# Chapter 1

## Introduction

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Eliminating homelessness or reducing its volume substantially will take certain changes in how housing markets operate. Homelessness, after all, is ultimately a housing market condition. People who leave homelessness have to live somewhere they weren't living before. It is less clear which housing policies will do the best job of reducing homelessness.

We organized a conference in the fall of 2008 to help identify those policies. We invited leading researchers, with backgrounds ranging from psychiatry to economics and policy, and challenged them to consider how housing policies influence homelessness. The papers collectively consider homelessness both among single adults and families. They look not just at obvious policies, like cranking up existing housing subsidy programs, but also at nonobvious ones, like changing zoning laws and revamping the standard mortgage contract. We find that some policies will likely help and others will not. We synthesize these lessons here. Drawing on the papers and discussion at the conference, we also produce a research agenda outlining the most important questions about housing markets and homelessness that could be answered but haven't yet been.

This volume explores a middle ground between two opposing views of how housing markets affect homelessness. Both views imply that a book like this has little value: one view implies that the question we are trying to answer is impossible to answer (housing market impotence); the other, that it's trivial (housing market omnipotence).

The housing-market-impotence view suggests that people are homeless because of their individual problems, such as illnesses, addictions, or incarceration histories. Thus the only way to reduce homelessness is to reduce the incidence of such problems. This view has considerable appeal because it often mirrors individual biographies: many (though not all)

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people become homeless after they encounter difficulties with substance abuse, mental illness, or incarceration, and they often end their homelessness when they resolve these difficulties. We would strongly advise any friend of ours who was homeless and a substance abuser to treat his substance abuse problem.

But biography is not always the same as history, and good advice to friends is not always the same as good policy advice. If we thought a Springsteen concert was going to be sold out, we might advise our friends to call early for tickets, but we would not advise the government to subsidize the first calls to Ticketmaster.

Aggregate volumes of homelessness seem to be poorly correlated with aggregate volumes of the conditions that make individuals in a given population more likely to be homeless—for instance, being poor, being male, being a substance abuser, being mentally ill. This appears true both in a number of detailed empirical studies (for a review, see O'Flaherty 2004) and in trends over time. In 1972, for instance, the United States had staggering numbers of alcohol abusers by today's standards, a raging heroin epidemic, deinstitutionalization that was well on its way to completion for the nonelderly mentally ill, no Supplemental Security Income (SSI), poverty rates comparable to today's rates—and almost no homelessness.

The real policy question, however, is not the size of these historical correlations, but whether policies that address housing market conditions are more effective and efficient than those that treat conditions correlated with homelessness on an individual level. To use an analogy, in the 1980s, New Jersey was struck by a wave of bus robberies. No one knew precisely what caused it, and fare-box design was not on anyone's list of causes. But the policy that eliminated bus robberies effectively and efficiently was to redesign fare boxes so drivers had no access to money. Correlation and causality are not always the best guides to policy. This volume will try to answer at least half of the policy question by trying to find the best housing market policies and estimating how much they could reduce homelessness.

The opposing view, housing market omnipotence, looks at homelessness simply as the difference between the number of available homes and the number of households seeking housing; the only way to resolve this shortage is to build more homes and put homeless people in them. A corollary to housing market omnipotence is treatment impotence. Programs that treat the problems homeless people have accomplish nothing more than musical chairs: if person A's life improves and she leaves the streets, she is really only pushing some person B onto the streets if no new housing is built. Or such is the view of housing market omnipotence.

Just as housing market impotence has an appeal if you read only isolated biographies, so too does housing market omnipotence if all you look at are the brute physical facts of doorknobs and noses. But housing markets are much more complex than simple counts. If housing construction were all that mattered, homelessness would have been wiped out during the con-

struction boom of the early 2000s, but instead the numbers of homeless appear to have barely moved. If subsidized housing were all that mattered, then New York City, which has built a huge amount of subsidized housing in the past two decades, would have only a dwindling shelter census.

Real housing markets are not stagnant glasses of water where all you have to measure is the distance to the brim. Instead, they are oceans with tides, ever-shifting currents both horizontal and vertical, evaporation, rainfalls, and waves. You can't control the height of the ocean with a hand pump and a bucket. Housing market players adjust to changing environments by moving in with relatives or moving out; by building, renovating, or abandoning; by exercising more or less caution in screening potential tenants; by looking more or less assiduously for a smaller or larger place to live and accepting more or fewer inconveniences; by raising and lowering advertising budgets; by putting on a new roof, adding a new bathroom, or letting the boiler deteriorate. Players have to adjust to the adjustments that other players make, too, so that in the end the final outcome of a policy's implementation may look nothing like its initial thrust or intended goals. A reputable body of empirical literature, for instance, shows that construction of subsidized housing is offset, at least in part, by reductions in the unsubsidized housing stock (see, for example, Sinai and Waldfogel 2005). In this sense, it may be those who build housing who are playing musical chairs, rather than those who treat personal problems. A detailed understanding of how housing markets work is of course needed to estimate the extent to which either group is playing musical chairs, however.

