



**ULI TERWILLIGER CENTER 2021
HOME ATTAINABILITY INDEX**



**Housing, Health, and
the COVID-19 Crisis**

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About the Urban Land Institute

The Urban Land Institute is a global, member-driven organization comprising more than 45,000 real estate and urban development professionals dedicated to advancing the Institute's mission of shaping the future of the built environment for transformative impact in communities worldwide.

ULI's interdisciplinary membership represents all aspects of the industry, including developers, property owners, investors, architects, urban planners, public officials, real estate brokers, appraisers, attorneys, engineers, financiers, and academics. Established in 1936, the Institute has a presence in the Americas, Europe, and Asia Pacific regions, with members in 80 countries.

The extraordinary impact that ULI makes on land use decision-making is based on its members sharing expertise on a variety of factors affecting the built environment,

including urbanization, demographic and population changes, new economic drivers, technology advancements, and environmental concerns.

Peer-to-peer learning is achieved through the knowledge shared by members at thousands of convenings each year that reinforce ULI's position as a global authority on land use and real estate. In 2020 alone, more than 2,600 events were held in cities around the world.

Drawing on the work of its members, the Institute recognizes and shares best practices in urban design and development for the benefit of communities around the globe.

More information is available at uli.org. Follow ULI on [Twitter](#), [Facebook](#), [LinkedIn](#), and [Instagram](#).

About the ULI Terwilliger Center for Housing

The goal of the Urban Land Institute Terwilliger Center for Housing is to advance best practices in residential development and public policy and to support ULI members and local communities in creating and sustaining a full spectrum of housing opportunities, particularly for low- and moderate-income households.

Established in 2007 with a gift from longtime member and former ULI chairman J. Ronald Terwilliger, the center integrates ULI's wide-ranging housing activities into a program of work with three objectives: to catalyze the production of housing, provide thought leadership on the

housing industry, and inspire a broader commitment to housing. Terwilliger Center activities include developing practical tools to help developers of affordable housing, engagement with members and housing industry leaders, research and publications, a housing awards program, and an annual housing conference.



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NHC has been defending the American home since 1931. Its core belief is that everyone in America should have equal opportunity to live in a quality, affordable home in a thriving community. NHC convenes and collaborates with its diverse membership within broader housing and community development sectors to advance policy, research, and communications initiatives to effect positive change at the federal, state, and local levels. Politically diverse and nonpartisan, NHC is a 501(c)(3) nonprofit organization.



The NLIHC is a national nonprofit dedicated solely to achieving socially just public policy that ensures that people with the lowest incomes in the United States have decent, accessible, affordable homes. Its aim is to end homelessness and housing poverty in America. Its main areas of activity include affordable housing research; policy analysis and advocacy; organizing, mobilization, and capacity building of NLIHC members and partners around the country; and communications and education to build public and policymaker awareness of the issues and solutions.



In addition, the Terwilliger Center thanks the following experts in housing research, finance, policy, planning, and development for participating on the 2021 Home Attainability Index Advisory Committee. The views expressed in this publication do not necessarily reflect those of the Advisory Committee participants or their employers.

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Summary of Findings

The Urban Land Institute Terwilliger Center for Housing's 2021 Home Attainability Index is a research tool for setting a data-informed foundation for regional discussions of housing needs and solutions.

Any release of housing research would be remiss if it did not consider the impacts of COVID-19 and associated economic disruption. Despite data limitations, it is possible to extrapolate some COVID-19-related impacts through research on previous conditions and trends, supplemented with newer data. In reviewing existing literature and analyzing 2021 Index data, the Terwilliger Center found the following:

- “Preexisting conditions”—from the perspectives of health, household finances, and social equity—are closely linked to the relative impacts of the pandemic. Specifically, the lead-up to 2020 saw significant economic growth but continued disparities between high earners and low-income workers and households of color (of a wide range of incomes), with the latter two categories more likely to experience significant housing challenges, live in areas of concentrated poverty, and lack significant savings to absorb financial shocks.
- The center’s Occupational Analysis shows that leading up to the crisis, frontline workers, health workers, and workers in occupations particularly vulnerable to income disruption struggled to afford modest rental housing in most of the 107 regions in the 2021 Index data set.
- These preexisting disparities by income and race have been exacerbated by the COVID-19 crisis, with lower wage earners (who are disproportionately Black and Hispanic) more likely to work in high-contact jobs. Many of those jobs have been lost, and those people who continue to work are at risk of contracting the virus. Though local, state, and federal interventions have mitigated some housing-related challenges, a significant number of households have accrued large amounts of deferred rent/mortgage payments, raising the longer-term risk of an eviction/foreclosure crisis.
- From a housing market perspective, a significant amount of conflicting or opaque data exists on the long-term impacts of the pandemic on consumer preferences and housing demand. Conversations about post-COVID housing markets have been dominated by elements of consumer preferences regarding location (in the context of changed commuting patterns, unit size, and amenities). However, these conversations focus on households with the financial means to have such choices, which is unlikely to be the case for many whose lives and jobs have been significantly disrupted by the pandemic. Many households will struggle to simply maintain housing and pay off accrued rent or mortgage debts and will find tenure choice out of reach if prices rise and lending standards tighten.

