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of Housing Insecurity*

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Roadmap to a Unified Measure of Housing Insecurity

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Abstract:

We argue for the development of a unified measure of housing insecurity, which includes the creation of a consistent definition and an instrument that allows researchers to accurately measure the problem. Our survey of the literature uncovers that there are multiple terms and definitions used to describe housing insecurity. Based on our analysis, we argue for one term, housing insecurity, and we put forth a definition that captures the various dimensions of this issue. Ultimately, we believe expert policy makers, practitioners, and academicians should convene to define and develop this measure, and that the development of the U.S. Food Security Survey Module provides a blueprint for how this can be accomplished.

I. Introduction

Two basic necessities in life are food and shelter. Since the establishment of a universal food insecurity measure in 1995, a vast research agenda has developed focusing on understanding the social costs of this problem and how and why some families are at risk of or experience food insecurity whereas others do not. Despite the importance of adequate housing to health and well-being, stakeholders including researchers, housing analysts, and policy makers lack a unified measure that can capture the multidimensional aspects of secure and stable housing. In this paper we argue for the creation of a uniform instrument to assess housing insecurity that can capture the multidimensional aspects of housing such as access and quality. In addition to examining how housing insecurity has been conceptualized across the literature, we provide a roadmap for the creation of a new measure of housing insecurity that is based on the development of the U.S. Food Security Survey Module incorporated into the Current Population Survey (CPS) annually since 1995 (National Research Council, 2006).

II. What is Housing Insecurity?

More than a billion people in the world are inadequately housed despite international law that recognizes housing as a human right (United Nations, 2014). The importance of housing goes beyond the material infrastructure that serves as protection from the elements (Shaw, 2004); housing is interrelated to physical, social, and psychological well-being (Padgett, 2007). Research has primarily focused on either the health and education threats associated with substandard housing and neighborhoods (Ludwig et al., 2013; Sanbonmatsu et al., 2006; Levanthal and Brooks-Gunn, 2003; Bashir, 2002; Katz et al., 2000, Marsh, Gordon, Heslop, & Pantazis, 2000) or the psychosocial benefits of housing as a home (Dupuis & Thorns, 1998; Low & Lawrence-Zuniga, 2003; Padgett, 2007; Shaw, 2004; Somerville, 1992). Lack of housing

altogether—or homelessness—has also been a focus of research, which brings into stark relief the fundamental importance of housing security as a prerequisite for health, employment, and various other aspects of daily functioning (Henwood, Cabassa, Craig, & Padgett, 2013).

Similar to food insecurity, most definitions of housing insecurity in some way address access to adequate housing, quality of housing obtained, and uncertainty regarding the ability to sustain housing. The United Nations describes adequate housing as consisting of the following criteria: (a) tenure security that guarantees legal protection against forced evictions, harassment, and other threats; (b) availability of materials and infrastructure such as safe drinking water, adequate sanitation, energy for cooking, heating, and lighting, food storage, and refuse disposal; (c) affordability such that paying for housing does not compromise other human rights; (d) habitability that includes protection against the cold, damp, heat, rain, wind, other threats to health, and structural hazards; (e) location that is not polluted or dangerous and that does not cut off access to employment opportunities, health care services, schools, or other critical social institutions; and (f) accessibility that can meet the specific needs of disadvantaged and marginalized groups and does not compromise the expression of cultural identity (United Nations, 2014). The United Nations provides a framework to monitor human rights including the right to housing with several suggestions for housing indicators such as the share of public expenditure on subsidized or public housing, reported cases of forced evictions, and rates of homelessness, but does not provide a uniform measure of adequate housing or housing security (United Nations, 2014).

Likewise, in 1969 the U.S. Department of Health and Human Services (DHHS) defined housing instability using five indicators: (a) exorbitant housing costs relative to income (greater than 30%); (b) inferior housing quality (e.g., inadequate plumbing, heat, electricity, leaks, holes,

etc.); (c) neighborhood instability (e.g., high rates of poverty, crime, and unemployment; poor city services; litter; noise; pollution, etc.); (d) overcrowding; and at the extreme, (e) the condition of homelessness (Office of the Assistant Secretary for Planning and Evaluation, 1969). This definition is considered distinct from what can be thought of as an extreme form of housing insecurity, namely homelessness, that has received a tremendous amount of attention by academics and policy makers in terms of defining homelessness and allocating resources for it.

In the United States, close to half a million people experience homelessness on any given day (Henry, Shivji, de Sousa, & Cohen, 2015). Efforts to address this extreme form of housing insecurity have dedicated infrastructure and oversight. Congress provides direct funds to address homelessness through the McKinney Vento Act and communities across the United States are required to maintain homelessness management information systems to receive federal funding to address homelessness. Each year, communities across the country also conduct a homelessness count to monitor the scope of the problem. An Annual Homeless Assessment Report (AHAR) is submitted to Congress each year that includes monitoring from both homelessness management information systems and homelessness counts. This type of monitoring has helped direct resources and enabled strategies that have reduced the overall number of chronically homeless adults and homeless veterans in the past 5 years. Nevertheless, the definition of what constitutes homelessness has been a moving target¹ and is not considered to be part of a unified construct of housing insecurity that can be measured on a continuum even

¹Beginning in 2009, federal definitions of homelessness were expanded to permit inclusion of persons at “imminent risk of homelessness” to expand access to homelessness assistance benefits. Such persons include individuals or families whose residence will be lost within 14 days of application for homelessness assistance, for whom no subsequent residence has been identified, and for whom resources are lacking to obtain other permanent housing. Another group for which homeless assistance has been expanded is individuals and families fleeing or attempting to flee domestic violence (U.S. Department of Housing and Urban Development, 2012).

if interventions to address homelessness promote housing stability and security (Padgett, Henwood, & Tsemberis, 2016).²

As compared to the extreme of homelessness, there is much less research exploring other facets of housing insecurity.³ This could partially be due to the fact that individuals and families experiencing housing insecurity are invisible to the public. Nonetheless, because of the limited focus on the less severe aspects of housing insecurity, far less is known about its prevalence and the costs it imposes on society. Developing a common language and uniform measurement tool would help society to mobilize resources, improve its understanding of the importance of this invisible problem, and generate solutions. We therefore make two recommendations. Our first recommendation is as follows:

Recommendation 1: Develop a common definition of housing insecurity.

Some studies have begun to estimate the prevalence of housing insecurity (see Table 1). We can see from Table 1 that there are costs to families and individuals across the age spectrum who have been exposed to housing insecurity. Some of these costs include increased likelihood of food insecurity, poor physical and mental health, low birth weight, antisocial behavior among youth, and developmental risk in children. However, as can also be seen in Table 1, each article uses a different measure to capture housing insecurity. Some studies research one aspect of housing insecurity, such as how many times a participant has moved in the past year (e.g., Carrion et al., 2014), whereas others, such as Cutts et al. (2011), use multiple dimensions of

²Housing First is an example of an effective intervention for homelessness, with research consistently demonstrating its impact on housing stability. Despite, or perhaps because of, overwhelmingly positive housing outcomes, there has been limited discussion of differences in the operationalization of housing stability and retention in studies of Housing First, which reflects inconsistencies in the definition of these concepts in the broader body of research on homelessness and housing (Byrne, Henwood & Scriber, in press).

