

Office of the Assistant Secretary for Planning and Evaluation U.S. Department of Health and Human Services

OFFICE OF HUMAN SERVICES POLICY

The Impacts and Implications of COVID-19 on Household Arrangements

Author: Alec Vandenberg

KEY FINDINGS

 Housing arrangements differ in their composition, the motivation behind their creation, and their effects. The diversity of arrangements contribute to research gaps, particularly in the understanding of how these arrangements affect individual household members' experiences.

- Pre-pandemic and emerging data suggest that housing, economic, and social pressures related to the COVID-19 pandemic and associated recession likely increased the number of shared households, influencing resource security, well-being, and COVID-19 transmission and risk.
- People living in informal and/or doubled-up housing arrangements can represent some of the most economically vulnerable households, yet these individuals and families may face barriers to receiving assistance.
- Additional research on the experiences of specific populations during the pandemic, as well as analysis of how evolving household formations affect household members' economic stability and holistic wellness, can help inform an inclusive economic recovery.

Introduction

Demographic data indicate that greater numbers of Americans continue to form joint households, many in response to economic pressures and housing insecurity. According to U.S. Census data, the number of shared households, defined as households that include one "additional" adult beyond the head of the household and a spouse or partner, increased from 19.7 million in 2007 to 24.9 million in 2018. Periods of economic insecurity typically expedite this trend. In the context of the COVID-19 pandemic, additional economic and housing pressures may drive more individuals and families to double up and enter into informal housing arrangements, influencing both economic security and COVID-19 transmission and risk.

Intergenerational households often represent a common shared housing arrangement. Starting around 1980, across all major demographic groups, the prevalence of multigenerational family households began to grow again after decreasing after World War II. ⁴ Social and economic forces, such as the change in median age of first marriage, waves of immigration, and recessions, continue to spur these trends. ⁵ Pew Research Center analysis of census data indicates that in 2016, a record 64 million people, or 20 percent of the U.S. population, lived with

multiple generations under one roof.⁶ The percentage of population in multigenerational households —defined as households including two or more adult generations, or including grandparents and grandchildren younger than 25— has risen from 2009-2016 across all racial and ethnic groups. In 2016, 29 percent of the Asian population lived in a multigenerational household compared to 27 percent of the Hispanic population, 26 percent of the Black population, and 16 percent of the White population. Population growth and immigration, among other factors, play a role in driving these trends.⁶ According to an Association of American Retired Persons pre and mid-COVID-19 pandemic analysis of multigenerational households, cultural nuances also play a role in shaping household members' motivations and attitudes toward shared housing.⁷

The compositions and characteristics of joint households can vary, affecting household members in a variety of ways. Arrangements can include multiple, distinct families under one roof; intergenerational households; shared housing; and informal renters living in a basement (see *Types of Joint Households* Box on next page). Joint household members may be students returning home from higher education, rent-burdened families moving in together, or elders sharing a roof with their adult children. Doubled-up individuals and families may or may not live as informal renters. The diversity of arrangements and their motivations contribute to research gaps, particularly in the understanding of how these arrangements affect individual household members' experiences. Knowing the contexts and formations of various households can help programs better understand which arrangements best support participants, how the composition of the household and how to meaningfully promote equity in resource access and program outcomes. This brief identifies emerging literature on the impacts and implications of the COVID-19 pandemic on household arrangements as well as considerations for how to best serve multiple individuals and families under one roof during the pandemic and in the future.

Types of Joint Households Exist on a Spectrum

Housing arrangements differ in their composition, the motivation behind their creation, and their effects. The definitions in the box below and in Figure 1 are not comprehensive. They provide one way to visualize the types of households described in the literature along a spectrum. Across each type of housing arrangement, economic insecurity can drive decisions to form a joint household, household members may stand at greater risk of COVID-19 exposure,⁸ and members of multiple generations may be present.

Types of Joint Households

Doubled-up: Doubled-up households have one or more adults in addition to the head of household and spouse or partner, such as an adult child living at home, two related or unrelated families residing together, or a parent living with an adult child. Households can be also "tripled up."

