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The Supply of Permanent Supportive Housing in Massachusetts:

Comparing Availability to the Chronic Homeless Population

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I. Introduction

The homeless population in Massachusetts has increased steadily since 2007. To address this problem, policymakers, service providers, and advocates for the homeless have focused on interventions for alleviating or preventing homelessness that are empirically tested, scalable, and make efficient use of the Commonwealth's limited resources. Tailoring such interventions to fit the needs of specific subgroups of the state's homeless population is important, as these subgroups often do not need or benefit from the same type of services. Those with fewer barriers to remaining stably housed may gain more from assistance with housing search and rapid placement into affordable units, whereas others may need more intensive longer-term assistance in order to finally leave the street or exit an emergency shelter.

One subgroup benefiting from longer-term support is the chronically homeless. This population includes households, made up of either individuals or families, that have been rendered homeless for long periods of time or on multiple occasions, and in which the head of household has a disability or long-term health condition. While the chronically homeless account for 11 percent of the overall homeless population in Massachusetts, this relatively small group can impose significant costs on the state's social service systems. Thus, targeting the chronic homeless population with interventions that move them out of shelters and into permanent stable housing can help free up the state's emergency shelter and healthcare resources, and potentially reduce the costs associated with providing these services.

Permanent supportive housing (PSH) programs have proven to be successful at providing the chronically homeless with stable long-term living arrangements. Under a PSH model, eligible individuals or families are provided with subsidized housing units that impose no limits on the length of tenure, and are paired with supportive services to help address the other barriers that may affect the household's ability to maintain stable long-term housing. These additional services can include counseling, treatment of chronic health conditions, and job training, among others. PSH programs aim to keep the chronically homeless in stable living arrangements, give individuals and families access to supportive services, and reduce the costs placed on other public services such as hospital emergency rooms and homeless shelters. PSH targeting both the non-chronic and chronically homeless populations now outnumber all other housing options for the homeless that are funded or tracked by the Department of Housing and Urban Development (HUD), and administered by state and local agencies or nonprofit organizations. Thus, PSH has become an important tool for reducing the number of chronically homeless people in Massachusetts and elsewhere.

Permanent supportive housing shortages vary across Massachusetts regions and between units for individuals and for families.

Even as the amount of PSH in Massachusetts has increased, an overall shortage in the number of available units still remains.[1] The number of additional beds needed to bridge the gap between the

1 At its most basic level, PSH is a unit provided to an eligible household. Unit sizes vary with household size. For example, a single adult will require a unit with one bedroom, while a family may require a unit with two or more bedrooms. In this report the supply of PSH is referred to in terms of beds, as this metric allows a comparison between the homeless population and PSH inventory; generally, the number of persons in a homeless household will correspond to the number of bedrooms in a PSH unit.

current supply and demand for PSH, along with how this gap differs across household types and the state's different administrative regions, has been understudied. This report focuses on answering these questions by providing a better understanding of how PSH shortages vary across service regions in Massachusetts, and whether these shortages differ between units designated for individuals and those intended for families. It also examines the expected future supply of PSH based on publicly available data regarding planned additional inventory.

This report finds that the shortage of available PSH beds in Massachusetts is most acute for the chronically homeless family population, both statewide and at the regional level. While the shortage of available PSH beds for individuals who are chronically homeless has decreased statewide, significant variation exists at the regional level. In 2017, about half of these administrative regions in Massachusetts were estimated to have a surplus of PSH beds for individuals, but not enough beds for families. Much of the variation in supply between PSH beds reserved for individuals and families can be attributed to different growth rates for the chronically homeless individual and family populations. While the number of chronically homeless individuals living in Massachusetts has declined over the past 10 years, the number of chronically homeless families has increased, at times dramatically, since data on this population first became available in 2011.

As a result of these differing trends, in 2017 only 27 percent of PSH beds in Massachusetts served homeless families, though this group made up 35 percent of the state's chronic homeless population. In addition, data show that in 2018 the majority of new PSH beds expected to become available are intended for individuals. Moreover, the overall number of planned PSH beds, those currently under development and expected to be operational in at least one year, is decreasing. This finding suggests that the recent progress Massachusetts has made in alleviating housing shortages for the chronically homeless, particularly families, may recede in the coming years if the current decline is not addressed.

II. Homelessness and Chronic Homelessness in Massachusetts

In 2017 Massachusetts had the sixth-largest homeless population in the United States, with an estimated 17,565 people experiencing homelessness on one night in January when the annual homeless census is conducted.[2] Relative to the size of its resident population, Massachusetts had a homeless rate of 25.6 persons per 10,000 residents compared to the nationwide rate of 17 homeless persons per 10,000 residents.[3] The total number of homeless persons living in Massachusetts peaked at 21,237 in 2014, and has declined in every year since then. Yet the most recent data show that the state's homeless population in 2017 is still 16 percent larger than it was in 2007, the first year for which data is available.

Unlike the overall homeless population, the number of chronically homeless has trended downward over the last 10 years, both in real terms and relative to the overall homeless population. Persons in chronically homeless households accounted for 11 percent of the state's total homeless population in 2017, or 1,914 people, down from 18 percent, or 2,790 people, in 2007.[4] Two criteria distinguish the chronically homeless from the overall homeless population. First, to be defined as chronically homeless, an individual or a head of household in a family must have been homelessness for at least 12 months, or for a total of 12 months over the past three years. Second, an individual or head of household must

2 The annual census of the homeless population in the United States is known as the Point-in-Time (PIT) Count. This is an annual count of sheltered and unsheltered homeless individuals, persons in homeless families, and unaccompanied youth, conducted in each state on one night during the year, usually in January. For more information, see this report's discussion on the PIT Count in the box titled *Data Sources*, which appears at the end of this section.

3 Rates of homelessness were computed using the US Census Bureau's (2017) *Annual Estimates of the Resident Population for the United States, Regions, States, and Puerto Rico* and 2017 PIT Count (HUD 2017f) estimates of total homeless persons.

4 In 2017, 7 percent of the total homeless population in Massachusetts was composed of chronically homeless individuals, and another 4 percent was persons in chronically homeless families. For the purposes of this report a family is defined as any household with at least one adult and one child under 18 years of age.

have a diagnosed disability or chronic health condition. This includes having a developmental disability, a substance use disorder, a serious mental illness, a chronic illness, or having two or more of these separate conditions (HEARTH 2009).[5,6] Thus a homeless individual or the head of household of a family may have a disability or chronic health condition; however, unless that person has been homeless for a total of 12 months or longer, they do not meet the definition for chronic homelessness.[7]

The decline Massachusetts has seen in chronic homelessness over the past 10 years has been largely limited to the population of chronically homeless individuals. This trend for homeless adults holds true as well for the state's homeless population overall. As shown in Table 1, while the total homeless population increased 16 percent between 2007 and 2017, the subgroups of homeless individuals and chronically homeless individuals declined by 24 percent and 56 percent, respectively. During this same period, family homelessness has increased dramatically, both for the chronic and non-chronic

Table 1

Change in Composition of Massachusetts' Homeless Population

Massachusetts, 2007–2017

	Number of Persons		Percentage Change
	2007	2017	
Total Homeless Population	15,127	17,565	16
Homeless Individuals	8,292	6,267	–24
Chronically Homeless Individuals	2,790	1,238	–56
Homeless Families	6,835	11,298	65
Chronically Homeless Families*	395	676	71

Source: US Department of Housing and Urban Development Point-in-Time Counts from 2007 to 2017.
*Data on chronically homeless families only available beginning in 2011.

5 Under the 2009 Homeless Emergency Assistance and Rapid Transition to Housing (HEARTH) Act, (which amended the 1987 McKinney-Vento Homeless Assistance Act), chronic homelessness is defined as any individual or family who: (1) lives or resides in a place not meant for human habitation, a safe haven, or in an emergency shelter; (2) has been living or residing in a place not meant for human habitation, a safe haven, or emergency shelter continuously for at least one year or on at least four occasions in the last three years; and (3) has an adult head of household with a diagnosable substance use disorder, serious mental illness, developmental disability, post-traumatic stress disorder, cognitive impairments resulting from brain injury, or chronic physical illness or disability, including the co-occurrence of two or more of these conditions. A person residing in an institutional care facility, hospital, jail, substance abuse or mental health treatment facility for fewer than 90 days is still considered chronically homeless as long as they had previously met the definition. For further information on definitions of homeless populations, see the 2009 HEARTH Act (HEARTH 2009).

6 The PIT Count does not record the prevalence of disability and chronic health conditions for just the chronic homeless population. For the 2017 total homeless population in Massachusetts, 13 percent had a severe mental illness, 11 percent had a substance abuse disorder, and less than 1 percent had HIV/AIDS (HUD 2017d). These estimates are not mutually exclusive, as homeless persons may have more than one of these conditions. Based on national estimates from 2016 of adults in PSH, 28 percent had a mental health condition or illness, 20 percent had a physical disability, 7 percent had a substance abuse disorder, 6 percent had HIV/AIDS, 5 percent had a developmental disability, and 2 percent had both a mental health and substance abuse disorder (HUD 2017a).

7 Previous to the 2009 HEARTH Act only adults without children could qualify as chronically homeless. This report excludes chronically homeless youth and multi-person households where no adult head of household is present.

groups. Between 2007 and 2017 the number of homeless families in Massachusetts increased by 65 percent. Between 2011, when data first became available, and through 2017, the population of chronically homeless families grew by 71 percent. The result of these diverging trends has been that homeless families increasingly make up a larger portion of the total homeless population in Massachusetts.

While only a small portion of the state's total homeless population is comprised of the chronically homeless, this segment has a major impact on the costs incurred by communities and public services, stemming from the need to address untreated health conditions and the lack of a permanent residence (Salit et al. 1998). A study of chronically homeless individuals participating in a Massachusetts PSH program found that prior to enrollment the group averaged $1,832 per person, per month, in healthcare costs (Byrne and Smart 2017). A 2010 study of Philadelphia's chronic homeless population found that over a two-year period, from 2000 to 2002, the city's roughly 2,700 chronically homeless individuals were responsible for $20 million in public service spending associated with treating substance abuse, providing psychiatric services, and interacting with the criminal justice system (Poulin et al. 2010). A similar study in New York City found that when factoring in healthcare services, homeless shelter use, and costs related to incarceration, the average annual amount spent on a chronically homeless individual was just over $40,000 (Culhane, Metraux, and Hadley 2002).

III. Permanent Supportive Housing in Massachusetts

Permanent supportive housing (PSH) has become an important tool for addressing the high costs associated with the chronically homeless population's frequent use of emergency shelters and hospital emergency rooms, and for transitioning chronically homeless households out of shelters and into stable long-term housing, such as a rented apartment. Under PSH programs a homeless household qualifies if the head of household has a diagnosed disability or a chronic health condition (HUD 2017c).[8] Participants in PSH sign leases for either private market housing units, or in units owned and operated by state or non-profit agencies. In Massachusetts, the majority of available PSH options are funded by HUD and administered by Continuums of Care (CoCs), networks of government and non-profit agencies that coordinate housing and support services for the homeless, and that apply collectively to HUD for funding a variety of programs.[9] CoCs oversee defined administrative regions within each state, and are responsible for administering homeless assistance programs in that area. The number of CoCs in Massachusetts has varied over the years, from 21 in 2007, to 16 in 2016. In 2017 the number was reduced further to 15 total CoCs in Massachusetts.[10]

Unlike homeless shelters which do not guarantee long-term access to available beds, PSH units offer eligible households a permanent residence without placing restrictions on the length of stay. A household signs a lease and may be asked to pay a small share of rent (usually no more than 30 percent of the household's gross monthly income), depending on its income level. Stabilization services,

8 Homeless individuals or families do not need to be chronically homeless to qualify for PSH. Homeless persons are eligible if they are living in shelters, on the street, in institutional settings, or in places where they are not a permanent resident, such as the house of a friend or family member. In the latter case a household may still qualify as homeless under some criteria, but may not be encountered when censuses are being conducted, and thus may not be included in counts of homeless populations collected by HUD.

9 While non-profit organizations, mental health service providers, and other agencies may use the term "PSH" to refer to similar housing models targeted to individuals who are not considered homeless, this report focuses only on the supply of PSH available to the homeless population in Massachusetts through programs overseen by the state's CoCs.

