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Housing for SSI Recipients: Expenditures, Quality, and Trends

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Abstract

More than half of single-person households receiving Supplemental Security Income (SSI) are severely housing cost burdened, spending more than 50 percent of their income on housing, up from 35 percent in 1985, raising concerns over the housing conditions of this financially vulnerable population. This research project provides a descriptive analysis of the expenditures, quality, quantity, and insecurity of housing for SSI recipients between 1985 and 2019 using the American Housing Survey (AHS). Average SSI recipient monthly housing expenditures nearly doubled over this time, from $748 in 1985 to $1,279 in 2019. Some of the increased expenditures are caused by rising housing price levels, however increasing expenditures reflect substantial improvements to housing quality and quantity. Over this time, homes for SSI recipients have expanded with square footage increasing by 15 percent, total rooms increasing by 0.34 rooms, and lot size increasing by 10 percent. The occurrence of poor-quality housing conditions in SSI recipient homes, such as a sagging roof, broken appliances, presence of rodents, and peeling paint, has decreased dramatically. For single-person SSI households, these quality improvements translate into jumping from the 91st to the 59th percentile in the 1985 poor-quality housing distribution. The SSI housing quality improvements are broad-based: All but one of 30 poor housing quality indicators improved since 1985. In addition to improved housing conditions, a majority of housing insecurity indicators, such as overcrowding, recent moves, and living in unsafe neighborhoods, have declined for SSI households.

I   Introduction

Housing is a basic necessity and the largest expense for Supplemental Security Income (SSI) recipients. But house prices have continually outpaced inflation in recent decades. As a result, single-person SSI households currently allocate 60 percent of their income to housing. Housing is associated with a wide variety of important life outcomes from health to education, crime, labor market access, family cohesion, and general life satisfaction and is perhaps the single most important indicator of living standards and material well-being. Yet few studies have measured the housing quality, experiences, and trends of lower income households. This study uses the American Housing Survey (AHS) to investigate both the present status and historical trends in housing expenditures, quality, quantity, and insecurity of SSI recipients from 1985 through 2019.

SSI provides a modest income to low-income persons with disabilities and the aged to support a baseline standard of living. The maximum monthly benefit for SSI recipients was originally set to $158 in 1975 and has been annually adjusted for inflation reaching $841 by 2022. In theory, this inflation adjustment means that SSI recipients should be able to maintain a consistent standard of living. However, the large role of housing in SSI recipient budgets combined with rising home prices may indicate that SSI living standard could be declining. Yet limited evidence has revealed a decline in the housing experiences or quality for SSI recipients. There are several reasons why worries over declining housing consumption or quality may be misplaced.

First, increases in housing costs may be offset by declines in the cost of other goods such as clothing, food, and transportation. If housing prices have outpaced inflation, some of these other goods must naturally have grown below inflation. Though basic economic theory would predict that a relative increase in housing prices would cause consumers to shift greater consumption towards other goods, to help maintain a constant living standard, housing expenditures would still be expected to increase.

Second, while SSI benefits are indexed to the Consumer Price Index for urban wage and clerical workers (CPI-W) to theoretically maintain a consistent living standard across time, the CPI-W does not account for consumer behavioral responses to price changes. That is, the CPI-W holds living standards constant if the consumption of goods does not change in response to relative price changes, but living standards would increase if consumers reoptimize their consumption bundle after observing price changes. The computation of a chained CPI index is meant to capture these expected consumption responses to relative price changes. Though not available historically, the Bureau of Labor Statistics (BLS) currently produces a chained CPI index that suggests between 2012 and 2022, the CPI-W overstated a constant-utility price level by 10 percent. If a similar relationship held between 1980 to 2022, the real value of the SSI benefit would have increased by 40 percent, helping to offset the housing price growth and increasing SSI living standards substantially.

Third, the CPI may overstate housing price growth due to unobserved (or ignored) improvements to housing quantity or quality. The BLS constructs its shelter price index based on

the contract rent of a panel of renters living within the same unit over time.[1] However, aside from a mechanical adjustment for depreciation caused by aging of the housing stock, the BLS procedure assumes the quality or size of the housing unit remains constant and this shelter price index would miss any persistent improvements or deterioration to the housing stock over time. These quality improvements could include things such as roof condition, working order or presence of appliances or fixtures such as air conditioning and heating, bathtubs, and dishwashers, cracks or holes in the walls and floors, and working order of electrical outlets. Each aspect on its own may be a small component over time, but cumulatively and over a long period of time, these housing quality measures could account for a significant portion of housing costs, broadly improve, and be overlooked by house price measurements.

This paper investigates the current status and historical trends of SSI recipient housing expenditures, quality, quantity, and insecurity between 1985 and 2019. Utilizing AHS data, I first document that between 2015 and 2019, households with an SSI recipient spent 50 percent of their income on housing costs while single-person SSI recipients spent 60 percent of their income on housing costs. SSI housing expenditures rose significantly from 45 and 50 percent of income in 1985-1999 for all and single-person SSI households.

To measure and evaluate housing quality and changes over time, I follow prior work by Eggers and Moumen (2013) to create a poor-quality housing index. Based on 30 quality indicators, this index includes measures related to exterior and interior structural issues along with heating, electrical, and water issues. Although many of these poor-quality measures are infrequently observed, they collectively paint a broad-ranging picture of poor quality housing and reflect actual time trends in housing quality problems.

While the housing expenditure increase is partially due to rising price levels, I find that SSI recipients have increased both their housing quality and quantity. Using the poor housing quality index I find that the mean 1985-1989 SSI recipient lived in housing at the 91st percentile in the national poor housing quality distribution. While the relative value of SSI housing quality remains similar over time, housing quality improved substantially over time and placed in the national 1985-1989 poor housing quality distribution, and the mean 2015-2019 SSI recipient is at the 60th percentile—an improvement of 31 percentiles and higher than the average 1985-1989 household. This quality improvement was steady and broad across the period as all but one of the 30 quality components improved among SSI recipients.

Other aspects of housing consumption and experiences have significantly improved since 1985 for SSI households, though not by as much as housing quality. For housing quantity, the average square footage rose 15 percent (8 percent for singles), from 1,285 in 1985 to 1,484 in 2019. Total rooms increased by 0.24 for both singles and the full sample. While physical characteristics of housing reflect the housing services provided from rented or owned units, other aspects of the housing experience may be changing over time for SSI recipients. For example, there may be increased relocation rates, which add additional costs to housing or increased "doubling-up" with families. Small and crowded units can make living conditions untenable and eviction rates may change over time. To understand these experiences, I build upon prior work including Hwang et al. (2021), Bo'sher et al. (2015), Cutts et al.

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[1]https://www.bls.gov/cpi/factsheets/owners-equivalent-rent-and-rent.htm

(2011), and Pearson et al. (2009) and create a housing insecurity index composed of seven components (12 in the 2015-2019 waves). Insecurity index trends suggest housing insecurity has decreased significantly since 1985 for SSI recipients, declining by 25 percent by 2019.

2   SSI Details

I next provide an overview of the SSI program. Many of the details are taken from Duggan et al. (2015), in which a more thorough discussion of the program can be found. The federal SSI program began in 1974 and covers three low-income populations: disabled children, disabled adults, and the aged (age 65 and older). To qualify, all SSI participants must satisfy a common set of income and asset requirements. SSI participants cannot have more than $2,000 in financial assets ($3,000 for couples) (Morton 2021). For a disabled person to qualify for SSI, they must pass an SSA disability screening process including a medical review. Since SSI is a federal program, disability standards do not vary by state. Adults with disabilities must be determined to not be able to participate in substantial gainful activity defined as earning$1,350 per month. To qualify as a disabled child, the child must have a physical or mental impairment that is expected to last for at least one year and results in marked and severe functional limitations.

As of 2022, SSI participants receive a maximum monthly benefit of $841. SSI participants are automatically eligible for the Supplemental Nutrition Assistance Program (SNAP) and housing assistance and Medicaid (in most states), however are ineligible to receive Aid to Families with Dependent Children (AFDC)/Temporary Assistance for Needy Families (TANF) benefits. SSI benefits are reduced if the recipient has additional income. Each $1 of earned income lowers SSI benefits by $0.50 and each $1 of unearned income, including Social Security income (Old-Age and Disability), lowers SSI benefits by $1 (Morton 2021). Federal SSI benefits are indexed to inflation, specifically the CPI-W, but otherwise have remained constant since program inception. Some states offer a modest state supplement to federal benefits, but most state supplements are below $50 per month and rarely increase.

Similar to Social Security Disability Insurance caseloads, disabled-person SSI caseloads have risen over time, for various reasons including expanded and relaxed impairment standards and reduced labor market opportunities (Nichols, et al 2017). Growth has been especially high for child cases following the 1990 Zebley v. Sullivan Supreme Court case, which expanded the eligibility for child mental disabilities for SSI, and the 1996 welfare reform that reduced the non-SSI social safety net for children (Garrett and Glied 2000). Children with disabilities currently account for only 14 percent of SSI cases. Perhaps surprisingly, aged SSI participants have remained near 2 million cases while the number of people over age 65 has doubled.

Given the SSI asset limit, homeownership can be difficult to attain or maintain for SSI participants as saving for a down payment or large home maintenance costs, such as a new furnace or roof repairs, as well as any housing equity, would likely exceed the $2,000 asset limit for SSI eligibility. However, the asset limit only includes financial assets (such as bank accounts, stocks, and cash) and excludes home equity of a primary residence, as well as a car, allowing homeowners to maintain SSI eligibility. Saving for a down payment remains an impediment to homeownership for SSI participants who enter the program as renters. Aside from the difficulty of saving sufficient funds on the SSI monthly benefit to cover a down payment, it would usually be infeasible to do so while maintaining SSI eligibility. The average SSI recipient home value is $144,000. Even with a minimal 5 percent down payment,

this equates to $7,200, well above the $2,000 asset limit.

Addressing this barrier to homeownership, on December 19, 2014, President Obama signed into law the ABLE (Achieving a Better Life Experience) Act. This act created ABLE accounts, which allow persons with disabilities to contribute funds and save for large life expenses, such as homeownership and education, without violating SSI asset limits. In part because ABLE accounts are administered at the state level, limited data exists quantifying the take-up or magnitude of ABLE accounts thus far and in turn little academic work has investigated the effect of these accounts on saving or life outcomes. This paper does not estimate a causal effect of ABLE accounts on homeownership, but instead highlights how trends in SSI homeownership change following the creation of ABLE accounts.

3   Data

To understand the housing experiences of SSI recipients I utilize the national sample of the American Housing Survey (AHS) between 1985 and 2019. The national AHS is a biennial panel survey begun in 1973 of approximately 60,000 housing units (as opposed to households) that collects detailed data on the physical condition of homes and neighborhoods, the costs of financing and maintaining homes, and the resident characteristics. Prior to 1985, many housing quality and other important variables were limited or not included in the survey, so I focus on the post-1985 period.