Home sharing: A homeowner or lease holder rents out one room or more.

Informal renters: Informal housing arrangements include those outside the traditional landlord-tenant relationship, such as roommates and sublessors who pay cash rent and have oral agreements instead of a proper lease. II

Overcrowding: Often measured by persons per room, the standards used to measure household crowding continue to be discussed. III

Shared housing: Two or more people live in one permanent rental housing unit, sharing costs such as rent and utilities.^{IV}

- I. https://www.huduser.gov/portal/pdredge/pdr_edge_research_012714.html
- II. https://www.brookings.edu/blog/the-avenue/2021/03/03/four-lessons-from-a-year-of-pandemic-housing-policies/
- III. https://www.census.gov/programs-surveys/ahs/research/publications/Measuring_Overcrowding_in_Hsg.html
- IV. https://www.va.gov/HOMELESS/ssvf/docs/Shared_Housing_Fact_Sheet.pdf

Some programs consider "sharing the housing of other persons due to loss of housing, economic hardship, or a similar reason" as experiences of homelessness for children, youth, and families. Joint household formations discussed in this brief can precede or follow other episodes of homelessness.

https://nche.ed.gov/understanding-doubled-up/

The literature on joint households uses a wide range of terms, sometimes interchangeably. This brief identifies a range of housing arrangements and highlights the experiences of informal renters and people living in doubled-up housing. Although joint household compositions vary and the pandemic affects all types of household members, this brief focuses on people who entered doubled-up and/or informal housing arrangements in response to the pandemic and economic insecurity. The brief further highlights people who had been living in these arrangements prior to the COVID-19 pandemic, who may stand at greater risk of the wide-ranging impacts of COVID-19 and the related economic downturn.

Joint Household Formations and Compositions Vary

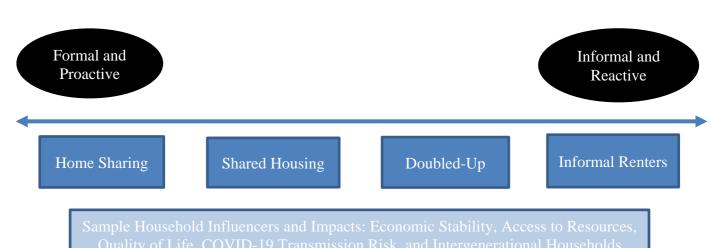


Figure 1: Household compositions exist on a spectrum of formality in their agreements and arrangements.

Their formations may be planned or in response to crisis. Each arrangement may have varying degrees of

economic stability, access to resources, quality of life, COVID-19 transmission risk, and intergenerational households. This infographic visualizes a spectrum of joint household compositions based on the literature and the author's understanding. Terms used depend on the context and population referenced.

The Pandemic's Influence on Household Composition

Rising Housing Burdens and Risk of Eviction

Even before the COVID-19 pandemic, many Americans struggled with housing instability. In 2019, 37.1 million households (almost one third of all households) experienced housing "cost burden," defined as spending more than 30 percent of their incomes on housing. 9,10 By one estimate from the National Low Income Housing Coalition, for every 100 extremely low-income households, only 36 affordable rental homes are available. 11 From 2000 to 2016, for every 17 renter households, one eviction was filed. According to the 2017 U.S. Census Bureau American Housing Survey, 32 percent of renters reported that they would move in with friends or family members upon eviction, which would introduce new household members and potentially increase household crowding. 12

The COVID-19 pandemic and associated recession have impacted Americans' housing stability. For example, according to the U.S. Census Bureau's experimental Household Pulse Survey data

collected from July 21 through August 2, 2021, over 3.5 million renters above age 18 behind on rent said they would be "very likely" or "somewhat likely" to face eviction in the next two months. An estimated 71 percent of these renters are people of color. ¹³ In light of these heightened vulnerabilities, the Centers for Disease Control and Prevention's action to halt residential evictions to prevent the spread of COVID-19 likely prevented a large number of evictions, COVID-19 infections, ¹⁴ and entries into homelessness. Further, funding from the American Rescue Plan will help prevent homelessness for many Americans. ¹⁵ Yet, in response to more potential evictions following the end of the eviction moratorium, more renters may take up informal housing arrangements. ¹⁶

