The Effectiveness of Housing First in Reducing Homelessness in the United States

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The Effectiveness of Housing First in Reducing Homelessness in the United States

Submitted to
Michael Fortner

By
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Abstract

The Housing First approach is the most funded and utilized approach by the federal government to reduce homelessness in the United States. The main service provided by the Housing First approach is Permanent Supportive Housing. Proponents of Housing First claim it is an evidence-based approach, citing studies that find increases in Permanently Supportive Housing lead to successful outcomes for reducing homelessness on the individual level. This paper seeks to review the literature on Housing First and homelessness and analyze the findings to draw conclusions on the effectiveness of Housing First in reducing homelessness in the United States.
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Overview

Personal Experiences

Growing up in Honolulu, Hawaiʻi in the town of Pauoa, which is located about 5 minutes from Downtown Honolulu, homelessness is something that I have always been aware of. As a child I can always remember homeless people scattered around the city. In Honolulu, it is common to see homeless people around the island, especially Downtown. When observing a sidewalk, people passing by will beeline to avoid a homeless individual, under a blanket, sleeping during the middle of the day. Workers and the elderly will stand at bus stops because a homeless individual is sleeping on the bus stop’s bench, using the awning for cover to shield themself from the sun and rain. Panhandlers are also common, holding cardboard signs and weaving through cars stopped at freeway off-ramps. At noon on a workday, the busiest time of day, many homeless individuals, some with clear mental health and substance abuse issues will roam the streets of Downtown Honolulu, some posing a threat to the safety of those looking to take their lunch back to the office despite the heightened police presence. In some areas of town, you can spot colorful tents and tarps lining a street, filled with homeless people all grouped together in a tiny community.

One memory that sticks out to me when I think of the homeless is when I was in the car with my dad, driving to the grocery store. I vividly remember it was a sunny day, the windows were down, and we were driving down Keʻeaumoku Street, one of the busier streets in town. A lady on the street, who was visibly homeless, was yelling towards our car. My dad and I were both startled, but I turned to him and said something to the effect of, “Dad, I think that lady knows you.” She was yelling his name, and as it turns out, she indeed did know him. My dad later explained how the woman was his high school friend’s cousin, and they had known each
other years ago but over time she encountered substance abuse issues, and later became homeless and out of touch with her family and friends. This moment showed to me how homelessness can affect anyone, sometimes people you may know, for reasons that could be beyond control. As the homeless problem has seemingly grown at home throughout my life, there also seems to be an increasing number of reasons why someone could become homeless, each individual carrying their own unique story of trials and tribulations, with hope one day that their story will represent triumph.

**Hawai`i’s Homelessness Challenges**

While my one personal memory is just one way homelessness “looks,” it is a serious problem in Hawai`i that seems to be becoming more prevalent as time goes on. According to the U.S. Department of Housing and Urban Development (HUD)’s Annual Homelessness Assessment Report (AHAR) for 2022, Hawai`i holds the fourth-highest homelessness rate in the country.¹ 62.7 percent of all people experiencing homelessness in Hawai`i were counted in unsheltered locations (Figure 1), while 76.6 percent of individuals experiencing homelessness on their own did so in unsheltered locations, the highest percentage in the country (Figure 2).² According to Partners In Care, the organization responsible for organizing homeless data in Hawai`i, from 2020 to 2022 the total homeless count actually decreased on the island of O`ahu by 11 percent, which was almost entirely driven by a 24 percent decrease in the sheltered homeless population.³ O`ahu is the main island in the State of Hawai`i and is home to the

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³ “PIT Count.” PARTNERS IN CARE. Partners in Care, July 6, 2022: 4. [https://www.partnersincareoahu.org/pit](https://www.partnersincareoahu.org/pit).
majority of the state’s population. The unsheltered homeless population marginally increased, yet still represents 60 percent of the total population on O’ahu (Figure 3).⁴

The statistics show that homelessness is actually decreasing, especially on my home island of O’ahu. While on the surface it seems that what I have observed in the past several years may have misled me to believe homelessness is increasing, this can be explained by the steady population of unsheltered homeless. The unsheltered homeless are more likely to be visible which can influence how one might describe the homeless situation based on what they see.⁵ Relative to the rest of the United States, the statistics show that Hawai`i has one of the highest homeless rates in the country – when taking into account the percentage of homeless that are unsheltered, there is no question that homelessness continues to be a critical issue visible to all in Hawai`i.

I also remember learning in school how homelessness comes in many forms. A few non-profit organizations every year would come to campus to give talks in auditoriums about homelessness. What stood out to me was their presentation and how homelessness isn’t always sleeping on the streets – many individuals or their families could live in shelters or in their car, or may be living with family and friends periodically. I remember these presenters asking students to bring in canned goods to help these families, as food security can be an issue for many, some not knowing where their next meal would be coming from. These organizations would preach about awareness and how to help, the canned goods being how everyone can “do their part” – I guess it was a small token of individual responsibility each member of the school could take on.

⁴ Ibid
Of course, individuals working alone cannot solve the problem. Indeed, Hawai‘i’s officials have been compelled to act. On January 23rd, 2023, in his first State of the State Address as Governor of Hawai‘i, Josh Green declared, “As long as we are in a housing crisis, we will treat it like an emergency.” The Governor had already signed an emergency proclamation to fast-track the construction process on 12 kauhale, or tiny villages, intended to provide housing for the homeless, and promised to prioritize mental health aid and existing homeless services. Other proposals look to expand the Statewide Office of Housing and Homelessness Solutions, in addition to increasing funding for other services catered towards serving the homeless population.

Widespread advocacy for increased homelessness services funding can be found elsewhere in Hawai‘i as well. Legislators have advocated for increased mental health and substance abuse services ahead of the 2023 legislative session, in response to the shortage of psychiatrists the state has faced recently. Homeless services groups and agencies are looking to create new strategies and secure more funding to find a way to combat a growing issue that has been ongoing for years.

During his 2022 gubernatorial campaign, then Lt. Gov. Green laid out a 10-point proposal plan with lofty goals of cutting homelessness in the state by more than half in the next few years.

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7 Ibid
9 Ibid
10 Ibid
four years and ending chronic homelessness completely by 2030.11 According to the Partners In Care report, 23 percent of adults and unaccompanied minors are chronically homeless (Figure 4).12 The Statewide Office on Homelessness and Housing Solutions website’s homepage features information on Housing First. The State Housing First Program is described as being implemented by the state Department of Human Services (DHS) in conjunction with HUD to target chronically homeless individuals and families, and has been incorporated into contracts for all state-funded homeless services programs.13 Hawai`i’s version of the program focuses on providing Permanent Supportive Housing (PSH), which includes long-term housing subsidies, in addition to a variety of services catered towards the chronically homeless to focus on rapid placement into housing and housing retention.14 In 2022, there were 2,052 individuals living in PSH units on O`ahu, a significant increase from the 735 units in 2015 (Figure 5).15 From 2015 to 2022, the total number of individuals living in shelter beds decreased from 2,964 to 1,596 (Figure 6).16 The data clearly shows an increase in Housing First and PSH over time, which is consistent with trends in United States federal policy.

The Housing First model established by Pathways to Housing, a New York organization founded by Sam Tsemberis that utilized city and state funds allocated to combat chronic homelessness and those affected by serious mental illness, prioritized providing housing first to affected individuals while offering nonconditional supportive services that remained a voluntary

11 Ibid
12 Partners in Care, “PIT Count,” 8.
14 State of Hawaii, “Housing First.”
15 Partners in Care, “PIT Count,” 10.
16 Ibid
option to the housed individuals.\textsuperscript{17} Housing First was originally based on providing PSH units to the chronically homeless, but while that still remains a priority of the approach, all services provided to the homeless are expected to be integrated with the Housing First approach.\textsuperscript{18} Within the Housing First model, housing is provided to individuals without prerequisites for sobriety or reception of treatment and leaves open a voluntary option to receive additional services.\textsuperscript{19} PSH is touted by proponents as being an evidence-based model that ends chronic homelessness.\textsuperscript{20} The Housing First approach is now the primary government response to homelessness, with over 350 states and localities estimated to utilize the approach with a goal of ending homelessness completely.\textsuperscript{21}

According to the 2022 AHAR, the chronically homeless represent just 30 percent of all individuals experiencing homelessness (Figure 7).\textsuperscript{22} Although Housing First was originally targeted towards the chronically homeless population, proponents of the approach believe it can end homelessness altogether. Despite PSH being targeted towards the chronically homeless, the scope of literature on Housing First and PSH studies both the chronically homeless and the entire homeless population. For these reasons, I’ve decided to review and analyze the effects of PSH on the entire homeless population for this paper. Although Hawai‘i is important to me on a personal level, much of the existing literature focuses on trends and analysis in the United States altogether without specific research on Hawai‘i, which is why I will focus on the national effects.

\textsuperscript{17} Shinn and Khadduri, “In the Midst of Plenty,” 82, 83.
\textsuperscript{19} Ibid
\textsuperscript{20} Shinn and Khadduri, “In the Midst of Plenty,” 104, 105.
\textsuperscript{22} de Sousa et al., “2022 AHAR,” 3.
While significant support and investment in Housing First and Permanent Supportive Housing seems promising in reducing or even ending homelessness, the question remains: does this approach reduce chronic homelessness, or homelessness altogether? Will a reduction in homelessness, if at all, remain sustainable into the future? This paper seeks to explore these questions. First, it provides context on the current state of homelessness in the United States. Second, it reviews the current and historical dynamics behind homelessness, and the historical approaches to reducing homelessness. Third, it reviews the literature evaluating the efficacy of the Housing First approach in reducing homelessness. Lastly, it returns to the homelessness issue and formulates policy proposals and future considerations.

**Data and Information on Homelessness in the U.S.**

Before examining the history and dynamics of homelessness, in addition to approaches to combating homelessness, it is important to understand the broader homelessness trends, the state of homelessness today, and the disparities within homelessness across the country. All of the above information is essential to understanding the mechanisms behind the different approaches aimed towards combatting and ending homelessness. This section seeks to explain the data on homelessness and recent historical trends in the United States, and how this data is collected and utilized.

Every year, the United States government produces data on homelessness throughout the country, which is useful in understanding the current situation and changes over time. As stated in the introduction, HUD, produces an annual report on homelessness called the Annual Homeless Assessment Report (AHAR), which is based largely on point-in-time (PIT) estimates
with data collected from Continuums of Care (CoC),\textsuperscript{23} which are generally a mix of local government, non-profit organizations dedicated to serving the homeless, and faith-based organizations that all work together to provide services to combat homelessness.\textsuperscript{24} The PIT estimates are usually taken for 10 days in January every year, which can be inaccurate because the time of year can have effects on where the homeless are at a given time.\textsuperscript{25} Conditions in January, such as colder weather, paycheck timing, and fluctuations in the cost of short-term rentals at this time of year could affect the PIT estimates, especially in cities with colder weather.\textsuperscript{26} Those counted as sheltered in the PIT estimates may have been unsheltered if it were not for weather or other seasonal factors. As you will find in the later literature reviews, the methodology used by HUD in its annual reports is scrutinized because of its potential inaccuracies in estimation, especially when a high percentage of the homeless population is unsheltered. The unsheltered homeless can be particularly difficult to count because they might not be visible to those administering the PIT count.\textsuperscript{27} While different factors can affect the accuracy of the number of homeless recorded as living in a shelter or on the street, the AHAR provides the most comprehensive source of information available on homelessness in the United States.

According to AHAR, on any given night in 2022, approximately 582,500 people experienced homelessness (Figure 8).\textsuperscript{28} These people stayed in sheltered locations such as emergency shelters, safe havens, or transitional housing programs, and also stayed in unsheltered

\textsuperscript{23} de Sousa et al., “2022 AHAR,” 6.
\textsuperscript{24} Shinn and Khadduri, “In the Midst of Plenty,” 91.
\textsuperscript{25} de Sousa et al., “2022 AHAR,” 6.
\textsuperscript{26} Ibid
\textsuperscript{27} Shinn and Khadduri, “In the Midst of Plenty,” 11.
\textsuperscript{28} de Sousa et al., “2022 AHAR,” 2.
locations such as on the streets or in or near abandoned buildings. While the PIT accounts for a variety of locations, this number is most likely higher because the PIT count can’t accurately account for individuals or families living with friends or relatives in the short-term. Although the COVID-19 pandemic certainly affected the homeless population and their access to services, homelessness increased by less than one percent from 2020 to 2022. During this same time period, the National Inventory of Beds available for those who are currently or were formerly homeless increased by three percent. It’s important to note that drawing conclusions by observing changes from 2020 to 2022 is far more accurate than including 2021’s data, given the difficulty CoC’s had in accurately recording PIT estimates due to pandemic-related restrictions and safety precautions. In regards to changes over time, according to the AHAR, from 2007 to 2022 “the number of all people experiencing homelessness on a single night in January is ten percent lower (64,796 fewer people).”

Despite this, during the same time period the total number of individuals experiencing chronic homelessness on a single night increased by 6.6 percent. Currently, 30 percent of all homeless individuals are chronically homeless, and from 2020-2022, chronic homelessness increased by 15.6 percent. As the literature reviewed later in this paper will show, the differences between chronically vs. non-chronically homeless individuals, and sheltered vs. unsheltered homelessness are critical to understanding homelessness approaches. 60 percent of all homeless

29 Ibid
30 Ibid
31 Ibid
32 Ibid
34 de Sousa et al., “2022 AHAR,” 73.
individuals are sheltered, and the number of sheltered, chronically homeless individuals has increased by 32.4 percent from 2020-2022 (Table 1). These statistics show that while the overall homeless count may be lowering, individuals are increasingly finding themselves “stuck” in homelessness, even those who have already been placed in shelters.

While the statistics provided by HUD give some insight into the homelessness situation regarding America as a whole, the effects of homelessness vary across race and areas around the country. Homelessness affects certain races at a higher rate than others. This section will review the race disparities that exist among the homeless population today, and the next section’s literature will show that factors behind poverty are significantly impacted by race and ethnicity.

Disparities

Those who identify as Black, African or African American, or indigenous peoples faced homelessness at a higher rate compared to the rest of the United States population. This definition of indigenous peoples includes both Native Americans and Pacific Islanders. According to the 2022 AHAR, “People who identify as Black made up just 12 percent of the total U.S. population but comprised 37 percent of all people experiencing homelessness and 50 percent of people experiencing homelessness as members of families with children” (Table 2). The dynamics of disparities across racial groups and its implications for potential causal effects will be examined in-depth later on in the dynamics of homelessness section, but it’s important to note initially that certain minority groups represent a larger share of the homeless population than their share of the total United States population.

36 de Sousa et al., “2022 AHAR,” 73.
37 de Sousa et al., “2022 AHAR,” 2.
38 Ibid
In addition to differences in homeless rates across race, different areas of the country in particular face homelessness at increased rates, and have had significant increases in homelessness over time. In 2022, 50.3 percent of all homeless in the United States lived in a major city, while roughly 20 percent of all homeless in the U.S. lived in either Los Angeles or New York City (Table 3). From 2007-2022, Nevada, Oregon, and Washington’s numbers of individuals experiencing chronic homelessness have skyrocketed, increasing by 183.4 percent 127.9 percent, and 216.0 percent, respectively (Table 4). The number of homeless in different areas across the country vary greatly, and over time, certain areas have been affected much more than others. These variations and disparities give a glimpse into the difficulties associated with understanding and approaching homelessness in America.

The data on the current state of homelessness clearly shows that homelessness is not identical across the country. Homelessness varies across race, and different cities and states are affected by homelessness more than others. Major cities like Los Angeles and New York experience extremely high homeless rates relative to smaller cities, while states like Nevada, Oregon, and Washington have seen tremendous increases in chronic homelessness. What’s not included in the data are potential inaccuracies in the PIT counts, which can be particularly hard to estimate correctly. The next section seeks to explain the broader context of homelessness by explaining the dynamics of homelessness, the history of homelessness, and how the Housing First approach compares relative to current and historical approaches to reducing homelessness.

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40 de Sousa et al., “2022 AHAR,” 75
Dynamics of Homelessness

Before focusing on the Housing First approach and Permanently Supportive Housing, it is important to understand the homelessness in the United States, the dynamics behind homelessness, and the approaches to homelessness, all in a historical context. To explain homelessness in the United States and analyze the most pertinent and significant factors that contribute to homelessness, homelessness experts Marybeth Shinn and Jill Khadduri lay out a comprehensive overview of homelessness through their 2020 book *In the Midst of Plenty: Homelessness and What To Do About It*. Despite tendencies to focus on chronic homelessness and effort to combat it, this book simultaneously covers key concepts that encompass the entire homeless population. While this review of *In the Midst of Plenty* isn’t intended to be an in-depth examination of all services and initiatives implemented towards solving homelessness both past and present, it does an excellent job providing a broad overview of the history of homelessness in the United States, the societal and individual dynamics behind homelessness, and the history of services and initiatives aimed at solving homelessness.

In their book, Shinn and Khadduri argue that the explanation for homelessness needs to be divided into two parts – societal factors and individual factors. In the 1980s and 1990s, root causes of homelessness were theorized but they didn’t necessarily mean the same thing. According to Shinn and Khadduri, “root causes” of homelessness were either attributed to societal factors or individual circumstances: “It is conventional to divide explanations for homelessness between societal or “structural” factors and individual vulnerabilities. As rising levels of homelessness began to capture the attention of researchers and social theorists in the

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41 Shinn and Khadduri, “In the Midst of Plenty,” 33.
42 Ibid
1980s and 1990s, proponents of individual and structural explanations clashed. Each argued to focus on ‘root causes’ but defined those causes quite differently as residing in individual vulnerabilities or societal failures.” Shinn and Khadduri attribute the different definitions of “root causes” to the level of analysis being used – homelessness can be looked at on an individual level, or on a larger, societal scale. On the individual level, some factors include addiction, job loss, and mental illness, while on the societal level, income inequality, job loss and recession are factors among many others that are too difficult to point to an exact cause or causes. They also use an analogy to aid in their explanation of the homelessness issue:

Explanations at both levels matter, but they matter differently. Homelessness is like the children’s game of musical chairs—the chairs are inexpensive housing units; the players are poor individuals or families who need them. As the supply of cheap housing shrinks (chairs get removed from the game), some people double up (sit on each other’s laps) when the music stops, while others are left homeless or find chairs outside the circle (housing they cannot afford) and eventually have those chairs pulled out from underneath them and become homeless (McChesney, 1990). Structural factors such as levels of poverty, inequality, social exclusion, and rents that outstrip incomes at the bottom of the income distribution determine the number of chairs and the number of players—and hence the rates of homelessness. Individual vulnerabilities such as mental illness, poverty, and domestic violence—plus simple bad luck (not being right in front of one of the chairs)— determine

43 Shinn and Khadduri, “In the Midst of Plenty,” 33, 34.
44 Shinn and Khadduri, “In the Midst of Plenty,” 34.
45 Shinn and Khadduri, “In the Midst of Plenty,” 33.
who isn’t nimble enough to grab a chair, sit on someone’s lap, or find a chair outside the circle.46

Although this analogy does not explain the issue completely, it does have value in providing what the issue entails and how to explain it in general terms.

