WORST CASE HOUSING NEEDS

2021 REPORT TO CONGRESS

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Prepared for
U.S. Department of Housing and Urban Development
Office of Policy Development and Research

Prepared by
Thyria Alvarez
Barry L. Steffen

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The authors would also like to thank Jennifer Turnham for her leadership and expert advice in this report.

Foreword

The U.S. Department of Housing and Urban Department (HUD) is pleased to present to the U.S. Congress its 18th biennial report on Worst Case Housing Needs. The 2021 report on Worst Case Housing Needs provides national data and analyzes the critical problems facing low-income renting families. The report primarily draws on data from the American Housing Survey (AHS) sponsored by HUD and conducted by the U.S. Census Bureau. AHS is a comprehensive national longitudinal housing survey conducted since 1973.

Households with worst case housing needs are very low-income renters—households with incomes at or below 50 percent of area median income—who do not receive government housing assistance and who pay more than one-half of their income toward rent, live in severely inadequate conditions, or both. The report finds that in 2019, before the COVID-19 pandemic, 7.77 million households had worst case housing needs. This is an improvement from the record high of 8.5 million in 2011 but is substantially higher than the 5 million households with worst case housing needs in 2001. There was no significant change in the number of households with worst case housing needs between 2017 and 2019 despite favorable economic conditions.

While the overall number of worst case needs was unchanged, there were some changes in the underlying drivers of worst case needs that push the count in different directions. Two changes that lessened worst case housing needs were modest income growth among households at the top of the very low-income range (those with incomes between 30 and 50 percent of area median income) and a modest increase in the availability of quality, affordable housing stock for very low-income renters. Countering these positive developments were an increase in total very low-income renters due to household formation and a modest decrease in the number of very low-income renters receiving housing assistance.

The 7.77 million households with worst case housing needs in 2019 included 2.27 million households with children, 2.24 million households headed by an older adult (62 years or older), and 2.54 million single adults. About 13 percent of households with worst case needs included people younger than 62 who have disabilities, and about one-half were non-White or of Hispanic ethnicity. Among very low-income renters, more than one-half of Asian, Native Hawaiian, and Other Pacific Islander households had worst case needs, as did more than 45 percent of Hispanic households, 44 percent of non-Hispanic White households, and 36 percent of non-Hispanic Black households.

The key to ending worst case housing needs is increasing affordable housing. In 2019, only 62 affordable units were available for every 100 very low-income renter households. Only 40 affordable units were available for every 100 extremely low-income renter households. HUD is committed to ending worst case housing needs and homelessness in America by increasing affordable housing access. Key policy levers include increasing incomes of very low-

income renters, substantially expanding rental assistance, preserving the existing assisted and affordable housing stock, and reducing barriers to the production of new affordable housing.

This report captures housing need in the period immediately before the onset of the COVID-19 pandemic and associated economic recession early in 2020. The financial shock to the labor market and household incomes may cause substantial increases in worst case needs when next measured with the 2021 American Housing Survey. The potential increase in worst case needs could be dampened by strong fiscal relief packages that provide rental assistance to sustain affordable housing and prevent homelessness during the pandemic. Increased federal resources provided by pandemic stimulus packages, fiscal year 2021 appropriations, and 2022 budget proposals are estimated to generate affordable and assisted housing opportunities for approximately 330,000 households who would otherwise be at risk of worst case housing needs. Further, targeted tax credits and resources proposed in the Biden administration's initial infrastructure plan would build and modernize more than two million affordable and sustainable places to live. A Special Addendum in this report discusses the recession, key features of the relief legislation, expected impacts of the recession on housing outcomes, and potential implications for future worst case needs estimates. The focus on the pandemic and response, however, should in no way distract from the persistent, underlying structural gap in the affordable housing market that is consistently documented in Worst Case Needs reports. Ideally, a policy response that begins to bridge this affordable housing gap will also seek to address geographic disparities in resource allocation that contribute to inequities and pockets of distress.

Todd Richardson
General Deputy Assistant Secretary for Policy Development and Research
U.S. Department of Housing and Urban Development

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Executive Summary

Worst case needs are a long-standing measure of the extent of unmet needs for affordable rental housing of adequate quality. Renter households are defined as having worst case needs for such housing if they have very low incomes—household incomes at or below 50 percent of the area median income (AMI), do not receive government housing assistance, and pay more than one-half of their income for rent, live in severely inadequate conditions, or both.

Worst Case Housing Needs: 2021 Report to Congress examines the causes of and trends in worst case needs using the most recent data from the 2019 American Housing Survey. The report finds that despite favorable economic conditions in the 2017–2019 period, worst case housing needs persisted across demographic groups, household types, and regions throughout the United States. The unmet need for decent, safe, and affordable rental housing has continued to outpace income growth and the ability of federal, state, and local governments to supply housing assistance and facilitate affordable housing production. As a result, the number of families with worst case housing needs in 2019 remains modestly below historical high levels recorded since the Great Recession of 2007–2009.

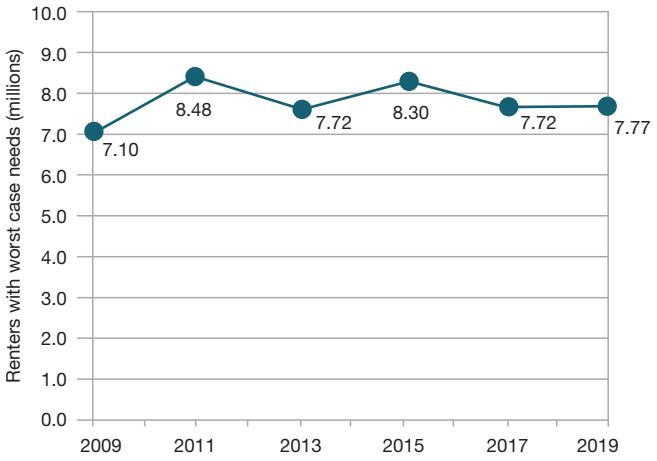
The report captures housing need in the period immediately before the onset of the COVID-19 pandemic and associated economic recession early in 2020. The financial shock to the labor market and household incomes can cause substantial increases in worst case needs when next measured with the 2021 American Housing Survey. The major federal legislative response, however, complicates the expectation and measurement of worst case needs. A Special Addendum in this report discusses the recession, key features of the relief legislation, expected impacts of the recession on housing outcomes, and potential implications for future worst case needs estimates.

Few Significant Changes in Worst Case Needs Since 2017

There were 7.77 million renter households with worst case needs in 2019, a statistically insignificant increase of 50,000 cases compared with 7.72 million in 2017 (exhibit ES-1).

The latest figure continues to represent an improvement from the overall record high of 8.5 million in 2011 but remains higher than during the years preceding the 2007–2009 recession when there was greater availability of affordable housing stock.

Exhibit ES-1. Change in Worst Case Housing Needs, 2009–2019



Source: HUD PD&R tabulations of American Housing Survey data

The rate at which very low-income (VLI) renters experience worst case needs also has improved only modestly in recent years. The percentage of VLI renters experiencing worst case needs (the "prevalence") was 42.2 percent in 2019, a slight reduction of 0.5 points from 42.7 percent in 2017. The number of worst case needs increased more slowly (0.6 percent) than the number of VLI renters (1.8 percent). The prevalence has improved moderately from the highest rate observed since the 2007–2009 recession, 44 percent in 2011. The most recent biennial change is attributable to three factors: (1) modest income growth among households at the top of the VLI range (those with incomes between 30 and 50 percent of AMI); (2) a modest decrease in the number of renters with very low incomes receiving housing assistance; and (3) a modest increase in the availability of quality, affordable housing stock for very low-income renters.

Although the relative shares of renters with incomes at and below 30 percent of AMI (known as extremely low-income, or ELI[1]) and with incomes between 30 and 50 percent of AMI did not change, the prevalence of worst case needs increased among the lowest-income group while it decreased among the next income group. As a result, ELI renters account for the majority of worst case needs cases: 74 percent in 2019, a proportion that has not been seen since 2005.

Worst Case Needs Improved Slightly for Some Demographic Groups and Household Types

The percentage of very low-income renters experiencing worst case needs varied among demographic groups. In 2019, the prevalence of worst case needs was 55 percent among Native Hawaiian or Other Pacific Islander households, 53 percent among Asian households, 45 percent among Hispanic households, 44 percent among non-Hispanic White households, 36 percent among non-Hispanic Black households and the other race and ethnicity group, and 23 percent among American Indian or Alaska Native households. The prevalence of VLI renters with severe problems narrowly decreased by 2 percentage points for non-Hispanic Whites and 1 point for Hispanics but increased by 1.6 points for non-Hispanic Blacks and by 2 points for other races or other ethnicities. The percentage of VLI renters receiving rental assistance decreased for all racial and ethnic groups between 2017 and 2019.

Three regions in the country—Midwest, Northeast, and South—had an average decline of about 2 percent in the share of renter households reporting worst case needs in 2019, while the West saw an increase of almost 7 percent, offsetting the decreases in other regions. The prevalence of worst case needs decreased in suburbs and non-metro areas between 2017 and 2019 but not in central cities. The greatest decline was observed in rural suburbs.

The prevalence of worst case needs slightly declined among all household types, with the exception of households headed by older adults. As the older adult population has increased during the past 10 years, so, too, has the number of older adult households with severe housing problems. The prevalence of worst case needs decreased by 1 point among households headed by someone younger than 62 while it increased by 1 percentage point among households headed by an older adult.

Despite minor changes, worst case needs remained a serious and prevalent problem among all household types in 2019: 40 percent among families with children and among households headed by older adults, 44 percent among "other family" households (including multiple family members without children), and 46 percent among "other nonfamily" households (mostly single individuals). In absolute terms, worst case needs involving other nonfamily households increased during the last biennial period. In 2019, the worst

[1] The Department of Housing and Urban Development (HUD) is required by law to set income limits or cutoffs that determine the eligibility of applicants for HUD's assisted housing programs. Extremely low-income (ELI) cutoffs for Section 8 programs historically meant household incomes at or below 30 percent of the HUD-adjusted median family income for the metropolitan area. The FY 2014 Continuing Appropriations Act required ELI cutoffs to be set at the greater of 30 percent of HUD-adjusted median family income or the federal poverty guideline as published by the Department of Health and Human Services. The ELI cutoff is capped by the VLI cutoff. See the Income Categories discussion in appendix E for further information.

case needs tally included 2.5 million "other nonfamily" households, compared with 2.3 million families with children, 2.2 million older adult households, and 0.7 million "other family" households.

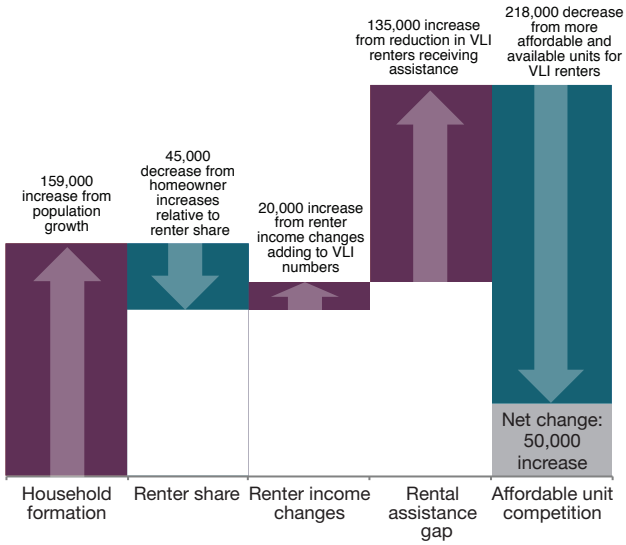
About one in eight renter households with worst case needs—13 percent—included people younger than 62 who have disabilities. Those 1 million households reflect limited improvement since 2011, when national levels of worst case needs peaked at 8.5 million households.

Persistent Shortage of Affordable and Available Rental Housing Is Especially Severe for Extremely Low-Income Households

For most households, worst case needs are caused by severe rent burdens—that is, paying more than one-half of income for rent. Inadequate market supply, competition for affordable units, and a shortage of rental assistance continued to pose a substantial challenge for VLI renter households in 2019. Inadequate housing quality caused only 3 percent of worst case needs.

The net increase in worst case needs by 50,000 cases between 2017 and 2019 is attributable to a combination of the demographic changes affecting the number of unassisted VLI renter households and the housing market's response to such quantitative drivers of affordable housing demand. An attribution analysis estimated the independent contribution of each of four increasingly focused demographic factors to assess its effect on the number of unassisted VLI renters and thereby on the number of worst case needs. The positive or negative effects attributed to the four demographic factors are represented by the first four bars of exhibit ES-2: household formation increased worst case needs because there was a net increase in new households from population changes; tenure shift reduced worst case needs because the growth in renters lagged growth in homeowners; renter household income shifts increased worst case needs because there was a net increase of those with income below 50 percent of AMI; and the housing assistance gap increased worst case needs because there was a net increase in VLI renters lacking rent subsidies from the federal, state, or local government. (The columns of ES-2 are cascading in the sense that each column begins where the previous one ends; the gray box shows the net change in worst case needs.)

Exhibit ES-2. Contributions to Worst Case Needs from Household Formation and the Rental Assistance Gap were Offset by Less Competition for Affordable Units from 2017 to 2019



Source: HUD PD&R tabulations of American Housing Survey data

Contributing most to the increase in worst case needs were household formation, primarily among households with extremely low incomes, and the widening of the already unsettling gap in housing assistance relative to households eligible to receive it. Although rising incomes in a strengthening economy lifted some renter households with incomes between 30 and 50 percent of AMI out of the VLI population, there were larger increases in the number of ELI renters. The only demographic factor that helped improve the worst case needs picture between 2017 and 2019 was the modest increase in homeownership rates. The primary force helping to reduce housing problems in 2019 could be considered economic rather than demographic: improvement in the availability of affordable units in the housing market associated with slightly less severe competition.

The four demographic factors together created the potential for a substantial net increase in worst case needs between 2017 and 2019 by increasing the unassisted VLI renter population. The market's easing of competition among renters for affordable units, however, successfully offset much of the potential increase in worse case needs through 2019. The net increase attributed to demographic changes was reduced an estimated 81 percent by modest expansion in rental supply and associated changes in the availability of affordable VLI units, as indicated by the fifth bar of the exhibit. If the supply of affordable rental units fails to increase at the same rate as the renter population, greater demand would be expected to increase competition for affordable units, drive up rents, and increase the prevalence

of worst case needs. Competition may include higher-income households choosing to occupy units that would be affordable to households with significantly lower incomes, making those units unavailable to those with greater needs.

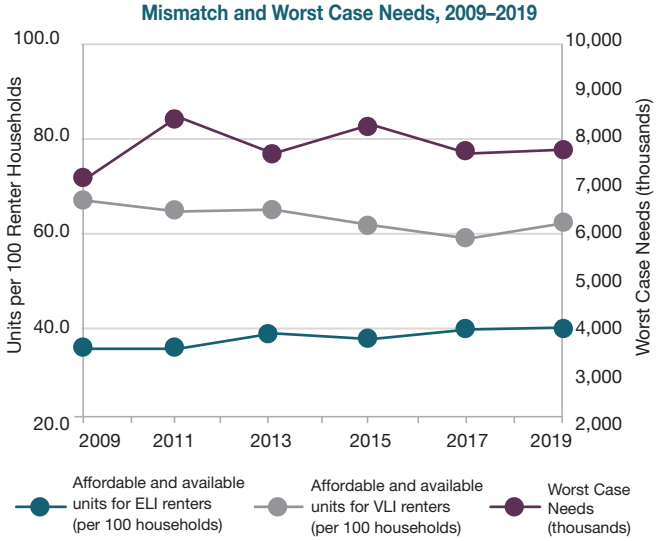
By the end of 2019, an increase of 771,000 rental units affordable and available to VLI renters exceeded the increase of 321,000 VLI renter households. For ELI renters, however, the increase of affordable and available units by 137,000 fell short of the increase of 200,000 renter households in this group. Additions to the total supply of rental units, including converted owner-occupied units, were limited to a 1-percent increase between 2017 and 2019.

With modestly improved supply, rents did not increase as much as renter incomes between 2017 and 2019. Median housing costs[2] increased by 8.1 percent, building on a similar increase in the prior period incomes (see exhibit 3-2). The mean change in renter income during 2017 to 2019 was 13 percent, greater than the median change of 10.8 percent (thus showing that the distribution of gains was skewed). This mean value was influenced by a 17 percent increase in income for the subgroup of households with incomes exceeding 120 percent of AMI and, on the other hand, by an increase of about 4 percent for ELI renters—which was less than one-half that of any other income group (see appendix A-14).

Similarly, compared with an increase in median housing costs of 8.1 percent, mean housing costs increased by 9.1 percent among all renter households. For the ELI renter subgroup, however, housing costs increased by 12 percent during the 2-year period. As a result, the housing costs of ELI renters increased almost three times faster than their incomes from 2017 to 2019. This growing financial challenge explains why the prevalence of severe problems among ELI renters increased from 48.1 percent in 2017 to 49.2 percent in 2019.

Access of VLI renter households to a sufficient supply of naturally affordable rental units or assisted units is critical to the extent of the worst case needs problem. Exhibit ES-3 presents how the availability of rental units affordable to VLI households has responded to demand trends over the past 10 years.

Exhibit ES-3. Trends in Housing Supply Mismatch and Worst Case Needs, 2009–2019



ELI = extremely low income. VLI = very low income.
Source: HUD PD&R tabulations of American Housing Survey data

Although the supply of rental units slightly expanded in 2019, rental housing production has significantly lagged behind household formation since 2010. At the same time, the number of households with rental assistance has risen only modestly and has not kept pace with the increase in the number of VLI households. Rental units that have been added tended to be in higher-rent properties. As a result, the ratio of affordable and available units to VLI renters followed a downward path from 2009 to 2017. After 2017, there was some improvement, with the ratio increasing from 59 units per 100 renter households in 2017 to 62 units per 100 renter households in 2019. For ELI households, the ratio of affordable and available units did not change—there were only 40 affordable and available units for every 100 ELI renter households in both 2017 and 2019. A more generous supply of affordable and available housing for VLI households did not generate proportional benefits for their ELI counterparts. Increasing affordable housing supply by providing rental and sustainable homeownership options for households across the income spectrum—including by expanding rental assistance, particularly for poorer households—therefore, will be important for reducing worst case needs during the next decade.

Availability ratios are as important as worst case needs measurement for understanding affordable housing problems. Availability ratios demonstrate the critical role of rental assistance in expanding affordable housing options for VLI renters: among VLI renters with access to affordable

[2] Those housing costs include rent, utilities, property insurance, land rent, and association fees but exclude any separate security deposit or parking fees.

housing, a large share have such access by virtue of the rental assistance they receive. Availability ratios, when compared with affordability ratios, also make clear the striking competition for the most affordable housing. For each affordability bracket, renters with incomes above the bracket levels occupy large shares of units affordable to households within the bracket. Such crowding-out affects 43 percent of the units affordable to ELI renters, 40 percent of units affordable at incomes of 30 to 50 percent of AMI, and 37 percent of units affordable at incomes of 50 to 80 percent of AMI. As higher-income renters defer home purchases, they continue to compete for affordable units and sustain rental demand, limiting the availability of affordable rental units for lower-income renters by two fifths. In short, the effect of weak growth in the rental housing supply, a shortage of rental assistance, and strong competition for available rental units from higher-income renters seems to be having the most detrimental effect on the availability of units affordable to renters with incomes at and below 30 percent of AMI. Improving the availability of affordable rental units for ELI renters will be crucial to achieving substantial decreases in worst case needs.

Conclusion

Worst case housing needs worsened slightly, but statistically insignificantly, between 2017 and 2019 due to household formation (new households formed as a result of population increase) and widening of the rental assistance gap for eligible very low-income households. Reductions in worst case needs generally result when economic growth improves household incomes and when the production of affordable housing is sufficient to reduce market rents or, alternatively, when rental assistance rates increase.

The leveling between 2017 and 2019 of housing problems among the nation's VLI renter households is primarily attributable to a more adequate response of the housing market to quantitative changes in demand for VLI-affordable rental units. The progressive response of the housing market blunted the potential increase in worst case needs cases resulting from demographic and economic factors—especially household formation, income loss, and the widening gap between renter households eligible to receive housing assistance and those receiving it. Households reporting assistance decreased slightly even as the number of VLI renter households expanded. An improved housing market response that included modest housing production helped increase the availability of affordable units for VLI renters, although ongoing demand for more-affordable units from higher-income renters continues to constrain availability and prevent major reductions in worst case needs cases.

Three of five ELI renter households and three of eight VLI renter households continued to lack access to affordable and available housing units as of 2019. Rental housing assistance—such as that offered by HUD programs, other federal programs, states, or localities—helps many vulnerable renter households who have such limited incomes. Among VLI renters in 2019, 27 percent of households were able to avoid worst case needs because they had rental assistance. But rental assistance is in short supply: because of inadequate funding, only about one in four eligible households receives rental assistance. Another 30 percent were able to avoid severe housing problems in the unassisted private rental market. The remaining 42 percent, however, were left with worst case needs for assisted or other affordable housing, and almost three-fourths of those were ELI households.

As the economy grew during 2017 to 2019, the production and supply of affordable homes remained insufficient to satisfy the demand for affordable and available units by very low-income renters. A broad strategy at the federal, state, and local levels has long been needed to continue to grow the economy, support market production and access to affordable homes, and provide rental assistance to the most vulnerable households. Additionally, beginning in early 2020, economic stresses associated with the COVID-19 pandemic created new critical needs to prevent eviction.

Several Congressional pandemic responses, as discussed in the Special Addendum, provided increased federal housing resources during 2020 and 2021. Stimulus funding provided $46 billion to states for Emergency Rental Assistance to assist tenants and landlords with pandemic-related rent arrears. HUD's FY 2021 appropriation increased subsidies for public and assisted housing operations by $3.2 billion from FY 2020 levels to address lost tenant rent contributions. The American Rescue Plan Act of 2021 provided $5 billion that funded 70,000 new Emergency Housing Vouchers. The Federal Housing Finance Agency announced a $711 million allocation for the Housing Trust Fund in 2021, representing twice the state funding for housing production as available in 2020. The Treasury Department's $10 billion Homeowner Assistance Fund will help prevent foreclosures that ultimately could increase the number of renter households with worst case needs. The President's FY 2022 Budget further proposes to fund an additional 200,000 Housing Choice Vouchers and increase housing production with $500 million of increased funding for the HOME Investment Partnerships program and $180 million to support 2,000 units of new permanently affordable housing for older adults and people with disabilities. Such housing supply-side and demand-side resources are complemented by HUD's work to reduce regulatory barriers to affordable housing production and

provide technical assistance to local governments to assist in removing barriers that drive up housing costs.

With the expected impact of the COVID-19 pandemic and associated economic difficulties in 2020 and 2021, worst case housing needs have potential to increase substantially before HUD's next report. A comprehensive approach to housing policy is sorely needed to address the long-standing and evolving challenge of worst case housing needs.

Section 1

Extent and Nature of Worst Case Needs

The U.S. Department of Housing and Urban Development (HUD) is the largest federal provider of affordable rental housing. In response to a request by Congress in 1991, HUD's Office of Policy Development and Research (PD&R) periodically reports on the severity of worst case needs for affordable rental housing, as collected in the biennial American Housing Survey (AHS). This report is the 18th in the series of core reports.[3]

Extent of Worst Case Needs in 2019

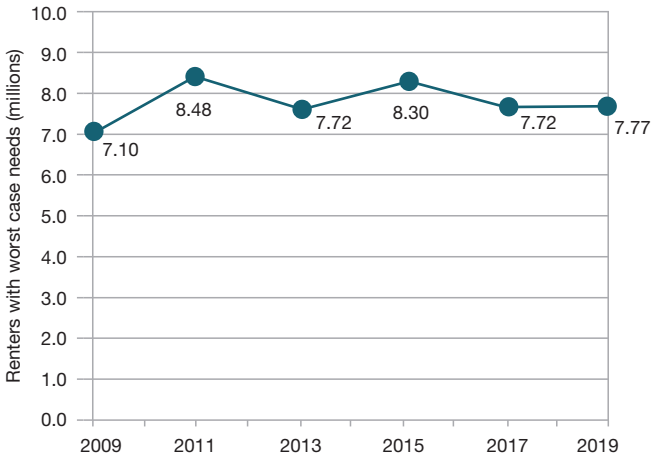
HUD analysts examined the 2019 AHS data to understand the evolving dimensions of a persistently expanding shortage of decent and affordable rental housing for lower-income households. The basic facts presented and examined in the following pages are—

- In 2019, 7.77 million renter households had worst case needs (see exhibit 1-1). These are renters that have very low incomes,[4] lack housing assistance, and have either severe rent burdens or severely inadequate housing (or both).

[3] PD&R supplements the core reports on worst case needs with periodic topical reports. For a list of previous titles, see appendix D.

[4] *Very low income* and *extremely low income* refer throughout this report to the income levels of renters. Very low incomes (VLI) are those incomes of no more than 50 percent of the area median income (AMI), and extremely low incomes (ELI) are those incomes of no more than 30 percent of AMI—typically below the poverty line. HUD programs use AMI based on local family incomes with adjustments for household size, more precisely known as HUD-adjusted area median family income, or HAMFI (see appendix E). Nationwide, median very low-income and extremely low-income levels were $32,250 and $21,330 per year, respectively, in 2019 (see exhibit 3-2). These income levels are for a family of four. ELI and VLI families may have incomes much less than these national thresholds if they have fewer than four members or live in areas with lower median family incomes.

Exhibit 1-1. Growth in Worst Case Housing Needs, 2009–2019



Source: HUD PD&R tabulations of American Housing Survey data

- Between 2017 and 2019, the number of very low-income renters with worst case needs increased by a statistically insignificant 0.6 percent, following a 7.1-percent decrease observed during the 2015-to-2017 period. The 50,000 additional cases of worst case needs reflect a significant increase of 225,000 cases among renters with extremely low incomes, offset by a decrease of 175,000 cases among renters with incomes between 30 and 50 percent of AMI.

- Consistent with long-term trends, the primary problem for worst case needs renters in 2019 was severe rent burden resulting from insufficient income relative to rent. Among all renter households, much of the 10.8-percent increase in median incomes between 2017 and 2019 was consumed by an 8.1-percent increase in median housing costs for renters. Severely inadequate housing accounted for only 2.5 percent of worst case needs.

- Positive economic forces prevented worst case needs from growing between 2017 and 2019. Competition for affordable units eased slightly, and households moved toward homeownership, a welcome contrast with the recession-related challenges of mortgage foreclosures, unemployment, and shrinking renter incomes that increased worst case needs by 2.57 million households, or 43.5 percent, between 2007 and 2011.

- In 2019, there were 18.39 million VLI renter households, a 1.8-percent increase from 2017 levels that partially reversed the 6.1-percent decrease seen in the 2015-to-2017 period. In 2019, 42.2 percent of VLI renter households and 49.2 percent of ELI renter households had worst case needs.

- Worst case needs remained unchanged as a proportion of U.S. households from 2017 to 2019 at 6.3 percent.

WHICH HOUSEHOLDS CAN HAVE WORST CASE NEEDS?

By definition, households that can have worst case needs are households that—

- Are renters.
- Have *very low incomes*—that is, incomes of no more than 50 percent of the area median income (as adjusted for family size).
- Do not receive housing assistance.

SEVERE PROBLEMS TRIGGER WORST CASE NEEDS

Two types of severe problems determine whether households have worst case needs:

1. ***Severe rent burden,*** which means that a renter household is paying more than one-half of its income for gross rent (rent and utilities).
2. ***Severely inadequate housing,*** which refers to units having one or more serious physical problems related to heating, plumbing, and electrical systems or maintenance (problems are listed in appendix E).

- Housing assistance prevents millions of renters from experiencing worst case needs. The shortfall of housing assistance relative to need increased between 2017 and 2019 as the number of assisted renters decreased by 2.7 percent. The share of VLI renter households receiving housing assistance decreased by 1.3 points to 27.5 percent during the period.

- An important dimension of the affordable housing supply gap is that affordable units are not necessarily available to the renters who need them most; higher-income renters occupy substantial shares of units that would be affordable to the lowest-income renters.

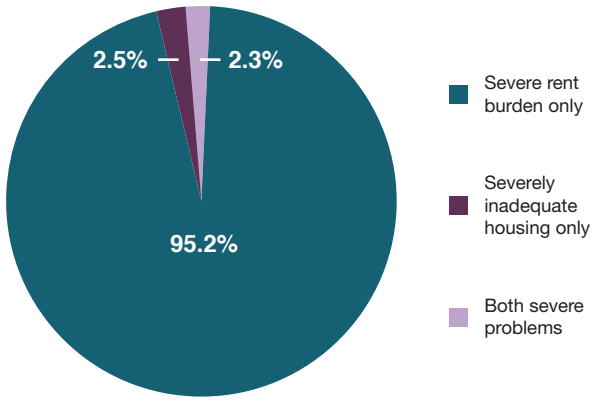
With these key facts in mind, section 1 explores the current extent and the demographic characteristics of worst case needs—which households have such needs and what their situations are.

Inadequate Housing and Inadequate Income

Of the two types of severe problems that make up worst case needs, severe rent burden is, by far, the more frequent problem. As exhibit 1-2 illustrates, 97.5 percent of all worst case needs renters, or 7.57 million households, had severe rent burdens in 2019. Paying one-half (or more) of a limited total income for rent leaves very little income for

other essentials, such as food, medical care, transportation expenses, education, and child care.

Exhibit 1-2. Severe Rent Burdens Drove Worst Case Needs in 2019



N = 7.766 million renters with worst case needs.
Source: HUD PD&R tabulations of American Housing Survey data

Severely inadequate housing alone made up only 2.5 percent of worst case needs in 2019; 4.8 percent of renter households with worst case needs, 374,000, had severely inadequate housing, either alone or in combination with severe rent burdens. Although severe housing inadequacies represent only a small fraction of severe housing problems, the number and share of worst case needs households experiencing such quality problems remained almost unchanged, with a 0.3-point decrease in the 2017-to-2019 period.

That severely inadequate housing causes such a small fraction of worst case needs is the result of a decades-long trend of improvements to the nation's housing stock. More stringent building codes prevent the construction of units without complete plumbing or heating systems, and obsolete units are demolished each year.[5] In addition, a portion of severe physical inadequacies reported in the AHS likely results from or reflects maintenance or upgrade activity occurring in occupied units. Among all renter households, 3.0 percent of those with very low incomes and 1.0 percent of those with higher incomes[6] had severely inadequate housing in 2019. Nevertheless, the housing stock is continually aging, and thousands of renters continue to live in severely inadequate units. The costs associated with repairing severe quality deficiencies present another formidable barrier to the ability of lower-income households to improve their housing conditions. Landlords offering lower-priced units for rent may similarly delay or avoid high maintenance and repair expenses as units age.[7]

PROGRESS IN REDUCING HOMELESSNESS

Individuals and families experiencing homelessness clearly have the greatest need for affordable or assisted housing. People experiencing homelessness, however, are not included in official estimates of worst case needs because the AHS covers only housing units and the households that live in them, and people experiencing homelessness, by definition, do not live in a housing unit and are not surveyed by the American Housing Survey (AHS).[a]

In the 2019 *Annual Homeless Assessment Report to Congress*, HUD estimated that 568,000 sheltered and unsheltered homeless people were in the United States during a given night in January 2019. Most of these, 63 percent, were staying in residential programs for people experiencing homelessness, and the remaining 37 percent were staying in unsheltered locations (HUD-CPD, 2019).

Since 2007, total homelessness on a given night has declined by 15 percent, and homelessness among families with children continues to decline. This long-term progress, however, is threatened by recent local trends among unsheltered and chronically homeless populations in certain areas of the country. Total homelessness has increased modestly since 2016. The increase has been driven by a growing unsheltered population in high-cost markets, particularly in California, even as total homelessness has continued to decline outside of those areas. Although the number of people staying in emergency shelters and transitional housing programs continues to decline as the inventory of beds in rapid rehousing programs increases, the number of people staying in unsheltered locations grew by 20 percent between 2016 and 2019.

Between 2016 and 2019, families with children experiencing homelessness decreased by 12 percent, but the number of individuals experiencing

[5] Changes in the overall housing stock are primarily driven by new construction and losses due to demolition and natural disasters (Econometrica, 2016).

[6] Homeowners reported severely inadequate housing at even lower rates than renters: 1.9 percent of VLI homeowners and 0.5 percent of homeowners with higher incomes had severely inadequate housing. See exhibit A-1B.

