.

Desmond, Matthew, and Tracey Shollenberger. 2015. "Forced Displacement From Rental Housing: Prevalence and Neighborhood Consequences." *Demography* 52 (5): 1751–72. DOI: https://doi.org/10.1007/s13524-015-0419-9.

Ernsthausen, Jeff, Ellis Simani, and Al Shaw. 2020. "Can You Be Evicted During Coronavirus? Here's How to Find Out." *ProPublica*, May 18.

Gender API. 2022. "Gender API." Accessed March 3, 2022. https://gender-api.com.

Goodman-Bacon, Andrew. 2021. "Difference-in-Differences with Variation in Treatment Timing."

Journal of Econometrics 225(2): 254–77. DOI: https://doi.org/10.1016/j.jeconom.2021.03.014.

Greig, Fiona, Chen Zhao, and Alexandra Lefevre. 2021. "How Did Landlords Fare During COVID?" New York: JPMorgan Chase. Accessed November 11, 2022. https://www.jpmorganchase.com/institute/research/household-debt/how-did-landlords-fare-during-covid.

Gromis, Ashley, Ian Fellows, James R. Hendrickson, Lavar Edmonds, Lillian Leung, Adam Porton, and Matthew Desmond. 2022. "Estimating Eviction Prevalence Across the United States." *PNAS* 119(21): 1–8. DOI: https://doi.org/10.1073/pnas.2116169119/-/DCSupplemental.Published.

Hatch, Megan E. 2017. "Statutory Protection for Renters: Classification of State Landlord–Tenant Policy Approaches." *Housing Policy Debate* 27(1): 98–119. DOI: https://doi.org/10.1080/10511482.2016.1155073.

Hepburn, Peter, Renee Louis, and Matthew Desmond. 2020a. "Eviction Tracking System." Princeton, N.J.: The Eviction Lab at Princeton University. Accessed November 11, 2022. https://evictionlab.org/eviction-tracking/.

———. 2020b. "Racial and Gender Disparities Among Evicted Americans." *Sociological Science* 7 (December): 649–62. DOI: https://doi.org/10.15195/v7.a27.

Hepburn, Peter, Renee Louis, Joe Fish, Emily Lemmerman, Anne Kat Alexander, Timothy A. Thomas, Robert Koehler, Emily Benfer, and Matthew Desmond. 2021. "U.S. Eviction Filing Patterns in 2020." *Socius* 7(1). DOI: https://doi.org/10.1177/23780231211009983.

Hoynes, Hilary W., and Jesse Rothstein. 2019. "Universal Basic Income in the United States and Advanced Countries." *Annual Review of Economics* 11(1): 929–58. DOI: https://doi.org/10.1146/annurev-economics-080218-030237.

Jensen, Katie. 2021. "Fannie Mae Extends Multifamily Protections Indefinitely." *National Mortgage Professional*, September 27.

Joint Center for Housing Studies (JCHS). 2020. "America's Rental Housing, 2020." Cambridge, Mass.: Harvard University.

Keene, Danya E., Whitney Denary, Annie Harper, Annie Kapolka, Emily A. Benfer, and Peter Hepburn. 2022. "'A Little Bit of a Security Blanket': Renter Experiences with COVID-19 Era Eviction Moratoria." Working paper.

Khanna, Kabir, Kosuke Imai, and Hubert Jin. 2017. "Wru: Who Are You? Bayesian Prediction of Racial Category Using Surname and Geolocation." wru 1.0.1. Accessed November 11, 2022. https://github.com/kosukeimai/wru.

Kneebone, Elizabeth, and Cecile Murray. 2020. "Estimating COVID-19's Near-Term Impact on Renters." Berkeley: Terner Center for Housing Innovation, University of California. Accessed November 11, 2022. https://ternercenter.berkeley.edu/blog/estimating-covid-19-impact-renters.

Leifheit, Kathryn M., Sabriya L. Linton, Julia Raifman, Gabriel L. Schwartz, Emily A. Benfer, Frederick J. Zimmerman, and Craig Evan Pollack. 2021. "Expiring Eviction Moratoriums and COVID-19 Incidence and Mortality." *American Journal of Epidemiology* 190(12): 2503–10. DOI: https://doi.org/10.1093/aje/kwab196.

Leifheit, Kathryn M., Craig E. Pollack, Julia Raifman, Gabriel L. Schwartz, Robert D. Koehler, Jackie V. Rodriguez Bronico, Emily A. Benfer, Frederick J. Zimmerman, and Sabriya L. Linton. 2021. "Variation in State-Level Eviction Moratorium Protections and Mental Health Among US Adults During the COVID-19 Pandemic." *JAMA Network Open* 4(12): 1–12. DOI: https://doi.org/10.1001/jamanetworkopen.2021.39585.

Leung, Lillian, Peter Hepburn, and Matthew Desmond. 2021. "Serial Eviction Filing: Civil Courts, Property Management, and the Threat of Displacement." *Social Forces* 100(1): 316–44. DOI: https://doi.org/10.1093/sf/soaa089.

Manville, Michael, Paavo Monkkonen, Michael C. Lens, and Richard Green. 2022. "Renter Nonpayment and Landlord Response: Evidence from COVID-19." *Housing Policy Debate*. First published online: July 27, 2022. DOI: https://doi.org/10.1080/10511482.2022.2085761.

Matthay, Ellicott C., Laura M. Gottlieb, David Rehkopf, May Lynn Tan, David Vlahov, and M. Maria Glymour. 2022. "What to Do When Everything Happens at Once: Analytic Approaches to Estimate the Health Effects of Co-Occurring Social Policies." *Epidemiologic Reviews* 43(1): 33–47. DOI: https://doi.org/10.1093/epirev/mxab005.

Matthay, Ellicott C., Erin Hagan, Spruha Joshi, May Lynn Tan, David Vlahov, Nancy Adler, and M. Maria Glymour. 2022. "The Revolution Will Be Hard to Evaluate: How Co-Occurring Policy Changes Affect Research on the Health Effects of Social Policies." *Epidemiologic Reviews* 43(1): 19–32. DOI: https://doi.org/10.1093/epirev/mxab009.

Mullen, Lincoln. 2018. "Gender: Predict Gender from Names Using Historical Data." v0.5.2. Accessed November 11, 2022. https://github.com/lmullen/gender.

National Multifamily Housing Council (NMHC). 2022. "Rent Payment Tracker Retrospective." Washington, D.C.: NMHC. Accessed November 11, 2022. https://www.nmhc.org/research-insight/nmhc-rent-payment-tracker/rent-payment-tracker-retrospective/.

Parolin, Zachary, Sophie Collyer, Megan A. Curran, and Christopher Wimer. 2021. "Monthly Poverty Rates Among Children After the Expansion of the Child Tax Credit Measuring Monthly Poverty." *Poverty & Social Policy Brief* 5(4): 1–14. Accessed December 1, 2022. https://www.povertycenter.columbia.edu/publication/monthly-poverty-july-2021.

The Pew Charitable Trusts. 2018. "American Families Face a Growing Rent Burden." Philadelphia, Pa.: Pew Charitable Trusts. Accessed November 11, 2022. https://www.pewtrusts.org/-/media/assets/2018/04/rent-burden_report_v2.pdf.

Rangel, Jasmine, Jacob Haas, Emily Lemmerman, Joe Fish, and Peter Hepburn. 2021. "Preliminary Analysis: 11 Months of the CDC Moratorium." Princeton, NJ: The Eviction Lab, Princeton University. Accessed November 11, 2022. https://evictionlab.org/eleven-months-cdc/.

Reina, Vincent, Claudia Aiken, Julia Verbrugge, Ingrid Gould Ellen, Tyler Haupert, Andrew Aurand, and Rebecca Yae. 2021. "COVID-19 Emergency Rental Assistance: Analysis of a National Survey of Programs." Research Brief. Washington, D.C.: National Low Income Housing Coalition. Accessed November 11, 2022. https://nlihc.org/sites/default/files/HIP_NLIHC_Furman_Brief_FINAL.pdf.

Sandoval-Olascoaga, Sebastian, Atheendar S. Venkataramani, and Mariana C. Arcaya. 2021. "Eviction Moratoria Expiration and COVID-19 Infection Risk Across Strata of Health and Socioeconomic Status in the United States." *JAMA Network Open* 4(8): 1–11. DOI: https://doi.org/10.1001/jamanetworkopen.2021.29041.

Stein, Sarah, and Nisha Sutaria. 2020. "Housing Policy Impact: Federal Eviction Protection Coverage and the Need for Better Data." Atlanta, Ga.: Federal Reserve Bank. Accessed November 11, 2022. https://www.frbatlanta.org/community-development/publications/partners-update/2020/covid-19-publications/200616-housing-policy-impact-federal-eviction-protection-coverage-and-the-need-for-better-data.

Sun, Liyang, and Sarah Abraham. 2021. "Estimating Dynamic Treatment Effects in Event Studies with Heterogeneous Treatment Effects." *Journal of Econometrics* 225(2): 175–99. DOI: https://doi.org/10.1016/j.jeconom.2020.09.006.

U.S. Census Bureau. 2020. "*2015–2019 American Community Survey 5-Year Detailed Tables.*" Washington: U.S. Department of Commerce. Accessed January 5, 2023. https://www.census.gov/programs-surveys/acs.

U.S. Department of the Treasury. 2022. "New Treasury Data Shows Over 80% of Emergency Rental Assistance Delivered to Lowest-Income Households." Press Release, February 24. Washington: U.S. Department of the Treasury. Accessed November 11, 2022. https://home.treasury.gov/news/press-releases/jy0606.

Venkataramani, Atheendar S., Elizabeth F. Bair, Rourke L. O'Brien, and Alexander C. Tsai. 2020. "Association Between Automotive Assembly Plant Closures and Opioid Overdose Mortality in the United States: A Difference-in-Differences Analysis." *JAMA Internal Medicine* 180(2): 254–62. DOI: https://doi.org/10.1001/jamainternmed.2019.5686.

Wais, Kamil. 2016. "Gender Prediction Methods Based on First Names with GenderizeR." *R Journal* 8(1): 17–37. DOI: https://doi.org/10.32614/rj-2016-002.

Yae, Rebecca, Andrew Aurand, Daniel Threet, and Emma Foley. 2020. "Emergency Rental Assistance Programs in Response to COVID-19." NLIHC Research Note, October 27. Washington, D.C.: National Low Income Housing Coalition. Accessed November 11, 2022. https://nlihc.org/sites/default/files/Emergency-Rental-Assistance-Programs-3.pdf.

COVID-19 and Emergency Rental Assistance: Impact on Rent Arrears, Debt, and the Well-Being of Renters in Philadelphia

VINCENT J. REINA AND YEONHWA LEE

The federal government allocated an unprecedented level of funding to develop emergency rental assistance programs to help vulnerable low-income renter households remain housed during the COVID-19 pandemic. Using panel data from two waves of applicant surveys joined with administrative data, this article analyzes the impact of Phase 1 of the City of Philadelphia's COVID-19 Emergency Rental Assistance Program and asks how emergency rental assistance affected households in their rent arrears, rent-related debt, and mental health. Analysis shows that receiving emergency rental assistance was associated with lower arrears, a lower probability of rent-related debt, and a lower probability of experiencing frequent debilitating anxiety. The findings suggest that the initial rent relief provided crucial support for households in terms of financial and mental well-being but also underscore that housing affordability challenges that predated the pandemic cannot be addressed by an emergency rental assistance program created in response to a pandemic.

Keywords: housing, emergency rental assistance, low-income renter, COVID-19

COVID-19 precipitated a public health crisis and forced a drastic economic shutdown in the spring of 2020. As a result, millions of Americans lost their jobs and incomes and were at risk of losing their homes; particularly hard hit were those working in the hospitality, tourism, and entertainment industries, many of whom were low-wage workers and disproportionately people of color (Schwartz 2021). In response, Congress passed and enacted the $2.2 trillion Coronavirus Aid, Relief, and Economic Security Act, known as the CARES Act, in March 2020. The CARES Act restricted eviction filings (Hepburn et al. 2023, this issue), provided economic impact payments (Bitler, Hoynes, and Schanzenbach 2023, this issue), and increased and

Vincent J. Reina is an associate professor of planning and urban economics in the department of City and Regional Planning at the Weitzman School of Design at the University of Pennsylvania, United States. **Yeonhwa Lee** is a doctoral candidate in City and Regional Planning at the University of Pennsylvania, United States.

 Reina, Vincent J., and Yeonhwa Lee. 2023. "COVID-19 and Emergency Rental Assistance: Impact on Rent Arrears, Debt, and the Well-Being of Renters in Philadelphia." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 9(3): 208–29. DOI: 10.7758/RSF.2023.9.3.09. The Stoneleigh Foundation and the Wells Fargo Foundation have generously supported this research. We thank them for their support but acknowledge that the findings and conclusions presented in this paper are those of the authors alone and do not necessarily reflect the opinions of these funders. Vincent J. Reina's contributions to this article occurred prior to his taking a leave of absence from the University of Pennsylvania to join the Biden-Harris administration and therefore reflect his personal views only. Direct correspondence to: Yeonhwa Lee, at yeonhwa@upenn.edu, 127 Meyerson Hall, 210 S. 34th Street, Philadelphia PA 19147, United States.

expanded the unemployment insurance benefits (Ravenelle and Knoble 2023, this issue), among other things. Many state and local governments established emergency rental assistance programs, with funding streams available for providing rental and utility assistance and preventing eviction and homelessness (Aiken et al. 2022). This article examines the short-term impact of one such emergency rental assistance program—the City of Philadelphia's COVID-19 Emergency Rental Assistance Program (CERA)—on households' financial and mental well-being.

Over the course of the pandemic, an unprecedented level of federal support was approved for states and municipalities across the country to develop and implement emergency housing programs with record speed. In addition to the CARES Act, Congress enacted the Consolidated Appropriations Act of 2021 in December 2020 and the American Rescue Plan Act in March 2021, which, combined, allocated a further $46.55 billion for emergency rental assistance (ERA) for low-income households, known as the ERA program. These programs were intended to stabilize households facing housing insecurity during the pandemic and mitigate the short- and long-term effects of pandemic-related housing instability. However, given limited history of federal housing programs providing emergency assistance to renters during moments of national economic turmoil, the evidence base to inform the design of these programs was relatively scant.

This article is one of the first to present evidence of an emergency rental assistance program's impact on households, addressing an important knowledge gap. It focuses on the first iteration of Philadelphia's emergency rental assistance program. Phase 1, the first of four phases, received applications in May 2020 and disbursed just over $10 million to 4,257 households (City of Philadelphia 2022). We ask how Philadelphia's emergency rental assistance program affected households in terms of their rent arrears, rent-related debt, and mental health. To answer this question, we use panel data constructed from two waves of surveys—the first, embedded in the emergency rental assistance application and administered in May 2020; and the second, a follow-up in March 2021—and program application data provided by the city, which included household demographic information and whether a household received the subsidy.

Our analysis of the panel data shows that receiving emergency rental assistance was associated with a lower level of rent arrears and with a lower likelihood of incurring rent-related debt. Furthermore, respondents who received the subsidy were less likely to experience debilitating anxiety. Our analysis suggests that the emergency rental assistance was indeed critical in reducing the impact of the pandemic on housing burdens and, in turn, had a significant positive impact on households' financial and psychological well-being. Simultaneously, our results also highlight the unsurprising persistence of pre-pandemic difficulties that low-income renter households continued to face regardless of the emergency rental assistance, something the program was not designed, or could be expected, to ameliorate. We discuss the implications of these findings for emergency rental assistance as well as for housing policy more generally.

LITERATURE REVIEW AND BACKGROUND

The COVID-19 pandemic has both highlighted and amplified existing economic strains that low-income households face. Research consistently documents the severe economic fragility of households in the United States. For instance, many low- and moderate-income households do not have enough savings to cover a $500 emergency (Brobeck 2008); one in four families have no retirement savings, and roughly four in ten have less than $750 (McKernan et al. 2016). Further, more than 25 percent of households in the 2009 TNS Global Economic Crisis survey could not cover an unexpected $2,000 cost in thirty days, and nearly half of Americans were financially fragile (Lusardi, Schneider, and Tufano 2011). In fact, in 2019, just before the pandemic, the Federal Reserve found that 37 percent of all adults could not cover an unexpected $400 expense and that nearly three in ten "were either unable to pay their monthly bills or were one modest financial setback away from failing to pay monthly bills in full" (Board of Governors

of the Federal Reserve System 2020, 21, cited in Schwartz 2021, 381).

Households use a range of coping methods to survive financial shocks and precarity. For instance, households that face financial shocks often pursue a "pecking order" to cover expenses, with savings at the top. However, because many households do not have adequate savings, they then leverage other sources of financial support, such as family and friends and alternative forms of credit, including payday loans, to cope with risk (Lusardi, Schneider, and Tufano 2011). Although helpful and even important in moments of precarity, such financial support does not ensure economic security and mobility for low-income households (Henly, Danziger, and Offer 2005). Another coping method for unanticipated shocks to income is decreasing household consumption of goods and services, such as food (Aguiar and Hurst 2005); such reductions, however, may have material consequences for households' well-being. In this context of widespread financial precarity and vulnerability to shocks, social programs and the safety net may play an important role in smoothing consumption and stabilizing households. For instance, unemployment insurance benefits have been associated with consumption smoothing benefits (East and Kuka 2015; Gruber 1997). Further, both anticipated and unanticipated changes to benefits—such as anticipated increases in social security and the unanticipated economic stimulus payments of 2008, respectively—have been shown to result in large changes in consumer spending (Stephens 2003; Parker et al. 2013).

Financial precarity translates into housing insecurity, as few households have enough savings to cover their housing costs for more than a few months in the event of an emergency. In addition to the financial fragility discussed, many renter households face high housing cost burdens; in 2018, nearly half of all renter households were paying more than 30 percent of their incomes on rent (Joint Center for Housing Studies 2020). Thus, with unexpected economic shocks like the pandemic, households—particularly those with the lowest incomes and fewest resources—are likely to find themselves not only severely financially strained but also susceptible to housing instability (McKernan et al. 2016; Morduch and Schneider 2017). Housing instability is associated with numerous negative consequences for both adults and children, including adverse health outcomes, reduced educational performance, and interference with employment (Harkness and Newman 2005; Pollack, Griffin, and Lynch 2010; Meltzer and Schwartz 2016; Newman and Holupka 2014; Been et al. 2010; Desmond and Kimbro 2015; Lubell, Crain, and Cohen 2007).

Households have coping methods to cover housing costs as well. Research shows that households often do all they can to pay rent and remain housed, including cutting back on basic needs such as food and clothing (Rosen et al. 2020). Indeed, a study by the Joint Center for Housing Studies, aptly titled "The Rent Eats First," found that 62 percent of working-age renter households face high housing cost burdens according to the residual income approach, meaning that they are unable to afford a comfortable standard of living after paying rent and utilities (Airgood-Obrycki, Hermann, and Wedeen 2021). However, leveraging coping methods and trade-offs in household consumption decisions is often still not enough. A recent survey of more than twenty-five thousand renter households in Los Angeles found that, even after trading off a broad set of goods during the pandemic, including medical care, many households still could not pay their rent and were accumulating multiple forms of debt (Reina, Aiken, and Goldstein 2021).

These findings on housing insecurity can be grounded in the reality of federal housing policy in the United States. Put simply, the housing safety net in the United States is severely limited. Housing assistance for low-income households is not an entitlement, and demand far exceeds supply; estimates suggest that for every low-income renter household with a rental subsidy are as many as three to four who qualify but do not receive it (Schwartz 2021; Reina, Aiken, and Epstein 2021). However, deep subsidy programs are significantly beneficial for those households who are offered, and can use, the benefit. For example, rental assistance is associated with increased housing stability, increased food consumption, a reduction in household moves, and less likelihood of reporting low-quality housing and lack of housing-

related autonomy (Mills et al. 2006; Schapiro et al. 2022).

COVID-19 Emergency Rental Assistance

In response to the pandemic and the subsequent economic shutdown in the spring of 2020, in which millions of Americans lost their jobs and incomes and were at risk of losing their homes, Congress enacted a series of bills. The $2.2 trillion CARES Act, enacted in March 2020, created a variety of programs, such as the economic impact payments, also known as the federal stimulus payments, enhanced and extended unemployment benefits, and an eviction moratorium. Emerging research on the effectiveness of these programs shows that the federal stimulus payments significantly reduced overall poverty rate as well as children's poverty rate in 2020 (Bitler, Hoynes, and Schanzenbach 2023, this issue) and that the federal-, state-, and local-level eviction moratoria dramatically reduced eviction filings, especially in previously high-risk communities (Hepburn et al. 2023, this issue).

In regard to emergency housing programs, the CARES Act provided three main funding streams, including "$150 billion for the Coronavirus Relief Fund (CRF), administered by the U.S. Department of the Treasury (Treasury); $5 billion for the Community Development Block Grant CARES Act Program (CDBG-CV), administered by the U.S. Department of Housing and Urban Development (HUD); and $4 billion for the Emergency Solution Grant CARES Act program (ESG-CV), also administered by HUD" (Aiken et al. 2022, 4). By April 2021, the National Low Income Housing Coalition (NLIHC) had identified 391 emergency rental assistance programs funded primarily by the CARES Act, accounting for approximately $4 billion, some of which also covered mortgage assistance (Aiken et al. 2022). The Consolidated Appropriations Act of 2021, enacted in December 2020, and the American Rescue Plan Act, enacted in March 2021, allocated a further $46.55 billion ($25 billion and $21.55 billion, respectively) specifically for emergency rental assistance for low-income households. This subsequent ERA program could be used by state and local governments to provide financial assistance for rent and utility arrears, future rent and utility costs, and other housing-related expenses. Crucially, as the timeline from the CARES Act to the ERA program illustrates, most funding for emergency rental assistance was not available to municipalities until roughly the early months of 2021, nearly eleven months after the pandemic shut down the country in March 2020. As a result, initial programs launched in 2020 were often forced to balance a high level of need with an insufficient level of funding, as well as uncertainty about the availability of future funding and, in many cases, the challenges of developing a program from scratch.

The City of Philadelphia's COVID-19 Emergency Rental Assistance Program (also known as PHLRentAssist) was one of the earliest to launch in the country (Reina, Aiken, Verbrugge, et al. 2021). The economic shutdown of the pandemic had struck a city with an already large share of low-income residents at risk of, or experiencing, financial precarity and housing instability. In 2018, approximately 40 percent of Philadelphia's households were housing cost burdened, in line with many other major U.S. cities. However, notably, Philadelphia's housing affordability issues owed more to low income levels than high housing prices; no other city "ha[d] a higher proportion of cost-burdened households with low incomes than Philadelphia" among the ten most populous cities in the country. Indeed, nearly 90 percent of renters with incomes below $30,000 per year were cost burdened, 68 percent spending more than 50 percent of their incomes on housing (Pew Charitable Trusts 2020, 1). Moreover, Philadelphia had a pre-pandemic baseline eviction filing rate of 7.6 percent—among cities with filing rates as low as 2.7 percent (Boston, Massachusetts) and as high as 24.8 percent (Richmond, Virginia) (Hepburn et al. 2023, this issue)—and, frequently dubbed the "poorest big city" in the United States, it had a poverty rate of 26 percent in 2017 (Pew Charitable Trusts 2019).

In May 2020, Philadelphia's Department of Planning and Development opened its application portal for phase 1 of CERA. Based on initial funding levels, the city estimated it could support approximately four thousand households and proposed a lottery for the receipt of assistance should there be more applicants. Within

a week of opening, the program received more than ten thousand applications, and the city conducted a randomized lottery to determine which households would receive the benefit. Households were notified of their status in early June, at which point the city began to process payments. Some households were waitlisted, and a subset eventually was recontacted and offered assistance by the end of 2020. All selected tenants received rental assistance for up to three consecutive months, up to $2,500 total. For this phase 1 of the CERA, the city disbursed $10,071,689.00 in assistance by December 2020, which funds came from the CARES Act CDBG-CV funding stream.

To be eligible for phase 1, the applicant needed to meet the following criteria: rent an apartment or a house in Philadelphia, have a valid and current written lease signed by the landlord, and have lost income because of COVID-19. Assistance was limited to renters whose household earned 50 percent or less of the area median income; for a four-person household, the limit was $48,300. Further, for a tenant to participate, their landlord was required to enter into an agreement with the city, committing to four actions, among other things: first, to apply all of the CERA to their tenant's monthly rent due in the months of May, June, and July of 2020, reducing the monthly rent by the amount of the CERA; second, to allow the tenant a six-month repayment period for any unpaid rent, commencing from the latest date the CERA funds were received by the landlord; third, to not pursue eviction of the tenant for nonpayment of rent for six months following the latest date the CERA funds were received by the landlord; and, fourth, to not charge any late fees or penalties on unpaid monthly rent from April or May of 2020, or at any time while receiving the CERA funds.

Phase 2 accepted applications between July and November of 2020 and drew funds from the CARES Act CRF, passed through the Commonwealth of Pennsylvania as part of Pennsylvania's Rent Relief Program. It reached 6,596 households, providing up to $1,500 per month per applicant, and disbursed $31,739,593.00 total. Phase 3, also drawing from the CARES Act CRF, did not accept new applications but reached 5,149 households that had applied to prior phases but that were not eligible due to landlord nonparticipation or lack of response; nearly $24 million were disbursed, and applicants were eligible for up to $1,500 per month for up to six months. Finally, phase 4, using funds from the ERA Program and funds through the Pennsylvania's Emergency Rental Assistance Program, began accepting applicants in April 2021 and, as of October 2022, has supported 30,210 households, disbursing $230,493,163.09 in assistance so far. Average amount and duration of rental assistance for phase 4 have been $7,171.62 and eight months, respectively. In total, through the four phases, the City of Philadelphia has served 46,212 low-income renter households and disbursed $296,121,929.09 in emergency rental assistance (and utility assistance for phase 4) as of October 2022 (City of Philadelphia 2022).

This study focuses on the initial round, phase 1, of the CERA, which provided households up to $2,500 total for up to three months of rent.

DATA AND METHODS

This article uses panel data constructed with data from two rounds of applicant surveys administered approximately ten months apart: the baseline survey in May 2020 and the follow-up survey in March 2021. The baseline survey was embedded into the city's application process for the emergency rental assistance such that those applying to the CERA could, after completing their application on the city's website, follow a link and fill out the survey. The survey was designed to take ten to fifteen minutes and featured questions that dealt with a wide range of topics, including current and past housing situation, employment history and finances, childcare, and general mental health. The survey recorded 3,887 responses, of which 2,620 (67.4 percent of the survey data) could be joined to the application data provided by the City of Philadelphia.[1] The follow-up survey covered similar topics and some

1. The research team included an optional checkbox in the CERA application that enabled households to enroll in the study. If a household enrolled in the study, the research team could access the household's application

Table 1. Descriptive Statistics of Independent Variables

	Total	Received	Not Received
CERA		42.3	57.7
Race and ethnicity			
Latinx	17.0	16.3	17.5
Non-Latinx Asian	3.7	3.6	3.8
Non-Latinx Black	56.4	55.0	57.4
Non-Latinx White	15.0	16.7	13.7
Other	7.9	8.4	7.6
Household has children under eighteen			
Yes	61.8	62.9	60.9
Currently unemployed			
Yes	64.3	62.5	65.6
Received unemployment insurance in February 2021			
Yes	27.8	31.1	25.4
Received federal stimulus payment in 2021			
Yes	45.8	47.0	44.9

Source: Authors' calculations.
Note: All numbers in percentages; n = 594.

identical questions as the baseline survey and recorded 932 responses. In all, 594 respondents with application data had responded to both the baseline and the follow-up surveys. Thus, in summary, we have an analysis sample of 594 observations, 42.3 percent of whom (251 respondents) received the CERA and 57.7 percent of whom (343) did not.

Explanatory Variables

Table 1 summarizes the descriptive statistics of several contextual variables, including the survey respondents' race and ethnicity, family situation, employment status, and receipt of other forms of COVID-19-related government assistance. The shares are further broken down by the CERA status, each cell containing the column-wise proportions.

As table 1 shows, non-Latinx Black households were the largest ethnoracial group in the sample (56.4 percent). They were followed by Latinx households (17 percent) and non-Latinx Whites (15 percent). The group categorized as Other—Pacific Islander, American Indian, and multiracial—came next (7.9 percent). Asian households were the smallest group (only 3.7 percent). The column-wise proportions for the CERA "Received" column demonstrate that, for the most part, the ethnoracial composition of those who received the CERA reflects the overall ethnoracial composition of the sample. However, some groups did have slightly higher instances of receiving the subsidy than others. For instance, non-Latinx Whites, who made up 15 percent of the sample, represented 16.7 percent of those who received the emergency rental assistance, whereas non-Latinx Black and Latinx respondents were underrepresented relative to the study sample composition, 55 percent to 56.4 percent and 16.3 percent to 17.0 percent, respectively.

The majority of the survey respondents in our sample (61.8 percent) had children under eighteen. No significant discrepancy is apparent between the with-children and without-children groups in terms of whether they received the CERA. Individuals who responded that they were currently unemployed constituted 64.3 percent of the sample and were slightly underrepresented among those who

information. The City of Philadelphia provided administrative data for approximately 8,800 rent relief applicants, more than half of the total applicants.

received the CERA relative to the sample composition. As for whether the respondent or anyone in their household received other kinds of government assistance, 27.8 percent said they received unemployment insurance benefits in February 2021, and 45.8 percent said they had received a federal stimulus payment in 2021. Those who received other forms of subsidy were slightly overrepresented among those who received the CERA; those who received unemployment insurance benefits and the federal stimulus payments made up 31.1 percent and 47.0 percent, respectively, of those who received the CERA, both figures slightly larger than the aforementioned shares in the overall sample.

Having noted these discrepancies, we check for any statistical imbalance between the treatment and control groups and find that they are balanced across these observable characteristics.[2]

Outcome Variables

To ascertain the impact of the CERA on alleviating financial and psychological burdens faced by tenants during the COVID-19 pandemic, we focus on the following questions from the follow-up survey, from which we derive our dependent variables:

> Are you behind on rent? If so, what is the total amount of rent that you owe?
>
> Have you borrowed money to pay rent?
>
> Over the last two weeks, how often have you been bothered by not being able to stop or control worrying?
>
> Have you consumed less food since November 2020 to make life more affordable?
>
> Have you gone without medicine or seeing a doctor since November 2020 to make life more affordable?