Shinn and Khadduri maintain that “individual characteristics are risk factors for homelessness only because of social arrangements,” arrangements which are attributable to ineffective social policies.47 Their primary argument is that homelessness is the result of a lack of affordable housing and that an imbalance between housing prices and income levels exists.48 The bulk of the emphasis on understanding the homelessness issue should be placed on this imbalance. In a nutshell, this imbalance exists because on the supply-side, market conditions make it unaffordable for landlords to lower rent to minimum that lowest-wage earners can meet using public subsidies, because subsidies are inadequate to meet demand (Figure 9).49 On the demand side, single-earner, low-wage households cannot find housing they can afford and income volatility prevents low-wage earners from saving.50 Comparisons between the United States and countries from around the world should be made in order to understand the magnitude of the homelessness issue in the United States.

**American Homelessness in a Global Context**

Despite being one of the wealthiest countries in the world, the United States has particularly high rates of homelessness.51 The United States has generally had more poverty and

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46 Shinn and Khadduri, “In the Midst of Plenty,” 34.
48 Ibid
49 Ibid
50 Shinn and Khadduri, “In the Midst of Plenty,” 35.
51 Ibid
social programs that offer less aid than its counterparts. Telephone surveys in the early 2000s found that the United States had lifetime homeless rates of 6.2 percent, compared to a rate of 2.0-4.0 percent in Germany, Italy, or Belgium. Lifetime as used in this context refers to experiencing homelessness at any point in the respondent’s life. Shinn and Khadduri point to the differences in social services between the United States and other high-income countries as reasons for the homelessness rate disparities. They claim cash grants, taxes and other transfer programs are less effective than those of its high-income counterparts, while the large disparities in health insurance and childcare further contribute to the overall disparities. Another example of the disparities between the United States and other countries lies within the percentage of the population with a disposable income that is less than half of the country’s median income. According to Shinn and Khadduri, 16.2 percent of the population in the United States has a disposable income less than half of the country’s median income, significantly higher than France, Germany, Luxembourg and the Netherlands’ average of 7.6 percent of the population. These examples show significant disparities between homelessness in the United States and other countries around the world, and while homelessness is not solely an American issue, the magnitude of homelessness in America is cause for concern that calls for significant attention.

As described in the previous section, Shinn and Khadduri note that societal impacts have significant effects on homelessness, namely the ability for the individual to have sufficient income to meet the market rent floor. The next two sections explain some of the societal factors

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52 Shinn and Khadduri, “In the Midst of Plenty,” 36.
53 Shinn and Khadduri, “In the Midst of Plenty,” 36.
54 Ibid
55 Shinn and Khadduri, “In the Midst of Plenty,” 36, 37.
56 Shinn and Khadduri, “In the Midst of Plenty,” 37.
that can impact the ability for individuals to generate income, and the societal factors that can impact housing costs around the country.

**Families, Poverty Aid, and Income Inequality**

Shinn and Khadduri also point to the United States’ homelessness rates among families and homeless parents separated from their children as additional evidence illustrating the severity of the issue. According to them, 21.1 percent of children under the age of 18 lives in a household with a disposable income of less than half the country’s median, compared to just 11.6 percent of children in continental Europe.\(^{57}\) Children must be considered when examining poverty in the United States, because the more children a family has, the less income the family has per member of the household.\(^{58}\) Infancy is when a child is most likely to become homeless in the United States, and this rate doesn’t decrease until a child is eligible for free childcare in the form of public schooling.\(^{59}\) Shinn and Khadduri further highlight the costs of childcare and the lack of funding, noting that of children ages 3-5 that are eligible for Head Start, just 31 percent of children have access, and that disadvantaged families are also least likely to utilize other childcare subsidies that exist.\(^{60}\) Impacts on children’s well-being in the United States are concerning, and mechanisms behind the impacts can be examined through a broader scope.

In comparison to other comparable countries around the world, the United States possesses significantly higher income disparities amongst its population. The 90/10 ratio, or the ratio between the income distribution of people at the 90th percentile compared with those of the 10th percentile, is another metric used to measure income distribution and income inequality. By

\(^{57}\) Ibid  
\(^{58}\) Shinn and Khadduri, “In the Midst of Plenty,” 38.  
\(^{59}\) Ibid  
\(^{60}\) Ibid
this metric, the United States possesses much greater income inequality than other wealthy countries, having a ratio of 6.3, significantly higher than the ratios of 3.8 or 3.4 for Germany and France, respectively.\textsuperscript{61} Shinn and Khadduri also cite the United States as having “the largest fraction of cash renters paying more than half their income for housing”\textsuperscript{62} as another sign of the societal factors that increase pressure on the difficulties of remaining in housing.

Shinn and Khadduri also point to “deep poverty” as having significant relevance to homelessness in the United States, which can be defined as “having a cash income below half of the relevant poverty threshold”.\textsuperscript{63} These individuals are unable to limit expenses in an effort to pay for housing – and yet 5.7 percent of Americans, including 8.0 percent of children, were living in deep poverty in 2017.\textsuperscript{64} Over time, the amount of poor people in the United States has increased over time: According to Shinn and Khadduri, “The fraction of all people living in poverty who are deeply poor increased from 29 percent in 1968 to 44 percent in and stood at 47 percent in 2017.”\textsuperscript{65} The increasing deep poverty in the United States further illustrates the issue at hand and shows how difficult life in America can be.

On a program and service level, changes in anti-poverty programs over time have affected at-risk and homeless individuals and families. Poverty programs were restructured in the late 1990s, shifting from aiding the poorest families to incentivizing those actively engaged with the labor market.\textsuperscript{66} The Temporary Aid to Needy Families (TANF) and the Earned Income Tax

\textsuperscript{61} Ibid
\textsuperscript{62} Ibid
\textsuperscript{63} Shinn and Khadduri, “In the Midst of Plenty,” 39.
\textsuperscript{64} Ibid
\textsuperscript{65} Shinn and Khadduri, “In the Midst of Plenty,” 40.
\textsuperscript{66} Ibid
Credit (EITC) programs were geared towards aiding families with low-wage workers.\textsuperscript{67} In addition to reduced aid from welfare programs, families who are eligible failed to receive benefits, and households without workers were left without assistance.\textsuperscript{68} The Supplemental Nutrition Assistance Program (SNAP) helped to offset decreases in cash aid, but benefits primarily families with children.\textsuperscript{69} These increased difficulties to obtain aid have forced households to squeeze into homes with families or friends, and have caused individuals to seek alternative methods of employment.\textsuperscript{70} Changes in anti-poverty programs have had significant impacts on Americans, diminishing the ability for those unemployed to afford housing, especially for individuals without children.

Income volatility can be expected for every household in the United States, but this can become a tipping point for families on the verge of homelessness.\textsuperscript{71} According to Shinn and Khadduri’s findings, “year-to-year volatility in household income increased after 1970, particularly for people with low incomes or little education – precisely those with the least ability to weather such changes.”\textsuperscript{72} Different factors for low-wage workers such as lack of bargaining power in their jobs, difficulty in attaining childcare, and the dependence of income-aiding government benefits on employment that create increased income volatility.\textsuperscript{73} The increased income volatility for low-wage workers exemplifies how even slight instances of misfortune can become magnified and change housing situations drastically for these workers and their families.

\textsuperscript{67} Ibid
\textsuperscript{68} Ibid
\textsuperscript{69} Ibid
\textsuperscript{70} Shinn and Khadduri, “In the Midst of Plenty,” 41.
\textsuperscript{71} Shinn and Khadduri, “In the Midst of Plenty,” 43.
\textsuperscript{72} Ibid
\textsuperscript{73} Ibid
For the lowest earners in the population, maintaining a job, generating enough income and receiving sufficient aid to be able to attain and retain housing can be difficult. The social safety net can provide relief to the lowest earners, especially those with children, but for individuals living on their own this relief could be minimal. While I believe that families with children should be prioritized because children should not have to deal with long-term effects of homelessness that take root at a young age, the social safety net could be reconsidered as a significant tool to be utilized in the future, with reallocation of existing funds earmarked for poverty aid to support individuals living on their own. Given the significant income disparities that exist in the United States relative to other countries, greater redistribution of wealth could also be visited in order to bolster the safety net in the future.

As Shinn and Khadduri describe, a simple explanation of the ability to be housed has two factors – on one hand, individuals need to be able to afford housing, which could be through earning income or receiving aid, most likely a combination of both for the lowest earners in the population. On the other hand, the cost of housing needs to be at a level in which individuals can afford, more specifically rental costs since the lowest earners are not likely to be able to purchase a condo or home. This next section explains historical changes in the housing supply in addition to variation in the housing supply across the country.

**History and Variation in Affordable Housing**

To connect poverty and housing to homelessness and explain their relationship, variations over time and region in the United States should be examined. The quality of housing has changed drastically since World War II and especially in recent decades, with home quality
improving. Shinn and Khadduri link improvements in home quality to income growth in the 1950s and 1960s, as well as “urban renewal,” which systematically destroyed older neighborhoods. From the American Housing Survey (AHS), “severely inadequate” housing decreased from 4.2 percent of all units in 1974 to just 1.7 percent in. Additionally, in 1940, 47 percent of the housing stock was without complete plumbing in comparison to a mere 3 percent in 1970. The increases in housing quality made it more difficult for families living in poverty to find affordable housing, and according to Shinn and Khadduri, 72.5 percent of all renters paid over a quarter of their income towards housing in 2009, compared to just 35.3 percent of all renters in 1960. With government regulations increasing quality standards of new home construction, wealthier families moved into newer homes while less wealthy families moved into older homes. The trickle-down effect doesn’t reach poverty-level families, however, as the rent floor exceeds what they were able to afford, thus preventing poverty-level families out of housing. Construction regulations, among other factors, can also be tied to regional variations in housing affordability in the United States.

The availability of affordable housing is not the same across the United States, varying in different areas of the country. Shinn and Khadduri cite a few factors that may influence this variation, including income inequality, regulations that differ among states, and the loss of SRO

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74 Shinn and Khadduri, “In the Midst of Plenty,” 45.
75 Shinn and Khadduri, “In the Midst of Plenty,” 45.
77 Shinn and Khadduri, “In the Midst of Plenty,” 45.
78 Ibid
79 Shinn and Khadduri, “In the Midst of Plenty,” 46.
80 Ibid
81 Ibid
hotels.\textsuperscript{83} In cities where there are higher numbers of both poor individuals and wealthy individuals, less affordable units may be produced as a result of a smaller middle-class (Figure 10).\textsuperscript{84} Zoning and construction limitations have effects on the lowest earners in the population, with limited supply of affordable housing for that group and fewer additions made to the housing supply.\textsuperscript{85} Shinn and Khadduri further support their argument by citing the disappearance of Single Room Occupancy hotels, or SRO hotels, in which individuals used to live before the 1970s.\textsuperscript{86} In the 1970s, this form of affordable housing that was prominent in cities like New York, Chicago, and Los Angeles disappeared, some being converted to luxury housing or for other uses.\textsuperscript{87} These factors combined help to explain the affordable housing supply variations in areas across the United States.

As time has gone on, stricter housing regulation has had upward pressures on the costs of housing across the country. However, variations in housing costs across different areas of the country exist due to differences in distribution of wealth, construction regulations, types of housing available, and broader economic factors. It should be noted that all of these factors in regional variation mentioned could affect one another in some form or fashion. Regardless of variation, the housing supply is important to understanding the societal factors that can contribute to homelessness, and that even if all low-income individuals generated the same amount of income, depending on where an individual lives, this still might not be enough for some. The factors of income and housing costs can be affected by government policy, which is

\textsuperscript{83} Shinn and Khadduri, “In the Midst of Plenty,” 49, 50.  
\textsuperscript{84} Shinn and Khadduri, “In the Midst of Plenty,” 49.  
\textsuperscript{85} Shinn and Khadduri, “In the Midst of Plenty,” 50.  
\textsuperscript{86} Ibid  
\textsuperscript{87} Ibid
important to consider when examining how the government takes policy approaches towards combating homelessness.

Understanding the dynamics behind homelessness is essential to understanding homelessness approaches, considering the factors affecting these approaches, and what their potential outcomes might be. While we now know some of the societal conditions in the United States can affect an individual’s risk for homelessness, individual characteristics and their interaction with additional social and societal factors can also help explain homelessness risk. It’s important to emphasize that homelessness for each individual or family has a unique set of factors that can’t really be explained, and it is unlikely to find another individual or family with the exact same set of factors that led them into homelessness. However, understanding the components and dynamics behind the factors that contribute to homelessness can help us to identify at least some common trends that can inform who is most at-risk and how these risks can be mitigated. Shinn and Khadduri identify and explain some of the most pertinent individual factors.

**Social and Societal Components of Homelessness Risk**

To examine homelessness factors on a more individual level, Shinn and Khadduri examine significant cultural, social, and societal factors, and their interactions, that contribute to homelessness risk. While they comprehensively list a number of factors for why people could become homeless, I break down the most significant factors on this list: Race and ethnicity, income, wealth, housing discrimination, incarceration, mental illness and other disabilities, sexual orientation, and hard times/bad luck. Income, wealth, housing discrimination, and incarceration all have an increased intersectionality with race and ethnicity, although all of the
factors listed by Shinn and Khadduri could potentially intersect with race and ethnicity. These factors all have both a social and societal component that have effects on an individual-by-individual level.

Racial and ethnic minority groups are more likely to be at-risk for homelessness. According to Shinn and Khadduri, “the percentage of African Americans found in homeless shelters is almost three and a half times the proportion in the general population and the percentage of Native Americans is twice as high.” Shinn and Khadduri point to income, wealth, housing, and imprisonment as four forms of social exclusion that are important to understanding the links between minority status and homelessness.

Income inequalities between black and white families have increased since the 1980s and continued to this day. According to Shinn and Khadduri, while unemployment rates overall have fluctuated over the past 30 years, unemployment rates for both blacks and whites has remained steady, hovering around 6.1 percent and 3.2 percent, respectively. Shinn and Khadduri also cite Bertrand and Mullainathan’s 2004 study that found significant discrimination towards black job applicants in comparison to white applicants. Keeping in mind the importance of employment and income to obtain and maintain housing, this shows the increased difficulties that ethnic and racial minorities can face in generating the necessary income to maintain housing.

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88 Shinn and Khadduri, “In the Midst of Plenty,” 54.
89 Shinn and Khadduri, “In the Midst of Plenty,” 53.
90 Ibid
91 Shinn and Khadduri, “In the Midst of Plenty,” 54.
92 Ibid
93 Shinn and Khadduri, “In the Midst of Plenty,” 54.
94 Shinn and Khadduri, “In the Midst of Plenty,” 54, 55.
Shinn and Khadduri further argue that minorities have difficulty accumulating wealth compared to their white counterparts. According to Shinn and Khadduri, “in 1994 the median net worth of white families in the United States was nearly eight times that of African American families,” while in 2013, this number jumped to 13 times. These statistics show that minority families have historically limited income in comparison to white families, which reduces not only minority families’ ability to support themselves during hard times such as unemployment or reduced income levels, but also reduces their ability to help other families close to them when they fall on hard times. Shinn and Khadduri also highlight the generational effects that lack of wealth can have on homelessness, noting that “homeless adults often grow up in poor families or those with low social status,” which further shows the importance of wealth and its effect on homelessness.

Housing discrimination is another form of social exclusion that influences homelessness. Shinn and Khadduri cite historical examples explain the social exclusion that has occurred in the United States, starting with the Federal Housing Administration’s (FHA) redlining practices in the 1930s, which created limitations on access to housing for African Americans and although since ended, effects are still felt today by those affected. As recently as 2012, despite being illegal, HUD found through tests that considerable amounts of housing discrimination still existed towards African Americans in comparison to their white counterparts.

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95 Shinn and Khadduri, “In the Midst of Plenty,” 55.
96 Ibid
97 Ibid
98 Ibid
99 Shinn and Khadduri, “In the Midst of Plenty,” 56.
100 Shinn and Khadduri, “In the Midst of Plenty,” 58.
This discrimination leads to barriers to accumulating wealth through appreciation in home value for minorities, as well as barriers to opportunities to live in areas with better resources such as schooling.\(^{102}\)

The United States has the highest incarcerations rates in the world, with African Americans being imprisoned at disproportionate rates to the rest of the population.\(^{103}\) According to Shinn and Khadduri, “among adult men, aged 20-34, 11.5 percent of non-Hispanic blacks were incarcerated in 2000, compared to 1.5 percent of non-Hispanic whites.”\(^{104}\) Incarceration takes away a wage-earner for families and can lead to a loss of welfare benefits and access to many other services and forms of aid following release from prison, which affects the ability to afford housing.\(^{105}\) Incarceration also limits job opportunities, which further hinders one’s ability to afford housing.\(^{106}\) The evidence clearly shows that imprisonment can have significant effects on homelessness risk, especially for minorities, which in turn can create increased risk for homelessness for families with an incarcerated or formerly incarcerated adult.

For individuals living with mental illness or other disabilities, social exclusion affects these individuals in similar forms as racial minorities.\(^{107}\) While individuals living with serious mental illness tend to be the most ostracized culturally, Shinn and Khadduri point out the number of homeless individuals living with mental illness tends to be overstated while clarifying how prevalent the different forms of mental illness are within the homeless population: “even cross-

\(^{101}\) Shinn and Khadduri, “In the Midst of Plenty,” 57.
\(^{102}\) Shinn and Khadduri, “In the Midst of Plenty,” 58, 59.
\(^{103}\) Shinn and Khadduri, “In the Midst of Plenty,” 59.
\(^{104}\) Shinn and Khadduri, “In the Midst of Plenty,” 60.
\(^{105}\) Ibid
\(^{106}\) Shinn and Khadduri, “In the Midst of Plenty,” 61.
\(^{107}\) Shinn and Khadduri, “In the Midst of Plenty,” 62.
sectional studies, which overemphasize people experiencing chronic homelessness, suggest that only about a quarter of adults experiencing homelessness have a serious mental illness, if we do not count alcohol and drug dependence, and only about an eighth have a psychotic illness. Alcohol and drug dependence, which often co-occur with other forms of mental illness, were the most common mental disorders, experienced by almost two fifths (alcohol) and one quarter (drugs). These studies do not include children or women in families, who may experience high rates of depression or anxiety, but who have lower levels of psychotic disorders and substance use disorders.”108 This clearly shows the prevalence and impact forms of mental illness can have on the homeless population, and how imperative it is to account for mental illness when analyzing homelessness.109

Individuals with mental illness or other disabilities, although protected by the Americans with Disabilities Act (ADA), still face employment discrimination, which limits their ability to earn income.110 These individuals also face housing discrimination: according to Shinn and Khadduri, “almost three-fifths of fair housing complaints filed with HUD in FY 2017 involved discrimination on the basis of disability.”111 Additionally, similar to racial minorities, individuals with mental illness or other disabilities have higher lifetime arrest rates, and can be more inclined to commit crimes when psychologically distressed, especially during periods of homelessness.112 Individuals with serious mental illness were found to be not very likely to commit crimes, but this likelihood increased when they were homeless vs. when they were housed.113 As

108 Ibid
110 Shinn and Khadduri, “In the Midst of Plenty,” 62.
111 Shinn and Khadduri, “In the Midst of Plenty,” 63.
112 Shinn and Khadduri, “In the Midst of Plenty,” 64.
113 Ibid
incarceration effects on homelessness risk were noted previously with racial minorities, this puts individuals with mental illness at increased risk to be negatively affected due to potential intersection with other risk factors. This evidence highlights the discrimination individuals living with mental illness or other disabilities can affect their risk for homelessness in similar ways as racial minorities, and how this individual characteristic can be a factor for increased risk.