[7] Divringi et al. (2019) estimated repair costs associated with quality deficiencies identified in the 2017 AHS and found that units occupied by renters with incomes at or below the poverty line accounted for $25.5 billion, or 56.7 percent, of the aggregate estimated repair costs associated with rental units in the United States. Older single-family and multifamily units occupied by poor renters had higher median repair cost estimates—$2,096 and $1,355, respectively—than newer units. Similarly, Wallace et al. (2019) found that repair costs increase with the degree of housing inadequacy as measured by the AHS, with median costs for repairing moderately and severely inadequate units estimated at $2,440 and $3,346, respectively.

homelessness increased by 11 percent. Chronic homelessness among individuals grew by 24 percent even as the count of veterans experiencing homelessness decreased by 6 percent during the same period.

[a] The AHS samples both occupied and vacant residential housing units but excludes places such as group quarters or motels where homeless persons may be sheltered (Census-HUD, 2017: 3–5).

Prevalence of Worst Case Needs by Income

Because most cases of worst case needs are triggered by severe rent burdens, the adequacy of household incomes relative to rents of available units is crucial. Among the 18.39 million VLI renter households in 2019, 42.2 percent had worst case needs (exhibit 1-3). The VLI category includes ELI renters, who had an even greater prevalence of worst case needs at 49.2 percent. ELI renter households constituted a large share (63.9 percent) of VLI renter households in 2019, yet their 1.7 percent increase between 2017 and 2019 was about the same as the 1.9 percent increase of the 30–50 percent of AMI population. ELI renter households experienced worst case needs at a greater frequency in 2019, 49.2 percent, than they did in 2017, 48.1 percent. As a result of their increased prevalence of severe problems, ELI renter households account for 74.4 percent of worst case needs in 2019, up from 72.0 percent in 2017, reflecting the difficulty of finding decent, affordable housing at ELI levels.[8]

Exhibit 1-3. Extremely Low-Income Renters Were Most Vulnerable to Worst Case Needs in 2019

	0–30% AMI	>30–50% AMI	Total VLI
Number of renters (thousands)	11,748	6,640	18,388
Number that are worst case needs renters (thousands)	5,780	1,986	7,766
Percentage that are worst case needs renters	49.2	29.9	42.2

AMI = area median income (HUD adjusted). VLI = very low income.
Source: HUD-PD&R tabulations of American Housing Survey data

Worst Case Needs Prevalence Among U.S. Households

The estimated number of worst case needs increased by a statistically insignificant 50,000 cases (or 0.6 percent) from 2017 to 2019, halting the decline in worst case needs observed during the previous biennial period from 2015 to 2017. Over the 10-year span from 2009 to 2019, however, the number of households with worst case needs had grown by 9.5 percent, or 671,000 households (exhibit 1-4).[9] Worst case needs minimally decreased as a proportion of U.S. households during the most recent 2-year period, from 6.4 percent in 2017 to 6.3 percent in 2019, but remains higher than the prerecession level of 5.3 percent in 2007.

Exhibit 1-4. Growth in Worst Case Needs Among All U.S. Households

	2009	2011	2013	2015	2017	2019
All households (millions)	111.86	115.08	116.03	118.29	121.56	124.14
Renters with worst case needs (millions)	7.10	8.48	7.72	8.30	7.72	7.77
Worst case needs as percentage of all households	6.34	7.36	6.65	7.02	6.35	6.26

Source: HUD-PD&R tabulations of American Housing Survey data

As reflected in the most recent year of exhibit 1-4, this report captures housing need in the period immediately prior to the onset of the COVID-19 pandemic and associated economic recession early in 2020. The financial shock to the labor market and household incomes has potential to cause substantial increases in worst case needs when next measured with the 2021 American Housing Survey. The major federal legislative response, however, complicates the expectation and measurement of worst case needs. A Special Addendum in this report discusses the recession, key features of the relief legislation, impacts of the recession on housing outcomes, and potential implications for future worst case needs estimates.

Because the problem of worst case needs is primarily one of a scarcity of units with affordable rents relative to the number of renters with very low incomes, the balance of section 1 examines the demographics of the renters who have those problems. Section 2 explores the dimensions of the inadequate supply of affordable rental units, and section 3 summarizes and

[8] Of the 6.0 million ELI renter households without worst case needs, 4.0 million (or 66.2 percent) received rental assistance subsidized by HUD or other federal, state, or local programs. In other words, only 2.0 million of the 11.7 million ELI renter households nationally (or 17.2 percent) avoided severe housing problems in the unassisted private market in 2019. See exhibit A-1A.

[9] Previous Worst Case Needs reports have documented much more rapid growth during the preceding 10 years. During 1999 to 2009, the number of worst case needs increased from 4.86 million to 7.10 million, an increase of 46 percent.

integrates supply and demand issues to shed light on the root causes and shifting dimensions of this persistent national problem.

Demographics of Worst Case Needs

Worst case needs are an economic reality for many of the nation's VLI renter households. The severe housing problems that trigger worst case needs are widespread for such households, yet notable variations exist among subgroups of the population.

Worst Case Needs by Race and Ethnicity

Worst case needs were found across all types of communities, racial groups, and ethnic lines. Both similarities and differences emerged when examining the three largest racial and ethnic groups: non-Hispanic White, non-Hispanic Black, and Hispanic. This section also examines detailed subgroups within the "all other races and ethnicities" group[10] to the extent supported by the AHS sample size. (See exhibit 1-7.)

During 2019, non-Hispanic White renters accounted for the largest number of households with worst case needs (3.6 million) by race and ethnicity. Non-Hispanic Whites accounted for 46.7 percent of worst case needs, followed by Hispanics, with 24.7 percent; non-Hispanic Blacks, with 20.4 percent; and renters of all other races and ethnicities, with 8.2 percent. Together, the three largest race and ethnicity groups accounted for 91.8 percent of worst case needs in 2019, and households headed by people of color accounted for more than one-half—53.3 percent—of worst case needs.[11]

As suggested by exhibit 1-5, very low-income renters do not experience worst case needs at a uniform rate. During 2019, worst case needs affected 43.7 percent of VLI renters among both non-Hispanic Whites and the other race and ethnicity group—slightly less than the 45.1 percent prevalence among Hispanics. Prevalence was lower among non-Hispanic Blacks, with 36.1 percent having worst case needs. The lower prevalence of worst case needs among Black households reflects greater likelihood that Black households receive housing assistance. Among Non-Hispanic Black renters with very low incomes, 40.2 percent report housing assistance, compared with only 24.3 percent for Non-Hispanic Whites, 23.2 percent for Hispanics, and 27.0 percent for all other races and ethnicities (see exhibits A-9 and A-1A). Among other factors contributing to this disparity, the geographic distribution of housing assistance plays a prominent role, as discussed in Section 2.

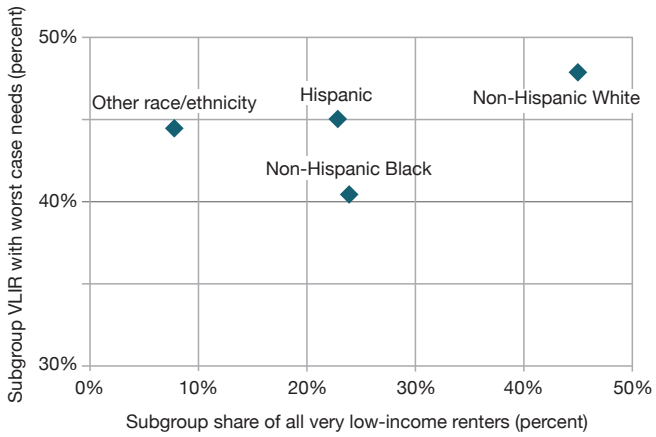
Variation in rates of housing assistance among VLI renter households contributed to variation in the prevalence of worst case needs and the likelihood that households avoided severe housing problems unassisted in the private market.[12] Non-Hispanic White and Hispanic VLI renter households had the best odds of avoiding severe housing problems in the private market in 2019—32.5 percent of non-Hispanic White VLI renters and 33.1 percent of Hispanic VLI renters avoided severe problems without housing assistance. Only about one-fourth of non-Hispanic Black and other VLI renter households—23.8 and 29.2 percent, respectively—avoided severe problems in the private market without housing assistance.

[10] In this section, race and ethnicity of households is based on the race and ethnicity of the householder as reported in the AHS data. People of color or households of color refers to households that are not non-Hispanic White. "Other" is used in several ways. In the finest analysis that is consistently feasible with the AHS data, "all other races and ethnicities" is the fifth of five main categories, comprising households of color in subgroups not otherwise listed or in a combination of subgroups. In the more detailed breakout of exhibit 1-7, "Other race or ethnicity" has the same meaning but refers to a smaller residual category of households because the exhibit provides additional categories by breaking down the AHS data to the full extent feasible. Finally, some portions of the narrative use "other" in its plain sense of "ones not specified in the present context," for example when groups of color are being compared to another group of color.

[11] Similarly, the three largest race and ethnicity groups accounted for 92.1 percent of all VLI renter households nationally, and households of color accounted for 54.9 percent of VLI renter households.

[12] See exhibit A-9.

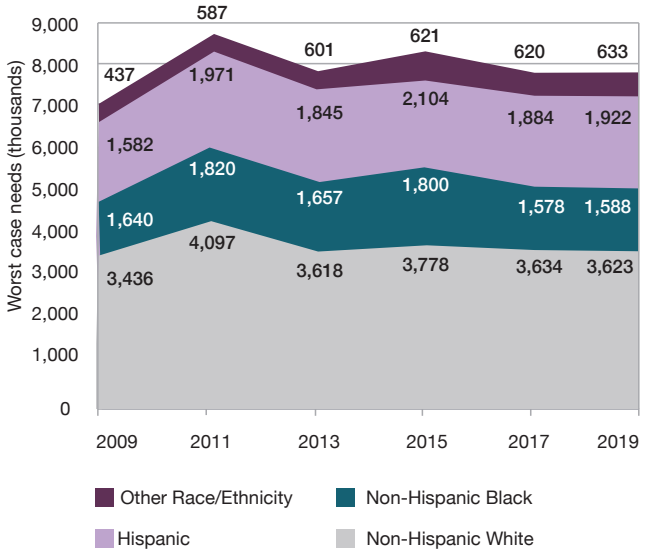
Exhibit 1-5. Very Low-Income Renters from All Household Types and Racial and Ethnic Groups Experienced Worst Case Needs in 2019



VLIR = very low-income renters.
Source: HUD PD&R tabulations of American Housing Survey data

The position of the markers in exhibit 1-5 reflects each group's share of VLI renter households and the rate at which they experience worst case needs. Groups account for a greater share of worst case needs as their markers move toward the upper-right quadrant. As a share of VLI renter households, the subgroups based on race and ethnicity span a range of 37.2 percentage points, but the prevalence of worst case needs varied by only 9.0 percentage points. The all other races/ethnicities group and Hispanic households are particularly more likely to have worst case needs than other subgroups, relative to their share of the VLI renter population. Other race and ethnicity groups, not included in the three main race and ethnicity categories (non-Hispanic White, non-Hispanic Black, and Hispanic), represent a small proportion of VLI households (7.9 percent), thus appearing in the upper-left quadrant of the exhibit. About 44 percent of these households, however, experience worst case housing needs. Non-Hispanic White households account for a relatively large share of the VLI renter household population (45.1 percent) and have a relatively large prevalence of worst case needs (43.7 percent), thus appearing in the upper-right quadrant of the exhibit. Except for non-Hispanic Black households, all subgroups have a larger share of their VLI renter household population afflicted with worst case needs than the national average of 42 percent.

Exhibit 1-6. Growth in Worst Case Needs Among All Racial and Ethnic Groups, 2009-2019



Source: HUD PD&R tabulations of American Housing Survey data

Exhibit 1-6 shows a slight increase in worst case needs among households of color between 2017 and 2019 and a small decrease among non-Hispanic Whites. Hispanic households had the greatest increase of worst case needs, 38,000 households, followed by an increase of 13,000 additional cases among renters of other races and ethnicities, and about 10,000 cases more among non-Hispanic Blacks. The proportion of VLI renters receiving housing assistance decreased overall between 2017 and 2019. Renters in the all other races and ethnicities group experienced the largest decrease in the housing assistance rate, a reduction of 5.3 points from 32 percent in 2017 to 27 percent in 2019.

Despite those absolute changes in numbers, the prevalence of worst case needs among VLI renters differed among racial and ethnic groups. The rate of worst case needs modestly improved for non-Hispanic Whites, decreasing 2 points from 46 percent in 2017 to 44 percent in 2019, and Hispanics, decreasing 1 point from 46 to 45 percent. The prevalence increased by 1.6 points among non-Hispanic Blacks, from 34.6 to 36.1 percent, and by 2 points among the all other races and ethnicities group, from 42 to 44 percent.

Exhibit 1-6 also illustrates differences in the long-term growth of worst case needs. Between 2009 and 2019, worst case needs increased 9.5 percent overall but increased only 5.4 percent for the largest subgroup of VLI renter households: non-Hispanic Whites. During the last 10 years, non-Hispanic

Blacks saw a decrease of 3.2 percent in the number of worst case needs. Worst case needs expanded much more rapidly during these 10 years among other people of color, with increases of 21.5 percent among Hispanics and 44.9 percent among renters of all other races and ethnicities. In the most recent biennial period, the population of non-Hispanic White VLI renter households grew by 4.5 percent. The change among minorities varied among subgroups; while Hispanic VLI renters households increased by 4.3 percent, economic recovery reduced the VLI renter populations of non-Hispanic Blacks and all other races/ethnicities by 3.7 and 2.8 percent, respectively.

Although renters of color who are not Hispanic or non-Hispanic Black make up a small share (8.2 percent) of households with worst case needs, the American Housing Survey sample is large enough to provide detailed national estimates for some subgroups within this category. Beginning with the 2017 AHS, HUD has reported estimates of worst case needs for Asian, American Indian or Alaska Native, and Native Hawaiian or other Pacific Islander households. This detail provides additional insight into the composition of the small but growing group of "other race or ethnicity" renters (exhibit 1-7).

Exhibit 1-7. Worst Case Needs Among Detailed Race and Ethnicity Subgroups in 2019

	Non-Hispanic White	Non-Hispanic Black	Hispanic	Asian	American Indian or Alaska Native	Native Hawaiian or Other Pacific Islander	Other Race/ Ethnicity
0–30% AMI renter households (thousands)	**5,083**	**3,050**	**2,651**	**526**	**219**	**60**	**158**
Worst case needs (thousands)	2,582	1,288	1,443	300	(D)	(D)	71
Percent with worst case needs	50.8	42.2	54.4	57.0	(D)	(D)	44.9
>30%–50% AMI renter households (thousands)	**3,207**	**1,343**	**1,607**	**273**	**68**	**17**	**125**
Worst case needs (thousands)	1,041	301	479	120	(D)	(D)	32
Percent with worst case needs	32.5	22.4	29.8	44.0	(D)	(D)	25.6
Total very low-income renter households (thousands)	**8,290**	**4,393**	**4,258**	**799**	**287**	**77**	**283**
Worst case needs (thousands)	3,623	1,589	1,922	420	66	42	103
Percent with worst case needs	43.7	36.2	45.1	52.6	23.0	54.5	36.4

AMI = area median income. Other race / ethnicity = racial or ethnic group not listed individually or consisting of multiple races or ethnicities.
Source: HUD-PD&R tabulations of American Housing Survey data

Exhibit 1-7 shows that Asian households account for more than one-half of worst-case households within the all other races and ethnicities group presented in exhibit 1-6, representing 4.3 percent of all households with worst case needs. The prevalence of worst case needs among Asian VLI renter households, 52.6 percent, was higher than among any other racial or ethnic group except the small Native Hawaiian-Pacific Islander group.

Together, American Indian or Alaska Native and Native Hawaiian or other Pacific Islander households accounted for 2.7 percent of all cases of worst case needs in 2019. Although those estimates provide one indication of the prevalence of severe housing affordability and quality problems among those populations, HUD's Native American Housing Needs Study also found that overcrowding and doubling up were far more common among Native American households compared with other households in the United States.[13] Thus, estimates of worst case housing needs should be viewed as one component of a larger body of evidence on housing problems among American Indian or Alaska Native and Native Hawaiian or other Pacific Islander households in tribal and urban areas.

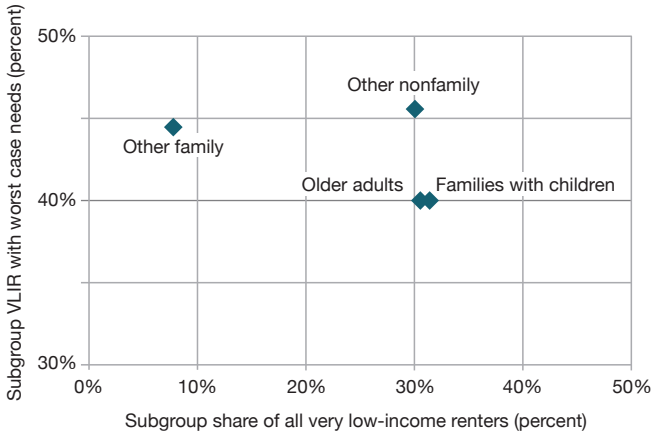
Worst Case Needs by Household Type

The composition of different households reflects variations in their stage of life, income and resources, and housing needs. Other nonfamily households (single adults, unmarried couples, and roommates) constituted the largest share of households experiencing worst case needs in 2019—32.6

[13] The series of reports produced by the Native American Housing Needs Study are available at https://www.huduser.gov/portal/pdredge/pdr-edge-research-022117.html.

percent—followed by families with children, with 29.2 percent; older adult households without children (hereafter, older adult households), with 28.9 percent; and other family households, with 9.3 percent (exhibit 1-8).[14]

Exhibit 1-8. Very Low-Income Renters from All Household Types and Racial and Ethnic Groups Experienced Worst Case Needs in 2019



VLIR = very low-income renters.
Source: HUD PD&R tabulations of American Housing Survey data

As a share of VLI renter households, the subgroups based on household type span a range of 21.8 percentage points, but the prevalence of worst case needs varied by only 5.8 percentage points. Exhibit 1-8 shows that three household types share very similar proportions of VLI renter households—30.7 percent families with children, 30.3 percent older adult families, and 30.0 percent other nonfamily households—while only 9.0 percent are other family households. "Other" nonfamily households and "other" family households are somewhat more likely to have worst case needs than other subgroups. Compared with the average prevalence of 42.2 percent, 43.7 percent of other family households and 45.9 percent of other non-family households have worst case needs.

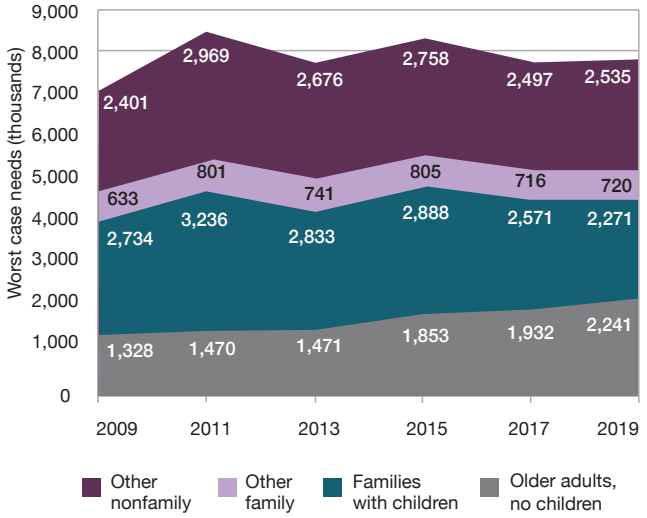
The variations in prevalence among these subgroups, although limited, may reflect the result of housing programs prioritizing families with children, older adults, and veterans.

Families with Children. The largest VLI group by household type, families with children, was the only household type that saw a decrease in worst case needs cases between 2017 and 2019. The number of families with children having worst case needs decreased by 300,000 during the 2017-to-2019 period, contributing to a total reduction of 965,000 cases since their housing problems peaked in 2011.

Worst case needs decreased, in part, because VLI renter households with children decreased by 545,000 between 2017 and 2019. This decrease took place wholly among households with incomes at and below 30 percent of AMI. Along with rising incomes, the decline in the number of renter families with children appears to have had a causal role. Nationally, the number of renter households with children was reduced by 6.5 percent between 2017 and 2019.

Although progress is being made—partly attributable to income gains among these households—the number of families with children experiencing worst case needs remained above prerecession levels. The share of VLI renter households with children experiencing worst case needs moderately decreased by 1.3 percentage points from the 2017 level to 40.2 percent in 2019, and the percentage reporting housing assistance also declined from 26.8 to 25.6 percent.

Exhibit 1-9. Growth in Worst Case Needs Among All Household Types, 2009–2019



Source: HUD-PD&R tabulations of American Housing Survey data

Without housing assistance, substantially more cases of worst case needs would occur. Among VLI renter households with children, 1.45 million reported having rental assistance in 2019 and, by definition, could not have worst case needs. Only about one in four VLI renter households with children received housing assistance, which helps account for the

[14] See appendix E for more on the composition of household types. Families with children may include a parent with child and unmarried partner. Either family or nonfamily households may include same-sex partners. The Household Demographics table for AHS 2019 in the AHS Table Creator is illustrative: https://www.census.gov/programs-surveys/ahs/data/interactive/ahstablecreator.html.

fact that the greatest share of worst case needs occurred in such families.[15]

Older Adult Households. The number of older adult households experiencing severe housing problems has steadily climbed over the past decade. During 2019, 2.24 million older adult[16] renters had worst case needs, an increase of 607,000 since 2017, even as 73,000 more of these households reported receiving rental assistance in 2019. The increase is largely attributable to the growing population of older adult VLI renter households. The proportion of older adult VLI renter households with worst case needs was 40.3 percent in 2019, marginally greater than the rate for families with children and representing a 1.3-point surge since 2017. Although nearly 4 in 10 older adult VLI households received housing assistance in 2019—a 2.9-point decrease since 2017—aging baby boomers are likely to continue to be a key demographic facing housing problems in the years to come.[17]

Other Family Households. After considering families with children and older adult households, other households can be divided into those that include multiple members of a given family and those that do not. Other family households include those such as married couples who are childless, one or more parents with adult children at home, adult siblings sharing an apartment, and householders boarding an older adult parent.[18]

Other family households constitute the smallest category in exhibit 1-9, contributing 720,000 worst case households in 2019. The rate of worst case needs among VLI renter households in this group was 43.7 percent, exceeding the prevalence for either families with children or older adult households. The high rate of worst case needs among this group declined by 1.3 percentage points between 2017 and 2019, more than for any other household type. A reduction of 58,000 VLI households in this subgroup contributed to the reduction, although complex dynamics within this small, diverse group are likely driving change. As income trends improve nationally, fewer households of adult relatives may choose to double up if other adequate housing options are available. Still, some of those households may be at a disadvantage in competing for limited available housing. For example, people younger than 62, in families without children, may be less likely to be prioritized among households competing for limited housing assistance resources.[19]

Other Nonfamily Households. About 5.52 million VLI renter households in 2019 were other nonfamily households, making this category the second largest after families with children. Like most household types, other nonfamily households also saw an increase in those with very low incomes between 2017 and 2019.

Worst case needs affected 2.54 million other nonfamily households in 2019, an increase of 201,000 since 2017 and more than the number found among any other household type. The large number of VLI renters of this group continue to be afflicted by the highest worst case needs prevalence, even after the 1.0-point decline to 45.9 percent in 2019. Most other nonfamily households are single individuals, and the rest are unrelated people sharing a housing unit.[20] One-person VLI households may be less well-equipped to handle rent increases than those who share housing costs with a roommate or, in family households, with a family member. Income shocks may also affect one-person households

[15] Estimates of the number of rental households that reported receiving rental housing assistance are presented for various subgroups in the exhibits of appendix A. AHS estimates of assisted very low-income renters in this report rely on self-reported data, which primarily include HUD-assisted households and may also include households assisted through other federal, state, or local programs, such as U.S. Department of Agriculture rental housing subsidies. As expected, HUD administrative data matching procedures suggest that excluding households assisted by non-HUD programs reduces the number of households classified as receiving housing assistance. For the purposes of this report, however, households receiving assistance from a non-HUD program are not classified as having worst case housing needs. Because administrative data matching across several federal, state, and local agencies is not feasible, AHS self-reported assistance is the preferred measure of housing assistance for this report. The aggregate numbers of households served by HUD's primary rental assistance programs, based on administrative records, are outlined in appendix C.

[16] HUD defines *older adult households* as those having a household head or spouse who is at least age 62 and including no children younger than age 18.

[17] Harvard's Joint Center for Housing Studies projects that aging baby boomers will swell the nation's population aged 65 or older by 11.1 million over the next decade, fueling both the housing remodeling market and demand for smaller, accessible homes (JCHS, 2019).

[18] Among "other family" very low-income renter households, 41.3 percent include a married couple, 56.6 percent have a female householder, 63.5 percent have a householder of color, and the mean household size is 2.47 persons. See exhibit A-6A.

[19] Within HUD's largest rental assistance program, the Housing Choice Voucher (HCV) program, the majority (70 percent) of households served are either families with children or older adults (Picture of Subsidized households, 2020; https://www.huduser.gov/portal/datasets/assthsg.html). In addition to the data in this report showing that only one-fourth of eligible VLI renter households receive housing assistance, the scarcity of HCV program resources is further evidenced by long waiting lists. Administrative data indicate that in 2020, on average, eligible households who had applied for a voucher and received it had waited 2.3 years (Picture of Subsidized households, 2020). Public housing authorities have the discretion to establish local preferences for choosing which households to assist based on local housing needs and priorities within this constrained resource environment. See appendix C for additional information on HUD's rental assistance programs.

[20] Among nonfamily VLI renter households, 83.6 percent were one-person households in 2017. See exhibit A-6A. The AHS does not include college students living in institutional housing, but it may include students sharing off-campus housing and other households in which individuals double up to share housing expenses. As the number of enrolled post-secondary students decreased by 222,000 between 2015 and 2017, a decrease in off-campus student households might account for part of the reduction in worst case needs for this household type (NCES 2019.)

more severely than households in which two or more people contribute resources to the household.[21]

Households Including People with Disabilities. Having worst case needs can be especially difficult for renter households that include people with disabilities. Disabilities can reduce employment options and create additional difficulties in finding suitable housing at reasonable cost; features such as elevators that are luxury amenities for some households may be necessities for people with disabilities. Additionally, Supplemental Security Income (SSI) benefits are inadequate to cover housing costs in many markets.[22]

DISABILITY AND ACCESSIBILITY IN THE AMERICAN HOUSING SURVEY

Since 2009, the American Housing Survey (AHS) has collected information about the following types of disabilities:

- Deafness or serious difficulty hearing.
- Blindness or difficulty seeing, even when wearing glasses.
- Serious difficulty concentrating, remembering, or making decisions because of a physical, mental, or emotional condition.
- Serious difficulty walking or climbing stairs.
- Serious difficulty dressing or bathing.
- Difficulty doing errands alone because of a physical, mental, or emotional condition.

The 2015 AHS also included questions related to the wheelchair accessibility of housing units and home modifications made to accommodate individuals with physical disabilities. As in 2011, future AHS surveys may periodically include topical modules of questions related to housing accessibility features.

For further information, see the demographics and accessibility sections of the *AHS Codebook* interactive tool (Census-HUD, 2019).

Beginning with the 2009 AHS, respondents have been asked directly whether household members have any of six types of disabilities, including four basic functional limitations—visual, hearing, cognitive, and ambulatory—and two types of difficulties with activities of daily living—self-care and independent living. Ambulatory limitations (walking or climbing stairs) are the most frequently occurring type of disability, affecting 42.3 percent of VLI renter households that do not include an older adult with a disability. Cognitive limitations (serious difficulties concentrating, remembering, or making decisions) have a higher prevalence, affecting 48.9 percent of these households.[23] People with disabilities are found among all four household types discussed previously.

As exhibit 1-10 shows, 2.89 million VLI renter households (15.7 percent of VLI renter households) have people younger than 62 reporting at least one of the six measures of disability.[24] In 2019, 1.04 million (36.1 percent) of these households experienced worst case needs, a modest decrease from 1.30 million (39.8 percent) in 2017. Between 2017 and 2019, the number of VLI renter households with people younger than 62 who have disabilities increased, and the number of such households with worst case needs decreased.

Exhibit 1-10 shows that the prevalence of worst case needs among VLI renter households with people younger than 62 who have disabilities varied somewhat by household type. Prevalence during 2019 ranged from 33.6 percent for other nonfamily households to 40.7 percent for other family households. Notwithstanding these differences in prevalence, the largest household categories accounted for most cases of worst case needs affecting people with disabilities. Of the 1.04 million households with worst case needs, 48.1 percent are other nonfamilies and 32.2 percent are families with children.

[21] In a similar vein, single adults, unaccompanied youth, or multiple-adult households are more prevalent within the population experiencing homelessness than are families with children (HUD-CPD, 2018). Likewise, a recent study of community-level predictors of homelessness found that higher population rates of one-person households were associated with higher homelessness rates (Nisar et al., 2019).

[22] For 2021, the SSI monthly federal benefit rate for an individual living alone is $794 (SSA 2021).

[23] The data about types of limitations are summarized in appendix A, exhibit A-15. Also see HUD-PD&R (2008).

[24] The analysis is limited to people younger than 62 who have disabilities, because many older adults suffer from impairments and activity limitations in consequence of aging. Note, however, that people younger than 62 who have disabilities may be found in older adult households, as exhibit 1-9 demonstrates. Households headed by an older adult with disabilities are not excluded if they also include people younger than 62 who have disabilities.

Exhibit 1-10. Worst Case Needs Were Common Among People Younger Than 62 Who Have Disabilities Across All Household Types in 2019

	Families With Children	Older Adult Households	Other Family Households	Other Nonfamily Households	Total
Very low-income renter households (thousands)	**5,654**	**5,567**	**1,649**	**5,518**	**18,388**
Worst case needs (thousands)	2,271	2,241	720	2,535	7,766
Percentage with worst case needs	40.2	40.3	43.7	45.9	42.2
Percentage having people younger than 62 who have disabilities	15.8	1.9	24.4	27.1	15.7
Very low-income renter households having people younger than 62 who have disabilities (thousands)	**892**	**105**	**403**	**1,495**	**2,895**
Worst case needs (thousands)	336	42	164	503	1,045
Percentage with worst case needs	37.7	40.0	40.7	33.6	36.1

Source: HUD PD&R tabulations of American Housing Survey data

Summary

Worst case needs for affordable rental housing remained a serious national problem in 2019. Of the 18.39 million VLI renter households susceptible to severe rent burdens and severely inadequate housing in 2019, 7.77 million—42.2 percent—faced one or both problems without housing assistance. Between 2017 and 2019, the number of households with worst case needs increased by 0.6 percent, following a 7.1-percent decrease observed during the 2015-to-2017 period. In 2019, the number of worst case needs cases was higher than it was in 2009. The data are a reminder of the enduring impact of the financial crisis and recession that, a decade later, continue to affect personal finances, credit histories, and affordable housing opportunities.

Severely inadequate housing continues to be a relatively minor cause of worst case needs. In 2019, severely inadequate housing alone produced a mere 2.5 percent of worst case needs, whereas 97.7 percent of households with worst case needs had severe rent burdens, including 2.3 percent that had both types of housing problems. Reflecting the importance of severe rent burdens as a cause of worst case needs, 6 out of 10 households with worst case needs (63.9 percent) had extremely low incomes during 2019.

Most racial or ethnic groups, and most household compositions examined, experienced an increase in worst case needs from 2017 to 2019. Among racial and ethnic groups, Non-Hispanic Whites were the only group that had fewer worst case needs in 2019. Renter households of color experienced increases in worst case needs during 2017 to 2019. Worst case needs increased by 38,000 cases among Hispanics, 14,000 cases among households of color who are not Hispanic or Non-Hispanic Black (that is, "all other"), and 10,000 among Non-Hispanic Black households. Race and ethnicity subgroup analysis suggests that the small group of Native Hawaiian-Pacific Islanders, followed by the much larger group of Asian households, had the highest rates of worst case needs among the "all other" race-ethnicity group. Asian households accounted for 5.4 percent of all worst case needs in 2019.

Among VLI renter households, worst case needs affected 40.2 percent of families with children, 40.3 percent of older adult households, 43.7 percent of other family households, and 45.9 percent of other nonfamily households. The number of worst case needs declined by 300,000 cases among families with children between 2017 and 2019, but increased for all other household types. The groups that saw the most new cases in 2019 were older adults (309,000 cases) and other non-family households (38,000). In 2019, other nonfamilies (typically one-person households) accounted for the greatest share of worst case needs—32.6 percent—followed by households composed of families with children (29.2 percent).