10 The number of CoCs in Massachusetts has varied over the years, as some CoCs merge with others to better coordinate resources and access funding. CoCs are commonly identified by the towns or counties they serve, with a region administered by a state agency referred to as the "Balance of State." In 2016 the 16 CoCs in Massachusetts were: Attleboro/Taunton/Bristol County, Boston, Brookline/Newton, Cambridge, Cape Cod/Islands, Fall River, Gloucester/Haverhill/Salem/Essex County, Lowell, Lynn, New Bedford, Pittsfield/Berkshire County, Quincy/Brockton/Weymouth/Plymouth City and County, Somerville, Springfield, Worcester City and County, and the Massachusetts Balance of State. In 2017 Brookline/Newton was merged into the Massachusetts Balance of State CoC, leaving 15 CoCs in the dataset.

such as substance abuse treatment or mental health counseling, are provided to help treat other challenges that the individual or family may have to overcome if they are to remain permanently housed. Participation in, or successful completion of, such supportive services is not required to maintain tenancy (SAMHSA 2010). Under a PSH model a participant cannot be evicted for failing to comply with supportive services. Those individuals or families enrolled in PSH programs are not counted as homeless for the purposes of the PIT Count, but estimates of the number of persons living in PSH units can be gleaned from data on PSH inventory (HUD 2017a).

Though a small share of the total homeless population, the chronically homeless are especially costly to communities and public systems.

PSH programs have been shown to be successful at moving homeless and chronically homeless households out of shelters and off streets more quickly than alternate approaches, and at increasing housing tenure (Rog et al. 2014; Stergiopoulus et al. 2015). One early study of the chronically homeless in four cities (Baltimore, Boston, San Diego, and New York City) found that those individuals and families who participated in PSH programs were more likely to be housed one year later compared to those receiving other interventions or standard services. After two years in the PSH programs, 78 percent of all the participants remained stably housed (Shern et al. 1997). Current HUD data also points to successful outcomes for PSH participants. HUD's *Annual Homeless Assessment Report to Congress* (AHAR) shows that on average, 55.6 percent of individuals and 52.5 percent of families remained housed in PSH units for two years or more, with over half of both individual and family households exiting PSH to enter another permanent living situation, such as a market-rate apartment.[11] Studies of programs similar to the PSH model that also implement what is called the Housing First[12] approach (whereby access to housing is not contingent on participation in supportive services) provide further evidence that participants remain in stable housing arrangements for longer relative to control groups, or to those groups receiving alternate housing services (Gulcer et al. 2003; Tsemberis, Gulcur, and Nakae 2004). Finally, a study examining the association between the supply of PSH beds and homeless counts found that communities which added more new PSH beds, relative to other locales, saw larger declines in chronic homelessness in subsequent years (Byrne et al. 2014); another study found that one additional PSH bed was associated with a 0.24 person reduction in a CoC's chronic homeless population (Corinth 2017). Both of these studies, however, noted that research in this area is still tentative, and that the accuracy of the estimates of homelessness used, along with a number of other factors, can impact the degree to which the availability of PSH affects homeless population levels.

The costs associated with PSH programs have been shown to be offset through a reduction in the use of emergency shelters and other emergency services. In some cases PSH has been shown to result in a net saving for communities (Perlman and Parvensky 2006). In New York City, a study of the costs incurred from 1989–1997 when treating chronically homeless individuals with mental illness—before and after these individuals were placed in PSH—found that 95 percent of the annual cost of administering a PSH unit were offset through reductions in the higher costs associated with hospital stays, emergency shelter usage, and incarcerations (Culhane, Metraux, and Hadley 2002). Similar studies have found large associated reductions, particularly for spending related to healthcare (Larimer et al. 2009; Byrne and Smart 2017). Whether the provision of PSH is assessed as being cost-offsetting or cost-saving depends both on the experimental methods being used to gauge these costs, and on where the

11 Calculated as the 2011 to 2016 average using data from the Annual Homeless Assessment Report to Congress: Estimates of PSH (HUD 2017a).

12 For more information on the Housing First approach, see *Homelessness' Implementing Housing First in Permanent Supportive Housing Programs* (USICH 2014).

Data Sources

Three sources of publicly available data were used in this report. The first was the Point-in-Time (PIT) Count, a national annual census of the current homeless population conducted at the CoC level, which is intended to be a snapshot of the current homeless population living in each CoC service region. The second was the Housing Inventory Count (HIC), a national annual inventory of beds available to or targeting the homeless population (HUD 2014b).[a] The HIC data, reported to HUD, is an annual inventory snap-shot of all beds available to the homeless population at the CoC level that are present at the time the count is conducted. This includes emergency homeless shelter and transitional housing beds, as well as more permanent options like PSH. To improve the accuracy of the collected data, the PIT Count and HIC are usually conducted toward the end of January when homeless populations are more likely to be living in shelters due to the colder weather, and are less likely to be on the street (HUD 2008). The third source of data is the *Annual Homeless Assessment Report to Congress* (AHAR), released in two parts by HUD every year. The AHAR publishes annual estimates of PSH programs in the country, including the turnover rates for both individual and family PSH programs available from 2010 to 2016.[b]

The data obtained from the PIT Count and HIC suffer from certain limitations, and thus qualify any conclusions drawn from these two sources. Both counts are largely self-reported, and subject to changes in collection methodologies. HUD guidance allows CoCs to conduct their PIT Counts by either taking a complete headcount of their homeless population, or by using a sampling method (HUD 2014b). Yearly differences in these methods, along with changes in weather, funding, volunteer availability, and resources can all impact the accuracy of the annual counts. The PIT Count also likely undercounts the chronic homeless population due to the episodic criteria used to define this group. At the time the PIT Count is conducted, households that otherwise meet the chronic homeless definition may be housed in a stable living situation or in an institutional setting, and thus will not be included in the PIT Count. For example, a chronically homeless individual temporarily residing in a 60-day treatment facility may not be included in the PIT Count as chronically homeless if the count is conducted during his/her stay; however, this person would still qualify as chronically homeless. The HIC data also have a number of limitations stemming from these being a snapshot of current inventory. Such drawbacks include undercounting new and planned units that may become available between annual counts, but which were not listed as being under development in previous years.

a Starting in 2012, HUD has also released raw HIC data giving CoC level estimates of inventory by program type.
b Turnover rates are published in the second part of the AHAR focusing on PSH, usually released in November of the following year.

samples of homeless or chronically homeless persons are drawn, as often costs can vary between cities as well as treatment for chronically homeless groups with different disabilities or health conditions. A 2015 meta-analysis (Ly and Latimer 2015) found that a handful of studies estimating high net-savings associated with PSH programs had likely overstated the initial costs incurred before entering PSH, picked groups that had abnormally high service usage, or focused on individuals who had particularly severe disabilities or chronic health conditions that were less common in the wider chronic homeless population, thus inflating both the average costs and the average savings associated with serving this group as a whole. Most studies, however, affirm that much of the administrative cost associated with PSH is offset through reduced usage of emergency shelters, healthcare, and other social services. While research in this area has not definitively shown PSH to be a cost-saver for communities, the housing model has been shown to result in a more efficient use of limited resources by reducing the use of more expensive services.

Multiple sources of federal, state, and local funding are often combined to finance both the creation of new PSH units and to finance the continued operation of existing programs. In general, the costs associated with PSH fall into three main categories: capital expenditures to build new units, spending to subsidize the participants' housing costs, and funding to provide supportive services (SAMHSA 2010). Capital financing is used in the creation of new PSH inventory, through new construction, acquisition, or renovation of existing housing into PSH units. At the federal level, HUD is the primary source of capital financing. At the state and local level, housing trust funds, low-income housing tax credits, and other state and local programs all serve as potential funding sources for creating new PSH units. The second component is the provision of rental subsidies to ensure the on-going affordability of housing for PSH participants, and to allow eligible households to rent privately owned units that they otherwise could not afford.[13] Increasing rental subsidy allocations either through federal or state sources can increase the inventory of PSH beds without requiring that the state raise more capital funds, as additional apartments to house PSH participants can be rented in the private market. Finally, the supportive services that are paired with PSH are often funded through federal departments like HUD and the Department of Veterans Affairs, but can include reimbursement through Medicaid (SAMHSA 2010).

IV. The Supply of Permanent Support Housing

Massachusetts has increased its total inventory of PSH beds over the past decade, adding almost 3,500 beds between 2007 and 2017. The existing inventory is also better targeted to serve chronically homeless individuals and families, with over half of the state's PSH inventory devoted to housing these groups. However, because of declining turnover rates, and the high occupancy rates typical of PSH programs, the percentage of the PSH inventory that becomes available each year is relatively low. On average, only 16 percent of all PSH beds became available for new occupants between 2010 and 2017. As turnover rates have been declining, fewer PSH beds are becoming available relative to the existing inventory. From the perspective of PSH providers and program administrators, low turnover rates and high occupancy rates may be ideal, as these indicate that households that were once chronically homeless are remaining stably housed, and that the state's current resources are being fully maximized.

13 An example of a rental subsidy program in Massachusetts that can be used to increase the supply of PSH is the Massachusetts Rental Voucher Program (MRVP), a state-funded rental assistance program that, when paired with supportive services funded through other sources, can be used to create new PSH through expanding access to private market rental units. For capital funds used in acquisition and construction of new units, the state's Housing Preservation and Stabilization Trust Fund (HPSTF) has in the past provided both public and private capital financing for new construction, renovation, or acquisition (see the Interagency Supportive Housing Working Group's *Building on Success: Year Three Final Report* published in June, 2016). Between 2011 and 2014 roughly 1,750 PSH units were created through collaborative efforts using these and other sources of funding. In addition the state's performance-based Pay for Success model, in which outcome measures are closely tracked to ensure the efficient use of funding, has been used to successfully house 981 chronically homeless individuals since 2006 (see Massachusetts Housing and Shelter Alliance's June 2017 *Home & Healthy for Good* Progress Report).

Hence, increasing the state's total PSH inventory, particularly for families where bed turnover is lowest, remains the most viable way that Massachusetts can increase the total number of available PSH beds each year.

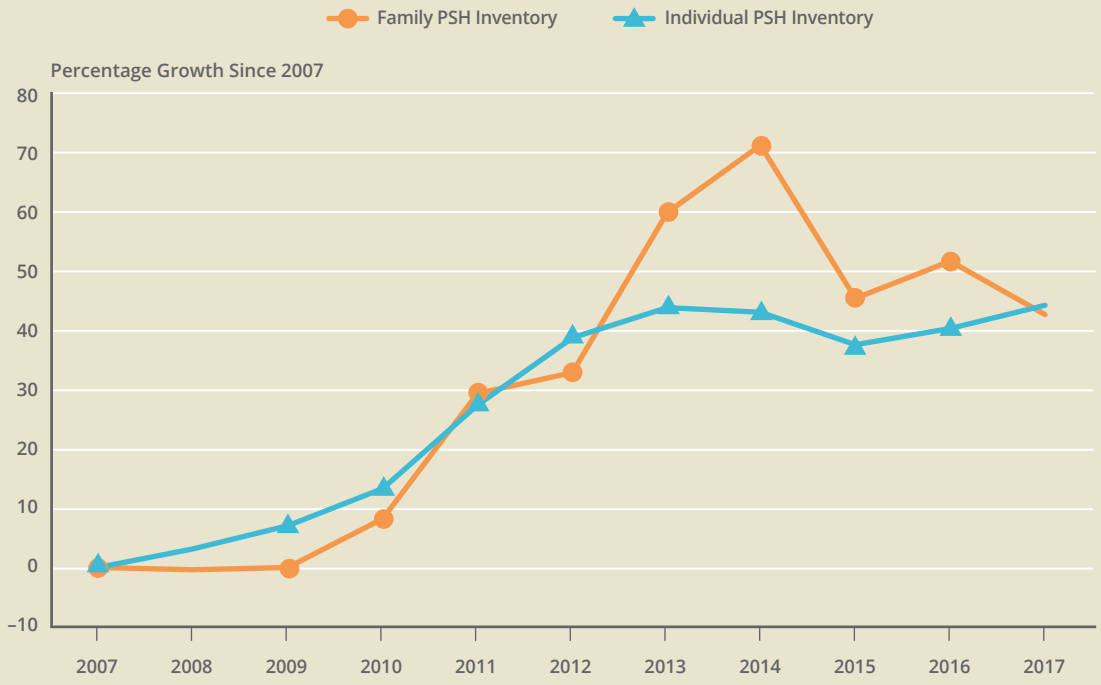
Between 2007 and 2017 the number of PSH beds in Massachusetts has increased 43.6 percent, which is about half of the national growth rate of 87.5 percent during this period. Figure 1 compares the growth rates of PSH beds in Massachusetts by household type. PSH beds for both families and individuals have increased relative to 2007, with 2017 levels for both inventory types being 43 percent and 44 percent higher than 2007 levels, respectively. While at times the growth of PSH beds designated for families has outpaced the growth of PSH beds for individuals, the majority of the state's inventory remains devoted to serving the individual homeless population, largely because from the outset the individual PSH inventory was much larger than family PSH inventory in the dataset. In 2007, 73.2 percent of the state's total PSH inventory targeted individuals. This percentage has essentially remained unchanged over the past 10 years, with 73.4 percent of PSH beds targeted to individuals in 2017. At times the composition of the state's PSH inventory has shifted slightly to more closely reflect the homeless and chronic homeless populations. In 2014 the percentage PSH beds targeting individuals fell to 69.5 percent, the lowest percentage in the 2007–2017 period. Chronically homeless families, however, made up 35 percent of the state's total chronic homeless population, up

The state would likely benefit from a more effective distribution and sharing of PSH resources across regions.