Another individual characteristic that doesn’t receive attention yet is highly pertinent to understanding factors behind homelessness is being a childless adult. Childless adults are ineligible for the same level of benefits as adults with children, which forces a reliance on income to pay bills. While being childless prevents access to most government benefits, in 2022 roughly 7 percent of all people experiencing homelessness lived in households without children. According to Fontenot et. al. (2018), “Childless adults with incomes below the poverty level are even more likely than families with children to be deeply poor.” This shows how the government benefit structure can make it challenging for individuals without children to avoid homelessness. The lack of awareness surrounding childless adults could stem from difficulties in understanding poverty amongst childless adults that arise from inaccurate data.

College students or young adults starting their career that receive financial support from their parents can be included as part of childless adults’ group, which renders statistics on this group inaccurate. While Shinn and Khadduri did not find conclusive evidence linking social

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114 Shinn and Khadduri, “In the Midst of Plenty,” 40.
115 de Sousa et al., “2022 AHAR,” 2.

117 Shinn and Khadduri, “In the Midst of Plenty,” 41, 42.
isolation to homelessness, being a childless adult, especially those who are single, can be a difficult circumstance to overcome when facing homelessness.\textsuperscript{118}

I argue that childless adults should receive more focus when analyzing homelessness in the future. As I mentioned earlier, I still believe children, especially families with children, should be a priority. However, given the data on the prevalence of homeless individuals and the lack of accurate information on them, I believe homeless individuals who are living on their own should receive more attention because they represent such a significant portion of the homeless population nationwide.

While data is somewhat limited, LGBTQ-identifying individuals face discrimination as well.\textsuperscript{119} LGBTQ individuals can be ostracized from their families at a young age and face abuse, making it more difficult to attain and maintain housing, discrimination in the housing application process can also add to their difficulties.\textsuperscript{120} Additionally, LGBTQ individuals can also have intersecting identities such as being a racial minority, which can compound the discrimination they face and further increase their challenges.

Hard times and bad luck can also be an instrumental factor in causing homelessness amongst individuals.\textsuperscript{121} A study by O’Flaherty (2010) highlights examples of bad luck that affects housing situations including job loss, loss of home, and health problems, all factors tied to income levels and housing affordability.\textsuperscript{122} The loss of a job can reduce an individual’s income levels, making it difficult for them to afford housing.\textsuperscript{123} There are many ways an individual can

\textsuperscript{118} Shinn and Khadduri, “In the Midst of Plenty,” 67.
\textsuperscript{119} Shinn and Khadduri, “In the Midst of Plenty,” 65.
\textsuperscript{120} Shinn and Khadduri, “In the Midst of Plenty,” 65.
\textsuperscript{121} Shinn and Khadduri, “In the Midst of Plenty,” 69.
\textsuperscript{122} Ibid
\textsuperscript{123} Ibid
lose a home, whether it be eviction, a fire, natural disaster, or another reason.\textsuperscript{124} This can make it difficult for those affected by the loss of a house to find long-term housing again. Health problems can affect an individual’s ability to work and earn income, and this reduction in income has similar effects to that of job loss.\textsuperscript{125} Shinn and Khadduri further add that single instances of bad luck may not be enough to render a person homeless, but it can compound the effects of other factors related to obtaining and maintaining housing.\textsuperscript{126} They also note that poor individual choices can compound the effects of bad luck, which can lead to homelessness for unfortunate individuals.\textsuperscript{127} When it comes to another instance of bad luck, domestic violence, Shinn and Khadduri lacked sufficient evidence to draw conclusions on the link between domestic violence and homelessness, but rather emphasized that housing subsidies can simultaneously reduce homelessness and domestic violence rates.\textsuperscript{128} Regardless of the instance of misfortune, it is clear that personal circumstances like an instance of bad luck can significantly increase the chances of homelessness for at-risk individuals.

As Shinn and Khadduri find, race and ethnicity, income, wealth, housing discrimination, incarceration, mental illness and/or disabilities, sexual orientation, and hard times/bad luck are all individual factors important in explaining risk for homelessness. While these factors or a combination of factors vary from case-to-case amongst the homeless population, understanding how these factors affect homelessness risk can help in understanding current policy approaches in addition to future policy approaches. Race and ethnicity are significant factors in

\textsuperscript{124} Ibid
\textsuperscript{125} Ibid
\textsuperscript{126} Ibid
\textsuperscript{127} Ibid
\textsuperscript{128} Shinn and Khadduri, “In the Midst of Plenty,” 67, 68.
understanding general inequality that exists in America. Furthermore, Shinn and Khadduri find race and ethnicity to have interactions on multiple other individual risk factors, and because of that I believe it warrants significant emphasis and inclusion in understanding homelessness and approaches to it. The next section details the history of homelessness approaches and changes over time, as well as federal government influence on the approaches utilized towards combatting homelessness.

**History of Homelessness Approaches**

The federal government’s approaches to homelessness have changed over time in response to the changes in urgency of the homelessness issue. This section details the history of the approaches over time. Even some of the older approaches utilized decades ago are still utilized to this day, albeit with less prominence. Understanding the history of the approaches and the approaches currently utilized helps to understand how Housing First compares relative to other approaches, and will also help in analysis of the Housing First approach.

A comprehensive, cohesive system to address homelessness in the United States has been in place since the late 1980s.129 According to Shinn and Khadduri, the “emergence of a homeless services system was in part driven by the responses to homelessness of particular cities and in part by a requirement by the U.S. Department of Housing and Urban Development (HUD) that requests for funding explicitly targeted to ending homelessness go through a single planning organization in each community, the Continuum of Care.”130 As mentioned early on in this paper, CoC’s are generally a mix of local government, non-profit organizations dedicated to serving the homeless, and faith-based organizations that all work together to provide services to

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129 Shinn and Khadduri, “In the Midst of Plenty,” 91.
130 Shinn and Khadduri, “In the Midst of Plenty,” 91, 92.
combat homelessness. They’re considered a short-term solution for individuals and families facing homelessness, but limited studies have been done on the actual effectiveness of these shelters on reducing homelessness. As the name explains, emergency shelters are intended to be short-term solutions for those facing homelessness, but are not sufficient solutions for chronic homelessness.

The next step up from emergency shelters is transitional housing. Transitional housing programs can offer up to two years of subsidized housing, and these programs can also provide a multitude of supportive services. Shinn and Khadduri further explain that “treatment first” services such as “case management, employment, life skills training, and substance abuse and mental health services” are offered to clients that live in supervised rental housing. Shinn and Khadduri also elaborate on the prevalence of this “treatment first” approach: “Until recently, transitional housing was the dominant alternative to shelters and permanent supportive housing. Surprisingly little research has been conducted on a program that has consumed so many public dollars.” While transitional housing used to be a common approach, newer methods such as rapid re-housing and permanent supportive housing have become more popular approaches, as

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131 Shinn and Khadduri, “In the Midst of Plenty,” 91.
132 Ibid
133 Shinn and Khadduri, “In the Midst of Plenty,” 92.
134 Shinn and Khadduri, “In the Midst of Plenty,” 92, 93.
135 Shinn and Khadduri, “In the Midst of Plenty,” 93.
136 Ibid
137 Ibid
138 Shinn and Khadduri, “In the Midst of Plenty,” 93.
HUD currently encourages funds to be used towards rapid re-housing or permanent supportive housing.\textsuperscript{139} 

Rapid re-housing is defined by Shinn and Khadduri as “short-term rental subsidies coupled with short-term case management to get families out of the shelter system and into regular housing as quickly as possible.”\textsuperscript{140} Shinn and Khadduri cite the cost of transitional housing and lackluster outcomes as reasons why the rapid re-housing model was created. The Rapid Re-housing Demonstration Program was a federal pilot program used to expand this model on a wider scale once it became a seemingly viable solution, targeting families who actively sought to increase income yet faced a barrier or barriers to securing housing.\textsuperscript{141} According to Shinn and Khadduri, “Proponents of rapid re-housing often argue for a ‘progressive engagement’ or ‘progressive assistance’ approach, offering just enough support to help people stabilize in housing. Support can be individualized at the start, based on household needs and later adjusted if the household needs change or are better understood. Support is then discontinued when stability seems likely in the near term.”\textsuperscript{142} However, Shinn and Khadduri also note that if families under rapid re-housing programs did not maintain a regular income stream, their housing would be taken away, and if they began to make too much money, their benefits would be reduced – problems with the ‘progressive assistance’ approach that hinder the effectiveness of the rapid re-housing system.\textsuperscript{143} This leads us back to the permanent supportive housing approach, which has been the most commonly endorsed model in recent times.\textsuperscript{144} 

\textsuperscript{139} Shinn and Khadduri, “In the Midst of Plenty,” 93, 97.  
\textsuperscript{140} Shinn and Khadduri, “In the Midst of Plenty,” 97.  
\textsuperscript{141} Shinn and Khadduri, “In the Midst of Plenty,” 99  
\textsuperscript{142} Shinn and Khadduri, “In the Midst of Plenty,” 103.  
\textsuperscript{143} Shinn and Khadduri, “In the Midst of Plenty,” 103, 104.  
\textsuperscript{144} Shinn and Khadduri, “In the Midst of Plenty,” 93.
Permanent Supportive Housing (PSH), as mentioned earlier in this paper, is a recently implemented, evidence-based model that generally prioritizes establishing housing first to those in need (Figure 11). In the late 1990s, federal policymakers and community leaders agreed that the evidence was strong enough to back PSH as the solution that could end chronic homelessness. When referring to the Pathways to Housing model in which Housing First as we know it is based upon, according to Shinn and Khadduri, “The Pathways to Housing model views housing as a human right, not a privilege to be earned.” One of the cornerstones of this model’s foundation is consumer choice, and since housing is highest in demand of all services for those facing homelessness, housing is provided first with the option to receive voluntary supplementary services. The program takes a “harm reduction” approach to substance use, allowing those who use substances in private spaces without harming others to obtain and maintain housing.

City and state funds are used as rent subsidies to house affected individuals, and tenants in the program are subject to the same rules and requirements as other tenants living within the property. However, the federal government’s initiatives and policies have led to the concentration of homeless services funding being spent on Housing First. According to Stephen Eide of the Manhattan Institute, “HUD is the most important agency in federal homelessness policy because of its responsibility to disburse billions in funds for homelessness

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146 Ibid
147 Shinn and Khadduri, “In the Midst of Plenty,” 83.
148 Ibid
149 Ibid
150 Ibid
151 Eide, “Housing First and Homelessness,” 7.
programs to states and localities.”152 In 2018, $1,542,451,024 was awarded through HUD’s Homeless Assistance Grant Program towards PSH – a whopping 71 percent of all grants awarded (Table 5).153 While rent subsidies are paid for by cities and states, the majority of funds are coming from the federal government. The amount of federal funds disbursed towards PSH serves as a gauge measuring the significant amount of federal support for PSH.

Permanently supportive housing and the housing first model provide another prominent approach to addressing homelessness in the United States. Due to the widespread adoption of the Housing First approach as the primary form of homeless assistance provided and the sheer amount of funds directed towards PSH relative to spending on other homeless services, Housing First and PSH deserve increased examination to determine the efficacy of the approach in effectively combating homelessness.154

Approaches to homelessness have evolved over the years in response to changes in homelessness. The prominence of Housing First and PSH warrants detailed analysis to understand the general efficacy of federal homelessness policy and approaches in combating homelessness. While the service approaches utilized matter, how the services are implemented to address the homelessness issue is important to understand as well. The next section focuses on how state and local entities implement homeless services, and how cooperation and support for federal initiative has led to successful outcomes for veterans, with potential implications for the entire homeless population.

152 Ibid
153 Ibid
154 Shinn and Khadduri, “In the Midst of Plenty,” 85.
Implementation and Utilization of Service Approaches

The homeless services system lacks sufficient resources on the city level, so more attention has been placed to create a more efficient and effective system.\textsuperscript{155} Increased attention on services that are cost-effective, limit time spent in shelters, and move individuals into housing as fast as possible are prioritized.\textsuperscript{156} According to Shinn and Khadduri, local planners work with federal funders to implement a “‘Coordinated entry system,’ where workers enter everyone who seeks homeless services (or who is contacted by outreach workers) into a database, assess their needs, set priorities among people, and attempt to match people to appropriate resources when they are available.”\textsuperscript{157} Coordinated entry allows individuals to contact one person to access a multitude of services they need, while also being registered by the system to receive personalized treatment (108).\textsuperscript{158} This allows for those with less needs to receive lower levels of care, while those with the highest needs receive an appropriate level of care.\textsuperscript{159}

Despite this, coordinated entry still has challenges, especially for those with significant needs because these individuals need more resources and time to address their needs.\textsuperscript{160} Shinn and Khadduri found that some programs intentionally select candidates for services that they think are most likely to succeed, rather than candidates who would best be served by these services.\textsuperscript{161} As the upcoming literature reviews will explain, this can potentially alter which individuals get placed in services like PSH, and can also affect accuracy in measuring the

\textsuperscript{155} Shinn and Khadduri, “In the Midst of Plenty,” 108.
\textsuperscript{156} Ibid
\textsuperscript{157} Ibid
\textsuperscript{158} Ibid
\textsuperscript{159} Ibid
\textsuperscript{160} Ibid
efficiency of services like PSH. Coordinated entry has made the homeless services system more effective and efficient, but politics can sometimes get in the way of homelessness efforts.

**Evidence-Based Success for Veterans**

Public and private entities have also worked together to create organized approaches to homelessness in major cities such as New York, Los Angeles, and Nashville.\(^{162}\) Cooperation between public and private entities can be beneficial since the two entities together may be able to accomplish more than each entity on their own. The approaches evaluated by Shinn and Khadduri were largely focused on providing permanent supportive housing to the homeless, but results were mixed.\(^{163}\) The Veteran’s Administration’s efforts have been successful in reducing homelessness among military veterans, going from 73,000 in 2009 to 38,000 in 2018.\(^{164}\) Shinn and Khadduri cite this reduction as a prime example of what happens when political support leads to prioritization of resources and efforts towards addressing the homelessness issue.\(^{165}\)

The VA’s efforts provide rapid re-housing and supportive housing aid combined with dedicated focus and attention on ensuring homeless veterans receive the proper resources and care, in addition to services that help these veterans find employment and housing that will ensure they can maintain housing into the future.\(^{166}\) Agencies such as HUD also work with the VA to provide support for veterans, and also encourage other service systems to prioritize the needs of veterans.\(^{167}\) While politics can be difficult to navigate and create desired outcomes, a

\(^{162}\) Shinn and Khadduri, “In the Midst of Plenty,” 111.
\(^{163}\) Shinn and Khadduri, “In the Midst of Plenty,” 110, 111, 115.
\(^{164}\) Shinn and Khadduri, “In the Midst of Plenty,” 115.
\(^{165}\) Ibid
\(^{166}\) Ibid
\(^{167}\) Ibid
coordinated and cohesive approach among different levels of government in conjunction with the private sector provides hope that homelessness can be addressed effectively in the future.

**Summary**

Shinn and Khadduri provide a comprehensive roadmap detailing the history of homelessness, the societal and personal factors that can contribute to homelessness, and the history of homelessness approaches and how they are implemented. Understanding the Housing First approach can only be done through understanding how Housing First and PSH stand relative to the different approaches towards combating homelessness and the sub-populations they are targeted towards, and the dynamics that contribute to homelessness. The next portion of this paper seeks to review prior literature on the efficacy of the Housing First approach, focusing on the relationship between PSH and homelessness. A variety of sources and studies will be reviewed from different perspectives in an effort to provide evidence that shows the efficacy of PSH in reducing homelessness, or lack thereof.
Literature Review

Each of the four pieces of literature reviewed in this section will provide a different approach to understanding the relationship and any effectiveness of Permanent Supportive Housing on reducing homelessness in the United States. Each literature review will generally be broken down into four sections: an overview of the study, methodology and data, analysis and results, and a conclusion on how the study contributes to our understanding of Housing First. The outcomes of these reviews will help us to understand the effectiveness of Housing First relative to the claims made by proponents of Housing First, and whether the Housing First approach should continue to be the primary approach in combating homelessness in the United States.

Community Investment in Permanent Supportive Housing

To understand the relationship between the Permanent Supportive Housing (PSH) approach and chronic homelessness, Thomas Byrne, Jamison D. Fargo, Ann Elizabeth Montgomery, Ellen Munley, and Dennis P. Culhane, all experts in homelessness policy, built upon prior research by conducting a study published in 2014 utilizing community-level data. The Relationship between Community Investment in Permanent Supportive Housing and Chronic Homelessness focuses on the chronically homeless – one of the most highly vulnerable groups within the homeless population. The authors cite PSH as becoming a recently preferred solution to the complex needs of the chronically homeless at the time of study, which still holds true to this day. They also cite studies that have shown consistent 2-year housing retention

\[^{168}\] Byrne, Thomas, Jamison D. Fargo, Ann Elizabeth Montgomery, Ellen Munley, and Dennis P. Culhane. “The Relationship between Community Investment in Permanent Supportive Housing and Chronic Homelessness.” Social Service Review 88, no. 2 (June 2014): 235. [https://doi.org/10.1086/676142](https://doi.org/10.1086/676142).

\[^{169}\] Ibid
rates above 80 percent, in addition to partial to complete offsetting of costs associated with treatment and public resources that these chronically homeless would have consumed had they not been in PSH.\textsuperscript{170} Additional information also seems to show a relationship between PSH units and homelessness – “Between 2007 and 2013, the number of PSH units nationwide grew by about 50 percent from 189,000 to 284,000.”\textsuperscript{171} This recent increase in PSH units has coincided with decreases in chronic homelessness. The number of persons experiencing chronic homelessness on a given night nationwide decreased by 25 percent, from roughly 124,000 to about 93,000, between 2007 and 2013.\textsuperscript{172} To further examine if a relationship exists, the authors seek to test the effectiveness of PSH on chronic homelessness.