³Perhaps because the definition has only recently been expanded, the expansion is relatively modest, and because these individuals are likely to be less visible than individuals experiencing “literal homelessness,” this subpopulation has received less attention.

housing insecurity, such as multiple moves and overcrowding. Nonetheless, it is rarely the case that all of the available dimensions of housing insecurity are combined into one indicator, even when more than one measure is available in a survey. This is probably due to the fact that there is no official unifying concept or measure available to define housing insecurity. It is impossible to estimate the effect of housing insecurity without bias if we don't first adequately define it.

Without a formal definition, researchers, policy makers, and practitioners will be unclear about the instruments that should be used to capture this construct.

One possible definition (based on the overlapping descriptions set forth by DHHS and the United Nations) for housing security is as follows:

Availability of and access to stable, safe, adequate, and affordable housing and neighborhoods regardless of gender, race, ethnicity, or sexual orientation.

Likewise, housing insecurity would be defined as follows:

Limited or uncertain availability of stable, safe, adequate, and affordable housing and neighborhoods; limited or uncertain access to stable, safe, adequate, and affordable housing and neighborhoods; or the inability to acquire stable, safe, adequate, and affordable housing and neighborhoods in socially acceptable ways.

Homelessness could be thought of as a sufficient but unnecessary condition of housing insecurity. Although we believe this is a comprehensive definition of housing insecurity, we realize that it is most appropriate for housing policy experts and researchers to come together to determine a suitable definition. Nonetheless, we highly recommend that any definition of housing insecurity capture all of its dimensions, as previously discussed, which include:

1. Housing stability
2. Housing affordability

3. Housing quality
4. Housing safety
5. Neighborhood safety
6. Neighborhood quality

Along with this convening of housing experts, we also suggest inviting instrumental players in the development and implementation of the food insecurity measure to share insight on the development and implementation of the U.S. Food Security Survey Module.

As previously mentioned, a second point of concern, which becomes evident when reviewing the literature on housing insecurity, is the inconsistent language used to describe this concept. Table 1 lists 84 articles that focus on some aspect of housing security. Of the articles that do not focus on homelessness (53), 13 (roughly 25%) use the term housing security or insecurity, whereas 33 (about 62%) use housing stability or instability. Other terms used to describe housing security or insecurity are housing affordability, housing insufficiency, housing satisfaction, and risk of homelessness. Having multiple terms to describe a general social problem could lead to confusion and makes it hard to mobilize resources and efforts to solve the problem. Much like the case of food insecurity, using a common term to describe housing uncertainty would be beneficial to public relations, policy makers, practitioners, and researchers.

To this point, we have primarily used the term housing insecurity to discuss the multiple dimensions of inadequate housing because we believe that this should be the universal language that is adopted to address this problem. Although it is clear that this is not the trend in the literature, our argument is based on the conceptual similarities between housing insecurity and food insecurity. Moreover, given the fact that food insecurity is a well-known and widely accepted term, it should be relatively easy to mobilize research, policy, practitioners, and public

relations around the term housing insecurity. Nonetheless, the official term should be discussed and agreed upon when expert researchers, policy makers, and practitioners convene to determine an official definition of housing insecurity.

III. Toward a Standardized Measure of Housing Insecurity

In the previous section we proposed using a common definition and language when discussing issues regarding the access to and the quality of housing. This term, housing insecurity, and its proposed definition captures all of the key dimensions of housing insecurity discussed by DHHS and the United Nations. Even if this definition and name were to be accepted by researchers, practitioners, and policy makers, we still lack a valid instrument to measure housing insecurity. The less accurately we measure housing insecurity, the more biased our estimates will be when studying its overall consequences. The importance of secure housing to society could be severely underestimated if we do not develop a reliable instrument that captures all of the dimensions of housing security. In particular, research with the specific goal of understanding the total impact of housing security on various outcomes might suffer from attenuation (downward) bias if housing insecurity is incompletely measured.

We can illustrate this point using the classical errors-in-variables model. Suppose that a researcher wants to estimate the effect of housing insecurity on depression in children. The researcher models this relationship with a simple regression function:

$$(1) \quad d_i = \beta h s_i + u_i,$$

for $i = 1$ to N , where d_i is a scale measuring depression in child i , and $h s_i$ is a continuous measure of the child's household housing security. For illustration purposes, assume that the means of d and $h s$ are 0 and that there is no measurement error for the dependent variable, d . However, the

researcher observes housing insecurity incompletely, and only has access to one measure of housing insecurity, such as overcrowding, which results in the following⁴:

$$(2) \quad \widetilde{hs}_i = hs_i + v_i.$$

For example, assume that included in v are measures capturing other dimensions of housing insecurity, which would include, for example, variables reflecting housing affordability, quality, and safety (e.g., leaks in the apartment, access to running water, etc.) and neighborhood quality and safety (e.g., neighborhood crime, pollution, noise, etc.). Also assume that the measurement error has a mean of zero and is uncorrelated with the actual dependent and explanatory variables and the error in equation 1⁵; moreover, assume that equation 1 is correctly specified, i.e., $(u_i hs_i) = 0$. Plugging equation 2 into equation 1, we obtain the following:

$$(3) \quad d_i = \beta(\widetilde{hs}_i - v_i) + u_i = \beta\widetilde{hs}_i + (u_i - \beta v_i).$$

Equation 3 clearly illustrates that the measurement error has been subsumed in the error term, which has caused endogeneity in our model (because \widetilde{hs}_i is clearly correlated to v_i). If we estimate equation 3 using the ordinary least squares estimator, then it is well known that:

$$\hat{\beta} = \frac{cov(\widetilde{hs}_i, d_i)}{var(\widetilde{hs}_i)} = \frac{cov(hs_i + v_i, hs_i + u)}{var(hs_i + v_i)},$$

and

$$plim \hat{\beta} = \frac{\beta \sigma_{hs}^2}{\sigma_{hs}^2 + \sigma_v^2}.$$

If we define $\alpha = \frac{\sigma_{hs}^2}{\sigma_{hs}^2 + \sigma_v^2}$, then we can rewrite $plim \hat{\beta}$ as:

$$plim \hat{\beta} = \alpha\beta,$$

where α is known as the attenuation bias since $0 < \alpha < 1$, causing $\hat{\beta}$ to be biased toward zero.

⁴Note we are assuming that the measurement error is additive.

⁵Mathematically this condition can be written as: $E(v_i d_i) = E(v_i hs_i) = E(v_i u_i) = 0$.

This is not to say that research or policy should not focus on the different facets of housing insecurity separately when appropriate; rather it suggests that to precisely estimate the prevalence of this issue and accurately account for its social costs, we need a comprehensive way to measure the multiple dimensions of housing insecurity. Therefore, our final recommendation is as follows:

Recommendation 2: Develop a validated national measure of housing insecurity that can be assessed at the household level, and, possibly, the individual level.

Similar to our first recommendation, this last step will also require the convening of practitioners, policy makers, and academicians to discuss why and how the instrument should be constructed. However, it goes one step further by implicitly requiring that resources be set aside to aid in the development, testing, analyzing, and refining of the housing insecurity measure, as in the case of the development of the food insecurity instrument (National Research Council, 2006). The goal of this step should be to assess the technical feasibility of such a measure and to develop an instrument that can be incorporated into national surveys with the intent to aid society in understanding and solving the many facets of the housing problem. Although we assert that this instrument should be modeled after the food insecurity instrument, which was designed to capture food insecurity as a continuum and also by severity level, we believe the merit of this idea should be heavily debated among key players in the field, especially if we want to be sensitive to the potential of overinclusion. In other words, we believe we should be just as mindful of avoiding potential false positives as we are false negatives in an effort to efficiently provide resources to this population.