Worst case needs affected 36.1 percent of VLI renter households reporting people younger than 62 who have disabilities in 2019, moderately less than the 42.2-percent prevalence among VLI renter households overall. Households having people younger than 62 who have disabilities accounted for 13.5 percent of worst case needs.

Section 2 examines how the broad problem of worst case needs is caused by shortages of affordable housing and is mitigated by assisted housing on a national basis and within regional markets.

Section 2

Shortage of Affordable Housing

The United States faces a widespread shortage of rental units that are affordable to very low-income (VLI) renter households. The supply of affordable units is especially insufficient to meet the needs of extremely low-income households. In 2019, only 70 affordable units (including assisted units) existed for every 100 extremely low-income (ELI) renter households nationwide. The presence of higher-income renters in units that are affordable to ELI renter households exacerbates this shortage. In 2019, only 40 of those 70 affordable units were available for occupancy by ELI households. A final factor is that a significant portion of the affordable and available stock continues to be physically inadequate and may pose threats to occupants. In 2019, only one-half of the affordable units (36 of 70 affordable units) were both physically adequate and available for occupancy for every 100 ELI renter households. The geography of worst case needs and housing assistance sets a foundation for understanding the competition for affordable rental housing and its shortages.

Geography of Worst Case Needs

Housing markets are localized and often contain distinct submarkets. VLI and ELI renter households are more likely than higher-income renters to find their choice of housing units limited to communities and neighborhoods where poverty is more common. Such market segmentation and supply restrictions can manifest differently across market types in terms of renters' likelihood of experiencing worst case needs.

As a national survey of modest scale, the American Housing Survey (AHS) does not support biennial estimates of worst case needs for most individual metropolitan areas or for highly localized submarkets.[25] It does, however, support select estimates of worst case needs for certain large metropolitan

[25] HUD and the Census Bureau have traditionally conducted periodic AHS metropolitan surveys to supplement the national AHS. In 2015, the AHS was redesigned with a new national and metropolitan area longitudinal sample to account for changes in geography and attrition of housing units over time. In 2019, as in 2017, a supplemental sample of housing units in select metropolitan areas was combined with the national sample to produce metropolitan-level estimates. Stand-alone surveys were also conducted in some additional metropolitan areas.

areas included in the survey sample.[26] It also supports a national examination of four types of metropolitan locations—central cities, urban suburbs of central cities, rural suburbs of central cities, and nonmetropolitan areas[27]—and of four geographic regions—the Northeast, Midwest, South, and West. Analysis of AHS data by region and metropolitan status adds considerable depth to the national picture of worst case needs.

Worst Case Needs and Housing Assistance by Region and Metropolitan Location

A key aspect of the definition of worst case needs is that it can be understood as an indicator of need for affordable housing. Because income-based rental assistance and other deep public subsidies generally make housing affordable, the definition of worst case needs excludes renters with housing assistance. Examining the spatial distribution of housing assistance and of worst case needs together provides information about the extent to which assistance is mitigating severe housing problems.[28]

Exhibit 2-1 shows the distribution of the nation's 18.39 million VLI renter households across the four census regions and four metropolitan categories in 2019. On a regional basis, more than one-third of VLI renter households—6.41 million—lived in the South, 4.31 million lived in the West, 3.95 million lived in the Northeast, and 3.71 million lived in the Midwest in 2019. Central cities were home to most (8.94 million) VLI renter households, followed by suburbs (7.18 million)[29] and nonmetropolitan areas (2.28 million).[30] These geographic patterns did not change substantially between 2017 and 2019.

Exhibit 2-1. Very Low-Income Renters Experienced Worst Case Needs Across Every Region and Metropolitan Location in 2019

	Metropolitan Location				
Region	**Central Cities**	**Suburbs, Urban**	**Suburbs, Rural**	**Nonmetro-politan Areas**	**Total**
Northeast (thousands)	**2,119**	**1,342**	**239**	**250**	**3,950**
Percentage with worst case needs	37.3	40.9	33.1	35.5	38.2
Percentage with housing assistance	34.9	30.0	24.8	42.6	33.1
Midwest (thousands)	**1,626**	**1,075**	**311**	**703**	**3,715**
Percentage with worst case needs	39.2	36.9	35.9	28.5	36.2
Percentage with housing assistance	31.3	25.9	19.5	36.7	29.8
South (thousands)	**2,817**	**1,814**	**761**	**1,021**	**6,413**
Percentage with worst case needs	44.2	50.0	40.4	33.0	43.6
Percentage with housing assistance	26.8	19.2	22.0	31.4	24.8
West (thousands)	**2,374**	**1,394**	**240**	**302**	**4,310**
Percentage with worst case needs	51.9	48.3	39.7	39.3	49.1
Percentage with housing assistance	23.1	24.9	23.2	31.7	24.3

(continued)

[26] The redesigned AHS includes a longitudinal sample of the 15 largest metropolitan areas every 2 years and an additional 10 metropolitan areas surveyed on a rotating basis every 4 years. Select estimates for the metropolitan areas sampled in 2019 are presented in exhibit 2-4 and exhibit A-11B. For more information on the 2015 AHS redesign, see appendix E.

[27] Both central cities and suburbs are located within metropolitan areas. A central city consists of the largest city within a metropolitan area. Suburbs are within metropolitan counties but outside central cities. For the purposes of this report, suburban areas are further distinguished as urban or rural based on their population density. Nonmetropolitan areas fall outside metropolitan counties and tend to be more rural in nature.

[28] AHS questions about receipt of rental assistance are designed to focus on federal housing assistance programs. These data result in an estimate of 5.05 million elf-reported VLI renter households with housing assistance, which is somewhat more than HUD's program total. Other potential sources of housing assistance include the U.S. Department of Agriculture's Rural Housing Service, other federal agencies, or other state or local programs. Also affecting this comparison, a small fraction of HUD-assisted renters may have incomes above the VLI threshold because they were admitted to programs under local policy preferences or their incomes increased after program admission. See the discussion of HUD's rental assistance programs in appendix C and housing assistance status in appendix E.

[29] Among suburban VLI renter households, most (78.4 percent) were concentrated in densely populated urban suburbs.

[30] Changes in annual estimates of VLI renter households in nonmetropolitan areas should be viewed with caution because HUD assigns average income limits to less populated areas to accommodate AHS data suppression. See the discussion of income cutoffs in association with AHS geography in appendix E.

Exhibit 2-1. Very Low-Income Renters Experienced Worst Case Needs Across Every Region and Metropolitan Location in 2019 *(continued)*

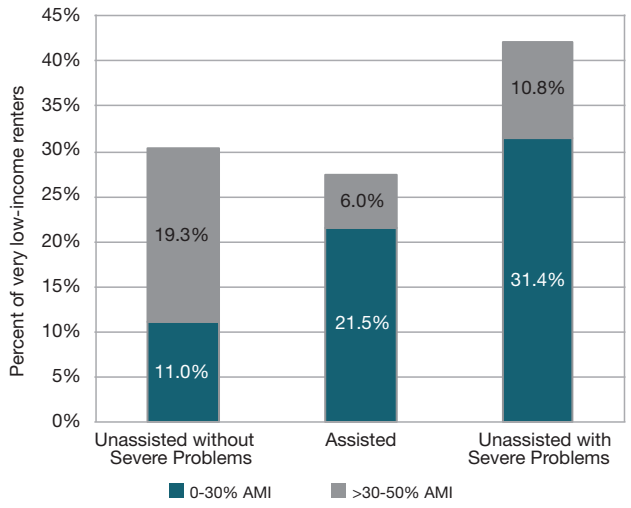
Region	Metropolitan Location				
	Central Cities	Suburbs, Urban	Suburbs, Rural	Nonmetro-politan Areas	Total
Total (thousands)	**8,936**	**5,625**	**1,552**	**2,276**	**18,388**
Percentage with worst case needs	43.7	44.9	38.3	32.7	42.2
Percentage with housing assistance	28.6	24.5	22.1	34.3	27.5

Source: HUD PD&R tabulations of American Housing Survey data

Like VLI renter households, worst case needs were common in every region and metropolitan category across the nation. As a national average, 42.2 percent of VLI renter households had worst case needs. The prevalence of worst case needs among VLI renter households was greater than the national average in the South and West and in central cities and urban suburbs. The Midwest, Northeast, rural suburbs, and nonmetropolitan areas had smaller-than-average shares of VLI renter households with worst case needs. The national total of 7.77 million worst case needs in 2019 consisted of 2.80 million households in the South, 2.12 million in the West, 1.51 million in the Northeast, and 1.35 million in the Midwest. (See appendix exhibit A-10 for additional regional data.)

Exhibit 2-1 also demonstrates the important role that housing assistance plays in reducing worst case needs. Nationwide, 5.05 million VLI renter households reported receiving housing assistance in 2019, compared with the 7.77 million having worst case needs. Thus, 1.5 VLI renter households had worst case needs for every 1 that was assisted, the same ratio as in 2017. Put differently, among VLI renter households, about 28 percent of households had rental assistance, and an additional 42 percent had worst case needs for assisted or other affordable housing in 2019. The remaining minority (30 percent) rented in the private market without housing assistance and avoided severe housing problems. These data suggest that in 2019, the private rental market was working adequately for one in three VLI renter households (exhibit 2-2).

Exhibit 2-2. Housing Problem Status of Very Low-Income Renter Households by Relative Income



AMI = area median income.

Source: HUD PD&R tabulations of American Housing Survey data

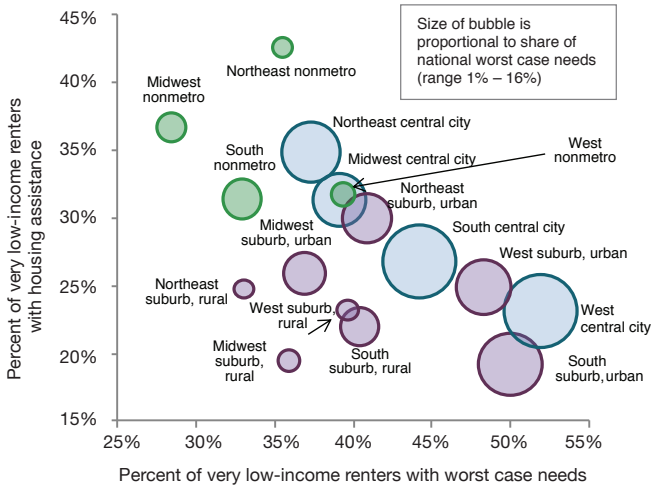
Nationally, housing assistance is relatively less common in the suburbs, where less than 25 percent of VLI renter households were assisted. Newer central cities and suburbs in the South and West had particularly low rates of assistance. These regional disparities in the prevalence of housing assistance for VLI renter households were also evident nationally, ranging from 24.3 percent in the West to 33.1 percent in the Northeast. Another region with a low rate of housing assistance, the West, has had the highest rate of worst case needs for decades. Nearly one-half—49.1 percent—of VLI renter households in the West experienced worst case needs in 2019. Areas that developed during an earlier period continue to draw benefits from an established but aging stock of public housing.

Exhibit 2-3 illustrates the vital role of housing assistance in preventing households from falling into worst case needs. In exhibit 2-3, central cities, suburbs, and nonmetropolitan areas are represented by blue, purple, and green bubbles, respectively. Larger bubbles represent a larger national

share of worst case needs households. Across regions and metropolitan locations, housing assistance is inversely related to worst case needs. Locations indicated in the upper-left quadrant of the chart fared better than the national average because of higher rates of housing assistance and lower prevalence of worst case needs among VLI renter households. The locations clustered in the middle of the chart approximate average prevalence rates; the locations in the lower-right quadrant fared worse than the national average because of lower rates of housing assistance and higher rates of severe housing problems.

Patterns in the suburbs tended to be worse than those in nonmetropolitan areas nationally, whereas central cities vary. Worst case needs affected a smaller share of very low-income renters in nonmetropolitan areas, where housing assistance was relatively more available. Central cities of the Northeast and Midwest also fared better—with higher rates of housing assistance and lower rates of worst case needs—than their counterparts in the South and West.

Exhibit 2-3. Prevalence of Worst Case Needs Was Inversely Related to Prevalence of Housing Assistance in 2019



Source: HUD-PD&R tabulations of American Housing Survey data

Worst case needs were more prevalent in the West and the South, especially in the suburbs, where housing assistance was scarcer—although high rents in the West also shape this picture.[31] Several areas with a greater relative scarcity of housing assistance and an abundance of worst case needs account for substantial fractions of the national problem, as shown by the size of the bubbles in the lower-right quadrant of exhibit 2-3. The relative size and positioning of the bubbles for central cities and urban suburbs also suggest that denser urban areas contribute the largest shares of severe housing affordability problems. Together, southern and western-central cities and urban suburbs accounted for a substantial share of the national picture in 2019, representing 52 percent of households with worst case needs nationally. In recent decades, housing policy has not kept pace with geographic shifts in the national population distribution and housing needs. Policy enhancements to improve geographic allocation of housing resources could reduce such spatial disparities and their impacts on community well-being.

Compared with their urban counterparts, the small populations of very low-income renters living in rural suburbs represented a small share of worst-case households. Rural suburbs of the West, however, do have low rates of housing assistance coinciding with high rates of worst case needs. Correspondingly, many Western rural suburbs experienced high population rates of homelessness in 2017 (Nisar et al., 2019).

Not shown in exhibit 2-3 are changes in rates of VLI renter households with worst case needs between 2017 and 2019. Slight improvements ranging from less than 1 percentage point to 1.3 percentage points were observed in all regions except for the West, where the prevalence rate worsened slightly—by less than 1 percentage point (summarized in exhibit A-10). During the same period, rates of worst case needs increased in central cities by 1.3 percentage points, with decreases of 6.7, 1.9, and 1.0 percentage points observed in rural suburbs, urban suburbs, and nonmetropolitan areas, respectively (summarized in exhibit A-11A). The number of VLI renter households living in the suburbs grew by 338,000 households in urban suburbs and by 192,000 in rural suburbs, compared to a reduction of 149,000 households in nonmetropolitan areas and 59,000 fewer households in central cities. This variation may reflect a combination of a slower rate of economic improvement in nonsuburban areas during the 2-year period and some out-migration of lower-income households from high-cost central cities.

Variation in Worst Case Needs Between Metropolitan Markets

An examination of VLI renter households' distribution and prevalence of worst case needs across the largest metropolitan areas offers additional insight into the variation of severe housing problems in central cities and suburbs. With their densely populated urban cores connected to surrounding counties through strong commuting ties, metropolitan areas reflect groupings of central cities and suburbs with a high degree of social and economic

[31] High rents introduce the question of whether enough rental units are available at fair market rents (FMRs) to make housing vouchers an adequate policy response to affordable housing shortfalls. Appendix B, exhibit B-3 addresses the extent of the supply of below-FMR housing on a regional basis. Also see regional supply discussions later in this section.

integration. The redesigned AHS supports examining the variation in worst case needs across some of the largest metropolitan housing markets. Exhibit 2-4 shows the VLI renter populations and the number and share experiencing worst case needs in the nation's 15 largest metropolitan areas in 2017 and 2019.

Exhibit 2-4. Prevalence of Worst Case Needs Among Very Low-Income Renters Varied Across Metropolitan Markets in 2019

Metropolitan Area	2017	2019	Metropolitan Area	2017	2019
New York-Newark-Jersey City, NY-NJ-PA			**Washington-Arlington-Alexandria, DC-VA-MD-WV**		
Very low-income renters (thousands)	1,712	1,769	Very low-income renters (thousands)	292	333
Worst case needs (thousands)	678	724	Worst case needs (thousands)	126	123
Percent with worst case needs	39.6	40.9	Percent with worst case needs	43.2	36.9
Los Angeles-Long Beach-Anaheim, CA			**San Francisco-Oakland-Hayward, CA**		
Very low-income renters (thousands)	968	976	Very low-income renters (thousands)	274	291
Worst case needs (thousands)	459	508	Worst case needs (thousands)	110	125
Percent with worst case needs	47.4	52.0	Percent with worst case needs	40.1	43.0
Chicago-Naperville-Elgin, IL-IN-WI			**Atlanta-Sandy Springs-Roswell, GA**		
Very low-income renters (thousands)	509	476	Very low-income renters (thousands)	245	263
Worst case needs (thousands)	204	160	Worst case needs (thousands)	131	132
Percent with worst case needs	40.1	33.6	Percent with worst case needs	53.5	50.2
Dallas-Fort Worth-Arlington, TX			**Detroit-Warren-Dearborn, MI**		
Very low-income renters (thousands)	332	364	Very low-income renters (thousands)	243	235
Worst case needs (thousands)	159	174	Worst case needs (thousands)	105	111
Percent with worst case needs	47.9	47.8	Percent with worst case needs	43.2	47.2
Miami-Fort Lauderdale-West Palm Beach, FL			**Seattle-Tacoma-Bellevue, WA**		
Very low-income renters (thousands)	384	356	Very low-income renters (thousands)	202	193
Worst case needs (thousands)	211	177	Worst case needs (thousands)	84	81
Percent with worst case needs	54.9	49.7	Percent with worst case needs	41.6	42.0
Boston-Cambridge-Newton, MA-NH			**Phoenix-Mesa-Scottsdale, AZ**		
Very low-income renters (thousands)	313	347	Very low-income renters (thousands)	189	185
Worst case needs (thousands)	100	99	Worst case needs (thousands)	97	99
Percent with worst case needs	31.9	28.5	Percent with worst case needs	51.3	53.5
Houston-The Woodlands-Sugar Land, TX			**Riverside-San Bernardino-Ontario, CA**		
Very low-income renters (thousands)	362	337	Very low-income renters (thousands)	158	149
Worst case needs (thousands)	177	179	Worst case needs (thousands)	91	98
Percent with worst case needs	48.9	53.1	Percent with worst case needs	57.6	65.8
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD			**National**		
Very low-income renters (thousands)	336	306	Very low-income renters (thousands)	18,067	18,388
Worst case needs (thousands)	147	125	Worst case needs (thousands)	7,716	7,766
Percent with worst case needs	43.8	40.8	Percent with worst case needs	42.7	42.2

Notes: Estimates for the 15 largest metropolitan areas (by population ranking) are presented. The redesigned AHS samples these 15 metropolitan areas every 2 years. Estimates for 10 additional metropolitan areas surveyed in 2019 are presented in exhibit A-11B.
Source: HUD PD&R tabulations of American Housing Survey data

Although 42.2 percent of VLI renter households had worst case needs nationally, local markets show a substantial degree of variation beyond the macro-level trends observed across regions and types of metropolitan locations. Worst case needs affected substantial shares of VLI renter households in each of the nation's largest metropolitan

areas. Among the 15 metropolitan areas shown in exhibit 2-4, 44.3 percent of VLI renters had worst case needs in 2019, compared with 44.2 percent in 2017, representing an increase of 36,000 cases. Reflecting particularly severe local conditions, more than one-half of the VLI renter households residing in and around Riverside, Phoenix, Houston, Atlanta, and Los Angeles experienced worst case needs in 2019. The rates of worst case needs decreased in nearly one-half of the large metropolitan areas between 2017 and 2019, with Chicago, Washington, D.C., and Miami having the largest decreases, a difference of 6.5, 6.2, and 5.2 points, respectively. Local events, trends, and policies may account for changing rates of housing problems within metropolitan areas.

Factors Limiting Access to Affordable Rental Housing

Even with slightly more than one-fourth of VLI renter households receiving housing assistance, the private market's affordable rental housing supply falls far short of need. Nationally, less than one-third of VLI renter households could avoid severe housing problems in the unassisted private rental market in 2019. An examination of the mismatches between the number of rental units needed by renters of various income categories and the number of affordable units provided by the market to those renters lends considerable insight into private rental market dynamics and the persistence of worst case needs during periods of economic growth.

How the Market Allocates Affordable Housing on a National Basis

The competition for good-quality, affordable housing remains vigorous. Competition affects whether the neediest households can live in the most affordable units, the vacancy rate at different rent levels, and how quickly new units are occupied. Exhibit 2-5 shows the distribution of rental units and their occupancy by their rents' affordability relative to the area median income (AMI).[32] For this analysis, a unit is considered affordable for a renter if the gross rent (rent plus utilities) does not exceed 30 percent of the maximum income of their income category. However, any given renter may live in a unit renting for less than, the same as, or more than that threshold.[33]

Exhibit 2-5. Higher-Income Renters Occupied Many Affordable Units in 2019

Rental Units by Income Needed To Make the Rent Affordable (thousands)					
Occupancy Status	**0–30% of AMI**	**>30–50% of AMI**	**>50–80% of AMI**	**>80% of AMI**	**Total**
Higher-income occupants	3,524	3,788	7,091	NA	14,403
Same-income or lower-income occupants	4,406	4,724	10,192	10,935	30,257
Vacant	326	881	1,830	1,638	4,675
Total	**8,256**	**9,393**	**19,113**	**12,573**	**49,335**

AMI = area median income. NA = not applicable.
Source: HUD PD&R tabulations of American Housing Survey data

The extent of competition for the most affordable housing portrayed in exhibit 2-5 is striking. Higher-income renters occupy 3.52 million, or 42.7 percent, of the units affordable to ELI renter households. Similarly, higher-income renters occupy 40.3 percent of units affordable at incomes of 30 to 50 percent of AMI and 37.1 percent of units affordable at incomes of 50 to 80 percent of AMI, which is the largest category of units. Rental units that are more affordable are both rarer and more likely to be occupied by higher-income renters.

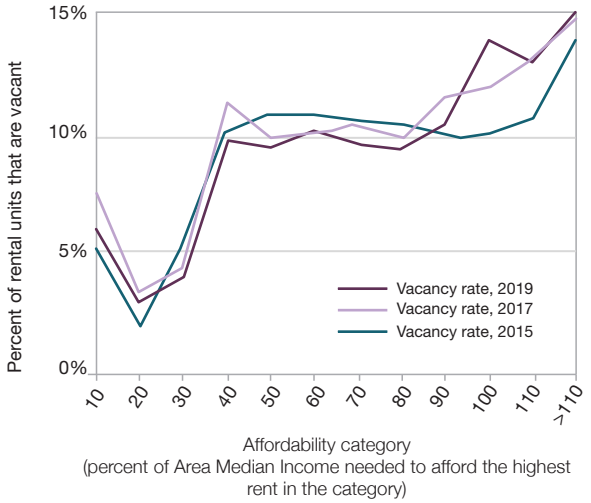
Variations in vacancy rates across the affordability categories further demonstrate the competition for affordable units. The most affordable units are least likely to be vacant (exhibit 2-6). Among the least costly units—those with rents affordable at incomes of 0 to 30 percent of AMI—only 3.9 percent were vacant in 2019. Vacancy rates were much greater at higher rent levels: 9.4 percent among units affordable at incomes of 30 to 50 percent of AMI, 9.6 percent at 50 to 80 percent of AMI, and 13.0 percent among the highest rent units. Among higher rent levels, vacancy rates have risen by 3.8 percentage points for 90 to 100 percent

[32] The method of assigning units to cost categories was modified in 2017 to also account for limited HUD administrative exceptions to program income limits. Slight unit affordability adjustments were applied to outliner cases where AMI-determined affordability differed from administratively determined affordability categories.

[33] Note that renters whose incomes place them at the bottom of an income range would not be able to afford rents at the top of their range. More detailed presentations of these data appear in appendixes A and B, where exhibit A-12 and exhibit B-2 show unit affordability and occupancy status using 10-point income breaks.

of AMI, by 2.2 percentage points for 100 to 110 percent of AMI, and by 1 percentage point for over 110 percent of AMI, signaling construction of new luxury rental housing since 2015. Overall, rental vacancy rates were consistently below 10 percent in recent years—9.7 percent in 2015, 9.9 percent in 2017, and 9.5 percent in 2019—reflecting steady absorption of unoccupied rental housing stock.[34]

Exhibit 2-6. Vacancies Were Lowest Among Most Affordable Rental Units, 2015–2019



Source: HUD PD&R tabulations of American Housing Survey data

The gradient in national vacancy rates seen in exhibit 2-6 remained relatively flat among units affordable to low-income renters earning between 50 and 80 percent of AMI. Nevertheless, the market for units affordable at ELI levels remained very tight. The somewhat higher vacancy rate for the units affordable at only 10 percent of AMI is often ascribed to units with physical or locational challenges that soon might be removed from the housing stock. Higher vacancy rates continue to be found at the highest rent levels, including numerous vacation homes,[35] and may reflect developer preferences to construct higher-end rental units in recent years. Regulatory barriers that make affordable homebuilding difficult have exacerbated labor shortages that constrain mid-range rental housing production needed to cope with large tenure shifts and household formation. In many areas, the production of housing for ELI renters is not profitable.

Compared with the market for the most affordable units, the availability of vacant units at higher rent levels shows that in many markets, rental assistance in the form of vouchers could reduce worst case needs to the extent that rents fall within program limits and landlords are willing to participate. The appendix exhibit B-3, which examines the availability of units within HUD program rent limits (including all HUD-assisted housing), shows that in 2019, about 75 affordable and physically adequate rental units were available for every 100 households nationally.[36] Increasing landlord participation in HUD's voucher program could improve access to those units among very low-income households while also improving voucher utilization rates in places where vouchers are available but difficult to lease up.

From 2017 to 2019, the rental stock grew by 515,000 units, or a little over 1 percent, yet the number of vacant units decreased by 151,000, or 3.1 percent. Despite small increases in vacant units while the overall rental stock expanded in past years, strong rental demand nationwide kept vacancy rates fairly constrained for renters with median or lower incomes. The rental stock affordable to VLI renters expanded by 1.3 million units, or 7.7 percent, between 2017 and 2019, whereas affordable vacant units declined 1.3 percent.[37]

Although vacancy rates provide a valuable indication of the balance between supply and demand, they do not directly compare the number of affordable units with the number of renters. The remainder of section 2 makes such comparisons, employing three increasingly rigorous concepts to assess the sufficiency of the rental housing stock relative to need.

Affordability, Availability, and Adequacy of the National Rental Stock

The scarcity of affordable units is typically greatest for the poorest renters, but because of the rapid increase in renter households and greater competition since the Great Recession, scarcity has reached higher up the income scale. Although the renter population expansion slowed somewhat in 2019 and slightly more renter households had very low incomes, rental units largely remained out of reach for households remaining at the lower end of local income distributions. Exhibit 2-7 displays the rental housing stock

[34] Comparable estimates of the rental vacancy rate based on the Current Population Survey are slightly lower in recent years: 8.3 percent in 2013, 7.1 percent in 2015, 7.2 percent in 2017, and 6.8 percent in 2019. See U.S. Housing Market Conditions charting data, https://www.huduser.gov/portal/ushmc/hi_RentVac.html.

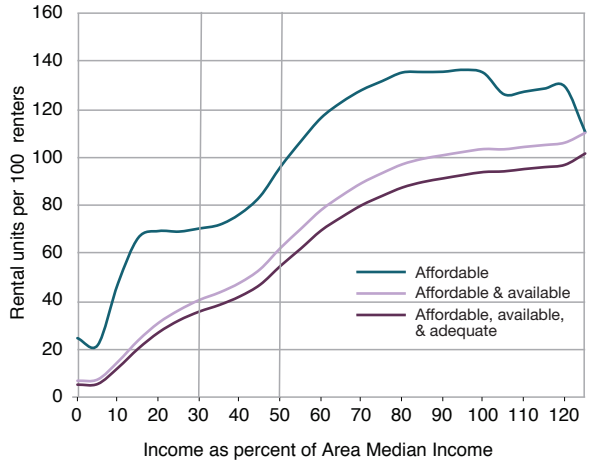
[35] According to 2019 American Community Survey 1-Year Estimates, about one-third of vacant housing units in the United States are for seasonal, recreational, or occasional use.

[36] Regional variation in the availability of units within fair market rent (FMR) limits is further addressed in the "Rental Stock by Region" discussion later in this section.

[37] See exhibits A-12 and A-13.

in 2019. These aggregate data portray how well the overall stock could meet the need for affordable housing if location did not matter.[38]

Exhibit 2-7. The Supply of Affordable, Available, and Adequate Rental Housing Stock Was Insufficient in 2019



Source: HUD PD&R tabulations of American Housing Survey data

The top (teal) line in exhibit 2-7 represents all affordable units in 2019, regardless of whether higher-income households occupied them or whether they were adequate. The cumulative number of affordable units equaled the cumulative number of renters (that is, 100 units per 100 renters) only for incomes exceeding 52 percent of AMI. Beyond that threshold, more than 100 affordable units existed per 100 renters—enough, with perfect allocation, to provide affordable housing to every renter with a higher income. The 2019 threshold was 1 percentage point lower than the 2017 level but 7 points higher than the 2007 level, indicating that many households recovering from the recession remained renters for longer periods as the economy recovered.

The ratio of affordable units per renter peaked at 138 units per 100 renters at the income level of 95 percent of AMI. There was a substantial surplus of units affordable at higher levels of household income on a cumulative basis. As income increased, renters were increasingly likely to spend less than 30 percent of their incomes on housing.[39]

The situation was completely different at the low end of the income scale. Enough affordable units—both naturally affordable and assisted—existed to house only 70 percent of ELI renters in 2019, assuming those units somehow could have been perfectly allocated. That shortage was substantial and critical, with little improvement from the ratio of 69 percent observed in 2017.

MEASURING WHETHER AFFORDABLE HOUSING STOCK IS SUFFICIENT FOR NEED

- *Affordability* measures the extent to which enough rental housing units of different costs can provide each renter household with a unit it can afford (based on the 30-percent-of-income standard). Affordability, which is the broadest measure of the relative supply of the housing stock, addresses whether sufficient housing units would exist if allocated solely on the basis of cost. The affordable stock includes both vacant and occupied units.
- *Availability* measures the extent to which affordable rental housing units are available to renters within a particular income range. Availability is a more restrictive concept because units that meet the definition must be available and affordable. Some renters choose to spend less than 30 percent of their incomes on rent, occupying housing that is affordable to renters of lower incomes. Those units thus are not available to lower-income renters. A unit is available at a given level of income if (1) it is affordable at that level, and (2) it is occupied by a renter either at that income level or at a lower level or is vacant.
- *Adequacy* extends the concept of availability by considering whether sufficient rental units are physically adequate (based on unit characteristics described in appendix E), affordable, and available. Adequacy thus is the most restrictive of the three measures.

The second (lavender) line in exhibit 2-7 represents all affordable ***and available*** rental units in 2019, meaning that it considers whether higher-income renters currently occupy affordable units.[40] Availability poses an important additional constraint on renters seeking affordable units. The exhibit shows that, at best, only 40 percent of ELI renters could find an affordable and available unit, even if location were not a factor.

[38] Measures of affordability, availability, and adequacy compare the entire housing stock with the entire renter population, and they do not reflect small-scale geographic detail or the complexities of local housing markets.

[39] Only 13.7 percent of renters with incomes above 80 percent of AMI had either moderate or severe rent burdens, compared with 68.6 percent of renters with lower incomes. See exhibit A-1A.

[40] The availability measure also removes units from consideration if they have artificially low rents because they are occupied as a benefit of employment (for example, units provided for caretakers) or because relatives or friends of the occupants own the units. In 2019, 1.92 million renter households (4.3 percent) occupied their units while paying no rent. The AHS does not provide estimates of the number of households paying a positive but less-than-market rent because of employment or other reasons.

The paucity of affordable and available units is worsened by the occupancy of a considerable proportion of the most affordable housing stock by renters who could afford to spend more but do not choose to do so (as shown previously in exhibit 2-5). Such renters may be cautious about their finances because of income instability, a desire to reduce debt burdens, or saving for a downpayment to buy a house. In 2019, the affordable stock was nominally sufficient to house every renter with an income greater than 52 percent of AMI, yet the affordable and available stock did not match the number of renters until household incomes reached about 85 percent of AMI.

The third (plum) line in exhibit 2-7 adds a third criterion—that units should be physically adequate—which further reduces the supply of the rental housing stock. Even for renters with low incomes (up to 80 percent of AMI), only 87 adequate units were available for every 100 renters. The physically adequate stock did not fully match the need until it included units affordable only to renters with incomes exceeding 124 percent of AMI, similar to 2017 levels.

Rental Stock by Income

Thus far, the analysis has shown that relatively few rental units were affordable in 2019, and—because of occupancy by higher-income renters and limited vacancies—even fewer were available to renters with the lowest incomes. Exhibit 2-8 summarizes the availability of rental units for the standard income groups used in this report.

A severe mismatch existed between the number of ELI renter households and the number of affordable units available. For every 100 ELI renter households, only 70 affordable units existed. Only 40 of those units were affordable and available, and only 36 were affordable, available, and physically adequate.[41] About 11 percent of affordable and available units for ELI renters had severe quality deficiencies.