Study Overview

Byrne et al. seek to empirically test the relationship between PSH and chronic homeless using community level data.\textsuperscript{173} Thorough research prior to the publication of the paper had only been conducted at the individual level, which is not indicative of any effects that investment in PSH has on chronic homelessness at the community level.\textsuperscript{174} The authors cite research on macro-level trends at the community level as highly beneficial for several reasons.\textsuperscript{175} Examining the macro-level relationship helps to understand how effective PSH expansion has been, and if resources have been used effectively and efficiently.\textsuperscript{176} Examining this relationship would also help produce accurate targets for the number of PSH units needed in the future, and aid policy

\textsuperscript{170} Byrne et al., “Permanent Housing,” 236.
\textsuperscript{171} Ibid
\textsuperscript{172} Ibid
\textsuperscript{173} Byrne et al., “Permanent Housing,” 237.
\textsuperscript{174} Ibid
\textsuperscript{175} Ibid
\textsuperscript{176} Ibid
makers in planning and decision-making processes on new PSH initiatives. These trends cannot be observed at the individual level, so testing macro-level data provides insightful and useful information for policy- and decision-makers to allocate resources and plan more effectively.

Methodology

To test the effects of increased community investment in PSH on chronic homelessness over time, the authors conduct regression analysis using community level data while also controlling for community-level variables cited as having potential effects on chronic homelessness in prior research. The study sample as utilized by the authors consists of 372 CoCs across the United States. The authors omit CoCs in Guam, Puerto Rico and the U.S. Virgin Islands, and also omit certain CoCs across the United States if there was a reported issue in data collection of any of the variables including over the course of the study. In addition, the number of CoCs in the sample also decreased due to a statistical adjustment to reduce variation that led to the consolidation of certain CoCs.

Data

HUD’s PIT homeless count data is utilized to gather CoC-level estimates of chronic homelessness, by year, from 2007-2012. The dependent variables utilized in the study are total, sheltered, and unsheltered rates of chronic homelessness per 10,000 adults per year in a

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177 Ibid
178 Byrne et al., “Permanent Housing,” 238.
179 Ibid
180 Ibid
181 Ibid
182 Byrne et al., “Permanent Housing,” 239.
183 Ibid
Only chronically homeless individuals, not families, are included in the study. The authors include a detailed summary of the independent variables, explaining, “The primary independent variable of interest in this study is community investment in PSH, which is measured as the number of PSH units designated specifically for individuals (i.e., those who are not part of a family with children) per 10,000 adults in each CoC for each year from 2007 to 2012. We obtain this measure from HUD’s Housing Inventory Chart (HIC), which is updated annually and which provides the number of emergency shelter and transitional housing beds and PSH units within each CoC, stratified by whether the beds/units are intended for homeless individuals or homeless families with children.”

Controls

Byrne et al. utilize measures of a range of community-level factors to control for potential effects these factors might have on a community’s homelessness rate. These factors include “the adequacy of the social safety net, housing market and economic conditions, demographic characteristics, climate, and the availability of emergency shelter.” The safety net adequacy variables are created using Kaiser Foundation State Health Facts data to measure per capita spending data from state general funds on Medicaid and public assistance. A variable for median rent on the CoC level is measured using HUD’s Fair Market Rent data, while the data from the U.S. Census Bureau’s American Community Survey (ACS) is utilized to create

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184 Ibid
185 Byrne et al., “Permanent Housing,” 240.
186 Byrne et al., “Permanent Housing,” 241.
187 Ibid
188 Ibid
189 Byrne et al., “Permanent Housing,” 242.
measures of poverty and unemployment rates as indicators for economic conditions. Racial demographics within CoCs are also cited by the authors as having potential effects on homelessness rates, so to measure demographics, CoC-level measures are created using ACS data. Climate has been cited as a potential variable affecting movement between CoCs, as those in harsher climates could be inclined to move towards warmer, drier climates with less inclement weather, and subsequently inclement weather could drive homeless individuals towards sheltered situations. Thus, CoC-level measures of temperature and precipitation are included as control variables in the analysis.

The authors cite homelessness as existing mainly in metropolitan areas, so to account for this, a variable for urban/non-urban was created using USDA rural-urban classification codes. Shelter availability is measured as the number of emergency shelter beds and the number of transitional housing beds per 10,000 adults in the general population, using data from HUD. While the authors acknowledge that in theory, demand for shelter availability (beds) should directly inform the number of emergency shelter and transitional housing beds available, the authors cite two main reasons for including these two measures in the study. Increased shelter availability could lead those in poor housing situations to become homeless in order to receive better housing in the form of shelters. Increases in shelter beds in developed homelessness care systems is correlated with an increase in PSH units, which affects the homelessness count

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190 Ibid
191 Ibid
192 Byrne et al., “Permanent Housing,” 243.
193 Ibid
194 Byrne et al., “Permanent Housing,” 244.
195 Ibid
196 Ibid
since those placed in PSH do not count towards the homeless estimation count.197 It is important to note that every control variable measure outside of shelter availability requires state- or county-level data to be adjusted into CoC-level data because CoC data does not exist for these measures.198 Using the wide range of CoC-level measures mentioned previously to control for any variables with potential to affect chronic homelessness levels, the authors conducted their analysis of community level trends examining the relationship between community investment in PSH and chronic homelessness over time.199

**Statistical Analysis**

The analysis is conducted using “multilevel Poisson regression models to assess the relationship between community investment in PSH and the rate of chronic homelessness over time.”200 Adjustments to the model are made to account for understandably lower count numbers in years where counts are not mandatory.201 According to Byrne et al., “Many CoCs conduct their PIT counts on an annual basis, but HUD only requires such counts to be counted on a biennial basis, with mandatory counts for all CoCs occurring in odd-numbered years.”202 This explains how in odd-numbered years, the count estimates are significantly higher than in even-numbered years in which PIT counts are not mandated. The authors also implement time-lagged models of one year, using data from 2008-2012, to measure PSH units from the previous year and effects on the rate of chronic homelessness for the current year, as a robustness check.203

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197 Ibid
198 Byrne et al., “Permanent Housing,” 242, 244.
199 Byrne et al., “Permanent Housing,” 244.
200 Ibid
201 Byrne et al., “Permanent Housing,” 246.
202 Byrne et al., “ Permanent Housing,” 240.
203 Byrne et al., “Permanent Housing,” 247.
Results

Within the sample, analysis of trends shows a 57 percent increase in the mean number of PSH beds per 10,000 adults from 2007 to 2012, while during this period the mean total rate of chronic homelessness decreased by 35 percent.\(^{204}\) To look at community-level trends and the relationship between community investment in PSH and chronic homelessness, incidence rate ratios (IRRs) were used in place of coefficient estimates.\(^{205}\) The authors claim that IRRs can be used in place of adjusted odd ratios to analyze results.\(^{206}\) When controlling for the other variables with potential effects on the rate of chronic homelessness as mentioned previously, the results show a statistically significant negative effect of one PSH unit per 10,000 adults on the total rate of chronic homelessness (Table 6).\(^{207}\) The PSH variable coefficient indicates that a one unit increase in PSH is associated with a 1 percent decrease in the total rate of chronic homelessness per 10,000 adults.\(^{208}\)

In year-by-year analysis, the authors find their model to fit significantly better (Table 7).\(^{209}\) In this model, they find that the effect varies from year-to-year, with a positive relationship between PSH units and the total rate of chronic homelessness in the first year, followed by a negative relationship for every subsequent year.\(^{210}\) The results show that the negative relationship increased over time, with a 1 unit increase in PSH associated with a 3 percent decrease in the total rate in the final year of study.\(^{211}\) When testing the effect of PSH units on

\(^{204}\) Ibid
\(^{205}\) Byrne et al., “Permanent Housing,” 247.
\(^{206}\) Ibid
\(^{207}\) Byrne et al., “Permanent Housing,” 249.
\(^{208}\) Ibid
\(^{209}\) Ibid
\(^{210}\) Ibid
\(^{211}\) Byrne et al., “Permanent Housing,” 250.
both the total rate of unsheltered and sheltered chronic homelessness, the authors find similar results to their tests on the total effects.\textsuperscript{212} Finally, the one-year time lagged model also shows similar results to the other effects tested, albeit with significantly smaller effects.\textsuperscript{213}

Findings

This study’s findings show moderate support for PSH investment, especially when considering the recent increase in investment in PSH that occurred during the time period studied. However, the measures representing variables on surface level seem to be comprehensive, while closer analysis indicates otherwise. The lack of CoC level data and using county- and state-level data lends itself to skepticism about the results. Verifying the accuracy of the data transformation in CoC-level measures is difficult, so without knowing the true values of the control measures for each CoC, results should not be taken at face value. However, it seems that the data for the variables chosen for the study are the best available option.

The authors note that the weak negative relationship between investment in PSH and the total rate of chronic homelessness that is found in the time-lagged model could be because the results do not represent increases in PSH units that occurred over the course of the year after the PIT count was taken. Byrne et al. cite two main reasons why moderate negative relationships between PSH and chronic homelessness was found in most of the models. The first is a process called “creaming,”\textsuperscript{214} in which individuals expected to have the best outcomes are placed in PSH instead of the most vulnerable (chronically homeless), which would lead to a limited effect on the total rate of chronic homelessness.\textsuperscript{215} Another potential explanation is that PSH units are not

\textsuperscript{212} Byrne et al., “Permanent Housing,” 251.
\textsuperscript{213} Ibid
\textsuperscript{214} Byrne et al., “Permanent Housing,” 257.
\textsuperscript{215} Ibid
designated solely for housing the chronically homeless. The authors cite that “in 2012, only 27 percent of PSH units nationwide were designated explicitly for individuals experiencing chronic homelessness.”

As mentioned earlier in this paper, the methodology used to determine PIT count estimates has significant potential to be inaccurate. While the PIT estimates from HUD are the most accurate measure available and the model controlled for many variables that could affect CoC reporting, errors in PIT reporting during the time studied could have affected the testing results. It is important to note that individuals placed in PSH are removed from the homeless count. For every individual placed in PSH, one individual is removed from the homeless count. This makes it fairly easy to see how an increase in PSH units naturally lends itself to a decrease in homelessness rates. As it pertains to this study, effects of PSH units on the total rate of chronic homelessness was examined, but although the chronic homeless are a subset of the total homeless population and a mix of temporary and chronic homeless individuals enter PSH, keep in mind that PSH units are geared towards the chronically homeless and thus, the results of the analyses could be seen as less convincing.

Analysis

Beyond this study, future analysis of outcomes for homeless after being placed in PSH would be beneficial in understanding the effectiveness of PSH on homelessness. While there is no time table set on how long an individual should stay in PSH, if the ultimate goal of homelessness approaches is to allow individuals the freedom to live in their own housing without relying on shelters (save for government aid or services), the rate at which individuals obtain

216 Ibid
their own housing after entering PSH compared to the rate at which they would have obtained housing without PSH would be extremely insightful in understanding the true effectiveness of PSH. Advanced data and reporting on these outcomes in the future would provide much more insight into the effectiveness of PSH, depending on what the ultimate goal or intended outcome is determined to be.

It’s also important to consider whether these community-level findings indicate support for increased federal funding for PSH. While federal funding is not dispersed evenly to all CoCs, successful outcomes from PSH in lowering chronic homelessness rates varies among CoCs. Median rent was included as a control variable, but the cost of a PSH unit should also be considered as well. The initial overview of this study provided the authors’ claims that the costs of aid and services had individuals not been placed in PSH could be partially or completely offset by placing individuals in PSH. I find this hard to believe across most CoCs given variations in the cost of producing PSH units around the nation. Cities like Los Angeles and New York have notoriously high housing prices, which would make the overall cost of funding PSH units much higher than cities with moderate housing prices relative to the rest of the country. By using cost-benefit analysis and examining the effectiveness of PSH on a CoC-by-CoC basis, the federal government could more efficiently disperse funds for PSH depending on effectiveness and need. This would be an improved version of the data the authors were looking for – insights that allow decision- and policy-makers informed data on how to best appropriate resources.

Do this study’s findings support PSH as a tool to “ending” homelessness? While on the community-level the results showed moderate promise, arguments for “ending” homelessness through PSH would be a gross overstatement of the findings. In the future, I suggest that more research and analysis should be done on the costs and benefits of PSH to determine how efficient
PSH is in reducing homelessness, and how PSH stacks up against other homelessness services. The next study seeks to improve upon the methodology and findings from Byrne et al. (2014) and employs a similar design, but with different analysis and interpretation of the results.

**Ending Homelessness**

*Ending Homelessness: More Housing or Fewer Shelters?* authored by Kevin Corinth and published by the American Enterprise Institute seeks to further test the effectiveness of the Housing First strategy in reducing homelessness. At the time of writing in 2015, Corinth cited strong federal government initiatives to utilize permanent housing as the primary resource to “end” homelessness.  

Corinth is also concerned by a lack of evidence, citing that “In particular, there is a lack of research estimating how the different forms of homeless assistance relate to total homeless populations.” Given the strong initiatives and major investments in PSH stock, both public and private, accompanied by a decline in other forms of homeless shelter services, Corinth seeks to test whether PSH was an effective method of combating homelessness.

**Study**

Corinth cites Byrne et al. as a study much similar to his own. While Byrne et al. (2014) focuses on variation across communities, Corinth examines variation within communities, in addition to estimating the association between total homeless populations and different forms of homeless assistance inventory. The main forms of homeless assistance Corinth is interested in

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are emergency shelter, transitional housing, and PSH.222 The focus of Corinth’s paper, however, revolves around understanding short-term vs. long-term effects that PSH has on homelessness.

Corinth’s method of understanding short-term vs. long-term effects of PSH involves a simple equation he created that measures the speed at which individuals placed in PSH transition to what he calls “private housing” (this could be understood as non-government subsidized housing, excluding government assistance), with a magnification effect determining long-term effects of PSH.223 He explains that the short-term effects of PSH would be a one-person reduction of homeless per PSH bed added, assuming the homeless are targeted effectively and appropriately placed in PSH.224 This is consistent with the HUD counting methodology described earlier in the review of Byrne et al (2014). Corinth explains that the long-run effects of PSH is dependent on three factors: “(1) how long the person who receives the housing would have otherwise remained homeless, (2) how quickly the person transitions from the housing unit into private housing, and (3) the extent to which PSH attracts more people into homelessness or keeps homeless people longer.”225 Corinth further provides three simple examples to explain how these three factors affect the long-term effect of PSH:

- Example 1: (*multiplying effect*): The homeless people targeted for housing will be homeless forever unless they receive housing. If an individual is placed into housing, he will stay in it for a year, at which point he permanently moves into private housing. Assuming housing does not attract anyone into homelessness, the

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224 Ibid
cumulative effect on homelessness is one person in the first year, two people in the second year, and N people in the Nth year.

- **Example 2: (muting effect):** The homeless people targeted for housing will exit homelessness after one year if they do not receive housing. If an individual is placed into housing, he will stay there forever. Assuming housing does not attract anyone into homelessness, the cumulative effect on homelessness is one person in the first year, and zero people after the first year.

- **Example 3: (constant effect):** The homeless people targeted for housing will transition into private housing at the same exact time regardless of whether they receive housing. Assuming housing does not attract anyone into homelessness, the cumulative effect on homelessness is one person.\(^{226}\)

Whether an amplification or muting effect occurs in the long-term is dependent on the speed at which PSH speeds up or slows down the transition of individuals in PSH into private housing. The creaming effect mentioned in review of Byrne et al. (2014) could contribute to a muting effect in this model, if non-chronically homeless were placed in PSH because of their higher likelihood to result in a successful outcome and transitioned to private housing slower than if they had not been placed in PSH. While the equation Corinth utilizes is certainly not comprehensive, it does lend itself to allowing future research should more data on transition rates become available. Unfortunately, Corinth is unable to utilize this equation within his study due to

the lack of available data on time spent for individuals in PSH and the rates at which each homeless population subgroup would have otherwise transitioned to private housing without PSH, but it certainly presents an idea that should be considered when evaluating PSH and Housing First approaches in the future.

Data and Methodology

Similar to Byrne et al. (2014)’s study, Corinth utilizes data on 414 CoCs from the 2007-2014 HUD reports.227 In 2014, the two largest homeless populations in the United States were New York City at 67,810 and Los Angeles County at 34,393, combining to make up 18 percent of the entire national homeless population.228 New York City also guarantees its residents a right to shelter, with enough emergency shelter and transitional housing beds for 98 percent of its homeless population, while Los Angeles does not have a right to shelter and has beds for just 34 percent of its population.229 Thus, robustness checks excluding New York City and Los Angeles from analysis are performed due to their abnormal characteristics relative to other CoCs in the sample.230 Nearly identical to Byrne et al., unemployment and housing variables based on county-level data are included as control variables, with a population-weighted average used to account for CoCs comprising more than one county, and counties that contain multiple CoCs are combined.

Consistent with Byrne et al. (2014), the Detroit and New Orleans CoCs are omitted due to counting methodology issues.231 Climate and conditions are controlled for using temperatures

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229 Ibid
230 Ibid
and precipitation (rain or snow) recorded at the nearest weather station to a given CoC. Corinth’s model’s main variables under analysis are the homeless count per 10,000 residents, the stock of emergency shelter beds per 10,000 residents, the stock of transitional housing beds per 10,000 residents, and the stock of PSH beds per 10,000 residents.232

Also similar to Byrne et al. (2014), unemployment rate and the log-transformed median rent for a two-bedroom apartment are included as time-varying controls. According to Corinth, “identification thus relies on variation within CoCs controlling for all time-varying state-level factors.”233 Corinth then estimates the equation for mutually exclusive subgroups within the homeless population: chronically vs. non-chronically homeless, sheltered vs. unsheltered homeless, and homeless individuals vs. homeless families.234 An equation is also estimated using a rest-of-state homeless inventory of each type per 10,000 people in the rest of the state variable to determine whether migration influences the effect of inventory type on homelessness.235 For this specification, Corinth notes he includes pure year effects to replace state-year effects, due to the possibility rest-of-state inventories may be highly correlated with state-year effects (13).236

Results

Corinth finds a large positive association between both current emergency shelter beds and transitional housing beds, and homeless count, with the association remaining positive in a time-lagged regression (Table 8).237 The association between current PSH and homelessness is

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233 Ibid
234 Ibid
236 Ibid
237 Ibid
found by Corinth to be negative and small (Table 9). However, with a one-year lag the long-term association is near zero or even slightly positive, displaying a muting effect mentioned previously. In the specification including additional covariates and year-state effects, adding one emergency shelter bed or one transitional housing bed is associated with a 0.91 or 0.76 long-term increase in the homeless count. These results are not surprising, considering that as previously mentioned, increases in homeless assistance inventory could attract individuals into homelessness.