Doubling Up in Response to Need

Historically, rates of doubling up increase during recessions.¹⁷ Unemployment can triple the probability that an individual moves in with others.¹⁸ According to 2019 American Housing Survey estimates, about 4 million occupied housing units had more than one occupant per room, and about 27 million occupied housing units included four or more people per household.^{19,20} Data has not yet emerged about the impact of the COVID-19 pandemic on household formation. However, given the demonstrated increased social and economic hardship across American communities, with effects sharpest in low-income communities and among Black and Hispanic people during the pandemic, it likely increased joint household formation.²¹

The impacts of doubling up on household members' well-being, measured by indicators such as economic stability and physical and mental health, can depend on the household arrangement, the household resources available, and the motivations for joining households.

Generally, households join together for economic reasons, child care, and/or elder care.²²
Some households and household members in joint household arrangements may benefit from supports and shared resources, such as food and joint childcare.²³
Some individuals and families double up to avoid entering shelters and to prevent family separation and other trauma.²⁴ The COVID-19 pandemic introduced additional public health risks that may discourage individuals' and families' use of shelter settings, making doubling up a more attractive option.²⁵

The impacts of doubling up on household members' well-being, measured by indicators such as economic stability and physical and mental health, can depend on the household arrangement, the household resources available, and the motivations for joining households. Doubled-up families may save money on rent, utilities, and child care and can receive emotional and parenting support. However, some families may incur additional food expenses and noneconomic costs, such as a loss of privacy. Household arrangements with more people living under the same roof can increase the risk of interpersonal conflicts and COVID-19 transmission. Children's short- and long-term academic, physiologic, and emotional outcomes may also depend on the characteristics of the doubled-up household they live in. In many cases, these impacts can be compared with the outcomes of alternatives to doubling up or informal renting, including shelter stays. The experiences of household members in shared living environments vary widely because of the diversity of joint household arrangements and motivations.

COVID-19 Transmission Risk

Joint household arrangements can affect an individual's ability to self-isolate after COVID-19 exposure. According to the 2019 American Housing Survey, before the pandemic, about 36 percent of all U.S. households (32 million total households) lived in multiperson homes that did not have at least two full bathrooms. For multiperson homes with an individual who is at higher risk of hospitalization from COVID-19 because they are age 65 years or older, the percentage without two full bathrooms drops to 31 percent (7.2 million), complicating household members' ability to safely self-isolate. For these intergenerational households, working-adults may be exposed to COVID-19 in the workplace, and or children may be exposed to COVID-19 in schools

and early care settings, therefore potentially exposing older household members who are often at high risk of severe illness from COVID-19. Similarly, about 1 in 10 multiperson households (11 percent, or 9.8 million households) did not have enough bedrooms for an exposed individual to quarantine alone without forcing more than two people to stay in one of the remaining bedrooms. Racial disparities exist: 51.2 percent of American Indian or Alaskan Native multiperson households lacked sufficient bedrooms and bathrooms to quarantine one member, along with 51 percent of Pacific Islander, 50.4 percent of Black, 44.1 percent of multiracial, 36.1 percent of White, and 34.6 percent of Asian multiperson households.²⁸

Before the pandemic, people of color disproportionately lived in crowded homes, defined as having more than one person per room in the household.²⁹ The disparate representation of workers of color in essential work fields and the disproportionate loss of jobs by workers of color during the COVID-19 pandemic increase the risk of more individuals and families of color living in increasingly crowded home environments. These disparities increase the risk of exposure to COVID-19 both at work and at home for communities of color.^{30,31}

The public health concern that evicted renters often move into close quarters in shared housing or other congregate settings was the basis for the 2020 CDC eviction moratorium.