Exhibit 2-8. Rental Housing Stock Was Scarcest for Extremely Low-Income Renters in 2019

Income Category	Affordable Rental Units per 100 Renter Households	Affordable and Available Rental Units per 100 Renter Households	Affordable, Available, and Adequate Rental Units per 100 Renter Households
Extremely low-income renter households (0–30% AMI)	70.3	40.3	35.7
Very low-income renter households (0–50% AMI)	96.0	62.2	54.7
Low-income renter households (0–80% AMI)	135.3	97.3	87.2

AMI = area median income.
Source: HUD-PD&R tabulations of American Housing Survey data

Renters with very low incomes found 96 affordable units, 62 affordable and available units, and only 55 affordable, available, and physically adequate units per 100 renters. About 12 percent of the affordable and available units for this larger group had severe quality deficiencies.

Renters with low incomes found that the affordable and available rental stock was nearly sufficient to house them all, although about 10 percent of such units had severe quality deficiencies.

Overall, affordable housing supply improved slightly for extremely low-income renters between 2017 and 2019, an expansion of 273,000 units. Exhibit 2-9 shows that the supply of affordable housing stock for ELI renters increased by 1 unit per 100 households, from 69 in 2017 to 70 in 2019, following a three-unit gain during the previous 2 years. The ratio of affordable and available units stayed at about 40 units per 100 ELI renter households between 2017 and 2019.

[41] Previous research based on the Residential Finance Survey indicated that 12 percent of units with gross rents of $400 or less produced negative net operating income, suggesting they were headed for demolition or conversion to nonresidential use (JCHS, 2006). More recent research based on the Housing Vacancy Survey suggests that more than 10 percent of vacant units held off-market are in need of repair, abandoned, condemned, or to be demolished (JCHS, 2016).

Exhibit 2-9. Fewer Affordable Units Were Available to Very Low-Income Renters in 2019

Income Category	2015 Rental Units per 100 Renters	2017 Rental Units per 100 Renters	2019 Rental Units per 100 Renters	2015 to 2017 Change	2017 to 2019 Change
Extremely low-income renter households (0–30% AMI)					
Affordable	66.0	69.1	70.3	3.1	1.1
Affordable and available	37.7	39.8	40.3	2.1	0.5
Very low-income renter households (0–50% AMI)					
Affordable	92.9	90.7	96.0	– 2.2	5.3
Affordable and available	62.0	59.0	62.2	– 3.0	3.2

AMI = area median income.
Source: HUD-PD&R tabulations of American Housing Survey data

For very low-income renters, the housing supply grew more substantially between 2017 and 2019. The supply of affordable units for VLI households increased by more than 5 units per 100 renters, and the supply of affordable and available units increased by more than 3 units per 100 renters. Comparing the negligible gain in unit availability for ELI renters to the more than 5-unit expansion for VLI renters suggests that renters with incomes between 30 and 50 percent of AMI benefited the most from the expanded stock during the 2017-to-2019 period.

Geography of Supply

The preceding discussion shows that worst case needs in 2019 were dispersed across the nation, although their concentration varied across geography. It further shows that spatial variation in worst case needs was affected in part by the availability and utilization of housing assistance.

Affordable rental housing includes both units that receive public rent assistance and units that for-profit and nonprofit housing providers offer at modest rents. The examination of affordable housing supply on a national basis revealed that the supply of rental units that are affordable to very low-income and poorer households remained deeply insufficient in 2019 and that this shortage was worsened by the preference of higher-income renters for more affordable units and by the physical inadequacy of some of the stock.

The following discussion sharpens that picture by showing how shortages vary by geography.

Rental Stock by Region

Rental markets are constrained for ELI renters across the four census regions despite substantial variation in the availability of affordable rental units.[42] Exhibit 2-10 illustrates that the Midwest had the best availability in 2019, with 80 units per 100 VLI renter households. The West was worst off, with fewer than 44 units per 100 VLI renter households, compared with 64 units for the South and 63 for the Northeast. For ELI renters, the availability of affordable units was far from adequate in any region. Even low-income renters with incomes up to 80 percent of AMI found that not enough affordable units were available in the West and Northeast.

Exhibit 2-10. Rental Housing Stock Was Insufficient for Extremely Low-Income Renters Across All Regions in 2019

Region and Renter Income Category	Affordable Housing Units per 100 Renters	Affordable and Available Housing Units per 100 Renters	Affordable, Available, and Adequate Housing Units per 100 Renters
Northeast			
Extremely low-income (0–30% AMI)	75.5	46.1	40.9
Very low-income (0–50% AMI)	91.9	62.9	56.2
Low-income (0–80% AMI)	125.8	92.8	82.4

(continued)

[42] For renters who could afford rents no greater than the FMR, appendix B, exhibit B-3 reveals that although enough affordable units existed in each region, the number of available units in each region was sufficient to house only 76 to 85 percent of those renters. For renters who attempt to find a unit with a housing choice voucher, the housing quality standards of that program imply that their success will depend on the prevalence of physically adequate units in their area—not merely affordable and available units. Across regions, there were only enough physically adequate, affordable, and available units to house 71 to 78 percent of renters who could not afford rents higher than FMR.

Exhibit 2-10. Rental Housing Stock Was Insufficient for Extremely Low-Income Renters Across All Regions in 2019 *(continued)*

Region and Renter Income Category	Affordable Housing Units per 100 Renters	Affordable and Available Housing Units per 100 Renters	Affordable, Available, and Adequate Housing Units per 100 Renters
Midwest			
Extremely low-income (0–30% AMI)	77.9	44.2	40.0
Very low-income (0–50% AMI)	128.7	79.7	71.4
Low-income (0–80% AMI)	157.0	110.6	100.6
South			
Extremely low-income (0–30% AMI)	73.0	39.9	34.9
Very low-income (0–50% AMI)	99.0	63.6	54.6
Low-income (0–80% AMI)	141.1	101.2	89.8
West			
Extremely low-income (0–30% AMI)	54.2	31.9	28.3
Very low-income (0–50% AMI)	66.9	44.3	38.9
Low-income (0–80% AMI)	115.9	83.8	75.9

AMI = area median income.
Source: HUD-PD&R tabulations of American Housing Survey data

On a regional basis, adding the adequacy test restricted the estimated supply for VLI renters less in the West, eliminating 5 units, than in the other regions, which lost 7 to 9 units per 100 VLI renter households. Even so, the West retains its regional disadvantage for such renters across all three measures of sufficiency.

The primary point in exhibit 2-10 is that ELI renter households continued to face severely constrained markets across all four regions. The Northeast, Midwest, and South had affordable units available for only two in five ELI renter households, and the West for only one in three.

Rental Stock by Metropolitan Location

Similar analysis of affordable housing supply based on metropolitan status showed market variation in 2019. Exhibit 2-11 demonstrates the primacy of urban areas in terms of severe shortages of affordable units for VLI renter households. As shown in exhibit 2-11, measures of affordability, availability, and adequacy for each income group in central cities and urban suburbs were generally lower than the national summary values presented in exhibit 2-8.

Exhibit 2-11. Rental Housing Stock Was Insufficient for Extremely Low-Income Renters Across All Metropolitan Locations in 2019

Metropolitan Location and Income Category	Affordable Housing Units per 100 Renter Households	Affordable and Available Housing Units per 100 Renter Households	Affordable, Available, and Adequate Housing Units per 100 Renter Households
Central cities			
Extremely low income renters (0–30% AMI)	58.8	37.2	32.6
Very low income renters (0–50% AMI)	86.4	59.8	52.2
Low-income renters (0–80% AMI)	128.3	95.4	85.3
Suburbs, urban			
Extremely low income renters (0–30% AMI)	63.7	36.4	33.0
Very low income renters (0–50% AMI)	83.4	52.9	47.8
Low-income renters (0–80% AMI)	134.4	93.1	85.1

(continued)

Exhibit 2-11. Rental Housing Stock Was Insufficient for Extremely Low-Income Renters Across All Metropolitan Locations in 2019 *(continued)*

Metropolitan Location and Income Category	Affordable Housing Units per 100 Renter Households	Affordable and Available Housing Units per 100 Renter Households	Affordable, Available, and Adequate Housing Units per 100 Renter Households
Suburbs, rural			
Extremely low income renters (0–30% AMI)	102.2	45.5	40.8
Very low income renters (0–50% AMI)	134.7	80.6	70.6
Low-income renters (0–80% AMI)	143.9	104.8	92.9
Nonmetropolitan areas			
Extremely low income renters (0–30% AMI)	108.0	56.7	49.6
Very low income renters (0–50% AMI)	138.4	81.6	70.3
Low-income renters (0–80% AMI)	158.7	110.5	96.0

AMI = area median income.
Source: HUD-PD&R tabulations of American Housing Survey data

Stock in rural suburbs and nonmetropolitan areas was not as constrained as the stock for the nation as a whole. Exhibit 2-11 also highlights severe deficiencies in the availability and adequacy of affordable units in rural areas. Among affordable units to VLI renter households in urban areas, 31 to 36 percent are occupied by higher-income renters.[43] In rural areas, that figure ranges from 40 to 41 percent, suggesting that higher-income renters consume a larger share of the affordable housing stock in rural areas than those who live closer to city centers. This evidence disrupts the notion that the affordable housing crisis could be resolved simply by lower-income renters moving away from cities, and represents a mobility barrier for people who want to move for job opportunities or other reasons. Likewise, a greater share of units had severe quality deficiencies in rural areas, where 12 to 14 percent of affordable units available to very low-income renters are inadequate.[44] These problems are less prevalent in urban areas—affecting 10 to 13 percent of units affordable and available to very low-income renters.

Summary

Worst case needs are commonplace in every region and metropolitan category across the United States. The national total of 7.77 million worst case needs in 2019 is distributed on a regional basis, with 2.79 million households in the South, followed by 2.12 million in the West, 1.51 million in the Northeast, and 1.35 million in the Midwest. Nationwide, 42.2 percent of very low-income renters had worst case needs in 2019, a rate higher than in 2017. Prevalence increased in the West but decreased modestly in the other three regions since 2017. Both the South and West maintained greater-than-average rates of worst case needs in 2019. Urban areas (urban suburbs and central cities) also had greater-than-average prevalence rates and were home to about 83 percent of worst case needs households.

Housing assistance, including HUD-provided assistance, is an important preventer of worst case needs among very low-income renters. Nationwide, 27.5 percent of very low-income renters, or 5.05 million households, reported receiving housing assistance. For every VLI renter household assisted, another 1.5 renter households had worst case needs that could have been mitigated with such assistance.

Steady absorption of unoccupied rental housing stock has reduced overall vacancy rates to consistently less than 10 percent since 2011. With 96 rental units affordable for every 100 VLI renter households nationally, not all such households could find an affordable unit in 2019, even if allocations were perfect among households across the nation (that is, if the lowest rent units were allocated to the lowest income households first). Many fewer affordable units were actually available to renters with the lowest incomes because vacancy rates were lowest for the lowest rent units, and many affordable units were rented to higher-income families. In 2019, the vacancy rate was only 3.9 percent for units affordable at extremely low incomes, compared with 13.0 percent for units affordable at more than 80 percent of AMI.

[43] That is, 26 of the 86 units affordable for every 100 VLI renter households in central cities are not available; the same is true for 30 of 83 affordable units in urban suburbs.

[44] Likewise, Divringi et al. (2019) found that aggregate repair costs were particularly high among single-family rental units, especially older units occupied by renters with incomes at or below the poverty line. Repair needs among those units accounted for about 20 percent of the aggregate estimated repair costs of all renter households in 2018. Those units are disproportionately clustered in nonmetropolitan areas.

The slight expansion of rental stock to meet rental demand between 2017 and 2019 mostly benefited higher-income households, with fewer new units affordable to VLI renter households.

Because of competition for affordable units, when a simple ratio of affordable units per 100 VLI renter households is made more stringent by adding availability as a constraint, the ratio decreases from 96 affordable units to only 62 affordable and available units per 100 VLI renter households, and it decreases from 70 to 40 per 100 ELI renter households. Higher-income families occupied 42.7 percent of units affordable to ELI renter households.

In addition, a substantial proportion of available units are not in adequate physical condition. The number of affordable, available, and adequate units in 2019 was 55 per 100 VLI renter households and only 36 per 100 ELI renter households.

Given the scarcity of affordable, available, and adequate units for the renters with the lowest incomes, the efficacy of housing assistance in preventing worst case needs, and the surplus of units available at higher rent levels, housing vouchers continue to offer an important policy option for addressing the growing problem of worst case needs using the existing housing stock. Provided that physically adequate units with rents within program limits are available on the market, vouchers could reduce worst case needs to the extent that landlords are willing to participate in HUD's voucher program. Increasing landlord participation could improve access to those units among VLI households while also improving voucher utilization rates in places where vouchers are available but difficult to lease up. HUD continues to reach out to landlords and conduct program demonstrations to test incentives for greater landlord participation in HUD's primary rent subsidy program with the aim of making voucher-eligible units more accessible, especially in higher-opportunity neighborhoods.[45]

[45] See https://www.huduser.gov/portal/periodicals/em/winter19/highlight1.html.

Section 3

Understanding the Trend in Worst Case Needs

Section 2 demonstrated that worst case needs are prevalent across the nation because of the limited availability of adequate, affordable rental units relative to the number of very low-income (VLI) renter households who need them. Section 3 elaborates how the changes in the number of rental units, the number of renter households, and rental costs during the 2017-to-2019 period contributed to the prevalence of worst case needs.

In 2019, worst case needs had increased by an estimated 50,000 cases from 2017 levels. The analysis in this section attributes the marginal increase in worst case needs to the ongoing formation of new households while housing assistance underwent a net decline. What could have been a substantial increase was mostly offset by easing the competition for affordable units. The improvement in market conditions experienced by VLI renters fully offset the role of household formation and helped mitigate other demographic factors that tended to increase the number of unassisted VLI renter households. Household incomes among most very low-income renters did not rise enough to exceed the very low-income threshold and shrink the VLI population. Homeownership rates, which have been increasing since 2017, have slightly offset household formation as a force for increasing worst case needs.

Drivers of Affordable Housing Demand

The previous sections of this report have shown that the increase in the number of households with worst case needs reflects both changes in the population vulnerable to worst case needs—unassisted VLI renter households—and changes in the share of those renters experiencing the severe problems that trigger worst case needs. The population of vulnerable renters is primarily affected by demographic factors (including their incomes and, to a small extent, HUD's categorization of their incomes). This population, in turn, substantially determines the demand for affordable housing. The current rate of worst case needs among these vulnerable renters, by contrast, reflects the economic response of the housing market to these demographic changes.

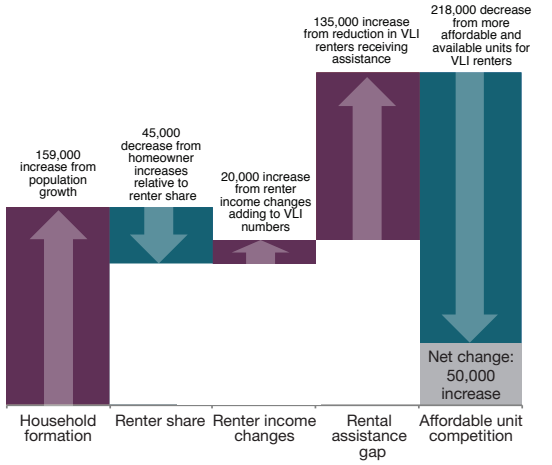
The following analysis sorts out the factors driving the most recent change in worst case needs. First, we distinguish between the effects of population change and the prevalence of worst case needs to estimate their relative importance. Then we identify how much various demographic factors affected the population change.[46]

The population of unassisted VLI renter households increased 3.6 percent between 2017 and 2019, from 12.88 million to 13.33 million. The rate of worst case needs in this population slightly decreased from 42.7 to 42.2 percent during this same period due to income gains among renters with incomes between 30 and 50 percent of AMI.

Based solely on the demographic increase of unassisted VLI renters, we might expect to have recorded a net increase of 268,000 cases of worst case needs. That potential increase was muted, however, by a decrease of 218,000 cases attributable to changes in the prevalence of severe problems (the prevalence effect). The prevalence effect reduced the total potential increase in worst case needs over the 2-year period by about 81 percent. The combined demographic and prevalence effects explain the 50,000 additional cases of worst case needs observed in the AHS in 2019 compared with the number of cases observed in 2017.[47]

The 268,000 increase in worst case needs resulting from demographic shifts can be further broken down into four components, illustrated by the first four columns of exhibit 3-1 and discussed below.[48] The columns of this chart are cascading in the sense that each column begins where the previous one ends.

Exhibit 3-1. Contributions to Worst Case Needs from Household Formation and the Rental Assistance Gap were Offset by Less Competition for Affordable Units from 2017 to 2019



Source: HUD PD&R tabulations of American Housing Survey data

1. **Household formation.** The nation added 2.6 million new households between 2017 and 2019, to which we attribute a proportional increase of 159,000 cases of worst case needs. The household formation growth rate was 2.1 percent during this 2-year period, exceeding the average biennial increase of 1.9 percent since 2007 as measured by the AHS.

2. **Renter share of households.** A decline in renters' share of households accounts for a reduction of worst case needs by 45,000 cases, diminishing the effect of new household formation. The homeownership rate increased slightly from 63.8 percent in 2017 to 64.0 percent in 2019.[49] Such growth contrasts sharply with the 9.1-percent increase in renter households between 2013 and 2015 and biennial increases in renter households averaging 4.5 percent since 2007.

3. **Renter income changes.** Income losses and shifts in the income distribution affecting the very low-income

[46] Any analysis of survey data faces limitations from both sampling error and non-sampling error. Such errors are compounded when multiple survey years are compared. This analysis takes the AHS estimates at face value, but the reader should recognize that multiple sources of potential error exist.

[47] The demographic effect equals the new prevalence rate times the numerical increase (or decrease) in renters, and the prevalence effect is the increase (or decrease) in the prevalence rate times the baseline number of renters.

[48] Demographic components shown in the chart sum to 269,000 rather than 268,000 because of rounding.

[49] These are AHS estimates. Annual homeownership estimates based on the Current Population Survey/Housing Vacancy Survey were 63.9 percent for 2017, 64.6 percent for 2019, and 66.6 percent for 2020.

category account for a small 20,000-case rise of worst case needs. The number of renters with very low incomes increased by 321,000, or 1.8 percent, in 2019. That biennial increment limits the average biennial change since 2009 to a 2.6-percent increase.[50] Simultaneously, the population of renters with higher incomes grew by 1.3 percent between 2017 and 2019. In other words, a growing population of higher-income households was competing with the population of VLI renter households for available rental units in 2019.[51]

4. **Rental assistance gap.** Moderation of the rental assistance gap accounts for an increase of worst case needs by 135,000 cases. The number of unassisted VLI renter households increased by 459,000 during the 2017-to-2019 period; those who reported assistance decreased by 138,000 even as numbers of VLI renter households expanded. The 3.6-percent increase in the number of unassisted VLI renter households between 2017 and 2019 was greater than the average biennial increases of 2.6 percent over the past decade (2009 to 2019).

This analysis shows that the offsetting demographic factors that resulted in the net increase in the population of unassisted very low-income renters would have accounted for an increase of worst case needs by 268,000 between 2017 and 2019 absent other factors. The housing market, however, blunted the potential increase in severe housing problems. The fifth column of exhibit 3-1, labeled "Affordable unit competition," represents the extent to which the market responded to quantitative changes in demand for VLI-affordable rental units. The column's size and downward direction show that a nearly proportionate market response (218,000 units) offset much of the 268,000 incremental mismatches between affordable units and unassisted VLI renters who need them. As a result, net additions to worst case needs between 2017 and 2019 were limited to only 50,000, as unassisted renter households faced a lower prevalence of severe housing problems—42.2 percent in 2019 compared with 42.7 percent in 2017—because of modestly improved availability of affordable units. Beneficial market responses to growing quantitative demand for affordable units result primarily from the construction of affordably priced units and reductions in rents (known as filtering down) of surplus or aging higher-rent units. Indeed, an average of 286,000 completed, unfurnished rental apartments were absorbed into the market during 2017 and 2018, a pace not seen since 1988.[52] The next section further explores such market factors.

Other Factors Affecting Affordable Housing Supply and Demand

Exhibit 2-9 showed that the availability of affordable rental units slightly eased during the 2017-to-2019 period. Such affordability metrics are affected by multiple demographic and market factors. Some additional data, including key numbers underlying the changes in available unit ratios, will shed light on the issue.

Exhibit 3-2 examines the factors responsible for the change in the availability of affordable units. AHS data show an increase of 515,000 (1.1 percent) in the total number of rental units between 2017 and 2019 (exhibit A-13). This increase slightly lagged the 664,000 new renter households that were added during the same period as the various income groups expanded at similar rates.

Exhibit 3-2. Changes in Affordable Rental Housing Availability Were Driven by Income Gains Among Renters That Outpaced Rising Costs, 2017 to 2019

	Extremely Low-Income (0–30% AMI)	Very Low-Income (0–50% AMI)	Low-Income (0–80% AMI)	Total[a]
Cumulative affordable & available rental units (thousands)				
2017	4,595	10,661	26,014	48,820
2019	4,732	11,432	26,441	49,335
Percent change	+3.0	+7.2	+1.6	+1.1

(continued)

[50] Methodological factors are summarized in the sidebar, "Changes in Income Limits and Worst Case Needs."

[51] Higher-income renters have accounted for a growing share of renters in recent years. As a percentage of renter households, VLI renters decreased from a high of 49.6 percent in 2011 to 41.2 percent in 2019.

[52] See "Unfurnished Rental Apartments–Completed." https://www.huduser.gov/portal/ushmc/hd_mul_fam.html.

Exhibit 3-2. Changes in Affordable Rental Housing Availability Were Driven by Income Gains Among Renters That Outpaced Rising Costs, 2017 to 2019 *(continued)*

	Extremely Low-Income (0–30% AMI)	Very Low-Income (0–50% AMI)	Low-Income (0–80% AMI)	Total[a]
Cumulative households (thousands)				
2017	11,548	18,067	26,704	43,993
2019	11,748	18,388	27,174	44,660
Percent change	+1.7	+1.8	+1.8	+1.5
Income limit (median, current dollars)				
2017	19,800	29,400	47,000	—
2019	21,330	32,250	51,600	—
Percent change	+7.7	+9.7	+9.8	—
Median household income (all renters, current dollars)				
2017	—	—	—	36,100
2019	—	—	—	40,000
Percent change	—	—	—	+10.8
Median monthly housing cost (all renters, current dollars)				
2017	—	—	—	991
2019	—	—	—	1,071
Percent change	—	—	—	+8.1

AMI = area median income.
[a] Total represents all units or renters, not the sum of the cumulative income categories.
Source: HUD PD&R tabulations of American Housing Survey data

In 2019, as in most years, both supply and demand factors were influential in the extent of worst case needs. Some of those trends are promising, and others reflect ongoing challenges. Median renter incomes increased by 10.8 percent between 2017 and 2019, as a strengthening economy sustained the trend of income gains following the recession.[53] Rising incomes among renter households could translate into increased ability to bid for housing of greater quality. Higher incomes also provide greater resources to consume non-housing necessities. Either effect can mitigate the risk and consequences of severe housing problems—provided that growing housing costs do not consume income gains.

Rising renter incomes may occur due to more renters deferring home purchases. However, home purchase is typically quite difficult for VLI renters. By the end of 2019, house prices had fully recovered to pre-Great Recession levels. There was limited availability of entry-level homes for purchase compared to homes at higher price points.[54]

Nevertheless, the increase of 771,000 rental units affordable and available to VLI renters exceeded the increase of 321,000 VLI renter households. As incomes increased and were perceived as stable during the economic recovery, higher-income renters were increasingly able to move out of VLI-affordable units in favor of better-quality units, thus increasing availability ratios. For ELI renters, however, the increase of affordable and available units by 137,000 was mostly offset by an increase of 200,000 renter households in this group.

Renters overall benefited from modestly improved housing supply and growing incomes during 2017 to 2019, so that rents did not increase as much as renter incomes. Yet housing problems worsened for ELI renters, who faced disadvantages in rates of both income growth and rent growth during this period. This disparity is revealed by examining data from exhibits 3-2 and A-14:

[53] The median renter household's income placed it in the VLI category in 2011 but in the low-income category in subsequent years.

[54] See "National Housing Market Summary: 4th Quarter 2019." https://www.huduser.gov/portal/sites/default/files/pdf/NationalSummary_4Q19.pdf.

- The median change in renter income of 10.8 percent between 2017 and 2019 was exceeded by the mean change of 13 percent.[55] Households with incomes exceeding 120 percent of AMI experienced gains of 17 percent, but ELI renters experienced gains of only 4 percent—which was less than one-half that of any other income group.

- Median housing costs for renters increased by 8.1 percent between 2017 and 2019, building on a similar increase in the prior period.[56] The mean change in housing costs was 9.1 percent among all renter households. For the ELI renter subgroup, however, housing costs increased by 12 percent during the 2-year period.

As a result, ELI renters' housing costs increased almost three times faster than their incomes from 2017 to 2019. This growing financial challenge explains why the prevalence of severe problems among ELI renters increased from 48.1 percent in 2017 to 49.2 percent in 2019, approaching half of all cases. As a result, ELI renters increased their share of worst case needs to 74 percent in 2019—a proportion not seen since 2005.

CHANGES IN INCOME LIMITS AND WORST CASE NEEDS

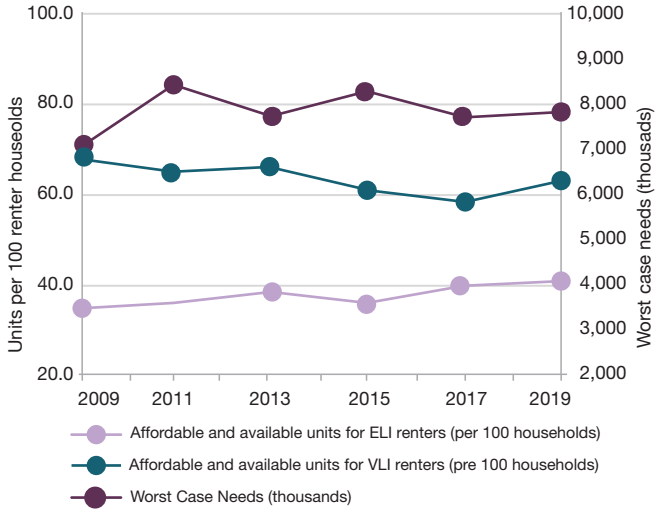
A minimal portion of the population change in renters with extremely low and very low incomes between 2017 and 2019, and of those with worst case needs, is explained by a shift in income limits. HUD calculates income limits on the basis of area median family incomes, which include both owners and renters, and then uses the income limits to define the boundaries of the extremely low-, very low-, and low-income categories.

Exhibit 3-2 shows that, across the nation, the income limits defining each income category increased roughly in proportion to increases in AMI between 2017 and 2019. The greatest income qualifying as extremely low income increased by $1,530. The greatest income qualifying as very low income increased by $2,850. As a result of the higher thresholds, additional households were captured within the extremely low-income and very low-income categories in 2019.

In addition to experiencing housing problems with growing frequency, ELI renter households increased in number from 2017 to 2019. These trends suggest that ELI renter households may have been isolated from the benefits of a growing economy—for example, because of fixed incomes associated with disability or advanced age. For such households, few paths of escape exist from the severe shortage of affordable and available housing.

Another critical element to improvement in worst case needs over time, however, is improving the access VLI renter households have to an adequate supply of affordable rental units. Exhibit 3-3 presents how the market for rental units affordable to VLI households has responded to demand trends over the past 10 years.

Exhibit 3-3. Trends in Housing Supply Mismatch and Worst Case Needs, 2009–2019



ELI = extremely low-income. VLI = very low-income.
Source: HUD PD&R tabulations of American Housing Survey data

In most instances, increases in worst case needs were also accompanied by declines in the national supply of units affordable to VLI renters. Despite a modest increase in demand between 2017 and 2019, VLI renter households found more affordable units available. The potential benefits of this more abundant supply for worst case needs were constrained by the lack of significant improvement in the affordable-and-available ratio for ELI renters, who account for most instances of worst case needs.

In short, the effect of weak growth in the rental supply and strong competition for available rental units from higher-

[55] Median values are less likely than mean or average values to show the effect of extremes at the end of the distribution. Such extremes, or disparities, affect both the income and the housing cost distributions.

[56] Those housing costs include rent, utilities, property insurance, land rent, and association fees but exclude any separate security deposit or parking fees.

income renters is displayed most acutely in the availability of units affordable to renters with incomes at and below 30 percent of AMI. Although higher-income renters may be unlikely to compete for the units with the very cheapest rents because of their quality deficiencies, the competition for marginally higher tiers of units both reduces availability directly and causes rents to increase. If renters with incomes at and below 30 percent of AMI had access to an adequate supply of affordable rental units during the biennial period, we might have seen a substantial decrease in worst case needs nationally. Therefore, supplying a range of rental and homeownership options to households with both lower and higher incomes is important to sustaining the downward trend in worst case needs seen between 2017 and 2019.

Concluding Summary

Amid the strong U.S. economy of 2019, the number of worst case needs modestly worsened, adding 50,000 cases to the 2017 number to reach 7.76 million. An analysis decomposing demographic and market factors indicates that the demographic factors affecting the number of unassisted VLI renter households had the potential to exacerbate worst case needs by 268,000—had the market supply of affordable rental units not slightly improved, causing the prevalence rate of worst case needs to decrease among renters with incomes between 30 and 50 percent of AMI.

Of the four demographic factors, the national household formation would have been expected to increase worst case needs by 159,000 cases. A shift from renting to homeownership diminished that effect by an estimated 45,000 cases. Deterioration in renter incomes modestly increased worst case needs by 20,000 cases. A widening of the rental assistance gap accounted for an increase of 135,000.

However, the market response to those unfavorable demographic trends undercut the national increase in worst case needs. The total supply of rental units increased slightly more between 2017 and 2019 than during the previous biennial period, adding 515,000 units, or 1.1 percent. The total renter population also grew more slowly between 2017 and 2019, moderated somewhat by a slight improvement in homeownership rates. With vacancy rates highest among the most expensive units and in some segments continuing to increase, the number of rental units affordable and available to VLI renter households increased by 771,000 units (more than 7 percent) as the VLI renter household population increased by 321,000 households (almost 2 percent). This pattern in supply growth was mimicked in renter income changes, with median income growing more sharply for renter households overall (10.8 percent) than the median income threshold for VLI renter households (9.7 percent). Further, renters' housing costs continued to rapidly escalate—the 8.1-percent increase in median monthly housing costs for renter households outpaced the 7.5-percent increase in costs during the previous 2 years.

Changes in renters' incomes and housing costs were not uniform across the income distribution. Although the mean change in renter income during 2017 to 2019 was 13 percent, incomes increased by 17 percent among those with incomes exceeding 120 percent of AMI, but only by 4 percent among those with incomes below 30 percent of AMI. Simultaneously, mean housing costs of renters increased by 9.1 percent as the lowest-income subgroup, ELI renters, saw 12 percent increases in housing costs—triple their average income increase. These dual disparities in income changes and rent changes explain why the prevalence of worst case needs among ELI renters increased from 48.1 percent in 2017 to 49.2 percent in 2019.

Worst case housing needs are a national problem with variations in severity across both demographic and geographic dimensions. Worst case needs expanded dramatically as a result of the Great Recession and associated collapse of the housing market, which reduced homeownership through foreclosures and increased demand for renting. During the 10-year economic recovery, 2009 to 2019, worst case needs continued to persist at high levels. Renter income gains in recent years have been offset by rent increases because of limited production of affordable rental units. Even with public rental assistance, 6 of 10 ELI renter households and 4 of 10 VLI renter households do not have access to affordable and available housing units. In 2019, there were 1.5 VLI renter households with worst case needs for every VLI renter household with rental assistance. Based on the most recent evidence of the 2019 AHS, modest easing of the shortage of affordable homes offset otherwise unfavorable demographic trends and helped limit increases in national levels of severe housing problems as the economy improved.

Within a growing economy that substantially benefits low-income households, a broad strategy at the federal, state, and local levels is needed to continue to support market production and access to affordable homes and provide assistance to those families most in need. With the expected impact of the COVID-19 pandemic and associated economic difficulties in 2020 and 2021, worst case housing needs have the potential to increase substantially before HUD's next report, as explored in the following Special Addendum. A comprehensive approach to housing policy is sorely needed to address the long-standing and evolving challenge of worst case housing needs.