The results for the PSH variable, however, were surprising. Corinth finds that “Adding one PSH bed is associated with a 0.12 decrease in the contemporaneous homeless count, but a 0.07 aggregate increase in the count after one year. While the 0.07 long-run increase is not statistically different from zero, we can reject a reduction of larger than 0.08 at the 95 percent confidence level. In other words, a one person long-run reduction in the homeless population is associated with adding at least 12.6 PSH beds.” Another interesting finding is the effect of median rent on homelessness. A permanent 10 percent increase in median rent is found to be associated with a 4.4 percent increase relative to the average homelessness rate, while after a year this increase in median rent is associated with an 8.75 percent increase in the average homelessness rate. Corinth does not find substantial changes in long-term associations between inventory type and homelessness, except for a reduction in the association between

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238 Ibid
240 Ibid
241 Ibid
242 Ibid
homelessness with emergency shelter from 0.91 to 0.72 when excluding right-to-shelter locations.

After analyzing the different homeless population subgroups, Corinth finds that adding one PSH bed is associated with 0.05 fewer chronically homeless people (Table 10).243 He also finds a strong muting effect for the non-chronically homeless, while no muting effect is found for the chronically homeless.244 Median rent is found to be “much more important for the non-chronically homeless than the chronically homeless, and is important for both the sheltered and unsheltered, and for both individuals and families.”245 As for migration effects, Corinth’s analysis suggests that a lack of negative association between PSH and homelessness within a CoC may be due to migration, but this should not be considered as a fact.246

Analysis and Implications

The finding most pertinent to the aim of this paper is Corinth’s analysis that a one unit increase in PSH in the short-term leads to a 0.12 person decrease in the homeless count, yet in the long-term this effect is essentially zero. This directly challenges the findings from Byrne et al.’s study, leaving in question the efficacy of PSH in reducing homelessness rates, and more specifically reducing chronic homelessness. Corinth cites a muting effect, flawed street counts, and migration as potential explanations for why the association between PSH and homelessness is not one-to-one.247 According to Corinth, the strong muting effect is “fully driven by the non-chronically homeless, individuals who may be less likely to stay homeless without assistance.”248

243 Ibid
244 Ibid
He also adds that another potential explanation for a muting effect is that “additional PSH induces people to enter homelessness or remain homeless longer.”\textsuperscript{249} The beds opened by sheltered homeless that transitioned to PSH could attract those who would otherwise not be homeless, for example, currently housed individuals in poor living situations, as noted earlier in the paper.\textsuperscript{250} Homeless individuals currently living in PSH might feel less urgency to transition to private housing, and those already in shelters may prolong their stay in hopes of transitioning to PSH in the future.\textsuperscript{251}

Attracting individuals into homelessness or prolonging homelessness are potential effects of PSH that have major implications, which will be discussed in-depth later in this paper. Flawed street counts could also explain the lack of a one-to-one association. As mentioned previously, street counts can be difficult for CoC workers across the country to accurately count given variations in weather in addition to the locations the unsheltered homeless may be located at the time of the count. Corinth cites this as a factor in the lack of association, although he maintains that a muting effect can’t be fully attributed to a flawed street count.\textsuperscript{252} The third explanation Corinth considers is migration between CoCs. If an increase in PSH leads to an increase or decrease in migration from a given CoC, a smaller association between PSH in that given CoC and its homeless population would occur relative to the national homeless population.\textsuperscript{253} Corinth hypothesizes that all three factors contribute to the lack of association, but the muting effect plays the most significant role.\textsuperscript{254} Ultimately, Corinth suggests that “serious caution” should be

\textsuperscript{249} Corinth, “Ending Homelessness,” 20.
\textsuperscript{250} Ibid
\textsuperscript{251} Ibid
\textsuperscript{252} Ibid
\textsuperscript{253} Corinth, “Ending Homelessness,” 21.
\textsuperscript{254} Ibid
used when measuring the effectiveness of homeless services based on homeless counts.\textsuperscript{255} Consistent with the findings in Byrne et al., an important finding Corinth’s analysis presented was the statistically significant, positive association between median rent and homelessness rates. Having two studies with similar findings lends increased credibility to the claims made by both studies, which will be examined in the next piece of literature reviewed.

Finally, a key topic of consideration Corinth’s paper discusses is the endogeneity of homeless assistance inventory.\textsuperscript{256} If more inventory is added in response to increases in homeless counts, the associations between these two variables would be more positive. A hypothetical example involving PSH illustrates the implications an endogenous response can have on analysis. If PSH has a large negative effect on homeless counts, but CoCs respond endogenously by increasing the stock of PSH beds, the effect might go undetected.\textsuperscript{257} Corinth argues that this exemplifies why the funding, use, and reason stock changed for each inventory type is important for better understanding of effects.\textsuperscript{258}

Why does funding, use, and reasons for stock change matter? Consider that PSH relies heavily on public and especially federal funding.\textsuperscript{259} Corinth argues that “while it is possible that CoCs respond to larger homeless populations with more PSH, the 2007-2014 study period was marked by a major policy shift which encouraged more than a 50 percent increase in the national PSH inventory. CoC-specific ten year plans to end homelessness and public campaigns likely drove differential expansions of PSH across CoCs, although the possibility that plans themselves

\textsuperscript{255} Corinth, “Ending Homelessness,” 22.
\textsuperscript{256} Corinth, “Ending Homelessness,” 16.
\textsuperscript{257} Ibid
\textsuperscript{258} Ibid
\textsuperscript{259} Corinth, “Ending Homelessness,” 17.
or the magnitude of expansions responded to homelessness increases cannot be ruled out.\textsuperscript{260} Furthermore, changes in inventory are more likely to be responsive to changes in local budget or costs, and most CoCs are not legally required to respond to increases in demand.\textsuperscript{261} This evidence makes it much more probable that exogenous factors were the driving force behind the increase in PSH from 2007-2014.\textsuperscript{262}

Critiques of Data and Methodology

Corinth differs from Byrne et al. (2014) by examining all homeless subgroups, not just the chronic homeless, although he does test the effects of PSH on chronic homelessness within his analysis. Corinth’s variables utilized are much similar to those of Byrne et al.’s study, and judging how he adjusts his data set to reflect data set adjustments made by Byrne et al., it’s plausible that he modeled his study as a response to Byrne et al. Mirroring my critiques of Byrne et al., verifying the accuracy of CoC-level data obtained by transforming state- and county-level data is difficult, but as noted in my analysis of Byrne et al., this data seems to be the best available.

The aspects of his analysis method that should be the most scrutinized, however, are his claims regarding the long-term associations of an increase in PSH with the homelessness rate. Although he did not include this equation in his findings, Corinth’s speed of transition equation poses a question that should be seriously considered: Should the rate at which individuals transition from PSH to private housing be considered when analyzing the efficacy of PSH in combating homelessness? For his analysis of long-term effects, Corinth utilizes a one-year lag on

\textsuperscript{260} Ibid
\textsuperscript{261} Ibid
\textsuperscript{262} Ibid
his variables to determine the long-term associations between PSH and homeless. This would imply that his analysis of the PSH coefficient assumes that PSH is only intended to house an individual for one year before they are able to move into private housing, and it would also require estimations of how long it would have taken an individual to move into private housing had they not been placed in PSH.

While on the surface the speed at which individuals transition from PSH to private housing matters, proponents of PSH do not specify a timeline in which this transition occurs, hence the “permanent” aspect of the approach. If we drop Corinth’s assumptions that PSH is only effective if it takes a year or less to transition individuals into private housing and that PSH stock is constant, I would argue that PSH would have a negative long-term effect on chronic homelessness if the rate at which it transitioned individuals is faster than the rate at which individuals become considered chronically homeless, without regard for a set target for the years it takes to transition. As I mentioned in the initial study overview, presumably the initial model is not included in the study because of a lack of data in existence to measure these rates. I will discuss the importance of the transition rate from PSH to private housing in my conclusion of this study’s review below.

Findings

Corinth’s lack of findings on the long-term associations between an increase in PSH units and homelessness rates directly counter the claims Byrne et al. (2014) makes on the success of PSH in reducing homelessness. However, his method in determining long-term effects puts in question the claims he makes regarding PSH. Despite this, additional evidence lends more credibility to Corinth’s findings. Given it is probable endogenous factors did not influence the increase in PSH during the study period, the effects found are more likely to be indicative of the
effects found in CoCs across the United States. In his review of prior literature, Corinth cites that O’Flaherty and Wu (2006) find that for every individual moved from a shelter into permanent housing, the sheltered homeless population is reduced by just 0.36 people.\textsuperscript{263} While Corinth’s findings lack solid credibility given his analysis techniques, O’Flaherty and Wu provide additional evidence to support his claims. These findings could suggest that an increase in shelter availability attracts more individuals in poor housing situations into homelessness, or the rate at which PSH moves individuals into private housing is lower than the rate at which individuals enter shelters, assuming the PSH stock is held constant.

Analysis

In my analysis of Corinth’s study, I find three major topics of discussion stemming from this study’s findings that could have significant future implications: the rate of transition from PSH to private housing, exogenous factors affecting PSH supply, and median rent. If PSH does in fact attract individuals into homelessness, with individuals entering shelters hoping to be placed in PSH in the future, this would make sheltered homeless counts less effective in informing future decisions because of the synthetic changes in the count.

As mentioned in my analysis of Byrne et al. (2014), the rate of transition from PSH to private housing could also become the primary variable of analysis should sufficient data become available in the future. This would make the rate of transition from PSH to private housing for those placed in PSH a point of emphasis in analyzing the efficacy of PSH, if the ultimate goal of PSH truly is to get individuals back on their feet and on a path to self-sufficiency.

\textsuperscript{263} Corinth, “Ending Homelessness,” 5.
The high level of government investment on PSH implies that exogenous, rather than endogenous, factors are behind the large investment in PSH stock. Given that the Housing First approach has been and is still at the forefront of homelessness approaches, investment in PSH has been substantial. However, the lack of endogeneity implies that PSH units are added irrespective of changes in demand. Exogenous and endogenous changes in PSH stock and their implications will be discussed in the final discussion and implications section after considering all literature reviewed in this paper.

Finally, the findings regarding the association between median rent and an increase in homelessness contribute highly useful information that could be used by scholars and policymakers alike. While finding different associations between PSH units and homelessness, both Byrne et al. (2014) and Corinth (2015) find a statistically significant positive relationship between median rent and homelessness. Glynn and Fox (2019) further expand on this idea and examine the association between rent and homelessness in the 25 largest cities in America.

**Rent Prices and Homelessness**

Chris Glynn and Emily Fox’s 2019 study titled *Dynamics of Homeless in Urban America* explores the relationship between housing prices and homelessness in America.  

To measure housing costs, from the housing website Zillow they utilize the Zillow Rent Index (ZRI) from 2011-2016 where CoCs from the 25 largest “metro” areas were located. Similar to the Byrne et al. (2014) and Corinth (2015) studies is an emphasis on studying homelessness within a CoC. However, Glynn and Fox differ by utilizing the actual homeless counts, which they cite

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265 Ibid.

266 Glynn and Fox, “Dynamics of Homelessness,” 574.
as allowing to account for uncertainty better than variation across the CoCs being studied.\textsuperscript{267} This allows for increases in count accuracy and population growth to be included in the model (575).\textsuperscript{268} Although Glynn and Fox mention apartment vacancy rates, changes in homelessness intervention policies, unemployment rates and the social safety net as potential causes of homelessness, they cite limited data as a reason to maintain a simple model without causal inferences that can be drawn.\textsuperscript{269}

Data and Variables

Glynn and Fox use data from the U.S. Census Bureau, HUD, and Zillow to conduct their study on the 25 largest metros in the United States.\textsuperscript{270} As stated before, homeless count estimates and county-level total population estimates are utilized to determine rent effects.\textsuperscript{271} The ZRI estimates the median market rent of every home in a given area, including houses that are not currently for rent.\textsuperscript{272} To account for potential biases in the ZRIs statistical models, year-to-year percent changes are used instead of the actual median market rent.\textsuperscript{273} Similar to Byrne et al. (2014) and Corinth (2015), counties with multiple CoCs have the CoC estimates aggregated, while if a CoC includes multiple counties, the counties are aggregated.\textsuperscript{274} The models implemented account for uncertainty and looked to estimate the true homeless population, and the true total population for the entire metro in order to find more accurate data.\textsuperscript{275} The models

\textsuperscript{267} Glynn and Fox, “Dynamics of Homelessness,” 575.
\textsuperscript{268} Ibid
\textsuperscript{269} Glynn and Fox, “Dynamics of Homelessness,” 575, 576.
\textsuperscript{270} Glynn and Fox, “Dynamics of Homelessness,” 576.
\textsuperscript{271} Ibid
\textsuperscript{272} Ibid
\textsuperscript{273} Ibid
\textsuperscript{274} Glynn and Fox, “Dynamics of Homelessness,” 576, 577.
\textsuperscript{275} Glynn and Fox, “Dynamics of Homelessness,” 579.
also account for time-varying changes in the accuracy of the count data, in addition to the number of sheltered or unsheltered homeless since inaccuracies in count data are mostly driven by the unsheltered homeless. As with all studies involving HUD data, a variety of factors could affect the accuracy of count estimates for every CoC and should be taken into consideration.

Findings

The study finds statistically significant positive associations between a 10 percent increase in the ZRI and homeless population for New York, Los Angeles, Seattle, and Washington D.C. from 2011-2016 (Figure 12). While other associations are not found with certainty, other cities within the study could potentially have similar associations as well, albeit not to the magnitude of which NY and LA display. Consistent with the associations found in Byrne et al. (2014) and Corinth (2015), this points to median rent for a given CoC as having causal effects on homelessness rates. While the results of this study do not imply causation, this supports the notion that rent costs should be considered and examined much more closely when policymakers and officials address homelessness in the future.

Analysis and Drawbacks

Glynn and Fox do mention potential drawbacks related to the data they use. They cite potential inaccuracies related to the methods used to produce the ZRI estimates and inaccuracies in count data as limitations on their study. However, they do mention that their models provide considerations for researchers and policymakers when making decisions based on their

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276 Glynn and Fox, “Dynamics of Homelessness,” 579, 584.
277 Glynn and Fox, “Dynamics of Homelessness,” 595, 596.
findings and analysis. Because the counts vary in accuracy, they have potential to be misleading and variation should be accounted for. The authors suggest that improving count accuracy and providing more detailed data on sheltered and unsheltered homeless counts could be extremely beneficial for those involved with homelessness approaches in the future.

Despite the simple nature of the model utilized, this study provides additional evidence to support a closer look at rent costs among other economic factors when analyzing homelessness.

**The Housing First Rhetoric**

To include sources that provide a variety of perspectives on Housing First and chronic homelessness, I wondered: What other literature exists that comprehensively examines Housing First? Stephen Eide’s report published in 2020 by the Manhattan Institute takes a more recent dive than the studies previously cited. *Housing First and Homelessness: The Rhetoric and Reality* seeks to examine the rhetoric behind Housing First policies and whether sufficient evidence exists to support claims made by proponents of Housing First in combating homelessness.

**History of the Housing First Approach**

Eide provides a more detailed history of the Housing First approach and describes a “linear-style system” in mind when the idea for a comprehensive homeless services system was first conceived, consisting of a suite of services offered that was designed to cater to the varying needs of the homeless population, including permanent housing. According to Eide, “It was always understood that at least some of the homeless population would need permanent housing

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279 Ibid  
280 Ibid  
282 Eide, “Housing First and Homelessness,” 5.
benefits – meaning a rental subsidy not subject to any time limits.”283 The linear approach focused on treating issues affecting the homeless population such as substance-abuse or unemployment, with an emphasis on transitional housing.284

In the late 1970s, the origins of the Housing First approach, the idea of housing as a human right was advocated for but did not gain traction due to the preference of establishing preconditions for securing housing benefits.285 As described in Shinn and Khadduri, Sam Tsemberis, founder of Pathways to Housing in 1992, found evidence on the individual level that his program was successful in stably housing individuals who suffered from serious mental-health disorders.286 Subsequently, Housing First models gained traction in the early 2000s under the George W. Bush administration, which rolled out a campaign for state and local entities to develop 10-year plans to end chronic homelessness.287

In 2016, the state with the largest homeless population, California, mandated Housing First as a requirement in programs utilizing state funds.288 Eide describes HUD as the single-most important agency in federal homelessness policy and the driver behind the major shift from transitional housing units to permanently supported housing units in the past two decades, largely due to the billions in funds it provides for state and local homelessness programs (Figure 13).289 These funds are given out through the Continuum of Care grant competition, which disburses federal funds towards homeless services through a point system and criteria established by

283 Ibid
284 Ibid
286 Ibid
287 Ibid
288 Ibid
289 Eide, “Housing First and Homelessness,” 7.
According to Eide, California has added over 25,000 PSH units since 2010, a two-thirds increase, while the total population of homeless in the state increased by half during the same timespan (Figure 14). In response to communities that strongly support Housing First yet simultaneously experienced significant increases in homelessness such as Los Angeles and San Francisco, the Trump administration sought changes in federal policy regarding Housing First.

The Rhetoric

According to Eide, the objectives of housing first were initially centered around providing PSH for the chronically homeless, which remains the focus, but has since evolved into eliminating barriers for all housing services provided to the homeless, including the likes of Rapid Re-housing and other similar services. The Housing First system now looks to connect affordable housing programs with the homeless services system for the non-chronically homeless to further add to the linear component of the system, advocating for the reduction of barriers here, too. This paper finds a lack of existing literature on how Housing First systems function enough to draw conclusions on how the system treats individuals, and despite recent significant increases in investment in Housing First, Eide notes that under 20 percent of the homeless population is chronically homeless, which is concerning given that Housing First targets the chronically homeless.

Eide argues that the studies and subsequent evidence provided by Housing First proponents are limited, but he does note the findings consistently support high rates of residential

290 Eide, “Housing First and Homelessness,” 7.
292 Ibid
293 Eide, “Housing First and Homelessness,” 9.
294 Ibid
295 Eide, “Housing First and Homelessness,” 16, 17.
stability among those in Housing First programs, namely chronically homeless individuals suffering from serious mental illness or other behavioral disorders.\textsuperscript{296} The Trump administration acknowledged the success of Housing First programs in comparison to linear programs, but simultaneously acknowledged the impact of shortages in rental units affordable to low-income individuals on homelessness.\textsuperscript{297} This message from the Trump administration suggested that economic and market conditions play a significant role in homelessness, potentially one that outside the reach of homelessness services approaches.

