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Can Subsidized Housing Help Address Homelessness in New England?

By Robert Clifford and Osborne Jackson

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I. Introduction

Homelessness is a complicated issue with no single cause. It arises through an overlapping array of economic, health, and social factors and is further complicated by the varying definitions of homelessness that guide the federal, state, and local agencies charged with providing services to the homeless.[1] This situation confronts policymakers with a challenging environment in which to develop policies to prevent homelessness and return the homeless to stable living situations.

The number of sheltered homeless families in Massachusetts and Vermont is rising, driving an increase in measured homelessness in New England.

One of the policies most commonly advocated to end homelessness is providing affordable housing for low-income families.[2] Federal and state governments spend considerable sums on housing programs for the poor, and programs to provide subsidized housing to mitigate homelessness have attracted increased interest in the wake of the recent financial downturn and housing market crisis. However, whether subsidized housing is effective at combating homelessness remains an unresolved question.

This report examines the scope of homelessness in New England and the potential role of subsidized housing in alleviating homelessness in the region. We focus on the Low-Income Housing Tax Credit (LIHTC), the largest and fastest-growing project-based federal program for low-income housing. LIHTC provides an incentive for developers to create affordable rental units for low-income populations by distributing tax credits through a competitive process that reduces developers' tax liabilities or allows developers to sell these credits to generate capital. An advantage of focusing on LIHTC is that, under the program, projects that are placed in certain low-income neighborhoods are eligible for more credits. As a result of this provision, very similar neighborhoods may receive different amounts of tax benefits for LIHTC-funded projects because of slight differences in eligibility. This creates a virtually random experiment in housing placements that can be used to examine the impact of LIHTC on homelessness and other housing-related outcomes.

We find that the number of sheltered homeless families in Massachusetts and Vermont is on the rise, driving an increase in measured homelessness in New England. However, homelessness rates of unsheltered families, a particularly small subgroup in the region, have remained stable and below corresponding national rates. It is unclear whether the rise in homelessness of sheltered families in New England is attributable solely or even partly to the interaction of national market forces and state policies that call for sheltering vulnerable homeless families regardless of shelter capacity. Alternatively, the rise in homelessness may be due to area-specific market forces or to challenges in accurately measuring the homeless population.

Examining local housing markets across the nation and focusing on LIHTC as a source of subsidized housing, we find that providing targeted incentives to developers in the form of additional tax

1 U.S. Government Accountability Office (GAO) (2010).

2 U.S. Interagency Council on Homelessness (2015); Vermont Council on Homelessness (2014).

credits induces them to provide more subsidized housing in poorer neighborhoods than they otherwise would. However, the developer response differs by region. In New England developers complete more rehabilitation projects, while outside of New England the effect operates mainly through larger projects with newly constructed units.

We compare similar, moderately poor neighborhoods with different amounts of subsidized housing due to differential LIHTC tax benefits. Adjusted for mobility of the homeless across areas, the bulk of our evidence suggests that local increases in subsidized housing are likely to reduce neighborhood homelessness, especially in New England.

II. Defining and Measuring Homelessness

Homelessness impacts a diverse geographic and socioeconomic population, making it difficult to encapsulate the homeless under a simple definition. This presents a major challenge to federal, state, and local agencies charged with providing services to the homeless.

Consequently, the official modern definition of homelessness in the United States, as derived from the McKinney-Vento Homeless Assistance Act of 1987, has been amended multiple times to adapt to the evolving nature of homelessness.[3] Under the current federal definition, the homeless are individuals or families who: (1) lack a fixed, regular, and adequate nighttime residence, (2) will imminently lose their primary nighttime residence; (3) are unaccompanied youth or in families with children and youth who are defined as homeless under other federal statutes, or (4) are fleeing, or attempting to flee, domestic violence or other dangerous conditions in the individual's or family's current housing situation.[4]

However, federal agencies that administer programs for the homeless are not constrained by this exact definition. This creates notable differences across agencies in the types of populations defined as homeless. For example, the Department of Education, the Department of Health and Human Services, the Department of Justice, and the Department of Agriculture use broad definitions that include at risk or vulnerable homeless populations and target specific subpopulations, such as children enrolled in schools or runaway and unaccompanied youths.[5]

The U.S. Department of Housing and Urban Development (HUD), the federal agency charged with distributing funding and grants for the nation's homeless shelter system, has traditionally focused more narrowly on individuals or families who are sheltered or unsheltered homeless, often referred to as the literally homeless.[6] To provide services to this population, HUD conducts an annual Point-in-Time (PIT) count of sheltered and unsheltered homeless persons on one night in the last 10 days of January, to determine the size, composition, and location of homeless populations.[7] These counts, which were first conducted in 2007, provide important national and subnational data on the homeless, which are used to assess progress against national, state, and local plans for ending homelessness, to determine the allocation of funding for shelter programs, and to develop policies to address emerging homelessness issues. The U.S. Census Bureau takes a similar approach to enumerating the

3 The McKinney-Vento Act was amended in 1988, 1990, 1992, 1994, and 2009. For a historical overview of the McKinney-Vento Act, see National Coalition for the Homeless (2006). The most recent amendments occurred under the Homeless Emergency Assistance and Rapid Transition to Housing (HEARTH) Act of 2009.

4 U.S. Congress (2009).

5 For a discussion of the difference in definitions across agencies see Bassuck et al. (2014).

6 Under the current definition in effect since January 2012, HUD expanded grant eligibility to additional populations that are at risk of homelessness or are eligible under other federal statutes.

7 Local organizations, known as Continuums of Care (CoC), conduct the PIT estimates to determine the size and characteristics of the literally homeless in their service areas. These counts, along with other information collected throughout the year, help to determine the level of funding for emergency, transitional, and permanent supportive housing. Homeless persons who are living in a place not designed or ordinarily used as a regular sleeping accommodation for humans are counted as unsheltered homeless persons. Persons living in emergency shelters, transitional housing, and permanent supportive housing are counted as sheltered homeless persons. See U.S. Department of Housing and Urban Development (HUD) (2008) for further details.

homeless every 10 years, by counting sheltered and unsheltered populations over a three-day period in March. These counts are pivotal to understanding homelessness in New England. The PIT counts provide insights into trends in homelessness during the Great Recession and subsequent recovery. The Decennial Census counts provide data on which to base a historical understanding of homelessness, including detailed neighborhood-level counts that can be used to investigate the effectiveness of subsidized housing in reducing homelessness.

Homeless Definition and Measurement

While the McKinney-Vento Act outlines a multitude of groups that can be considered homeless, each federal agency providing services to the homeless develops its own criteria for eligibility, based on this definition. A few examples, shown below, illustrate how components of the McKinney-Vento Act definition compare with the criteria for inclusion in the Point-In-Time (PIT) estimates.

Measured in the PIT

Literally homeless families and individuals who are:

- Living in places not meant for human habitation, such as cars, parks, sidewalks, or abandoned buildings (unsheltered).
- Living in an emergency shelter or transitional or supportive housing (sheltered).

Not Measured in the PIT

Homeless, or at risk of homelessness, families and individuals who are:

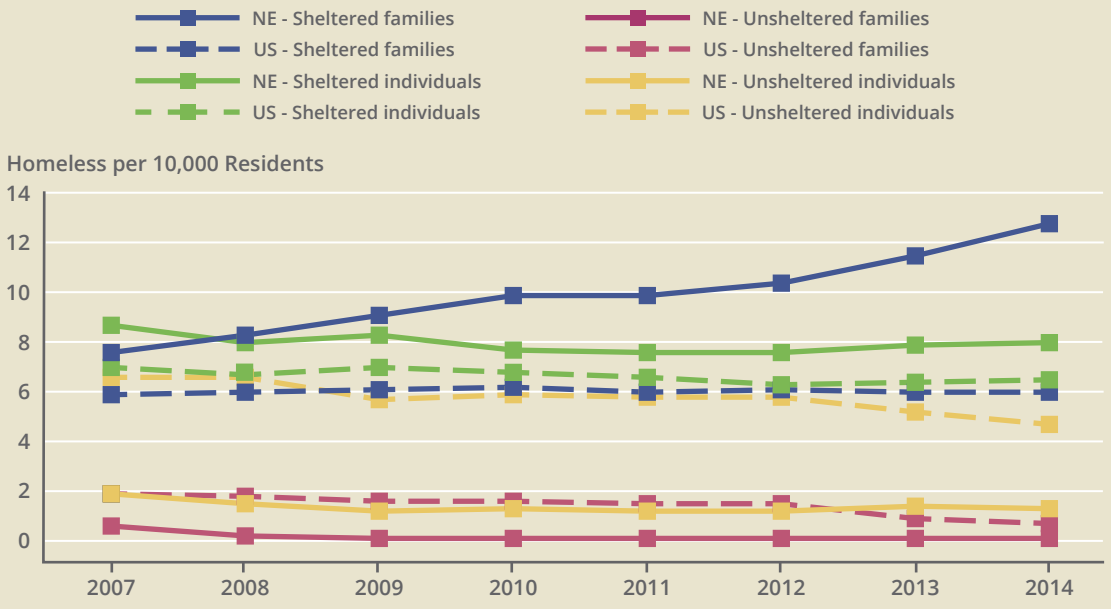
- Being evicted within a week from a private dwelling unit with no identified subsequent residence, and lacking resources and support networks needed to obtain housing.
- Being discharged within a week from an institution, such as a mental health or substance abuse treatment facility or a jail/prison, with no subsequent identified residence, and lacking the resources and support networks needed to obtain housing.
- Fleeing a domestic violence housing situation, with no subsequent identified residence, and lacking the resources and support networks needed to obtain housing.
- Vulnerable populations living in housing that is substandard and in need of repair or is crowded.
- Living with relatives or friends; commonly referred to as "doubled-up."
- Staying in a motel or hotels not covered by federal, state, or local programs.

III. Recent Trends in Homelessness

On a single night in January of 2014, nearly 580,000 people were homeless in the United States (U.S. Department of Housing and Urban Development 2014a).[8] Nationwide, the number of homeless persons has declined persistently over time, falling at an annual rate of 1.7 percent between 2007 and 2014. In New England, the number of homeless persons has been on the rise, increasing at an annual rate of nearly 3 percent since 2007 and exceeding 32,500 in January of 2014.

8 HUD also produces an annual national unduplicated count of the homeless shelter populations through the Homeless Management Information System (HMIS). In 2013, the last year available for the HMIS count, there were 1,422,360 homeless persons receiving shelter services through the course of the year and 591,768 sheltered and unsheltered homeless persons on a single day in January 2013. Unfortunately, HMIS counts are not available for sub-national populations. See U.S. Department of Housing and Urban Development (2014b) for further details on HMIS counts.

Figure 1 Homelessness Rates by Family and Sheltered Status, 2007–2014



Source: U.S. Census Bureau, population estimates and U.S. Department of Housing and Urban Development homeless Point-In-Time estimates.

Across the region, homelessness has been increasing in a mix of urban, suburban, and rural sections of Connecticut, Maine, Massachusetts, and Vermont.[9] Given this geographic dispersion of the homeless, one cannot attribute homelessness to a single type of community, such as cities, where the homeless may be more visible on the street.

The homeless comprise many unique subpopulations that experience homelessness for different reasons and therefore require different services. To see this, it is helpful to examine the trends among homeless subpopulations.

When considering the characteristics of homeless populations, agencies and advocates generally look at whether they are predominantly sheltered or unsheltered as well as whether most of their members belong to a family that is homeless. This creates four distinct subpopulations that constitute the homeless: sheltered families, sheltered individuals, unsheltered families, and unsheltered individuals.[10] When normalized to population to create a rate of homelessness (the number of homeless per 10,000 residents), we see that the rise in measured homelessness in New England has been driven exclusively by a surge in sheltered homeless families (Figure 1). In contrast, sheltered family homelessness has been unchanged across the country, with the decline in national homelessness largely the result of falling rates among unsheltered families and individuals. In New England, homelessness rates

9 Sub-state homeless population estimates are made available for 414 CoCs in 2014. The geographic coverage of CoCs varies and may comprise a single city, a combination of cities, the balance of a county excluding selected cities, a single county, combinations of counties, and balance of state areas that cover the remainder of communities in the state not covered by other CoCs. Rhode Island's count is provided for one statewide CoC, so no sub-state breakdown is possible. In New Hampshire, the three CoCs all report declining homeless populations between 2007 and 2014.

10 HUD defines individuals as people who are not part of a family during their episode of homelessness. They are homeless as single adults, unaccompanied youth, or in multiple-adult or multiple-child households. Families are composed of people who are homeless as part of households that have at least one adult and one child. Children are those under the age of 18. (U.S. Department of Housing and Urban Development 2014a).

of unsheltered families and individuals have remained stable and below corresponding national rates, with unsheltered homeless families in the region being a particularly small subgroup.[11]

To investigate the cause of the rise in the number of sheltered homeless families in New England, we consider three hypotheses: (1) national market forces interacted with area-specific shelter policies; (2) area-specific market forces; and (3) measurement differences among homeless subpopulations.

National Market Forces and Area-Specific Shelter Policies

The increase in the rate of sheltered family homelessness in New England is attributable to large increases in this population in Massachusetts and Vermont. The situation in Massachusetts, in particular, explains a large portion of regional growth in sheltered family homelessness, as the state accounts for over three-quarters of the region's homeless sheltered families. In both states, select vulnerable populations, including families, are offered access to shelter even when traditional shelter beds may not be available.

In Massachusetts, it is often stated that homeless families have a "right to shelter." This stems from a law passed in 1983, which has been revised multiple times in the past 30 years.[12] Currently, the state provides targeted emergency shelter assistance, subject to appropriations, for families with dependent children under 21 or pregnant women without children based on financial need.[13] Due to high levels of demand for emergency shelter services in Massachusetts, the state often places these eligible families in hotels and motels.[14]

Vermont's assistance is temporary in nature and provides emergency housing for up to 28 days for vulnerable populations such as the elderly, the disabled, and families with children or pregnant women.[15] Vermont also has a cold weather exemption rule that allows homeless families and individuals access to shelter on severe winter weather days.[16] As shelters are often full, these policies often lead to the placement of vulnerable populations in hotels and motels for temporary stays.[17]

While the sheltering policies of Massachusetts and Vermont are exceptions in the region, similar policies are in place in New York City and the District of Columbia.[18] Considering this broader group

11 The relatively small size of the unsheltered homeless population in New England compared with the rest of the country may be due in part to the fact that the PIT counts are conducted in January, when cold weather in the region may temporarily lead to increased shelter use or doubling up.

12 For a history of Massachusetts' homeless policy in the 1980s and 1990s see Schon and Rein (1994).

13 Financial need is defined as income of no more than 115 percent of the poverty level and countable assets of no more than $2,500. Under the most recent eligibility changes, which became effective July 1, 2012, families are eligible who are: at risk of or have fled domestic violence; homeless due to a fire, flood, or natural disaster; homeless because they have been evicted due to a foreclosure or for nonpayment of rent due to a disability, medical condition, or loss of income in the prior 12 months; or have no tenancy of their own and are "doubled-up" with other households and face a substantial health and safety risk due to violence or conduct related to substance abuse or mental health issues, or are staying in a place not meant for human habitation. See 760 CMR 67.06, Massachusetts Department of Housing and Community Development, Eligibility for Emergency Assistance.

14 In the first three months of 2015, the average length of stay for families exiting emergency shelters in Massachusetts was nearly 10 months (Commonwealth of Massachusetts Department of Housing and Community Development (DHCD) 2015).

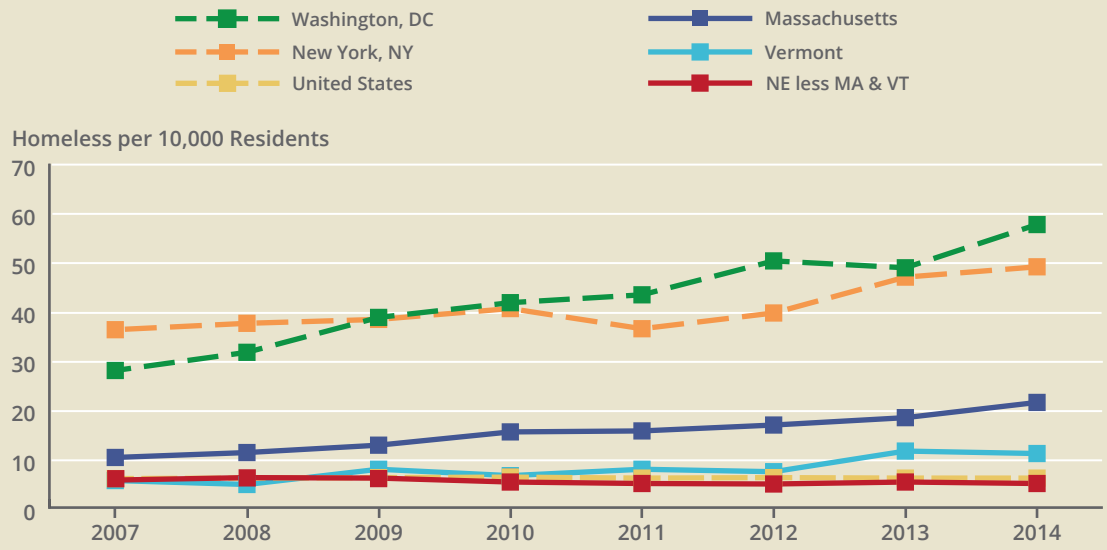
15 Households without a member belonging to one of the vulnerable populations can qualify for emergency housing if all other eligibility criteria are met and the household has a member belonging to one or more of a broader group of vulnerable situations. Eligibility of these households is determined via a point system. See Vermont Legislature Rule 2652.3 Emergency Housing for Vulnerable Populations.