Despite uncertainty, the connection between preexisting conditions and those most affected by the crisis allows us to identify several critical policy, financing, and programmatic interventions that would likely have a considerable impact. These include measures to prevent evictions, provide assistance to vulnerable renters, address the backlog of deferred rent and mortgage payments, and preserve existing affordable housing.

Introduction and Purpose

The Urban Land Institute Terwilliger Center for Housing's 2021 Home Attainability Index is a research tool for setting a data-informed foundation for regional discussions of housing needs and solutions. Specifically, the Index:

- Provides a high-level snapshot of the extent to which a housing market provides a range of choices attainable to the regional workforce;
- Identifies gaps in home attainability and provides better context to understand residential markets;
- Provides context by connecting housing costs to the wages earned by people with specific occupations in a region through an Occupational Analysis;
- Explicitly identifies and highlights racial, socio-economic, and intraregional disparities and inequities; and
- Enables national and regional comparisons to inform housing production, policy, and financing decisions.

The 2021 Index updates and builds on the pilot edition of the Index, which was released in February 2020, before the onset of the global COVID-19 pandemic. Any release of housing research would be remiss if it did not consider the impacts of the pandemic and associated economic disruption. The standard data sources included in the Index (predominantly

derived from U.S. Census Bureau American Community Survey data) reflect conditions before the onset of the pandemic. As such, it is difficult to make accurate assertions on housing market impacts (such as sales or rents) based on the limited midcrisis data.

Despite data limitations, research has demonstrated that housing and neighborhood conditions are important social determinants of health,¹ and it is possible to extrapolate some COVID-19-related impacts through research on previous conditions and trends, supplemented with newer data. This report will include:

- A high-level overview of existing research on the impacts of COVID-19 on households and housing markets;
- A closer look at the health-related components of the Index and their nexus with the core issue of housing attainability and racial and socioeconomic disparities;
- An examination—using the Index's Occupational Analysis—of the relative attainability of various housing types for workers significantly affected by the acute crisis brought on by COVID-19; and
- A discussion of the implications of the findings for housing policy and practice.



What Research Reveals about the Impacts of COVID-19 on Households

To borrow a medical term, understanding the impact of the COVID-19 pandemic on households and housing markets requires an understanding of “preexisting conditions.” In the lead-up to 2020, there were positive signs in the housing market as homeownership finally overcame declines brought on by the Great Recession² and modest reductions could be seen in the number of cost-burdened renter households—those spending over 30 percent of their income on housing.³

However, inequality among various segments of the housing market was another notable preexisting condition. Despite the recent reductions in cost burden, there were still more than 5.6 million cost-burdened renter households in 2019 than there were in 2001. Over 60 percent of renter households earning \$25,000 (about 167 percent of the full-time minimum wage) were severely cost burdened. Fifty-eight percent of renters earning \$25,000 to \$49,999 were cost burdened.⁴ Low-income owners were also more likely to be cost burdened, but to a lesser degree.⁵ Incomes at the top end of the spectrum had increased over the previous decade much faster than those at the bottom.⁶

In addition, during this same period, income inequality between Black and White households worsened.⁷ Harvard University’s Joint Center for Housing Studies (JCHS) recently found that households of color had higher rates of cost burden and far lower homeownership rates than did White households, and made up a larger percentage of the homeless population. Though income disparities by race/ethnicity are partially responsible, such disparities existed when households within the same income category are compared. Black, Hispanic, and Native American households—both those experiencing poverty and relatively affluent households—are more likely to live in neighborhoods of concentrated poverty than are similarly situated White households.⁸ Research also demonstrated that Black and Hispanic families had smaller emergency savings to draw on in the event of financial shocks.⁹

For more research and analysis on the connections between housing and [income/assets](#), housing and [health](#), and the nexus with other issues, visit the [Urban Institute’s Housing Matters website](#).

