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*Administrative Burdens and Inequality in
Policy Implementation*

Part I

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Administrative Burdens and Inequality in Policy Implementation, Part I

ISSUE EDITORS

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and Donald Moynihan

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Introduction: Administrative Burden as a Mechanism of Inequality in Policy Implementation



PAMELA HERD, HILARY HOYNES, JAMILA MICHENER, AND DONALD MOYNIHAN

Administrative burdens are the frictions that people face in their encounters with public services, leading to meaningful costs that include learning, compliance, and psychological costs. We offer evidence that burdens are a key source and consequence of inequality, resulting in disparate outcomes in people's access to basic rights. We also detail how these outcomes are patterned by targeting, federalism, bureaucratic pathologies, and the growing use of the private sector and tax system to deliver social welfare benefits. Throughout, we highlight recent and novel contributions, including empirical research in this double issue, that have helped clarify how and why administrative burdens shape inequality. Burdens have not received the political, policy, or research priority that is commensurate with their magnitude or impact on individuals. We conclude by arguing that we need a coherent language and framework to recognize and, where appropriate, reduce burdens across a wide array of policy domains.

Keywords: social safety net, administrative burdens, welfare state

Policy debates often (and rightly) center on what people need. What resources, protections, or supports are most critical in their daily lives? We have seen successful policy changes to broaden access to health insurance, college, childcare, special education supports, affordable housing, and other safety net supports. What good are these policies, however, if we

cannot access the benefits associated with them?

The gap between people's needs and the policies that are supposed to provide for them is filled with administrative burdens. Administrative burdens are rooted in laws, organizational rules, and everyday implementation practices. Burdens are a barrier to limit access

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1. Author order is alphabetical.

to everything from formal citizenship to voting rights to the resources required to enjoy social rights, such as education, housing, and health care. Burdens also emerge in the state use of coercive power in contexts such as the criminal legal system, or child protective services (Edwards et al. 2023, this volume, issue 5). Across these and other venues, burdens tend to fall more heavily on more marginalized groups, undermining their claim to citizenship rights. Further, burdens are often not just a result of inattention or lack of capacity, but also the product of deliberate design.

To take one example, encouraged by the Donald Trump administration, Arkansas added a (now defunct) work reporting requirement to its Medicaid program with claims that it would boost employment. Such gains never emerged. Instead, more than eighteen thousand people lost health insurance coverage. One study estimated that an astonishing 95 percent of those who lost coverage were still eligible because they were working or should have been exempted from the work requirement (Sommers et al. 2019; Sommers et al. 2020; Wagner and Schubel 2020). Many were unaware of the new requirements. Those who attempted to report work faced a cumbersome process, including an online-only documentation system that proved difficult to navigate. The impact of these changes was both substantial and unevenly distributed. Racial disproportionalities in the Arkansas Medicaid program made Black program beneficiaries particularly vulnerable (Sommers et al. 2019). Black people make up roughly 15 percent of the state population but 26 percent of Medicaid beneficiaries. More than 47 percent of Black Arkansans rely on Medicaid relative to 25 percent of their White counterparts. As a result, the large-scale loss of Medicaid coverage sparked by work reporting requirements had implications for racial inequity (Michener 2020).

This example illustrates the relevance of our central argument: we need to shift attention from policy potential and promises to concrete access. Understanding the origins, experience, and consequences of administrative burden allows us to make this shift. In doing so, we focus on people's experience of government as well as the administrative processes that shape

those experiences. A fuller understanding of the administrative state and inequality means seeing and measuring burdens as well as their consequences.

To "see" burdens, we need to better examine where they come from and how they operate. This double issue shows us key points of demarcation. One is the distinction between universal and means-tested programs. In the 1980s and 1990s, attention to administrative burdens in policies and programs were largely focused on targeted poverty-based programs such as Aid to Families with Dependent Children. The general view was that targeted policies had high levels of burdens, whereas universal social insurance policies, such as unemployment insurance and Medicare, were relatively more accessible. As we detail, however, the sources of burdens as well as the types of programs they are embedded within cannot be explained by simply focusing on whether policies are targeted or universal. In some cases, more universal programs can have large burdens. Indeed, as Zachary Parolin, Christina Cross, and Rourke O'Brien (2023, this volume, issue 5) demonstrate, increases in burdens in both Temporary Assistance to Needy Families (TANF), a classic targeted policy, and unemployment insurance (UI), a New Deal-era universalist social insurance policy, explain accelerating racial inequalities in take-up of U.S. social welfare benefits.

The presence of multiple actors and conflicting incentives in service delivery also contribute to burdens. Programs managed by a mix of federal, state, and local partnerships are typically more complicated and less accessible. For-profit providers that deliver social welfare benefits further fragment the map of service delivery and sometimes have incentives to make policy benefits inaccessible, whether private insurers participating in the Medicare program or private agencies providing job training to welfare participants.

Another key demarcation in the functioning of burdens include those between rights-granting and rights-depriving programs (Brown 2023, this volume, issue 5; Edwards et al. 2023, this volume, issue 5) as well between state administered and third-party administered pro-

grams (DeLuca, Katz, and Oppenheimer 2023, this volume, issue 5; Yu 2023, this volume, issue 4). Even further, comparing the experiences of individual programs is not always the best analytical approach; doing so can obscure the cumulative consequences of having simultaneous experiences with multiple programs (Sackett and Lareau 2023, this volume, issue 4).

If burdens are so important, why have they historically received relatively little attention? After all, they are hardly an unfamiliar topic. Ask anyone about their interactions with government, and chances are you will get an earful about a seemingly Kafka-esque experience that they or a family member has faced trying to access vitally important social rights such as health care, income support, unemployment, and food assistance, or a fundamental political right, such as voting (Lowrey 2021).

Administrative burdens have the odd combination of being both grindingly familiar to us as individuals, and largely unattended as a matter of policy analysis, design, and practice. They are a widely observed fact of life, but not a widely used conceptual tool to analyze life. One explanation for this failing is the fragmented discourse around them, siloed both across and within academic disciplines and policy areas. We are social scientists who share an interest in policy, but who assess it from different perspectives: as an economist, a political scientist, a sociologist, and a public administration scholar. The interdisciplinary nature of our team reflects both an acknowledgment of the benefit of a diversity of approaches and the need for cross-disciplinary communication. The economist and sociologist uncovering burdens in a social welfare program are often not talking to each other. Similarly, the policy analyst thinking about hassles in education does not share their insights with the Supplemental Nutrition Assistance Program (SNAP) expert. In large part, this is because they do not conceive as burdens as a single analytical concept but are more apt to think of them as specific to a policy domain or area of study. Rather than a general toolbox for reducing burdens, we are left instead with lots of little toolboxes, bereft of enough instruments to comprehensively address the problem.

This article seeks to advance a standard way to talk about burdens, whether in research, applied practice, or in policy debates. There is power in legibility and coherence. Naming something allows us to see it more clearly. It is difficult to accumulate knowledge when researchers use different terms and miss entire bodies of research. Framing something allows us to understand its consequences and to consider how to address it. These basic points are true for different but related domains: social science, politics, and policymaking.

In the following sections, we break down the types of costs in administrative burdens and offer some examples of their effect in different policy domains and the ways they reinforce patterns of inequality. We consider the sources of burdens before looking at potential ways to reduce them. In each section, we highlight recent innovations that have helped build and deepen our understanding of burdens and their consequences, including many from this collection. Table 1 summarizes the key insights we draw from the emerging body of research on administrative burden and provides the roadmap for our discussion in remaining sections.

ADMINISTRATIVE BURDEN AS A KEY PART OF POLICY IMPLEMENTATION

We start by providing a conceptual framework to understand people's experience of onerous policy administration. Crucially, a focus on costs shifts attention to the individual's experiences and beyond the perspective of state actors or institutions (Michener, SoRelle, and Thurston 2022). This draws and builds on efforts to articulate the basic idea and consequences of burdens (Bozeman 2000; Currie 2004; Moffitt 1983). Most burdens can be categorized in terms of one of three costs: learning, compliance, and psychological costs (see table 2) (Herd and Moynihan 2018). In practice, such costs may be correlated and overlap, but they are distinct enough to consider separately (Madsen, Mikkelsen, and Moynihan 2022). Doing so allows us to describe, diagnose, and communicate the nature of the burdens at play. We cannot fix problems we do not clearly identify.

Table 1. Fourteen Lessons About Administrative Burden

1. We can and should study administrative burdens as a key aspect of policy implementation.

The effects of administrative burdens

2. Burdens have large effects on access to rights and public services.
3. Burdens facilitate social control.
4. Burdens reinforce inequality.
5. People with fewer resources are less equipped to manage burdens.
6. The effects of burdens accumulate over time.

Sources of administrative burdens

7. Burdens are policymaking by other means.
8. Policy design matters, but universalism is not a sufficient fix.
9. Bureaucracies are not naturally inclined to detect and minimize burden.
10. The federated and fragmented nature of U.S. policy implementation enhances burdens.
11. Third parties can buffer or amplify burdens.

Toward simple, accessible, and respectful government

12. Administrative data and technology can help, with caveats.
13. Nudges are not enough to reduce burdens; sometimes help is needed.
14. Practical burden-reduction policy frameworks are emerging.

Source: Authors' compilation.

Table 2. Three Components of Administrative Burden

Learning costs	Time and effort expended to learn about the program or service, ascertaining eligibility status, the nature of benefits, conditions that must be satisfied, and how to gain access.
Compliance costs	Provision of information and documentation to demonstrate standing; financial costs to access services (such as fees, legal representation, travel costs); avoiding or responding to discretionary demands made by administrators.
Psychological costs	Stigma arising from applying for and participating in an unpopular program; loss of autonomy that comes from intrusive administrative supervision; frustration at dealing with learning and compliance costs, unjust or unnecessary procedures; stresses that arise from uncertainty about whether a citizen can negotiate processes and compliance costs; fear about the coercive face of state power.

Source: Adapted from Herd and Moynihan 2018.

LEARNING COSTS

Learning costs are the challenges that people face finding out about a program's existence and benefits, determining whether they are eligible for the program and what benefits they might receive, as well as understanding how to apply for, retain, and redeem benefits.

You cannot access a program or benefit if you do not know that it exists or you do not know you are eligible for it. The Earned Income

Tax Credit (EITC) is an important example. The EITC is the second largest income support policy, only lagging behind Social Security. It is the largest antipoverty program for children and reduces the number of children living in poverty by 25 percent (CBPP 2019). A single parent, with two children, earning just under \$48,000 can receive a benefit up to \$5,980 (2021 tax law). Approximately 20 percent of those eligible for the benefit do not receive it, however. That

some are unaware of the program is part of the problem. One issue is that many eligible people do not file taxes because their incomes are low enough that they are not required to file. Nearly two-thirds of those eligible, but who fail to claim the EITC, do not file a tax return (Census Bureau 2013). A study among childless tax filers eligible for the EITC but who did not apply for it found that simply notifying them and explaining the potential benefit increased take-up by 31 percentage points (Bhargava and Manoli 2015).

Learning costs are likely to be especially high for benefits that are less familiar, such as new programs or rarely used programs. A key barrier to housing assistance during the pandemic was simply not knowing that housing assistance was available (Aiken, Ellen, and Reina 2023, this volume, issue 5). Even knowledge that the program exists is not necessarily enough, though, because individuals then need to learn how to negotiate a new set of administrative processes. A substantial barrier to accessing emergency assistance after Hurricanes Katrina and Rita was not knowing what was needed to access that aid (Raker and Woods 2023, this volume, issue 5). Learning costs can also extend beyond the administrative processes that occur directly within bureaucracies. The process of redeeming benefits for the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)—the third-largest food assistance program in the United States—presented program participants with distinct challenges as they figured out what they could buy, given the limits of WIC food packages, and where they could buy it, given variability in the selection of WIC-approved foods across retailers (Barnes 2021; Barnes, Halpern-Meekin, and Hoiting 2023, this volume, issue 5).

COMPLIANCE COSTS

Compliance costs involve the time and effort spent on the often tedious task of filling out forms, documenting status, or responding to bureaucratic directives. It includes the time spent waiting on hold, or driving to an administrative office. Jennifer Bouek (2023, this volume, issue 5) highlights an underexplored time cost—the time spent on wait lists trying to ac-

cess benefits such as childcare—and shows that in some cases it can be years, rendering services inaccessible for many. Clients had to actively maintain their spots on wait lists, with many people getting kicked off because they could not manage that process. Compliance costs also incorporate financial expenses, such as funds needed to order documents, pay a fee to participate in a program, or hire an advocate. Such costs can also be enormously consequential in terms of how compliance affects benefit access.

In a notable example, Tennessee dropped approximately 10 percent of Medicaid-enrolled children from the program in an onerous recertification process. Renewal occurred only by mail. Mail-in forms often do not reach target populations, mostly because poorer families move frequently. Families that failed to complete the forty-nine-page form, returned it late, or made errors, lost their health insurance. Almost 250,000 children lost coverage, the majority because the forms were not returned, incomplete, or late (Arbogast, Chorniy, and Currie 2022; see also Heinrich et al. 2021). Tennessee was one of many states that introduced new burdens to their Medicaid programs between 2016 and 2019. The result was to reverse a long-term trend of increasing health insurance coverage for children. Such burdens reduced public insurance coverage of children by an estimated 5.4 percent within a year of adoption (Arbogast, Chorniy, and Currie 2022).

Although it is challenging to access public programs such as SNAP or Medicaid (Barnes 2021; Homonoff and Somerville 2021; Michener 2018, 2019; Unrath 2021), it is often just as difficult use them. Recent work by Carolyn Barnes (2021) contributes to the conceptual framework by identifying an additional cost: redemption costs. In short, it is not just the costs of accessing and maintaining access to basic rights and benefits, it can also be the process of actually using benefits. The WIC program, for example, has an incredibly complex set of requirements, that are frequently changing, regarding what foods can be bought with these benefits. Barnes's work finds that the process is so complicated, some beneficiaries effectively abandon the program.

By contrast, alleviating the burden of com-

pliance costs can improve the experiences of program beneficiaries. When compliance costs lessened as the result of remote appointments in response to the COVID-19 pandemic, WIC participants reported having an easier time accessing and maintaining their benefits (Barnes and Petry 2021).

PSYCHOLOGICAL COSTS

Perhaps the least understood category is psychological costs. These include stress, frustration, anxiety, loss of autonomy, or sense of stigma that arise from trying to access and maintain as well as use benefits or services. The concept of stigma is long standing (Moffitt 1983) and the idea of frustrations from paperwork is both intuitive and observable at a physiological level (Hattke, Hensel, and Kalucza 2020). Research on stigma is the most well developed among the psychological costs, with evidence pointing to significant variance in its impact. Research on food stamps has shown that participants can feel stigmatized, such as being shamed at the grocery store (Rogers-Dillon 1995). Research on the EITC, however, finds little evidence of associated stigma, perhaps reflecting its link to paid employment and its framing as a tax benefit rather than a welfare program (Bhargava and Manoli 2015; Halpern-Meekin et al. 2015).

Other kinds of psychological costs go beyond stigma. The stakes are high for those failing to navigate these burdens. Worrying that you cannot feed your children or access critical medical care is obviously stressful (Lowrey 2021). Evidence is robust that high levels of cumulative stress, including that associated with adversity, can be damaging (Herd and Moynihan 2020). Interactions with social welfare systems can also be humiliating or degrading. More nuance is needed to understand other psychological costs. In many respects, qualitative studies that describe people's experiences are better attuned to the nuances of psychological costs and how they shape people's interpretation of the state (see, for example, DeLuca, Katz, and Oppenheimer 2023, this volume, issue 5; Barnes, Halpern-Meekin, and Hoiting 2023, this volume, issue 5; Michener 2018).

Our understanding of psychological costs is

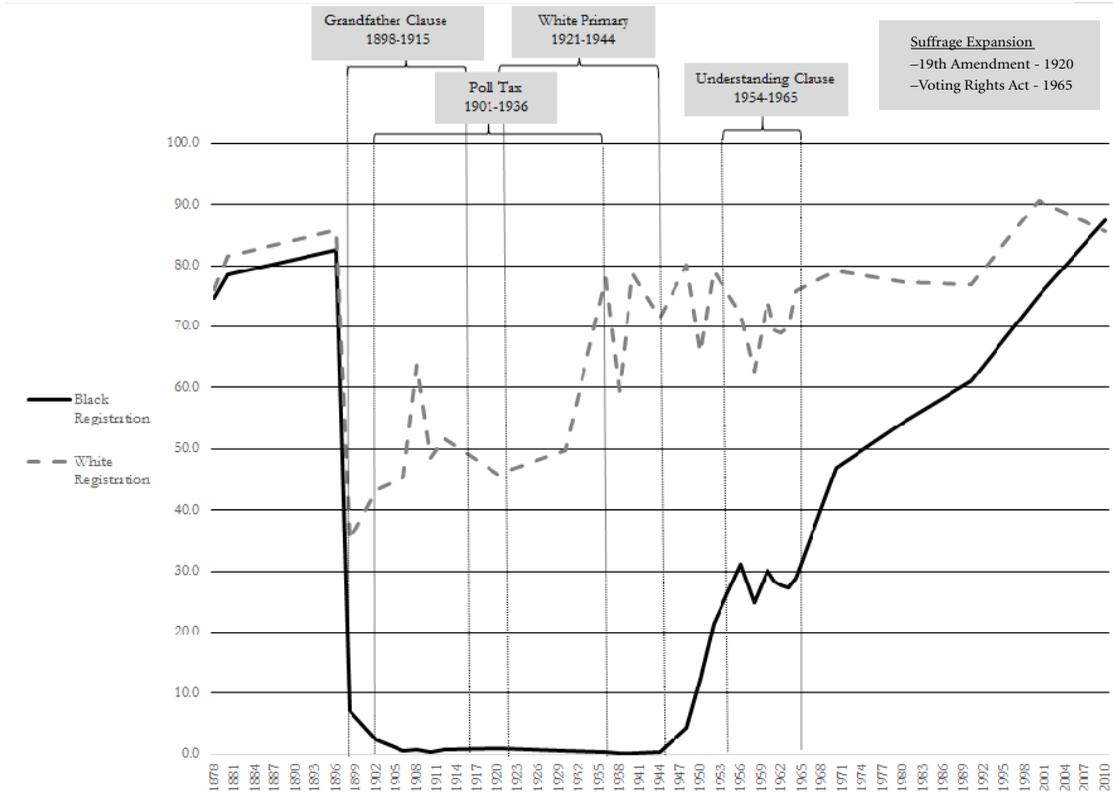
sharpened by contributions in this double issue. First, the nature of psychological costs in coercive or rights-depriving venues is likely to extend beyond stress, frustration to incorporate fear, or the experience of deprivation (Brown 2023, this volume, issue 5; Edwards et al. 2023, this volume, issue 5; Moynihan, Herd, and Gerinza 2022). Second, although we focus primarily on psychological costs for the participants and beneficiaries, imposing or negotiating burdens can also be experienced as stressful or demotivating for public servants at the frontlines, or for third-party actors trying to help. For example, Lilly Yu (2023, this volume, issue 4) reports that immigration lawyers experienced the deliberate imposition of immigration burdens by the Trump administration to be demotivating, making it more difficult to attract and retain employees. A senior attorney said, "All my attorneys tell me 'I'm feeling overwhelmed, I'm feeling stressed.' We have, network-wide, lost a lot of attorneys because of exhaustion and stress. One came back after a year absence, part-time. But, um, a lot of time we—I remember one young attorney was like, 'I started doing this under Obama and I just can't do this anymore.' And she just quit, you know, she just can't take it. So we see that a lot."

THE EFFECTS OF ADMINISTRATIVE BURDENS

In this section we summarize the ways in which administrative burdens affect access, outcomes, and inequality. We describe the evidence along five main themes: access, social control, inequality, incidence, and the accumulation of burdens.

BURDENS HAVE LARGE EFFECTS ON ACCESS TO RIGHTS AND PUBLIC SERVICES

The ubiquitous and mundane nature of administrative burdens may lead us to systematically underestimate the scale of their effects on access to basic rights and services. To illustrate this point, we offer two examples. First, burdens have been central in restricting access to the ballot, the most fundamental political right in a democracy (Herd and Moynihan 2018). As the franchise was nominally extended to Black voters, burdens became the way governments

Figure 1. The Enduring Racialized Effect of Burdens in Voting, Louisiana Registration Rates, 1878–2000

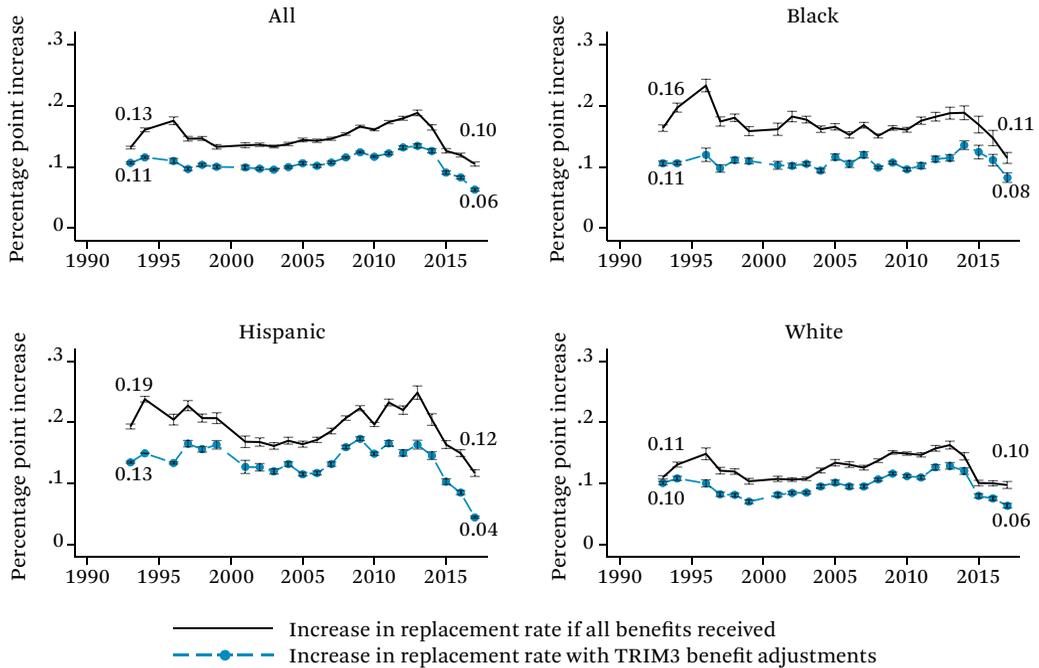
Source: Keele, Cubbison, and White 2021. Reprinted with permission.

constrained their political power. The record of voter registration in Louisiana is an example. Before the 1898 Louisiana constitution, Black and White voters had similar registration rates. Unable to formally bar newly empowered Black voters, the White power structures relied on a mix of literacy tests, poll taxes, and property requirements, even as they exempted more Whites from such clauses using grandfather clauses and discretionary application of the rules by election officials. When one method of exclusion was removed, another took its place, until the Voting Rights Act of 1965 (Keele, Cubbison, and White 2021). Even with federal guarantees, the effects of these practices were so enduring that it was not until the start of the twenty-first century that Black Louisianans regained the voter registration parity they had held a century earlier (see figure 1).

A second example is provided by Parolin, Cross, and O' Brien (2023, this volume, issue 5),

who estimate, using Current Population Survey data from 1990 to 2019, how much administrative burdens limit access to cash and near-cash transfers that people are eligible for after a family member loses a job. Their approach represents a thought experiment about what the reach of the social safety net might look like if burdens were low enough that all families eligible to receive a given benefit should do so. The results point to a significant and large gap between earnings replacement rates—the share of lost earnings made up for with social safety net benefits—under current practice and the counterfactual. Figure 2 presents the actual and counterfactual replacement rates for all—Whites, Blacks, and Hispanics. Although replacement rates are declining across this period for all subgroups, the scale of the administrative burden effect remains consistently large, indicating that families experiencing job loss could receive replacement rates up

Figure 2. Observed and Counterfactual Replacement Rates If Families Experiencing Joblessness Received All Income Transfers for Which They Are Eligible (No “Administrative Burden” Effect)



Source: Parolin, Cross, and O'Brien 2023, figure 3 (this volume, issue 5).

to 10 percentage points higher in a condition of zero burdens relative to current practice. If the scale of such effects is surprising, it may reflect our tendency to underestimate the effects of burdens.

These burdens can be so large that reducing them can have just as large an impact as expanding eligibility for a program. Emily Rauscher and Ailish Burns (2023, this volume, issue 4) demonstrate how cumulative reductions in burdens in Medicaid had as large of an impact on infant health as the Affordable Care Act (ACA) Medicaid expansion did.

BURDENS FACILITATE SOCIAL CONTROL

The primary focus of administrative burden research thus far has been on limiting access in rights-granting venues, such as political rights or access to benefits. However, as contributors to this double issue point out, burdens also matter as a method of social control in rights-depriving venues, that is, citizen-state interactions in which people have involuntary contact with coercive state institutions (Ed-

wards et al. 2023, this volume, issue 5; see also Brown 2023, this volume, issue 5). An obvious example is the criminal legal system. For example, Black Americans express a stronger sense of fear about interacting with the police (Pickett, Graham, and Cullen 2021), even as the police represent the more direct and present face of government for many Blacks (Soss and Weaver 2017). Frank Edwards and his colleagues (2023, this volume, issue 5) point to child protective services as another such venue, where administrative burdens are a key component of contemporary punitive and racialized poverty governance. Another example is immigration, where administrative burdens have been weaponized with the goal of creating fear among both undocumented immigrants, and those seeking legal refugee status (Moynihan, Herd, and Gerinza 2022; Yu 2023, this volume, issue 4).

The role of burdens in rights-restricting domains is less well understood. It is reasonable to assume that given the stakes involved—loss of liberty, familial rights, legal status—the consequences of burdens in such venues may be

greater, reflected in more intense psychological costs such as fear or despair. Burdens can both lock people out of desired benefits and lock them into unwanted long-term involvement with punitive state organizations.

One way burdens facilitate social control function is via entry into and exit from different administrative categories. In some cases, such as establishing disability, burden limits access to desired categories that provide additional income supports, help, or relaxation of standard administrative demands such as work requirements (Sommers et al. 2020). In others, however, burdens make it difficult to escape from undesired categories, such as *deficient parent*, itself a psychologically degrading identity the parent has to both accept and document that they have graduated from in order to exit the system (Edwards et al. 2023, this volume, issue 4).

BURDENS REINFORCE INEQUALITY

Administrative burdens tend to exacerbate patterns of inequality. This is a consistent theme across the articles in this double issue. Parolin, Cross, and O'Brien (2023, this volume, issue 5) find that administrative burdens contribute to higher poverty rates and lower income rates for Black and Hispanic families experiencing job loss than for White families. These racialized burdens are also evident in higher education (Ray, Herd, and Moynihan 2023). Among those with high student loan debt, those living in lower-income and higher-percentage Black neighborhoods are less likely to take advantage of administratively complex but highly beneficial repayment plans provided by the federal government (Goldstein et al. 2023, this volume, issue 4). Applications for disaster support after Hurricane Katrina result in higher rate of denials for documentation reasons when they came from zip codes characterized by higher poverty rates and more people of color (Raker and Woods 2023, this volume, issue 5). Burdens that reduce public health insurance for children have a larger impact on Hispanic families, those with a noncitizen parent, and those without a college-educated parent (Arbogast, Chorniy, and Currie 2022). If burdens hurt marginalized groups, this also implies that efforts to reduce burdens reduce inequalities. Step-

hanie Pierce and Stephanie Moulton (2023, this volume, issue 5) point out how relaxing documentation requirements tended to help avoid foreclosure for those with the most difficult-to-document situations, who were more likely to be Black and women. Reductions of Medicaid burdens also tended to benefit marginalized groups (Rauscher and Burns 2023, this volume, issue 4).

Burdens reinforce inequality via three main mechanisms. First, the reach and effectiveness of programs intended to provide a measure of equality is undermined by administrative burdens. To the degree that programs designed to provide baseline support for people living in poverty are inaccessible, they are unable to achieve their policy goals.

Second, some groups are more targeted by burdens than others, even within the same benefit system. Our ideas about who is—and is not—deserving of government benefits are reflected in how we deliver those benefits and services. Our tax system, which has become an important mechanism for distribution and redistribution, benefits the White and well-off, by making programs such as subsidized employer provided health insurance and home ownership simple and accessible. Benefits for the working poor, such as the EITC, have higher layers of burdens (and higher rates of auditing). Even in the near universal, albeit temporary, Child Tax Credit (CTC) expansion (available in 2021), burdens were largely faced by the poorest beneficiaries. In particular, those who had filed a tax return for 2019 or 2020 received the monthly CTC payments automatically and, for many, via direct deposit; those who had not filed taxes, that is, those with the lowest income levels and thus not required to file, had to apply for the benefit.

Groups with less access to political power are more vulnerable to the imposition of hassles. It is not just that women, poor, Black, and disabled Americans differentially bear the brunt of them, burdens are in fact rooted in racism, sexism, and ableism (Ray, Herd, and Moynihan 2023). The relationship between political power, perceived deservingness and the targeting of burdens reflect the point that burdens do not just reinforce patterns of inequality; they are also the product of inequality.

Those deemed undeserving are also exposed to burdens in rights-depriving venues like child welfare bureaucracies (Brown 2023, this volume, issue 5; Edwards et al. 2023, this volume, issue 5). The burdens that tribal governments and their community manage in child welfare cases reflects the gap between the promise of tribal sovereignty and actual political power (Brown 2023, this volume, issue 5).

The third way that burdens reinforce inequality is unequal distribution of resources needed to overcome them. We consider this point in greater detail in the next section.

PEOPLE WITH FEWER RESOURCES ARE LESS EQUIPPED TO MANAGE BURDENS

Our perspective on the relationship between burdens and inequality challenges existing theories that have justified burdens as a way to ration public services programs. Referred to as ordeal mechanisms (Nichols and Zeckhauser 1982; Zeckhauser 2021), this model follows some straightforward assumptions: not everyone who qualifies for public benefits actually needs them; people value the time and effort required to manage burdens, and thus will rationally opt out of these hassles if they are high relative to the potential benefits. The ordeals perspective offers policymakers a reassurance that burdens fulfill a useful social function by optimally targeting scarce resources to those most in need.

A framework that presents burdens as an ordeal mechanism creates some blind spots. One is that targeting may be counterproductive. For example, hassles reduce take-up of health insurance and are most likely to discourage the type of people—younger and healthier—the insurance pool needs to balance the numbers of older and sicker participants (McIntyre, Shepard, and Wagner 2021). In such cases, automatic enrollment not only increases participation for some groups but also generates a collective good. The comparison holds in the quite different policy domain of voting. Evidence is ample that hassles such as voter registration requirements differentially exclude more marginal voters: younger, poorer, minority, or immigrants (Grumbach and Hill 2021; Rigby and Springer 2011; Braconnier, Dormagen, and Pons 2017; Michener 2016). Indeed,

the general gap between rich and poor when it comes to voting is a registration gap, not a voting gap: both poor and rich people who are registered vote at the same level (Herd and Moynihan 2018).

When hassles are not well targeted, they often end up affecting those who most need help. Why might this be the case? If we accept that some burdens are not simply tedious, but also complex and cognitively demanding, those with more resources become more likely to succeed in overcoming them. Here resources can include education, administrative literacy, money, social networks, flexible work schedules, reliable internet and phone connections, cognitive skills, health, and time. As a result, an administrative burden Catch-22 emerges: those needing the most help are less well positioned to overcome the barriers on which that help is conditioned (Christensen et al. 2020). Rather than targeting services only to those who needed them the most, burdens can end up becoming un navigable for those without the resources to deal with them. Pierce and Moulton (2023, this volume, issue 5) find as much when it comes to giving mortgage relief to homeowners in trouble: reductions in burdens made targeting more efficient by helping those who were needy but struggled to satisfy documentation requirements.

The degree to which burdens result in better targeting or exclude the neediest is an empirical question. Evidence from behavioral science seems more consistent with the Catch-22 perspective: individuals experiencing time or financial scarcity will be less apt to manage the hassles involved in administrative processes (Mullainathan and Shafir 2013). Empirical studies beyond those in this double issue also raise concerns about the exclusionary effects of burdens. Families facing poverty deal with more complex life challenges, more administrative demands across multiple programs, with fewer tangible resources or sources of help (Heinrich et al. 2021). A study of Social Security field office closures found that they tended to reduce access to benefits for those with lower income, less education, and more severe disabilities (Deshpande and Li 2019). Amy Finkelstein and Matthew Notowidigdo (2019) point out that frictions in SNAP enrollment tend to be more con-

sequential for lower-income and sicker individuals, who need the benefit more. Mental health problems, such as attention-deficit disorders, are associated with higher reported burden and lower take-up (Bell et al. 2022).

These burdens have implications beyond program access. Negative interactions with government in the form of burden reduce trust in government (Ali and Altaf 2021). For example, the learning costs that result from moving across state lines—because Medicaid eligibility and the rules around documenting that eligibility vary across states and even counties—leads to frustration and distrust, with profound consequences for the health of our democracy (Michener 2018). The deliberate use of ordeals conveys a formal recognition of inequality. In the eyes of the state, some people’s time is of less value than that of others.

THE EFFECTS OF BURDENS ACCUMULATE OVER TIME

Although the categories of learning, compliance, and psychological costs help unpack the frictions that people face in particular encounters or programs, this diagnostic process should not obscure the broader picture of burdens as a cumulative experience. In short, some people are systematically more likely to be exposed to burdens. It is important to remain attentive to the accumulation of burdensome experiences across multiple programs or domains, both rights-granting, such as applying for benefits, and rights-depriving, such as when social services take a child away from a parent (Edwards et al. 2023, this volume, issue 5; Sackett and Lareau 2023, this volume, issue 4). In the former, someone is a claimant, whereas in the latter someone is the subject of the state, but across these domains the costs accumulate. Families seeking help from the safety net are negotiating with multiple institutions. Poorer families seeking help encounter burdens in WIC, childcare supports, public housing, SNAP, and Medicaid. Blair Sackett and Annette Lareau (2023, this volume, issue 4) illustrate this point in their study of refugees negotiating multiple venues, which are both vital and unfamiliar. This patchwork system of in-kind programs, rooted in patriarchal and punishing practices directed at women, people liv-

ing in poverty, and Black individuals, leads to a much larger set of costs than would be present with simple cash assistance.

Even after someone has overcome enrollment burdens to access a benefit, they continue to face redemption costs in using those benefits (Barnes 2021), especially for voucher-based benefits such as housing supports (DeLuca, Katz, and Oppenheimer 2023, this volume, issue 5) and WIC (Barnes 2021). On the one hand, learning costs should mechanically decline with familiarity with an institution or program. A number of articles in this double issue point to the way that the novelty of a new context raises learning costs. Claudia Aiken, Ingrid Ellen, and Vincent Reina (2023, this volume, issue 5) examine how a new rental assistance program struggled to succeed. Sackett and Lareau (2023, this volume, issue 4) examine the challenge facing immigrants negotiating unfamiliar spaces. Yu (2023, this volume, issue 4) documents how immigration lawyers struggled to keep up with a rush of policy changes. However, familiarity may also breed contempt. Negative experiences in using benefits may cause people to exit programs (Barnes, Halpern-Meekin, and Hoiting 2023, this volume, issue 5). The exit, or “churn” of eligible applicants at points of renewal is another juncture where those who have shown a capacity to overcome a set of burdens in the past are no longer willing or able to do so.

For many, the experience of the state is the experience of burdens. People who rely on social welfare programs, from food assistance to the EITC, simply spend more of their lives navigating complicated bureaucracies to meet their basic needs than do those with more resources (Land 2018). Thus the accumulation of burdens will reinforce inequality to the degree that people systematically experience the same sort of burdens in the administrative venues they are assigned. Marginalized groups may look at the history of their experience with the state, and view their interactions through that lens. Using the American Time Use Survey, Stephen Holt and Katie Vinopal (2023) find that low-income people are 3 percentage points more likely to spend part of their day waiting for services, and the duration of their waits are, on average, twelve minutes longer. These dif-

ferences are not based only on income: high-income Black people experience the same wait times as low-income groups.

The effects of the accumulation of burdens should be considered, but burdens can be exceptionally consequential in crucial state interactions. As noted, burdens are especially salient for high-stakes rights-restricting venues, such as child protective services, or for crucial rights, such as voting, or at crucial moments, such as trying to recover from a disaster (such as Raker and Woods 2023, this volume, issue 5). The Joe Biden administration has identified surviving a disaster as one of a series of “moments that matter” when public services should be designed to be accessible. Other such moments include the birth of a child, retirement, transitioning from military to civilian life, financial shocks, and children with disabilities transitioning to adulthood.² A focus on identifying and providing support to such moments of vulnerability is a useful way for governments to think about how to prioritize burden-reduction efforts.

SOURCES OF ADMINISTRATIVE BURDENS

In this section, we summarize the evidence on the sources of administrative burdens including the role of policy design, bureaucratic dysfunction, federalism, and the private provision of social welfare benefits.

BURDENS ARE POLICYMAKING BY OTHER MEANS

If administrative burdens are such a big problem, why tolerate them? Why is it not a core function of governments to relentlessly identify and reduce burdens to the greatest extent possible? These deceptively simple questions also ask why burdens emerge and persist. No single reason explains the phenomenon.

At the broadest level, burdens persist either because they serve an end for some political actors or because the problems they create are kept hidden. Burdens, of course, can reflect normal bureaucratic dysfunction, when administrative actors fail to understand, are in-

different to, or feel they cannot change how state actions and inactions affect how the public experiences the state. Despite individual behavioral reasons that burdens are consequential, such as individuals being present-biased and unwilling to deal with immediate hassles (Frederick, Loewenstein, and O’Donoghue 2002), we focus on issues under the control of the state and consider individual differences only to the extent that they worsen patterns of inequality. Whether burdens are deliberate or accidental, they are largely a function of state choices, including choices not made, to attend to them.

What sort of functional purposes can burdens serve? Processes that give rise to burdens are sometimes necessary for basic administrative tasks, such as distinguishing between those who are eligible and ineligible for a program. Burdens help (or are claimed to help) achieve values that policymakers say they care about, such as reducing fraud, targeting scarce resources to the neediest, or other policy goals, such as encouraging labor-force participation. Burdens can also help achieve outcomes policymakers desire but do not explicitly acknowledge, such as restricting access to the ballot or curtailing abortion services. They also undermine the effectiveness of programs for those who are opposed to those programs or the constituency they serve. Such opposition can coincide with, or be driven by, indifference, paternalism or antagonism toward marginalized groups. For example, Victor Ray, Pamela Herd, and Donald Moynihan (2023, 139) argue that burdens that make it hard to vote emerged “when more explicit forms of racial bias in policies or administrative practices become illegal, politically untenable or culturally unacceptable.”

In other words, burdens often function as a form of policymaking by other means. The utility of burdens and their consequences for inequality are tied to their opacity. The more complex and submerged are the details of program implementation, the less they are subject to close inspection by media or other policymakers.

2. “A Human-Centered Approach to Government,” Performance.gov, n.d., <https://www.performance.gov/cx/projects/> (accessed January 5, 2023).

**POLICY DESIGN MATTERS,
BUT UNIVERSALISM IS NOT
A SUFFICIENT FIX**

Existing theories and research, particularly by social scientists throughout the 1980s and 1990s, largely considered burdens through the lens of policy design or whether benefits should be targeted or universal.

Sociologists and political scientists thought about burdens in the context of universalism versus targeting (Esping-Andersen 1993). In short, universal policies are assumed to be simple, accessible, and popular, whereas means-tested policies are laden with burdens, inaccessible, and unpopular (Skocpol 1991). This work also documents the ways poor and racialized minority women are far more likely to be segregated into targeted and burdensome programs, making this divide a central way that social welfare policies reinforce race and gender inequality (Mink 1998). Programs created by the 1935 Social Security Act make the point. Social insurance programs such as Social Security became generous and accessible, especially for White men, and unemployed White women, whereas means-tested programs such as Aid to Dependent Children, to which Black women had relatively more access, became miserly, inaccessible, and ultimately written out of the Social Security Act altogether (Mink 1998; Quadagno 1994). The same contrast is also drawn between Medicare and Medicaid, both of which were created in 1965 as amendments to the Social Security Act. In part, targeting centered narratives around deservingness and focusing means-tested policies often on populations deemed “undeserving” (Schneider and Ingram 1993). Indeed, survey experiments with politicians show that they become more supportive of imposing burdens when deservingness framings are invoked (Baekgaard, Moynihan, and Thomsen 2021).

However, even though targeting versus universalism continues to hold predictive power regarding how policy design influences burdens and their impacts, a closer look complicates this narrative. In terms of how burdens impact inequality, it is not only that women and Black people end up more subject to hassles because they are more likely to be segregated in targeted programs: even within tar-

geted programs they face more burdens. For example, states with higher proportions of Black workers are more likely to have tougher welfare-sanctioning policies (Hahn et al. 2017) and less spending on cash assistance out of the TANF block grant (Hardy, Samudra, and Davis 2019). It is also the case that, within social insurance programs, Black Americans are more concentrated in burdensome parts of those programs. For example, Black Americans are disproportionately likely to receive Social Disability Insurance rather than Social Security Survivor benefits (Harrington Meyer et al. 2006). Whereas it takes just a few minutes to apply for survivor benefits, disability benefits are laden with burdens. In 2020, it took an average of five to six months for an initial application to be processed (SSA 2021). If an individual had to appeal a denial, they would wait another four months on average for it to be reconsidered (SSA 2021). If it then goes to an administrative law judge, the wait becomes even longer. Given that one-third of disability recipients had to appeal to receive their benefit, the average costs are extraordinarily high (CBPP 2021).

Policy trends in the aftermath of 1990s welfare reform have seen burdens generally cut in targeted programs (Greenstein 2022). Means-tested policies that have grown in size—most obviously EITC, SNAP, and the CTC—also have less burdens and higher take-up than in the past and the programs they now dwarf, such as TANF. At the same time, burdens have become more pronounced in some universal programs. For example, Medicare has become far more complicated to navigate over the last thirty years with the introduction of private health insurance plans for Medicare beneficiaries (Herd and Moynihan 2018; Herd 2021). When beneficiaries enroll in Medicare, they now face a dizzying array of health insurance options. Depending on what they choose, they may actually end up with three separate plans: Medicare Part B, a private Medigap plan, and a private prescription drug plan. The evidence is that most people pick poorly and expose themselves to potentially large financial and health costs (Herd 2021). Further, to ensure they have the best plan to meet their needs, given that their health changes and the plans change, beneficiaries are required to make choices every year.

In contrast, Medicaid has expanded and in some ways become less burdensome over time (Herd and Moynihan 2018), given the removal of asset tests, reductions in paperwork, longer periods between recertification, and a host of other changes driven by the ACA and state discretion (Rauscher and Burns 2023, this volume, issue 4).

BUREAUCRACIES ARE NOT NATURALLY INCLINED TO DETECT AND MINIMIZE BURDEN

Bureaucratic has become a synonym for delay, pointless paperwork, and frustration. Such critiques are often lazy stereotypes that do not recognize the complexity of public services. After all, private organizations also create burdens. Think of how easy private companies make it to sign up for services such as gym membership, a magazine subscription, or a cable package relative to the challenge of canceling those services. Such burdens are often driven by profit incentives. For public bureaucracies that do not have a profit incentive, the dynamics are somewhat different, but still compatible with the creation of burdens (Peeters 2020). The root of these dynamics can be linked not only to politics and organizational culture, but also to the capacity public organizations have to effectively deliver services and benefits.

Public organizations are responsive to political messaging and directives about maximizing political values that result in burdens (Moynihan, Herd, and Harvey 2015). Even absent political pressure, though, they too often lack direct mechanisms of feedback that measure burdens, or incentives to reduce them. Robert Merton (1963) long ago observed that bureaucracies tend toward goal displacement: focusing on rule creation and rule following at the expense of their core purpose. Such tendencies are reinforced by incentives such as blame avoidance and negativity bias, where bureaucrats face greater punishment for failure than benefits for positive outcomes (James et al. 2020). In other words, bureaucrats may be sheltered from knowledge about the negative externalities that rules that generate new burdens create but be acutely conscious that the absence of such rules makes them vulnerable to criticism. For example, Aiken, Ellen,

and Reina (2023, this volume, issue 5) point to administrators mistakenly believing their programs were less burdensome than they truly were, while being closely attentive to the risk of fraud and the potential for federal audits in ways that made burdens more likely to emerge.

Institutional errors—which can be a function of a mistake by a state actor or the client—can have calamitous effects (see Bouek 2023, this volume, issue 5; Raker and Woods 2023, this volume, issue 5; Goldstein et al. 2023, this volume, issue 4; Sackett and Lareau 2023, this volume, issue 4). For example, such mistakes for refugees can cascade, undermining their efforts to establish some stability (Sackett and Lareau 2023, this volume, issue 4). Groups lacking political power have less capacity to draw attention to administrative problems, or win resources to provide solutions (see also Moynihan, Herd, and Gerinza 2022).

Policymakers are also more comfortable with burdens if they are not on the receiving end. Bureaucrats and elected officials in particular tend to be more educated and wealthier than the public generally, making their personal experience less representative of those they serve. Relatively few policymakers have had to worry about negotiating work requirements for SNAP, for example. This lack of experience matters to how policymakers see burdens. Policymakers tend to be more opposed to burdens in means-tested programs when they have personally depended on similar programs in the past (Baekgaard, Moynihan, and Thomsen 2021).

Studies of citizen-state interactions show how street-level bureaucrats can alter each of these types of costs. They can choose to engage in active outreach or withhold information in ways that adjust learning costs. They can impose excessive demands for documentation and paperwork, relax requirements, or even help individuals to overcome compliance costs. They may offer a welcoming setting, conveying to individuals that they are accessing rights rather than supplicants to the state. Some of these choices may reflect personal biases against marginalized groups or ideological beliefs (Bell et al. 2021). Audit studies offer evidence of such biases among street-level

bureaucrats, though not consistently and seemingly less systematically than among other political elites or private actors (for a summary, see Olsen, Kyhse-Andersen, and Moynihan 2022). It would be a mistake, however, to assume such micro-level interactions as purely a reflection of individual biases, given that they may also reflect embedded meso-level administrative practices, which street-level actors are only vaguely aware of, or are resigned to accepting (Ray, Herd, and Moynihan 2023; Compton et al. 2022).

Administrative capacity matters to the ability of bureaucratic actors both to manage burdens themselves and to shift burdens from the individual and onto the state (Herd et al. 2013; Heinrich 2016). For example, Aiken, Ellen, and Reina (2023, this volume, issue 5) detail that a lack of infrastructure and data capacity was a key explanation for the burdensome processes that people encountered when trying to seek housing assistance during the pandemic. Examining a foreclosure program in Ohio, Pierce and Moulton (2023, this volume, issue 5) find that an effort to reduce compliance costs by relaxing documentation requirements helped applicants, but also created congestion because the state lacked the administrative capacity to manage the increased demand that followed. Lack of capacity among state actors may be compensated for by nonstate actors, but they also face capacity constraints. Yu (2023, this volume, issue 4) details how third-party brokers, in the case of immigration attorneys, were overwhelmed during the Trump presidency as the Department of Homeland Security dramatically increased burdens across the immigration process. These immigration lawyers simply did not have the resources to adequately help people navigate these burdens, resulting in stratified access to representation.

THE FEDERATED AND FRAGMENTED NATURE OF U.S. POLICY IMPLEMENTATION ENHANCES BURDENS

A primary lesson emerging from new scholarship on administrative burden is the identification of federalism as a key source of burden. Part of the issue is the basic reality that more players means more veto points and more opportunities to add burdens. Federalism also

means locating service delivery in venues that are subject to less direct attention from the public. For example, federal policies that impose work requirements or new hassles in legislation or executive order are more apt to draw attention and pushback than equivalent changes at the state level.

Programs that involve federal, state, and local control tend to be more complicated and burdensome, and consequently more heavily reinforce race, gender, and class inequality, than those solely controlled by the federal government (Michener 2018). In short, federalism plays a large role in shaping the level of burden in U.S. social welfare programs (Michener 2018; Mettler 2011). For example, although both Social Security and unemployment insurance evolved out of the 1935 Social Security Act and are social insurance programs, control of UI is shared between federal and state governments. The Social Security retirement program is the least burdensome U.S. social program, especially when taking its scope and impact into account. Take-up is nearly 100 percent and users do not need to keep track of, or document, their lifetime earnings. Benefits can be claimed in a matter of minutes, either online or via one of thousands of field offices around the country.