## **Major Findings**

This book offers three major policy lessons.

First, *housing matters*. Some policies and interventions that make housing more easily available to homeless people can reduce homelessness; policies that don't do this won't reduce homelessness.

Robert Rosenheck and Sam Tsemberis are the only authors in this volume who seriously examine nonhousing interventions. Rosenheck finds that their impacts on housing outcomes are generally small, though they often improve the nonhousing aspects of participants' lives. Tsemberis shows that programs that concentrate on housing rather than treatment do a generally better job of reducing homelessness, and no worse a job in reducing psychiatric and substance abuse problems. Requiring treatment or sobriety as a condition for housing keeps that housing away from the people who need it most and considerably reduces housing retention rates.

The papers identify several housing policies and housing interventions that do reduce homelessness. On the individual level, Jill Khadduri reports on a controlled experiment that showed that housing choice (section 8) vouchers virtually eliminated homelessness among families leaving welfare; Rosenheck finds that the housing aspect of supportive housing reduces homelessness; and Tsemberis shows the effectiveness of

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Housing First. On a population basis, looking at cross sections, Steven Raphael finds that housing market regulation is correlated with more expensive housing, and more expensive housing is correlated with more homelessness. Khadduri reports on several cross-sectional studies that find a correlation between homelessness and housing market variables, like rents and vacancy rates.

Before this volume, few papers identified links between a community's housing assistance policies and its level of homelessness. One exception is a study by Dirk Early and Edgar O. Olsen (2002), who find that cities that target subsidies more to low-income recipients have less homelessness, but that the overall volume of subsidies does not matter. Thus we have only weak evidence on a population level of a connection between housing subsidies and homelessness, and no tests of causality. The empirical literature on rent control, which Brendan O'Flaherty reviews in the final chapter of this volume, is extensive, but the conclusion of that literature is that rent control has little impact on homelessness.

Second, targeting matters. The best predictor of who will use a particular service in the future is who is using it now. O'Flaherty gives the theoretical basis for this empirical regularity. Rosenheck's analysis shows that interventions that focus on the most severely disadvantaged populations have the highest ratio of benefits to costs, chiefly because they reduce the amount of very expensive services that their participants were receiving. In particular, by making housing available to people who might not otherwise comply with treatment or sobriety requirements, Housing First targets effectively. Olsen argues that we should focus housing assistance on the poorest households, because these households are more likely to become homeless. However, predicting in advance who will become homeless is extremely difficult (again, O'Flaherty gives a theoretical reason for this empirical regularity), and targeting more precisely is therefore very difficult.

Third, moral hazard inevitably comes with better targeting. You can target services precisely if you are willing to accept a great deal of moral hazard; you can reduce moral hazard a great deal if you are willing to have poor targeting. But you cannot have both precise targeting and low moral hazard. If only people who are actually homeless receive great services, too many people will be homeless. If everyone receives services, only a tiny percentage of the benefit will inure to people who would otherwise be homeless.

## **Policy Questions**

There are four broad categories of housing policy explored in the book, which vary according to their level of targeting.

The first are policies that aim to make small reductions in risk for large numbers of people, many of whom had low risk to begin with. Raphael's chapter suggests that reducing regulations and thus reducing the price of housing is a good example of such a program; most people who will benefit are not likely to become homeless and the resulting individual risk reductions will be small. Many will benefit, however, and the intervention will not induce any moral hazard.

The second category includes policies that provide traditional subsidized housing to households whose incomes fall below a specified level. Explored in the Khadduri and Olsen chapters, these programs offer few services and include, for instance, public housing, housing choice vouchers, and proposals for a housing entitlement program.

The Rosenheck and Tsemberis chapters focus on the third type of policies, which aim more directly at the population at highest risk. They hope to generate large reductions in risk, but for fewer people, many of whom are highly likely to become homeless. Programs like Housing First and supported or supportive housing are examples. Moral hazard in these programs is mitigated by making participation contingent on criteria that are expensive for most people to fabricate: long periods of homelessness, for instance, or severe mental illness.