Special Addendum

The Potential Effect of the COVID Pandemic on Worst Case Needs

This report on the nation's worst case housing needs is based primarily on American Housing Survey (AHS) data collected in 2019 before the novel coronavirus set off a major COVID-19 pandemic early in 2020. The pandemic caused extensive economic disruption, recessionary contraction,[57] and job losses that ordinarily would be expected to increase worst case needs estimates beyond these 2019 levels. HUD anticipates that future estimates of worst case needs captured in the 2021 AHS will reflect the pandemic's impact.[58] There is cause to question, however, both how extensively worst case needs will change and how reliably the AHS will capture such needs. This section discusses factors that influence the answers.

Economic Implications of the Pandemic

Economic downturns can increase worst case needs simply by making very low incomes more prevalent among renter households or through other mechanisms. The Great Recession of 2007 to 2009 was followed by a lengthy recovery that saw large increases in worst case needs. In the years leading up to the recession, relaxed housing finance terms, aggressive and risky subprime mortgage lending, and rapidly growing home prices had induced many lower-income renters to finance home purchases under terms they could not sustain. Such factors contributed to a near-collapse of financial markets, falling house prices, sudden restrictions on mortgage capital, unemployment, and extremely high levels of mortgage defaults and foreclosures that forced many homeowners to become renters (HUD-PD&R, 2010). This tenure shift away from homeownership greatly increased market demand pressure on the relatively fixed rental stock and drove up market rents, even as economic conditions further depressed the incomes of renter households and slowed housing

[57] The National Bureau of Economic Research dates the recession from the peak of the business cycle in February 2020 and has not yet noted a trough at the time of this writing in March 2021 (https://www.nber.org/research/data/us-business-cycle-expansions-and-contractions).

[58] The 2021 AHS data collection will occur from May to September, 2021 (https://www.census.gov/programs-surveys/ahs/about/respondent-information.html).

construction. Under the influence of these multiple forces, the number of renter households increased by 11 percent, and the number of very low-income renters increased by 21 percent between 2007 and 2011. Worst case housing needs reached their historical peak in the same year, 2011, at 43 percent above their 2007 level.

The COVID-19 pandemic, however, has very different causes and likely effects. Evidence suggests that social distancing during the pandemic and record low mortgage interest rates have motivated strong demand for homeownership. Home sales volumes and prices are substantially higher at the beginning of 2021 than they were a year earlier (HUD-PD&R, 2021). The move toward homeownership among renter households with income stability is the opposite of consumer reactions during the Great Recession and can dampen future rent increases. Homeownership, however, is difficult for very low-income renters to attain even with record-low mortgage interest rates, so negative impacts to their incomes may make their rental costs less affordable.

The labor market received its greatest shock from the pandemic when mandatory social distancing restrictions imposed during April 2020 increased the unemployment rate to 14.3 percent, more than four times the 3.5 percent rate 2 months earlier in February (BLS, 2021a). Aggregate wage and salary income in the second quarter of 2020 was down 7 percent from the first quarter, representing $617 billion of lost household income (BEA, 2021a). The sharpest declines in employment were recorded in the least telework-friendly industries: leisure and hospitality, retail trade, construction, transportation and warehousing, and manufacturing (Dalton, 2020).

After social distancing restrictions eased, the unemployment picture improved substantially in the second half of 2020. By January 2021, the official unemployment rate had improved to 6.3 percent (still almost double pre-pandemic levels). More than 4 million people, however, had left the labor force during the previous 12 months; if they remained in the labor force despite being unemployed in January 2021, then the unemployment rate would be 8.8 percent. In January 2021, 5.7 percent of the workforce was unable to work at some point in the last 4 weeks because their employers closed or lost business due to the coronavirus pandemic, and 87.3 percent of these workers received no pay for the time not working (BLS, 2021b).

Although the generosity of unemployment insurance benefits varies substantially across states, in the first quarter of 2020, unemployment insurance replaced about 45 percent of wages on average or about $374 (38 percent) of $972 weekly earnings.[59]

Such shocks to household finances leave many renter households unable to pay their rent and utilities. Lease violations for non-payment of rent become grounds for eviction and possible homelessness. Additionally, major drops in rent revenues prevent many landlords from servicing their mortgages and can lead to foreclosure and later eviction.

Federal Pandemic Relief Legislation

Congress passed three major rounds of federal legislation in response to the pandemic that provides direct or indirect support for housing stability associated with income losses or housing cost difficulties. The fiscal provisions highlighted below can affect growth in the number of very low-income households and the prevalence of severe housing problems that cause worst case housing needs.

Coronavirus Aid, Relief, and Economic Security Act (CARES Act, Pub.L. 116–136). Enacted in March 2020, the act provided $2.2 trillion of economic relief and stimulus, including these household benefits that could affect housing affordability:

- Provided direct Economic Impact Payments of up to $1,200 per income-eligible adult and $500 per child.
- Increased unemployment benefits by an additional $600 per week for 4 months.

Consolidated Appropriations Act of 2021 (Pub.L. 116–260). Enacted in December 2020, the act included a COVID-19 relief bill totaling $868 billion that:

- Provided direct payments as Recovery Rebates of up to $600 per income-eligible adult or child.
- Restored the increase of unemployment benefits at the level of $300 per week and extended the maximum period for collecting unemployment benefits to 50 weeks.
- Established a $25 billion Emergency Rental Assistance (ERA) program for states administered by the U.S. Department of Treasury.

American Rescue Plan Act (Pub.L. 117–2). Enacted on March 11, 2021, the act provided an additional $1.9 trillion of federal relief which:

- Provided direct payments as Recovery Rebates of up to $1,400 per income-eligible adult or child.
- Extended increased unemployment benefits, including the additional $300 weekly, through September 6, 2021.

[59] Weekly earnings are based on 40 hours at the normal hourly wage (DOL, ETA, 2020).

- Expanded the Child Tax Credit for the 2021 tax year by increasing the maximum amount from $2,000 to $3,000, or $3,600 for children under age 6, made children aged 17 eligible for the tax credit, made the tax credit refundable, and provided for distribution through monthly advance payments on the basis of 2019 or 2020 tax returns.
- Expanded the Child and Dependent Care Credit for the 2021 tax year by increasing the amount of eligible expenses that may be used to calculate it, increased the credit rate from 35 to 50 percent, made the tax credit refundable, and increased the income phase-out.
- Expanded the Earned Income Tax Credit for the 2021 tax year by basing the credit on the higher of 2019 or 2021 income, raised the income phase-out level, and increased the benefit for childless households from $543 to $1,502.
- Provided $21.55 billion of funding for Emergency Rental Assistance and additional amounts for mortgage assistance and homelessness prevention.

The various subsidies or transfers provided through the pandemic relief acts have had a substantial impact on household incomes. Aggregate personal income in the U.S. reached $21.45 trillion in January 2021, up $1.14 trillion from a year earlier. Transfer income accounted for $5.78 trillion of the January total, including pandemic relief transfers of $1.96 trillion in economic impact payments to individuals and $570 billion in other relief (BEA, 2021b).[60]

Eviction Moratoria

In addition to providing financial relief, the CARES Act established a moratorium on eviction, dating from March 17, 2020, from any property with a federally backed mortgage loan. The law did not prevent eviction, however, for violating lease terms other than nonpayment of rent or other fees, penalties, and charges. Numerous federal agencies, including HUD's Federal Housing Administration, issued moratoria to implement the law. The Urban Institute estimated that these federal eviction moratoria cover 12.4 percent of rental units in single-family (one-to-four-unit) properties and 48.9 percent of rental units in multifamily properties, totaling 12.3 million units (Urban Institute, 2020).

Numerous states also issued eviction moratoria in March or April 2020 to cover properties not covered by federal mortgages; many state moratoria expired within a few months (Benfer et al., 2020).

On September 4, 2020, the Centers for Disease Control and Prevention (CDC) issued a national moratorium on eviction as a public health measure. The moratorium was subsequently extended through June 30, 2021 (CDC, 2021).

What Percentage of Renter Households Are Behind on Rent During the Pandemic?

In addition to direct Economic Impact Payments, some households have received short-term rental assistance through state and local governments to mitigate income lost through the pandemic. The Emergency Rental Assistance program will provide significant additional funding to state and local governments to fully or partially reimburse landlords who face rent arrears.

To track the rapidly evolving situation during the pandemic, the Census Bureau developed a frequently administered survey (Pulse Survey) with the guidance of HUD and other federal agencies. The Pulse data show that housing problems have grown among renter households during the pandemic. In exhibit SA-1, the number of renter households who were behind on housing payments was already 6.5 million by late August 2020 and increased another 1.3 million by the end of January 2021.

[60] These personal transfer receipts do not include proprietor income such as the Paycheck Protection program.

Exhibit SA-1. Circumstances of Renter Households During the COVID-19 Pandemic

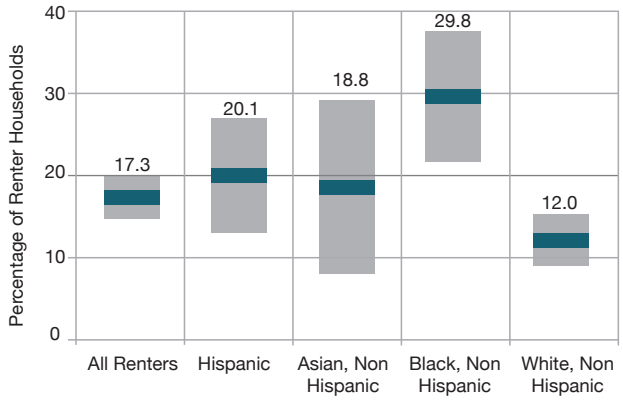
Renter households reporting specified circumstances (millions)	Week 13 (Aug. 19–31, 2020)	Week 17 (Oct. 14–26, 2020)	Week 21 (Dec. 9–21, 2020)	Week 23 (Jan. 20–Feb. 1, 2021)	Week 25 (Feb. 17–Mar. 1, 2021)
Behind on payment	6.48	6.84	8.24	7.75	7.73
Not at all confident in ability to pay rent on time	4.83	4.74	6.48	5.41	5.40
Behind on payments and eviction is "very likely" in the next 2 months	1.15	1.03	1.46	1.22	1.58
Behind on payments and eviction is "somewhat likely" in the next 2 months	1.91	1.96	2.83	2.38	2.26

Source: HUD PD&R tabulations of Phase 2 Pulse Survey data

As of late February 2021, an estimated 3.84 million renter households report that eviction was either "very likely" (1.58 million) or "somewhat likely" (2.26 million) in the next 2 months. The total figure is equivalent to almost half (49 percent) of the number of households with worst case needs in 2019.

The Pulse data also suggest that rental housing difficulties are not distributed uniformly. Point estimates of the mean percentage of renters behind on rent range from a low of 12.0 percent for non-Hispanic Whites to 29.8 percent for non-Hispanic Blacks. Where the 90-percent confidence intervals overlap, however, such differences do not meet the threshold for statistical significance.

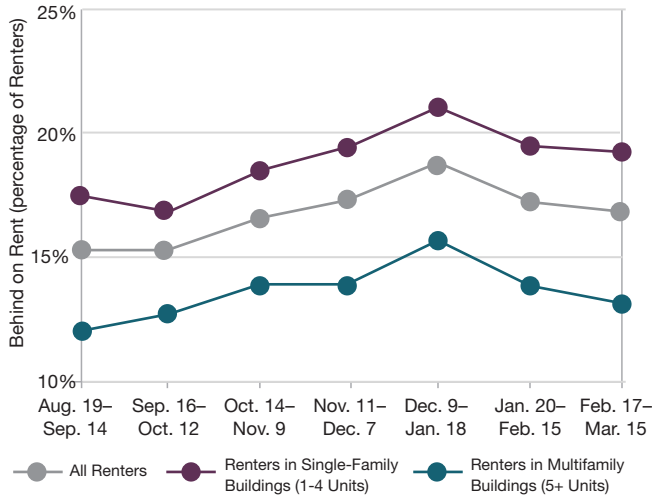
Exhibit SA-2. Percentage of Renters Behind on Rent by Race and Ethnicity, with 90 Percent Confidence Intervals, Jan. 20–Feb. 17, 2021



Source: HUD PD&R tabulations of Pulse Survey, weeks 23–25, Jan. 20–Feb. 17, 2021

The Pulse data also show (exhibit SA-3) that renters who live in single-family homes—about 50 percent of the occupied rental stock—are more likely to be behind on rent than those who live in multifamily buildings.

Exhibit SA-3. Percentage of Renter Households Behind on Rent, by Structure Type of Housing, August 2020 to March 2021



Source: U.S. Census Bureau, Pulse Survey, weeks 13–26 (pooled)

In addition to being less likely to be behind on rent, rent problems among households in multifamily properties increased more slowly through the end of the year and were resolved more quickly after the Department of Treasury issued stimulus payments in early January. The reason for such differences by structure type is not clear. One possibility is that individual owners of single-family properties might be more tolerant of delinquent rent than professional managers of larger multifamily properties. AHS data do not show clear patterns of either higher rents or more prevalent severe rent burdens among renters in single-family versus multifamily properties that might explain the disparity (U.S. Census Bureau, n.d.).

Data from another national survey conducted by the Consumer Finance Institute at the Federal Reserve Bank of Philadelphia, however, suggest that landlord characteristics do indeed play a significant role. Among renters who had

missed payments as of early January 2021, 79.9 percent reported reaching an agreement with their landlord to either pay a lump sum at a later date (37.6 percent), pay the back rent over time (40.3 percent), or have the back rent forgiven (6.7 percent). Only 34.2 percent of those who negotiated with their landlord, however, made the agreement in writing. The last 20.1 percent of renters missed payments without even a verbal agreement, placing them at risk of future legal action (Akana, 2021).

Federal pandemic relief payments made a significant contribution to household budgets and to rent. In the Pulse survey of late February 2021, of an estimated 31.4 million individuals who received a stimulus payment during the preceding 7 days and mostly spent it, 7.7 million spent it on rent (U.S. Census Bureau, 2021). Another 13.8 million spent it on utilities and telecommunications, although this total includes homeowners.

How Well Will the AHS Measure Pandemic Effects in 2021?

HUD and the Census Bureau are implementing eviction questions in the 2021 AHS similar to those used in the Pulse Survey. The AHS longitudinal design, which revisits the same housing units every 2 years, is not ideal for measuring eviction problems that may develop over shorter intervals. The AHS data may prove useful, however, in assessing the extent of housing instability associated with the severe housing problems that compose worst case needs or with household characteristics.

The federal eviction moratoria, as well as various local moratoria, enabled numerous renters to skip rent payments for a period that extends into 2021, but at present, such moratoria have not canceled obligations to pay back rent. Provided they can avoid foreclosure triggered by diminished rental income, landlords may have three main options:

- Landlords might evict the tenants with unpaid rent and lease the unit to a new tenant.
- Landlords might be reimbursed in part or in full for unpaid rent revenues by the Emergency Rental Assistance program or other sources.
- Landlords might work out formal or informal arrangements with existing tenants to repay back rent over time.

It is not clear whether these unusual income sources, deferred or cancelled rent obligations, and subsequent evictions or other housing disruptions will be captured accurately by the AHS or result in major increases in worst case needs for 2021. The impacts of employment and potential eviction may be substantially offset by pandemic relief that is not fully measured by the AHS.

The AHS measures income for the 12 months preceding the interview for everyone age 16 and older who currently lives in the housing unit. “Money income” is the income received on a regular basis before paying personal income taxes, social security, union dues, Medicare deductions, etc. (Census-HUD 2019). Because of this definition of income, lump-sum transfer payments such as the economic impact payments provided by the three relief bills will not be counted as income in the AHS questionnaire. AHS pre-tax income also would not capture increases to household income from tax expenditures such as the child tax credit or tax code changes that increase the household’s tax deduction. Although the AHS questionnaire does not capture such income sources, they probably could be approximated fairly accurately afterward in regard to these pandemic responses.

Exhibit SA-4 examines how the money income of a hypothetical four-person household with extremely low income might be measured by the AHS, and how post-tax income differs (shown in brackets).

Exhibit SA-4. How Pandemic Relief Benefits Could End the Worst Case Needs Status of a Four-Person Extremely Low-Income Renter Household Participating in a mid-2021 American Housing Survey Interview

Sources of Money Income and Transfers	Without Pandemic Conditions or Relief	With Pandemic Conditions and Relief
Earned income (two workers with full-time minimum wage)	$29,580	$0
Unemployment Insurance Payments (38% of base earnings plus $300/week per worker through Sep.6, 2021)	$0	$35,240
Direct Payments, rounds 2 and 3: $600+$1400 per person times 4	$0	[$8,000]
Earned Income Tax Credit[61]	[$5,980]	[$5,980]
Child Tax Credit (two children, one <6 yrs)	[$4,000]	[$6,600]
Child and Dependent Care Credit (35% of $20,000; assume childcare needed when working)	[$7,000]	N/A
Pre-tax money income counted by AHS	$29,580	$35,240
Post-tax income	[$46,560]	[$47,820]
Housing Cost Burden of $1,250 gross rent relative to pre-tax money income measured by AHS	50.7%	42.6%
Housing Cost Burden of $1,250 gross rent relative to post-tax income	32.2%	31.4%

AHS = American Housing Survey. NA = not applicable.
Note: Values in brackets [ ] are not counted as money income in the American Housing Survey.

Because disbursements for direct payments and child tax credits are post-tax income and are not regularly received, the AHS will not include them as income. Nevertheless, enhanced unemployment insurance alone might be sufficient to increase household income enough to eliminate a severe cost burden or to raise an extremely low- or very low-income household to a higher income category. On the other hand, households might lose substantial income if workers become unemployed in states with less generous unemployment benefits. Either way, numbers of worst case needs can change readily because the number of very low-income renters changes or because their housing cost burdens may change relative to the 50 percent-of-income threshold for severe burden.

Summary

The impacts of the COVID-19 pandemic on the economy and housing market have rivaled those of major recessions. Had Congress not passed multiple stimulus acts in 2020 and early 2021, major increases in worst case housing needs during 2021 clearly would be unavoidable. Increased risk of foreclosures and evictions, increased numbers of renters with incomes below the very low-income threshold, and increased financial stresses on landlords almost certainly would worsen every component of the worst case needs measure.

As discussed in this analysis, however, the legislative response has been remarkable in its scope and scale. The numerous direct and indirect federal benefits for low-income households, for the most part, are not benefits that are readily measured by a survey such as AHS that focuses on pre-tax income. It is possible, although not likely, that some of the direct benefits such as enhanced unemployment insurance could improve the financial conditions of some low-wage working households enough that they could even escape very low-income status. Additionally, households who become new recipients of the emergency housing vouchers funded through 2023 would not be recorded as having worst case needs should they appear in the AHS sample.

All told, there is little clarity about how the pandemic and the policy response will play out for vulnerable rental households and the measurement of worst case needs. Nevertheless, the housing crisis is as real as the health crisis for those most immediately affected. HUD and partners of all types must remain diligent to avoid housing calamity in the coming months and address the underlying affordable housing crisis over the longer term.

[61] EITC information is found at https://www.irs.gov/credits-deductions/individuals/earned-income-tax-credit/earned-income-and-earned-income-tax-credit-eitc-tables#EITC%20Tables.

APPENDIX A

Detailed Data on Housing Problems and Supply of Affordable Housing

Exhibit A-8. Housing Problems and Characteristics of Extremely Low-Income Worst Case Renters by Household Type, 2019

Exhibit A-9. Prevalence of Housing Problems Among Very Low-Income Renters by Race and Ethnicity, 2017 and 2019—Number and Percentage

Exhibit A-10. Prevalence of Housing Problems Among Very Low-Income Renters by Region, 2017 and 2019—Number and Percentage

Exhibit A-11A. Prevalence of Housing Problems Among Very Low-Income Renters by Metropolitan Location, 2017 and 2019—Number and Percentage

Exhibit A-11B. Housing Conditions of Renter Households by Relative Income, Sampled Metropolitan Areas, 2017 and 2019

Exhibit A-12. Households Occupying Rental Units by Affordability of Rent and Income of Occupants, 2017 and 2019

Exhibit A-13. Renters and Rental Units Affordable and Available to Them by Relative Income, 2001–2019

Exhibit A-14. Average Income and Average Gross Rent of Renter Households by Relative Income, 2017 and 2019

Exhibit A-15. Housing Conditions of Households Having People Younger Than 62 Who Have Disabilities by Disability Type, 2017 and 2019

The U.S. Census Bureau reviewed this data product for unauthorized disclosure of confidential information and approved the disclosure avoidance practices applied to this release.
CBDRB-FY21-POP001-0037.

Exhibit A-1A. Housing Conditions of Renter Households by Relative Income, 2017 and 2019

	Household Income as Percentage of HUD-Adjusted Area Median Family Income					
2019	**0–30%**	**>30–50%**	**>50–80%**	**>80–120%**	**>120%**	**All Incomes**
Total households (thousands)	**11,748**	**6,640**	**8,786**	**7,583**	**9,902**	**44,659**
Unassisted with severe problems	5,780	1,986	1,013	372	200	9,351
Unassisted with nonsevere problems only	955	2,642	3,805	1,737	1,086	10,225
Unassisted with no problems	1,064	909	3,378	5,206	8,363	18,920
Assisted	3,950	1,103	590	268	253	6,164
Any with severe problems	**7,537**	**2,157**	**1,041**	**380**	**206**	**11,321**
Rent burden >50% of income	7,372	2,064	880	289	133	10,738
Severely inadequate housing	353	131	169	90	73	816
Any with nonsevere problems only	**2,087**	**3,153**	**4,029**	**1,787**	**1,118**	**12,174**
Rent burden >30–50% of income	1,791	3,016	3,510	1,358	616	10,291
Moderately inadequate housing	336	274	479	289	351	1,729
Crowded housing	247	196	314	168	181	1,106
Any with no problems	**2,124**	**1,329**	**3,715**	**5,417**	**8,578**	**21,163**
2017	**0–30%**	**>30–50%**	**>50–80%**	**>80–120%**	**>120%**	**All Incomes**
Total households (thousands)	**11,548**	**6,519**	**8,637**	**7,306**	**9,983**	**43,993**
Unassisted with severe problems	5,555	2,161	973	277	232	9,198
Unassisted with nonsevere problems only	1,049	2,381	3,804	1,768	1,180	10,181
Unassisted with no problems	908	823	3,220	5,003	8,272	18,226
Assisted	4,037	1,154	641	259	298	6,388
Any with severe problems	**7,362**	**2,411**	**1,010**	**286**	**243**	**11,312**
Rent burden >50% of income	7,198	2,300	879	236	144	10,757
Severely inadequate housing	378	156	134	54	104	826
Any with nonsevere problems only	**2,127**	**2,890**	**4,066**	**1,810**	**1,219**	**12,113**
Rent burden >30–50% of income	1,848	2,756	3,541	1,463	607	10,215
Moderately inadequate housing	321	256	433	258	439	1,708
Crowded housing	256	241	376	149	223	1,245
Any with no problems	**2,060**	**1,217**	**3,562**	**5,210**	**8,520**	**20,568**

Source: HUD PD&R tabulations of the American Housing Survey data

Exhibit A-1B. Housing Conditions of Owner Households by Relative Income, 2017 and 2019

	Household Income as Percentage of HUD-Adjusted Area Median Family Income					
2019	**0–30%**	**>30–50%**	**>50–80%**	**>80–120%**	**>120%**	**All Incomes**
Total households (thousands)	**8,265**	**6,355**	**11,741**	**14,516**	**38,599**	**79,476**
Unassisted with severe problems	5,082	1,772	1,410	764	598	9,626
Unassisted with nonsevere problems only	1,439	2,124	3,581	3,016	3,209	13,369
Unassisted with no problems	1,744	2,459	6,750	10,736	34,793	56,482
Any with severe problems	**5,082**	**1,772**	**1,410**	**764**	**598**	**9,626**
Cost burden >50% of income	4,974	1,722	1,322	626	467	9,111
Severely inadequate housing	215	58	98	138	133	642
Any with nonsevere problems only	**1,439**	**2,124**	**3,581**	**3,016**	**3,209**	**13,369**
Cost burden >30–50% of income	1,260	1,949	3,155	2,586	2,435	11,385
Moderately inadequate housing	196	188	372	353	610	1,719
Crowded housing	88	78	201	148	219	734
Any with no problems	**1,744**	**2,459**	**6,750**	**10,736**	**34,793**	**56,482**
2017	**0–30%**	**>30–50%**	**>50–80%**	**>80–120%**	**>120%**	**All Incomes**
Total households (thousands)	**7,883**	**6,172**	**10,959**	**13,736**	**38,817**	**77,567**
Unassisted with severe problems	4,829	1,756	1,400	744	667	9,396
Unassisted with nonsevere problems only	1,365	2,125	3,481	3,128	3,353	13,452
Unassisted with no problems	1,689	2,291	6,078	9,864	34,797	54,719
Any with severe problems	**4,829**	**1,756**	**1,400**	**744**	**667**	**9,396**
Cost burden >50% of income	4,742	1,692	1,347	658	527	8,967
Severely inadequate housing	146	78	66	87	141	517
Any with nonsevere problems only	**1,365**	**2,125**	**3,481**	**3,128**	**3,353**	**13,452**
Cost burden >30–50% of income	1,174	1,952	3,136	2,674	2,454	11,391
Moderately inadequate housing	236	220	308	346	750	1,860
Crowded housing	75	64	195	187	186	706
Any with no problems	**1,689**	**2,291**	**6,078**	**9,864**	**34,797**	**54,719**

Source: HUD-PD&R tabulations of the American Housing Survey

Exhibit A-2A. Housing Conditions of Renters and Owners, 2001–2019—Number of Households

	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
Total households (thousands)	**105,435**	**105,868**	**108,901**	**110,719**	**111,861**	**115,076**	**116,032**	**118,290**	**121,560**	**124,135**
Unassisted with severe problems	13,494	13,398	16,142	16,944	19,259	20,717	18,553	18,000	18,594	18,978
Unassisted with nonsevere problems only	19,217	19,790	20,849	22,752	23,225	24,079	22,153	21,672	23,633	23,593
Unassisted with no problems	66,445	66,468	65,362	65,862	64,506	64,983	69,796	73,059	72,945	75,400
Assisted	6,279	6,211	6,547	5,161	4,871	5,298	5,530	5,559	6,388	6,164
Cost burden >50% of income	13,330	13,188	16,433	17,140	19,458	20,781	18,810	18,799	19,724	19,849
Cost burden >30–50% of income	16,923	17,856	19,403	21,153	21,818	22,369	20,884	19,252	21,606	21,676
Severely inadequate housing	2,108	1,971	2,023	1,805	1,866	2,126	1,942	1,500	1,343	1,458
Moderately inadequate housing	4,504	4,311	4,177	3,954	3,884	3,133	3,946	3,907	3,568	3,449
Crowded housing	2,631	2,559	2,621	2,529	2,509	1,923	2,509	1,803	1,951	1,840
Renter households (thousands)	**33,727**	**33,614**	**33,951**	**35,054**	**35,396**	**38,867**	**40,273**	**43,930**	**43,993**	**44,660**
Unassisted with severe problems	5,758	5,887	6,860	6,993	8,085	9,548	8,874	9,651	9,198	9,352
Unassisted with nonsevere problems only	7,283	7,557	7,303	8,445	8,229	9,194	9,233	10,455	10,181	10,225
Unassisted with no problems	14,407	13,958	13,240	14,455	14,211	14,828	16,636	18,265	18,226	18,919
Assisted	6,279	6,211	6,547	5,161	4,871	5,298	5,530	5,559	6,388	6,164
Cost burden >50% of income	6,412	6,477	7,891	7,793	9,000	10,391	9,744	10,988	10,757	10,738
Cost burden >30–50% of income	6,916	7,468	7,502	8,340	8,240	9,124	9,292	10,118	10,215	10,291
Severely inadequate housing	1,168	1,038	1,100	1,073	998	1,204	1,155	828	826	816
Moderately inadequate housing	2,508	2,525	2,542	2,400	2,264	1,830	2,508	2,027	1,708	1,730
Crowded housing	1,658	1,615	1,635	1,511	1,499	1,072	1,652	1,120	1,245	1,106
Owner households (thousands)	**71,708**	**72,254**	**74,950**	**75,665**	**76,465**	**76,209**	**75,759**	**74,360**	**77,567**	**79,475**
Unassisted with severe problems	7,736	7,511	9,282	9,951	11,174	11,169	9,679	8,349	9,396	9,626
Unassisted with nonsevere problems only	11,934	12,233	13,546	14,307	14,996	14,885	12,920	11,217	13,452	13,368
Unassisted with no problems	52,038	52,510	52,122	51,407	50,295	50,155	53,160	54,794	54,719	56,481
Cost burden >50% of income	6,918	6,711	8,542	9,347	10,458	10,390	9,066	7,811	8,967	9,111
Cost burden >30–50% of income	10,007	10,388	11,901	12,813	13,578	13,245	11,592	9,135	11,391	11,385
Severely inadequate housing	940	933	923	732	868	922	787	673	517	642
Moderately inadequate housing	1,996	1,786	1,635	1,554	1,620	1,303	1,438	1,881	1,860	1,719
Crowded housing	973	944	986	1,018	1,010	851	857	683	706	734

Source: HUD-PD&R tabulations of the American Housing Survey

Exhibit A-2B. Housing Conditions of Renters and Owners, 2001–2019—Percentage of Households

	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
Total households	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Unassisted with severe problems	12.8	12.7	14.8	15.3	17.2	18.0	16.0	15.2	15.3	15.3
Unassisted with nonsevere problems only	18.2	18.7	19.1	20.5	20.8	20.9	19.1	18.3	19.4	19.0
Unassisted with no problems	63.0	62.8	60.0	59.5	57.7	56.5	60.2	61.8	60.0	60.7
Assisted	6.0	5.9	6.0	4.7	4.4	4.6	4.8	4.7	5.3	5.0
Cost burden >50% of income	12.6	12.5	15.1	15.5	17.4	18.1	16.2	15.9	16.2	16.0
Cost burden >30–50% of income	16.1	16.9	17.8	19.1	19.5	19.4	18.0	16.3	17.8	17.5
Severely inadequate housing	2.0	1.9	1.9	1.6	1.7	1.8	1.7	1.3	1.1	1.2
Moderately inadequate housing	4.3	4.1	3.8	3.6	3.5	2.7	3.4	3.3	2.9	2.8
Crowded housing	2.5	2.4	2.4	2.3	2.2	1.7	2.2	1.5	1.6	1.5
Renter households	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Unassisted with severe problems	17.1	17.5	20.2	19.9	22.8	24.6	22.0	22.0	20.9	20.9
Unassisted with nonsevere problems only	21.6	22.5	21.5	24.1	23.2	23.7	22.9	23.8	23.1	22.9
Unassisted with no problems	42.7	41.5	39.0	41.2	40.1	38.2	41.3	41.6	41.4	42.4
Assisted	18.6	18.5	19.3	14.7	13.8	13.6	13.7	12.7	14.5	13.8
Cost burden >50% of income	19.0	19.3	23.2	22.2	25.4	26.7	24.2	25.0	24.5	24.0
Cost burden >30–50% of income	20.5	22.2	22.1	23.8	23.3	23.5	23.1	23.0	23.2	23.0
Severely inadequate housing	3.5	3.1	3.2	3.1	2.8	3.1	2.9	1.9	1.9	1.8
Moderately inadequate housing	7.4	7.5	7.5	6.8	6.4	4.7	6.2	4.6	3.9	3.9
Crowded housing	4.9	4.8	4.8	4.3	4.2	2.8	4.1	2.6	2.8	2.5
Owner households	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Unassisted with severe problems	10.8	10.4	12.4	13.2	14.6	14.7	12.8	11.2	12.1	12.1
Unassisted with nonsevere problems only	16.6	16.9	18.1	18.9	19.6	19.5	17.1	15.1	17.3	16.8
Unassisted with no problems	72.6	72.7	69.5	67.9	65.8	65.8	70.2	73.7	70.5	71.1
Cost burden >50% of income	9.6	9.3	11.4	12.4	13.7	13.6	12.0	10.5	11.6	11.5
Cost burden >30–50% of income	14.0	14.4	15.9	16.9	17.8	17.4	15.3	12.3	14.7	14.3
Severely inadequate housing	1.3	1.3	1.2	1.0	1.1	1.2	1.0	0.9	0.7	0.8
Moderately inadequate housing	2.8	2.5	2.2	2.1	2.1	1.7	1.9	2.5	2.4	2.2
Crowded housing	1.4	1.3	1.3	1.3	1.3	1.1	1.1	0.9	0.9	0.9

Source: HUD-PD&R tabulations of the American Housing Survey

Exhibit A-3. Housing Conditions of Unassisted Renter Households by Relative Income, 2017 and 2019