Unemployment insurance is a very different story. Its dysfunction during the pandemic was not just the result of an unusual surge in applications. Even in “normal” times, only about three-quarters of those eligible for unemployment insurance actually receive benefits, with many jobless people deemed ineligible. The fraction of unemployed people receiving benefits ranges from about 10 percent in North Carolina to 57 percent in New Jersey (U.S. Department of Labor 2022). Notably, differences across racial groups are large. Using data through 2015, Elira Kuka and Bryan Stuart (2022) find that only 42 percent of eligible Black individuals receive UI relative to 55 percent of eligible White individuals and 20 percent of the racial gap is accounted for by Black individual’s greater residence in the South. More generally, states with higher proportions of Black workers also tend to have less generous unemployment insurance benefits, with learning costs contributing to low take-up of benefits across all racial

groups (Gould-Werth and Shaefer 2012). Benefit eligibility varies across states in terms of job classifications, wage requirements, and reasons for leaving a job, meaning that many unemployed workers are unaware of their eligibility status (Wandner and Stettner 2000).

Challenges accessing UI during the pandemic reflect prior policy choices made, especially after the Great Recession, to narrow eligibility and broaden burdens (Badger and Parlapiano 2020). The cumulative effect was to reduce the overall fraction of unemployed workers receiving benefits from around 31 percent between 2004 and 2007 to 23 percent between 2012 and 2016 (Vroman 2018). Compliance costs played a key role in this decrease. States such as Florida (Fineout and Caputo 2020) and North Carolina (Lee 2020) confounded the application process with burdens to reduce unemployment insurance spending. Across states, new programs to facilitate employment, such as job counseling and required documentation of job-seeking activities, led to people losing unemployment insurance for failing to meet administrative requirements, rather than to increased employment (Vroman 2018).

Many burdens are structurally induced as subnational governments navigate requirements from the federal level. For example, concern about federal audits triggered more burdens in rental assistance programs (Aiken, Ellen and Reina 2023, this volume, issue 5). Tribal governments with limited resources struggle with the administrative requirements placed on them by state governments in the domain of child welfare, and in some cases states have deliberately limited tribal capacity (Brown 2023, this volume, issue 5).

Federalism is a contributing factor to another source of burdens, which we label here as *administrative fragmentation*: the multiplicity of administrative actors that an individual must interact with to complete a task. It seems axiomatic that administrative costs increase when a person has to negotiate with multiple organizations. Most obviously, learning costs increase because someone must be aware of more than one relevant organization and understand how to engage with multiple sets of rules. Compliance costs also increase as the

person commutes between organizations, and has to provide documentation multiple times to different actors. The frustrations of being shuffled back and forth also mount.

Fragmentation can occur both within and across policy domains. The U.S. health-care system is a very fragmented domain, with some exceptions, such as the Veterans Health Administration, which operates more like a national health system for its users. Adam Goldstein and his colleagues (2023, this volume, issue 4) point to the deleterious effects of fragmentation in student loan programs. Income-driven repayment programs benefit most borrowers, but borrowers must master more than one such program with varying provisions and eligibility. The Department of Education relies on private loan service providers, and when loans are transferred from one servicer to another it can be calamitous for borrowers when basic information is not transferred. Borrowers often have to play the role of their own administrative representative, collecting administrative data, or coordinating organizational relationships between, for example, their bank and lender. Within the broader safety net, different programs may have different rules, definitions, and measurement about things like dependents or assets that make little sense to their users.

Federalism contributes to administrative fragmentation, but it is not the only source. As discussed in the next section, a preference for marketized provision of public services, and a reliance on supportive nonprofits begets fragmentation. A person walking between organizations can get lost. Sackett and Lareau (2023, this volume, issue 4) illustrate how refugees often find themselves tied up in institutional knots in part because they cannot resolve competing or contradictory demands from the multiple organizations they must negotiate with. In other words, it is easier for people to fall through the cracks when the cracks are gaps between organizations.

THIRD PARTIES CAN BUFFER OR AMPLIFY BURDENS

Another critical emerging area of administrative burden research, with important contributions from the articles in this double issue,

involves the role of third parties. Private, non-governmental third-party actors can play multiple roles when it comes to burdens that can reduce or amplify the effects of burdens and associated inequalities: as service providers, as advocates that lobby to increase or reduce burdens, by providing help to users manage burdens, or as the subject of burdens themselves. In discussing immigration, Yu (2023, this volume, issue 4) shows how immigration lawyers can simultaneously help reduce burdens for clients, be the subject of burdens imposed by the state, and reinforce patterns of disparate access by charging a fee for their help. Hilary Hoynes, Nicole Maestas, and Alexander Strand (2022) find that the use of legal representatives significantly speeds up the access to Social Security disability benefits without changing who ultimately receives the income support program. Aiken, Ellen, and Reina (2023, this volume, issue 5), document how burdens increase when emergency rental assistance programs require the participation of both the landlord and tenant. This is what is called a “double take-up challenge.”

Third-party actors are only becoming more important over time. Since the 1990s, the growth in the use of private entities—both non-profits and for-profits—in delivering access to social welfare benefits has clear implications for burdens. The growth of the private sector in delivering social welfare benefits provides another potential source of burdens and subsequent inequalities for some of the same reasons as federalism: more veto players, more room for discretion to impose burdens. Other challenges are specific to private actors. A desire to marketize public services increases learning and compliance costs. Medicare is a clear example (Herd 2021). As of 2020, nearly 40 percent of beneficiaries were exclusively in private health insurance, via their participation in Medicare Advantage, with estimates that this could reach 47 percent by 2029 (Freed et al. 2022; Terry and Muhlestein 2021).

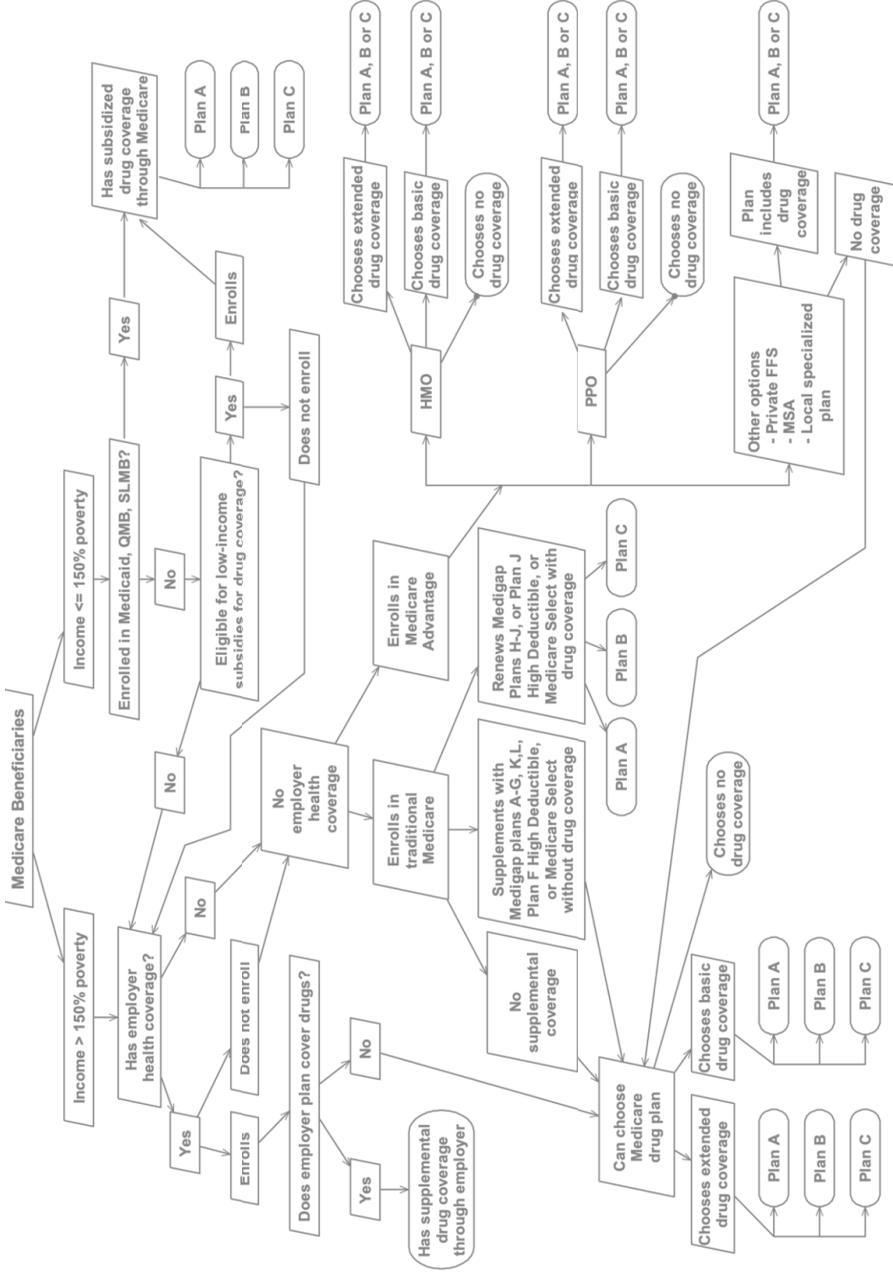
Figure 3 provides an overview of the maze of options people encounter when they enroll in Medicare, which they must deal with on an annual basis, when they either remain in their existing plans or select new coverage. Given the absence of robust regulations regarding how

plan changes are communicated to Medicare beneficiaries, users often act in ways that increase their costs and reduce their benefits. A study of Part D prescription drug plans found that only 5 percent of beneficiaries chose the cheapest plan to meet their needs (Zhou and Zhang 2012). Unsurprisingly, these burdens fall hardest on those who are disabled or have more significant health problems—including cognitive impairment.

The addition of a profit motive will in some cases align with imposing more burdens that are at odds with the best interest of the client. The privatization of poverty-based programs has been a hallmark of welfare reform movement since the 1990s. When the Aid to Families with Dependent Children was removed from the Social Security Act, it was replaced with TANF. TANF was a block grant program that gave states enormous flexibility in how it distributed those funds. States such as Florida put significant funds toward work readiness programs, requirements for people receiving any kind of cash assistance. They also chose to administer those benefits through for-profit organizations, organizations that were more likely to sanction beneficiaries for failing to obey administrative requirements (Soss, Fording, and Schram 2011). This could cost them not only their cash assistance, but also food stamp benefits and Medicaid. Strikingly, studies have found that 30 percent of sanctions were applied erroneously to people who were obeying programmatic rules (Pavetti et al. 2003).

In some cases, the perceived hassles make third parties withdraw essential support that clients need to access benefits. With the example of student loans, Goldstein and his colleagues (2023, this volume, issue 4) show that private organizations might formally have incentives to provide help to individuals and serve their best interests—by directing them to more affordable income-driven repayments—but often fail to do so because loan-service staff do not have the time to deal with the additional hassles of helping borrowers into the program. In a similar manner, the unwillingness of private actors to accept vouchers as forms of payment because of the perceived additional administrative hassle involved can make those vouchers less attractive for users also (Aiken,

Figure 3. The Medicare Maze



Source: Hanoch and Rice 2006. Reprinted with permission.

Ellen, and Reina 2023, this volume, issue 5; Barnes, Halpern-Meeke, and Hoiting 2023, this volume, issue 5; DeLuca, Katz, and Oppenheimer 2023, this volume, issue 5). Immigrants depend on doctors and police to provide essential documentation for visa processes, which the third party experiences as a burden (Moynihan, Herd, and Gerinza 2022). In such cases, the mismatch between the rewards for clients and third parties makes the client dependent on an actor who has little incentive to provide help.

Stefanie DeLuca, Lawrence Katz, and Sarah Oppenheimer (2023, this volume, issue 5) illustrate how third parties can help individuals negotiate the fragmented domain of federal housing assistance. The Creating Moves to Opportunity program was able to significantly increase the success of families using their vouchers to move to high-opportunity neighborhoods. The intensity of the help offered by housing navigators, and the multiple points where help is needed, illustrates the necessity of such support and how onerous the process looks without it.

TOWARD SIMPLE, ACCESSIBLE, AND RESPECTFUL GOVERNMENT

To reduce administrative burdens requires building alternative frameworks, a new toolbox for change and revised institutional norms. What are the normative underpinnings of such an ethic of change? We assume that the provision of public services should be designed to be simple, accessible and respectful. The introduction of burdens that impose costs on the public should be recognized and imposed only when it demonstrates a benefit that exceeds those costs. Burdens should not be used for unsanctioned goals that policymakers are unwilling to explicitly defend, such as undermining the reach of a program, or to target some groups more than others, or to use ordeals to filter out eligible recipients.

Our normative claims may, on their surface, not appear terribly controversial. They are, however, routinely violated in practice. Embedding these norms in government and making them part of practice will require new approaches to measuring citizen-state interactions. This is no easy thing. The articles in this

double issue illustrate this point by showing the wide variety of burdens that could be measured, and how they may matter in unexpected ways. As governments seek to better measure administrative burdens, they will face such practical problems (Executive Office of the President 2022). It is better to at least approximate such measurements, even if imperfect, than ignore them completely.

ADMINISTRATIVE DATA AND TECHNOLOGY CAN HELP, WITH CAVEATS

The pandemic generated a need for massive social support and laid bare the importance of administrative burdens in either facilitating or blocking access to those supports. The collapse of UI benefits pointed to the fragility of systems seemingly designed to be inaccessible. The slow response and relative failure of targeted supports such as rental relief or student lunch supports underlined the challenges of designing complex new systems with many veto players. Other aspects of the state response were more effective. Expansions to SNAP reached needy families quickly and automatically (Bitler, Hoynes, and Schanzenbach 2020), and the waiving of in-person interviews (a documented administrative burden [see Homonoff and Somerville 2021]) led to fewer program terminations (Barnes and Petry 2021). Stimulus payments based on tax data quickly reached those eligible if they were recent tax filers. The expanded CTC saw a dramatic and rapid decline in poverty (Creamer et al. 2022). If we think of the pandemic as an experiment, the lesson seems to be that the use of the tax system can offer a way to significantly reduce burdens.

The long-term shift toward benefits distributed through the tax system reinforces this impression. The growth, relatively high take-up, and political durability of the EITC seems to be a testament to the post-welfare-reform shift to using the tax system. Spending on the EITC far exceeds what was historically spent (on an annual basis) on traditional welfare. Theories as to its relatively low burden, high take-up, and generous benefits range from its link to employment to its concealment within the tax system, allowing it to slide under the political

radar (Howard 1997). Moreover, evidence indicates that the EITC promotes social inclusion and political participation (Halpern-Meekin et al. 2015; Shanks-Booth and Mettler 2019).

The use of the tax system, however, is a double-edged sword. Its concealment undermines its impact by significantly increasing learning costs and submerging the role of the government in providing benefits, thus potentially undermining support for the program (Shanks-Booth and Mettler 2019). For the EITC, private tax preparers help reduce this learning cost, often for a fee (Hoynes 2019). Additionally, the very high rate of audits of EITC recipients creates another *ex post* burden, reducing the benefits of the program (Kiel 2019).

Additionally, for those with low earnings, and disconnected from the tax system, this offers little help. Nearly two-thirds of eligible EITC beneficiaries not receiving a benefit have not filed a tax return, unaware of the benefits they are eligible to receive (Census Bureau 2013). The pandemic stimulus was sent automatically to those who had recently filed taxes, but that left out an estimated eleven million eligible families who would have to navigate the new Internal Revenue Service process for applying for the stimulus. Similarly, the expanded CTC was distributed automatically to recent filers, and those who do not file tax returns faced additional administrative burdens, making them much less likely to receive the payments. Because being a nonfiler is associated with the deepest poverty, this effectively means that generous poverty-reducing programs systematically exclude the poorest eligible individuals because they operate through the tax system. The press to maintain work requirements in a permanent expansion of the CTC would also effectively exclude many such families.

Distribution of social welfare benefits through the tax system also has implications for inequalities in terms of who bears the brunt of burdens. White and well-off Americans largely receive health insurance subsidies via the tax system with employer-based health insurance where administrative burdens are borne by government or private bureaucracies instead of beneficiaries (Ray, Herd, and Moynihan 2023). Indeed, many

Americans receiving subsidized employer-based health insurance are completely unaware they are receiving the benefit, the burdens are so low (Mettler 2011). By contrast, racially marginalized groups are more likely to rely on health insurance subsidies through the Medicaid program or the Affordable Care Act health insurance exchanges, which involve substantially higher burdens (Herd and Moynihan 2018; Michener 2018).

If the tax system offers a lesson, it is that the state can dramatically reduce burdens and deliver support quickly for most people by better using administrative data and information technology that shift the burdens away from the individual and onto the state (Herd et al. 2013). It requires not just new investments in state capacity to make such a shift possible, but also a new way of thinking about citizen-state interactions. Rather than waiting for the individual to complete an onerous process, the state reaches out to help those eligible. This is akin to changing the default in our current model of thinking about access to public benefits.

Technology offers multiple promises. It can be used to target outreach, simplify enrollment processes, and streamline the delivery of services. For example, an intervention with income-driven student loan repayment saw large increases in take-up when the default was changed from requiring individuals to go to a website to complete an application, to sending a prefilled application to beneficiaries. This required a combination of administrative data and technology, and increased take-up from 24 percent to over 60 percent (Mueller and Yannelis 2022). Technology can also be used to reduce psychological costs associated with benefits. Barnes, Halpern-Meekin, and Hoiting (2023, this volume, issue 5), examine the effect of the use of electronic debit cards in WIC, a tool previously adopted in SNAP, as a way to reduce people's sense of stigma.

The lure of technology should not lead us to overlook that it can also be a method of exclusion (Eubanks 2018). Algorithmic bias can be used in ways that target burdens toward marginalized populations. Reliance on online-only application processes is a clear way to exclude populations with low technological literacy

(Sommers et al. 2019). In short, technology is a tool that can be used for good or bad.

NUDGES ARE NOT ENOUGH TO REDUCE BURDENS; SOMETIMES HELP IS NEEDED

In some cases, informational nudges can reduce learning costs. For example, Heinrich Hock and his colleagues (2021) find that informational nudges with tailored messages increased take-up in Social Security Disability Insurance. The tailoring of such messages becomes more effective when it can draw on administrative data. Third parties that directly reach out to populations can also play such a role. Such targeted forms of nudges appear to be more successful than broad-based advertising campaigns.

Redesign of application processes can reduce both learning costs by better conveying information, and compliance costs by reducing documentation demands. For example, Code for America, a civic tech company, has reduced frictions in California SNAP application processes by reducing unnecessary steps as well as developing a mobile friendly platform for applications. In one experiment, it simplified the terminology used to describe *self-employed* (many who are self-employed do not select into this category even though it is beneficial for them to do so) and provided a self-attestation form to reduce documentation requirements. The result was to increase the claiming of larger benefits associated with self-employment status by about one-third (Moynihan et al. 2022).

Some processes are so complex that nudges are not enough: help is needed. DeLuca and her colleagues (2023, this volume, issue 5) document the role of Navigators in aiding people as they negotiate the housing vouchers, echoing previous findings on the role of health-care navigators or aid in FAFSA applications (Bettinger et al. 2012). Hoynes, Maestas, and Strand (2022) show that using attorneys at the beginning of a Social Security Disability Income application substantially reduces the wait time for benefit receipt. Pierce and Moulton (2023, this volume, issue 5) show that reduction of burdens in a foreclosure prevention program increased take-up, and especially benefited female Black and older applicants, and those fac-

ing more complex documentation requirements.

Help is a salient solution when compliance costs are high or for hard-to-reach populations who sit on the margins of society, beyond the reach of standard administrative tools. Simply sending more information in such cases can be of limited value if people cannot act on that information. For example, Elizabeth Linos and her colleagues (2022) find that multiple messages failed to increase take-up for the EITC, suggesting that those not already accessing the benefit needed more direct help. In their experiment to increase SNAP take-up among eligible older adults, Finkelstein and Notowidigdo (2019) find that adding a phone line for an enrollment specialist doubled the increase in SNAP take-up relative to a simple information treatment.

One challenge is that an intervention may help many but still increase inequality within groups. Finkelstein and Notowidigdo's (2019) SNAP study demonstrated how these inequalities play out: those most likely to take advantage of the information or offers of help tended to be those with relatively higher income and better health than the average potential claimant. This underlines not only that frictions tend to deter the most needy, but also that interventions that seek to reduce burdens may come with their own frictions that advantage better-off eligible nonparticipants.

PRACTICAL BURDEN-REDUCTION POLICY FRAMEWORKS ARE EMERGING

Although technology and administrative data provide new tools for policymakers and third parties to reduce burdens, and individual nudges or other types of interventions add to the general toolbox of solutions, the broader challenge is developing and embedding within institutions an ethic to identify and reduce administrative burdens where possible.

We see glimmers of hope on this front. The Biden administration incorporated the framework of administrative burdens into government-wide guidance to agencies, first under the auspices of an inauguration day executive order on social equity (U.S. Office of Management and Budget 2021) and later via another on trust in government—"Transforming

Federal Customer Experience and Service Delivery to Rebuild Trust in Government.” The latter declares that “Agencies must work with the Congress; the private sector and nonprofit organizations; State, local, Tribal, and territorial governments; and other partners to design experiences with the Federal Government that effectively reduce administrative burdens, simplify both public-facing and internal processes to improve efficiency, and empower the Federal workforce to solve problems” (Executive Office of the President 2021).

Although previous administrations have emphasized customer service, the Biden administration has explicitly tied customer experience not just to the experiences of people who interact with government, but also to social equity, promising to “deliver services more equitably and effectively, especially for those who have been historically underserved.”

In practical terms, the executive order institutionalizes a set of routines under which the Office of Management and Budget oversees efforts to improve people’s experience of government, reporting on their progress and setting new goals on an annual basis. Administrative burden initiatives may be championed most warmly by behavioral science nudge units in government (see, for example, UN Innovation Network 2021). This is understandable, and in no small part reflects the work of Cass Sunstein and Richard Thaler, the original *Nudge* authors, in elevating attention to what they label as “sludge” (Sunstein 2021). It also comes with some risks, as behavioral scientists in such units will naturally be inclined to look for behavioral solutions. A more hopeful possibility is that attention to administrative burdens should broaden the perspective of such units. The Biden executive order is explicit in proposing that addressing burdens means thinking not just about nudges and process redesign but also looking at underlying structural causes of burdens: “efforts to improve customer experience should include systematically identifying and resolving the root causes of customer experience challenges, regardless of whether the source of such challenges is statutory, regulatory, budgetary, technological, or process-based” (Executive Office of the President 2021).

The executive order also triggered new

agency guidance when it comes to the implementation of the Paperwork Reduction Act of 1995, which has generally not lived up to its original promise of minimizing the federal paperwork burden on individuals. The revised guidance is notable not just in urging agencies to better identify administrative burdens, and reduce them in the name of greater equity, but also expands the types of costs that government agencies should track (Executive Office of the President 2022). Paperwork Reduction Act estimates have historically focused on time spent completing forms, but the revised guidance emphasizes other types of compliance costs, such as travel time, and recognizing the role of learning and psychological costs. Agencies are told that the Office of Management and Budget will assess how well they

simplify the request for information, while ensuring the continued utility of the information they do collect;

enhance communication, navigation, and outreach tools and processes to reduce learning costs to the public;

improve information collection and submission processes to mitigate challenges that underserved and marginalized communities may disproportionately experience; and

use leading design practices to assess, evaluate, and then improve forms and information collection experiences.

Other governments could follow. Although certain conditions of the U.S. political context make the presence of burdens more likely—intense polarization, federalism, a patchwork safety net where basic public services are provided through multiple actors—the topic has been fruitfully explored in many contexts across the globe. The United Nations (UN Innovation Network 2021) recently focused on reducing burdens as a priority. In the U.S. context, state governments could fruitfully use the Biden executive order as a model to direct attention to reducing administrative burdens. One opportunity is to partner with the civic tech community as a potential partner with both an expertise in technology and an interest

in improving public services (Kennan, Soka and Sullivan 2022; Lowrey 2022).

CONCLUSION: SOCIAL SCIENCE CAN CONTINUE TO PLAY AN ESSENTIAL ROLE IN REDUCING BURDENS

Taking administrative burdens seriously means revisiting how policy is designed and how the administrative state functions. It invites the marriage of multiple skills, such as behavioral science, human-centered design, and deep policy knowledge. One example is the redesign of practices recruiting low-income students with high performance to college (Dynarski et al. 2021). An experiment at the University of Michigan provided personalized communication, which reduced both learning and psychological costs (feelings of uncertainty and inclusion) while activating support from the broader social network of families and college advisors and minimizing application hurdles. This multifaceted approach nearly doubled both applications and enrollments in the target population even without offering any new financial resources.

At a time when U.S. administrative capacity is characterized as being in decline (Klein 2022), the administrative burden agenda offers insight into how investments in capacity could improve the quality of government. Such investments can ensure that the state, rather than individuals, bear the brunt of burdens in public programs and in the long run can reduce administrative costs. For example, the administrative costs for the Social Security program are less than 1 percent of its budget, in large part because of a system that ultimately automated procedures to determine both eligibility and benefit size. This is in stark contrast to programs like SNAP, where administrative costs can run ten times as high (Geller et al. 2018). Variation is also significant across states in terms of administrative costs, which are driven, in part, by levels of administrative burden that make it more expensive to administer each case. County level of administration of SNAP, an example of federalism at play, is tightly linked to more burdens and lower take-up rates, as well as substantially higher administrative costs—24 percent higher—than state-administered programs (Geller et al. 2018).

The Biden executive order has also modeled ways social science research can help, encouraging a wide range of research techniques including “experiential data (including, as appropriate, through randomized controlled trials or other rigorous program evaluation); ethnographic research; feedback from public engagement; human-centered design methodologies such as journey mapping; operational and administrative data analysis; direct observations; examination, from a customer perspective, of how to navigate the agency’s service offerings, apply for a benefit, or comply with a requirement of the agency; observations of customer interaction with the agency’s website or application processes and tools; or observations of customer support service delivery such as activities at call centers” (Executive Office of the President 2021). For social scientists of all stripes then, this is a unique opportunity to advance research to reduce frictions and to help build the general toolbox to reduce burdens.

This double issue showcases how social science can play a role. Although across the articles we see the utility of early theory development in this domain—for example, the ability to illuminate the nature of burdens via learning, compliance, and psychological costs—they also point to the need for a variety of empirical and analytical approaches. The studies balance both qualitative and quantitative approaches. The qualitative analyses leverage in-depth interviews but also rely on observation and consumer complaints as novel sources of data. For quantitative analysis, administrative data play a central role in both diagnosing and solving problems. The lack of prior insights on burdens in many policy domains illustrates the great value of descriptive work that documents the nature and scale of problems previously overlooked.

Much of the original framing of administrative burdens examined how individuals were affected by state action. Articles in this double issue emphasize the need to broaden beyond that perspective. For example, Sackett and Lareau consider the experience of families as a unit of analysis, examining how those experiences transfer across organizations and programs (see also Heinrich et al. 2021). Other

work argues for examining general policy regimes as a unit of analysis, rather than focusing only on individual interactions, because doing so provides a fuller sense of the cumulative nature of burdens that individuals face (Moynihan, Herd, and Gerinza 2022; Pierce and Moulton 2023, this volume, issue 5). In a similar spirit, Rauscher and Burns (2023, this volume, issue 5) make the case for examining a combination of burden-reduction reforms in a policy domain rather than changes to just one part of the process, showing that combinations of reforms are more effective than any particular reform at improving infant health and prenatal care. The consistent logic is that understanding the accumulation of burdens sometimes needs a broader lens than examining discrete citizen-state interactions. Other work offers different units of analysis, which can be conceptual—for example, Sackett and Lareau’s idea of *institutional knots* as a complex blockage of institutional procedures that individuals seem unable to free themselves from—and descriptive, such as Bouek’s (2023, this volume, issue 5) attention to wait lists as a promising venue to understand how state actors manage burdens.

The translation of ideas into government practice is a fraught endeavor. It remains to be seen what will come of the Biden executive order. Whether agencies will act to reduce administrative burdens, how permanent any changes will become, how deeply they will embed themselves within agencies, and the degree to which they become mechanisms to address equity in government are all open questions. Institutionalization begets standardization, and some government employees could easily come to see burden-reduction efforts as one more administrative burden. Government-wide administrative reforms by their nature tend not to be uniformly successful, but to depend on local conditions such as organizational leadership, culture, and the nature of the task. Again, capacity matters: reforms need not just buy-in among lower-level workers, but also investment from a wide range of stakeholders, and new skillsets when it comes to measuring burdens, mapping user journeys, applying principles of human-centered design, and making better use of technology and data. The frame-

work for change, however, is in place. Social scientists have an opportunity to use their research skills as a partner. For researchers interested in this topic both an intellectual framework and a real demand from policymakers exist in a substantive way that did not a decade ago. Researchers also need to maintain a capacity to look beyond specific burden-reduction efforts, both to continue to draw attention to deeper structural causes of problems, and to engage in blue-sky thinking about how to redesign the administrative state to make it work for the people it is intended to serve.

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PART I

Medicaid

State Approaches to Simplify Medicaid Eligibility and Implications for Inequality of Infant Health



EMILY RAUSCHER  AND AILISH BURNS 

Along with the late 1980s Medicaid expansion for pregnant women and children, states implemented multiple reforms to reduce administrative burdens and facilitate access to Medicaid and prenatal care. We use National Vital Statistics birth data from 1985 to 1994 and a difference-in-discontinuities approach to compare the effectiveness of these reforms for improving infant health and access to prenatal care. Results indicate that combinations of reforms to reduce administrative burdens increased Medicaid enrollment and improved infant health nearly as much as Medicaid expansion. In most cases, these reforms yield larger benefits for racially and socioeconomically marginalized mothers, but targeted reforms could better address unequal barriers and further improve equality. Benefits of the reforms are larger in states with more physicians per capita, particularly for marginalized mothers. Overall, results suggest that combined policy responses to reduce multiple burdens at the same time are needed to address unequal barriers.

Keywords: Medicaid, infant health, prenatal care, inequality

Enacted in 1965, Medicaid increased access to health care and improved infant and child health, yielding long-term educational and economic benefits (Cohodes et al. 2016; Miller and Wherry 2019; Goodman-Bacon 2018; Levine and Schanzenbach 2009; Currie and Gruber 1996, 2001). Medicaid had larger health benefits among non-White infants because they were six times more likely to be eligible than White

infants (Goodman-Bacon 2018, 8). By design, mothers with low socioeconomic standing had higher eligibility rates, and Medicaid improved health more among their infants and children as well (Qureshi and Gangopadhyaya 2021; Wherry et al. 2018; Boudreaux, Golberstein, and McAlpine 2016; Baldwin et al. 1998). Medicaid increased equality of infant health by race and socioeconomic status (SES), but the equalizing

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effects could have been larger with lower barriers to enroll and access care.

Among pregnant women eligible for Medicaid, administrative burdens limit access to both Medicaid enrollment, because of application length or required program knowledge, and prenatal care, because of distance, transportation, or time requirements (Christensen et al. 2020; Herd and Moynihan 2018; Sommers et al. 2019). Resource-related disparities by race and education can intersect to exacerbate administrative burdens for particular groups of Medicaid-eligible women, limiting the equalizing potential Medicaid.

A challenge in addressing unequal access to care is identifying which types of reforms could most effectively reduce administrative burdens and increase equality of infant health and access to prenatal care. No single reform may suffice because administrative barriers vary by both race and education: combinations of reforms may be required to address these unequal barriers. This study uses state variation in reforms adopted to reduce burdens to Medicaid enrollment and health care for pregnant women during the late 1980s. We leverage this variation to examine how particular combinations of reforms influence infant health and prenatal care uptake.

Responding to high infant mortality rates, a series of federal changes from 1987 to 1990 increased the income threshold for Medicaid eligibility among pregnant women and infants. At the same time, states implemented various reforms to reduce barriers for eligible women to enroll in Medicaid and to access prenatal care. These reforms varied across states, but included shortened and expedited applications, asset test removal, presumptive and continuous eligibility, home visits, transportation, coordinated care services, and stationing eligibility officers at prenatal care sites. We use this unique policy context to compare how reform combinations aimed at reducing administrative burdens to Medicaid enrollment and health care influence infant health and prenatal care usage. We examine effects by maternal race and education to understand implications for inequality of infant health.

To preview our results, we find that combi-

nations of reforms to reduce administrative burdens increase Medicaid enrollment and improve infant health and prenatal care. Our findings suggest that multiple approaches to reduce administrative burdens can improve infant health nearly as much as Medicaid expansion. In most cases, these reforms yield larger benefits for marginalized groups and increase equality of infant health, but targeted reforms could better address unequal barriers and further improve equality. Overall, results suggest combined policy responses to reduce multiple burdens at the same time can help address unequal barriers.

THEORETICAL BACKGROUND

Over the past century, the United States experienced particularly high levels of infant mortality. Even as the infant mortality rate (IMR) decreased by about ninety deaths per one thousand live births from 1916 to 2000, the rate of decline has not kept pace with other high-income countries (Singh and Yu 2019). The United States went from having the twelfth lowest IMR in 1960 to the thirty-first in 2015 (Singh and Yu 2019). Further, preterm birth—a risk factor for infant death and low birth weight—rose during the later part of the twentieth century, from 9.5 percent in 1981 to about 12 percent in 2002 (Goldenberg and Culhane 2007).

Although the overall IMR declined over the course of the twentieth century, racial disparities in infant health persist. Black and American Indian women are especially likely to experience infant death and poor birth outcomes (Singh and Yu 2019; Sparks 2009). Socioeconomic differences in birth outcomes are also substantial. Low-income mothers are more likely to give birth prematurely than their counterparts in the top income quintile (Martinson and Reichman 2016) and socioeconomic inequality of infant health has increased over the last decade in the United States (Rauscher and Rangel 2020). Given these stalled improvements in birth outcomes, it is crucial to understand the factors that affect both overall infant health and inequality in its distribution.

The provision of public health insurance is one driver of infant health outcomes. With the introduction of Medicaid in 1965, infant and

child health improved, yielding long-term educational and economic benefits (Miller and Wherry 2019; Goodman-Bacon 2018; Currie and Gruber 1996, 2001). Evidence suggests that higher Medicaid reimbursement rates are associated with greater prenatal care usage (Sonchak 2015) and Medicaid eligibility is associated with fewer infant deaths and greater health-care uptake (Currie and Gruber 1996; Moss and Carver 1998).

Health care during pregnancy is a second driver and has especially strong implications for birth outcomes. One study suggests that women who received no prenatal care had more than seven times higher odds of giving birth prematurely than women who received adequate prenatal care (Sparks 2009). Further, Lyudmyla Sonchak (2015) finds that an additional prenatal care visit is associated with longer gestation and a lower probability of giving birth to a low birth weight infant.

Not everyone has equal access to health care in general or prenatal care specifically. Black and Latinx Americans have lower health insurance rates than White Americans (Lillie-Blanton and Hoffman 2005) and Black Americans spend more years uninsured on average than Whites (Kirby and Kaneda 2010). Low-income and less-educated mothers are more likely to delay prenatal care or receive no prenatal care (Braveman et al. 2004). These disparities may explain some of the racial and socioeconomic inequality in birth outcomes. For example, Johnelle Sparks (2009) provides evidence that unequal prenatal care uptake is responsible for some of the racial and ethnic disparities in preterm birth.

In the U.S. context, lack of universal health insurance requires pregnant women to navigate two sets of administrative burdens: access to health insurance and access to prenatal care. Women with limited resources face barriers to Medicaid enrollment, such as long applications or required program knowledge, and to prenatal care, such as distance, transportation, or time requirements (Christensen et al. 2020; Herd and Moynihan 2018; Sommers et al. 2019). To improve equality of infant health, it remains unclear whether it is more effective to facilitate access to health insurance or to prenatal care among eligible pregnant women.

POLICY EFFECTS ON INEQUALITY AND INFANT HEALTH

Evidence indicates that Medicaid reduced inequality in infant health. Medicaid implementation had larger health benefits among non-White infants because they were six times more likely than White infants to qualify for Aid to Families with Dependent Children (AFDC) (Goodman-Bacon 2018, 8). Medicaid expansion in the late 1980s increased the use of obstetric procedures, but only among disadvantaged mothers, which had an equalizing effect (Currie and Gruber 2001). Medicaid expansion also reduced rates of low birth weight and infant mortality, with larger benefits among low-SES mothers (Levine and Schanzenbach 2009; Baldwin et al. 1998). In addition to improving infant health, Medicaid had benefits for educational achievement and attainment, income, and wealth (Brown, Kowalski, and Lurie 2020; Boudreaux, Golberstein, and McAlpine 2016; Miller and Wherry 2015; Jackson, Agbai, and Rauscher 2021).

Despite these benefits, Medicaid-eligible women faced substantial administrative burdens—particularly prior to the 1989 expansion—potentially limiting any equalizing effects of the policy. Administrative burdens include learning costs, compliance costs, and psychological costs that prevent eligible participants from enrolling in Medicaid or accessing health care (Herd and Moynihan 2018; Moynihan, Herd, and Harvey 2015). Administrative burdens to *Medicaid enrollment* include learning costs to find out about the program, determine eligibility status, and identify what information is required to enroll; compliance costs to assemble and provide appropriate documentation to apply and reenroll in Medicaid; and psychological costs to interact with Medicaid officials and enroll in a public program, which may have negative connotations or reduce self-esteem. Even with Medicaid, additional administrative burdens to *access prenatal care* include learning costs to find out what benefits are included and at which facilities; compliance costs to schedule and travel to appointments on time, and provide documentation required by health-care providers; and psychological costs to interact with health-care providers and respond to their recommendations (Herd et al. 2013).

The extent to which administrative burdens inhibit Medicaid enrollment and access to care is unequal by race and socioeconomic status. Marginalized pregnant women are at higher risk of experiencing substantial administrative burdens given unequal information, support, and stress in encounters with healthcare providers and Medicaid officials (McLemore et al. 2018; Vedam et al. 2019; Altman et al. 2019; Delaney and Singleton 2020; Rosenbaum 2003).

Unequal experiences of administrative burdens to Medicaid and prenatal care mirror research on administrative burdens in other spheres. Manasi Deshpande and Yue Li (2019) find that Social Security office closings disproportionately reduce disability insurance (DI) applications among low-SES individuals, suggesting that the economically marginalized are more burdened by barriers to program access. Further, among families eligible for unemployment insurance (UI), Black and Latinx families are less likely to receive UI benefits than White families (Parolin et al. 2023), suggesting unequal administrative burden by race-ethnicity.

Racial and socioeconomic variation in risk of administrative burdens may limit the equalizing potential of Medicaid expansion. If these burdens are not addressed, marginalized groups of women would continue to experience more barriers to care even after expansion. Thus Medicaid expansion without reforms to reduce administrative burdens could fail to increase access to Medicaid or prenatal care and yield persistent racial and SES inequality of infant health. However, expansion coupled with reforms that successfully reduce administrative burdens to enroll in Medicaid or to access prenatal care should increase equality in Medicaid enrollment, prenatal care, and infant health.

Alternatively, systemic racism could limit the benefits of Medicaid expansion even when coupled with reforms that reduce administrative burdens. Bias by program managers and patient-facing workers can shape how Medicaid policies are implemented (Camillo 2021), allowing unequal encounters with Medicaid and prenatal care to continue despite reforms. Pregnant women of color report disrespectful and stressful encounters with health-care providers (McLemore et al. 2018), and Black and Latina women often experience hostility, sur-

veillance, and paternalism during prenatal care visits (Bridges 2011; Davis 2019). Racism can also result in misdiagnoses and lower-quality care for Black and Latina women, yielding lower benefits than the care received by White women on Medicaid (Rosenbaum, Markus, and Darnell 2000; Rosenbaum 2003; Sonchak 2015; Bridges 2011; Davis 2019). For example, Khiara Bridges (2011) finds that obstetricians often attributed abdominal pain in Black and Latina patients to sexually transmitted infections. Although we expect Medicaid expansion coupled with administrative burden reforms to increase equality in prenatal care and infant health, it is possible that racialized women may receive less benefit from prenatal care even after overcoming administrative burdens.

Evidence suggests that reducing administrative burdens should help counter inequality. Reducing them is generally associated with increased enrollment among Medicaid-eligible adults and children (Fox, Stazyk, and Feng 2020) and some policies may be especially effective at decreasing enrollment barriers for marginalized groups (Herd and Moynihan 2018; Remler and Glied 2003). For example, automatic Medicaid enrollment based on administrative data the state already holds increases enrollment (Dorn et al. 2009). Enrolling individuals who are presumed eligible similarly improves Medicaid enrollment (Piper, Mitchel, and Ray 1994).

Despite evidence of promising changes to reduce administrative burden, most research examines one policy change and one state at a time. Few studies systematically compare multiple attempts to increase program enrollment (Currie and Grogger 2002; Remler and Glied 2003). Rare exceptions (Herd and Moynihan 2018; Herd et al. 2013) study the case of Wisconsin from 1987 to 2011, comparing the effects of multiple procedural changes over time that altered barriers to enrollment. A key finding is that reforms interact with or depend on one another, so it is valuable to examine changes collectively rather than individually. This evidence highlights the value of examining multiple reforms, but analyses limited to any one state raise questions about generalizability to other populations or contexts.

The next step is to examine effects of mul-

multiple reforms simultaneously across all states to learn which types of policies most effectively increase access to health care and equality of health outcomes. We use a unique policy context with multiple policies aimed at reducing administrative burdens to compare effects on prenatal care and infant health. During the Medicaid expansion for pregnant women and infants in the late 1980s, states implemented various reforms to reduce burdens to Medicaid enrollment and to access prenatal care among eligible women. We take advantage of state variation in the reforms implemented with Medicaid expansion and variation in the timing of expansion to address the following research questions:

Do combinations of reforms to reduce barriers to Medicaid enrollment or to prenatal care increase enrollment, prenatal care, or infant health?

Do reform effects vary by maternal race-ethnicity or education?

Are reforms to improve access to enrollment or access to care most effective at increasing equality of prenatal care and infant health by race-ethnicity and education?

POLICY BACKGROUND

Before 1987, Medicaid coverage was tied to receipt of AFDC, for which the average state eligibility threshold was 48 percent of the federal poverty level (National Governors Association 1990). Responding to high infant mortality rates, a series of federal changes from 1987 to 1990 decoupled Medicaid eligibility from AFDC receipt and expanded access. After allowing states to expand Medicaid coverage to pregnant women and infants up to the federal poverty level regardless of assets effective April 1987 (OBRA 86), the Omnibus Budget Reconciliation Act of 1989 (OBRA 89) required states to cover pregnant women and children up to age six at 133 percent of the poverty level by April 1990 (National Governors Association 1990). Together, these bills expanded Medicaid eligibility during gestation and the first year of life by more than 20 percentage points (Levine and Schanzenbach 2009, 17). The timing of Medicaid expansion varied by state from April 1987 in

Arizona to January 1990 in New York. Figure 1 illustrates the month and year each state implemented the expansion.

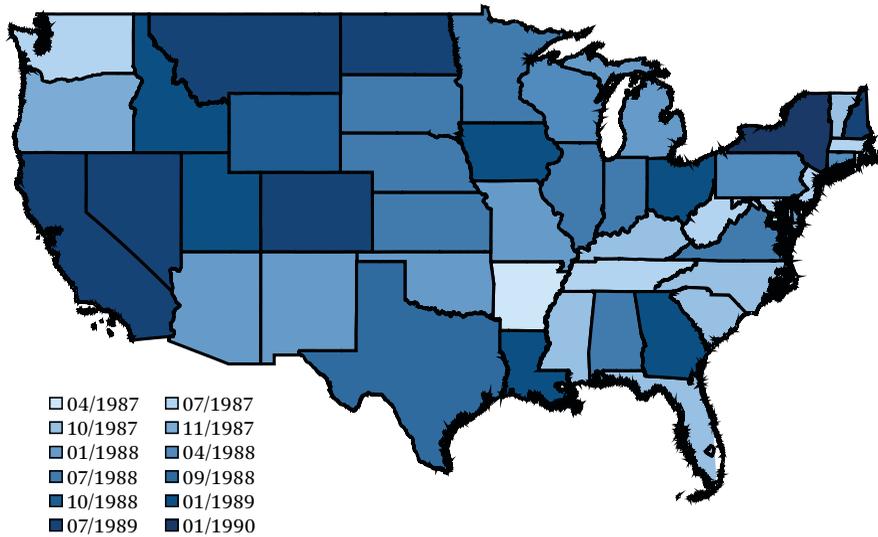
At the same time that states expanded eligibility, they also took multiple steps to simplify Medicaid enrollment and to facilitate access to health care among pregnant women. Table 1 provides an overview of these reforms, which vary across states and include those that primarily reduced burdens either to Medicaid enrollment or to access care.

Prior to these changes, enrolling in Medicaid and accessing care was more burdensome. Medicaid applications were extremely long, sometimes up to forty-five pages (Hill 1990), and required asset tests in addition to income verification (GAO 1989). Women could generally not apply for Medicaid at prenatal care sites, had to make a separate trip to the county welfare office for an appointment with an eligibility official, and had to provide multiple types of documentation including identification, pay stubs, and bank statements (Hill 1990). Even after applying, waiting for Medicaid applications to be processed could delay prenatal care, and pregnant women could lose coverage during pregnancy because of changes in income or assets or problems recertifying their eligibility (GAO 1989). After enrolling, challenges including transportation, identifying appropriate care providers, and coordinating referrals among them could limit access to prenatal care.

MEDICAID REFORMS TO REDUCE BURDENS TO ENROLLMENT

Several policies aimed to improve Medicaid access, increasing the likelihood that women have insurance throughout their pregnancy. To examine the potential benefits of this group of reforms, we examine the joint effects of removing asset tests, shortened applications, expedited applications, officials at prenatal care sites, and continuous eligibility.

Removing the asset test was made possible when OBRA 86 delinked Medicaid eligibility from AFDC receipt, so that asset restrictions were no longer required (National Governors Association 1990, 3). Asset tests were a primary barrier to Medicaid enrollment and required complex application processes, including de-

Figure 1. State Timing of Medicaid Expansion for Pregnant Women and Infants

Source: Authors' tabulation based on Medicaid expansion dates (Hill 1990).

Note: Dates of state Medicaid expansion with Omnibus Budget Reconciliation Act of 1989 (OBRA 89), which required states to cover pregnant women and children up to age six at 133 percent of the poverty level by April 1990. The optimal way to view the figure is in color. We refer readers of the print edition of this article to <https://www.rsfjournal.org/content/9/4/32> to view the color version.

tailed documentation and qualified officials to review applications (Hill 1990). Removing the asset test lowered compliance and learning costs by reducing the documentation and information required to apply for Medicaid.

Shortened application forms were also made possible when OBRA 86 delinked Medicaid eligibility from AFDC receipt (National Governors Association 1990, 3). The shorter applications ranged from one page in Vermont and Florida to nine pages in Alabama. Vermont's single-page application also assessed eligibility for the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). Individuals who find the Medicaid application long and complicated are more likely to be eligible but not enrolled (Stuber et al. 2000). Shorter forms should reduce learning and compliance costs by reducing the time and difficulty of applying for Medicaid.

Expedited applications for pregnant women gave priority to Medicaid applications for prenatal care (National Governors Association 1990). Some states required applications for prenatal care to be processed within a specific time, such as five to ten days, but such require-

ments were difficult to enforce (4). Expedited applications are expected to reduce learning and psychological costs by allowing more rapid determination of Medicaid eligibility and more rapid access to care. Expedited and shortened applications should reduce Medicaid application time and difficulty, allowing higher Medicaid enrollment rates and earlier insurance coverage during pregnancy.

Stationing eligibility officials at prenatal care sites allowed states to enroll women without transportation to a social services office and improved experiences of women and eligibility workers (National Governors Association 1990, 3). Eligibility workers were stationed at hospitals, health departments, clinics, and community and migrant health centers. Some states shared the cost of these workers with hospitals or health-care centers; others rotated workers out of social services offices into the field (3–4). Having officials at care sites should reduce learning, compliance, and psychological costs by reducing the time and difficulty of applying for Medicaid and by improving the application experience. This reform should be especially beneficial in conjunction with expedited and

Table 1. State Reforms to Increase Medicaid Enrollment and Health-Care Access

Medicaid Reform	Facilitates Access to			Mechanisms	Reduced Administrative Burden Costs	Number of States	Reform Combination
	Medicaid	Health Care					
Removed asset test	X			reduces time and difficulty of Medicaid application	learning, compliance	46	
Shortened application form	X			reduces time and difficulty of Medicaid application	learning, compliance	43	
Eligibility officials at prenatal care sites	X			reduces time and difficulty of Medicaid application; improves application experience	learning, compliance, psychological	25	Medicaid Access Combination
Expedited applications	X	x		allows more rapid access to Medicaid	learning, psychological	24	(MAC)
Continuous eligibility	X	x		allows continuous access to Medicaid and care without reenrollment and autonomy to increase income	psychological compliance, psychological	28	
Coordinated care services	x	X		facilitates access to a range of care services to address individual needs	learning, compliance, psychological	19	
Presumptive eligibility	x	X		allows rapid access to care	learning, compliance	33	Prenatal Care Access Combination
Home care visits		X		reduces barriers to access care and allows individualized care	compliance; psychological (increase)	11	(PAC)
Transportation costs		X		reduces barriers to access care	compliance	4	

Source: Authors' tabulation.