Figure 1

Growth of Permanent Supportive Housing Beds by Household Type Since 2007

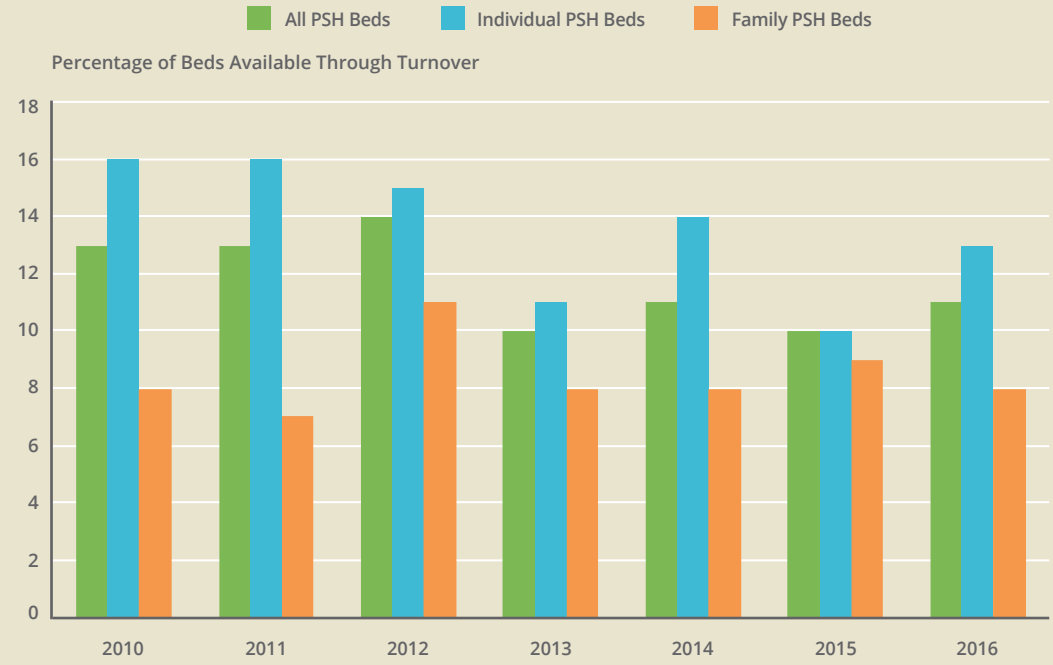
Massachusetts, 2007–2017



Source: Author's calculations using US Department of Housing and Urban Development Housing Inventory Counts from 2007 to 2017.

Figure 2

US Annual Turnover Rates for Permanent Supportive Housing Beds
United States, 2010–2016



Source: US Department of Housing and Urban Development Annual Homeless Assessment Reports to Congress: Estimates of People in PSH from 2010 to 2016.

from 19 percent in 2011.[14] The result is that while growth in PSH beds for families has been strong, the composition of Massachusetts's PSH inventory has not markedly changed to reflect the shifting composition of the state's chronically homeless population.

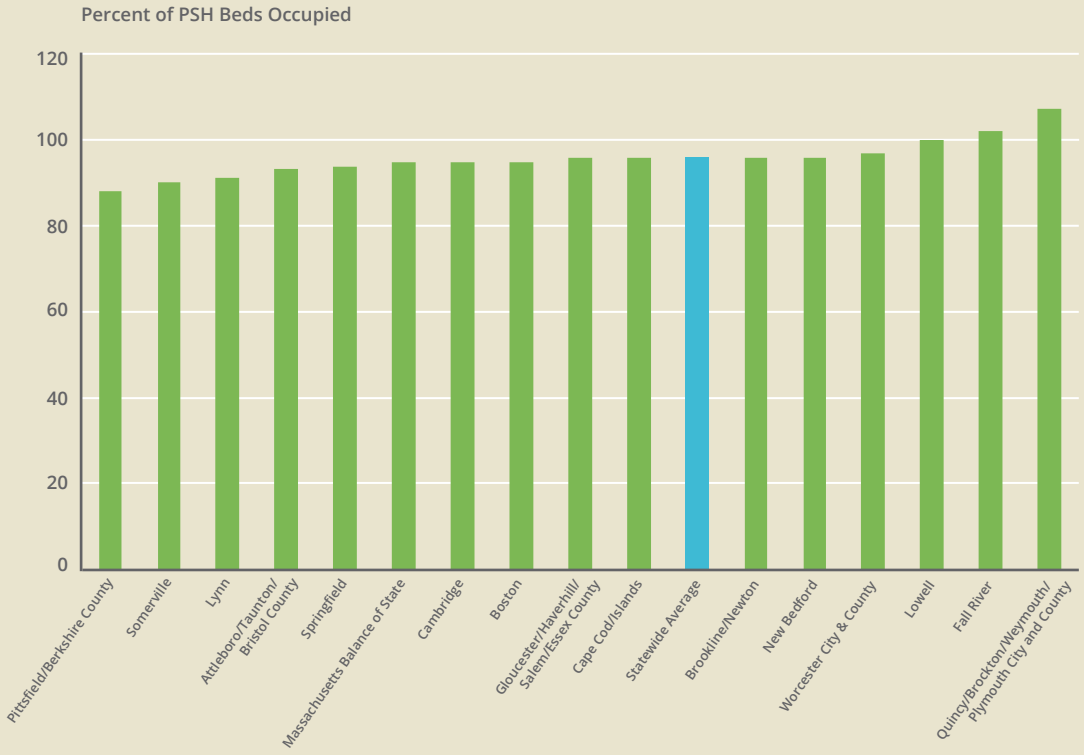
On the national level, turnover rates for family PSH beds have been consistently lower than the turnover rates for individual PSH beds, as displayed in Figure 2. Higher turnover among individuals may be a positive sign, assuming that such exits from PSH qualify as successful outcomes where a household transitions to living in a permanent residence and does not return to an emergency shelter. For example, if individuals tended to stay in PSH for shorter periods, but were more likely to exit to other permanent living situations, this result could indicate that this group is easier to stabilize compared to families. Based on data from the AHAR, it is not clear what factors may be driving the higher turnover rates among individuals. Between 2011 and 2015 a similar percentage of individual and family households stayed in PSH for up to six months. Slightly fewer individuals stayed for periods ranging between six months and two years, and a greater percentage of individuals stayed for two years or

14 The exact causes of the increase in family homelessness in Massachusetts are hard to discern. One study published by the Boston Foundation found that the growth of family homelessness in Boston is similar to trends in New York City and Seattle, both coastal cities that have a high cost of living and competitive housing markets (Rog et al. 2017). It is likely that part of the 2014 spike in chronic family homelessness in Massachusetts was caused by increases in overall family homeless rates during the preceding years. In Massachusetts, motels and hotels are often used as a form of overflow shelter to house homeless families, where they can remain for long periods of time (Culhane and Byrne 2010). While housed in motels and hotels these families retain their homeless status and may be less apt to move out compared to those families housed in more typical emergency homeless shelters. The sharp 2014 increase in chronic homelessness among families may be a result of this group aging into the chronic homeless definition due to being housed for a prolonged period in motels and hotels while still retaining their homeless status.

15 Between 2011 and 2015, 19 percent of both individuals and families in PSH stayed up to six months. Thirty-two percent of individuals and 36 percent of families stayed for six months to two years. Fifty-five percent of individuals and 52 percent of families stayed for two years or longer. Individuals and families have similar lengths of stay for periods less than six months.

Figure 3

Average Occupancy Rate of Permanent Supportive Housing Beds
by Continuum of Care in Massachusetts, 2012–2016 Average



Source: Author's calculations using US Department of Housing and Urban Development Housing Inventory Count data from 2012 to 2016.

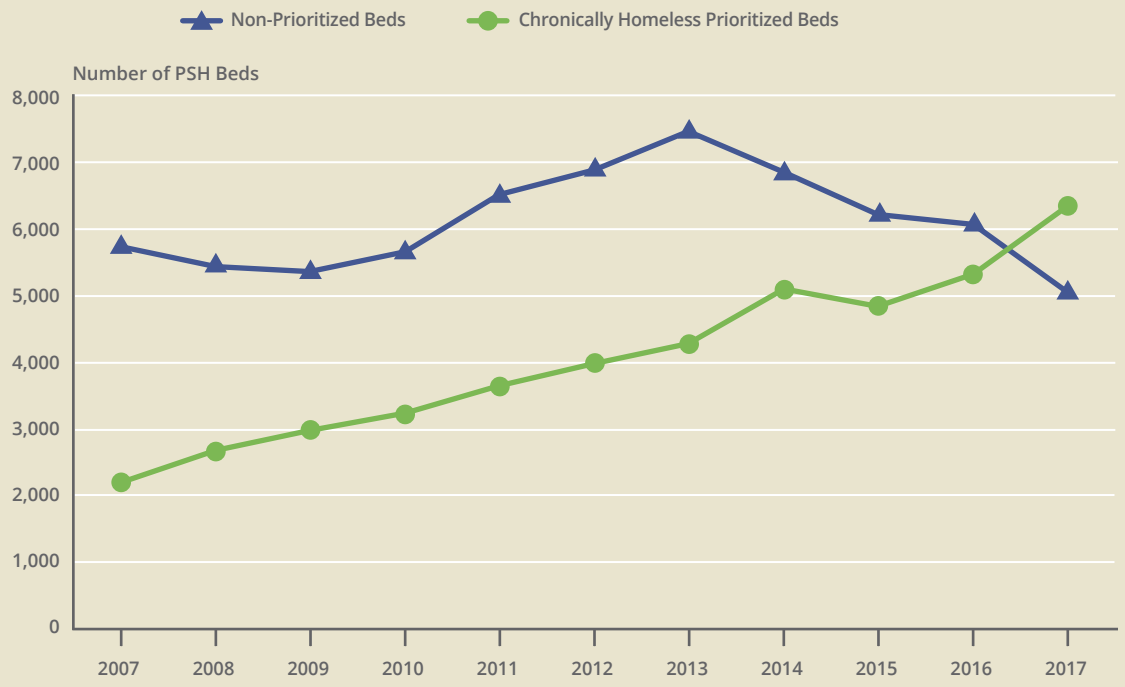
longer.[15] These figures are in contrast to the higher turnover rates indicating that, compared to families, a greater percentage of individuals exit from PSH each year. While families tend to stay longer in PSH, they are more likely to exit into other permanent living situations than are individuals. Nationally, between 2011 and 2015, 64 percent of families leaving PSH programs exited into some form of subsidized or nonsubsidized permanent housing, compared to 51 percent of individuals. When compared with families, individuals are more likely to exit PSH and return to homeless shelters, transitional housing, the street, or to jail. Thirteen percent of individuals and 6 percent of families exiting PSH between 2011 and 2016 exited into one of these four, nonpermanent housing, destinations.