The COVID-19 pandemic's effects can exacerbate pre-pandemic trends, increasing the vulnerabilities of many households. In fact, the public health concern that evicted renters often move into close quarters in shared housing or other congregate settings was the basis for the 2020 CDC eviction moratorium. Research shows that eviction and utility moratoriums significantly reduced COVID-19 transmission and related deaths. For example, a paper published in July 2021 in the *American Journal of Epidemiology* studied variation in the expiration of eviction moratoriums in U.S. states. The study found that moratorium expirations contributed to an estimated 434,000 excess cases of infection and nearly 11,000 excess deaths because evictions may accelerate COVID-19 transmission by decreasing individuals' ability to socially distance in doubled-up housing, shelters, and other crowded settings. And the concern that evicted renters of the vulnerabilities of the public health concern that evicted renters of the vulnerabilities of the

Implications and Considerations for Serving Program Participants

Targeting Relief to Individuals and Families

People living in informal and/or doubled-up housing arrangements can represent some of the most economically vulnerable households, yet these individuals and families may face barriers to receiving crucial assistance.

People living in informal and/or doubled-up housing arrangements, such as an individual renting a basement without a lease or families moving in together, can represent some of the most economically vulnerable households, yet these individuals and families may face barriers to receiving assistance. Certain benefits may require a lease and/or the cooperation of a landlord. Many individuals and families living under one roof may lack required documentation and/or may fear landlord involvement, leaving them ineligible for certain benefits and potentially deterring them from seeking assistance.

Although updated Department of the Treasury-issued guidelines for emergency rental assistance funds consider many overcrowded households eligible for rental assistance, and allow documentation of residence outside of a signed lease and landlord attestation,³⁵ this may have been unclear during initial availability of rental assistance and state and local level requirements can exclude many renters in precarious housing arrangements. As of July 2021, only seven percent of local and state rental assistance programs allowed self-attestation of lease or proof of tenancy, disqualifying many renters with informal rental agreements.^{36,37}

Landlord involvement in benefit and relief verification can prevent some renters from receiving aid. Some informal renters may not have a relationship with a landlord because they informally rent through intermediaries. Some renters may fear expulsion from their informal unit if landlords

become aware of their presence.³⁸ Other programs and benefits may require housing documentation to receive relief, and some informal renters may lack access to funds if they pay their bills informally. For example, some utility assistance programs require copies of utility bills, which informal renters may lack if their informal rent includes utility costs.³⁹

Restrictive criteria can prevent aid from reaching vulnerable renters, which may leave nonprofit organizations to fill in the gaps. For example, Family Promise, a homelessness-prevention nonprofit that works in 43 states, reported in February 2021 that people without leases represented an outsized share of the group's requests for rental aid and assistance.⁴⁰

Some authorities have clarified that state or local eviction protections cover tenants without written leases in their names, and have issued guidance on undocumented residents' eligibility for emergency rental assistance. However, even if informal renters and doubled-up individuals and families can legally access benefits, insufficient information and outreach can prevent these tenants from knowing their rights and receiving resources and services. Undocumented immigrants face particular challenges because some emergency relief programs require Social Security numbers, and the lingering chilling effect of the Public Charge rule may discourage some residents from accessing benefits they qualify for. However, even if informal renters and doubled-up individuals and families can legally access benefits, insufficient information and outreach can prevent these tenants from knowing their rights and receiving resources and services.

Serving Multiple Individuals and/or Families Under One Roof

Effectively and equitably providing benefits and services to households with multiple individuals and families can require additional planning, resources, and considerations.