Note: The uppercase X indicates whether the reform primarily aimed to facilitate access to Medicaid enrollment or to health care. The lowercase x indicates a potential secondary goal or implication. The final column indicates reform combinations examined to test whether infant outcomes improved more in states that implemented multiple reforms to increase access to Medicaid or to health care. We exclude the transportation cost reform from analysis of combinations because it was only implemented by four states. Three states implemented all five reforms to increase Medicaid access (DE, VA, WV). Ten states implemented all three reforms to increase healthcare access (AL, AR, ID, MD, NC, NJ, NY, PA, TN, UT). Because few states implemented the Medicaid access combination of reforms, we examine two alternative reform combinations. First is asset test + official at care sites + continuous eligibility + expedited applications, implemented by twelve states: (AL, DE, FL, KY, LA, MO, NC, OH, SC, VA, VT, WV). Second is asset test + official at care sites + continuous eligibility, implemented by sixteen states: (AL, AR, DE, FL, KY, LA, MO, MS, NC, OH, SC, TN, UT, VA, VT, WV). Because continuous eligibility may also be important for prenatal care, we examine an alternative combination of reforms to increase access to health care: continuous eligibility + coordinated care services + presumptive eligibility + home care visits, implemented by nine states: (AL, AR, ID, MD, NC, NJ, NY, TN, UT). Results examining these alternative combinations are presented in online tables A.7–A.8 (https://www.rsjournal.org/content/rsjss/suppl/2023/08/07/9.4.32.DC1/Rauscher_and_Burns_online_appendix.pdf).

shortened applications, which also reduce burdens related to applying for Medicaid.

Continuous eligibility guaranteed continuous coverage during pregnancy to eliminate the risk women could lose Medicaid coverage if family income increased above the eligibility threshold (Hill 1990, 79). State policies generally required Medicaid enrollees to confirm eligibility regularly, such as every month, three months, or six months. Removing these requirements should reduce compliance and psychological costs by allowing continuous enrollment and access to care without having to reenroll or maintain a maximum family income. Studies find that continuous eligibility is associated with more health-care usage and longer insurance coverage among children (Brantley and Ku 2021; DeSisto et al. 2020; Ku, Steinmetz, and Bruen 2013; Swartz et al. 2015). We expect the policy to have similar effects for pregnant women.

Janet Currie and Jeffrey Grogger (2002) do not find that officials at care sites, expedited applications, or shortened applications were significant independent predictors of prenatal care usage. However, the combination of these policies with continuous eligibility and asset test removal may have a stronger effect. Together, asset test removal, shortened applications, expedited applications, officials at care sites, and continuous eligibility should interact to facilitate higher Medicaid enrollment and more continuity in health insurance during the prenatal period. Given that Medicaid is associated with better infant health, reforms that jointly improve access to Medicaid may also improve infant health. Thus, we expect that the combined effects of these reforms will be associated with better infant health outcomes and greater prenatal care use.

Nearly all states removed the asset test and only three states (Delaware, Virginia, and West Virginia) implemented all five of these access reforms. Therefore, we also examine two alternative combinations. First is elimination of the asset test, shortened application forms, continuous eligibility, and officials at care sites with twelve states. Second is elimination of the asset test, continuous eligibility, and officials

at care sites with sixteen states (see table 1). Results are generally consistent using these alternative combinations (see online tables A.7 and A.8).¹

MEDICAID REFORMS TO REDUCE BURDENS TO CARE

These reforms may enable more women to enroll in Medicaid and for longer periods, but using that coverage to access care requires overcoming another set of administrative burdens. Reforms including presumptive eligibility, coordinated care services, and home care visits may be especially beneficial in improving access to prenatal care. Although transportation cost assistance may also improve access to care, we do not include it in our analyses because only four states adopted this reform and coordinated care services included transportation in most states.

Presumptive eligibility improved access to prenatal care by “allowing primary care providers to approve a simple, short-term, income-related eligibility status” (Hill 1990, 79). Presumed eligibility is expected to reduce learning and compliance costs of prenatal care and therefore increase access to prenatal care. By enabling immediate coverage for prenatal care, presumptive eligibility is associated with increased health-care uptake, including increased prenatal care usage during the first trimester (Piper, Mitchel, and Ray 1994). However, it created administrative complications (such as designation of which providers could determine presumptive eligibility, new forms and cards for women with presumed eligibility) and still required application for full Medicaid eligibility (Hill 1990, 79).

Coordinated care services (CCS) provide case management for pregnant women on Medicaid across care settings, integrating health services from multiple providers into a single care plan. These services included four aspects: needs assessment by identifying risk factors, a plan of care to address those needs, coordinating referrals to appropriate service providers identified by the plan of care, and following up and monitoring whether services are received. Care coordinators also assist with establishing Medic-

1. See the online appendix at https://www.rsfjournal.org/content/rsfjss/suppl/2023/08/07/9.4.32.DC1/Rauscher_and_Burns_online_appendix.pdf.

aid eligibility, perform outreach and community education, and assist with arranging transportation (Hill 1990, 84). CCS was enabled by COBRA 1985, the Consolidated Omnibus Budget Reconciliation Act, which allowed states to adopt specialized services for pregnant women without requiring those services for all Medicaid recipients and allowed targeted case management programs for populations requiring extra assistance in accessing services (Hill 1990, 83). Medicaid officials viewed CCS as the “most essential to program success” and described it as “the ‘glue’ holding the perinatal system together” (Hill 1990, 84). Implementation of CCS is associated with increased uptake of prenatal care early in pregnancy (Muoto et al. 2016; Oakley et al. 2017). We expect CCS to increase prenatal care by facilitating access to a range of services to address individual needs.

Home care visits allowed health-care providers to deliver prenatal care in the mother’s home. The rationale was that providers could assess needs and teach healthy behaviors more easily than during office visits (Hill 1990, 86). Home visits could therefore reduce compliance costs by reducing barriers to parental care and by allowing more individualized care. However, home visits could also increase psychological costs if mothers feel that health-care providers judge or look down on their home or neighborhood. Current evidence suggests that home care visits are associated with higher rates of prenatal care use and higher likelihood of receiving adequate prenatal care, based on the Adequacy of Prenatal Care Utilization Index (Meghea et al. 2013). Further, home visits have been found to increase well-child screening and improve clinical outcomes for children with asthma (Campbell et al. 2015; Marshall et al. 2020; Selby-Harrington et al. 1995). These findings suggest that home visits have positive implications for the delivery of health care and for health outcomes.

Transportation costs provided pregnant women with direct financial assistance to cover costs of buses, taxis, and gasoline to travel to prenatal care locations (Hill 1990, 86). This financial assistance only applied if state CCS did not include transportation assistance. Evidence from Georgia and Kentucky suggests

that transportation services can improve access to care among Medicaid recipients (Kim, Norton, and Stearns 2009). Covering transportation costs is expected to reduce compliance costs by reducing barriers to access prenatal care.

Given evidence that presumptive eligibility, CCS, and home care visits enable easier access to health care and in some cases improve health, we expect that the combined effects of these three policies will increase prenatal care and improve infant health. Ten states implemented this combination of reforms: Alabama, Arizona, Idaho, Maryland, New Jersey, New York, North Carolina, Pennsylvania, Tennessee, and Utah. Continuous eligibility improved access to both Medicaid and prenatal care and may be particularly valuable for pregnant women by enabling more consistent access to care. Therefore, we examine an alternative reform combination to increase access to care including that reform: continuous eligibility, presumptive eligibility, CCS, and home care visits with nine states (see table 1). Results are generally consistent using this alternative combination (see online tables A.7 and A.8).

States implemented an average of 4.6 in a range of 0 to 7 of these nine policy changes, and only one state (North Dakota) implemented no reforms. Table 1 provides summary information about these reforms, including whether they primarily sought to increase Medicaid enrollment or access to health care, mechanisms (that is, how the policy change should improve enrollment or access), and which types of administrative burden those changes are expected to reduce. Table A.1 specifies policy changes adopted separately by each state. State variation in reforms and their timing allows identification of the effects of these reform combinations for infant health and inequality of infant health.

Based on this review, we examine the following hypotheses:

The combination of reforms to facilitate access to Medicaid increased Medicaid enrollment and infant health.

The combination of reforms to facilitate access to prenatal care increased prenatal care and infant health.

Both reform combinations improved infant health and prenatal care more among mothers with higher risk of administrative burdens (Black, Latina, no college education) than mothers with lower risk of administrative burdens (White, college education).

METHODS

We use state variation in Medicaid reforms and implementation timing from 1987 to 1990 to test whether reforms to reduce administrative barriers to Medicaid or health care influenced Medicaid enrollment, prenatal care, or infant health. We examine effects by maternal race and education to understand implications for inequality of infant health.

DATA

National Vital Statistics System (NVSS) birth data for 1985 through 1994 provide administrative data on infant health and prenatal care by maternal race, ethnicity, education, and state of residence for infants born in the United States from 1985 through 1994. Data from these years include births in all states before and after the 1987–1990 Medicaid expansion for pregnant women and infants. NVSS data provide the most complete and accurate information about births in the United States and include multiple measures of infant health and prenatal care. NVSS birth data have low rates of missing information. For example, in the time period we examine, 0.03 percent of births are missing birth weight measures and 0.11 percent are missing gestational length measures.

We take a 10 percent random sample of births in each year from records for singleton births with information on infant health, prenatal care, and maternal age, race, and education. We use a random sample because statistical inference is not generally applicable to population data (Gibbs, Shafer, and Miles 2017; Berk, Western, and Weiss 1995). We limit the sample to singleton births because infant health measures are often lower for multiple births, the rate of multiple births has increased over time, and the likelihood of multiple births is not randomly distributed (Saavedra 2020; Matthews, MacDorman, and Thoma 2015; Kulkarni et al. 2013; Luke and Martin 2004; Russell et al. 2003). Including births up to sixty

months (five years) before and after Medicaid expansion in each state, this results in nearly 2.8 million births in our sample (see descriptive statistics in table A.2).

We link these data to annual state-level information from the Medicaid Statistical Information System (MSIS) to examine Medicaid enrollment and payments. We also link annual state-level data from the Census Bureau, the University of Kentucky Poverty Center's State Welfare database, and the Current Population Survey to control for population and economic characteristics that may be related to state Medicaid expansion reforms or efforts.

MEASURES

Infant health is measured using birth weight (grams), gestational length (weeks), and indicators for low birth weight (less than 2,500 grams), and preterm birth (before thirty-seven weeks). The thresholds for low birth weight and preterm birth identify infants at high risk for poor health in childhood and later life (Conley, Strully, and Bennett 2003; Johnson and Schoeni 2011; Smedley, Stith, and Nelson 2003). We examine intrauterine growth restriction (less than the 10th percentile of birth weight for gestational age) in sensitivity analyses to allow for downward trends in birth weight over time (Oken et al. 2003).

Prenatal care is measured using indicators for receipt of any prenatal care, receipt of care in the first trimester, length of prenatal care (in months), and number of prenatal visits. We examine multiple measures to allow for potential variation in health-care needs. Reliability and validity are high for infant health measures in the NVSS data but lower for prenatal care measures (Northam and Knapp 2006). This higher measurement error would cause attenuation bias for estimates predicting prenatal care measures.

We examine variation in infant health and prenatal care by *maternal education, race, and ethnicity*. NVSS data do not include a measure of family income. Maternal education provides a measure of SES that strongly predicts health (Harding, Morris, and Hughes 2015; Montez et al. 2019). We compare infants born to mothers with no college education to those with at least some college education. Given large racial dis-

parities in infant health, we also compare infants born to mothers who identify as White, Black, and Latina. Racial-ethnic categories are mutually exclusive and we refer to White and Black mothers throughout without specifying non-Latina.

Medicaid enrollment and spending are measured for each state and year using annual Medicaid Statistical Information System (MSIS) documents for years 1985–1994 gathered by David Brown, Amanda Kowalski, and Ithai Lurie (2020). From these documents, we extracted state-year data on the number of people enrolled in Medicaid and total payments, adjusted for inflation to 1995 dollars using the Consumer Price Index. We divide these values by the annual number of state residents in poverty. These data are not disaggregated by month, race, or education. We use them to estimate how annual Medicaid enrollment and spending changed with Medicaid expansion and reforms.

State Medicaid enrollment efforts or resources could vary with the state economy (Rodgers and Tedin 2006; Brown and Best 2017), state governance (Soss, Fording, and Schram 2011; Scruggs and Hayes 2017; Brown and Best 2017), state generosity for other programs (Holahan and Liska 1997), and by demographic composition and population size (Holahan and Liska 1997; Alesina, Glaeser, and Sacerdote 2000; Rodgers and Tedin 2006; Preuhs 2007; Soss, Fording, and Schram 2011). Therefore, we control for time-varying measures of state unemployment rate, poverty rate, AFDC benefit for a family of four, an indicator for whether the governor (mayor in the case of Washington, D.C.) is a Democrat, proportion of the population that is Black, proportion Latinx, and population size (logged to reduce skewness). Analyses are conducted with and without these time-varying state controls.

ANALYSIS

We use a difference-in-discontinuities design to compare births before and after Medicaid expansion in states with and without each reform combination (Qureshi and Gangopadhyaya 2021; Lalive 2008; Campa 2011; Leonardi and Pica 2013; Casas-Arce and Saiz 2015). This approach assumes that infants born shortly be-

fore or after the expansion are similar except for whether their mothers had expanded access to Medicaid, and other factors related to infant health vary continuously over birth cohort, which is controlled (Lee and Lemieux 2010; Imbens and Lemieux 2008). Comparing effects by state reforms assumes common trends in infant health before expansion and that the local average treatment effect of Medicaid expansion is stable (Qureshi and Gangopadhyaya 2021). In other words, we assume that the effect of Medicaid expansion without each reform combination is stable across states, so that taking the difference isolates the effect of the reforms.

Equation 1 predicts health or prenatal care for each infant (i), in each state of maternal residence (s), and birth month from Medicaid expansion date (t), with an indicator for births after expansion ($Post_{its}$), indicators for each reform combination to reduce burdens (Med_{its} , $Care_{its}$) interactions between the combination indicators and birth after expansion ($Post_{its} * Med_{its}$), indicators for each individual reform ($Reform_s$), month of birth from expansion ($Cohort_t$), fixed effects for each state (μ_s) and birth year (π_t), and controls for male infant, maternal age, and time-varying state economic and demographic measures (X_{its}). Controlling for a continuous measure of month of birth from Medicaid expansion date addresses potential secular trends in the outcome over time that are unrelated to Medicaid reforms. Models are fit with and without time-varying state-level controls and interactions between post-expansion and each individual reform. Standard errors are adjusted for state-level clustering in all models.

$$\begin{aligned} Birth\ Weight_{its} = & \alpha + \beta_1 Post_{its} + \beta_m Post_{its} \\ & * Med_{its} + \beta_k Post_{its} * Care_{its} + \beta_v Med_{its} \\ & + \beta_w Care_{its} + Reform_s + \beta_R Cohort_t \\ & + \beta_c X_{its} + \mu_s + \pi_t + \varepsilon_{its} \end{aligned} \quad (1)$$

In equation (1), β_1 estimates the effect of expanding Medicaid eligibility for pregnant women and infants on birth weight. This coefficient tests whether outcomes differ for infants born in the same state before and after Medicaid expansion and reforms. β_m and β_k are the coefficients of interest and estimate the additional effect of the combination of reforms to

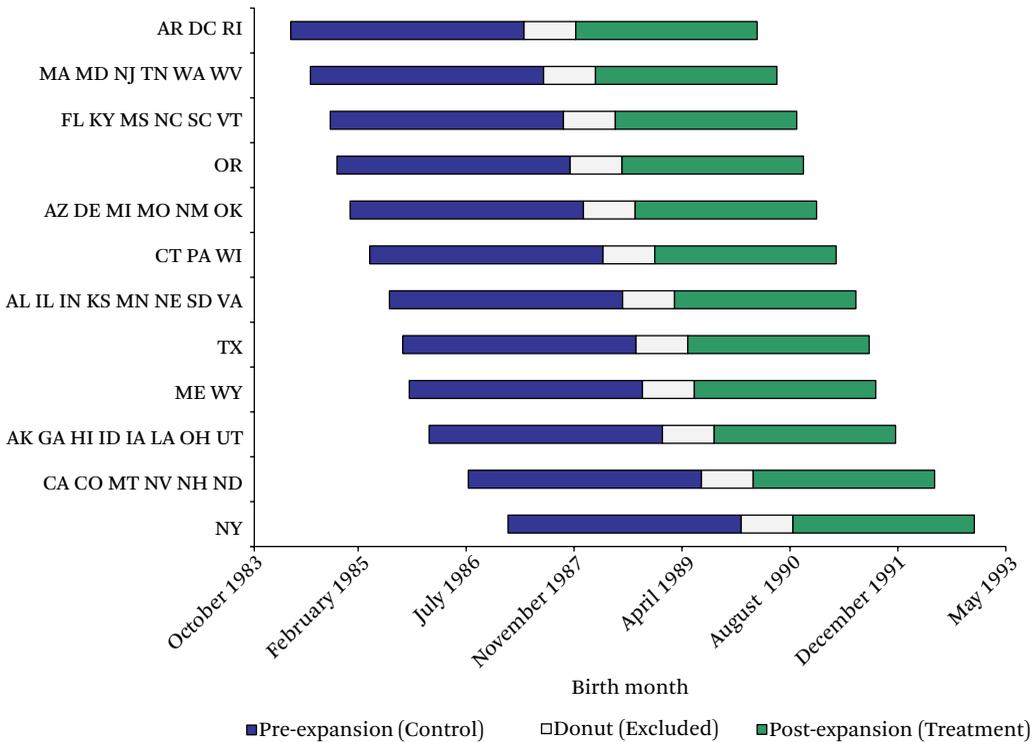
increase access to Medicaid and care. They test whether infant outcomes after expansion differ significantly in states that implemented the package of reforms compared to states that did not implement them. These intent-to-treat estimates compare infants born in the same state shortly before and after Medicaid reforms, adjusting for secular trends. Identification is based on within-state variation across birth cohorts and within-cohort variation across states. Positive β_m coefficients when predicting infant health would support hypothesis 1 and positive and β_k coefficients when predicting infant health and prenatal care would support hypothesis 2.

We limit analyses to a consistent window of birth months before and after expansion in each state. Main analyses include a window of forty-eight months (four years) before and after expansion and we vary the width of the window in sensitivity analyses. In main analyses, we ex-

clude the first eight birth months immediately after expansion because it is unclear whether or how much those infants were exposed to the treatment during pregnancy. Figure 2 illustrates this approach. Results are consistent when we include the first eight birth months after expansion.

The same model is used to compare effects of Medicaid reforms by maternal education and by race-ethnicity. We test for significant differences in β_m and β_k coefficients from separate models predicting outcomes by maternal education and race-ethnicity (Clogg et al. 1995). For example, to test for different effects of care access reforms by education, we calculate z statistics ($z = (\beta_N - \sqrt{\beta_c/SE_N^2 + SE_c^2})$, where β_N indicates β_k from equation (1) when predicting birth weight among mothers with no college education and β_c indicates β_k when predicting birth weight among mothers with college. Significantly larger coefficients for mothers with

Figure 2. Illustration of Methodological Design



Source: Authors' tabulation based on Medicaid expansion dates (Hill 1990).

Note: The thirty-six birth months before and after Medicaid expansion in each state. The first eight after expansion are excluded because it is unclear how much those infants were exposed Medicaid expansion or reforms during gestation. Results are consistent when including the first eight months.

high risk of administrative burdens (Black, Latina, no college education) would support hypothesis 3.

Using annual state-level data, we use a similar model to estimate effects on Medicaid enrollment. Estimates are less precise because we rely on state-year aggregate measures and predict Medicaid enrollment or payments in state (s) in year (t). Positive β_m coefficients when predicting enrollment or payments would support hypothesis 1.

SENSITIVITY ANALYSES

We conduct multiple sensitivity analyses to assess the robustness of results to our methodological approach. We repeat the main analyses when including a narrower or wider window of birth months before and after expansion in each state. The width of the window creates a trade-off between internal validity and power. We repeat analyses when including twenty-four, thirty-six, and sixty birth months on each side of the expansion date. Results are consistent with those in the main analyses, which include forty-eight birth months on each side of the expansion date.

We add interactions between the running variable (birth month from expansion) and the treatment indicators for births after Medicaid expansion and the reform combinations. This allows the trends in infant health and prenatal care measures to vary before and after Medicaid expansion. Results are consistent with the main analyses. Effects may differ by the expanded state poverty threshold at which pregnant women are eligible for Medicaid after expansion. We therefore repeat analyses when controlling for the eligibility threshold, interacted with the post-expansion indicator. Results are consistent with the main analyses.

One of the assumptions of our methodological approach is that states with each reform combination had similar trends in infant health before expansion. Figure A.2 shows pre-trends in the rate of low birth weight for each reform. Trends are generally parallel, except for states that allowed expedited eligibility. This supports our approach, but we repeat our analyses when controlling for reform-specific pre-trends to address potential differences. Re-

sults, presented in table A.6, are generally consistent with results from the main analyses.

We repeat analyses when limiting the sample to first births for each mother because the benefits of Medicaid reforms may differ by number of previous births. We fit the models with and without including controls and find consistent results. We also repeat analyses when including the first eight birth months after expansion and find consistent results.

MECHANISMS

To understand how Medicaid reforms may have influenced infant health and why effects may vary by maternal race-ethnicity, we conduct two additional sets of analyses. First, we repeat the main analyses when predicting potential mechanisms related to maternal health behaviors during pregnancy, including rates of tobacco and alcohol use, daily cigarettes smoked, and weekly alcoholic drinks consumed. Evidence suggests maternal mental health improves with expanded public benefits, which can reduce stress and coping behaviors (Gennetian and Shafir 2015; Milligan and Stabile 2011; Strully, Rehkopf, and Xuan 2010; Ettinger de Cuba et al. 2019; Oddo and Mabli 2015). Lowering administrative burdens to Medicaid and care could improve infant health by reducing prenatal stress-related coping behaviors, such as alcohol and tobacco use. However, the benefits may be lower for Black and Latina women because of biased treatment by officials or health-care providers (McLemore et al. 2018; Bridges 2011; Davis 2019). Varying effects on these stress-related behaviors could offer suggestive evidence of which groups experienced lower administrative burdens from the reforms. These measures are only available after 1988 and analyses are therefore suggestive, relying on births in fifteen states with expansion dates after 1988.

Second, we repeat the main analyses in states with high and low physicians per capita. Reducing administrative burdens may matter little for infant health or prenatal care in states with a physician shortage. Effects may also vary more by maternal race and education in states with a physician shortage, because White or college-educated mothers can use their resources to access care despite limited physi-

cians. To assess potential varying benefits of reducing administrative burdens, we estimate effects of Medicaid reforms separately in states above and below the 1991 median level of licensed physicians per capita: two physicians per one thousand residents (data from Johnson 2002, 89).

RESULTS

Descriptive statistics for infants born up to five years before or after Medicaid expansion are shown in table A.2. The average infant weighed 3,369 grams (about 7 pounds 7 ounces) and a gestational length of thirty-nine weeks. Rates of low birth weight and preterm birth were low (6 percent and 9 percent, respectively) and 98 percent of infants received prenatal care during gestation, averaging eleven prenatal visits and

seven months of prenatal care. The average maternal age was twenty-six years, and about 65 percent of mothers were White, 16 percent Black, and 12 percent Latina.

MEDICAID ENROLLMENT AND SPENDING

Table 2 shows estimates from state-level models predicting enrollment and spending per residents in poverty. Including state and year fixed effects as well as time-varying controls, states that implemented the Medicaid access combination (MAC) of reforms increased Medicaid enrollment rates among those in poverty by about 14 percentage points and increased payments by about \$493 per resident in poverty relative to states that did not implement the reforms. These increases represent nearly a half

Table 2. Regression Estimates Predicting Changes with Medicaid Expansion and Reforms

Variables	(1) Medicaid Enrollment per Population in Poverty (year $t+1$)	(2) Medicaid Payments per Population in Poverty (year $t+1$)	(3) Standardized Enrollment per Population in Poverty (year $t+1$)	(4) Standardized Payments per Population in Poverty (year $t+1$)
Post-expansion	0.008 (0.041)	-42.949 (200.585)	0.029 (0.143)	-0.028 (0.131)
Medicaid access combo	-0.713** (0.335)	924.660 (1,254.420)	-2.482** (1.166)	0.603 (0.818)
Care access combo	-1.699** (0.643)	462.594 (2,106.774)	-5.915* (2.238)	0.302 (1.373)
Post*Medicaid access combo	0.139*** (0.037)	493.150** (240.042)	0.484*** (0.129)	0.321** (0.156)
Post*care access combo	-0.025 (0.052)	-13.430 (130.720)	-0.087 (0.181)	-0.009 (0.085)
Year from expansion	0.036*** (0.007)	210.266*** (26.108)	0.124*** (0.025)	0.137*** (0.017)
Constant	-2.425 (1.563)	7,401.028 (5,322.954)	-11.118** (5.441)	3.160 (3.470)
Observations	504	504	504	504
R^2	0.743	0.857	0.743	0.857
State and year fixed effects	Y	Y	Y	Y
Time-varying controls	Y	Y	Y	Y

Source: Authors' calculations based on MSIS data 1985–94 (CMS 1985–94).

Note: All models control for state unemployment rate, poverty rate, AFDC benefit for a family of four, an indicator for Democrat governor, percentage Black, percent Latinx, and (log) population. Doubly robust analyses indicate consistent results (see figure A.1). Robust standard errors in parentheses.

* $p < .1$; ** $p < .05$; *** $p < .01$

standard deviation increase in Medicaid enrollment rate and nearly a third standard deviation increase payments per resident in poverty. In contrast, the prenatal care access combination (PAC) of reforms had no effect on Medicaid enrollment or spending. These results are consistent with hypothesis 1 and suggest that the MAC reforms increased enrollment.

INFANT HEALTH AND PRENATAL CARE

Table 3 shows coefficients for the MAC and PAC reforms when predicting infant health (panel

A) and prenatal care (panel B). Consistent with hypothesis 1, mothers living in states that made all five MAC reforms had significantly larger increases in birth weight and gestational length with Medicaid expansion than mothers living in other states. This combination of reforms almost doubled the effect of Medicaid expansion alone on birth weight and gestational length. The likelihood of preterm birth also decreased by an additional half a percentage point in states that adopted all five reforms. Coefficients are shown in figure 3.

Table 3. Coefficients for Medicaid Expansion and Reform Combinations

Variables	(1)	(2)	(3)	(4)
Panel A. Predicting infant health	Birth Weight	Gestational Length	Low Birth Weight	Preterm Birth
Post-expansion	20.794*** (6.041)	0.098*** (0.036)	-0.007*** (0.002)	-0.012*** (0.003)
Post*Medicaid access combo	15.970*** (5.616)	0.075*** (0.024)	-0.004* (0.003)	-0.007*** (0.002)
Post*care access combo	18.235*** (6.452)	0.048 (0.032)	-0.005*** (0.002)	-0.003 (0.002)
Observations	2,161,746	2,161,746	2,161,746	2,161,746
R ²	0.028	0.004	0.003	0.005
State and year fixed effects	Y	Y	Y	Y
Time-varying controls	Y	Y	Y	Y
Panel B. Predicting prenatal care	Any Prenatal Care	First Trimester Care	Prenatal Visits	Prenatal Care Length
Post-expansion	-0.001 (0.003)	-0.005 (0.011)	0.019 (0.131)	-0.029 (0.045)
Post*Medicaid access combo	-0.006** (0.003)	-0.006 (0.009)	-0.093 (0.109)	-0.082* (0.046)
Post*care access combo	0.008** (0.004)	0.020* (0.010)	0.253** (0.108)	0.125** (0.055)
Observations	2,161,746	2,161,746	2,136,940	2,161,746
R ²	0.009	0.058	0.039	0.059
State and year fixed effects	Y	Y	Y	Y
Time-varying controls	Y	Y	Y	Y

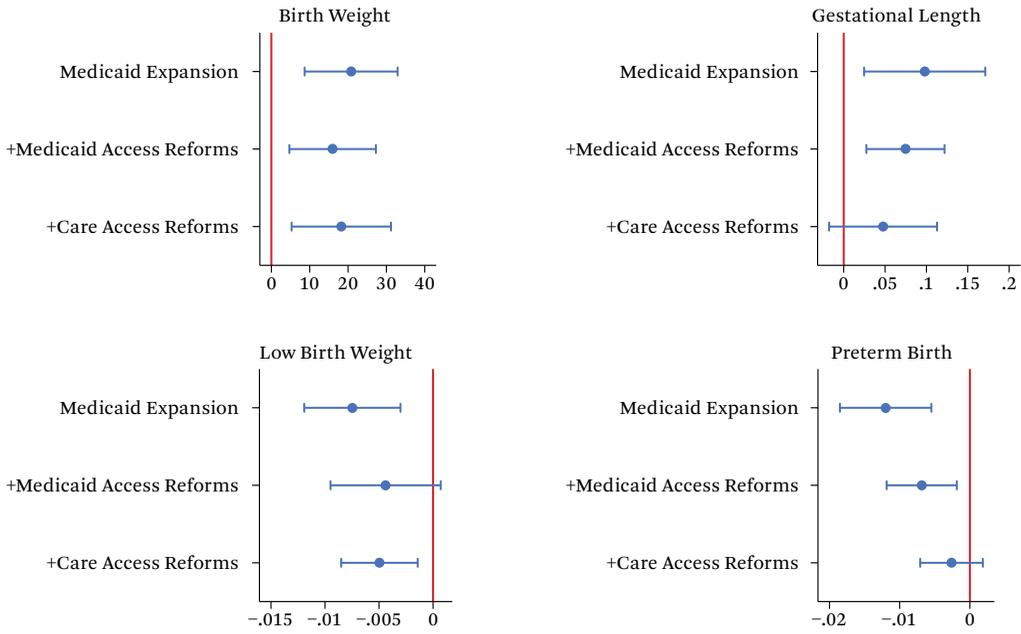
Source: Authors' calculations based on NVSS birth data 1985–94 (CDC 1985–94).

Note: 10 percent annual random sample of singleton births with infant health, prenatal care, and maternal education and race information, limited to births within forty-eight months of Medicaid expansion in maternal state of residence. Coefficients are from models controlling for maternal age, infant sex, state unemployment rate, poverty rate, AFDC benefit for a family of four, an indicator for Democrat governor, percentage Black, percent Latinx, (log) population, individual reforms, and state and year fixed effects. Robust standard errors in parentheses.

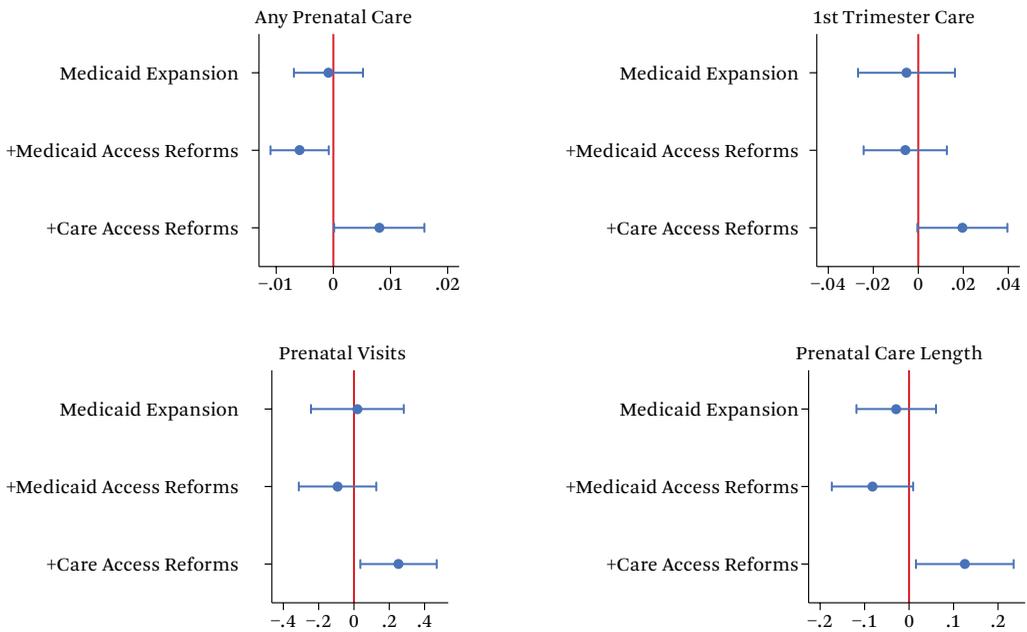
* $p < .1$; ** $p < .05$; *** $p < .01$

Figure 3. Predicted Effects of Medicaid Expansion and State Reforms

A. Infant Health



B. Prenatal Care



Source: Authors' calculations based on NVSS data 1985-94 (CDC 1985-94).

Note: Coefficients from table 3.

The PAC reforms also yielded significant benefits. States that implemented all three reforms had a significantly larger increase in birth weight with Medicaid expansion than other states. The likelihood of low birth weight also declined by an additional 0.5 percent in these states. Coefficients for the PAC reforms are similar in magnitude to those for the MAC reforms when predicting infant health.

Both the MAC and PAC reforms improved infant health. However, only the PAC reforms increased prenatal care receipt. Consistent with hypothesis 2, mothers living in states that made the PAC reforms had significantly larger increases in rates of prenatal care, number of prenatal visits, and length of prenatal care than mothers living in other states. Specifically, the PAC reforms increased the proportion of births receiving prenatal care by nearly 1 percentage point and added an additional quarter of a prenatal visit, on average. These estimates are shown in figure 3.

VARIATION BY RACE, ETHNICITY, AND EDUCATION

Reforms to facilitate access to Medicaid and care are expected to improve outcomes more for mothers with fewer economic resources given higher eligibility rates and higher risk of administrative burdens before expansion (hypothesis 3). Table 4 shows estimates of the effects of the MAC and PAC reforms by race-ethnicity and by education. The MAC reforms significantly increased birth weight among Latina, White, and non-college-educated mothers. Shown in panel A and illustrated in figure 4, this increase was about 20 grams (two-thirds of an ounce) among White mothers and those without college education, but about 170 grams (one-third of a pound) among Latina mothers. Consistent with hypothesis 3, the benefit of the MAC reforms was significantly larger among Latina mothers and those with no college education than among more highly educated and White mothers. In contrast, the MAC reforms had no effect on birth weight among Black

Table 4. Coefficients for Medicaid Expansion and Reform Combinations by Race and Education

Variables	(1) Black	(2) Latina	(3) White	(4) No College	(5) College
Panel A. Predicting infant health					
	Birth Weight				
Post-expansion	31.192* (13.154)	53.122** (15.249)	12.550+ (7.119)	27.269** (7.841)	10.280 (8.702)
Post*Medicaid access combination	-6.570 (10.049)	169.877** (13.019)	17.293** (4.895)	23.532** (6.505)	3.612 (6.103)
Post*care access combination	10.672 (8.556)	36.020* (17.137)	8.134 (5.097)	28.698** (7.200)	2.140 (6.930)
	Gestational Length				
Post-expansion	0.188** (0.068)	0.161+ (0.083)	0.108* (0.042)	0.116** (0.037)	0.073+ (0.042)
Post*Medicaid access combination	-0.089+ (0.047)	0.738** (0.094)	0.104** (0.026)	0.081* (0.032)	0.061** (0.022)
Post*care access combination	-0.041 (0.045)	0.006 (0.105)	0.026 (0.027)	0.081* (0.035)	-0.007 (0.034)
	Low Birth Weight				
Post-expansion	-0.026** (0.009)	-0.008 (0.008)	-0.005* (0.002)	-0.011** (0.003)	-0.002 (0.002)
Post*Medicaid access combination	-0.003 (0.007)	-0.071** (0.010)	-0.004+ (0.002)	-0.005 (0.003)	-0.003 (0.003)
Post*care access combination	-0.010* (0.004)	-0.003 (0.009)	-0.002+ (0.001)	-0.009** (0.002)	0.001 (0.002)

Table 4. (continued)

Variables	(1) Black	(2) Latina	(3) White	(4) No College	(5) College
Panel A. Predicting infant health					
(cont).					
Preterm Birth					
Post-expansion	-0.033** (0.008)	-0.027* (0.012)	-0.010** (0.003)	-0.014** (0.003)	-0.009* (0.004)
Post*Medicaid access combination	0.003 (0.005)	-0.078** (0.013)	-0.011** (0.002)	-0.008** (0.003)	-0.005 (0.003)
Post*care access combination	-0.004 (0.005)	0.008 (0.012)	-0.001 (0.002)	-0.005+ (0.002)	0.000 (0.003)
Panel B. Predicting prenatal care					
Any Prenatal Care					
Post-expansion	-0.008 (0.013)	-0.015 (0.020)	0.001 (0.001)	-0.002 (0.005)	0.001 (0.001)
Post*Medicaid access combination	-0.011 (0.008)	0.004 (0.023)	-0.003** (0.001)	-0.009** (0.004)	-0.002** (0.001)
Post*care access combination	0.021** (0.008)	-0.003 (0.022)	0.004** (0.002)	0.009* (0.005)	0.004*** (0.002)
1st Trimester Care					
Post-expansion	0.002 (0.020)	-0.071** (0.028)	0.005 (0.007)	-0.009 (0.013)	0.005 (0.007)
Post*Medicaid access combination	-0.025 (0.015)	0.058 (0.036)	0.003 (0.007)	-0.006 (0.012)	-0.007 (0.006)
Post*care access combination	0.034* (0.020)	-0.056 (0.038)	0.013** (0.006)	0.016 (0.013)	0.022*** (0.006)
Prenatal Visits					
Post-expansion	-0.013 (0.337)	-0.492* (0.290)	0.160 (0.109)	-0.005 (0.148)	0.112 (0.124)
Post*Medicaid access combination	-0.214 (0.243)	-1.410*** (0.289)	-0.000 (0.091)	-0.137 (0.130)	-0.022 (0.095)
Post*care access combination	0.312 (0.232)	-0.400 (0.326)	0.226*** (0.084)	0.234* (0.135)	0.260*** (0.089)
Length of Prenatal Care					
Post-expansion	0.012 (0.123)	-0.377** (0.187)	0.017 (0.031)	-0.047 (0.059)	0.015 (0.033)
Post*Medicaid access combination	-0.157** (0.078)	0.293 (0.214)	-0.034 (0.031)	-0.100* (0.058)	-0.061* (0.032)
Post*care access combination	0.252** (0.104)	-0.170 (0.229)	0.084*** (0.030)	0.118* (0.069)	0.116*** (0.034)

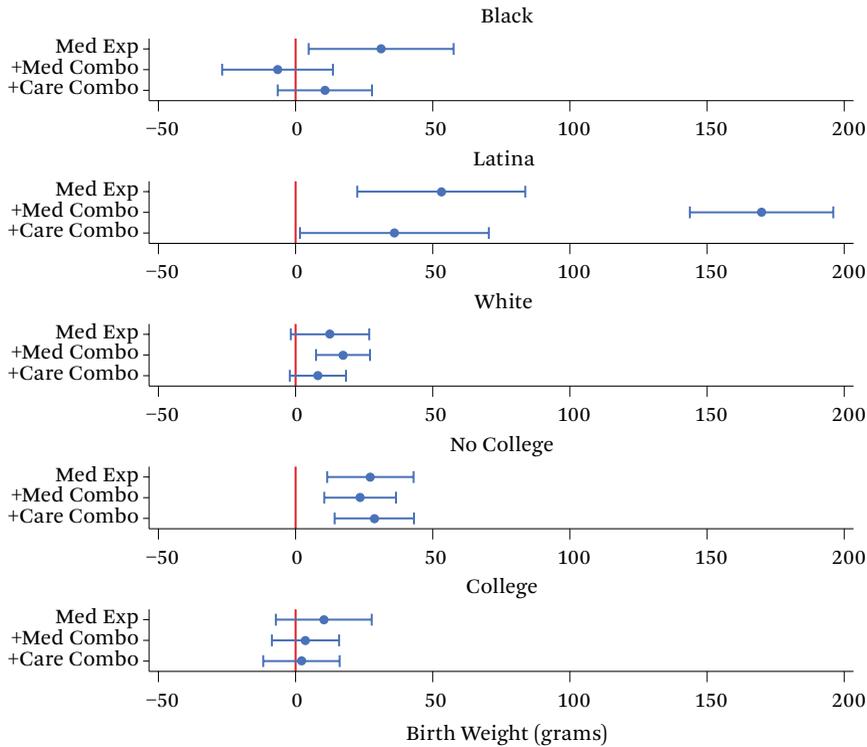
Source: Authors' calculations based on NVSS data 1985–94 (CDC 1985–94; Clogg et al. 1998).

Note: Coefficients are from models using the same sample and controls as table 2, separately by maternal race-ethnicity (models 1–3) and education (models 4–5). Post-expansion coefficients are shown for the combination of reforms to increase access to Medicaid (all five reforms) or to increase access to prenatal care (all three reforms). Shaded coefficients indicate significant differences between coefficients by race (Black-White), ethnicity (Latina-White), or education (no college-college). Robust standard errors in parentheses.

* $p < .1$; ** $p < .05$; *** $p < .01$

Figure 4. Predicted Effects of Reform Combinations on Infant Health by Race-Ethnicity and Education

A. Birth Weight



B. Low Birth Weight

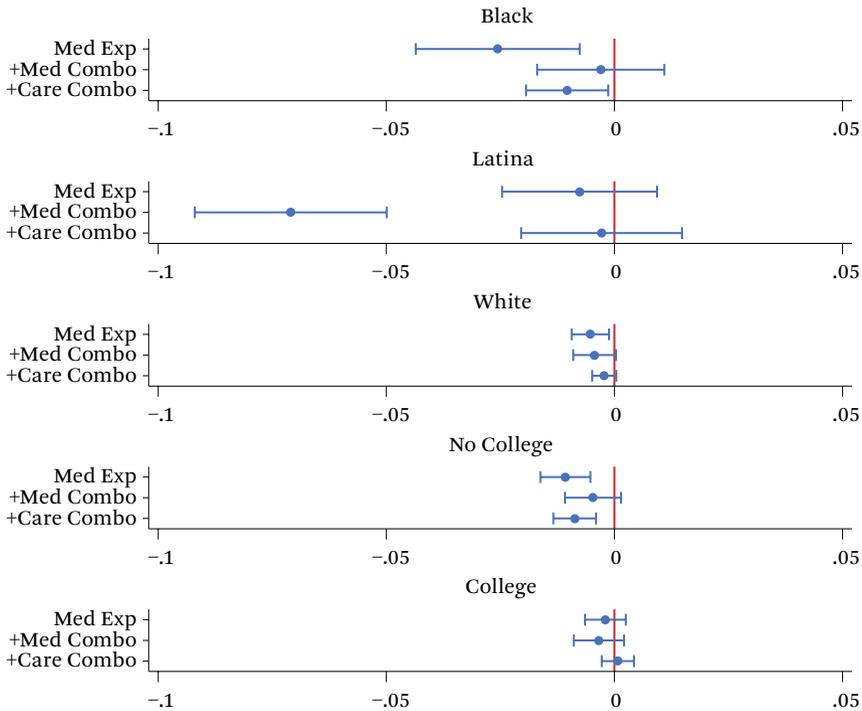
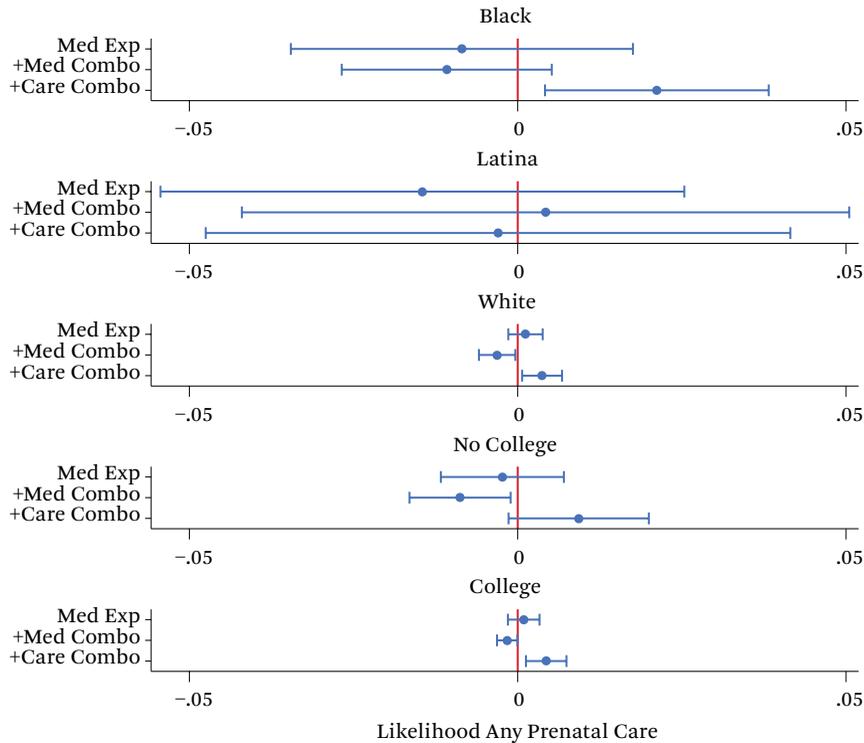


Figure 4. (continued)

C. Any Prenatal Care



Source: Authors' calculations based on NVSS data 1985–94 (CDC 1985–94).

Note: Coefficients from table 4, panels A and B.

mothers and this estimate differs significantly from the benefit among White mothers.

Results are consistent when predicting gestational length and the likelihood of preterm birth. The MAC reforms reduced the likelihood of preterm birth by about 1 percentage point among White mothers, but by nearly 8 percentage points among Latina mothers. For all infant health outcomes, the benefit of the MAC reforms was significantly larger among Latina mothers than among White mothers, which is consistent with hypothesis 3. The MAC reforms also improved infant health outcomes among mothers with no college, but did not among Black mothers.

The PAC reforms also had varying effects by maternal race-ethnicity and education. Consistent with hypothesis 3, these reforms increased birth weight by 29 grams (1 ounce) and reduced the likelihood of low birth weight by nearly 1 percentage point among mothers with no col-

lege education, significantly more than among mothers with college (table 4, panel A). The PAC reforms had some benefits among Black women, reducing the likelihood of low birth weight by 1 percentage point and increasing the length of prenatal care by about one week. The PAC reforms, however, increased the likelihood of receiving prenatal care by 2 percentage points among Black women, significantly more than among White women. Thus, although the Medicaid access reforms had little benefit for Black women, the prenatal care access reforms did provide them significant improvements in prenatal care and likelihood of low birth weight.

These results complicate earlier evidence of the weak relationship between prenatal care and infant health for Black women (Sonchak 2015; Thurston, Fields, and White 2021). Substantial administrative barriers to prenatal care could limit benefits for Black women. For ex-

ample, difficulties organizing transportation or medical referrals could be more difficult and stressful for Black women if they are more likely to feel dismissed by providers or live in areas with fewer providers who accept Medicaid (Daly and Mellor 2020; Greene, Blustein, and Weitzman. 2006; Lillie-Blanton, Martinez, and Salganicoff 2001; Roman et al. 2017). The PAC reforms could be particularly valuable in overcoming these additional burdens for Black women. In contrast, the limited benefits of the MAC reforms for Black women could reflect persistent barriers to Medicaid enrollment such as anti-Black racism from enrollment officials (Michener 2018), greater misinformation (learning costs) about Medicaid program rules (Stuber and Bradley 2005), or higher experience of stigma (psychological costs) among Black Americans related to participation in government programs (Stuber and Schlesinger 2006). Thus, unless reforms directly target these unequal barriers to Medicaid enrollment, results suggest reforms facilitating access to prenatal care may yield larger benefits for Black women.

Results for Latina women suggest a different pattern. Lower barriers to Medicaid enrollment were particularly beneficial for infant health and reforms to ease access to care did not increase prenatal care receipt. This could reflect differences in the quality rather than the amount of prenatal care. For example, Latina women have the lowest rates of health insurance coverage (National Partnership for Women and Families 2019), report lower-quality prenatal care (Dayton et al. 2006; Becker and Tsui 2008), and official verification of eligibility for care can improve the quality of care mothers receive (Lillie-Blanton and Hoffman 2005; Bernstein, Chollet, and Peterson 2010). Thus the Medicaid reforms may improve infant health by increasing access to care among Black mothers but do so by increasing the quality of care among Latina mothers.

MECHANISMS

To help understand varying effects of the reforms, we examine stress-related coping behaviors and access to physicians as potential mechanisms. Estimates predicting maternal behaviors during pregnancy are shown in table A.3. Alcohol and tobacco use declined after

Medicaid expansion for nearly all groups. However, the MAC reforms reduced alcohol and tobacco use during pregnancy significantly more among Black mothers than among White mothers. The MAC reforms also reduced tobacco use significantly more among mothers without college than among those with a college education. These estimates suggest facilitating access to Medicaid can reduce stress-related coping behaviors, particularly for those at higher risk of administrative burdens. These benefits could reflect lower stress from reduced administrative burdens or from gaining health insurance. The PAC reforms reduced tobacco use more among Black mothers than White mothers and reduced alcohol use more among mothers without than with college education. These reforms were implemented after the public health campaign to reduce smoking among pregnant women and could reflect exposure to health-care providers encouraging pregnant women not to smoke.