Table 2 presents the descriptive statistics for the key outcome variables and their breakdown by the CERA status.

The majority of the sample (60.8 percent) responded that they were behind on rent as of the follow-up survey, months after the disbursement of the CERA, and, descriptively, the receipt of the grant does not appear to have made a significant difference on whether a household is behind on rent. However, comparing the median dollar value of the amount owed in rent for the subset of the sample respondents who were behind on rent shows that the CERA may have been instrumental in reducing the amount of back rent. Among the 361 respondents who were behind on rent, the median dollar amount owed was $2,400; the median for those who received the CERA was $2,100 (mean = $2,394.55), relative to $2,550 for those who did not (mean = $3,169.11). The majority of the sample (57.6 percent) had also borrowed money to pay rent, and a comparison of shares by CERA status suggests that the subsidy may have affected the outcome. Of those who received the CERA, only 51.8 percent borrowed money to cover rent compared to those who did not receive the CERA (61.8 percent).

As for being unable to stop or control worrying in the last two weeks, 26 percent of the respondents answered that they were bothered by worrying uncontrollably "nearly every day"; 19.9 percent responded with "more than half the days"; 37.5 percent worried "several days"; and 16.5 percent indicated "not at all." These responses to the follow-up survey reflect an overall worsening in the respondents' mental health as the COVID-19 pandemic carried on. For instance, between the baseline survey and the follow-up survey, the share of respondents who selected "not at all" decreased from 27.3 percent to 16.5 percent, and the share of respondents who chose "nearly every day" increased from 23.2 percent to 26 percent. With respect to CERA status in the follow-up survey, the distribution of responses among those who received the CERA is more concentrated on the "less worried" end of the spectrum (that is, "not at all" and "several days") relative to the distribution of responses among those who did not receive the CERA, which is more skewed

2. We regress treatment (receipt of the CERA) on all of the variables in table 1 (race and ethnicity, children under eighteen, unemployed, unemployment insurance, and federal stimulus payments). The likelihood ratio chi-square test comparing the test model with a null model returned a *p*-value of .7954. Thus we find no signs of imbalance between treatment and control groups.

Table 2. Descriptive Statistics of Outcome Variables

	Total	Received	Not Received
CERA (*n* = 594)		42.3	57.7
Behind on rent (l = 594)			
Yes	60.8	59.4	61.8
Borrowed money to pay rent (l = 594)			
Yes	57.6	51.8	61.8
Over the last two weeks, unable to stop or control worrying (l = 562)		41.8	58.2
Not at all	16.5	19.6	14.4
Several days	37.5	38.7	36.7
More than half the days	19.9	18.3	21.1
Nearly every day	26.0	23.4	27.8
Reduced food consumption since November 2020 (l = 594)			
Yes	39.2	38.6	39.7
Went without medicine or seeing a doctor since November 2020 (l = 594)			
Yes	23.1	21.9	23.9
Amount owed in rent (l = 361) – Median	$2,400	$2,100	$2,550

Source: Authors' calculations.

toward the "more worried" end of the spectrum ("more than half the days" and "nearly every day"), suggesting that the CERA may have helped in renters' mental health.

The next set of outcome variables concerned whether respondents were forced to adjust essential consumption decisions to keep life affordable. Regarding food consumption, nearly 40 percent reported that they had resorted to eating less, and receipt of the CERA does not appear to have made a difference. Regarding going without medicine or seeing a doctor, almost 25 percent indicated that they had chosen not to seek medical care to save money, and, again, the CERA does not seem to have affected this outcome.

As mentioned, the baseline and follow-up surveys contained several identical outcome-based questions. Where possible, we test for differences in the treatment and control groups at pre-treatment baseline, so that, provided no difference, we have greater confidence that the effects observed in our models are a function of the treatment. Of our dependent variables, the outcome variables for which we have matching questions in the baseline and follow-up surveys are the following three variables: "over the last two weeks, bothered by not being able to stop or control worrying," "reduced food consumption since November,"[3] and "went without medicine or seeing a doctor since November."[4] For the outcome variables "behind on rent" and "borrowed money to pay rent," we test the closest proxy in the baseline survey: "needed money for housing expenses like rent, mortgage, or security deposit." For all of the outcome variables, the treatment and control groups do not exhibit any statistically significant difference at baseline ($p > .05$).

3. Equivalent question in the baseline survey was "Have you made any of the following adjustments in the past two years to make life more affordable? (Check all that apply)." The response option was "reduced total food consumption."

4. The response option here was "went without medicine or seeing a doctor."

Regression Analyses

We use three regression techniques to test the relationship between the receipt of the CERA and our five outcomes of interest. First, for the continuous dependent variable, "amount owed in rent," because the amount owed in rent is observable only for those respondents behind on rent, we assign those who are not in rental arrears zeros and use quantile regression to account for this sample selection bias and the variable's skewed distribution from the added zeros.[5] For the three binary dependent variables ("borrowed money to pay rent," "reduced food consumption," and "went without medicine or seeing a doctor"), we use logistic regression to see if receiving the CERA is associated with these outcomes. Finally, we use ordinal logistic regression to test whether receiving CERA is associated with a lower likelihood of experiencing more frequent worrying and anxiety (in ascending order, "not at all," "several days," "more than half the days," and "nearly every day").

For all of the models, we first start with a basic model with just the CERA status as the independent variable; then control for baseline conditions where identical questions from the baseline survey enable us to incorporate pretreatment responses; then control for basic demographic and socioeconomic characteristics, such as race and ethnicity, the presence of children under eighteen, and employment status; and finally include other forms of government assistance that the respondents received during the COVID-19 pandemic (that is, the unemployment insurance benefits and the federal stimulus payment).

FINDINGS

In this section, we discuss the results from our regression models for the five outcome variables. For the logistic regression models, we provide the model results, in which the coefficients signify the log odds, followed by a separate table showing the average marginal effects (in probability) for statistically significant variables for ease of interpretation.

1. "Are you behind on rent? If so, what is the total amount of rent that you owe?"

Table 3 illustrates the results from the quantile regression model estimating the effect at the 75th percentile of the dependent variable, "amount of rent owed." As mentioned, those who responded that they were not currently behind on rent were assigned zeros. Models 1, 2, and 3 consistently show that receiving the CERA predicts owing less in back rent. After controlling for demographic and socioeconomic variables, as shown in model 3, the CERA is associated with a $525 decrease in the amount of rent owed. Being currently unemployed is associated with a $1,275 increase in the amount of rent owed. Notably, receipt of unemployment benefits is also associated with a $575 reduction in the amount of rent owed, an effect size that is greater than the CERA. The models show that, as observed at the 75th percentile, receiving the CERA is associated with a significantly lower amount of back rent owed (for a plot of the coefficient values along the quantile levels, see figure A.1).

2. "Have you borrowed money to pay rent?"

Table 4 summarizes the logistic regression model outputs for "borrowed money to pay rent." Model 1 shows that receiving the CERA is statistically significantly associated with a lower likelihood of borrowing money to pay rent (coefficient = −0.410, $p < .05$); this equates to an average marginal effect of reducing the probability of incurring rent-related debt by 0.10 (see table 5). Model 2 again illustrates that the CERA is a statistically significant predictor (coefficient = −0.394, $p < .05$) for not borrowing money to cover rent; neither family status nor unemployment status is significant. Model 3 affirms the effect of the CERA (race is no longer

5. Rather than using a technique that more explicitly deals with the sample selection bias, such as a Heckman two-stage model, we assign the value of 0 to those who do not owe back rent and use quantile regression to model the effect at the 75th percentile, which roughly corresponds to the mean of the nonzero values of rent arrears, for both simplicity and ease of interpretation.

Table 3. Quantile Regression Model (tau = 0.75)

Dependent variable: Amount of rent owed			
	(1)	(2)	(3)
Received CERA	−600.00**	−450.00**	−525.00**
	(285.50)	(206.97)	(221.28)
Race and ethnicity (Ref: Non-Latinx White)			
Non-Latinx Black		350.00	120.00
		(511.34)	(578.12)
Latinx		700.00	420.00
		(581.96)	(655.33)
Non-Latinx Other		150.00	−155.00
		(493.59)	(572.58)
Non-Latinx Asian		−600.00	−560.00
		(1101.05)	(1358.74)
Children under eighteen		650.00**	725.00**
		(195.79)	(211.49)
Currently unemployed		1,250.00**	1,275.00**
		(188.10)	(185.10)
Other forms of assistance			
Unemployment insurance			−575.00**
			(279.35)
Federal stimulus payment			0.00
			(184.84)
Constant	3,000.00**	1,400.00**	1,680.00**
	(233.27)	(515.11)	(599.87)
Observations	591	591	591
Akaike Inf. Crit.	10,928.49	10,874.05	10,868.86

Source: Authors' calculations.
*$p < .05$; **$p < .01$

significant controlling for other forms of government assistance). The results in tables 4 and 5 consistently demonstrate that households that received the CERA were less likely to borrow money to cover rent.

3. "Over the last two weeks, how often have you been bothered by not being able to stop or control worrying?"

Table 6 shows the results from the set of ordinal logistic regression models that were leveraged to address the ordinal nature of the categorical dependent variable, whose levels in ascending order are "not at all," "several days," "more than half the days," and "nearly every day" in response to the survey question, "Over the last two weeks, how often have you been bothered by not being able to stop or control worrying?" We regress the outcome variable on the respondents' answers to the same question in the baseline survey, in addition to the key independent variable of CERA status and the usual control variables of race and ethnicity, family status, and other forms of government assistance. Thus, we are able to control for the respondents' pre-treatment conditions in these models.

Overall, across models 2 through 4, receiving the CERA is statistically significantly associated with reporting less frequent uncontrollable worrying in recent weeks. For instance, model

Table 4. Logistic Regression Results, Borrowed Money

Dependent variable: Borrowed money to pay rent (=1)			
	(1)	(2)	(3)
Received CERA	−0.410*	−0.394*	−0.390*
	(0.168)	(0.169)	(0.17)
Race and ethnicity (Ref: Non-Latinx White)			
Non-Latinx Black		0.504*	0.481
		(0.246)	(0.25)
Latinx		0.318	0.291
		(0.3)	(0.302)
Non-Latinx Other		0.118	0.1
		(0.367)	(0.368)
Non-Latinx Asian		0.62	0.613
		(0.494)	(0.494)
Children under eighteen		−0.056	−0.047
		(0.177)	(0.178)
Currently unemployed		0.074	0.06
		(0.175)	(0.179)
Other forms of assistance			
Unemployment insurance			−0.024
			(0.196)
Federal stimulus payment			−0.208
			(0.172)
Constant	0.481**	0.093	0.217
	(0.111)	(0.261)	(0.282)
Observations	594	594	594
Log Likelihood	−401.913	−399.082	−398.287
Akaike Inf. Crit.	807.826	814.163	816.574

Source: Authors' calculations.
*$p < .05$; **$p < .01$

Table 5. Average Marginal Effects for Significant Variables, Borrowed Money

Dependent variable: Borrowed money to pay rent (=1)			
	(1)	(2)	(3)
Received CERA	−0.10*	−0.09*	−0.09*
Race and ethnicity (Ref: Non-Latinx White)			
Non-Latinx Black		0.12*	

Source: Authors' calculations.
*$p < .05$; **$p < .01$

Table 6. Ordinal Logistic Regression, Worrying

Dependent variable: Over the last two weeks, how often have you been bothered by not being able to stop or control worrying?

	(1)	(2)	(3)	(4)
Received CERA	−0.296	−0.357*	−0.370*	−0.364*
	(0.155)	(0.163)	(0.164)	(0.165)
Worrying at baseline survey (ref: "Not at all")				
Several days		0.820**	0.810**	0.807**
		(0.213)	(0.214)	(0.214)
More than half the days		1.087**	1.027**	1.013**
		(0.244)	(0.245)	(0.245)
Nearly every day		2.334**	2.277**	2.282**
		(0.249)	(0.251)	(0.252)
Race and ethnicity (ref: Non-Latinx White)				
Non-Latinx Black			−0.475*	−0.500*
			(0.234)	(0.238)
Latinx			−0.123	−0.144
			(0.287)	(0.29)
Non-Latinx Other			−0.476	−0.494
			(0.348)	(0.35)
Non-Latinx Asian			−0.786	−0.787
			(0.463)	(0.465)
Children under eighteen			−0.221	−0.217
			(0.172)	(0.172)
Currently unemployed			0.374*	0.412*
			(0.17)	(0.173)
Other forms of assistance				
Unemployment insurance				−0.185
				(0.185)
Federal stimulus payment				0.185
				(0.165)
Constant				
Not at all | several days	−1.748**	−0.986**	−1.306**	−1.268**
	(0.133)	(0.180)	(0.296)	(0.313)
Several days | more than half the days	0.043	1.003**	0.726*	0.767*
	(0.106)	(0.181)	(0.293)	(0.310)
More than half the days | nearly every day	0.929**	2.024**	1.768**	1.812**
	(0.113)	(0.195)	(0.300)	(0.317)
Observations	562	533	533	533
Residual deviance	1499.262	1324.073	1309.821	1307.888
Akaike Inf. Crit.	1507.262	1338.073	1335.821	1337.888

Source: Authors' calculations.
*$p < .05$; **$p < .01$

Table 7. Average Marginal Effects for Significant Variables, Worrying

Dependent variable: Over the last two weeks, how often have you been bothered by not being able to stop or control worrying?

	(1)	(2)	(3)	(4)
Response level: "Not at all"				
Received CERA		0.04*	0.04*	0.04*
Worrying at baseline survey (Ref: "Not at all")				
Several days		−0.14**	−0.14**	−0.14**
More than half the days		−0.17**	−0.16**	−0.16**
Nearly every day		−0.26**	−0.25**	−0.25**
Race and ethnicity (Ref: Non-Latinx White)				
Non-Latinx Black			0.05*	0.05*
Currently unemployed			−0.04*	−0.05*
Response level: "Several days"				
Received CERA		0.05*	0.04*	0.04*
Worrying at baseline survey (Ref: "Not at all")				
Several days		−0.04**	−0.04**	−0.04**
More than half the days		−0.07**	−0.07**	−0.07**
Nearly every day		−0.26**	−0.27**	−0.27**
Race and ethnicity (Ref: Non-Latinx White)				
Non-Latinx Black			0.06*	0.07*
Currently unemployed			−0.05*	−0.05*
Response level: "More than half the days"				
Received CERA		−0.02*	−0.03*	−0.03*
Worrying at baseline survey (Ref: "Not at all")				
Several days		0.07**	0.08**	0.08**
More than half the days		0.09**	0.09**	0.09**
Nearly every day		0.09**	0.09**	0.09**
Race and ethnicity (Ref: Non-Latinx White)				
Non-Latinx Black			−0.03*	−0.03*
Currently unemployed			0.03*	0.03*
Response level: "Nearly every day"				
Received CERA		−0.06*	−0.07*	−0.07*
Worrying at baseline survey (Ref: "Not at all")				
Several days		0.10**	0.10**	0.10**
More than half the days		0.15**	0.14**	0.14**
Nearly every day		0.44**	0.42**	0.43**
Race and ethnicity (Ref: Non-Latinx White)				
Non-Latinx Black			−0.09*	−0.09*
Currently unemployed			0.06*	0.07*

Source: Authors' calculations.
*$p < .05$; **$p < .01$

2 shows that, for respondents who received the CERA, the odds of responding that they have been more worried than not ("several days," "more than half the days," or "nearly every day" versus "not at all) is 0.70 times (coefficient = −0.357, $p < .05$, e^(−0.357) = 0.70) that of respondents who did not receive the CERA. Table 7, which lays out the average marginal effects for each outcome level from "not at all" to "nearly every day," helps with the interpreta-

tion. Receiving the CERA, on average across the sample, is associated with an increase in the probability of reporting "not at all" by 0.04 and reporting "several days" by 0.05 relative to not receiving it; it is associated with a decrease in the probability of reporting "more than half the days" by 0.02 and reporting "nearly every day" by 0.06.

Model 2 also illustrates that those who responded with a greater frequency of worrying in the baseline survey are more likely to report a greater frequency of worrying again in the follow-up survey. For instance, for those who responded that they had been bothered by not being able to stop or control worrying "nearly every day" in the baseline survey, the odds of responding that they have been more worried than not are 10.3 times (coefficient = 2.334, $p < .01$, e^(2.334) = 10.3) than of those who had responded "not at all" in the baseline survey. Put in terms of probability, as shown in table 7, those who experienced debilitating anxiety "nearly every day" in the baseline survey have a 44-point higher probability of responding "nearly every day" in the follow-up survey than those who did "not at all." Models 3 and 4 affirm the preceding findings and add that unemployment is a significant predictor of more anxiety. Other forms of government assistance are not statistically significant.

Although the strongest predictor of debilitating worrying in recent weeks appears to be the respondent's mental state as recorded in the baseline survey, we find that receipt of the CERA is a consistently significant predictor of a lesser degree of worrying.

4. "Have you consumed less food since November 2020 to make life more affordable?"

Table 8 summarizes the logistic regression results for "reduced food consumption since November 2020." Here again, we can control for the respondents' pre-treatment condition of whether they had reduced their food consumption in the past two years to make life more affordable. Model 1 shows that receiving the CERA is not a statistically significant predictor of (not) reducing food consumption. Model 2 also illustrates that the CERA did not have any effect. However, reporting a history of reducing food consumption to get by is a statistically significant predictor of reducing food consumption at the time of the follow-up survey (coefficient = 0.921, $p < .01$): a respondent who has previously reduced food consumption to make life more affordable has a greater probability of reporting that they have done so recently, by 0.21 (see table 9).

Model 3 affirms these findings and, in addition, shows that those respondents with children under eighteen are less likely than those without to reduce food consumption to cope financially (coefficient = –0.607, $p < .01$); their probability of doing so, on average, is 0.13 lower than those who do not have children under eighteen, which suggests that reducing food consumption may not be a viable option for households with young children. Finally, according to model 4, having received a federal stimulus payment in 2021 is statistically significantly associated with a lower likelihood of consuming less food for financial reasons (coefficient = –0.427, $p < .05$), translating to an average marginal effect on probability of –0.09. Thus, although the CERA did not affect food consumption decisions, the federal stimulus payment did, which corroborates the finding that the federal economic impact payments led to a reduction in poverty (Bitler, Hoynes, and Schanzenbach 2023, this issue). Most important, whether someone had resorted to eating less food in the past was the strongest predictor of whether they were resorting to the same, illustrating that deep, persistent financial hardships are not ameliorated by a one-time rental assistance.

5. "Have you gone without medicine or seeing a doctor since November 2020 to make life more affordable?"

Table 10 presents the logistic regression results from regressing "went without medicine or seeing a doctor" on the same set of variables as table 8, the only difference being the replacement of the corresponding control variable from the baseline survey ("have you gone without medicine or seeing a doctor in the past two years to make life more affordable?"). Models 1 through 4 show that none of the variables are statistically significant, other than whether

Table 8. Logistic Regression Results, Food Consumption

Dependent variable: Made adjustments to make life more affordable—Reduced food consumption (=1)				
	(1)	(2)	(3)	(4)
Received CERA	−0.042	0.003	0.019	0.026
	(0.17)	(0.175)	(0.177)	(0.179)
Reduced food consumption in past two years		0.921**	0.832**	0.836**
		(0.175)	(0.178)	(0.179)
Race and ethnicity (Ref: non-Latinx White)				
Non-Latinx Black			0.018	−0.028
			(0.256)	(0.261)
Latinx			0.171	0.121
			(0.312)	(0.315)
Non-Latinx Other			−0.186	−0.223
			(0.396)	(0.398)
Non-Latinx Asian			0.279	0.262
			(0.497)	(0.497)
Children under eighteen			−0.607**	−0.595**
			(0.182)	(0.183)
Currently unemployed			0.272	0.239
			(0.184)	(0.188)
Other forms of assistance				
Unemployment insurance				−0.024
				−0.206
Federal stimulus payment				−0.427*
				−0.181
Constant	−0.420**	−0.806**	−0.625*	−0.38
	(0.11)	(0.137)	(0.282)	(0.302)
Observations	594	594	594	594
Log likelihood	−397.799	−383.717	−376.429	−373.464
Akaike Inf. Crit.	799.597	773.435	770.859	768.928

Source: Authors' calculations.
*$p < .05$; **$p < .01$

Table 9. Average Marginal Effects for Significant Variables, Food Consumption

Dependent variable: Made adjustments to make life more affordable—Reduced food consumption (=1)				
	(1)	(2)	(3)	(4)
Reduced food consumption in past two years		0.21**	0.18**	0.18**
Children under eighteen			−0.13**	−0.13**
Other forms of assistance				
Federal stimulus payment				−0.09**

Source: Authors' calculations.
*$p < .05$; **$p < .01$

Table 10. Logistic Regression Results, Medicine

Dependent variable: Made adjustments to make life more affordable—Went without medicine or seeing a doctor (=1)

	(1)	(2)	(3)	(4)
Received CERA	−0.113	−0.043	−0.048	−0.038
	(0.198)	(0.225)	(0.227)	(0.228)
Went without medicine or seeing a doctor in the past two years		2.366**	2.302**	2.315**
		(0.225)	(0.232)	(0.234)
Race and ethnicity (ref: Non-Latinx White)				
Non-Latinx Black			−0.071	−0.069
			(0.314)	(0.318)
Latinx			0.095	0.101
			(0.384)	(0.388)
Non-Latinx Other			0.359	0.365
			(0.461)	(0.464)
Non-Latinx Asian			−0.193	−0.184
			(0.639)	(0.642)
Children under eighteen			−0.39	−0.393
			(0.23)	(0.23)
Currently unemployed			0.229	0.26
			(0.237)	(0.244)
Other forms of assistance				
Unemployment insurance				−0.091
				(0.261)
Federal stimulus payment				0.136
				(0.233)
Constant	−1.158**	−1.968**	−1.872**	−1.938**
	(0.127)	(0.173)	(0.356)	(0.391)
Observations	594	594	594	594
Log likelihood	−320.626	−261.047	−258.634	−258.435
Akaike Inf. Crit.	645.251	528.094	535.268	538.871

Source: Authors' calculations.
*$p < .05$; **$p < .01$

someone had indeed made such a decision due to financial reasons in the past; if they had, their probability of resorting to going without medical care again is on average greater by 0.31 to 0.33 than those who had not (see table 11). These results emphasize, again, that deep-cutting, entrenched, and systemic issues remain after the one-time or short-term assistance. Contending with them was, of course, not the goal of the COVID-19 emergency rental assistance programs; nevertheless, policymakers must grapple with what the COVID-19 pandemic and the CERA experience revealed about the state of the housing and broader social safety net.

Limitations

This study has several limitations. First, our analysis sample is a subset of the more than ten thousand households that applied to receive the CERA and the 4,257 households that received it. The baseline survey captures 2,620 of those who applied and could be joined to administrative data, and between the baseline

Table 11. Average Marginal Effects for Significant Variables, Medicine

Dependent variable: Made adjustments to make life more affordable—Went without medicine or seeing a doctor (=1)				
	(1)	(2)	(3)	(4)
Went without medicine or seeing a doctor in the past two years		0.33**	0.31**	0.31**

Source: Authors' calculations.
*$p < .05$; **$p < .01$

survey and the follow-up survey, the retention rate was 22.7 percent, resulting in our analysis sample of 594 respondents. Furthermore, even though no differences between the study sample and the baseline survey sample are statistically significant, some differences between the study sample and the all-applicant data, though minor, are.[6] For a comparison of the study sample with the baseline survey data and the all-applicant data, see tables A.1 and A.2.[7]

In addition, comparing the figures with those derived from the 2015–2019 American Community Survey (ACS) Public Use Microdata Sample (PUMS) for low-income[8] renters in Philadelphia, it is evident that all of our data—the study sample and the pool of applicants—diverge from the city's demographics. We note the divergence, but it is not surprising. Research shows that not all eligible households apply to housing assistance programs in general, and variation by race and ethnicity is also considerable, in Philadelphia in particular (Reina and Aiken 2021). Thus, although our data are not representative of all low-income renters in Philadelphia, they likely are of those residents who are in need and are likely to engage in, and be reached by, government assistance programs.

Finally, although we exploited the random assignment of households into treatment and control groups via the lottery the city conducted, the assignment was not without its limitations because the treatment assignment and the actual treatment were not delivered simultaneously to all households. Households that won the lottery were notified at the same time, but some had to wait longer to receive the rental assistance because of obstacles such as document verification and landlord compliance. Further, households placed on the waiting list were also notified that they were waitlisted at that time, but some eventually received the rental assistance. These limitations could make our results a conservative estimate of the CERA's effect. Regardless, the imperfect assignment means that the causality of our findings should be considered with caution.

DISCUSSION AND CONCLUSION

Our analysis suggests that Philadelphia's rent relief program had significant positive effects

6. The City of Philadelphia shared summary statistics for the all-applicant pool with the research team.

7. Chi-square tests run for the two pairs of datasets (that is, study sample and baseline survey data, study sample and all-applicant data) show that the study sample and the baseline are not statistically significantly different with regard to basic household characteristics—racial and ethnic composition and the percent of households with children under eighteen. The study sample does deviate from the all-applicant data for racial composition, resulting in a significant chi-square test result ($p = .01458$), although the percentages are descriptively proximate (for example, 58.1 percent Black in the study sample versus 52 percent Black in the all-applicant data; 19.9 percent White in the study sample versus 22 percent White in the all-applicant data). However, no differences based on percentage Latinx or percentage of households with children under eighteen between all three groups are significant.

8. Low-income was defined as households whose incomes do not exceed 80 percent of the median household income for the Philadelphia metropolitan statistical area.

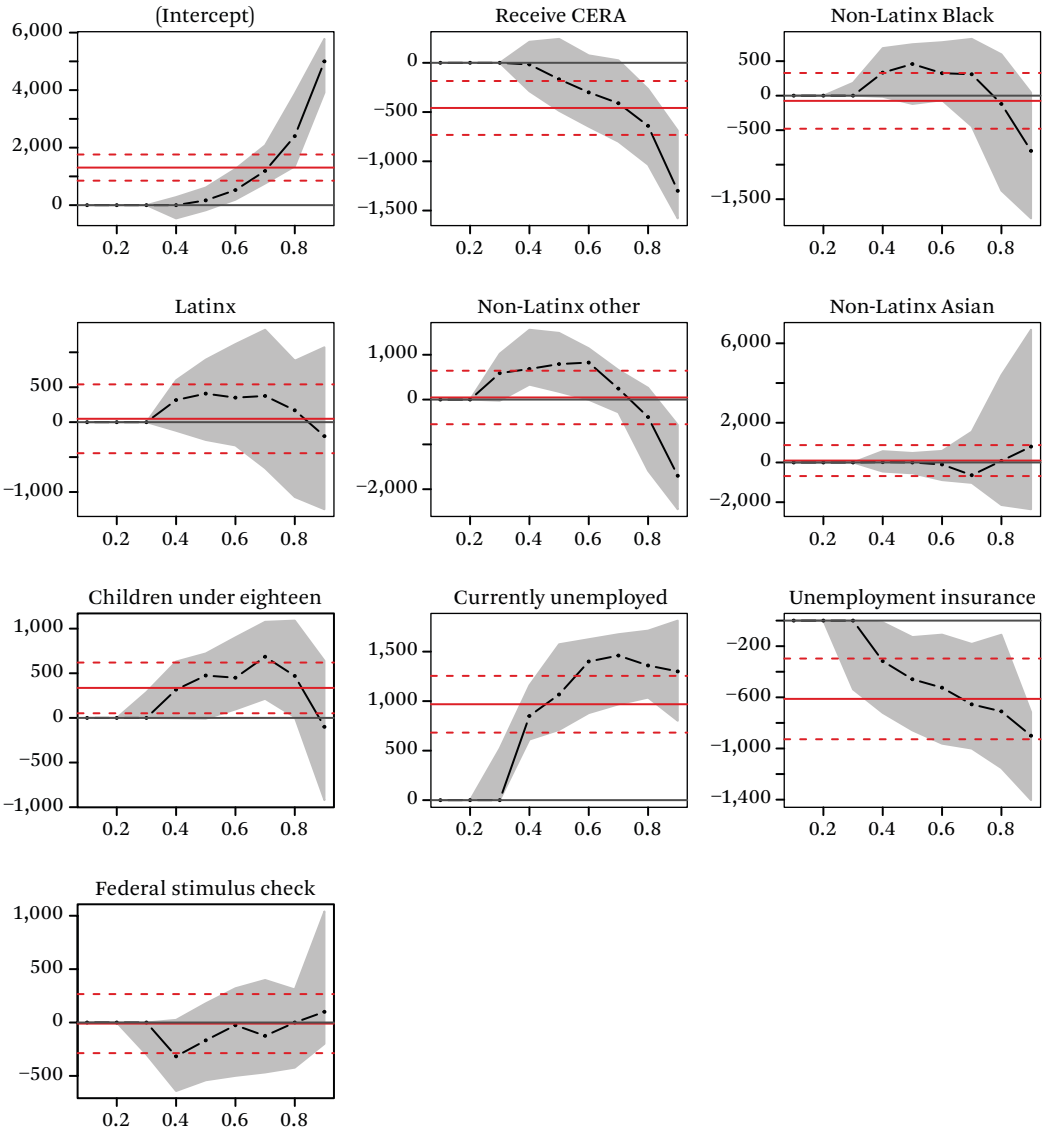
on households. Specifically, receiving the emergency rental assistance was associated with lower levels of rent owed (a $525 reduction in rent arrears at the 75th percentile), a lower likelihood of borrowing money for rent (a 9-point decrease in the probability of incurring rent-related debt), as well as a lower likelihood of reporting debilitating anxiety (a 4-point increase in the probability of reporting no uncontrollable worrying and a 7-point decrease in the probability of experiencing uncontrollable worrying nearly every day). The city's emergency rental assistance was a much-needed subsidy that led to benefits, not only in housing-related outcomes but also in overall well-being. Given that our sample is balanced across the treatment and control groups in both observed household characteristics and stated responses to the baseline survey, these effects can be reasonably attributed to the CERA. Nevertheless, given the noted variations between the study sample and all households that applied and the divergence between the study sample and the low-income renter population in Philadelphia at large (tables A.1 and A.2), caution is needed in applying these findings to contexts beyond this study, such as to all renters.