In response to the pandemic, many programs shifted to virtual human service delivery, a method likely to stay for some services and populations. ⁴⁵ In administering virtual services during the pandemic and in the future, programs can make adjustments to better serve all household members. An <u>ASPE report</u> on the perspectives of programs administering virtual human services highlights individuals and families who live in

Individuals and families who live in crowded spaces and have difficulty finding a quiet, private space may find that virtual services are not a good fit for the reality of their lives.

crowded spaces and have difficulty finding a quiet, private space. These participants may find that virtual services are not a good fit for the reality of their lives. In these cases, participants may limit information sharing with caseworkers because of a lack of confidentiality. In some cases, families may have a device in the home but need to share it among children or with other household members, making virtual connection difficult. Multiple household members using devices simultaneously for school, work, and service delivery can also increase difficulty of access, especially when reliable broadband is not available.⁴⁶ To ensure all members of the household can effectively and equitably access and benefit from services, programs can pay careful attention to technology access, constraints, and confidentiality.⁴⁷

Housing arrangements can affect benefit and service eligibility as well as service quality. Although some households join together to share resources, doubling up can affect eligibility for certain benefits and services. 48 Additional household members can increase the size of the household and alter the household's income, potentially increasing or decreasing access to some benefits and adding to or alleviating hardship. 49

To address these challenges and others, programs can develop individualized service plans to best meet the needs of individuals and families in evolving and often intergenerational households. Additional clarification of resources and targeted outreach can inform renters and program participants of their eligibility for crucial benefits and services.

Conclusion

The rising rates of individuals and families doubling up and/or renting informally in joint housing arrangements hold great implications for well-being and equity. Trends in housing burdens, employment, economic well-being, and intergenerational household composition before and during the pandemic suggest that Black, Hispanic, and American Indian and Alaskan Native individuals and families disproportionately live in shared housing environments, face higher risks of COVID-19 transmission, and experience economic insecurity. Individuals and families in existing or new shared housing environments, whether proactive and formal or reactive and informal, may require additional support and targeted outreach to receive benefits and services. In particular, some populations, especially in informal housing arrangements, may lack eligibility for or knowledge of relief and other funds, further compounding their economic insecurity. Better understanding the compositions of joint households and the reasons for their formations, as well as the barriers faced by these populations, can help drive a more equitable service delivery approach. In particular, additional research on the following evidence gaps can inform policy and programmatic decisions:

- Better understanding the unique needs, experiences, and contexts of informal renters
- Conducting subpopulation analysis, particularly during the pandemic, to identify the full spectrum of household formations and related impacts on household members
- Analyzing the impacts of evolving household formations on household members' access to resources, eligibility for benefits, and indicators of economic stability and holistic wellness

"Undoubling," defined as individuals and families leaving joint housing environments, may play a role in inclusive economic recovery efforts for some populations. For participants who may benefit from undoubling, resources such as child care, elder care, and food supports may be crucial. In particular, American Rescue Plan funds for 70,000 emergency housing vouchers can provide opportunities for some doubled-up and informal renters to obtain formal leases. ⁵⁰ More research on renter experiences and needs can inform additional considerations and opportunities to best meet the needs of individuals and families, especially for populations that have faced historical barriers to accessing services and disproportionate impacts of the pandemic.