The final set of policies, discussed in many of the papers but most directly in the O'Flaherty chapter, concern shelters (or something like them) that are available for emergencies. We might wish that they be rarely used, like fire alarm boxes and air bags in cars, but because surprises and crises are inevitable, it would be irresponsible not to have them.

There are many controversies and questions surrounding these policies, but the key questions center on cost-effectiveness and moral-hazard. Each dollar spent on subsidized housing could achieve how large of a reduction in homelessness? And how great are the moral-hazard costs? How effective is spending on homelessness prevention? How should we manage shelter admission and shelter exit (given that most emergencies don't last forever)? How large are the moral-hazard costs of the widespread practice of rewarding long shelter stays with subsidized housing?

O'Flaherty's is the only theoretical chapter in the volume. Like the conference itself, he tries to span the gap between public-health researchers, who think about dynamic models of individual lives, and housing researchers, who generally use static models of aggregates (or steady states of dynamic models, as in O'Flaherty 1995). His chapter uses dynamic models of individual lives, as in the public-health literature, but the models resemble those of macroeconomics, where individuals must cope with uncertainty as best they can. In colloquial terms, people become homeless when they are down on their luck, and O'Flaherty uses the tools of macroeconomics to take that claim seriously.

The model has many implications for researchers. We have alluded to two already: that entries into homelessness are unpredictable and that the

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best predictor of who will be in a shelter in the future is who is in a shelter now. The intuition behind unpredictability is pretty simple. Take, for example, fires, another type of bad luck. If you could predict that you would have a fire in your kitchen tomorrow at 3:18 P.M., you would not have a fire then because you would do everything in your power to prevent it. Episodes of homelessness are like fires—they happen by surprise, and no one can predict surprises.

The tie between current and future homelessness is a corollary to the general result that the level of a person's housing consumption in the immediate future is more likely to be close to her consumption today than far from it. Shelter occupancy is a level—usually very low—of housing consumption.

Two other corollaries to this result are that the neighborhoods where people are most likely to live immediately before becoming homeless are those with the cheapest, lowest-quality housing, and that the housing tenure of people immediately before they become homeless is also likely to be the cheapest tenure available (for example, doubling up). These corollaries correspond to well-known empirical regularities, but these regularities have not been previously interpreted in a consistent fashion.

### **Policy Lessons**

Looking at homelessness as bad luck also has implications for policy—particularly subsidized housing, shelter management, and homelessness prevention. This perspective calls for evaluating policies as parts of the safety net and as a form of social insurance for families that temporarily experience bad luck. Subsidized housing has rarely been looked at in these terms: U.S. subsidized housing provides significant insurance for those who are recipients, but none for those who are not but may need insurance.

In terms of broad policies aimed at making small reductions in risk for large numbers of people, Raphael builds on a body of empirical literature, but one that has not previously been connected to homelessness. Housing economists are now pretty certain that housing is more expensive in metropolitan areas where local housing-market regulation is stricter: housing costs more in places where zoning rules and other regulations make building new houses more difficult. Raphael shows that more onerous local housing-market regulation is also associated with more homelessness.

To do this, he uses two relatively new data sets: the Wharton state-level regulatory index that Joseph Gyourko, Albert Saiz, and Anita Summers (2006) describe, and the homeless counts in the 2007 Annual Homeless Assessment Report (AHAR) to Congress. If regulation affects homelessness, it should do so by raising rents. Thus Raphael estimates a two-equation system, with regulation as an instrument for rent-to-income ratios. Regulation works as hypothesized. The estimates imply that reduc-

ing regulatory burden in the states that are now above the median to the median level would cut homelessness by 6 to 13 percent—equivalent to 2 million or so more housing vouchers.

A policy of reducing regulations would invite minimal levels of moral hazard and deadweight loss. No one would have to do anything to qualify for the benefits of lower metropolitan-wide rent levels. Some people might reduce the effort they expend on working or sharing if housing prices were lower, but this would not necessarily create deadweight loss because previous housing prices were not an accurate reflection of the true social costs of housing. Effort by itself is not socially valuable. In social terms, homelessness could be reduced for nothing or even less than nothing (that is, with a gain).

Wholesale reduction of local housing-market regulation does not have much political support now, of course. Neither do some of the other ideas discussed in this book, like a housing entitlement program. But we should not dismiss it solely for that reason.

What practical use does this result have then? First, scientific findings are valuable even if they're not immediately useful. It's good to know that the sun is powered by nuclear fusion or that the first humans lived in Africa even if we can't do anything about it.