Smaller infant health benefits of the MAC reforms among Black women could lead one to expect smaller effects on health behaviors among Black women. However, results contradict that explanation for weaker benefits. Rather, the MAC reforms reduced stress-related coping behaviors more among Black women than among White women.

Results of the main analyses suggest the PAC reforms increased receipt of prenatal care, but these benefits could depend on the availability of doctors. Tables A.4 and A.5 show estimates predicting infant health and prenatal care separately in states above and below the 1991 median level of licensed physicians per capita. Among births to all mothers (table A.4), the combination of reforms to increase access to care had significantly larger benefits on infant health and prenatal care in states with high numbers of physicians per capita. Effects of the MAC reforms did not differ significantly by physicians per capita. When examining effects by race and education (table A.5), the PAC reforms have significantly larger birth weight benefits for all groups in states with high doctors per capita. The birth weight benefits of PAC reforms were particularly large for Black, Latina, and less-educated mothers in states with more doctors. Prenatal care benefits of the

PAC reforms were also significantly larger for these mothers in states with more doctors.

Results suggest the PAC reform effects are larger in states with more doctors. The MAC reform effects are larger in states with more doctors, but only among White mothers. This may reflect advantages among White women in accessing doctors when more people gain access to Medicaid. In states with a shortage of physicians, these advantages may yield no benefit and everyone may face large burdens to accessing doctors.

CONCLUSION

In the late 1980s, states implemented multiple reforms with Medicaid expansion to reduce administrative burdens to access Medicaid and prenatal care. We use administrative birth data from the National Vital Statistics System to examine effects of these reforms on infant health and prenatal care. Using a difference-in-discontinuities approach, we find that a combination of reforms to facilitate access to Medicaid increased state Medicaid enrollment among those in poverty by about 14 percentage points. Medicaid expansion improved infant health, reducing rates of preterm birth and low birth weight by around 1 percentage point. Reform packages to facilitate access to Medicaid and prenatal care enhanced these benefits for infant health, reducing the likelihood of low birth weight or preterm birth by another 0.5 percentage point. Reducing administrative burdens to enroll in Medicaid and access prenatal care yields infant health benefits almost as large as expanding Medicaid eligibility.

Consistent with previous evidence (Currie and Grogger 2002), we find that individual reforms to reduce administrative burdens generally had little added benefit over Medicaid expansion for infant health or prenatal care. Instead, combined reforms to reduce burdens in multiple ways significantly improved infant health. Similar to the benefits of multiple income support policies for low-income families (Edelstein, Pergamit, and Ratcliffe 2014; Schmidt, Shore-Sheppard, and Watson 2016; Slack et al. 2014), our results suggest benefits of multiple reforms to reduce administrative burdens.

The benefits of Medicaid reforms varied by

maternal race, ethnicity, and education. In most cases, reform combinations improved infant health more among mothers with higher risk of administrative burdens. For example, reform combinations had larger health benefits for births to Latina and non-college-educated mothers relative to White and college-educated mothers. Black women are also at higher risk of burdens and the prenatal care access reforms yielded significant improvements in their likelihood of prenatal care and low birth weight. These results suggest that administrative barriers to care may be higher for Black women and removing them may be particularly valuable for Black women and infants. At the same time, Medicaid access reforms reduced prenatal alcohol and tobacco use more among Black women than White women, but had little effect on infant health or prenatal care for Black women. These results suggest persistent barriers, such as anti-Black racism among Medicaid officials (Michener 2018) or stigma related to participation in government programs (Stuber and Schlesinger 2006), that remain higher for Black women despite reforms. Future reforms should target these persistent barriers for Black women.

Overall, the variation by race and ethnicity suggest a different pattern of administrative burdens, with higher barriers to Medicaid enrollment and quality care among Latina women and higher barriers to access prenatal care among Black women. Our results suggest the Medicaid reforms may have improved infant health in different ways: by increasing access to care among Black mothers and by increasing the quality of care among Latina mothers. These complex results underline the importance of an intersectional approach to understanding administrative burdens and health-care experiences (Crenshaw 1989; Michener and Brower 2020).

Reforms facilitating access to prenatal care had larger benefits in states with high physicians per capita, particularly among Black mothers and mothers with no college education. We find weak benefits in states with few physicians, echoing previous evidence that reforms can yield limited or even counterintuitive effects if systems are not adequately prepared (Wishner and Burton 2017; Dugan and

Booshehri 2021; Rauscher 2016). Because easing access to prenatal care had larger benefits among Black women, particularly in states with more doctors, increasing the number of physicians in areas with a high concentration of Black women could be another way of reducing barriers and increasing equality of health for Black women and infants.

This study has important limitations. Our estimates of Medicaid enrollment rely on state-level data. Future research using monthly data disaggregated by race and socioeconomic status would provide more conclusive estimates. Our results also depend on several assumptions, which are difficult to assess. Although the Medicaid expansion was exogenous (federally mandated), an important limitation is that the reforms could reflect unobserved state characteristics and the limited number of states and policy combinations presents identification challenges (Blank 2002; Bitler, Gelbach, and Hoynes 2005). We take steps to assess robustness, including examining alternative reform combinations and controlling for time-varying state characteristics.

Reassuringly, states with each reform generally had similar trends in infant health before Medicaid expansion (figure A.2) and results are consistent when controlling for pre-trends in states implementing the reform combinations. Our approach also assumes stable effects of Medicaid expansion (without reforms) across states and that unobserved differences in individual births vary consistently across birth months. State variation in the timing of reforms helps reduce the likelihood that some other policy or nationwide change influenced infant health at the same time. Further, results are consistent in additional sensitivity checks, including varying the number of birth months included before and after expansion, allowing trends in infant health and prenatal care to vary before and after Medicaid expansion, limiting the sample to the first birth for each mother, and estimating effects with and without including controls.

Overall, our results suggest that implementing multiple Medicaid reforms to reduce administrative burdens improved infant health and prenatal care usage, especially for those at greater risk of experience administrative bur-

dens. However, varying effects by race and ethnicity suggest that the reforms mattered in different ways for Black and Latina mothers because of the different patterns of barriers they each faced. Our results raise questions about why particular types of reforms are more beneficial for certain groups of mothers than others. Qualitative data that examine the particular learning, compliance, and psychological costs of participating in public programs faced by Black and Latina mothers with varying levels of socioeconomic resources, including education, would be valuable in efforts to improve equality of infant health.

Findings from this study have several implications. First, administrative burdens are a substantial barrier to accessing health insurance and health care during pregnancy, especially among racially and socioeconomically marginalized mothers. Second, multiple approaches to improve access to Medicaid and prenatal care by alleviating administrative burden are beneficial. Because social factors interact to create unequal administrative burdens (Michener and Brower 2020), addressing those burdens requires combined policy responses that interact to reduce multiple burdens at the same time. Third, targeted reforms to address particular types of burdens that are higher among Black and Latina mothers could enhance benefits of public health insurance and improve equality of infant health.

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Replacing Medicaid with an Imperfect Substitute: Implications for Health Inequality



RANDALL Q. AKEE, TIMOTHY J. HALLIDAY, AND TERESA MOLINA 

A 2015 policy change substantially increased the administrative burden involved in accessing health insurance for Pacific Islander immigrants in Hawaii. We examine the heterogeneous health-care use effects of this policy, which revoked Medicaid eligibility for these migrants and replaced it with access to subsidized private health insurance. Using data on the universe of hospitalizations and emergency room visits in Hawaii, we classify individuals as high or low risk based on their use in a baseline period. We then use a difference-in-differences strategy to estimate the effects of the policy on use, separately for low-risk and high-risk groups. The policy exacerbated health inequality: high-risk individuals experienced larger reductions in total use and larger increases in uninsured use.

Keywords: cost sharing, health insurance, insurance exchange, Medicaid

Administrative burdens in health care could negatively affect health, particularly among more disadvantaged groups, through a number of channels (Herd and Moynihan 2020). In this article, we examine a 2015 policy change that substantially increased the administrative burden involved in accessing health insurance for a vulnerable migrant group in the state of

Hawaii. We seek to identify whether this policy had differential effects across the health distribution to shed light on how this increased administrative burden may have affected health inequality.

Hawaii is home to many immigrants from Pacific Island nations because of a series of treaties. Specifically, under the Compacts of

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Free Association (COFA), citizens of the Republic of Palau, the Federated States of Micronesia, and the Republic of the Marshall Islands can migrate to and work in the United States. These COFA migrants were initially given access to the U.S. social safety net, including Medicaid, but these benefits were eventually revoked. In Hawaii, all nonpregnant adult COFA migrants who were not aged, blind, or disabled lost access to Medicaid on March 1, 2015.

When COFA migrant Medicaid benefits were revoked, they were replaced by subsidies to purchase private insurance on the marketplaces set up under the Affordable Care Act (ACA). A successful transition from Medicaid to private coverage involved overcoming a number of bureaucratic hurdles. Migrants were instructed to purchase private health insurance on the ACA exchanges. Premiums were subsidized by the state provided that the migrant's income could be verified to be less than 100 percent of the federal poverty line and the migrant chose a Silver-level plan (Department of Human Services 2014). A critical feature of this policy change was that Medicaid has a year-round open enrollment period, whereas enrollment on the exchanges could only take place during a six-week period. In addition, COFA migrants were required to apply for Medicaid and be rejected to be eligible for subsidies to purchase private insurance plans. Even if the policy changes had been implemented smoothly and clearly communicated to those affected, they would entail greater administrative burden; imperfect implementation (resulting in confusion about the policy change) only exacerbated the burden, as discussed later.

Given these obstacles, the health of many COFA migrants deteriorated likely because they lost insurance coverage. Teresa Molina and her colleagues (2020) document the expiration of Medicaid benefits increased mortality rates for COFA migrants relative to Whites and Japanese. Results from Timothy Halliday and Randall Akee (2020) suggest that many COFA migrants lost insurance coverage after the

Medicaid expiration: uninsured emergency room (ER) visits increased dramatically after the policy change relative to the same comparison group used in this article. Because COFA migrants have poorer health and higher mortality rates than the rest of the Hawaiian population, that the policy change exacerbated health inequalities across the entire population is already clear. In this article, however, we further examine distributional effects within the COFA migrant population.

Specifically, we are interested in whether this policy may have exacerbated health inequality among the COFA population. The ideal dataset for this question would include individual-level measures of health for COFA migrants (and a group of comparison individuals) spanning multiple periods before and after the policy change. Because these data are not available, we rely instead on detailed information on health-care use. We categorize COFA migrants as either high or low (health) risk based on their historical hospitalization or emergency room experiences before the policy change. We then investigate whether the transition from Medicaid to private exchanges had greater effects on the least healthy migrants. Larger drops in health-care use for the least healthy (or high-risk) migrants would suggest that the policy heightened health inequality among this population.¹

It was not clear beforehand which of these groups should be most affected by the policy change. On the one hand, high-risk individuals benefit more from having insurance and might therefore be more motivated to take up private insurance despite the administrative hurdles. This reasoning is embodied in the theoretical work on ordeals and self-selection into social programs (Nichols and Zeckhauser 1982), for which empirical evidence is somewhat mixed (Alatas et al. 2016).

On the other hand, several studies suggest that these administrative burdens can be higher and more detrimental for individuals with lower incomes and less human capital

1. Previous work shows that among COFA migrants as a group health-care use decreased and mortality increased (Halliday and Akee 2020; Molina et al. 2020), suggesting that reductions in health-care use have serious negative consequences for this population. We therefore equate larger drops in use with more severe deterioration of health, implying that larger effects on the high-risk group signal a worsening of health inequality.

(Deshpande and Li 2019; Christensen et al. 2020; Holt and Vinopal 2021; Raker and Woods 2023). Given the positive correlations between health, human capital, and socioeconomic status, this would suggest that high-risk individuals would be more negatively affected by the higher administrative burdens imposed by the 2015 policy change. Specifically, high-risk individuals who are poorer and less educated could lack the support and knowledge needed to sign up for private insurance. Although considerable outreach aimed to provide information and assistance to COFA migrants after the policy change, work has shown interventions aimed at reducing administrative burdens are often ineffective at helping the neediest (Finkelstein and Notowidigdo 2019).

To examine this question empirically, we conduct a difference-in-differences analysis, comparing changes in health-care use of COFA migrants with those of a comparison group of White and Japanese residents in Hawaii. We estimate separate effects for high-risk and low-risk individuals. We find a large reduction in total hospital charges and visits for the full sample of COFA migrants after the reduction in Medicaid benefits. Most important, this effect is much larger among the high-risk group than the low-risk group.

To what extent is this result driven by the administrative burdens required to stay insured being disproportionately onerous for high-risk individuals? Because our dataset does not record an individual's insurance status, we instead infer how the policy affected insurance status by exploring effects on different types of use, that covered by Medicaid or private insurance as well as that not insured at all. We find that decreases in insured use (and charges) and increases in uninsured use (and charges) are substantially higher for the high-risk group, which indicates the high-risk migrant population did not effectively transition to private insurance.

Our work contributes to the growing literature on the Medicaid program. Studies of various Medicaid expansions throughout its history provide evidence that the program has generated both immediate and long-term improvements in access to health care, health outcomes, and economic outcomes (Miller and

Wherry 2017, 2019; Goodman-Bacon 2018, 2021; Miller, Johnson, and Wherry 2021). Several studies examine how effects vary across age groups, gender, race, income, and state characteristics (Sommers, Baicker, and Epstein 2012; Garthwaite et al. 2019; Lee and Porell 2020; Wiggins, Karaye, and Horney 2020; Lee, Dodge, and Terrault 2021; Wright et al. 2016). A smaller set of studies focus, as we do, on heterogeneity by health status (Swaminathan et al. 2018; Winkelman and Chang 2018; Myerson and Crawford 2020) and find particularly large effects on those with chronic illness.

This article also speaks to the trade-offs between the various policy levers a government can use to expand health insurance coverage among lower-income citizens: using the public sector via government-funded health care or the private sector using a combination of mandates and subsidies. Recent work highlighting these trade-offs has typically focused on choice, adverse selection, competitive pressure, and quality of care (Aizer, Currie, and Moretti 2007; Gruber 2017; Kuziemko, Meckel, and Rossin-Slater 2018; Layton et al. 2019). In this article, we focus on a different issue: the level and nature of administrative burdens associated with each alternative.

INSTITUTIONAL SETTING

The Compacts of Free Association are treaties with three Pacific Island nations: the Republic of Palau, the Federated States of Micronesia, and the Republic of the Marshall Islands. These treaties guarantee access by the U.S. military to the territorial waters of COFA nations. In exchange, COFA migrants are allowed to enter and work in the United States. Analysis of the immigration flow from the 1990s showed positive selection on education and earnings from the Federated States of Micronesia to Hawaii (Akee 2010). Relative to the rest of the state of Hawaii population, however, COFA migrants have higher poverty levels and more severe health problems (Hagiwara et al. 2016).

The treaties also guaranteed access to the U.S. safety net. However, this access ended after what was believed to be a drafting error in the 1996 Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) (Diamond

2020). As a consequence, COFA migrants were classified as nonqualified aliens, which prohibited them from accessing U.S. welfare programs, including Medicaid.

After 1996, the state of Hawaii, which is home to a large population of COFA migrants, allowed intermittent access to its state-funded Medicaid program until federal Medicaid was reinstated for all COFA migrants by an act of the U.S. Congress in 2021. We depict some aspects of this history in a timeline in figure 1. In describing this history, we focus on the suspension of Medicaid benefits for COFA migrants in 2015.

In 1996, the number of COFA migrants in the state was relatively small. By 2015, it had grown to 27,890, excluding Guamanian/Chamorro (Halliday and Akee 2020).² Medicaid access was controversial in the state, however, because it was viewed as a federal rather than a state responsibility. Because of the demands of the Great Recession, the state of Hawaii denied COFA migrants access to its Medicaid program in 2009 and, instead, allowed access to a substantially less generous program, Basic Health Hawaii (BHH). The implementation of BHH was challenged in court by COFA residents and, in December 2010, a federal district court issued a preliminary injunction that restored Medicaid benefits for COFA migrants. Hawaii appealed this decision and, in April 2014, a panel of judges removed the injunction on the grounds that the text of PRWORA made COFA migrants ineligible for Medicaid, ruling that Hawaii was not legally obligated to provide any funding for Medicaid. The ruling was challenged but subsequently upheld in November 2014 by the U.S. Supreme Court, which rejected the plaintiff's appeal.

On March 1, 2015, state-funded Medicaid benefits expired for all nonpregnant adult COFA migrants who were not aged, blind, or disabled. These migrants were instructed to purchase private health insurance on the exchanges set up under the Affordable Care Act. Premiums were subsidized by the state provided that the migrant's income could be verified to be less than 100 percent of the federal poverty line and the migrant chose a Silver-

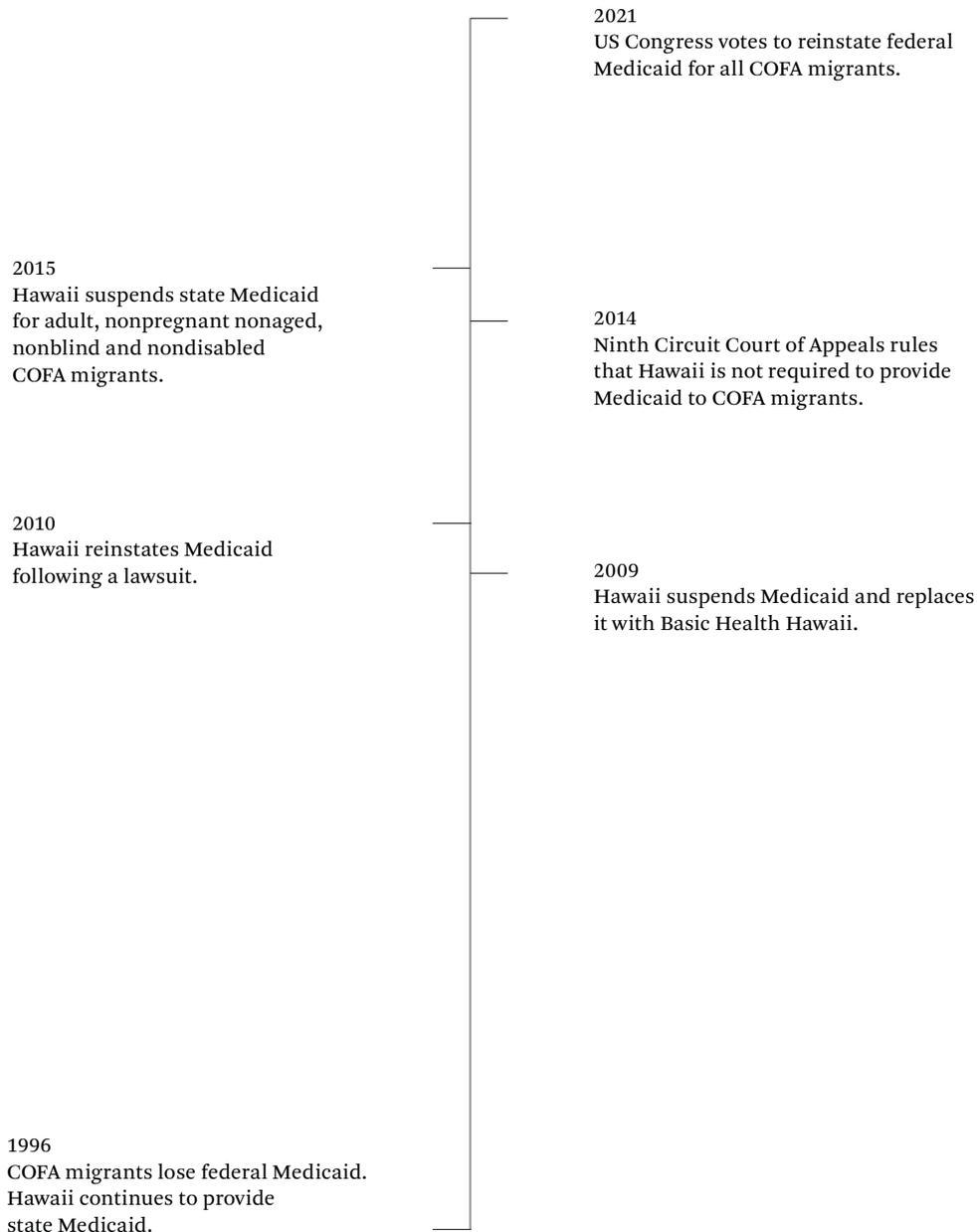
level plan (Department of Human Services 2014).

Figure 2 summarizes the post-2015 application process for COFA migrants. First, as noted earlier, COFA migrants were instructed to apply for Medicaid and be rejected in order to be eligible for private insurance on the ACA exchanges (Hofschneider 2019). Next, if the open enrollment period had not passed, COFA migrants could apply for a private plan on the exchanges. To qualify for premium assistance, COFA migrants needed to apply for an Advanced Premium Tax Credit (APTC) (Appel et al. 2017). To apply for an APTC, COFA migrants needed to have filed their federal tax returns in the previous year. However, COFA migrants often did not file federal returns in large part because they are not required to pay federal income tax because their incomes are often low. This is a common point of confusion for this population (Appel et al. 2017). Finally, if they qualified for an APTC, COFA migrants could apply for a private plan on the exchanges with premium assistance. Otherwise, they could still apply for a private plan without premium assistance.

The policy maintained COFA migrants' access to health insurance, for which premiums continued to be fully subsidized for many of those previously eligible for Medicaid. The policy introduced, however, a number of additional administrative burdens for COFA migrants seeking to remain or become insured. All three—learning, psychological, and compliance costs (Herd and Moynihan 2018)—increased after the policy change.

With respect to learning costs, COFA migrants had to figure out both whether they were eligible for Medicaid after the policy change and how to sign up for insurance on the private exchanges. Even though community outreach efforts intended to help people enroll, confusion remained as the process was complicated. For example, anecdotal evidence suggests parents mistakenly thought their children were no longer insured because they themselves had lost coverage (Hofschneider 2019). Halliday and Akee (2020) show that the Medicaid expiration in 2015 reduced Medicaid-financed use for Mi-

2. The discussion in this section is based on a study by Pearl McElfish, Emily Hallgren, and Seiji Yamada (2015).

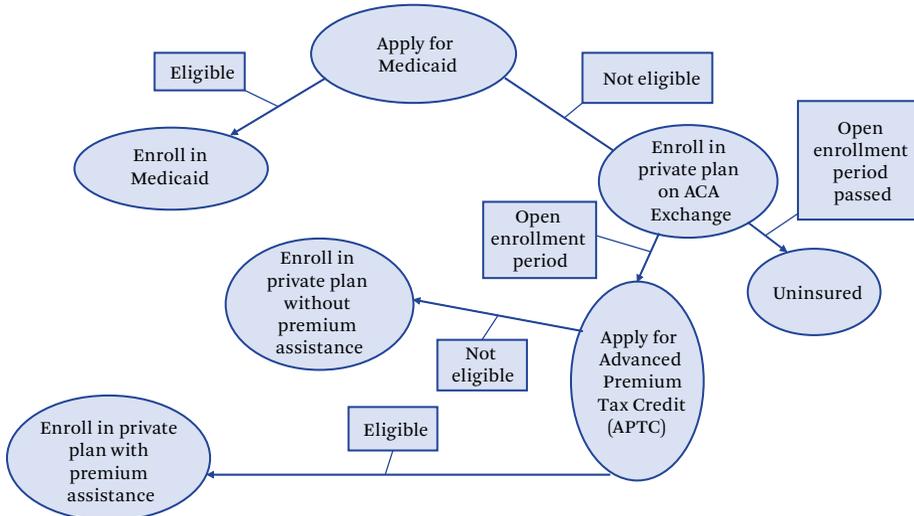
Figure 1. History of Insurance Access for COFA Migrants in Hawaii

Source: Authors' tabulation.

cronesian children who were still eligible for public insurance. This is consistent with the idea that welfare reform can have a chilling effect or a *reverse woodworking effect*—that is, can reduce participation in social programs even

among those still eligible.³ The Donald Trump administration's later efforts to undermine the ACA by making large cuts to federal navigator support likely contributed to higher uninsured rates (Griffith et al. 2020), which highlights the

3. This is an issue with somewhat mixed evidence (Lurie 2008; Borjas 2001; Fix and Passel 1999; Van Hook 2003).

Figure 2. How to Apply for Insurance on the Exchanges

Source: Authors' tabulation.

importance of providing support throughout the enrollment process and suggests that the negative effects of the Medicaid expiration we document could have been later exacerbated by these changes.

Psychological costs were likely large. A study of COFA migrants in Arkansas revealed substantial frustration at being ineligible for Medicaid despite paying taxes to the federal government (McElfish et al. 2016). The individuals affected by the 2015 Hawaii policy change had been eligible for Medicaid for years and were now being asked to reenroll. It is also important to emphasize that COFA migrants in Hawaii face discrimination in housing, health care, and other aspects of everyday life (Inada et al. 2019; Stotzer 2019; Yamada 2011; Hofschneider 2018). Being kicked off of Medicaid by what could be viewed as discriminatory decision-making by state institutions would have further exacerbated the psychological toll of being a COFA migrant in Hawaii.

Finally, compliance costs also increased. COFA migrants were required to be turned down for Medicaid before enrolling on the HealthCare.gov website, which is not translated into any of the COFA nation languages (Hofschneider 2019; Appel et al. 2017). For those eligible for lower premiums via the APTC, in addition to the tax return requirement de-

scribed, COFA migrants were required to provide an I-94 status document, which can be lost and are expensive to replace for those who acquired them before the form was digitized (Appel et al. 2017).

A related issue, and a critical feature of the policy change, was that Medicaid has a year-round open enrollment period, whereas enrollment on the exchanges could take place only during a six-week period. Before 2015, a COFA migrant who became seriously ill or injured could visit the emergency room and enroll on-site. This was no longer possible after 2015.

Halliday and Akee (2020) suspect that many COFA migrants were uninsured after the Medicaid expiration because of the increased administrative burden. Given that they do not have access to individual-level information on insurance status, their evidence for this theory comes from hospital discharge data, which shows that uninsured ER visits increased dramatically after the policy change.

DATA DESCRIPTION

We use the same hospital discharge data that Halliday and Akee (2020) did. The Hawaii Health Information Corporation (HHIC), a now defunct nonprofit company based in Honolulu, collected data on hospital discharges. The resulting dataset is a complete census of all hos-

pitalizations and ER visits in the state.⁴ An important feature of the HHIC data is that it includes race-ethnicity information, including for Micronesians.

We use hospital admissions data rather than insurance claims data. This presents several limitations, including a lack of information on outpatient use and that insurance status cannot be on the right-hand side of any estimations. That is, we know only which payer paid for the use. Thus, if a person switched insurers during the sample period, it is difficult or even impossible to determine when the transition occurred.

We use data on 409,556 hospitalizations and ER visits between January 1, 2014, and December 31, 2015, for all White, Japanese, and COFA migrants. We restrict the sample to people with Hawaii addresses and those age eighteen to sixty-four, that is, the population primarily affected by the policy change. For each use, we know the source of payment: Medicaid, private insurance, or self-pay.

A critical feature of these data is that they contain an individual identifier that allows us to track use over a two-year span. We use this identifier to construct a panel where the unit of observation is an individual-month. No discharge in a given month means no use that month. We therefore code these observations as zeros. If use did occur in a month, we computed the total number of hospitalizations and ER visits in that month by payer for each individual. We did the same for the total amount of charges per individual per month in dollars. We also have the date of death for individuals in this dataset who died in hospitals. If the individual was known to have died between 2014 and 2015, the panel ends on the month and year of their death.⁵

The data do not include any individuals in the state who were not hospitalized or did not visit any ER over this two-year period. However,

our interest in this research is to estimate the population-level effects of changing Medicaid eligibility. Therefore, we require that our data contain the entire set of observations that match the total state of Hawaii population for the relevant race groups under consideration in this analysis.

To do so, we use a procedure identical to the one used by Halliday and Akee (2020, appendix A). Essentially, we add dummy observations of zeros for never-hospitalized race, gender, and age groups. We then apply frequency weights equal to their population counts. This ensures that our data are a census of all ER and inpatient use in the state of Hawaii and that the analysis has no selection issues.

Specifically, we generate additional observations by race and ethnic groups for the individuals who do not appear in our hospitalization or ER visit dataset. The newly created observations consist of a twenty-four month string of zeros for all use and charge variables for these individuals. The purpose for adding in these additional observations is to ensure that the total population counts match that of existing data from the American Community Survey (and relevant population weights) for this period. Because the HHIC data set is a census of all hospitalizations and ER visits for the state of Hawaii over this period, adding the complementary amount of observations by race for the state of Hawaii provides us with a complete count data set. These frequencies are then distributed across age and gender for each race group.⁶ If the individual appears in the HHIC data, their frequency weight is unity.

After this imputation of zeros and calculation of weights, the resulting dataset is essentially an individual-level dataset recording inpatient and ER visits for all White, Japanese, and COFA individuals in Hawaii for the years 2014 and 2015. We do not have insurance status, but we do have visits and charges broken down

4. Our data do not include information from Tripler Army Medical Center because the race and ethnicity data that we rely on are not available for this provider.

5. A weakness of these data is that we do not know death dates for people who did not die in a hospital.

6. Using the American Community Survey (ACS) to obtain population counts of certain groups, particularly small groups, will likely yield errors (Halliday and Akee 2020). Consequently, we use ACS five-year averages for more reliable estimates.

by payer type. In our main analysis, we examine these payer types separately to make inferences about effects on insurance status.

We report descriptive statistics in table 1, summarizing use counts in columns 1 and 2 and charges in columns 3 and 4. We use frequency weights for all computations and all statistics correspond to patient-month observations. Columns 1 and 3 correspond to the full sample; columns 2 and 4 correspond to COFA migrants. We report statistics by type of visit (ER or inpatient) and payer (Medicaid, private, Medicaid and private, and self). Charges are measured in nominal dollars per patient per month.

A few patterns in these tables are notable. First, COFA migrants are substantially more likely to have Medicaid as a payer than private insurance than the general population. For example, the number of ER visits funded by Medicaid is 1.57 times the number of privately funded ER visits for COFA migrants (0.011 divided by 0.007) but only 0.87 times for the full sample (0.0053 divided by 0.0061). For hospital-

izations, the analogous figures are 2.9 times for COFA migrants and 0.65 times for the full sample. We see a similar pattern for charges in columns 3 and 4.

Second, total insured use, defined as the sum of use funded by Medicaid and private insurance, is also higher for COFA migrants than for the full sample. The average number of total ER visits per patient-month was 0.018 for COFA migrants and 0.011 for the full sample, meaning that COFA migrants' insured ER use was 64 percent higher than that of the general population. The corresponding statistics for hospitalization are 0.0059 for COFA migrants and 0.0028 for the full sample, indicating that COFA migrants' insured hospitalizations were 111 percent higher.

Finally, this table provides evidence that many COFA migrants lack insurance during this period. For example, the average number of uninsured (self) ER visits for COFA migrants was 0.0057 per patient-month. This is notable given that the average number of pri-

Table 1. Descriptive Statistics

	Use Counts		Charges (Dollars)	
	(1) Full Sample	(2) COFA Migrants	(3) Full Sample	(4) COFA Migrants
ER: Medicaid	0.0053 (0.097)	0.011 (0.12)	11.8 (267.4)	26.2 (355.3)
ER: private	0.0061 (0.087)	0.0070 (0.092)	15.1 (267.3)	17.3 (286.2)
ER: Medicaid + private	0.011 (0.13)	0.018 (0.15)	26.9 (377.9)	43.4 (455.3)
ER: self	0.0010 (0.036)	0.0057 (0.081)	2.34 (111.4)	14.3 (271.8)
Inpatient: Medicaid	0.0011 (0.036)	0.0044 (0.068)	35.2 (1935.3)	133.1 (3795.3)
Inpatient: private	0.0017 (0.042)	0.0015 (0.040)	50.5 (2165.7)	54.7 (2416.8)
Inpatient: Medicaid + private	0.0028 (0.055)	0.0059 (0.079)	85.7 (2904.2)	187.8 (4497.8)
Inpatient: self	0.000075 (0.0089)	0.00054 (0.023)	1.96 (347.5)	18.6 (1146.0)
Observations	2,767,300	150,659	2,767,300	150,659

Source: Authors' tabulation.

Note: Standard deviations are in parentheses. All statistics correspond to people between ages eighteen and sixty-four. An observation is a patient/month. Self indicates self-payment for medical expenses and no insurance (public or private) exists. Charges are measured in 2014–15 dollars per patient per month.

vate insurance-funded ER visits was 0.007 per patient-month: in other words, the average number of uninsured ER visits was 81.4 percent of privately funded visits. The average number of uninsured ER visits for the full sample was 0.001 per patient-month. COFA migrants were 5.7 times more likely to have an uninsured visit to the ER than the general population.

IDENTIFYING HIGH RISK INDIVIDUALS

To shed light on whether the expiration of Medicaid benefits had different effects across the health distribution, we need a proxy for underlying health. We use insights from the risk adjustment literature (Ellis and McGuire 2007) to construct a risk score. We use this score to classify individuals as high- or low-health risk.

The goal is to create an index that is predictive of prospective health-care use and proxies for the health of an individual. Because we do not have direct measures of health, we rely on data on expenditures and use from a baseline period. Like Amy Finkelstein and Matthew Notowidigdo (2019), we assume that those with higher use are generally in worse health. Specifically, we use the first six months of the sample to construct the risk score and the remaining eighteen months to estimate our econometric models. The policy change occurred after the end of baseline sample and could not have affected the use outcomes used to construct the risk score.

The risk score is constructed using health-care-related charges that are regressed onto demographic characteristics of the individual and

ER usage or hospitalization in the baseline period. Specifically, we estimate

$$CHARGES_{it} = \sum_{g \in \{F, M\}} f_g(age_{it}) + ER_{it} \beta_{ER} + HOSP_{it} \beta_{HOSP} + v_{it} \tag{1}$$

where *i* corresponds to individuals and the *t* to months. The first term in the model is a gender-specific quadratic function of age. The second is a complete set of dummy variables for the number of ER visits in a month. The last is a complete set of dummy variables for the number of hospitalizations in a month.

We report the *R*²s from several estimations of equation (1) in table 2. Consistent with the risk adjustment literature, the specification with only age and gender has poor explanatory power—an *R*² much less than 1 percent. In the second specification, we add ER visits as a predictor and see that the model can now explain 2 percent of the variation. Finally, we add hospitalizations and the *R*² increases dramatically, to 35 percent. We use the final specification from the table for the risk score due to its superior explanatory power.

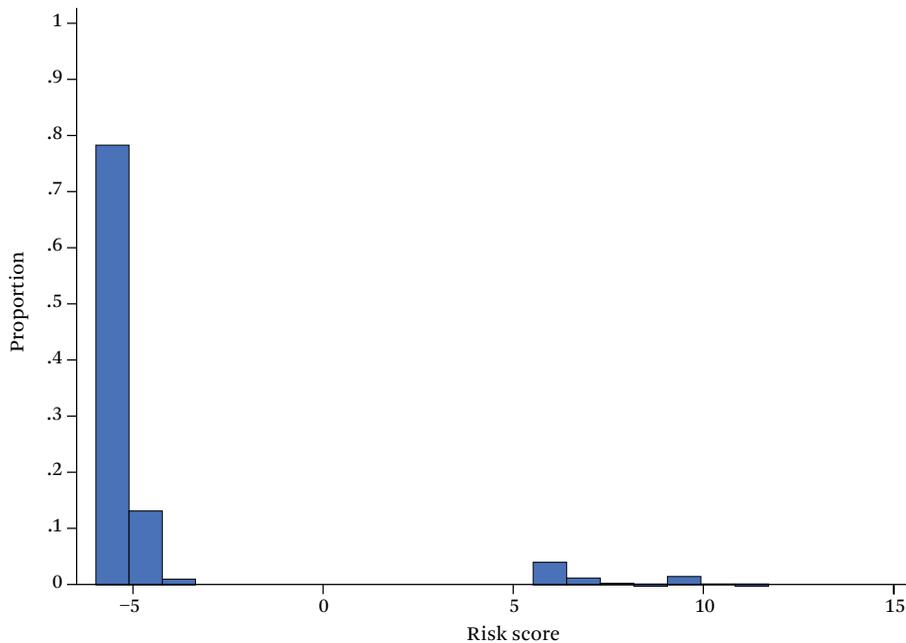
To construct the risk score, we predict charges for each individual, averaged over the six months of the baseline sample, using equation (1). In calculating these values, we are essentially combining data on age, gender, and use to create a single risk index, where the weights on each of the variables are determined by their relationship with total charges. Although not strictly necessary, we took the inverse hyperbolic sine transformation of the time averages to address the skewed charge data.

Table 2. Goodness-of-Fit of Different Models

	(1) Model 1	(2) Model 2	(3) Model 3
<i>R</i> ²	0.000449	0.0222	0.350
Age and gender	X	X	X
ER		X	X
Inpatient			X
Clusters	116,706	116,706	116,706

Source: Authors' tabulation.

Note: Reports the *R*² from the OLS regression in (1). Each observation is a patient or month. All estimations employ frequency weights. Model 1 includes gender specific quadratic functions of age. Model 2 adds a set of dummy variables for the number of ER visits in the month. Model 3 further adds a set of dummy variables for the number of hospitalizations.

Figure 3. Histogram of Risk Score

Source: Authors' tabulation.

As shown in the histogram of the risk score in figure 3, the distribution is both skewed and bimodal. Roughly 93 percent of individuals have risk scores clustered around -5 , and about 7 percent a score above 5. We classify individuals as high risk if their score was in the top 7 percent of the distribution and the remainder as low risk.

Figure 4 depicts differences in the average monthly medical expenditures by risk status. The right portion corresponds to the baseline period and thus is an in-sample prediction of charges. Average monthly charges for low-risk individuals is zero, meaning that our definition of high risk is equivalent to an indicator for positive expenditures in the baseline period. In other words, simply splitting the sample into individuals with no use and those with nonzero use in the baseline period would have resulted in the same division of groups.⁷ Average monthly charges for high-risk individuals is close to \$2,000.

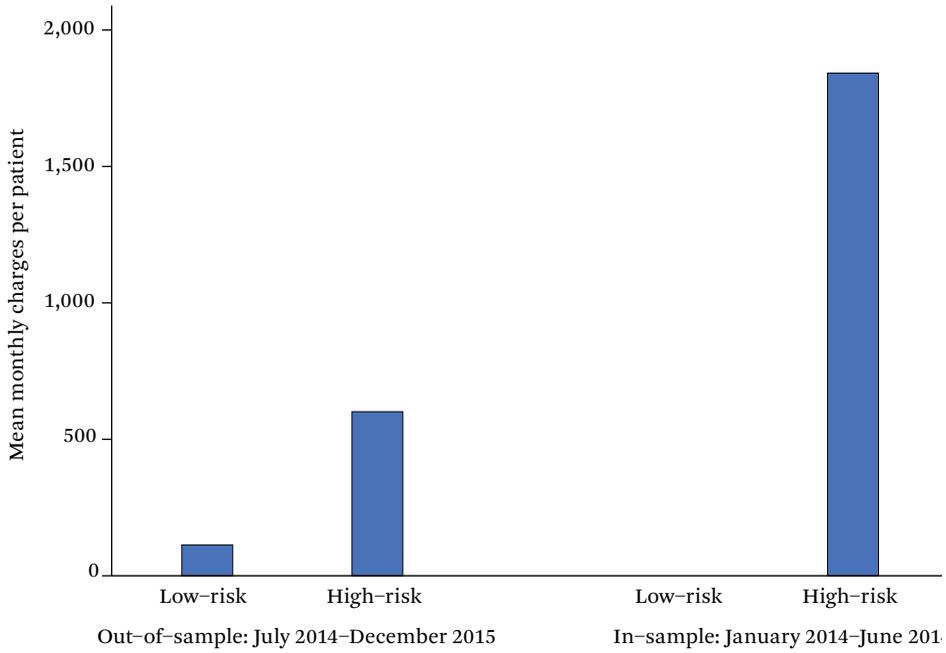
Does the risk score have predictive power? In the left portion of figure 4, we plot mean

monthly charges for the estimation sample by risk status. Note that the risk score was computed using the first six months of the panel (January 2014 to June 2014), whereas the estimation sample corresponds to the final eighteen (July 2014 to December 2015). Thus the two samples do not overlap. Although the difference is less stark than for the in-sample prediction on the right, we do see that the risk score has substantial predictive power out-of-sample. Average charges for low-risk individuals is approximately \$100 and average charges for high-risk individuals is around \$600. A six-fold difference between the two groups remains.

Finally, in figure 5, we plot the proportions of COFA migrants and White or Japanese people who are high risk in the baseline sample. Roughly, 7 percent of White or Japanese people are high risk. About 14 percent of COFA migrants are, however. This is broadly consistent with the descriptive statistics in table 1 showing that COFA migrants use substantially more health care than the general population.

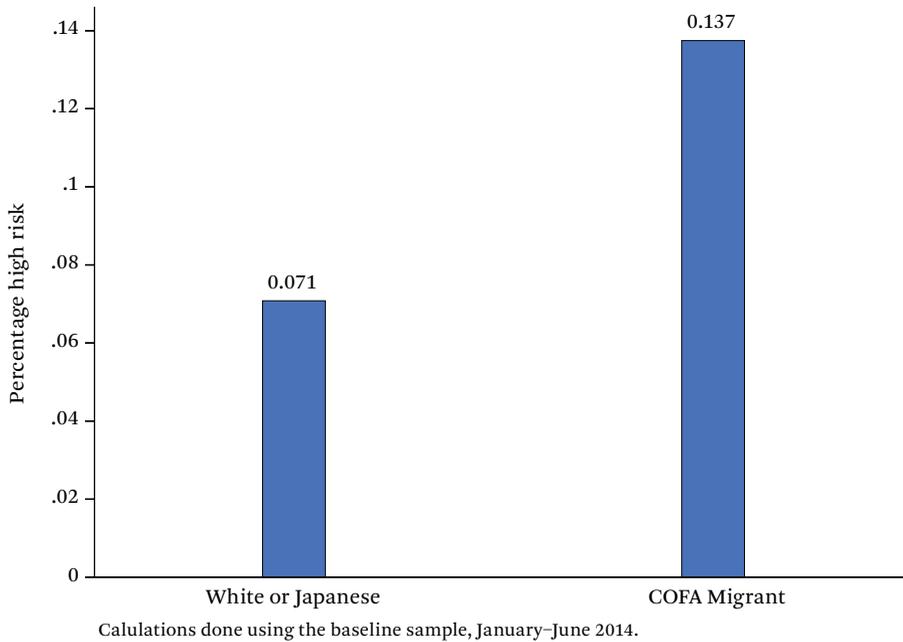
7. Because this is unlikely to be true in all settings, we have included the description of our risk score calculation for those who may want to replicate this using other samples or data.

Figure 4. Monthly Charges by Risk Status



Source: Authors' tabulation.

Figure 5. Risk Status by Ethnicity



Source: Authors' tabulation.

RESEARCH DESIGN AND EMPIRICAL SPECIFICATION

Our empirical analysis is based on a difference-in-differences strategy. Specifically, we examine the change in hospitalizations and emergency room visits after the expiration of Medicaid benefits for COFA migrants, separately for a treatment and a comparison group. We examine our data along a third dimension by categorizing all observations into either a high- or low-risk group, as detailed in the previous section.

Our treatment group consists of COFA migrants; our comparison group includes Whites and Japanese. COFA migrants were affected by the policy change, whereas Whites and Japanese experienced no change. We can therefore use this comparison group to provide us with an estimate of what the trends in outcomes would have looked like for COFA migrants if their Medicaid access had not been revoked. We attribute any deviation from these predicted trends by the COFA group to the policy change, which resulted in both higher administrative burdens in access to health insurance, as well as higher prices of medical care for those who lost insurance coverage.

In the following equations, the i subscript denotes individuals and t subscript denotes time periods (months). We let $COFA_i$ equal one for all COFA migrants and zero for Whites and Japanese people in Hawaii. The variable $POST_t$ equals one for periods between March and December 2015 (the periods after which Medicaid expired) and zero for the earlier periods. The binary variable $HIGH_i$ is equal to one for individuals whom we categorize as high risk (described in the previous section). We estimate the following specification for a variety of outcome variables y_{it} : counts and charges for hospitalizations and ER visits, the total as well as separated by payer:

$$y_{it} = \beta_1 COFA_i + \beta_2 HIGH_i + \beta_3 COFA_i \times HIGH_i + \beta_4 POST_t \times HIGH_i + \theta_{LOW} POST_t \times COFA_i + \theta_{DIFF} COFA_i \times POST_t \times HIGH_i + f(age_{it}) + \delta_i + \nu_{it}. \quad (2)$$

As with any difference-in-differences specification, the identifying assumption is that the outcomes of the treatment group (COFA mi-

grants) would have trended similarly to those of the comparison group (White and Japanese) if the policy change had not occurred. Under this assumption, we are able to recover the causal effect of the policy on our use and expenditure outcomes. Even though COFA migrants and the comparison individuals differ in a number of ways (socioeconomic status, health levels, insurance status, for example), the main effect of $COFA_i$ controls for these differences as long as they are fixed over our two-year study period.

The main deviation from the classic difference-in-differences is that we allow for separate estimates for high- and low-risk groups by interacting all variables with an indicator for high risk. Therefore, θ_{LOW} provides an estimate of the effect of losing Medicaid access on the low-risk group because this captures the difference between the change in outcomes for low-risk COFA migrants and the change in outcomes for low-risk comparison individuals. Meanwhile, θ_{DIFF} provides the differential effect of the policy on high-risk versus low-risk individuals. We calculate $\theta_{HIGH} = \theta_{LOW} + \theta_{DIFF}$, which provides the effect of losing Medicaid access on the high-risk group. Because θ_{HIGH} is a linear combination of two regression coefficients, standard errors are calculated accordingly.

We also conduct the following event study analysis, which allows us to detect whether COFA migrant outcomes were trending differently from comparison group outcomes before the policy change. For this regression, we define dummy variables D_t , which are equal to one in month t and zero otherwise.

$$y_{it} = \beta_0 + \beta_1 COFA_i + \beta_2 HIGH_i + \beta_3 COFA_i \times HIGH_i + \sum_t \beta_{4,t} D_t \times HIGH_i + \sum_t \theta_{LOW,t} COFA_i \times D_t + \sum_t \theta_{DIFF,t} COFA_i \times HIGH_i \times D_t + f(age_{it}) + \delta_i + \nu_{it}. \quad (3)$$

Once again, we calculate $\theta_{HIGH,t} = \theta_{LOW,t} + \theta_{DIFF,t}$, which yields one coefficient per time period for each risk group, each of which represents the change in outcomes for the relevant risk group relative to the omitted period (February 2015).

An important feature of this design is that it allows us to assess the distributional impact of the Medicaid expiration. In particular, we are

able to estimate how much of the change in use was borne by high-risk individuals. To do so, first we note that the total impact of the expiration is $0.93 \times \theta_{LOW} + 0.07 \times \theta_{HIGH}$. Consequently, the proportion of the total impact borne by the sickest 7 percent of COFA migrants is

$$\rho = \frac{0.07 \times \theta_{HIGH}}{0.93 \times \theta_{LOW} + 0.07 \times \theta_{HIGH}}$$

We report ρ for all of our estimations. Note that if $\theta_{HIGH} = \theta_{LOW}$ then $\rho = 7\%$ and the Medicaid expiration has no distributional impact.

DIFFERENCE-IN-DIFFERENCES RESULTS

We begin with the estimation results from specification (2). Table 3 reports the results for total use and charges, separately for ER and inpatient. Tables 4 to 7 repeat this analysis for different payers: Medicaid, private, Medicaid plus private, and self. Each table reports three parameters of interest: the estimated effect of the policy for the low-risk group (θ_{LOW}), the effect for the high-risk group (θ_{HIGH}), and the difference between the two (θ_{DIFF}). The first two columns examine use counts (multiplied by

one hundred for readability), and should be interpreted as the effect of the Medicaid expiration on use per hundred people. Columns 3 and 4 report results for charges in dollars. For each regression, we report the means of the dependent variables for the COFA population between July 2014 and February 2015, before the Medicaid expiration. This will allow us to measure the impact of the policy change relative to the pre-policy means.

Our first finding is that the Medicaid expiration reduced the total number of ER visits for both low and high risk COFA migrants (as shown in column 1 of table 3). This reduction was significantly larger for high-risk than for low-risk individuals. To put the magnitudes of the coefficients into perspective, we compare each group's coefficients with the (group-specific) mean of the dependent variable in the pre-period. The effect of the policy was only 3.5 percent of average ER use for low-risk individuals but 15 percent for high-risk individuals.