References

```
<sup>1</sup> U.S. Department of Housing and Urban Development. (n.d.). American Housing Survey reveals rise in doubled-up
households during recession. PD&R Edge. https://www.huduser.gov/portal/pdredge/pdr_edge_research_012714.html
<sup>2</sup> Fontenot, K., Semega, J., & Kollar, M. (2018). Income and poverty in the United States: 2017 (Current Population Reports
P60-263). U.S. Census Bureau. https://www.census.gov/content/dam/Census/library/publications/2018/demo/p60-263.pdf
<sup>3</sup> Mykyta, L., & Macartney, S. (2012). Sharing a household: Household composition and economic well-being: 2007–2010
(Current Population Reports P60-242). U.S. Census Bureau. https://www.census.gov/prod/2012pubs/p60-242.pdf
 Pew Research Center. (2010, March 18). The return of the multi-generational family household.
https://www.pewresearch.org/social-trends/2010/03/18/the-return-of-the-multi-generational-family-household/
<sup>5</sup> Pew Research Center. (2010, March 18). The return of the multi-generational family household.
https://www.pewresearch.org/social-trends/2010/03/18/the-return-of-the-multi-generational-family-household/
<sup>6</sup> Cohn, D., & Passel, J. S. (2018, April 5). A record 64 million Americans live in multigenerational households. Pew Research
Center. https://www.pewresearch.org/fact-tank/2018/04/05/a-record-64-million-americans-live-in-multigenerational-households/
<sup>7</sup> Binette, J., Houghton, A., & Firestone, S, (2021, January). Pandemic's Economic Pressures Pushing Generations Under One
Roof. American Association of Retired Persons. https://www.aarp.org/research/topics/community/info-2020/multigenerational-
multicultural-living.html
<sup>8</sup> Burke, R. M., Calderwood, L., Killerby, M. E., Ashworth, C. E., Berns, A. L., Brennan, S....Midgley, C. M. (2021). Patterns of
Virus Exposure and Presumed Household Transmission among Persons with Coronavirus Disease, United States, January-
April 2020. Emerging Infectious Diseases, 27(9), 2323-2332. https://doi.org/10.3201/eid2709.204577.
U.S. Department of Housing and Urban Development. (n.d.). Rental burdens: Rethinking affordability measures. PD&R Edge.
https://www.huduser.gov/portal/pdredge/pdr_edge_featd_article_092214.html
<sup>10</sup> Joint Center for Housing Studies of Harvard University. (2020). The state of the nation's housing 2020. https://www.jchs.harvard.edu/sites/default/files/reports/files/Harvard_JCHS_The_State_of_the_Nations_Housing_2020_Report
National Low Income Housing Coalition. https://reports.nlihc.org/sites/default/files/gap/Gap-Report_2020.pdf
<sup>12</sup> U.S. Census Bureau. (n.d.). American Housing Survey (AHS). https://www.census.gov/programs-surveys/ahs.html
<sup>13</sup> U.S. Census Bureau. (2021, August 11). Week 34 Household Pulse Survey: July 21-August 2.
https://www.census.gov/data/tables/2021/demo/hhp/hhp34.html#tables
  Benfer, E. A., Vlahov, D., Long, M. Y., Walker-Wells, E., Pottenger, J. L., Jr., Gonsalves, G., & Keene, D. E. (2021). Eviction,
health inequity, and the spread of COVID-19: Housing policy as a primary pandemic mitigation strategy. Journal of Urban
Health: Bulletin of the New York Academy of Medicine, 98(1), 1-12. https://doi.org/10.1007/s11524-020-00502-1
<sup>15</sup> U.S. Department of Housing and Urban Development. (2021, June 10). HUD awards $1.1 billion in American Rescue Plan
funds for emergency housing vouchers [Press release].
https://www.hud.gov/press/press_releases_media_advisories/hud_no_21_099
<sup>16</sup> Dougherty, C. (2021, February 6). Pandemic's toll on housing: Falling behind, doubling up. New York Times.
https://www.nytimes.com/2021/02/06/business/economy/housing-insecurity.html
<sup>17</sup> U.S. Department of Housing and Urban Development. (n.d.). American Housing Survey reveals rise in doubled-up
households during recession. PD&R Edge. https://www.huduser.gov/portal/pdredge/pdr_edge_research_012714.html
18 Wiemers, E. E. (2014). The effect of unemployment on household composition and doubling up. Demography, 51(6), 2155-
2178. https://doi.org/10.1007/s13524-014-0347-0
<sup>19</sup> U.S. Census Bureau. (2019). Selected housing characteristics 2010–2019 (American Community Survey Table DP04).
https://data.census.gov/cedsci/table?q=housing&tid=ACSDP1Y2019.DP04
<sup>20</sup> U.S. Census Bureau. (2019). Occupancy characteristics 2010–2019 (American Community Survey Table S2501).
https://data.census.gov/cedsci/table?q=housing&tid=ACSST1Y2019.S2501
<sup>21</sup> Winston, P. (2021, April). COVID-19 and economic opportunity: Unequal effects on economic need and program response.
U.S. Department of Health & Human Services, Office of the Assistant Secretary for Planning & Evaluation.
https://aspe.hhs.gov/sites/default/files/migrated_legacy_files//199921/covid-19-human-service-response-brief.pdf
<sup>22</sup> Pilkauskas, N. V., Garfinkel, I., & McLanahan, S. S. (2014). The prevalence and economic value of doubling up.
Demography, 51(5), 1667–1676. https://doi.org/10.1007/s13524-014-0327-4
<sup>23</sup> Pilkauskas, N. V., Garfinkel, I., & McLanahan, S. S. (2014). The prevalence and economic value of doubling up.
Demography, 51(5), 1667-1676. https://doi.org/10.1007/s13524-014-0327-4
  Substance Abuse and Mental Health Services Administration. (2019, July 31). Child homelessness: A growing crisis.
https://www.samhsa.gov/homelessness-programs-resources/hpr-resources/child-homelessness-growing-crisis
<sup>25</sup> Centers for Disease Control and Prevention. (2021, June 8). Interim guidance for homeless service providers to plan and
respond to coronavirus disease 2019 (COVID-19). https://www.cdc.gov/coronavirus/2019-ncov/community/homeless-
shelters/plan-prepare-respond.html
<sup>26</sup> Pilkauskas, N. V., Garfinkel, I., & McLanahan, S. S. (2014). The prevalence and economic value of doubling up.
Demography, 51(5), 1667-1676. https://doi.org/10.1007/s13524-014-0327-4
<sup>27</sup> Harvey H. (2020). Cumulative effects of doubling up in childhood on young adult outcomes. Demography, 57(2), 501–528.
https://doi.org/10.1007/s13524-020-00860-0
<sup>28</sup> Rhodes, A., & Gustafson, K. (2021, April 13). Not enough rooms in many U.S. homes for effective COVID-19 quarantine.
U.S. Census Bureau. https://www.census.gov/library/stories/2021/04/were-american-homes-ready-for-the-pandemic.html
<sup>29</sup> Blake, K. S., Kellerson, R. L., & Simic, A. (2007, September). Measuring overcrowding in housing. Prepared by
Econometrica, Inc., for U.S. Department of Housing and Urban Development, Office of Policy Development and Research.
https://www.census.gov/content/dam/Census/programs-surveys/ahs/publications/Measuring_Overcrowding_in_Hsg.pdf
30 Hawkins, D. (2020). Differential occupational risk for COVID-19 and other infection exposure according to race and ethnicity.
American Journal of Industrial Medicine, 63(9), 817-820. https://doi.org/10.1002/ajim.23145
  Meade, E. (2021, April). COVID-19 and economic opportunity: Inequities in the employment crisis. U.S. Department of Health
& Human Services, Office of the Assistant Secretary for Planning & Evaluation.
```