Second, some regulations are at the political margin in every state. Knowing that these regulations can affect homelessness is not politically irrelevant. Political decisions on these regulations are by definition close and so might be swayed at the margin by these considerations.

Third, realizing that the housing market is distorted in this way can change our evaluation of other policies. Consider, for instance, a housing entitlement program. When we stated that such a program would create deadweight loss by distorting work and sharing incentives, we were implicitly assuming that housing prices reflected social costs accurately. The literature on housing regulation argues that they do not. If housing prices are too high, then ordinary calculations overstate the deadweight loss from a housing entitlement program, especially in heavily regulated metropolitan areas.<sup>1</sup>

Finally, as Raphael argues, the relationship between regulations, which mainly benefit wealthy people, and homelessness leads to a strong compensation argument for using tax revenues to alleviate homelessness.

Khadduri and Olsen describe the current set of programs that subsidize housing for low-income people and examine some of the reforms that might make them more effective at reducing homelessness. The federal government provides about 5 million households with rental subsidies deep enough that people with incomes well below the poverty level can pay the rent. These subsidies are provided under the housing choice voucher (HCV) program, public housing, and the property-based Section 8 program. A randomized controlled experiment has shown that housing choice vouchers virtually eliminate homelessness among welfare

families, and a number of studies have shown that individuals and families who leave shelters with vouchers are quite unlikely to return, at least for a few years.

Public housing and the property-based Section 8 program have been moving away from serving people at considerable risk of becoming homeless. More of their small apartments have been designated elderly-only, and new admissions have limits on the number of poor tenants who can be accepted.

These programs continue to reach mainly poor people because they use the housing-gap rent formula—tenants' rent is set at 30 percent of their income. The lower your income, the more attractive these programs are; and if your income is above a certain level, you are not eligible to receive any assistance. Targeting, of course, comes at a cost in moral hazard. The rent-gap formula likely discourages both work effort and the sharing of homes. As O'Flaherty explains in his chapter, the work disincentive has been studied extensively and is probably small; the sharing disincentive has been studied much less and may be large.

Reforms to the HCV program and its expansion appear to both Khadduri and Olsen to be the most expedient route to reducing homelessness. These reforms would include focusing more intensely on the poorest households, allocating more subsidies to places where the risk of homelessness is greater, and expanding outreach efforts to reach more adults without children. More intense focus might be accomplished with a separate program, possibly with time limits and shallower subsidies. The efforts to improve targeting come at a moral-hazard cost: geographic targeting rewards jurisdictions that engage in activities that increase homelessness—for instance, regulatory policies like those that Raphael describes—and rewards those that exaggerate their estimates of the homeless population, making it impossible to rely on local efforts to count the homeless. Tighter income targeting also exacerbates the work and sharing disincentives.

Khadduri and Olsen both discuss the possibility of a universal entitlement program. This proposal calls for shallower subsidies than current programs, but many more of them. Olsen argues strongly that this program would be both more efficient and fair; Khadduri thinks an expanded and reformed HCV program can accomplish many of the homelessness-reducing goals of Olsen's universal entitlement program, but without the dislocations and some of the cost that the latter would entail. She is concerned that shallower subsidies would undermine some of the other goals of the HCV program, like poverty deconcentration.

These issues are crucial for understanding how to house the homeless, and the discussions by Khadduri and Olsen are insightful and extremely knowledgeable. But the empirical findings that we can bring to bear on this question are woefully limited. Not a single study shows clearly that

an expansion of HCV will reduce aggregate levels of homelessness.<sup>2</sup> Much debate revolves around what the housing assistance experiments of the 1970s can tell us about how reformed or universalized housing voucher programs might work or how much they would cost, but these experiments have told us nothing about homelessness, because they recorded nothing about it. It would be interesting to see whether diligent researchers could recover a record about homelessness in the communities where these experiments were conducted.

Even the rough numbers we have raise more questions than they resolve. The studies that say anything about the relationship between the volume of assisted housing and the one-night count of homelessness imply that an increase of one hundred assisted units reduces the one-night homelessness count by around four people. There is remarkable uniformity across diverse studies on this sort of estimate.<sup>3</sup> Khadduri and Olsen say that universalizing HCV will bring in HUD's entire "worst-case housing needs" population—about 6 million households. If every one hundred of these additional subsidized households lead to a reduction in aggregate homelessness by four people, then that would reduce the one-night count of homelessness by about 240,000 households—by nearly half.<sup>4</sup>

Understanding whether this somewhat shocking estimate is plausible should probably be the major research question for any effort to house the homeless. The key may well be in questions of time, uncertainty, and household formation.