Coefficient estimates for total inpatient visits are also negative (column 2), though less precisely estimated. The reduction for the high-risk group was larger in magnitude but not sig-

Table 3. Impact of Medicaid Expiration on Utilization and Charges by Risk Status: Total

	(1) ER Utilization	(2) Inpatient Utilization	(3) ER Charges	(4) Inpatient Charges
Low risk	-0.26*** (0.07)	-0.06** (0.03)	-4.27** (2.05)	10.05 (17.31)
High risk	-1.13*** (0.32)	-0.19 (0.14)	-26.92*** (9.43)	-122.32 (86.63)
Difference	-0.87*** (0.33)	-0.13 (0.14)	-22.65** (9.65)	-132.37 (88.35)
Low-risk mean	7.26	2.08	170.96	615.02
High-risk mean	7.51	1.81	177.31	646.13
ρ	0.25	0.19	0.32	.

Source: Authors' tabulation.

Note: Figures are estimates of θ_{LOW} , θ_{HIGH} , and θ_{DIFF} from specification (2) for people age eighteen to sixty-four. The dependent variable in columns 1 and 2 is a count of utilization per patient-month, multiplied by 100. The dependent variable in columns 3 and 4 is total charges (in dollars) per patient-month. The number of individuals in each estimation (including dummy observations) is 118,450. We control for a quadratic in age in all estimations and month fixed effects. ρ is the percentage of the Medicaid expiration that was borne by high-risk migrants. Standard errors are clustered by individual. We report the means of the dependent variables of each regression for COFA migrants in the period July 2014 to February 2015 by risk category.

* $p < .10$; ** $p < .05$; *** $p < .01$

Table 4. Impact of Medicaid Expiration on Utilization and Charges by Risk Status: Medicaid

	(1) ER Utilization	(2) Inpatient Utilization	(3) ER Charges	(4) Inpatient Charges
Low risk	-0.78*** (0.07)	-0.18*** (0.03)	-17.26*** (1.65)	-52.62*** (13.21)
High risk	-3.62*** (0.26)	-0.88*** (0.12)	-92.10*** (7.08)	-346.24*** (74.01)
Difference	-2.83*** (0.26)	-0.70*** (0.12)	-74.84*** (7.27)	-293.63*** (75.18)
Low-risk mean	3.85	1.55	87.12	445.80
High-risk mean	4.95	1.48	119.59	526.35
ρ	0.26	0.27	0.29	0.33

Source: Authors' tabulation.

Note: Figures are estimates of θ_{LOW} , θ_{HIGH} , and θ_{DIFF} from specification (2) for people age eighteen to sixty-four. The dependent variable in columns 1 and 2 is a count of utilization per patient-month, multiplied by 100. The dependent variable in columns 3 and 4 is total charges (in dollars) per patient-month. The number of individuals in each estimation (including dummy observations) is 118,450. We control for a quadratic in age in all estimations and month fixed effects. ρ is the percentage of the Medicaid expiration that was borne by high-risk migrants. Standard errors are clustered by individual. We report the means of the dependent variables of each regression for COFA migrants in the period July 2014 to February 2015 by risk category.

* $p < .10$; ** $p < .05$; *** $p < .01$

nificantly different from zero or from the low-risk coefficient. We find a similar pattern of results in the regressions on total charges (columns 3 and 4).

Why did the Medicaid expiration lead to reductions in ER and inpatient use? First, the Medicaid expiration essentially made obtaining insurance more costly, primarily in terms of time and effort. COFA migrants who wanted to stay insured had to enroll in one of the private insurance plans via the ACA exchange, and enrollment was restricted to a six-week period. Moreover, COFA migrants were required to enroll and be denied Medicaid coverage to enroll in private plans. For people who chose not take up private insurance after their Medicaid benefits expired, this policy effectively led to an increase in the price of health care.

The finding that high-risk individuals reduced their use more than low-risk individuals could have been due to a lower propensity to take up private insurance after losing Medicaid, greater sensitivity to health-care prices,

or a combination. To shed light on the precise mechanisms, we examine use and charges separately for each of the following payers: Medicaid, private, Medicaid and private, and self.

Overall, we see that the Medicaid expiration shifted the payer from Medicaid to private insurance. Estimates in table 4, which report effects on Medicaid use and charges, are negative and highly significant. At the same time, estimates in table 5 indicate that privately funded use increased, although the magnitudes of the increases are smaller than the declines in Medicaid-funded use and charges. This shift in payers occurred for both high- and low-risk individuals.

More important, table 6 shows that insured ER visits and hospitalizations covered by either Medicaid or private insurance declined on net, and these impacts were substantially larger for high-risk people. In this table, the dependent variable is the sum of visits and charges funded by both Medicaid and private insurance.⁸ The

8. These estimations are in a sense redundant as they are mechanically the sum of the estimates in tables 4 and 5. However, estimating these models allows us to test whether the net changes are significant, which cannot be done simply by looking at the difference in the two tables.

Table 5. Impact of Medicaid Expiration on Utilization and Charges by Risk Status: Private

	(1) ER Utilization	(2) Inpatient Utilization	(3) ER Charges	(4) Inpatient Charges
Low risk	0.44*** (0.05)	0.13*** (0.02)	10.92*** (1.43)	57.60*** (10.43)
High risk	1.86*** (0.20)	0.59*** (0.07)	50.45*** (5.98)	187.77*** (36.21)
Difference	1.42*** (0.20)	0.47*** (0.08)	39.53*** (6.15)	130.17*** (37.69)
Low-risk mean	1.26	0.25	28.89	69.31
High-risk mean	1.21	0.17	27.00	54.63
ρ	0.24	0.26	0.26	0.20

Source: Authors' tabulation.

Note: Figures are estimates of θ_{LOW} , θ_{HIGH} , and θ_{DIFF} from specification (2) for people age eighteen to sixty-four. The dependent variable in columns 1 and 2 is a count of utilization per patient-month, multiplied by 100. The dependent variable in columns 3 and 4 is total charges (in dollars) per patient-month. The number of individuals in each estimation (including dummy observations) is 118,450. We control for a quadratic in age in all estimations and month fixed effects. ρ is the percentage of the Medicaid expiration that was borne by high-risk migrants. Standard errors are clustered by individual. We report the means of the dependent variables of each regression for COFA migrants in the period July 2014 to February 2015 by risk category.

* $p < .10$; ** $p < .05$; *** $p < .01$

net decline in insured ER visits is statistically significant ($p < .01$) for both risk types. On net, insured ER visits declined by 0.35 for low-risk individuals and 1.76 for high-risk individuals per hundred patients per month (column 1). As a percentage of the means in the pre-period, these declines are 7 percent for low-risk people and 29 percent for high-risk people. We see similar effects for hospitalizations in column 2. On net, hospitalizations declined by 0.06 ($p < .1$) and 0.29 ($p < .05$) for low- and high-risk people, respectively. These estimates are 3 percent and 18 percent of their pre-policy means. Finally, we see similar patterns for charges (columns 3 and 4 of table 6).

That the decline in insured use was larger for high-risk individuals suggests they were less likely to switch to private insurance after their Medicaid benefits expired. This is despite these individuals having a greater need for health insurance given their high use before the policy. Risk status is likely correlated with income and education, which in turn are likely to be important determinants of awareness of the policy and ability to enroll in private insurance. This could explain why private insurance failed to

make up for the decline in Medicaid-covered use, particularly in the high-risk group.

Even though these results suggest that high-risk types faced greater obstacles to obtaining private insurance, it is still possible that their larger reductions in total use were driven in part by greater price sensitivity. In particular, high-risk individuals could have been more price elastic if much of their health-care use prior to the policy was unnecessary overuse. To investigate the plausibility of this explanation, we examine uninsured use and charges as the last outcome variables in table 7. If high-risk individuals had substantial unnecessary care before the Medicaid expiration, we might expect to see their total use go down (as we found earlier), but should not see increases in uninsured use.

The results in table 7 show that the Medicaid expiration increased uninsured ER visits and hospitalizations for high-risk individuals, and these increases were larger than for low-risk individuals. In column 1, we see that uninsured ER visits increased by 0.13 ($p < .01$) for low-risk individuals and 0.55 ($p < .01$) for high-risk per hundred patients per month. As per-

Table 6. Impact of Medicaid Expiration on Utilization and Charges by Risk Status: Medicaid + Private

	(1) ER Utilization	(2) Inpatient Utilization	(3) ER Charges	(4) Inpatient Charges
Low risk	-0.35*** (0.06)	-0.06* (0.03)	-6.34*** (1.60)	4.98 (15.69)
High risk	-1.76*** (0.29)	-0.29** (0.13)	-41.66*** (8.63)	-158.48* (82.83)
Difference	-1.41*** (0.30)	-0.23* (0.14)	-35.32*** (8.77)	-163.46* (84.31)
Low-risk mean	5.11	1.80	116.01	515.11
High-risk mean	6.16	1.65	146.59	580.98
ρ	0.28	0.27	0.33	.

Source: Authors' tabulation.

Note: Figures are estimates of θ_{LOW} , θ_{HIGH} , and θ_{DIFF} from specification (2) for people age eighteen to sixty-four. The dependent variable in columns 1 and 2 is a count of utilization per patient-month, multiplied by 100. The dependent variable in columns 3 and 4 is total charges (in dollars) per patient-month. The number of individuals in each estimation (including dummy observations) is 118,450. We control for a quadratic in age in all estimations and month fixed effects. ρ is the percentage of the Medicaid expiration that was borne by high-risk migrants. Standard errors are clustered by individual. We report the means of the dependent variables of each regression for COFA migrants in the period July 2014 to February 2015 by risk category.

* $p < .10$; ** $p < .05$; *** $p < .01$

centages of their pre-policy means, these effects are, respectively, 7 percent and 56 percent. In column 2, we see that uninsured hospitalizations increased only for high-risk individuals. Uninsured hospitalizations increased by 0.07 ($p < .05$), which was 117 percent of its pre-policy mean. Similar patterns are found for charges (in columns 3–4). In sum, it is unlikely that the more drastic reduction in use for high-risk individuals was due to substantial overuse before the policy change. All told, the Medicaid expiration disproportionately affected the most vulnerable migrants. This is evident looking at estimates of ρ in tables 3 through 7, which indicate that between 17 and 33 percent of the total effect of the Medicaid expiration was borne by high-risk people, much higher than the 7 percent we would expect if low-risk and high-risk groups were equally affected. In column 4 of tables 3 and 6, and column 2 of table 7, we see that the entire increase in total inpatient charges, Medicaid or private inpatient charges, and uninsured hospitalizations were driven by high-risk migrants.⁹

9. We did not compute ρ because the estimate for low-risk migrants had the opposite sign as the estimate for high-risk migrants.

EVENT STUDY RESULTS

We next show the results of the event study analysis in equation (3), which helps assess the validity of our empirical strategy. Specifically, it helps identify any differences in the pre-trends of COFA migrants and our comparison group, which would indicate a potential violation of our parallel trends assumption. In addition, this event study analysis sheds light on any potential anticipation effects. Because the policy change was announced in November 2014, COFA migrants could have started adjusting their health-care use at this time, in preparation for the future loss of Medicaid eligibility. We plot each of the estimated $\theta_{HIGH,t}$ and $\theta_{LOW,t}$ coefficients and their confidence intervals in figure 6 for hospitalizations and figure 7 for ER visits. Each figure contains six plots corresponding to each payer (any payer, Medicaid, private, or self) and risk type (high or low).

On the whole, the figures suggest no pre-trend differences between COFA migrants and the comparison group in either risk category. This is particularly true for hospitalizations.

Table 7. Impact of Medicaid Expiration on Utilization and Charges by Risk Status: Self

	(1) ER Utilization	(2) Inpatient Utilization	(3) ER Charges	(4) Inpatient Charges
Low risk	0.13*** (0.04)	-0.00 (0.01)	3.90*** (1.16)	7.73 (5.08)
High risk	0.55*** (0.13)	0.07** (0.03)	12.49*** (3.90)	20.34* (10.54)
Difference	0.42*** (0.13)	0.07** (0.03)	8.59** (4.07)	12.60 (11.70)
Low-risk mean	1.84	0.23	46.57	71.87
High-risk mean	0.99	0.06	23.57	13.93
ρ	0.24	.	0.19	0.17

Source: Authors' tabulation.

Note: This table displays estimates of θ_{LOW} , θ_{HIGH} and θ_{DIFF} from specification (2) for people age eighteen to sixty-four. The dependent variable in columns 1 and 2 is a count of utilization per patient-month, multiplied by 100. The dependent variable in columns 3 and 4 is total charges (in dollars) per patient-month. The number of individuals in each estimation (including dummy observations) is 118,450. We control for a quadratic in age in all estimations and month fixed effects. ρ is the percentage of the Medicaid expiration that was borne by high-risk migrants. Standard errors are clustered by individual. We report the means of the dependent variables of each regression for COFA migrants in the period July 2014 to February 2015 by risk category.

* $p < .10$; ** $p < .05$; *** $p < .01$

For Medicaid-funded ER visits for high-risk migrants (second from the top right of figure 7), the pre-policy coefficients are all larger than zero (though mostly insignificant). This could potentially be the result of COFA migrants responding in the month before their Medicaid benefits officially expired rather than the month it did expire. Uncertainty about the official expiration date could have led to an earlier response. None of these figures show signs of any discontinuities around the time of the November 2014 announcement, which suggests limited response to this initial announcement, perhaps a sign of the general confusion and limited awareness at the time.

These figures also reiterate the findings of the previous tables. After the policy change, we see a decrease in Medicaid-covered use, an increase in private-funded use, and an increase in self-funded use. Across all outcome variables, effects are larger for the high-risk groups.

CONCLUSION

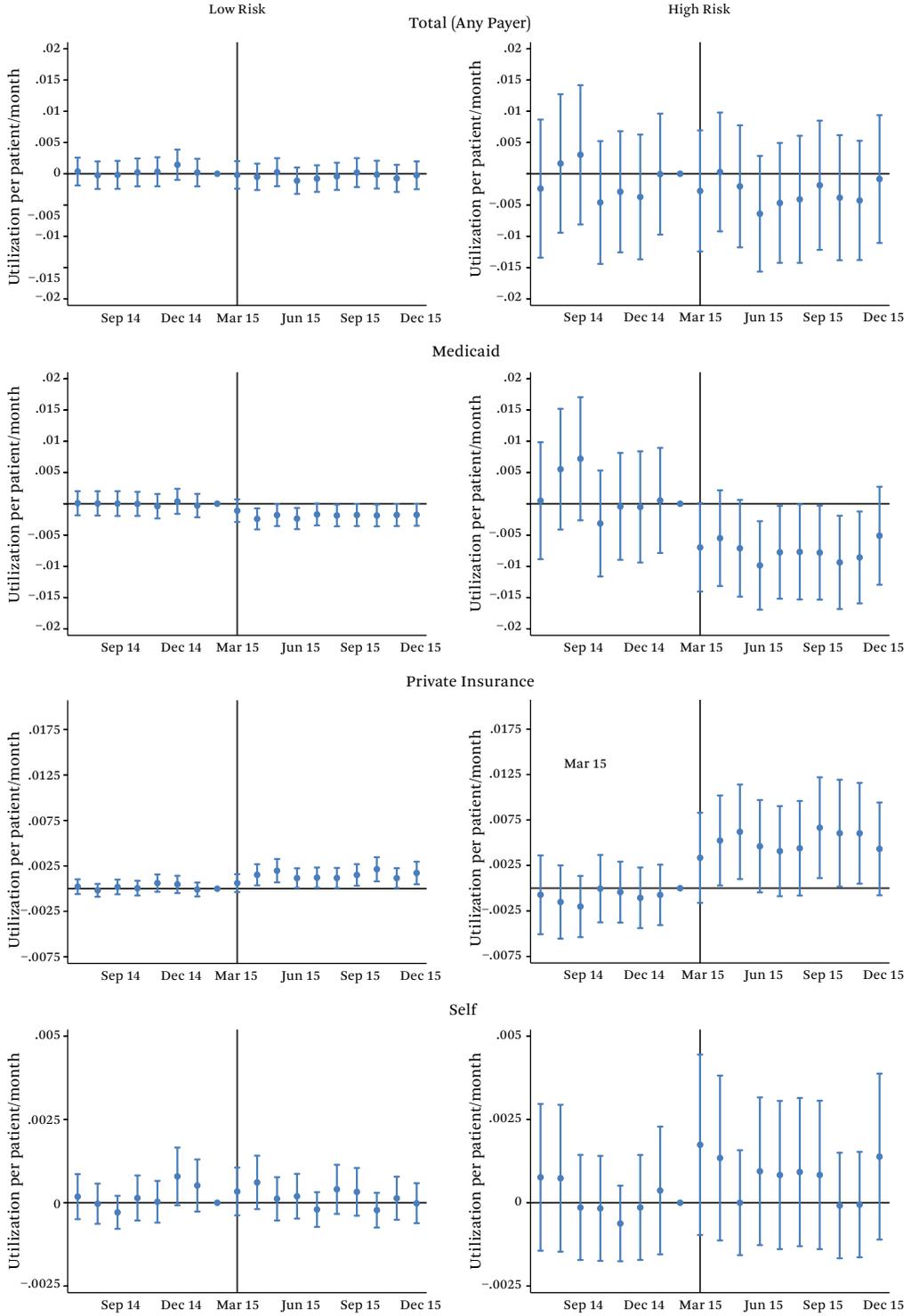
Our analysis focused on the effect of moving individuals off publicly provided health-care coverage to privately provided insurance. In

particular, we were concerned with whether this had differential impacts across the health distribution. We separate our sample into a high-risk and a low-risk group using data from a period preceding the change in coverage. We might expect individuals in the high-risk group who have existing health conditions to be especially and adversely affected by changes in coverage. This would be especially problematic if these obstacles to the new coverage are highly correlated with individual income, resources, or skills.

We find that eliminating Medicaid benefits for COFA migrants in the state of Hawaii resulted in more use paid by private insurance and less paid by Medicaid, as expected. In addition, we find that on net the policy reduced inpatient and ER use for COFA migrants. Accordingly, access to subsidized private insurance via the ACA exchanges is an imperfect substitute for Medicaid eligibility.

The reduction is most pronounced for the high-risk individuals in our data, for whom we see even larger decreases in use. High-risk individuals also experienced larger increases in uninsured use. In other words, this policy ex-

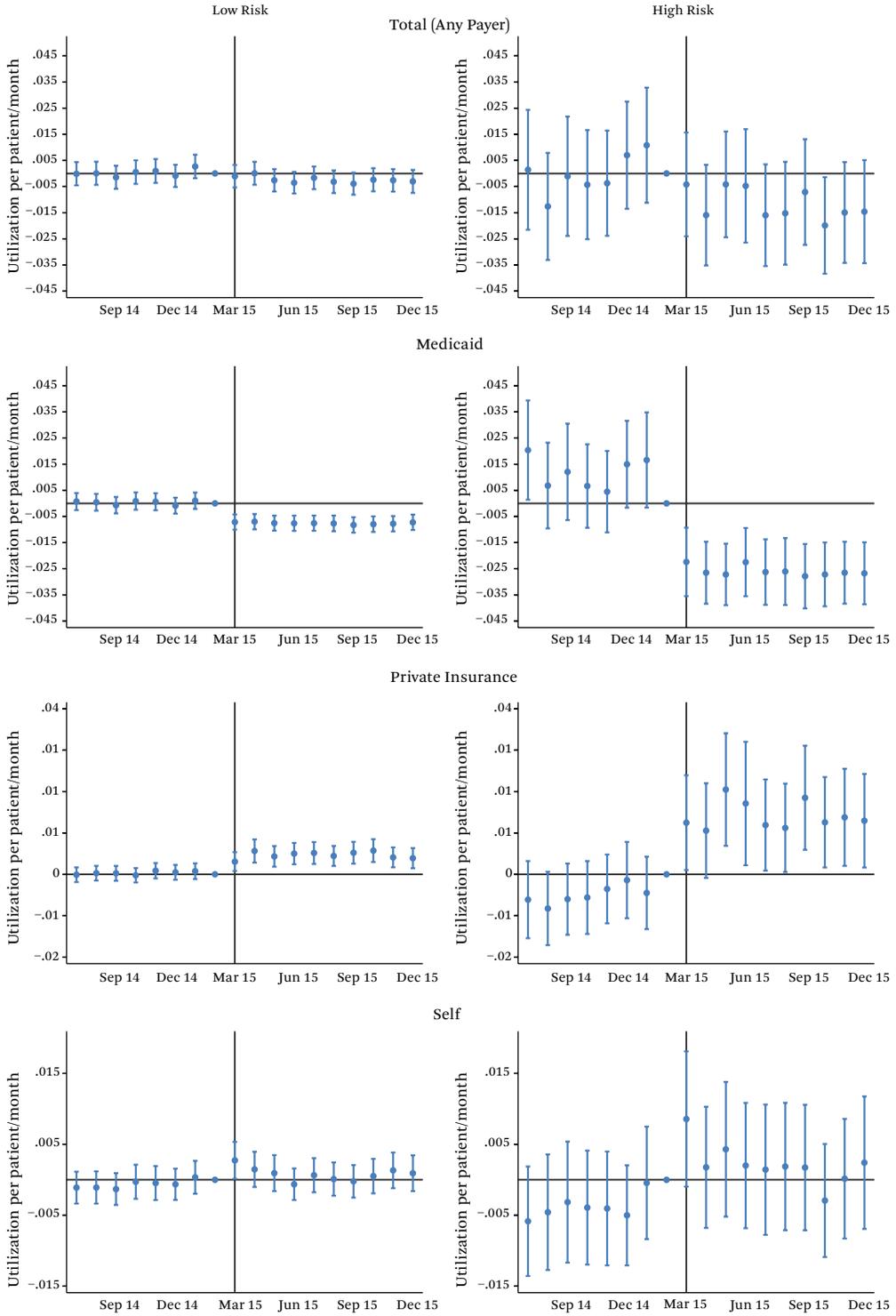
Figure 6. Event Analyses, Hospitalizations



Source: Authors' tabulation.

Note: Each figure displays estimates of $\theta_{LOW,t}$ and $\theta_{HIGH,t}$ from equation (3). Estimates in each row come from the same estimation. The vertical bars correspond to 99 percent confidence intervals.

Figure 7. Event Analyses, ER Visits



Source: Authors' tabulation.

Note: Each figure displays estimates of $\theta_{LOW,t}$ and $\theta_{HIGH,t}$ from equation (3). Estimates in each row come from the same estimation. The vertical bars correspond to 99 percent confidence intervals.

acerbated health inequalities. The finding that high-risk individuals reduced their use more than low-risk individuals did in response to an increase in administrative burden contradicts theories predicting that those in greater need should be more likely to go through an ordeal to access a program. Instead, our results are consistent with several empirical studies documenting higher and more consequential administrative burden for individuals with lower income and human capital (Deshpande and Li 2019; Christensen et al. 2020; Holt and Vinopal 2021; Raker and Woods 2023).

Overall, we contribute to the literature on health-care coverage and low-income populations. We show that the method of health-care coverage may matter on average for these populations.

Additionally, some of the most disadvantaged portions of the low-income population may be particularly vulnerable if enrollment or access to the new source of health-care coverage (private insurers) is related to an individual's abilities or resources. The equity-efficiency trade-off in the method of the provision of health-care coverage is not easily remedied. Although we do not have definitive evidence for the cause for these differences, the relatively short enrollment window for private health insurance coverage may play an important role in discouraging complete uptake by these high-risk populations (Kamstra, Molina, and Halliday 2021). Other researchers show that administrative burden associated with medical services can delay patient care partially or completely because of difficulties with administrative tasks (Kyle and Frakt 2021). Jeffrey Kullgren and his colleagues (2012) estimate that more than 20 percent of U.S. adults faced nonfinancial barriers to care that resulted in unmet health care or delayed access.

We also contribute to the small, but emerging literature examining the health outcomes for COFA migrants in Hawaii and other locations in the United States. Pearl McElfish and her colleagues (2016) show, through structured interviews with Marshallese COFA migrants residing in Arkansas, that this population has similarly been denied by virtue of their non-eligible immigrant status eligibility for Medicaid or Medicaid expansion despite their rela-

tively low incomes. As a result, this population has not realized a dramatic reduction in their uninsured rate. These lower rates of coverage translate directly into poorer health outcomes. Wendy Nembhard and her colleagues (2019) show that pregnant Marshallese women tend to have a higher prevalence of other medical risk factors than pregnant non-Hispanic White women in Arkansas.

Finally, future work should also investigate the effect that these differences in health insurance coverage have for other long-term outcomes. It is currently not known how this reduction in coverage and access affected death rates across the health distribution. Are the high-risk individuals who no longer have health-care coverage more likely to die following their reduction in ER use and hospitalization? Alternatively, if they are not dying, does this reduction in health-care access affect their ability to work and take care of their families? We do not have the relevant data currently, but understanding how these important other outcomes are affected will go a long way in estimating the true cost of this change in COFA migrants' health-care access.

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PART II

College

Administrative Burden in Federal Student Loan Repayment, and Socially Stratified Access to Income-Driven Repayment Plans



ADAM GOLDSTEIN^{ORCID}, CHARLIE EATON^{ORCID}, AMBER VILLALOBOS,
PARIJAT CHAKRABARTI^{ORCID}, JEREMY COHEN, AND KATIE DONNELLY

This study considers socially stratified take-up of income-driven repayment plans among federal student loan borrowers with high-debt payment obligations. Qualitative analyses of borrower complaints from the Consumer Financial Protection Bureau are used to document borrowers' experiences of administrative burden in the federal loan repayment system. The combined effects of burdens on access to payment relief programs are quantified using both administrative data from a national sample of consumer credit reports and restricted-use survey data from the Beginning Postsecondary Longitudinal Study (BPS). Socioeconomic and racial gaps in take-up of income-driven repayment (IDR) plans are estimated among the subset of borrowers who would face high loan payment-to-income ratios under a standard repayment plan. Regression models indicate that among these borrowers, those living in lower-income census blocks are less likely to be enrolled in IDR.

Keywords: income-driven repayment, IDR, student loans, debt servicing, administrative burden, stratified take-up

Total outstanding debt for federally backed student loans in the United States grew from \$229 billion in 2000 to \$1.04 trillion (in constant dollars) by 2020, making educational debt the second largest type of household debt holdings after home mortgages. Forty-three million

households carry student debt, including 40 percent of those headed by adults under the age of forty (authors' calculation from 2019 Survey of Consumer Finances [U.S. Federal Reserve Board of Governors 2019]). Among those adults with student loans who are in the bot-

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tom half of the national income distribution, average student debt loads had come to exceed average annual income by 2019 (Koppam and Clemens 2020).

Even as scholars and policymakers have produced a growing body of research on the *financial* effects of student loan obligations and related inequality (Houle and Addo 2018; Haughwout et al. 2019), less attention has been paid to the accompanying *administrative* burdens that borrowers in the federal student loan repayment system face that may exacerbate the financial strains and disparate effects of student debt. Building on concepts of administrative burden in policy implementation (Herd and Moynihan 2018) and cultural capital as a mechanism of inequality (Lareau 2015), this article assesses the difficulties and inequalities that arise from a public-private loan servicing system that places the onus on individual borrowers to navigate complex terms and negotiate directly with private loan servicers (Brodkin and Majmundar 2010).

We focus specifically on take-up of federal income-driven repayment (IDR) plans on the basis of their role as the main policy mechanism for mitigating affordability strains on student borrowers. Although all nonparent federal student borrowers are theoretically entitled to participate in some type of income-based repayment program, these programs are widely understood to be characterized by underenrollment and to feature high practical barriers to access as a result of unresponsive loan servicers, involved documentation requirements, and a confusing patchwork of rules (Frotman and Gibbs 2017; Baum and Chingos 2017; Pearl 2021).

This article examines the relationship between high administrative burden and social stratification in IDR enrollment. We argue that by making access to repayment programs effectively conditional on individuals' abilities to parse complex program terms and traverse bureaucratic hassles (Sunstein 2019), the loan servicing system disproportionately hinders access for those in more marginalized social positions, who bring comparatively fewer resources to these administrative encounters (Cherlin et al. 2002; Brodkin and Majmundar 2010; Goldstein and Wharam 2022). The result

is that borrowers with lower socioeconomic status (SES) are disproportionately excluded from the very federal programs intended to help borrowers manage the costs and risks of debt-financed higher education.

After briefly discussing federal student loan repayment programs and administrative burdens as a mechanism of inequality, this analysis draws on qualitative text analyses of Consumer Financial Protection Board (CFPB) complaint testimonials to describe the burdens that student loan borrowers experience as they attempt to manage repayment, interact with loan servicers, and access payment relief programs. The analysis reveals the variety and pervasiveness of administrative burdens throughout the loan servicing system, and identifies key ways burdens hinder borrowers' access to payment relief programs.

The analysis then quantifies disparate effects of high administrative burden on program participation. Using administrative data from a 1 percent national sample of consumer credit reports, we estimate socioeconomic and racial gaps in take-up of income-driven repayment among the subset of borrowers who would face high (> 0.2) monthly student loan payment-to-income ratio under a standard repayment plan, and who thus most clearly stand to benefit from participating in income-based repayment.

The analysis contributes to the student loan policy literature by adding new empirical evidence on how loan servicing operates as a mechanism of stratification within the financialized higher education funding system. For research on administrative burdens, we add new insights on the role of outsourced or privatized service contractors as a source of burdens in public programs—even in the context of universalistic programs that are not subject to eligibility targeting, and where policymakers have few incentives to ration provision.

FEDERAL STUDENT LOAN SERVICING AND REPAYMENT PROGRAMS

Since the mid-1990s, federal government policy has responded to concerns about the growth of student loan debt by instituting payment relief programs intended to mitigate the adverse effects of debt burdens on borrowers. Income-based repayment programs lengthen the loan

Table 1. Summary of Income-Driven Repayment Plans for Federal Student Loans

IDR plan	Borrowers enrolled circa 2020	Program Began	Eligibility	Payment Formula	Cancellation of Remaining Balance
Revised Pay As You Earn (REPAYE)	3.27 million	2015	direct loans or consolidation loan from any vintage	10% of discretionary income (household AGI=150% FPL)	After 240 payments (undergraduate), 300 payments (graduate)
Pay As You Earn (PAYE)	1.5 million	2012	direct loans dispersed after 2012, some loans dispersed 2008–2012	10% of discretionary income (AGI=150% FPL)	After 240 payments
Income-based repayment (IBR)	2.76 million	2009	FEFL loans and direct loans	15% of discretionary income (AGI=150% FPL)	After 300 payments
Income-contingent repayment (ICR)	0.76 million	1993	direct loans	lesser of 20% discretionary income (AGI=100% FPL), or fixed 12 year amortized payment	After 300 payments

Source: Authors' tabulation.

amortization and peg monthly payment to a proportion of borrowers' discretionary income (typically 10 percent), with cancellation of the remaining balances after some period of satisfactory payments (typically twenty or twenty-five years). IDR programs have seen several refinements and expansions since their initial introduction in 1995, resulting in various flavors with slight variations in repayment terms and eligibility. All nonparent federal loans are eligible for at least one version of IDR (see table 1). IDR plans all share the policy goals of making monthly payments more manageable, insuring against lower than expected returns to higher education, and providing protection against labor-market shocks by allowing payments to adjust dynamically if earnings decline. They thereby aim to limit the financial risks of individual investments in higher education within the United States's prevailing high-tuition, high-debt funding system.

Concerns about administrative barriers to accessing IDR have become more acute as student debt has ballooned and its impact on borrowers has become more apparent. Prior studies and policy reports suggest that confusing

terms, noncooperative loan servicers, and onerous documentation requirements present frequent barriers to enrolling and remaining enrolled (Consumer Financial Protection Bureau 2015; Frotman and Gibbs 2017; Baum and Chingos 2017; Mueller and Yanellis 2019; Conkling and Gibbs 2019). According to a policy brief by the legal education advocacy group AccessLex (2021), "the . . . consensus among nearly all stakeholders is that IDR has, unfortunately, over time, evolved into a web of cryptic and opaque options that leave too many student borrowers behind."

Although enrollment in IDR increased from less than one million prior to 2010 to nearly ten million in recent years (Karamcheva, Perry, and Yannelis 2020), around 50 percent of borrowers with low incomes and large loan balances still do not enroll. Thomas Conkling and Christa Gibbs (2019) report that every year, approximately 15 percent of enrolled borrowers fail to successfully reenroll within two months of annual plan expiration and end up either in forbearance or default, suggesting that the drop-out from IDR was not purposeful. Nongraduates who may be in the greatest need are more

prone to fall through the cracks (Frotman and Gibbs 2017). Beyond this information, however, we have limited knowledge about patterns of IDR participation (Collier, Fitzpatrick, and Maricano 2022). Even less is known about patterns of underenrollment among highly payment-burdened borrowers who would benefit from IDR but are not participating.

FEDERAL STUDENT LOAN SERVICING

An important feature of the federal student loan policy is that private servicers are the conduits through which borrowers access federal relief programs for federal loans. Although 92 percent of outstanding student loans are held and governed by the Department of Education, the federal government does not directly collect payments or interact with borrowers. Instead, loans are allocated to contracted servicing organizations, which are responsible for customer service and communication, payment collection, and—crucially—guiding and processing borrower enrollment in the various federal repayment programs. This means that administrative burdens in federal IDR programs must be understood in the organizational context of the contracted-out consumer creditor state (Quinn 2017). In this respect, federal student loan programs parallel federally backed mortgage and small business credit programs, many of which also rely on private firms as servicers and gatekeepers.

Until 2009, only one servicer for federal direct loans (ACS) was in operation.¹ However, with the winding down of the FEFL program in 2008 and the massive expansion of federal direct loan holding following the 2010 Student Aid and Fiscal Responsibility Act, the Department of Education began contracting with a stable of multiple for-profit and nonprofit servicers. During our study period up to eight of these were in operation, including four for-profits and four smaller nonprofits. With few exceptions, borrowers cannot choose which servicer their loans are assigned (for background, see Postsecondary National Policy Institute 2019).

The Office of Federal Student Aid (FSA) oversees awarding and monitoring of servicing contracts. However, FSA has little direct oversight over servicing operations. Instead, incentives are managed using performance-based criteria. These criteria are incorporated into fee rate schedules and also used to determine servicers' future loan allocations. Servicers are paid a monthly fee for all non-defaulted loans and a higher amount for performing loans, which includes loans in IDR (\$2.85 per loan-month). Lesser amounts are paid for loans that are delinquent or in forbearance. Performance assessments are used to allocate future loans across servicers, giving them an incentive to meet criteria. The most important of these is loan default avoidance and delinquency avoidance, though other criteria include borrowers satisfaction surveys and FSA manager surveys of perceived servicer performance.

Servicers are responsible for enrolling borrowers in IDR following a request (typically via phone), and subsequent submission of application and income certification forms. In theory, compensation incentives and performance-based loan allocation criteria in federal servicing contracts should give servicers an incentive to ensure that struggling borrowers are able to access IDR programs in order to heighten their chances of remaining current and in repayment, rather than steering them into forbearance or allowing them to lapse into delinquency (see Darolia and Sullivan 2020). However, both government and private watchdog reports have consistently documented widespread servicer failures with respect to federal loan repayment programs, despite recurrent tweaks to the servicing contracts, and termination of some servicers (see Consumer Financial Protection Bureau 2015; GAO 2016; Student Borrower Protection Center and American Federation of Teachers 2020). As we document in the next section, borrowers experienced a litany of servicer-borne barriers to IDR enrollment across the study period.

1. Before 2010, federally backed student loans were lent both directly and through private lenders (FEFL loans) with a federal guarantee. Both were governed by the same rules, but individual lenders serviced the FEFL loans. After 2010, all new federal loans were direct loans and private organizations were involved only as servicers.

ADMINISTRATIVE BURDEN AND SOCIAL STRATIFICATION

Administrative burdens represent the flipside of street-level bureaucracy from the perspective of recipients and claimants (Peeters 2019). Here the issue is how the informational requirements and bureaucratic procedures surrounding public programs can undermine equitable access to citizens by creating various hoops through which claimants must jump. Such burdens can arise intentionally as a rationing tactic on the part of either policymakers (Herd and Moynihan 2018) or street-level bureaucrats. Burdens also often emerge as unintentional consequences of policy design or organizational constraints. We adopt a broad conceptualization of burdens to include all formal programmatic rules, organizational hassles, and interactional stresses and miscommunications that borrowers experience in managing their loan repayment obligations and accessing available programs.

Research on administrative burdens has tended to focus on particular recipient-facing requirements or program elements, which can be classified in terms of learning costs, compliance costs, and psychological costs (Moynihan, Herd, and Harvey 2015). Examples include cognitive and informational barriers that make it difficult for claimants to learn about the availability of programs; complicated paperwork submissions and obtrusive documentation requirements that make enrollment more difficult; frequent recertification requirements with strict deadlines; and time and effort expended due to long wait times, understaffed agencies, and poor client services (Schanzenbach 2009; Soss, Fording, and Schram 2011; Bhargava and Manoli 2015; Mueller and Yanellis 2019; Pearl 2021). As we show, all of these elements are relevant in the IDR case.

Two additional features of the present case merit particular theoretical and empirical attention. First is that IDR is an amalgam of programs. Four types of income-pegged repayment programs were available during the study period, each with slightly varying provisions and eligibility. This patchwork of options adds to IDR's complexity (Baum and Chingos 2017) and may thereby generate added learning costs, choice overload, and miscommunication

between borrowers and servicing representatives. Second is the role of organizational fractures and perverse organizational incentives generated by a privatized servicing system (Wu and Meyer 2021). Organizational failures on the part of servicers such as lost documentation and misprocessing of forms may compound the effects of formal programmatic burdens, leading to problems that require redress and thus overcoming a secondary layer of burdens to rectify the initial error.

BURDENS AND STRATIFIED ACCESS TO PUBLIC PROGRAMS

The second goal of this article is to estimate the resulting effects of the high-burden servicing system on disparities in borrowers' access to IDR. It is widely believed that administrative burdens tend to exacerbate inequality within a given population of potential recipients or claimants. As Julian Christensen and his colleagues (2020) point out, burdens create a Catch-22 insofar as the subpopulations most acutely in need programs are typically the least well equipped to navigate bureaucratic hoops (Cherlin et al. 2002; Greene et al. 2006), and hence face the greatest challenges in actually accessing programs. Administrative burdens will operate as a stratifying mechanism of exclusion insofar as they strengthen the association between sociocultural resources or status and program access.

We test this hypothesis in the context of student loan repayment by estimating socioeconomic and racial differences in take-up of IDR among those with high-debt payment burdens, who would presumably benefit from being IDR over a standard repayment plan. We argue that accumulated deficits of social- and cultural-capital resources among lower-SES and marginalized racial minority borrowers will leave them less well equipped to navigate the multifaceted knot of informational and administrative barriers. By contrast, higher-status actors will be better equipped to learn about IDR, navigate the documentation requirements, and make claims on servicer representatives. The high-burden process to enroll in IDR will thereby disproportionately limit access to payment relief programs for borrowers in more marginalized positions

(Ray, Herd, and Moynihan 2022), even though they are often the borrowers most in need of payment relief.

Research using small samples from the Survey of Consumer Finances (SCF) offers suggestive evidence that IDR enrollment is indeed lower on average among low-income than middle-income borrowers, and lower among higher debt-to-income borrowers than among lower (Collier, Fitzpatrick, and Marsicano 2020). However, the SCF samples are too small to assess variation in enrollment by borrower traits among borrowers with high loan payment burdens. Meanwhile, Conkling and Gibbs (2019) use the CFPB's large-*N* consumer credit panel to provide a detailed description of the characteristics and experiences of IDR-enrolled loans. Their analysis, however, does not include indicators of borrowers' socioeconomic status. Finally, using Department of Education administrative data and imputed lifetime incomes, Nadua Karamcheva, Jeffrey Perry, and Constantine Yannelis (2020) report that take-up of IDR, which they define as ever being enrolled in IDR at any time, is greater among both lower-income and high-debt borrowers across the full population of borrowers. However, their analysis does not assess how participation rates vary by socioeconomic status or race among borrowers with high debt-payment-to-income ratios.

We consider this to be the key study population for assessing the extent to which high administrative burdens disparately impede program access, because this is the subset of borrowers for whom the financial benefits of participating in IDR are least ambiguous. In other words, our analysis shifts the focus away from the question of who participates in the IDR program to ask instead who participates among those who would benefit from participating.

We expect that those highly indebted federal loan borrowers in more marginal positions, indexed by income and race, will show lower rates of enrollment.

METHODS AND RESEARCH DESIGN

We use a mixed-method research design. The qualitative portion of the analysis describes obstacles that borrowers encounter as they traverse the organizational and programmatic terrain of federal loan repayment, with a particular focus on those that bear on repayment program enrollment. The quantitative analysis then tests the extent to which these barriers jointly produce social stratification in program participation.

QUALITATIVE DATA AND METHODS

The qualitative analysis draws on publicly available, full-text consumer complaint data from the Consumer Financial Protection Bureau. The growth of complaint databases worldwide has led to various efforts to leverage these data sources for both social scientific and regulatory policy purposes (OECD 2020). Although very little work has used consumer complaint data specifically to study administrative burdens, these data offer a large-scale source of information regarding the obstacles that federal student loan borrowers face in managing repayment. Although CFPB complainants necessarily represent a selective subpopulation of borrowers, given that filing a report is itself a form of claims-making, the content of the accounts allows us to understand in greater detail the range of hassles, negotiations, misunderstandings, and administrative disjuncts from which access-limiting administrative burdens tend to arise.²

The relevant population of complaints covers all servicing and repayment-related claims regarding federal students loans from July 2013 through February 2020, coinciding with the onset of the COVID-19 pandemic in the United States. Specifically, the complaint pool is defined by restricting the universe of all CFPB complaints to those self-classified by complainants via screening questions as meeting two categorical criteria. The first of these is related to federal student loans: *subproduct type* is loan or loan debt or loan servicing. The second is

2. The vast majority of complaints in the overall CFPB corpus are not about federal student loan servicing. In fact, when adjusted for the relative shares of the population holding each type of debt holding the rate of complaints regarding federal student loan servicing is lower than that for mortgage loans, and only slightly higher than for auto loans.

related to problems repaying student loan debts or problems with loan servicers, as opposed to problems getting a loan or ancillary problems with credit reports such as identity theft: *issue type* is a problem with paying debt or problem with a loan servicer or incorrect information or false statements.

These restrictions yielded a total of 15,512 complaints. We then selected an analytic subsample of 1,187 complaints for detailed qualitative coding based on calendar days of the month, of which 505 included a narrative description. This narrative field is our main source of textual data.³

We use a coding scheme (see appendix) to describe the administrative burdens reported in the text field along several dimensions. This coding was developed with the aim of understanding borrowers' administrative challenges with loan repayment in general, not solely with respect to IDR. Although the built-in complaint type categories are useful for screening purposes and to understand how borrowers themselves classify issues, they are analytically limiting because many repayment problems are more multifaceted than the CFPB's exclusive issue categories can convey. Based on a recoded sample of 1,200 student loan servicing complaints, Jason Delisle and Lexi West (2019) claim that only 44 percent of ostensibly service-related complaints invoke a problem that is purely within the control of the servicer. Their results highlight the cross-cutting nature of burdens that often implicate both programmatic features and poor performance by administering organizations.

Capturing information about administrative burdens from the texts of consumer complaints carries certain methodological challenges. First, identifying administrative burdens from consumer complaint texts requires extracting information from documents collected for different purposes (Salganik 2016). The particular nature of complaint data means that the narrative description focuses on grievances. Although the complaint texts typically reference to certain types of burdens (such as those related to document processing errors or

servicers' failures to redress other problems), key background information about other types of burdens that precipitated the focal problem may be mentioned only in passing. Meanwhile, burdens that result from high informational costs and consequent borrower confusion about program requirements or loan terms might not be stated explicitly but must instead be inferred from the testimonial.

Second, relying on self-selected complaints to capture experienced burdens means that certain types of burdens will likely be underrepresented. Borrowers may be unfamiliar with terminology, lack programmatic awareness, or not have the organizational vantage to articulate the source of the problem. Understanding the bureaucratic categories through which to articulate claims is itself endogenous to the administrative burdens borrowers must overcome. We address this issue by coding the vague, or confused, or nonspecific complaints as their own substantive category rather than simply as sparse data cells. These are the people who are confused and do not know where to begin in terms of claims-making and resolving repayment problems.

Likewise, selectivity in terms of the types of borrowers who lodge complaints could potentially skew conclusions about the types of burdens that are most prevalent within a given institutional context. Using community-level ecological data for several large consumer complaint databases including CFPB, Devsh Raval (2020) shows that higher education, more urban, and more heavily Black-populated zip codes lodge complaints at a higher rate per capita. Notably, these elevated rates of complaints are especially pronounced in the CFPB relative to the Federal Trade Commission and Better Business Bureau databases, though the same racial pattern appears for complaints related specifically to financial services across all databases. Given that Black borrowers are known to face higher rates of default and challenges repaying federal student loans (Haughwout et al. 2019), Raval's findings provide some reassurance that this group is reasonably well represented within the corpus of complaints.

3. After classifying their complaint using predefined menu choices, CFPB complainants are asked to describe, in a short narrative field, the nature of problem.

Finally, one interpretive caveat is that we are relying on narratives from the complainant. We cannot verify the facticity of each complaint—only how the situation is perceived. Some of these depictions could likely be debated by servicers, and some might not withstand a forensic accounting. Nonetheless, they do provide a vantage to understand how borrowers experience burdens in the loan servicing system.

QUANTITATIVE DATA AND METHODS

Having shown pervasive burdens surrounding IDR, the quantitative analysis then estimates the resulting social stratification in participation rates. It is important to emphasize here that our design does not directly measure individual-level exposure to learning, compliance, or psychological costs. Instead, based on the qualitative analysis, we presume that these burdens are a ubiquitous feature of the IDR program. We then indirectly capture their joint impact on disparate program exclusion by analyzing associations between income-race and IDR enrollment within the subpopulation of debt-burdened borrowers who would hypothetically face a high payment-to-income ratio under a standard repayment plan.

We define high loan-payment-to-income burden as greater than 20 percent of total monthly income, a subgroup that corresponds almost exactly to the top four debt-to-income deciles of the federal borrower population. These are borrowers whom we can reasonably assume would stand to benefit from participating in an income-based repayment plan, which reduces the monthly payment to a more affordable 10 percent of discretionary income.

The logic of this approach rests on the fact that significant numbers of high payment-burdened borrowers exist across the income and race distributions (see figure A.1).⁴ This allows us to examine social stratification of program access within this highly debt-burdened population. This approach to defining the analytic sample population is necessarily assumption-laden insofar as we are presuming

that borrowers with payments in excess of 20 percent of monthly income would be better off with lower monthly loan payments. However, we find substantively identical results when using more stringent cutoffs of 30 percent or 40 percent.

To maximize the robustness of our findings, our analysis draws on two separate restricted-use datasets. Each of these have mutually compensating strengths and limitations.

University of California Consumer Credit Panel Data

The first analysis draws on credit data from the University of California Consumer Credit Panel (UCCCP), which is based on a 1 percent national longitudinal sample of U.S. adults with credit records from 2004 to 2019. UCCCP reports tradeline-level (loan-level) records on a quarterly basis and includes the credit records of the household members of those sampled. The data originates from Experian, one of the three nationwide consumer reporting agencies.⁵ The UCCCP is similar to other consumer credit panels built by the Federal Reserve Bank of New York and the Consumer Financial Protection Bureau.

We follow an approach similar to that of Conkling and Gibbs (2019) in restricting the analytic sample to include only those student loans that are presumptively eligible for IDR enrollment. First, we removed all noneducation loans using the *account type* indicator. We then filtered nonfederal private loans and Parent Plus loans, neither of which are eligible for income-based repayment, by dropping any loans with cosigners or joint debtors using Equal Credit Opportunity Act fields. We also further filtered private loans by dropping loans for which the initial term duration is too short to be a federal loan. Finally, we drop loans that are in default, deferment, or otherwise not in repayment. Our analysis is confined to the period from 2010 to 2019 because we have that information on borrowers' residential location. However, accrued debt from loans originated

4. Our main analysis defines high loan-payment burdened borrowers as those who would be in the top 40 percent of monthly payment-to-income ratio under a standard repayment plan.

5. Before being provided to the UCCCP, records were stripped of any information that might reveal consumers' identities, such as names, addresses, and Social Security numbers.

in earlier years are incorporated into the measures.