16 The Cold Weather Exemption (CWE) applies if temperatures drop below 20 degrees, or 32 degrees with snow or freezing rain. In harsh winter weather, eligibility for temporary shelter through Vermont's General Assistance and Emergency Assistance programs will be relaxed to encourage persons who are homeless and without adequate financial resources to seek safe shelter. This may have influenced high levels of sheltered homeless in Vermont in 2013 and 2014, as the dates of the PIT in each year were on CWE days.

17 See Krantz and Dawson (2014) for an in-depth look at Vermont's Motel and Hotel homeless population. Exact estimates of those staying in hotels and motels are not possible from available public data for the programs.

18 In 1981, New York City established a legal right to shelter for all homeless individuals. Through subsequent lawsuits, this right was extended to homeless families. Washington, DC, provides a right to shelter for families and individuals when temperatures fall below 32 degrees. This right to shelter also ensures families' access to housing units, which can often lead to placement in motels and hotels.

Figure 2 Rates of Sheltered Homeless Persons in Families, 2007–2014



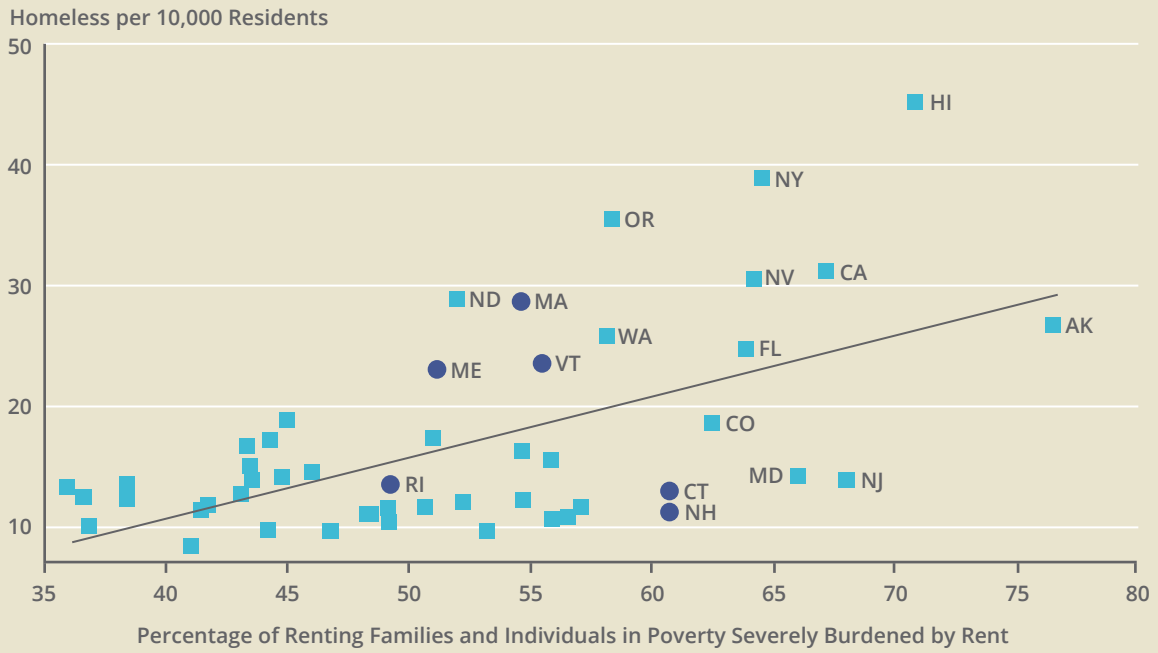
Source: U.S. Census Bureau population estimates and U.S. Department of Housing and Urban Development homeless Point-In-Time estimates.

of states and cities that allow vulnerable populations access to shelters, we again observe a common trend of increasing rates of sheltered homeless families since 2007 (Figure 2).

A possible explanation for this phenomenon is that nationwide market forces, as reflected, for instance, in rising rents and/or declining incomes, interact with these historical, area-specific shelter policies to drive up specific homeless populations. Poor or even moderate economic conditions nationwide could lead to higher demand for shelters nationally. In areas with flexible shelter policies, vulnerable populations in need of shelter would be placed in shelter housing, causing an observed rise in sheltered homelessness among targeted groups. In areas without flexible shelter policies, shelter housing would fill to capacity and those without access would likely find themselves in a situation of unsheltered homelessness or temporarily doubled-up with friends or family. If these individuals or families are unsheltered, they should be accounted for in the homeless measures. However, we find no persistent recent increases in unsheltered homeless families across states with more rigid limits on shelter availability. Alternatively, if families or individuals without shelter access become part of the doubled-up, at risk population, they are not observable in the PIT homeless data but could perhaps be seen in other data sources. However, using the American Community Survey (ACS), we find no recent increases in the doubled-up population in states without flexible policies on shelter availability. Nevertheless, because measurement difficulties or cross-state migration could also explain the ACS findings, the evidence remains inconclusive for this shelter policy hypothesis.[19]

19 Cross-state migration of targeted, vulnerable populations from locations with limited and strictly defined shelter policies to jurisdictions with more-accommodative and more-flexible shelter policies could occur. This would exacerbate the trend of increases in the number of sheltered homeless in flexible-shelter areas while mitigating these upward trends in the unsheltered homeless and doubled-up, at risk populations in surrounding communities.

Figure 3 Homelessness Rates and Rental Burdens, 2013



Source: Authors' calculation from U.S. Census Bureau 2013 population estimates and 2013 American Community Survey, and U.S. Department of Housing and Urban Development 2013 homeless Point-In-Time estimate.

Note: Severe rental burdens are those where 50 percent of income or more is spent on contract rent.

Area-Specific Market Forces

A different hypothesis that might explain the rising trends in homelessness in states with flexible shelter policies while homelessness trends in other states show declines is that unique, area-specific market forces exist in these flexible-shelter states and cities, pushing more families into homelessness than in other parts of the country. Such area-specific forces should be observable in cross-state differences over time in labor or housing markets, for instance. Impoverished families and individuals who rent are the most vulnerable, as they have limited resources to weather difficult economic conditions and thus may end up seeking shelter services, on the streets, or doubling-up with family and friends.[20]

Looking at the ratio of monthly rent to monthly income, we can combine housing and labor market indicators and measure across states the extent to which rental housing is affordable for vulnerable populations. Housing is generally considered affordable if the ratio of rent to income does not exceed 30 percent. Of families and individuals in poverty who rent, nearly three-quarters are considered burdened by housing.[21] Even when the threshold is raised to those who pay more than half of their income in rent, over 55 percent of impoverished renters in the United States and New England are severely burdened by housing costs.

20 The U.S. Conference of Mayors (2014) identified the three main causes of homelessness for both families and individuals: a lack of affordable housing, unemployment, and poverty.

21 Poverty status is defined for families. A family is in poverty if the total family income falls below the poverty thresholds established by the Social Security Adminstration in 1964 and revised in 1970, adjusted for inflation. Threshold levels are dependent on the size of the family, the number of people in the family who are children, and the age of the householder.

Across all U.S. states, the share of impoverished renters paying over half of their incomes in rent tends to relate positively to the rate of homelessness (Figure 3). In New England, the relationship between housing burdens and homelessness is weaker, as Connecticut and New Hampshire have high housing burdens among impoverished renters but low rates of homelessness. However, the percentage of such severely burdened households has remained fairly stable in recent years both regionally and nationally. Thus, the degree to which area-specific labor and housing market factors can explain the regional rise in homelessness is unclear.