Moreover, there are some important differences between issues concerning housing and food that should not be overlooked when developing a standard measure of housing security.

Take for example the case of older adults; not only is stable affordable housing essential for aging in place (Vega & Wallace, 2016), but what constitutes “adequate” might change for older adults because they often require additional housing modifications to maintain their daily functions. Another example would be women fleeing domestic violence; “adequate” for the class of individuals or families fleeing an abusive home may be deemed as such only if security from an abuser is provided, a circumstance that may require a higher level of security than for other persons. These examples highlight the importance of having a discussion regarding how to develop a standard measure of housing insecurity that will capture the heterogeneity among special populations at risk of experiencing some form of housing insecurity and to the extreme, homelessness.

IV. Concluding Remarks

Throughout this paper, we set forth a roadmap to develop an agreed-upon definition, language, and measure to capture the multiple facets of the housing problem based on the creation of the U.S. Food Security Survey Module. Given conceptual similarities to food insecurity and the success of that term, we propose that the formal language used to refer to housing instability should be housing insecurity. We also developed a possible definition of housing insecurity based on the overlapping concepts of the definitions already put forth by DHHS and the United Nations:

Limited or uncertain availability of stable, safe, adequate, and affordable housing and neighborhoods; limited or uncertain access to stable, safe, adequate, and affordable housing and neighborhoods; or the inability to acquire stable, safe, adequate, and affordable housing and neighborhoods in socially acceptable ways.

Nonetheless, this roadmap does not suggest blindly accepting our suggested language of housing

insecurity or our definition of the problem. Rather we suggest that key researchers, practitioners, and policy makers convene to determine the appropriate language and characterization, regardless of it is a completely new construct or improves upon ours. Moreover, key players from the food insecurity debate should be invited to share their experience on its conceptualization and implementation.

Finally, we also urge these groups to unite to discuss how to develop a standard, proven instrument to measure the various dimensions of housing insecurity that could be incorporated in major surveys across the country and the world. Like the U.S. Food Security Survey Module, we believe this measure should be able to represent the problems of housing insecurity as a continuum and by severity level. As our brief illustration shows, failure to develop such a measure will lead to biased estimates of the full impact of housing insecurity on society; moreover, we will never be able to truly understand the extent to which Americans and the world suffer from problems related to such a basic human right.

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Appendix

Table 1. Literature Focusing on Housing Insecurity

Author(s)	Publication Outlet	Term Used	Data Set	Measure of Housing Insecurity/Instability	Outcome Measure(s)	Findings	Population of Interest
<i>Housing Insecurity:</i>							
Bailey et al. (2016)	Academic	Housing Insecurity	Children's Health Watch study, HUD Subsidized Housing Index	"Overcrowding, multiple moves, self-reported difficulty making housing payments"	Odds Ratio of overcrowding & multiple moves	A 5% increase in SHA can translate to a reduction in the OR of overcrowding by 26% & multiple moves 31%	Families
Baker et al. (2015)	Academic	Housing Affordability	Household, Income, and Labor Dynamics in Australia	Housing Affordability = 30/40 rule	Movement in/out of housing affordability	Significant movement of individuals between affordable and unaffordable housing ranges	Adults
Berzin et al. (2011)	Academic	Homelessness & Housing stability	Rounds 1-11 of National Longitudinal Study of Youth (1997)	<u>Homelessness</u> : youth who "ever experienced homelessness, had no permanent residence, lived in a shelter, on the street, or had no household." <u>Housing stability</u> : "continuous measure of number of moves youth experienced after 18."	Homelessness, housing stability, independence, affordability, neighborhood quality	Of the sample, 15% reported homelessness and more movements of residence. Foster children had a higher likelihood of living in a low quality neighborhood. "Over 35% living in poor neighborhoods, compared to 26% of matched youth ($\chi^2 = 4.2$, $df = 1$, $p < .05$), and 23% of unmatched youth ($\chi^2 = 11.3$, $df = 1$, $p < .01$)."	Foster Youth
Bossarte et al. (2013)	Government	Housing Instability	2010 Nebraska Behavioral Risk Factor Surveillance Survey	Housing Instability = "answering 'always/usually' to survey question "How often in the past 12 months would you say you were worried or stressed about having enough money to pay your rent/mortgage?"	Frequent mental distress and Suicidal ideation ("Has there been a time in the past 12 months when you thought of taking your own life?")	3.7% of veterans reported housing insecurity. Vets who had reported housing instability over the last year were 5 times more likely to report experiencing mental distress and 6 times more likely to report suicidal ideation than vets who hadn't.	Veterans
Brisson & Covert (2014)	Academic	Housing Instability	Mercy Housing data	Housing Instability = "receipt of Mercy Housing lease violation & fine for late/non-payment of rent"	Likelihood of lease violation across various characteristics	A family who earns \$1000 more in a year is will increase their likelihood of a lease violation by 3-4%. Households with stable benefits were less likely to have a lease violation.	Families
Burgard et al. (2012)	Academic	Housing Instability	Michigan Recession and Recovery Study	Housing Instability = 8-item measure includes: "at least 3 moves in the past 3 years, having moved for cost reasons in the past three years, doubling up, having been homeless, having been evicted in past 12 months, being behind on mortgage, being behind on rent, having had a foreclosure in the past 3 years"	Health (self-rated health, depression, anxiety attack, and problematic alcohol use)	People behind their rent were 3.7 more likely than those who weren't to be depressed, as per the criteria. Those who had a foreclosure were 5.8 times more likely of meeting the criteria for depression and 3.5 times for anxiety.	Adults

Author(s)	Publication Outlet	Term Used	Data Set	Measure of Housing Insecurity/Instability	Outcome Measure(s)	Findings	Population of Interest
Campbell et al. (2014)	Academic	Housing Insecurity	Household, Income, and Labor Dynamics in Australia	Housing Insecurity: "1. inability to meet payments for housing and utilities 2. Housing payment risk (high costs relative to income, little savings to fall back on, & belong to less prosperous section of the community)"	Rental Arrears odds ratio	Model 1 (rent arrears) – someone who moved from being adequately employed to underemployed was 1.9 times more likely to experience housing insecurity.	Families
Carrion et al. (2014)	Academic	Housing Instability	Pregnant women 14-21 years old, without high-risk pregnancies, enrolled to receive group/individual. Prenatal care. Audio-handheld assisted personal interviews conducted during second trimester	Housing Instability = Participants asked "how many times have you moved in the past year?" Housing instability defined as 2+ times in last year	Infant birth weight	28.5% were categorized as living in unstable housing. Infants born to women living in stable housing weighed "3155.96 g (SD=532.69), compared to 3028.17 g (SD=641.18)" of women experiencing housing instability.	Infants
Clark (2010)	Academic	Housing Instability	Welfare, Children and Families: A Three-City Study	Housing Instability: residential mobility	Push/pull factors driving mobility & extent at which housing instability is associated with high rates of mobility among low-income families	The most reported reasons for moving residences were housing affordability, familial formations of unions and dissolutions, housing quality – particularly in terms of inadequate space, and	Families
Coley et al. (2013)	Academic	Housing (Residential) Instability	Three-City Study (N=2,437)	Housing instability: quality of housing	Child's emotional, psychological, behavioral, and cognitive functioning	Poor housing quality was most consistently "associated with children/adolescents' development, operating in part through mothers' psychological functioning."	Children
Curtis & Geller (2010)	Academic	Housing Insecurity	Fragile Families and Child Wellbeing study	Housing Insecurity= "Men living in an unstable situation or reported doubling up, skipping a rent payment, or had moved residences more than once per year since their previous survey."	Types of Insecurity	Housing insecurity rates averaged between 17-19% over multiple waves, 1-2% of which accounted for homelessness. The most common cause of insecurity, 9-12% was "failure to pay full rent/mortgage"	Fathers
Cutts et al. (2011)	Academic	Housing Insecurity	Children's Health Watch study	Housing Insecurity = Overcrowding, multiple moves	Adjusted Odds Ratio of crowding and multiple moves (housing insecurity) on childhood and household food insecurity	"Housing insecurity is associated with poor health, lower weight, and developmental risk among young children"	Children
Dickson-Gomez et al. (2008)	Academic	Housing Instability	Housing Status/Stability and HIV Risk Among Drug Users (2004-6), HIV Prevention in	Housing Instability = defined as "lack of access to housing, housing loss/evictions, and frequent moves"	How "arrest, previous evictions, lack of welfare benefits/employment/housing subsidies, disruption of family and social support networks" can lead to	(Of those who completed all 3 interviews) 50% moved once or more with 20% moving four or more times over the study period. 83% had been homeless during their lifetime. 20% of	Adult Drug Users