The AHS provides two important advantages for this research topic. The first is that it asks the most comprehensive set of questions related to housing quantity and quality (Newman and Garboden, 2013). In addition to the more commonly asked questions such as number of bedrooms and the presence of a basement, the AHS includes detailed housing characteristics such as square footage, lot size, roof condition, presence of cracks in the walls or floors, and whether rodents have been sighted.

The second advantage is the historical availability. Only a limited number of US surveys have been fielded continuously over the past forty years. While variable availability and definitions can change slightly between surveys along with important variable coding changes in 1997 and a resampling in 2015, the AHS has remained relatively consistent since 1985 and allows me to create a comparable housing quality index.

One limitation of the AHS data is that between 1991 and 2003, the survey does not separately ask about SSI income receipt, but instead asks a more general question about receipt of "welfare or public assistance," which would include both SSI and AFDC/TANF income. To overcome this limitation to estimate SSI time trends over the full period, I predict SSI receipt in the AHS using the Current Population Survey Annual Social and Economic Supplement (CPS ASEC). The CPS ASEC is available annually throughout the entire sample period and contains many of the same economic and demographic variables as the AHS. Importantly, the CPS ASEC includes an SSI indicator as well as a separate indicator for AFDC/TANF and other general assistance income. The SSI prediction process is detailed in the Appendix.

To compare SSI housing trends relative to other groups, I split households into three mutually exclusive groups: those reporting SSI income (SSI), non-SSI households reporting SNAP benefits (SNAP), and all other households (non-SNAP). If multiple people are in the household I cannot distinguish which person is the SSI recipient and two-thirds of households receiving SSI income contain multiple people. For these households, spousal or other familial income and preferences are mixed into household preferences and expenditures. To isolate the housing consumption and expenditures that SSI income is able to provide, single-person households are analyzed separately.

Summary statistics of the analysis sample between 2015 to 2019 are displayed in Table 1. The right three columns include the full sample, while the left three columns are restricted to single-person households. SSI and SNAP households are more similar among single-person households than among multi-person households. In the full sample, SSI households have about 40 percent greater household income, are fifteen years older, more likely to be married but less likely to have kids, less likely to be non-white or Hispanic, and twice as likely to include a person with a disability relative to SNAP households. Among single-person households SSI households are more similar to SNAP households, which report only 12 percent greater income, are four years older, are 10 percentage points more likely to be disabled, and are about equally likely to be non-white or Hispanic.

3.1 Housing Expenditure Variables

To measure housing expenditures, the AHS provides detailed questions on housing costs including housing tenure, rent, mortgage payments, maintenance costs, property taxes, property insurance, HOA payments, utilities, home values, and subsidized housing indicators along with household income information. All dollar values are inflation-adjusted to 2019 dollars using the CPI-W to ensure that the SSI benefit level remains constant. To compare groups and time trends, several housing expenditure measures are utilized including monthly total housing costs, rates of being cost burdened and severely cost burdened (defined by the Department of Housing and Urban Development as living with housing costs above 30 percent and 50 percent of income), housing tenure, and rates of subsidized housing.[2]

I also measure home equity. The AHS reports homeownership and mortgage status for each household along with a self-reported market value of the home. Among households with a mortgage, only the current mortgage balance is reported in the more recent survey waves and in earlier waves the balance at origination is reported. I approximate the current mortgage balance based on the years since the mortgage origination or, absent origination date information, years since moving into the home. I create a dummy variable for households that I estimate have at least $100,000 in home equity (in real 2019 dollars).

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[2]Monthly housing costs include mortgage payments, contract rent, property taxes, property insurance, HOA payments, utilities, routine maintenance costs, and mobile home fees or land rent (if any). Housing expenditures exclude any federally subsidized rental contributions.

3.2 Housing Quality and Quantity Variables

The AHS contains a rich set of housing quality characteristics, covering exterior features, interior features, appliances, plumbing/electrical, structural features, and neighborhood characteristics. To maintain a consistent index, I restrict my analysis to a variable set that is available and similarly defined in the 1985-2019 period. For each variable, I create an indicator variable equal to 1 if a negative quality measure is reported. Appendix Table A.1 lists the thirty housing quality variables along with their sample mean and associated weights for two of the quality indexes I employ.

Eggers and Moumen (2013) show that the 1997 survey redesign affected the reporting of several quality variables, and similar series jumps occur with the 2015 redesign as well. Major changes in 1997 include a shift away from responses based on the observations of interviewers and fewer in-person visits to multifamily buildings. To account for within-variable jumps in 1997 and 2015, I apply time-based weights to each variable to smooth across these transition periods. Weights for the 1985-1995 period are calculated for each variable as the 1997 average divided by the 1995 average among all households. Weights for the 1997-2013 period are equal to 1, making this time the base period. Weights for the 2015-2019 period are equal to the 2013 average divided by the 2015 average among all households. A drawback of this smoothing method is that it eliminates any actual poor-quality changes realized across the adjoining years.

I create two outcome indicator variables to demarcate especially good- or poor-quality housing. The "Great Quality" indicator equals 1 if none of the thirty quality measures are equal to 1. The "Poor Quality" indicator equals 1 if the weighted housing quality scale scores below the 90th percentile in housing quality among the full sample. When evaluating housing quantity, I focus primarily on square footage and the number of total rooms in the home. I additionally report the lot size (for single-family homes), number of stories, whether the unit is on a "small" lot, defined as less than one-eighth of an acre, or large lot, defined as an acre or more, presence of a garage, cellar, and porch, and report building type defined as either a single-family home, mobile home, mid-rise ($<$ 10 units), or high-rise ($\geq$ 10 units) housing unit.

3.3 Housing Insecurity Variables

To understand the housing experiences of SSI recipients, twelve insecurity measures are utilized to construct a housing insecurity index. These variables and their mean values are listed in Table A.2 and include being delinquent on mortgage or rental payments, overcrowdedness, living in a small unit (defined as in the fifth percentile or lower of square footage within the 2009 distribution of unit sizes for households of the same number of people), likelihood of eviction, whether respondents moved recently, and receiving a utility shut-off notice, among others. Each of these twelve binary measures has a value of one hundred if the response increases insecurity. The insecurity index is a simple summation of these variables among non-missing responses so the index value represents the average percentage probability of a respondent positively reporting an insecurity marker among the index components. Several of these variables are only asked in the 2013 and 2017 waves, so I first construct the full insecurity measure using all twelve variables. Then, to analyze time trends in housing insecurity, I limit the index to the seven variables I observed continuously between 1985 and 2019.

3.4 Methodology

Housing quality can be difficult to measure and assess in survey data. While the AHS includes a summary measure of adequacy of housing quality (ZADEQ), as pointed out by Eggers and Moumen (2013) this measure has limited usefulness because it only includes three levels (adequate, moderately inadequate, and severely inadequate) and less than two percent of homes receive the "severely inadequate" designation. Prior research has worked to improve upon the ZADEQ quality measure. Eggers and Moumen (2013) build a poor-quality index based on a set of forty-two quality measures in the AHS, assigning subjective weights to these components when aggregating to a single index. To maintain a consistent quality measure over a long period, this study includes thirty poor quality variables continuously observed throughout the period, listed in Appendix Table A.1, to construct the poor-quality housing indices.

Assigning weights to AHS quality components, Newman and Holupka (2017) build upon Eggers and Moumen (2013) to measure the quality of the assisted housing stock and utilize three weighting strategies that I mimic in this paper. These poor-quality indices (PQI) only vary in the weights they assign, w_i to each variable i:

$$PQI = 10 * \sum_{i=1}^{30} w_i * Q_i / \left(\sum_{i=1}^{30} w_i * 1[Q_i \neq .] \right)$$

The unweighted Normative Standards Index (NSI-UW) is the most straightforward index, assigning a weight of 1 to each variable. Because some poor-quality variables may be more reflective of housing adequacy than others, Eggers and Moumen (2013) assign a set of weights ranging between 1 to 10 for each variable picked in part to match the construction of the ZADEQ variable and at the authors discretion otherwise. The second poor-quality index, the weighted Normative Standard Index (NSI-W), primarily uses these weights although several weights are modified due to differences in variable construction or at the author's discretion. These weights are listed in Appendix Table A.1.

The final index pioneered in Newman and Holupka (2017) and Newman and Holupka (2018) is called the Consumer Ratings Index (CRI). AHS respondents answer, on a 1-10 scale, "How would you rate your unit as a place to live?" The CRI reverses this scale and uses an ordered logistic regression to predict which variables determine poor unit ratings. I use coefficients from this regression to assign weight w_i for the CRI index. These three indices, the NSI-UW, NSI-W, and CRI, aggregate the thirty poor-quality housing measures in order to easily compare poor-quality differences across time and subgroups in the analysis. My preferred index for this analysis is the NSI-W, however I compare my results across all indices to verify if the broader trends remain consistent.

To assess the housing quality of SSI recipients I compare their PQI values over time and in relation to SNAP and non-SNAP households. The demographic characteristics of SSI households, and other groups, are changing over time and these characteristics, such age or marital status, may influence housing outcomes. To account for these observable characteristic differences, I separately report results from the following regression:

$$Y_i = \beta_0 + \beta_1 X_{it} + \beta_2 (LATE \times TYPE) + \gamma_g + \epsilon_{it} \tag{1}$$

where Y_i is the outcome of interest (such as unit size, NSI-W, and housing budget share), X_{it} is a set of demographic variables including a quadratic in age, sex, marital status, number of people, and indicators for presence of non-relatives, single-persons, multiple families, high school education or less, and non-white or Hispanic. Metropolitan

Statistical Area (MSA)-level fixed effects are controlled for by γ_g. The variable *LATE* is a dummy variable for the later period ($t \in \{2015, 2017, 2019\}$) as opposed to the early period ($t \in \{1985, 1987, 1989\}$). The variable *TYPE* is equal to 0 for non-SNAP households, 1 for SSI households, and 2 for SNAP households. β_2 is a 5-dimensional vector corresponding to the intersection values of *LATE* and *TYPE* relative to the comparison group of non-SNAP households in the early period.

4   Results

I begin my analysis with a current snapshot of housing for SSI recipients (2015-2019) and follow with an analysis of housing trends for SSI recipients over the whole period (1985-2019). For each section, I will split the analysis between housing expenditures, quality and quantity, and housing insecurity, and I provide statistics for both the full SSI sample and the single-person SSI sample. Table 2 reports regression estimates of β_2 for each housing outcome, with the top five rows reflecting the full sample and the bottom five rows reflecting the single-person only sample. The excluded group is the non-SNAP group in the early period.