https://aspe.hhs.gov/system/files/pdf/265376/covid-economic-equity-brief.pdf

- 32 Centers for Disease Control and Prevention. (2021, February 3). Temporary halt in residential evictions to prevent the further spread of COVID-19. Federal Register, 86, 8020–8025. https://www.federalregister.gov/d/2021-02243
- Jowers, K., Timmins, C., Bhavsar, N., Hu, Q., & Marshall, J. (2021, January). Housing precarity & the COVID-19 pandemic: Impacts of utility disconnection and eviction moratoria on infections and death's across US counties (Working Paper No. 28394). National Bureau of Economic Research. https://www.nber.org/papers/w28394
- Leifheit, K. M., Linton, S. L., Raifman, J., Schwartz, G. L., Benfer, E. A., Zimmerman, F. J., & Pollack, C. E. (2021). Expiring eviction moratoriums and COVID-19 incidence and mortality. American Journal of Epidemiology. Advance online publication. https://doi.org/10.1093/aje/kwab196
- ³⁵ U.S. Department of the Treasury. (2021, May 7). *Emergency rental assistance frequently asked questions*. https://home.treasury.gov/system/files/136/ERA2FAQs%205-6-21.pdf
- 36 Ellen, I. G., Muscato, B. M., Aiken, C., Reina, V., Aurand, A., & Yae, R. (2021, March). Advancing racial equity in emergency rental assistance programs. NYU Furman Center, Housing Initiative at Penn, and National Low Income Housing Coalition. https://furmancenter.org/files/Advancing_Racial_Equity_in_Emergency_Rental_Assistance_Programs_-_Final.pdf
- ³⁷ National Low Income Housing Coalition. (n.d.). *Treasury emergency rental assistance (ERA) dashboard*. https://nlihc.org/era-
- 38 Greenberg, Z. (2021, February 26). 'People are falling through the cracks': Many with informal housing are blocked from Mass. rental aid programs. Boston Globe. https://www.bostonglobe.com/2021/02/26/metro/they-need-help-paying-rent-theycant-prove-theyre-renters/
- 39 DC Department of Energy & Environment. (n.d.). Receive assistance with your utility bills (LIHEAP).
- https://doee.dc.gov/liheap