Author(s)	Publication Outlet	Term Used	Data Set	Measure of Housing Insecurity/Instability	Outcome Measure(s)	Findings	Population of Interest
			High Risk Drug Sites: Project RAP		homelessness & housing instability among active drug users	were arrested during the study while 70% reported an incarceration during their lifetime.	
Diette & Ribar (2015)	Academic	Housing Insecurity	Journeys Home Survey	Housing Insecurity: “binary measure that measures if a person had a) experienced primary or literal homelessness, b) was living in a camper, hotel, boarding house, or crisis accommodation, or c) was living with friends family or other relatives at any time either 6 months before wave 1 interview or in the time between subsequent wave interviews”	Housing insecurity, Violence	If an individual has experienced housing insecurity or been a victim to physical violence, or both, the likelihood of them becoming housing secure without suffering further violence are much lower.	Adults
Drake et al. (1989)	Academic	Housing Instability	Sample: outpatients followed by ambulatory community services (analysis sample 187 patients, ages 20-65, 11% were competitively employed)	Housing Instability & homelessness: “5-point scale of stability of living arrangements over prior 6 months rated by clinicians (highly significant problem, significant problem, pluses balances minuses, significant support, and highly significant support)”	Odds Ratio of drug & alcohol use, hospitalization, treatment compliance, psychosocial problems	17% of patients reported being predominantly homeless and 10% were reported as occasionally homeless. “75% of the predominantly homeless more likely to return to the hospital vs 47% of the occasionally homeless.”	Adults
Eastwood & Birnbaum 2007)	Academic	Housing Instability	Sample: 224 adolescents with HIV in NYC clinic	Housing Instability:” 2 dependent variables (current housing & history of housing) coded 0 or 1. Unstable Housing: homeless shelter, jail, group home, foster care, living at a friend’s apartment or house, and non-specified unstable housing.”	Housing Stability, HIV related variables, sex/reproductive history variables, substance abuse history, mental health history variables, criminal justice history, exposure to abuse	38.6% of study participants had a prior history of unstable housing, but 12.9% at the time of program entry.	Adolescents with HIV
Fowler et al. (2011)	Academic	Housing Instability	National Longitudinal Study of Adolescent Health (Add Heath)	Housing Instability: “count of the number of residential addresses youth reported since beginning of the study”	Adolescent depression, criminal justice involvement, smoking	An adolescent history of multiple moves (mobility) predicted poorer functioning across the aforementioned outcomes in young adulthood.	Adolescents
Fowler et al. (2015)	Academic	Housing Instability	National Longitudinal Study of Adolescent Health (Add Heath)	Housing Instability = “Number of residential addresses youth reported during Wave I & II interviews” (multiple moves)	Adolescent well-being: Odds Ratio of depression diagnosis, juvenile arrests, and picking up a regular smoking habit	Every residential move increased OR for depression diagnosis by 1.10. Each additional move increased OR for arrests by 1.08 and regular smoking by 1.12	Adolescents

Author(s)	Publication Outlet	Term Used	Data Set	Measure of Housing Insecurity/Instability	Outcome Measure(s)	Findings	Population of Interest
Frank et al. (2010)	Academic	Housing Insecurity	Children's Health Watch survey	Housing Insecurity= housing secure ("no more than 1 move in previous year & not crowded or doubled up"), moderate insecurity ("crowded and/or doubled up, and moved 2+ times"), crowding	Cumulative hardship index	Cumulative hardship index distribution: 59% were housing secure, 35% moderately housing insecure, and 6% severely housing insecure.	Families
Frederick et al. (2014)	Academic	Housing Stability	Sample: 51 formerly homeless young adults in Canada had open ended qualitative interviews	Housing stability/instability = stability as a continuum or spectrum; at one end, no access to housing of reasonable quality (complete instability) and on the other access to housing of reasonable quality in the absence of threats (complete stability)	Housing Instability measure	They propose the most important factors for a brief/effective measure of housing stability include: "type of housing, recent housing history, current housing tenure, financial status, education and employment status, drug abuse, legal status, and subjective assessments of stability and housing satisfaction"	Adults
Geller & Franklin (2014)	Academic	Housing Insecurity	Fragile Families and Child Wellbeing study	Housing Insecurity = Geller & Curtis definition: mothers considered insecure if indicated having skipped a rent/mortgage payment due to lack of funds, moved more than once per year in the past wave, have been evicted or homeless	Binary indicator of housing insecurity (tested in 4 models)	18% of mothers in study reported some insecurity around time of child's 5th birthday - most common type being skipping rent/mortgage (11% of total). Women whose partners were recently incarcerated faced insecurity odds nearly 50% higher than their counterparts (OR=1.49). There was a stronger relation between incarceration and insecurity among women who lived with their partners before they were incarcerated (OR= 1.51)	Families
German et al. (2007)	Academic	Housing Instability	Step into Action study (STEP)	Housing instability: residential transience -- participants who moved 2+ times in the past 6 months are transient. Homelessness: participants reported living on the street, homeless, or staying at more than 2 different places a week	Drug history/frequency, sex-related risk behaviors, residential transience/homelessness	15% of participants reported moving 2+ times in past 6 months. Of those, 30% were currently homeless compared to 11% of those who hadn't experienced multiple moves. These transient people were more likely to go to a shooting gallery or share needles.	Adults
Greder et al. (2008)	Academic	Housing Insecurity	Examining the Well-Being of Rural Latino Immigrant Families	Housing Insecurity = paying "over 30% of income on inadequate housing"	Food insecurity relationship with housing insecurity	58.8% of food secure families were homeowners compared to 14.3% of those food insecure.	Families
Hurlburt et al. (1996)	Academic	Housing Instability	McKinney Project data: participants met DSM-III-R criteria	Housing Instability: "Client spends more than 10% of nights without any type of	Housing outcomes: client ability to obtain -- stable independent housing, stable	Access to Section 8 certificates increased an individual's likelihood of attaining	Adults with Severe or Chronic