Even though these findings are positive, this initial round of the city's emergency rental assistance was by no means a panacea. Rent relief did not reduce the dire trade-offs households were making during the pandemic, such as surviving on less food or without medical care. In fact, baseline instances of households making trade-offs in the past were the most significant predictor of their odds of making the same trade-offs, which illustrates that many of these challenges predated the pandemic and require much bigger, deeper solutions. These findings are not surprising. The pandemic response programs were not designed to address long-standing challenges of housing affordability and financial fragility. Further, phase 1 of the city's emergency rental assistance program consisted of a $2,500 subsidy, which represents just over two months of the median rent in Philadelphia ($1,042 according to the 2015–2019 ACS). Thus, despite being a significant sum in in-kind assistance, it likely was not enough to make substantial changes to household budgets during a time of economic and public health crisis. However, receipt of federal stimulus payments was associated with a lower probability of reducing food consumption (tables 8 and 9). This finding is significant and resonates with the conclusion that the near-universal economic impact payments reduced overall poverty rate (Bitler, Hoynes, and Schanzenbach 2023, this issue). Therefore, in assessing household well-being during this time, it is crucial to consider the unprecedented array of programs that provided support and might have been fungible across household spending and borrowing categories.

The findings in this study on phase 1 of Philadelphia's Emergency Rental Assistance Program are important and contribute to the emerging body of research on emergency rental assistance. In Philadelphia, phases 2 through 4 reached more households and provided larger amounts in assistance through increased federal support and changes to program rules, such as direct-to-tenant assistance for those who were not eligible in phase 1 because of landlord nonparticipation or nonresponse (City of Philadelphia 2022). As a result, these later phases may be associated with even greater and more diverse sets of positive outcomes. Furthermore, more than three hundred state and local emergency rental assistance programs were developed with considerable flexibility within the outlines of the federal guidelines, adapting to local needs and capacity (Reina, Aiken, Verbrugge, et al. 2021; Reina, Aiken, Harner, et al. 2021). Thus, additional research on other localities' emergency rental assistance programs and their impacts, as well as the later phases of the Philadelphia case, is sure to be instructive for future housing policy discussions.

The COVID-19 pandemic laid bare the broader systemic issues of housing and economic insecurity in the United States that predated 2020, including a lack of housing affordability and high levels of housing cost burden. This article shows that phase 1 of the City of Philadelphia's rental assistance program had important, measurable benefits for recipient households, but it also highlights the long-standing challenges around housing affordability that cannot be addressed through an emergency response program.

Figure A.1. Estimated Parameters by Quantile Level, Rent Owed



Source: Authors' calculations.

Table A.1. Comparison of Study Sample

	Study Sample	Baseline Survey	All Applicants	ACS PUMS (2015–2019)
n	594	2,620	13,025	488,716 (individuals)
% Black	58.1	54.2	52	51.8
% White	19.9	21.1	22	29.4
% Asian	3.9	3.5	6	5.2
% Other	18.2	21.1	20	13.6
% Hispanic	17.0	19.6	19	20.6
n				207,159 (households)
% Children under eighteen	61.8	59.5	62	30.4

Source: Authors' calculations.

Table A.2. Chi-Square Test Results (*p*-values)

	Study Sample and Baseline Survey	Study Sample and All-Applicant Data
% Race	0.2756	0.01458
% Ethnicity	0.1492	0.2251
% Households with children	0.2978	0.9149

Source: Authors' calculations.

REFERENCES

Aguiar, Mark, and Erik Hurst. 2005. "Consumption Versus Expenditure." *Journal of Political Economy* 113(5): 919–48. DOI: https://doi.org/10.1086/491590.

Aiken, Claudia, Ingrid Gould Ellen, Isabel Harner, Tyler Haupert, Vincent Reina, and Rebecca Yae. 2022. "Can Emergency Rental Assistance Be Designed to Prevent Homelessness? Learning from Emergency Rental Assistance Programs." *Housing Policy Debate*. First published online: June 7, 2022. DOI: https://doi.org/10.1080/10511482.2022.2077802.

Airgood-Obrycki, Whitney, Alexander Hermann, and Sophia Wedeen. 2021. "The Rent Eats First: Rental Housing Unaffordability in the US." Cambridge, Mass.: Joint Center for Housing Studies of Harvard University. Accessed November 11, 2022. https://www.jchs.harvard.edu/sites/default/files/research/files/harvard_jchs_rent_eats_first_airgood-obrycki_hermann_wedeen_2021.pdf.

Been, Vicki, Ingrid Gould Ellen, Amy Ellen Schwartz, Leanna Stiefel, and Meryle Weinstein. 2010. "Kids and Foreclosures: New York City." New York: Furman Center for Real Estate and Urban Policy, New York University. Accessed November 11, 2022. https://furmancenter.org/files/publications/Foreclosures_and_Kids_Policy_Brief_Sept202010.pdf.

Bitler, Marianne P., Hilary W. Hoynes, and Diane Whitmore Schanzenbach. 2023. "Suffering, the Safety Net, and Disparities During COVID-19." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 9(3): 32–59. DOI: https://doi.org/10.7758/RSF.2023.9.3.02.

Board of Governors of the Federal Reserve System. 2020. "Report on the Economic Well-Being of U.S. Households in 2019." Washington, D.C.: Federal Reserve Board. Accessed November 11, 2022. https://www.federalreserve.gov/publications/files/2019-report-economic-well-being-us-households-202005.pdf.

Brobeck, Stephen. 2008. "Understanding the Emergency Savings Needs of Low- and Moderate-

Income Households: A Survey-Based Analysis of Impacts, Causes, and Remedies." Washington, D.C.: Consumer Federation of America.

City of Philadelphia. 2022. "Dashboard." COVID-19 Emergency Rental Assistance Program. Accessed September 30, 2022. https://phlrentassist.org/dashboard/.

Desmond, Matthew, and Rachel Tolbert Kimbro. 2015. "Eviction's Fallout: Housing, Hardship, and Health." *Social Forces* 94(1): 295–324.

East, Chloe N., and Elira Kuka. 2015. "Reexamining the Consumption Smoothing Benefits of Unemployment Insurance." *Journal of Public Economics* 132 (December): 32–50. DOI: https://doi.org/10.1016/j.jpubeco.2015.09.008.

Gruber, Jonathan. 1997. "The Consumption Smoothing Benefits of Unemployment Insurance." *American Economic Review* 87(1): 192–205.

Harkness, Joseph, and Sandra J. Newman. 2005. "Housing Affordability and Children's Well-Being: Evidence from the National Survey of America's Families." *Housing Policy Debate* 16(2): 223–55. DOI: https://doi.org/10.1080/10511482.2005.9521542.

Henly, Julia R., Sandra K. Danziger, and Shira Offer. 2005. "The Contribution of Social Support to the Material Well-Being of Low-Income Families." *Journal of Marriage and Family* 67(1): 122–40. DOI: https://doi.org/10.1111/j.0022–2445.2005.00010.x.

Hepburn, Peter, Jacob Haas, Nick Graetz, Renee Louis, Devin Q. Rutan, Anne Kat Alexander, Jasmine Rangel, Olivia Jin, Emily Benfer, and Matthew Desmond. 2023. "Protecting the Most Vulnerable: Policy Response and Eviction Filing Patterns During the COVID-19 Pandemic." *RSF: The Russell Sage Foundation of the Social Sciences* 9(3): 186–207. DOI: https://doi.org/10.7758/RSF.2023.9.3.08.

Joint Center for Housing Studies. 2020. "America's Rental Housing 2020." Cambridge, Mass.: Joint Center for Housing Studies, Harvard University. Accessed November 11, 2022. https://www.jchs.harvard.edu/sites/default/files/reports/files/Harvard_JCHS_Americas_Rental_Housing_2020.pdf.

Lubell, Jeffrey, Rosalyn Crain, and Rebecca Cohen. 2007. "Framing the Issues: The Positive Impacts of Affordable Housing on Health." Washington, D.C.: Center for Housing Policy. Accessed November 11, 2022. https://ebho.org/wp-content/uploads/2011/09/FramingIssues_Heath.pdf.

Lusardi, Annamaria, Daniel J. Schneider, and Peter Tufano. 2011. "Financially Fragile Households: Evidence and Implications." *NBER* working paper no. 17072. Cambridge, Mass.: National Bureau of Economic Research. DOI: https://doi.org/10.3386/w17072.

McKernan, Signe-Mary, Caroline Ratcliffe, Breno Braga, and Emma Kalish. 2016. "Thriving Residents, Thriving Cities: Family Financial Security Matters for Cities." Washington, D.C.: Urban Institute. Accessed November 11, 2022. https://www.urban.org/research/publication/thriving-residents-thriving-cities-family-financial-security-matters-cities.

Meltzer, Rachel, and Alex Schwartz. 2016. "Housing Affordability and Health: Evidence from New York City." *Housing Policy Debate* 26(1): 80–104. DOI: https://doi.org/10.1080/10511482.2015.1020321.

Mills, Gregory, Daniel Gubits, Larry Orr, David Long, Judith Feins, Bulbul Kaul, Michelle Wood, and Amy Jones. 2006. "Effects of Housing Vouchers on Welfare Families: Final Report." Cambridge, Mass.: Abt Associates.

Morduch, Jonathan, and Rachel Schneider. 2017. *The Financial Diaries: How American Families Cope in a World of Uncertainty. The Financial Diaries*. Princeton, N.J.: Princeton University Press. DOI: https://doi.org/10.1515/9781400884599.

Newman, Sandra J., and C. Scott Holupka. 2014. "Housing Affordability and Investments in Children." *Journal of Housing Economics, Housing Policy in the United States* 24 (June): 89–100. DOI: https://doi.org/10.1016/j.jhe.2013.11.006.

Parker, Jonathan A., Nicholas S. Souleles, David S. Johnson, and Robert McClelland. 2013. "Consumer Spending and the Economic Stimulus Payments of 2008." *American Economic Review* 103(6): 2530–53. DOI: https://doi.org/10.1257/aer.103.6.2530.

The Pew Charitable Trusts. 2019. "The State of Philadelphians Living in Poverty, 2019." Fact Sheet, April. Philadelphia, Pa.: The Pew Charitable Trusts. Accessed November 11, 2022. https://www.pewtrusts.org/-/media/assets/2019/05/state_of_poverty.pdf.

———. 2020. "The State of Housing Affordability in

Philadelphia." Philadelphia, Pa.: The Pew Charitable Trusts. Accessed November 11, 2022. https://www.pewtrusts.org/-/media/assets/2020/09/phillyhousingreport.pdf.

Pollack, Craig Evan, Beth Ann Griffin, and Julia Lynch. 2010. "Housing Affordability and Health Among Homeowners and Renters." *American Journal of Preventive Medicine* 39(6): 515–21. DOI: https://doi.org/10.1016/j.amepre.2010.08.002.

Ravenelle, Alexandrea J., and Savannah Knoble. 2023. "'I Could Be Unemployed the Rest of the Year': Unprecedented Times and the Challenges of 'Making More.'" *RSF: The Russell Sage Foundation of the Social Sciences* 9(3): 110–31. DOI: https://doi.org/10.7758/RSF.2023.9.3.05.

Reina, Vincent J., and Claudia Aiken. 2021. "Fair Housing: Asian and Latino/a Experiences, Perceptions, and Strategies." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 7(2): 201–23. DOI: https://doi.org/10.7758/RSF.2021.7.2.10.

Reina, Vincent J., Claudia Aiken, and Jenn Epstein. 2021. "Exploring a Universal Housing Voucher." Philadelphia, Pa.: The Housing Initiative at Penn. Accessed November 11, 2022. https://www.housinginitiative.org/universal-voucher.html.

Reina, Vincent J., Claudia Aiken, and Sydney Goldstein. 2021. "The Need for Rental Assistance in Los Angeles City and County." Philadelphia, Pa.: The Housing Initiative at Penn. Accessed November 11, 2022. https://www.housinginitiative.org/uploads/1/3/2/9/132946414/hip_la_tenant_brief_final.pdf.

Reina, Vincent J., Claudia Aiken, Isabel Harner, Julia Verbrugge, Ingrid Gould Ellen, Tyler Haupert, Andrew Aurand, and Rebecca Yae. 2021. "Treasury Emergency Rental Assistance Programs in 2021: Analysis of a National Survey." Research Brief. Philadelphia, Pa: The Housing Initiative at Penn, NYU Furman Center, and the National Low Income Housing Coalition. Accessed November 11, 2022. https://www.housinginitiative.org/uploads/1/3/2/9/132946414/final_spring_2021_era_survey.pdf.

Reina, Vincent J., Claudia Aiken, Julia Verbrugge, Ingrid Gould Ellen, Tyler Haupert, Andrew Aurand, and Rebecca Yae. 2021. "COVID-19 Emergency Rental Assistance: Analysis of a National Survey of Programs." Philadelphia, Pa.: The Housing Initiative at Penn and the National Low Income Housing Coalition. Accessed November 11, 2022. https://www.housinginitiative.org/uploads/1/3/2/9/132946414/hip_nlihc_2022_3-10_final.pdf.

Rosen, Jovanna, Sean Angst, Soledad De Gregorio, and Gary Painter. 2020. "How Do Renters Cope with Unaffordability?" Los Angeles: University of Southern California, Price Center for Social Innovation. Accessed November 11, 2022. http://socialinnovation.usc.edu/wp-content/uploads/2020/12/Price-Center_RenterUnaffordability_Report_Final.pdf.

Schapiro, Rebecca, Kim Blankenship, Alana Rosenberg, and Danya Keene. 2022. "The Effects of Rental Assistance on Housing Stability, Quality, Autonomy, and Affordability." *Housing Policy Debate* 32(3): 456–72. DOI: https://doi.org/10.1080/10511482.2020.1846067.

Schwartz, Alex F. 2021. *Housing Policy in the United States*, 4th ed. New York: Routledge.

Stephens, Melvin. 2003. "'3rd of Tha Month': Do Social Security Recipients Smooth Consumption Between Checks?" *American Economic Review* 93(1): 406–22.

PART V

Criminal Punishment and COVID-19

Life During COVID for Court-Involved People

SAMANTHA PLUMMER, TIMOTHY ITTNER, ANGIE MONREAL, JASMIN SANDELSON, AND BRUCE WESTERN

Data from a unique survey of court-involved New Yorkers collected during the COVID-19 pandemic in 2020 provides evidence for a cycle of disadvantage involving penal control, material hardship, and health risk. We find evidence of chaotic jail conditions from March to May 2020 in the early phase of the pandemic, and high levels of housing and food insecurity, and joblessness for those leaving jail or with current criminal cases. The highest levels of material hardship—measured by housing insecurity, unemployment, shelter stays, and poor self-reported health—were experienced by those with mental illness and substance use problems who had been incarcerated.

Keywords: criminal legal system, poverty, jails, health, substance use, coronavirus

The COVID-19 pandemic created significant threats to health and material well-being in low-income communities. The effects of the pandemic were especially severe for those involved in the criminal justice system. Prisons and jails experienced ferocious outbreaks of the virus (Hawks, Woolhandler, and McCormick 2020; Wang et al. 2020). The social and economic instability caused by incarceration and other criminal justice involvement also contributed to exposure to infection, reduced opportunities for safe quarantine, and added to economic insecurity.

This article examines the connections between criminal justice involvement, acute material hardship, and exposure to COVID-19. In our conceptual framework, these conditions are mutually reinforcing, creating serious chal-

Samantha Plummer is an associate research scholar in the Justice Lab at Columbia University, United States. **Timothy Ittner** is a doctoral candidate in the Department of Sociology at Columbia University, United States. **Angie Monreal** is a doctoral student in the Department of Sociology at University of California, Irvine, United States. **Jasmin Sandelson** is an associate research scholar in the Justice Lab at Columbia University, United States. **Bruce Western** is Bryce Professor of Sociology and Social Justice and director of the Justice Lab at Columbia University, United States.

 Plummer, Samantha, Timothy Ittner, Angie Monreal, Jasmin Sandelson, and Bruce Western. 2023. "Life During COVID for Court-Involved People." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 9(3): 232–51. DOI: 10.7758/RSF.2023.9.3.10. This research was supported by grants from the William T. Grant Foundation, the Robert Wood Johnson Foundation, the Russell Sage Foundation, the J.C. Flowers Foundation, and the Tiger Foundation. We thank the New York City Departments of Social Services and of Corrections for providing data used in this research and our study participants for sharing their stories with us. Direct correspondence to: Bruce Western at bruce.western@columbia.edu, Department of Sociology at Columbia University, United States.

lenges for implementing mitigation strategies among people who are incarcerated or otherwise involved in the criminal justice system. Criminal justice involvement may impair social and economic security (Wakefield and Uggen 2010; Travis, Western, and Redburn 2014), and socioeconomic insecurity can increase the risks associated with infectious disease (Riley et al. 2007). Disease can harm economic well-being, which can in turn put people at greater risk of involvement with police and penal facilities (Western 2018). Jails in particular—characterized by high population turnover and often located within municipalities—were centers of viral transmission and sources of social instability for those who were released to pandemic conditions (Puglisi et al. 2021).

Although our conceptual framework suggests that health risks and material hardship can escalate for people at risk of incarceration, population heterogeneity and social policy intervention suggest how spirals of sickness and poverty can be alleviated. Drawing on prisoner reentry research, we explore health status as an important dimension of population heterogeneity (Western 2018). Unusual material disadvantage has been found among formerly incarcerated people with dual diagnoses—histories of mental illness and substance use problems. We study the possibility of elevated hardship and health risk for that group. We also examine the use of safety net programs among justice-involved people, particularly for those with serious health problems.

In addition to contributing to a multidimensional perspective on poverty under pandemic conditions, this article also provides an account of reentry from incarceration. A number of data collection efforts provide a relatively clear picture of the ebbs and flows of decarceration efforts and of trends in incarceration and infection over the course of the pandemic, particularly in prisons (Lemasters et al. 2020; Wang et al. 2020). Less is known about the experience of leaving incarceration, returning to communities under pandemic conditions, and facing the cumulative effects of disease, social control, and economic insecurity.

Capturing the social dynamics of pandemic life for people involved in the criminal justice system requires a research design that observes experiences of incarceration and community conditions. This analysis takes advantage of a unique data collection from a sample of people who faced criminal charges, and in some cases incarceration, in New York City during the pandemic. The interviews with people incarcerated and released during the pandemic provide information on conditions inside New York's Rikers Island jail complex. The interviews are supplemented with reports and grievances collected by the New York City Board of Corrections, which conducted investigative interviews at Rikers throughout 2020. Interviews with people who were released from jail during the pandemic or remained in the community throughout the study period also shed light on community conditions for people with open criminal cases; respondents discussed in great detail the pandemic's effects on their income, housing, health care, and program participation.

We begin by presenting a conceptual framework that motivates our analysis, which links material hardship, health, and criminal justice involvement. After discussing the early spread of COVID-19 in U.S. prisons and jails and the responses of correctional systems and legislatures to the pandemic, we describe our research design. The empirical analysis examines jail conditions by studying respondents' qualitative reports of Rikers Island in early 2020, augmented by investigative reports from the New York Board of Corrections. It then looks into conditions of socioeconomic insecurity, comparing the experiences of respondents who we recruited in jail with those we recruited at court (who were not incarcerated following their arraignments), focusing on employment, health, housing and social program participation. A closing thematic analysis of qualitative interview data provides deeper context for the quantitative results.

The results indicate chaotic conditions inside Rikers Island in early 2020 when the COVID-19 pandemic first hit New York. Initially, few systematic protocols were in place, and reports from incarcerated people point to very high risks of COVID-19 exposure. Those released from Rikers and other court-involved individuals also experienced very high rates of joblessness, poor health, and housing instabil-

ity. Socioeconomic insecurity was significantly greater among jail-recruited respondents than court-recruited respondents, particularly so for those reporting mental illness and a history of substance use. Qualitative interviews provide additional details underlining the extreme social isolation experienced by those with criminal cases at the height of the pandemic. Despite dire conditions in New York City for people with criminal cases, we also find substantial participation in social programs that reduced the level of material hardship.

MATERIAL HARDSHIP, CRIMINAL JUSTICE INVOLVEMENT, AND HEALTH

Sociological research indicates the close connections between penal control, poverty, and risks to health (Wakefield and Uggen 2010; Wakefield and Wildeman 2013; Western 2018). A large research literature studies the connections between criminal justice involvement, including incarceration, and poverty and socioeconomic insecurity. One line of research describes how unemployment, poverty, low education, and housing insecurity expose the economically disadvantaged to elevated risks of police scrutiny and incarceration (see, for example, Bridges and Myers 1994; Sampson and Laub 1994; Wacquant 2009; Duneier 1999). In this account, economic disadvantage is associated with greater involvement in crime, but beyond the link between poverty and crime, criminal justice officials also focus their attention on poor people and communities, resulting in the "criminalization of poverty" (Bell, Garlock, and Nabavi-Noori 2020). Another line of research examines the opposite causal connection, studying the possible impact of criminal justice involvement on economic status, and finds that police contact and incarceration confer stigma and disrupt major life activities thereby undermining economic opportunities (Western 2006; Pager 2007; Mueller-Smith 2015; Dobbie, Goldin, and Yang 2018).

Although criminal justice involvement, in general, has been found to be closely connected to poverty and its correlates, there is evidence that incarceration is particularly harmful. Jeffrey Grogger (1995) analyzes California court data, comparing the effects of arrest, probation, jail incarceration, and imprisonment on employment. He finds that the largest negative effects were associated with incarceration in jail and prison. Closer to the current analysis, a recent study of New York City court records also finds that jail incarceration was associated with reduced employment (Dobbie, Goldin, and Yang 2018). Consistent with research on the negative socioeconomic consequences of incarceration, studies of prisoner reentry also find that incarceration is severely disruptive, breaking connections to family, housing, and employment. Release from incarceration thus creates challenges of rebuilding familial and social bonds, finding a stable job, and acquiring a safe and affordable residence (Western 2018; Harding, Morenoff, and Wyse 2019).

Health problems are also closely linked to economic disadvantage and criminal justice involvement. The connection between health and economic well-being is the starting point for research on the social determinants of health (Marmot and Wilkinson 2005). Infectious disease specifically is found to have a strong economic gradient, related to both access to medical care and the health risks directly connected to the conditions of poverty, including factors such as unhealthy housing and poor nutrition (Riley et al. 2007; Braverman 2011). Health problems associated with criminal justice involvement are also well documented. Research in this area has focused on the health status of incarcerated people, although researchers have also examined the links between mental health and police contact (Sugie and Turney 2017; Massoglia and Pridemore 2015; Geller et al. 2014). Aggressive policing and incarceration are closely associated with poor physical and mental health (Sewell, Jefferson, and Lee 2016; Sewell and Jefferson 2016; Schnittker, Massoglia, and Uggen 2012). Poor health in the incarcerated population is often related to enduring poverty and risky health behaviors such as needle use, heavy alcohol use, and smoking (Fazel and Baillargeon 2011). Researchers have observed rates of chronic conditions such as hypertension, asthma, and arthritis around 50 percent higher in prison than in the community (Binswanger, Krueger, and Steiner 2009; Fazel and Baillargeon 2011). Mental health among incarcerated people is also poor, as evidenced in surveys showing high rates of mood

disorders and serious mental illness (Raphael and Stoll 2013).

Although people involved in the criminal justice system are likely to be in poor health even before incarceration, some of the strongest evidence of a causal relationship between incarceration and health relates to infectious disease. Researchers have examined outbreaks of infectious disease in prison, focusing on the spread of tuberculosis, influenza, and varicella (Beaudry et al. 2020). Each of these diseases is airborne and spread through aerosol transmission (droplets) and contact with surfaces. The congregate living areas, dining halls, and recreation areas that make up the physical plant of prisons and jails facilitate the spread of airborne pathogens, particularly in overcrowded conditions. Population turnover raises the risk of both bringing infections in from surrounding communities, and also transmitting disease back to the communities from which the incarcerated population (and correctional staff) is drawn.

The criminal justice system has a complex relationship with the health status of court-involved and incarcerated people. The public's contact with police and jails significantly increased beginning in the 1980s as drug enforcement and order maintenance policing intensified, and incarceration rates grew precipitously (Gelman, Fagan, and Kiss 2007; Kohler-Hausmann 2018; Western et al. 2021). Such policing efforts may have increased criminal justice contact with people with substance use disorders and other health problems. Certainly, police and jails are among the frontline responders to mental health crises and drug overdoses among poor people, particularly in public space (Irwin 1985; Stuart 2016; Beckett and Herbert 2010; Lara-Millán 2021). Although penal facilities are a significant provider of medical care, about one in five prisons in 2019 was under a consent decree or court order, and court oversight in about half of those cases related to allegations of inferior medical or mental health care.

The triangular relationship between criminal justice involvement, material hardship, and poor health is likely mutually determining. Criminal justice involvement becomes more likely under social conditions of poverty, and the stigma of a criminal record and the harms of incarceration can also undermine economic well-being. Poor physical and mental health are risk factors for contact with police and the courts, and incarceration can impair health, particularly through transmission of infectious disease. Poor health, in turn, imposes limitations on physical and cognitive functioning and on daily activities. Poor health is a deficit of human capital that threatens regular employment and stable housing.

Poverty scholars have often observed that the correlates of economic hardship reflect not causal relationships, but the multidimensional character of socioeconomic disadvantage (Desmond and Western 2018). Sociologists analyzing poverty at the ecological and individual level have observed that "things go together" (Sampson 2012; Simes 2021) creating conditions of "correlated adversity" (Western 2018).

From this perspective, the COVID-19 pandemic created severe conditions of correlated adversity, compounding the relationships between criminal justice involvement, health risk, and material hardship. Although these conditions clustered together, conditions of material hardship and elevated health risk are likely to vary with what has been called "human frailty" (Western 2018). The idea of human frailty emphasizes heterogeneity among people involved in the criminal justice system, in which the worst conditions of material hardship and risks to health were likely experienced by people with histories of incarceration, mental illness, and substance use disorders. Examining variation in outcomes by health status helps illuminate how criminal justice policy operates as a de facto response to untreated health problems among poor people.

Research indicates that incarceration raises the risks of infectious disease and creates the challenge at reentry of finding a job and housing after release from jail. Among those who are incarcerated, severe hardship has been observed among those contending with life histories of substance use and mental illness. These dimensions of ill-health among poor men and women raise the risks of criminal justice involvement and impede social integration after incarceration (Western 2018; Sirois 2019; Harding, Morenoff, and Wyse 2019). In the fol-

lowing analysis, we explore the relationships between criminal justice involvement, material hardship, and poor health, comparing survey respondents we recruited in jail with those we recruited at criminal court (not incarcerated at arraignment). We examine whether people who were incarcerated at Rikers experience worse outcomes, and whether formerly incarcerated respondents with histories of mental illness and substance use are at unusually high risk of joblessness, housing instability, and poor health.

THE EARLY SPREAD OF COVID-19 IN PRISONS AND JAILS

Prisons and jails emerged early in the pandemic as hotspots of COVID-19 infection and transmission, resulting in disproportionately higher incidence and death rates among incarcerated people than among the general population (Wang et al. 2020). By the week of April 22, 2020, the infection rate in the prison population was more than 150 percent greater than among the general U.S. population (Park, Meagher, and Li 2020). By August that year, the cumulative case and COVID-19-related mortality rates were around four and two times higher among people incarcerated in prisons than in the general population (Schnepel 2020). Average rates hide a lot of variation between states. Age-adjusted prison to state mortality rate ratios, for example, ranged from zero in fourteen states to more than ten in four states in August 2020 (Schnepel 2020). Prison staff too experienced much higher COVID-19 case prevalence than the U.S. population overall: their cumulative case rate in fact more closely reflects that of the prison population (Ward et al. 2021; Nowotny, Seide, and Brinkley-Rubinstein 2021).

The pandemic laid bare many of the public health risks posed by the criminal justice system to the people it targets and employs, and their families and communities. Overcrowding and the physical conditions of prisons and jails make it largely impossible for incarcerated people to maintain safe social distance. The court system also brings together large numbers of people in close quarters. Such congregate settings raise the risk of transmission for diseases that can be spread by personal contact (Niveau 2006; Bick 2007; Lofgren et al. 2020). Incarcerated people, their families, and communities are often in poor health and more likely to have diabetes and chronic heart and respiratory diseases that can exacerbate the effects of COVID-19 (Wildeman and Wang 2017; Williams et al. 2020; Howell et al. 2020). The elderly population in prisons and jails has also grown in recent decades, outpacing the rate of aging in the general population (Chan et al. 2021; Williams et al. 2012). Further, older adults in jail have higher rates of geriatric diseases than those in the general population (Greene et al. 2018). Finally, prisons and jails experience a daily churn of staff members, visitors, and new admissions that can interfere with viral containment and other public health efforts in surrounding communities.

Population turnover happens in all penal institutions but is especially prominent in jails, where admission rates are significantly higher than for prisons. Prisons are operated by state and federal governments and typically incarcerate people who are convicted of felonies and receive a sentence of at least a year. Jails, on the other hand, are county or municipal facilities that incarcerate people who are awaiting court action or serving sentences for low-level offenses. In 2019, the jail admission rate was eighteen times higher than the prison admission rate (Zeng and Minton 2021; Carson 2020). By many metrics, jail conditions are also worse than prison conditions. Jails do not typically offer programming and often fail to provide adequate accommodations for sleeping or eating. The jail population faces severe and immediate medical needs, often having been detained for low-level offenses amid mental health crisis or relapse to addiction. Because of the high level of population turnover, the lack of programming, and a population characterized by acute physical and mental health problems, jails are often more chaotic and dangerous than prisons. Because of their conditions and scale of admissions, jails as centers of outbreaks of infectious disease also pose significant transmission risks to surrounding communities.

Decarceration emerged early as an effective strategy to mitigate COVID-19 spread within correctional settings and in the community (Wang et al. 2020; ACLU 2020). Under pandemic conditions, prison and jail populations de-

clined rapidly beginning in March 2020 but began to rebound by the end of the year. On average, jail populations declined more rapidly and substantially than prison populations. Whereas jail reductions resulted from decreases in admissions and releases in excess of admissions, prison decreases appear to have been achieved almost entirely by decreased admissions. New data released by the Bureau of Justice Statistics shows that U.S. prisons released 10 percent fewer people in 2020 than in 2019 (Harvey, Taylor, and Wang 2020; Sawyer 2022).