4.1 Current Housing Status

4.1.1 Housing Expenditures

Table 3 displays summary statistics on the housing expenditures of SSI, SNAP, and non-SNAP households between 2015 and 2019. Housing is the largest component of most SSI households' budgets. Among all SSI households, housing costs average $1,249 ($744 for singles) per month—equating to 51 percent of household income with 64 and 42 percent being housing burdened and severely burdened. Single-person SSI households spend a greater fraction of their income on housing, averaging 62 percent of income, and 76 and 54 percent of SSI singles are housing-cost burdened and severely cost burdened. SSI recipients are roughly 20 percentage points more severely cost burdened than non-SNAP households but have similar housing-cost burdens compared to SNAP households.

Just under half of all SSI households, and a quarter of single SSI households, are homeowners. These homeownership rates are significantly lower than the non-SNAP homeownership rate of 67 percent. After adjusting for age and other demographics as shown in Column 3 of Table 2, SSI homeownership rates are 5 percentage points greater than SNAP households overall but are within 1 percentage point among singles. Lower homeownership rates are partially offset by higher rates of housing assistance among SSI households. Around a fifth of all SSI households receive housing assistance while 42 percent of single-person SSI recipients do, compared to less than 5 percent of non-SNAP households. As documented in Hembre and Urban (2020), many public housing authorities give preference to SSI recipients when allocating housing choice vouchers and this subsidized housing can provide a large financial benefit to recipients. Single-person SSI recipients receiving subsidized housing report paying an average rent of $346 compared to the $693 average rent among non-subsidized SSI recipients.

The average SSI homeowner lives in a home valued at $211,836 ($138,788 for singles)—28 (40) percent below non-SNAP home values but 44 (29) percent above SNAP

households. Surprisingly, almost half of SSI homeowners, about one-quarter of all SSI households, have at least $100,000 in home equity while only 33 percent of SNAP homeowners have $100,000 in home equity. Rates of significant equity vary by household type. Adjusting for demographics in Column 5 of Table 2, the SSI-SNAP home equity gap largely disappears but single-person SSI households remain 5 percentage points more likely to have significant home equity compared to SNAP households. Housing wealth creates large wealth disparities across SSI recipients because non-homeowners can have only $2,000 in financial wealth.

4.1.2 Housing Quality and Quantity

Table 7 displays summary statistics of housing quantity and quality by household type. For all and single-person SSI households, across the three poor housing quality indices, SSI recipients have higher housing quality than SNAP recipients although considerably lower quality than non-SNAP households. Eight percent of SSI households (both single and full sample) live in poor quality housing while 18 percent of singles and 12 percent of all SSI households live in great quality housing—about a third higher rates of good quality housing compared to SNAP households.

As displayed in Table 3, SSI households spend more on housing compared to SNAP households. This is in part because they live in higher quality housing and have moderately larger homes. On average, SSI homes have 5.1 rooms, 1,465 square feet, and have average lot sizes (among single-family homes) of just under half an acre. This is 0.5 more rooms and 236 square feet more than SNAP recipients. However, adjusting for demographic characteristics in Columns 8 and 9 of Table 2 reduces these differences to 0.1 rooms and 50 square feet, and among single-person households, SNAP households have slightly more space.

SSI and SNAP households live in similar building types. Fifty-six percent of SSI recipients reside in single-family homes and 18 percent live in high-rise apartment buildings. This contrasts with 70 percent of non-SNAP households living in single-family homes and only 12 percent living in high-rise apartments. SSI and SNAP households are twice as likely to live in mobile homes compared to non-SNAP households. Among single-person households, SNAP and SSI household building types are very similar with a third living in single-family homes, a third living in high-rise apartments, and a quarter in mid-rise apartments.

4.1.3 Housing Insecurity

While measuring housing expenses and consumption provides a key insight into housing for SSI recipients, many aspects of the housing experience are not captured by these outcomes. Table 4 compares my housing insecurity measure for SSI, SNAP, and non-SNAP households between 2013 and 2019. Among all SSI recipients, the average housing insecurity index score is 7.19, meaning that on average SSI recipients register a positive response 7.19 percent of the time across all components of the insecurity index and 43 percent of SSI households register positive for at least one insecurity indicator. This level of insecurity is higher than the 4.94 among non-SNAP households but significantly below the 11.05 among SNAP households. Adjusting for demographics in Column 10 of Table 2 reduces the insecurity difference to only a 0.7 unit difference. Housing insecurity for single-person SSI households is similar to the full sample at 7.16 and remains below the SNAP insecurity index value of 8.20.

Separating the housing insecurity index into its component parts will show SSI

households score lower (better) than SNAP households on eleven of the twelve components for the full sample and seven of the eleven components (excluding the multifamily variable) in the single-person sample. In particular, SSI households scored considerably better on being delinquent on mortgage or rental payments, feeling unsafe in their neighborhood, and being threatened with eviction, although surprisingly, SNAP households rated their likelihood of eviction or foreclosure slightly lower. Compared to non-SNAP households, SSI households consistently scored around 50 to 100 percent higher on the insecurity measures although reported moving within the past year at a similar rate.

4.2 Housing Trends

4.2.1   Housing Expenditures

To track trends in SSI recipient housing expenditures, Table 6 displays SSI housing expenditures broken into three time periods: 1985-1999, 2001-2013, and 2015-2019. Housing costs and housing burden increased for SSI recipients over this time. SSI recipient housing costs increased substantially from $790 ($468 for singles) in 1985-1999 to $1,249 ($744 for singles) in 2015-2019. This led the average housing budget share to increase from 45 (50 for singles) percent of income to 51 (62) and the share of severely cost burdened to jump by 7 (14) percentage points.

Figure 2 displays SSI expenditure trends relative to SNAP and non-SNAP households. While SSI housing expenditures have increased greatly since 1985, they have risen comparably to non-SNAP households and remain a smaller fraction of the SSI household budget relative to SNAP households. The rise in housing expenditures was steady for most of this period until 2010, during the housing bust of the Great Recession, and expenditures have levelled off since.

To further understand trends in housing tenure, I utilize the CPS ASEC data. Because this data set is a nationally representative sample, it provides a more useful analysis of households than the repeated panel of housing units in the AHS. Figure 1 displays trends in homeownership and subsidized housing. The top two panels display trends for all recipients and the bottom two panels display trends for single-person households. Homeownership has declined for all SSI recipients by 6 percentage points since 1980 and by 10 percentage points for singles, while for SNAP households homeownership has risen by 4.5 percentage points for all recipients and 4.8 percentage points for singles. Declining homeownership rates often receive negative attention, but the SSI homeownership decline has been more than offset by an increase in subsidized housing, which rose by 7.5 percentage points among all SSI recipients and 17 percentage points among SSI singles with most of this increase occurring prior to the early 2000s. Though I cannot determine if the households that exited or avoided homeownership did so because they received subsidized housing, this large increase   in subsidized housing may explain the negative trend in homeownership and suggests that an increasing fraction of SSI households has a reasonable cap on their housing cost burden.

A goal of ABLE accounts was to increase homeownership among people with disabilities. Figure 6 compares the homeownership trends of SSI and SNAP households with a disability (excluding the elderly) relative to the passage of the ABLE Act in 2014. After falling between 1980 and 1995, SSI homeownership rates remained relatively constant at 42 percent between 2000 to 2014. Shortly after the ABLE Act was passed in 2014, disabled SSI homeownership rates began to increase and reached 44 percent by

2019. Comparing this to SNAP household homeownership trends provides mixed evidence in support of having an ABLE account increasing homeownership. SNAP homeownership rates similarly increased since 2014, but this increase was in line with a preexisting homeownership trend. While inconclusive, this provides suggestive evidence that ABLE accounts have helped facilitate homeownership. However, further research on the issue is needed to determine if a causal link exists between ABLE accounts and homeownership.

4.2.2   Housing Quality and Quantity

Though housing costs for SSI recipients have increased substantially since 1985, this increase in expenditures has translated into high housing quantity and quality. First, looking at quantity trends displayed in Table 3 and shown in Figure 4, during 2015 to 2019 the average SSI household had 0.34 (7 percent) more rooms and 200 (15 percent) more square feet more per person compared to 1985-1999 and 1,760 (10 percent) square feet larger lots among single-family home residents.

The increase in housing quantity has been fairly smooth over time and broadly parallel across groups. However, I do observe a significant reduction in housing size for both SSI and SNAP recipients during the Great Recession period. Average home size peaked for SSI recipients in 2007, just prior to the housing bust, at 1,518 square feet (1,062 square feet for single-person households). Though housing quantity has generally increased for SSI recipients, building type shares have remained approximately constant at just over half in single-family homes and 17 percent in high-rises.

Turning to housing quality, Table 3 and Figure 3 display poor housing quality trends for SSI recipients. Poor housing quality substantially declined between 1985 and 2019. The primary index, the NSI-W, declined by 7.62 (7.07 for singles) units, equivalent to 0.68 (0.63) of a standard deviation reduction. Similarly, the CRI declined by 9.14 (8.52) units or 0.78 (0.73) of a standard deviation. Over that time the poor-quality home indicator more than halved from 23 (24) percent to 8 (9) percent. Conversely, the share living in great quality housing, or housing absent of poor-quality indicators, greatly increased from only 5 (1) percent to 18 (12) percent. These housing quality improvements were broadly shared.

To help quantify the quality improvements over time for SSI households, Figure 7 displays a histogram of the 1985-1989 poor housing quality distribution. The black line reflects the mean poor housing quality during that period, a value of 9.05 at the 65th percentile. The other vertical lines reflect the mean poor-quality value for SSI households, with blue lines representing the full sample and red lines representing single-person households. Solid lines display values for the 1985-1989 period while dotted lines display values for the 2015-2019 period. SSI households were high in the poor housing quality distribution in 1985-1989, with an average NSI-W value at the 91st percentile for the full sample and the 92nd percentile for singles. Both groups greatly improved their housing quality by the 2015-2019 period, jumping to the 60th and 66th percentiles respectively.

Figure 5 breaks the quality index down into is component changes over time with the x-axis representing the rate of occurrence in the recent period (2013-2019) and the y-axis representing the rate of occurrence during the early period (1985-1991).[3] The dotted line corresponds to the 45-degree line, meaning that observations above this line indicate that the quality measure was observed at a higher rate among SSI recipients in the early period relative to the later period. All but one (stoveheat) of the thirty quality measures are above the 45-degree line, reflecting a broad increase in housing quality

across a wide range of quality components. Quality measures exhibiting the largest percent decline between these periods include the rate of sloping walls, no hot water, no refrigerator, no tub, and number of non-working toilet incidences.