Lower incomes and housing affordability challenges are associated with health-related vulnerabilities. A 2014 study found that lower-income households were more likely to report poor health, have higher rates of obesity, and were more likely to be smokers.¹⁰ Other studies have found that one-quarter of lower-income people are food insecure or lack reliable access to a sufficient quantity of affordable, nutritious food, and are less likely to use preventative health services.¹¹ High housing costs can exacerbate these income-related challenges by reducing the residual income available to spend on other necessities such as food and health care. A lack of housing choices affordable to lower-income families can force some into substandard housing, which increases the risk of lead poisoning, asthma, and other health hazards.¹²

These preexisting conditions provide important context for what has happened during the pandemic and who has been most affected. Those who were most vulnerable before the shutdown—in particular, lower-income households and communities of color—have been most affected from both a health and economic perspective. According to a recent survey, 14 percent of renters—9.5 million households—reported problems paying rent during the September 2020 rent period.¹³ Low-income households earning \$25,000 or less and those earning \$25,000 to \$49,999 were substantially more likely to lose income during the pandemic. Households in those income brackets were also more likely to fall behind on rent.¹⁴

For many, the disruptions in income have been long term. According to an estimate by Zillow, 2 million renters who lost employment in March 2020 were still unemployed as of November 2020.¹⁵ Disparities in impact partially reflect differences in jobs held by earners at different wage levels: high-contact jobs—those requiring physical proximity—were more likely to have been lost, and also typically pay lower wages.¹⁶ The pattern persists in the ownership market.¹⁷

Likewise, racial discrepancies persist, in part because of preexisting circumstances. A greater percentage of those living in Black and Hispanic households held high-contact jobs.¹⁸ The share of Black, Hispanic, and Asian renters behind on rent as of late September 2020 was about double that of White renter households.¹⁹ Black and Hispanic homeowners were more likely to experience loss of income as well.²⁰ Racial disparities persist across incomes: even Black and Hispanic households earning more than \$75,000 were more likely to be behind on rent or mortgage payments than White households—three times more likely for Blacks and two times for Hispanics.²¹

The financial impacts of the pandemic have been partially mitigated by federal interventions, particularly household stimulus payments and increased unemployment insurance (UI) benefits. The latter were phased out from a maximum of \$600 per week over the course of 2020 before being restored at \$300 per week in December. Zillow estimated the housing cost burden for a “typical unemployed renter” under the different benefit amounts and found that the initial \$600 boost to UI benefits reduced rent burdens to 29.4 percent for the typical unemployed renter. That burden increased to 43.2 percent when the benefit was stepped back to \$300 at the end of the summer and skyrocketed to 80.9 percent when aid expired in November.²²

In terms of health and vulnerability to contracting COVID-19, some evidence exists that susceptibility is connected with not just individual characteristics, but also neighborhood conditions. A California-focused study found that COVID-19 infection rates are higher in communities with high poverty rates.²³ A study of patients in the New York University Langone Health System in New York City found that Black and Hispanic patients were more likely than White patients to test positive for COVID-19, controlling for co-morbidities. Among

hospitalized COVID-19-positive patients, Black and Hispanic patients had a lower mortality rate, suggesting that neighborhood characteristics may explain the disproportionately high out-of-hospital COVID-19 mortality among those groups.²⁴

COVID-related health challenges may be exacerbated by eviction. Though a federal Centers for Disease Control and Prevention eviction moratorium was in place at the start of 2021, it did not take effect until September 2020, and there are concerns about ambiguities and complexities in the order.²⁵ As such, the level of protection provided varied by state and locality throughout 2020 and into early 2021. Evidence suggests that COVID-19 mortality increased after state eviction moratoriums expired. The overlap between the population most at risk of eviction and those with pre-existing health conditions may be one explanation.²⁶ Other factors may include overcrowding: evicted households (or those that voluntarily move in response to housing insecurity) often “double-up” with others immediately after losing a home, increasing their risk of exposure to the virus. Those entering the homeless system carry an even greater risk of transmission.²⁷



What We Know about the Impacts of COVID-19 on Housing Markets

Just as there are disparities in the impacts of the pandemic among households, there are also disparities in the housing market. Though the professionally managed rental sector and homeownership markets have been affected but remain comparatively strong, significant challenges may lie in the segments of the rental market that serve lower-income tenants.

According to the National Multifamily Housing Council (NMHC) Rent Payment Tracker, as of January 6, 2021, 76.6 percent of tenants in professionally managed apartments included in the data set had made full or partial rent payments, which was slightly better than the figure for December 2020 but modestly worse than the previous year (a 1.7 percentage point decrease from January 2019). NMHC estimates that tenants owed a total of \$75 billion in deferred rent payments.²⁸ Despite these challenges, the prices for rental properties continue to rise, which is likely due to the relative tightness of the pre-pandemic rental market.²⁹

Rental properties in categories not typically professionally managed (including single-family rentals and smaller multifamily buildings) had higher rent delinquencies.³⁰ Class C rental properties—which are often home to low-wage workers and families—were hit the hardest. From April to October 2020, the percentage of households in these properties paying in full within the first 15 days of the month fell to 24 percent from 46 percent.³¹ According to the Urban Institute, small multifamily properties—particularly two- to four-unit buildings, which constitute 13 percent of all rental units—may be particularly vulnerable. These units have lower average rents than either single-family and middle- to large-sized multifamily rentals, and individual investors (“mom and pops”) own about 77 percent of these units. These landlords tend to earn less and serve lower-income households. Small multifamily properties are also more likely to be owned by and rented to Black and Hispanic households.³² If lower-income renters continue to struggle and government assistance fails to address the backlog in unpaid rents, these properties are at risk of foreclosure, with a disparate impact on minority owners.