We treat a borrower as being enrolled in IDR in a given quarter if any of their eligible federal loans are in IDR. Because repayment plan status is not directly reported in the credit data, we identify IDR enrollment using the reported *term duration* for the loan. This figure should be set to 240 or 300 months for loans enrolled in the Repay, Paye, income-based repayment (IBR), or IDR programs (Consumer Data Industry Association 2020), reflecting the longer repayment period for loans in these plans relative to those in the standard 120-month term. Because we suspect that some servicers fail to update the term duration field when borrowers enroll in IDR, we also recoded loans as being in IDR by using a simple amortization formula to identify those for which the scheduled monthly payment obligation is less than the amount that would be owed based on the loan balance, the remaining term period, and a conservative 3.4 percent interest rate.⁶

One downside of credit report data is the lack of direct household income measures. We proxy borrowers' household income level by drawing on the UCCCP's residential census block linkage. We applied census block-group medians, which we constructed by averaging across the 2015 and 2019 five-year ACS estimates. Census block groups are small subunits of tracts, typically comprising approximately a thousand persons. Proxying household status using census data on small area aggregates is a long-standing practice in fields such as health research. Although block-group medians are more precise proxies of actual household income than larger geographies such as zip codes or tracts, heterogeneity within block groups means that this procedure is still subject to a nontrivial degree of measurement error (Soobader et al. 2001; Moss et al. 2021). Such error will have an attenuating effect on our estimates of the association between borrower socioeconomic status and program participation,

thereby rendering our hypothesis test conservatively biased against finding a relationship.⁷

Similarly, we use the proportion of Black residents in a census block group as a proxy for racial marginalization. Numerous studies have found that Black borrowers tend to experience significantly worse outcomes across most facets of student lending than other groups, making this a theoretically salient indicator of racial marginalization. Analyses based on this neighborhood racial composition metric should be interpreted cautiously, given the difficulties of predicting borrower categorical traits from credit report geolocations (Consumer Financial Protection Bureau 2015). Readers should also bear in mind that because Blacks are a racial minority, only those blocks groups in the top 24 percent of the Black distribution have majority Black populations.

We measure actual monthly payment burdens using the *account payment amount* field. We measure borrowers' hypothetical monthly payment burden under a standard repayment plan using an amortization formula with an assumed interest rate corresponding to the rate for unsubsidized federal direct Stafford loans in the relevant vintage of origination.⁸ For loans with less than 120 months remaining, the standard payment calculation is based on the actual remaining loan term. For loans in IDR, the counterfactual standard calculation is based on a 120-month remaining term. In cases where borrowers have multiple federal student loans, actual and hypothetical monthly payment measures are aggregated to the borrower-quarter level.

Figure A.1 shows boxplots of the (counterfactual) distributions of monthly loan payment-to-income ratios under a standard repayment plan by population deciles of block-group median income, and deciles of block-group percentage Black residents. The graphs show that, among all federal loan borrowers, a greater relative share of those in lower-income and more heavily Black census blocks would face unaf-

6. We use 3.4 percent because it is the lowest interest rate for any type of subsidized or unsubsidized federal student loan from any vintage prior to 2020.

7. Substantively identical results are obtained when using state-normalized block-group income deciles.

8. Fixed interest rates for federal loans differ by vintage of origination, and also by lending program. Unsubsidized rates for direct undergraduate loans ranged from 3.8 to 6.8 percent between 2006 and 2020.

fordable monthly payments in the absence of income-based repayment. Crucially, however, at least some borrowers have high hypothetical monthly payment obligations across the income and race distributions. For the main analysis, we focus on the subsample of borrowers who would face a monthly loan payment-to-income ratio greater than 0.2 under a standard repayment plan, but we also find similar results using more restrictive cutoffs.

Beginning Postsecondary Students Longitudinal Study Data

We also supplemented the UCCCP analysis with a parallel analysis of a sample drawn from the Department of Education’s Beginning Postsecondary Students Longitudinal Study (Dudley et al. 2020). Whereas the UCCCP provides information on a large nationally representative sample of federal borrowers on a quarterly basis over a ten-year span, the BPS is limited to a single cross-sectional observation for a single cohort of students who exited college quite recently. The one advantage of the BPS survey over the UCCCP data is that we can measure income and race directly rather than with census-based proxies, which significantly reduces measurement error.

The BPS cohort is composed of a national sample of students who began college in 2011–12 and were interviewed again six years later. The BPS data also contain administratively linked loan-level data for each respondent from the National Students Loan Data System. As with UCCCP, we remove borrowers who were

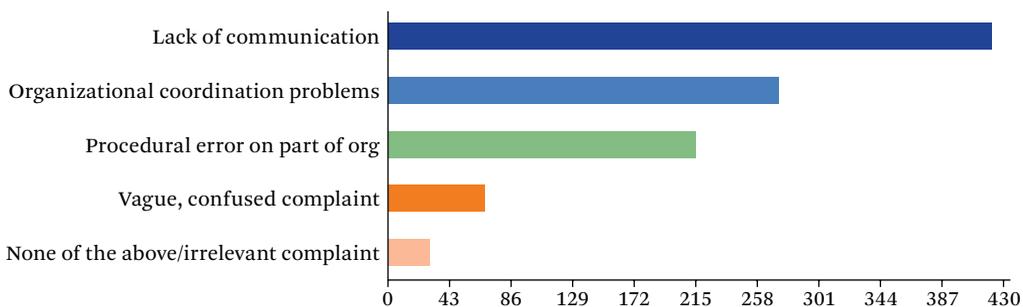
still enrolled or otherwise not in repayment circa 2018. As with the UCCCP, we model the association between income and participation in the BPS using rank deciles in order to avoid linearity assumptions. Here, however, the deciles are based on the 2017 income distribution among federal borrowers from the 2011–12 entering cohort, rather than the national distribution of all census block groups.

QUALITATIVE ANALYSIS OF CFPB COMPLAINTS

In this section, we describe the nature and prevalence of burdens that borrowers experienced in the course of managing their student loan repayments. Examples drawn from the qualitative data focus primarily, but not exclusively, on testimonials that explicitly highlight the relevance of the burden for impeding enrollment in IDR plans.

Figure 1 shows the overarching categories into which the coded complaints fall. The mean number of overarching burden types per complaint was 1.9. The most common source of reported burden involves miscommunication or noncommunication from servicers. The majority of all coded complaints indicate some sort of difficulty that arises from a communication failure. The next most prevalent types arise from organizational coordination failures and from servicer procedural errors. Although borrowers varied in their abilities to describe problems in the precise administrative jargon, relatively few complaints were simply vague missives or confused pleas.

Figure 1. Frequency of Overarching Categories of Burdens Described in Complaints



Source: Authors’ tabulation from coded sample of CFPB complaints regarding federal student loan repayment (Consumer Financial Protection Bureau 2021).

Note: Nonexclusive codes, N = 505 testimonials.

Figures 2 and 3 show the subtype breakdowns for communication failures and organizational failures, respectively. Communication problems between borrowers and servicers took several forms, each of which have some role or relevance in impeding borrowers' access to IDR. As seen in figure 2, the most common subtype of communication problem was a perceived lack of responsiveness by servicers when borrowers sought information or assistance. Although servicer nonresponsiveness typically revolved around repayment problems not directly related to IDR, it did sometimes hinder IDR participation when borrowers sought confirmation from the servicer that their enrollment documents were in order, only to learn much later about a problem, costing the borrower several months of additional time in forbearance or making unaffordable payments.

More directly relevant are the second and third subtypes. Servicers' failure to communicate IDR plans as an option was implicated in more than 20 percent of all the coded documents. In most of these cases, borrowers called to request a lower monthly payment amount, and were steered into interest-accruing forbearance instead of IDR. Forbearance-steering has been well documented and was the basis of a lawsuit by the CFPB and several state attorneys general against the loan servicer Navient (Lewis and Vanatko 2019). Given that servicers receive greater monthly fee revenue for loans in IDR than for those in forbearance, the forbearance-steering phenomenon more likely results from intraorganizational failures in which understaffed street-level bureaucrats in servicer organizations seek to avoid the more time-consuming processing of IDR enrollment. Either way, forbearance-steering effectively heightens the learning costs borrowers face. These cases typically appear in the complaint data *ex post facto* when frustrated borrowers later realize they would have been better off in an IDR plan. As one borrower bemoaned,

I sheepishly relinquished the ball to Navient and their predecessor Sallie Mae for more than sixteen years and as of today, my balance is nearly the same as it was on day one. If the executive leadership at Navient or their pre-

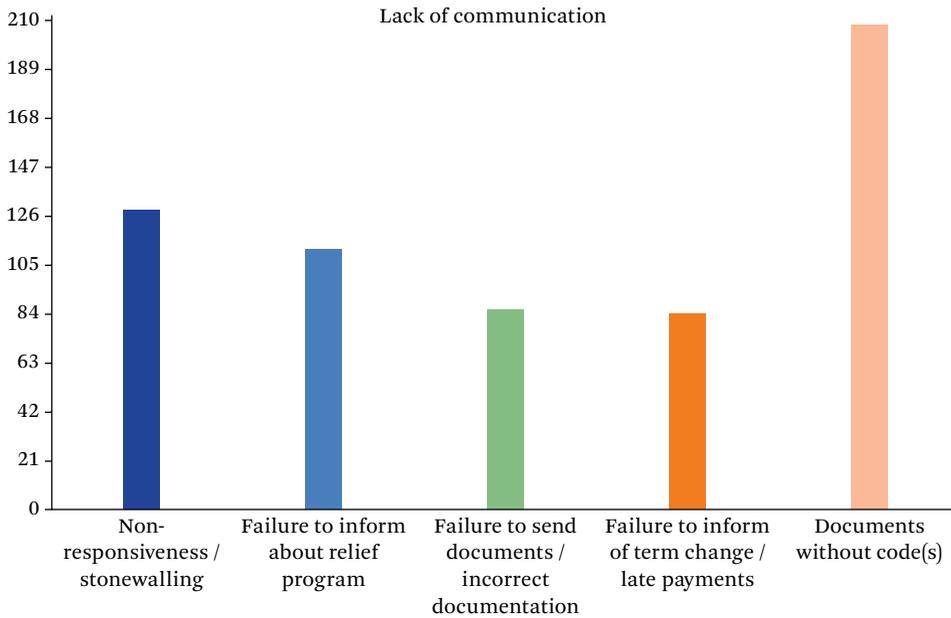
decessor Sallie Mae had any ethics whatsoever, they would have informed me that an income-based repayment plan was my best option. This option was **never discussed with me** until all my deferments and forbearances had been exhausted! Why did you wait until 2018 when all my deferments and forbearances had been exhausted to tell me about the income-based repayment plan? Why did the company's representative convince me that forbearance and deferments were my best option when in fact an income-based repayment plan would have resulted in my loans **being paid in full more than five years ago?** (emphasis added)

Even when borrowers are aware of IDR and explicitly request enrollment, additional communication breakdowns can arise that make it difficult for borrowers to acquire answers to questions or other necessary information.

I have been involved in a multimonth process for IDR to go in effect on both mine and my wife's loan. I am required to take time off of work and go through a one-hour plus process waiting on call center representatives. Information is not consistent and already complicated processes are made more challenging by XXXX's antiquated infrastructure. Their self serve options are nonexistent. They have no texting or mobile functionality I experience in every other financial services industry. Very simple notifications via text would have prevented 99 percent of my issues. As a citizen, I am troubled by the waste that confounds our already insurmountable student loan debt.

One particularly common communication-related complaint involves alleged failure by servicers to transmit the necessary paper forms to complete IDR enrollment or to inform borrowers of problems with previously submitted documents. Borrowers' formal requests to enroll in IDR thus often fail to result in actual enrollment. For instance, one borrower complained how it was a bureaucratic struggle to acquire the paperwork needed to complete enrollment:

Figure 2. Frequency of Administrative Burdens from Communication Problems Between Borrowers and Servicers



Source: Authors’ tabulation from coded sample of CFPB complaints regarding federal student loan repayment (Consumer Financial Protection Bureau 2021).

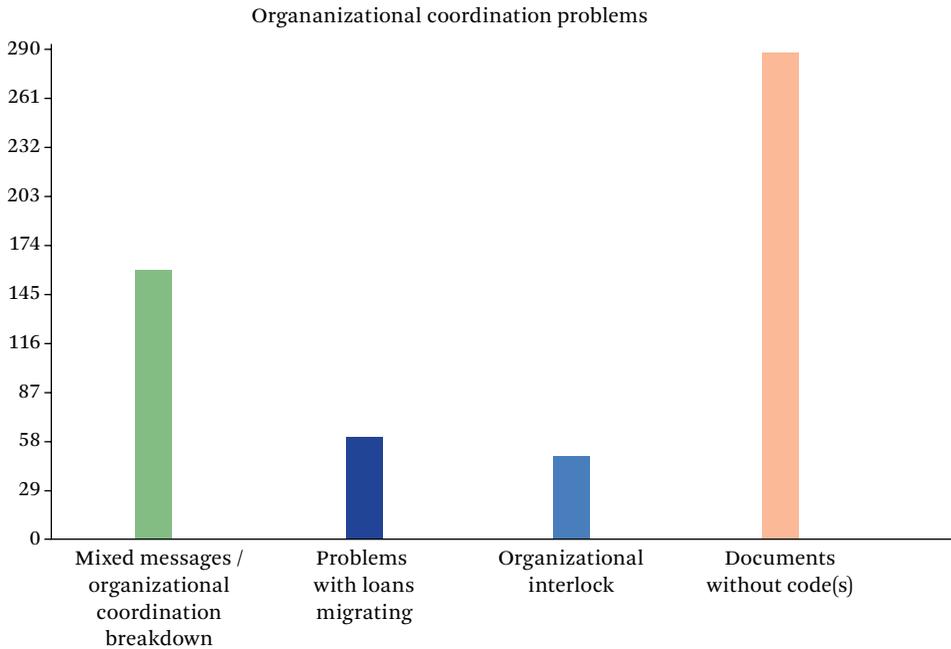
Note: Nonexclusive codes, N = 505 testimonials.

Since consolidating my loans I have had a lot of difficulty in obtaining an affordable monthly payment. I have called and been left on hold for long periods of time. I have also actually spoken with representatives that may give me options on the phone, place my loans in forbearance, and then **claim I will receive documents in the mail to complete to finalize the lower payment based on my income. However, I never get the revised documents nor can I locate them on the website.** This is factoring into my debt-to-income ratio and has prevented me from qualifying for new credit and also makes it appear I can not afford very much. Based on my current loan payment, which is well over [\$1,000], I can not afford anything. I need help. (emphasis added)

Organizational coordination problems are the second most common generic category after communication problems (see figure 3). Within this category, the most prevalent subtype involves intraorganizational breakdowns

between subunits. This typically occurs when servicer representatives take actions or dispense advice at cross-purposes with one another, or when a servicer representative’s actions in response to one issue have unintended consequences, generating further knock-on burdens that must be overcome to keep the loan in good standing.

Figure 3 also highlights the high frequency of burdens that arise from interorganizational breakdowns. *Loan migration problems* are instances when transfers of loan servicing responsibility between organizations, typically as a result of contract changes with the Department of Education, unexpectedly upset borrowers’ repayment arrangements. Loan transfers are often accompanied by system integration errors that cause borrowers to be erroneously unenrolled from repayment plans, and thereby exposing borrowers to an array of new burdens in order to reenroll. One borrower explained how they were ultimately unable to retain their prior payment plan:

Figure 3. Frequency of Administrative Burdens from Organizational Coordination Breakdowns

Source: Authors' tabulation from coded sample of CFPB complaints regarding federal student loan repayment (Consumer Financial Protection Bureau 2021).

Note: Nonexclusive codes, $N = 505$ testimonials.

The problems began when my balance was transferred from my original lender, [Servicer 1], to [Servicer 2]: I was not provided notice of this transfer until after the fact, and two of my monthly payments went to the original lender, which was very difficult to get corrected. More important, once it came time to recertify for the IDR, which I was enrolled in through [Servicer 1], I encountered one issue after another with [Servicer 2]. The deadline had passed due to issues on [Servicer 2]'s end, being unable to process requests due to high volume at that time. When the recertification request finally was processed, it was denied; the reason stated on the website was that certain documentation was missing. I submitted the documentation and the request was denied again. In attempting to resolve these issues, I had multiple calls with [Servicer 2] reps, all of whom were unhelpful. My IDR request was finally "approved," but with an increased monthly payment [from \$86.00 to \$320.00], even though my total

household income and dependent information hadn't changed. . . . According to [Servicer 2], because the initial payment amount of \$86.00 was set up through [Servicer 1], [Servicer 2] has no record of the original IDR calculation and no way of obtaining it. This left me with no choice but to request forbearance for the maximum time period, which has now passed and left me with an absurdly increased monthly bill that I cannot afford.

Although our tabulations focus on univariate frequencies, the majority (66 percent) of complaint testimonials with any type of burden involved a convergence or layering of multiple distinct burdens. In some cases, the effects of multiple burdens appear additive in that borrowers overcome one burden only to be stymied by another. In other cases, the effects are multiplicative in that they compound upon one another. One borrower recounted an especially Kafka-esque instance. This example

does not concern IDR enrollment directly but does illustrate the cascading effects of a single coordination error. In this case, a Navient representative's instructions about how to cancel an accidental extra payment inadvertently activated a fraud prevention system (an intra-organizational coordination error), which in turn made it impossible for the borrower to make any future loan payments from her bank. The process of resolution confronted her with the additional burden of having to liaise between her bank and the servicer, which we refer to as organizational interlock, and follow up with additional phone calls after Navient failed to process the initial letter from the bank, that is, a procedural error. Altogether, the borrower had to make at least eight phone calls and secure multiple bank validation letters in order to resume repayment and remain in good standing. As she concluded in at the end of a long and exasperated complaint to the CFPB, "It should not be difficult to make a payment for your student loans when you want to make a payment!! And I'm supposed to deal with them for the next thirty-plus years???? Not to mention they put me into a very unnecessary 'administrative forbearance' without my permission, trying to get more money from me! . . . I have done everything that has been asked of me. I am trying to make timely payments and should be able to do so without having to jump through a thousand hoops each time."

Although somewhat unusual in its convolutions, this example illustrates the common phenomenon whereby multiple burdens occur and compound. A borrower with less tenacity and bureaucratic capability would likely have found herself either in a longer period of interest-accruing forbearance, or credit-undermining delinquency. More broadly, the case also highlights the degree to which federal loan repayment policies not only impose a disciplinary regime on borrowers (but see Soss, Fording, and Schram 2011) but also de facto require borrowers to take on the additional burden of monitoring servicers and resolving servicer-induced errors.

IMPLICATIONS FOR ADMINISTRATIVE EXCLUSION FROM IDR

The administrative burdens tabulated illustrate both the range and frequency of learning, compliance, and psychological-hassle costs throughout the loan repayment process. As the complaint testimonials articulate, these costs can substantially impede borrowers' access to repayment programs.⁹ Specifically, accessing and remaining in IDR requires overcoming impediments at three junctures: learning about the program and requesting enrollment; successfully submitting application and income documentation forms and following up in cases of errors or lost documentation; successfully recertifying one's income each year. At each stage, borrowers face a risk of being overwhelmed by complex terms, having to parse inconsistent information from servicer representatives; having to grapple with frequent errors; and having to devote significant time to overcoming the forgoing burdens.

In some cases, the cumulative effect of burdens clearly serves to exclude borrowers from IDR altogether. As one typical complainant notes,

I have been trying for YEARS to get Fedloan servicing to set up a income-based repayment. . . . For some reason it is always stalled out, or can't be processed, or needs more documents, or a signature is missing, even though I am doing everything they ask or tell me. I keep having to put my loans in forbearance which accrues interest and nothing is ever resolved. I have spent hours on the phone, I've tried the website, it just never works. This is the most ridiculous process I have ever seen. I am certain I am not the only person having this problem. Please help.

Yet even as burdens operate as mechanisms of exclusion for some, other borrowers are able to surmount obstacles with minimal harm beyond some time and inconvenience. As one borrower complained on noticing an erroneous change in her IDR payment amount,

9. More than 49 percent of all coded complaints concern issues related to IDR.

payment is much lower than I've ever paid, but my family size and income have remained the same XXXX—called to make sure XXXX payment amount is correct; account rep said my family size was incorrectly input as XXXX. Account rep says that it was probably an input error. . . . Now, I have to resubmit my XXXX application with correct family size (which is nothing, because it's just me), even though it was their fault, and I had to figure it out. (emphasis added)

Such cases illustrate variability in borrowers' abilities to overcome burdens. All borrowers face an administrative gauntlet in the federal loan servicing system, but some manage to navigate these situations in a relatively low-cost way. Meanwhile, others find themselves unable to access relief programs or to resolve initially small problems before they compound into significant financial harms. The analysis in the next section examines whether the combined effect of these burdens disproportionately impedes program participation as a function of socioeconomic status and race.

COMBINED EFFECTS OF ADMINISTRATIVE BURDENS ON STRATIFIED ACCESS TO REPAYMENT PLANS

Table 2 shows the UCCCP results from logistic models of IDR enrollment among borrowers in the top 40 percent of monthly payment-to-income burden under a standard plan. These are pooled sample models, with year-fixed effects and borrower-clustered standard errors.

Consistent with these hypotheses, highly indebted borrowers residing in higher-income blocks are significantly more likely to be enrolled in IDR plans than those in lower-income blocks. The odds ratios in column one of table 2 indicate a positive, nearly linear relationship between income and the odds of being enrolled in IDR. For those in the top three income deciles, the odds of being enrolled are twice as great as for those in the bottom (baseline) income decile.

The top panel of figure 4 shows the estimated results from model 1, converted into estimated mean probabilities over the full sample period. In additional unreported spec-

ifications we further tracked the evolution of stratified take-up over time. These models show marked stability in the relative income differentials over the period from 2010 to 2020, even as overall participation in IDR increased.

The results in table 2 also show evidence of a negative relationship between racial composition (percentage Black) and IDR participation. This relationship, however, is nonlinear. As seen in models 2 and 3, only within the top decile of percentage Black census block groups do high-debt borrowers show significantly reduced odds of being enrolled in IDR. As seen in model 2, those in the top decile have 34 percent lower odds of being enrolled in IDR than high-debt borrowers in the lowest percentage Black residential locations, although this estimate attenuates to an estimated 22 percent reduction in model 3. Notably, the persistence of both associations in model 3 suggests that the income and racial profiles of borrowers' neighborhoods are each independently associated with the likelihood that borrowers can successfully surmount the obstacles to enrolling in IDR.

Table 3 shows the results from comparable specifications on the BPS data sample, which includes individual-level rather than census proxy measures of borrower income and race. These analyses confirm the strong positive relationship between borrower income and IDR take-up among highly indebted borrowers, the highest rates of take-up appearing in the upper-middle portions of the borrower income distribution. In fact, the income gradient in the BPS sample is much steeper, those in the eighth income decile exhibiting odds of IDR participation more than 3.8 times greater than in the bottom income decile. This larger differential likely reflects the effects of measurement error attenuation in the UCCCP, and also perhaps differences between the two sample populations.

The BPS analysis shows evidence of a significant relationship between race and IDR take-up. The point estimates for Blacks and Hispanics are positive relative to Whites, whereas those for Asians are negative in model 2 and model 3. The positive for Black borrowers in the BPS differs from the UCCCP results, which showed lower take-up among borrowers in high percentage Black block groups. These

Table 2. Logistic Regression Estimates of Probability of Enrollment, UCCCP Sample

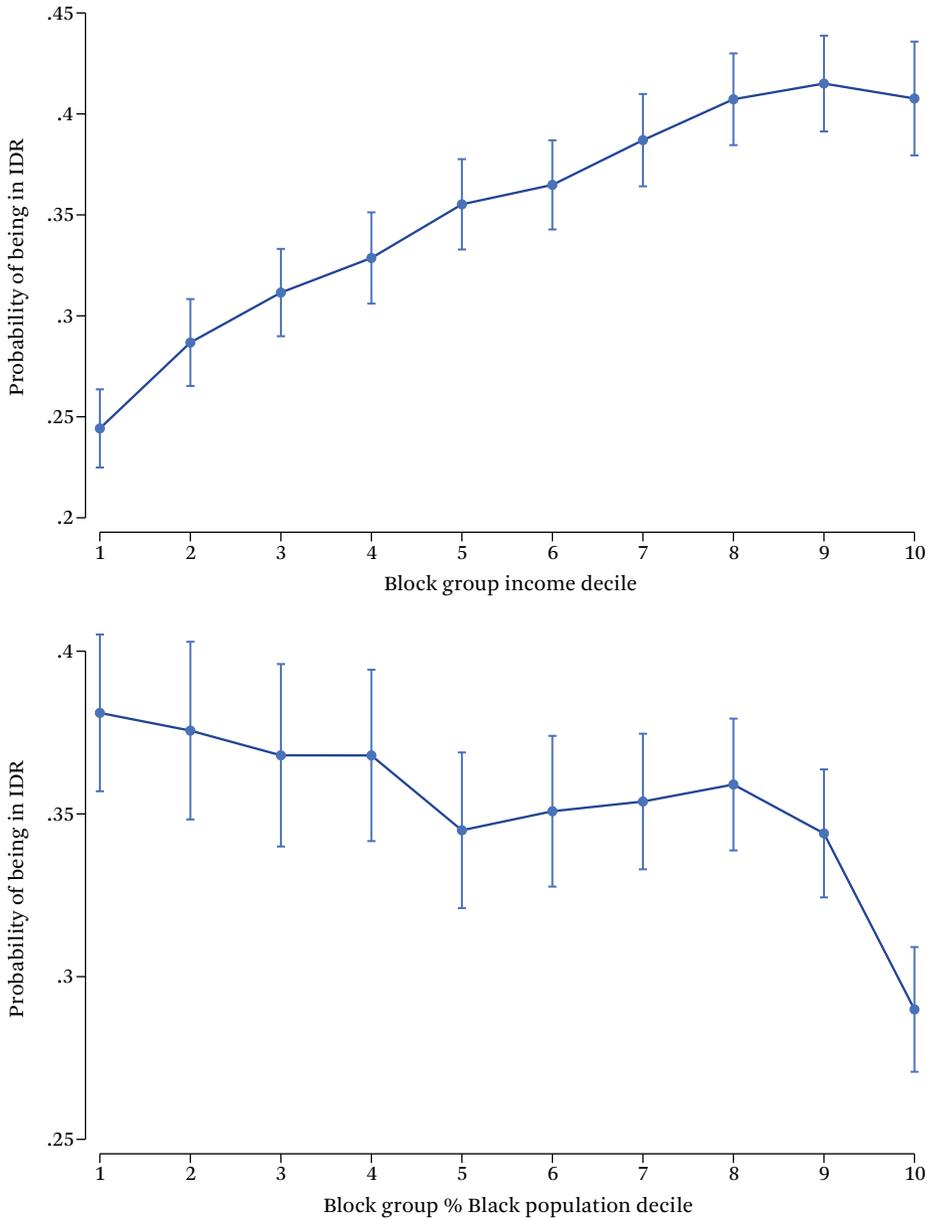
	Enrollment in IDR Plan (Odds-Ratios)		
	(1)	(2)	(3)
Block group median income decile			
2	1.244** (0.093)		1.219** (0.091)
3	1.400*** (0.103)		1.360*** (0.100)
4	1.515*** (0.112)		1.463*** (0.109)
5	1.705*** (0.123)		1.647*** (0.121)
6	1.778*** (0.128)		1.710*** (0.124)
7	1.953*** (0.141)		1.871*** (0.138)
8	2.126*** (0.152)		2.042*** (0.148)
9	2.195*** (0.160)		2.102*** (0.156)
10	2.129*** (0.170)		2.028*** (0.165)
Block group % Black decile			
2		0.977 (0.076)	0.970 (0.076)
3		0.946 (0.076)	0.935 (0.076)
4		0.946 (0.072)	0.952 (0.073)
5		0.855* (0.063)	0.863* (0.064)
6		0.878 (0.064)	0.884 (0.065)
7		0.889 (0.061)	0.914 (0.063)
8		0.910 (0.062)	0.930 (0.064)
9		0.852* (0.058)	0.913 (0.063)
10		0.663*** (0.047)	0.784*** (0.056)

Source: Authors' tabulation based on UCCCP sample (University of California Consumer Credit Panel 2021).

Note: Data are from a sample of federal borrowers in repayment. Estimates from logistic regression model estimated on the subsample of borrowers in the top 40 percent of monthly payment-to-income ratio (sample distribution) under a hypothetical standard repayment plan. $N = 181,119$ respondents. Standard errors in parentheses.

* $p < .05$; ** $p < .01$; *** $p < .001$ (two-sided test)

Figure 4. Mean Probability of Enrollment in IDR Plan Among Highly Indebted Borrowers (Top 40% of Standard Loan Payment-to-Income Distribution), by Neighborhood Income and Neighborhood Percent Black Population, UCCCP Sample



Source: Authors' tabulation based on analysis of coded credit report sample (University of California Consumer Credit Panel 2021).

Note: Data are from a sample of federal borrowers in repayment. Estimates are based on the average enrollment rate among the subset of borrowers in the top 40 percent of monthly payment-to-income ratio (sample distribution) under a hypothetical standard repayment plan. *N*= 181,119 respondents.

Table 3. Logistic Regression Estimates of Probability of Enrollment, BPS 12/17 Sample

	Enrollment in IDR Plan (Odds-Ratios)		
	(1)	(2)	(3)
Wage-salary income decile			
2	1.42* (0.21)		1.40* (0.21)
3	3.04*** (0.50)		3.01*** (0.50)
4	3.47*** (0.60)		3.45*** (0.60)
5	3.17** (0.54)		3.21*** (0.55)
6	3.92*** (0.71)		3.99*** (0.73)
7	2.98*** (0.57)		3.15*** (0.60)
8	3.83*** (0.74)		3.95*** (0.76)
9	2.99*** (0.59)		3.20*** (0.64)
10	3.02*** (0.86)		3.26*** (0.93)
Borrower race			
Black		1.30* (0.16)	1.43** (0.18)
Hispanic		1.23 (0.14)	1.29* (0.16)
Asian		0.50** (0.13)	0.54* (0.14)
Other		1.15 (0.22)	1.23 (0.24)

Source: Authors' tabulation based on Beginning Postsecondary Students Longitudinal Study 12/17 (BPS) Restricted Use Dataset (Dudley et al. 2020).

Note: Data are from a sample of federal borrowers in repayment or forbearance six years after start of post-secondary program. Estimates from logistic regression model estimated on the subsample of borrowers in the top 40 percent of monthly payment-to-income ratio (sample distribution) under a hypothetical standard repayment plan. $N = 2,320$ respondents. Sample sizes are rounded to the nearest 10 in accordance with NCES restricted data use policies. Standard errors in parentheses.

* $p < .05$; ** $p < .01$; *** $p < .001$ (two-sided test)

differing patterns across the two samples may reflect the limitations of the census-based racial proxy measure in the UCCCP, which would obscure systematic differences between those Black borrowers who live in high- versus low-percentage Black neighborhoods. The differing results could also reflect particularities of the younger cohort covered by the BPS sample.

Taken together, these results document

clear evidence of social stratification in take-up of IDR among highly indebted borrowers. Disparities in access to repayment programs are structured primarily by borrowers' socio-economic status (indexed by income), such that highly indebted low-income borrowers are significantly less able to access these programs than highly indebted high-income borrowers. That this income differential is con-

sistent across the two datasets make us more confident that the effect is real. By contrast, the relationship between racial marginalization and take-up of IDR is less clear cut and less consistent across the two data samples. We are thus unable to draw any firm conclusions about the degree of racial stratification in access to IDR.

DISCUSSION AND CONCLUSION

Income-driven repayment plans have developed as the primary policy mechanism to limit the costs of student loan payment burdens as more Americans face the individualized risks of debt-financed higher education. Whereas research has often conceptualized burdens as emerging as a result of targeting or rationing, the case of IDR highlights an instance in which universalist programs can also become mired in similar forms of “sludge” (Sunstein 2019). As our quantitative results show, this has pronounced distributional implications. Although a significant subset of borrowers across the social structure carry federal debt that would result in payments exceeding 20 percent of their monthly income under a standard repayment plan, high levels of learning, compliance, and psychological-hassle costs disproportionately suppress participation among those in lower socioeconomic positions.

A few limitations are important to emphasize. First, *administrative burden* is a broad category that can encompass a wide array of phenomena with respect to any given policy. This study focuses on describing the multiplicity of burdens that federal loan borrowers face as well as their combined effects on stratification in take-up. The downside of this design is that it is impossible to ascribe unequal administrative exclusion to any specific burden (Mueller and Yanellis 2019), or to parse their relative contributions to the total observed SES gaps. In other words, we cannot identify which of the numerous burdens observed in the present case—or which combinations of burdens—pack relatively greater punch as mechanisms of inequality. This remains a key issue for future research on policy domains where multiple forms of burden co-occur. Such work might focus in particular on unraveling the potentially

additive or interactive effects of different types of burdens, as well as their potentially heterogeneous effects across subpopulations. Such work might also seek to better distinguish burdens that arise from policy design, whether intentional or unintentional, and those that result from implementation failures.

A second limitation of the current analysis is its use of repeated snapshots. Future work might use panel analyses to capture social stratification across both take-up and drop-out (Wu and Meyer 2021). As this qualitative analysis and other quantitative analyses (Conkling and Gibbs 2019) suggest, remaining enrolled in IDR may be almost as difficult as accessing it in the first place. Because borrowers must confront recertification hassles anew every year, the inequality effects can be expected to cumulate over time.

Third, our analysis of inequality is limited to stratification in program participation. Future research on the effects of administrative burdens in this domain should trace the downstream consequences of disparate outcomes in the servicing system to other indicators of borrowers’ financial well-being. This can allow for an assessment of the degree to which administrative burdens contribute to the broader system of wealth stratification associated with student loan debts (Houle and Addo 2018).

BROADER IMPLICATIONS

Although this article’s primary focus is the consequences of high administrative burdens for social stratification of program access, our results also highlight two sources of administrative burden that have been less well studied. One is the privatization of street-level bureaucracies by outsourcing to private contractors. This is an increasingly common feature across numerous sites of policy delivery in the contracted U.S. social state (Soss, Fording, and Schram 2011; Weir and Schirmer 2018), but one whose implications for administrative burdens are only just now becoming a focus of study (Wu and Meyer 2021).

One key issue for future research on outsourcing and administrative burdens is to more systematically compare varieties of priva-

tization across programs and jurisdictions. Studies should also try to disentangle how administrative burdens emerge from the interaction of public- and private-sector actors and organizations. In particular, to what extent do privatization-induced burdens reflect incentive misalignments, interorganizational coordination breakdowns, diffusion of responsibility, or simple managerial failures? To what extent do the street-level bureaucrats employed by servicing firms face their own administrative burdens and incentive misalignments? These issues are of great policy relevance as policymakers experiment with various reforms and proposed redesigns of current loan servicing regimes. For instance, in 2021 the U.S. Department of Education announced new customer service accountability metrics that aim to make servicers more accountable to borrowers by incorporating additional customer satisfaction criteria into performance-based loan allocation formulas. However, research casts doubt on the utility of consumer satisfaction surveys as a way of disciplining providers (Young and Chen 2020). More fundamentally, it is unclear to what extent incentivizing servicers to tamp down on bureaucratically generated hassles costs will diminish social stratification in participation, absent a more fundamental program redesign that automates enrollment and diminishes the underlying compliance costs of participating.

This also points to a second, more intractable source of burdens in the IDR case, which is the tension between flexible, personalized, and adaptive policies on the one hand, and rigid, error-prone administrative systems on the other. IDR is intended to personalize debt payment to borrowers' individual situations, and to do so dynamically in response to the reality that many Americans experience fluctuations in income. However, the complexity and frequent documentation that accompanies this adaptiveness—along with the multiplicity of program variations that create further choice burdens—together create confusion for borrowers and street-level bureaucrats alike. Policymakers need to be cognizant of how easily a policy that is intended to be responsive to everyone's unique and changing circumstances

can systematically undermine its own aims when implemented in practice.

APPENDIX. DESCRIPTION OF CODING SCHEME FOR QUALITATIVE ANALYSIS

CFPB complaints typically contain at least one of four elements, and frequently all four in combination: description of the problem, typically the focus of the complaint; mention of original precipitating problem if different from the focal problem; lack of resolution; consequential harms.

Sometimes complainants frame the original source of the problem as their own financial constraints (such as their inability to make payments on time), but frequently the problem is framed as organizational. Complaints usually go on to describe failed attempts to resolve the problem. Finally, most complaints give some indication of the harms, such as ruined credit score or inability to buy a house or harassing family members, but sometimes the harms are implicit.

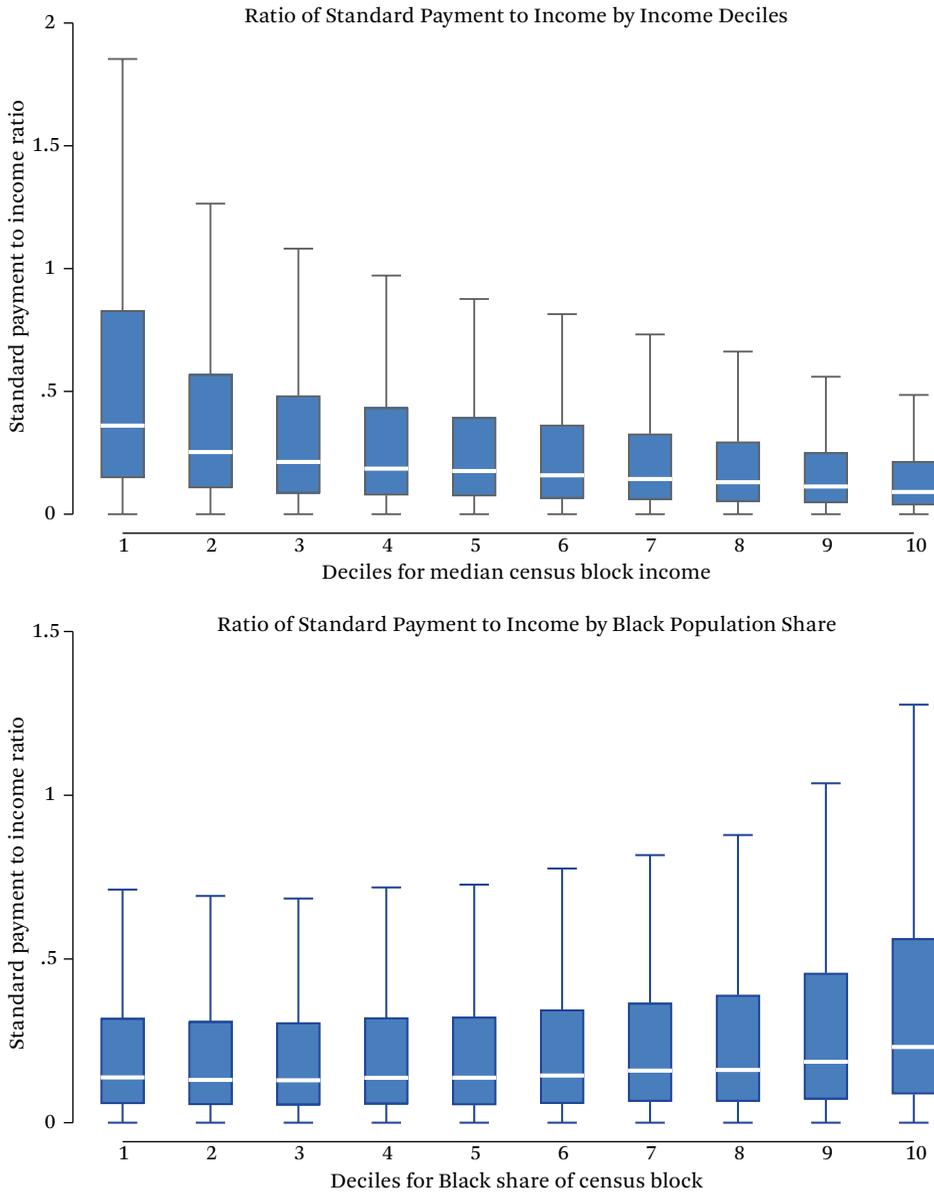
CODING SCHEME FOR CLASSIFYING ADMINISTRATIVE BURDENS

1. Metacodes for presence of narrative elements (yes or no)
 - Description of focal problem
 - Mention of original precipitating problem, if different from focal or immediate problem
 - Efforts to resolve
 - Consequent harms
2. Metacodes for general types of underlying administrative complexity from which problems arise (nonexclusive)
 - Organizational coordination and bureaucratic problems with servicers
 - Problems with loans migrating between servicers
 - Inconsistent information from different customer service representatives
 - Failure of servicer to follow-through on promised actions
 - Steering borrowers to forbearance, lost paperwork

- Policy complexity or patchwork problems
 - Multiple statuses or repayment programs
 - Confusion about forbearance versus IBR confusion about the necessity of being enrolled in IDR plan for Public Service Loan Forgiveness payments to count toward 120
 - Different terms and programs for different loans
 - Confusion arises because borrower has multiple loans, some of which do not qualify for certain repayment programs
 - Borrower thinks they are enrolled in X program but are for only a subset of loans
 - Problems that arise from the instability of borrowers' lives in the face of bureaucratic rigidity
 - Change in borrower's employment or life circumstances that alters program eligibility, upsets prior repayment arrangements, or leads to inexplicable or surprise increase in payment obligations such as job loss or health problems, divorce, marriage
 - Residential instability or change of address leads to missed correspondence
 - Falling into delinquency because of the time lag between income loss and adjustment to payment obligation for those already enrolled in IDR/IBR
3. Specific codes (nonexclusive)
- Problems with loans migrating
 - Information is lost or who is accountable is unclear
 - Mixed messages or organizational coordination breakdowns
 - One person says one thing, a department does something else
 - One representative says something but something else happens
 - Website says one thing, representative says another
 - One arm of organization makes error, representatives say they cannot help
 - Organizational interlock
 - Credit bureaus only respond to reporting organization
 - Lack of communication, documentation, or opacity in communication
 - Lost proof of payments
 - Lost documentation or income forms
 - No documentation on changed terms of payment
 - Refusal to send documentation
 - Generally unresponsive when trying to resolve the problem
 - Borrower cannot get clear information on the types or terms of programs they are enrolled in
 - Procedural error on the part of the organization
 - Charged in excess
 - False reporting of debt
 - Misapplied payments
 - Payments accepted but still marked unpaid
 - Payments infrastructure not working, people end up with late or missing payments that are not their fault
 - Terms of repayment change unilaterally
 - Borrower inexplicably unenrolled from payment plan
 - Organization claims debtor agreed to change terms of payment
 - Debtor does not remember agreeing to terms
 - Organization claims agreement made by telephone but has no documentation
 - Servicers fails to inform borrower of payment relief programs when borrower complains of inability to pay (possibly not explicit in complaint)
 - Steering borrowers into forbearance rather than IDR/IBR

- Failing to convey relief programs as option when borrowers complain about inability to pay balance
- Processing repayment program enrollment request incorrectly or not crediting payments toward forgiveness threshold, such as payments not applied toward public service loan forgiveness despite borrower being ostensibly enrolled in program
- Complaints about lack of information from college regarding repayment and loan terms
- Vague, confused, or nonspecific complaints
 - Metacategory of cases where burden arises from borrowers not knowing about loan terms or bureaucratic categories and thus being unable to begin a claim
- None of the above, that is, complaint is specific but outside scope of repayment-related administrative burden, such as solely about college being a rip-off
- Harms
 - Hassle costs
 - Borrower complains of time trying to resolve problems
 - Mention of repeated efforts or phone calls
 - Additional accrued balance, capitalized interest
 - Loan deemed in default
 - Damaged credit score or report
 - Suspected financial irresponsibility
 - Inability to take out a loan
 - Poor credit score for seven years
 - Claims of added stress, mental health toll from administrative burdens

Figure A.1. Distributions of Hypothetical Monthly Payment-to-Income Burdens



Source: Authors' tabulation based on UCCCP data (University of California Consumer Credit Panel 2021).

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PART III
Immigration

Institutional Entanglements: How Institutional Knots and Reverberating Consequences Burden Refugee Families



BLAIR SACKETT AND ANNETTE LAREAU

Research on administrative burdens has demonstrated that families experience significant costs in navigating different institutions. Yet studies have often focused more on the nature of the burdens that result from administrative rules than on the types of obstacles that produce these burdens. Less attention has also been paid to how families navigate multiple institutions simultaneously. Drawing on qualitative research with Congolese refugees resettled in the United States, we conceptualize how errors and mishaps in organizations tangled procedures into institutional knots, or complex blockages. We also show how some knots had a ripple effect as problems in one institution reverberated, leading to new, unrelated problems in different institutions. These institutional knots and subsequent reverberations were costly to resolve and a hindrance to upward mobility.

Keywords: administrative burden, refugees, street-level bureaucrats, normal accidents, organizations

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When [the COVID-19] pandemic hit, things were really difficult. We were laid off at work, and we were told to apply for unemployment. I was the only one [in my family] working. . . . Paying for our bills was challenging 'til we got unemployment after about six to seven months. . . . There wasn't anyone I could turn to for help.

—Jabari, resettled Congolese refugee

In the United States, institutions provide crucial resources, including food benefits, unemployment assistance, access to health care, and other crucial supports (Sherman, Trisi, and Parrott 2013; Carlson and Keith-Jennings 2018; Sommers et al. 2017; Schanzenbach and Bauer 2016). These services are invaluable for low-income households, and particularly for recently resettled refugee families, many of whom arrive with minimal financial resources (Zhou and Bankston 1998). Yet families often face administrative burdens when trying to access these services. As Pamela Herd and Donald Moynihan (2018, 2020; see also Moynihan et al. 2022) show, navigating social service institutions entails costs, including steep learning curves, thick stacks of paperwork, and uncertainty and stress. Research demonstrates that burdens are products of formal rules and routine organizational procedures, but institutions also make errors (Perrow 1999; Vaughan 1997). Errors have been documented across a wide range of social service institutions, including the Internal Revenue Services (IRS) (Dalrymple 2003), Temporary Assistance to Needy Families (TANF) (Brodkin, Fuqua, and Waxman 2005; Brodkin and Majmundar 2010), and immigration services (Moynihan, Gerzina, and Herd 2021). Less is known, however, about the role of errors and on-the-ground institu-

tional interactions in the creation of burdens for families.

In addition, studies on administrative burdens, such as those in this double issue, typically focus on challenges in one institution, such as childcare (Bouek 2023), child welfare programs (Barnes, Halpern-Meehin, and Hoiting 2023; Edwards et al. 2023), Medicaid (Rauscher and Burns 2023, this issue), schools (Lareau et al. 2016), housing programs (DeLuca et al. 2023; Pierce and Moulton 2023), legal assistance (Yu 2023, this issue), and disaster relief (Raker and Woods 2023). Yet families are situated at the intersection of multiple institutions, and each one provides a set of administrative burdens for family members to negotiate.¹ More attention is needed on the dynamics of the institutional obstacles families encounter across numerous institutions as well as on how these institutional barriers intersect.

In this article, we draw on qualitative research on the experiences of refugee families from the Democratic Republic of the Congo (DRC) who recently resettled to the United States.² Even though refugee resettlement is rare (fewer than 1 percent of the world's refugees are resettled), refugees resettled to the United States are an important conceptual case in investigating administrative burdens. In the first few months after they arrive, refugee families encounter numerous institutions. In addition, refugees have access to services that other types of immigrants, particularly the undocumented, do not receive through the federal resettlement program, including access to the social safety net and help from caseworkers and volunteers (Ludwig 2016; Brown 2011; Waters and Pineau 2015). Yet, as we show, even with eligibility, rights, and assistance after they arrive, refugees encounter formidable challenges.

1. For studies that take up the interdependence of institutions, see Black and Keyes 2020; Paik 2021.
2. Refugees are people who have fled their home country due to war or other disasters and have been granted legal refugee status by the United Nations Refugee Agency (UNCHR). In the literature on immigrants, refugees are often considered to be a distinct type of immigrant (for a discussion, see FitzGerald and Arar 2018). Unlike other types of immigrants, refugees are chosen for resettlement and assisted in the process by international nongovernmental organizations and the UNCHR, rather than self-selecting for resettlement and relying on social ties. Refugees resettled to the United States are usually unable to control the city they are sent to, the neighborhood and house in which they are settled, and the timing of when they are moved. The federal government funds the resettlement process for refugees, but relies on NGOs to serve as resettlement agencies.

In this article, we advance our conceptual models of the institutional obstacles that lead to administrative burdens. We illustrate two types of institutional obstacles that refugee families faced in their day-to-day navigation and show how these obstacles imposed administrative burdens, which threatened access to resources. First, we demonstrate that in addition to burdensome routine rules and requirements, families faced *institutional knots*, or complex blockages in institutional procedures. Knots usually began with a modest institutional error or mishap: a computer error, a misspelled name on a form, a document lost in the mail. Families regularly faced institutional errors, mistakes, and accidents while navigating multiple institutions at once. These mishaps tangled procedures and brought processes to a screeching halt, threatening to delay and even prevent refugee families from accessing social services and benefits to which they were legally entitled, such as Supplemental Nutrition Assistance Program (SNAP) benefits and green cards. Crucially, untying knots involved additional, often complex administrative steps.³ These steps each entailed painstaking work that demanded time, energy, and institutional expertise—additional administrative burdens. Even knots that were eventually straightened out were costly for refugee families and those helping them.