4.2.3   Housing Insecurity

Housing insecurity generally decreased among SSI recipients. Table 5 displays the insecurity index and its component parts. On average among all SSI recipients, the index declined from 9.28 in the 1985-1999 period to 6.87 in the 2015-2019 period and similarly fell from 8.92 to 6.95 among single-person SSI recipients. The largest declines came from reduced overcrowding and feeling unsafe in neighborhoods. Several components did show increases over this time period including moving to reduce housing costs and being forced to move. Reported evictions or foreclosures show a marked rise following the Great Recession period but this rise was quite similar to the eviction or foreclosure rise among SNAP households.

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[3]I include 2013 in the recent period in order to include all quality variables as some are unavailable in the 2015-2019 period.

5   Discussion

This paper analyzed the housing experiences and historical trends of SSI recipients using AHS data between 1985 and 2019. Studying the material well-being of SSI households is imperative given their status as a low-income and low-asset group with limited ability to supplement their transfer income in the labor market. Further, because SSI households are a consistently defined group over a long period of time, they provide an important case study in the housing choices and experiences of lower-income Americans.

Several important findings arose in the analysis. First and foremost, SSI recipients spend a large fraction of their income on housing and this amount has increased over time. Monthly housing expenditures for single-person SSI households have risen 67 percent from $454 to $756 over this period, and half of these recipients are severely housing cost burdened.

Second, these increased expenditures do not solely reflect rising housing costs as housing quantity and quality have both risen significantly alongside expenditures. All but one of thirty quality indicators tracked improved for SSI households during this time period. These improvements were observed both at the lower end of the quality distribution, with a third fewer poor-quality homes, and also at the higher end of the distribution with many more homes without any poor-quality indicators.

Third, I provide novel evidence that homeownership provides an increasingly vital role for SSI households as a store of wealth. In 2019, a quarter of all SSI households and a tenth of single-person SSI households had at least $100,000 in home equity—double the rates in 1985. Given the limited opportunities of SSI households to accumulate wealth while maintaining eligibility, the potential role of ABLE accounts to increase SSI homeownership warrants further investigation.

Last, I show that SSI households experience a fair level of housing insecurity, particularly in their likelihood of being evicted and receiving utility shutoff warnings. Though more stable than SNAP households, this insecurity can severely reduce quality of life among SSI recipients and warrants consideration of the role that policies such as increased housing assistance or renter protections play in combating it.

While this study included a wide array of housing consumption measures, future work quantifying levels and changes to housing accessibility for SSI recipients may be particularly fruitful. Prior work by Bo'sher et al. (2015) has analyzed the 2011 AHS topical module on accessibility. They find significant deficiencies in housing accessibility—for example, only 0.15 percent of housing units are wheelchair accessible and only 3.8 percent of units are livable for individuals with moderate mobility difficulties. Further work by Chan and Ellen (2017) has shown that recent construction has not improved accessibility over the past several decades, potentially leading to challenges for SSI recipients or other people with disabilities.

Though housing is only one component of SSI recipient material well-being, it is the largest and a very important household expenditure. In conjunction with the decreasing prices of other household necessities such as food, clothing, and other consumer goods during this time, the findings presented here that the housing quality of SSI recipients increased substantially over the same period suggests a general improvement in the living standards of SSI households since the 1980s, however additional research on consumption of non-housing goods is needed to verify this claim.

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Table 1: Summary Statistics, by Household Type

	Full Sample			Singles		
	SSI	SNAP	Non-SNAP	SSI	SNAP	Non-SNAP
Household Income ($)	38,822.5	27,626.3	89,834.6	12,346.1	10,980.0	48,647.3
	(56,478.0)	(32,049.6)	(107,413.0)	(15,409.7)	(8,358.9)	(69,525.1)
Age	60.6	46.0	52.0	62.4	58.2	56.6
	(12.4)	(16.5)	(16.7)	(12.4)	(16.1)	(18.3)
Married (%)	37.4	28.7	52.7	1.7	1.8	3.5
	(48.4)	(45.2)	(49.9)	(13.1)	(13.3)	(18.4)
Number of People	2.4	3.1	2.4	1.0	1.0	1.0
	(1.6)	(1.8)	(1.4)	(0.0)	(0.0)	(0.0)
Children (%)	19.8	57.1	28.1	0.0	0.0	0.0
	(39.9)	(49.5)	(44.9)	(0.0)	(0.0)	(1.6)
Aged 65+ (%)	43.5	18.5	28.5	40.7	38.7	37.8
	(49.6)	(38.8)	(45.2)	(49.1)	(48.7)	(48.5)
Single-person (%)	35.3	22.9	27.8	100.0	100.0	100.0
	(47.8)	(42.0)	(44.8)	(0.0)	(0.0)	(0.0)
Multiple Families (%)	7.0	8.0	2.5	0.0	0.0	0.0
	(26.7)	(28.5)	(16.3)	(0.0)	(0.0)	(0.0)
Non-Relatives (%)	6.7	14.2	10.6	0.0	0.0	0.0
	(25.0)	(34.9)	(30.8)	(0.0)	(0.0)	(0.0)
High School or Less (%)	59.1	60.7	32.9	66.9	62.1	34.6
	(49.2)	(48.8)	(47.0)	(47.1)	(48.5)	(47.6)
Non-White or Hispanic (%)	46.0	56.5	31.1	47.7	48.4	28.4
	(49.8)	(49.6)	(46.3)	(49.9)	(50.0)	(45.1)
Obs	10,042	14,519	148,365	4,090	3,636	42,256

Source: American Housing Survey, 2015-2019.

Notes: Households split into three mutually exclusive groups: those receiving SSI income (SSI), non-SSI recipients receiving SNAP (SNAP), and household receiving neither SSI nor SNAP (non-SNAP). Singles sample restricted to single-person households.

Table 2: Housing Outcomes Regression Results

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Budget Share	Housing Costs	Homeownership	Subsidized Housing	> $100k Equity	NSI-W	Poor Quality	Square Feet	Rooms	Housing Instability
Full Sample										
Late x Non-SNAP	5.0275***	395.7793***	1.2850***	-0.6314***	-0.0178***	-3.0609***	-0.0491***	146.5511***	0.1414***	-1.6740***
	(0.0025)	(0.1882)	(0.0039)	(0.0019)	(0.0001)	(0.0009)	(0.0000)	(0.1478)	(0.0001)	(0.0008)
Early x SSI	9.0729***	-292.7956***	-23.8542***	15.3075***	-0.1760***	8.8486***	0.2000***	-307.2964***	-0.6767***	3.2881***
	(0.0089)	(0.6698)	(0.0140)	(0.0067)	(0.0002)	(0.0031)	(0.0001)	(0.5274)	(0.0005)	(0.0029)
Late x SSI	17.3812***	-120.9231***	-20.1790***	16.9986***	-0.1405***	-0.4778***	-0.0088***	-237.6288***	-0.4590***	0.8873***
	(0.0065)	(0.4902)	(0.0103)	(0.0050)	(0.0002)	(0.0023)	(0.0001)	(0.3907)	(0.0004)	(0.0021)
Early x SNAP	20.2735***	-379.7535***	-25.7284***	19.5627***	-0.1828***	10.7815***	0.2197***	-232.6849***	-0.5464***	5.1230***
	(0.0073)	(0.5443)	(0.0114)	(0.0055)	(0.0003)	(0.0026)	(0.0001)	(0.4307)	(0.0004)	(0.0023)
Late x SNAP	19.2435***	-285.7466***	-25.6385***	20.0277***	-0.1593***	-0.2079***	0.0002***	-278.3072***	-0.5439***	1.5957***
	(0.0056)	(0.4167)	(0.0088)	(0.0042)	(0.0002)	(0.0020)	(0.0000)	(0.3318)	(0.0003)	(0.0018)
Singles										
Late x Non-SNAP	8.1505***	364.5438***	6.8259***	-0.3170***	0.0109***	-4.3541***	-0.0626***	154.6444***	0.3742***	-2.2337***
	(0.0054)	(0.3028)	(0.0084)	(0.0047)	(0.0001)	(0.0017)	(0.0000)	(0.2207)	(0.0003)	(0.0016)
Early x SSI	9.1936***	-338.1569***	-26.2522***	22.8609***	-0.2395***	8.1691***	0.1931***	-381.5118***	-0.8198***	3.2608***
	(0.0159)	(0.8891)	(0.0247)	(0.0138)	(0.0005)	(0.0052)	(0.0001)	(0.6495)	(0.0008)	(0.0048)
Late x SSI	23.4132***	-224.0129***	-25.2118***	34.1314***	-0.1184***	-1.1431***	-0.0177***	-278.7914***	-0.5286***	1.0365***
	(0.0125)	(0.7022)	(0.0196)	(0.0109)	(0.0004)	(0.0041)	(0.0001)	(0.5154)	(0.0007)	(0.0038)
Early x SNAP	16.6070***	-247.4019***	-21.4564***	17.5941***	-0.1727***	9.6086***	0.2003***	-287.3137***	-0.7349***	4.1478***
	(0.0205)	(1.1247)	(0.0312)	(0.0174)	(0.0006)	(0.0065)	(0.0002)	(0.8219)	(0.0011)	(0.0061)
Late x SNAP	21.5065***	-267.2459***	-24.5926***	33.1213***	-0.1634***	-0.0117***	0.0176***	-241.4744***	-0.5159***	1.1809***
	(0.0131)	(0.7125)	(0.0199)	(0.0111)	(0.0004)	(0.0041)	(0.0001)	(0.5230)	(0.0007)	(0.0039)

* $p<0.10$, ** $p<0.05$, *** $p<0.010$

Source: American Housing Survey.

Notes: This table displays β_2 coefficients from estimating Equation (1) for differing housing outcomes in each column for the sample in years 1985-1989 and 2015-2019. The top five rows reflect estimates from the full sample while the bottom five rows are from the single-person sample. The Early period is 1985-1989 and the Late period is 2015-2019. The excluded group is non-SNAP households in the early period.