The owner-occupied housing market has fared somewhat better. Pre-pandemic price appreciation and low interest rates have contributed to high levels of home equity and moderate levels of mortgage debt.³³ Though foreclosures rose toward the end of 2020, filings were down from the previous year.³⁴ This is likely due in part to both mandatory and voluntary

forbearance policies, but the fact that higher-income households have been able to navigate the pandemic with less disruption in income is also a significant factor in the strength of the homeownership market. In fact, sales of new and existing homes rebounded in late 2020 after an initial lull and were expected to exceed 2019 levels despite the pandemic.³⁵ Price growth was strong, and price-to-income ratios hit new highs in 39 of the 100 most-populous metro areas.³⁶ The upward price trajectory threatens to make it more difficult for those in the rental market—particularly those whose incomes have been disrupted by the pandemic—to access homeownership.

Despite speculative media coverage of pandemic-induced abandonment of cities and larger metropolitan areas, evidence of how market trends and consumer preferences have shifted is decidedly mixed.

In terms of tenure, JCHS projects that in the near term, rental demand may weaken as new supply continues to come on line, better-off households take advantage of lower rates and enter homeownership, and financial struggles among those most affected by the pandemic reduce household formation.³⁷ However, others have suggested that there could be an uptick in rental activity if those who delay forming households enter the market in substantial numbers.³⁸

Evidence regarding shifts in demand by location and market type is also mixed and/or ambiguous. Residential mobility had been increasing before the pandemic, but since has either declined³⁹ or increased only marginally.⁴⁰ A Zillow analysis of renter moves indicated that most urban renters who moved stayed in urban areas and suburban renters who moved stayed in suburban areas.⁴¹ One study found that major urban areas have seen net out-migration, but the larger driver of the trend was a decline of people moving in, rather than people moving out.⁴² In higher-cost coastal markets, suburban home value growth outpaced that in urban areas, while the reverse was true in the Midwest.⁴³ A Redfin analysis showed that though home sales price increases were greatest in car-dependent areas, walkable neighborhoods also demonstrated strong demand.⁴⁴ Meanwhile, in a reversal of pre-pandemic patterns, in the second quarter of 2020 the fastest growth in permitting of new housing construction was in suburban counties in small metropolitan areas, while permits declined in the central urban neighborhoods of more-populous metro areas.⁴⁵

Overall, it is premature to draw any long-term conclusions from the data, given the mixed signals it provides. Exacerbating this uncertainty is a lack of clarity regarding the extent to which shifts and moves reflect the following factors:

- Short-term measures to deal with the specific circumstances of the pandemic (a grandparent temporarily moving in to help with remote schooling/child care);
- Shifts in timelines for moves that would have occurred otherwise (temporarily delayed household formation or an accelerated purchase of a second home by wealthier households);⁴⁶ and/or
- More durable changes in preference (rural home purchases by remote workers freed from a daily commute).

How much housing markets will shift in the future will depend on the answer to two (at least) critical questions:

- To what extent will risk perceptions change consumer preferences, particularly related to demand for urban living? Research is mixed on the subject of urban form and spread of the virus. Some purport to show a nexus of viral spread with density, but other studies find that population size (rather than density), connectivity,

crowded living conditions, and larger numbers of exposed occupations are major drivers.⁴⁷ Some research suggests that urban counties with higher densities had lower death rates, potentially attributable to better social distancing, access to health care, or both.⁴⁸ Perception of risk is a moving target that may not necessarily align with the data—and may shift as the pandemic increasingly affects smaller cities and more rural areas.

- How much “choice” do households actually have? Conversations about housing markets have been dominated by where and how people will choose to live in the future. Will people want larger houses with home offices? How much will walkability matter? Will workers be completely untethered from their workplaces—free to move within and between regions—or will they still need to occasionally commute to headquarters? All of these questions focus on households that have a choice, which is unlikely to be the case for those whose lives and jobs have been significantly disrupted by the pandemic. Many households will struggle to simply maintain housing and pay off accrued rent or mortgage debts, and find tenure choice out of reach if prices rise and lending standards tighten.⁴⁹ Effective conversations on policy, planning, development, and finance will need to acknowledge this significant segment of the housing market.



Pandemic-Related Findings

In addition to the previously cited research and statistics, the 2021 Home Attainability Index incorporates data on health access, COVID risk, and housing cost burdens for potentially affected occupations.