Measurement Differences among Homeless Subpopulations

According to a third hypothesis, the distinctly observable rise in homelessness in New England might result from differences in the accuracy of the data that represent counts of different homeless subpopulations. If sheltered homelessness is measured more precisely than unsheltered homelessness, it may be easier to pick up trends in the number of sheltered homeless, especially in states like Massachusetts, where the sheltered homeless comprise a larger share of the total homeless population than elsewhere. HUD acknowledges this challenge by requiring that the PIT count be conducted in January as it "is the time of the year when shelter use peaks due to cold weather. Because it is easier to count people in shelters than on the street or in other places not meant for human habitation, conducting the count on a night when the shelters are most full will lead to the most accurate count."[22] Others have noted the difficulty inherent in counting the street population, due to individuals who avoid the counts, difficulty covering large areas, differing counting methodologies, and laws criminalizing homelessness.[23]

U.S. Congress: "A lack of affordable housing and limited scale of housing assistance programs are the primary causes of homelessness."

If counts of the unsheltered are missing large portions of the subpopulation, then rising shelter counts in areas with targeted sheltering policies could actually reflect a difficult-to-observe shift within the homeless population between uncounted street populations and counted shelter populations. Such a shift would result in a rise in measured homelessness despite no change in actual homelessness. Meanwhile, moderate declines in homelessness in other areas, driven by the measured declines in the unsheltered population, could reflect poorly measured shifts between the unsheltered homeless and the at risk, doubled-up population.

In reality, all three hypotheses—national market forces interacting with area-specific shelter policies, area-specific market forces, and homeless measurement issues—need to be considered when assessing increases in the number of sheltered homeless families in New England. Without additional data or an alternative approach we cannot pinpoint the contribution of each of these three potential causes of the exceptional rise of sheltered homeless families in the region. Nevertheless, we can be certain that sheltered family homelessness is on the rise in New England.

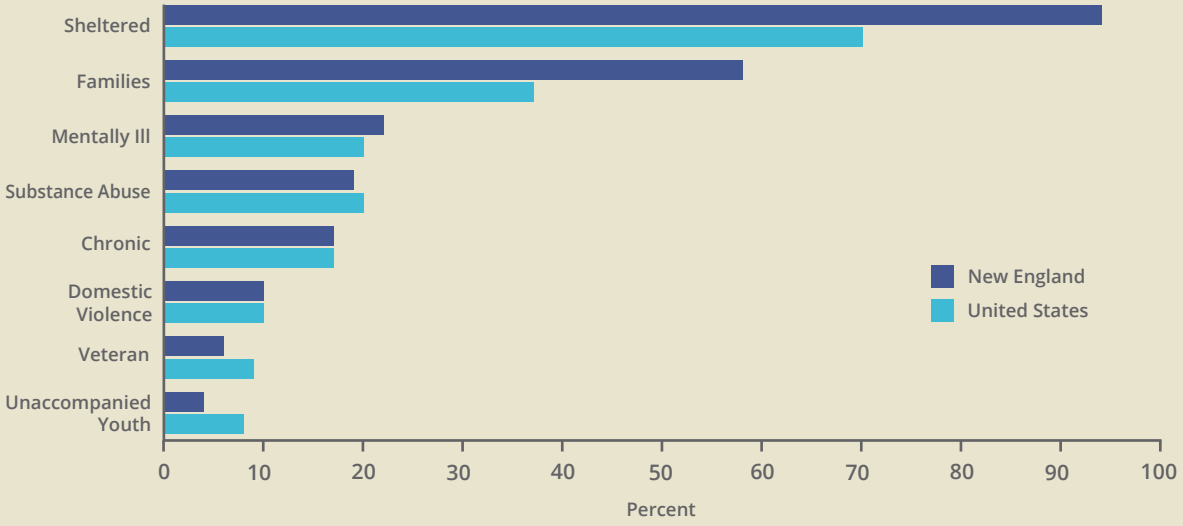
IV. A Role for Subsidized Housing?

Legislation passed by the U.S. Congress in 2009 amending the definition of homelessness included this statement: "a lack of affordable housing and limited scale of housing assistance programs are the primary causes of homelessness."[24] We touched above on the possible influence of housing market forces in explaining homelessness, but we will delve further into the topic of housing and the homeless, focusing on the potential role of subsidized housing.

22 U.S. Department of Housing and Urban Development (2008) p. 25.
23 Corinth (2015).
24 See U.S. Congress (2009), p. 33 Section 1003(A) of The Homeless Emergency Assistance and Rapid Transition to Housing (HEARTH) Act.

Figure 4

Share of Homeless Population by Category, 2014



Source: U.S. Department of Housing and Urban Development 2014 homeless Point-In-Time estimates.
Note: Categories are not mutually exclusive, so shares do not sum to 100 percent.

The extent to which housing assistance programs play a role in alleviating homelessness depends on the demand for low-income housing by the homeless and the supply of such housing. Since the homeless are not a homogeneous population, there may be differences in the demand for low-income housing across the subpopulations that make up the homeless (Figure 4). For example, a sheltered family that experienced homelessness due to medical costs or unemployment may be able to return to a stable housing situation through subsidized housing, but a chronically homeless youth with mental health or substance abuse issues may require more supportive services in addition to housing.

Federal rental subsidy programs that address the demand for and supply of affordable rental units are the main source of housing assistance. For instance, there were about 6.8 million federally subsidized rental units nationwide in 2012, of which 468,000 were located in New England. States also have their own programs, such as rental vouchers (Connecticut, Massachusetts, and Vermont), state-financed public housing (Connecticut and Massachusetts), and an array of targeted subsidy and temporary rental assistance programs for the elderly, the disabled, and the mentally ill.[25]

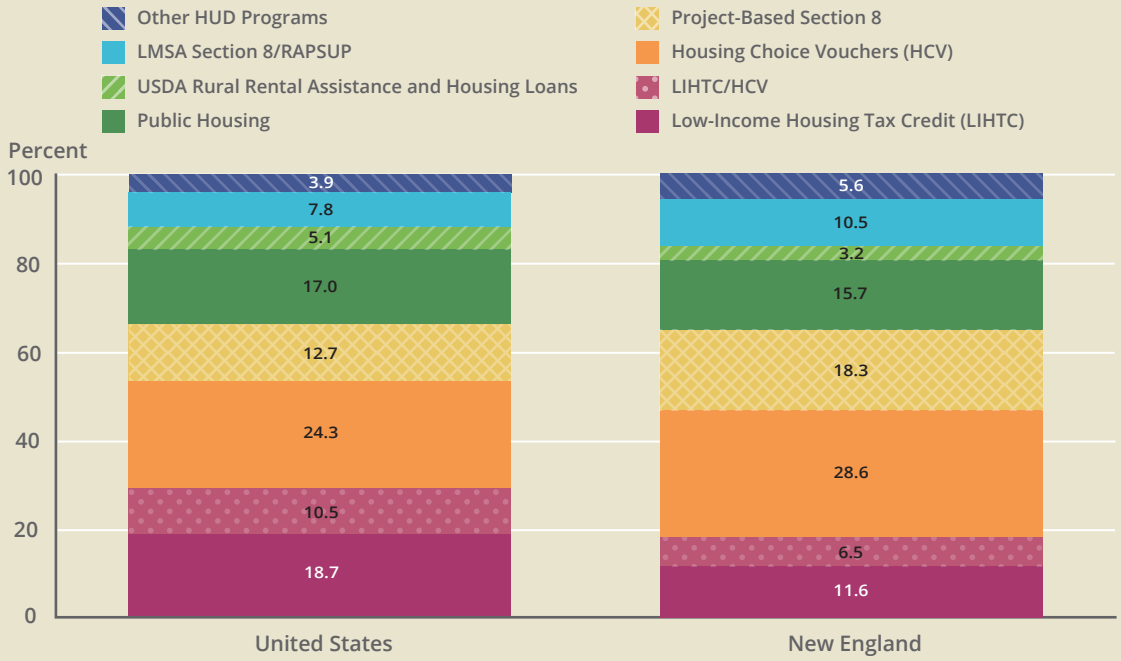
The largest rental subsidy program is the Section 8 Housing Choice Voucher (HCV), which accounts for over one-third of all federally subsidized rental units in the United States and New England (Figure 5). The HCV is a tenant-based program that provides a voucher to eligible low-income individuals and families to cover housing costs in excess of 30 percent of income.[26] The recipients of HCV are free to choose housing that meets their needs and are not limited to units in subsidized housing projects. This program does not directly increase the supply of affordable rental units, as the voucher is assigned to the HCV recipient and does not make any unit permanently affordable. Many HCV recipients reside in rental units developed through the Low-Income Housing Tax Credit (LIHTC), the largest and fastest-growing project-based program nationwide.[27] In New England, a slightly larger supply of subsidized

25 In total, we identified 21 rental subsidies or housing assistance programs spread across the six New England states. These programs range in size from 45,600 state-funded public housing units in Massachusetts to targeted temporary assistance programs that help with down payments for fewer than 100 people annually.