Despite success in housing stability, Eide argues the claims made by proponents of Housing First that Housing First ends homelessness are not supported by evidence on both the individual and community levels.\textsuperscript{298} Eide first points to isolated occurrences from California and Utah as evidence. Despite California investing billions into building PSH units, homelessness has increased, and the number of visible homeless has not been reduced, without any local communities reporting significant decreases in homelessness.\textsuperscript{299} While we now know that PSH is not generally offered towards the unsheltered homeless, this still refutes claims that PSH can end homelessness. In Utah, Eide cites a separate 2015 study by Corinth that found the changes in homelessness were attributable to changes in reporting methodology and definition of “chronic” homelessness, not PSH.\textsuperscript{300} Furthermore, Eide argues that ending homelessness for one particular subgroup doesn’t imply ending homelessness for the entire homeless population, which pushes back against the general nature of claims made by proponents of HF policy that it can end

\begin{footnotes}
\textsuperscript{296} Eide, “Housing First and Homelessness,” 9.
\textsuperscript{297} Eide, “Housing First and Homelessness,” 10.
\textsuperscript{298} Ibid
\textsuperscript{299} Ibid
\textsuperscript{300} Ibid
\end{footnotes}
homelessness.\(^{301}\) Although prior findings on the individual level suggest that PSH can lead to successful outcomes, broad claims that Housing First can end homelessness outright for all could be overstated, and statistical analysis that supports ending homelessness for all could be due to changes in reporting methods.

The cost-savings argument is also cited by proponents in support of Housing First. The idea revolving around this argument is that the costs of PSH are offset by the savings on the costs of service systems, namely hospitals and jails, that homeless individuals would have consumed if not placed in PSH.\(^{302}\) Eide cites Malcolm Gladwell’s 2006 *New Yorker* article “Million-Dollar Murray” as providing an example of a “high utilizer” homeless individual concurrently struggling with alcoholism and schizophrenia, that placed an extreme cost burden on the healthcare and jail system and subsequently would benefit from Housing First.\(^{303}\) Eide argues that if he cost the system $100,000 in one year, he isn’t likely to cost $100,000 every year, so any reduction in costs shouldn’t be attributed to PSH.\(^{304}\) He continues by pointing out that high utilizers like the one described in the article are not representative of the entire homeless population, so significant savings are unlikely given the higher costs associated with providing PSH units.\(^{305}\) Dennis Culhane, credited for contributions in authoring Byrne et al. and for contributions to the 2022 HUD AHAR report, has criticized the small sample size and design study analyzing the costs associated with PSH past, cautioning against “overstating” the cost-savings argument.\(^{306}\)

\(^{301}\) Ibid
\(^{302}\) Eide, “Housing First and Homelessness,” 13.
\(^{303}\) Ibid
\(^{304}\) Ibid
\(^{305}\) Ibid
\(^{306}\) Eide, “Housing First and Homelessness,” 14, 15.
Proponents of Housing First claim that the PSH model addresses mental health and substance abuse disorders better than other approaches. Eide did not find conclusive evidence to support these claims, but rather that these claims were overstated at best, and that those with severe drug addiction or mental illness are not any more likely to overcome their issues through the Housing First approach.\textsuperscript{307} Eide cites evidence from The Family Options Study (2015) as a study that provides support for Housing First, yet also finds pieces of oppositional evidence against Housing First.\textsuperscript{308} Eide mentions that findings on self-sufficiency were concerning – The study found evidence that recipients of housing subsidies had diminished work effort, which brings into question the efficacy of Housing First in helping individuals become self-sufficient again.\textsuperscript{309} If Housing First is intended to remove the pressures of housing instability to allow affected individuals to focus on other parts of their life such as finding employment or finding their own home affordable to them, this brings cause for concern.

**Findings and Analysis**

In conclusion, Eide also provides a couple ideas to consider based on his findings. He recommends that HUD provide flexibility in spending for CoCs applying for funding grants.\textsuperscript{310} This would allow individual communities to consider what programs and approaches best suit the needs of homeless individuals within their care, as opposed to the current “one-size-fits-all” approach.\textsuperscript{311} Eide also recommends that homelessness should be integrated back into the broader safety net debate.\textsuperscript{312} Eide argues that Housing First has led to the separation of the homelessness

\begin{itemize}
\item \textsuperscript{307} Eide, “Housing First and Homelessness,” 15.
\item \textsuperscript{308} Eide, “Housing First and Homelessness,” 16.
\item \textsuperscript{309} Ibid
\item \textsuperscript{310} Eide, “Housing First and Homelessness,” 17.
\item \textsuperscript{311} Eide, “Housing First and Homelessness,” 18.
\item \textsuperscript{312} Ibid
\end{itemize}
debate from the safety net debate, and that these two debates should be reintegrated to pursue a goal of ending poverty – even if someone’s homelessness is ended, their poverty isn’t – which would make reintegration of these two debates more critical.\textsuperscript{313}

In my analysis, Eide provides a combination of data and existing literature to come to noteworthy conclusions pushing back against the rhetoric constructed by Housing First proponents. This paper simultaneously acknowledges the success that PSH can have in reducing homelessness, but provides significant reason to question some of the broader, more ambitious claims relating to ending homelessness from proponents of Housing First. While this paper tends to focus on homelessness as a whole and not chronic homelessness, Eide’s ideas offered in his conclusion should be analyzed within a broader scope of the previously reviewed data and literature to better understand if these ideas are worthy of increased consideration.

The next and final section seeks to analyze the findings from Byrne et al. (2014), Corinth (2015), Glynn and Fox (2019), and Eide (2020) and draw conclusions on the efficacy of Housing First and PSH in reducing homelessness. The following section details the outcomes and implications derived from the findings in the previous four studies, in addition to my analysis and conclusion of the efficacy of Housing First, and what I advocate for in the future.

\textsuperscript{313} Ibid
Final Discussion and Implications

Analysis of Evidence

While Byrne et al. (2014) finds a moderate negative association between an increase in PSH units and the rate of chronic homelessness, Corinth (2015) and Eide (2020) provide evidence to show limited effectiveness, if at all, of PSH investment on homelessness. Byrne et al. also mentions a potential “creaming” effect in the CoCs studied, which convolute some of the data and subsequent results and analysis. This makes it more difficult to come to conclusions on PSHs effectiveness on reducing chronic homelessness. Despite mixed results, the lack of a definitive negative association between PSH and homelessness suggests that support for Housing First is based on poor or limited evidence, even though it is touted as being “evidence-based.” The studies reviewed do commonly find, however, that HUD data is insufficient and should be improved for better analysis and insights to inform policy decisions in the future. Byrne et al., Corinth, and Glynn and Fox (2019)’s findings also call for future attention towards the association between median rent and homelessness.

Overall, I find based on the evidence provided by the literature that Housing First and Permanent Supportive Housing may have moderately successful outcomes for certain subgroups of the homeless population, namely the chronically homeless, but should be reconsidered as the primary solution to ending homelessness. The variation in success on the community level should be evidence for the federal government to reconsider requirements that federal grant recipients utilize funding towards investment in PSH. Given the moderate evidence in support of PSH in reducing chronic homelessness, PSH has potential for successful outcomes, but significant investment in additional PSH units should be considered based on the individual needs and characteristics of a CoC.
For example, consider homelessness in my home state of Hawai`i. If you recall, 76.6 percent of homeless individuals are unsheltered, the highest unsheltered rate for individuals in the country. Following the findings from Corinth (2015) and Eide (2020), I suggest that federal requirements that funds be allocated toward PSH investment in CoCs around the country should be reconsidered. The variation that exists amongst CoCs makes it difficult for a blanket requirement to be effective. By casting the same approach for all CoCs across the United States using a wide net, the evidence does not suggest that positive outcomes experienced by other CoCs will include the O`ahu CoC. Although Byrne et al. (2014) finds a moderate negative relationship between an increase in PSH units and homelessness, this does not imply that every CoC will see the same negative relationship, and I find that the strength of the association found in Byrne et al. is not strong enough to warrant the significant funding allocated solely towards investment in PSH. The large percentage of unsheltered individuals in Hawai`i also implies that the probability the PIT estimates produced are inaccurate is higher. This makes it more difficult for trends to be identified, and for CoCs to act on these trends using the correct service approach.

Also recall that Hawai`i state legislators are calling for increasing funding for mental health services. If federal grants awarded to Hawai`i are tied to PSH, this forces the state and counties to find alternate funding services to increase other homeless services. It is unclear whether these services will be successful in reducing homelessness, but it seems as if required investment in PSH is an inefficient use of funds. I recommend that each CoC should be able to utilize funding based on the needs of the homeless people in the CoC. Not every CoC benefits in the same way, if at all, from PSH, so a blanket requirement for all CoCs to invest significantly in PSH is inefficient. By investing in services based on the needs of the individual CoCs, ideally as an endogenous adjustment based on changes in PIT estimates and other detailed data, the
potential for PSH to attract people into homelessness could be reduced. Additionally, just 23 percent of adults and unaccompanied minors are chronically homeless on O‘ahu. If PSH investment is the most significant use of funding yet units are targeted mainly towards the chronically homeless, a significant amount of the homeless population is not likely to benefit from additional PSH units. Thus, a more efficient use of funds would be to reallocate some of the earmarked funds for PSH towards other homeless services.

**Policy Proposals**

**Additional Research**

To better understand the effects of Housing First on homelessness, more detailed data and additional research will be needed to find stronger conclusions in the future. From my review of Corinth (2015), if PSH attracts people into homelessness, sheltered homeless counts could lead to decisions made based on poor data due to synthetic changes in the sheltered counts. To combat this, if HUD gathered detailed data on the transition rates to private housing after being placed in PSH for people who were placed in PSH, these rates could be compared to the rates at which these people would have transitioned to private housing had they not been placed in PSH. I suggest federal policymakers and homelessness leaders alike should take initiative by increasing funding for data collection to better identify characteristics and trends within the homeless population.

Byrne et al. (2014) and Corinth (2015) show us that more detailed data would have allowed for more thorough examination of trends and associations regarding PSH and other homeless services. Thus, I suggest that future research on these rates would allow us to come to more significant conclusions than the findings in Byrne et al. and Corinth, and the models like the one proposed by Corinth could find this detailed data useful. I find it unlikely for PIT
estimates to improve significantly in the future because of variations in the number of
unsheltered homeless and the methodology for estimating the size of this sub-population.
However, the coordinated entry system in conjunction with better technology and data tracking
methods could allow for better data on the time homeless people spend in services like PSH,
which could lead to more insightful analysis in the future.

Finite Exit Timelines

The study of PSH transition rates, however, lends itself to a largely philosophical debate
with a dilemma between PSH as a transitional tool to help homeless people obtain their own
housing, or PSH being shelter as a basic human right that the government is entitled to provide.
If time spent in PSH is not limited by those providing it leading to prolonged homelessness or
desire to remain in PSH forever, a new type of “welfare queen” stereotype could emerge as
people could find a way to take advantage of PSH and the very low-cost housing provided –
those living in PSH typically pay just 30 percent of their total income, public assistance included,
towards rent. In the 1990s, reliance on government assistance for those not making active
attempts to earn income became a highly contentious topic of political and social debate,
ultimately leading to the reform of government aid into what we now know it as today. If an
increased number of people begin to take advantage of PSH without making active attempts to
exit PSH, we could see a similar debate arise.

On the contrary, if a perspective is advocated that the main concern regarding PSH
should be the welfare of individuals and families in the most impoverished situations, the debate
environment would change. Proponents of PSH could argue that this is a better alternative to

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poor living conditions that those in PSH would have had to endure if they were not able to access PSH – think of this argument along the lines that the federal government should have a duty to provide basic human rights, including shelter. In Eide (2020)’s history of Housing First, this idea might not have gained traction in the past, but it certainly has a faction of support, which could grow in the future.

PSH would no longer be seen as a means of ending chronic homelessness, but rather the government’s way of guaranteeing each individual’s basic human right to shelter, which would certainly be heavily debated in addition to being a tough political sell for proponents of this new branding. However, none of these hypotheticals are guaranteed in the future. Preferences of people to live independently and not in PSH were not included in any of the literature reviewed. Thus, it is entirely possible that people in PSH have a strong desire for independence, incentivizing a timely exit from PSH.

While PSH is designed to be a long-term approach targeting the chronically homeless, I argue that this should not be forever. Referring back to findings from Eide (2020) on decreased self-sufficiency for individuals after being placed in PSH, I find this to be particularly concerning because it refutes some aspects of the success claimed by proponents of Housing First. If PSH were to be advocated for as a basic human right, this would represent a significant deviation in the narrative created by proponents of Housing First, and it could create for an environment in which a significant amount of taxpayer dollars would be spent on individuals who have low motivation to become self-sufficient members of society.

Endogenous Changes

After reviewing Shinn and Khadduri (2020) and Eide (2020), we know that PSH is the primary form of homeless assistance advocated for on the federal, state, and local levels, with
billions in funds disbursed towards investment in PSH units, despite limited evidence that shows
PSH reduces homelessness, specifically chronic homelessness. As mentioned in my analysis of
Corinth (2015), the intensive federal investment in PSH suggests that exogenous factors are
behind the large focus on PSH investment. This would imply that the federal government, taking
into account the massive influence that HUD holds on the spending towards specific forms of
homeless assistance, is acting purely on either political influence or imperfect information, or
both. If PSH is found to attract people into homelessness, the intensive public campaigns and
public spending on PSH could very well be scrutinized in the future. Furthermore, if PSH attracts
people into homelessness, this would mean that federal funding allocated towards PSH could
unknowingly be attracting people into homelessness or prolonging homeless, increasing the costs
of services provided to these people with similar mechanisms to the lack of timelines placed on
transitions from PSH to private housing. This inefficient use of funds, especially when
considering the majority of funding for PSH comes from public funding, would certainly spark
increased political and social debate.

**Rent Intervention**

The findings from Corinth (2015), Glynn and Fox (2019), and Eide (2020)’s
recommendations suggest that median rent should be an area of emphasis in the future. While
proving high median rent in a given area has a causal effect on homelessness is extremely
difficult or maybe even impossible to isolate as a variable, the findings from the studies
mentioned make median rent deserving of further examination in the future. It may be found that
a more efficient use of public funding, especially federal funds, should be allocated away from
homeless services and towards increased efforts to increase the housing supply, subsequently
lowering the median rent price in CoCs across the country. The marginal evidence providing
support for PSH as an effective approach to reducing homelessness should spur an interest in alternative approaches to reducing homelessness.

Consider the investment already being made towards an increase in PSH units. The cost of a one unit increase in PSH varies across CoCs, so when considering a city like Los Angeles where both housing costs and homelessness rates are especially high, the demand for PSH might be high, but the costs of increasing PSH stock are also much higher relative to most of the country. Reallocating these funds away from PSH investment and towards developing housing may be a more efficient use of funds and more effective in reducing homelessness, and should be seriously considered. Recall that Shinn and Khadduri (2020) cite regional variations in zoning and construction regulations as potential deterrents in housing development, leading to limited increases in housing supply and subsequently negative impacts on the lowest earners in the population. They also cite less affordable housing development in areas where a smaller middle-class exists as further adding to the effects felt by the lowest earners.

Federal policymakers could work with state and local governments to create an environment with conditions favorable to affordable housing development. Evidence from outcomes for veterans shows what political will and cooperation can do to create successful outcomes. In addition to reallocating funds either to incentivize developers or provide rent aid to those at-risk for homelessness, the latter being the ideal solution, in simple terms the increasing in housing supply would drive down the cost of housing, making rent more affordable for those who need it most. While this would require intensive resources and coordination, we now know from Eide (2020) that federal initiatives largely dictate how funding is allocated and to what services they are utilized towards.
An example of federal influence are both the public initiatives in support of Housing First and compliance with HUD directives for funding. Since a lot of the funding for most homelessness services programs comes from the federal level, CoCs have no choice but to abide by requirements set forth by the federal government, and thus the federal government has extreme influence over what services are offered, and how prevalent each service is. If the federal government were to support initiatives toward reducing rent prices, resources dedicated towards rolling out Housing First initiatives would be refocused towards increasing development especially where the median rent is the highest, and we could see a much more efficient use of funds and resources in reducing homelessness for both the chronically and non-chronically homeless.

It is important to note that his policy suggestion doesn’t call for the complete elimination of short-term and long-term shelter availability and other treatment services. Shelters and other short-term solutions allow those in homeless situations to get back on their feet, as well as providing the necessary services for those needing counseling, mental health treatment, substance-abuse treatment, and job search assistance. The chronically homeless still stand to benefit from options such as PSH with voluntary services offered, but the majority of the funding could be reallocated away from PSH towards housing market interventions. When considering the majority of effects of an increased median rent are felt by the non-chronically homeless, lowering the median rent in a CoC could lead to less short-term service demand since the non-chronically homeless are more likely to need and be placed in short-term solutions, assuming that shelter availability is endogenously affected. This would lead to the downsizing of short-term and long-term housing solutions due to decreased demand, which could also address the
issues of effectively targeting those who need PSH the most and the attraction of people into homelessness.

Social Safety Net

The topic of median rent prices and the housing market are related to Eide (2020)’s suggestion that homelessness be reintegrated into the safety net debate. Increased government intervention in the housing market could be politically and socially unpopular, and could lead to significant opposition from economists, politicians, and the real estate industry alike. Recall that Shinn and Khadduri (2020) suggest that homelessness occurs for people when the rent floor is higher than their income. Rather than focusing on lowering the rent floor, a more politically feasible option could be to reallocate funds away from homelessness services like PSH and increase spending on the social safety net.

While increasing the amount of aid offered through the social safety net can also be a contentious topic and work requirements are scrutinized as well, it could provide similar effects to lowering the median rent and thus reduce the pressures of homelessness for those who are at-risk. A politically feasible version of a significant increase in the social safety net might entail increasing mental health and substance abuse treatment services for the homeless, reallocating HUD funds intended for PSH investment towards increasing the social safety net, while also retaining the work-incentivizing requirements that many income aid programs already have. This could allow more individuals and families to supplement their income enough to stably maintain housing.