First, the Index incorporates data on the extent to which households have access to high-quality health services—the proportion of households in Medically Underserved Areas (MUAs). MUAs are defined by the Health Resources and Services Administration as “having too few primary care providers, high infant mortality, high-poverty, or a high elderly population.”⁵⁰ Using this metric, the median for all regions in the Index data set was 24.33 percent of households living in MUAs. However, 12 entire regions (10 of which are in Florida)

are classified as MUAs, and at least half of households live in MUAs in 20 regions. In 14 regions, fewer than 10 percent of households live in MUAs.

The MUA data provide information on the extent to which neighborhood “preexisting conditions” may contribute to vulnerability to health-related challenges in general. To directly address the COVID-19 pandemic, the 2021 Index incorporates data on the proportion of households living in “high-COVID-19 risk” census tracts. High-risk tracts were identified using the Severe COVID-19 Health Risk Index developed by PolicyMap. These tracts have a higher proportion of residents with underlying medical conditions that are likely to contribute to severe complications among COVID-19 patients.⁵¹

TABLE 1 Highest/Lowest Proportion of Households in Medically Underserved Areas

Region	Percentage of households in MUAs	Region	Percentage of households in MUAs
Cape Coral-Fort Myers, FL	100.00%	Oxnard-Thousand Oaks-Ventura, CA	1.23%
Deltona-Daytona Beach-Ormond Beach, FL	100.00%	Stockton-Lodi, CA	2.03%
Gainesville, FL	100.00%	Ogden-Clearfield, UT	2.95%
Lakeland-Winter Haven, FL	100.00%	Allentown-Bethlehem-Easton, PA-NJ	3.75%
McAllen-Edinburg-Mission, TX	100.00%	Akron, OH	5.28%
Naples-Immokalee-Marco Island, FL	100.00%	Reno, NV	5.55%
Ocala, FL	100.00%	Kansas City, MO-KS	6.12%
Palm Bay-Melbourne-Titusville, FL	100.00%	Harrisburg-Carlisle, PA	6.18%
Punta Gorda, FL	100.00%	Syracuse, NY	6.23%
Sacramento-Roseville-Arden-Arcade, CA	100.00%	Madison, WI	7.01%
Tallahassee, FL	100.00%	Des Moines-West Des Moines, IA	7.04%
The Villages, FL	100.00%	Salt Lake City, UT	7.35%
Provo-Orem, UT	98.77%	Colorado Springs, CO	9.14%
San Juan-Carolina-Caguas, PR	93.08%	Cedar Rapids, IA	9.63%
Flagstaff, AZ	89.57%		
Memphis, TN-MS-AR	67.59%		
Birmingham-Hoover, AL	59.05%		
Jackson, MS	54.42%		
Knoxville, TN	54.32%		
North Port-Sarasota-Bradenton, FL	51.23%		

For regions in the 2021 Index data set, the median share of households in high-COVID-risk tracts was 46 percent. As with the MUA metric, there was an extremely broad range in the data set, with 13 regions having at least 90 percent of households in high-risk tracts, and 11 with fewer than 2 percent of households living in such neighborhoods.

For both the MUA and high-COVID-risk metrics, detailed breakdowns of the components that feed into a census tract's rating were not available. This makes it difficult to identify the specific challenges that need to be addressed to improve health outcomes among the broader population.

The 2021 Index includes eight metrics that are direct measures of aspects of racial and/or socioeconomic equity.⁵² The following table shows how regions with higher (and lower)

percentages of households in underserved/high-risk census tracts performed on the full range of equity measures. Interestingly, both groupings include a mix of strong- and weak-performing regions in terms of equity. It was outside the scope of this research to conduct a statistical analysis of the relationship between health risks and other factors related to equity, so conclusions related to correlation and/or causation should not be drawn from this data set. Given the nationwide racial and socioeconomic disparities discussed in the previous section of this report, efforts to address pandemic-related housing challenges should proactively consider ways to bridge these equity gaps in all regions. However, low equity scores may be indicative of the heightened challenges faced in a particular region.

TABLE 2 Regions with Highest/Lowest Proportion of Households in High-COVID-Risk Neighborhoods

Region	COVID-19: Percentage of households in high-risk tracts	Region	COVID-19: Percentage of households in high-risk tracts
Punta Gorda, FL	100.00%	Ogden-Clearfield, UT	0.00%
The Villages, FL	99.94%	Salt Lake City, UT	0.00%
Louisville/Jefferson County, KY-IN	98.63%	Colorado Springs, CO	0.00%
Memphis, TN-MS-AR	95.64%	Provo-Orem, UT	0.00%
New Orleans-Metairie, LA	95.42%	Urban Honolulu, HI	0.39%
Birmingham-Hoover, AL	93.93%	San Jose-Sunnyvale-Santa Clara, CA	0.58%
Ocala, FL	93.30%	Denver-Aurora-Lakewood, CO	0.77%
Jackson, MS	93.12%	Minneapolis-St. Paul-Bloomington, MN-WI	0.95%
Baton Rouge, LA	92.08%	Stockton-Lodi, CA	1.18%
Deltona-Daytona Beach-Ormond Beach, FL	91.56%	Madison, WI	1.23%
Toledo, OH	90.75%	Worcester, MA-CT	1.83%
Cleveland-Elyria, OH	90.14%		
Palm Bay-Melbourne-Titusville, FL	90.08%		