26 Tenant-based programs are also sometimes referred to as demand-side programs.

27 Project-based programs are also sometimes referred to as supply-side programs.

Figure 5 Share of Federally Subsidized Rental Units by Program, 2012



Source: U.S. Department of Housing and Urban Development, A Picture of Subsidized Housing, U.S. HUD LIHTC database, and U.S. Department of Agriculture (USDA), Rural Development Programs.

Note: Multiple studies have estimated that 35–37 percent of LIHTC units are occupied by tenants also receiving HCV (U.S. Government Accountability Office 1999; Buron et al. 2000; Nolden et al. 2003; and Hollar 2014). We assume 36 percent of all low-income subsidized units in LIHTC properties are occupied by HCV recipients. LMSA indicates Loan Management Set-Aside, RAP indicates Rental Assistance Payment, and SUP indicates Rental Supplemental Program.

rental units is available through Project-Based Section 8 than through LIHTC. However, by providing tax credits as incentives for the development of long-term affordable rental units, LIHTC is continually adding to the supply of subsidized units and will likely be the largest supply-side program in the region soon.

V. Subsidized Housing Creation from the Low-Income Housing Tax Credit

Do subsidized housing programs reduce homelessness in New England? Examining this question is challenging because subsidized housing is not randomly placed across areas. With random placement of housing, the location of development sites would be unrelated to neighborhood traits like poverty or unemployment. However, without random placement, development sites may be chosen or rejected due to local factors that also affect homelessness. Moreover, homelessness itself may play a role in determining where developers locate housing. These considerations make it challenging to isolate the impact of subsidized housing alone on homelessness.

To overcome this hurdle, we concentrate on one source of subsidized housing: LIHTC. The LIHTC program was created under the Tax Reform Act of 1986. Tax credits, initially allocated to state housing agencies based on state population, are distributed to developers through a competitive process and provide a dollar-for-dollar reduction in tax liabilities over 10 years. The amount of credits a project receives is determined by applying the appropriate credit rate to the "qualified basis," equal to the eligible project costs multiplied by the share of units to be rent-restricted and occupied by low-income residents.[28]

28 Baum-Snow and Marion (2009). The credit rate applied is either 30 percent or 70 percent in present discounted value terms over 10 years, with the former rate reserved for the acquisition cost of existing projects or projects financed with tax-exempt bonds or

What is a "Quasi-Experiment"?

An "experiment" provides a framework for a researcher to test the effect of some factor(s) on an outcome. In experimental settings, the factor of interest contains some entities that receive a "treatment" (for example, a drug) and other, "control" entities that receive either no treatment or a lower amount of treatment. A key feature of experiments is that it is randomly determined which entities are in the treatment group and which are in the control group. Such "random assignment" ensures that the group to which an entity belongs is unrelated to traits that might also affect the outcome of interest. For instance, when testing the effects of blood pressure medication, a researcher would not want only younger study participants to receive the drug, while older participants did not. Such an approach might falsely lead one to conclude that the drug causes health improvements, when in reality, the treatment group is generally healthier than the control group only because its members are younger. Thus, a well-designed experiment allows a researcher to isolate whether a factor *causes* an outcome, rather than being merely *associated* with that outcome.

For many questions of interest, however, especially in the social sciences, it is not feasible to conduct an experiment. For instance, a researcher might wish to study the impact of college attendance on earnings, but cannot randomly determine who does and does not go to college. For such questions, researchers often rely on "quasi-experiments." A quasi-experiment has a framework similar to that of a traditional experiment but lacks random assignment to treatment and control groups. In place of purely random assignment, a quasi-experiment relies on other important restrictions or assumptions to achieve something that is *like* random assignment when those restrictions or assumptions are present.

In this study, our quasi-experiment restricts our attention to moderately poor neighborhoods around the QCT eligibility threshold and assumes, for these similarly poor tracts, that differences in LIHTC housing are quasi-random, due to eligibility differences. This allows us to isolate whether increases in subsidized housing cause changes in neighborhood homelessness for moderately poor areas.

An advantage of focusing on LIHTC is that, under the program, projects that are placed in low-income areas designated as "qualified census tracts" (QCTs) are awarded 30 percent more credits.[29] As a result of this rule, very similar tracts may receive different amounts of tax benefits for LIHTC-funded projects due to differences in QCT eligibility. This enables us to examine whether we can observe an increase in LIHTC activity once a neighborhood is QCT-eligible, as a result of the higher tax benefits accruing to LIHTC housing in QCTs.[30] This methodology, which here creates quasi-random housing placements, is an approach that has been used in previous research to examine the impact of LIHTC on national homelessness and other outcomes and is known in the literature as a type of "quasi-experiment." [31]

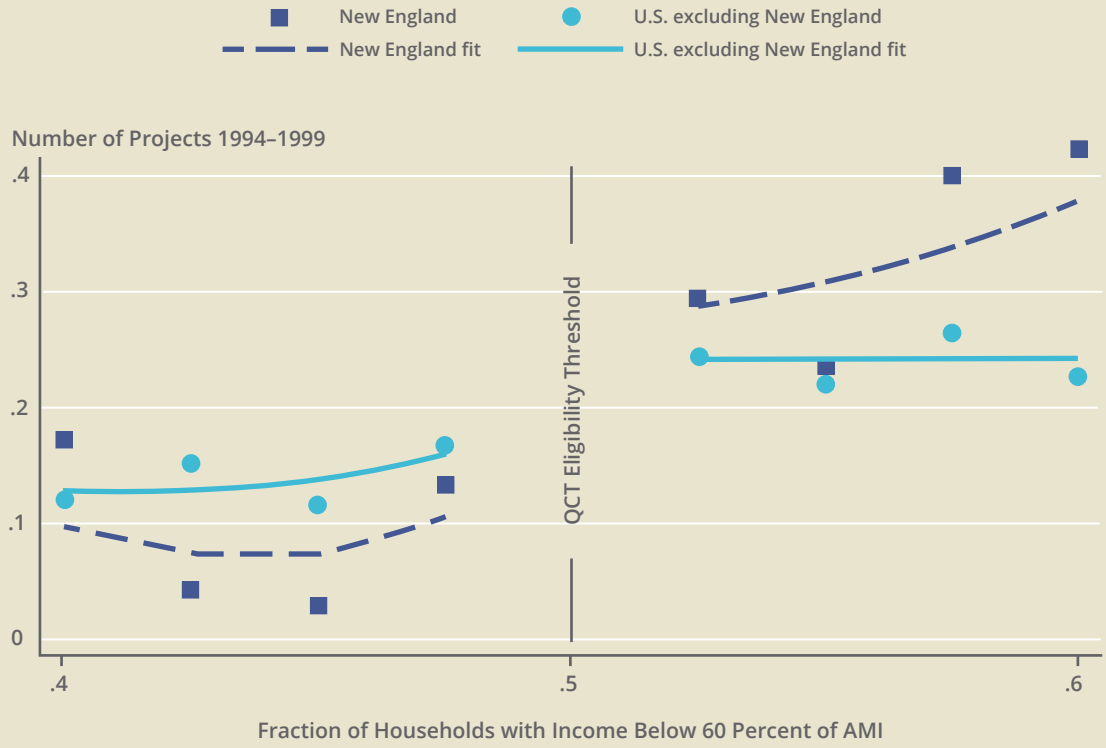
below-market federal loans. Either at least 20 percent of the units must be occupied by individuals whose income is 50 percent or less of area median income (AMI), or else at least 40 percent of the units must be occupied by individuals whose income is 60 percent or less of AMI, where "area" is defined by the relevant metropolitan statistical area (MSA). An MSA is a geographic area defined by the Office of Management and Budget for use by Federal statistical agencies in collecting, tabulating, and publishing Federal statistics. MSAs contain a "core urban area" of 50,000 or more people (U.S. Census Bureau 2013). Rent on low-income, rent-restricted LIHTC units cannot exceed 18 percent of AMI, and projects are subject to a 15-to-30-year compliance period.