Occupancy rates also impact annual bed availability, particularly within CoC regions. Unoccupied beds captured in the HIC are counted as available for that year. Thus CoCs with higher occupancy rates will have fewer available beds relative to their total PSH inventory when compared to other CoCs with lower rates. HUD guidelines require verification and documentation for a number of eligibility requirements, including disability and homelessness, before a PSH bed can be "filled." Thus any beds recorded as unoccupied likely have an identified household waiting to complete the verification process; however, these households would be counted as homeless until they move into a PSH unit. Occupancy rates for PSH can vary considerably across CoCs, as shown in Figure 3. Across Massachusetts the 2012–2016

Figure 4

Permanent Supportive Housing Beds Prioritized for the Chronically Homeless Compared to Non-Prioritized Beds.

Massachusetts, 2007–2017



Source: US Department of Housing and Urban Development Housing Inventory Count data from 2007 to 2017.

average occupancy rate for PSH beds was 95 percent (represented in blue), and on the CoC level ranged from a low of 88 percent to a high of 107 percent.[16]

PSH beds can be set aside to specifically house the chronically homeless, but not all of the available PSH beds will be filled by chronically homeless households. Eligibility for PSH includes both the chronically homeless as well as households that have not been homeless long enough to be deemed chronically homeless but still have a qualifying disability or chronic health condition. Yet in recent years, HUD has prioritized the funding of PSH beds devoted to chronically homeless households (HUD 2014a). This federal policy, combined with efforts focusing on housing the state's chronically homeless population, has resulted in a growing share of the overall PSH inventory in Massachusetts being devoted to housing chronically homeless individuals and families. While Massachusetts's overall PSH inventory increased by 43.7 percent between 2007 and 2017, the share of these beds devoted to chronically homeless households almost tripled, as shown in Figure 4. In 2017, 55.6 percent of the state's PSH inventory was targeted to serve chronically homeless households, representing the first time over half the state's PSH inventory was prioritized for this population.[17] In addition, new HUD guidelines have established a coordinated entry process directing CoCs to prioritize those households with the greatest

16 Occupancy rates over 100 percent can occur when a CoC is able to use its HUD rental assistance funding to rent or procure more PSH units than it was initially allotted. Under HUD guidelines, a CoC is awarded funding based on the expected number of units they are able to support given the area's fair market rent (FMR), and cannot request initial amounts below this level. However if actual contract rents are lower than the FMR, the excess funds can be used to rent additional units. This practice increases the actual number of beds provided by a CoC, and thus the number of persons served, but does not change the initial number allocated and reported on the HIC (HUD 2017e).

17 In 2016, 26 percent of family PSH beds were dedicated to housing chronically homeless families, with 54 percent of individual PSH beds set aside for chronically homeless individuals. Data on prioritized PSH beds by household type was only available for 2016 at the time this report was written.

Table 2

Available Permanent Supportive Housing Beds for Individuals
Massachusetts, 2010–2017

	2010*	2011*	2012	2013	2014	2015	2016	2017*
Total Inventory	6,583	7,411	8,067	8,356	8,315	8,002	8,166	8,372
Available Individual PSH Beds	1,253	1,410	1,567	1,403	1,479	1,056	1,387	1,460
Unoccupied Beds	293	333	420	566	366	284	309	370
Beds Available Through Turnover	960	1,076	1,147	838	1,113	772	1,078	1,090

Source: Author's calculations using Point-in-Time Count, Housing Inventory Count, and Annual Homeless Assessment Report data from 2010 to 2017.
*2010, 2011, and 2017 assume an average occupancy rate of 95 percent. 2017 assumes an average turnover rate of 14 percent.

Table 3

Available Permanent Supportive Housing Beds for Families
Massachusetts, 2010–2017

	2010*	2011*	2012	2013	2014	2015	2016	2017*
Total Inventory	2,298	2,750	2,820	3,397	3,633	3,086	3,219	3,025
Available Family PSH Beds	263	280	446	454	434	341	344	351
Unoccupied Beds	89	105	153	204	156	70	77	105
Beds Available Through Turnover	174	175	293	251	278	271	267	246

Source: Author's calculations using Point-in-Time Count, Housing Inventory Count, and Annual Homeless Assessment Report data from 2010 to 2017.
*2010, 2011, and 2017 assume an average occupancy rate of 95 percent. 2017 assumes an average turnover rate of 8.5 percent.

need for housing and homeless services (HUD 2014a). Thus while not all of the available PSH beds in a given year will be filled by chronically homeless households, it is likely that the majority of PSH beds will be allocated to this population.

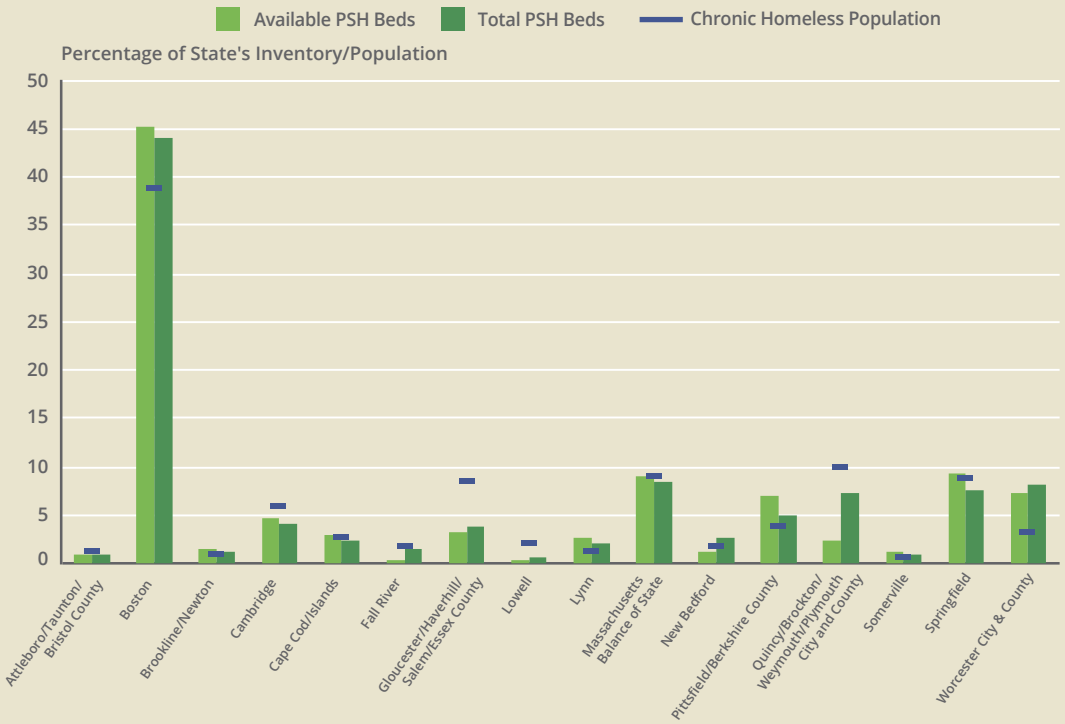
As expected, given the greater inventory and higher turnover rates for individuals exiting PSH, each year more individual PSH beds become available compared to family beds. Tables 2 and 3 display the available beds for individual and family PSH projects, as well as the number of beds that are available due to turnover or that are unoccupied. Over time, since the data was first collected, the percentage of PSH beds that becomes available for individuals has declined. The highest percentage of 19.4 percent occurred in 2012. In 2017, 17.4 percent of PSH beds became available for chronically homeless individuals. Comparatively the portion of family PSH inventory that becomes available each year has remained relatively flat.[18]

At the CoC level, there is evidence that the supply of available PSH is not evenly distributed to match the local demand from both chronically homeless populations. As Figure 5 illustrates, the share of the state's available PSH beds a CoC has often differs, based on a three-year average, to their share of the state's total PSH inventory and chronically homeless population.[19] Ideally, if supply were matched

Figure 5

Percentage Distribution of Permanent Supportive Housing Beds Compared to the Chronic Homeless Population

by Continuum of Care in Massachusetts, 2015–2017



Source: Author's calculations using Point-in-Time Count and Housing Inventory Count data from 2015 to 2017.

Note: Values are the average percentage of Massachusett's total beds or chronically homeless persons found within a given CoC between 2015 and 2017. Available beds are those that became available, either through turnover or being unoccupied, during the 2015–2017 period.

18 Turnover rates were not available for 2017 at the time this report was written. For the purposes of this report, it is assumed that the 2017 turnover rate for both individual and family beds is equal to the average of the 2010–2016 rates. This average turnover rate, however, is higher than those in recent years. It is possible then that 2017 estimates of available PSH beds for both individuals and families are overstated, with the actual number being lower.

19 Analyzing the change in PSH inventory by CoC can be difficult. In Massachusetts over the past 10 years, the number of CoC programs has fallen from 21 in 2007 to 15 in 2017 (see footnote 10). Often smaller CoCs are absorbed into larger ones, or are split and combined into two neighboring CoC areas. Thus while some CoCs appear to have dramatic increases in PSH inventory over the last decade, in reality these increases may come from inventory in other CoCs now being counted in their administrative area.

effectively with demand, a CoC could expect to have equal percentages of each. For example, Boston CoC was home to, on average, 39 percent of the state's chronically homeless population between 2015 and 2017. One might then assume that this CoC would have 39 percent of the total inventory and available PSH beds in Massachusetts. This CoC however, had 45 percent of the state's available PSH beds, and 44 percent of its total PSH inventory, during this period, more than what would be expected. Other CoCs have a much smaller percentage of the state's total inventory and available PSH beds compared to their portion of the chronically homeless population, suggesting that these areas have far fewer PSH beds than are needed to address their local demand. One explanation for this mismatch may be the migration or seasonal variation in homeless populations. Those CoCs with a larger than expected portion of the state's total PSH inventory may be responding to demand from the chronically homeless population that is not captured in the annual PIT Count; for example, if a large number of chronically homeless migrate to that CoC from elsewhere to receive services between periods when the PIT Counts are conducted.[20] Without accurate data on the total demand a CoC has in a given year, it is hard to judge if the state's PSH is effectively distributed. Still, given the difference between the percentage of PSH beds and the chronically homeless population found in almost all CoCs in Massachusetts, the state would likely benefit from a more effective distribution and sharing of PSH resources.

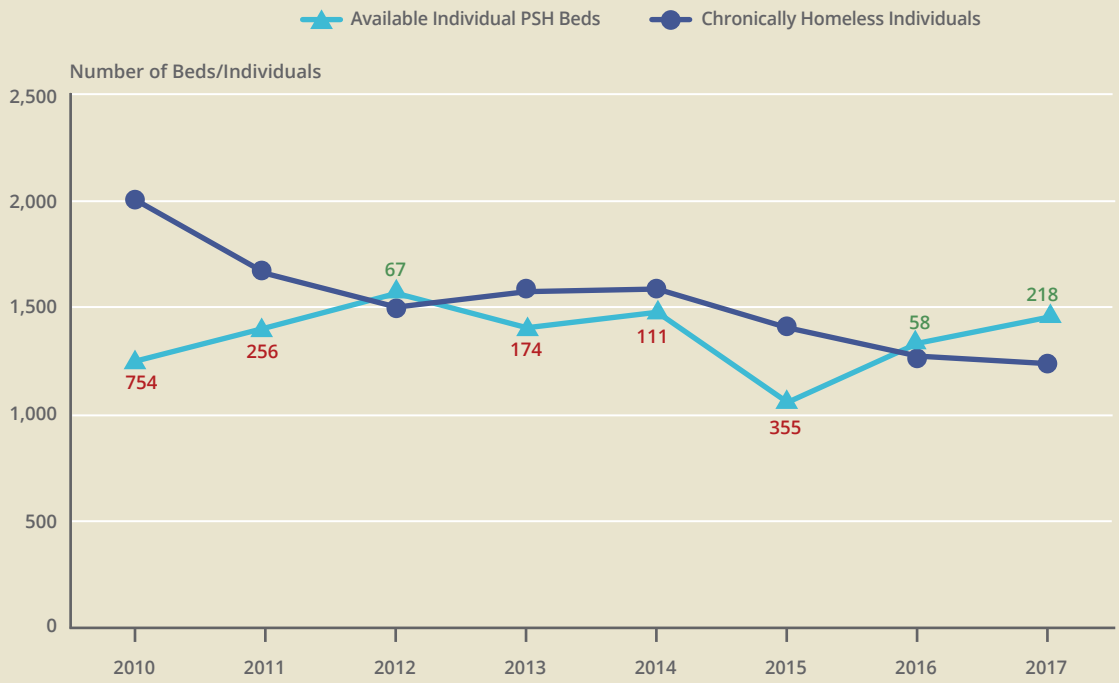
V. The Shortage of Permanent Supportive Housing

Massachusetts has a persistent shortage of PSH beds needed to house its chronic homeless population,

Figure 6

Supply of Available Individual Permanent Supportive Housing Beds and Demand from Chronically Homeless Individuals

Massachusetts, 2010–2017



Source: Author's calculations using US Department of Housing and Urban Development Point-in-Time Count, Housing Inventory Count, and Annual Homeless Assessment Report to Congress data from 2010 to 2017.