TABLE 3 Equity Performance among Regions with Highest/Lowest Health Risks

Comparatively low* percentage of households in both MUAs and high-COVID-risk tracts	Better-than-median performance on equity metrics (out of 8)	Comparatively high* percentage of households in both MUAs and high-COVID-risk tracts	Better-than-median performance on equity metrics (out of 8)
Oxnard-Thousand Oaks-Ventura, CA	8	Louisville/Jefferson County, KY-IN	2
Stockton-Lodi, CA	6	San Antonio-New Braunfels, TX	6
Ogden-Clearfield, UT	7	Little Rock-North Little Rock-Conway, AR	4
Reno, NV	5	Augusta-Richmond County, GA-SC	6
Syracuse, NY	3	El Paso, TX	6
Madison, WI	5	Asheville, NC	6
Salt Lake City, UT	5	Baton Rouge, LA	2
Colorado Springs, CO	7	North Port-Sarasota-Bradenton, FL	1
Hartford-West Hartford-East Hartford, CT	3	Knoxville, TN	4
San Jose-Sunnyvale-Santa Clara, CA	6	Jackson, MS	4
Minneapolis-St. Paul-Bloomington, MN-WI	6	Birmingham-Hoover, AL	2
New Haven-Milford, CT	2	Memphis, TN-MS-AR	4
Springfield, MA	3	Lakeland-Winter Haven, FL	6
San Diego-Carlsbad, CA	6	Cape Coral-Fort Myers, FL	3
Urban Honolulu, HI	6	Naples-Immokalee-Marco Island, FL	1
Riverside-San Bernardino-Ontario, CA	6	Palm Bay-Melbourne-Titusville, FL	7
Boise City, ID	5	Deltona-Daytona Beach-Ormond Beach, FL	5
Boston-Cambridge-Newton, MA-NH	1	Ocala, FL	6
Milwaukee-Waukesha-West Allis, WI	1	The Villages, FL	5
Denver-Aurora-Lakewood, CO	6	Punta Gorda, FL	4
San Francisco-Oakland-Hayward, CA	5		
Portland-Vancouver-Hillsboro, OR-WA	6		
Average	4.91	Average	4.20

Note: Green represents better-than-median performance across most equity measures; red represents worse-than-median performance. Equity categories include gaps in homeownership and high-cost mortgages by race and ethnicity, segregation, and economic inclusion.

* Comparatively low = region metric score is among the best one-third in the Index data set. Comparatively high = region metric score is among the worst one-third in the Index data set.

To complement data from the 2021 Index, the baseline Occupational Analysis has been expanded using the National Housing Conference's (NHC) Paycheck to Paycheck database to demonstrate the extent to which workers in industries particularly affected by the pandemic face housing challenges throughout the country. For this analysis, three core categories were considered.

Frontline workers. Individuals working in businesses deemed essential during full and partial lockdowns are less likely to suffer from income disruption, but may face considerable challenges.

First, those working in person may face increased exposure to COVID-19. In addition, many occupations have higher baseline levels of economic vulnerability, characterized by lower wages,⁵³ higher housing cost burdens, limited access to health care,⁵⁴ and lower levels of health insurance coverage.⁵⁵ Within this group, racial and ethnic disparities exist. Studies have found that Black and Hispanic workers are disproportionately likely to earn less than a living wage,⁵⁶ and that Black, Native American, and Hispanic workers are more likely to work in person and near others.⁵⁷

OCCUPATIONAL ANALYSIS METHODOLOGY

These occupational categorizations are for illustrative purposes and are not intended to be representative of the workforce as a whole or all occupations within the respective categories. It is important to note that occupational and industry designations are broad and likely encompass both affected workers and those not affected.

For example, the retail worker category includes both frontline grocery store clerks and clerks for establishments that have been shuttered during the pandemic. A security guard at an office complex may have been laid off, while another at a hospital would be more likely to continue to work. Furthermore, state and local differences in the breadth and severity of restrictions/lockdowns have likely led to different impacts by region, which would not be reflected in the (pre-pandemic) Paycheck to Paycheck wage data. For more information on this study's methodology for selecting occupations, see the appendix.

Finally, frontline workers may face compounding economic challenges as a result of the pandemic. Though some workers may receive overtime or other forms of "hazard pay," they may also be facing other challenges that increase vulnerability, such as a loss of child care or the need to supervise young children's remote/virtual learning experience.