Racial Inequality

Lastly, in terms of analyzing homelessness in its entirety, I suggest that race and ethnicity become a point of emphasis when reviewing the factors behind homelessness, homelessness
approaches, and the outcomes of these approaches. Shinn and Khadduri (2020) show not only that race and ethnicity can be a factor in obtaining housing, but it also has effects on other factors that affect one’s chances in obtaining housing like incarceration or earning income. The 2022 AHAR statistics provide further evidence to support Shinn and Khadduri’s claims of racial disparities. While race and ethnicity are an important dimension to understanding homelessness, they might be more pertinent to a broader discussion of racial inequality and disparities in America in a more general sense – think education, income, incarceration, and employment, among other areas. It is unclear to me how race and ethnicity would be accounted for in approaches to homelessness currently, but nonetheless I argue that it should be a major consideration in the future.
Appendix

Figure 1

Figure 2

EXHIBIT 2.6: States with the Highest and Lowest Percentages of Individuals Experiencing Homelessness in Unsheltered Locations
2022

<table>
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<th>Highest Rates</th>
<th>California</th>
<th>Arizona</th>
<th>Mississippi</th>
<th>Georgia</th>
</tr>
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<tbody>
<tr>
<td>HAWAII</td>
<td>76.6%</td>
<td>76.2%</td>
<td>68.6%</td>
<td>64.9%</td>
</tr>
<tr>
<td>4,479 Homeless</td>
<td>145,983 Homeless</td>
<td>10,702 Homeless</td>
<td>1,091 Homeless</td>
<td>7,905 Homeless</td>
</tr>
<tr>
<td>3,431 Unsheltered</td>
<td>111,206 Unsheltered</td>
<td>7,341 Unsheltered</td>
<td>747 Unsheltered</td>
<td>5,131 Unsheltered</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lowest Rates</th>
<th>Vermont</th>
<th>Maine</th>
<th>Wisconsin</th>
<th>New York</th>
<th>Wyoming</th>
</tr>
</thead>
<tbody>
<tr>
<td>VERMONT</td>
<td>2.0%</td>
<td>6.7%</td>
<td>8.5%</td>
<td>10.2%</td>
<td>12.7%</td>
</tr>
<tr>
<td>1,923 Homeless</td>
<td>2,457 Homeless</td>
<td>2,886 Homeless</td>
<td>39,373 Homeless</td>
<td>458 Homeless</td>
<td></td>
</tr>
<tr>
<td>39 Unsheltered</td>
<td>164 Unsheltered</td>
<td>245 Unsheltered</td>
<td>4,031 Unsheltered</td>
<td>58 Unsheltered</td>
<td></td>
</tr>
</tbody>
</table>

Notes: Excludes Puerto Rico and U.S. territories.

Figure 3. Source: “PIT Count,” 4. PARTNERS IN CARE, Partners in Care, July 6, 2022. 
https://www.partnersincareoahu.org/pit.
Figure 4

Characteristics

This section examines the characteristics of the 3,951 individuals in 2,817 households counted as either sheltered or unsheltered in the 2022 PIT Count, including 3,406 adults, 6 unaccompanied minors, and 539 keiki.

*All percentages include the 1,471 persons observed for whom this data is not available.

21% (814) of all individuals were Repeaters
11% had been in 2 PITs, 5% in 3 PITs, 3% in 4 PITs, 2% in 5+ PITs

53% (2,077) of all individuals were in HMIS

23% (776) of adults & UMs were Chronically Homeless Individuals

7% (228) of adults were Veterans

1% (6) of keiki were Unaccompanied Minors

22% (742) of adults & UMs reported a Mental Health Illness

22% (742) of adults & UMs reported a Physical, Developmental, or Other Disability

18% (614) of adults & UMs reported a Substance Use Problem

1% (37) of adults & UMs reported living with HIV/AIDS

36% (1,239) of adults & UMs reported One or More Disabling Conditions

11% (382) of adults & UMs were survivors of Domestic Violence

8% (276) of adults were 60 years or older

5% (181) of adults & UMs identified as a Sexual & Gender Minority

Repeaters: Persons who have been counted in PIT Counts between 2017 and 2022. HMIS: The O‘ahu Homeless Management Information System (HMIS) is a countywide software program that is designed to capture client-level information over time on services used. Chronically Homeless: A person who is homeless and lives in a place not meant for human habitation, a shelter, or in an emergency shelter AND has been homeless for at least 1 year continuously or on at least 4 or more occasions over the past 3 years that add up to at least 12 months AND has a disability. Mental Health Illness, Substance Use, and Physical/Developmental or Other Disability are classified as a condition(s) that substantially impairs a person's day to day life.

Figure 4. Source: “PIT Count.” 9. PARTNERS IN CARE., Partners in Care, July 6, 2022.

https://www.partnersincareoahu.org/pit.
Figure 5

While the number of beds in shelters is decreasing, we see the number of individuals in Permanent Housing Programs (Rapid Re-Housing, Permanent Supportive Housing, and Other Permanent Housing) increasing over time. This may indicate that despite a lower number of shelter beds available, there has been an increase in permanent housing to meet the population. From 2020-2022 (due to the COVID-19 Pandemic) we have seen new and increasing resources in permanent housing and services.

Figure 5. Source: “PIT Count,” 10. PARTNERS IN CARE., Partners in Care, July 6, 2022. https://www.partnersincareoahu.org/pit.
Figure 6

SHELTER AVAILABILITY OVER TIME

The total number of beds available across all shelters has decreased by 33.5% since 2015, most notably in Transitional Housing, which had decreased by 66% from 2,354 beds in 2015 to 809 beds in 2022. The number of available beds in Emergency Shelters have steadily increased during that time period by 28%.

Figure 6. Source: “PIT Count,” 10. PARTNERS IN CARE., Partners in Care, July 6, 2022.
https://www.partnersincareoahu.org/pit.
Table 1

<table>
<thead>
<tr>
<th></th>
<th>All People</th>
<th>Individuals</th>
<th>People in Families with Children</th>
<th>Unaccompanied Youth</th>
<th>Veterans</th>
<th>Individuals Experiencing Chronic Homelessness</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Population (2020-2022)</strong></td>
<td>0.3%</td>
<td>3.1%</td>
<td>-6.1%</td>
<td>-12.0%</td>
<td>-11.1%</td>
<td>15.6%</td>
</tr>
<tr>
<td><strong>Sheltered Population (2020-2022)</strong></td>
<td>-1.6%</td>
<td>2.7%</td>
<td>-7.2%</td>
<td>-1.0%</td>
<td>-11.3%</td>
<td>32.4%</td>
</tr>
<tr>
<td><strong>Unsheltered Population (2020-2022)</strong></td>
<td>3.4%</td>
<td>3.4%</td>
<td>4.0%</td>
<td>-23.5%</td>
<td>10.8%</td>
<td>7.1%</td>
</tr>
<tr>
<td><strong>Sheltered Population (2021-2022)</strong></td>
<td>6.9%</td>
<td>5.2%</td>
<td>9.4%</td>
<td>8.5%</td>
<td>-0.9%</td>
<td>10.1%</td>
</tr>
</tbody>
</table>

### EXHIBIT 3.3: Demographic Characteristics of People in Families with Children Experiencing Homelessness

#### 2022

<table>
<thead>
<tr>
<th></th>
<th>All People in Families</th>
<th>Sheltered People in Families</th>
<th>Unsheltered People in Families</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All People in Families</strong></td>
<td>161,070</td>
<td>143,733</td>
<td>17,337</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under 18</td>
<td>95,440</td>
<td>86,356</td>
<td>9,084</td>
</tr>
<tr>
<td>18 – 24</td>
<td>11,030</td>
<td>10,076</td>
<td>954</td>
</tr>
<tr>
<td>Over 24</td>
<td>54,600</td>
<td>47,301</td>
<td>7,299</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>96,118</td>
<td>86,885</td>
<td>9,233</td>
</tr>
<tr>
<td>Male</td>
<td>64,574</td>
<td>56,611</td>
<td>7,963</td>
</tr>
<tr>
<td>Transgender</td>
<td>148</td>
<td>83</td>
<td>65</td>
</tr>
<tr>
<td>A Gender that is not Singularly 'Female' or 'Male'</td>
<td>184</td>
<td>127</td>
<td>57</td>
</tr>
<tr>
<td>Questioning</td>
<td>46</td>
<td>27</td>
<td>19</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Hispanic/Non-Latin(a)(a)(x)</td>
<td>113,421</td>
<td>99,935</td>
<td>13,486</td>
</tr>
<tr>
<td>Hispanic/Latin(a)(a)(x)</td>
<td>47,649</td>
<td>43,798</td>
<td>3,851</td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>American Indian, Alaska Native, or Indigenous</td>
<td>4,127</td>
<td>3,217</td>
<td>910</td>
</tr>
<tr>
<td>Asian or Asian American</td>
<td>1,702</td>
<td>1,285</td>
<td>417</td>
</tr>
<tr>
<td>Black, African American, or African</td>
<td>79,728</td>
<td>75,377</td>
<td>4,351</td>
</tr>
<tr>
<td>Native Hawaiian or Pacific Islander</td>
<td>4,127</td>
<td>2,520</td>
<td>1,512</td>
</tr>
<tr>
<td>White</td>
<td>60,556</td>
<td>51,957</td>
<td>8,599</td>
</tr>
<tr>
<td>Multiple Races</td>
<td>10,925</td>
<td>9,377</td>
<td>1,548</td>
</tr>
</tbody>
</table>

Note: The demographic data for unsheltered may not sum to the total because three CoCs did not report complete demographic information for the unsheltered data used in this report.


<table>
<thead>
<tr>
<th>CoC Name</th>
<th>Major City CoCs</th>
<th>Other Largely Urban CoCs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Los Angeles City &amp; County, CA</td>
<td>65,111</td>
<td>Santa Rosa, Petaluma/Sonoma County, CA</td>
</tr>
<tr>
<td>New York City, NY</td>
<td>61,840</td>
<td>Eugene, Springfield/Lane County, OR</td>
</tr>
<tr>
<td>Seattle/King County, WA</td>
<td>13,368</td>
<td>Oxnard, San Buenaventura/Ventura County, CA</td>
</tr>
<tr>
<td>San Jose/Santa Clara City &amp; County, CA</td>
<td>10,028</td>
<td>St. Petersburg, Clearwater, Largo/Pinellas County, FL</td>
</tr>
<tr>
<td>Oakland, Berkeley/Alameda County, CA</td>
<td>9,747</td>
<td>Spokane City &amp; County, WA</td>
</tr>
<tr>
<td>Largely Suburban CoCs</td>
<td>Largely Rural CoCs</td>
<td></td>
</tr>
<tr>
<td>Santa Ana, Anaheim/Orange County, CA</td>
<td>5,718</td>
<td>Texas Balance of State</td>
</tr>
<tr>
<td>Louisiana Balance of State</td>
<td>4,731</td>
<td>Georgia Balance of State</td>
</tr>
<tr>
<td>Honolulu City and County, HI</td>
<td>3,945</td>
<td>Washington Balance of State</td>
</tr>
<tr>
<td>San Bernardino City &amp; County, CA</td>
<td>3,333</td>
<td>Maine Statewide</td>
</tr>
<tr>
<td>Riverside City &amp; County, CA</td>
<td>3,316</td>
<td>Ohio Balance of State</td>
</tr>
</tbody>
</table>
### Table 4

<table>
<thead>
<tr>
<th>State</th>
<th>Increase 2020-2022</th>
<th>Increase %</th>
<th>State</th>
<th>Increase 2007-2022</th>
<th>Increase %</th>
</tr>
</thead>
<tbody>
<tr>
<td>CALIFORNIA</td>
<td>8,948</td>
<td>18.3%</td>
<td>CALIFORNIA</td>
<td>17,419</td>
<td>43.2%</td>
</tr>
<tr>
<td>OREGON</td>
<td>2,324</td>
<td>56.4%</td>
<td>WASHINGTON</td>
<td>4,773</td>
<td>183.4%</td>
</tr>
<tr>
<td>WASHINGTON</td>
<td>1,433</td>
<td>24.1%</td>
<td>OREGON</td>
<td>3,618</td>
<td>127.9%</td>
</tr>
<tr>
<td>NEVADA</td>
<td>1,421</td>
<td>106.8%</td>
<td>NEVADA</td>
<td>1,881</td>
<td>216.0%</td>
</tr>
<tr>
<td>TEXAS</td>
<td>950</td>
<td>24.6%</td>
<td>HAWAII</td>
<td>717</td>
<td>92.2%</td>
</tr>
</tbody>
</table>

#### Largest Decreases

<table>
<thead>
<tr>
<th>State</th>
<th>Decrease 2020-2022</th>
<th>Decrease %</th>
<th>State</th>
<th>Decrease 2007-2022</th>
<th>Decrease %</th>
</tr>
</thead>
<tbody>
<tr>
<td>ILLINOIS</td>
<td>-717</td>
<td>-34.8%</td>
<td>FLORIDA</td>
<td>-3,254</td>
<td>-43.6%</td>
</tr>
<tr>
<td>NEW MEXICO</td>
<td>-582</td>
<td>-44.9%</td>
<td>TEXAS</td>
<td>-3,119</td>
<td>-39.3%</td>
</tr>
<tr>
<td>FLORIDA</td>
<td>-441</td>
<td>-9.5%</td>
<td>ILLINOIS</td>
<td>-1,340</td>
<td>-50.0%</td>
</tr>
<tr>
<td>NEW YORK</td>
<td>-433</td>
<td>-6.7%</td>
<td>OHIO</td>
<td>-1,285</td>
<td>-55.7%</td>
</tr>
<tr>
<td>MARYLAND</td>
<td>-304</td>
<td>-25.3%</td>
<td>MASSACHUSETTS</td>
<td>-1,232</td>
<td>-44.2%</td>
</tr>
</tbody>
</table>

*Notes: Puerto Rico and U.S. territories were excluded. Due to methodological changes, Colorado, North Dakota, South Dakota, Wyoming, and Michigan were excluded from the list of largest changes 2007-2022.*

---

Figure 2.1  Homelessness is Especially Common in More Expensive Rental Markets. 
Source: Harvard Joint Center for Housing Studies, *America’s Rental Housing* (2017a),
www.jchs.harvard.edu. All rights reserved. Notes: Included metros are the 21 metropolitan statistical
areas (MSAs) among the 25 largest MSAs by total population for which at least
80% of population falls within one or more metro Continuums of Care (CoCs). Metro
CoCs have at least 90% of their population falling within one MSA. Median rent is
median gross rent including utilities. Homelessness rate is the point-in-time count of
homeless people, both sheltered and unsheltered, divided by the MSA total population.
Sources: U.S. Department of Housing and Urban Development 2016 Point-in-Time
Count of Homelessness; U.S. Census Bureau, 2015 American Community Survey 1-year
Estimates. Reproduced by permission.

Figure 10. Shinn, Marybeth, and Jill Khadduri. *In the Midst of Plenty: Homelessness and What to Do about It*, 49. Hoboken,

Figure 3.1  Housing First Bypasses the Steps in the Staircase Model of Care and Gives Consumers Immediate Access to Independent, Permanent Housing with Support Services that They Choose. Padgett, Henwood, and Tsemberis (2016, p. 13). Used by permission.
Table 5

### Table 6

**Results of Multi-Level Poisson Regression Models of the Relationship between Permanent Supportive Housing (PSH) and the Total Rate of Chronic Homelessness**

<table>
<thead>
<tr>
<th>Models (IRR)</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>2.97***</td>
<td>2.96***</td>
<td>.09***</td>
<td>.049***</td>
<td>.051***</td>
<td>.059***</td>
</tr>
<tr>
<td>PSH units (per 10,000 adults)</td>
<td>.959***</td>
<td>.958***</td>
<td>.958***</td>
<td>.964***</td>
<td>.996</td>
<td>.994</td>
</tr>
<tr>
<td>Emergency shelter beds (per 10,000 adults)</td>
<td>1.006***</td>
<td>1.006***</td>
<td>.988***</td>
<td>1.006***</td>
<td>.996*</td>
<td>.996*</td>
</tr>
<tr>
<td>Transitional housing beds (per 10,000 adults)</td>
<td>1.095***</td>
<td>1.095***</td>
<td>1.095***</td>
<td>1.095***</td>
<td>.996*</td>
<td>.996*</td>
</tr>
<tr>
<td>Medicaid spending per capita (in $1,000s)</td>
<td>5.46*</td>
<td>.670</td>
<td>.617</td>
<td>.637</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public assistance spending per capita (in $100s)</td>
<td>1.188</td>
<td>1.069</td>
<td>1.056</td>
<td>1.084**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median rent (in $100s)</td>
<td>1.066</td>
<td>1.076*</td>
<td>1.072*</td>
<td>1.084**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rental vacancy rate</td>
<td>1.01</td>
<td>1.08**</td>
<td>1.037***</td>
<td>1.038***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% renters</td>
<td>1.038***</td>
<td>1.037***</td>
<td>1.038***</td>
<td>1.037***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployment rate</td>
<td>1.02</td>
<td>1.02</td>
<td>1.02</td>
<td>1.02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poverty rate</td>
<td>1.01</td>
<td>1.01</td>
<td>1.01</td>
<td>1.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Black</td>
<td>.992</td>
<td>.996</td>
<td>.996</td>
<td>.994</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Hispanic</td>
<td>1.10</td>
<td>1.04**</td>
<td>1.05**</td>
<td>1.05**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% single-person household</td>
<td>1.165***</td>
<td>1.074***</td>
<td>1.074***</td>
<td>1.063***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% veteran</td>
<td>1.018**</td>
<td>1.076***</td>
<td>1.076***</td>
<td>1.072***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Baby Boomer</td>
<td>1.006</td>
<td>1.006</td>
<td>1.006</td>
<td>1.006</td>
<td></td>
<td></td>
</tr>
<tr>
<td>January temperature</td>
<td>1.045</td>
<td>1.057</td>
<td>1.06</td>
<td>1.061</td>
<td></td>
<td></td>
</tr>
<tr>
<td>January precipitation</td>
<td>1.207</td>
<td>1.175</td>
<td>1.167</td>
<td>1.145</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mandatory count year</td>
<td>.96***</td>
<td>.96***</td>
<td>.96***</td>
<td>.96***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year × PSH units (per 10,000 adults)</td>
<td>.994***</td>
<td>.994***</td>
<td>.994***</td>
<td>.994***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Log likelihood</td>
<td>~14,203.11</td>
<td>~14,199.49</td>
<td>~14,033.20</td>
<td>~13,995.66</td>
<td>~13,681.11</td>
<td>~13,675.96</td>
</tr>
<tr>
<td>AIC</td>
<td>28,418.22</td>
<td>28,396.04</td>
<td>28,370.40</td>
<td>28,255.33</td>
<td>27,719.22</td>
<td>27,393.59</td>
</tr>
<tr>
<td>BIC</td>
<td>28,435.42</td>
<td>28,435.71</td>
<td>28,391.97</td>
<td>28,199.37</td>
<td>27,997.69</td>
<td>27,509.44</td>
</tr>
</tbody>
</table>

*Note:* N = 3,722. Model 1 only includes time as a predictor. Model 2 is adjusted for whether communities were required to conduct counts of the homeless population in the given year. Model 3 is adjusted for community social safety net, housing, demographic, and climate variables. Model 4 retains control variables statistically significant at p < .20 level from model 3 and adds community investment in PSH variable. Model 5 includes time by PSH interaction variable. Model 6 adjusts for emergency shelter and transitional housing capacity.