Note: When the number of available beds exceeds this population there is an estimated surplus. Values in red indicate the estimated PSH bed shortage for individuals; green values indicate the PSH bed surplus.

20 There may be numerous reasons for the regional mismatch between supply and demand at the CoC level. Differences in housing markets that make it more expensive or cheaper to convert units to PSH, or to rent apartments, may account for some of the discrepancy. In addition, cities or towns often have some ability to restrict where subsidized housing is built, which can limit PSH supply.

with the problem being especially acute for chronically homeless families. While the size of these shortages can vary from year-to-year, this shortfall poses a persistent obstacle for service providers and policymakers who seek to use PSH to serve the state's chronically homeless population. If a goal of PSH is to bring the number of chronically homeless households in Massachusetts to a functionally zero level, then continued development and better targeting of PSH beds are necessary steps to help achieve this goal.

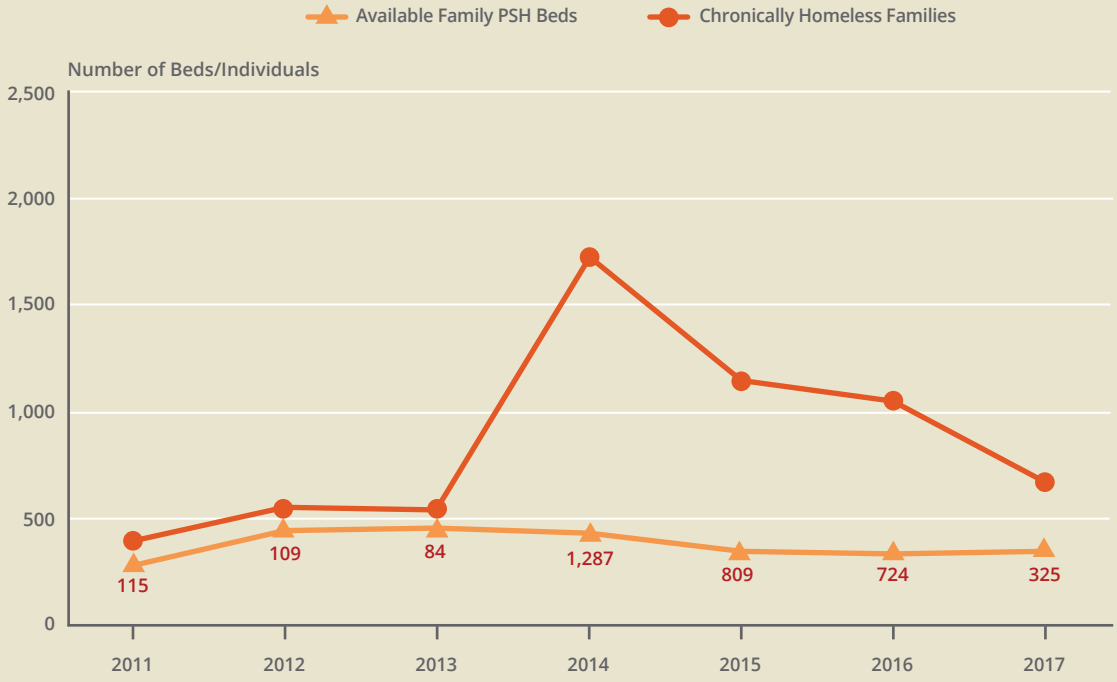
During the 2010–2017 period, the state's chronically homeless population increased, peaking in 2014 before retreating slightly in recent years. Overall, shortages in PSH beds declined slightly between 2010 and 2017 relative to the chronically homeless population in Massachusetts. In 2017 an estimated 1,807 PSH beds became available. However there were 1,914 chronically homeless persons who qualified for PSH beds, resulting in an estimated statewide shortage of 107 PSH beds. This estimated shortage in 2017 is less than the 754 bed shortfall that occurred in 2010; however in that year the annual PIT Count only measured the number of individuals who were chronically homeless, as the PIT Count only began to enumerate chronically homeless families in 2011. Since then, families have made up an increasing share of the chronically homeless population in Massachusetts.

Figures 6 and 7 show the estimated differences in available PSH beds relative to the two types of chronically homeless households. Shortages in PSH beds for individuals declined the most between 2010 and 2017. In recent years the estimated number of PSH beds available for individuals has

Figure 7

Supply of Available Family Permanent Supportive Housing Beds and Demand from Chronically Homeless Families

Massachusetts, 2011–2017



Source: Author's calculations using US Department of Housing and Urban Development Point-in-Time Count, Housing Inventory Count, and Annual Homeless Assessment Report to Congress data from 2011 to 2017.

Note: Shortages occur when the number of chronically homeless persons in families exceeds the number of available PSH beds for this population. When the number of available beds exceeds this population there is an estimated surplus. Values in red indicate the estimated PSH bed shortage for families; green values indicate the PSH bed surplus.

exceeded the demand statewide, resulting in an estimated surplus for this group. In contrast, shortages of PSH beds for families increased nine-fold between 2011 and 2016, before declining in 2017 due to a decreasing population of chronically homeless families.

Two factors help explain why estimates of individual and family PSH bed shortages differ. The first is that these two chronically homeless populations experienced diverging growth patterns during the 2011–2017 period. As previously mentioned, the number of chronically homeless individuals has declined, while the number of chronically homeless families has increased significantly. During this same period PSH inventory for both household types grew, with the number of PSH family beds growing the most. Despite this increase, it was not enough to compensate for the large growth in the chronically homeless family population. A second factor skewing the supply of PSH beds for individuals over those allotted to families is that turnover rates for PSH programs targeting individuals tend to be higher than those for families. Thus relative to their inventory sizes, more individual PSH beds will become available in a given year than family beds.[21]

Massachusetts's persistent shortage of PSH beds is an acute problem for chronically homeless families.

At the CoC level, considerable variation exists both between regions and across years in the demand for, and the supply of, PSH beds. As shown in Figure 8 (see page 21), eight CoCs in Massachusetts had a surplus of individual PSH beds in 2017. However of those eight, six had estimated surpluses in 2016 and only two had surpluses in 2015. Differences in homeless population counts, PSH occupancy rates, and turnover rates are factors which likely contribute to imprecise estimates of PSH shortages at the CoC level.

The CoCs with surplus PSH beds for individuals tend to fall into two categories. The first are those CoCs with large inventories of individual PSH beds, and thus a greater number of available beds each year. In these cases, small differences in the annual occupancy rate can result in large differences in the available beds. The second are CoCs that serve a comparatively small population of chronically homeless individuals relative to their PSH bed inventory. This group includes Lynn CoC and Massachusetts Balance of State CoC. Both CoCs had a large number of available PSH beds relative to their population of chronically homeless individuals.[22] Most CoCs on the other hand, had shortages of family PSH beds between 2015 and 2017, as shown in Figure 9 (see page 21). Those CoCs that had small surpluses of family beds resulted from few or no records of chronically homeless families in those areas.[23]

The variation in yearly estimates of CoC shortages highlights an important problem in using the PIT Count to estimate the needs of the chronically homeless population. Since the PIT Count is a yearly snapshot of the current homeless population, usually based on just one night, it routinely

21 The average PSH turnover rate for individual PSH programs was 13.6 percent between 2010 and 2016, compared to an 8.4 percent turnover rate for family PSH programs. Thus for every one family PSH bed that becomes available through turnover in a given year, roughly 1.6 individual PSH beds will become available through turnover.

22 Lynn CoC had 19 individual PSH beds (total inventory) per one chronically homeless individual in 2016. The MA Balance of State CoC, which oversees much of Middlesex and Norfolk counties, has 22 PSH beds per one chronically homeless individual.

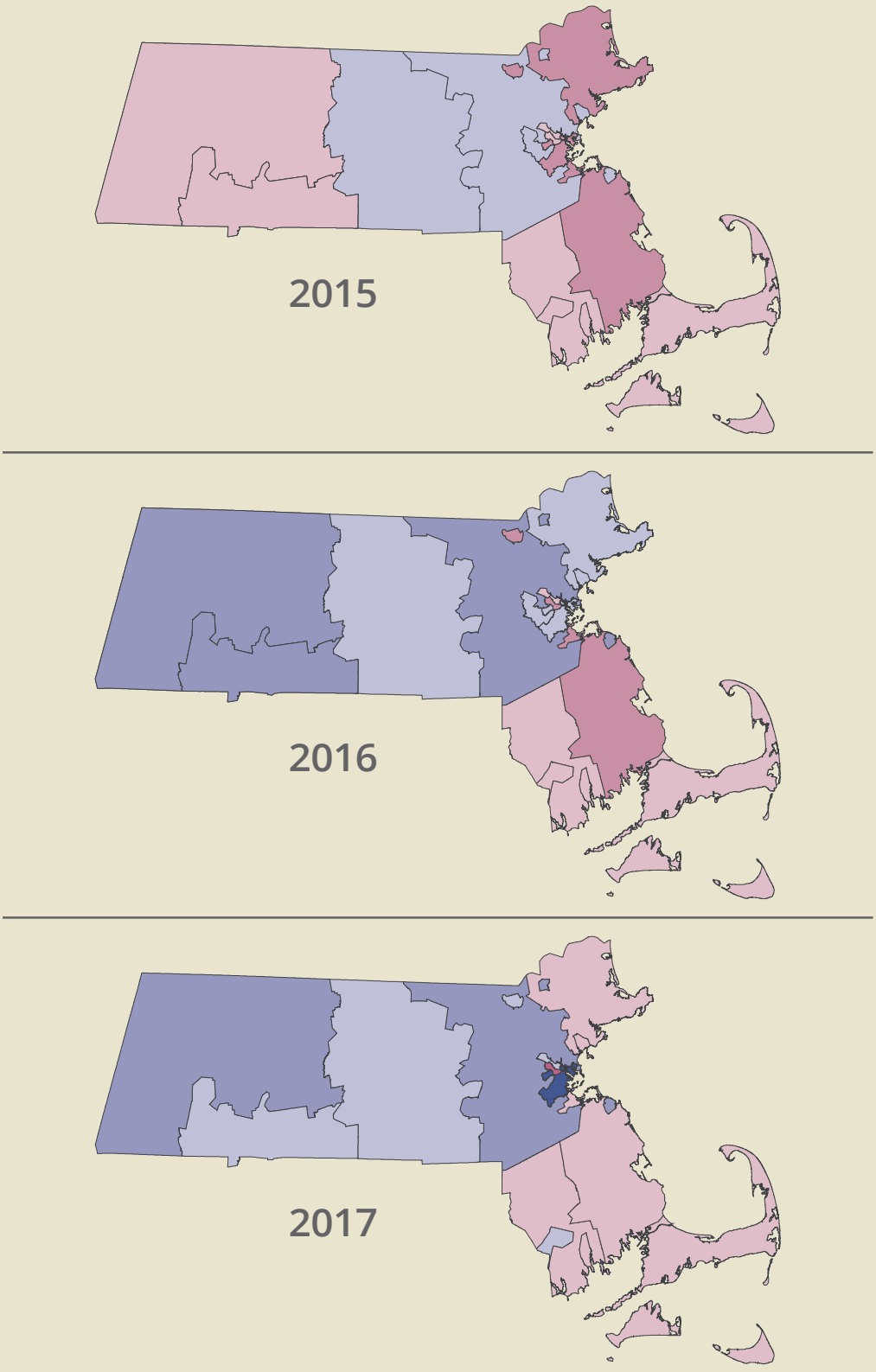
23 Cambridge, Fall River, and Lowell CoCs had zero recorded persons in chronically homeless families in 2017.

underestimates the total number of homeless persons seen by a CoC in a given year. Some households may become homeless between PIT Counts, and thus not be counted in the measure used to adjust the number of PSH beds. When estimating the homeless population, the accuracy of these measures can be affected by the migration of homeless individuals or families that occurs during the year, but between PIT Counts. A CoC that serves a small geographic area, or that is located in close proximity to other CoCs, may experience a large degree of migration across service areas. A good example of this is Boston CoC, as this region has the least consistent estimates in regard to individual PSH bed shortages across years, and is located in close proximity to other CoC service regions. In 2015 Boston CoC had a shortage of 70 PSH beds for individuals, followed by a small surplus of five beds in 2015, and an even larger surplus of 190 beds in 2017. During this same three-year period, those CoC programs with more consistently estimated homeless populations tended to serve larger geographic areas, and thus showed more consistent levels of shortages or surpluses. The varying shortages within a CoC across years, and between CoCs that are similar in size or proximal to one another, may be due to a number of factors. For example, where homeless shelters are located, and how many beds are available to shelter the homeless population, can help determine how many persons are counted in that area during the annual PIT Count. The migration of chronically homeless households between CoC regions is also a possible factor that could account for why large differences in population estimates can occur year-to-year in a single CoC. Those CoCs that have consistent shortages or surpluses of PSH may more accurately measure their homeless populations, or may see less movement of homeless populations between their regions and elsewhere. Thus, more accurate data on the number of chronically homeless individuals each of the state's CoCs serve in a given year is needed before more definitive estimates of PSH shortages are possible.