These workers are not necessarily compensated commensurately for the additional risk and challenges being faced. A Brookings Institution analysis of 13 top retail companies found average wage increases of \$1.11 per hour (a 10 percent increase) during the pandemic, compared with increases in profits and stock prices of 39 percent and 33 percent, respectively.⁵⁸

- *Occupations analyzed:* janitor, delivery truck driver, long-haul truck driver, retail salesperson, stock mover

Health care workers. By some definitions, health care workers make up 30 percent of the "frontline" or "essential" workers and often play crucial roles in providing treatment and preventative services.⁵⁹ Despite perceptions of (relatively) higher pay, the sector includes a wide range of income profiles. Furthermore, the sector was not immune to job losses and income disruption: hospitals and other medical-service providers lost revenue due to mandatory restrictions—as well as individual choices—to defer elective treatments and services.⁶⁰

- *Occupations analyzed:* geriatric nurse, cardiac technician, home health aide, nursing aide

Workers with elevated risk of income disruption. Workers at greatest risk of unemployment are in industries characterized by a range of factors, including but not limited to designation by state or local governments as being non-essential, limited capacity for remote work, and reliance on household discretionary spending for core revenue. High unemployment rates have been seen in a range of sectors, including leisure and hospitality, accommodation and food services, transportation, and private household employment.⁶¹

- *Occupations analyzed:* child care worker, waitress, security guard

The median annual incomes for these occupations in each region were compared to housing costs for five housing types to demonstrate whether there is a surplus—a household earns more than necessary to afford the given housing type without being cost burdened—or a gap.

TABLE 4 Occupational Analysis: Comparison of Wages and Housing Costs for Affected Workers

Percentage of regions in which income is sufficient to afford the following:							
	Occupation	Median annual wage for all index regions	Purchase of median-priced home; 10 percent downpayment	Purchase of median-priced home; 3 percent downpayment	1 bedroom at fair-market rent	2 bedroom at fair-market rent	3 bedroom at fair-market rent
Health care workers	Geriatric nurse (RN)	\$66,390	62.62%	56.07%	99.07%	96.26%	85.05%
	Cardiac technician	\$43,398	14.95%	9.35%	89.72%	72.90%	7.48%
	Nursing aide	\$28,956	0.00%	0.00%	32.71%	0.00%	0.00%
	Home health aide	\$28,719	0.00%	0.00%	30.84%	0.00%	0.00%
Frontline workers	Long-haul truck driver	\$42,773	14.02%	9.35%	89.72%	71.03%	6.54%
	Delivery truck driver	\$38,320	7.48%	7.48%	83.18%	49.53%	0.00%
	Stock mover	\$30,846	0.00%	0.00%	43.93%	3.74%	0.00%
	Janitor	\$28,262	0.00%	0.00%	25.23%	0.00%	0.00%
	Retail salesperson	\$28,121	0.00%	0.00%	24.30%	0.00%	0.00%
Elevated unemployment risk	Child care worker	\$30,833	0.00%	0.00%	43.93%	3.74%	0.00%
	Security guard	\$30,137	0.00%	0.00%	42.06%	1.87%	0.00%
	Waitress	\$26,532	0.00%	0.00%	12.15%	0.93%	0.00%

Note: Green = occupation can afford the specific housing type in more than two-thirds of regions in data set. Red = occupation can afford the specific housing type in fewer than one-third of regions in data set.





The Terwilliger Center’s analysis found that no single-income household with the occupations in the data set could afford all housing types in all regions in the Index data set. Only a geriatric nurse could afford each housing type in more than half of all regions. For all other occupations at the median wage, ownership of a median-priced home (without cost burden) is out of reach in the vast majority of or all regions.

In the rental market, four occupations—geriatric nurse, cardiac technician, long-haul truck driver, and delivery truck driver—can afford a modest one-bedroom apartment in more than half of all regions without being cost burdened. A modest three-bedroom apartment would consume more than 30 percent of income in all regions for all occupations except long-haul truck drivers, cardiac technicians, and geriatric nurses.

While it should be noted that the gap analysis assumes that workers are in a one-income household, certain housing types and certain housing markets may be out of reach even

in a two-income setting. A household with income equivalent to twice the median stock mover’s salary still does not earn enough to afford a three-bedroom rental in 21 regions (out of the 107 for which data are available). By this standard, the number of unaffordable regions jumps to nearly half for an income of twice the median waitress’s annual salary.

Furthermore, these findings illustrate the circumstances workers in these occupations faced before the pandemic. Additional challenges are likely to have layered on top of this baseline vulnerability over the past year.