Author(s)	Publication Outlet	Term Used	Data Set	Measure of Housing Insecurity/Instability	Outcome Measure(s)	Findings	Population of Interest
			for severe or chronic mental illness	housing & does not achieve stable housing during the first two years”	community housing, variable housing, unstable housing, institutional settings, unknown	independent housing by 4.87 times. Individuals who had no issues related to alcohol abuse at the start of the study had a 2.04 times higher likelihood of maintaining stable housing than those with a history of alcohol abuse/dependence.	Mental Illnesses
Jones (2011)	Academic	Housing Stability	Sample: 3 years’ data on 106 former foster youth	Housing stability: “number of different places participants had lived since the last interview; length of time at their current address”	Housing stability	Youth who lived in transitional housing reported experiencing more housing stability.	Foster Youth
Kirkpatrick & Tarasuk (2011)	Academic	Housing Instability	Sample: Nov 2005 - Jan 2007 respondents from 12 high-poverty census tracts in Toronto, Canada w/households with at least one child 18 or younger, gross household income at/below “low-income” threshold adopted from Statistics Canada	Housing Stability = whether “family was in rent arrears and whether they’d borrowed money for rent/obtained rent money from other sources in the past 12 months”	Food Insecurity	47.4% of families of all families experienced crowding, 27.9% had obtained money for rent from borrowing, credit, pay advances, etc. and 10.8% were in rent arrears.	Families
Kushel et al. (2006)	Academic	Housing Instability	National Survey of America’s Families	Housing instability defined = “Self-reporting difficulty making housing payments”	Adjusted Odds Ratio Housing Instability and Food insecurity to postponing medical care, medications, hospitalizations	26.3% of subjects had housing instability, while 42.7% had food insecurity.	Adults
Liu et al. (2014)	Government	Housing Insecurity	2009 Behavioral Risk Factor Surveillance System	Housing Insecurity = self-reported as being stressed/worried ‘sometimes’ ‘usually’ or ‘always’ about having enough money to pay rent/mortgage	AOR of insufficient sleep or frequent mental distress	28.5% of the sample reported housing insecurity. In fact, frequently getting an insufficient amount of sleep was more likely to affect people experiencing housing insecurity than those that are not (37.7% vs 21.6) as was frequent experiencing mental distress (20.1% vs 6.8%)	Adults
Los Angeles County of Public Health (2015)	Government	Housing Instability	Los Angeles County Health Survey, American Community Survey	Housing Affordability = spending “over 30% of income on housing costs, self-reporting delaying payment/inability to pay mortgage or rent”	Food Insecurity, Healthcare Affordability, Housing Quality	17.2% of individuals reported housing unaffordability. Individuals experiencing housing unaffordability more likely to experience healthcare unaffordability	Adults

Author(s)	Publication Outlet	Term Used	Data Set	Measure of Housing Insecurity/Instability	Outcome Measure(s)	Findings	Population of Interest
Maqbool et al. (2015)	Foundation	Housing Affordability	Review of Literature	Authors look at high quality, stable, affordable housing	Pathways through which affordable housing influences health	When housing is affordable it improves health-related outcomes by “freeing up resources for food and health care”, “reducing stress and related adverse outcomes due to increased residential stability, may positively impact mental health (if sustainable), can reduce poor-quality housing related health problems, and providing an efficient platform for health care delivery”, among other things.	
Martinez et al. (2000)	Academic	Housing Instability	Cook County Hospital data - review of medical records of all HIV infected adolescent/young-adult patients from Jan 1993 to May 1998	Housing Instability: if clinician noted that “patient had multiple residences over the period of treatment, had a history of being “kicked-out” of home, or had lived at any time during treatment in a shelter”	Medication nonadherence, appointment nonadherence	Housing instability (p=0.031) has a significant association with individual’s non-adherence to HIV AIDS drug regimens	Adolescents with HIV/AIDS
Mayberry et al. (2014)	Academic	Housing Instability	Sample: “80 semi-structured in depth face-to-face interviews w/family caregivers identified in shelters in 4 states”	Housing Instability: Families who had experienced homelessness	Effects of housing instability on family routines/schedules & health	Families experiencing housing instability encountered challenges to their routines/rituals primarily due to shelter rules regarding food and meals and discipline	Families
Murphy et al. (2013)	Academic	Housing Instability	2010 National Alcohol Survey	Housing Instability: “Respondents were classified as having stable housing, having trouble paying rent/mortgage, experiencing housing loss based on answers to following questions: “Have you or another member of your household been negatively affected by the recent economic downturn or recession? That is, since January 2008?” Respondents indicating “yes” were then asked “Since January 2008, did you or anyone in your household (1) “have trouble paying rent or mortgage?” and (2) “lose their housing, either owned or rented?””	Alcohol Outcomes: alcohol dependence symptoms, negative drinking consequences	20% of those who lost their house and 12.4% of those with trouble paying housing costs reported negative drinking consequences compared to 6.8% of those with stable housing. 14.1% of those who lost their homes and 4.2% of those with troubles paying fit the criteria with 3 or more symptoms of alcohol dependency compared to 2.3% of those with stable housing.	Adults

Author(s)	Publication Outlet	Term Used	Data Set	Measure of Housing Insecurity/Instability	Outcome Measure(s)	Findings	Population of Interest
Nakazato et al. (2011)	Academic	Housing Satisfaction	German Socio-Economic Panel survey (N = 3,658)	N/A	Life-satisfaction and housing satisfaction	Moving to/living in a better home (quality/space) is not related to higher satisfaction in life because for two reasons. Firstly, housing makes only a small contribution to an individual's overall life-satisfaction and secondly, the positive effects of improved housing are undermined by the higher costs of maintaining it.	Adults
National Health Care for the Homeless Council (2013)	Non-profit	Housing Instability	Review of Current Literature	N/A	Review of Lit	US Census Bureau projects a doubling of the elderly population by 2050, thus a similar trend may be expected in homeless elderly. The main pathways into homelessness for elderly include: aging chronically homeless adults and elderly adults becoming homeless for the first time. Unstable housing is associated with emergency department use. "Health issues associated with housing instability include premature aging, alcohol use, and geriatric conditions."	Older Adults
North et al. (2010)	Academic	Housing Stability	Sample: 400 homeless people sampled from shelters/streets in St. Louis Missouri (n=255) (NIDA-funded study)	Homelessness: defined as "having no current fixed address of one's own & having spent last 14 nights in public shelter or some other unsheltered location w/o a personal mailing address, or on the streets"	Urine testing	Cocaine use was detected in 55% of those tested. Most users in this study who continued using substances over the 2-year frame failed to achieve and/or maintain stable housing. While detected cocaine use in the 1 st year follow-up predicted housing patterns, alcohol abuse/dependence did not.	Substance Abusers
Pavao et al. (2007)	Academic	Housing Instability	2003 California Women's Health Survey	Housing Instability: Survey respondents who answered in the affirmative to "being 30+ days late on rent/mortgage payments, frequently moving due to high costs, or not having their own, adequate housing"	Health Status & Access to Care	8.2% of women in this survey reported experiencing housing instability. The AOR for a woman who had experienced intimate partner violence to also experience housing instability is "(AOR=3.98, 95% CI: 2.94-5.39)"	Women
Pearson et al. (2009)	Government	Housing Instability	HUD data for Housing First Program, REACH,	Housing Instability: experiencing homelessness (or	Housing Stability	84% of individuals in Housing First program were still housed after 12 months. The participants	Adults