Rosenheck surveys a body of literature with a much firmer empirical foundation. Several programs have been shown to help homeless people with mental health problems. Programs designed to help in one outcome domain often help in that domain, but the benefits usually don't spill over into other domains. Programs designed to improve housing do that, but they don't reduce symptoms, and programs designed to reduce symptoms don't improve housing. You get what you pay for. Even with supported and supportive housing, which combine housing subsidies and clinical case management, the active ingredient appears to be the housing.

The programs that Rosenheck describes produce a different set of screening and moral-hazard concerns than the programs that Khadduri describes. Almost everyone likes money and a nice place to live, which is what housing programs offer, but most people who are not mentally ill, and many who are, are averse to clinical case management and other techniques of mental health care. Case management and other services could then be seen as screening devices, even if they do not appear to improve housing outcomes among those who are already in the program.

Rosenheck's cost-effectiveness results show that screening is a particularly important issue. The most cost-effective programs are those, like Housing First, that target high-cost, high-risk clients. The question that the housing literature suggests is how that targeting can be accomplished

with minimal distortion of incentives. The answer might be by bundling something everybody wants—housing—with something arguably unappealing to those who are not mentally ill—clinical case management.

Tsemberis surveys the history and research on Housing First and contrasts this model with the previous predominant model of "treatment-first." Housing First places severely mentally ill, formerly homeless people into their own apartments, usually in buildings with many other residents from the general community, before beginning any treatment. Consumers, like other renters, have to abide by their lease terms, but they do not have to participate in treatment in order to stay in their apartments. Treatment is available, and consumers are encouraged to take advantage of it. Housing is housing, and treatment is treatment. Tsemberis reviews some of the extensive research that shows how consumers gain from this dichotomy.

In terms of shelter management, O'Flaherty argues that exploiting the analogy with unemployment insurance is likely to be fruitful. For instance, policies that encourage placement into subsidized housing early in a shelter spell are likely to work better than policies that require families to wait a long time before they are eligible for subsidies. Moral hazard is the issue: if you reward people for staying in shelters for a long time, some of them will do so. The popularity of rapid rehousing policies is in part a response to this logic.

## **Research Questions**

In addition to providing us with a richer understanding of the links between housing and homelessness, the papers in this volume also highlight a number of key questions for which we don't have answers.

- Is it possible to reconstruct the history of homelessness in the communities in which the Experimental Housing Allowance Programs were conducted?
- Can characteristics of people early in a shelter spell be used to predict who will have a long shelter spell?
- What do people early in a shelter spell know about how long they will stay in a shelter? If you add self-predictions to all the other available information early in a shelter spell, does it improve the ability to predict who will have a long shelter spell?
- Do housing choice vouchers reduce aggregate homelessness? Do Low Income Housing Tax Credits reduce aggregate homelessness?
- What would be the effects of changing the Housing Choice Voucher Program to provide shallower subsidies to more recipients? What effect would shallower subsidies have on utilization rates and on the quality of neighborhoods reached by HCV holders?

- What affects the proportion of single, nonelderly adults who participate in HCV program? Why don't more of these individuals receive vouchers?
- Why is living in a neighborhood of concentrated poverty a risk factor for homelessness? Is the relationship causal? Or does it arise because the cheapest housing is located in neighborhoods of concentrated poverty?
- Can a measure of worst-case housing needs be devised that relies on permanent rather than transitory income?
- What effect has the mortgage crisis had on homelessness?
- Can a national database of housing regulations that concentrates on lower-end regulations (such as window space per room requirements), rather than higher-end (such as minimum lot size), be assembled?
- Do lower-end regulations have the same effects as higher-end regulations?
- Will encouraging saving or encouraging borrowing among people at risk of homelessness be more effective in preventing and reducing homelessness?
- Does subsidized housing reduce the volatility of consumption by poor people? Does it reduce the volatility of housing consumption? How do consumption and housing-consumption volatility differ in metropolitan areas with a lot of subsidized housing from volatility in metropolitan areas with little subsidized housing?
- What are the effects of large arrearages on traffic tickets and childsupport obligations on the behavior of poor people? What can we learn from this about the effects of homelessness-prevention loans with recourse?
- Would it be possible to design a rental insurance program that would not involve unsustainable levels of moral hazard?