 40 Family Promise. (2021, February 12). Family Promise featured in the New York Times: Pandemic's toll on housing [Press release]. https://familypromise.org/the-latest/press-releases/new-york-times/
- DC Office of the Attorney General. (n.d.). Emergency protections for District residential tenants during COVID-19. http://sites.georgetown.edu/lwp/wp-content/uploads/sites/319/uploads/Tenants-Flyer_En.pdf
- ⁴² DC Department of Human Services. (2021, January 4). Updates and frequently asked questions about eviction prevention and emergency rent assistance during the coronavirus (COVID-19) public health emergency. https://dhs.dc.gov/sites/default/files/dc/sites/dhs/service_content/attachments/DHS_FSA_RentAssist_EvictionPrevent_FAQ_12
- 302020.edited_JICapproved.pdf
- ⁴³ National Low Income Housing Coalition and Center for Law and Social Policy. (2021, April). Prioritization in emergency rental assistance programs: A framework of strategies, policies, and procedures to better serve priority populations. https://nlihc.org/sites/default/files/Prioritization-in-Emergency-Rental-Assistance-Programs.pdf
- U.S. Citizenship and Immigration Services. Public Charge Resources. https://www.uscis.gov/green-card/green-card-
- processes-and-procedures/public-charge/public-charge-resources

 45 Benton, A., Tschantz, J., Vandenberg, A., Waters, A., & Winston, P. (2021, February). Lessons from virtual human services during COVID-19. U.S. Department of Health & Human Services, Office of the Assistant Secretary for Planning & Evaluation. https://aspe.hhs.gov/sites/default/files/migrated_legacy_files//199076/VHS-Lessons-Learned.pdf
- ⁴⁶ Benton, A., Tschantz, J., Vandenberg, A., Waters, A., & Winston, P. (2021, February). Virtual human services for different populations. U.S. Department of Health & Human Services, Office of the Assistant Secretary for Planning & Evaluation. https://aspe.hhs.gov/system/files/pdf/265096/VHS-Different-Populations.pdf
- ⁴⁷ Waters, A., Benton, A., Tschantz, J., Vandenberg, A., & Winston, P. (2021, May). Technology considerations for virtual human services delivery. U.S. Department of Health & Human Services, Office of the Assistant Secretary for Planning & Evaluation. https://aspe.hhs.gov/sites/default/files/migrated_legacy_files//200626/tech-considerations-vhsd.pdf
- Mykyta, L., & Pilkauskas, N. (2016, March 31). Does doubling up improve family well-being? U.S. Census Bureau. https://www.census.gov/newsroom/blogs/research-matters/2016/03/does-doubling-up-improve-family-well-being.html ⁴⁹ Mykyta, L., & Pilkauskas, N. (2016). Household composition and family wellbeing: Exploring the relationship between
- doubling up and hardship (SEHSD Working Paper No. 2016-10). U.S. Census Bureau.
- https://www.census.gov/content/dam/Census/library/working-papers/2016/demo/SEHSD-WP2016-10.pdf
- ⁵⁰ U.S. Department of Housing and Urban Development. (2021, June 10). *HUD Awards* \$1.1 *Billion in American Rescue Plan* Funds for Emergency Housing Vouchers. https://www.hud.gov/press/press_releases_media_advisories/hud_no_21_099