In the week following the White House's March 16 call for "30 Days to Slow the Spread" in its "Coronavirus Guidelines for America," jail populations decreased sharply and continued to decline for eight weeks before rising again in mid-May despite increasing local COVID-19 case rates (Harvey, Taylor, and Wang 2020). A national sample of 415 county jails saw an average decline of 33 percent from March to May of 2020, but by December 2021 that decrease shrunk to 10 percent, and there was a 0 percent average change between July and December of 2021 (Widra 2022). Vera Institute's data collection of 1,309 jail jurisdictions shows similarly that the majority of the population decrease took place between March 15 and April 15 and that the pace of population decline slowed significantly by June 1, 2020 (Heiss et al. 2020).

Reductions in jail populations in 2020 were due to a combination of decreased admissions and increased releases achieved through court orders, actions by jail administrators and sheriffs, prosecutor discretion, and changes in policing (Prison Policy Initiative 2021). Reflecting the nonsystemic character of the U.S. criminal justice system (Rubin and Phelps 2017; Mayeux 2018), state and local penal authorities' efforts to reduce jail populations varied in their level of coordination and aggressiveness. Jail population trajectories between March and June of 2020 reflect this variation, falling largely into three categories: rapid decline followed by stability, initial decline followed by a quick increase, or stability throughout (Heiss et al. 2020). Jails in the West saw the largest of the early population decreases; those in the South saw the smallest average decreases (Harvey, Taylor, and Wang 2020).

COVID, RIKERS ISLAND, AND MATERIAL HARDSHIP

New York City and its jails at Rikers Island were at the epicenter of the pandemic. The number of COVID-19 cases and the government response to the pandemic escalated rapidly in March 2020. Following the declaration of a state of emergency on March 7 and the closure of public schools on March 16, New York Governor Andrew Cuomo ordered a statewide "pause" on March 20. Businesses were shuttered, nonessential workers were directed to stay at home, and City residents were instructed to maintain a six-foot distance from others in public.

By the time of our field period in 2019 and 2020, the Rikers Island jail complex had accumulated a long history of institutional violence, staff misconduct, and federal oversight (Bharara et al. 2014; Martin et al. 2019). In the years before the pandemic, popular pressure to close the jail escalated following reports in 2015 that twenty-two-year-old Kalief Browder had committed suicide after being detained on Rikers Island for three years, including seventeen months in solitary confinement, while awaiting trial for allegedly stealing a backpack (Gonnerman 2014, 2015). In 2015, after four years of litigation and a Department of Justice investigation, the City agreed to major reforms, including restrictions on officer use of force and the appointment of a federal monitor. Despite the consent judgment, the monitor continues to document frequent staff violence toward incarcerated people and other facets of pervasive disorder. Homer Venters, chief medical officer of the New York City jail system from August 2015 to March 2017, described Rikers as dominated by a culture of violence in which detainees were regularly beaten by correctional officers, yielding large numbers of head injuries, facial fractures, and lacerations requiring sutures (Venters 2019, chap. 2). Solitary confinement was widely used at Rikers Island. About 7.5 percent of the population were held in punitive segregation on an average day in 2013, and an additional number diagnosed with mental illness in a facility dedicated to "restricted housing units" (Haney et al. 2016). Persistent problems of violence and mismanagement ultimately forced the New York may-

or's office to announce plans in 2017 to close Rikers Island by 2026 (Mayor's Office of Criminal Justice 2018).

Conditions of violence, disorder, and physical dilapidation at Rikers Island created a fertile environment for infectious disease. When COVID-19 first arrived in New York City in early 2020, Rikers Island quickly became a hotspot. By April 23, a total of 1,027 Department of Corrections staff had tested positive, and 323 people remained incarcerated with confirmed cases. Three incarcerated people had died in jail of complications associated with COVID-19, and news reports counted eight staff deaths (New York City Board of Correction 2020; Paul and Chapman 2020). The infection rate among people incarcerated at Rikers was more than forty times the national rate and almost six times the rate in New York. By May, more than a dozen COVID-19 fatalities of staff and incarcerated people had been recorded (Ransom 2020). The risks of infection and death at Rikers were borne disproportionately by Black and Latino men, who face very high risks to jail incarceration in New York City (Western et al. 2021).

Seeking to avoid a public health disaster, correctional administrators, policymakers, and advocates devised strategies for diversion from incarceration and early release for those who were medically vulnerable (UCLA School of Law 2020). In New York, the jail population declined by 30 percent, from 5,458 on March 16 to 3,888 by April 23, 2020, the lowest it had been since the 1940s (Mayor's Office of Criminal Justice 2020). New York's bail reform law, passed in April 2019 and implemented on January 1, 2020, resulted in a nearly 25 percent reduction shortly before the pandemic. The most dramatic decrease, though, since at least 2014 occurred during the week of March 23 to March 29, when 630 people were released (Miller, Martin, and Topaz 2022).

The rapid decline in the jail population resulted partly from deliberate efforts to accelerate release and partly from a reduction in admissions due to a slowdown in the operation of New York City criminal courts. Specifically, three measures drove the early and precipitous drop in New York City. First, the Early Release Program designed by the Mayor's Office of Criminal Justice led to the discharge of 296 people with less than a year remaining on their sentences, requiring them to do daily remote check-ins with case managers. Second, a March 27 decision in a Legal Aid Society lawsuit resulted in the release of 106 people held on parole violations. Third, Governor Cuomo ordered the Department of Corrections and Community Supervision to review further cases of people detained on technical violations. Subsequent Legal Aid Society lawsuits and case-by-case reviews, as well as public defenders' efforts to argue bail writs, contributed to further population decline, which continued until the end of April (Rempel 2020).

Despite likely saving people from hospitalization and death, jail population reductions did not persist after April 29, 2020. Due to rollbacks to bail reform and a tapering off of emergency responses, the population began to increase gradually in May 2020, eventually surpassing its pre-pandemic level in February 2021 (New York City Board of Correction 2021; Chan et al. 2021). The number of confirmed COVID-19 cases in New York City's incarcerated population also began to climb following a slow but steady decline between April and November 2020.

The onset of the pandemic in 2020 suggests three distinct lines of empirical study to explain the conditions of life and health risks faced by court-involved New Yorkers. First, we examine conditions inside the Rikers Island jail complex as the COVID-19 outbreak rapidly escalated in the first half of 2020. Second, we examine quantitatively several dimensions of material hardship, including joblessness, housing instability, poor health, and benefit receipt. In the quantitative analysis, we focus on the experience of people who were incarcerated at Rikers Island, including that subset with histories of mental illness and substance use problems. Finally, qualitative analysis helps describe how New Yorkers facing criminal charges experienced the lockdown period of the pandemic.

DATA

We report on new data collections from three main sources. First, we analyze data from the Rikers Island Longitudinal Study (RILS), a panel interview study of 286 New Yorkers facing a new criminal charge. We recruited half the respondents from arraignment courts in Brooklyn, Manhattan, and the Bronx between

July and November 2019 and half from three jails on Rikers Island between November 2019 and January 2020.

Prospective respondents were eligible for the study if they were charged with a violent felony or reported at least three prior arrests in the previous five years. We focused on these two groups because people charged with violent felonies or with multiple prior arrests form two key groups whose incarceration rates must be reduced as part of the plan to close the Rikers Island jail complex.

We used real time charge data from the New York State Office of Court Administration to identify eligible potential respondents in arraignment courts. When a potential respondent received nonfinancial release (rather than remand or bail hold), a member of the research team approached them outside court and attempted to recruit them into the study. Those who agreed to participate typically completed the baseline survey immediately, in a courthouse public seating area.

We identified and recruited eligible respondents at Rikers Island with the assistance of the New York City Department of Corrections (DOC), which sent us a list of eligible potential respondents at the start of each of our recruitment weeks. Members of the research team went in pairs to each of the three jails where potential respondents were held and provided DOC officers the lists of potential respondents. DOC officers brought research team members to one of the jail's communal spaces, typically the chapel or visiting room, to wait while the officers located the potential respondents and attempted to recruit them into the study on our behalf. Those who agreed to participate were brought to the communal area, where they completed the baseline survey. Officers respected respondents' privacy and waited outside of the communal areas until the interviews were complete. Incarcerated respondents received $30 for the baseline survey, which, depending on their stated preference, we deposited into their commissary accounts, sent to a designated friend or family member, or gave them on their release from jail.

The study followed each respondent for about one year after their initial court appearance or immediate post-arraignment incarceration, interviewing them at three months, six months, and twelve months following the initial baseline survey. Each follow-up survey contained the same set of core questions focused on respondents' housing, income, family arrangements, criminal legal system contact, and health and health care. Each survey wave also included a topical module that asked questions about lifetime criminal justice system contact, health and health care, and childhood experiences. An oversample of respondents age eighteen to twenty-five years old also received extended qualitative interviews.

On March 15, 2020, Columbia University (where RILS is based) announced that in-person research was to be "ramped down." The RILS shifted from conducting interviews in person to doing them by telephone. We designed a COVID-19 survey to obtain data on health status and living conditions during the lockdown. From this point on, all interviews with community-based respondents were conducted by telephone. Incarcerated respondents could not be interviewed because we could not guarantee the confidentiality of calls to the jail. Respondents who were incarcerated at the time of their scheduled twelve-month interview received a paper survey. Respondents received $30 for the baseline survey and $50 for each subsequent survey. The subsample of qualitative interview respondents received an additional $20 per survey. The RILS completed data collection in March 2021 with an overall retention rate of about 70 percent.

The second source of data reported below came from administrative records on social service use. Around 75 percent of RILS respondents consented to the use of their Social Security numbers to obtain administrative records from the New York City Department of Social Services, which included monthly Supplemental Nutritional Assistance Program (SNAP) benefit amount and monthly nights-in-shelters administered by the New York City Department of Homeless Services (DHS). Of the 216 matched respondents, 103 spent at least one night in shelter between July 2014 and December 2020, and 189 received SNAP benefits in at least one month during that period. New York does not consider drug felony convictions when determining SNAP eligibility (Sheely 2021).

Finally, to obtain information on jail conditions during the pandemic, we rely on data collected by New York City's Board of Corrections (BOC), which regulates jail conditions and correctional health care in New York City jails. In May 2020, it began conducting targeted on-site inspections of jail facilities to supplement its remote monitoring of the Department of Corrections' COVID-19 response. During each of their on-site visits since the start of the pandemic, BOC staff has interviewed two to four incarcerated people about their physical, emotional, and psychological well-being, jail sanitation and hygiene, access to health care, personal protective equipment, and mandated services. The BOC shared with the research team audio recordings of thirty-six interviews they conducted with forty-five incarcerated people, some of whom participated in pairs, and detailed notes of four interviews they conducted with four incarcerated people who did not want to be audio recorded. We also obtained complaints to the BOC about jail conditions from incarcerated people, family, and friends.

COVID-19 ON RIKERS ISLAND

Interviews with RILS respondents after their release from jail and BOC respondents while they were incarcerated shed light on conditions inside New York City jails during the pandemic. In the early phase of the COVID-19 crisis on Rikers, cases were mounting rapidly and BOC and DOC hurriedly established new protocols to try and quarantine people who were medically diagnosed or had tested positive. Standard procedures for quarantining, cohorting, testing, and reducing the density of the population had begun to emerge by the summer. However, in the first half of 2020, jail staff and health-care workers were still learning how to control the spread of infection.

Medical complaints registered with the Board of Corrections reflected the chaotic conditions inside the jail at the onset of the outbreak. The BOC notes describe one phone call received from the jail: "Caller stated that he's vomiting, coughing and defecating excessively. He feels he may have the virus. Caller said he's been asking for medical treatment to no avail. Feels that since he's been moved to a jail with a smaller population he should finally be able to get medical assistance." A friend or family member of another incarcerated man called the BOC to express concern about the dehumanizing conditions at Rikers:

> He along with other inmates are suffering poor unhealthy conditions in that facility. They are being denied proper care, getting minimum standards, inmates have not been let outside to get air in over three weeks, no library services, no religious services. . . . They are also bringing inmates who have tested positive for COVID. The inmates are not being paid for two weeks for the working services they are doing. Place is filthy unsanitary, they have rats coming out nowhere. These are humans we're talking about; they are all being treated like animals.

Crowded conditions and poor sanitation were described in another call by an incarcerated person to the BOC: "Inmate stated there are 40 inmates in the housing area and it's physically impossible to social distance. He also claims they have no hand sanitizer or masks. Inmate stated he's spoken to the Captain and [Deputy Warden] of the jail to no avail. He does not know who else to talk to."

Our own interviews also described unsanitary conditions, confusion, and anxiety during the outbreak. A week after her release, a twenty-two-year-old woman described quarantine in jail as "horrible. [We were] left in the same uniform, no toothbrush, no hot water. Medical team was horrible. Thirty other girls in the same cell." The quarantine was supposed to last fourteen days, but since she had asthma, she was released after six days when she tested positive for COVID-19. She went to live with her mother after she left the jail.

An eighteen-year-old male respondent described the challenges of controlling the spread of the virus at the jail: "I was showing some similar symptoms to the coronavirus, and I was sent to EMTC [a jail on Rikers Island] as a precaution. The problem with that was that I was not tested at RNDC [his previous jail on Rikers Island]. I was tested at EMTC where I was exposed to the coronavirus because they had been sending people there who tested positive or who were awaiting and tested negative. . . .

The pens weren't being sanitized. There were no gloves, there were no masks." Another eighteen-year-old respondent tested positive for COVID-19 while incarcerated at Rikers Island. A few months after being released in late March of 2020, he said "the way corrections handled the pandemic was . . . absolutely disgusting, inhumane, and it showed that there was no real care and no real preparation." He described how unsanitary conditions, inadequate medical care, quarantine procedures, and isolation took a "heavy mental toll."

> They wouldn't sanitize or disinfect the rooms. . . . It was very tough to stay healthy, to stay clean. When I was there, I did a three-day quarantine . . . and I was only allowed out of the cell for one hour a day. And on top of that, I hadn't showered for those four days because somebody who had tested positive actually vomited blood in the shower and the correctional officers there refused to get a team inside the unit and start cleaning it up. And on top of that, they didn't have the solution to give us ourselves so we could clean it. . . . So, it was very tough to keep your mind positive and stay healthy in such conditions.

As in other outbreaks of infectious disease, DOC staff struggled to provide a high standard of care for a population already in poor health, elevating their risk of exposure.

HEALTH AND HARDSHIP OUT OF JAIL

Incarcerated people faced high risks of COVID-19 infection and death in the first few months of the pandemic, but release from incarceration and the social conditions of poverty presented their own health risks. Our survey data provide information about the conditions of life in the community for those going through the criminal courts. We divide our sample into two groups. The first includes respondents who were recruited to the study in court and never incarcerated during the study period. To examine the elevated risks of material hardship among the incarcerated and those in poor health, we define a second subsample of respondents who were incarcerated at baseline and recruited at Rikers Island who also reported a history of mental illness and substance use disorders. We refer to this subset of respondents as the AIM subsample, named for the characteristics of addiction, incarceration, and mental illness.

Table 1 reports descriptive statistics from the RILS sample, dividing the sample into those who were never incarcerated during the study period, the incarcerated subsample recruited at Rikers Island, and the AIM subsample, which includes people recruited at Rikers who reported mental illness and addiction at the baseline interview. The sample is mostly male with a median age of thirty-two. Four in five respondents were Black or Hispanic. As is common in samples of justice-involved respondents, we found high rates of self-reported mental illness and substance use problems. More than half reported they had prior diagnoses of mental illness and 42 percent reported that "drugs or alcohol had been a problem for them." Court-recruited respondents were demographically similar to those recruited at jail, but tended to have slightly lower self-reported rates of mental illness and drug use.

Respondents were interviewed several times in overlapping interview waves. We can get a picture of life conditions over the pandemic year of 2020 by organizing the data chronologically. Figure 1 shows the proportion of respondents reporting their employment, housing, and health status each month. All the data in these figures reflect results from community-based telephone interviews, so respondents who were incarcerated at baseline and interviewed at follow-up were reporting on their status following release from incarceration. In figure 1, we separate the AIM subsample from all others. Both groups' employment rates declined over the year. By December 2020, less than 20 percent of the AIM subsample and 40 percent of the rest were reporting any employment income. About half the sample, with little difference by AIM status, were enrolled in food stamps each month. The AIM subsample reported a very high level of housing instability defined as living at several different addresses, in a shelter or other group quarters, or on the streets. We were unable to detect this self-reported housing instability in administrative records on DHS shelter use, however. The entire sample reported monthly shelter use at similar

Table 1. Percentage Distribution in Sample of Court-Involved New Yorkers, Rikers Island Longitudinal Study

	Full Sample	Not in Jail	Jail	Drug Use, Mental Illness, and Jail (AIM)
Age group				
18–30	43	39	46	27
31–45	31	34	28	40
46–75	27	27	26	33
Gender				
Female	16	16	17	23
Male	84	84	83	77
Race-ethnicity				
Hispanic	37	30	44	48
Non-Hispanic Black	48	52	43	35
Non-Hispanic White	7	7	7	15
Other	9	11	6	2
Mental health history				
Substance use	42	31	54	—
Mental illness	54	47	61	—
Sample size (*N*)	286	148	138	52

Source: Authors' calculations.

rates. Finally, the AIM subsample reported relatively poor mental but not physical health.

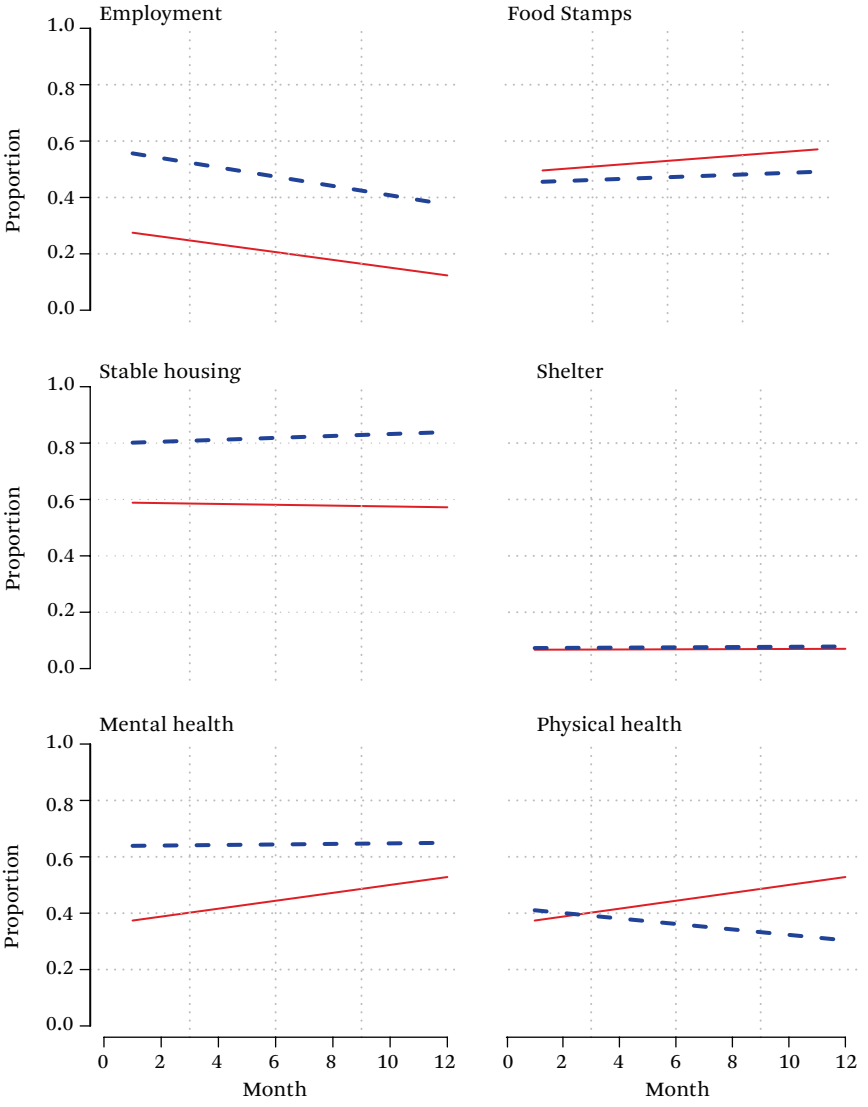
We further explore descriptive differences within the sample with regressions that include indicators for respondents who were in jail at baseline, who were in jail and reported histories of addiction and mental illness, and who were recruited in court. The regression analysis pools together four waves of survey data for dichotomous measures of employment, stable housing, and self-rated mental and physical health, adding controls for age, race, and gender. In regressions of SNAP benefit receipt and DHS shelter stays, we analyze monthly administrative records.

To study outcomes in the period of pandemic restrictions, we add a dummy indicating observations in the time period after March 20, during pandemic restrictions, and add interactions with incarceration and AIM status. In these models, the regression intercepts are the pre-pandemic means of the dependent variables for the reference groups: non-AIM or nonjail respondents, white, male, and in their twenties.

The interaction effect describes the well-being of the jail and AIM respondents relative to those who were recruited at court. In the results for employment, the regression results indicate that nearly 60 percent of court-recruited respondents were employed over four survey waves in 2020 (table 2). Employment was nearly 15 percentage points lower for the incarcerated respondents, and 23 percent lower for those who were incarcerated at baseline and had histories of mental illness and addition. The pandemic main effect indicates that employment dropped significantly, by about 10 to 15 points, in the pandemic period for the fraction of the sample who were court-involved but not incarcerated. The point estimate of the interaction effect shows the incarcerated respondents experienced a relatively large employment decline, but not the AIM group, whose jobless rate was very high to begin with.

We observe similar patterns for housing and health. Incarcerated and AIM respondents were less likely to report living in stable housing, and housing stability did decline for those two

Figure 1. Mean Levels of Employment, Stable Housing, Good Health, and Benefit Receipt, RILS Respondents in 2020



Source: Authors' calculations.

Note: Respondents with mental illness, incarceration, and addiction (solid line), and for all others (broken line).

groups, although the drop during the pandemic period was not statistically significant. The deficit in self-rated physical health is clear for the AIM respondents, but not for those who were incarcerated at baseline. Health status generally declined during the pandemic period, but the decline in health status was concentrated among those whose health was relatively good at baseline: court-recruited respondents and incarcerated respondents without histories of addiction or mental illness.

The final two columns of the table show results from administrative records for SNAP benefit receipt or a stay in a DHS shelter. About three-quarters of the reference group were enrolled in SNAP in any given month before the pandemic. The most vulnerable who were incarcerated at baseline or incarcerated with his-

Table 2. Regression Results for Measures of Well-Being, 2020, Rikers Island Longitudinal Study

	Employed	Stable Housing	Self-Rated Health	SNAP Benefits	DHS Shelter Stay
Jail to non-jail respondents					
Intercept	0.570	0.796	0.180	0.763	0.218
	(0.085)	(0.087)	(0.087)	(0.038)	(0.036)
Pandemic	−0.093	0.019	−0.113	0.053	0.045
	(0.050)	(0.052)	(0.041)	(0.017)	(0.019)
Jail	−0.147	−0.072	0.025	0.079	0.084
	(0.057)	(0.050)	(0.059)	(0.053)	(0.056)
Pandemic × jail	−0.105	−0.320	0.070	−0.048	−0.026
	(0.075)	(0.074)	(0.073)	(0.027)	(0.032)
AIM to non-AIM respondents					
Intercept	0.509	0.783	0.214	0.775	0.236
	(0.082)	(0.084)	(0.086)	(0.031)	(0.031)
Pandemic	−0.138	0.009	−0.102	0.037	0.039
	(0.041)	(0.042)	(0.038)	(0.015)	(0.017)
AIM	−0.235	−0.181	−0.167	0.104	0.077
	(0.071)	(0.071)	(0.069)	(0.056)	(0.076)
Pandemic × AIM	0.003	−0.025	0.136	−0.026	−0.026
	(0.088)	(0.096)	(0.087)	(0.035)	(0.044)
Sample size (*N*)	756	569	643	2,436	2,436

Source: Authors' calculations.

Note: Standard errors in parenthesis. All regressions include controls for age, race, and sex. Standard errors are adjusted for clustering. The pandemic effect is for the period March 20 to December 31, 2020. The AIM subgroup includes respondents with histories of addiction and mental illness who are incarcerated at baseline. For employment, housing, and health, data are taken from four survey waves. For SNAP benefits and DHS shelter stays, data are from monthly administrative records.

tories of addiction or mental illness, enrolled at rates 8 to 10 points higher than the rest of the sample. Benefit receipt increased during the pandemic but the increase was not significantly larger among the incarcerated or AIM respondents. DHS shelter stays, although less prevalent, followed a similar pattern. Jail and AIM respondents used the DHS shelter system more than court-recruited respondents, although shelter usage did not significantly increase for any group during the pandemic.

In sum, the quantitative results generally indicate lower levels of employment, stable housing, and health status after release from jail incarceration, and material hardship was greatest among formerly incarcerated respondents with histories of mental illness and substance use. Hardship was greater for the sample as a whole during the pandemic, although, contrary to our expectations, the increase in hardship was not significantly larger for the formerly incarcerated. SNAP was widely used by the entire sample, and especially by the incarcerated and AIM subsample. The use of safety net programs also increased significantly in the pandemic period for the sample as a whole.

QUALITATIVE RESULTS

How pandemic conditions were subjectively experienced by the sample respondents can be gleaned from qualitative interview data. Three themes that help illuminate the dimensions of material hardship emerged. Respondents spoke about housing insecurity, emotional hardship, including health-related stress, and economic effects. These themes were coded inductively by a team of three qualitative interviewers. All names are pseudonyms. Direct

quotes are taken from contemporaneous field notes and audio recordings and have been edited for verbal tics and clarity.

Homelessness and Housing Insecurity

In any given month, about one in three of all respondents were unstably housed: residing in the shelter system, between several addresses, or on the street. Homelessness created significant challenges to meeting a variety of basic needs. Brian, a forty-five-year-old homeless man whose mental illness had resulted in conflicts with neighbors and arrests, previously warmed up at restaurants or used bathrooms that were mostly closed at the time he was interviewed. "There's one place that is used to me coming in that still lets me use the bathroom, so that's the one bathroom I have," Brian said. "The park bathrooms are closed. . . . To get out of the cold—it was almost freezing—I've been having to go into vestibules of buildings from 1 a.m. to 6 a.m. before people wake up. But now they've been locking outer doors so it's been harder to find buildings I can actually access."

Michelle, a homeless forty-year-old woman who suffered from anxiety, reported that "Everything is closed. . . . Places I go to eat are closed. Places I sit down at . . . You can't get money. You can't use the bathroom. You can't sit and rest anywhere because you're scared people could cough on you. You can't trust people." But, she said, she was not giving up: "I feel my life is worth fighting for."

Those without stable housing interrupted housing searches and moved between shelters and family members' homes. Sasha, a twenty-two-year-old homeless respondent, had been sleeping on the floor of a friend's apartment. After COVID-19, she moved into a shelter. "I don't have the luxury of quarantining," she said. These accounts of respondents with unstable housing highlight the hardships accompanying a public health strategy that assumes the availability of secure households that can support isolation.

Emotional Hardship and Health Stress

Some 38 percent of respondents reported emotional hardship (feelings of anxiety, depression, or irritability), and another 34 percent reported health-related stress. Respondents postponed or canceled doctor's appointments, surgeries, and children's vaccinations. Some lost access to counseling and mental health services. For others, new restrictions on visits to facilities such as nursing homes interrupted care for loved ones.

Daniel, a forty-seven-year-old formerly incarcerated man, rode the subway to help his mother with groceries, but worried about exposing himself and his pregnant partner to COVID-19. "My mom lives in another borough, and going on the train is dangerous. . . . I need to see my mom to help her, but I don't want to go because of my kid and my family. . . . I have twins on the way, due in July." Because medical and other caring work typically involves personal contact, isolation disrupts the networks of care for people who live alone.

Economic Effects

Respondents widely described the recession conditions that accompanied the shutdown. Forty-four percent of respondents reported reductions in income, or disruptions to employment or job searching. Twenty-four-year-old Tyler said, "I was supposed to have a job at a carrier company in Manhattan. They told me to come back after corona is over." "There's a Family Dollar by here that's still hiring," he continued. But when he went to submit an application, the long line outside was "like a club." By April, job searching had largely ended among unemployed respondents. Essential service workers, often conducting deliveries or working in health care (as janitorial staff in hospitals, for example), were among a small group with employment continuity.

Associated with the economic effects of the shutdown, 10 percent of respondents had difficulty obtaining food or had been to a food pantry in the week before the interviews that took place in June and July of 2020. Khalid, a twenty-nine-year-old man who lived in public housing with his girlfriend, their newborn, and two older stepchildren, expressed anxiety to us about feeding his family. In the week before the interview, Khalid and his girlfriend traveled from New York to visit a Rhode Island hospital where they heard they could get free food. The hospital, however, turned them away, having

suspended their food service in response to COVID-19.

The experiences of Tyler and Khalid illustrate the material vulnerability of those involved in the criminal justice system. Although housing security provides some protection against pandemic conditions, economic hardship was widespread and survival strategies drew respondents into public space.

DISCUSSION

Poverty scholars have argued for a multidimensional concept of material hardship, where a variety of life adversities cluster together (Sampson 2012; Desmond and Western 2018; Western 2018). The COVID-19 pandemic created intense conditions of correlated adversity in which incarceration, acute health risks, and economic disadvantage clustered together amid subjective feelings of isolation and severe stress.

Evidence from inside Rikers Island jail and from community-based surveys of court-involved New Yorkers point to three main empirical findings. First, Rikers Island clearly elevated the risk of coronavirus infection, particularly from March through May of 2020, when jail conditions were chaotic. In this period, the jail struggled to provide basic sanitation, protective clothing, and effective quarantine to stem the spread of infection. Second, community conditions for all court-involved New Yorkers were characterized by a high level of material hardship. Around 75 percent of the sample reported food stamp enrollment in any given month during the yearlong study period. About 25 percent of the entire RILS sample reported living in shelter or unstable housing and about 20 percent of the DSS matched sample spent at least one night in a DHS shelter during the study period. Third, one group in the sample who had been incarcerated at baseline, and reported histories of mental illness and addiction, experienced extreme material hardship related to housing security, unemployment, and poor self-reported health.

