

RESEARCH REPORT

# How Risk of Exposure to the Coronavirus at Work Varies by Race and Ethnicity and How to Protect the Health and Well-Being of Workers and Their Families

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# Executive Summary

**As the COVID-19 pandemic took deeper hold in the United States in March 2020, fears of exposure to the novel coronavirus caused many people to restrict activities outside their homes.<sup>1</sup> To reduce the spread of the coronavirus and maintain sufficient hospital capacity to meet the potential need, governors and local officials instituted states of emergency. These declarations required that people remain at home, only going out for groceries and prescriptions, doctor’s appointments, exercise, and other essential activities; defined the essential businesses that could remain open; and ordered nonessential businesses to shut down most operations that could not be done remotely or through telework.<sup>2</sup>**

Since the beginning of the pandemic, workers in essential industries needing to work in person continued going to work and keeping the nation running while risking exposure to the coronavirus. And as states reopened, many nonessential workers returned to work, risking exposure to the virus to allow people to shop in stores, eat in restaurants, and obtain personal services. States have phased in reopening since late spring, and though the recent surge of cases has prompted some states and localities to revert to earlier reopening phases that placed greater restrictions on businesses and travel, all have kept nonessential industries open to some extent. Moreover, significant community spread of the virus across the country this fall puts both essential and nonessential workers who need to work in person at even higher risk for contracting COVID-19, making it even more urgent that policies and systems be developed to protect and support them.

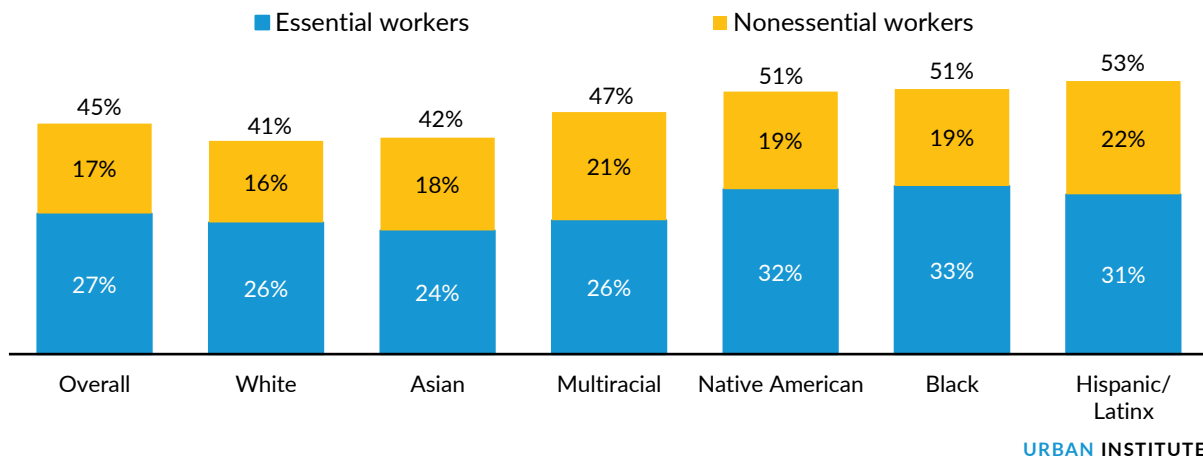
In this paper, we seek to identify those whose work puts them at greatest risk of exposure to the virus. To do so, we first focus on essential workers who must work in person and close to others. These workers are performing critical societal functions Americans cannot live without and that allow other people to limit their exposure to the virus. Because all states are in some phase of reopening, we also examine nonessential workers who cannot work from home, because they, too, risk greater exposure to the virus.<sup>3</sup> Because of long-standing structural racism that privileges white workers, we separate our results by race and ethnicity to better understand the potential connection between employment and the higher prevalence of COVID-19 among Black, Native American, and Hispanic/Latinx people in the US and to identify effective policies to protect people most at risk of contracting COVID-19. Finally, we examine the household circumstances of essential and nonessential workers facing exposure to the coronavirus at work. This allows us to assess how the virus may be

transmitted to vulnerable household members and what policies are needed to help workers keep their families safe.