IRR = Incidence rate ratio, CoC = Continuum of Care, AIC = Akaike Information criterion, BIC = Bayesian information criterion.

* p < .05
** p < .01
*** p < .001.

---

Table 6. Byrne, Thomas, Jamison D. Fargo, Ann Elizabeth Montgomery, Ellen Munley, and Dennis P. Culhane. “The Relationship between Community Investment in Permanent Supportive Housing and Chronic Homelessness.” _Social Service Review_ 88, no. 2 (June 2014): 248. [https://doi.org/10.1086/676142](https://doi.org/10.1086/676142).
**Table 7.** Byrne, Thomas, Jamison D. Fargo, Ann Elizabeth Montgomery, Ellen Munley, and Dennis P. Culhane. “The Relationship between Community Investment in Permanent Supportive Housing and the Total Rate of Chronic Homelessness.” Social Service Review 88, no. 2 (June 2014): 254. https://doi.org/10.1086/676142.

<table>
<thead>
<tr>
<th></th>
<th>Models (IRR)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
</tr>
<tr>
<td>Intercept</td>
<td>0.69***</td>
</tr>
<tr>
<td>Year</td>
<td>0.95***</td>
</tr>
<tr>
<td>1-year lagged PSH units (per 10,000 adults)</td>
<td>1.002</td>
</tr>
<tr>
<td>Emergency shelter beds (per 10,000 adults)</td>
<td></td>
</tr>
<tr>
<td>Transitional housing beds (per 10,000 adults)</td>
<td></td>
</tr>
<tr>
<td>Medicaid spending per capita (in $1,000s)</td>
<td>0.524**</td>
</tr>
<tr>
<td>Median rent (in 100s)</td>
<td>1.078*</td>
</tr>
<tr>
<td>% renters</td>
<td>1.03***</td>
</tr>
<tr>
<td>% black</td>
<td>0.993</td>
</tr>
<tr>
<td>% Hispanic</td>
<td>1.011*</td>
</tr>
<tr>
<td>% 1-person household</td>
<td>1.071***</td>
</tr>
<tr>
<td>% veteran</td>
<td>1.078***</td>
</tr>
<tr>
<td>January temperature</td>
<td>1.049</td>
</tr>
<tr>
<td>Metro CoC</td>
<td>1.212</td>
</tr>
<tr>
<td>Mandatory count year</td>
<td>1.005</td>
</tr>
<tr>
<td>Year × lagged PSH units</td>
<td></td>
</tr>
<tr>
<td>Log likelihood</td>
<td>-5,431.344</td>
</tr>
<tr>
<td>AIC</td>
<td>10,896.69</td>
</tr>
<tr>
<td>BIC</td>
<td>10,984.99</td>
</tr>
</tbody>
</table>

Note.—N = 372. Model 1 shows relationship between total rate of chronic homelessness and lagged number of PSH units per 10,000 adults. Model 2 adds a year by PSH interaction term. Model 3 includes emergency shelter and transitional housing variables. IRR = incidence rate ratio, CoC = Continuum of Care, AIC = Akaike information criterion, BIC = Bayesian information criterion.

* p < .05.
** p < .01.
*** p < .005.
Table 8

<table>
<thead>
<tr>
<th></th>
<th>Specification 1</th>
<th>Specification 2</th>
<th>Specification 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency shelter beds per 10,000 residents</td>
<td>0.791***</td>
<td>0.777***</td>
<td>0.780***</td>
</tr>
<tr>
<td></td>
<td>(0.153)</td>
<td>(0.151)</td>
<td>(0.209)</td>
</tr>
<tr>
<td>Logged one year</td>
<td>0.190</td>
<td>0.207</td>
<td>0.120</td>
</tr>
<tr>
<td></td>
<td>(0.183)</td>
<td>(0.182)</td>
<td>(0.188)</td>
</tr>
<tr>
<td>Transitional housing beds per 10,000 residents</td>
<td>0.805***</td>
<td>0.779***</td>
<td>0.731***</td>
</tr>
<tr>
<td></td>
<td>(0.123)</td>
<td>(0.112)</td>
<td>(0.0931)</td>
</tr>
<tr>
<td>Logged one year</td>
<td>0.0421</td>
<td>0.0501</td>
<td>0.0260</td>
</tr>
<tr>
<td></td>
<td>(0.0922)</td>
<td>(0.0983)</td>
<td>(0.0880)</td>
</tr>
<tr>
<td>Permanent supportive housing bed per 10,000 residents</td>
<td>-0.125*</td>
<td>-0.142*</td>
<td>-0.118</td>
</tr>
<tr>
<td></td>
<td>(0.0710)</td>
<td>(0.0805)</td>
<td>(0.0681)</td>
</tr>
<tr>
<td>Logged one year</td>
<td>0.192</td>
<td>0.151</td>
<td>0.187**</td>
</tr>
<tr>
<td></td>
<td>(0.0929)</td>
<td>(0.0882)</td>
<td>(0.0787)</td>
</tr>
<tr>
<td>Unemployment rate</td>
<td>0.879***</td>
<td>0.425</td>
<td>0.876***</td>
</tr>
<tr>
<td></td>
<td>(0.036)</td>
<td>(0.0415)</td>
<td>(0.0415)</td>
</tr>
<tr>
<td>Logged one year</td>
<td>-0.730***</td>
<td>-0.257</td>
<td>-0.730***</td>
</tr>
<tr>
<td></td>
<td>(0.238)</td>
<td>(0.386)</td>
<td>(0.386)</td>
</tr>
<tr>
<td>Logarithm of median rent</td>
<td>3.238</td>
<td>7.385</td>
<td>4.714</td>
</tr>
<tr>
<td></td>
<td>(3.159)</td>
<td>(4.744)</td>
<td>(4.744)</td>
</tr>
<tr>
<td>Logged one year</td>
<td>-1.688</td>
<td>7.181</td>
<td>1.688</td>
</tr>
<tr>
<td></td>
<td>(3.962)</td>
<td>(6.302)</td>
<td>(6.302)</td>
</tr>
<tr>
<td>Average count-day temperature</td>
<td>-0.0145</td>
<td>0.00043</td>
<td>0.0125</td>
</tr>
<tr>
<td></td>
<td>(0.0130)</td>
<td>(0.0225)</td>
<td>(0.0225)</td>
</tr>
<tr>
<td>Rain on count-day</td>
<td>-0.112</td>
<td>-0.550</td>
<td>-0.112</td>
</tr>
<tr>
<td></td>
<td>(0.250)</td>
<td>(0.418)</td>
<td>(0.418)</td>
</tr>
<tr>
<td>Falling snow/ice on count-day</td>
<td>-0.121</td>
<td>0.065**</td>
<td>0.121</td>
</tr>
<tr>
<td></td>
<td>(0.185)</td>
<td>(0.277)</td>
<td>(0.277)</td>
</tr>
<tr>
<td>Year*State Effects</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Observations 2,035  2,001  1,043
Groups 385  351  374
$R^2$ (within) 0.240  0.251  0.364
$R^2$ (overall) 0.483  0.462  0.399

Dependent variable is homeless count per 10,000 residents. Observations are weighted based on 2010 CoC population estimates. Homeless counts and bed inventories are generally conducted simultaneously during the month of January. The current unemployment rate and median rent are based on values for the previous year, and lagged values are based on values for the year prior. Weather-related variables are based on readings at the nearest weather station to each CoC centroid during a particular year. Data are based on the period 2007-2014. Robust standard errors are shown in parentheses. * indicates significance at the 10 percent level, ** at the 5 percent level and *** at the 1 percent level.


<p>| Table 4: Results Excluding New York City, Right-to-Shelter Communities, and Unweighted |
|-----------------------------------------|-----------------|----------------|----------------|----------------|----------------|</p>
<table>
<thead>
<tr>
<th></th>
<th>Excluding NYC</th>
<th>Excluding LA</th>
<th>Excluding NYC &amp; LA</th>
<th>Excluding Right-to-Shelter</th>
<th>Unweighted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency shelter beds per 10,000 residents</td>
<td>0.570***</td>
<td>0.590***</td>
<td>0.710***</td>
<td>0.758***</td>
<td>0.960***</td>
</tr>
<tr>
<td>Lagged one year</td>
<td>(0.290)</td>
<td>(0.209)</td>
<td>(0.209)</td>
<td>(0.303)</td>
<td>(0.310)</td>
</tr>
<tr>
<td>Transitional housing beds per 10,000 residents</td>
<td>0.785***</td>
<td>0.749***</td>
<td>0.780***</td>
<td>0.763***</td>
<td>1.069***</td>
</tr>
<tr>
<td>Lagged one year</td>
<td>(0.0890)</td>
<td>(0.0913)</td>
<td>(0.0903)</td>
<td>(0.0985)</td>
<td>(0.190)</td>
</tr>
<tr>
<td>Permanent supportive housing beds per 10,000 residents</td>
<td>-0.0205</td>
<td>0.0341</td>
<td>-0.0410</td>
<td>-0.0406</td>
<td>0.6518</td>
</tr>
<tr>
<td>Lagged one year</td>
<td>(0.0867)</td>
<td>(0.0873)</td>
<td>(0.0870)</td>
<td>(0.0867)</td>
<td>(0.185)</td>
</tr>
<tr>
<td>Unemployment rate</td>
<td>0.373</td>
<td>0.443</td>
<td>0.385</td>
<td>0.510</td>
<td>-0.780</td>
</tr>
<tr>
<td>Lagged one year</td>
<td>(0.437)</td>
<td>(0.416)</td>
<td>(0.437)</td>
<td>(0.469)</td>
<td>(0.907)</td>
</tr>
<tr>
<td>Logarithm of median rent</td>
<td>6.581</td>
<td>7.196</td>
<td>6.399</td>
<td>5.978</td>
<td>9.628</td>
</tr>
<tr>
<td>Lagged one year</td>
<td>(4.799)</td>
<td>(4.739)</td>
<td>(4.793)</td>
<td>(5.384)</td>
<td>(3.817)</td>
</tr>
<tr>
<td>Average count-day temperature</td>
<td>-0.000239</td>
<td>0.000227</td>
<td>-0.000314</td>
<td>-0.000324</td>
<td>-0.002613</td>
</tr>
<tr>
<td>Rain on count-day</td>
<td>(0.02252)</td>
<td>(0.0227)</td>
<td>(0.0226)</td>
<td>(0.0236)</td>
<td>(0.0398)</td>
</tr>
<tr>
<td>Extreme snow/ice on count-day</td>
<td>0.079***</td>
<td>0.602**</td>
<td>0.098**</td>
<td>0.111</td>
<td>0.524</td>
</tr>
<tr>
<td>Year*State Effects</td>
<td>(0.271)</td>
<td>(0.274)</td>
<td>(0.270)</td>
<td>(0.309)</td>
<td>(0.309)</td>
</tr>
</tbody>
</table>

These results are based on specification (3) from the baseline results, except that the first column omits the New York City CoC, the second column omits all CoCs in Los Angeles County, the third column omits New York City and Los Angeles, the fourth column omits all locations with a right-to-shelter, and the fifth column omits all observations but leaves them unweighted. CoCs identified as having a right-to-shelter include New York, NY; Washington, DC; Hennepin County, MN; Columbus, OH; the state of Massachusetts; and Montgomery County, MD. Data are based on the period 2000-2014. Robust standard errors are shown in parentheses. * indicates significance at the 10 percent level, ** at the 5 percent level and *** at the 1 percent level.
Table 10: Results by Subsets of Homeless Population

<table>
<thead>
<tr>
<th></th>
<th>Chronic</th>
<th>Non-Chronic</th>
<th>Sheltered</th>
<th>Unsheltered</th>
<th>Individuals</th>
<th>Families</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency shelter beds</td>
<td>0.0246</td>
<td>0.769***</td>
<td>0.586***</td>
<td>-0.0942</td>
<td>0.223**</td>
<td>0.563***</td>
</tr>
<tr>
<td>per 10,000 residents</td>
<td>(0.0419)</td>
<td>(0.205)</td>
<td>(0.181)</td>
<td>(0.0853)</td>
<td>(0.0689)</td>
<td>(0.186)</td>
</tr>
<tr>
<td>Lagged one year</td>
<td>-0.0149</td>
<td>0.113</td>
<td>-0.00691</td>
<td>0.124*</td>
<td>0.133</td>
<td>-0.0127</td>
</tr>
<tr>
<td></td>
<td>(0.0545)</td>
<td>(0.155)</td>
<td>(0.0985)</td>
<td>(0.0893)</td>
<td>(0.0689)</td>
<td>(0.161)</td>
</tr>
<tr>
<td>Transitional housing</td>
<td>0.0880**</td>
<td>0.645***</td>
<td>0.657***</td>
<td>0.0775</td>
<td>0.496***</td>
<td>0.267***</td>
</tr>
<tr>
<td>beds per 10,000</td>
<td>(0.0425)</td>
<td>(0.0888)</td>
<td>(0.0695)</td>
<td>(0.0661)</td>
<td>(0.0793)</td>
<td>(0.0789)</td>
</tr>
<tr>
<td>Lagged one year</td>
<td>0.0304</td>
<td>-0.00413</td>
<td>-0.0181</td>
<td>0.0440</td>
<td>0.0217</td>
<td>0.00412</td>
</tr>
<tr>
<td></td>
<td>(0.0494)</td>
<td>(0.0878)</td>
<td>(0.0596)</td>
<td>(0.0728)</td>
<td>(0.0703)</td>
<td>(0.0804)</td>
</tr>
<tr>
<td>Permanent supportive</td>
<td>-0.0438</td>
<td>-0.0740</td>
<td>0.0384</td>
<td>-0.125</td>
<td>-0.0856</td>
<td>-0.0321</td>
</tr>
<tr>
<td>housing beds per</td>
<td>(0.0309)</td>
<td>(0.0681)</td>
<td>(0.0604)</td>
<td>(0.0790)</td>
<td>(0.0558)</td>
<td>(0.0441)</td>
</tr>
<tr>
<td>10,000 residents</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lagged one year</td>
<td>-0.0093</td>
<td>0.107**</td>
<td>0.0363</td>
<td>0.107**</td>
<td>0.0014</td>
<td>0.0084</td>
</tr>
<tr>
<td>Unemployment rate</td>
<td>0.0015</td>
<td>0.331</td>
<td>-0.00633</td>
<td>0.431</td>
<td>0.0024</td>
<td>0.333</td>
</tr>
<tr>
<td></td>
<td>(0.142)</td>
<td>(0.419)</td>
<td>(0.189)</td>
<td>(0.405)</td>
<td>(0.275)</td>
<td>(0.286)</td>
</tr>
<tr>
<td>Lagged one year</td>
<td>0.0611</td>
<td>-0.218</td>
<td>-0.0987</td>
<td>-0.118</td>
<td>0.0885</td>
<td>-0.316</td>
</tr>
<tr>
<td></td>
<td>(0.187)</td>
<td>(0.356)</td>
<td>(0.185)</td>
<td>(0.525)</td>
<td>(0.549)</td>
<td>(0.243)</td>
</tr>
<tr>
<td>Logarithm of median</td>
<td>0.819</td>
<td>6.564</td>
<td>2.565</td>
<td>4.818</td>
<td>3.389</td>
<td>3.985*</td>
</tr>
<tr>
<td>rent</td>
<td>(1.503)</td>
<td>(4.029)</td>
<td>(1.923)</td>
<td>(4.238)</td>
<td>(3.769)</td>
<td>(2.234)</td>
</tr>
<tr>
<td>Lagged one year</td>
<td>2.523</td>
<td>4.688</td>
<td>2.118</td>
<td>5.063</td>
<td>5.095</td>
<td>2.085</td>
</tr>
<tr>
<td></td>
<td>(1.892)</td>
<td>(5.088)</td>
<td>(2.632)</td>
<td>(4.147)</td>
<td>(4.023)</td>
<td>(4.992)</td>
</tr>
<tr>
<td>Average count-day</td>
<td>0.00185</td>
<td>0.00835</td>
<td>0.0127</td>
<td>-0.00330</td>
<td>0.00393</td>
<td>0.000410</td>
</tr>
<tr>
<td>temperature</td>
<td>(0.00597)</td>
<td>(0.0255)</td>
<td>(0.0103)</td>
<td>(0.0205)</td>
<td>(0.0142)</td>
<td>(0.0172)</td>
</tr>
<tr>
<td>Rain on count-day</td>
<td>-0.120</td>
<td>-0.430</td>
<td>-0.0119</td>
<td>-0.0314</td>
<td>-0.523*</td>
<td>-0.9268</td>
</tr>
<tr>
<td></td>
<td>(0.171)</td>
<td>(0.408)</td>
<td>(0.184)</td>
<td>(0.290)</td>
<td>(0.290)</td>
<td>(0.257)</td>
</tr>
<tr>
<td>Falling snow/s in</td>
<td>0.0042</td>
<td>0.571**</td>
<td>0.410**</td>
<td>0.256</td>
<td>0.329**</td>
<td>0.295</td>
</tr>
<tr>
<td>count-day</td>
<td>(0.0727)</td>
<td>(0.259)</td>
<td>(0.179)</td>
<td>(0.197)</td>
<td>(0.164)</td>
<td>(0.210)</td>
</tr>
</tbody>
</table>

Year*State Effects

X  X  X  X  X  X

Observations 1,543 1,543 1,543 1,543 1,543 1,543

Group 374 374 374 374 374 374

R² (within) 0.215 0.345 0.614 0.177 0.296 0.286

R² (overall) 0.0258 0.386 0.760 0.0577 0.376 0.236

These results are based on specification [5] from the baseline results, except that each pair of columns restricts analysis to mutually exclusive and collectively exhaustive subsets. The first pair of columns is restricted on the basis of whether people are chronically homeless, the second pair on the basis of whether people are sheltered or unsheltered, and the third pair on the basis of whether people are homeless as individuals or as members of families. Data are based on the period 2007-2014. Robust standard errors are shown in parenthesis. * indicates significance at the 10 percent level, ** at the 5 percent level and *** at the 1 percent level.


(a) 25 largest metros
(b) Excluding NY and LA

**Fig. 10.** Predicted increase in homeless population when ZRI increases by \( x = 10\% \) in 2016. The points are the posterior mean of \((H_{i,T}^x - H_{i,T})|C_{1:25,1:T}, N_{1:25,1:T}\). The line segment spans the one-sided (right-tail) 95\% posterior credible interval. In the left panel, results are presented for all metros. In the right panel, New York and Los Angeles are excluded for more careful inspection of the remaining 23 metros.
Works Cited


Ordonio, Cassie. “Hawaii’s Governor Vowed to Cut Homelessness. Will the Legislature Go

“PIT Count.” PARTNERS IN CARE. Partners in Care, July 6, 2022.  
https://www.partnersincareoahu.org/pit.