The pandemic, criminal justice system involvement, and poverty appeared to operate in a self-reinforcing cycle. COVID-19 spread throughout the jail early in the spring of 2020. People were often released in these early months without stable housing or income and had little way of safely isolating. Unemployment increased significantly during the pandemic months, and health status declined. Notably, and contrary to our expectations, the most vulnerable respondents—who had been incarcerated at Rikers Island—did not suffer unusually large losses of employment, stable housing, or health relative to the sample as a whole.

To what extent are the observed health risks related specifically to incarceration and other criminal justice involvement, and to what extent are the risks related to the life conditions of poverty? The rapid spread of infectious disease in prisons and jails has been well documented, and penal facilities were COVID-19 hotspots across the country. Strong evidence indicates that incarceration increased the risk of infection, and this seems especially likely at Rikers Island for staff and incarcerated people alike. Although incarceration is correlated with poverty, incarceration at Rikers Island in the spring of 2020 added to the risk of infection with the novel coronavirus.

Beyond the dynamics of disease transmission, incarceration is closely associated with an array of insecurities and disadvantages that make up the social conditions of poverty. For those who faced criminal charges or who had a record of incarceration, it is more difficult to say that criminal justice exposure caused additional health risks on top of all the correlates of poverty that criminal justice involvement commonly entails. Isolating the effect of criminal justice on health risk, however, probably raises the wrong policy question. The close correlation among a variety of risky conditions points to the importance of a multipronged approach that addresses the main sources of disadvantage for court-involved people—unstable housing, low income, and poor health care. If criminal justice policy under pandemic conditions has a task, it would be to mitigate negative effects of the criminal justice process on housing, income, and health care, and minimize exposure to disease in the criminal justice process.

Like other articles in this issue (Bell et al. 2023; Bitler, Hoynes, and Schanzenbach 2023), this analysis indicates that the cycle of disad-

vantage was clearly attenuated by social policy intervention. SNAP enrollment was generally high in the sample, and DSS data show the proportion of respondents receiving SNAP in any given month increased in the pandemic period. SNAP provided a near-cash, in-kind benefit of around $200 a month for most of those in the sample. Qualitative interviews indicated food insecurity and hunger over the course of the year, and food stamps offered some relief. Some jurisdictions deny SNAP eligibility to people with felony drug convictions, despite their evident value in reducing extreme hardship during the pandemic. Consistent with the disruptions to housing as a result of incarceration, the shelter system was used at a significantly higher rate by respondents who had been incarcerated.

These results point to an alternative policy regime that might address the conditions of correlated adversity observed among the survey respondents. In this alternative regime, jail populations are small, jail stays are brief, sanitation and health care in jail are high quality, and income support in the community can buffer the effects of reentry on material hardship. Stable housing emerged as an acute need for court-involved New Yorkers in the pandemic year, and housing problems were associated with health risks, material hardship, and criminal justice involvement. The City's shelter system provided emergency housing that was regularly made available to those leaving incarceration. Research suggests the importance of continuous residence in private households for social integration after incarceration (Sirois 2019; Western 2018). An encompassing regime of social support should also address the problem of unstable housing that was common among those who navigated the pandemic after incarceration while contending with poor physical and mental health.

REFERENCES

American Civil Liberties Union (ACLU). 2020. *COVID-19 Model Finds Nearly 100,000 More Deaths Than Current Estimates, Due to Failures to Reduce Jails*. New York: American Civil Liberties Union.

Beaudry, Gabrielle, Shaoling Zhong, Daniel Whiting, Babak Javid, John Frater, and Seena Fazel. 2020. "Managing Outbreaks of Highly Contagious Diseases in Prisons: A Systematic Review." *BMJ Global Health* 5(11). DOI: http://dx.doi.org/10.1136/bmjgh-2020-003201.

Beckett, Katherine, and Steven Herbert. 2010. *Banished: The New Social Control in Urban America*. Oxford: Oxford University Press.

Bell, Alex, Thomas J. Hedin, Peter Mannino, Roozbeh Moghadam, Geoffrey Schnorr, and Till von Wachter. 2023. "Disparities in Access to Unemployment Insurance During the COVID-19 Pandemic: Lessons from U.S. and California Claims Data." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 9(3): 78–109. DOI: https://doi.org/10.7758/RSF.2023.9.3.04.

Bell, Monica, Stephanie Garlock, and Alexander Nabavi-Noori. 2020. "Toward a Demosprudence of Poverty." *Duke Law Journal* 69(7): 1473–528.

Bharara, Preet, Jocelyn Samuels, Jeffrey Powell, and Emily Daughtry. 2014. "CRIPA Investigation of the New York City Department of Correction Jails on Rikers Island." Report. New York: U.S. Attorney's Office for the Southern District of New York.

Bick, Joseph A. 2007. "Infection Control in Jails and Prisons." *Clinical Infectious Diseases* 45(8): 1047–55.

Binswanger, Ingrid A., Patrick M. Krueger, and John F. Steiner. 2009. "Prevalence of Chronic Medical Conditions Among Jail and Prison Inmates in the USA Compared with the General Population." *Journal of Epidemiology and Community Health* 63(11): 912–19.

Bitler, Marianne P., Hilary W. Hoynes, and Diane Whitmore Schanzenbach. 2023. "Suffering, the Safety Net, and Disparities During COVID-19." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 9(3): 32–59. DOI: https://doi.org/10.7758/RSF.2023.9.3.02.

Braverman, Paula. 2011. "Accumulating Knowledge on the Social Determinants of Health and Infectious Disease." *Public Health Reports* 126(Suppl 3): 28–30.

Bridges, George S., and Martha A. Meyers. 1994. *Inequality, Crime, and Social Control.* Boulder, Colo.: Westview Press.

Carson, E. Ann. 2020. "Prisoners in 2019." NCJ no. 255115. Washington, D.C.: Bureau of Justice Statistics. Accessed November 12, 2022. https://bjs.ojp.gov/library/publications/prisoners-2019.

Chan, Justin, Kelsey Burke, Rachael Bedard, James

Grigg, John Winters, Colleen Vessell, Zachary Rosner, Jeffrey Cheng, Monica Katyal, Patricia Yang, et al. 2021. "COVID-19 in the New York City Jail System: Epidemiology and Health Care Response, March–April 2020." *Public Health Reports* 136(3): 375–83.

Desmond, Matthew, and Bruce Western. 2018. "Poverty in America: New Directions and Debates." *Annual Review of Sociology* 44(1): 305–18.

Dobbie, Will, Jacob Goldin, and Crystal S. Yang. 2018. "The Effects of Pretrial Detention on Conviction, Future Crime, and Employment: Evidence from Randomly Assigned Judges." *American Economic Review* 108(2): 201–40.

Duneier, Mitchell. 1999. *Sidewalk*. New York: Farrar, Straus and Giroux.

Fazel, Seena, and Jacques Baillargeon. 2011. "The Health of Prisoners." *Lancet* 377(9782): 956–65.

Geller, Amanda, Jeffrey Fagan, Tom Tyler, and Bruce G. Link. 2014. "Aggressive Policing and the Mental Health of Young Urban Men." *American Journal of Public Health* 104(12): 2321–27.

Gelman, Andrew, Jeffrey Fagan, and Alex Kiss. 2007. "An Analysis of the New York City Police Department's 'Stop-and-Frisk' Policy in the Context of Claims of Racial Bias." *Journal of the American Statistical Association* 102(479): 813–23.

Gonnerman, Jennifer. 2014. "Before the Law." *The New Yorker*, October 6. Accessed November 12, 2022. https://www.newyorker.com/magazine/2014/10/06/before-the-law.

———. 2015. "Kalief Browder, 1993–2015." *The New Yorker*, June 7. Accessed November 12, 2022. https://www.newyorker.com/news/news-desk/kalief-browder-1993-2015.

Greene, Meredith, Cyrus Ahalt, Irena Stijacic-Cenzer, Lia Metzger, and Brie Williams. 2018. "Older Adults in Jail: High Rates and Early Onset of Geriatric Conditions." *Health & Justice* 6(1): 1–9.

Grogger, Jeffrey. 1995. "The Effect of Arrests on the Employment and Earnings of Young Men." *Quarterly Journal of Economics* 110(1): 51–71.

Haney, Craig, Joanna Weil, Shirin Bakhshay, and Tiffany Lockett. 2016. "Examining Jail Isolation: What We Don't Know Can Be Profoundly Harmful." *Prison Journal* 96(1): 126–52. DOI: https://doi.org/10.1177/0032885515605491.

Harding, David, J., Jeffrey Morenoff, and Jessica J.B. Wyse. 2019. *On the Outside: Prisoner Reentry and Reintegration*. Chicago: University of Chicago Press.

Harvey, Anna, Orion Taylor, and Andrea Wang. 2020. *COVID-19, Jails, and Public Safety*. Washington, D.C.: Council on Criminal Justice.

Hawks, Laura, Steffie Woolhandler, and Danny McCormick. 2020. "COVID-19 in Prisons and Jails in the United States." *JAMA Internal Medicine* 180(8): 1041–42.

Heiss, Jasmine, Oliver Hinds, Eital Schattner-Elmaleh, and James Wallace-Lee. 2020. "The Scale of the COVID-19-Related Jail Population Decline." Brooklyn, N.Y.: Vera Institute of Justice.

Howell, Benjamin A., Haiyan Ramirez Batlle, Cyrus Ahalt, Shira Shavit, Emily A. Wang, Nickolas Zaller, and Brie A. Williams. 2020. "Protecting Decarcerated Populations in the Era of COVID-19: Priorities for Emergency Discharge Planning." *Health Affairs Blog*, April 13. Accessed November 12, 2022. https://www.healthaffairs.org/do/10.1377/forefront.20200406.581615.

Irwin, John. 1985. *The Jail: Managing the Underclass in American Society*. Berkeley: University of California Press.

Kohler-Hausmann, Issa. 2018. *Misdemeanorland: Criminal Courts and Social Control in an Age of Broken Windows Policing*. Princeton, N.J.: Princeton University Press.

Lara-Millán, Armando. 2021. *Redistributing the Poor: Jails, Hospitals, and the Crisis of Law and Fiscal Austerity*. Oxford: Oxford University Press.

Lemasters, Katherine, Erin McCauley, Kathryn Nowotny, and Lauren Brinkley-Rubinstein. 2020. "COVID-19 Cases and Testing in 53 Prison Systems." *Health & Justice* 8(1): 1–6.

Lofgren, Eric, Kristian Lum, Aaron Horowitz, Brooke Madubuowu, and Nina Fefferman. 2020. "The Epidemiological Implications of Incarceration Dynamics in Jails for Community, Corrections Officer, and Incarcerated Population Risks from COVID-19." Unpublished manuscript. Washington State University.

Marmot, Michael, and Richard Wilkinson, eds. 2005. *Social Determinants of Health*. Second. Oxford: Oxford University Press.

Martin, Steve J., Kelly Dedel, Anna E. Friedberg, Dennis O. Gonzalez, Patrick Hurley, Simone R. Lee, Emmitt Sparkman, and Christina Bucci Vanderveer. 2019. *Seventh Report of the* Nunez *Independent Monitor*. Case 1:11-cv-05845-LTS-JCF. Document 327. New York: City of New York. Accessed February 21, 2023. https://www.nyc

.gov/assets/doc/downloads/pdf/7th_Monitor_Report.pdf.

Massoglia, Michael, and William Alex Pridemore. 2015. "Incarceration and Health." *Annual Review of Sociology* 41(1): 291–310.

Mayeux, Sara. 2018. "The Idea of the Criminal Justice System." *American Journal of Criminal Law* 45 (Spring): 55–97. Accessed November 12, 2022. https://scholarship.law.vanderbilt.edu/faculty-publications/898/.

Mayor's Office of Criminal Justice. 2018. *Smaller, Safer, Fairer: NYC's Plan to Close Rikers Island*. New York: Office of the Mayor, City of New York.

———. 2020. "New York City Jail Population Reduction in the Time of COVID-19 Through April 30, 2020." Fact sheet. New York: Office of the Mayor, City of New York.

Miller, Eli, Bryan D. Martin, and Chad M. Topaz. 2022. "New York City Jails: COVID Discharge Policy, Data Transparency, and Reform." *Plos One* 17: e0262255. DOI: https://doi.org/10.1371/journal.pone.0262255.

Mueller-Smith, Michael. 2015. "The Criminal and Labor Market Impacts of Incarceration." Unpublished working paper 18. University of Michigan. Accessed November 12, 2022. https://sites.lsa.umich.edu/mgms/wp-content/uploads/sites/283/2015/09/incar.pdf.

New York City Board of Correction. 2020. "Board of Correction Daily Covid-19 Update: Thursday, April 23, 2020." New York: City of New York. Accessed November 12, 2022. https://www.nyc.gov/site/boc/covid-19.page.

———. 2021. "Board of Correction Weekly Covid-19 Update: Week of February 20—February 26, 2021." New York: City of New York. Accessed November 12, 2022. https://www.nyc.gov/site/boc/covid-19.page.

Niveau, Gérard. 2006. "Prevention of Infectious Disease Transmission in Correctional Settings: A Review." *Public Health* 120(1): 33–41.

Nowotny, Kathryn M., Kapriske Seide, and Lauren Brinkley-Rubinstein. 2021. "Risk of COVID-19 Infection Among Prison Staff in the United States." *BMC Public Health* 21(1): 1–8.

Pager, Devah. 2007. *Marked: Race, Crime, and Finding Work in an Era of Mass Incarceration*. Chicago: University of Chicago Press.

Park, Katie, Tom Meagher, and Weihua Li. 2020. "Tracking the Spread of Coronavirus in Prisons." New York: The Marshall Project. Accessed November 12, 2022. https://www.themarshallproject.org/2020/04/24/tracking-the-spread-of-coronavirus-in-prisons.

Paul, Deanna, and Ben Chapman. 2020. "Rikers Island Jail Guards Are Dying in One of the Worst Coronavirus Outbreaks." *Wall Street Journal*, April 22.

Prison Policy Initiative. 2021. "The Most Significant Criminal Justice Policy Changes from the COVID-19 Pandemic." Accessed October 18, 2022. https://www.prisonpolicy.org/virus/virusresponse.html.

Puglisi, Lisa B., Giovanni S.P. Malloy, Tyler D. Harvey, Margaret L. Brandeau, and Emily A. Wang. 2021. "Estimation of COVID-19 Basic Reproduction Ratio in a Large Urban Jail in the United States." *Annals of Epidemiology* 53(1): 103–5.

Ransom, Jan. 2020. "Virus Raged at City Jails, Leaving 1,259 Guards Infected and 6 Dead." *New York Times,* May 20. Updated March 10, 2021. Accessed November 12, 2022. https://www.nytimes.com/2020/05/20/nyregion/rikers-coronavirus-nyc.html.

Raphael, Steven, and Michael A. Stoll. 2013. "Assessing the Contribution of the Deinstitutionalization of the Mentally Ill to Growth in the Us Incarceration Rate." *Journal of Legal Studies* 42(1): 87–222.

Rempel, Michael. 2020. "COVID-19 and the New York City Jail Population." New York: Center for Court Innovation. Accessed November 12, 2022. https://www.courtinnovation.org/sites/default/files/media/documents/2020-11/COVID_jail_NYC.pdf.

Riley, Elise D., Monica Gandhi, C. Bradley Hare, Jennifer Cohen, and Stephen W. Hwang. 2007. "Poverty, Unstable Housing, and HIV Infection Among Women Living in the United States." *Current HIV/AIDS Reports* 4(4): 181–86.

Rubin, Ashley, and Michelle S. Phelps. 2017. "Fracturing the Penal State: State Actors and the Role of Conflict in Penal Change." *Theoretical Criminology* 21(4): 422–40.

Sampson, Robert J. 2012. *Great American City: Chicago and the Enduring Neighborhood Effect*. Chicago: University of Chicago Press.

Sampson, Robert J., and John H. Laub. 1994. "Urban Poverty and the Family Context of Delinquency: A New Look at Structure and Process in a Classic Study." *Child Development* 65(2): 523–40.

Sawyer, Wendy. 2022. "New Data: The Changes in Prisons, Jails, Probation, and Parole in the First Year of the Pandemic." *Prison Policy Initiative Briefing* (blog), January 11. Accessed November 12, 2022. https://www.prisonpolicy.org/blog/2022/01/11/bjs_update/.

Schnepel, Kevin. 2020. "COVID-19 in U.S. State and Federal Prisons." Washington, D.C.: Council on Criminal Justice. Accessed November 12, 2022. https://static.prisonpolicy.org/scans/FINAL_Schnepel_Design.pdf.

Schnittker, Jason, Michael Massoglia, and Christopher Uggen. 2012. "Out and Down: Incarceration and Psychiatric Disorders." *Journal of Health and Social Behavior* 53(4): 448–64.

Sewell, Abigail A., and Kevin A. Jefferson. 2016. "Collateral Damage: The Health Effects of Invasive Police Encounters in New York City." *Journal of Urban Health* 93(1): 42–67.

Sewell, Abigail A., Kevin A. Jefferson, and Hedwig Lee. 2016. "Living Under Surveillance: Gender, Psychological Distress, and Stop-Question-and-Frisk Policing in New York City." *Social Science & Medicine* 159(1): 1–13.

Sheely, Amanda. 2021. "State Supervision, Punishment and Poverty: The Case of Drug Bans on Welfare Receipt." *Punishment & Society* 23(3): 413–35. DOI: https://doi.org/10.1177/1462474520959433.

Simes, Jessica T. 2021. *Punishing Places: The Geography of Mass Imprisonment*. Berkeley: University of California Press.

Sirois, Catherine. 2019. "Household Support and Social Integration in the Year After Prison." *Sociological Forum* 34(4): 838–60. DOI: https://doi.org/10.1111/socf.12549.

Stuart, Forrest. 2016. *Down and Out and Under Arrest: Policing and Everyday Life in Skid Row*. Chicago: University of Chicago Press.

Sugie, Naomi F., and Kristin Turney. 2017. "Beyond Incarceration: Criminal Justice Contact and Mental Health." *American Sociological Review* 82(4): 719–43. DOI: https://doi.org/10.1177/0003122417713188.

Travis, Jeremy, Bruce Western, and F. Stevens Redburn, eds. 2014. *The Growth of Incarceration in the United States: Exploring Causes and Consequences*. Washington, D.C.: National Academies Press.

UCLA School of Law. 2020. "UCLA Covid-19 Behind Bars Data Project." University of California. Accessed November 12, 2022. https://uclacovidbehindbars.org/.

Venters, Homer. 2019. *Life and Death in Rikers Island*. Baltimore, Md.: Johns Hopkins University Press.

Wacquant, Loïc. 2009. *Punishing the Poor: The Neoliberal Government of Social Insecurity*. Durham, N.C.: Duke University Press.

Wakefield, Sara, and Christopher Uggen. 2010. "Incarceration and Stratification." *Annual Review of Sociology* 36(1): 387–406.

Wakefield, Sara, and Christopher Wildeman. 2013. *Children of the Prison Boom: Mass Incarceration and the Future of American Inequality*. New York: Oxford University Press.

Wang, Emily A., Bruce Western, Emily P. Backes, and Julie Schuck, eds. 2020. *Decarcerating Correctional Facilities During COVID-19*. Washington, D.C.: National Academies Press.

Ward, Julie A, Kalind Parish, Grace DiLaura, Sharon Dolovich, and Brendan Saloner. 2021. "COVID-19 Cases Among Employees of US Federal and State Prisons." *American Journal of Preventive Medicine* 60(6): 840–44.

Western, Bruce. 2006. *Punishment and Inequality in America*. New York: Russell Sage Foundation.

———. 2018. *Homeward: Life in the Year After Prison*. New York: Russell Sage Foundation.

Western, Bruce, Jaclyn Davis, Flavien Ganter, and Natalie Smith. 2021. "The Cumulative Risk of Jail Incarceration." *Proceedings of the National Academy of Sciences* 118(16): e2023429118.

Widra, Emily. 2022. "State Prisons and Local Jails Appear Indifferent to COVID Outbreaks, Refuse to Depopulate Dangerous Facilities." *Prison Policy Initiative Briefing* (blog), February 10. Accessed November 12, 2022. https://www.prisonpolicy.org/blog/2022/02/10/february2022_population/.

Wildeman, Christopher, and Emily A. Wang. 2017. "Mass Incarceration, Public Health and Widening Inequality in the USA." *The Lancet* 389(10077): 1464–74.

Williams, Brie, Cyrus Ahalt, David Cloud, Dallas Augustine, Leah Rorvig, and David Sears. 2020. "Correctional Facilities in the Shadow of COVID-19: Unique Challenges and Proposed Solutions." *Health Affairs Blog*, March 26. DOI: https://doi.org/10.1377/forefront.20200324.784502.

Williams, Brie A., James S. Goodwin, Jacques Baillargeon, Cyrus Ahalt, and Louise C. Walter. 2012. "Addressing the Aging Crisis in US Criminal Justice Health Care." *Journal of the American Geriatrics Society* 60(6): 1150–56.

Zeng, Zhen, and Todd D. Minton. 2021. "Jail Inmates in 2019." NCJ no. 255608. Washington, D.C.: Bureau of Justice Statistics. Accessed November 12, 2022. https://bjs.ojp.gov/library/publications/jail-inmates-2019.

The Impact of Remote Hearing Policies on Racial Equity in Criminal Case Outcomes During the Pandemic

HEATHER M. HARRIS

The criminal justice system confronted unprecedented challenges during the COVID-19 pandemic. In response, court systems nationwide quickly instituted policies to enable criminal cases to proceed while protecting public health. The shift toward criminal hearings by videoconference or teleconference has persisted. All fifty states now conduct criminal hearings remotely. Yet evidence about how remote proceedings affect case outcomes remains sparse. Using data for all arrests and criminal case dispositions that occurred in California between 2018 and mid-2021, I characterize the impact the pandemic had on arrest and case resolution rates, estimate the impact of adopting policies to permit remote hearings on conviction and sentencing outcomes, and determine which factors contributed to racial differences in outcomes. Remote hearing policies contributed to racial inequalities in outcomes, which predated the pandemic and persisted amid it.

Keywords: remote hearings, conviction, sentencing, pandemic policy, racial inequality

The COVID-19 pandemic has posed unprecedented challenges for the administration of justice in the United States. As successive waves of the virus crested, prisons and jails became the sites of many of the largest novel coronavirus outbreaks in the nation. Although arrest rates plummeted as people stayed home to avoid contracting the virus, court dockets lengthened amid government-imposed shutdowns that shuttered public and private enterprises. Massive criminal case backlogs accumulated in municipal, state, and federal courts.

Court systems across the country adapted to the challenge of operating during the pandemic by adopting emergency policies to facilitate operations, promote public safety, and protect public health. Commonly adopted policies included modifying pretrial release practices to reduce incarcerated populations, permitting remote hearings to maximize social distancing and avoid in-person interactions,

Heather M. Harris is a research fellow at the Public Policy Institute of California, United States.

 Harris, Heather M. 2023. "The Impact of Remote Hearing Policies on Racial Equity in Criminal Case Outcomes During the Pandemic." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 9(3): 252–79. DOI: 10.7758/RSF.2023.9.3.11. This research would not have been possible without support and guidance from the California of Department of Justice. I am also indebted to Thomas Sloan for excellent research assistance and countless hours reading and discussing court orders. I thank the Judicial Council of California for their helpful comments on an earlier draft. Finally, I also appreciate the efforts of all those involved in the development and production of this journal issue. Your insights and comments have enriched this work. Direct correspondence to: Heather M. Harris, at harris@ppic.org, 500 Washington Street #600, San Francisco, CA 94111, United States.

and extending case processing timelines to accommodate the inevitable delays associated with adapting to pandemic conditions (JFA Institute 2021).

Remote hearings have become the most enduring of the policies instituted in response to COVID-19. Beginning in the earliest days of the pandemic, court systems around the country rapidly increased their capacity to conduct criminal proceedings via remote technologies, which include teleconferencing and videoconferencing equipment. All fifty states and the District of Columbia have continued to permit or require remote hearings for various criminal proceedings, ranging from arraignments to jury trials (for example, Arizona Supreme Court 2022; Jingnan 2022; Nealon et al. 2021).

The legislative and judicial branches of state governments have acted to preserve the capacity to conduct court proceedings remotely. Legislatures in states including Hawaii, North Carolina, and Washington have passed laws to permit remote proceedings in perpetuity, whereas lawmakers in other states, including California, have authorized remote hearings only for a limited time (Moran 2021). In other states, such as Arizona, Florida, and Georgia, supreme courts have instituted rules of court that outline which hearings should proceed remotely and developed guidelines to implement remote proceedings fairly.

Actions taken by the legislative and judicial branches of state governments were often guided by reports from task forces convened and research conducted to examine how remote hearings had affected state courts and to assess whether they should continue. These reports, many of which include surveys and interviews with court officers, have mainly focused on how remote technology affected court operations and access to justice to amid the pandemic (Clarke and Smith 2021; Nealon et al. 2021; Ostrom et al. 2021; Thumma and Reinkensmeyer 2022; WPPI 2021; Wurst et al. 2021).

Collectively, these studies found both improved and degraded *efficiency*, which can mean different things. Commonly cited efficiency improvements include greater flexibility in scheduling and lower costs related to transportation and security, especially of those held in custody while their charges resolve. Courts also described improved *access* to the courts and cited fewer missed court dates as evidence that remote hearings help people meet their obligations to the court (Thumma and Reinkensmeyer 2022; WPPI 2021).

Yet remote technologies also challenged efficiency. A study of eight Texas courts found that remote hearings typically take about 25 percent longer (forty versus thirty minutes) than in-person proceedings, largely due to technological issues (Ostrom et al. 2021). Similarly, those surveyed commonly reported challenges related to the clarity and privacy of communication during criminal proceedings, including conferences with defense attorneys and sidebar conversations between judges and attorneys (Clarke and Smith 2021; Thumma and Reinkensmeyer 2022).

Despite these challenges, all reports advocated for the continued use of remote technology in at least some criminal proceedings, especially those of short duration and that do not involve witness testimony. For example, initial appearances, arraignments, and bail hearings are near-universally cited as examples of proceedings that can be held remotely. Some states, such as Arizona, have recommended defaulting to remote modalities for these and other hearings (Arizona Supreme Court 2022, 13). Whether to conduct other types of proceedings remotely has proven more controversial. Although a Texas court conducted the first remote jury trial in a civil case in May 2020 (Raymond 2020), Pennsylvania's task force has recommended against conducting jury trials remotely (Nealon et al. 2021, 9).

Support for conducting at least some hearings remotely has proven consistent across states, but rests almost exclusively on perceptions of operational efficiency and generally reflects only the perspectives of people who work in the courts. Absent from these investigations are evaluations of the impact remote hearing policies have on defendants' criminal case outcomes.

Even before the pandemic, research on the impact of remote hearings on criminal case outcomes was slim. One study conducted in Cook County, Illinois, more than a decade ago attributed higher bail amounts to the shift

from in-person to remote bail hearings (Diamond et al. 2010). Thus, in contrast to the growing consensus across state governments, the lone study of the impact of remote technologies on defendants' outcomes in a criminal proceeding might caution against deploying them widely at arraignments, initial appearances, and bail hearings.

Whether holding criminal hearings remotely has affected conviction and sentencing outcomes—or racial equity—has never been examined. Using data for all arrests and dispositions in California between January 1, 2018, and June 30, 2020, about 3.2 million arrests in all, I characterize dramatic shifts in arrest and case resolution rates and describe racial differences in disposition and sentencing outcomes before and during the pandemic. Arrest rates plummeted, especially for misdemeanors. Case resolution rates fell even further and were slower to rebound. By the end of 2020, a criminal case backlog in excess of fifty-five thousand cases accumulated.

With data on pandemic policies built from a comprehensive review of state and county court orders, changes to rules of court, and press releases posted throughout 2020, I describe the policies California courts implemented to respond to the challenges the pandemic presented. One such policy allowed the state's fifty-eight superior courts to decide whether to allow remote hearings.

Dramatic between-county variation in the duration and timing of the implementation of remote hearing policies enables me to estimate the impact of being arrested when remote hearings were permitted versus when they were not on conviction and sentencing outcomes. My ordinary least squares analyses are intent-to-treat because I do not know whether the hearings associated with individual cases were conducted in person or remotely. Rather, I know whether a policy that allowed them had been adopted. I assess whether the impacts of remote hearings on case outcomes vary by race and apply decomposition analysis to determine which factors contributed most to racially disparate impacts (Gelbach 2016).

Remote hearing policies contributed to reduced conviction probabilities during the pandemic. In addition, arrests were more likely to result in noncustodial sentences and less likely to lead to jail under remote hearing policies. The outcomes of misdemeanor arrests drove these impacts. Remote hearing policies affected the sentencing outcomes of felony arrests only if they involved black people, who were less likely to be sentenced to prison and more likely to receive jail time under them.

Remote hearing policies explained a nontrivial share of racial differences in conviction and sentencing outcomes during the pandemic. Having a remote hearing policy in place narrowed black-white and Latino-white racial gaps in the likelihood of conviction and jail sentence, but widened them for probation and money sanctions. The magnitude of these impacts rivaled that of some current case and prior criminal history factors.

THE CRIMINAL JUSTICE SYSTEM DURING THE PANDEMIC

The novel coronavirus pandemic had a dramatic impact on the nation's criminal justice system by reshaping how people interact. As news of the virus emerged, people independently curtailed their activities to minimize social interactions (Berry et al. 2021). Governments in most states also sought to slow the spread of the virus by issuing orders to limit social interactions. Such orders included reductions in the size of public gatherings, restrictions on which businesses could operate, and, ultimately, mandates to stay at home.

California led the nation in adopting many of these policies. On March 19, 2020—eight days after the World Health Organization declared the coronavirus a global pandemic—California became the first state to impose a mandatory stay-at-home (SAH) order for all people. By the end of May, forty-four other states and the District of Columbia had followed suit. In thirty-five of those states and the District of Columbia, SAH orders were mandatory for everyone, just as they were in California (Moreland et al. 2020).