We find that Black, Native American, and Hispanic/Latinx workers are more likely than white workers to have jobs that place them at greater risk of exposure to and transmission of the coronavirus (figure ES.1).

FIGURE ES.1

**Share of Workers Working In Person and Close to Others, by Essential or Nonessential Status and Race and Ethnicity, 2018**



Source: Urban Institute analysis of 2018 American Community Survey data, using the Integrated Public Use Microdata Series.

Notes: Estimates are for employed adults. All estimates differ significantly from the estimate for white workers at the  $p < 0.05$  level, except the estimate for nonessential multiracial workers.

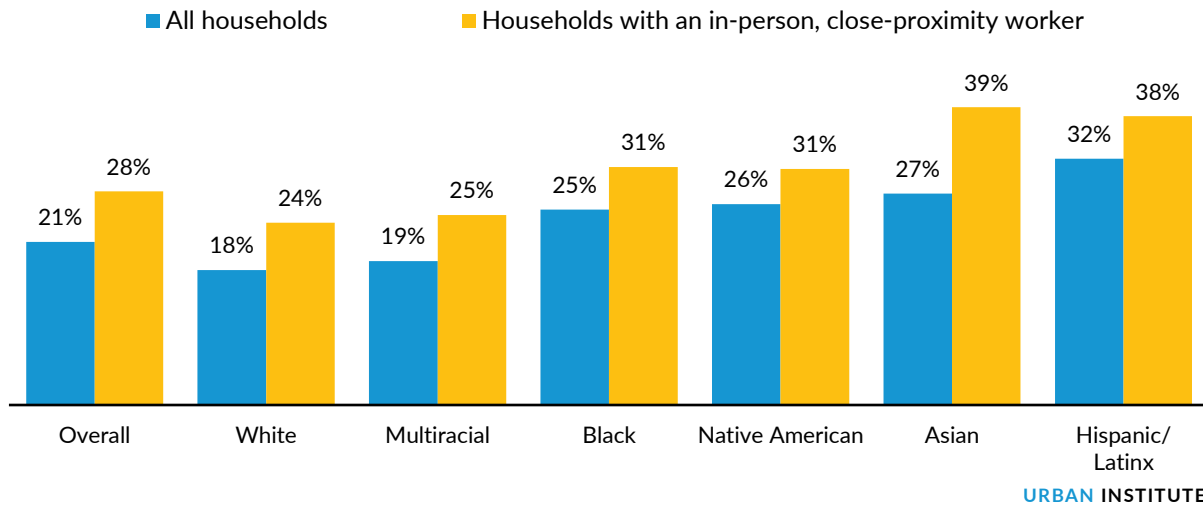
We also estimate the following:

- More than half of all Black, Native American, and Hispanic/Latinx workers have essential or nonessential jobs that must be done in person and close to others, compared with 41 percent of white workers.
- In addition, Black, Asian, and Hispanic/Latinx workers may be more likely to be exposed to the coronavirus traveling to work, given their higher rates of primarily using public transportation to commute to work.
- Black, Native American, and Hispanic/Latinx workers needing to work in person and close to others are less likely to have health insurance coverage than white workers; 16 percent of Black workers and 28 percent of Native American workers and Hispanic/Latinx workers are uninsured, compared with 10 percent of white workers.

- In addition to facing exposure at work, workers working in person can in turn expose their household or family members to the coronavirus should they contract COVID-19 at or traveling to work.
- Black, Native American, and Hispanic/Latinx people are also more likely to have household compositions that increase risks of exposure to and transmission of the virus.
  - » Such households are more likely to have a worker who must work close to others. They are also more likely to have at least two generations of adults (figure ES.2), increasing the possibility of transmitting the virus to a household member who, because of their age, may be more likely to become seriously ill if they contract COVID-19.
  - » These households are also more likely to have children requiring care or supervision while parents work, increasing the possibility of transmitting the virus between home and school.

FIGURE ES.2

**Share of Households with Multiple Adult Generations among All Households with Workers and Those with a Member Who Works In Person and Close to Others, by Race and Ethnicity, 2018**



**Source:** Urban Institute analysis of 2018 American Community Survey data, using the Integrated Public Use Microdata Series.