Table 3: Housing Expenditures, 2015-2019, by Household Type

	Full Sample			Singles		
	SSI	SNAP	Non-SNAP	SSI	SNAP	Non-SNAP
Housing Budget Share	51.1	51.9	36	61.5	59.2	44.2
	(33.1)	(30.6)	(27.3)	(33)	(31.3)	(30.6)
Housing Costs >30 %	63.9	69.9	44.7	76	77.7	57.1
	(48)	(45.9)	(49.7)	(42.7)	(41.6)	(49.5)
Housing Costs >50%	41.7	43	22.3	53.7	52.2	32.6
	(49.3)	(49.5)	(41.6)	(49.9)	(50)	(46.9)
Own	48	28.1	67.3	27	24.3	55.2
	(50)	(44.9)	(46.9)	(44.4)	(42.9)	(49.7)
Mortgage (%)	21	12.6	39.5	6.8	6.97	24.7
	(40.7)	(33.2)	(48.9)	(25.2)	(25.5)	(43.1)
Subsidized Housing (%)	21.8	25.4	2.41	42	40.6	4.75
	(41.3)	(43.5)	(15.3)	(49.4)	(49.1)	(21.3)
Total Housing Costs ($)	1,249	1,042	2,025	744	666	1,471
	(1,540)	(1,636)	(2,398)	(1,092)	(795)	(2,043)
Mortgage Payment (>0)	1,004	915	1,294	741	456	1,045
	(1,561)	(3,638)	(2,511)	(2,069)	(418)	(2,946)
Rent (>0)	618	658	1,060	472	456	936
	(536)	(473)	(668)	(471)	(386)	(646)
Home Value ($)	211,836	146,165	293,322	138,788	107,730	232,304
	(236,004)	(172,553)	(262,356)	(176,170)	(138,973)	(230,856)
Home Equity (Own==1)	166,122	104,737	215,744	122,364	113,540	191,821
	(292,969)	(292,116)	(411,721)	(197,067)	(525,945)	(373,983)
Home Equity >$100k (Own==1)	.477	.334	.591	.389	.297	.554
	(.499)	(.472)	(.492)	(.488)	(.457)	(.497)
Interest Rate (%)	4.6	4.67	4.28	4.52	4.84	4.39
	(1.96)	(2.12)	(1.45)	(2.29)	(1.93)	(1.54)
Obs	10,042	14,519	148,365	4,090	3,636	42,256

Source: American Housing Survey.

Notes: This table presents average housing expenditures for SSI, non-SSI SNAP, and non-SNAP/non-SSI households. The left three columns include the full sample and the right three columns include only single-person households. Home value and home equity variables are reported conditional on homeownership. Subsidized housing includes both public housing and housing vouchers.

Table 4: Housing Insecurity, 2015-2019, by Household Type

	Full Sample			Singles		
	SSI	SNAP	Non-SNAP	SSI	SNAP	Non-SNAP
Housing Insecurity Index (Additional Variables)	7.19	11.05	4.94	7.16	8.20	4.94
	(9.90)	(11.36)	(8.03)	(9.62)	(10.45)	(7.91)
Housing Insecurity Index	6.88	10.89	4.83	6.87	7.95	4.90
	(10.57)	(12.22)	(8.65)	(10.37)	(11.20)	(8.59)
Any Housing Insecurity Indicators	42.61	61.41	33.22	43.56	48.56	33.93
	(49.45)	(48.68)	(47.10)	(49.58)	(49.98)	(47.35)
Multiple Families	6.83	7.26	2.56	0.00	0.00	0.00
	(26.21)	(27.09)	(16.35)	(0.00)	(0.00)	(0.00)
Overcrowded (<0.5 bdrm/per)	4.20	9.90	2.50	3.11	3.37	1.99
	(19.83)	(29.49)	(15.44)	(17.15)	(17.84)	(13.81)
Small	11.79	13.34	5.27	13.85	12.55	5.52
	(33.85)	(35.68)	(23.37)	(36.32)	(34.75)	(23.89)
Moved within past year	15.50	30.01	18.71	19.63	23.65	21.42
	(35.68)	(45.05)	(38.42)	(39.12)	(41.85)	(40.40)
Forced to Move by Landlord, Bank, Gov't. or Disaster	1.44	2.30	0.62	1.58	2.09	0.58
	(9.48)	(11.75)	(6.27)	(9.92)	(11.20)	(6.05)
Moved to Reduce Housing Costs	1.13	2.16	0.92	1.45	2.04	1.03
	(6.87)	(9.56)	(6.20)	(7.86)	(9.85)	(6.59)
Received Notice of Utility Shutoff	16.73	22.95	11.01	16.68	16.06	10.87
	(37.33)	(42.05)	(31.30)	(37.28)	(36.72)	(31.12)
Threated with Eviction	2.77	4.62	1.29	2.24	3.64	1.14
	(16.40)	(20.99)	(11.29)	(14.80)	(18.72)	(10.64)
Mortgage or Rent Delinquent	8.64	15.40	4.74	7.00	11.82	4.36
	(28.09)	(36.10)	(21.26)	(25.52)	(32.28)	(20.42)
Likely to be Evicted	9.36	8.84	6.79	9.29	8.41	6.73
	(29.12)	(28.38)	(25.15)	(29.03)	(27.75)	(25.05)
Water Not Safe	5.80	7.02	3.12	7.06	6.68	2.81
	(23.38)	(25.56)	(17.39)	(25.61)	(24.97)	(16.52)
Unsafe in Neighborhood	7.28	11.28	3.19	8.47	11.93	3.73
	(28.15)	(34.45)	(18.92)	(30.29)	(35.35)	(20.44)
Obs	13,762	19,379	199,882	5,769	5,083	57,129

Source: American Housing Survey.

Notes: This table presents average housing insecurity for SSI, non-SSI SNAP, and non-SNAP/non-SSI households. The left three columns include the full sample and the right three columns include only single-person households. The housing insecurity index includes 12 components, each scaled between 0 and 100.

Table 5: SSI Housing Insecurity by Period

	Full Sample			Singles		
	1985-1999	2001-2013	2015-2019	1985-1999	2001-2013	2015-2019
Housing Insecurity Index	9.28	7.53	6.87	8.92	7.65	6.95
	(11.59)	(10.94)	(10.58)	(11.94)	(11.13)	(10.38)
Any Housing Insecurity Indicators	48.91	38.87	34.89	44.97	39.22	35.99
	(49.99)	(48.75)	(47.66)	(49.75)	(48.82)	(48.00)
Multiple Families	5.54	6.40	6.96	0.00	0.00	0.00
	(18.79)	(24.48)	(26.73)	(0.00)	(0.00)	(0.00)
Overcrowded (<0.5 bdrm/per)	7.73	5.35	4.18	6.46	4.76	3.25
	(24.92)	(22.49)	(19.71)	(22.92)	(21.29)	(17.48)
Small	19.55	13.71	11.81	22.42	16.37	14.02
	(39.35)	(34.40)	(34.35)	(41.37)	(37.00)	(37.01)
Moved within past year	19.96	16.82	15.42	20.26	19.94	19.72
	(39.16)	(37.40)	(35.45)	(39.38)	(39.96)	(39.01)
Forced to Move by Landlord, Bank, Gov't. or Disaster	0.88	1.26	1.38	0.68	1.49	1.52
	(7.56)	(11.16)	(8.28)	(6.51)	(12.13)	(8.68)
Moved to Reduce Housing Costs	1.95	1.40	1.10	2.64	1.81	1.39
	(13.47)	(11.74)	(4.94)	(15.62)	(13.34)	(5.52)
Unsafe in Neighborhood	9.40	7.77	7.29	9.99	9.19	8.81
	(27.86)	(26.78)	(28.82)	(28.60)	(28.88)	(31.46)
Obs	10,477	14,586	10,042	3,969	6,088	4,090

Source: American Housing Survey.

Notes: This table presents average housing insecurity for SSI households across three periods: 1985-1999, 2001-2013, and 2015-2019. The left three columns include the full sample and the right three columns include only single-person households. The housing insecurity index includes seven components, each scaled between 0 and 100.

Table 6: SSI Housing Expenditure by Period

	Full Sample			Singles		
	1985-1999	2001-2013	2015-2019	1985-1999	2001-2013	2015-2019
Housing Budget Share	44.5	50	51.1	49.5	57.7	61.5
	(29.9)	(32.2)	(33.1)	(30.3)	(32.8)	(33)
Housing Costs >30 %	58	63.9	63.9	64	71.5	76
	(49.4)	(48)	(48)	(48)	(45.1)	(42.7)
Housing Costs >50%	34.6	40.5	41.7	39.9	49.8	53.7
	(47.6)	(49.1)	(49.3)	(49)	(50)	(49.9)
Own	43.6	48.3	48	27.2	27.2	27
	(49.6)	(50)	(50)	(44.5)	(44.5)	(44.4)
Mortgage (%)	17.7	22.4	21	5.23	6.71	6.8
	(38.2)	(41.7)	(40.7)	(22.3)	(25)	(25.2)
Subsidized Housing (%)	19.8	20.8	21.8	31.6	38.1	42
	(39.9)	(40.6)	(41.3)	(46.5)	(48.6)	(49.4)
Total Housing Costs ($)	790	1,127	1,249	468	601	744
	(934)	(1,368)	(1,540)	(426)	(685)	(1,092)
Mortgage Payment (>0)	786	1,082	1,004	471	675	741
	(663)	(966)	(1,561)	(556)	(565)	(2,069)
Rent (>0)	516	630	618	409	520	472
	(371)	(448)	(536)	(313)	(405)	(471)
Home Value ($)	118,741	187,744	211,836	82,645	122,598	138,788
	(115,688)	(226,087)	(236,004)	(83,177)	(146,511)	(176,170)
Home Equity (Own==1)	94,852	138,467	166,122	75,873	104,958	122,364
	(103,717)	(222,512)	(292,969)	(81,440)	(141,454)	(197,067)
Home Equity >$100k (Own==1)	.337	.413	.477	.237	.344	.389
	(.473)	(.492)	(.499)	(.425)	(.475)	(.488)
Interest Rate (%)	9.05	6.29	4.6	8.57	6.64	4.52
	(2.96)	(2.21)	(1.96)	(3.41)	(2.64)	(2.29)
Obs	10,477	14,586	10,042	3,969	6,088	4,090

Source: American Housing Survey.

Notes: This table presents housing expenditure trends for SSI households. The left three columns include all households reporting SSI income while the right three columns include only single-person households.