Analyses of cellphone location data show that SAH orders had the desired effect: people stayed home (Alexander and Karger 2020). They had, however, reduced the amount of time they spent outside their homes and the distances they traveled from their homes even before

SAH orders were imposed. Most of the precipitous decline in mobility early in the pandemic has therefore been attributed to individual choices rather than the stay-at-home orders (Berry et al. 2021; Goolsbee and Syverson 2021).

Reduced mobility and severely curtailed social interactions associated with the onset of the pandemic contributed to similarly steep reductions in reported crime and arrest rates nationally and internationally (Godfrey, Richardson, and Walklate 2022; Lopez and Rosenfeld 2021; Nivette et al. 2021). In California, for example, monthly arrest rates for misdemeanor crimes plummeted by as much as 67 percent early in the pandemic and remained at least 42 percent lower than they had been in 2018 throughout 2020. Monthly felony arrests also toppled, but to a lesser degree—39 percent at their nadir. Felony arrests remained at least 11 percent lower than in 2018 through the end of 2020.

However, arrests for some violent crimes increased dramatically as people resumed public lives. Nationally, homicide rates increased 30 percent in 2020, which was the largest year-to-year increase since 1995 (Rosenfeld, Abt, and Lopez 2021). Moreover, existing racial disparities in arrest rates deepened early in the pandemic. In New York, for example, arrests were down 30 percent by mid-2020. However, white people experienced a larger decrease in the likelihood of arrest, 40 percent, than black people, 30 percent (Li 2020).

Government shutdowns and pandemic conditions also stymied criminal case processing in 2020. Early in the pandemic, many courts closed their courthouses and ceased all in-person operations (Baldwin, Eassey, and Brooke 2020; Piquero 2021). Even when courts operated in person, social distancing recommendations and individual preferences to avoid indoor spaces affected the administration of justice, especially its timing. Across the country, courts suspended jury trials, postponed hearings, and allowed more time for cases to proceed (JFA Institute 2021). Delays led to enormous case backlogs in most jurisdictions (Levin 2021; Smith 2021). In Miami-Dade County, for example, the felony case backlog rose nearly 30 percent, from 10,500 in January to 13,500 in December 2020 (Piquero 2021). In Texas district courts, just 79 percent of cases filed in 2020 were cleared—down from 94 percent in 2019 (Slayton 2020; LaVoie 2021).

Impacts on Arrests and Criminal Case Resolutions in California

As was the case nationally and internationally, the onset of the pandemic and associated government-imposed shutdowns immediately and profoundly affected California's justice system. Fewer people moving about in public and shifts in police practices to protect officers and the public translated into a precipitous decline in the number of arrests (Jackson et al. 2020; Lofstrom and Martin 2021). In California, arrests had been trending downward in the years prior to the pandemic, as shown in figure 1. However, February 2020 saw about the same number of arrests ($N = 89{,}000$) as February 2019, suggesting a potential leveling of that trend. Then the pandemic intervened. Arrest levels collapsed in March and hit bottom in April when just 44,600 arrests were made—a 57 percent decrease relative to April 2018. Through the end of 2020, the monthly number of arrests remained at least 31 percent lower than in 2018.

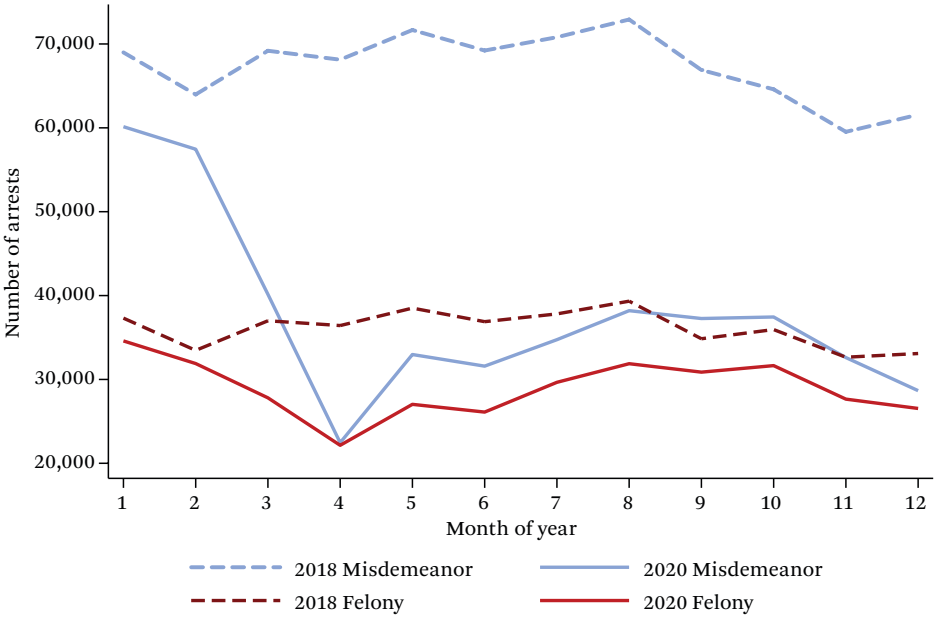
Impacts on Arrests Steeper for Misdemeanors

Misdemeanor arrests drove these patterns, but not exclusively. As shown in figure 1, arrests for all crimes were lower in the early months of the pandemic. However, reductions were about twice as large for misdemeanors, relative to felonies. In a typical pre-pandemic month, California police made 1.8 times more misdemeanor than felony arrests. By comparison, 1.2 misdemeanor arrests were made for each felony arrest in the last ten months of 2020. Amid surges in April and December 2020, police made nearly as many felony as misdemeanor arrests because misdemeanors were so suppressed. Relative to before the pandemic, the number of misdemeanor arrests made averaged 52 percent lower, but felony arrests only 23 percent (for more information, see figure A.1).[1]

Arrest levels for nearly all crime types col-

1. All appendix figures and tables can be found online at https://www.rsfjournal.org/content/9/3/252/tab-supplemental.

Figure 1. Arrests by Month and Level, 2018 and 2020



Source: Author's calculations from the California Department of Justice Automated Criminal History System data (California DOJ 2022).

lapsed during the pandemic. Crimes directly related to fewer people moving around—especially in automobiles—fell particularly far in 2020 relative to 2018. Arrests for public intoxication toppled 53 percent. Misdemeanor arrests for traffic-related offenses fell 62 percent and arrests for driving under the influence nearly halved.[2] Similarly, misdemeanor vehicular homicides were down 74 percent.

Police seemed to prioritize making felony arrests in 2020. Relative to 2018, misdemeanor theft arrests dropped 69 percent, felony theft arrests just 27 percent. Similarly, misdemeanor assaults were down by 33 percent, but felony assaults by 15 percent. Moreover, arrests for some of the most concerning types of felonies increased in 2020 relative to 2018. Felony homicide arrests increased 6 percent, from 3,849 to 4,073. Similarly, felony arson arrests increased 29 percent, from 1,722 to 2,217 (for more, see figure A.2).

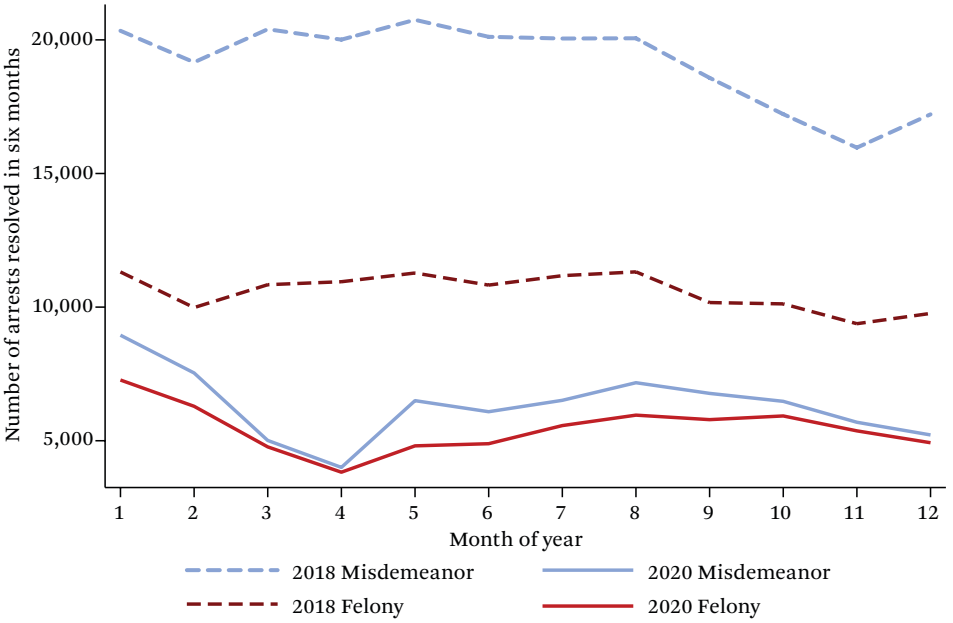
Case Resolutions Nearly Halted

Most of California's courts were shuttered in the early months of the pandemic and then reopened only haltingly. For example, on reopening, some courts restricted the types of cases that proceeded. Others opened and closed numerous times as coronavirus waves ebbed and crested. Consequently, case resolution numbers followed a steeper declining trajectory and were slower to recover than arrests. Figure 2 depicts the arrests made in each month that had reached at least one final disposition—conviction, dismissal, or acquittal—within 180 days.

Before the pandemic, about 1.8 misdemeanor cases resolved for every felony case resolution. Like arrests, case resolutions plummeted in March and April. In 2018, monthly case resolutions averaged just under eleven thousand felonies and just over twenty thousand misdemeanors. In March 2020, about four thousand cases of both types resolved—stunning decreases of 65 percent for felonies and 80 percent for misdemeanors relative to the same months in 2018. In addition, the nearly 2:1 pre-pandemic felony to misdemeanor case completion ratio leveled. Case resolution rates improved in the second half of 2020. Still, in

2. A little more than three in four traffic-related offenses in the ACHS are for driving without a license.

Figure 2. Monthly Arrests That Resolved Within 180 Days, 2018 and 2020



Source: Author's calculations from California Department of Justice Automated Criminal History System data (California DOJ 2022).

Note: This figure looks forward from arrest to depict monthly arrests that reached final disposition six months. Year 2019 is excluded because some arrest follow-ups overlap pandemic conditions.

December, felony case resolution rates were just half of what they had been in 2018 and misdemeanor case resolution rates were 70 percent lower. An average of five thousand felony and six thousand misdemeanor arrests reached final disposition within 180 days in each of the first ten months of the pandemic.

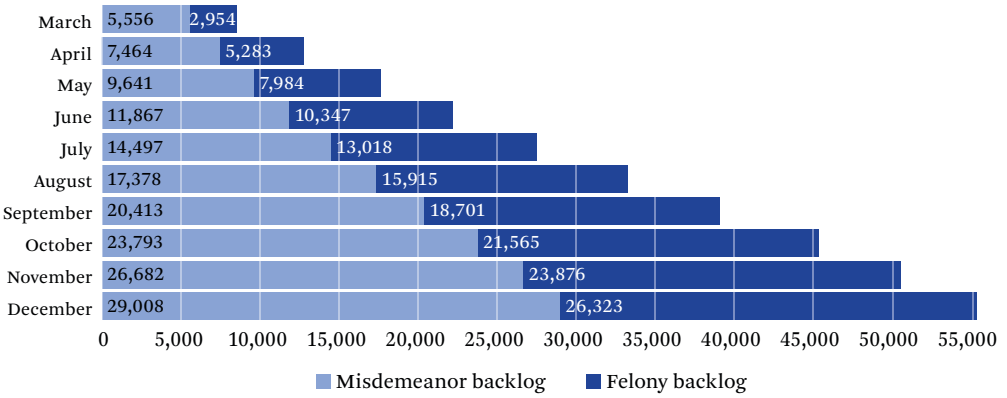
Just as police prioritized arrests for more serious crimes, courts prioritized adjudicating serious criminal cases throughout 2020 (for more detail, see figure A.2). Convictions within 180 days were down more than 80 percent for many misdemeanor crimes, including public intoxication, nonassaultive sex, theft, and fraud. Other misdemeanor convictions also plummeted: disorderly conduct convictions fell 76 percent, weapons convictions 65 percent, misdemeanor burglary convictions 62 percent, and convictions for misdemeanor drug offenses 78 percent from 2018. Felony convictions for similar crime types fell less far: relative to 2018, felony disorder convictions were down 60 percent, felony weapons convictions 37 percent, felony burglary convictions 49 percent, and felony drug convictions 63 percent.

By comparison, convictions for most violent offenses—both felony and misdemeanor—experienced lesser, but still marked declines. Convictions for felony robbery toppled 47 percent. Felony sexual assault convictions decreased 57 percent and misdemeanor sexual assault convictions 63 percent. Even felony homicide convictions decreased 26 percent. Misdemeanor homicide convictions were down 74 percent. Relative to 2018, felony assault convictions fell by one-third and misdemeanor assault convictions more than halved. Arson convictions were the sole exception to this general rule. Felony arson convictions increased 17 percent during the pandemic.

Backlog of at Least Fifty-Five Thousand Cases

Steeper declines in case resolutions and their slower recovery relative to arrests led to a substantial backlog of unresolved criminal cases by December 2020. Lack of information about

Figure 3. Estimated Backlog of Criminal Cases at the End of 2020



Source: Author's calculations from California Department of Justice Automated Criminal History System data (California DOJ 2022).

Note: This figure represents just one part of the pandemic backlog, as described in note 5. The backlog depicted was calculated by looking forward as described in figure 2.

charging decisions (see Data and Methods) precludes a precise calculation of the size of the backlog. Instead, I estimate it by comparing pre-pandemic and pandemic arrest with case resolution ratios. Before the pandemic, 3.8 misdemeanor and 3.6 felony arrests were made, on average, for every case resolution. In March of 2020, averages of 5.8 felony and 8 misdemeanor arrests were made for every arrest that resolved within 180 days. Arrest to resolution ratios averaged 1 to 5.7 for misdemeanors and 1 to 5.4 for felonies through December 2020. If arrest to case resolution ratios had maintained their pre-pandemic averages, about twenty-six thousand more felony and twenty-nine thousand more misdemeanor cases would have resolved during the pandemic, as shown in figure 3. Instead, by December 2020, California courts faced an accumulated backlog of approximately fifty-five thousand shorter-term criminal cases.[3]

The enormous backlog in criminal cases accumulated despite the courts' best efforts to adapt to the pandemic and the curtailments to public life imposed by state and local governments. When Governor Gavin Newsom's statewide SAH order took effect on March 19, most (though not all) superior courts closed and then had to determine when and how to reopen safely in pandemic conditions (Harris 2023).

COURT POLICYMAKING DURING THE PANDEMIC

In the face of these challenges, courts acted swiftly to administer justice and protect public health. Federal and state emergency declarations allowed courts—nationally and in California—to suspend normal operations and institute new policies outside their ordinary review processes. Across the nation, courts implemented an array of policies to extend case processing timelines, adopt and expand remote capabilities, and amend arrest and pretrial release practices. Before the pandemic, none of these policies had been the norm. During the

3. This figure represents just one of three parts of the likely pandemic backlog: the part that pertains to cases that ordinarily complete within six months. The two additional parts include some share of the cases that take more than 180 days to complete, plus any backlog that had existed before 2020. We have no information about the latter, but we do have some information about the former. Based on Judicial Council case processing statistics shown in table A.5, I estimate that 94 percent of misdemeanors and 81 percent of felonies completed within 180 days in recent years (JCC 2020). Thus the backlog depicted in figure 3 likely represents the bulk of the misdemeanor backlog that accumulated between May and December 2020 and a majority of the felony backlog.

pandemic, they became commonplace (Clarke and Smith 2021; JFA Institute 2021; Ostrom et al. 2021; Thumma and Reinkensmeyer 2022).

CALIFORNIA LED THE WAY IN ADAPTING

California led the nation in adopting pandemic policies that directly and indirectly affected the criminal justice system. Within a month of the imposition of the nation's first SAH order, forty-four other states and the District of Columbia issued similar mandates to encourage their citizens to minimize time spent in public. Similarly, California courts acted early to institute policies to protect public health and safety. Even before the governor's SAH order, many individual superior courts had begun modifying their operations to limit in-person proceedings. After the governor issued an emergency order allowing courts to institute emergency rules, the policymaking body for the state courts took immediate action to help all courts operate safely.

The Judicial Council of California (JCC) is the policymaking body that governs the state's court system by establishing rules that guide superior court operations in California's fifty-eight counties. The counties have considerable latitude to operate their courts within the JCC framework. This capacity to customize is essential to a system in which rural counties such as Alpine, which has a population of 1,145, operate courts alongside those in Los Angeles, which has ten million residents and is the most populous county in the nation.

The JCC issued a series of emergency orders intended to help courts function while protecting public safety. Rather than attend to ordinary review processes, the JCC allowed courts to institute policy changes more nimbly. Three of the thirteen orders the JCC initially issued either allowed or mandated specific policies related to criminal case processing; zero bail, arraignment (and trial) extensions, and remote hearings. However, not all orders applied statewide.

Zero bail. As the pandemic unfolded, concern about the health of incarcerated people and their potential impact to the health of nearby communities began to grow (Harris 2020; Plummer et al. 2023, this issue). Public officials sought strategies to safely reduce jail and prison overcrowding to slow the spread of the virus behind and beyond bars. The JCC cited this concern in an order that set bail at $0 for most misdemeanors and lower level felonies (Corren 2020).[4] Before the zero-bail order, each county independently developed a schedule to guide the amount of bail applied to criminal offenses—and those amounts varied widely across counties (Harris, Goss, and Gumbs 2019; Tafoya 2013). By contrast, the zero-bail order set a single schedule that applied statewide between April 13 and June 20, 2020.[5] After the JCC rescinded the statewide order, many counties continued setting bail at $0 to help keep jail populations down (Ballasone 2020; Premkumar et al. 2023).

Time extensions. Unlike the zero-bail order, most JCC orders were discretionary: individual superior courts could choose whether to implement them. As in many jurisdictions around the country, the JCC allowed courts to extend statutory time limits at many stages of criminal justice processing, including arraignment, trial, and for preliminary hearings. Fewer than 3 percent of criminal cases go to trial in California—and jury trials were suspended across much of the state in 2020—so I focus on the time extension policies that could have impacted most criminal cases: arraignment extensions. The JCC order allowed the time between arrest and arraignment lengthen from forty-eight hours to seven days in felony cases. Most courts also applied arraignment extensions to misdemeanors—often for even longer periods if people had been released pending arraignment (Harris 2023).

4. Excluded misdemeanors include domestic violence offenses and court order violations.

5. Even prior to the zero-bail order, some jurisdictions, including Los Angeles, had shifted arrest policies toward issuing citations and away from booking people into jail. These cite-and-release policies—which jurisdictions around the country including Philadelphia, Miami, Denver, and Chicago also adopted—had the desired effect of substantially reducing jail populations (JFA Institute 2021; Piquero 2021).

Remote hearings. Before the pandemic, hearings related to criminal cases typically took place in person, in close courtroom quarters, and among actors characterized as close-knit communities of people who negotiate social and legal norms to enact justice (Benninger et al. 2021; Eisenstein and Jacob 1977; Smith, Thompson, and Cadigan 2022).[6] Operating under such conditions became a threat to public health during the pandemic. To help protect public health and the health of court employees, the JCC issued an order allowing superior courts to conduct hearings remotely. As was the case for time extensions, each court could decide whether, when, and how to operate remotely.[7]

Pandemic Policies Adopted Unevenly

As illustrated in figure 4, the fifty-eight superior courts differed in whether, when, and for how long they applied remote hearing and arraignment extension policies. Most courts adopted these policy changes in mid- to late March, but some waited. Some stopped and restarted pandemic policies multiple times, whereas other applied them consistently. On average, courts had arraignment extension policies in place for eighty-one (SD = 68) days and remote hearing policies were allowed for an average of 180 (SD = 113) days in 2020. For three counties, I found no evidence of arraignment extensions. Similarly, I found no evidence of a remote hearing policy in nine counties.

Californians Differentially Exposed to Policies by Race

Uneven adoption of pandemic policies coupled with uneven distribution of racial groups across the state means that people of different races had different exposures to pandemic policies (Harris 2023). These exposures are presented in table 1. In general, Latinos and blacks were most likely to be exposed to remote hearing and arraignment extension policies in 2020. Remote hearing policies applied to more than half of arrests of black and Latino people, but just 45 percent of arrests involving Asian Americans, Native Americans, and whites. Likewise, just under one in three arrests involving blacks and Latinos occurred when arraignments were extended, whereas about one in five arrests of Asian Americans and whites and 22 percent of arrests involving Native Americans did. By contrast, about 16 percent of arrests for people of all races occurred when the statewide zero-bail policy was in place. However, differential adoption of zero-bail orders by counties after the statewide order expired led to racial differences in exposure to zero-bail policies. Though Native Americans and whites were more likely than people of other races to be arrested for zero-bail eligible crimes, they were considerably less likely (between 8 and 16 percentage points for Native Americans) than people of other races to be arrested when a zero-bail order applied. Differences in exposure to zero bail may have affected whether individual cases were heard remotely because pretrial detainees were more likely to be arraigned remotely than people who were released (Harris 2023). Therefore, people whose arrests were not zero-bail eligible or who were less likely to be arrested under zero-bail orders may have been more likely to see their cases adjudicated remotely.

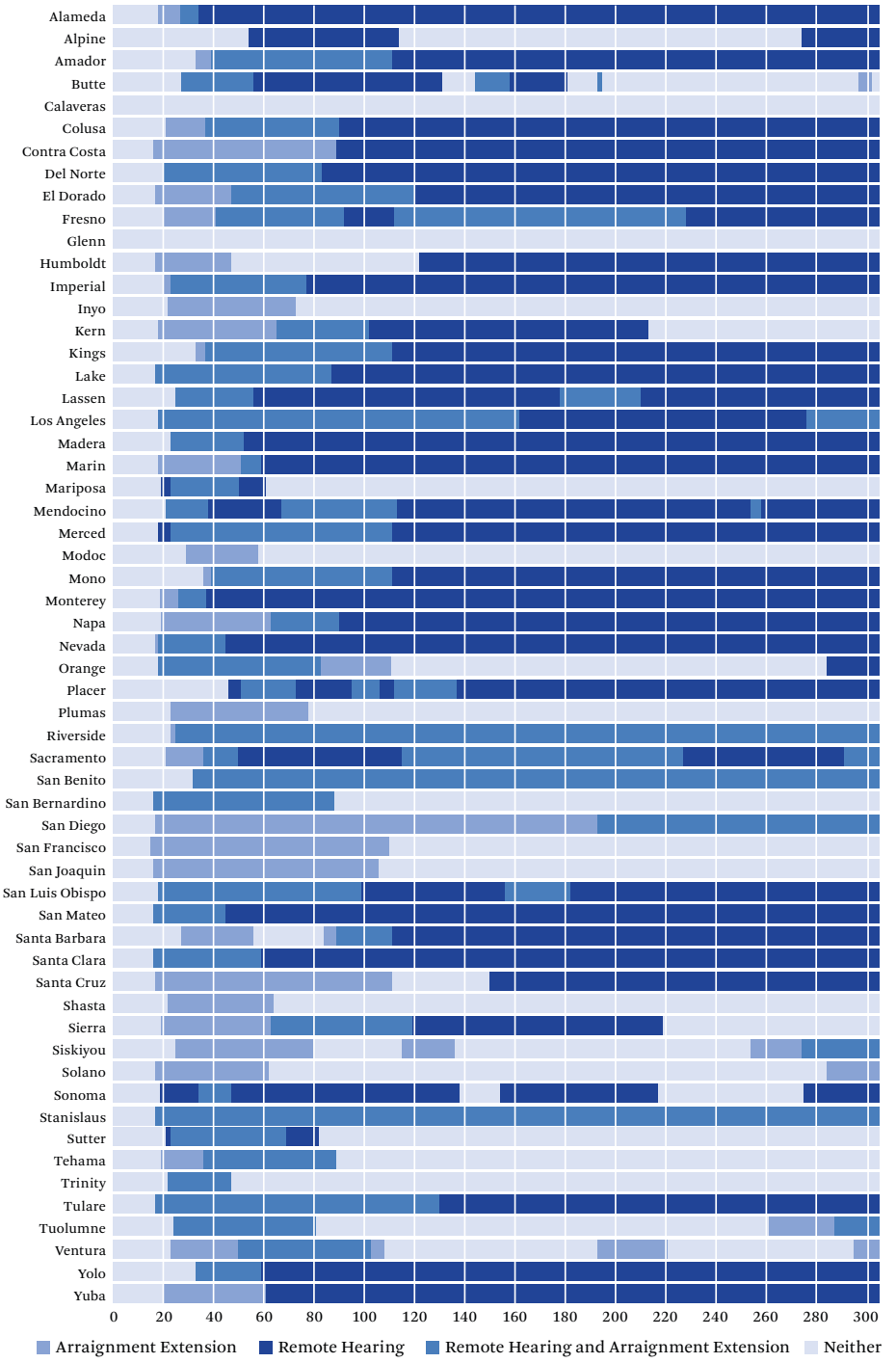
Potential Impacts of Remote Hearings on Criminal Outcomes

Like the studies conducted in individual states, the academic research on remote hearings amid the pandemic has neglected defendants' outcomes. Instead, much of this research has focused on the operational, theoretical, and constitutional issues remote hearing policies pose (Baldwin, Eassey, and Brooke 2020; Bild et al. 2021; Gourdet et al. 2020; Turner 2021).

6. Penal code Section 977 allowed defendants in misdemeanor cases only to request to appear remotely or to allow counsel to appear on their behalf. Before the pandemic, 977 appearances were rare. Amid the pandemic, counties varied in whether and to what degree they allowed them (Harris 2023).

7. Some counties conducted hearings by telephone; others used videoconferencing technologies. The types of hearings to which remote technologies were applied also varied across counties and over time. The most common types of hearings heard remotely were arraignments of people being held in jail, who were typically charged with felonies (Harris 2023).

Figure 4. Pandemic Policy Adoption



Source: Author's tabulation based on superior court orders, press releases, and rules of court.
Note: Statewide zero bail applied in all counties from Day 44 (April 13) to Day 112 (June 20). Some counties started zero bail before the statewide order and some extended it beyond it (See Premkumar et al. 2023). Some courts may have permitted pandemic policies when we could not find evidence of them. Others may not have implemented the policies they adopted (Harris 2023).

Table 1. Percentage of Arrested People Exposed to Each Policy in 2020

	Arrests	Remote Hearing	Arraignment Extension	Zero Bail (State or County)	Zero Bail Eligible
Race	*N*	%	%	%	%
White	263,530	44.8	28.0	52.9	71.6
Latino	369,380	52.3	32.4	60.9	65.5
Black	139,768	51.4	31.9	58.5	65.8
Asian American	23,738	46.6	26.0	56.9	63.0
Native American	5,105	44.7	22.4	45.1	70.8
All	801,521	49.5	30.6	57.6	67.5

Source: Author's calculations from the California Department of Justice Automated Criminal History System data (California DOJ 2022) and court policy data summarized in figure 4.
Note: The last column indicates the percentage of arrests in which the hierarchically most serious arrest offense was zero bail eligible under the statewide zero bail order.

In the abstract, this oversight may seem justifiable. Whether criminal proceedings occur remotely or in person is seemingly orthogonal to whether a crime occurred, whether a particular person can be shown to have committed it, and how that person should be punished—especially in the context of a criminal justice system that resolves 98 percent of cases via plea or charge bargaining and determinative rubrics guide sentencing (Bird et al. 2022; CRPC 2021; Dervan 2019). Yet we also know that other (also seemingly orthogonal) extralegal factors related to courtroom context, how people present, and how they are perceived affect the outcomes of their criminal cases (see, for example, Johnson 2005; Lizotte 1978).

Research provides no direct evidence about how remote hearings should affect disposition or sentencing outcomes—for all defendants or for people of different races. Just one study has examined how conducting hearings remotely affected the outcomes of a criminal proceeding. Conducted in Cook County, Illinois, it used interrupted time-series analysis to evaluate whether switching from in-person to videoconferenced bail hearings on June 1, 1999, affected bail amounts. Initially and over time, felony bail amounts increased substantially—between 54 percent and 91 percent depending on the crime type—after the videoconferencing technology was implemented (Diamond et al. 2010).

If taken at face value, the Cook County study suggests one pathway along which conducting criminal proceedings remotely, rather than in person, could lead to deleterious and racially inequitable case outcomes. When higher bail amounts are imposed, accused people are less likely to secure pretrial release (Tafoya 2013). Relative to those who are released, those who are detained experience higher conviction probabilities, greater likelihood of incarceration, and longer periods of incarceration (Dobbie and Yang 2021; Heaton 2020; Leslie and Pope 2017). In addition, the negative effects of pretrial detention are racialized. Relative to white people, people of color are more likely to be detained and detained for longer periods (Tafoya et al. 2017). Comparatively worse disposition and sentencing outcomes follow (Demuth and Steffensmeier 2004; Arnold, Dobbie, and Yang 2018; Leslie and Pope 2017). If these effects of higher bail amounts held during the pandemic, policies that permitted remote arraignments could have deepened existing racial inequities in disposition and sentencing outcomes.

However, the higher bail amounts imposed after Cook County changed how bail hearings took place may not be attributable to the switch from in-person to remote modalities. Other differences between Cook County's in-person and remote systems could have led to higher bail amounts. Under the remote system, defense attorneys could not confer as meaningfully with their clients. Attorneys who had been handling

about twenty in-person cases per day, instead handled one hundred—a fivefold increase. The pace of bail hearings also accelerated under the remote system. "In each case, the court made a probable cause finding, set bond, and continued the case for hearing on a future date—all in the space of about thirty seconds on average" (Diamond et al. 2010, 885). Extreme caseloads coupled with rapid-fire case processing likely contributed substantially to the rise in bail amounts because the court neither heard nor had time to consider mitigating circumstances.

Potential confounding factors also threaten the internal validity of this study. The chaos of the pandemic and the breadth and rapidity of the courts' responses to pandemic conditions present challenges for attributing shifts in conviction and sentencing outcomes to shifts away from in-person and toward remote proceedings. I describe how I address these challenges in the next section.