**Notes:** Estimates are for all households with employed adults. All estimates differ significantly from the estimate for white workers at the  $p < 0.05$  level, except the estimate for the share of multiracial households with an in-person, close-proximity worker.

Higher COVID-19 infection rates among Black, Native American, and Hispanic/Latinx workers likely owe to their higher potential for virus exposure at work and the related risk of greater exposure of their household members. Further, the greater risk of virus exposure, higher rates of health

conditions likely to result in serious complications or death among Black and Native American people, and disparities in access to insurance and timely, appropriate, high-quality medical treatment likely drive racial inequities in loss of life from COVID-19. Because COVID-19 rates have increased in the fall of 2020 and will likely continue doing so, protecting these workers now can help reduce the burden of COVID-19 cases and deaths on communities of color. Given the multifaceted determinants of inequities in virus exposure, policy solutions will need to be simultaneously broad and targeted, covering public health practices, workplace policies, and access to health care.

Community-level **public health practices** designed to reduce the prevalence and spread of the virus will help reduce the exposure risks faced by workers working close to others, such as the following:

- Mask and social distancing requirements when people are outside their homes; limited attendance at events outside the home, particularly those held indoors; broad-based and targeted testing and contact tracing; and a place to self-isolate after being exposed to the virus or contracting COVID-19 are essential to limiting transmission of the virus in communities.
- Now that several safe and effective vaccines are emerging, the distribution of a free or very low-cost vaccine should initially be targeted toward workers, particularly those in health care and other essential occupations who work in person and close to others and face high exposure to the virus. Efforts to vaccinate workers should encourage voluntary receipt while accounting for workers' potential concerns about vaccine safety and cost.
- Obtaining broad take-up of the vaccine among both essential workers and communities at large will require outreach efforts that provide accurate information about safety and are developed and implemented with community input and trusted messengers.
- Given past abuses and disinvestments in communities of color, health care providers and government officials will need to earn and sustain trust regarding the safety of any COVID-19 vaccine.

In addition, **workplace policies** need to be enacted and enforced to protect workers—both employees and independent contractors—and their families, such as

- mask and social distancing requirements for workers and customers,
- barriers between workers and customers,
- temperature checks and improved indoor ventilation and airflow, and



- universal sick leave policies that financially protect all workers who are exposed to the virus or contract COVID-19.

Finally, given that **access to care** affects the trajectories of illness and financial burdens families face, it is critical to ensure access to high-quality treatment for all workers. Effective policies could include

- financial protections for people facing high cost sharing and the providers who serve them,
- adequate funding for federally qualified health centers serving people with low incomes or living in underserved areas,
- protections for workers who become uninsured after losing their employment, and
- standardized treatment protocols to reduce provider bias and inequitable treatment.

The policy changes outlined above are designed to protect workers and their families at greatest risk of exposure to the coronavirus at work—who are disproportionately Black, Native American, and Hispanic/Latinx—as the nation continues dealing with the pandemic’s consequences. However, these strategies do not address the policies, practices, and conditions that produced the occupational and health inequities that have driven the disproportionate impact of the pandemic on people of color. Eliminating racial and ethnic inequities in employment, health, and well-being will require comprehensive changes in policy and practice that address these underlying issues.

# How Risk of Exposure to the Coronavirus at Work Varies by Race and Ethnicity and How to Protect the Health and Well-Being of Workers and Their Families

**As the COVID-19 pandemic took deeper hold in the United States in March 2020, fears of exposure to the novel coronavirus caused many people to restrict activities outside their homes.<sup>4</sup> To reduce the spread of the coronavirus and maintain sufficient hospital capacity to meet the potential need, governors and local officials instituted states of emergency. These declarations required that people remain at home, only going out for groceries and prescriptions, doctor's appointments, exercise, and other essential activities; defined the essential businesses that could remain open; and ordered nonessential businesses to shut down most operations that could not be done remotely or through telework.<sup>5</sup>**

Because of individuals' and governments' responses to the pandemic, millions of workers have been laid off or furloughed, and the unemployment rate peaked at 14.7 percent in April before declining to 6.9 percent in October.<sup>6</sup> Though 8 percent of workers worked from home in February 2020, 35 percent were doing so by May (Bick, Blandin, and Mertens 2020).