29 A tract where at least 50 percent of households have incomes below 60 percent of AMI is eligible to be deemed a QCT, due to the Omnibus Reconciliation Act of 1989 (Hollar and Usowski 2007). This legislation also grants 30 percent more tax credits to projects located in "difficult development areas" (DDAs). However, we focus on QCTs, since in most states developers have an incentive to locate projects in a QCT even within DDAs (Freedman and Owens 2011). Because at most 20 percent of an MSA's population can reside in QCTs, most, but not all, eligible tracts are designated as QCTs. Also note that a census tract is a small subdivision of a county or equivalent area, whose boundaries and population are updated prior to each decennial census but are relatively permanent over time. Tracts range in population from 1,200 to 8,000 people, but have an optimal size of 4,000 people (U.S. Census Bureau 2012).

30 We use the terms "neighborhood" and "census tract" interchangeably in this report.

31 Baum-Snow and Marion (2009); Freedman and McGavock (2015); Freedman and Owens (2011); and Jackson and Kawano (2014), whose methodology we closely follow.

Figure 6 Impact of QCT Eligibility on LIHTC Development



Source: U.S. Department of Housing and Urban Development LIHTC data and QCT eligibility data and authors' calculations.

Note: A tract is QCT-eligible when at least 50 percent of households have incomes below 60 percent of AMI. In the figure, tracts are categorized by percentage of eligible households and are grouped into 2.5 percentage point bins. Best fit lines correspond to tracts ranging from 25 percent to 75 percent eligible households.

We analyze whether QCT eligibility affects the amount of LIHTC development in a neighborhood. Separately for New England and the rest of the country, we plot the average number of LIHTC projects against the fraction of eligible households (Figure 6).[32] If our quasi-experiment in housing placements has worked, we will, as noted above, observe a clear jump in LIHTC activity once the QCT eligibility threshold has been crossed. In New England, as soon as at least 50 percent of households in a tract are low-income and the tract has become QCT-eligible, average LIHTC development increases significantly by about 0.25 projects.[33] The average tract in our data sample has 0.16 projects, mak-

32 QCT eligibility data are from HUD and are based on the 1990 Decennial Census. We use detailed HUD data available on every LIHTC development since 1987. LIHTC activity is restricted to projects allocated and placed in service between 1994 and 1999. The first full year when QCT determinations were based on information in the 1990 Census is 1994, while the last year that LIHTC development is likely to affect census homeless counts conducted in March 2000 is 1999.

33 The 0.25 project increase reflects the coefficient from a regression of LIHTC projects on an indicator variable equal to 1 when at least 50 percent of households have incomes below 60 percent of AMI, and 0 otherwise. Control variables are also added that might affect QCT eligibility, 1994–1999 LIHTC development, or 2000 homelessness. The full list of controls is: a cubic function of the fraction of eligible households in a tract, the 1990 Census homeless count, the log of median household income, the log of total population, average household size, the black share, the Hispanic share, the female share, the married share, the population share aged 16 to 24, the population share in education categories, the poverty rate, the median rent, the rental vacancy rate, and effects capturing average differences across MSAs. The regression sample is restricted to tracts where the fraction of eligible households is between 25 and 75 percent.

ing a 0.25-project increase equivalent to a 157-percent rise in LIHTC projects in the country's average neighborhood. Nearly 81 percent of this large effect occurs through an increase in rehabilitation projects rather than from new construction projects. Outside of New England, the impact of QCT eligibility on the average number of LIHTC projects is a more modest increase of about 0.08 projects, roughly one-third the effect in New England, but likewise statistically significant. Most of this increase in LIHTC development outside the region (68 percent) occurs through rehabilitation projects, but this is a smaller percentage than in New England.

We can also examine whether QCT eligibility affects the size of LIHTC projects via changes in the number of total units and the number of rent-restricted low-income units. In New England, we observe no significant effect of eligibility on project size as indicated by number of units. However, outside of New England, eligibility significantly increases a project's size by 6.2 units, or 68 percent of LIHTC units in the country's average tract. The number of units reserved for low-income residents increases by 5.4, and for both total and low-income units 65 to 66 percent of the effect occurs through new construction rather than rehabilitation.

These results show that providing incentives to developers in the form of additional tax credits in poorer neighborhoods induces them to develop more subsidized housing in these areas. However, the developer response differs by region. In New England, this effect functions through additional rehabilitated projects, while outside of New England, the effect operates mainly through larger projects with newly constructed units.

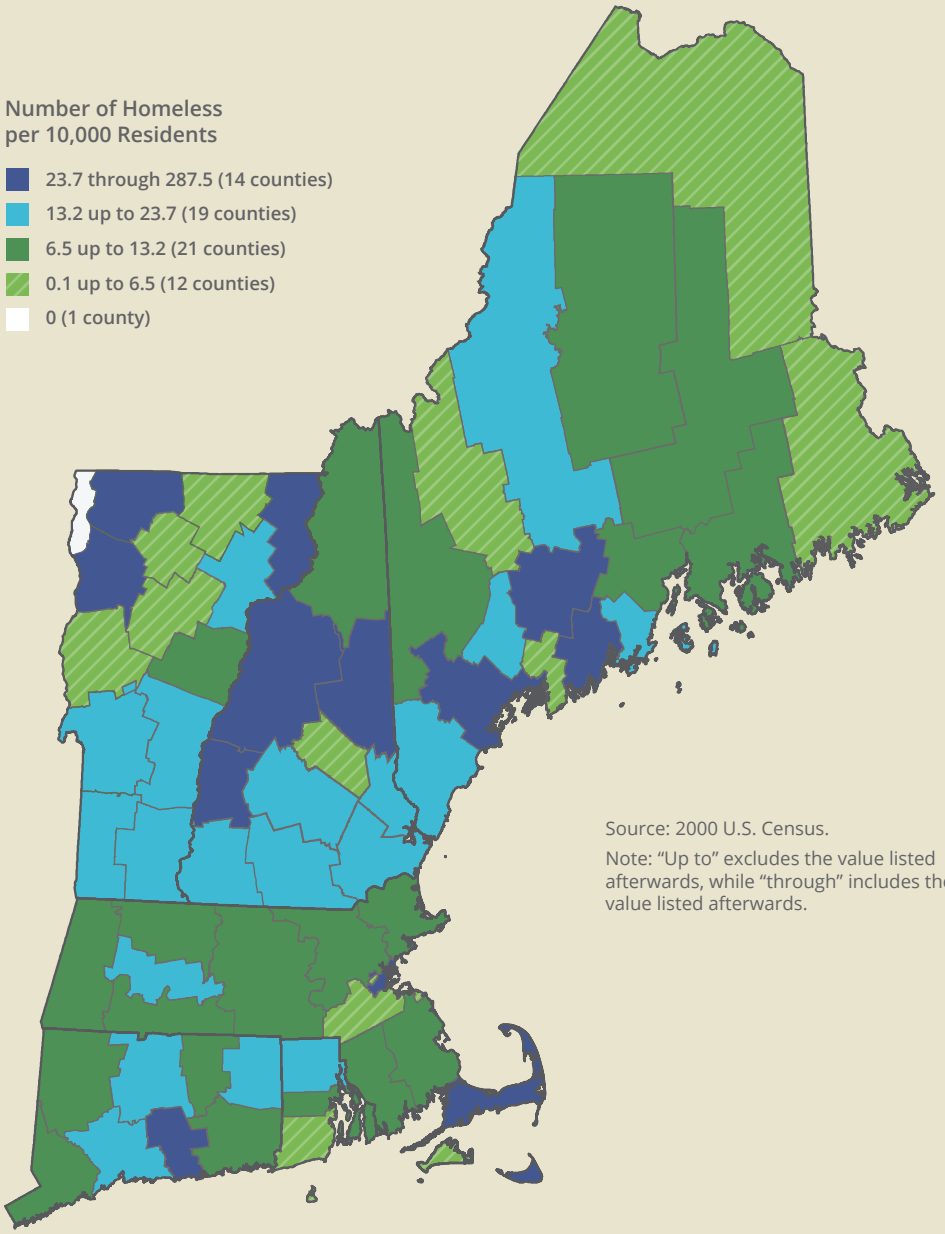
VI. Impact of Subsidized Housing on Local Homelessness