DATA AND METHODS

Information about whether and when remote hearing and arraignment extension policies applied in each county, shown in figure 4, was compiled by reading and coding court orders, press releases, and changes to rules of court that appeared on the Judicial Council website and on each of the fifty-eight superior court websites (JCC 2019).[8] Binary variables signal whether a remote hearing, arraignment extension, or a zero-bail policy (county or state) was in place on the day of arrest. Offenses to which zero bail did not apply were specified in the statewide zero-bail order. Excepted crimes included serious and violent felonies and registerable sex offenses, as defined in the penal code.

All other variables were derived from California Department of Justice (DOJ) Automated Criminal History System (ACHS) data. The ACHS includes information about people arrested, arrest charges, final dispositions, and sentencing decisions. The sample spans January 1, 2018, through June 30, 2021, and includes ACHS criminal histories for all individuals arrested in California during that period (California DOJ 2022). After eliminating duplicate records, multiracial and unknown race people, juveniles, and arrests that occurred in jail or prison, the data include 1.38 million people who experienced 3.21 million arrests.[9] From these data, variables that describe current cases and individuals' complete California arrest, conviction, and sentencing histories were constructed.

Data Limitations

Foremost, I do not know whether pandemic policies were applied in individual criminal cases. Instead, I know whether a policy that allowed arraignment extensions, remote hearings, or zero bail was or was not in place at the time of each arrest, as depicted in figure 4. My estimates therefore represent the impact of having a pandemic policy in place (versus not having it) at arrest on criminal case outcomes, rather than whether criminal case outcomes

8. For a detailed description of the methodology used to develop data from the court orders, see Harris 2023. Briefly, a research associate and I read the orders, rules, and press releases on current and archived versions of each county's website—thousands of documents. Each of us created narrative summaries of the policy environment for half of the counties. We then coded the dates during which each policy applied from the other's summaries. Where inconsistencies or lack of clarity arose, we reviewed the documents again until coming to agreement.

9. The ACHS includes a substantial proportion of duplicate arrest records. The same arrest can be registered one or more times. In addition, slightly different information often appears across these records. Such errors occur throughout the data, but are especially concentrated in some counties, agencies, and time frames (for example, same day). After discussing the findings with the DOJ, we identified indicators of some processes that generate duplicates, which include dual arrest/booking procedures, multiple transfers of custody, and scanning and linkage failures across events (such as prosecution and short-term incarceration decisions). I found that approximately 1:13 observations (n = 278,145) are likely duplicates, some false negatives and positives being inevitable. Because many duplicates are not exact matches, I preserved information from duplicate records to create hierarchical offense information. More information about the de-duplication and information preservation processes is available on request.

shifted after policies altered the trajectories of individual cases.

Limitations of the ACHS also constrain what can be known about individual cases. The ACHS lacks charge filing information and declined prosecutions are not reliably recorded. Therefore, I do not know how long people waited between arrest and arraignment. Nor do I know whether arrests that have not reached a final disposition have been charged.[10]

Finally, the data permit only a six-month follow-up for arrests made on December 31, 2020. Before the pandemic, 94 percent of misdemeanor and 81 percent of felony cases filed in California courts completed within 180 days.[11] Thus the six-month marker provides a reasonable completion timeline for the majority of cases—both misdemeanor and felony—ordinarily adjudicated in the state.[12] However, the results of my analysis may not apply to longer, usually more complicated, felony cases.

Variable Construction and Descriptive Statistics

Five binary outcome variables were derived from the ACHS data. The single disposition outcome is a conviction within 180 days of arrest. Four mutually exclusive and comprehensive sentencing outcomes that reflect the most severe sanction are conditional on 180-day convictions: any prison, any jail (no prison), probation, and money sanctions.[13]

Current arrest and case characteristics include information about offense levels and types. Offense levels were reduced to a binary felony-misdemeanor indicator (see table 2). Offenses were categorized into mutually exclusive and exhaustive categories and types based on their DOJ Criminal Justice Information System and penal codes. Twenty-one crime types fall into four crime categories: conduct, drugs, property, and violent. All drug crimes belong to the drug category. Property crimes are burglary, fraud, theft, and motor vehicle theft. Arson, assault, kidnapping, homicide, sexual assault, and threats are violent. Conduct crimes do not rise to the level of violence, do not involve fraud and larceny, and are not related to the drug trade. Conduct types are: generic criminal justice violations, disorder and disorderly conduct, driving under the influence, illegal weapon sales and possession (weapon use is classified as violent), nonassaultive sex, public intoxication, traffic, and trespassing and vandalism. Indicators were also created for zero-bail eligible, serious or violent, and registerable sex offenses (see table 2). Current arrest and conviction indicators were created for all type-level combinations.

For all arrests and convictions, the most serious crime was identified using the DOJ hierarchy, which ranks offenses. Between 2018 and 2020, 43 percent of California arrests and 73 percent of 180-day convictions involved a single charge. Indicators for multiple arrest charges and their aggregate characteristics were also constructed. Criminal history variables were constructed from conviction, sentencing, and arrest variables. They include prior arrest and conviction offense category-level indicators, number of prior arrests and convictions, an indicator of multiple arrest and conviction charges, and variables indicating prior jail, prison, and probation only sentences received.

In table 2, I present select descriptive statis-

10. To illustrate, police made 1.2 million arrests in fiscal year 2019, of which 509,000 had received a final disposition by June 30, 2021, and 148,000 had at least one charge decline. More than 540,000 arrests remain, some of which may be mid-adjudication and some of which may not have been charged.

11. These figures were calculated from JCC reports, as shown in table A.5.

12. According to Judicial Council statistics, 190,500 felony and 756,500 traffic and nontraffic misdemeanor cases were filed in fiscal year 2018. If 81 percent of felonies and 94 percent of misdemeanors resolved within 180 days, about thirty-six thousand felony and fifty-six thousand misdemeanor cases remained.

13. About 15 percent of prison sentences also include jail, probation, or both. These sentences count as prison sentences to reflect the most serious potential sanction. About 75 percent of those sentenced to jail are also sentenced to probation. These *split* sentences are included in jail outcomes. Similarly, probation sentences could also include money sanctions.

Table 2. Select Descriptive Statistics

		2018		2020	
	Variables	% or Mean	SD	% or Mean	SD
180-day outcomes	conviction	23.2		13.3	
	money sanction	5.9		6.3	
	probation	13.4		7.9	
	Jail	73.5		76.0	
	prison	5.8		8.2	
Demographics	white	35.5		32.9	
	Latino	43.9		46.1	
	black	17.0		17.4	
	Asian American	3.0		3.0	
	Native American	0.6		0.6	
	female	22.2		20.4	
	born outside US	16.5		16.9	
	age at arrest	35.1	11.6	35.2	11.4
Arrest	felony	34.9		43.4	
	multiple charges	57.4		57.2	
	zero bail eligible	72.6		67.5	
Conviction	felony	20.9		30.3	
	multiple charges	74.0		83.6	
	serious or violent felony	5.4		6.5	
	registerable sex offense	1.5		1.2	
Prior arrest	serious or violent felony	43.9		47.7	
	number of prior arrests	14.0	16.5	15.2	17.9
Prior conviction	serious or violent felony	15.8		18.2	
	registerable sex offense	3.3		3.5	
	number of prior convictions	5.1	6.4	5.3	6.9
Prior sentences	any prior jail	71.0		69.4	
	any prior prison	20.6		22.8	
	only prior probation	3.7		3.2	
	N	1,171,326		801,521	

Source: Author's calculations from the California Department of Justice Automated Criminal History System data (California DOJ 2022).

Note: These data excluded duplicate observations (*N* = 278,145) as described in note 11, multirace individuals (*N* = 119,041), juveniles (*N* = 21,210), and in-custody arrests (*N* = 7,130). Offense levels that were undefined (*N* = 105,200) or infractions (*N*=10,250) were recoded to misdemeanors. The penal code defines serious and violent felonies, which are strikes under California's Three Strikes Law, and registerable sex offenses. Analyses include additional felony and misdemeanor offense type indicators for current and prior arrests and convictions, as shown in tables A.1–A.3.

tics for 2020 and 2018. Demographic variables include age at arrest, gender, and whether a person was born in the United States. Both before and during the pandemic, arrests in California involve people who are on average thirty-five years old. About 17 percent of arrests involve people born outside the United States. During the pandemic, 20 percent of arrests were of females. Before the pandemic, 22 percent of arrests involved women.

During 2020, the racial composition of the population of arrested people in California shifted away from whites and toward Latinos. Latinos made up a larger share of arrestees dur-

ing the pandemic (46.1 percent) than they did before it (43.9 percent). By contrast, whites were 35.5 percent of those arrested before the pandemic and just 32.9 percent of those arrested during it. Blacks, Asian Americans, and Native Americans were about as likely to be arrested during the pandemic as they were before it.

In addition, other characteristics of arrests and convictions indicate a focus on more serious crimes during the pandemic. Before the pandemic, nearly three in four arrests were for crimes that would have been eligible for zero bail. During the pandemic, just two in three arrests were zero bail eligible. Before the pandemic, three in four convictions included multiple charges, whereas 83.5 percent did during the pandemic. The people involved in arrests made during the pandemic were also more likely to have prior arrests (43.9 versus 47.7 percent) and prior convictions (15.8 versus 18.3 percent) for serious or violent felonies.

Methodology

I first examine how disposition and sentencing outcomes and racial differences in those outcomes shifted during the pandemic versus before it, using fixed-effects linear probability models.[14] I present before and during pandemic predicted probabilities for each outcome by race. I then apply Jonah Gelbach's (2016) decomposition to assess whether and how much the pandemic, relative to other factors, contributed to shifts in racial inequitable outcomes. Gelbach decomposition relies on a mathematical relationship between nested ordinary least squares models. Baseline models predict case outcomes as a function of race variables, with white as a comparison group, as shown in equation (1).

$$Case\ outcome_i = \alpha + \beta_1 Latino_i + \beta_2 black_i + \beta_3 Asian_i + \beta_4 Native\ Am_i + \varepsilon_i \quad (1)$$

Full specifications include all covariates and county fixed effects with Los Angeles as the base, as shown in equation (2). How much each variable group contributes to race differences in outcomes is then calculated by comparing the unconditional means of the race coefficients in the baseline models with the conditional means in the full specifications.

$$Case\ outcome_i = \alpha + \beta_1 Latino_i + \beta_2 black_i + \beta_3 Asian_i + \beta_4 Native\ Am_i + \beta_6 Arrest\ during\ Pandemic_i + \beta_7\ Pandemic\ Policies\ at\ Arrest_i + \beta_5 Demographics_i + \beta_8 Current\ Case_i + \beta_9 Past\ Arrest_i + \beta_{10} Past\ Conviction_i + \beta_{11} County\ Fixed\ Effects + \varepsilon_i \quad (2)$$

Equation (2) highlights the relevant factor groups. A binary before-during pandemic indicator captures pandemic impacts not attributable to policies. The period during the pandemic spans from the beginning of the stay-at-home order through the end of 2020. The period before the pandemic mirrors that time span in 2018. Pandemic policies (statewide zero bail, extended arraignments, and remote hearings) constitute one factor. The current case characteristic factor includes either current arrest (for conviction outcomes) or current conviction (for sentencing outcomes) descriptors. Prior arrest characteristics constitute another factor group. The final group includes prior convictions and the punishments associated with them.

$$Case\ outcome_i = \alpha + \beta_1 Latino_i + \beta_2 Black_i + \beta_3 Asian_i + \beta_4 Native\ Am_i + \beta_5 Remote\ Policy\ at\ Arrest_i + \beta_6 Other\ Pandemic\ Policies\ at\ Arrest_i + \beta_7 Demographics_i + \beta_8 Current\ Felony_i + \beta_9 Current\ Misdemeanor_i + \beta_{10} Current\ Other_i + \beta_{11} Past\ Arrest_i + \beta_{12} Past\ Arrest\ Other_i + \beta_{13} Past\ Conviction_i + \beta_{14} Past\ Conviction\ Other_i + \beta_{15} Past\ Sentencing_i + \beta_{16} County\ Fixed\ Effects + \beta_{17} Month\ Fixed\ Effects + \varepsilon_i \quad (3)$$

I use the same methodology to estimate the impact of remote hearings on conviction and sentencing outcomes and determine which fac-

14. County and month fixed effects account for time and space invariant factors that may have shaped criminal case outcomes. Such factors relevant to the current analysis include the geospatial clustering of people and average political party affiliations, which were associated with coronavirus transmission rates and affected court operations. They also include seasonal variation in, for example, crime and coronavirus transmission rates.

tors contribute to racial inequity in them. The base specification is the same as in equation (1). The full specification is shown in equation (3). I apply each specification to all 2020 arrests and then to felony and misdemeanor arrests separately. I compare the downstream outcomes of arrests made when remote hearing policies were in place with those of arrests made when they were not.

Functionally, these are intent-to-treat estimates of the impact of remote hearings on criminal case outcomes: I do not know whether remote or in-person hearings were conducted in each case, but I do not know whether they could have been. In addition, some of the dates during which pandemic policies applied may not be accurate. For these reasons, I likely underestimate the impact of remote hearing policies on criminal case outcomes.

Figure 4 illustrates substantial between-county variation in the timing and duration of remote hearing policies during the pandemic and thus provides evidence that the estimated impacts are attributable to remote hearing policies. Were they not, similar confounding factors would have had to occur with similar variation across these county contexts. The timing and duration of arraignment extension policies, also shown in figure 4, illustrates the unlikelihood of that scenario.[15] In addition, the 180-day outcomes may raise doubts about whether courts adopted remote hearing policies to overcome lengthening case backlogs. Case backlogs were cited in court orders rarely and never to motivate remote hearing policies (Harris 2023). At least one court explicitly stated that remote hearing capabilities would not address backlogs (San Diego Superior Court 2020).

RESULTS

Before-during pandemic shifts in the adjusted predicted probabilities of conviction and four mutually exclusive sentencing outcomes are presented in table 3.[16] Simple differences between the probabilities of the racial groups most and least likely to experience each outcome, which appear in the last column, constitute the racial gap in criminal case outcomes.

Racial Differences in Criminal Case Outcomes

During the pandemic, the likelihood that criminal cases would lead to conviction within six months plummeted. Sentencing outcomes also shifted. On average, money sanctions and jail time became more common in 2020, whereas probation was less likely to be imposed and prison sentences were less common during the pandemic than before it. Within these overall shifts, racial dynamics also shifted. Racial gaps shrank for probation sentences but expanded for money sanction, jail, and prison sentences.

Conviction Probabilities Plummeted, Racial Disparities Shifted

During the pandemic, the probability that arrests led to convictions within six months decreased dramatically. On average, the likelihood of being convicted toppled 6.5 percentage points, from 22.0 percent before the pandemic to 15.5 percent during it. The racial gap in conviction probabilities held steady at about 2.2 percentage points. However, the racial groups most and least likely to be convicted changed. Before the pandemic, cases involving Latinos were most likely (22.7 percent) and those involving blacks least likely (20.4 percent) to lead to conviction. During the pandemic, cases involving Asian Americans were least likely to result in conviction (14.1 percent) and Asian Americans experienced the largest reduction in conviction probabilities (7.3 percentage points). Conversely, cases involving Native Americans became most likely (16.3 percent) to lead to conviction because Native Americans experienced the smallest decrease (5.0 percentage points) in the likelihood of conviction. Black people also experienced lower than average decreases (5.8 percentage points) in conviction probabilities.

15. The two counties that never adopted remote hearing or arraignment extension policies applied zero bail differently. Calaveras County applied zero bail only during the statewide order. Glenn County extended zero bail through the end of 2020 (Harris 2023).

16. Full regression results and decomposition analyses are shown in tables A.6 and A.7.

Table 3. Unadjusted and Adjusted Probability of Conviction and Sentencing Outcomes Before and During the Pandemic by Race

		Adjusted						
		All	White	Latino	Black	Asian American	Native American	Racial Gap
Conviction	before	22.0	21.9	22.7	20.4	21.4	21.3	2.2
	during	15.5	15.3	16.0	14.6	14.1	16.3	2.2
	differences	−6.5	−6.5	−6.6	−5.8	−7.3	−5.0	−0.1
Money sanction	before	5.9	5.9	5.9	6.5	4.5	5.4	2.1
	during	6.1	5.8	6.3	6.4	4.9	7.5	2.6
	differences	0.2	−0.1	0.4	−0.1	0.4	2.1	0.5
Probation	before	12.0	12.2	12.2	10.9	13.4	13.1	2.5
	during	11.4	11.9	11.1	11.3	11.1	11.4	0.8
	differences	−0.6	−0.3	−1.1	0.3	−2.3	−1.7	−1.7
Jail	before	73.8	73.6	73.6	75.0	73.4	74.5	1.6
	during	75.2	74.9	75.2	76.1	75.8	73.3	2.7
	differences	1.4	1.3	1.6	1.0	2.4	−1.2	1.1
Prison	before	6.6	6.8	6.8	5.8	6.9	6.0	1.0
	during	6.4	6.3	6.8	5.1	7.0	6.3	1.9
	differences	−0.3	−0.5	0.0	−0.7	0.1	0.3	0.8
		Unadjusted						
		All	White	Latino	Black	Asian American	Native American	Racial Gap
Conviction	before	23.0	22.4	24.7	20.0	21.7	21.7	4.7
	during	13.7	13.3	15.0	11.5	11.4	14.6	3.6
	differences	−9.3	−9.1	−9.7	−8.5	−10.3	−7.1	−1.1
Money sanction	before	5.8	4.6	7.0	5.0	4.8	4.8	2.5
	during	6.5	4.7	8.0	5.2	5.1	6.5	3.3
	differences	0.7	0.2	1.0	0.2	0.3	1.7	0.8
Probation	before	13.2	13.7	13.6	10.3	15.4	15.7	5.4
	during	8.1	8.6	8.4	6.0	8.6	10.9	4.9
	differences	−5.1	−5.2	−5.2	−4.3	−6.8	−4.7	−0.5
Jail	before	73.9	75.7	72.5	74.3	73.7	72.3	3.4
	during	75.0	77.3	73.5	75.2	76.5	71.0	6.3
	differences	1.1	1.6	1.1	0.9	2.7	−1.3	2.9
Prison	before	5.8	4.7	5.8	8.6	4.0	6.1	4.7
	during	8.9	7.9	8.9	11.5	7.7	9.8	3.9
	differences	3.2	3.2	3.1	2.9	3.7	3.7	−0.8

Source: Author's calculations from California Department of Justice Automated Criminal History System (California DOJ 2022) and court policy data summarized in figure 4.

Note: The racial gap is the difference between the racial groups most and least likely to experience each outcome. Difference rows indicate during-before differences. All predicted probabilities are statistically significant at $p <= .05$ or lesser and were calculated using margins in STATA. Adjustment factors are shown in tables 2 and A.1–A.3. Full regression results are shown in table A.6.

Money Sanctions More Prevalent, Racial Gaps Widened

Money sanctions became 0.2 percentage points more likely during the pandemic. As shown in table 3, the racial gap in the probability of receiving a money sanction widened from 2.1 percentage points before the pandemic to 2.6 percentage points during it. Cases involving Native Americans account for the increased racial gap. During the pandemic, cases of Native Americans saw the largest increase (2.1 percentage points) in the likelihood of receiving a money sanction.

Probation Probabilities Decreased, Racial Disparities Narrowed

During the pandemic, the likelihood that a case would culminate in a probation sentence decreased 0.6 percentage points on average. The absolute racial gap in the probability of being sentenced to probation dropped by nearly two-thirds, from 2.5 percentage points before the pandemic to 0.8 during it. The outcomes of Asian Americans and blacks explain the narrowing racial gap. As shown in table 3, the probability that cases involving an Asian American would lead to probation fell 2.3 percentage points, such that Asian Americans moved from most likely to receive probation before the pandemic to least likely during it. By contrast, black people, who had been about one percentage point less likely than people of all other races to receive probation, experienced a 0.3 percentage point increase in the likelihood of a probation sentence.

Jail Sentences Increased in Prevalence, Racial Gaps Widened

As shown in table 3, the average probability that a case would lead to a jail sentence increased slightly, from 73.8 before the pandemic to 75.2 percent during it. Cases involving people of all races—except Native Americans—were more likely to lead to jail sentences during the pandemic. Asian Americans experienced the largest increase (2.4 percentage points) in the likelihood of being sentenced to jail. By contrast, Native Americans were 1.2 percentage points less likely to receive jail sentences during the pandemic. The outcomes of Native Americans helped widen the racial gap in the probability of receiving a jail sentence during the pandemic from 1.6 to 2.7 percentage points. In addition, blacks, who had the highest jail incarceration rates before the pandemic (75 percent), also had the highest rate amid it (76.1 percent).

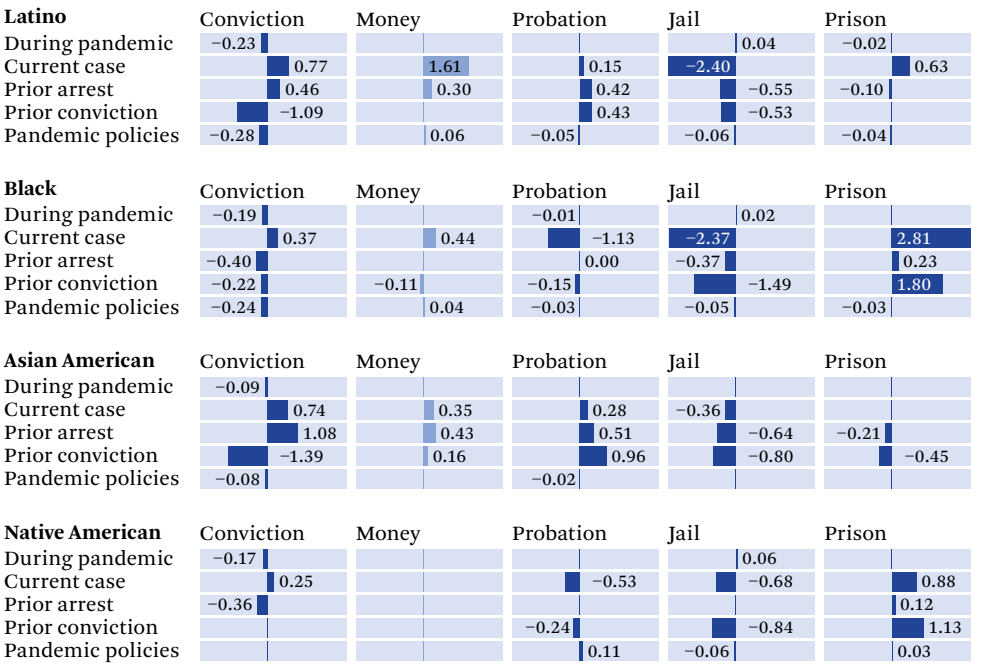
Prison Sentences Equally Likely, Racial Inequities Deeper

Just under 7 percent of arrests made in California led to prison sentences before and during the pandemic. However, as shown in table 3, changes in the likelihood of receiving a prison sentence varied by racial group—and the gap increased from 1.0 to 1.9 percentage points. White and black people experienced decreased probabilities of imprisonment during the pandemic relative to before it. Blacks were least likely to be sentenced to prison before the pandemic and experienced the largest decrease in that likelihood. Thus they remained least likely to be sentenced to prison during the pandemic. Similarly, cases involving Asian Americans were most likely to result in prison sentences before and during the pandemic. However, Asian Americans experienced only a 0.1 percentage point before-during pandemic change in the likelihood of being sentenced to prison. By contrast, cases involving Native Americans were 0.3 percentage points more likely to lead to prison sentences during the pandemic than they had been before it.

Policies, Racial Differences, Criminal Case Outcomes

Decomposition analysis reveals how much of the explained racial variation in outcomes is attributable to each factor group represented in the data. However, the data do not account for all of the racial differences in criminal case outcomes that emerged during the pandemic. Unexplained differences between whites and blacks remained for all outcomes—and the direction of those differences shifts by outcome. Other factors equal, blacks were less likely than whites to be convicted (1.4 percentage points) and sentenced to probation (1.3 percentage points) or prison (1.0 percentage point). Conversely, blacks were more likely than whites to receive money sanctions (0.6 percentage points) and jail (1.4 percentage points) sen-

Figure 5. Differences in Case Outcomes Explained by Pandemic Policies



Source: Author's calculations from California Department of Justice Automated Criminal History System data (California DOJ 2022) and court policy data summarized in figure 4.
Note: Percentage points shown. Where cells are blank, the factor group did not make a statistically significant contribution to racial differences in outcomes. Contributions are statistically significant at $p <= .05$. See appendix table A.7 for complete results.

tences. Unexplained differences between whites and Latinos remained for conviction (0.8 percentage points). Asian Americans were 1.4 percentage points less likely than whites to receive money sanctions and 1.2 percentage points more likely to receive probation.

Pandemic policies—remote hearings, arraignment extensions, and zero bail—collectively account for some of the explained before-during pandemic racial differences in criminal cases outcomes. As shown in figure 5, pandemic policies closed gaps in conviction, probation, and prison probabilities between whites and people of all other races, except Native Americans, for whom pandemic policies widened these gaps. Pandemic policies also narrowed racial gaps the probability of being sentenced to jail between whites and people of all other races except Asian Americans. On the other hand, pandemic policies deepened racial gaps in the imposition of money sanctions between Latinos and whites and blacks and whites.

In general, current case, prior arrest, and prior conviction and sentencing factors explain substantially more of the race differences in conviction and sentencing outcomes than pandemic policies do. However, for some racial groups, pandemic policies accounted for a substantial proportion of the explained racial difference. For example, pandemic policies account for about half as much of the black-white variation in conviction, money sanction, and jail probabilities as prior arrest characteristics do—and both factors narrow black-white gaps in these outcomes.

Remote Hearings, Racial Equity, Criminal Case Outcomes

Allowing remote hearings reinforced lower conviction probabilities during the pandemic. By contrast, for sentencing outcomes, the im-

pacts of remote hearings opposed before-during pandemic trends. Remote hearing policies increased the likelihood of noncustodial sentences and decreased the likelihood of jail sentences. This trade-off was concentrated among misdemeanors, although remote hearing policies also affected the outcomes of felony arrests of blacks.

Remote Hearings Reduced Average Conviction Probabilities

Being arrested when a remote hearing policy was in place, versus when it was not, reduced the average probability of conviction within 180 days by 1.5 percentage points, overall. Having a remote hearing policy in place during misdemeanor and felony arrests reduced both conviction rates by 1.4 percentage points. People of all races seemed to experience reduced conviction rates when remote hearing policies were in place. However, as shown in table 4, only cases involving black, Latino, and white defendants showed statistically significant impacts. Arrests of black defendants were 2.1 percentage points less likely to result in conviction when remote hearings were allowed. Arrests of white and Latino defendants were, respectively, 1.4 and 1.3 percentage points less likely to end in conviction under remote hearing policies.

Remote Hearing Policies and Sentencing Outcomes

Across offense levels, having a remote hearing policy in place at arrest increased the likelihood of post-conviction probation by 0.6 percentage points and the probability of receiving a money sanction by 0.4 percentage points. On the other hand, jail sentences were 1 percentage point less likely—a near exact trade-off. Arrests for nontraffic misdemeanors drove this result (see table A.4). Nontraffic misdemeanor arrests made under remote hearing policies were 1.5 percentage points less likely to lead to jail sentences and 1.3 percentage points more likely to lead to probation sentences.

Sentencing, Offense Levels and Racial Groups, and Remote Hearing Policies

Remote hearings influenced the outcomes of felony convictions only for blacks. Under remote hearing policies, blacks were 3.8 percentage points less likely to be sentenced to prison and 4 points more likely to be sentenced to jail—a near perfect trade-off.[17]

Impacts on the outcomes of misdemeanor convictions were more widespread. Under remote hearing policies, misdemeanor convictions were less likely to result in jail sentences and more likely to lead to probation or money sanctions. These impacts seemed to hold for people of all races, but not all are statistically significant, as shown in table 4. Under remote hearing policies, whites, blacks, and Native Americans were more likely to receive money sanctions after misdemeanor convictions. Increases ranged from 1.5 percentage points for whites to 4.7 percentage points for Native Americans. Whites, along with Latinos, were also at least 1.1 percentage points more likely to receive probation for misdemeanors while remote hearing policies applied. Conversely, whites, blacks, and Latinos were less likely to be sentenced to jail within six months of misdemeanor convictions stemming from arrests made under remote hearing policies. Under such policies, reductions in misdemeanor jail sentences ranged from 1.2 percentage points for Latinos to 3.0 percentage points for whites.

Remote Hearings and Racial Gaps in Case Outcomes

The data do not explain all of the racial differences in cases outcomes amid the pandemic. Unexplained differences remained between whites and Asian Americans, blacks, and Latinos. Relative to arrests of whites, arrests of Latinos remained 0.8 percentage points more to lead to conviction, 0.8 percentage points less likely to lead to jail, and 0.9 percentage points more likely to result in money sanctions. Relative to whites, blacks were 0.5 percentage points less likely to be convicted and 0.9 percentage points less likely to be imprisoned.

17. Impacts for felony convictions of all people were marginally statistically significant at $p = 0.06$. Felony convictions were marginally more likely to lead to jail (1.6 percentage points) and less likely to lead to prison (1.5 percentage points). Nontraffic convictions drove these impacts, as shown in table A.4.