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			and Pathways to Housing programs	amount of time spent homeless)		most likely to leave were entering the Housing First program from homelessness (p<0.10). "REACH & DESC both had 80% stayers and 20% leavers"	
Phinney et al. (2007)	Academic	Housing Instability	Women's Employment Survey	Housing Instability: "Eviction from residence or homelessness between interview study times fall 1997-fall 2003"	Housing Instability	24% of respondents were unstably housed (95% CI: 20-80%) and 14.8% (95% CI: 16-23%) had been experienced an eviction in the survey span of 6 years.	Women
Rapaport Institute (2015)	Academic	Housing Insecurity	Boston Reentry Survey (122 men/women leaving state prison in Massachusetts)	Housing Insecurity: "living in temporary or marginal housing"	Housing insecurity	Of the individuals who had been out of prison for 6 months 35% resided in temporary or marginal housing. By the 12 th month out, that percentage had grown to 43%. The survey found that the demographic most commonly experiencing housing insecurity was: older men and individuals who have a history of mental illness or drug addiction.	Formerly Incarcerated
Reid et al. (2008)	Academic	Housing Instability	Medical Expenditure Panel Survey, National Health Interview Survey, National Survey of America's Families, National Survey of Homeless Assistance Providers and Clients	Housing Instability = data from NSAF "adults with household incomes less than 200% of the poverty level who report housing instability", the formerly homeless (data from NSHAPC "adults who use services and report a history of homelessness") and the actively homeless (data from NSHAPC "adults who report being actively homeless")	Acute health care utilization & Access to healthcare in the past year: 1) having no usual source of care, 2) having no health insurance, 3) postponing needed medical care, and 4) postponing medications	Meta-regression -> significant increase of 5.4% (95% CI 1.7%-9.2%) in the proportion of the population that's uninsured for each increase in the housing instability measure. Population w/o usual source of care is 26.1% among unstably housed vs 14.1-17.6% of gen. pop. There was an increase of 2.9% (95% CI 1.2%-4.6%, p5.008) in being hospitalized within the last 12 months for each increase in the housing instability score.	Adults
Rog & Buckner (2007)	Government	Housing Stability and Homelessness	Review of literature on risk factors/characteristics of homeless families and children	Residential Instability: "frequent moves, short stays in one's own housing, doubling up with relatives/friends"	N/A	Resources, life stage, and problems such as separations are factors that heighten a family's vulnerability to homelessness. Subsidies play a strong role in reducing and helping end homelessness.	Families
Rollins et al. (2012)	Academic	Housing Instability	SHARE study	Housing Instability = index of housing instability, "count of 10 dichotomous measures related to tenure & finances --	Health: PTSD, Depression, Quality of Life	80% of women who experienced IPV (intimate partner violence) reported difficulty paying for housing, 26% reported	Women

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				risk factors include: moving more than twice in the last 6 months, self-reported not expecting to be able to stay at current housing in the next 6 months”		homelessness and 42% reported moving more than twice.	
Rosenthal et al. (2007)	Academic	Housing Stability	Sample: Longitudinal Study of newly homeless adolescents in Los Angeles and Melbourne	Housing stability: measured by “4 different variables in order to unpack impact of stability on risk behavior (total number of moves, number of months spent at home, number of placements in institutional settings, and number of months until youth first returned home)”	Drug use, housing stability, condom use, sexual partners	Homeless adolescents in Melbourne moved significantly more than their LA County counterparts over their lifetime “($\chi^2 = 44.6, P < .0001$)”.	Adolescents
Rourke et al. (2012)	Academic	Housing Characteristics	Positive Spaces, Healthy Places study (n=602)	Housing stability: “difficulty paying housing costs, receipt of rental assistance, number of times moved in past year (2+ vs 1 or less)”	Housing variables (“difficulty paying housing costs, receipt of rent assistance, number of times moved”), “current/history of homelessness, history of incarcerations, housing satisfaction”	At the first interview 11% reported moving twice or more in the past year, which decreased to 7% by the follow-up. 44% who had difficulty meeting housing payments decreased to 31% at the follow-up.	HIV+ Adults
Stahre et al. (2015)	Government	Housing Insecurity	Washington State Behavioral Risk Surveillance System	Housing Insecurity = answered ‘always’ ‘usually’ or ‘sometimes’ to question “How often in the past 12 months would you say you were worried or stressed about having enough money to pay your rent/mortgage?”	Association between housing insecurity and health-risks	29.4% of individuals were experiencing housing insecurity, and 33.3% of housing insecure had delayed their doctor’s visits, 26.9% were smokers, and 26.3% had poor/fair health.	Adults
Suglia et al. (2011)	Academic	Housing Instability	Fragile Families and Child Wellbeing study	Housing Instability = Mothers “asked whether they’d moved 2+ times in the past 2 years; affirmative answer categorized as experiencing housing instability”	Mental Health - Composite International Diagnostic Interview - Short Form (CIDI-SF), diagnostic interview used for screening psychiatric disorders	Adjusting for demographics, the authors found that housing instability was associated with a diagnosis of depression “(OR, 1.3 [95% CI, 1.0, 1.8] and Generalized Anxiety Disorder (OR 2.5 [95% CI, 1.6, 3.8])”	Women
Surrat et al. (2015)	Academic	Housing Insecurity	Sample: 503 HIV positive adult substance users (heroin/cocaine use 12+ times in prior 3 months) Interviewed	Housing Security: Affirmative answer to “In the 3 months prior to the interview did you go without food, housing or other necessities because you did not have the money” marked as food/housing insecure (this is a combined measure)	Health status: perceived general health in past year	43.4% of the sample had experienced food and housing insecurity. This insecurely housed group had the following odds for health outcomes: “(depression 73.4% vs. 40.4%, $\chi^2 < .01$; anxiety 49.1% vs. 17.9%, $\chi^2 < .01$; traumatic stress 77.5% vs. 49.8%, $\chi^2 < .01$), severe	HIV+ Adult Substance Abusers

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						substance dependence (70.2% vs. 43.9%, $\chi^2 < .01$), and lower likelihood of achieving an undetectable viral load (46.2% vs. 57.0%, $\chi^2 = .02$) compared to those food/housing secure”	
Thurston et al. (2013)	Academic	Housing Security	2005-6 37 immigrant women in 3 Canadian cities interviewed who had fled domestic violence (longitudinal - 2 qualitative open-ended interviews at 2 month intervals)	Housing Insecurity = defined as “a woman’s sense of safety for herself and her children”	Systematic/Individual causes of homelessness, pathways into homelessness,	The foremost reason for housing insecurity was having a low income. This may be caused by barriers such as (language, job skills, transportation, etc.) which hinder the attainment of adequate employment.	Women
Topp et al. (2012)	Academic	Housing Instability	Australian Needle and Syringe Program Survey	Housing Instability categorized as primary homelessness (“sleeping rough” or in impoverished dwellings like a car, or in Australian NW “staying in the long grass”), secondary homelessness (“staying with friends and relatives or in specialist homelessness services”), and tertiary homelessness (“living short/long term in boarding houses, hostels, or caravan parks w/o secure lease and no private facilities”)	Housing Stability	19% of participants were currently experiencing housing instability; 5% primary, 8% secondary and 6% tertiary homelessness reported. As for multiple moves: 21 % had resided in at least two places in the past year while 12% had resided in five or more locations.	Adults
Vega & Wallace (2016)	Academic	Housing Affordability	American Community Survey, 2013	Elder Economic Security Standard Index (Elder Index)	Housing Costs, Health Care	Housing costs and health care costs are a major contributor to economic struggles for low-income older adults in CA. 19 states had majority of renters aged 50+ paying more than the 30% of income standard for housing. Authors suggest increasing the amount & dispersion of affordable housing for older adults.	Older Adults
Vijayaraghavan et al. (2011)	Academic	Housing Instability	Immigration, Culture and Health Care Study	Housing Instability = “individuals who reported lacking a usual place to live, living in a shelter, or being homeless”	Diabetes self-efficacy: ability to conduct diabetes-related activities (self-management) on 0-10 scale	Housing insecure individuals (lacking usual place to live) had a unit lower (than home-owners) self-efficacy score, while those who rented a room in someone	Adults