Second, problems in one institution could create *institutional reverberations*, or ripple effects, that lead to new, unrelated problems in different institutions. As families navigated a nexus of administrative burdens from multiple institutions simultaneously, problems could have a cascading effect, swelling into new unexpected problems in other institutions—for example, a delay receiving a green card created problems for documentation required for employment. Reverberating problems required new administrative steps in different institu-

tions, levying additional burdens on families and threatening to become a barrier to additional resources.

Our study highlights the need for research on administrative burdens to address not only the costs of formal rules and routine procedures but also the obstacles that trigger burdens. We focus on the concept of institutional knots triggered by mishaps and show how they reverberate across multiple interdependent institutions. Moreover, racism and xenophobia within institutions prompted more opportunities for institutional knots to develop and made them more difficult to untangle. Cultural brokers, such as caseworkers and volunteers who helped families navigate institutions, sometimes provided support in overcoming obstacles and reducing the burdens families faced.⁴ These concepts contribute to the theoretical understanding of the informal organizational mechanisms that create administrative burdens and have important implications for impediments to upward mobility for families. Although our focus is on refugees, our model has potential theoretical implications for a wide range of low-income families.

ADMINISTRATIVE BURDENS, ORGANIZATIONAL ERRORS, AND INTERSECTING INSTITUTIONS

Institutions play an especially important role for refugees and immigrants. As Helen Marrow (2009) shows, immigrants have significant interactions with American institutions, leading at times to a form of “bureaucratic incorporation.” While institutions can provide resources and support, they also have rules and requirements, which create costs for clients as they access benefits. Herd and Moynihan (2018) term these navigational costs “administrative burdens.” Administrative burdens refer to the learning costs, compliance costs, and psychological costs that organizations and their pro-

3. By definition, institutional knots are problems within one institutional setting. Yet untying knots may require navigating multiple institutions. For instance, receiving SNAP requires completing a recertification form, which involves documentation from other institutions, such as paystubs from the workplace and copies of government identification from government agencies (see Sackett and Lareau, forthcoming).

4. The literature on cultural brokers is extensive and often focuses on the role of children in aiding their immigrant parents (see, among others, Katz 2014; Delgado 2020; for more on the role of outside helpers as cultural brokers, see also Sackett and Lareau, forthcoming).

cedures cause for families. Herd and Moynihan argue that these burdens are deliberately constructed by politicians and are consequential for clients, becoming a barrier to services. Administrative burdens can have adverse consequences for immigrants, as the process of legal immigration and maintaining legal status becomes more onerous (Moynihan, Gerzina, and Herd 2021). These burdens may have negative health effects (Herd and Moynihan 2020). Crucially, they are distributive (Herd and Moynihan 2018), racialized in their conceptualizations of groups, and disproportionately disadvantaging to racially marginalized groups (Ray, Herd, and Moynihan 2022). Although studies show differences in administrative burdens across organizations, less is known about how these burdens may compound and interact.

Threaded through studies on social services and public administration are signs that the unfolding of errors and mishaps can be burdensome and threaten access to services. Indeed, examining declines in TANF caseloads, Evelyn Brodtkin and Malay Majmundar (2010) conceptualize administrative exclusion as not only due to formal rules and modes of governance but also to the nature of informal practices. For instance, drawing on data from the Public Benefits Hotline Research Project (Brodtkin, Fuqua, and Waxman 2005), they highlight the case of Ms. Garcia, whose income support and food stamps were unexpectedly canceled due to missing documents for a work record and earnings statement. Even after she submitted replacement copies and a Public Benefits Hotline advocate made seven phone calls, spoke with a supervisor, and walked them through how to correct the error, her benefits were not reinstated for weeks. Despite no changes in eligibility or formal rules, informal processes played an important role in the organizational mechanisms of administrative exclusion. Similarly, Moynihan, Julie Gerzina, and Herd (2021) show that when an undocumented immigrant left a nonapplicable field blank

(rather than writing “not applicable”) while filling out a form for a visa, her application was overruled. Lilly Yu (2023, this issue) finds that immigration attorneys and their clients faced “impossible-to-satisfy requirements,” such as a change in fee waiver requirements that mandated proof of income through tax returns—a requirement that undocumented clients unauthorized to work could not meet. Although these studies do bring to the fore the role of informal practices in administrative exclusion, the nature of these snags in institutional procedures, and especially across multiple institutions, has not been sufficiently conceptualized.

Research on administrative burdens has shown the impact of formal organizational rules and policies, yet service delivery also depends on informal decisions by workers. Social scientists from Michael Lipsky (2010) to Celeste Watkins-Hayes (2009, 2019) demonstrate the role of “street-level bureaucrats,” or frontline institutional agents, in wielding power in the delivery of services. Even with these formal procedures, bureaucrats have significant discretion in their interactions with clients, differentially applying rules and doling out services (Lipsky 2010).⁵ Frontline workers may adopt a range of strategies and helpfulness—from “moving towards clients” to “moving against clients” (Tummers et al. 2015). Caseworkers favor some clients over others (Levine 2013).⁶ For instance, the anthropologist Aihwa Ong (2003) argues that health and social workers formed racist views of Cambodian refugees as unworthy. Workers’ assessments about clients’ deservingness, based on client characteristics, may lead to unequal resource dispersion of services (Calarco 2018; Lara-Millán 2014; Lopez 2010; for a review, see Pepinsky, Pierskalla, and Sacks 2017). Some groups of immigrants, such as European and Canadian immigrants, received more assistance than others, such as Mexicans (Fox 2007; Ngai 2004). Further, frontline workers make mistakes in administering services. For example, Internal Revenue Service

5. Indeed, Melvin Kohn (1971, 473) argues that “what is notable about bureaucratic practice is not how closely authority is exercised but how effectively it is *circumscribed*” (emphasis added).

6. Additionally, as Judith Levine (2013) shows, low-income clients often develop extensive knowledge to interact with these agencies.

employees have been found to provide incorrect information on one in four questions from taxpayers (Dalrymple 2003). More attention is needed to the role of informal institutional mechanisms in the creation and distribution of administrative burdens.

Moreover, scholars show that families confront a dizzying array of institutions (Black and Keyes 2020; Paik 2021; Heinrich et al. 2022). Many institutions have crucial similarities, as individuals face rules, schedules, inflexibility, deadlines, and important costs if the institution's opaque demands are violated.⁷ However, institutions do not function in uniform fashion. Different institutions vary in their orientation and service workers' willingness to bend rules or prioritize clients (Tummers et al. 2015). For example, immigrant clients may find different levels of inclusion and service worker orientations in schools than in courts (Marrow 2009; Jones-Correa 2005). Nor do families interact with each institution in isolation. Indeed, Mariana Chudnovsky and Rik Peeters (2021) suggest that administrative exclusion may have a cascading effect across institutions, showing a trickle effect with exclusion in identity registration and documentation leading to exclusion in a social policy institution in Argentina. Yet research on conceptualizing how administrative burdens intersect as families navigate a range of institutions is still limited.

Finally, in addition to the variability in service delivery, organizational sociologists show that errors can occur in organizations, especially in complex systems (Perrow 1999; Vaughan 1997). In his work on nuclear accidents and other organizational failures, the sociologist Charles Perrow (1999, 7) argues that complexity in systems can lead to "normal ac-

cidents" when multiple and unexpected errors intersect and interact in some unexpected way: "No one dreamed that when X failed, Y would also be out of order and the two failures would interact so as to both start a fire and silence the fire alarm. . . . The cause of the accident is to be found in the complexity of the system. . . . the failures became serious when they interacted. It is the *interaction* of multiple failures that explains the accident."

Although Charles Perrow (1999) theorizes about risks and failures in complex technological systems—not service institutions—his approach is illuminating in the context of social science service delivery as well. In sum, important research on administrative burdens has brought to the fore the navigational costs of rules and routine procedures in accessing institutional resources. Yet more attention is needed on the accidents and institutional errors families experience as they navigate multiple intersecting institutions, especially since they have implications for social mobility.

METHODOLOGY

This article draws on in-depth interviews with forty-four Congolese refugee families resettled to the United States and thirty-five aid workers and volunteers who assisted refugees.⁸ This interview sample is part of a larger project, which included weekly home visits with four of the Congolese refugee families and observations with aid workers (see Sackett and Lareau, forthcoming). At the time of the study, from 2014 to 2022, Congolese refugees were the largest group being resettled to the United States and are an important yet understudied group. The study went through extensive Institutional Review Board review and approvals.

The interviews with the refugee families

7. Many of these organizations are bureaucratic and emphasize "objective," formal procedures, rules, and documentation (Weber 2015). Max Weber (1949, 215) defined bureaucratic objectivity as "a discharge of business according to calculable rules and without regard for persons." Yet scholars since Weber have debated the extent of this bureaucratic objectivity. John Meyer and Brian Rowan (1977, 343) argue that many organizations are loosely coupled with "powerful institutional rules which function as highly rationalized myths."

8. In this article, we use the term families because family members often live together. People who are not blood relatives but live together may be considered part of the family unit. A number of family members were killed or not permitted to resettle at the time; some men had multiple wives in refugee camps. At times, adults lived with their parents. Thus family structures among research participants varied in form and included a number of single-parent families.

were conducted in two phases. During the first phase, Sackett conducted in-person interviews with twelve Congolese refugee families resettled to Philadelphia within the previous three years.⁹ During the second phase, three years later, Sackett and three Kenyan research assistants, undergraduates at our university and native Swahili speakers, conducted interviews with thirty-two additional families. Just as recruitment was scheduled to begin, the university closed all in-person operations in response to the COVID-19 pandemic; face-to-face research was generally prohibited. As a result, Sackett and the research assistants conducted interviews with families by telephone and occasional video call. Because the interviews were virtual, we expanded our geographical reach, recruiting interviewees across the United States. Given the refugees' trauma of fleeing, distrust of government officials, and unfamiliarity about the research process, we found that recruitment was more effective when someone vouched for the study. In an effort to broaden our sample, we recruited refugees from multiple social networks and sponsors. Refugees were told that the study was about their adjustment to life in the United States; they were given a gift card of \$30 for the interview. Interviews varied in length but were often ninety minutes; due to their pressing obligations, some interviews took place over multiple calls. The interviews revealed a wide range of institutional barriers to services, as well as key resources. Although in a few instances, respondents were uncomfortable with us recording, and we honored their wishes, most interviews were audio-recorded, transcribed in Swahili, and translated into English.

Additionally, Sackett conducted interviews with thirty-five aid workers and volunteers, recruiting those who worked with families from the DRC. During the interviews, the aid workers discussed at length the institutional obstacles refugees faced. The majority of aid workers and volunteers were White and highly educated. A few of the caseworkers were immigrants and refugees themselves. These interviewees were recruited through a snowball sample. All were conducted in English, audio-recorded, and transcribed verbatim.

The research team included researchers with varying social locations or positionalities.¹⁰ As White women born and raised in the United States, we, the authors, are outsiders to the refugee respondents in terms of race and nationality as well as in our lack of experience in being a refugee. Sackett sought to build rapport through her advanced-conversational Swahili and experience living in a refugee camp (when she conducted research for a separate research project). Our research assistants were all native Swahili-speaking women from Kenya and phenotypically Black. Although they shared a native language with the participants, the RAs and refugee interviewees drew distinctions between their countries of origin (Kenya, a middle-income and stable country, versus the DRC, a low-income nation in conflict) and reasons for migration (to attend university versus to escape war). Surprisingly, we did not find that the accounts of racial discrimination that refugee respondents provided to Sackett differed from those reported to the research assistants. Respondents were more likely, however, to volunteer strong opinions about cultural differences in marriage and parenting practices in the United States, such as con-

9. For a discussion of the immigration context in Philadelphia, see Singer et al. 2008.

10. Of course, racial patterns of inequality reverberate through daily life in countless ways, and these persistent inequalities have raised deep, complex questions about the position of researchers doing research as outsiders. Reasonable people disagree about the legitimacy and desirability of different researchers' positionalities. One common position in the social sciences, however, is that both insiders and outsiders have valuable perspectives to bring to the research process. Insiders—in this case, Black refugee researchers from the DRC—would have intimate knowledge of the refugees' experiences that could likely more easily build a trusting relationship with research participants and enhance interpretation of their experiences. However, outsiders can bring fresh perspectives too—they can adopt a position of naivete that draws out explicit reflections on experiences and perspectives that otherwise might be assumed, and they can ask questions that might be inappropriate for insiders to raise (a full discussion is beyond the scope of this paper, but see Lareau 2021).

straints against corporal punishment, to the research assistants.

We coded the findings, searched for disconfirming evidence, and followed standard research practices for working with qualitative data (see Lareau 2021). In coding, we sought information on key themes—loss of services, moving, racial discrimination, cultural brokers—as well as for disconfirming evidence. Although we used the Dedoose program early in the study, we subsequently found it more helpful to read the interviews looking for key themes and create extensive Excel tables with the names of the respondents and their experiences on selected themes (for example, food stamps, housing problems, moving, and others). We trained research assistants who helped with the coding, and we had weekly meetings to discuss patterns that emerged. Our open-ended interview guide focused broadly on institutional navigation; patterns on the experience of administrative burdens emerged through our data analysis (for a discussion of the emergent nature of qualitative research, see Lareau 2021). All names are pseudonyms.

FINDINGS: MANY INSTITUTIONS, MANY OBSTACLES

When refugee families needed help with food, shelter, and other necessities, they often walked into large government buildings to fill out complex forms or spent time scrolling the internet to find the right website to make a request. Navigating these institutions entailed costs as refugee families learned how systems worked, exerted time and money to comply, and shouldered psychological burdens in the stress and uncertainty.

Sometimes these routine institutional processes moved smoothly, obstacles were overcome despite costs, and refugee families gained valuable resources. Refugee families received limited but essential assistance from resettlement agencies, nonprofit organizations subcontracted by the federal government to help during the initial months after arrival.¹¹

They were met at the airport by a caseworker, who then took them to an apartment furnished with basic items; and acting as “navigators” (see DeLuca et al. 2023), caseworkers helped refugee families enroll children in school, apply for benefits, and secure medical care (see, among others, Gowayed 2022; Ludwig 2016). Many refugees also received support from the social safety net. For instance, while Zainab and her family had faced hunger in the refugee camp, on their arrival in the United States, they were able to access food assistance from SNAP. As Zainab recounted, these resources made a difference: “After arriving, we were never hungry. They gave us food stamp assistance. We were still new with no jobs, but we were given houses [to stay in]. They told us, ‘You use food stamps when you go to the store’. . . . We used it to buy groceries, and just like that we never went hungry. No kids were complaining of hunger.”

Others benefited from college preparation programs, scholarships for college, and homeownership programs, including financial support for first-time homeownership (see also Sackett and Lareau, forthcoming). Institutions thus offered a wide range of resources beneficial for economic mobility.

Yet refugee families also faced institutional obstacles, which created navigational costs, or administrative burdens, and threatened to block access to valuable resources. We conceptualize two types of obstacles: knots and reverberations. Knots are complex blockages, usually triggered by an error or mishap (see table 1). Moreover, as refugee families navigated multiple institutions, institutional processes intersected within the family. Although these institutions had interwoven demands, they often lacked coordination. Errors in one institution could tangle processes together, forming a knot across institutions and reverberating to create new problems. Overcoming these obstacles created administrative burdens for refugee families and the caseworkers and volunteers helping them. To forefront the cost of administrative

11. In recent decades, however, the amount and length of assistance from the federal resettlement program has decreased (Brown and Scribner 2014), and caseworkers in resettlement agencies face increased demands (Fee 2019).

Table 1. Types of Institutional Obstacles Leading to Administrative Burdens

Institutional Obstacle Definitions	Features	Examples
<p>Knots:</p> <ul style="list-style-type: none"> • Complex blockage in institutional procedures usually triggered by an error 	<ul style="list-style-type: none"> • Problem within one institution • Errors or mishaps can trigger blockage, tangling up with other administrative steps • Untying the knot is burdensome: requires multiple additional procedures each with learning costs, compliance costs, and psychological costs • Untying knots may require navigating additional institutions • Can delay or block access to resources 	<ul style="list-style-type: none"> • Computer error in registering change of address leads to termination in SNAP benefits, requiring additional procedures to apply to reinstate benefits (Safi) • Taking the wrong bus leads to missed pick up of children from school, requiring new procedures to get children back (Alphonse and Bahati) • DMV official applies documentation requirements incorrectly leading to blockage in getting an ID, requires volunteers contesting mistake (Sandrine) • Welfare official applies qualification rules incorrectly, leading to denied cash assistance, which required case workers to overturn (Lisa) • Error in mail after change of address leads to lost green cards, prompting new procedures to request (Jeanine) • Car accident leads to misunderstanding with police request for ID leads to incorrect citation for driving without a license, requiring appeal (Kashindi)
<p>Reverberations:</p> <ul style="list-style-type: none"> • Problems in one institution have a ripple effect, leading to unrelated problems in different institutions 	<ul style="list-style-type: none"> • Problems across multiple institutions: families navigate multiple institutions at the same time and problems ripple across institutions • Solving new problem requires additional procedures in a new institution with additional learning costs, compliance costs, and psychological costs • Can delay or block access to resources 	<ul style="list-style-type: none"> • Problem with children’s school (missing children’s school pick up) threatens to reverberate, creating new problem with Child Protective Services (Alphonse and Bahati) • Delay in receiving green card (due to change in address) threatens to reverberate, creating new problem in workplace (Jeanine) • Car accident triggers misunderstanding with police, which reverberates creating new problems with the court (Kashindi)

Source: Authors’ tabulation.

burdens, we focus on obstacles that were eventually overcome; however, if left unresolved, these obstacles also led to missed services, entitlements, and opportunities, despite eligibility (see Sackett and Lareau, forthcoming).

TANGLES IN PROCEDURES: INSTITUTIONAL KNOTS

While institutions could provide valuable resources, things sometimes went wrong and procedures tangled into a knot. Officials made mistakes. Documents were lost in the mail. Sometimes, the refugee families (or the volunteers helping them) misstepped: they took the wrong bus and missed an appointment or filled out a form incorrectly. Key infrastructure faltered: mail was not delivered, paperwork was not recorded, or a computer system jammed. Although each institutional error might seem unexpected, unpredictable, and unique, evidence from other research indicates that these system errors are woven into the structure of service delivery (Foner 1994; Lopez 2010; Szymczak and Bosk 2012; Perrow 1999; Vaughan 1997). In complex systems with intersecting institutions and limited slack, even seemingly small mishaps could snag institutional procedures and compound to create complex institutional blockages. Simple problems then became complicated and challenging to unravel. We refer to these complex problems as *institutional knots*.¹² Difficult to resolve, these knots increased administrative burdens for families and those helping them. Some knots were resolved, but they were costly to fix. As we show, some of these problems were tied to the families' refugee status, but others were more run-of-the-mill organizational mishaps. In addition, racism, xenophobia, and discrimination had the potential to compound these problems.

Complex systems entail opportunity for errors—which could tangle into knots. For instance, due to the decentralized nature of ser-

vice delivery in the United States, a move across county lines meant that services needed to be transferred to the new county. For refugees, who often did not choose the country or the city where they were resettled, secondary moves were common (Bloem and Loveridge 2017). Several refugees in our sample moved—to a cheaper residence, to be near family or friends, or for other reasons. Moving and transferring services not only brought administrative burdens for the families but also introduced opportunities for error. For example, when Safi moved from one side of the Philadelphia metro area to the other—a move of less than five miles, but across a county line—an institutional knot developed, and her SNAP benefits, unbeknownst to her, were cut off. As Safi's caseworker Wendy recalled, after the move, "Safi had not received her food stamps. She moved from one county to another, she needed to transfer the benefits. She told me, 'I went to welfare and I told them about [the move], and they said they were going to transfer my benefits.' So, I said, 'It's fine. As long as you've done that, that's okay.'"

Safi correctly sought to overcome a key administrative burden by visiting the welfare office and filing paperwork to transfer her benefits. However, it turned out that at the same time, the semiannual reporting form to prove that she still qualified for food benefits was also due. The two different parts of the organization made an error by failing to coordinate the different organizational divisions. Wendy recounted what happened: "They sent the semiannual reporting form to Safi's old address. So, we [Safi and I] missed that form. When I followed up with the welfare office, they told me, 'We sent the forms to this [older] address.' I told them, 'She moved—and she came in here and told you she is moving.' The officer checked on it, 'Yeah, she did.'"

The welfare office confirmed to Safi's caseworker that Safi had not made an error; in-

12. The idea of institutional knots parallels Charles Perrow's (1999) concept of system errors, also referred to as normal accidents. Perrow conceptualized system errors in the context of complex technological systems and organizations. He discussed complex organizations, such as nuclear power plants, and how an unanticipated sequence of unimaginable events created disasters. We use his concept in the context of mundane interactions with social service institutions. Many of these errors are routine and thus well known, but the exact sequencing of how the errors unfold is highly variable.

stead, the office had done so when the recertification division was not apprised of the new address. Further, the back-up system failed when officers were unable to reach her by telephone and subsequently discontinued her food stamps. Wendy shook her head as she recalled Safi's devastation: "She literally cried at that food stamp place and refused to leave, because she said she has no food to give to the children. They even didn't understand that this person is a refugee with two kids, a single mom, struggling!"

Wendy helped Safi submit the correct paperwork on Friday morning, but it typically took five to ten business days to be processed—an additional delay of a week or two. At this point, Safi had run out of food. Fortunately, Wendy's supervisor was able to get the family gift cards for food as a stopgap.

In the complex system, an institutional error tangled procedures into a knot. For Safi, moving (and the requirement to submit a change in address) prompted a knot. Although the specific unfolding of events may have been unique to Safi, eighteen families (41 percent) in our sample reported moving in the United States, and six families faced snags in transferring benefits. Moreover, the knot had consequences: Safi and her children lost their food benefits for weeks. Within this system, the onus was on clients, such as Safi, and their caseworkers and social ties to untie the knot. Solving it was burdensome, involving costs in the time visiting the office, calling administrators, filling out paperwork, and waiting weeks for processing. For Safi, the knot led to precarity—and the risk of food insufficiency for weeks. Because of the error, she used up scarce resources. Even for refugee families, such as Safi's, who were able to meet the costs to untie knots, they found themselves back where they started.

Institutional agents played a key role in both triggering and untangling institutional knots. Frontline workers could enthusiastically help refugee families overcome errors or drag their feet. Some interactions with institutional agents were hostile, leading participants to raise questions about racial discrimination. For example, two White volunteers, Nathan and Nancy, were aiding a Congolese refugee, San-

drine, secure a driver's license. The rules were complex. The driver's license agency required a green card, but refugees are not eligible for a green card until after twelve months in the United States. Befuddled, they reached out to the caseworker who provided the form, and Nathan went to the Department of Motor Vehicles with Sandrine, where they met with a cool reception. As Nathan explained, at first, the clerk simply refused to help: "We waited our turn, then when we got to the desk, Sandrine told the clerk what she was there for. The clerk asked her for her green card. And Sandrine said, 'I don't have it.' And the clerk said, 'I can't help you then.'"

The institutional agent made an error in applying the rules. Nathan contested the error, providing the regulations:

I had a copy of the regulations—regulations that the clerk should be aware of. So I handed it to her, and said, "What about this here?" She looked at it a little bit and took off [and] went to see her supervisor. Didn't talk to us at all. She came back and sat down and started typing. She asked Sandrine for whatever information she needed, and then she said, "That would be \$50." Sandrine gave her a check. There was *not* a whole conversation about "I am sorry, I didn't know about all this." Then when we got up to leave, I had pulled a chair up and I was going to put the chair back. But before I had a chance, she said, "*That chair goes back there.*"

In interpreting the clerk's comments, the volunteer interpreted it as "a little racism there." For the Congolese refugee families in this book, racism and xenophobia in institutions could make matters worse, prompting more potential moments for knots to occur, and making them harder to solve. As others also show, even in the absence of conscious discrimination, administrative burdens are racialized, disproportionately affecting marginalized groups (Ray, Herd, and Moynihan 2022). Institutional agents in immigration offices, schools, and welfare offices could use their discretion as street-level bureaucrats to help, yet refugee respondents reported that they were often skeptical and unhelpful in untying knots. In

some instances, as with Nathan and Nancy, volunteers helped refugees overcome obstacles and access services. In other instances, volunteers introduced new errors.¹³

At times, refugees faced problems with administrative clerks who did not know specialized rules. For example, refugee status led to additional institutional interactions and processes, like applying for a green card, which were specific to the immigrant experience. Often within these institutions, the onus was on refugees—and the caseworkers and volunteers helping them—to know the rules and regulations around refugee status and protect against errors. For instance, in addition to the initial first three months of government support for refugees, federal policy decreed that some refugees, who were not eligible for other funds, including Supplemental Security Income, were eligible to get cash assistance for the first eight months after their arrival. This eligibility was rare, however. Sometimes, when refugees went to apply for assistance, officials mistakenly turned them away. Lisa, an aid worker at the resettlement agency, explained: “Most people who are adults and who are healthy don’t qualify for cash assistance. But if you’re a refugee, you qualify for [the first] eight months. So, several times we’ll hear, ‘You don’t qualify. You’re twenty-two years old, and you’re healthy. You have to get a job.’ And so, we’re like, ‘No! They’re wrong! You’re a refugee.’ They [the client] went in with their proof that they’re a refugee, but whoever was interviewing them didn’t know what the regulations were with regard to refugees.”

When refugee families were turned away from services they were legally entitled to receive, they faced additional administrative burdens to correct the process. They had to return to the office, often with a caseworker or volunteer, who also had limited time and availability. Because applications had to be done in person

to verify identity most of the time, they had to pay for an additional roundtrip on public transportation, which further depleted their scarce resources. Thus a small error could spiral into an institutional knot. Social workers emphasized that in this county-based system workers varied across counties. Philadelphia County workers were more experienced. Other county workers made errors and denied entitlements to refugees. As a result, Lisa stressed with a laugh, “There’s just *no way* new refugees can navigate these different institutions. It’s hard for us [caseworkers], and we do this a lot.” The complexity of the decentralized system, the complication of the special refugee case, and the lack of built-in checks in the system led to errors that often escalated into an institutional knot.

Untying knots was burdensome—entailing learning costs, compliance costs, and psychological costs. For Alphonse and his wife Bahati, one mishap—a missed bus—snagged institutional rules and processes within multiple interconnected institutions: the public school system, the police, and (nearly) Child Protective Services (CPS). Although the missed bus itself was not a knot, it did trigger a complex institutional tangle, and the administrative steps to untangle it imposed additional costs. In the family’s first month in the United States, Alphonse and his wife, Bahati, enrolled in English classes on the other side of the city through their resettlement agency. To get to class, they needed to use public transportation, which was a complicated system. Their caseworker showed them the exact buses and bus stops from their apartment to the class for the scheduled class time. But, on their first day traveling alone, they realized they would need to leave early at 2 p.m. to pick their children up from school. As Alphonse soon realized, the change in time triggered a mishap: “We had been used to our route number. So we boarded

13. As we explain elsewhere, volunteers were frequently learning about social service programs for the first time. In one instance, a volunteer was helping a refugee family get their food stamps reinstated, and the employee mistakenly directed the volunteer to leave forms on the application blank, saying that the computer would automatically fill out the birthdays. However, because the family had been terminated, the spaces were not populated. The application was rejected and a longer delay ensued (Sackett and Lareau, forthcoming, chap. 4). In a fragmented system, it is also possible that one person’s actions trying to untangle a knot could reverberate and create a new knot in a different system.

the bus, but it kept going round and round. We got lost. The bus routes were changed, and the route numbers changed as well.”

Two hours later, at 4 p.m., Alphonse and Bahati were getting desperate and decided to get off the bus at the next stop, in hope of finding some assistance. After waiting more than an hour, they found a policeman, who called their resettlement agency, got their address, and helped them get home. To their surprise, when they opened the door to their apartment, “the children weren’t there.” By the time they arrived home, their children would have returned home from school hours earlier—to an empty apartment. Their delayed return home conflicted with institutional expectations that parents should not leave their children unattended in the United States. To get their children back, Alphonse and Bahati had to complete new administrative steps:

I called the police. They asked me very many questions, “Do you want an ambulance?” I said, “No.” “Do you want this?” I said, “No.” So finally, I told them that I can’t speak English. They got a Swahili interpreter. I told them what happened—how we got lost, that we had just arrived at home to find the children weren’t there. Then they asked us many questions like, “Which school do your children attend?” “What’s their height?” “What kind of clothes did they have on?” “What color?” So apparently the children came home after school, and when they did not find us, they decided to go back to school. At school, they were taken to the police station.

To get the children back, Alphonse had to comply with police questioning in English. Finally, at around midnight, with a “stern warning,” the police brought the children home. “They had cried their hearts out.” Alphonse and Bahati had a straightforward goal: to get home and pick up their children from school; yet their mishap with the complicated public

transportation system conflicted with complying with expectations the school system and legal system, snagging institutional procedures and creating a blockage with compounding complexity and severity. If the children had been left at the police station longer, the police would have formally opened a case with CPS and possibly placed the children in foster care. Indeed, our interviews with refugee families and aid workers revealed six instances of entanglements with CPS. Even though in this instance Alphonse and Bahati narrowly dodged a CPS investigation, the institutional knot was stressful and emotionally exhausting—psychological costs. Alphonse concluded, “That is the biggest challenge I have ever faced here, and I will never forget about it.”¹⁴ Thus, untying the knot led to new learning costs, compliance costs, and psychological costs.

ONE PROBLEM LEADS TO ANOTHER: INSTITUTIONAL REVERBERATIONS

At times, institutional knots in one institution reverberated to create new, unrelated problems in other institutions—prompting additional administrative burdens in more institutions. For instance, for Jeanine and her family, a delay with her green card application after a mishap in changing addresses threatened to reverberate, causing a new problem in the workplace. Jeanine, who worked as a nurse in the refugee camp, was resettled to Colorado with her twin middle-school sons and her mother. She got a job in the cafeteria at a retirement home for \$13 an hour. A team of church volunteers helped the family set up in a little rental house and while they supplemented the rent things seemed good. At the end of the first year, however, the volunteer team reduced their financial support—including their rent supplement. Money was already tight. Jeanine fretted, “my son wants \$100 shoes like the other kids at school.” After the hardships her son endured in the refugee camp, she stressed that she “wants to provide for him, so I need to have

14. In addition, because of how he interpreted the warning by the police “to not leave them outside,” after that day, they kept the children indoors after coming back home from school. Although the children were safe indoors, Alphonse lamented, “They do not make friends.” Thus even one-time events, which were resolved without incident according to the agencies, could have serious consequences that cast a shadow on the lives of the families.

savings.” In addition, when she was able, Jeanine sent \$20 or even \$50 back to her nieces and nephews and “mentally unstable” aunt in the refugee camp. Jeanine decided to look for another place with cheaper rent. A Congolese friend helped her find a place across town. The change in address, though, triggered events that became tangled into an institutional knot, creating a serious delay in receiving green cards. With the help of an aid worker, Jeanine and her family had complied with the green card application procedures, as Jeanine recounted:

We went to [resettlement agency] offices and told them that we wanted to apply for a green card. At the office, we were asked to pay \$100 for adults and \$50 for children. “All that money?” “Yes.” We felt that was a lot. We were then referred to a guy who helps refugees free of charge. So, we went to him and he asked us if it was our first time [to apply] and we said, “yes.” “How many people are you in the family?” We told him. We booked an appointment, and we went and filled out the forms.

Yet the family’s move during the process complicated the procedures, as Jeanine remembered:

By bad luck, we applied for green cards while in [our old neighborhood], and while waiting for the green cards to be processed, we moved. So, we had to change our addresses at the hospital and everywhere else. So, we started receiving the letters at our new house, including one letter indicating that we would receive our green cards “in August on this and this date.” So, in August we didn’t receive the green cards, yet the letter had indicated that we would receive them by that date. We asked the guy to check that out. He made a follow up and learned that the green cards had been sent. “Where to?” The letter indicated that we would receive them here. We checked the mailbox, and there was nothing. We went to the post office and asked about it, and we were told that the green cards had been sent. We went to the headquarters, and again, “the green cards were sent.” That is how we lost the green cards.

Untying the knot imposed new costs as Jeanine navigated additional administrative steps to track down the lost green cards. She fretted that “if we have lost the green cards, we will not be issued with another.”

Moreover, the problem with the green cards threatened to reverberate and lead to problems in the workplace. In the United States, government restrictions mandate that employers collect documentation on immigration status. During the delay, Jeanine’s manager at her job at the retirement home started asking to see her green card. Her papers and ID on file had expired, and her employer wanted her to have the proper paperwork. Jeanine worried that she would lose her job. In America, she stressed, “money is everything,” and she agonized that she would not be able to get by if her boss decided that he was tired of waiting.

Later, when Jeanine was at the hospital with one of her children for an unrelated appointment, she told her social worker about the problem with the green cards: “The social worker followed up. The response was that they already processed our green cards. So, he told them that they got lost, ‘They received the letter but not the green cards.’ So, they asked that we send them copies of our documents. We made copies and sent them. I thank God because it took about three months after following up, but we received the green cards.”

The social worker was a crucial navigator, and finally, eight months after initially applying for their green cards, the documents arrived in the mail. As Jeanine said, “We were very happy. We thank God that we received them.” Yet the process was harrowing. To understand what happened, the refugee family worked with two caseworkers, each of whom found out one piece of the puzzle. This was a near miss, but the delay nearly cost Jeanine her job, threatening the family’s financial future, and resolving the problem created new administrative burdens.

Reverberating problems also surfaced for another family when a traffic accident and minor communication problem with a police officer ballooned into a court case. Although the car accident itself was in part simply bad luck, the ensuing institutional knot was linked to routine, racialized institutional processes in

the criminal justice system.¹⁵ In this instance, Kashindi was driving his wife to an appointment at a hospital clinic in Tennessee. Early after he arrived in the United States and started work at an auto supply factory, Kashindi started saving for a car and then bought what he called a “junk car” for a few thousand dollars. He then got a learner’s permit, and a friend taught him how to drive on the weekends—during the week, there was no time between Kashindi’s day shift, his wife’s night shift, and juggling watching their five children. That day, driving down the highway with his wife, Kashindi was in the wrong place at the wrong time. He was hit by another car: “My wife and I were involved in an accident. . . . We were driving as usual, but then there was another driver, who was driving at a high speed. He came and hit our car on the driver’s side. It was such a big accident. The tire on the driver’s side came off, so I lost control of the car. The car slammed to a stop.”

Kashindi was grateful that, despite the damage to the car, they came out with only minor bumps and bruises. In the commotion, someone called the police. Kashindi had a learner’s permit but miscommunication followed when the police officer asked for his ID and Kashindi sought to comply with the request:

The police came and took a statement. They asked me, “Where is your ID?” So, I gave them my American ID—when you come here, you are given an ID card (later you are given a green card after a certain process, and then later you can apply for citizenship). So, I gave them the ID I have always had. “Give us your ID,” and I gave [it to] them. So, they wrote in their statement that I was driving the car and that I only had an identity card—yet they had wanted me to give them a sort of identification permitting me to drive.

The police officer cited Kashindi for driving without a license, and Kashindi’s problem moved to the court system. Navigating the courts required additional burdensome admin-

istrative steps. In court, Kashindi explained the misunderstanding:

When I went to court, they asked me, “Why are you driving the car using your ordinary ID card?” In court I told them, “No, I have a learner’s permit. Not just this ID.” And they were like, “Why then haven’t they mentioned here that you have learner’s permit?” And I told them, “They asked me for my ID and I gave them. They did not ask for a learner’s permit. They asked me, ‘Where is your ID?’” And I took my ID and gave it to them. “Do you have a learner’s permit?” “Yes.”

Kashindi was given yet another court date. By then he had taken—and passed—the driver’s license test, and the court instructed to bring his license with him: “[By] my last appointment, I already had a driving license. So, I told them, ‘Here it is.’ And they said, ‘If you have a driving license, then it seems like the fault wasn’t yours. The one who is at fault is the one who came to ask you for your identification documents. This case has been dismissed.’”

Kashindi navigated the DMV, secured a driver’s license, brought the correct documents to court, and successfully appealed the case. What started with a car accident that was not his fault—simply his being in the wrong place at the wrong time—threatened to spiral into legal trouble and financial penalties. The accident triggered a citation. The citation triggered a court case and potential charges. After a visit to the DMV, another institution, and the court, Kashindi was able to stop the ripple from spreading further: the charge was dropped and had no lasting consequence. Still, Kashindi took off work and was anxious. As institutional problems reverberated, refugee families like Kashindi’s faced additional administrative burdens in different institutions with new learning costs, compliance costs, and psychological costs. In sum, small errors, particularly in crucial institutional processes such as green cards, credit scores, driver’s licenses, and social wel-

15. Rob Voigt and his colleagues (2017) show police officers to be more polite and accommodating with White citizens than Black ones in routine traffic stops. In this instance, the failure of the police officer to explore if the refugee had any other forms of identification is consistent with racialized, abrupt, and sometimes lethal treatment of citizens in the criminal justice system which routinely creates institutional knots.

fare programs, tangled into knots that reverberated, creating cascading and costly new problems in new institutions.

CONCLUSION

Administrative burdens surface in a wide array of contexts across the life course—from child-care programs to Medicaid, as the articles in this double issue demonstrate. Scholars have often focused on one type of obstacle in one type of one institution, each with unique rules and procedures. Although studies on administrative burden underscore the formal organizational rules and requirements which burden clients (Herd and Moynihan 2018; Ray, Herd, and Moynihan 2022; Moynihan, Gerzina, and Herd 2021), room remains in which to deepen and clarify our understanding of the institutional mechanisms that create administrative burdens. In this article, we focus on two types of obstacles: institutional knots and reverberations. By showing how knots and reverberations form and the burdens involved in untangling them, we illuminate conceptual similarities across a range of social service institutions.

Some institutional obstacles were specific to refugees and other immigrants. Yet many Americans may also experience some of the institutional problems that refugee families faced: a misunderstanding triggering CPS, errors transferring food stamps across the county, or a hiccup getting Social Security benefits. Indeed, we found that even after living in the United States for years, refugee families continued to run into institutional knots. The American volunteers helping refugee families also found knots hard to prevent as well as cumbersome and difficult to straighten out. This is not to suggest, however, that all clients have similar pathways. After all, in the context of pervasive racism, Black clients experience unequal treatment in key institutions, including police-citizen interactions, workplace assignments, health-care services, schoolyard interactions, and other social processes. Indeed, the Black refugees in this study reported racist insults at work, in housing searches, in encounters with police, and in

other social spheres; in some instances, their worries about racialized police violence even led them to question the wisdom of migrating to the United States (Sackett 2022). These racialized interactions, as others have noted, increased the risk of administrative burdens (Ray, Herd, and Moynihan 2022). We find that these knots and their reverberations led to administrative burdens for families and at times, led to downward mobility.

The conditions for knots were baked into the system—through both the design and implementation of systems. Fragmented, decentralized, and uncoordinated systems created errors. In addition, in a context of cost-cutting, downsizing, and increased surveillance, seemingly small institutional hiccups became knots as overburdened agencies struggled to provide services. Some of these knots were likely unintended, and the product of unforeseen implementation problems. In other instances, as Herd and Moynihan (2018) show, the complex nature of systems are part of a deliberate effort to reduce the number of people receiving services. For example, onerous requirements to demonstrate eligibility for services routinely created knots. Lilly Yu (2023, this issue) finds that the Donald Trump administration introduced a slew of administrative changes, which burdened immigration attorneys, increasing the potential for things to go wrong while reducing the number of pathways to resolve related problems. Policymakers sometimes clearly anticipate that a policy change will create knots that can make eligible clients lose services (described as administrative churning). For example, with the winding down of the public health emergency tied to COVID-19, Medicaid's continuous enrollment period ended, and the Health and Human Services Office of Health Policy estimated that around 8 percent of clients would subsequently lose Medicaid, even though they were eligible. However, because staffing and control of eligibility assessment were determined at the state level, limited steps were taken to prevent these exclusions.¹⁶ Future research might explore

16. Although the Department of Health and Human Services can provide to guidance to states, the assessments of clients, staffing, determination of eligibility, and other policy matters are managed at the state level (Office of Health Policy 2022).

how and when different types of knots emerge, particularly differentiating between institutional problems that are a function of unintentional mishaps and those that are designed. In some cases, illuminating the sources of knots may lead to remedies.

Studies on organizational structures suggest that it is possible to design more streamlined and reliable systems. Examining high-risk technologies, such as nuclear power plants, Perrow (1999, 4) shows that in systems designed to have considerable leeway to check and correct for mishaps, errors can be caught before they produce negative consequences (see also Vaughan 1997, 2021). Some organizations are designed to prevent and safeguard against errors that involve grave consequences from hazards, such as when bridges collapse, nuclear power plants explode, and planes collide over airports. In these settings, some organizations introduce systems to “achieve high levels of continuous reliability” (LaPorte and Consolini 1991). These insights might be fruitfully applied to public institutions providing social services.

In social service organizations, fewer rules and requirements, more streamlined processes, and more slack in systems can lead to reduced administrative burdens and increased access to services. For example, when the federal tax credit for families was introduced in 2021, families were required to apply to access the funds (Child Tax Credit 2022). Overall, around 20 percent of families did not receive the funds (Hamilton et al. 2022).¹⁷ By contrast, in the fall of 2020, when the IRS mailed out relief checks during the COVID-19 pandemic, distribution was widespread and nearly universal. The paperwork to screen eligibility is costly to administer and provides opportunity for error. Moynihan and his colleagues (2022) find that lowering compliance costs, such as providing information about administrative categories on SNAP forms, increased accurate state group categorization. As we consider policy alternatives for refugees and other families, simple, universal services can reduce administrative burdens.

Drawing on insights from theorizing on high-reliability organizations, we also suggest that built-in slack could help prevent and correct errors in social service organizations. In many instances, refugee families did receive help from third-party actors, such as caseworkers and nonprofits, through resettlement agencies; these helpers provided external sources of slack as they double checked procedures, caught errors, and sought to course correct (see also Sackett and Lareau, forthcoming). This slack helped prevent and untangle knots and halted reverberations from becoming new problems. Yet, because institutional obstacles are rooted in the structure of systems, and because these outside helpers were limited in their ability to change system design, their help, though invaluable, was often not enough. Similarly, Yu (2023, this issue) finds that although immigration attorneys helped clients overcome new administrative hurdles, they were unable to change the rules and requirements that prompted these hurdles. Instead, we suggest that slack should be built into the systems. For example, organizations might implement systems in which staff follow up with reminder messages, deadline extensions were permitted, and other forms of oversight might prevent the cascading impact of organizational snags. Because institutions are fragmented but interconnected, slack in one system can have positive reverberations across other agencies.

In the end, we find institutional knots to be costly and consequential. Even obstacles that were eventually overcome required time and complex information to resolve, and the process was stressful. Other institutional knots were not resolved and led to missed resources and penalties, which could have long-lasting consequences. Most of the families in our study were in precarious positions because they worked in low-wage jobs with limited support, and the knots and reverberations were a barrier to upward mobility. Refugees, and others in the United States, interact with a wide range of institutions, each of which has the potential for knots and reverberations. Social scientists would benefit from more directly con-

17. Michael Karpman and Elaine Maag (2022) report that 31 percent of low-income families who did not receive the tax credit reported that they did not know how to claim it.

ceptualizing knots and reverberations across a variety of different agencies and studying the impact of these burdensome obstacles on life trajectories, as immigrants and others seek to improve conditions for themselves and ultimately for their children.

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Third-Party Brokers: How Administrative Burdens on Nonprofit Attorneys Worsen Immigrant Legal Inequality



LILLY YU 

What happens when an administrative burden regime targets third-party brokers? This article describes the experiences of legal aid immigration attorneys during the Donald Trump administration, which made hundreds of changes to immigration law, policy, and processes. Through interviews with attorneys representing thirty-eight nonprofit legal services organizations, I document the learning, compliance, and psychological costs they incurred during this regime. The resulting consequences of these costs to attorneys' caseload size and composition have implications for immigrants' access to free legal services. I argue that targeting administrative burdens at third-party actors on whom people rely for access to government resources and recognition is an effective deterrent and a mechanism for exacerbating unequal outcomes. Future research should examine the impact of administrative burdens on a range of third-party actors who broker people's access to government institutions and resources.

Keywords: third-party actors, immigration attorneys, legal services, immigration law

It's actually kind of impossible to overstate how fundamentally immigration practice has changed, even though no statute has changed.

—Attorney A10

The administrative burdens literature has traditionally focused on the relationship between

individuals and the state. In this article, I argue that the state can worsen inequality by targeting administrative burdens at third-party brokers, particularly when people must rely on brokers to make claims for resources and recognition. Using the case of nonprofit attorneys¹ who represented low-income immigrants mak-

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1. I use the terms *attorney*, *legal aid provider*, *legal services provider*, and *respondent* interchangeably in this article. All respondents were barred attorneys; one was an accredited representative through the U.S. Department of Justice's Recognition and Accreditation program that allows supervised and trained nonattorney practitioners to provide limited representation of clients in affirmative and defensive legal processes.

ing affirmative, humanitarian claims to the United States Citizenship and Immigration Services (USCIS) during the presidential administration of Donald Trump, I demonstrate how third-party brokers regularly bore the costs of increased administrative burdens, or what Pamela Herd and Donald Moynihan conceptualize as individuals' incurrence of learning, compliance, and psychological costs in their effort to comply with government requirements (2018). These costs, in turn, had consequences for attorneys' caseload size and composition and ultimately stratified immigrants' access to representation.

How third-party actors incur administrative burden costs is particularly important in processes where people depend on brokers and gatekeepers for access to claims-making and resources. Seminal scholarship identifies the importance of third parties, or nonstate organizations, and the role they play in lobbying to change burdens, altering citizens' incurred costs, or incurring costs themselves (Herd and Moynihan 2018). Many articles in this double issue also explore the role of third parties in helping people navigate government-imposed burdens, including (all in this volume, issue 5) Jennifer Bouek's (2023) study involving child-care providers, Hana Brown's (2023) exploration of tribal governments, and Stefanie DeLuca, Lawrence Katz, and Sarah Oppenheimer's (2023) study of how housing navigators help people seeking high opportunity neighborhoods. However, scholarship has underexplored third parties as the objects of administrative burdens. The case of immigration attorneys as third-party actors who incur administrative burden costs illustrates how targeting third parties can be an effective downstream deterrent against people making claims to the state.

Third-party brokers have been important actors in efforts to increase immigrant inclusion and fight against immigrant removals. Immigration system processes, as Blair Sackett and Annette Lareau (2023, this issue) demonstrate, are full of institutional knots that reverberate across agencies. This is true of claims to legal status, an institutional process that can reverberate into consequences as costly as deportation orders and removal from the United States.

A key concern for scholars, policymakers, and advocates regarding immigrants' ability to make legal claims for legalization and against deportation has therefore been their access to lawyers. Immigrants do not have a right to a lawyer in any immigration legal proceedings, including affirmative application processes or court-based, adversarial removal proceedings. Because studies have shown that immigrants with representation are more successful in a variety of legal proceedings than those who are not (Eagly and Shafer 2015; Ryo 2016), increasing immigrant access to representation has been the focus of many local and national policy efforts.

Immigrants also have differential access to existing representation. Scholarship on immigration lawyering has shown key stratifying mechanisms. First, not all immigrants can afford private legal representation, especially for the majority of undocumented immigrants, who are low income (Migration Policy Institute 2018). Second, free or low-cost legal aid is scarce. Nonprofit attorneys, restricted from most federal legal services funding, rely on private donations and local or specialized government grants to support their work despite high client demand. These barriers to access are mirrored by statistics showing that the vast majority of immigrants in removal proceedings do not have a lawyer (Eagly and Shafer 2015). Issues of access to representation mirror those in other areas of civil legal aid, where an attorney is not guaranteed and free and low-cost representation is not enough to meet demand (Sandefur 2007).

This article explores two research questions. First, how does an administrative burden regime (Moynihan, Gerzina, and Herd 2021) affect third-party brokers of immigrant legal pathways? Second, what are the potential consequences for immigrants' access to legal representation and legal status? Interviews with attorneys representing thirty-eight legal aid organizations in two East Coast metropolitan areas show how dramatic changes to immigration law and policy led to an environment of intense legal uncertainty. This was true for even attorneys in two politically liberal, immigrant friendly locations that were far from the U.S.-Mexico border, the site of many newswor-

thy migration and enforcement activities during the Trump administration. This environment of uncertainty resulted in a significant rise in their learning, compliance, and psychological costs. Attorneys described spending more time, effort, and resources on learning about these dramatic changes; complying with new, obtuse requirements and higher adjudication standards; and responding to overwork, secondary trauma, and burnout from feeling inadequate. Incurring these costs, in turn, changed how attorneys managed their overall caseloads. Attorneys reported decreasing the number of cases they could represent and being more selective in what types of matters and clients they take on—excluding many immigrants with more difficult, less winnable cases from representation. By doing so, they inadvertently exacerbated inequality among undocumented and vulnerable immigrants' access to representation, the legal status application process, and the types of stories and claims made to the state. Attorneys saw these dramatic changes as the Trump administration's attempts to deter immigrants from claiming legal status and slow down the application process. They understood themselves to be targets given their engagement with federal bureaucracies that adjudicated their clients' applications.