Table 7: Housing Quality and Quantity, 2015-2019, by Household Type

	Full Sample			Singles		
	SSI	SNAP	Non-SNAP	SSI	SNAP	Non-SNAP
NSI-UW	9.26	10.82	5.41	10.64	12.01	6.19
	(8.36)	(9.19)	(6.35)	(8.29)	(8.79)	(6.68)
NSI-W	7.89	9.05	4.30	9.36	10.52	5.24
	(7.06)	(7.41)	(5.16)	(7.06)	(7.42)	(5.68)
CRI	8.43	9.93	4.79	9.60	10.95	5.51
	(7.80)	(8.61)	(5.80)	(7.69)	(8.30)	(6.09)
Poor Quality	0.08	0.10	0.02	0.09	0.13	0.03
	(0.27)	(0.31)	(0.15)	(0.29)	(0.33)	(0.17)
Great Quality	0.18	0.13	0.35	0.12	0.08	0.32
	(0.39)	(0.34)	(0.48)	(0.33)	(0.27)	(0.47)
Total Rooms	5.10	4.90	5.80	4.02	4.00	4.88
	(1.70)	(1.44)	(1.74)	(1.42)	(1.38)	(1.62)
Unit Size (Sq Feet)	1484.56	1303.28	1966.46	1015.52	1027.42	1461.07
	(1316.88)	(1036.81)	(1650.82)	(798.20)	(823.32)	(1174.46)
Stories	1.41	1.37	1.66	1.23	1.24	1.44
	(0.70)	(0.68)	(0.79)	(0.60)	(0.61)	(0.72)
Lot Size (Sq Feet)	19826.90	18218.42	20406.98	19959.80	19334.65	19538.32
	(16014.95)	(15484.25)	(15580.04)	(16468.79)	(16108.28)	(15682.71)
Single-Family	56.59	47.01	72.61	32.75	32.60	56.57
	(49.56)	(49.91)	(44.59)	(46.93)	(46.87)	(49.57)
Mobile Home	9.36	10.69	4.98	8.67	8.61	5.82
	(29.12)	(30.90)	(21.76)	(28.14)	(28.06)	(23.41)
Mid-Rise	16.18	24.57	10.66	24.19	25.40	15.94
	(36.82)	(43.05)	(30.86)	(42.82)	(43.53)	(36.60)
High-Rise	17.87	17.73	11.74	34.39	33.39	21.67
	(38.31)	(38.20)	(32.19)	(47.50)	(47.16)	(41.20)
Building Age	49.50	49.67	43.60	51.31	51.90	46.40
	(25.68)	(26.51)	(26.48)	(26.05)	(26.78)	(26.54)
Obs	10,042	14,519	148,365	4,090	3,636	42,256

Source: American Housing Survey.

Notes: This table presents average housing quality and quantity for SSI, non-SSI SNAP, and non-SNAP/non-SSI households. The left three columns include all households reporting SSI income while the right three columns include only single-person households.

Table 8: SSI Housing Quality and Quantity by Period

	Full Sample			Singles		
	1985-1999	2001-2013	2015-2019	1985-1999	2001-2013	2015-2019
NSI-UW	17.57	11.08	9.26	18.22	12.78	10.64
	(18.11)	(9.76)	(8.36)	(16.85)	(9.34)	(8.29)
NSI-W	15.51	9.47	7.89	16.43	11.22	9.36
	(19.42)	(8.40)	(7.06)	(18.31)	(8.03)	(7.06)
CRI	17.57	10.10	8.43	18.13	11.64	9.60
	(18.15)	(9.25)	(7.80)	(16.90)	(8.90)	(7.69)
Poor Quality	0.23	0.11	0.08	0.24	0.13	0.09
	(0.42)	(0.32)	(0.27)	(0.43)	(0.34)	(0.29)
Great Quality	0.05	0.12	0.18	0.01	0.06	0.12
	(0.22)	(0.32)	(0.39)	(0.11)	(0.24)	(0.33)
Total Rooms	4.76	5.04	5.10	3.78	3.98	4.02
	(1.72)	(1.80)	(1.70)	(1.42)	(1.45)	(1.42)
Unit Size (Sq Feet)	1285.44	1470.88	1484.56	939.48	1029.00	1015.52
	(1412.63)	(1598.26)	(1316.88)	(1130.89)	(1211.72)	(798.20)
Stories	1.36	1.39	1.41	1.23	1.23	1.23
	(0.70)	(0.72)	(0.70)	(0.59)	(0.60)	(0.60)
Lot Size (Sq Feet)	18066.78	18645.52	19826.90	17091.35	17758.07	19959.80
	(16332.76)	(16491.92)	(16014.95)	(16461.84)	(16676.64)	(16468.79)
Single-Family	55.02	53.39	56.59	37.58	31.66	32.75
	(49.75)	(49.89)	(49.56)	(48.43)	(46.52)	(46.93)
Mobile Home	7.90	10.62	9.36	8.07	9.56	8.67
	(26.97)	(30.80)	(29.12)	(27.24)	(29.40)	(28.14)
Mid-Rise	20.16	17.83	16.18	25.85	26.58	24.19
	(40.12)	(38.27)	(36.82)	(43.78)	(44.18)	(42.82)
High-Rise	16.92	18.17	17.87	28.50	32.20	34.39
	(37.49)	(38.56)	(38.31)	(45.14)	(46.72)	(47.50)
Building Age	38.74	44.32	49.50	39.25	45.57	51.31
	(21.94)	(24.68)	(25.68)	(22.23)	(24.04)	(26.05)
Obs	10,477	14,586	10,042	3,969	6,088	4,090

Source: American Housing Survey.

Notes: This table presents housing quality trends for SSI households. The left three columns include all households reporting SSI income while the right three columns include only single-person households.

Figure 1: Housing Tenure Trends
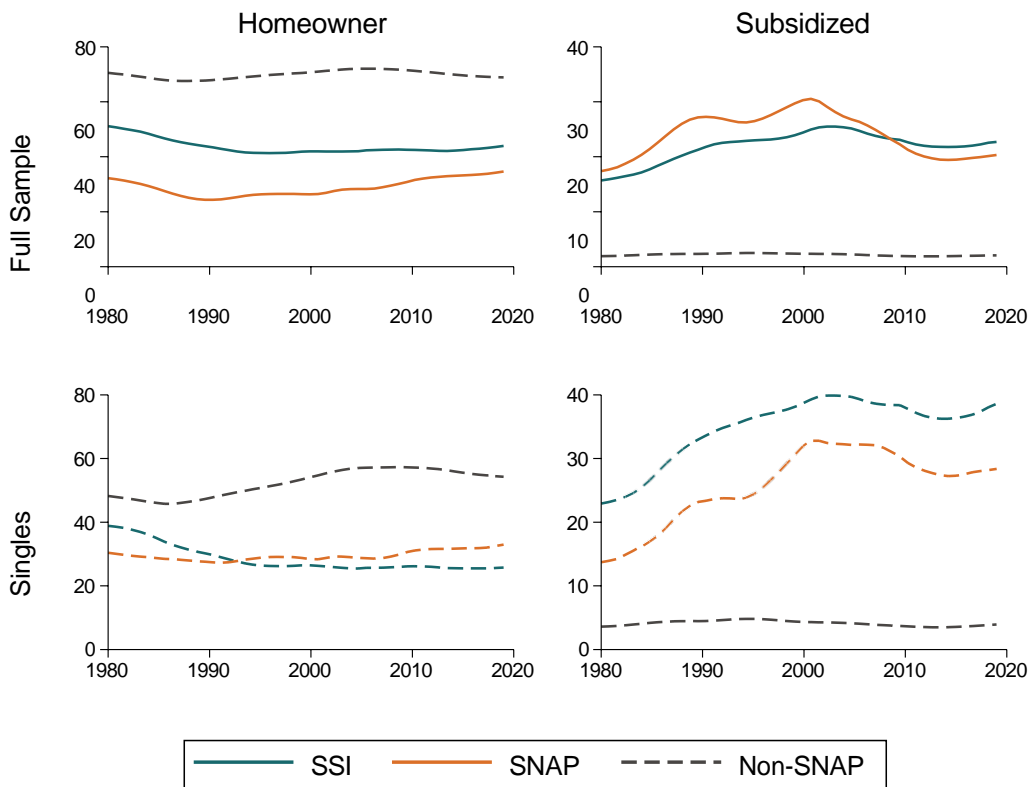
Source: Current Population Survey.

Notes: This figure displays the rates of homeownership and subsidized housing received by SSI and non-SSI SNAP households. The top two panels include the full sample while the bottom two panels, with dash lines, include only single-person households.

Figure 2: Housing Expenditures, 1985-2019, by Household Type
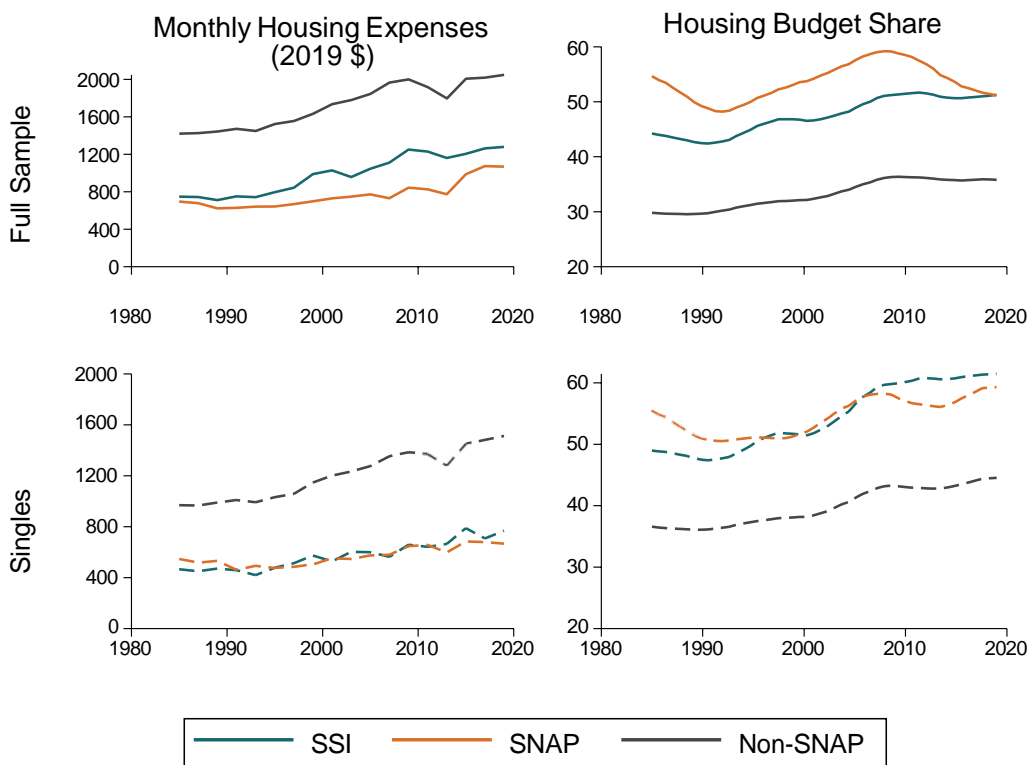
Source: American Housing Survey.

Notes: This figure displays the monthly housing expenditures, in 2019 constant dollars, of SSI, non-SSI SNAP, and non-SNAP households. The top two panels include the full sample while the bottom two panels, with dash lines, include only single-person households.