Figure 8

Net Available Permanent Supportive Housing Beds for Chronically Homeless Individuals
by Continuum of Care in Massachusetts 2015–2017

Negative values indicate shortages for a given year; positive values indicate surpluses.

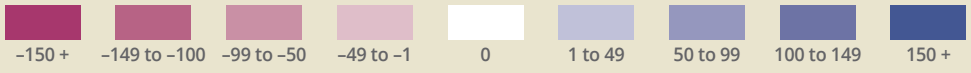


Source: Author's calculations using US Department of Housing and Urban Development Point-in-Time Count, Housing Inventory Count, and Annual Homeless Assessment Report to Congress data from 2015 to 2017.

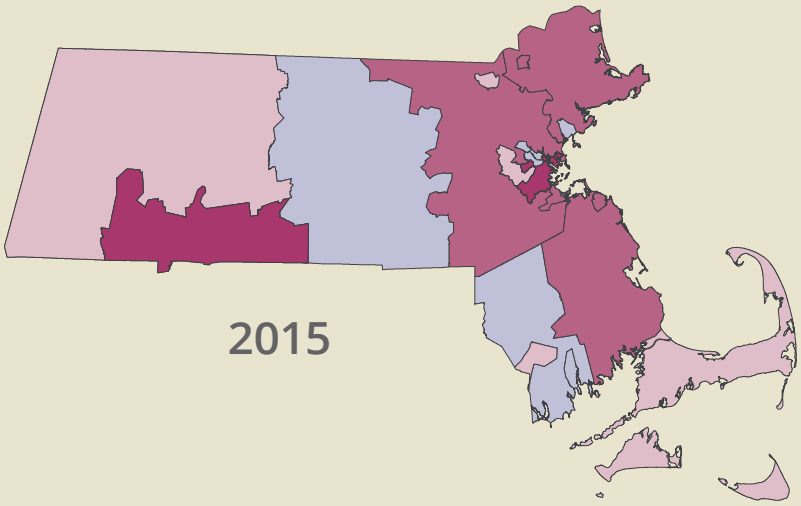
Figure 9

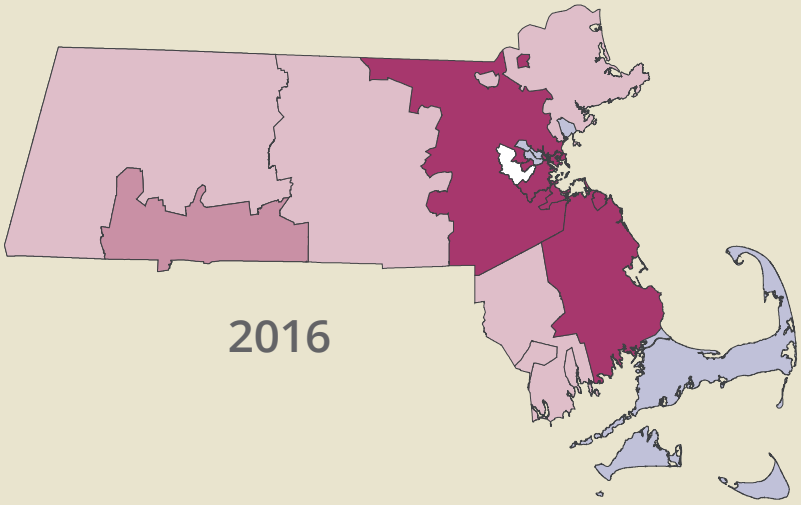
Net Available Permanent Supportive Housing Beds for Chronically Homeless Families

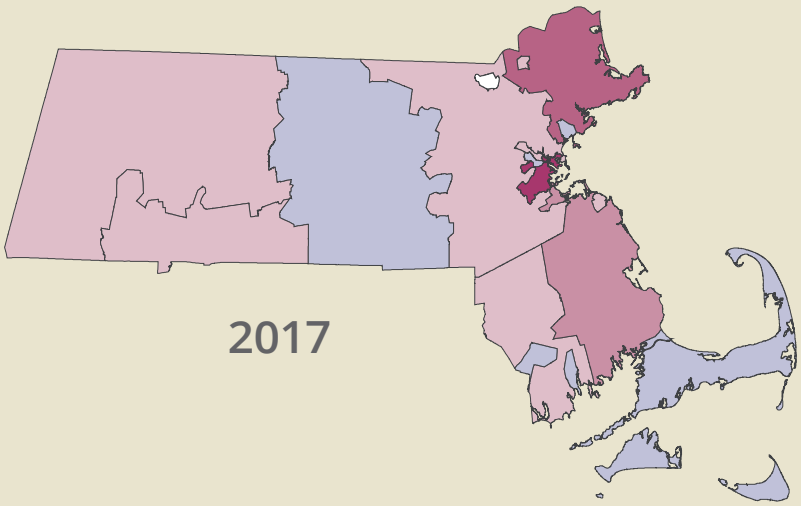
by Continuum of Care in Massachusetts 2015–2017



Negative values indicate shortages for a given year; positive values indicate surpluses.







Source: Author's calculations using US Department of Housing and Urban Development Point-in-Time Count, Housing Inventory Count, and Annual Homeless Assessment Report to Congress data from 2015 to 2017.

VI. Estimating Future Gaps

In recent years there has been a decline in the number of new PSH beds being added in CoCs across Massachusetts, particularly for PSH beds intended to serve chronically homeless families. Planned PSH beds, those that are expected to be operational in 12 months or more, have seen steeper declines. These planned beds are also concentrated in a handful of CoCs, some of which do not show a need for additional inventory. The largest reductions in PSH shortages occur in years when total inventory has increased the most. Adding new inventory, whether through new construction or expanded rental subsidies, represents the most viable method for creating enough PSH to meet the demand from the chronic homeless population.

The recent decrease in additional PSH inventory is especially concerning for chronically homeless families.

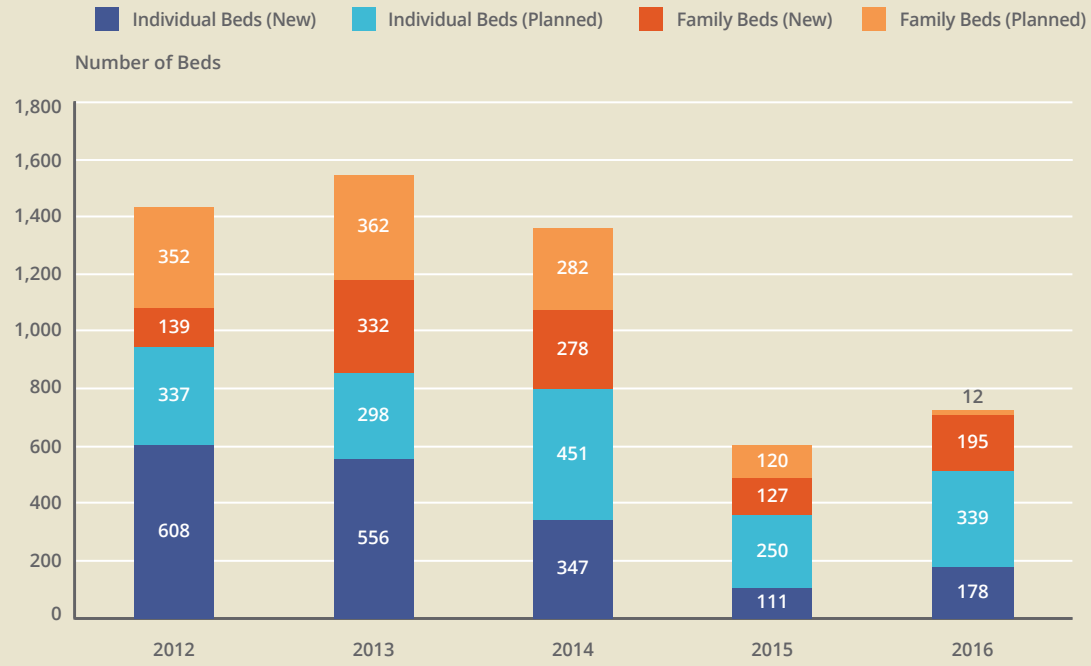
Using the available data on planned PSH beds can help estimate the shortages for individual and family PSH programs that may be expected in the coming years, though it is a challenge to estimate future gaps in PSH supply. The factors affecting both the demand for and supply of, PSH can influence whether or not a particular CoC, or the state as a whole, will experience a shortage or surplus of available housing for its chronically homeless population. On the demand side, local shelter policies, housing market conditions, rising rental rates, and differences in annual data quality can affect how many homeless and chronically homeless persons are counted each year (Clifford and Jackson 2015). On the supply side, differences in turnover rates and CoC occupancy rates can impact the number of PSH beds available in the state, and at the local level.

The number of new and planned PSH beds declined by almost 50 percent between 2012 and 2016, as shown in Figure 10. In any given year, the inventory of PSH beds can be divided into the current

Figure 10

New and Planned Permanent Supportive Housing Beds by Household Type

Massachusetts, 2012–2016



Source: US Department of Housing and Urban Development Housing Inventory Count data from 2012 to 2016.

Note: New beds are those that became available in the given year. Planned beds are those expected to be available within the following year or later.

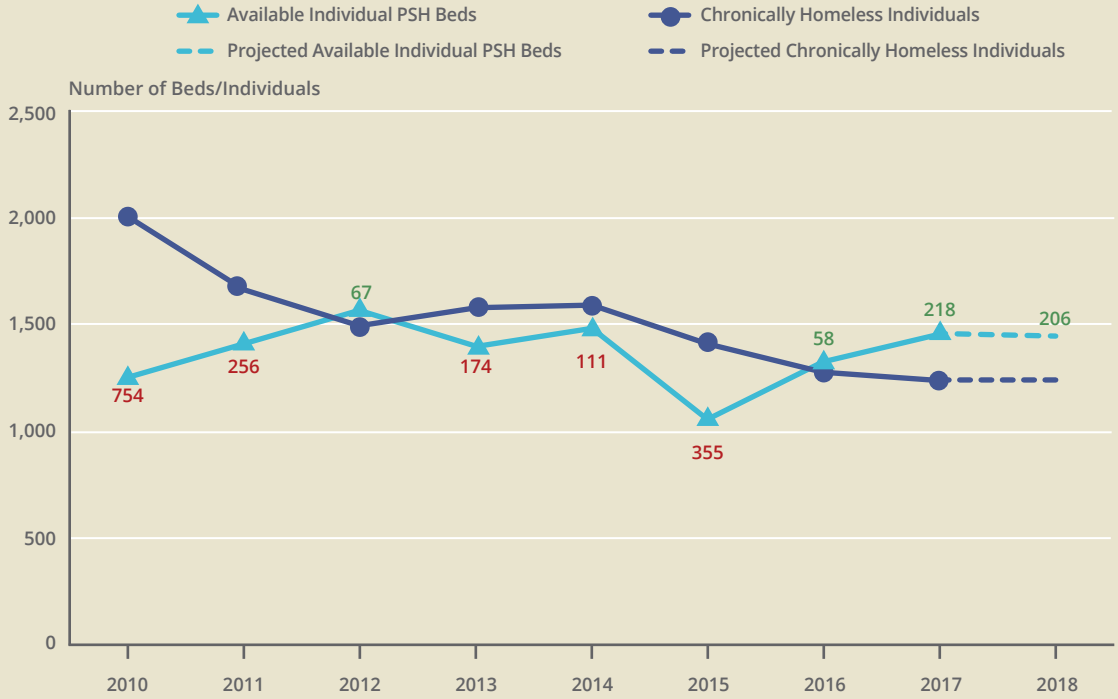
stock (those beds already in use for at least a year prior to the HIC) and the new stock (the beds that became operational during the past year). Beds that are planned, but not yet operational, are also enumerated in the HIC. The HIC may not be an accurate indicator of future new inventory, as some beds may be developed and added between HIC years, and thus not be captured in the data.[24] Yet overall, the number of new and planned beds in Massachusetts has declined. Only 12 planned family PSH beds were listed in 2016, of which eight would be available in 2017, with the remaining four available after 2017. This is down from 352 family beds planned in 2012, when data were first available. Likewise, the number of new individual beds has decreased relative to 2012 levels, with the number of beds added in 2016 representing only 30 percent of the number added in 2012. While the HIC is not necessarily an accurate estimate of future inventory, the decrease in additional inventory, and planned family PSH beds in particular, may indicate slowing progress toward the state's goal of addressing chronic homelessness. This situation could be especially problematic as families continue to comprise a larger portion of the chronically homeless population in Massachusetts.