Deferred Rent: A Looming Crisis

Through the combination of eviction moratoriums, rental assistance, stimulus payments, and enhanced unemployment benefits, many households have been spared the potentially disastrous circumstance of losing their home mid-pandemic. However, in many instances, households unable to pay full rent are accumulating back debt, which creates either an eviction cliff once moratoriums expire or a potentially insurmountable burden to repay through restructuring plans. This situation will have negative repercussions for both families and rental property owners.

To show the scale of this challenge, the Terwilliger Center used occupational analysis and the NHC’s Paycheck to Paycheck data to create an illustrative estimate of the time it would take to repay partial rent debt. This exercise assumes that a two-income household (a retail salesperson and a janitor) renting a two-bedroom apartment at fair-market rent is only able to make half rental payments for a full year due to COVID-related income disruptions.

If this family is able to return to its pre-pandemic earnings and to dedicate about 4 percent of its monthly income to repaying deferred debt, the time it would take to repay that debt ranges from 14 months (Toledo, Ohio) to just under four years (San Francisco). For a one-income household headed by a nursing aide, those numbers skyrocket to 28 months and nearly eight years, respectively.

Realistically, this illustration is conservative and may understate the burden deferred payments may cause, because it is based on (a) the assumption that the household has been able to lease an apartment at fair-market rent or less, and (b) estimates of the national savings rate, which are not disaggregated by income. Lower-income households are less likely to have the residual income to save as much, and those experiencing income disruption may have other debts that limit the ability to dedicate as much of that income to paying back deferred rent.

Takeaways for Policy and Practice

There is a considerable uncertainty as the United States enters the second year of the COVID-19 crisis. No one knows how long it will last, the extent of disruption and dislocation, or where people will want—or be able to afford—to live moving forward.

An equitable recovery requires long-term, structural reforms to address a range of issues, including income and wealth gaps, segregation, and access to health care and services. In the meantime, given the connection between preexisting conditions and those most affected by the crisis, several immediate and critical policy, financing, and programmatic interventions would likely make a considerable impact.

- Maintain eviction protections for the duration of the crisis to stem a rise in homelessness, and work to provide stable living situations to those currently experiencing homelessness. In addition to the moral imperative in the current environment, eviction prevention is an investment. With a meaningful share of evicted households expected to enter homeless shelters or use emergency services such as medical care and foster care, projections of the potential public costs of increased eviction range from \$61.6 billion to \$128.5 billion.⁶²
- Provide ongoing rental assistance for very-low-income households to provide greater housing stability for renters and a reliable rent stream for property owners. Only one-quarter of households currently eligible for non-emergency rental assistance programs (such as the Section 8 Housing Choice Voucher Program) actually receive a subsidy.⁶³

- Develop policies and funding streams that address the burden of deferred rent and mortgage payments to ensure that these debts do not further exacerbate the structural disadvantages faced by lower-income households and communities of color.
- Provide the capital to preserve existing affordable housing. This could include financial relief to mission-driven owners of subsidized affordable properties, whose tenants are disproportionately affected by the pandemic. Such interventions would also preserve the value of previous local, state, and federal investments in affordable housing. Furthermore, programs can be established to acquire and preserve distressed naturally occurring affordable housing properties, building on the lessons learned during the Great Recession.⁶⁴

These actions would build on the foundation of previous effective—if insufficiently scaled—policy and programmatic interventions and are critical to enabling a broad-based and inclusive recovery.

Appendix: Additional Methodological Considerations for Occupational Analysis

To analyze the COVID-related impacts on workers in different industries, a list of occupations was chosen from the National Housing Conference's Paycheck to Paycheck database. These occupations were judged according to a range of factors, including the potential risk of income disruption and the risk of contracting COVID.

Income disruption was based on the U.S. Bureau of Labor Statistics reported change of unemployment rates between August 2019 and August 2020. The level cutoffs were determined by the federal government's definition of risk and historical highs of unemployment rates. According to the Federal Reserve, the natural unemployment rate is between 3.5 and 4.5 percent, and government intervention is necessary when unemployment rates reach 6 percent. The change of 2.5 percentage points was used to define a low risk of income disruption. The cutoff for a high risk level was based on the 5 percentage-point difference during the Great Recession, when the unemployment rate rose by 5 percentage points to reach 10 percent. These numbers were then adjusted to match the natural breaks in the unemployment rates for the list of occupations.

Risk levels for income disruption:

High: over 5.3%

Medium: between 3.4% and 5.3%

Low: under 3.4%

The levels for risk of contracting COVID were based on the physical proximity scores and cutoff points developed by the National Center for O*Net Development (sponsored by the U.S. Department of Labor's Employment and Training Administration). Physical proximity scores are based on the occupation's day-to-day activities and the level of employee exposure to other people. It is assumed that greater amounts of contact with other people increases the risk of contracting COVID.

Risk levels for contracting COVID:

High: over 75 (moderately close at arm's length to very close and near touching)

Medium: between 25 and 75 (working with others, but not touching)

Low: under 25



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