Since the beginning of the pandemic, workers in essential industries needing to work in person continued going to work and keeping the nation running while risking exposure to the coronavirus. And as states reopened, many nonessential workers returned to work, risking exposure to the virus to allow people to shop in stores, eat in restaurants, and obtain personal services. States have phased in reopening since the late spring, and though the recent surge of cases has prompted some states and localities to revert to earlier reopening phases that placed greater restrictions on businesses and travel, all have kept nonessential industries open to some extent. Significant community spread of the virus across the country this fall puts both essential and nonessential workers who need to work in

person at even higher risk for contracting COVID-19, making it ever more urgent that policies and systems be developed to protect and support them.

In this paper, we seek to identify those whose work puts them at greatest risk of exposure to the virus. To do so, we first focus on essential workers who must work in person and close to others. These workers are performing critical societal functions that Americans cannot live without and that allow other people to limit their exposure to the virus. Because all states are now in some phase of reopening, we also examine nonessential workers who cannot work from home, because they, too, risk greater exposure to the virus.<sup>7</sup> Because of long-standing structural racism that privileges white workers, we separate our results by race and ethnicity to better understand the potential connection between employment and the higher prevalence of COVID-19 among Black, Native American, and Hispanic/Latinx people in the US and to identify effective policies to protect people most at risk of contracting COVID-19. Finally, we examine the household circumstances of essential and nonessential workers facing exposure to the coronavirus at work. This allows us to assess how the virus may be transmitted to vulnerable household members and how best to protect workers' employment and keep their families safe.

We find that Black, Native American, and Hispanic/Latinx workers have jobs that place them at greater risk than white workers of exposure to and transmission of the coronavirus. During the pandemic, we estimate that more than half of all Black, Native American, and Hispanic/Latinx workers have essential or nonessential jobs that must be done in person and close to others, compared with 41 percent of white workers. In addition, we find that Black, Asian, and Hispanic/Latinx workers are more likely to be exposed to the coronavirus traveling to work, given their higher rates of primarily using public transportation to commute to work. We also find that Black, Native American, and Hispanic/Latinx workers needing to work in person and close to others are less likely to have health insurance coverage than white workers; 16 percent of Black workers and 28 percent of Native American workers and Hispanic/Latinx workers are uninsured, compared with 10 percent of white workers. In addition to facing exposure at work, these workers can in turn expose their household or family members to the coronavirus should they contract COVID-19 at or traveling to work. Our estimates show that Black, Native American, and Hispanic/Latinx people are also more likely to have household compositions that increase risks of exposure to and transmission of the virus: First, they are more likely to have a worker who must work in close proximity to others. They are also more likely to have at least two generations of adults, increasing the possibility of transmitting the virus to a household member who, because of their age, may be more likely to become seriously ill if they contract COVID-19. And last, these households are more likely to have children requiring care or

supervision so parents can work, increasing the possibility of transmitting the virus between home and school.

Higher COVID-19 infection rates among Black, Native American, and Hispanic/Latinx workers likely owe to their higher potential for virus exposure at work and the related risk of greater exposure of their household members. Further, the greater risk of virus exposure, higher rates of health conditions likely to result in serious complications or death among Black and Native American people, and disparities in access to insurance and timely, appropriate, high-quality medical treatment likely drive racial inequities in loss of life from COVID-19. Because COVID-19 rates have increased in the fall of 2020 and will likely continue doing so, protecting these workers now can help reduce the burden of COVID-19 cases and deaths on communities of color.

Given the multifaceted determinants of inequities in virus exposure, policy solutions will need to be simultaneously broad and targeted, covering public health practices, workplace policies, and access to health care. In particular, community-level public health practices designed to reduce the prevalence and spread of the virus will help reduce the exposure risks faced by workers working close to others. These policies include mask and social distancing requirements when people are outside their homes, limited indoor and outdoor attendance at events, broad-based and targeted testing and contact tracing, and a place to self-isolate after being exposed to the virus or contracting COVID-19.