Household Income as Percentage of HUD-Adjusted Area Median Family Income						
2019	**0–30%**	**>30–50%**	**>50–80%**	**>80–120%**	**>120%**	**All Incomes**
Total unassisted households (thousands)	**7,799**	**5,537**	**8,196**	**7,315**	**9,650**	**38,497**
Any with severe problems	**5,780**	**1,986**	**1,013**	**372**	**200**	**9,351**
Rent burden >50% of income	5,672	1,896	863	283	128	8,842
[Rent above FMR]	2,065	1,047	658	280	128	4,178
Severely inadequate housing	247	127	157	89	72	692
Any with nonsevere problems only	**955**	**2,642**	**3,805**	**1,737**	**1,086**	**10,225**
Rent burden >30–50% of income	764	2,541	3,327	1,322	610	8,564
Moderately inadequate housing	213	216	427	278	335	1,469
Crowded housing	175	178	306	165	172	996
Any with no problems	**1,064**	**909**	**3,378**	**5,206**	**8,363**	**18,920**
2017	**0–30%**	**>30–50%**	**>50–80%**	**>80–120%**	**>120%**	**All Incomes**
Total unassisted households (thousands)	**7,511**	**5,365**	**7,997**	**7,048**	**9,685**	**37,605**
Any with severe problems	**5,555**	**2,161**	**973**	**277**	**232**	**9,198**
Rent burden >50% of income	5,453	2,068	856	230	144	8,750
[Rent above FMR]	1,898	1,197	779	223	143	4,240
Severely inadequate housing	266	131	120	52	93	662
Any with nonsevere problems only	**1,049**	**2,381**	**3,804**	**1,768**	**1,180**	**10,181**
Rent burden >30–50% of income	852	2,278	3,333	1,432	598	8,494
Moderately inadequate housing	208	200	406	255	421	1,489
Crowded housing	200	217	336	140	211	1,103
Any with no problems	**908**	**823**	**3,220**	**5,003**	**8,272**	**18,226**

FMR = Fair Market Rent.
Source: HUD-PD&R tabulations of the American Housing Survey

Exhibit A-4. Prevalence of Housing Problems Among Renters by Relative Income, 2017 and 2019

	Number		Percentage	
	2017	2019	2017	2019
Renter households (thousands)	**43,990**	**44,659**	**100.0**	**100.0**
Unassisted with severe problems	9,198	9,351	20.9	20.9
Unassisted with nonsevere problems only	10,180	10,225	23.1	22.9
Unassisted with no problems	18,230	18,920	41.4	42.4
Assisted	6,388	6,164	14.5	13.8
Any with severe problems	**11,310**	**11,321**	**25.7**	**25.3**
Rent burden >50% of income	10,760	10,738	24.5	24.0
Severely inadequate housing	826	816	1.9	1.8
[Rent burden only]	9,748	9,743	22.2	21.8
Any with nonsevere problems only	**12,110**	**12,174**	**27.5**	**27.3**
Rent burden >30–50% of income	10,220	10,291	23.2	23.0
Moderately inadequate housing	1,708	1,729	3.9	3.9
Crowded housing	1,245	1,106	2.8	2.5
[Rent burden only]	9,254	9,402	21.0	21.1
Any with no problems	**20,570**	**21,163**	**46.8**	**47.4**
Income 0-30% HAMFI (thousands)	**11,550**	**11,748**	**100.0**	**100.0**
Unassisted with severe problems	5,555	5,780	48.1	49.2
Unassisted with nonsevere problems only	1,049	955	9.1	8.1
Unassisted with no problems	908	1,064	7.9	9.1
Assisted	4,037	3,950	35.0	33.6
Any with severe problems	**7,362**	**7,537**	**63.7**	**64.2**
Rent burden >50% of income	7,198	7,372	62.3	62.8
Severely inadequate housing	378	353	3.3	3.0
[Rent burden only]	6,406	6,601	55.5	56.2
Any with nonsevere problems only	**2,127**	**2,087**	**18.4**	**17.8**
Rent burden >30–50% of income	1,848	1,791	16.0	15.2
Moderately inadequate housing	321	336	2.8	2.9
Crowded housing	256	247	2.2	2.1
[Rent burden only]	1,570	1,523	13.6	13.0
Any with no problems	**2,060**	**2,124**	**17.8**	**18.1**

(continued)

Exhibit A-4. Prevalence of Housing Problems Among Renters by Relative Income, 2017 and 2019 *(continued)*

	Number		Percentage	
	2017	2019	2017	2019
Income >30-50% HAMFI (thousands)	**6,519**	**6,640**	**100.0**	**100.0**
Unassisted with severe problems	2,161	1,986	33.1	29.9
Unassisted with nonsevere problems only	2,381	2,642	36.5	39.8
Unassisted with no problems	823	909	12.6	13.7
Assisted	1,154	1,103	17.7	16.6
Any with severe problems	**2,411**	**2,157**	**37.0**	**32.5**
Rent burden >50% of income	2,300	2,064	35.3	31.1
Severely inadequate housing	156	131	2.4	2.0
[Rent burden only]	2,136	1,900	32.8	28.6
Any with nonsevere problems only	**2,890**	**3,153**	**44.3**	**47.5**
Rent burden >30–50% of income	2,756	3,016	42.3	45.4
Moderately inadequate housing	256	274	3.9	4.1
Crowded housing	241	196	3.7	3.0
[Rent burden only]	2,415	2,692	37.0	40.5
Any with no problems	**1,217**	**1,329**	**18.7**	**20.0**
Income >50-80% HAMFI (thousands)	**8,637**	**8,786**	**100.0**	**100.0**
Unassisted with severe problems	973	1,013	11.3	11.5
Unassisted with nonsevere problems only	3,804	3,805	44.0	43.3
Unassisted with no problems	3,220	3,378	37.3	38.4
Assisted	641	590	7.4	6.7
Any with severe problems	**1,010**	**1,041**	**11.7**	**11.8**
Rent burden >50% of income	879	880	10.2	10.0
Severely inadequate housing	134	169	1.6	1.9
[Rent burden only]	849	837	9.8	9.5
Any with nonsevere problems only	**4,066**	**4,029**	**47.1**	**45.9**
Rent burden >30–50% of income	3,541	3,510	41.0	39.9
Moderately inadequate housing	433	479	5.0	5.5
Crowded housing	376	314	4.4	3.6
[Rent burden only]	3,278	3,248	38.0	37.0
Any with no problems	**3,562**	**3,715**	**41.2**	**42.3**

(continued)

Exhibit A-4. Prevalence of Housing Problems Among Renters by Relative Income, 2017 and 2019 *(continued)*

	Number		Percentage	
	2017	2019	2017	2019
Income >80–120% HAMFI (thousands)	**7,306**	**7,583**	**100.0**	**100.0**
Unassisted with severe problems	277	372	3.8	4.9
Unassisted with nonsevere problems only	1,768	1,737	24.2	22.9
Unassisted with no problems	5,003	5,206	68.5	68.7
Assisted	259	268	3.5	3.5
Any with severe problems	**286**	**380**	**3.9**	**5.0**
Rent burden >50% of income	236	289	3.2	3.8
Severely inadequate housing	54	90	0.7	1.2
[Rent burden only]	226	274	3.1	3.6
Any with nonsevere problems only	**1,810**	**1,787**	**24.8**	**23.6**
Rent burden >30–50% of income	1,463	1,358	20.0	17.9
Moderately inadequate housing	258	289	3.5	3.8
Crowded housing	149	168	2.0	2.2
[Rent burden only]	1,407	1,335	19.3	17.6
Any with no problems	**5,210**	**5,417**	**71.3**	**71.4**
Income >120% HAMFI (thousands)	**9,983**	**9,902**	**100.0**	**100.0**
Unassisted with severe problems	232	200	2.3	2.0
Unassisted with nonsevere problems only	1,180	1,086	11.8	11.0
Unassisted with no problems	8,272	8,363	82.9	84.5
Assisted	298	253	3.0	2.6
Any with severe problems	**243**	**206**	**2.4**	**2.1**
Rent burden >50% of income	144	133	1.4	1.3
Severely inadequate housing	104	73	1.0	0.7
[Rent burden only]	132	131	1.3	1.3
Any with nonsevere problems only	**1,219**	**1,118**	**12.2**	**11.3**
Rent burden >30–50% of income	607	616	6.1	6.2
Moderately inadequate housing	439	351	4.4	3.5
Crowded housing	223	181	2.2	1.8
[Rent burden only]	582	604	5.8	6.1
Any with no problems	**8,520**	**8,578**	**85.3**	**86.6**

HAMFI = HUD-Adjusted Median Family Income.
Source: HUD-PD&R tabulations of the American Housing Survey

Exhibit A-5A. Prevalence of Housing Problems Among Very Low-Income Renters by Household Type, 2017 and 2019

	Number		Percentage	
Household type	2017	2019	2017	2019
All household types (thousands)	**18,067**	**18,388**	**100.0**	**100.0**
Older adults without children (thousands)	**4,960**	**5,567**	**100.0**	**100.0**
Unassisted with severe problems	1,932	2,241	39.0	40.3
Unassisted with nonsevere problems only	641	743	12.9	13.3
Unassisted with no problems	467	590	9.4	10.6
Assisted	1,920	1,993	38.7	35.8
Any with severe problems	**2,600**	**3,002**	**52.4**	**53.9**
Rent burden >50% of income	2,571	2,930	51.8	52.6
Severely inadequate housing	75	131	1.5	2.4
[Rent burden only]	2,372	2,636	47.8	47.4
Any with nonsevere problems only	**1,279**	**1,394**	**25.8**	**25.0**
Rent burden >30–50% of income	1,190	1,320	24.0	23.7
Moderately inadequate housing	155	142	3.1	2.6
Crowded housing	(s)	(D)	(s)	(D)
[Rent burden only]	1,120	1,252	22.6	22.5
Any with no problems	**1,081**	**1,172**	**21.8**	**21.1**
Families with children (thousands)	**6,199**	**5,654**	**100.0**	**100.0**
Unassisted with severe problems	2,571	2,271	41.5	40.2
Unassisted with nonsevere problems only	1,528	1,463	24.6	25.9
Unassisted with no problems	441	470	7.1	8.3
Assisted	1,659	1,450	26.8	25.6
Any with severe problems	**3,333**	**2,865**	**53.8**	**50.7**
Rent burden >50% of income	3,228	2,797	52.1	49.5
Severely inadequate housing	223	131	3.6	2.3
[Rent burden only]	2,869	2,509	46.3	44.4
Any with nonsevere problems only	**2,020**	**1,975**	**32.6**	**34.9**
Rent burden >30–50% of income	1,799	1,760	29.0	31.1
Moderately inadequate housing	230	194	3.7	3.4
Crowded housing	(s)	420	(s)	7.4
[Rent burden only]	1,377	1,383	22.2	24.5
Any with no problems	**847**	**813**	**13.7**	**14.4**

(continued)

Exhibit A-5A. Prevalence of Housing Problems Among Very Low-Income Renters by Household Type, 2017 and 2019 *(continued)*

	Number		Percentage	
Household type	2017	2019	2017	2019
Other family households (thousands)	**1,591**	**1,649**	**100.0**	**100.0**
Unassisted with severe problems	716	720	45.0	43.7
Unassisted with nonsevere problems only	335	432	21.1	26.2
Unassisted with no problems	212	196	13.3	11.9
Assisted	327	301	20.6	18.3
Any with severe problems	**843**	**821**	**53.0**	**49.8**
Rent burden >50% of income	826	795	51.9	48.2
Severely inadequate housing	55	45	3.5	2.7
[Rent burden only]	710	719	44.6	43.6
Any with nonsevere problems only	**423**	**520**	**26.6**	**31.5**
Rent burden >30–50% of income	385	489	24.2	29.7
Moderately inadequate housing	41	70	2.6	4.2
Crowded housing	(s)	15	(s)	0.9
[Rent burden only]	347	436	21.8	26.4
Any with no problems	**324**	**308**	**20.4**	**18.7**
Other nonfamily households (thousands)	**5,317**	**5,518**	**100.0**	**100.0**
Unassisted with severe problems	2,497	2,535	47.0	45.9
Unassisted with nonsevere problems only	925	958	17.4	17.4
Unassisted with no problems	611	716	11.5	13.0
Assisted	1,284	1,309	24.1	23.7
Any with severe problems	**2,997**	**3,006**	**56.4**	**54.5**
Rent burden >50% of income	2,872	2,913	54.0	52.8
Severely inadequate housing	181	177	3.4	3.2
[Rent burden only]	2,589	2,636	48.7	47.8
Any with nonsevere problems only	**1,295**	**1,351**	**24.4**	**24.5**
Rent burden >30–50% of income	1,229	1,238	23.1	22.4
Moderately inadequate housing	151	206	2.8	3.7
Crowded housing	(s)	(D)	(s)	(D)
[Rent burden only]	1,142	1,145	21.5	20.8
Any with no problems	**1,025**	**1,161**	**19.3**	**21.0**

(s) = Unweighted counts of 5 or fewer suppressed. (D) = value suppressed in accord with Census Bureau disclosure prevention requirements.
Source: HUD-PD&R tabulations of the American Housing Survey

Exhibit A-5B. Prevalence of Housing Problems Among Very Low-Income Renter Households Containing People with Disabilities* by Household Type, 2017 and 2019

	Number		Percentage	
Household type	2017	2019	2017	2019
All household types (thousands)	**3,276**	**2,895**	**100.0**	**100.0**
Older adults without children (thousands)	**154**	**105**	**100.0**	**100.0**
Unassisted with severe problems	47	42	30.5	40.0
Unassisted with nonsevere problems only	49	20	31.8	19.0
Unassisted with no problems	4	8	2.6	7.6
Assisted	54	36	35.1	34.3
Any with severe problems	**72**	**57**	**46.8**	**54.3**
Rent burden >50% of income	72	49	46.8	46.7
Severely inadequate housing	(s)	10	(s)	9.5
[Rent burden only]	68	41	44.2	39.0
Any with nonsevere problems only	**70**	**33**	**45.5**	**31.4**
Rent burden >30–50% of income	59	32	38.3	30.5
Moderately inadequate housing	15	3	9.7	2.9
Crowded housing	(s)	(D)	(s)	(D)
[Rent burden only]	56	30	36.4	28.6
Any with no problems	**12**	**15**	**7.8**	**14.3**
Families with children (thousands)	**1,175**	**892**	**100.0**	**100.0**
Unassisted with severe problems	485	336	41.3	37.7
Unassisted with nonsevere problems only	236	228	20.1	25.6
Unassisted with no problems	53	33	4.5	3.7
Assisted	401	295	34.1	33.1
Any with severe problems	**690**	**437**	**58.7**	**49.0**
Rent burden >50% of income	669	416	56.9	46.6
Severely inadequate housing	(s)	45	(s)	5.0
[Rent burden only]	541	346	46.0	38.8
Any with nonsevere problems only	**347**	**340**	**29.5**	**38.1**
Rent burden >30–50% of income	302	298	25.7	33.4
Moderately inadequate housing	69	71	5.9	8.0
Crowded housing	(s)	51	(s)	5.7
[Rent burden only]	213	219	18.1	24.6
Any with no problems	**138**	**116**	**11.7**	**13.0**

(continued)

Exhibit A-5B. Prevalence of Housing Problems Among Very Low-Income Renter Households Containing People with Disabilities* by Household Type, 2017 and 2019 *(continued)*

	Number		Percentage	
Household type	**2017**	**2019**	**2017**	**2019**
Other family households (thousands)	**436**	**403**	**100.0**	**100.0**
Unassisted with severe problems	200	164	45.9	40.7
Unassisted with nonsevere problems only	76	80	17.4	19.9
Unassisted with no problems	36	46	8.3	11.4
Assisted	124	114	28.4	28.3
Any with severe problems	**243**	**204**	**55.7**	**50.6**
Rent burden >50% of income	228	195	52.3	48.4
Severely inadequate housing	(s)	13	(s)	3.2
[Rent burden only]	189	166	43.3	41.2
Any with nonsevere problems only	**111**	**113**	**25.5**	**28.0**
Rent burden >30–50% of income	104	95	23.9	23.6
Moderately inadequate housing	17	32	3.9	7.9
Crowded housing	(s)	(D)	(s)	(D)
[Rent burden only]	94	80	21.6	19.9
Any with no problems	**82**	**86**	**18.8**	**21.3**
Other nonfamily households (thousands)	**1,511**	**1,495**	**100.0**	**100.0**
Unassisted with severe problems	572	503	37.9	33.6
Unassisted with nonsevere problems only	174	238	11.5	15.9
Unassisted with no problems	90	110	6.0	7.4
Assisted	677	644	44.8	43.1
Any with severe problems	**797**	**730**	**52.7**	**48.8**
Rent burden >50% of income	739	703	48.9	47.0
Severely inadequate housing	(s)	64	(s)	4.3
[Rent burden only]	620	577	41.0	38.6
Any with nonsevere problems only	**374**	**439**	**24.8**	**29.4**
Rent burden >30–50% of income	355	391	23.5	26.2
Moderately inadequate housing	47	102	3.1	6.8
Crowded housing	(s)	(D)	(s)	(D)
[Rent burden only]	326	337	21.6	22.5
Any with no problems	**341**	**326**	**22.6**	**21.8**

(s) = Unweighted counts of 5 or fewer suppressed. (D) = value suppressed in accord with Census Bureau disclosure prevention requirements.
* Older adults with disabilities were excluded.
Source: HUD-PD&R tabulations of the American Housing Survey

Exhibit A-6A. Housing Problems and Characteristics of Very Low-Income Renters by Household Type, 2019

	Total	Older Adults, No Children	Families with Children	Other Families	Other Nonfamily Households
Renter households (thousands)	**18,388**	**5,567**	**5,654**	**1,649**	**5,518**
Number of children	11,427	NA	11,427	NA	NA
Number of persons	39,704	7,075	21,744	4,076	6,809
Children/household	2.02	NA	2.02	NA	NA
Persons/household	2.16	1.27	3.85	2.47	1.23
Unassisted with severe problems	7,767	2,241	2,271	720	2,535
Unassisted with nonsevere problems only	3,596	743	1,463	432	958
Unassisted with no problems	1,972	590	470	196	716
Assisted	5,053	1,993	1,450	301	1,309
Any with severe problems	**9,694**	**3,002**	**2,865**	**821**	**3,006**
Rent burden >50% of income	9,435	2,930	2,797	795	2,913
Severely inadequate housing	484	131	131	45	177
[Rent burden only]	8,500	2,636	2,509	719	2,636
Any with nonsevere problems only	**5,240**	**1,394**	**1,975**	**520**	**1,351**
Rent burden >30–50% of income	4,807	1,320	1,760	489	1,238
Moderately inadequate housing	612	142	194	70	206
Crowded housing	444	(D)	420	15	(D)
[Rent burden only]	4,216	1,252	1,383	436	1,145
Any with no problems	**3,454**	**1,172**	**813**	**308**	**1,161**

(continued)

Exhibit A-6A. Housing Problems and Characteristics of Very Low-Income Renters by Household Type, 2019 *(continued)*

	Total	Older Adults, No Children	Families with Children	Other Families	Other Nonfamily Households
Other characteristics					
One person in household	8,845	4,299	NA	NA	4,546
Two-spouse household	3,437	776	1,980	681	NA
Female householder	11,540	3,584	4,022	933	3,001
Householder of color	10,097	2,391	3,937	1,047	2,722
Welfare/SSI income	3,606	1,208	1,118	290	990
Social Security income	5,308	4,143	477	228	460
Income below 50% poverty	4,509	1,284	1,447	280	1,498
Income below poverty	9,882	2,846	3,242	712	3,082
Income below 150% of poverty	14,394	4,204	4,865	1,199	4,126
High school graduate	13,959	4,124	4,051	1,219	4,565
2+ years post-high school	4,136	1,301	868	361	1,606
Earnings at minimum wage: At least half time	7,959	538	3,794	1,063	2,564
Earnings at minimum wage: At least full time	6,250	338	3,207	852	1,853
Earnings main source of income	8,608	487	4,014	1,125	2,982
Housing rated poor	1,098	190	459	99	350
Housing rated good+	13,387	4,482	3,864	1,207	3,834
Neighborhood rated poor	1,283	198	539	102	444
Neighborhood rated good+	13,500	4,462	3,926	1,236	3,876
In central cities	8,935	2,440	2,625	844	3,026
Suburbs, urban	5,624	1,844	1,911	510	1,359
Suburbs, rural	1,552	555	436	134	427
Nonmetropolitan	2,275	728	681	161	705
Northeast	3,949	1,363	1,138	329	1,119
Midwest	3,715	1,154	1,008	263	1,290
South	6,413	1,797	2,089	595	1,932
West	4,311	1,253	1,419	462	1,177

NA = Not applicable. (D) = value suppressed in accord with Census Bureau disclosure prevention requirements.
SSI = Supplemental Security Income.
Source: HUD-PD&R tabulations of the American Housing Survey

Exhibit A-6B. Housing Problems and Characteristics of Extremely Low-Income Renters by Household Type, 2019

	Total	Older Adults, No Children	Families with Children	Other Families	Other Nonfamily Households
Renter households (thousands)	**11,749**	**3,727**	**3,569**	**879**	**3,574**
Number of children	7,726	NA	7,726	NA	NA
Number of persons	25,202	4,593	14,026	2,185	4,398
Children/household	2.16	NA	2.16	NA	NA
Persons/household	2.15	1.23	3.93	2.49	1.23
Unassisted with severe problems	5,780	1,651	1,741	515	1,873
Unassisted with nonsevere problems only	955	202	463	60	230
Unassisted with no problems	1,064	301	211	90	462
Assisted	3,949	1,572	1,154	215	1,008
Any with severe problems	**7,537**	**2,343**	**2,295**	**601**	**2,298**
Rent burden >50% of income	7,373	2,302	2,256	585	2,230
Severely inadequate housing	352	90	99	27	136
[Rent burden only]	6,602	2,075	1,996	521	2,010
Any with nonsevere problems only	**2,088**	**648**	**834**	**122**	**484**
Rent burden >30–50% of income	1,790	598	686	108	398
Moderately inadequate housing	337	86	99	27	125
Crowded housing	247	(D)	236	4	(D)
[Rent burden only]	1,523	562	512	91	358
Any with no problems	**2,124**	**736**	**440**	**156**	**792**

(continued)

Exhibit A-6B. Housing Problems and Characteristics of Extremely Low-Income Renters by Household Type, 2019 *(continued)*

	Total	Older Adults, No Children	Families with Children	Other Families	Other Nonfamily Households
Other characteristics					
One person in household	5,975	2,979	NA	NA	2,996
Two-spouse household	1,847	446	1,041	360	NA
Female householder	7,675	2,504	2,694	514	1,963
Householder of color	6,665	1,774	2,528	541	1,822
Welfare/SSI income	2,964	1,047	872	177	868
Social Security income	3,495	2,657	324	141	373
Income below 50% poverty	4,509	1,284	1,447	280	1,498
Income below poverty	9,828	2,835	3,220	712	3,061
Income below 150% of poverty	11,475	3,574	3,560	863	3,478
High school graduate	8,516	2,619	2,438	603	2,856
2+ years post-high school	2,431	805	463	206	957
Earnings at minimum wage: At least half time	3,420	164	1,899	387	970
Earnings at minimum wage: At least full time	1,983	64	1,369	209	341
Earnings main source of income	4,257	191	2,175	477	1,414
Housing rated poor	774	148	291	61	274
Housing rated good+	8,329	2,934	2,362	604	2,429
Neighborhood rated poor	914	158	393	64	299
Neighborhood rated good+	8,397	2,902	2,383	644	2,468
In central cities	5,869	1,756	1,687	428	1,998
Suburbs, urban	3,365	1,189	1,108	261	807
Suburbs, rural	905	318	255	73	259
Nonmetropolitan	1,608	464	518	117	509
Northeast	2,518	996	707	145	670
Midwest	2,309	699	619	130	861
South	4,281	1,215	1,417	347	1,302
West	2,641	817	827	257	740

NA = Not applicable. SSI = Supplemental Security Income. (D) = value suppressed in accord with Census Bureau disclosure prevention requirements.
Source: HUD-PD&R tabulations of the American Housing Survey

Exhibit A-7. Housing Problems and Characteristics of Very Low-Income Worst Case Renters by Household Type, 2019

	Total	Older Adults, No Children	Families with Children	Other Families	Other Nonfamily Households
Renter households (thousands)	**7,767**	**2,241**	**2,271**	**720**	**2,535**
Number of children	4,524	NA	4,524	NA	NA
Number of persons	16,768	2,878	8,735	1,808	3,347
Children/household	1.99	NA	1.99	NA	NA
Persons/household	2.16	1.28	3.85	2.51	1.32
Unassisted with severe problems	7,767	2,241	2,271	720	2,535
Unassisted with nonsevere problems only	—	—	—	—	—
Unassisted with no problems	—	—	—	—	—
Assisted	—	—	—	—	—
Any with severe problems	**7,767**	**2,241**	**2,271**	**720**	**2,535**
Rent burden >50% of income	7,569	2,189	2,222	696	2,462
Severely inadequate housing	374	102	91	40	141
[Rent burden only]	6,802	1,948	1,991	629	2,234
Any with nonsevere problems only	**—**	**—**	**—**	**—**	**—**
Rent burden >30–50% of income	—	—	—	—	—
Moderately inadequate housing	—	—	—	—	—
Crowded housing	—	—	—	—	—
[Rent burden only]	—	—	—	—	—
Any with no problems	**—**	**—**	**—**	**—**	**—**

(continued)

Exhibit A-7. Housing Problems and Characteristics of Very Low-Income Worst Case Renters by Household Type, 2019 *(continued)*

	Total	Older Adults, No Children	Families with Children	Other Families	Other Nonfamily Households
Other characteristics					
One person in household	3,672	1,711	NA	NA	1,961
Two-spouse household	1,518	340	850	328	NA
Female householder	4,750	1,446	1,564	373	1,367
Householder of color	4,143	842	1,589	471	1,241
Welfare/SSI income	1,241	354	426	110	351
Social Security income	2,208	1,773	180	109	146
Income below 50% poverty	2,319	710	715	157	737
Income below poverty	4,893	1,316	1,548	427	1,602
Income below 150% of poverty	6,531	1,827	2,070	607	2,027
High school graduate	6,041	1,767	1,592	516	2,166
2+ years post-high school	2,147	616	423	209	899
Earnings at minimum wage: At least half time	3,281	159	1,424	422	1,276
Earnings at minimum wage: At least full time	2,264	85	1,108	292	779
Earnings main source of income	3,890	168	1,600	483	1,639
Housing rated poor	431	76	153	35	167
Housing rated good+	5,641	1,775	1,572	525	1,769
Neighborhood rated poor	435	78	164	39	154
Neighborhood rated good+	5,761	1,804	1,619	542	1,796
In central cities	3,904	984	1,035	407	1,478
Suburbs, urban	2,524	771	887	240	626
Suburbs, rural	594	258	122	39	175
Nonmetropolitan	744	227	227	34	256
Northeast	1,507	522	426	129	430
Midwest	1,346	413	297	97	539
South	2,797	735	867	265	930
West	2,119	572	681	229	637

NA = Not applicable. SSI = Supplemental Security Income.
Source: HUD-PD&R tabulations of the American Housing Survey

Exhibit A-8. Housing Problems and Characteristics of Extremely Low-Income Worst Case Renters by Household Type, 2019

	Total	Older Adults, No Children	Families with Children	Other Families	Other Nonfamily Households
Renter households (thousands)	**5,780**	**1,651**	**1,741**	**515**	**1,873**
Number of children	3,631	NA	3,631	NA	NA
Number of persons	12,734	2,107	6,846	1,308	2,473
Children/household	2.09	NA	2.09	NA	NA
Persons/household	2.20	1.28	3.93	2.54	1.32
Unassisted with severe problems	5,780	1,651	1,741	515	1,873
Unassisted with nonsevere problems only	—	—	—	—	—
Unassisted with no problems	—	—	—	—	—
Assisted	—	—	—	—	—
Any with severe problems	**3,975**	**1,132**	**1,224**	**398**	**1,221**
Rent burden >50% of income	3,902	1,118	1,209	390	1,185
Severely inadequate housing	165	40	40	14	71
[Rent burden only]	3,502	1,022	1,061	351	1,068
Any with nonsevere problems only	—	—	—	—	—
Rent burden >30–50% of income	—	—	—	—	—
Moderately inadequate housing	—	—	—	—	—
Crowded housing	—	—	—	—	—
[Rent burden only]	—	—	—	—	—
Any with no problems	—	—	—	—	—

(continued)

Exhibit A-8. Housing Problems and Characteristics of Extremely Low-Income Worst Case Renters by Household Type, 2019 (*continued*)

	Total	Older Adults, No Children	Families with Children	Other Families	Other Nonfamily Households
Other characteristics					
One person in household	2,727	1,264	NA	NA	1,463
Two-spouse household	1,059	234	597	228	NA
Female householder	3,577	1,088	1,232	265	992
Householder of color	3,198	699	1,235	343	921
Welfare/SSI income	1,086	312	376	75	323
Social Security income	1,686	1,288	164	96	138
Income below 50% poverty	2,319	710	715	157	737
Income below poverty	4,880	1,316	1,540	427	1,597
Income below 150% of poverty	5,646	1,593	1,737	510	1,806
High school graduate	4,346	1,252	1,164	352	1,578
2+ years post-high school	1,441	423	259	140	619
Earnings at minimum wage: At least half time	1,989	70	965	251	703
Earnings at minimum wage: At least full time	1,044	24	667	130	223
Earnings main source of income	2,641	95	1,150	324	1,072
Housing rated poor	357	64	112	34	147
Housing rated good+	4,070	1,282	1,167	356	1,265
Neighborhood rated poor	357	65	137	31	124
Neighborhood rated good+	4,160	1,295	1,201	383	1,281
In central cities	2,968	766	803	303	1,096
Suburbs, urban	1,790	541	655	161	433
Suburbs, rural	427	175	86	25	141
Nonmetropolitan	595	170	196	26	203
Northeast	1,137	401	326	88	322
Midwest	1,049	301	252	73	423
South	2,154	565	694	194	701
West	1,441	385	469	160	427

NA = Not applicable. SSI = Supplemental Security Income.
Source: HUD-PD&R tabulations of the American Housing Survey

Exhibit A-9. Prevalence of Housing Problems Among Very Low-Income Renters by Race and Ethnicity, 2017 and 2019—Number and Percentage

	Number		Percentage	
	2017	2019	2017	2019
Non-Hispanic White (thousands)	**7,934**	**8,290**	**100.0**	**100.0**
Unassisted with severe problems	3,634	3,623	45.8	43.7
Unassisted with nonsevere problems only	1,461	1,628	18.4	19.6
Unassisted with no problems	911	1,063	11.5	12.8
Assisted	1,927	1,977	24.3	23.8
Any with severe problems	**4,291**	**4,263**	**54.1**	**51.4**
Rent burden >50% of income	4,186	4,158	52.8	50.2
Severely inadequate housing	212	161	2.7	1.9
[Rent burden only]	3,764	3,752	47.4	45.3
Any with nonsevere problems only	**2,075**	**2,346**	**26.2**	**28.3**
Rent burden >30–50% of income	1,929	2,170	24.3	26.2
Moderately inadequate housing	244	285	3.1	3.4
Crowded housing	92	127	1.2	1.5
[Rent burden only]	1,746	1,940	22.0	23.4
Any with no problems	**1,568**	**1,682**	**19.8**	**20.3**
Non-Hispanic Black (thousands)	**4,561**	**4,393**	**100.0**	**100.0**
Unassisted with severe problems	1,578	1,588	34.6	36.1
Unassisted with nonsevere problems only	810	671	17.8	15.3
Unassisted with no problems	339	373	7.4	8.5
Assisted	1,835	1,761	40.2	40.1
Any with severe problems	**2,365**	**2,341**	**51.9**	**53.3**
Rent burden >50% of income	2,310	2,279	50.6	51.9
Severely inadequate housing	106	134	2.3	3.1
[Rent burden only]	2,091	2,046	45.8	46.6
Any with nonsevere problems only	**1,307**	**1,182**	**28.7**	**26.9**
Rent burden >30–50% of income	1,182	1,054	25.9	24.0
Moderately inadequate housing	171	174	3.7	4.0
Crowded housing	83	76	1.8	1.7
[Rent burden only]	1,063	942	23.3	21.4
Any with no problems	**890**	**870**	**19.5**	**19.8**

(continued)

Exhibit A-9. Prevalence of Housing Problems Among Very Low-Income Renters by Race and Ethnicity, 2017 and 2019—Number and Percentage *(continued)*