## **Summary**

The conference on which this volume is based was held in November 2008, as the world was heading into the worst economic downturn since the Great Depression. It was held a few subway stops from Wall Street, where company after company had failed in the previous few months. Bad luck was not an inappropriate theme.

But the conference also occurred only a few days after the election of a new president. Recessions, in Schumpeter's words, are times of creative destruction. When the conference was held, huge pieces of the architecture of the housing market had been destroyed, and the Obama administration was beginning to craft a replacement. As a positive proposition,

the conference showed that homelessness could not be analyzed separate from housing policy; and as a normative proposition, that housing policy should not be created separate from homelessness.

#### **Notes**

- One might argue that homeowners' tax preferences more than offset the housing price increase from regulation, and so housing prices are too low, not too high. Regulation, however, seems to have the biggest effect on lowincome and low-quality housing, while homeowners' tax preferences seem to affect this market very little (Malpezzi and Green 1996). Thus the regulation distortion seems more relevant for discussing homelessness.
- The randomized controlled study referenced in Jill Khadduri's chapter showed that providing vouchers to individual families receiving welfare reduced the likelihood that those families would become homeless, but it did not answer the question about aggregate effects on population as a whole.
- Dirk W. Early (2004) estimates the probability of being homeless in the absence of a subsidy for an average household in subsidized housing. His conclusion is a range of 3.8 percent to 5.0 percent. The experimental study of housing vouchers found a treatment-on-the-treated reduction of 9.2 percent in the probability of being homeless during a year (Abt Associates et al. 2006). For comparability, we need a one-night estimate. The 2007 Annual Housing Assessment Report (AHAR; U.S. Department of Housing and Urban Development 2008) found that among sheltered families the one-night estimate was 38 percent as large as the one-year estimate: 248,500 individuals in families in the onenight estimate, of whom 72 percent were sheltered, as compared with a oneyear family count of 473,500 individuals. This ratio would imply a reduction of 3.5 homeless families for every one hundred families assisted. Erin Mansur and his colleagues (2002) simulated the effects of a universal voucher program in California cities. In San Francisco, for example, they projected that giving vouchers to all 202,470 poor households would reduce homelessness by 4,426 households, or 2.2 percent.
- 4. The AHAR found 423,400 single individuals and 248,500 individuals in families who were homeless on a January night. The average family had 3.615 members; hence there were 68,700 homeless family households and 492,700 homeless households.

#### References

Abt Associates, Gregory Mills, Daniel Gubits, Larry Orr, David Long, Judie Feins, Bulbul Kaul, Michelle Woods, Amy Jones and Associates, Cloudburst Consulting, and the QED Group. 2006. Effects of Housing Choice Vouchers on Welfare Families. Washington: U.S. Department of Housing and Urban Development.

Early, Dirk W. 2004. "The Determinants of Homelessness and the Targeting of Housing Assistance." *Journal of Urban Economics* 55(1): 195–214.

Early, Dirk W., and Edgar O. Olsen. 2002. "Subsidized Housing, Emergency Shelters, and Homelessness: An Empirical Investigation Using Data from the 1990 Census." *Advances in Economic Analysis and Policy* 2(1): pp. n.a.

- Gyourko, Joseph, Albert Saiz, and Anita Summers. 2006. "A New Measure of the Local Regulatory Environment for Housing Markets: Wharton Residential Land Use Regulatory Index." Wharton School working paper. Philadelphia: University of Pennsylvania.
- Malpezzi, Stephen, and Richard K. Green. 1996. "What Has Happened to the Bottom of the U.S. Housing Market?" *Urban Studies* 33(1): 1807–20.
- Mansur, Erin, John Quigley, Steven Raphael, and Eugene Smolensky. 2002. "Examining Policies to Reduce Homelessness Using a General Equilibrium Model of the Housing Market." *Journal of Urban Economics* 52(2): 316–40.
- O'Flaherty, Brendan. 1995. "An Economic Theory of Homelessness and Housing." *Journal of Housing Economics* 4(1): 13–49.
- ——. 2004. "Wrong Person AND Wrong Place: For Homelessness the Conjunction is What Matters." *Journal of Housing Economics* 13(1): 1–15.
- Sinai, Todd, and Joel Waldfogel. 2005. "Do Low-Income Housing Subsidies Increase the Occupied Housing Stock?" *Journal of Public Economics* 89(11–12): 2137–64.
- U.S. Department of Housing and Urban Development, Office of Community Planning and Development. 2008. *The 2007 Annual Homeless Assessment Report.* Washington: Government Printing Office.