With several effective vaccines emerging for COVID-19,<sup>8</sup> it is essential that distribution of free or very low-cost vaccines be prioritized for essential workers whose jobs place them in frequent contact with others. This strategy, recommended by the Centers for Disease Control and Prevention,<sup>9</sup> will allow health care and other essential workers to be the first to receive vaccines, should they so desire. Efforts to vaccinate workers should encourage voluntary receipt while accounting for workers' potential concerns about vaccine safety and cost. At the same time, outreach campaigns about increasing vaccination rates should provide accurate information about safety and be developed and implemented with community input and trusted messengers.<sup>10</sup> In particular, people of color are overrepresented among both essential workers and those who have contracted and died from COVID-19. Given past abuses and disinvestment in these communities, health care providers and government officials will need to earn and sustain trust regarding the safety of any COVID-19 vaccine. Importantly, prioritizing vaccines for essential workers leaves out nonessential workers, who constitute 38 percent of people working in person and close to others and who will continue facing a greater risk of contracting COVID-19.

Workplace policies are also necessary to protect workers, both employees and independent contractors. Such policies, like mask and social distancing requirements for workers and customers, barriers between workers and customers, temperature checks, and improved ventilation and airflow, must be enforced to keep workers and their families safe. In addition, universal sick leave policies that financially protect all workers who are exposed to the coronavirus or contract COVID-19 are also needed to protect workers and communities. Finally, given that medical care quality affects the trajectories of illness and financial burdens families face, it is critical to ensure access to high-quality treatment for all workers. Effective policies could include financial protections for people facing high cost sharing or the providers who serve them, adequate funding for federally qualified health centers serving people with low incomes or living in underserved areas, protections for workers who become uninsured after losing their employment, and standardized treatment protocols to reduce provider bias and inequitable treatment.

## Background

Workers in essential industries hold occupations ranging from highly paid physicians and bankers to grocery clerks and janitors paid minimum wage, and they face varying virus exposure risks. Emerging evidence suggests the risk of spreading COVID-19, the illness caused by the novel coronavirus, is greatest during close contact with an infected person for more than 15 minutes. That risk is much greater in indoor and poorly ventilated or unventilated spaces than in outdoor spaces.<sup>11</sup> And, as noted, essential workers' exposure risks—from their coworkers and clients, patients, or customers—vary depending on their industry, occupation, and job tasks.

Given that asymptomatic and presymptomatic people can also spread the virus, factors beyond job characteristics affect a person's potential for exposure to and transmission of the virus at work. Essential workers may face the greatest exposure in communities where spread of the virus is significant. Face mask mandates for people in public settings and other policies affecting community norms have slowed the spread of the virus in the US, such as stay-at-home orders, social distancing rules limiting both how close people should be in public and the size of gatherings, and the closing and phased-in reopening of businesses and schools (Flaxman et al. 2020; Hsiang et al. 2020; Lyu and Wehby 2020). But states and localities vary considerably in their adoption, implementation, and enforcement of such regulations.

Policies addressing community norms interact with workplace policies to either further protect or jeopardize essential workers' health during the pandemic. Workers in businesses that implement

workplace changes (because of state or local regulation or on their own) will face less virus exposure and lower likelihood of virus transmission than those in workplaces that do not implement such changes. Specific workplace changes include installing barriers between workers and customers, requiring employees and customers to wear masks, allowing social distancing between employees, increasing ventilation, providing personal protective equipment to workers, and conducting temperature or other health screenings. Both public and private policies may be especially important for low-wage workers, who are less able to advocate for safe working conditions because of the precariousness of their employment, varying worker protections across states, and low unionization rates in the US (Benach et al. 2014).

Public and private policies can also encourage essential workers to stay home when sick, and consequently reduce transmission, by replacing workers' wages if they need to isolate or quarantine because they have been exposed to the virus, have contracted COVID-19, or have family members with COVID-19. The Coronavirus Aid, Relief, and Economic Security, or CARES, Act covers two weeks of paid leave if they need to quarantine, are sick, or need to care for a relative or child (at two-thirds wage replacement if they are caring for a relative or child) through the end of 2020.<sup>12</sup> Importantly, many workers, including gig workers and workers in firms with more than 500 employees (e.g., chain grocery or drug stores), are ineligible for wage replacement, leaving many workers unprotected or dependent on new or existing employer policies. Moreover, workers may fear returning to work because they or their family members have health conditions that make them more susceptible to contracting the virus and developing serious complications. Yet, these workers want to continue working to maintain access to needed family resources, such as income or health insurance.<sup>13</sup>