Having confirmed that LIHTC leads developers to create subsidized housing, we can now examine the impact of such housing on local homelessness. We obtain quasi-random differences in subsidized housing by comparing similar, moderately poor neighborhoods on each side of the QCT eligibility threshold. As discussed, these differences in LIHTC development allow us to credibly estimate the effect of subsidized housing on neighborhood homelessness. Our measure of local homelessness is counts of homeless individuals from the U.S. Census Bureau—in particular, the count conducted over three days from March 27 through March 29, 2000. This tally includes counts of persons in shelters, at pre-identified targeted nonsheltered outdoor locations, and persons without a usual place of residence who use regularly scheduled food vans and soup kitchens.[34]

We can use this census dataset to gain a better understanding of local homelessness in New England (Figure 7). Areas fit into one of five categories on the map: no measured homelessness or one of four bins defined at the national level such that each bin contains 25 percent of county-level observations ordered from the lowest to the highest rates of homelessness. As the map reveals, there are notable differences in New England homelessness rates within and across states. The map also shows that homelessness is not a uniquely urban phenomenon but is also present in suburban and rural areas of the region, as discussed earlier. Our regression analysis uses these census homeless counts at the tract level in addition to measures

34 Similar enumeration efforts occurred with the 1970-to-1990 and 2010 Censuses, although notable methodological differences exist across the decades (Kearns 2012; Smith and Smith 2001; U.S. Census Bureau 2007). The 2000 homeless data are obtained from the National Historical Geographic Information System and are accessible at nhgis.org (Minnesota Population Center 2011). The 2000 and the 2010 counts of the homeless subcategories are not available separately and are further combined into a slightly broader count of individuals in "other noninstitutional group quarters," which also includes nurses and interns in military and general hospital dormitories and individuals in miscellaneous group quarters. We do not focus on 2010 homeless counts, in part because they reflect the atypical period surrounding the Great Recession.

Figure 7 Rates of Homelessness in New England Counties in 2000



Source: 2000 U.S. Census.

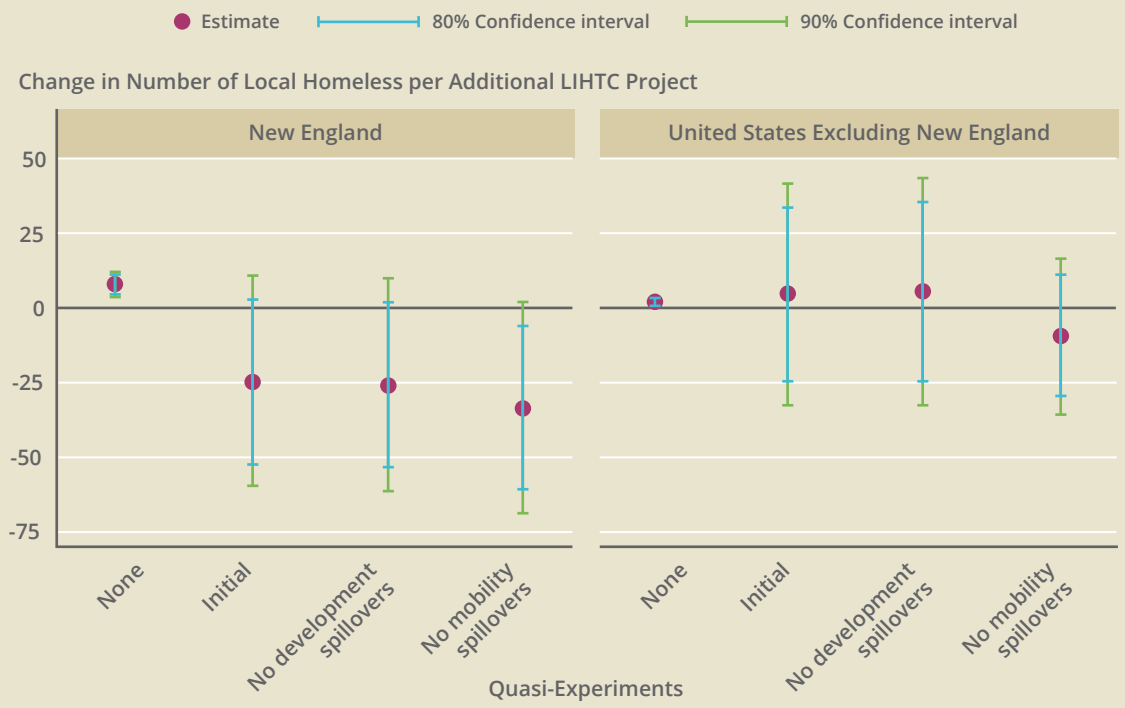
Note: "Up to" excludes the value listed afterwards, while "through" includes the value listed afterwards.

of LIHTC development and other relevant tract characteristics.[35] To examine the impact of subsidized housing on local homelessness, we compare results that exclude and include our quasi-experiment, as well as results that account for neighborhood spillovers (Section VII). The majority of our most reliable findings suggest that local increases in subsidized housing are likely to reduce neighborhood homelessness, especially in New England.

35 For LIHTC development, we use the number of projects in New England and the number of units in the rest of the country. We use different development measures across regions, based on the dissimilar effects of QCT eligibility on LIHTC activity discussed previously. However, we can compare the two sets of results based on the ratio of units to projects for the average neighborhood in our sample: 57.2 units per project in the average tract, obtained by dividing 9.15 units per tract by 0.16 projects per tract. Regarding other relevant tract characteristics, we control for a set of variables that might affect QCT eligibility, 1994–1999 LIHTC development, or 2000 homelessness, as itemized in an earlier footnote.

Figure 8

Impact of LIHTC on Neighborhood Homelessness
Estimated under Various Scenarios



Source: U.S. Department of Housing and Urban Development LIHTC data and QCT eligibility data, U.S. Census data, and authors' calculations.

Note: For the average tract, each estimate represents the change in the local homeless count in 2000 associated with a one-project increase in 1994–1999 LIHTC development. "Quasi-experiment" represents a quasi-random experiment using QCT eligibility. Each confidence interval displays the set of values that we can be confident includes the "true" estimate.

Figure 8 shows the impact of LIHTC development on local homelessness in the average neighborhood. Error bars ("confidence intervals") around estimates indicate the precision of each estimate and the range of possible "true" values associated with a given degree of certainty.[36] When we do not use QCT eligibility to create a quasi-random experiment in housing placements, we observe a counterintuitive, significantly positive relationship between LIHTC activity and homeless counts. In New England, without using local differences in QCT eligibility, one additional LIHTC project is associated with an increase of 7.8 homeless individuals, or 63 percent of the average number of homeless persons in a tract.[37] Outside of New England, using the same approach, one additional LIHTC project in the average tract is associated with an increase of 1.9 homeless persons, or 16 percent of average tract-level homelessness. This positive relationship may be due to factors that make neighborhoods attractive to both developers and the homeless (for example, access to public transportation), or alternatively could result from developers preferring areas with higher rates of homelessness.

Once QCT eligibility is used to generate differences in subsidized housing, initial plots show that we no longer obtain a result that indicates LIHTC development is associated with more local

36 For instance, the 90-percent confidence interval conveys that we can be 90-percent certain that the "true" effect lies within the displayed range of values.

37 The average tract in our sample has a population of 5,563 individuals and 12.4 homeless individuals, equivalent to a homelessness rate of 22.3 homeless persons per 10,000 residents.

homelessness.[38] Rather, we now find that an additional project reduces the homeless count by 24.9 individuals in New England, and raises it by 4.4 individuals outside of New England. While neither estimate differs significantly from zero, the range of potential true effects in each case contains many negative values corresponding to reductions in homelessness.[39] In fact, in New England, the majority of these potential true effects are negative. This suggests that, although we cannot rule out a zero effect with 90 or even 80 percent certainty, we can nevertheless infer that the true effect is much more likely to reduce homelessness than to have no effect or increase it.[40]

Impact of Subsidized Housing on the Local Housed Population

Any impact of subsidized housing on local homelessness might be partly or completely offset by an effect of such housing on the already-housed population. LIHTC development may not be easily accessible to the literally homeless, perhaps because of relatively high rent ceilings on subsidized units (18 percent of area median income, or AMI), similarly high income limits for such units (50 or 60 percent of AMI), or possible owner preferences for tenants without a history of homelessness. However, LIHTC development could allow moderately poor, housed individuals, some of whom may be vulnerable or at risk of homelessness, to obtain higher-quality housing.