The disparity between the supply of PSH beds for individuals versus families will likely remain in the coming years unless additional family PSH beds are added to the state's current inventory. With the majority of the planned beds in coming years targeting individuals and not families, the estimated available inventory for individuals will result in a surplus of PSH beds when compared to the chronically homeless individual population. Figure 11 shows the estimated difference between available PSH beds and the chronically homeless population of individuals. Given the estimated number of PSH beds

Figure 11

Projected Permanent Supportive Housing Beds Available for Chronically Homeless Individuals

Massachusetts, 2010–2018



Source: Author's calculations using US Department of Housing and Urban Development Point-in-Time Count, Housing Inventory Count, and Annual Homeless Assessment Report to Congress data from 2010 to 2017.

Note: Projected available PSH beds assumes that current inventory will remain stable, and includes planned beds that are expected to be available in 2018. The current chronic homeless population is assumed to be unchanged in 2018. Values in red indicate the estimated PSH bed shortage of for individuals; green values indicate the PSH bed surplus.

24 Additionally, the HIC may underestimate new and planned PSH beds as it only counts those that are part of new construction or new projects being added. If beds are added to existing PSH projects they will not appear as "planned" or "new," but instead will be added to the state's total PSH inventory in the year they are operational.

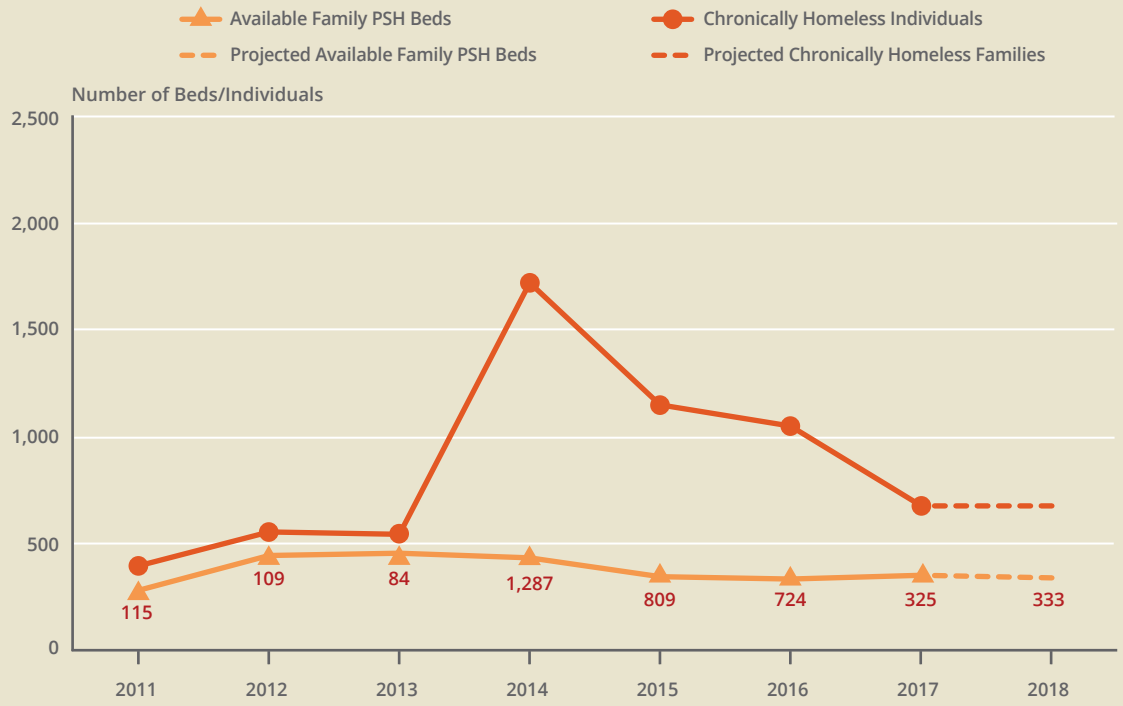
expected to be added in 2018, Massachusetts may continue to see a surplus relative to the chronically homeless individual population.[25] This assumes that the state's chronically homeless population remains constant. If the population of chronically homeless individuals continues to decline, as it has in recent years, then surpluses of individual PSH beds may be even greater.

There remains, however, an estimated shortage of PSH family beds relative to the chronically homeless family population. Based on the most recent data, four family PSH beds were projected to be added after 2017.[26] The result is very little change in the projected number of PSH beds for families, and thus the shortage of beds for this group remains unchanged as shown in Figure 12.[27] Even with a decline in family chronic homelessness similar to the 35.8 percent decrease experienced between the 2016 and 2017 PIT Counts, a small shortage of beds for this group would remain.[28] The chronically homeless family population has been highly variable over the past seven years, with much of the current level coming from a 2014 spike. With the majority of the state's chronic homeless population

Figure 12

Projected Permanent Supportive Housing Beds Available for Persons in Chronically Homeless Families

Massachusetts, 2011–2018



Source: Author's calculations using US Department of Housing and Urban Development Point-in-Time Count, Housing Inventory Count, and Annual Homeless Assessment Report to Congress data from 2010 to 2017.

Note: Projected available PSH beds assumes that current inventory will remain stable, and includes planned beds that are expected to be available in 2018. The current chronic homeless population is assumed to be unchanged in 2018. Values in red indicate the estimated PSH bed shortage of for individuals; green values indicate the PSH bed surplus.

25 Figure 11 assumes the turnover rate for 2018 is equal to the average of turnover rates between 2010 and 2016, or 13.6 percent, as well as the average occupancy rates for each of Massachusetts' CoCs. A more conservative estimate using a turnover rate of 10 percent, the lowest turnover rate seen in the data, would result in a shortage of 54 beds estimated for 2018, given the chronic homeless population remaining level.

26 The four additional PSH beds being added after 2017 were assumed to be available in 2018 for the purposes of this analysis. However the HIC only specifies if a planned PSH bed will be available within one year. Thus some of these beds may only become available after 2018.

27 This is because the 2018 estimated number of available beds uses an average turnover rate for family PSH beds between 2010 and 2016, which is higher than the observed turnover rates during the last few years.

28 A similar decrease in the chronically homeless family population would result in an estimated 435 chronically homeless persons in families in 2018, resulting in an estimated 84 bed shortage for this group. This assumes a turnover rate of 8.4, calculated as the average of turnover rates for family PSH programs between 2010 and 2016.

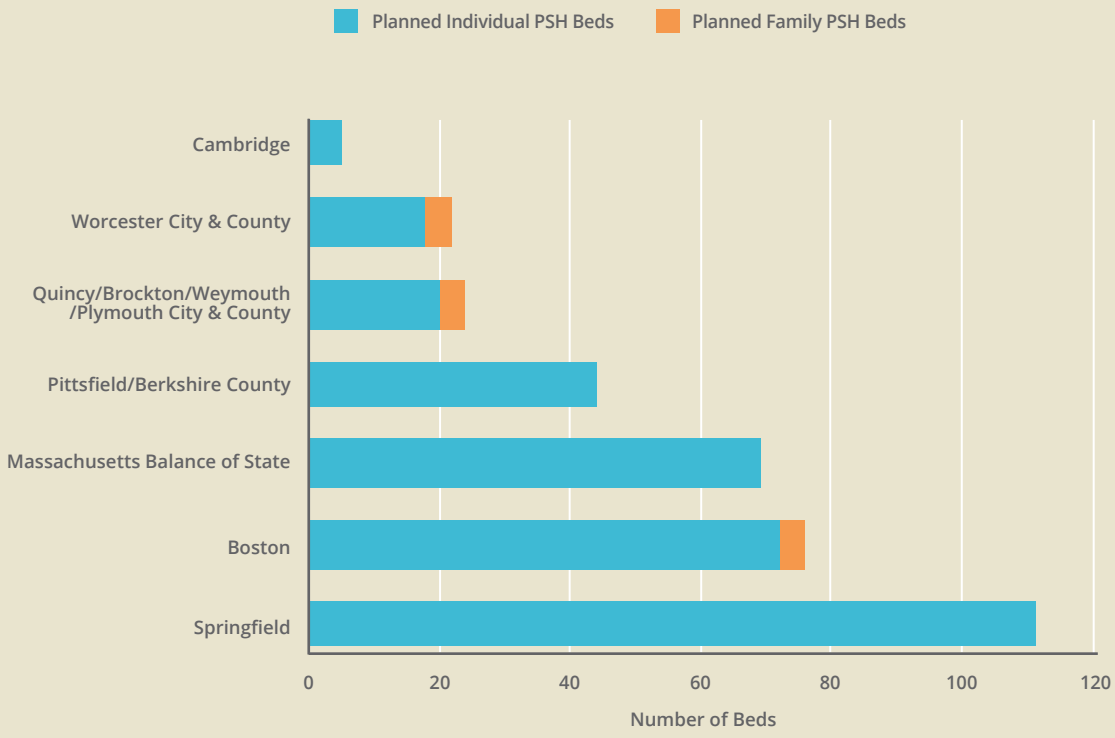
consisting of persons in families, and with shortages of PSH beds primarily existing for this group, focusing on providing housing for chronically homeless families can have a big impact on statewide shortages of PSH beds for the chronically homeless.

Additional inventory added in the coming years by CoCs does not necessarily match local demand. In 2016, only seven out of the 16 CoCs in Massachusetts planned to add new beds in the coming years, either for families, individuals, or both, as shown in Figure 13.[29] Of the seven CoCs listed, most were only adding beds for individuals. However in 2016, only two of these CoCs had a shortage of beds for chronically homeless individuals.[30] Six other CoCs were not adding any individual PSH beds, even though they had estimated shortages relative to their own chronically homeless individual population. In regard to family PSH beds, only three CoCs planned to add more inventory in 2017 or later, even though all but four CoCs had shortages of beds for chronically homeless families.[31] Overall, planned PSH beds in 2016 were highly concentrated among a handful of CoCs, even though most CoCs would benefit from having additional beds in their inventory. This relative imbalance between estimated shortages and planned PSH beds has the potential to exacerbate the already uneven distribution of PSH beds across the state. Moreover, some CoCs are adding PSH beds when no shortage exists in their area. While adding PSH

Figure 13

Planned Permanent Supportive Housing Beds Beginning in 2017 by Household Type

CoCs with Planned Beds in Massachusetts



Source: Author's calculations using US Department of Housing and Urban Development Housing Inventory Count data from 2016.
Note: New beds are those that became available in 2016, planned beds are those accounted for as being available after 2016.

29 2017 data on planned PSH beds was not available at the time of this report.

30 The Cambridge CoC and Quincy/Brockton/Weymouth/Plymouth City & County CoC were the only two listed as adding beds individuals that had estimated shortages of individual PSH beds in 2016.