My findings provide an example of how the state can strategically increase administrative burdens on third-party brokers when they want to limit individuals' access to resources, services, and recognition. These findings accompany recent scholarship on administrative burdens in the U.S. immigration system and years of news reporting, advocates' reports, and advocacy stories about the challenges imposed on the immigration system during the Trump administration (Davis 2019; Rampell 2020). Advocates argued that these changes were evidence of the administration's strategic intent to limit immigration and deny immigrants their rightful benefits. Examining the impact of these burdens on those most equipped to navigate the Kafka-esque (Moynihan, Gerzina, and Herd 2021) immigration system may confirm many advocates' suspicions. I suggest that increasing our attention to cases when people depend on third-party brokers to access resources, such as abortion funds and civil legal aid, may deepen

understandings of administrative burdens on the poor and how these strategic burdens can exacerbate inequality.

LITERATURE REVIEW

The immigration system is a vast, complex, multiagency, and multijurisdiction system led by the federal government and governed by several sources of legal authority. Noncitizens in and coming to the United States must contend with this bureaucratic system at many points and across many agencies, whether interfacing with U.S. Department of State's overseas consulates and the National Visa Center to enter the country; answering questions by Customs and Border Protection officers at a point of entry such as an airport or national border; submitting applications to U.S. Citizenship and Immigration Services (USCIS) to secure or renew legal authorization to work, stay, or travel abroad; or fight efforts to be removed by Immigration and Customs Enforcement (ICE) within the immigration courts. Immigrants' legal status also creates an additional set of complications in navigating institutions such as education (Nichols 2020), healthcare (Horton 2004; Marrow 2012), social services (Heinrich 2018), marriage (Longo 2018; Pila 2016; Rodriguez 2016), and the criminal legal system (Beckett and Evans 2015; Armenta 2017; Arriaga 2016). At every point of institutional contact, noncitizens are met with a bevy of administrative burdens to prove who they are, why they are there, and their eligibility for resources and recognition.

As many immigration advocates, policymakers, and scholars have pointed out, the hundreds of changes made by the Trump administration to every imaginable facet of the administration of immigration law and policy between 2016 and 2020 greatly increased the number of administrative burdens within an already complex and burdensome system (Pierce and Bolter 2020). The consequences of these wide-reaching changes included exclusion of entire groups of people from certain immigration statuses and related benefits and increases in wait times in both affirmative and defensive legal processes (GAO 2021). This increase in burdens via formative executive legal powers and formal administrative directives,

rather than any federal legislation, constituted a dramatic “regime of administrative burdens” (Moynihan, Gerzina, and Herd 2021) that intentionally (Peeters 2020) conducted anti-immigration “policymaking by other means” (Herd and Moynihan 2018). The increased administrative burdens had a host of learning, compliance, and psychological costs on immigrants—all of which scholars and advocates speculate were part of the Trump administration’s efforts to decrease overall immigration, including the legal immigration of people from countries deemed unfavorable (Moynihan, Gerzina, and Herd 2021).

ADMINISTRATIVE BURDENS IN THE HUMANITARIAN STATUS PROCESS

To illustrate how even a single process within the immigration system is rife with administrative burdens, this article examines applying for humanitarian legal status with Citizenship and Immigration Services. First are the significant learning costs for applicants to even know about humanitarian status pathways. Although the news media has broadly promulgated information about asylum as a potential legal status for migrants who have experienced persecution, immigrants may never learn about a range of other humanitarian statuses, each with their own specific eligibility criteria.

Second, the compliance costs of applying for humanitarian status include proof not only that the applicant meets the eligibility criteria, but also that they are legally allowed to immigrate at all. Each status includes proof of having experienced some kind of qualifying victimization, suffering, or abuse, which includes—despite “any credible evidence” as the legal standard—police reports, medical provider documentation, and the applicant’s written narrative. Several statuses require corroboration from a third-party government agency, such as local or federal law enforcement or family court judges, that the applicant does indeed meet a standard of suffering. Some require applicants to report their victimization and be sufficiently helpful in investigations and prosecutions; for instance, the U visa for victims of severe crimes requires government agencies to formally support the application before the applicant can submit to USCIS. Ap-

plicants must also prove that they were admissible at the time of entering the country and, if not, comply with the requirements for special waivers of inadmissibility. Complying with these requirements involves completing multiple lengthy application forms, providing extensive personal histories, and submitting numerous supplemental documents.

Third, immigrants undergoing this application process experience numerous psychological costs. In addition to having experienced past or future fear of violence, victimization, or abuse that qualifies them for humanitarian status, applicants must now retell this experience numerous times at various points of the process to many actors (Tenorio 2020). Applicants feel pressure to self-modulate their stories and the way they narrate their qualifying experiences so that they are legible to both immigration system adjudicators and nonimmigration third-party actor as both “good” immigrants who deserve legal status in general and “deserving” victims who should receive protection on account of their desire to participate in investigations and prosecutions of their abusers (Galli 2018, 2020; Villalon 2010).

ROLE OF THIRD-PARTY IMMIGRATION ATTORNEYS

Given the many administrative burdens in the humanitarian legal status application process, the role of lawyers who help immigrants navigate this process is especially important. Immigration lawyers are similar to other third-party actors in that they decrease the learning costs for people (immigrants) wishing to apply for a government benefit (legal status) (Herd and Moynihan 2018). They reduce the psychological costs for immigrants by communicating the government’s rules, eligibility criteria, and individual advocacy throughout the potentially years-long process between seeking and finally receiving status. Nonprofit attorneys who are required to only serve low-income immigrants also potentially mitigate burdens inequality between those who can pay for an attorney and those who cannot.

The seminal literature and subsequent empirical studies have highlighted the role of third-party actors in changing or mediating people’s experiences of administrative bur-

dens, such as nongovernmental organizations helping gender minorities seek legal identification from the state (Nisar 2018). Less work examines how third-party actors can bear the brunt of burdens themselves (for an exception that describes how nonprofit social services organizations also bear the harms of administrative burdens that target their clients, see Heinrich et al. 2022). The case of nonprofit immigration attorneys who help undocumented and otherwise vulnerable immigrants seek legal status is a prime case for examining the impact of burdens on third-party actors and what the potential consequences can be for both these actors and the people who rely on their help. In this case, legal representation is important for immigrants seeking to regularize their status or defend themselves against deportation precisely because attorneys help lower clients' administrative burden costs. Many local policy interventions have taken the form of financial support for legal aid organizations and other attorneys to provide free or low-cost legal services for low-income immigrants. Numerous past and ongoing efforts nationally and by the federal government have focused on expanding access to legal representation for immigrants in a variety of legal postures, including those undergoing removal proceedings and children presenting alone at the U.S.-Mexico border.

Immigration lawyers do several things when representing their clients: they assess clients' stories and histories for eligibility, evaluate the risk to the client of applying, communicate the potential benefits if the client does indeed get humanitarian status, and help the client understand next steps, activities, and potential timelines (Galli 2018; Lakhani 2013, 2014; Villalon 2010). They interface between their clients and the government, playing a key brokerage role in clients' access to claims-making.

Yet attorneys can also gatekeep, advertently or inadvertently, immigrants' access to this process. They play a selection role in determining who among their pool of potential clients they will represent fully. In the legal aid and nonprofit legal services context, attorneys must choose who to represent from a pool that is much larger than they have capacity. Because of their nonprofit nature, they may have income thresholds, funding streams, or organi-

zational missions that help dictate whom they represent (Siliunas, Small, and Wallerstein 2019). As attorneys who gatekeep access to legal institutions (Zacharias 2004) and nonprofit workers who broker government resources (Siliunas, Small, and Wallerstein 2019), their client selection processes are important to understanding who can make legal status claims that are ultimately submitted to USCIS.

This article argues that administrative burdens, when targeted at third-party actors who play a brokerage role between people and the state, can effectively damage third-party capacity for assistance. Specifically, I argue that targeting administrative burdens at third-party actors can exacerbate existing inequality in who is selected for representation and who is not. The rest of the article describes the learning, compliance, and psychological costs nonprofit immigration attorneys incurred during the administrative burden regime of the Trump administration, and how the dramatic growth in incurred costs had direct consequences for the size of providers' caseloads and the composition of matters they represent.

DATA AND METHODS

These findings are based on analyses of thirty-eight semi-structured interviews with legal services attorneys in two metropolitan areas. I conducted interviews between March 2019 and February 2021 as part of a larger study on how immigration attorneys in a variety of organizational settings make representation decisions for immigrants seeking humanitarian legal status. Table 1 provides an overview of the victimization-based legal statuses for which respondents screened potential clients.

Respondents represent nonprofit organizations and law school clinics that provide free or low-cost legal services to immigrants in two study sites. These organizations range from social services or victim services organizations with a dedicated immigration law unit to organizations whose dedicated mission is to provide legal or social services to immigrants. Table 2 provides an overview of legal services organization types by study site. Interviewees ranged from a staff attorney with a focus on victimization-based relief to a director or manager of legal services at the organization.

Table 1. Victimization-Based Legal Statuses

Legal Status	Recipients	Requirements
T visa	Victims of human trafficking	Reported victimization to law enforcement, and cooperated with requests for assistance in investigation and prosecution
U visa	Victims of severe qualifying crimes, including domestic violence, sexual violence, physical assault	Reported victimization to law enforcement, cooperated with requests for assistance in investigation and prosecution, and received certification by investigating agency
Violence Against Women Act (VAWA) self-petition	Victims of domestic violence perpetrated by a U.S. citizen or legal permanent resident.	Bona fide marriage to a U.S. citizen or legal permanent resident
Special Immigrant Juvenile Status (SIJS)	Youth victims of child abuse, neglect, or abandonment by at least one parent.	Family or juvenile court order that it's in the best interests of the child to remain in the United States.
Asylum	Victims of gender-based violence from certain countries	Potential future harm if returned to home country

Source: Author's tabulation based on USCIS 2018.

The study sites are two East Coast metropolitan areas that have many similarities. They both consist of a politically liberal urban center, with a mix of liberal and more conservative suburban and rural outer jurisdictions. Both

Table 2. Legal Services Organization

Characteristics	<i>N</i> = 38
Organization type	
Immigration	16
Law school legal clinic	7
Legal services	5
Social services	4
Victim services	6
Primary victimization focus	
All forms	27
Domestic violence	5
Human trafficking	2
Sexual violence	2
Child abuse and neglect	2
Site	
A	16
B	22

Source: Author's tabulation.

sites therefore share many pro-immigrant policies, such as limits on law enforcement participation with federal immigration enforcement, language access in government agencies, driver's licenses and other public and social benefits for undocumented immigrants, and local government and foundation funding for immigrant legal services. Their immigration courts have among the highest asylum grant rates in the country. Attorneys regularly acknowledged practicing immigration law in some of the most favorable regions in the country, understanding their experiences as best-case scenarios despite the overwhelmingly chaotic and negative legal environment during the Trump administration.

DATA COLLECTION AND ANALYSIS

This study began approximately two years after the start of the Trump administration. I was initially interested in how lawyers who represented immigrant survivors of human trafficking were responding to the new administration's policy changes. Through various anecdotal accounts reported by the news media, these providers were speaking out about how these changes attacked immigrant survi-

vors of human trafficking, despite the special protections they had as potential T visa recipients and ultimately legal permanent residents or U.S. citizens. While conducting the initial interviews, I quickly learned that the T visa is only one of several legal statuses for which attorneys would assess potential immigrant clients and that all applicants of humanitarian status experienced similar new challenges. Subsequent respondent sampling included all nonprofit attorney types who represented victimization-based statuses.

I recruited respondents by examining publicly available online directories of immigrant legal services and victim services organizations and emailing representatives of each organization inviting them to participate in the study. Ultimately, I conducted seventeen interviews in person, eighteen by phone, and one by Zoom video conference. Interviews ranged from thirty minutes to almost three hours. At the end of each interview, interviewees recommended two or three other respondents or organizations to triangulate my initial online sampling and for snowball sampling purposes. I also wrote post-interview field notes to capture initial impressions, new and repeated empirical and theoretical insights, and researcher reflexivity.

The interviews covered several topics, including but not limited to respondents' professional backgrounds, their organizations' missions and histories, their day-to-day work as legal aid attorneys, how they select clients, how they make representation decisions throughout the life course of a client's case, and their perspectives on a range of immigration policy topics that include recommendations for legal reform. Although I expected respondents to discuss the impact of immigration policy changes on their clients who were survivors of crime, I did not expect the extent to which attorneys shared their daily struggles doing their jobs. Respondents were extremely willing to vent about the changes imposed on their day-to-day work by new bureaucratic and administrative requirements—many of which they considered palpably different from those imposed by the previous administration. I did not frame any interview questions around the concept of administrative burden; upon learning about

the administrative burden literature a year after data collection had ended, I realized this framework effectively and thoroughly described attorneys' complaints about legal and policy changes and their experiences practicing law during this era.

I audio-recorded all but two interviews and either transcribed with automated transcription assistance software Temi or outsourced for professional transcription. I took detailed, verbatim-level notes for interviews with two respondents who declined recording. With the assistance of qualitative data analysis software NVivo, I conducted several iterations of coding on the completed interview transcripts using the flexible coding method (Deterding and Waters 2021). I first applied index codes that captured broad, descriptive swaths of the transcripts, followed by analytic codes that applied administrative burden themes to relevant index-coded parts of transcripts. The findings discussed here come from two rounds of analytic coding from which I captured respondents' reported costs of administrative burdens—compliance, learning, and psychological costs—and the consequences of these costs. Using the flexible coding method, I applied these administrative burden-specific codes to already index-coded sections of the transcripts that captured descriptive legal changes and the outcomes of these changes to respondents, their organizations, and their clients.

FINDINGS

“The cruelty is the point.”

—Attorney A10

When reflecting on their experience representing immigrants seeking legal help during the Trump administration, nonprofit attorneys reported perceiving dramatic changes to immigration policy that increased existing administrative burdens on the humanitarian status application process. These changes were dramatic for three reasons. First, they noted the sheer number of changes in the law, which numbered in the hundreds (Pierce and Bolter 2020). Second, they reported an increased frequency in these changes, with attorneys noting they felt changes occurred on a daily or weekly

basis. Third, they commented on how these policies affected a wide breadth of immigration law. Respondents noted changes that ranged from ones affecting their direct day-to-day work and the lives of their clients to areas of the law that were only tangential to their practice. These changes also affected not only processes at specific immigration agencies, such as the U.S. Citizenship and Immigration Services or the immigration courts, but national border policy, discretionary decision-making by immigration actors across agencies, and eligibility for certain legal statuses—all via legal authority such as federal regulations, executive orders, federal agency practice, and administrative case law.

As a result of these changes, nonprofit attorneys described practicing law in an environment of intense legal uncertainty that made their day-to-day jobs significantly more difficult than under the previous presidential administration. Many respondents shared the view that immigration law was already among the most difficult areas of law to practice; the sheer number, extent, and frequency of changes during the Trump administration only increased its complexity. As one attorney explained, “Immigration’s always been a form of law where you need to really be on top of changes, but now it seems like policy changes are happening so regularly. . . . But it’s really essential for us to keep track of all updates and changes because it can affect our ability to file certain applications, to include certain family members, to meet certain deadlines, to see if our client is eligible for certain class actions. So it’s keeping us more vigilant” (Attorney B03).

Most attorneys understood these changes to be the administration’s acting on its anti-immigration campaign promises. Respondents pointed to the deterrent effect these changes have on immigrants’ desires to regularize their status through existing legal pathways, of which humanitarian and victimization-based status is one. As one attorney put it, the flood of small changes to the application process are “death by a thousand cuts” (Attorney B22) to humanitarian pathways to status. Attorneys also understood the administrative nature of these changes to be the Executive Branch’s attempts to change immigration policy while by-

passing federal legislation. As one provider explained, “[The current administration] actually can’t change the fact that VAWA [the Violence Against Women Act] exists. . . . So they do the next best things. They look at all of the ways in which applying for these would be harder. . . . ‘We’re going to attack all the ways, all the ancillary ways that we possibly can to discourage people from applying because we can’t just take away the application’” (Attorney A10).

In essence, attorneys viewed these changes as intentional (Peeters 2020) “policymaking by other means” (Herd and Moynihan 2018).

Attorneys often compared their current era of immigration policy with that of the administration under Barack Obama. They frequently acknowledged that the Obama administration was not perfect when it came to immigration policy, particularly in how it increased immigrant deportations. The nonprofit attorneys in this study—who primarily represented affirmative, humanitarian-seeking clients who were victims of crime and persecution—also acknowledged that their clients were not the target of Obama-era deportation policies that focused on “felons not families” (Thompson 2014). However, they saw the Trump administration’s attacks on immigrant victims as a sign of its intentional anti-immigrant cruelty. One attorney explained: “I think immigration attorneys have always thought things were bad, but there’s a difference between bad and worse. . . . domestic violence is a particular one I could give you an example of those types of claims are much harder to win now. That was not true under the Obama administration” (Attorney A11).

Respondents identified this anti-immigrant strategic intent behind changes in USCIS’s processes that attacked immigrant survivors and other eligible applicants. First they perceived a cultural shift within an agency that they viewed as historically representing the benefits-giving arm of the immigration system, as opposed to ICE as the enforcement and removal arm. Now they perceived USCIS to be a benefits-denying agency—“it seems like a directive to aim to deny rather than aim to approve” (Attorney A05)—evidenced by their increased, often unreasonable demands for more evidence from applicants. USCIS had also become implicated in enforcement efforts due to an Executive Or-

der that linked denied applications to removal proceedings (USCIS 2018; see also ILRC 2020). “Definitely in the past, USCIS was the more friendly place, and they would say themselves that they’re not focused on enforcement. . . . They would differentiate themselves from ICE or DHS [Department of Homeland Security]. And I think now that distinction has sort of been blurred” (Attorney A17).

Second, respondents noted the application backlog within USCIS has increased astronomically, so that applications they helped clients file in a previously more friendly administration were now being adjudicated during an unfriendly one with unpredictable and potentially unfavorable outcomes. One provider explained, “The feedback loop on immigration, especially in certain forms of relief, are really slow. So what you submitted six months ago might not be what you submit today, and what you submitted four years ago you don’t really have control over at this point” (A19).

This change, too, they attributed to the Trump administration’s attempts to damage the agency in order to damage their clients’ pathways to legal status.

COSTS TO THIRD PARTIES

Nonprofit attorneys also saw themselves as targets because of their role in helping immigrants navigate these complex processes. Several respondents cited what they perceived to be anti-immigration lawyer bias within the Trump administration, including former Attorney General Jeff Sessions’s comments that “dirty immigration lawyers” were purposefully encouraging immigrants to make fraudulent claims for status, which attorneys interpreted to mean that they themselves were the “dirty” lawyers (Sessions 2017). According to attorneys, these changes illustrated strategic intent by the administration to attack immigrants vis-à-vis their advocates. One respondent identified the changes as “trying to wear down the advocacy community” (Attorney B6). Others thought the administration was directly attacking their organizations or purposefully making their jobs harder to “throw people off” (Attorney B11). Because the attacks on the already complex legal system often involved changing minute, tedious procedures and eligibility criteria within

USCIS applications and processes, the result was significant administrative burden costs to legal aid providers.

LEARNING COSTS

“We can’t keep up.”

—Attorney A05

Attorneys incurred many learning costs while practicing law during the Trump administration, including spending more time learning about policy and procedural changes, effectively communicating changes to their clients and other practitioners, and consulting with other members of the immigration legal bar. Although attorneys were clear that they could not promise clients a particular application outcome, they described being able to make informed representation decisions by drawing on what had worked in successful applications. As one respondent explained, “your ability to serve clients well depends on your ability to predict the future based off of your knowledge of law, regulation, local practice” (Attorney B18). The increase in legal uncertainty, however, meant they could no longer rely on this knowledge to make “predictions about their case and counsel them about what to do” (Attorney A11).

The increase in changes was accompanied by a decrease in communication channels between attorneys and the government agencies that adjudicated their clients’ applications. Attorneys in both study sites mentioned no longer being able to use specific USCIS service center telephone hotlines and email addresses to ask questions, check on case updates, and solve problems. They also no longer had access to government actors in their local USCIS field offices via local conferences, community stakeholder meetings, and other formal and informal information-sharing. In the absence of these agencies explicating why these channels had disappeared, attorneys attributed these changes to further attempts by the administration to deter effective legal representation of immigrants.

Attorneys also criticized the lack of transparency around some changes. Although some large proposed and actualized changes, such as

new fees for applying for asylum, required a months-long notice and comment period and received widespread media attention, others, such as a change in adjudication practice for a specific form, were never publicly announced. Attorneys lamented how they often discovered these changes only after other attorneys filed certain applications, only to see them be denied or returned. For example, one attorney discussed learning about changes to a certain waiver through trial and error: “Generally, we didn’t have issues with [waivers of inadmissibility]. All we did was provide proof and ask for the waiver. And then we just started seeing one after the other get rejected and rejected and we couldn’t figure out why, because none of these details and changes were being posted” (Attorney B11).

Because of the lack of regular communication and transparency around these changes, staying up to date with announced and unannounced changes to immigration law and bureaucratic processes at USCIS became incredibly time-consuming for attorneys. Respondents consistently brought up the time required to learn about new changes and understand their implications for their entire caseload, including past, current, and future clients, and alter their representation strategies in response. Several attorneys described the tiring activity of regularly looking for changes, whether that meant reading the news, looking for email announcements, or even checking President Trump’s Twitter feed: “I tried to stay away from the news first thing in the morning. But we can’t keep up. . . . I find that at least an hour of my time is going to pull all the articles, all the updates, what has changed” (Attorney A06).

Attorneys had to then communicate these changes to their clients, for whom eligibility for certain statuses or ability to apply might be affected at any moment. Because of the sheer scope of changes, attorneys also developed an informed understanding of and communicated inapplicable changes that received wide attention in the media or from clients’ friends, families, and communities. Several respondents mentioned how they spent time understanding the 2019 proposed public charge rule and, despite humanitarian status recipients being stat-

utorily eligible for public benefits, explaining to fearful clients why they may be exempt. One respondent illustrated this learning cost:

Disentangling what the rule is and who it applies to takes up an inordinate amount of time. . . . And then if we have someone that the rule applies to, the paperwork associated with it is going to go through the roof. . . . So explaining that to people is also very time consuming. . . . I mean this one rule is the one that dominates my time more than any other. Every time it’s on the news, if I see it on the news, on Univision, I know that the next day I’m going to have three or four phone calls about what it means. It’s like clockwork. Like when the Supreme Court ruled in January [2020], came in the next day, I was like I might as well clear my morning because I’m going to be sitting by the phone. (Attorney A10)

Attorneys also increasingly communicated these changes to other practitioners—including the training of internal staff, experienced or new; pro bono attorneys or attorneys new to immigration law; or students participating in law clinics or other nonlawyer volunteers. For example, “We have weekly case reviews that are increasingly being used, rather than to talk about specific case issues, they’re being used to talk about practice updates” (Attorney B17).

To understand these changes and the implications for clients, attorneys reported increasingly relying on their larger professional community of immigration attorneys. Attorneys from larger organizations with dedicated technical assistance projects would often promulgate information to other practitioners, which respondents who led smaller legal teams appreciated. They also cited professional organizations, such as local chapters of the American Immigration Lawyers Association, immigration law advocacy groups, state or local groups of attorneys, and email listservs and online groups as main sources of information-sharing and collaboration. They also referred clients and cases to each other if they did not have the time to understand a complex legal issue in which another attorney held expertise: “We

have statewide coalitions, we meet regularly, we have statewide listservs, and they're used very regularly to kind of coordinate. I mean everyone ultimately, each attorney's office has to kind of make their decisions, but we do have a lot of conversation as policies change about what different offices are doing, how people are approaching it. We do some sharing of resources and things where we can, and that is really helpful when there's so many changes happening all the time" (Attorney A19).

In summary, the number, breadth, and frequency of changes to immigration law during the Trump administration led to attorneys experiencing a significant increase in learning costs. These time- and effort-consuming learning costs involved not only staying up to date on and understanding the implications of changes, but also communicating these changes to their clients, staff, and partners and increasingly relying on the assistance of other practitioners.

COMPLIANCE COSTS

"In every case we do . . . the eye of the needle gets smaller and smaller."

—Attorney A13

Attorneys also incurred new compliance costs because of three often-cited changes to humanitarian status application processes within USCIS: new requirements, many existing and new requirements that no longer made sense, and more adjudicator scrutiny over evidence needed to prove these requirements. Attorneys perceived these compliance costs as evidence that USCIS had experienced an internal cultural shift from a benefits-giving to a benefits-denying agency. Applications for humanitarian legal status have several components, including the application form itself, supplemental forms for applicants' eligible family members, the applicant's narrative, a fee waiver for low-income clients, and a waiver of inadmissibility

for clients who had entered without inspection (that is, were not examined at a port of entry). Many applicants also apply for employment authorization and, down the line, adjust their status to permanent residency. After submitting an application, attorneys anticipated receiving and responding to Requests for Evidence (RFEs), which was the primary method of communication from USCIS.

First, the new enforcement of additional requirements by USCIS resulted in an increase in workload. Attorneys mentioned changes that were frustrating to comply with because their time-consuming, drawn-out nature often resulted in denied or returned applications they needed to refile. These included frequent updates to certain application forms that rendered completed or filed applications obsolete, the blank spaces policy required attorneys to write N/A for any form field that was not applicable rather than leaving it blank, the use of blue rather than black ink, and changes to requirements for fee waivers.² For example, many attorneys mentioned how fee waivers, which their largely low-income clients could easily secure in the past, suddenly required new forms of income proof that they did not need before—leading to de facto discrimination against their clientele who were meant to be the beneficiaries.³ As this respondent explains:

Until about a year and a half ago, the specific unit within USCIS that handled humanitarian cases like U visas and T visas had a very flexible and generous fee waiver policy, and that has gotten much tighter. Even more recently, there was a change in the fee waiver itself. Previously, receipt of means-tested public benefits was a basis for receiving a fee waiver. . . . They proposed a change—well, they didn't propose a change, they implemented a change to the form in November that erased that basis for seeking a fee waiver. No comment, just "we're changing the form.

2. Although humanitarian status applications themselves do not have a filing fee, unlike many other applications with USCIS, many clients entered without inspection and therefore needed a waiver of inadmissibility (Form I-192). The Form I-192 costs roughly \$900 to file at the time and has an accompanying fee waiver.

3. Carolyn Heinrich (2016) finds similar discriminatory outcomes against beneficiaries in her study of a South African cash transfer program.

Oh and by the way, receipt of means-tested benefits is no longer a basis for a fee waiver.” (Attorney B17)

This change resulted in many attorneys needing to do more work to correct returned applications and secure more documentation to prove clients should be eligible.

Second, respondents described needing to comply with what they saw as nonsensical, inconsistent, or impossible-to-satisfy requirements. When discussing the fee waiver change, attorneys noted that the new documentation requirements did not make sense for their largely undocumented client population, who did not have work authorization, and therefore could not provide tax returns to prove their qualifying income levels. Clients applying for VAWA or U visas because they were victims of domestic violence may not have access to documents kept by their abuser or perpetrator. One attorney explained: “We started getting responses regarding this type of proof, such as income tax returns, will be accepted to prove that a person’s low income. Well, a lot of the people that we work with don’t have Social Security numbers. Not everybody files taxes. And that has become another nightmare where we just had to figure out and get creative in how we request a fee waiver now” (Attorney B11).

Others brought up examples of inconsistent adjudication of a form or fee waiver for members of the same family who had the same set of facts in their background. When they could not satisfy these new requirements, some attorneys bypassed the fee waiver altogether by using organization funds or fundraising specifically to cover these fees, or resubmitted applications with hopes of getting an adjudicator who has more favorable discretion: “There’s a lot of times we’ll resubmit fee waivers four or five times hoping to get the right person because there’s nothing more we can do for it. And so we’re killing trees but we’ll get that fee waiver one way or another” (B16).

Attorneys also expressed frustration at receiving RFEs that asked for information already provided in the application file, which only increased application adjudication timelines.

Some respondents speculated the reason for these RFEs was a lack of attention and care on the part of USCIS, and others speculating this to be an intentional tactic to slow down legalization processes. Attorneys described using clearer labeling techniques, such as Post-its and dividers, to prevent an RFE for information they had already submitted.

Third and perhaps most significant, respondents overwhelmingly described a shift toward more scrutiny and higher standards of adjudication for almost all parts of the application. As one respondent put it, “the law hasn’t really changed, but how people read the law is what is changing” (Attorney A06). Almost all attorneys reported an increase in the number of RFEs they were receiving on submitted applications (“It’s been raining RFEs”—Attorney B10), many of them demands for more documentation and proof that the applicant met the underlying eligibility and requirements for their visa and the accompanying waivers. Large shifts in case law also meant certain bases for applying for asylum, such as gender-based violence or family membership, took much more time and effort to prove eligibility.

Because humanitarian status is for people who have experienced some form of suffering, violence, or abuse, respondents perceived the standard for suffering to have increased during the Trump administration. One respondent discussed an example when a previously acceptable form of proof on the U visa’s requirement for severe harm was denied because the harm did not rise to a new standard of severity: “We have had some U visa cases denied on the harm prong. ‘Oh it says here, the police report says that you were thrown to the ground, but when you were admitted to the hospital, they noted no lacerations were noted on the form,’ things like that, which makes your blood boil” (Attorney A13).

Respondents incurred many compliance costs to respond to these higher standards of adjudication. First, attorneys discussed increasing the amount of evidence and documentation to prove an applicant met legal requirements, some describing it as overinclusion. The same attorney who discussed receiving a

denial because the client's suffering was inconsistently documented described her organization's new techniques for evidence inclusion:

We're treating it much more, for example, like a personal injury litigation case where we're getting documents from every provider. Where we used to feel pretty good about, "Here's the emergency room the day of the incident. You went to the emergency room and here are the notes they made of your record, but it doesn't make sense for us to get a CD of your x-ray. It doesn't make sense for us to, you know, we don't need to bring in your primary care provider's notes of your follow up visit a week later," things like that. And now we do. (Attorney A13)

Second, attorneys modified their involvement in the writing of clients' affidavits and statements. They made more effort to ensure that clients' narratives were written in a way that, though still truthful to their stories, represented their qualifications and eligibility for relief in the clearest and strongest way possible. This was often frustrating for attorneys, many of whom strongly believed in a client-centered model of representation that prioritized client decision-making and letting clients tell their own stories. One attorney explained in detail:

Something that's very frustrating for us, and extremely frustrating for clients, is [that] we try and work on shaping narratives in a way that makes it seem like their claim is still viable despite all these recent changes and recent case law that make it so that their case is not viable. . . . For example, I have a client who has suffered many different types of persecution, both gender-based persecution, persecution from gangs, interfamily violence, just a lot of different types of persecution. And [many of these have] been completely undercut by recent case law. And so when I'm working with her on her case and we're drafting declarations, et cetera, she has a hard time understanding why I am focusing on certain parts of her story and not others, especially when that doesn't comport with what

she feels was the most traumatic to her. (Attorney B21)

Third, attorneys changed how they seek certification from qualifying law enforcement agencies and other government actors whose corroboration is a required for several forms of humanitarian status. Some attorneys were more reluctant to seek certification from federal law enforcement because of the potential risk of removal to their client if their application were ultimately denied. Attorneys were more careful to seek certification from actors who were not only favorable toward certifying a U visa or a T visa, but could provide narrative explanations of why their client did indeed experience qualifying victimization and went above and beyond their duty to help with investigations and prosecutions. Respondents described conducting increased outreach and education to other stakeholders in this process as necessary to create favorable certifications that they hoped would satisfy USCIS requirements:

What can be challenging is when you have other players that have to be involved in the application. So for instance, you're asking for a certification, you're asking for extra language in the certification that in the past you wouldn't have put in there. But you're doing that because in your previous case [to USCIS], you got pushback. And the law enforcement officer's saying, "why do you need this? I never do this. Why should I do this now? This doesn't seem like a case that's different than anyone else." So you're asking the officer or the law enforcement agency to rely on you as an advocate who's obviously biased to educate them. . . . You have to have a lot of buy-in and trust from like that other individual in order to change their practice based on like one person. (Attorney A05)

In summary, nonprofit attorneys incurred many new compliance costs due to an influx of new requirements, nonsensical requirements, and higher standards of evidence for existing requirements. All these new costs resulted in extra time, effort, sources, and labor in the day-to-day representation of humanitarian cases.

PSYCHOLOGICAL COSTS

Practicing humanitarian immigration law during this period of intense legal uncertainty was psychologically challenging for nonprofit attorneys in several ways. In interviews, attorneys articulated three new primary and related psychological costs: overwork, vicarious trauma and fear for their clients, and burnout from feeling ineffective and inadequate.

Attorneys consistently described practicing law during the Trump administration as characterized by overwork. As illustrated, the learning and compliance costs of the administration's dramatic changes to immigration law directly resulted in increased attorney labor in almost all areas of their day-to-day practice. Although they emphasized that immigration law was always difficult, many respondents were clear that this was perhaps the most difficult time in their careers: "This work has never been easy, but it's emotionally and kind of mentally harder than it's ever been" (Attorney B12). Attorneys reported expending much more resources, time, effort, and energy to learn about new policies and comply with their changes. Several attorneys explicitly described feeling exhausted, pointing out difficulties in balancing their personal and professional lives. Others pointed out the sacrifices they made to continue working in this environment, either professionally by pursuing a much lower paid legal career, or personally, such as not having children or a partner: "We're really struggling right now through how do we respond, how do we as nonprofit advocates who are in a nonprofit job earning much less than we could anywhere else, because we care about the issues, how do we as individuals feel like we're responding to the crisis but not burn out?" (Attorney B18).

Attorneys also expressed significant fear and anxiety for their clients on the basis of what they perceived to be an explicit attack on immigrants by the administration that translated to an increased risk of removal for undergoing the regularization process via humanitarian status. Respondents pointed out the administration's anti-immigrant rhetoric as abhorrent and dehumanizing for both their clients as well as demoralizing for themselves to have to fight against an immigration bu-

reaucracy that was, to them, quite clearly looking for reasons to deny or discourage applications.

This fear was compounded by the fact that humanitarian immigration status revolves entirely around the stories of clients who had suffered extreme forms of violence, abuse, and suffering and that their organizations were all nonprofit legal aids that only served low-income and poor clients. Many respondents recognized the difficulty clients face when pursuing humanitarian status given the demands the process places on them to retell traumatic stories and prove to several stakeholders that they suffered enough to be eligible. Pursuing this process in a legal environment that is actively hostile to them, therefore, is an additional source of trauma and burden for clients. As one attorney reflected, "Something that definitely weighs on me a lot is that the interactions that I have with these clients can sometimes be very triggering, and that the irony of doing this work in this system that is supposed to be leading them to a result of refuge and safety, that in working in that system and leading to that, trying to achieve that result, is so retraumatizing to them" (Attorney B21).

Attorneys also experienced vicarious trauma and compassion fatigue from representing clients with intense stories of suffering, who additionally experienced barriers to transportation, technology and communication, childcare, income and work, and stable housing that made representation more difficult: "This is work that is really emotionally and psychologically challenging to just do over and over and over again, especially when you're just giving . . . sad advice. Working with people with mental health issues. A lot of really hopeless sort of cases, a lot of desperation, a lot of families being torn apart. It can be really challenging" (Attorney A15).

Attorneys' increases in overwork and vicarious trauma were compounded by a decrease in confidence in their knowledge and expertise as immigration attorneys and corresponding wins for their clients, resulting in feelings of ineffectiveness and inadequacy that characterizes burnout. As one attorney explained, the stress of practicing law in this environment would be

lessened if there were corresponding wins: “So yes, they’re busy. Yes, they’re overworked. Yes, they have a lot of demands. Yes, the stories are difficult. Really the kernel of stress is losing your case. So if you could be sure that you weren’t losing your case, like you could deal with everything else, right? Cause at the end of the day you felt like you have some assurance. But it’s really like, nobody likes to lose anything and especially when someone’s relying on you” (Attorney A04).

This combination of overwork, fear for their clients, and feelings of inadequacy led to a demoralizing climate in which to practice law. Attorneys viewed these psychological costs as having serious implications for the health of the immigration legal profession and their ability to attract and retain lawyers. Several respondents mentioned examples of colleagues who had taken time off or left immigration practice altogether, or students who no longer intended on practicing immigration law, because of psychological costs: “All my attorneys tell me, ‘I’m feeling overwhelmed, I’m feeling stressed.’ We have, network-wide, lost a lot of attorneys because of exhaustion and stress. One came back after a year absence, part-time. . . . I remember one young attorney was like, ‘I started doing this under Obama and I just can’t do this anymore.’ And she just quit, you know, she just can’t take it. So we see that a lot” (Attorney B07).

Those who supervised other, more junior attorneys or students in law school clinics expressed fears that their new colleagues would be turned away from practicing immigration law as a result: “[My younger staff] are afraid they’re going to make a mistake and their client is going to be deported. They’re afraid they can’t predict the future. . . . They’re losing cases they would have previously won . . . and that’s really demoralizing” (Attorney B18).

Attorneys described several ways they and their organizations tried to alleviate psychological costs, ranging from institutional mental health days away from work, creating workplace cultures that emphasized work-life balance, helping staff access mental health services and therapy, and giving staff more control over their caseloads and day-to-day decision-making.

CASELOAD IMPLICATIONS

Legal aid attorneys in this study reported that as they incurred the many costs of administrative burdens to the humanitarian immigration process during the Trump administration, their capacity to effectively represent undocumented and vulnerable immigrants seeking to regularize their status decreased. This change in capacity had two main consequences: an increase in case selectivity and a decrease in caseload size.

First, attorneys described being more selective about which clients and clients’ cases to represent, often preferring cases that they felt confident could win. As respondents put it, “a policy in this office is your case doesn’t get out unless we think it’s going to get granted” (Attorney A06) or “We do filter for the cases that we’re more confident that we can be successful on” (Attorney A14). The dramatic nature of the Trump administration’s immigration policy changes reversed attorneys’ long-standing understandings of which immigrants could and feasibly would be successful under existing legalization strategies based on humanitarian status. Their assessment of which cases could be successful also became higher stakes due to policy changes that dictated denied cases be referred to removal proceedings. This attorney discussed an example when a potential client had a weak VAWA case and her team deliberated whether to represent the client, ultimately deciding not to because of the risks under the administration of the time:

Do we support this person in trying to obtain this relief, even though we know it’s not going to get granted, and that it very well could result in them being put in proceedings? . . . Do we just look at our resources and say this isn’t a case where we could put our very limited resources into? And we just decided on the latter. . . . But I think that could have been a little bit of a different conversation before. I think it could have been like, “Well, it might be worth a try, and we’ll see what happens.” . . . And we also talked about, “Maybe you should wait and see if there is a change in the administration. There might be some different options, and it might be safer to do this.” (Attorney A18)

Others described explaining the risks to clients and managing clients' expectations in a way that led them to not go forward with an application:

I would sit down with the person and I would say, "Here are the facts, here are the numbers. You're one of several hundred thousand people applying for [ten] thousand U visas and this fact in your biography makes it less likely you will get it. And if you get it and are denied, you will basically just raise your hand and call the attention of immigration enforcement to you. Do you want to proceed?" And if the person says yes, then I will absolutely proceed. . . . I've not had a person say yes yet. (Attorney A13)

To adjust their legal practices to accommodate the psychological costs incurred during this period, attorneys also reported allowing more control and freedom for individual attorneys when it came to selecting cases to represent. This meant that some attorneys selected cases that they felt confident representing and excluded cases they did not feel they could represent well; others selected cases where they had a personal affinity for or an interest in specific legal issues. Often this meant selecting cases that were a bit easier to represent, that had less of an emotional or traumatic weight on the attorney, or that could be completed in a more predictable manner. One respondent gave an example of a case her organization declined to take because of their lack of capacity:

We had a consult last week of an asylum case that was probably going to include an extended family that included like twelve people that was going to be at least eight different asylum applications. And it was just like, we just don't have the bandwidth to do it. So that also feels frustrating, of like just looking at a case and doing some mental math of like, taking this case means X fewer other cases that you can take. So we're constantly making those decisions and it never feels satisfying. (Attorney B18)

Second, attorneys described a decrease in overall caseload size despite an increase in per-

ceived demand and need. They consistently identified the increase in learning and compliance costs as increasing the amount of time, effort, and energy spent on each case. Not only did it take more time to learn about new changes to the law and how to respond, but they also invested more time to ensure compliance with new requirements and responded to more RFEs that drew out case timelines. Several respondents illustrated this point by estimating changes in how attorneys' hours per case had increased: "Because every single case type has gotten more difficult across the board, what's happened is we can't serve as many people because a case that previously would've taken fifteen hours of attorney time is now taking twenty hours of attorney time. Five hours of attorney time is now eight to ten hours of attorney time. So you know, if I could have had 120 cases before, now I can only have ninety to a hundred. So there's a greater need and there's less ability to serve" (Attorney B07).

The unpredictability of case outcomes due to these costs also meant that attorneys often advised clients to apply for multiple forms of relief, if they were eligible, in case one form failed or one visa's processing timelines were unbearably long. This also decreased the total number of clients they could serve. "Before [this administration], you will come in for a consult and I will be able to tell, well these are your options. We can do one. Because in time wise, it's better. You're going to get better benefits, you're going to get a green card versus a work permit. Now we are doing one client might have four cases with us if they're eligible because we don't know which one is going to stick" (Attorney A06). Further, new activities, such as staying abreast of frequent legal changes or needing to fundraise to cover fee waivers, all took staff time that decreased the amount of time spent on representation. As a result, these costs decreased the size of caseloads for attorneys.

The potential implications of attorneys' making caseload changes in response to their increase in administrative burden costs are twofold. First, by targeting costs at immigration attorneys, the federal government potentially reduces the number of immigrants seeking to regularize their status. Although

attorneys in this study did not provide specific numbers regarding their caseloads and how that changed over the years, almost every attorney reported decreasing their caseloads during this period, implying that they represented less applicants overall.

Second, the composition of who makes legal status claims and the content of their claims also changes. Even though attorneys discussed the potential deterrent effect of the administration's policy changes and slow adjudication timelines, they still represented many people who decided to go forward with their claims. Who makes those claims, then, potentially differed during the Trump years. As attorneys became more selective, they reported shying away from difficult or complicated claims, including those by clients with criminal backgrounds, nonlinear narratives, and less robust access to evidence and documentation for their suffering. Attorneys were very aware of cultural narratives of immigrant deservingness that were explicitly and implicitly expected of all applicants and especially of immigrant victims. During the Trump administration, they reported feeling even more pressure to help their clients adhere to these cultural narratives. Some attorneys went out of their way to secure law enforcement corroboration that their clients were helpful in investigations and prosecutions even if it was not formally required. For clients with "messy" backgrounds (Lakhani 2013), some attorneys felt less confident in their ability to explain or represent them in a favorable light because they perceived adjudicators who had an "aim to deny" (Attorney A05) applicants. This was especially concerning in areas where adjudicators had a lot of discretion to assess "squishy" (Attorney A04) requirements such as good moral character or the bona fides of a marriage.

Attorneys also saw potential consequences for the larger universe of humanitarian claims because they felt pressure to meet higher standards of adjudication. Some discussed how over-including evidence, including materials or information that USCIS did not necessarily require, could potentially raise the bar for adjudicators' expectations. They struggled with how to balance their responsibility to their client and their responsibility for the overall legal

bar and unrepresented immigrants: "It is crazy that a pro se [unrepresented] applicant would be forced to articulate a legal rationale for what his particular social group is. That's like a purely legal concept for which you need legal training, essentially. But I can't be afraid—I still, as an attorney, have to fully articulate a particular social group for the clients whom I'm representing. And I can't not do that out of a fear that it is negatively raising the bar on pro se applicants" (Attorney B18).

DISCUSSION AND CONCLUSION

Because legal claims are difficult to navigate without lawyers and lawyers are usually expensive, poor and low-income immigrants often depend on nonprofit legal services organizations to understand whether they are eligible for legal status and apply for status from USCIS. From their perspectives, however, legal aid providers experienced a simultaneous increase in both demand for their services and the costs of administrative burdens during the Trump administration—an outcome they perceived as intentional, anti-immigrant policymaking (Herd and Moynihan 2018; Peeters 2020). The many learning, compliance, and psychological costs they incurred during this period forced many to simultaneously decrease their caseload size and pivot away from more difficult and complex cases to ensure ethical, quality representation (Cartwright et al. 2020). This meant representing both fewer people and also people with "easier" cases, excluding many people with viable but difficult claims as a result. The decisions third-party actors feel forced to make to mitigate the burdens they themselves face when helping low-income clients overcome administrative burdens have important consequences for their ability and capacity to serve their clients and fulfill their important missions, affecting the already tenuous safety net of nonprofit organizations on which the poor depend (Heinrich et al. 2022).

Many members of the immigration legal bar have raised the potential long-term consequences to the profession as a result of these costs (Cartwright et al. 2020; Harris and Mellinger 2021). One legal scholar conducted a survey of more than seven hundred asylum attorneys and found high rates of burnout and

secondary trauma among them; she and her coauthor concluded that these high rates are a serious concern for a profession whose ability to provide effective, zealous representation for often already vulnerable clients depends on their own well-being (Harris and Mellinger 2021). As long as navigating the immigration system and processes for claiming status and achieving safety for many immigrants depends on their access to lawyers, especially nonprofit lawyers, the health and wellness of the immigration bar is of utmost importance.

Assuming that the federal government is invested in improving the efficiency and effectiveness of the immigration system, policymakers should lessen administrative burdens not only on attorneys, but also on all parties within the system, including immigrants themselves and immigration bureaucracies. Efforts to increase representation for immigrants, such as universal representation models (Vera Institute for Justice 2021), cannot be done without increasing the number of attorneys and cannot resemble underfunded public defense systems in the criminal legal system that have their own struggles with client selection and caseload size (Van Cleve 2017). The government should undo the institutional knots that characterize the current immigration system by simplifying administrative processes, engaging in communication and transparency, and generally striving to make the immigration process less onerous so that immigrants do not depend on attorneys to navigate every step of the way for fear of costly reverberations. Increasing administrative burdens in ways that also increase fear in immigrants (Moynihan, Gerzina, and Herd 2021) should be avoided as to not spike immigrants' understandable demand in legal services.

Future research can examine the administrative burdens of the immigration system and its impact on third-party brokers in additional ways. First, as noted, I conducted interviews with immigration attorneys who considered their two jurisdictions to be among the most favorable environments in which to practice immigration law. What are the impacts of the

immigration administrative burdens regime in areas where the political and legal services environment is dramatically different? Scholars have examined the variable concentration of immigrant legal service providers across the United States, where rural areas and certain geographic areas have fewer providers (de Leon and Roach 2013; Ryo and Peacock 2019; Yasenov et al. 2020). Organizational capacity and pressures may look different based on providers' geographic jurisdictions and political climates. It is possible that nonprofit attorneys in unfavorable areas with already strained caseloads did not feel the impact of this administrative burdens regime as much as the attorneys in this study did. Future comparative work could shed light on how an administrative burden regime of this nature has varied effects.

Second, how rapidly do these administrative burdens disappear with administration change? Many attorneys in this study noted it may take years to undo the impact of these burdens because the sheer number and scope of policy changes alone during the Trump years means progress may be slow.⁴ They also perceived these changes to be quite intentional on part of the Trump administration, coalescing in both formal and informal policy and agency practices (Peeters 2020). Indeed, advocates, reporters, and others have covered how little the Biden administration has overturned in its first year in office (Chishti and Bolter 2022; Kanno-Youngs 2022; Rampell 2022). Future work should examine the continuity and stickiness of administrative burdens over time. For instance, what prevents a new administration from undoing a previous administrative burdens regime, or doing so quickly? How intentionally is the current administration acting to undo this regime? Further, if the Biden administration can reverse the majority or a meaningful number of the previous administration's changes to immigration law and policy, how long until the attorneys in this study feel those effects in a way that changes their representation capacity? If this regime is even possible to reverse, what is the long-term impact on the

4. The Immigration Policy Tracker, which counted 1,059 immigration policies during the Trump administration, is also tracking those that have been overturned during the Biden administration. As of January 9, 2023, 746 are fully in effect.

quantity and composition of immigrant clients who get legal representation over the many years under which it was in effect?

How nonprofit immigration attorneys have incurred the costs of the Trump administration's administrative burdens regime and the consequences of those costs provide a compelling case for understanding the role of administrative burdens on third-party brokers, particularly third-party actors who determine which clients receive needed resources and recognition or a chance to proceed down a particular institutional process. People depend on third-party brokers for institutional access in other arenas as well, such as independent abortion funds who provide resources and assistance to abortion-seekers in states with restricted abortion access or other areas of civil legal aid in which access to legal representation is not guaranteed, such as in eviction or family courts. Applying an administrative burdens framework to past and future studies of street-level bureaucrats in a variety of settings can shed light on how burdens can be an additional mechanism of inequality among clients' access to services or help.

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