Examining the impact of LIHTC development on the already housed, we find some evidence of improved housing quality for this, already-housed population. In New England, this effect is driven by newer building structures, while outside of New England, the effect occurs through larger building structures. More specifically:

- Within New England, an additional LIHTC project leads to a median neighborhood structure that is 6.6 years newer, a statistically significant effect.
- Outside of New England, LIHTC development significantly increases the neighborhood share of 3-to-4-unit structures by 4 percentage points (66 percent) and decreases the share of single-family and 2-unit structures, albeit not significantly. This shift toward residential buildings with more units may indicate an increase in housing quality if shared amenities (for example, a laundry room) are more likely to be provided in rental structures with more units or are less costly to provide.
- An additional project outside of New England decreases average household size by 0.13 individuals, or 5 percent of the tract average. Such diminished crowding of individuals within a single unit may reflect spreading out of the housed population across more units (for example, less doubling up), or alternatively could be caused by migration into tracts by smaller, non-homeless families. However, this effect is not significant, and within New England we observe no reduction in household size from LIHTC development. Findings are similar for the average number of persons per room rather than per household.

38 More technically, our regression approach that does not use QCT eligibility to distinguish between types of neighborhoods is known as ordinary least squares estimation, while our regression approach that does employ this distinction between neighborhood types is known as a regression discontinuity design with instrumental variables estimation, where QCT eligibility serves as an instrument for LIHTC development.

39 Despite the benefits of our quasi-experimental approach, one necessary cost is that the resulting estimates are measured less precisely than in a non-quasi-experimental approach, resulting in larger ranges of potential true effects.

40 It is also worth noting that, taken at face value, a 24.9-person reduction in the homeless count in New England due to an additional LIHTC project would more than eradicate homelessness in the average tract, where the homeless count is roughly 12 people. However, as discussed, smaller reductions are also among the range of potential true effects.

VII. Spillovers across Neighborhoods

At the tract level, spillovers across neighborhoods might diminish the effect of local LIHTC development on neighborhood homelessness. For instance, LIHTC development in a neighborhood could lower the amount of LIHTC housing that developers provide outside of that neighborhood. If such reductions in "external" development also tend to increase the number of local homeless persons, this would create a misleading, positive relationship between local LIHTC activity and neighborhood homelessness. We can refer to this as a supply-side or development spillover, since it relates to the external supply of LIHTC housing.[41]

Alternatively, LIHTC development in a neighborhood could lower the number of homeless persons found outside of that neighborhood by causing some of them to move elsewhere. If such reductions in external homelessness also tend to increase local homelessness (for example, because the external homeless relocate locally), this would once again produce a mistaken, positive association between local LIHTC activity and neighborhood homelessness. We can refer to this as a demand-side or mobility spillover since it relates to the demand for LIHTC housing by the homeless outside of the neighborhood.[42]

Increases in subsidized housing would likely reduce neighborhood homelessness, especially in New England.

Returning to Figure 8, we see how increases in LIHTC development affect neighborhood-level homelessness when taking a quasi-experimental approach and accounting for development spillovers.[43] Regardless of region, adjusting for such spillovers has little impact on the results, although within New England, LIHTC projects are now estimated to reduce the homeless count by slightly more than in the initial quasi-experiment, yielding a reduction of 26.1 individuals, rather than a reduction of 24.9 individuals. This suggests that in New England, an increase in local LIHTC housing tends to be associated with a modest decrease in external LIHTC housing.[44] Although once again we cannot rule out with a high degree of certainty the possibility that there is no effect of local LIHTC projects on neighborhood homelessness, it remains the case that the true effect is much more likely to be a reduction in homelessness than no effect or an increase.

Finally, the last plots of Figure 8 show how increases in LIHTC development affect neighborhood-level homelessness when taking a quasi-experimental approach and accounting for mobility spillovers.[45] Recall that such spillovers might occur if, for instance, local LIHTC development causes homeless individuals outside of the neighborhood to relocate locally. Contrary to adjusting for development spillovers, we find that accounting for mobility spillovers has a notable effect on the results.[46]

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41 Specifically, we define "external" to be all tracts outside of the local tract but within the same county. One mechanism for a development spillover could be that reductions in external housing cause the non-homeless who would have occupied such housing to live locally instead, thereby causing a drop in neighborhood vacancies available to the homeless.

42 One mechanism for a mobility spillover could be an increase in the likelihood that homeless individuals migrate to neighborhoods with available low-income housing and related services, as some previous work suggests (Glaeser, Kahn, and Rappaport 2000; Jackson and Kawano 2014; Jocoy and Del Casino Jr. 2008).

43 External LIHTC development, like local LIHTC development, is not randomly placed across areas. We create a quasi-random experiment in external housing placements based on the number of QCT-eligible tracts.

44 Outside of New England, adjusting for development spillovers similarly leads to a slight change in the impact of LIHTC projects on local homelessness, from an increase of 4.4 individuals in the initial quasi-experiment to an increase of 5.4 individuals.

45 Homelessness is not random across areas and the external homeless may choose where to locate based on factors that influence local homelessness or even based on local homelessness itself. To create a pseudo-random experiment in external homeless counts, we desire variables that play a role in determining external homelessness but otherwise have no direct relationship to local homelessness. Drawing on subpopulations that are sometimes homeless, we use the 1990 external populations of veterans and mental hospital residents for this purpose.

46 We focus on results accounting for each spillover separately, due to the methodological challenge of addressing both spillovers at the same time.

We now estimate that LIHTC activity leads to a decrease in local homelessness, regardless of region. Specifically, an additional LIHTC project now causes reductions of 33.4 and 9.4 homeless individuals in and outside of New England, respectively. Compared with our initial quasi-experimental findings, these homelessness reduction effects are larger by 8.5 individuals in New England and by 13.7 individuals outside of New England.[47] Moreover, in both regions, the majority of the potential true effects are negative, particularly in New England, where we can now rule out the no effect outcome with 80 percent certainty.

These findings suggest that spillover effects across neighborhoods play a role in determining the effect of local LIHTC development on neighborhood homelessness. Mobility of the homeless appears to be a key factor, with a comparable but somewhat larger influence in areas outside of New England. Meanwhile, the interplay between local and external LIHTC development appears not to matter very much, although it plays a small role within New England.

In our preferred estimates that account for mobility spillovers, the bulk of the evidence suggests that local increases in subsidized housing are likely to reduce neighborhood homelessness, especially in New England. Since the average neighborhood has 12 homeless individuals, the analysis suggests that an additional LIHTC project could eliminate the majority of local homelessness from such a neighborhood or perhaps even eradicate it. However, as mentioned, smaller reductions are also among the range of possible true effects.

VIII. Conclusion

Urban, suburban, and rural areas of New England have seen a large rise in measured homelessness over the past few years, driven largely by an increase in the sheltered homeless family population in Massachusetts. This trend may be explained by some combination of national market forces and area-specific shelter policies, area-specific market forces, and measurement differences among homeless subpopulations. Although it is difficult to make definitive claims regarding the relative importance of these factors, further analysis can explore the potential role of local housing markets via changes in the supply of subsidized housing. Focusing on the LIHTC program, developers tend to generate low-income housing when offered incentives to do so, although the form of this response depends on whether the projects are located within or outside of New England. When accounting for mobility-related spillovers across neighborhoods, the majority of the evidence suggests that local increases in subsidized housing are likely to reduce neighborhood homelessness, particularly in New England. Our results suggest that on average, an additional LIHTC project could eliminate the majority of local homelessness or even possibly eradicate it, although there is a possibility of smaller reductions as well.

These findings reflect the impact of subsidized housing on homelessness in moderately poor neighborhoods, so one should exercise caution in generalizing the results to apply to very rich or very poor areas. Similarly, program features that are specific to LIHTC, such as the share of projects targeted to the homeless, may differ from program features in other subsidized housing programs, so the findings may not be generalizable to all subsidized housing programs. Moreover, results for a supply-side program like LIHTC may differ from results for a demand-side program like the Housing Choice Voucher because, for instance, relevant rent and income limits in the former are area-specific rather than person-specific, as in the latter. Finally, further work regarding the role of alternative influences on homelessness, such as area-specific shelter policies, local labor markets, and the measurement of the homeless, may help to clarify the relative importance of local housing markets.

47 This result is obtained by calculating -24.9 - (-33.4) = 8.5 homeless individuals within New England, and 4.3 - (-9.4) = 13.7 homeless individuals outside of New England.

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