	Number		Percentage	
	2017	2019	2017	2019
Hispanic (thousands)	**4,083**	**4,258**	**100.0**	**100.0**
Unassisted with severe problems	1,884	1,922	46.1	45.1
Unassisted with nonsevere problems only	916	1,029	22.4	24.2
Unassisted with no problems	336	382	8.2	9.0
Assisted	947	924	23.2	21.7
Any with severe problems	**2,295**	**2,333**	**56.2**	**54.8**
Rent burden >50% of income	2,213	2,275	54.2	53.4
Severely inadequate housing	161	133	3.9	3.1
[Rent burden only]	1,965	2,061	48.1	48.4
Any with nonsevere problems only	**1,246**	**1,314**	**30.5**	**30.9**
Rent burden >30–50% of income	1,140	1,208	27.9	28.4
Moderately inadequate housing	120	103	2.9	2.4
Crowded housing	252	212	6.2	5.0
[Rent burden only]	898	1,008	22.0	23.7
Any with no problems	**542**	**611**	**13.3**	**14.3**

Source: HUD-PD&R tabulations of the American Housing Survey

Exhibit A-10. Prevalence of Housing Problems Among Very Low-Income Renters by Region, 2017 and 2019—Number and Percentage

	Number		Percentage	
	2017	2019	2017	2019
Northeast (thousands)	**3,961**	**3,950**	**100.0**	**100.0**
Unassisted with severe problems	1,526	1,507	38.5	38.2
Unassisted with nonsevere problems only	683	720	17.2	18.2
Unassisted with no problems	376	416	9.5	10.5
Assisted	1,377	1,307	34.8	33.1
Any with severe problems	**2,088**	**2,029**	**52.7**	**51.4**
Rent burden >50% of income	1,990	1,958	50.2	49.6
Severely inadequate housing	198	166	5.0	4.2
[Rent burden only]	1,709	1,726	43.1	43.7
Any with nonsevere problems only	**1,085**	**1,141**	**27.4**	**28.9**
Rent burden >30–50% of income	1,015	1,080	25.6	27.3
Moderately inadequate housing	94	112	2.4	2.8
Crowded housing	98	75	2.5	1.9
[Rent burden only]	896	969	22.6	24.5
Any with no problems	**789**	**779**	**19.9**	**19.7**
Midwest (thousands)	**3,670**	**3,715**	**100.0**	**100.0**
Unassisted with severe problems	1,378	1,346	37.5	36.2
Unassisted with nonsevere problems only	767	877	20.9	23.6
Unassisted with no problems	400	387	10.9	10.4
Assisted	1,126	1,106	30.7	29.8
Any with severe problems	**1,757**	**1,690**	**47.9**	**45.5**
Rent burden >50% of income	1,697	1,656	46.2	44.6
Severely inadequate housing	93	66	2.5	1.8
[Rent burden only]	1,552	1,521	42.3	40.9
Any with nonsevere problems only	**1,118**	**1,239**	**30.5**	**33.4**
Rent burden >30–50% of income	1,048	1,145	28.6	30.8
Moderately inadequate housing	127	124	3.5	3.3
Crowded housing	65	81	1.8	2.2
[Rent burden only]	934	1,042	25.4	28.0
Any with no problems	**795**	**786**	**21.7**	**21.2**

(continued)

Exhibit A-10. Prevalence of Housing Problems Among Very Low-Income Renters by Region, 2017 and 2019—Number and Percentage *(continued)*

	Number		Percentage	
	2017	2019	2017	2019
South (thousands)	**6,358**	**6,413**	**100.0**	**100.0**
Unassisted with severe problems	2,844	2,796	44.7	43.6
Unassisted with nonsevere problems only	1,278	1,246	20.1	19.4
Unassisted with no problems	643	780	10.1	12.2
Assisted	1,593	1,592	25.1	24.8
Any with severe problems	**3,475**	**3,428**	**54.7**	**53.5**
Rent burden >50% of income	3,438	3,331	54.1	51.9
Severely inadequate housing	115	152	1.8	2.4
[Rent burden only]	3,112	2,978	48.9	46.4
Any with nonsevere problems only	**1,767**	**1,727**	**27.8**	**26.9**
Rent burden >30–50% of income	1,590	1,549	25.0	24.2
Moderately inadequate housing	261	270	4.1	4.2
Crowded housing	137	150	2.2	2.3
[Rent burden only]	1,386	1,310	21.8	20.4
Any with no problems	**1,116**	**1,258**	**17.6**	**19.6**
West (thousands)	**4,078**	**4,310**	**100.0**	**100.0**
Unassisted with severe problems	1,968	2,118	48.3	49.1
Unassisted with nonsevere problems only	702	754	17.2	17.5
Unassisted with no problems	313	390	7.7	9.0
Assisted	1,095	1,048	26.9	24.3
Any with severe problems	**2,453**	**2,548**	**60.2**	**59.1**
Rent burden >50% of income	2,373	2,491	58.2	57.8
Severely inadequate housing	128	100	3.1	2.3
[Rent burden only]	2,169	2,275	53.2	52.8
Any with nonsevere problems only	**1,047**	**1,133**	**25.7**	**26.3**
Rent burden >30–50% of income	951	1,033	23.3	24.0
Moderately inadequate housing	95	105	2.3	2.4
Crowded housing	197	137	4.8	3.2
[Rent burden only]	770	894	18.9	20.7
Any with no problems	**577**	**630**	**14.1**	**14.6**

Source: HUD-PD&R tabulations of the American Housing Survey

Exhibit A-11A. Prevalence of Housing Problems Among Very Low-Income Renters by Metropolitan Location, 2017 and 2019—Number and Percentage

	Number		Percentage	
	2017	2019	2017	2019
Central cities (thousands)	**8,995**	**8,936**	**100.0**	**100.0**
Unassisted with severe problems	3,816	3,904	42.4	43.7
Unassisted with nonsevere problems only	1,613	1,629	17.9	18.2
Unassisted with no problems	783	850	8.7	9.5
Assisted	2,783	2,553	30.9	28.6
Any with severe problems	**4,989**	**4,996**	**55.5**	**55.9**
Rent burden >50% of income	4,828	4,867	53.7	54.5
Severely inadequate housing	313	273	3.5	3.1
[Rent burden only]	4,302	4,347	47.8	48.6
Any with nonsevere problems only	**2,421**	**2,386**	**26.9**	**26.7**
Rent burden >30–50% of income	2,226	2,172	24.7	24.3
Moderately inadequate housing	261	296	2.9	3.3
Crowded housing	284	240	3.2	2.7
[Rent burden only]	1,902	1,873	21.1	21.0
Any with no problems	**1,585**	**1,554**	**17.6**	**17.4**
Suburbs, urban (thousands)	**5,287**	**5,625**	**100.0**	**100.0**
Unassisted with severe problems	2,472	2,524	46.8	44.9
Unassisted with nonsevere problems only	1,059	1,213	20.0	21.6
Unassisted with no problems	468	511	8.9	9.1
Assisted	1,287	1,377	24.3	24.5
Any with severe problems	**2,976**	**3,048**	**56.3**	**54.2**
Rent burden >50% of income	2,921	3,023	55.2	53.7
Severely inadequate housing	98	77	1.9	1.4
[Rent burden only]	2,691	2,768	50.9	49.2
Any with nonsevere problems only	**1,460**	**1,684**	**27.6**	**29.9**
Rent burden >30–50% of income	1,374	1,565	26.0	27.8
Moderately inadequate housing	135	163	2.6	2.9
Crowded housing	142	123	2.7	2.2
[Rent burden only]	1,192	1,403	22.5	24.9
Any with no problems	**851**	**893**	**16.1**	**15.9**

(continued)

Exhibit A-11A. Prevalence of Housing Problems Among Very Low-Income Renters by Metropolitan Location, 2017 and 2019—Number and Percentage *(continued)*

	Number		Percentage	
	2017	2019	2017	2019
Suburbs, rural (thousands)	**1,360**	**1,552**	**100.0**	**100.0**
Unassisted with severe problems	611	594	44.9	38.3
Unassisted with nonsevere problems only	255	327	18.8	21.1
Unassisted with no problems	178	288	13.1	18.6
Assisted	317	343	23.3	22.1
Any with severe problems	**733**	**716**	**53.9**	**46.1**
Rent burden >50% of income	710	675	52.2	43.5
Severely inadequate housing	56	51	4.1	3.3
[Rent burden only]	623	615	45.8	39.6
Any with nonsevere problems only	**352**	**452**	**25.9**	**29.1**
Rent burden >30–50% of income	311	416	22.9	26.8
Moderately inadequate housing	55	44	4.0	2.8
Crowded housing	29	33	2.1	2.1
[Rent burden only]	272	375	20.0	24.2
Any with no problems	**275**	**384**	**20.2**	**24.7**
Nonmetropolitan (thousands)	**2,425**	**2,276**	**100.0**	**100.0**
Unassisted with severe problems	816	744	33.6	32.7
Unassisted with nonsevere problems only	503	427	20.7	18.8
Unassisted with no problems	302	324	12.5	14.2
Assisted	803	781	33.1	34.3
Any with severe problems	**1,074**	**935**	**44.3**	**41.1**
Rent burden >50% of income	1,039	870	42.8	38.2
Severely inadequate housing	66	82	2.7	3.6
[Rent burden only]	925	770	38.1	33.8
Any with nonsevere problems only	**784**	**718**	**32.3**	**31.5**
Rent burden >30–50% of income	694	654	28.6	28.7
Moderately inadequate housing	127	107	5.2	4.7
Crowded housing	42	47	1.7	2.1
[Rent burden only]	619	564	25.5	24.8
Any with no problems	**566**	**623**	**23.3**	**27.4**

(continued)

Exhibit A-11A. Prevalence of Housing Problems Among Very Low-Income Renters by Metropolitan Location, 2017 and 2019—Number and Percentage *(continued)*

	Number		Percentage	
	2017	2019	2017	2019
U.S. Total (thousands)	**18,067**	**18,388**	**100.0**	**100.0**
Unassisted with severe problems	7,715	7,767	42.7	42.2
Unassisted with nonsevere problems only	3,430	3,596	19.0	19.6
Unassisted with no problems	1,731	1,972	9.6	10.7
Assisted	5,190	5,053	28.7	27.5
Any with severe problems	**9,772**	**9,694**	**54.1**	**52.7**
Rent burden >50% of income	9,498	9,435	52.6	51.3
Severely inadequate housing	533	484	3.0	2.6
[Rent burden only]	8,541	8,500	47.3	46.2
Any with nonsevere problems only	**5,017**	**5,240**	**27.8**	**28.5**
Rent burden >30–50% of income	4,605	4,807	25.5	26.1
Moderately inadequate housing	578	612	3.2	3.3
Crowded housing	497	444	2.8	2.4
[Rent burden only]	3,985	4,216	22.1	22.9
Any with no problems	**3,277**	**3,454**	**18.1**	**18.8**

Source: HUD-PD&R tabulations of the American Housing Survey

Exhibit A-11B. Housing Conditions of Renter Households by Relative Income, Sampled Metropolitan Areas, 2017 and 2019

Household Income as Percentage of HUD-Adjusted Area Median Family Income				
	2017		2019	
	0–50%	All Incomes	0–50%	All Incomes
Atlanta-Sandy Springs-Roswell, GA				
Total households (thousands)	**245**	**794**	**263**	**795**
Unassisted with severe problems	131		132	
Unassisted with nonsevere problems only	39		56	
Unassisted with no problems	22		25	
Assisted	53		50	
Boston-Cambridge-Newton, MA-NH				
Total households (thousands)	**313**	**715**	**347**	**754**
Unassisted with severe problems	100		99	
Unassisted with nonsevere problems only	28		53	
Unassisted with no problems	29		42	
Assisted	156		153	
Chicago-Naperville-Elgin, IL-IN-WI				
Total households (thousands)	**509**	**1,238**	**476**	**1,237**
Unassisted with severe problems	204		160	
Unassisted with nonsevere problems only	92		118	
Unassisted with no problems	58		62	
Assisted	155		136	
Dallas-Fort Worth-Arlington, TX				
Total households (thousands)	**332**	**1,060**	**364**	**1,076**
Unassisted with severe problems	159		174	
Unassisted with nonsevere problems only	83		79	
Unassisted with no problems	35		54	
Assisted	54		56	
Detroit-Warren-Dearborn, MI				
Total households (thousands)	**243**	**527**	**235**	**494**
Unassisted with severe problems	105		111	
Unassisted with nonsevere problems only	49		38	
Unassisted with no problems	23		26	
Assisted	65		60	
Houston-The Woodlands-Sugar Land, TX				
Total households (thousands)	**362**	**897**	**337**	**898**
Unassisted with severe problems	177		179	
Unassisted with nonsevere problems only	91		85	
Unassisted with no problems	43		29	
Assisted	51		44	

(continued)

Exhibit A-11B. Housing Conditions of Renter Households by Relative Income, Sampled Metropolitan Areas, 2017 and 2019 *(continued)*

Household Income as Percentage of HUD-Adjusted Area Median Family Income				
	2017		2019	
	0–50%	All Incomes	0–50%	All Incomes
Los Angeles-Long Beach-Anaheim, CA				
Total households (thousands)	**968**	**2,281**	**976**	**2,310**
Unassisted with severe problems	459		508	
Unassisted with nonsevere problems only	210		200	
Unassisted with no problems	86		88	
Assisted	213		180	
Miami-Fort Lauderdale-West Palm Beach, FL				
Total households (thousands)	**384**	**854**	**356**	**874**
Unassisted with severe problems	211		177	
Unassisted with nonsevere problems only	54		60	
Unassisted with no problems	39		36	
Assisted	80		82	
New York-Newark-Jersey City, NY-NJ-PA				
Total households (thousands)	**1,712**	**3,644**	**1,769**	**3,732**
Unassisted with severe problems	678		724	
Unassisted with nonsevere problems only	269		261	
Unassisted with no problems	168		215	
Assisted	596		569	
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD				
Total households (thousands)	**336**	**734**	**306**	**718**
Unassisted with severe problems	147		125	
Unassisted with nonsevere problems only	61		53	
Unassisted with no problems	29		42	
Assisted	98		86	
Phoenix-Mesa-Scottsdale, AZ				
Total households (thousands)	**189**	**593**	**185**	**607**
Unassisted with severe problems	97		99	
Unassisted with nonsevere problems only	37		26	
Unassisted with no problems	20		20	
Assisted	35		40	
Riverside-San Bernardino-Ontario, CA				
Total households (thousands)	**158**	**479**	**149**	**478**
Unassisted with severe problems	91		98	
Unassisted with nonsevere problems only	19		10	
Unassisted with no problems	19		12	
Assisted	30		29	

(continued)

Exhibit A-11B. Housing Conditions of Renter Households by Relative Income, Sampled Metropolitan Areas, 2017 and 2019 *(continued)*

Household Income as Percentage of HUD-Adjusted Area Median Family Income				
	2017		2019	
	0–50%	All Incomes	0–50%	All Incomes
San Francisco-Oakland-Hayward, CA				
Total households (thousands)	**274**	**774**	**291**	**778**
Unassisted with severe problems	110		125	
Unassisted with nonsevere problems only	48		43	
Unassisted with no problems	26		36	
Assisted	89		87	
Seattle-Tacoma-Bellevue, WA				
Total households (thousands)	**202**	**614**	**193**	**596**
Unassisted with severe problems	84		81	
Unassisted with nonsevere problems only	32		24	
Unassisted with no problems	21		21	
Assisted	65		68	
Washington-Arlington-Alexandria, DC-VA-MD-WV				
Total households (thousands)	**292**	**802**	**333**	**853**
Unassisted with severe problems	126		123	
Unassisted with nonsevere problems only	58		78	
Unassisted with no problems	25		40	
Assisted	82		92	
Baltimore-Columbia-Towson, MD				
Total households (thousands)	**291**	**673**	**—**	**—**
Unassisted with severe problems	124		—	
Unassisted with nonsevere problems only	57		—	
Unassisted with no problems	23		—	
Assisted	87		—	
Birmingham-Hoover, AL				
Total households (thousands)	**120**	**279**	**—**	**—**
Unassisted with severe problems	52		—	
Unassisted with nonsevere problems only	15		—	
Unassisted with no problems	6		—	
Assisted	47		—	
Cincinnati, OH-KY-IN				
Total households (thousands)	**—**	**—**	**—**	**—**
Unassisted with severe problems	—		—	
Unassisted with nonsevere problems only	—		—	
Unassisted with no problems	—		—	
Assisted	—		—	

(continued)

Exhibit A-11B. Housing Conditions of Renter Households by Relative Income, Sampled Metropolitan Areas, 2017 and 2019 *(continued)*

Household Income as Percentage of HUD-Adjusted Area Median Family Income				
	2017		2019	
	0–50%	All Incomes	0–50%	All Incomes
Cleveland-Elyria, OH				
Total households (thousands)	—	—	—	—
Unassisted with severe problems	—		—	
Unassisted with nonsevere problems only	—		—	
Unassisted with no problems	—		—	
Assisted	—		—	
Denver-Aurora-Lakewood, CO				
Total households (thousands)	—	—	—	—
Unassisted with severe problems	—		—	
Unassisted with nonsevere problems only	—		—	
Unassisted with no problems	—		—	
Assisted	—		—	
Kansas City, MO-KS				
Total households (thousands)	—	—	—	—
Unassisted with severe problems	—		—	
Unassisted with nonsevere problems only	—		—	
Unassisted with no problems	—		—	
Assisted	—		—	
Las Vegas-Henderson-Paradise, NV				
Total households (thousands)	**242**	**784**	**—**	**—**
Unassisted with severe problems	132		—	
Unassisted with nonsevere problems only	50		—	
Unassisted with no problems	21		—	
Assisted	39		—	
Memphis, TN-MS-AR				
Total households (thousands)	**—**	**—**	**—**	**—**
Unassisted with severe problems	—		—	
Unassisted with nonsevere problems only	—		—	
Unassisted with no problems	—		—	
Assisted	—		—	
Milwaukee-Waukesha-West Allis, WI				
Total households (thousands)	**—**	**—**	**—**	**—**
Unassisted with severe problems	—		—	
Unassisted with nonsevere problems only	—		—	
Unassisted with no problems	—		—	
Assisted	—		—	

(continued)

Exhibit A-11B. Housing Conditions of Renter Households by Relative Income, Sampled Metropolitan Areas, 2017 and 2019 *(continued)*

Household Income as Percentage of HUD-Adjusted Area Median Family Income				
	2017		2019	
	0–50%	All Incomes	0–50%	All Incomes
Minneapolis-St. Paul-Bloomington, MN-WI				
Total households (thousands)	**392**	**866**	**—**	**—**
Unassisted with severe problems	138		—	
Unassisted with nonsevere problems only	79		—	
Unassisted with no problems	28		—	
Assisted	146		—	
New Orleans-Metairie, LA				
Total households (thousands)	**—**	**—**	**—**	**—**
Unassisted with severe problems	—		—	
Unassisted with nonsevere problems only	—		—	
Unassisted with no problems	—		—	
Assisted	—		—	
Oklahoma City, OK				
Total households (thousands)	**131**	**331**	**—**	**—**
Unassisted with severe problems	53		—	
Unassisted with nonsevere problems only	35		—	
Unassisted with no problems	19		—	
Assisted	23		—	
Pittsburgh, PA				
Total households (thousands)	**—**	**—**	**—**	**—**
Unassisted with severe problems	—		—	
Unassisted with nonsevere problems only	—		—	
Unassisted with no problems	—		—	
Assisted	—		—	
Portland-Vancouver-Hillsboro, OR-WA				
Total households (thousands)	**—**	**—**	**—**	**—**
Unassisted with severe problems	—		—	
Unassisted with nonsevere problems only	—		—	
Unassisted with no problems	—		—	
Assisted	—		—	
Raleigh, NC				
Total households (thousands)	**—**	**—**	**—**	**—**
Unassisted with severe problems	—		—	
Unassisted with nonsevere problems only	—		—	
Unassisted with no problems	—		—	
Assisted	—		—	

(continued)

Exhibit A-11B. Housing Conditions of Renter Households by Relative Income, Sampled Metropolitan Areas, 2017 and 2019 *(continued)*

Household Income as Percentage of HUD-Adjusted Area Median Family Income				
	2017		2019	
	0–50%	All Incomes	0–50%	All Incomes
Richmond, VA				
Total households (thousands)	**131**	**303**	**—**	**—**
Unassisted with severe problems	55		—	
Unassisted with nonsevere problems only	23		—	
Unassisted with no problems	24		—	
Assisted	29		—	
Rochester, NY				
Total households (thousands)	**142**	**280**	**—**	**—**
Unassisted with severe problems	50		—	
Unassisted with nonsevere problems only	15		—	
Unassisted with no problems	5		—	
Assisted	72		—	
San Antonio-New Braunfels, TX				
Total households (thousands)	**207**	**631**	**—**	**—**
Unassisted with severe problems	105		—	
Unassisted with nonsevere problems only	46		—	
Unassisted with no problems	9		—	
Assisted	47		—	
San Jose-Sunnyvale-Santa Clara, CA				
Total households (thousands)	**182**	**647**	**—**	**—**
Unassisted with severe problems	85		—	
Unassisted with nonsevere problems only	33		—	
Unassisted with no problems	21		—	
Assisted	44		—	
Tampa-St. Petersburg-Clearwater, FL				
Total households (thousands)	**278**	**825**	**—**	**—**
Unassisted with severe problems	165		—	
Unassisted with nonsevere problems only	43		—	
Unassisted with no problems	27		—	
Assisted	44		—	

Notes: Each of the 15 largest metropolitan areas, listed first, are part of the American Housing Survey longitudinal panel surveyed every 2 years. The remaining 10 metropolitan areas represent a subset of the 16th to 50th largest metropolitan areas surveyed on a rotating basis every 4 years.
Source: HUD-PD&R tabulations of the American Housing Survey

Exhibit A-12. Households Occupying Rental Units by Affordability of Rent and Income of Occupants, 2017 and 2019

Relative Income of Households	Occupied and Vacant Rental Units (thousands) by Unit Affordability Category (percent of HAMFI needed to afford the highest rent in the category)												
2019	**10***	**20**	**30**	**40**	**50**	**60**	**70**	**80**	**90**	**100**	**110**	**>110**	**Total**
Extremely low income (<30% HAMFI)	735	1,647	2,024	922	1,810	1,654	818	904	342	144	231	517	11,748
Very low income (30–50%)	185	369	542	521	1,471	1,288	657	776	212	105	196	317	6,639
Low income (50–80%)	192	331	485	499	1,479	1,578	1,195	1,322	507	291	395	512	8,786
Middle income or higher (>80%)	299	475	646	388	1,422	2,325	2,030	2,736	1,775	1,308	1,724	2,359	17,487
Vacant units for rent	91	81	154	246	635	757	490	583	325	294	372	647	4,675
Total units vacant and occupied	1,502	2,903	3,851	2,576	6,817	7,602	5,190	6,321	3,161	2,142	2,918	4,352	49,335
2017	**10***	**20**	**30**	**40**	**50**	**60**	**70**	**80**	**90**	**100**	**110**	**120+**	**Total**
Extremely low income (<30% HAMFI)	801	1,583	1,839	703	1,782	1,822	890	955	321	165	205	483	11,548
Very low income (30–50%)	145	326	511	505	1,242	1,304	700	820	273	123	218	351	6,519
Low income (50–80%)	243	280	476	364	1,315	1,698	1,288	1,246	531	301	305	590	8,637
Middle income or higher (>80%)	304	478	624	330	1,311	2,193	2,200	2,604	1,751	1,381	1,678	2,433	17,289
Vacant units for rent	122	89	160	236	616	770	579	603	371	261	355	664	4,827
Total units vacant and occupied	1,616	2,757	3,610	2,138	6,265	7,788	5,657	6,228	3,246	2,231	2,761	4,522	48,820

HAMFI = HUD-Adjusted Median Family Income.
* The 10-percent-of-HAMFI category includes units occupied with no cash rent.
Notes: The method of assigning units to cost categories was modified in 2017 to account for limited HUD administrative exceptions to program income limits. Slight unit affordability adjustments were applied to outlier cases for which Area Median Income-determined affordability differed from administratively determined affordability categories.
Source: HUD-PD&R tabulations of the American Housing Survey

Exhibit A-13. Renters and Rental Units Affordable and Available to Them by Relative Income, 2001–2019

	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019
Renter households (thousands)	**34,042**	**33,614**	**33,951**	**35,054**	**35,396**	**38,867**	**40,294**	**43,930**	**43,993**	**44,660**
Extremely low-income (<30% HAMFI)	8,739	9,077	9,729	9,243	9,961	11,774	11,163	11,290	11,548	11,748
Very low-income (30–50%)	6,315	6,581	6,342	6,697	7,157	7,492	7,375	7,945	6,519	6,640
Low-income (50–80%)	7,251	7,460	7,488	7,650	7,168	7,750	7,795	8,696	8,637	8,786
Middle-income or higher (>80%)	11,737	10,496	10,392	11,464	11,110	11,850	13,961	15,999	17,289	17,486
Affordable units	**37,197**	**37,577**	**37,924**	**39,330**	**39,744**	**43,075**	**43,992**	**48,670**	**48,820**	**49,335**
Extremely low-income (<30% HAMFI)	6,870	7,098	6,747	7,280	6,265	6,854	7,294	7,117	7,982	8,256
Very low-income (30–50%)	12,366	12,863	12,368	11,071	10,938	10,947	10,727	9,643	8,404	9,393
Low-income (50–80%)	13,634	13,518	14,044	15,063	16,228	17,995	17,904	19,326	19,674	19,112
Middle-income or higher (>80%)	4,328	4,099	4,765	5,916	6,313	7,279	8,067	12,584	12,760	12,574
Affordable and available units	**37,197**	**37,577**	**37,924**	**39,330**	**39,744**	**43,075**	**43,992**	**48,670**	**48,820**	**49,335**
Extremely low-income (<30% HAMFI)	3,803	3,996	3,982	4,224	3,665	4,220	4,354	4,278	4,595	4,732
Very low-income (30–50%)	8,132	8,744	8,549	7,786	8,045	8,225	7,734	7,576	6,066	6,700
Low-income (50–80%)	11,665	12,396	12,865	13,196	14,004	15,361	14,529	15,862	15,353	15,009
Middle-income or higher (>80%)	13,597	12,441	12,528	14,123	14,029	15,270	17,375	20,955	22,806	22,894

HAMFI = HUD-Adjusted Median Family Income.
Notes: Income categories in this exhibit do not overlap and therefore differ from the standard definitions. The method of assigning units to cost categories was modified in 2017 to account for limited HUD administrative exceptions to program income limits. Slight unit affordability adjustments were applied to outlier cases for which Area Median Income-determined affordability differed from administratively determined affordability categories.
Source: HUD-PD&R tabulations of the American Housing Survey

Exhibit A-14. Average Income and Average Gross Rent of Renter Households by Relative Income, 2017 and 2019

	Household Income as Percentage of HUD-Adjusted Area Median Family Income					
2019	**0–30%**	**>30–50%**	**>50–80%**	**>80–120%**	**>120%**	**All Incomes**
Total households (thousands)	**11,748**	**6,640**	**8,786**	**7,583**	**9,902**	**44,660**
Unassisted with severe problems	5,780	1,986	1,013	372	200	9,352
Unassisted with nonsevere problems only	955	2,642	3,805	1,737	1,086	10,225
Unassisted with no problems	1,064	909	3,378	5,206	8,363	18,919
Assisted	3,950	1,103	590	268	253	6,164
Average monthly income	**$887**	**$2,359**	**$3,636**	**$5,235**	**$12,100**	**$4,871**
Unassisted with severe problems	$904	$2,275	$3,502	$4,527	$10,500	$1,826
Unassisted with nonsevere problems only	$1,414	$2,508	$3,674	$5,184	$10,520	$4,146
Unassisted with no problems	$557	$2,397	$3,651	$5,334	$12,380	$7,739
Assisted	$823	$2,118	$3,536	$4,625	$10,860	$1,891
Average gross rent	**$887**	**$1,078**	**$1,218**	**$1,393**	**$1,731**	**$1,254**
Unassisted with severe problems	$1,216	$1,669	$2,611	$4,071	$5,558	$1,670
Unassisted with nonsevere problems only	$648	$981	$1,299	$1,695	$2,293	$1,329
Unassisted with no problems	$536	$462	$766	$1,103	$1,578	$1,190
Assisted	$559	$755	$898	$1,347	$1,355	$693
2017	**0–30%**	**>30–50%**	**>50–80%**	**>80–120%**	**>120%**	**All Incomes**
Total households (thousands)	**11,548**	**6,519**	**8,637**	**7,306**	**9,983**	**43,993**
Unassisted with severe problems	5,555	2,161	973	277	232	9,198
Unassisted with nonsevere problems only	1,049	2,381	3,804	1,768	1,180	10,181
Unassisted with no problems	908	823	3,220	5,003	8,272	18,226
Assisted	4,037	1,154	641	259	298	6,388
Average monthly income	**$850**	**$2,136**	**$3,306**	**$4,726**	**$10,300**	**$4,310**
Unassisted with severe problems	$868	$2,067	$3,162	$3,383	$11,060	$1,725
Unassisted with nonsevere problems only	$1,355	$2,273	$3,343	$4,716	$9,047	$3,787
Unassisted with no problems	$533	$2,144	$3,335	$4,818	$10,510	$6,805
Assisted	$765	$1,974	$3,170	$4,455	$8,791	$1,749
Average gross rent	**$790**	**$1,010**	**$1,109**	**$1,281**	**$1,594**	**$1,149**
Unassisted with severe problems	$1,101	$1,491	$2,358	$4,464	$5,344	$1,534
Unassisted with nonsevere problems only	$569	$887	$1,169	$1,622	$2,087	$1,226
Unassisted with no problems	$492	$399	$708	$1,000	$1,434	$1,093
Assisted	$487	$800	$869	$965	$1,179	$633

Source: HUD-PD&R tabulations of the American Housing Survey

Exhibit A-15. Housing Conditions of Households Having People Younger than 62 Who Have Disabilities by Disability Type, 2017 and 2019

		Functional Limitations				ADL/IADL Limitations [a]	
2019	Any Limitation	Hearing	Visual	Cognitive	Ambulatory	Self-Care	Independent Living
Households (thousands)	**10,947**	**2,927**	**2,238**	**4,533**	**4,709**	**1,570**	**3,029**
Renter households	5,092	1,133	1,130	2,337	2,377	733	1,562
Owner households	5,855	1,794	1,108	2,196	2,332	836	1,466
Renters (thousands)	**5,092**	**1,133**	**1,130**	**2,337**	**2,377**	**733**	**1,562**
Unassisted with severe problems	1,145	243	241	527	549	202	353
Unassisted with nonsevere problems only	1,208	288	331	539	504	147	320
Unassisted with no problems	1,501	365	314	590	601	145	342
Assisted	1,237	237	245	681	723	239	547
Very low-income renters (thousands)	**1,100**	**207**	**252**	**538**	**475**	**156**	**305**
Unassisted with severe problems	212	40	40	93	89	34	56
Unassisted with nonsevere problems only	483	89	136	231	202	68	118
Unassisted with no problems	174	38	36	77	74	20	39
Assisted	231	40	40	136	110	33	93
Any with severe problems	**247**	**45**	**49**	**115**	**111**	**43**	**73**
Rent burden >50% of income	221	38	46	106	102	43	73
Severely inadequate housing	29	10	(D)	9	9	(D)	(D)
[Rent burden only]	206	33	44	104	94	37	66
Any with nonsevere problems only	**580**	**109**	**153**	**285**	**248**	**84**	**154**
Rent burden >30–50% of income	523	89	135	248	228	75	147
Moderately inadequate housing	97	28	25	52	43	10	23
Crowded housing	39	(D)	17	30	(D)	(D)	(D)
[Rent burden only]	446	78	112	204	200	66	126
Any with no problems	**273**	**53**	**49**	**138**	**116**	**29**	**77**

(continued)

Exhibit A-15. Housing Conditions of Households Having People Younger than 62 Who Have Disabilities by Disability Type, 2017 and 2019 *(continued)*