Author(s)	Publication Outlet	Term Used	Data Set	Measure of Housing Insecurity/Instability	Outcome Measure(s)	Findings	Population of Interest
						else's home had a 0.58 unit lower	
Ziol-Guest & McKenna (2014)	Academic	Housing Instability	Fragile Families and Child Wellbeing Study	Housing Instability = Mother "moving at least three times over the child's lifetime (asked at 12 month, 36 month and 5 year survey)"	Language & Literacy and Behavior problems	29% of households experienced housing instability (3+ moves). These children had greater "attention problems, internalizing and externalizing behavior" (but only among poor children)	Children
<i>Homelessness:</i>							
Allgood & Warren (2003)	Academic	Homelessness	National Survey of Assistance Providers and Clients (NSHAPC) (n=2,920)	N/A	Duration of homelessness	The duration of homelessness is higher for older men and for individuals with histories of incarceration or alcohol and drug abuse. The current shelter preference for single mothers that are drug-free and have young children is unlikely to reduce homelessness in a substantive or even cost-effective manner	Homeless Adults
Aubry et al. (2012)	Academic	Homelessness	Sample: longitudinal study of 2 (2-year apart) interviews between Oct. 2002-2005 (n=329)	Homelessness: defined as "situation in which an individual has no housing of his/her own and is staying in a temporary form of shelter""	"Mental health functioning, physical health functioning, number of chronic health conditions, lifetime history of having mental health diagnosis, health care utilization, alcohol/substance abuse, number of days housed at follow-up, number of moves between interviews"	Sample divided into classes: 28.6% were in Class 1 (high functioning), 27.1% in class 2 (substance abuse problems), 22.6% in class 3 (mental health and substance abuse), and 21.6% in class 4 (complex psychological and mental problems). Housing trajectories largely similar between classes - 70% had been housed for 90+ days at follow-up interview.	Homeless Adults
Bassuk et al. (1997)	Academic	Homelessness	WFRP Study: homeless mothers (n=220) with low-income housed mothers (n=216) as comparison group	Homelessness: (US congress definition) "having spent more than seven consecutive days in a car, abandoned building, public park (except voluntary camping), shelter, non-residential building, or other non-dwelling"	Childhood and adult predictors of family homelessness	Childhood predictors of adult homelessness included placement in foster care and having a drug-using, female primary care-provider. Adult risk factors included "minority status, recent eviction, frequent alcohol/heroin use, and recent mental health hospitalization," among others. Protective factors include being a "primary tenant, having received AFDC and/or a housing subsidy in the prior year, having a large number of people in the social network, and	Homeless Mothers

Author(s)	Publication Outlet	Term Used	Data Set	Measure of Housing Insecurity/Instability	Outcome Measure(s)	Findings	Population of Interest
						having graduated from high school.”	
Bassuk et al. (2001)	Academic	Homelessness	WFRP (Worcester Family Research Project) study -WFRP Study: homeless mothers (n=220) with low-income housed mothers (n=216) as comparison group	Homelessness: defined as “Sleeping in shelters, abandoned buildings, bus and train stations, etc.” (Link et al 1994)	Duration of homelessness	For a woman who’d been homeless once, the median length in a shelter was 11.2 weeks; twice was 16.7 weeks while thrice or more was 138.6 weeks. Almost 2/3 multiply homeless women suffered from major depression or substance abuse at some point in their lives, compared to 1/3 of first-time homeless group, even when controlling for age.	Homeless Mothers
Bebout et al. (1997)	Academic	Homelessness	Sample: 158 participants interviewed at 6, 12, 18month follow-up (n=122)	Housing Stability: three categories – “persons who consistently lived with family members, those housed in independent apartments, and persons living in dependent settings with on-site staffing”	Housing status, substance abuse/progress towards recovery, residential history, psychiatric symptoms, quality of life	52% of sample achieved stable housing (most of whom first entered staffed/supervised housing then moved to independent arrangements). Stable housing associated w/lower substance use, greater progress to recovery, and higher quality of life. Substance abuse/progress to recovery mediates housing stability.	Homeless Adults
Brueckner et al. (2011)	Academic	Homelessness	Sample: (N = 19) young people	N/A	Experiences of young people transitioning to permanent accommodation/independent living	Young people eager to attain independent accommodation, but found themselves outside dominant discourse of home occupancy - which affects their experiences of home/social belonging	Young Adults
Burt (1991)	Academic	Homelessness	Multiple data sets used on 182 cities over 100k in population	N/A	Factors influencing homelessness	The rate of homelessness increased from 1981-1989 from 5 per 10,000 individuals to 15. Factors causing this included “general assistance, household resources and employment structure” among others. The authors recommend that short-term policies should be directed at protecting poor/near-poor from effects of depressed economies.	Adults
Caton et al. (2005)	Academic	Homelessness	Sample: interviewed 377 participants upon shelter entry at 6, 12, and 18 months	Homelessness: entrance into a shelter	Duration of homelessness	81% of participants returned to community housing in follow-up - median homelessness duration was 190 days. A shorter length	Homeless Adults

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						of time spent homeless correlated with an individual of “younger age, current/recent employment, good coping skills, adequate family support, absence of substance abuse treatment history, absence of arrest history.” An older age group and a history of incarceration were the strongest predictors.	
Cobb-Clark et al. (2015)	Academic	Homelessness	Journeys Home: A Longitudinal Study of the Factors Affecting Housing Stability	Authors use multiple definitions of homelessness (cultural and narrow). Cultural – “anyone not living in their own home or that of a relative as renters or owners.” Narrow – “those sleeping on the streets, squatting, or staying in emergency/crisis accommodation.”	Duration Dependence	The rates of exits out of homelessness decrease as age of individuals and the education level of mothers increases.	Homeless Adults
Cook-Craig & Koehly (2011)	Academic	Homelessness	Sample: 28 homeless families (longitudinal study)	Homelessness: entrance into a shelter	Social support network (number/proportion/stability of supportive ties), housing status and financial well-being	Households who stayed in a homeless shelter for a greater period had a 1.465 times higher likelihood of leaving it with their own residence.	Families
Curtis et al. (2013)	Academic	Homelessness and At Risk of Homelessness	Fragile Families and Child Wellbeing study	Homelessness = traditional & HEARTH ACT definition	Homelessness = traditional & HEARTH act measure. At-Risk = multiple moves/eviction, doubling up/not paying rent,	Life shocks have positive but weak effects on evictions or multiple moves, and no aggregate effects on doubling up or not paying rent	Families
Dornbusch (1994)	Academic	Homelessness	Stanford Studies of Homeless Families, Children and Youth, Peter Rossi’s survey, and Sample: interviewed 1 parent in each of 97 formerly homeless families	N/A	Transitions into/out of homelessness	Homeless children received less medical care than poor, housed children (“8% had untreated medical problems compared to 6% of formerly homeless children & 4% of children in at-risk families”). Formerly homeless families say they were helped most by an “increase in income, support from family/friends, and access to affordable housing”. The greater the availability of resources, the higher the proportion of homeless families that are helped.	Families
Early (2005)	Academic	Homelessness	1996 National Survey of Homeless	“The lack of a home results in severe loss of privacy, security	Whether household is in housing or homeless,	Households with children have a higher probability of being	Families