31 In 2016 Brookline/Newton CoC, Cambridge CoC, Cape Cod/Islands CoC, and Somerville CoC all had estimated surpluses of family PSH beds, albeit small ones. The remaining CoCs all had shortages of family PSH beds.

beds in one CoC will likely have positive spillover effects that will help neighboring communities with easy access to their services—for example, the Boston and Cambridge CoCs—the chronically homeless served by more CoC remote regions in Massachusetts may find it harder to access services in other areas. These more remote regions would benefit the most from expanded coordination of services or additional focus on increasing their own PSH inventory.

VII. Conclusion

Massachusetts and its CoC network have made considerable progress over the past 10 years increasing the overall inventory of PSH beds to serve the state's the chronically homeless population, a group that often faces major barriers to attaining and retaining stable housing. The effort to increase the PSH bed inventory for chronically homeless individuals has been particularly successful. This report estimates that enough PSH beds were available in 2016 and 2017 to effectively meet the demand from the population of chronically homeless individuals living in Massachusetts at the time the PIT Count was conducted. However, the state has fallen short in meeting the demand posed by a growing population of chronically homeless families, which now account for 35 percent of the state's chronic homeless population. While this population declined by over one-third between the 2016 and 2017 PIT Counts, it is unlikely that future decreases will be as dramatic. Moreover, it is estimated that only 12 additional PSH beds for families would be added in 2017 or later, whereas 339 beds are being added for individuals. Thus, a renewed focus on developing PSH for the state's chronically homeless families appears to be necessary in order to effectively meet demand from this population, and to reduce this group's reliance on emergency shelters and transitional housing.

A renewed focus on developing PSH beds for chronically homeless families is needed in order to effectively meet demand from this growing population.

Of the 15 CoCs in Massachusetts in 2017, most had shortages of family PSH beds relative to their chronically homeless family populations, while only some had shortages of individual PSH beds. This report finds evidence of mismatch at the CoC level between PSH supply and demand. CoCs on average had a larger or smaller portion of the state's PSH inventory relative to their chronic homeless populations, indicating that while some CoCs have too few PSH beds relative to their chronic homeless populations, others often have too many. Estimates of shortages at the CoC level seem to corroborate this; however, these estimates are likely imprecise given the difficulty of accurately measuring the homeless population at the CoC level, and thus should not be taken literally. Rather, these estimates are better viewed as indicative of discrepancies between the demand and supply for PSH beds in the state's different CoC service regions. Given that HUD has directed CoCs to develop coordinated entry procedures within their service regions, it may prove beneficial to expand these procedures to allow chronically homeless households in one CoC better access to available PSH in another CoC's region. Such coordination and pooling of the state's inventory would help alleviate the regional mismatch between the existing supply of and demand for PSH.

Not all planned PSH beds will be counted in the annual HIC. State-level resources that operate under different funding schedules, or that are allocated as the need arises, do not appear in estimates of future inventory. Massachusetts has a number of state-level resources, including programs like the Massachusetts Rental Voucher Program (MRVP) and the Housing Preservation and Stabilization Trust Fund (HPSTF), that can be used to create new PSH units, either through renting units in the private market or through renovation and new construction. Previous efforts at leveraging these resources have met with great success. Between 2011 and 2014, roughly 1,750 PSH units were created through collaborative efforts using the MRVP, HPSTF, and other funding sources.[32] While not all of these new

units were used to house chronically homeless individuals or families, these initiatives demonstrate the Commonwealth's ability to address the needs of underserved populations. Continued use of these resources, particularly of tenant-based vouchers like MRVP, would allow the state to intervene and increase the availability of PSH beds as the need arises.

Accurately estimating the number of homeless and chronically homeless persons in Massachusetts is difficult. As discussed, the public data sources used in this report to estimate the supply and shortages of PSH beds have a number of limitations. These include underestimating the number of chronically homeless persons living in a CoC area and in the state, as well as a lack of information on local PSH programs. It is likely, for instance, that the national estimates of PSH turnover rates used in this report do not reflect state or local experiences. Administrative data that allows for more accurate analysis would give CoCs a better sense of the actual demand for homeless services in their area. For example, instead of relying on a point-in-time count conducted once in a given year, using annual data on the number of homeless persons seeking services throughout the year would allow for more accurate estimates of demand at the CoC level. In addition, data on PSH programs that included the turnover rates for PSH beds that are specific to individual CoC regions, and for their chronically homeless participants, would allow for a more accurate estimate of supply. In both cases, improving the accuracy of estimates would allow CoCs to better allocate funding and request resources to meet actual, instead of estimated, needs. Regardless of the current shortfall, Massachusetts has shown that is it possible to create and sustain the effort necessary to address a problem as complex as chronic homelessness.

32 See the Interagency Supportive Housing Working Group's Building on Success: Year Three Final Report published in June, 2016.

References

Byrne, Thomas, and George Smart. 2017. *Estimating Cost Reductions Associated with the Community Support Program for People Experiencing Chronic Homelessness.* Boston: Blue Cross Blue Shield Foundation of Massachusetts.

Byrne, Thomas, Jamison Fargo, Ann Elizabeth Montgomery, Ellen Munley, and Dennis P. Culhane. 2014. "The Relationship between Community Investment in Permanent Supportive Housing and Chronic Homelessness." *Social Service Review* 88(2): 234–263.

Clifford, Robert, and Osborne Jackson. 2015. *Can Subsidized Housing Help Address Homelessness in New England?* New England Public Policy Center Research Report 15-3. Boston: Federal Reserve Bank of Boston.

Corinth, Kevin. 2017. "The Impact of Permanent Supportive Housing on Homeless Populations." *Journal of Housing Economics* 35 (2017): 69–84.

Culhane, Dennis P., and Thomas Byrne. 2010. *Ending Family Homelessness in Massachusetts: a New Approach for the Emergency Assistance Program.* White Paper. Boston: Paul and Phyllis Fireman Charitable Foundation.

Culhane, Dennis P., Stephen Metraux, and Trevor Hadley. 2002. "Public Service Reductions Associated with Placement of Homeless Persons with Severe Mental Illness in Supportive Housing." *Housing Policy Debate* 13(1): 107–163.

Gulcer, Leyla, Ana Stefancic, Marybeth Shinn, Sam Tsemberis, and Sean N. Fischer. 2003. "Housing, Hospitalization, and Cost Outcomes for Homeless Individuals with Psychiatric Disabilities Participating in Continuum of Care and Housing First Programmes." *Journal of Community & Applied Social Psychology* 13(2): 171–186.

Interagency Supportive Housing Initiative. 2016. *Building on Success: Year Three Final Report.* Boston: Interagency Supportive Housing Working Group.

Larimer, Mary E., Daniel K. Malone, Michelle D. Garner., David C. Atkins, Bonnie Burlingham, Heather S. Lonczak, Kenneth Tanzer, Joshua Ginzler, Seema L. Clifasefi, William G. Hobson, and G. Alan Marlaat. 2009. "Health Care and Public Service Use and Costs Before and After Provision of Housing for Chronically Homeless Persons with Severe Alcohol Problems." *Journal of the American Medical Association* 301(13): 1349–1357.

Ly, Angela, and Eric Latimer. 2015. "Housing First Impact on Costs and Associated Cost Offsets: A Review of the Literature." *Canadian Journal of Psychiatry* 60(11): 475–487.

Massachusetts Housing and Shelter Alliance. 2017. June *Home & Healthy for Good* Progress Report. Boston: Massachusetts Housing and Shelter Alliance.

Perlman, Jennifer, and John Parvensky. 2006. *Denver Housing First Collaborative: Cost Benefit Analysis and Program Outcomes Report.* Denver: Colorado Coalition for the Homeless.

Poulin, Stephen R., Marcella Maguire, Stephen Metraux, and Dennis P. Culhane. 2010. "Service Use and Costs for Persons Experiencing Chronic Homelessness in Philadelphia: A Population Based Study." *Psychiatric Services* 61(11): 1093–1098.

Rog, Debra J., Kathryn A. Henderson, Andrew L. Greer, Kathryn M. Kulbicki, and Linda Weinreb. 2017. *The Growing Challenge of Family Homelessness.* Boston: The Boston Foundation.

Rog, Debra J., Tina Marshall, Richard Dougherty, Preethy George, Allen S. Daniels, Sushmita Shoma Ghose, and Miriam E. Delphin-Rittmon. 2014. "Permanent Supportive Housing: Assessing the Evidence." *Psychiatric Services* 65(3): 287–294.

Salit, Sharon A., Evelyn M. Kuhn, Arthur J. Hartz, Jade M. Vu, and Andrew L. Mosso. 1998. "Hospitalization Costs Associated with Homelessness in New York City." *New England Journal of Medicine* 338(24): 1734–1739.

Shern, David L., Chip J. Felton, Richard L. Hough, Anthony F. Lehman, Stephen Goldfinger, Elle Valencia, Deborah Dennis, Roger Straw, and Patricia A. Wood. 1997. "Housing Outcomes for Homeless Adults with Mental Illness: Results from the Second-Round McKinney Program." *Psychiatric Services* 48(2): 239–241.

Stergiopoulus, Vicky, Stephen Hwang, Agnes Gozdzik, Rosane Nisenbaum, Eric Latimer, Daniel Rabouin, Carol E. Adair, Jimmy Bourque, Jo Connelly, James Frankish, Laurence Katz, Kate Mason, Vachan Misir, Kristen O'Brien, Jitender Sareen, Christian G. Shutz, Arielle Singer, David L. Streiner, Helen-Maria Vasiliadis, and Paula N. Goering. 2015. "Effect of Scattered-Site Housing Using Rent Supplements and Intensive Case Management on Housing Stability Among Homeless Adults With Mental Illness: A Randomized Trial." *Journal of the American Medical Association* 313(9): 905–915.

Substance Abuse and Mental Health Services Administration (SAMHSA). 2010. *Building Your Program: Permanent Supportive Housing.* Washington: US Department of Health and Human Services.

Tsemberis, Sam, Leyla Gulcur, and Maria Nakae. 2004. "Housing First, Consumer Choice, and Harm Reduction for Homeless Individuals with a Dual Diagnosis." *American Journal of Public Health* 94(4): 651-656.

Homeless Emergency Assistance and Rapid Transition to Housing (HEARTH) Act of 2009, 42 U.S. C, § 11301 (2009).

US Census Bureau. 2017. *Annual Estimates of the Resident Population for the United States, Regions, States, and Puerto Rico: April 1, 2010 to July 1, 2017.* NEST-EST2017-01. Washington: US Census Bureau.

US Department of Housing and Urban Development (HUD). 2008. *A Guide to Counting Unsheltered Homeless People: Second Revision.* Washington: US Department of Housing and Urban Development, Office of Community Planning and Development.

US Department of Housing and Urban Development (HUD). 2014a. *Notice on Prioritizing Persons Experiencing Chronic Homelessness and Other Vulnerable Homeless Persons in Permanent Supportive Housing and Recordkeeping Requirements for Documenting Chronic Homeless Status.* Notice CPD-14-012. Washington: US Department of Housing and Urban Development.

US Department of Housing and Urban Development (HUD). 2014b. *Point-in-Time Count Methodology Guide.* Washington: US Department of Housing and Urban Development.

US Department of Housing and Urban Development (HUD). 2017a. *Annual Homeless Assessment Report to Congress: Estimates of People in PSH 2010–2016.* Washington: US Department of Housing and Urban Development.

US Department of Housing and Urban Development (HUD). 2017b. *Continuum of Care (CoC) HMIS Program Manual.* Washington: US Department of Housing and Urban Development.

US Department of Housing and Urban Development (HUD). 2017c. *Continuum of Care (CoC) Program Eligibility Requirements.* Washington: US Department of Housing and Urban Development.

US Department of Housing and Urban Development (HUD). 2017d. HUD 2017 *Continuum of Care Homeless Assistance Programs Homeless Populations and Subpopulations.* Washington: US Department of Housing and Urban Development

US Department of Housing and Urban Development (HUD). 2017e. *Notice of Funding Availability (NOFA) for Fiscal Year (FY) 2017 Continuum of Care Program Competition.* Notice of Funding Availability FR-6100-N-25. Washington: US Department of Housing and Urban Development.

US Department of Housing and Urban Development (HUD). 2017f. *Point-in-Time and HIC Data Since 2007.* Washington: US Department of Housing and Urban Development.

US Interagency Council on Homelessness (USICH). 2014. *Implementing Housing First in Permanent Supportive Housing.* Washington: US Interagency Council on Homelessness.

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