Table 4. Average Marginal Effects of Remote Hearing Policies

		All			Felony			Misdemeanor		
	Race	AME	SE	p	AME	SE	p	AME	SE	p
Conviction	All	−0.015	0.001	0.000	−0.014	0.002	0.000	−0.014	0.002	0.000
	White	−0.014	0.002	0.000	−0.017	0.003	0.000	−0.013	0.002	0.000
	Latino	−0.013	0.002	0.000	−0.013	0.003	0.000	−0.016	0.002	0.000
	Black	−0.021	0.002	0.000	−0.015	0.003	0.000	−0.022	0.003	0.000
	Asian American	−0.007	0.004	0.115	−0.005	0.006	0.452	−0.005	0.005	0.365
	Native American	−0.012	0.010	0.253	−0.021	0.016	0.178	−0.003	0.014	0.802
Money sanction	All	0.004	0.002	0.051	−0.001	0.001	0.400	0.010	0.004	0.012
	White	0.011	0.003	0.000	0.000	0.002	0.843	0.015	0.004	0.000
	Latino	−0.003	0.003	0.340	−0.001	0.001	0.258	−0.001	0.004	0.800
	Black	0.011	0.003	0.001	−0.002	0.001	0.257	0.019	0.005	0.000
	Asian American	0.012	0.007	0.106	0.002	0.005	0.639	0.017	0.010	0.088
	Native American	0.034	0.016	0.039	0.004	0.017	0.824	0.047	0.023	0.039
Probation	All	0.006	0.003	0.026	−0.004	0.003	0.183	−0.014	0.002	0.000
	White	0.010	0.004	0.008	0.001	0.004	0.785	0.013	0.005	0.010
	Latino	0.006	0.003	0.064	−0.005	0.003	0.099	0.011	0.004	0.010
	Black	0.001	0.004	0.901	−0.004	0.005	0.433	0.001	0.006	0.889
	Asian American	−0.004	0.011	0.700	−0.032	0.013	0.017	0.004	0.014	0.797
	Native American	0.005	0.024	0.839	0.012	0.029	0.684	0.006	0.033	0.849
Jail	All	−0.010	0.004	0.013	0.016	0.009	0.060	−0.021	0.005	0.000
	White	−0.021	0.005	0.000	0.007	0.011	0.510	−0.030	0.006	0.000
	Latino	−0.004	0.005	0.357	0.014	0.010	0.140	−0.012	0.005	0.017
	Black	−0.006	0.007	0.371	0.040	0.013	0.002	−0.024	0.008	0.002
	Asian American	−0.011	0.015	0.459	0.040	0.032	0.211	−0.023	0.017	0.169
	Native American	−0.020	0.033	0.549	0.005	0.059	0.933	−0.033	0.038	0.390
Prison	All	−0.002	0.003	0.397	−0.015	0.008	0.058	0.000	0.000	0.051
	White	−0.001	0.003	0.675	−0.010	0.010	0.311	0.000	0.000	0.252
	Latino	−0.001	0.003	0.605	−0.013	0.009	0.149	0.001	0.000	0.018
	Black	−0.007	0.005	0.166	−0.038	0.012	0.002	0.000	0.001	0.595
	Asian American	0.003	0.009	0.723	−0.025	0.030	0.405	0.002	0.001	0.167
	Native American	−0.005	0.019	0.802	−0.021	0.054	0.702	0.000	0.000	0.218

Source: Author's calculations from California Department of Justice Automated Criminal History System (California DOJ 2022) and court policy data summarized in figure 4.
Note: Each outcome is within 180 days of arrest. Average marginal effects were estimated via *margins* in STATA. Current case characteristics for conviction outcomes are arrest characteristics (N = 801,521 arrests, N = 347,836 felony arrests). Current case characteristics for sentencing outcomes are conviction characteristics (N = 106,753 convictions; N = 32,347 felony convictions). See appendix table A.8 for complete regression results.

Asian Americans also were less likely (1.3 percentage points) to be convicted and to receive money sanctions (1.0 percentage point) than whites.

Remote hearing policies account for a nontrivial share of the differences in case outcomes between whites and people of other races that the data can explain. For example, of the explained race differences in conviction rates, remote hearing policies accounted for 13 percent of the Latino-white difference and 8 percent of black-white difference. As shown in figure 6, remote hearing policies help explain Latino-white and black-white differences in conviction, money sanction, probation, and jail outcomes, but not in prison outcomes. For blacks and Latinos alike, remote hearings decrease racial differences in conviction and jail probabilities and increase them in the likelihood of receiving money sanctions and probation. Moreover, the magnitude of the impact attributable to remote hearings exceeds or rivals the impact of criminal history factors. For example, remote hearing policies (–0.11 percentage points) shaped Latino-white differences in conviction outcomes almost as much as current felony characteristics (0.13 percentage points). Similarly, remote hearing policies explained a larger share of the Latino-white differences in jail incarceration than whether a current case has multiple charges, prior conviction crime types and levels, and prior sentences. Likewise, remote hearing policies (–0.09 percentage points) account for a similarly sized share of the black-white difference in conviction conclusions as prior arrest types (–0.09 percentage points) in producing black-white differences in conviction rates. Remote hearing policies also account for a larger share of the black-white differences in probation rates than do current misdemeanor crime types and multiple charges.

DISCUSSION

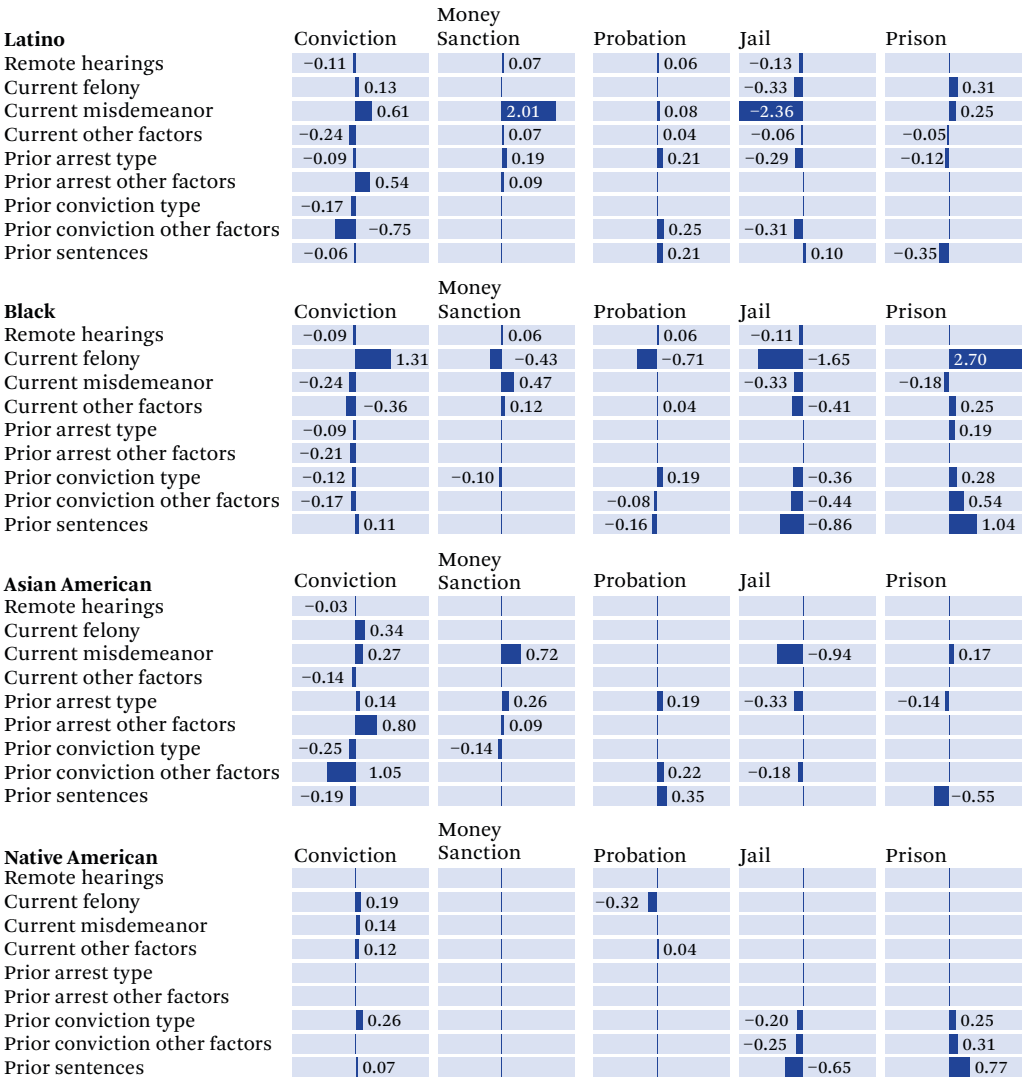
The pandemic profoundly affected the criminal justice system and motivated courts across the country to dramatically alter their policy environments. Although arrest rates plunged, case processing stalled. Enormous criminal case backlogs accumulated. To resume operations under these extraordinary circumstances, criminal courts across the country adopted remote technologies—which were essentially untested, save for one study of bail hearings—with unprecedented speed. Before the pandemic, not a single jury trial had been conducted remotely. Two years later, courts in at least eight states were doing so. This rapid shift in how courts conduct criminal proceedings has taken place in an absence of information about how defendants' criminal case outcomes might be affected.

I find that adopting remote hearing policies affected both the outcomes of criminal cases and how equitable they were. Permitting remote hearings contributed to steep reductions in conviction probabilities during the pandemic, particularly for blacks, Latinos, and whites. Adopting remote hearing policies also led to trade-offs in sentencing outcomes that bucked larger pandemic trends. All other things equal, the pandemic decreased average rates of noncustodial sentences and increased rates of custodial sentences.

Allowing remote hearings had the opposite effect. Under remote hearing policies, jail sentences became less likely and probation and money sanction sentences became more likely after misdemeanor convictions. Misdemeanors drove these outcomes and were concentrated among blacks, Latinos, and whites. Remote hearings led to trade-offs in felony case outcomes, but mainly for blacks, who were more likely to receive jail and less likely to receive prison sentences when remote hearing policies were in effect.

Whether the shift toward noncustodial sanctions and away from jail benefited misdemeanor defendants (and whether the shift from prison to jail sentences benefited black defendants, specifically) may vary by defendant and racial group (Wood and May 2003). Although probation is typically viewed as a less severe "intermediate" sanction than jail or prison time, research suggests that many people who have experienced probation strongly disagree with that characterization (Petersilia 1997; Wood and May 2003). Often justice-involved people would rather serve jail—or even prison—time than be subject to years of criminal justice supervision. The following exchange I had with a participant in another study illustrates this point. He had expressed

Figure 6. Factors That Explain Differences in Case Outcomes



Source: Author's calculations from California Department of Justice Automated Criminal History System (California DOJ 2022) and court policy data summarized in figure 4.
Note: Percentage points shown. Blank cells indicate that the factor group did not make a statistically significant contribution to racial differences in outcomes. Contributions are statistically significant at $p <= .05$. See appendix table A.9 for complete results.

the desire to plead guilty to a felony, which his lawyer did not believe he committed, and that carried prison time.

ME: Why did you want to go to prison?

RESPONDENT: Just to make probation shorter, get over probation. Because probation has been a humongous stressor in my life. And it seems like you hear rumors about probation setting you up for failure. You hear that exact word. They set you up for failure. And I didn't want to be part of that anymore. I wanted to be off.

Similarly, justice-involved people might prefer prison sentences to jail sentences. Jail time is typically viewed as more punitive than prison time because conditions in jail are harsher and

services are typically lacking (May et al. 2014; Wildeman, Fitzpatrick, and Goldman 2018). However, if these felony sentences were associated with substantially less incarceration time (something I could not assess), they may be perceived as more advantageous.

Regarding racial equity, I further found that implementing remote hearing policies had nontrivial impacts on racial differences in conviction and sentencing outcomes, with the exception of imprisonment rates. Permitting remote hearings reduced black-white and Latino-white differences in the likelihood of being convicted and sentenced to jail. On the other hand, permitting remote hearings increased black-white and Latino-white differences in the likelihood of receiving money sanctions and probation.

The magnitudes of the impacts of remote hearings on racial differences in case outcomes were similar for both blacks and Latinos. Although current case and prior conviction and sentencing factors accounted for most of the racial differences in outcomes, remote hearing policies accounted for more of the black-white and Latino-white differences than many current case and criminal history factors.

These findings suggest caution in proliferating remote technology, especially at arraignment. Arguably, the modality through which hearings are held should not affect the outcomes of criminal cases. Yet remote hearing policies did have equity impacts—impacts that were sometimes larger than those of factors related to criminal behavior—on the conviction and sentencing outcomes of black and Latino people in California. These impacts most likely occurred at arraignment. After arraignment, more than 97 percent of cases resolve through plea or charge bargaining, which takes place privately and typically involves sentencing provisions.

Why holding arraignments remotely might impact case outcomes or how equitable they are remains unknown. Moreover, Figures 5 and 6 also illustrate that current case and criminal history factors affect racial differences in criminal case outcomes inconsistently. More work needs to be done to understand how these disparate impacts emerge and how they relate to remote hearing policies, which became commonplace amid the pandemic. In the United States, this work should concentrate on arraignments as the main hearing nearly all criminal defendants experience. Only with the greater understanding of these mechanisms can we shape policies that enhance equity in criminal case outcomes.

This study is an initial step toward investigating how the switch from in-person to remote hearings has affected the conviction and sentencing outcomes of justice-involved people. Thus it can improved upon. Ideally, future research would incorporate data that includes information about whether hearings were held remotely or in person, so that the outcomes of otherwise similar criminal cases could be compared. A longer follow-up period would enhance the external validity of future studies. Unfortunately, I only had enough data to examine outcomes within six months, so my results may not apply to cases that take longer to resolve. Finally, this study spans only the first ten months of the pandemic. The impact remote hearing policy exerted on criminal cases may have shifted over time, as courts and people have become more accustomed to remote technologies and as public health crisis associated with the pandemic has moderated. Research outside the bounds of that crisis could help guide future court policymaking.

REFERENCES

Alexander, Diane, and Ezra Karger. 2020. "Do Stay-At-Home Orders Cause People to Stay at Home? Effects of Stay-at-Home Orders on Consumer Behavior." Working paper no. 2020-12. Chicago: Federal Reserve Bank of Chicago. Accessed November 12, 2022. https://www.chicagofed.org/publications/working-papers/2020/2020-12.

Arizona Supreme Court. 2022. "Recommended Remote and In-Person Hearings in Arizona State Courts in the Post-Pandemic World." Phoenix: Arizona Supreme Court. Accessed November 12, 2022. https://www.azcourts.gov/courtservices/Court-Services-Home/Remote-Appearances.

Arnold, David, Will Dobbie, and Crystal S. Yang. 2018. "Racial Bias in Bail Decisions." *Quarterly Journal of Economics* 133(4): 1885–932.

Baldwin, Julie Marie, John M. Eassey, and Erika J. Brooke. 2020. "Court Operations During the

COVID-19 Pandemic." *American Journal of Criminal Justice* 45(4): 743–58.

Ballasone, Merrill. 2020. "California Counties Keeping COVID-19 Emergency Bail Schedules." California Courts Newsroom. Accessed November 12, 2022. https://newsroom.courts.ca.gov/news/california-counties-keeping-covid-19-emergency-bail-schedules.

Benninger, Taylor, Courtney Colwell, Debbie Mukamal, and Leah Plachinski. 2021. *Virtual Justice? A National Study Analyzing the Transition to Remote Criminal Court*. Stanford, Calif.: Stanford Law School. Accessed November 12, 2022. https://www-cdn.law.stanford.edu/wp-content/uploads/2021/08/Virtual-Justice-Final-Aug-2021.pdf.

Berry, Christopher R., Anthony Fowler, Tamara Glazer, Samantha Handel-Meyer, and Alec MacMillen. 2021. "Evaluating the Effects of Shelter-In-Place Policies During the COVID-19 Pandemic." *Proceedings of the National Academy of Sciences* 118(15): e2019706118.

Bild, Elena, Annabel Redman, Eryn J. Newman, Bethany R. Muir, David Tait, and Norbert Schwarz. 2021. "Sound and Credibility in the Virtual Court: Low Audio Quality Leads to Less Favorable Evaluations of Witnesses and Lower Weighting of Evidence." *Law and Human Behavior* 45(5): 481.

Bird, Mia, Omair Gill, Johanna Lacoe, Molly Pickard, Steven Raphael, and Alissa Skog. 2022. "An Overview of Sentencing in California." Berkeley: California Policy Lab. Accessed December 14, 2022. https://www.capolicylab.org/wp-content/uploads/2022/09/An-Overview-of-Sentencing-in-California.pdf.

California Department of Justice (DOJ). 2022. "Data Request Process." Sacramento: California Department of Justice Research Center. Accessed December 13, 2022. https://oag.ca.gov/research-center/request-process.

Clarke, Sarah E. Duhart, and Jessica Smith. 2021. "Virtual Proceedings in North Carolina." Chapel Hill: University of North Carolina, School of Government, Criminal Justice Innovation Lab. Accessed November 12, 2022. https://cjil.sog.unc.edu/wp-content/uploads/sites/19452/2021/03/Virtual-Courts-Findings-Report-FINAL-3.15.2021docx.pdf.

Committee on Revision of the Penal Code (CRPC). 2021. "Sentencing Practices in California and Related Matters." Memorandum 2021-11. Davis: University of California Davis Law School. Accessed November 12, 2022. http://www.clrc.ca.gov/CRPC/Pub/Memos/CRPC21-11.pdf.

Corren, Blaine. 2020. "Judicial Council Adopts New Rules to Lower Jail Population, Suspend Evictions and Foreclosures." California Courts Newsroom, April 6. San Francisco: Judicial Council of California. Accessed November 12, 2022. https://newsroom.courts.ca.gov/news/judicial-council-adopts-new-rules-lower-jail-population-suspend-evictions-and-foreclosures.

Demuth, Stephen, and Darrell Steffensmeier. 2004. "The Impact of Gender and Race-Ethnicity in the Pretrial Release Process." *Social Problems* 51(2): 222–42.

Dervan, Lucian, E. 2019. "Arriving at a System of Pleas: The History and State of Plea Bargaining." In *A System of Pleas: Social Science's Contributions to the Real Legal System*, edited by Vanessa A. Edkins and Alison D. Redlich. Oxford: Oxford University Press.

Diamond, Shari Seidman, Locke E. Bowman, Manyee Wong, and Matthew M. Patton. 2010. "Efficiency and Cost: The Impact of Videoconferenced Hearings on Bail Decisions." *Journal of Criminal Law and Criminology* 100(3): 869–902.

Dobbie, Will, Jacob Goldin, and Crystal S. Yang. 2018. "The Effects of Pretrial Detention on Conviction, Future Crime, and Employment: Evidence from Randomly Assigned Judges." *American Economic Review* 108(2): 201–40.

Dobbie, Will, and Crystal S. Yang. 2021. "The US Pretrial System: Balancing Individual Rights and Public Interests." *Journal of Economic Perspectives* 35(4): 49–70.

Eisenstein, James, and Herbert Jacob. 1977. *Felony Justice: An Organizational Analysis of Criminal Courts*. Boston, Mass.: Little, Brown.

Gelbach, Jonah B. 2016. "When Do Covariates Matter? And Which Ones, and How Much?" *Journal of Labor Economics* 34(2): 509–43.

Godfrey, Barry, Jane C. Richardson, and Sandra Walklate. 2022. "The Crisis in the Courts: Before and Beyond COVID." *British Journal of Criminology* 62(4): 1036–53.

Goolsbee, Austan, and Chad Syverson. 2021. "Fear, Lockdown, and Diversion: Comparing Drivers of Pandemic Economic Decline 2020." *Journal of Public Economics* 193 (January): 104311.

Gourdet, Camille, Amanda R. Witwer, Lynn Langton,

Duren Banks, Michael G. Planty, Dulani Woods, and Brian A. Jackson. 2020. "Court Appearances in Criminal Proceedings through Telepresence." Research Reports RR-3222-NIJ. Santa Monica, Calif.: RAND Corporation. DOI: https://doi.org/10.7249/RR3222.

Harris, Heather M. 2020. "California's Prison Population Drops Sharply, but Overcrowding Still Threatens Prisoner Health." *Public Policy Institute of California* (blog), March 2. Accessed November 12, 2022. https://www.ppic.org/blog/californias-prison-population-drops-sharply-but-overcrowding-still-threatens-prisoner-health/.

———. 2023. "Pandemic Policymaking and Changed Outcomes in Criminal Courts." San Francisco: Public Policy Institute of California.

Harris, Heather M., Justin Goss, and Alexandria Gumbs. 2019. "Pretrial Risk Assessment in California." San Francisco: Public Policy Institute of California. Accessed November 18, 2022. https://www.ppic.org/publication/pretrial-risk-assessment-in-california/.

Heaton, Paul. 2020. "The Expansive Reach of Pretrial Detention." *North Carolina Law Review* 98 (March 10): 369–78.

Jackson, Brian A., Michael J.D. Vermeer, Dulani Woods, Duren Banks, Sean E. Goodison, Joe Russo, Jeremy D. Barnum, et al. 2020. *The U.S. Criminal Justice System in the Pandemic Era and Beyond*. Santa Monica, Calif.: RAND Corporation. Accessed November 12, 2022. https://www.rand.org/pubs/research_reports/RRA108-8.html.

JFA Institute. 2021. "The Impact of COVID-19 on Crime, Arrests, and Jail Populations." Washington, D.C.: JFA Institute. Accessed November 12, 2022. https://safetyandjusticechallenge.org/wp-content/uploads/2021/07/The-Impact-of-COVID-19-on-Crime-Arrests-and-Jail-Populations-JFA-Institute.pdf.

Jingnan, Huo. 2022. "To Try or Not to Try—Remotely. As Jury Trials Move Online, Courts See Pros and Cons." National Public Radio, March 18. Accessed November 12, 2022. https://www.npr.org/2022/03/18/1086711379/as-jury-trials-move-online-courts-see-pros-and-cons.

Johnson, Brian D. 2005. "Contextual Disparities in Guidelines Departures: Courtroom Social Contexts, Guidelines Compliance, and Extralegal Disparities in Criminal Sentencing." *Criminology* 43(3): 761–96.

Judicial Council of California (JCC). 2019. "Remote Video Appearances for Most Noncriminal Hearings 2018–2019: Workstream Phase I Report, Final." San Francisco: Judicial Council of California. Accessed November 12, 2022. https://www.courts.ca.gov/documents/jctc-20191125-materials.pdf.

———. 2020. "2020 Court Statistics Report: Statewide Caseload Trends 2009–2010 Through 2018–2019." San Francisco: Judicial Council of California. Accessed November 12, 2022. https://www.courts.ca.gov/documents/2020-Court-Statistics-Report.pdf.

LaVoie, Megan. 2021. *Annual Statistical Report for the Texas Judiciary*. Austin: Texas Judicial Branch, Office of Court Administration. Accessed November 12, 2022. https://www.txcourts.gov/media/1454127/fy-21-annual-statistical-report-final.pdf.

Leslie, Emily, and Nolan G. Pope. 2017. "The Unintended Impact of Pretrial Detention on Case Outcomes: Evidence from New York City Arraignments." *Journal of Law and Economics* 60(3): 529–57.

Levin, Marc. 2021. "Reducing the Staggering Backlog of Court Cases." Route Fifty, October 8. Accessed November 12, 2022. https://www.route-fifty.com/public-safety/2021/10/reducing-criminal-case-backlog/185971/.

Li, Weihua. 2020. "Police Arrested Fewer People During Coronavirus Shutdowns—Even Fewer Were White." New York: The Marshall Project. Accessed November 12, 2022. https://www.themarshallproject.org/2020/06/02/police-arrested-fewer-people-during-coronavirus-shutdowns-even-fewer-were-white.

Lizotte, Alan J. 1978. "Extra-Legal Factors in Chicago's Criminal Courts: Testing the Conflict Model of Criminal Justice." *Social Problems* 25(5): 564–80.

Lofstrom, Magnus, and Brandon Martin. 2021. "Recent State Crime Trends Mostly Mirror the Nation." *Public Policy Institute of California* (blog), October 8. Accessed November 12, 2022. https://www.ppic.org/blog/recent-state-crime-trends-mostly-mirror-the-nation/.

Lopez, Ernesto, and Richard Rosenfeld. 2021. "Crime, Quarantine, and the US Coronavirus Pandemic." *Criminology & Public Policy* 20(3): 401–22.

May, David C., Brandon K. Applegate, Rick Ruddell, and Peter B. Wood. 2014. "Going to Jail Sucks

(and It Really Doesn't Matter Who You Ask)." *American Journal of Criminal Justice* 39(2): 250–66.

Moran, Lyle. 2021. "California Is Poised to Permit Remote Court Hearings Through at Least Mid-2023." *ABA Journal*, September 16. Accessed November 12, 2022. https://www.abajournal.com/web/article/california-to-permit-remote-court-hearings-through-at-least-mid-2023.

Moreland, Amanda, Christine Herlihy, Michael A. Tynan, Gregory Sunshine, Russell F. McCord, Charity Hilton, Jason Poovey, et al. 2020. "Timing of State and Territorial COVID-19 Stay-at-Home Orders and Changes in Population Movement—United States, March 1–May 31, 2020." *Morbidity and Mortality Weekly Report* 69(35): 1198.

Nealon, Terence R., et al. 2021. "Remote Proceedings Task Force: Continued Use of Advanced Communication Technology (ACT) Following the Termination of Judicial Emergencies." Philadelphia: Administrative Office of Pennsylvania Courts. Accessed November 12, 2022. https://www.pacourts.us/Storage/media/pdfs/20211215/171538-remoteproceedingstaskforce-continueduseofadvancedcommunicationtechnology(act)followingtheterminationofjudicialemergencies(june2021).pdf.

Nivette, Amy E., Renee Zahnow, Raul Aguilar, Andri Ahven, Shai Amram, Barak Ariel, María José Arosemena Burbano, et al. 2021. "A Global Analysis of the Impact of COVID-19 Stay-At-Home Restrictions on Crime." *Nature Human Behaviour* 5(7): 868–77.

Ostrom, Brian, John Douglas, Suzanne Tallarico, and Shannon Roth. 2021. "The Use of Remote Hearings in Texas State Courts: The Impact on Judicial Workload." Williamsburg, Va.: National Center for State Courts. Accessed November 12, 2022. https://www.ncsc.org/_media/ncsc/files/pdf/newsroom/TX-Remote-Hearing-Assessment-Report.pdf.

Petersilia, Joan. 1997. "Probation in the United States." *Crime and Justice* 22 (1997): 149–200.

Piquero, Alex R. 2021. "The Policy Lessons Learned from the Criminal Justice System Response to COVID-19." *Criminology & Public Policy* 20(3): 385.

Plummer, Samantha, Timothy Ittner, Angie Monreal, Jasmin Sandelson, and Bruce Western. 2023. "Life During COVID for Court-Involved People." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 9(3): 232–51. DOI: https://doi.org/10.7758/RSF.2023.9.3.10.

Premkumar, Deepak, Thomas Sloan, Magnus Lofstrom, and Joseph Hayes. 2023. "Assessing the Impact of COVID-19 on Arrests in California." San Francisco: Public Policy Institute of California.

Raymond, Nate. 2020. "Texas Tries a Pandemic First: A Jury Trial by Zoom." Reuters, May 18. Accessed November 12, 2022. https://www.reuters.com/article/us-health-coronavirus-courts-texas/texas-tries-a-pandemic-first-a-jury-trial-by-zoom-idUSKBN22U1FE.

Rosenfeld, Richard, Thomas Abt, and Ernesto Lopez. 2021. "Pandemic, Social Unrest, and Crime in U.S. Cities." Washington, D.C.: Council on Criminal Justice. Accessed November 12, 2022. https://build.neoninspire.com/counciloncj/wp-content/uploads/sites/96/2021/07/DESIGNED_FINAL1.pdf.

San Diego Superior Court. 2020. "In RE: Prioritization of Jury Trials Due to the COVID-19 Pandemic. (General Order of the Presiding Department 090920-89)." San Diego, Calif.: San Diego Superior Court. Accessed December 14, 2022. https://www.sdcourt.ca.gov/sites/default/files/sdcourt/generalinformation/news/2020_news_releases/sdsc%20general%20order%20090920-89.pdf.

Slayton, David. 2020. "Annual Statistical Report for the Texas Judiciary." Austin: Texas Judicial Branch, Office of Court Administration. Accessed November 12, 2022. https://www.txcourts.gov/media/1451853/fy-20-annual-statistical-report_final_mar10_2021.pdf.

Smith, Patrick. 2021. "As the Nation's Courthouses Reopen, They Face Massive Backlogs in Criminal Cases." National Public Radio, July 14. Accessed November 12, 2022. https://www.npr.org/2021/07/13/1015526430/the-nations-courthouses-confront-massive-backlogs-in-criminal-cases.

Smith, Tyler, Kristina J. Thompson, and Michele Cadigan. 2022. "Sensemaking in the Legal System: A Comparative Case Study of Changes to Monetary Sanction Laws." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 8(1): 63–81. DOI: https://doi.org/10.7758/RSF.2022.8.1.03.

Tafoya, Sonya. 2013. "Assessing the Impact of Bail on California's Jail Population." San Francisco:

Public Policy Institute of California. Accessed November 12, 2022. https://www.ppic.org/publication/assessing-the-impact-of-bail-on-californias-jail-population/.

Tafoya, Sonya, Mia Bird, Ryken Grattet, and Viet Nguyen. 2017. "Pretrial Release in California." San Francisco: Public Policy Institute of California. Accessed November 12, 2022. https://www.ppic.org/publication/pretrial-release-in-california/.

Thumma, Samuel A., and Marcus W. Reinkensmeyer. 2022. "Post-Pandemic Recommendations: COVID-19 Continuity of Court Operations During a Public Health Emergency Workgroup." *SMU Law Review Forum* 75(1): 1–116.

Turner, Jenia I. 2021. "Remote Criminal Justice." *Texas Tech Law Review* 53 (2021): 197–269.

Wildeman, Christopher, Maria D. Fitzpatrick, and Alyssa W. Goldman. 2018. "Conditions of Confinement in American Prisons and Jails." *Annual Review of Law and Social Science* 14: 29–47.

Wood, Peter B., and David C. May. 2003. "Racial Differences in Perceptions of the Severity of Sanctions: A Comparison of Prison with Alternatives." *Justice Quarterly* 20(3): 605–31.

Workgroup on Post-Pandemic Initiatives (WPPI). 2021. "Interim Report: Remote Access to Courts." San Francisco: Judicial Council of California. Accessed November 12, 2022. https://newsroom.courts.ca.gov/sites/default/files/newsroom/2021-08/P3%20Workgroup%20Remote%20Access%20Interim%20Report%2008162021.pdf.

Wurst, Wendell J., et al. 2021. "Recommendations for Videoconferencing in Kansas Courts." Topeka: Kansas Judicial Branch Videoconferencing Committee. Accessed November 12, 2022. https://www.kscourts.org/KSCourts/media/KsCourts/Judges%20-%20Secondary%20Nav%20Page%20PDFs/VideoconferencingReport110614.pdf.