Figure 3: Housing Quality, 1985-2019, by Household Type
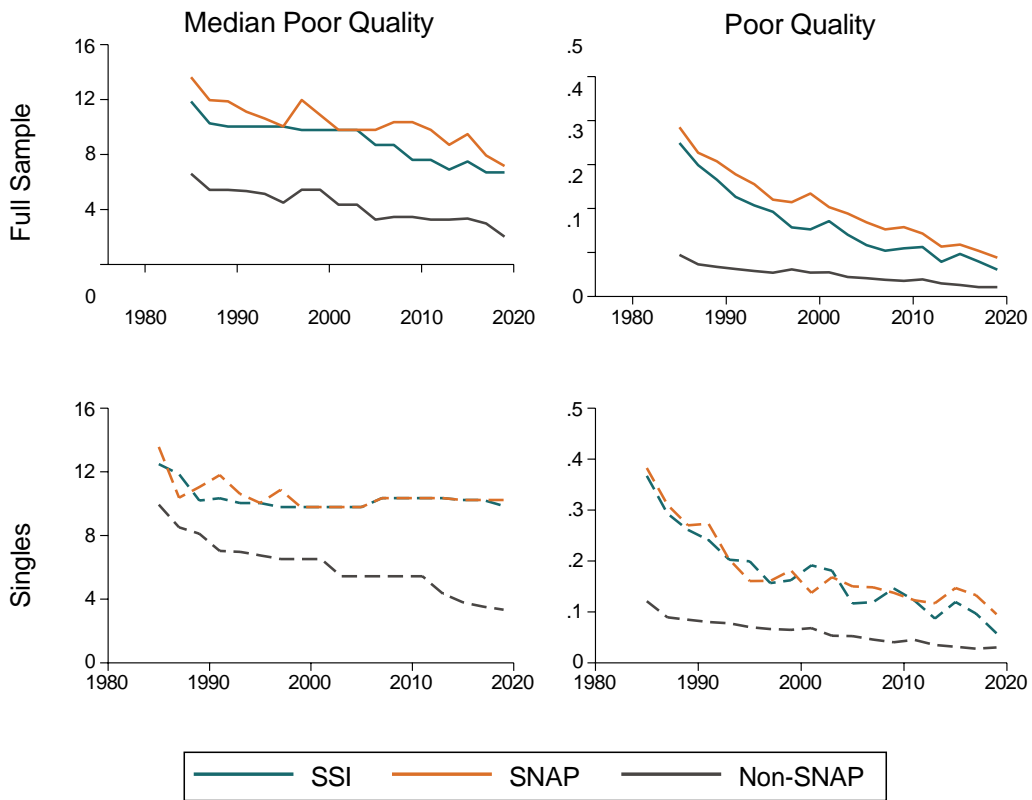
Source: American Housing Survey.

Notes: This figure displays the median housing quality index value (NSI-W) and the fraction of households with an index value greater than 7 for SSI, non-SSI SNAP, and non-SNAP households. The top two panels include the full sample while the bottom two panels, with dash lines, include only single-person households.

Figure 4: Housing Quantity, 1985-2019, by Household Type
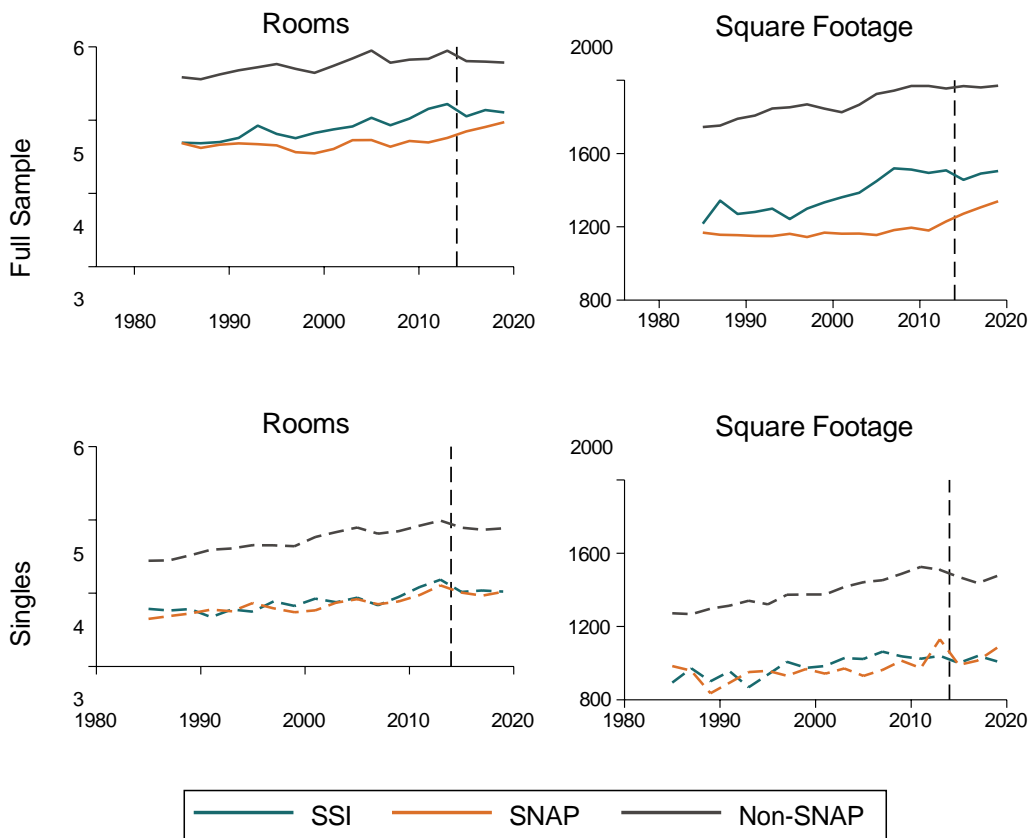

Source: American Housing Survey.
Notes: This figure displays the average total rooms and square footage for SSI, non-SSI SNAP, and non-SNAP households. The top two panels include the full sample while the bottom two panels, with dashed lines, include only single-person households.

Figure 5: Housing Quality Component Changes, 1985-1991 vs. 2013-2019
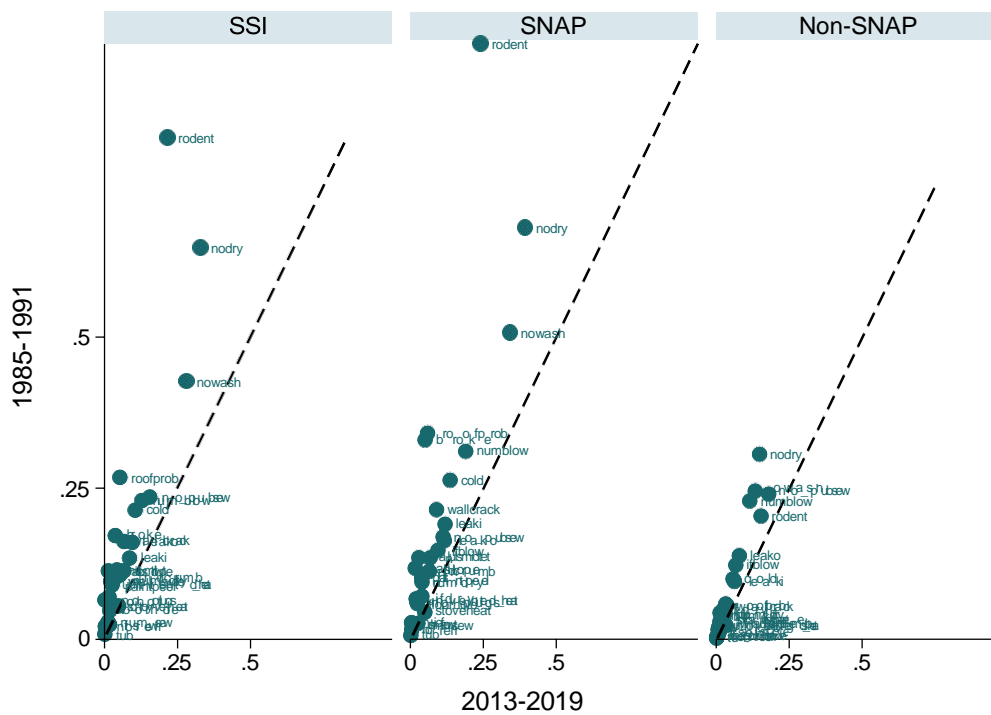
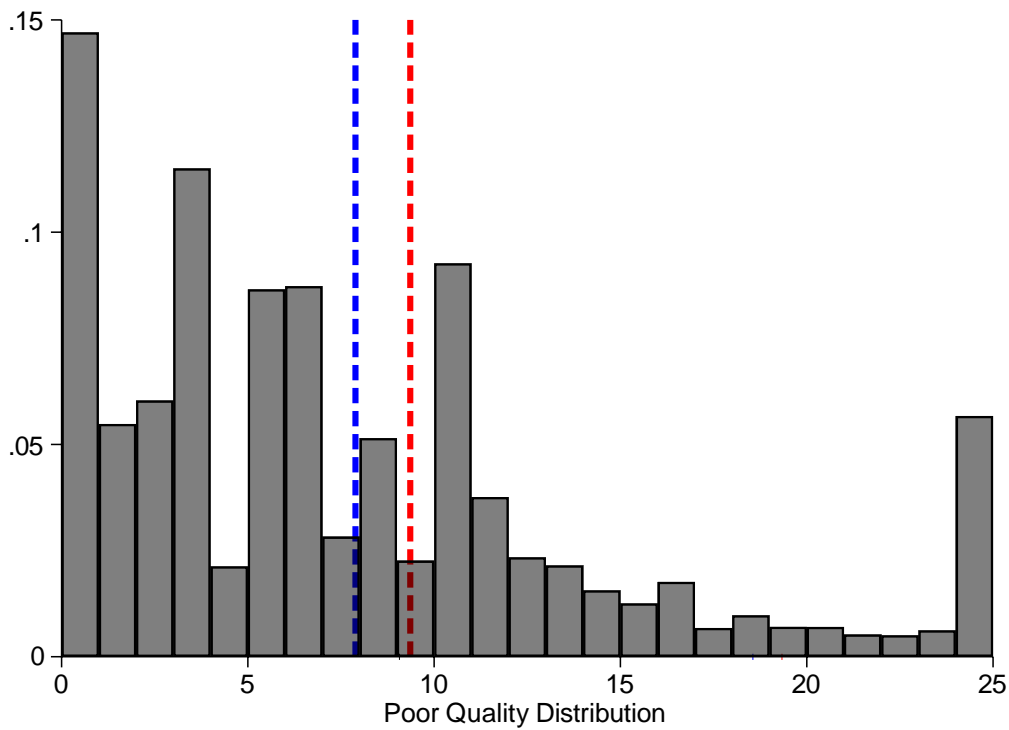**Source:** American Housing Survey.

Notes: This figure displays the average occurrence rate of 30 housing quality indicator variables among SSI households. The x-axis value is the rate during the 2013-2019 period while the y-axis is the rate during the 1985-1991 period. The dotted line reflects the 45-degree line.