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			Assistance Providers and Clients	of person and possessions, and comfort”	whether household enters shelter system	homeless when head has substance abuse/alcohol problems, in areas with high rent, and households with younger heads.	
Glomm & John (2002)	Academic	Homelessness	N/A	Homelessness: “h in the utility function equals 0 when an individual is homeless”	Future labor productivity	Homelessness reduces future labor market prospects. Housing as an investment good is hindered by borrowing constraints. Borrowing constraints and productivity loss generate a homelessness trap.	Adults
Gould & Williams (2010)	Academic	Homelessness	Missouri Association for Social Welfare - MASW censuses (1993, 1994, 1996, 1998, 2001)	Homelessness: MASW defined as entering shelter	Individuals in families in shelters per mean county population	Unemployment rate is related to number of homeless people in Missouri emergency shelters. Fair market rents and tables are not significantly related and not related to number of homeless people, respectively. Population growth rate not related to homeless population. The more bed spaces available, the more families there are to fill them (shows overcrowded shelters)	Families
Herman et al. (1997)	Academic	Homelessness	Sample: 92 US household member that'd been previously homeless & comparison 395 individuals with no prior homelessness	Homelessness: “having to sleep overnight in a shelter, abandoned building, vehicle, or out in the open because respondent did not have a place to live”	Odds Ratio of homelessness	Inadequate or lacking parental care during childhood increases the likelihood of homelessness OR=13, and psychical abuse OR=16.	Children
Hodgson et al. (2013)	Academic	Homelessness	Review of published research examining prevalence of psychiatric problems among young homeless people (46 articles)	Homelessness: defined as “without suitable or permanent accommodation”	Prevalence of psychiatric disorders	All studies using full psychiatric assessment reported prevalence of any psychiatric disorder from 48-98%	Young Adults
Jackson (1998)	Academic	Homelessness	Sample: 102 BSP (Beyond Shelter Program) participant families	Housing stability: “ratio of the number of weeks housed over the maximum possible, number of weeks from homeless exit to move from original housing, number of times moved after homeless exit”	Factors predicting duration of homelessness	Factors predicting the length of homelessness include: “density of case management meetings, age of family head, and substance abuse; while housing stability predictive factors are: monthly income/benefits lack of child care, lack of employment, mental illness, number of case management meetings while	Families

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						housed, and receipt of in-kind donations”	
Koegel et al. (1995)	Academic	Homelessness	Course of Homelessness study	Homelessness: “at some point in past 30 days participant had spent at least 1 night in (1) a temporary shelter, a place not designed for shelter, excluding those who double up or (2) a program for homeless individuals that defines stays as temporary”	Childhood living arrangements, family socioeconomic status, childhood poverty-related housing experiences, other forms of housing stress, homelessness on own as child, indicators of family trouble, any problem indicator	Almost half reported living apart from parents (natural or adopted), 25 % of sample experienced placement in foster care, institutional settings or both. 2/5 reported some form of housing problem or disruption (13% on subsidized/public housing, 17% doubled up)	Homeless Adults
McVicar et al. (2015)	Academic	Homelessness	Journeys Home: Longitudinal Study of Factors Affecting Housing Stability	Homelessness: JH distinguishes “3 definitions of homelessness (primary, secondary, and tertiary)”	Determinants of homelessness and substance abuse	Homeless individuals are more likely to be substance users & substance users are more likely to be homeless. Controlling for personal characteristics, homelessness does not affect substance use, although the authors cannot rule out that alcohol use increases the probability of an individual becoming homeless.	Adults
Nemiroff et al. (2010)	Academic	Homelessness	Sample: 85 women who were unaccompanied and 69 women with children	Housing stability: Defined as “the amount of time a participant was housed at follow-up”	Predictor variables: family status, employment history, mental health functioning, lifetime history of homelessness, housing support, housing status, and housing stability.	Family status is the only predictive variable with a correlation with higher housing stability.	Women
Orwin et al. (2005)	Academic	Homelessness	Chicago Target Cities sample	Homelessness: defined as “literal and marginal homelessness”	Residential status	Homelessness was reduced by 43% over 3 years. A primary predictor of homelessness is crack use - which appears a risk factor for becoming/remaining homeless. Whether or not others were dependent on the participant for food/shelter appears to be a protective factor for achieving housing/preventing homelessness.	Homeless Adults
Piliavan et al. (1996)	Academic	Homelessness	Sample: Longitudinal study of homeless individuals in Minneapolis, MN	N/A	Hazard Rate	The hazard rate decreased as time an individual spent homeless increased.	Homeless Adults
Quigley & Raphael (2001)	Academic	Homelessness	All systematic information on homelessness in the	N/A	Effects of housing prices, vacancies and rent-to-income ratios on homelessness	Small improvements in the affordability and availability of lower-quality rental housing can	Homeless

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			US: census counts, shelter bed counts, records of transfer payments, and administrative agency estimates			significantly reduce homelessness rates in the US.	
Shelton et al (2009)	Academic	Homelessness	National Longitudinal Study of Adolescent Health (Add Health)	Homelessness: inclusion based on responses to “having been homeless for a week or longer, ever staying in a homeless shelter, ever not having a regular residence to sleep”	Risk factors of homelessness	4.6% of respondents classified as ever being homeless. Several factors related to childhood experiences of “poor family functioning, socioeconomic disadvantage, and separation from parents or caregivers were independently associated with ever being homeless.” Other factors include: “current socioeconomic difficulty, mental health problems, and addiction problems”	Adolescents
Shinn et al. (1998)	Academic	Homelessness	Sample: 266 families requesting shelter and comparison group of 298 families from welfare caseload re-interviewed after 5 years	Housing stability: defined as “12 or more months at one’s own residence”	Risk factors of homelessness	These include “enduring poverty and disruptive social experiences”. 4/5 sheltered families at 5 years’ interview had their own apartment. Receiving housing subsidies increased a formerly unstably housed family’s likelihood of becoming stably housed “[OR] = 20.6, 95% confidence interval [CI] = 9.9, 42.9)”	Families
Toro et al. (1997)	Academic	Homelessness	Sample: case management intervention evaluated 202 cases (213 adults & 70 children) interviewed at 6, 12, 18 month follow-ups	N/A	Time homeless, housing quality, total dollar income, physical and psychological health, self-efficacy, social support	The housing quality of the intervention participants improved over the follow-up period relative to that of the controls, $F(1, 102) = 4.64, p < .05$.	Homeless Adults
Tsemberis et al. (2007)	Academic	Homelessness	Collaborative Program to Prevent Homelessness (CPPH) study	Residential Stability/Homelessness: “literal homelessness” “defined as not having a regular place of residence and living in a homeless shelter, temporarily in an institution, or living in a place not ordinarily used as a sleeping arrangement”	Literal homelessness, functional homelessness, and time in stable housing	Participants spent on average, the greatest number of days in stable settings and fewest in temporary ones.	Homeless Adults

Author(s)	Publication Outlet	Term Used	Data Set	Measure of Housing Insecurity/Instability	Outcome Measure(s)	Findings	Population of Interest
Zlotnick et al. (1999)	Academic	Homelessness	Study of Alameda County Homeless Residents Project (STAR)	Stable Housing: Remaining housed at first exit location throughout the follow-up period	Residential exits, economic resources, demographic variables, disability, human capital, disaffiliation, and cultural identification	79.6% were able to obtain a residence out of homelessness by the 15-month follow-up. However, only 15.4% were stable housing. Those without disorders and women with children were more likely to obtain housing stability.	Homeless Adults