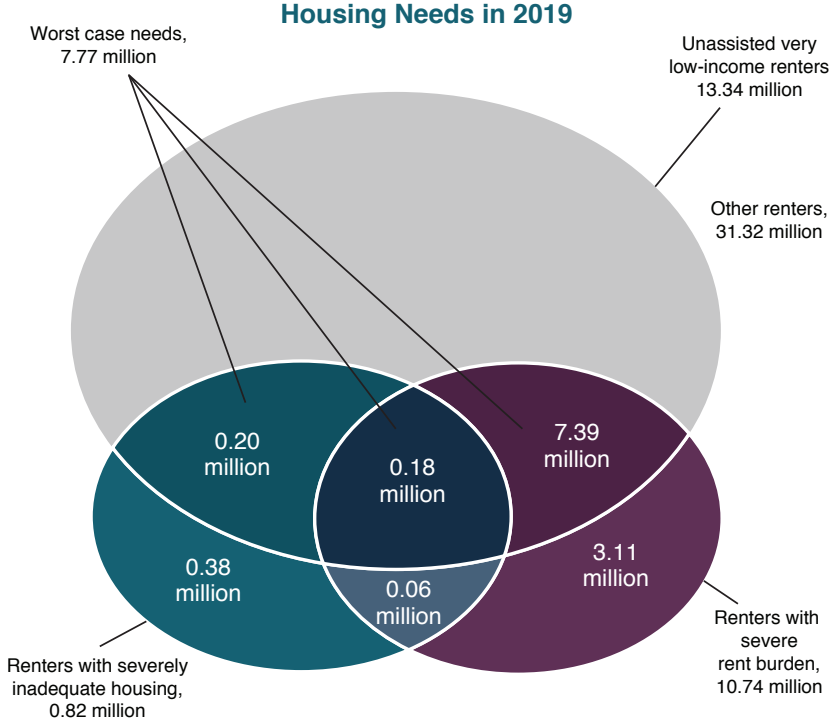
		Functional Limitations				ADL/IADL Limitations[a]	
2017	Any Limitation	Hearing	Visual	Cognitive	Ambulatory	Self-Care	Independent Living
Households (thousands)	**12,360**	**3,071**	**2,558**	**5,202**	**5,423**	**1,885**	**3,633**
Renter households	5,750	1,146	1,300	2,710	2,669	923	1,819
Owner households	6,613	1,925	1,258	2,492	2,754	962	1,815
Renters (thousands)	**5,750**	**1,146**	**1,300**	**2,710**	**2,669**	**923**	**1,819**
Unassisted with severe problems	1,442	234	334	735	721	280	524
Unassisted with nonsevere problems only	1,293	284	325	562	542	159	325
Unassisted with no problems	1,604	378	343	653	580	184	377
Assisted	1,412	250	298	760	827	299	594
Very low-income renters (thousands)	**1,260**	**215**	**269**	**560**	**562**	**199**	**385**
Unassisted with severe problems	344	71	56	180	162	63	130
Unassisted with nonsevere problems only	493	87	157	179	192	59	120
Unassisted with no problems	192	24	24	92	82	36	37
Assisted	231	33	33	109	126	41	98
Any with severe problems	377	81	63	194	185	68	146
Rent burden >50% of income	332	72	53	162	156	62	129
Severely inadequate housing	45	8	11	32	28	6	17
[Rent burden only, adequate housing]	299	71	46	149	134	56	110
Any with nonsevere problems only	601	101	175	239	248	84	165
Rent burden >30–50% of income	551	93	156	220	234	80	155
Moderately inadequate housing	90	8	17	39	36	18	22
Crowded housing	57	12	24	23	17	11	17
[Rent burden only]	459	84	136	178	199	57	128
Any with no problems	282	33	32	127	130	46	74

ADL = Activities of Daily Living. IADL = Instrumental Activities of Daily Living
(D) = value suppressed in accord with Census Bureau disclosure prevention requirements.
Source: HUD-PD&R tabulations of the American Housing Survey

APPENDIX

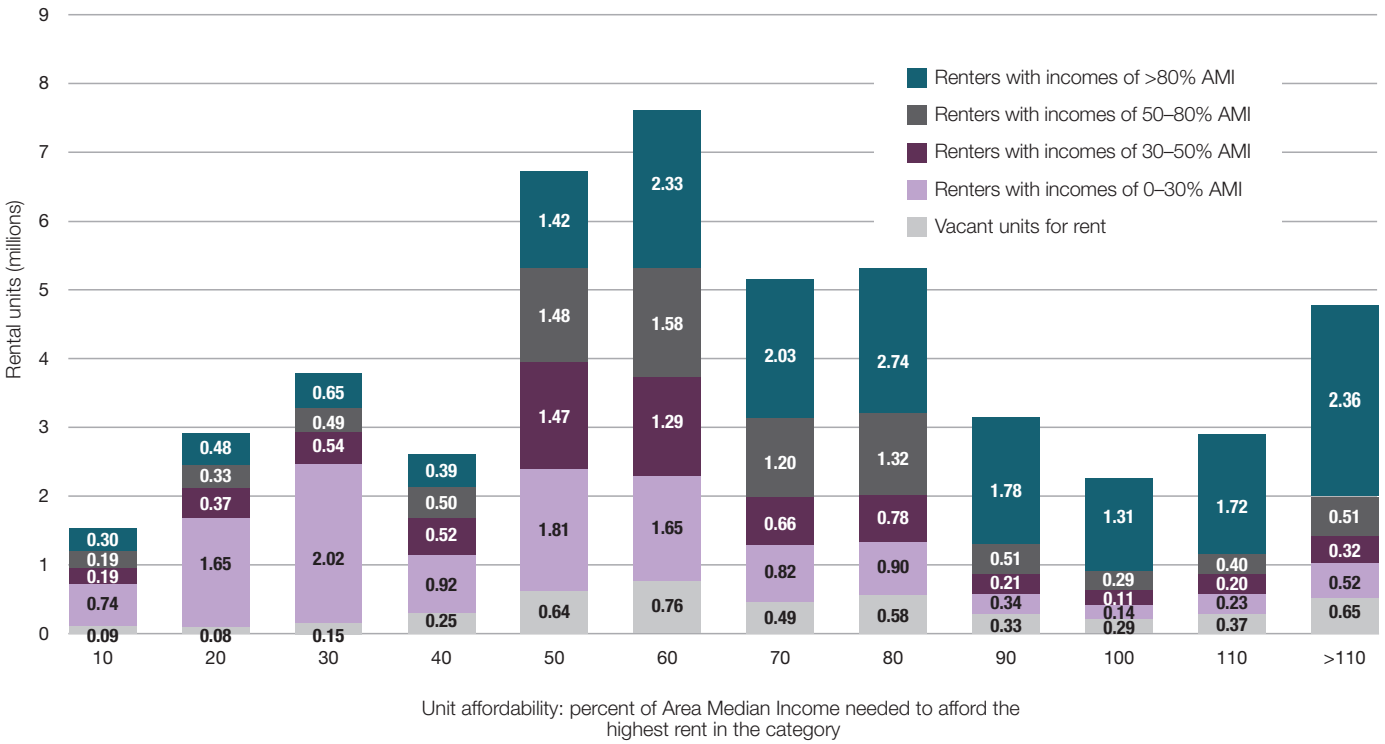
B Supplemental Exhibits

Exhibit B-1. Bird's-Eye View of Worst Case Housing Needs in 2019



Note: Not to scale.
Source: HUD-PD&R tabulations of American Housing Survey data

Exhibit B-2. Affordable Rental Units Occupied by Higher Income Renters, 2019



AMI = area median income.

Source: HUD PD&R tabulations of American Housing Survey data

Exhibit B-3. Rental Stock of Below-Fair Market Rent Units by Region and Metropolitan Location, 2019

	Households (thousands)	Affordable Housing Units (thousands)	Affordable and Available Housing Units (thousands)	Affordable, Available, and Adequate Housing Units (thousands)	Affordable Housing Units per 100 Households	Affordable and Available Housing Units per 100 Households	Affordable, Available, and Adequate Housing Units per 100 Households
All	26,521	29,925	21,657	19,880	112.8	81.7	75.0
Northeast	5,487	5,766	4,444	4,003	105.1	81.0	73.0
Midwest	4,504	5,576	3,716	3,462	123.8	82.5	76.9
South	9,704	11,384	8,298	7,577	117.3	85.5	78.1
West	6,826	7,200	5,200	4,838	105.5	76.2	70.9
Central cities	12,669	13,360	10,053	9,118	105.5	79.4	72.0
Suburbs, urban	8,824	9,877	7,026	6,590	111.9	79.6	74.7
Suburbs, rural	2,166	2,798	2,034	1,884	129.2	93.9	87.0
Nonmetropolitan areas	2,862	3,890	2,544	2,287	135.9	88.9	79.9

Source: HUD PD&R tabulations of American Housing Survey data

APPENDIX C

Federal Housing Assistance and Affordable Housing Programs

HUD provides rental housing assistance through three key programs.[62]

1. **Public housing.** This program provides affordable housing to approximately 1.0 million households through units owned and managed by local public housing agencies. Families are required to pay 30 percent of their incomes for rent.

2. **Project-based assisted housing.** This program provides assistance to 1.2 million households living in privately owned rental housing. The assistance is attached to the units reserved for low-income families who are required to pay 30 percent of their incomes for rent.

3. **Tenant-based rental assistance.** The Housing Choice Voucher Program supplements the rent payments of 2.3 million households in the private rental market. The program is administered through state and local housing agencies. Although 30 percent of income is the rent baseline, families often pay more and use these portable subsidies to locate housing of their choice.

Several other federal housing programs produce affordable housing, typically with shallower subsidies. Although these units are often more affordable than market-rate units, without additional rent subsidies (such as vouchers), extremely low-income families would often have to pay much more than 30 percent of their incomes under these programs.

[62] The number of households assisted by key programs based on HUD administrative records are available through the *Picture of Subsidized Households* query tool at https://www.huduser.gov/portal/datasets/assthsg.html.

- **Low-Income Housing Tax Credit (LIHTC) Program.** Tax credits offered to investors by the U.S. Department of the Treasury subsidize the capital costs of units that have rents affordable to households with incomes not exceeding 60 percent of area median income.
- **HOME Investment Partnerships Program.** This program provides annual formula grants to state and local governments that can be used to assist homeowners, first-time homebuyers, or renters. Qualifying rents must be affordable to households with incomes not exceeding 65 percent of AMI or must be less than the local fair market rent (FMR), whichever is less.
- **Housing Opportunities for Persons With AIDS (HOPWA).** HOPWA provides annual formula and competitive grants available to state and local governments and nonprofits for rental assistance targeted to a special-needs population.
- **Older rental subsidy programs.** Programs named for sections of the National Housing Act, primarily the Section 221(d)(3) Below Market Interest Rate Program and the Section 236 mortgage assistance program, were active from the early 1960s through the early 1970s. They were designed to produce affordable housing for families with incomes higher than the public housing income limits.

For further detail on HUD program requirements, see HUD (2018).

APPENDIX

D Previous Reports to Congress on Worst Case Needs

- *Priority Problems and "Worst Case" Needs in 1989* (June 1991, HUD-1314-PDR).
- *The Location of Worst Case Needs in the Late 1980s* (December 1992, HUD-1387-PDR).
- *Worst Case Needs for Housing Assistance in the United States in 1990 and 1991* (June 1994, HUD-1481-PDR).
- *Rental Housing Assistance at a Crossroads: A Report to Congress on Worst Case Housing Needs* (March 1996).
- *Rental Housing Assistance—The Crisis Continues* (April 1998).
- *Rental Housing Assistance—The Worsening Crisis: A Report to Congress on Worst Case Housing Needs* (March 2000).
- *A Report on Worst Case Housing Needs in 1999: New Opportunity Amid Continuing Challenges, Executive Summary* (January 2001).
- *Trends in Worst Case Needs for Housing, 1978–1999* (December 2003).
- *Affordable Housing Needs: A Report to Congress on the Significant Need for Housing* (December 2005).
- *Affordable Housing Needs 2005: Report to Congress* (May 2007).
- *Housing Needs of Persons With Disabilities: Supplemental Findings to the* Affordable Housing Needs 2005 *Report* (February 2008).
- *Worst Case Housing Needs 2007: A Report to Congress* (May 2010).
- *Worst Case Housing Needs 2009: Report to Congress* (February 2011).

- *Worst Case Housing Needs 2011: Report to Congress* (August 2013).
- *Worst Case Housing Needs: 2015 Report to Congress* (April 2015).
- *Worst Case Housing Needs: 2017 Report to Congress* (August 2017).
- *Worst Case Housing Needs: 2019 Report to Congress* (June 2020).

These publications are available online at http://www.huduser.gov.

APPENDIX E

Data and Methodology

A report such as this one requires researchers to use a number of specialized concepts, definitions, and assumptions when analyzing and presenting the data. This appendix documents such elements for those who wish to understand the results more fully or replicate and extend the results in their own research.

Using the American Housing Survey Data

This report uses data from the most recently available American Housing Survey (AHS), conducted in 2019. The AHS, which is the only detailed periodic national housing survey in the United States, is sponsored by HUD and conducted by the Census Bureau. It provides nationally representative data on a wide range of housing subjects, including apartments, single-family homes, mobile homes, vacant homes, family composition, income, housing and neighborhood quality, housing costs, equipment, fuel type, size of housing units, and recent moves.[63]

The AHS collects national data every 2 years, originally from a sample of about 84,400 housing units (Census-HUD, 2013) and currently from a new, redesigned sample of about 85,400 housing units begun in 2015 (Census-HUD, 2017). The survey, which started in 1973, sampled the same housing units between 1985 and 2013—with occasional adjustments and supplements—plus samples of newly constructed units to ensure the data's continuity and timeliness. To address many challenges in maintaining the AHS longitudinal sample for nearly 30 years, including attrition of housing units, response burden, changes in geography, and disclosure avoidance and mitigation, HUD and the Census Bureau undertook a major redesign for the 2015 AHS. The redesign included a selection of a new national and metropolitan area longitudinal sample, changes to weighting methodologies and imputation processes, and a reevaluation of variables. Information from the worst case needs reports has helped inform public policy decisions, including decisions on targeting existing resources, determining the need for additional resources, and choosing the form that housing assistance should take.

To accurately estimate worst case needs for federal rental assistance from AHS data, it is essential to determine whether household incomes fall below HUD's official very low-income limits (50 percent of HUD-Adjusted Median Family Income [HAMFI], also termed area median income [AMI]), whether a household already receives housing assistance, and whether an unassisted income-

[63] An online codebook that documents all variables available in all American Housing Survey years is available at https://www.census.gov/data-tools/demo/codebook/ahs/ahsdict.html.

eligible household has one or more of the priority problems that formerly conferred preference in tenant selection for assistance (rent burdens exceeding 50 percent of income, substandard housing, or being involuntarily displaced).

HUD and the Census Bureau provide a Table Creator for the 2011 to 2019 AHS surveys. The Table Creator enables users to create customized tabulations of AHS data without the difficulties and special skills needed to analyze microdata Public Use Files. Content includes variables similar to those provided in this report.[64] A national data source that is a reasonable alternative to the AHS for measuring housing needs is the American Community Survey (ACS). The ACS has the advantage of a larger sample size that supports estimates for small geographic areas. Disadvantages of the ACS include addressing housing assistance status less comprehensively and providing much less information about housing unit characteristics. For example, the ACS no longer ascertains whether units contain complete plumbing systems. HUD also sponsors special tabulations of ACS data that have HUD income limits information and can be used by the public to estimate housing needs similar to those in this report for various small geographies.[65]

Weighting. Because the AHS is based on a sample of housing units rather than a census of all housing units, estimates based on the data must be "weighted up" so that totals for each year match independent estimates of the total housing stock and better represent the full housing stock. The Census Bureau weights up responses to account for undercoverage of households and household nonresponse (about 15 percent). The weights for 2001-through-2009 AHS data used in this report are based on the 2000 Census of Housing, with adjustments for estimated change since then. Since 2011, AHS data have been weighted to 2010 census benchmarks. AHS datasets for recent years are provided with multiple "replicate" weights for each observation that can be used to estimate standard errors and evaluate statistical significance without knowledge of stratification and cluster sampling parameters of complex sample designs. See Statistical Significance below.

Exclusions. Households reporting incomes that are zero or negative are excluded from estimates of worst case needs. However, they are included in counts of total households. If such households pay rents greater than the fair market rent and report zero or negative incomes, then their income situation is presumably temporary, and so they are included and higher incomes are imputed to them.

Disclosure Review. The local income limits and HAMFI values that are required to estimate worst case needs are linked to local geographies and therefore pose a risk of disclosing AHS respondents. Accordingly, the analysis relies on restricted access Internal Use files maintained at the Census Bureau's Research Data Center. Tabulations are reviewed, and values are suppressed as necessary, to comply with Census disclosure prevention requirements under the authority of the Data Review Board. The U.S. Census Bureau reviewed this data product for unauthorized disclosure of confidential information and approved the disclosure avoidance practices applied to this release: CBDRB-FY21-POP001-0037.

Statistical Significance. Assessments of statistical significance in this report are made regarding 95-percent confidence intervals. Standard errors associated with estimates are estimated using the AHS replicate weights and Fay "Balanced Repeated Replication" method in the SAS SurveyMeans statistical procedure. Changes between survey years are judged to be statistically significant if the difference between estimated values exceeds a critical value based on the square root of the sum of squared variances. A limitation of this method is that it is not robust to non-independent samples inherent to the AHS panel design.

Household and Family Types

In this report, the terms ***family*** and ***household*** are not interchangeable because not all households are families. ***Families*** refers only to a subset of households that have one or more people in the household related to the ***householder*** (the first household member age 18 years or older who is listed as an owner or renter of the housing unit) by birth, marriage, or adoption.

Families with children. Households with a child younger than age 18 present are presumed to meet the definition of family through relation by birth or adoption (including grandparents as parents).

Older adult households without children. Households in which the householder or spouse is age 62 or older and no children are present. Older adult households may be either family or nonfamily households.

Other family households. Households with people younger than 62 as a householder and no children, in which either (1) one or more people are related to the householder by birth, marriage, or adoption; or (2) one or more subfamilies reside there who have members related to each other by birth, marriage, or adoption.

Other nonfamily households. Households with single people, younger than 62, living alone or with only

[64] The AHS Table Creator tool is found at https://www.census.gov/data/data-tools/ahs-table-creator.html.

[65] The Comprehensive Housing Affordability Strategy (CHAS) datasets can be downloaded from https://www.huduser.gov/portal/datasets/cp.html.

nonrelatives. Most of these households consist of a single person living alone rather than unrelated people sharing housing.

Households with people with disabilities. Before 2009, no questions in the AHS were designed to directly ascertain whether individuals suffered from disabilities. Worst case needs reports for 2007 and earlier identified households containing people with disabilities using various forms of income-based proxies. Households with disabilities (1) were not families with children, (2) were not older adult households, and (3) received some form of income or government assistance that is very likely to indicate that an adult with disabilities is present in the household. The 2009 AHS and subsequent surveys ask direct questions about impairments and difficulties with activities of daily living for each household member, including children older than 5 years old. This report, therefore, addresses disability based on people reported with these problems, except that older adults who have disabilities do not increase the number of households counted with disabilities because so many disabilities are associated with aging.

Housing Assistance Status

In 1997, the AHS questions intended to identify households receiving rental assistance were changed in both content and order from those used previously. After careful review, HUD and the Census Bureau adopted the following procedure to identify assisted households in a way that produces results that are more comparable with pre-1997 data. Those questions were further refined in 2007 as a result of additional cognitive research. In this report, therefore, receipt of rental assistance is based on respondent reports designed to determine the following:

- Whether the household must recertify to determine the rent it pays.
- Whether the rent is less because of a federal, state, or local government housing program.
- Whether the household has a housing voucher and, if so, whether it can be used to move to another location.
- Whether the housing authority is the household's landlord.

An alternative approach of identifying HUD-assisted households using an administrative data match is not used to determine housing assistance status for the purposes of this report because such an approach excludes assistance received from other federal, state, or local agencies.

Housing Problems

Rent or cost burden. A ratio of housing costs (including utilities) to household income that exceeds 30 percent, which is a conventional standard for housing affordability. To the extent that respondents underreport total income, the AHS estimates may overcount the number of households with a cost burden. A ***severe*** cost burden exceeds 50 percent of reported income. A ***moderate*** cost burden exceeds 30 percent but is less than or equal to 50 percent of reported income. Cost burdens only qualify as potential worst case needs if they are severe. Households reporting zero or negative income are defined as having no cost burden.

Inadequate housing. Housing with severe or moderate physical problems, as defined in the AHS since 1984 and modified from time to time to reflect changes in the survey. Severe inadequacies constitute potential worst case needs, but moderate inadequacies do not. The 2007 AHS eliminated the questions about hallways (common stairways and light fixtures) in multiunit structures in the section on selected physical problems, which affects the classification of units having severe or moderate physical problems. Briefly, a unit is defined as having severe physical inadequacies if it has any one of the following four problems.

1. **Plumbing.** Lacking piped hot water or a flush toilet or lacking both bathtub and shower, all for the exclusive use of the unit.
2. **Heating.** Having been uncomfortably cold during the past winter for 24 hours or more, or three times for at least 6 hours each, because of broken-down heating equipment.
3. **Electrical.** Having no electricity or having all of the following three electrical problems: exposed wiring, a room with no working wall outlet, and three or more blown fuses or tripped circuit breakers in the past 90 days.
4. **Upkeep.** Having any five of the following six maintenance problems: leaks from outdoors, leaks from indoors, holes in the floor, holes or open cracks in the walls or ceilings, more than 1 square foot of peeling paint or plaster, and rats in the past 90 days.

A housing unit has moderate physical inadequacies if it has any of the following four problems but none of the severe problems listed previously.

1. **Plumbing.** Having all toilets break down simultaneously at least three times in the past 3 months for at least 3 hours each time.
2. **Heating.** Having unvented gas, oil, or kerosene heaters as the main source of heat (because those heaters may

produce unsafe fumes and unhealthy levels of moisture).

3. **Upkeep.** Having any three of the six upkeep problems associated with severe inadequacies.

4. **Kitchen.** Lacking a sink, range, or refrigerator for the exclusive use of the unit.

Overcrowding. The condition of having more than one person per room in a residence. Overcrowding is counted as a moderate problem rather than a severe problem that constitutes a potential worst case need.

"Priority" problems. Problems qualifying for federal preference in admission to assisted housing programs between 1988 and 1996, including paying more than one-half of income for rent (severe rent burden), living in severely substandard housing (including being homeless or in a homeless shelter), or being involuntarily displaced. These problems informed the original definition of worst case needs. Because the AHS sample tracks housing units and thus cannot count people experiencing homelessness, AHS estimates of priority problems are limited to the two severe problems described previously: (1) rent burdens greater than 50 percent of income or (2) severe physical problems. In accordance with the intention to estimate the number of unassisted very low-income renters with priority problems, the exhibits in appendix A classify households with a combination of moderate problems and severe problems as having severe problems.

Income Measurement

Income sources. *Income* means gross income reported by AHS respondents for the 12 months preceding the interview. For each person in the household, the AHS questionnaire collects the amounts of several different types of income. Income includes amounts reported for wage and salary income, net self-employment income, Social Security or railroad retirement income, public assistance or welfare payments, and all other money income before deductions for taxes or any other purpose. Imputed income from equity is not included as income in this report. Following HUD rules for determining income eligibility for HUD programs, the earnings of teenagers age 17 and younger are not counted as income for this report.

Household income. Reported income from all sources for all household members age 18 and older.

Income Categories

HAMFI and official income limits. HUD is required by law to set income limits each year that determine the eligibility of applicants for assisted housing programs. In 1974, Congress defined ***low income*** and ***very low income*** for HUD rental programs as incomes not exceeding 80 and 50 percent, respectively, of HAMFI. HAMFI is more commonly referred to as area median income (AMI), although the latter term may be subject to misinterpretation. Note that income limits are based on median family income (MFI), not on median household income. HUD determines base income limits for a household of four, and adjusts them further by household size: one person, 70 percent of base; two people, 80 percent; three people, 90 percent; five people, 108 percent; six people, 116 percent; and so on. Each household is assigned to an income category using the HUD-determined income limit for its geographic area and number of household members.[66] The Quality Housing and Work Responsibility Act of 1998 (Pub. Law 105–276) first applied an ***extremely low income*** standard based on 30 percent of HAMFI for admissions targeting in public housing and the tenant-based Section 8 program. (See Extremely Low Income below.)

Income cutoffs in association with AHS geography. The Census Bureau matches AHS survey addresses with HUD income limit geography and assigns the appropriate income limits to each case, making the appropriate adjustments for household size.

Because developing estimates of official income limits for the geography identified in the AHS microdata was time consuming, before the 2003 AHS release, HUD prepared income limits to use with AHS geography for only 3 years: 1978, 1986, and 1995. Income cutoffs for the 2003 AHS release and each subsequent dataset have been based on HUD's current income limits for those years, weighted by AHS weights. The Census Bureau included those cutoffs to the AHS public use file through 2013. To protect respondent confidentiality, income limit variables were restricted to the AHS internal use file (IUF) in 2015. Additional detail about income limits can be found in the housing costs-affordability section of the ***AHS Codebook*** interactive tool (Census-HUD, 2019).

Categorizing households by income. For this report, when households are categorized using the extremely low-, very low-, and low-income cutoffs, the cutoffs are adjusted for household size using the same adjustment factors that HUD programs use. (See additional considerations under Extremely Low Income below.)

In addition, households reporting negative income are attributed incomes of slightly more than AMI if their monthly housing costs exceed the FMR and they lived in adequate and uncrowded housing. The justification for imputing higher incomes is that many households in this situation live in

[66] For details about how HUD sets income limits, see https://www.huduser.gov/portal/datasets/il.html.

housing with amenities such as dining rooms, balconies, and off-street parking and thus may be reporting temporary accounting losses.

- **Extremely low income (ELI).** Income not in excess of 30 percent of HAMFI, as determined by the extremely low-income cutoff used for Section 8 programs. In 2014, Congress required HUD to begin setting ELI cutoffs for each area to the greater of 30 percent of HAMFI or the federal poverty guidelines, but necessarily capped by the VLI cutoff.[67] Because of this requirement, 78 percent of geographic areas had 4-person ELI cutoffs set above 30 percent of HAMFI in 2019. The average increase in the cutoff among such areas was 32 percent, and for 3 percent of areas that were capped by the VLI cutoff, the increase was 67 percent. Because federal poverty guidelines use larger household size adjustments than do HUD income limits, increases in the ELI cutoffs were both more likely and more substantial for large households than for small households.

- **Very low income (VLI).** Income not in excess of 50 percent of HAMFI, as determined by the very low-income cutoff. Very low income thus includes extremely low income, although the term sometimes is used loosely in specific contexts, such as mismatch analysis, to mean incomes of between 30 and 50 percent of HAMFI.

- **Low income.** Reported income not in excess of 80 percent of HAMFI, as determined by the low-income cutoff.

- **Middle income.** For this report, income exceeding 80 percent and less than 120 percent of HAMFI.

- **Upper income.** For this report, income exceeding 120 percent of HAMFI.

  HUD allows some jurisdictions exceptions in the definition of the ELI and VLI cutoffs. Those exceptions are intended to prevent loss of benefits to assisted households caused by improvement in local economic conditions. Thus, the official income limits for ELI and VLI are in some cases set above 30 or 50 percent of HAMFI, respectively. The AHS (and thus this report) uses those official income limits in all its measures.

- **Poverty.** Household income of less than the U.S. national poverty guidelines for that household size. As discussed in appendix A of the Census Bureau's AHS publications, AHS poverty estimates differ from official poverty estimates made from the Current Population Survey. AHS poverty estimates are based on the income of households rather than the income of families or individuals, and AHS income questions are much less detailed and refer to income during the past 12 months rather than during a fixed period. The poverty guidelines for a family of four approximates 33 percent of HAMFI. Comparisons of income limits with poverty thresholds are presented in exhibits A-6a, A-6b, A-7, and A-8.

- **Earnings at minimum wage.** Households with incomes from salary or wages totaling at least as much as one could earn working full-time (40 hours per week for 50 weeks per year) at the federal minimum wage of $7.25 per hour are defined as having at least full-time earnings at minimum wage. Thus, the sum of salary and wage income earned by all persons in the household totals at least $14,500 annually. Households with incomes from salary or wages totaling at least one-half that amount ($7,250 annually) are defined as having at least half-time earnings at minimum wage. Comparisons of household earnings characteristics are presented in exhibits A-6a, A-6b, A-7, and A-8.

Location

Metropolitan Statistical Area (MSA). From 1973 to 1983, the definitions of metropolitan location in AHS data corresponded to the 243 Standard MSAs used in the 1970 census. From 1984 to 2013, metropolitan location in the AHS has referred to the MSAs defined in 1983, based on the 1980 census. The 2015 AHS redesign that selected a new national and metropolitan area longitudinal sample for the first time since 1985 brought metropolitan area definitions up-to-date with the most current Office of Management and Budget (OMB) delineations based on the 2010 census, which, at the time the 2015 AHS sample design took place, was February 2013.[68] These areas are now termed Core-Based Statistical Areas (CBSAs).

Region. The four census regions are the Northeast, Midwest, South, and West.

Mismatch of Supply and Demand for Affordable Rental Housing

Mismatch. HUD assesses the state of the housing market by examining the extent of mismatch between the supply of the rental housing stock and the number of renters whose household incomes fall below specified thresholds. Three summary measures are used to characterize the extent of mismatch at selected income levels:

[67] See Frequently Asked Question 4, https://www.huduser.gov/portal/datasets/il.html#2015_faq.

[68] For more detailed information on 2015 AHS metropolitan areas, see https://obamawhitehouse.archives.gov/sites/default/files/omb/bulletins/2013/b13-01.pdf.

- affordable units per 100 renters;
- affordable and available units per 100 renters; and
- affordable, available, and adequate units per 100 renters.

These mismatch measures can be understood as measuring the sufficiency of the quantity of housing supplied relative to the quantity of housing demanded. The italicized terms are defined and discussed below.

Affordability. Several federal rental programs define *affordable* rents as those requiring not more than 30 percent of an income cutoff defined concerning HAMFI. Under the Low-Income Housing Tax Credit (LIHTC) program, for example, housing units with rents up to 30 percent of 60 percent of HAMFI qualify as affordable and eligible for the credit.

This report generalizes the approach developed to define LIHTC maximum rents for units of different sizes to define three categories of affordability (ELI, VLI, and low income) based on incomes that are sufficient for the rents: at or less than 30 percent of HAMFI, more than 30 percent and not more than 50 percent of HAMFI, and more than 50 percent of HAMFI. Units are assigned to affordability categories by comparing their gross rent, including payments for utilities, with affordability thresholds calculated as 30 percent of the income cutoffs for the corresponding income group. Units with gross rents above those thresholds are not affordable because they would cause moderate or severe cost burdens even for the highest income renters of the income group. Thus, unit affordability depends on the percent of HAMFI needed to afford the highest rent in each income category (ELI, VLI, and so on). For example, to be affordable to ELI renters, a unit's gross rent would have to be 30 percent or less (affordability threshold) of 30 percent of HAMFI (ELI threshold). The method of assigning units to cost categories was modified in 2017 to account for limited HUD administrative exceptions to program income limits.

The income limits used to define rent affordability are adjusted for the number of bedrooms using the formula codified at 26 U.S.C. 42(g)(2)(C): no bedrooms, 70 percent of base; one bedroom, 75 percent; two bedrooms, 90 percent; three bedrooms, 104 percent; four bedrooms, 116 percent; and plus 12 percent of base for every additional bedroom. This formula assumes that an efficiency unit houses one person, a one-bedroom unit houses 1.5 people, and each additional bedroom houses another 1.5 people.

Availability. For mismatch analysis, housing units that are affordable at a specified income level are further assessed for whether they are currently available to households at that income level. A unit is available if it is either already occupied by a household of that income level or currently vacant and available for rent. Units that are occupied by households of higher income groups are not "available."

Adequacy. For mismatch analysis, housing units that are found to be both affordable and available at a specified income level are further assessed for whether they are free of severe physical inadequacies, as discussed under the Housing Problems heading.

Categorization of rental units and households for mismatch analysis. To analyze the mismatch between affordability and income, HUD compares household incomes and housing unit rents with the current income limits (for income and rent categories up to and including 80 percent of HAMFI) and to a ratio of HAMFI (for categories exceeding 80 percent of HAMFI). As in the analysis of household income, households reporting negative income are redefined as having incomes slightly greater than MFI if their monthly housing costs were more than the FMR and they lived in adequate and uncrowded housing. Units reported as having "no cash rent" are categorized solely on the basis of utility costs. Utility costs are allocated to vacant units through hot-deck imputation based on units that are comparable based on cost, number of units in the structure, region, and tenure.

Race and Ethnicity

In 2003, the AHS began using revised Census Bureau categories of race and ethnicity that are not directly comparable with the categories used in the AHS from 2001 and earlier. Survey respondents may now select more than one racial group, causing slight but meaningful decreases in the size of previously monolithic categories.

The 2017 AHS supports producing estimates of worst case housing needs for more detailed race and ethnicity categories than were included in previous reports. In addition to non-Hispanic White, non-Hispanic Black, and Hispanic renters, households experiencing worst case housing needs previously enumerated in an "other" race category are now reported for Asian, American Indian or Alaska Native, and Native Hawaiian or other Pacific Islander renters in exhibit 1-7.

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Office of Policy Development and Research
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