Figure 6: Homeownership and ABLE Accounts
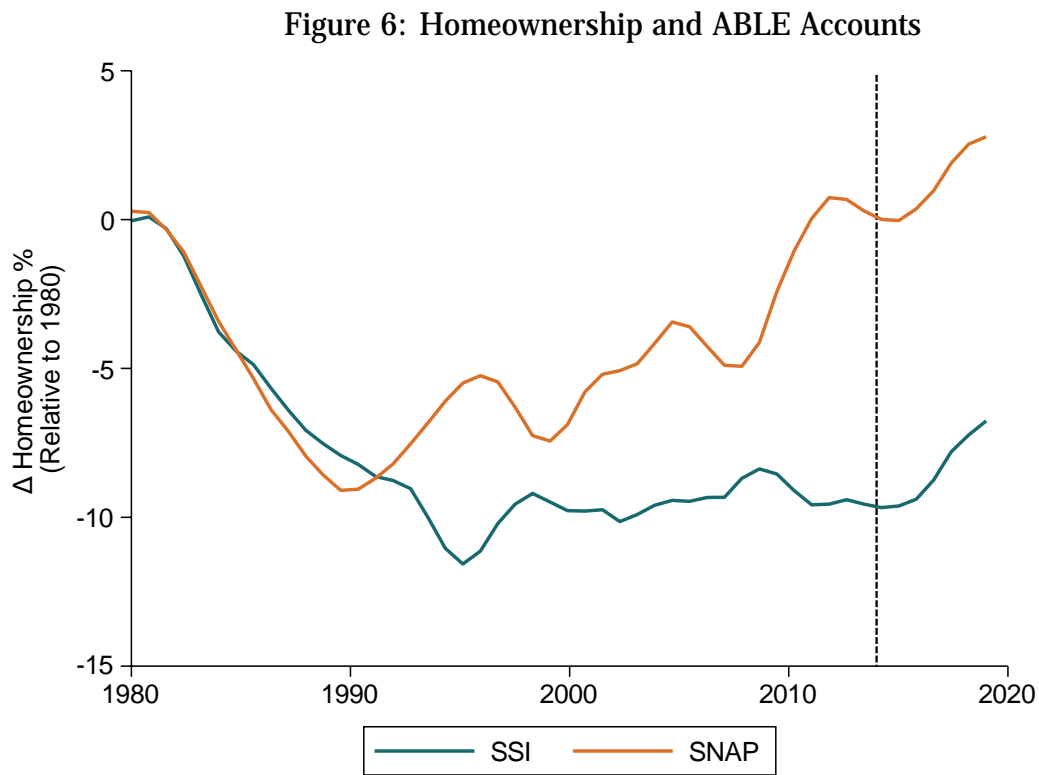
Source: Current Population Survey.

Notes: This figure displays the homeownership rate among SSI and non-SSI SNAP households. The dotted vertical line reflects the passage of the ABLE Act in 2014. The y-axis is scaled as the percent change in homeownership since 1980 for each group.

Figure 7: Poor Quality Distribution, 1985-1989

Source: American Housing Survey, 1985-2019.

Notes: This histogram presents the poor-quality housing distribution between 1985-1989 using the NSI-W index. Values have been top-coded at 25. The blue vertical lines represent the mean values for the full SSI sample and the red lines are mean values for the single-person SSI samples. Solid vertical lines represent the 1985-1989 average and dotted lines represent the 2015-2019 average.

Appendix

5.1 Prediction

The SSI income variable is available in the AHS between 1985-1989 and 2007-2019. In years the SSI variable is reported combined with other public assistance income, I predict SSI receipt by constructing an analogous public assistance variable in the CPS ASEC by combining the SSI and AFDC/TANF variables into a single indicator. After restricting the ASEC sample to observations where either SSI or AFDC/TANF income is reported, I run the following regression separately for each year t:

$$P_i^t = \beta_0^t + \beta_1^t X_i + \epsilon_i \tag{2}$$

where P_i is an indicator for SSI receipt, and X_i is a vector of household control variables common across the AHS and ASEC data sets including marital status, age, and education. I then use the estimated coefficients from Equation (2) to predict SSI receipt in the AHS data. Similarly restricting the AHS data to observations that report receiving public assistance income, I predict SSI receipt for each AHS wave t:

$$\hat{P}_i^t = \hat{\beta}_0^t + \hat{\beta}_1^t X_i \tag{3}$$

The output from Equation (3), $\hat{P}_i$, represents the probability that an observation received SSI income.

Using the SSI prediction is not necessary for the 2015-2019 period, because I can directly observe SSI receipt in these years. However, for the trends across 1985-2019, I set a threshold value of $\hat{P}_i \geq 0.5$ to mark the observation as an SSI household, which approximates the overall SSI level to approximate the observed recipiency rate. Figure A.1 displays the results of this imputation process. The light blue line represents the rate of total public assistance for each survey year, while the orange line represents the observed SSI rate. The dashed blue line represents the predicted SSI rates across all years using a 0.5 $\hat{P}_i$ threshold for assigning SSI equal to 1 in the sample. The simulations are able to capture the approximate level and trends of the observed SSI during the overlapping years and in those years, as 86 percent of the observed SSI observations are also predicted to receive SSI.

Figure A.1: SSI Observed vs. Predicted
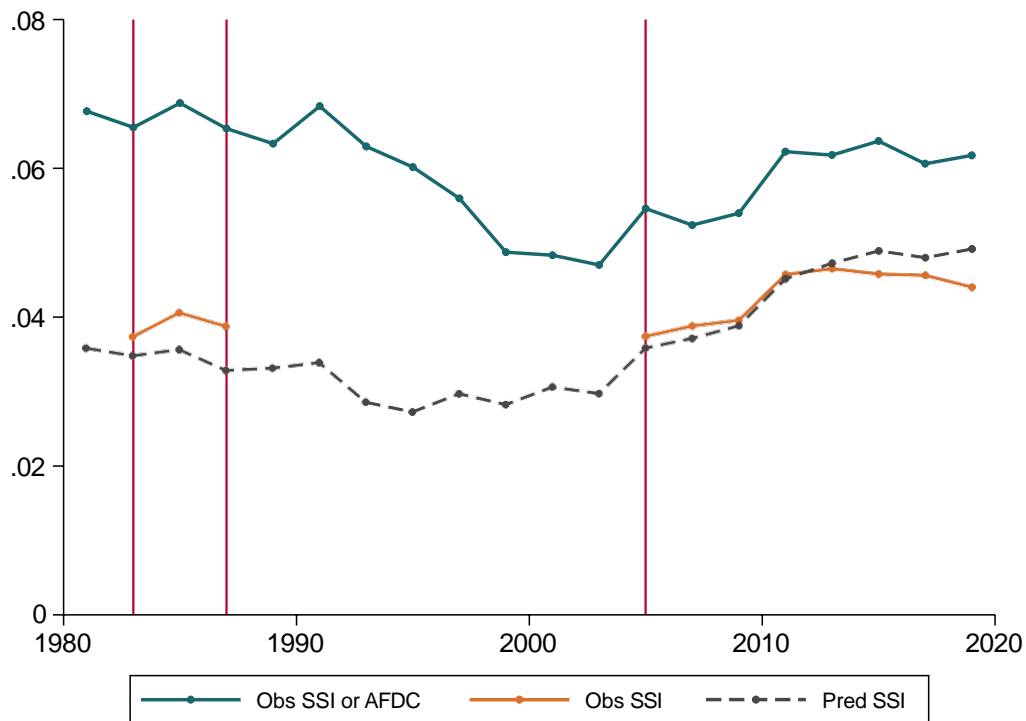
Sources: American Housing Survey and Current Population Survey.

Notes: This figure plots observed and predicted rates of SSI recipiency in the AHS. The light blue line reflects the combined observed rate of SSI or AFDC/TANF. The orange dashed line represents the observed SSI rate (missing for years 1987-2003). The dashed blue line represented the predicted SSI rate in the AHS as predicted based on the CPS model.

Table A.1: Housing Quality Variables

Variable	Description	Variable Mean	CRI Weight	NSI-W Weight
broke	Broken Windows	.03	1.46	5
cold	Too Cold 24hrs+	.08	1.46	4
floorhole	Floor has Hole(s)	.01	1.73	2
fndcrumb	Cracks in Foundation	.03	1.37	5
ifblow	Blown Fuse(s)	.11	1.02	1
ifdry	No Water 6hrs+	.04	1.11	1
ifsew	Sewage Breakdown	.02	1.2	1
iftlt	Toilet Breakdown	.03	1.24	1
leaki	Leak(s) from Indoors	.09	1.37	2
leako	Leak(s) from Outdoors	.13	1.31	2
no plugs	Too Few Outlets	.02	1.36	3
no pubsew	No Public Sewer Connection	.21	.75	2
nodish	No Dishwasher	.4	1.35	3
nodry	No Dryer	.24	.97	3
nohot	No Hot Water	0	1.22	5
norefr	No Refridgerator	0	1.17	3
nowash	No Washing Machine	.2	1.26	3
numblow	Number Fuses Blown	.19	1.12	1
numdry	Instances Without Running Water	.04	1.12	4
numsew	Instances of Broken Sewer	.01	1.05	4
numtlt	Instances of Broken Toilet	.04	1.1	2
paintpeel	Peeling Paint	.03	1.91	2
rodent	Rodents Reported	.12	1.36	2
roofprob	Roof Problem	.04	1.47	5
stoveheat	Fireplace/Stove Heat	.04	.87	5
tub	No Tub or Shower	0	1.55	5
unvented heat	Unvented Heat	.01	.93	4
wallcrack	Cracks in Walls/Ceiling	.05	1.87	2
wallside	Missing Wall Materials	.02	1.53	5
wallslope	Sloping Walls	.01	1.36	5

Source: American Housing Survey.

Table A.2: Housing Insecurity Variables

Variables Used to Construct Housing Instability Indexes

Variable	Description	Variable Mean	Years Available
BadWater	Water Not Safe	3.56	2015
Delinquent	Mortgage or Rent Delinquent	5.74	2013, 2017
LikelyOut	Likely to be Evicted	7.13	2013, 2017
OverCrowd	Overcrowded	3.47	1985-2019
PoorNeigh	Unsafe in Neighborhood	4.84	1985-2019
RecMove	Moved within past year	22.36	1985-2019
Small	Small Unit	7.79	1985-2019
UtilNotice	Received Notice of Utility Shutoff	12.09	2013, 2017
dbevictht	Threated with Eviction	1.87	2013, 2017
movforce	Forced to move	.59	1985-2019
multifam	Mulitfamily HH	2.5	1985-2019
rmcosts	Moved to Reduce Housing Costs	1.15	1985-2019

Source: American Housing Survey.

Notes: Overcrowded is defined as less than 0.5 bedrooms per person. The variable Small is defined by the number of people and unit size. For one person, Small is equal to 1 if the square footage is <500. For two or more people, <750.

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