Beyond potentially increased exposure to the coronavirus at work, essential workers also face challenges protecting themselves and their families. Unlike workers at home, essential workers traveling to work may face additional exposure from symptomatic and asymptomatic carriers on public transportation (Hu et al 2020). And essential workers with young children or children needing after-school care face increased risk of transmitting the virus between child care providers, children at the facility, and their families. As school systems undertake remote learning, essential and nonessential workers who must work in person will continue facing challenges ensuring their children can learn. Finally, COVID-19 efficiently spreads within households, especially among older adults, and asymptomatic transmission makes it difficult for essential workers to fully protect their family and household members from infection (Jing et al. 2020).<sup>14</sup>

## COVID-19, Work, and Racial Equity

COVID-19 has not affected all people equally. Black, Native American, and Hispanic/Latinx people have contracted COVID-19 at rates more than 2.5 times that of white people. Compared with white people's COVID-19 mortality rate, that for Black people is 2.1 times higher, that for Native Americans is 1.4 times higher, and that for Hispanic/Latinx people is 1.1 times higher.<sup>15</sup> Understanding and mitigating differential exposure and transmission by race is critical to reducing racial inequities in both COVID-19 cases and deaths.

Structural and interpersonal racism in the US have limited and excluded people of color from pathways to opportunity by restricting—through implicit and intentional bias and discrimination—what neighborhoods, jobs, and education people can access. Native American, Black, Asian, and Hispanic/Latinx people have experienced unique forms of oppression in the US, and structural forces and differential opportunities have resulted in long-standing occupational segregation that benefits white and more educated workers (Bahn and Sanchez Cumming 2020; Bergmann 1971; Hamilton, Austin, and Darity 2011; Solomon, Maxwell, and Castro 2019).

Occupational segregation by race leads to differential exposure to the coronavirus among workers. Previous work has indicated essential workers are disproportionately Black, that Black and Hispanic/Latinx essential workers are less likely to be able to work from home than white essential workers, and that essential workers who cannot work from home have lower incomes than those who can work from home (Kearney and Pardue 2020). In addition, essential industry occupations with more nonwhite workers and lower median earnings are less likely to be able to be completed from home. This greater exposure exacerbates the underlying inequities in health conditions experienced by Black and Native American people relative to white people; these health conditions stem from the same structural factors that have restricted Black and Native American people's access to economic opportunity and made them more likely to get seriously ill or die from COVID-19 (Gee and Ford 2015; National Academies of Sciences, Engineering, and Medicine et al. 2017; Owen, Carmona, and Pomeroy 2020; Williams and Mohammed 2014; Williams, Lawrence, and Davis 2019).<sup>16</sup>

## Methods and Data

During the initial economic shutdowns in March 2020, only workers in essential industries were allowed to work, unless a worker's job could be done from home or they were needed to perform minimum business operations. We identify workers in essential and nonessential industries and examine whether they can work remotely or must work in person. Here we consider all workers in essential industries to be essential workers and all workers in nonessential industries to be nonessential workers. Only some essential workers needing to work in person also work close to others and thereby face even greater risks of exposure to the virus through work. In addition, some nonessential workers also need to work in person and close to others. **We focus on essential and nonessential workers most likely to face exposure because they must work in person and close to others.** We initially analyze essential and nonessential workers separately to better understand who faced the greatest risk at the beginning of the pandemic, when only essential industries were operating. We then also examine nonessential workers who became at risk as businesses reopened. For some analyses, we combine these essential and nonessential workers because they face similar risks of exposure now that many states and localities have reopened.

To assess whether workers of color face greater risks of exposure to the coronavirus at work, we present both overall results and results stratified by race and ethnicity. Specifically, we examine whether the shares of workers who are essential and nonessential and must work in person and in close proximity vary by race and ethnicity and describe what jobs they hold and earnings they make. We then examine whether and how much both essential and nonessential in-person, close-proximity workers may (1) face additional exposure while traveling to work and (2) have limited access to health care for diagnosis and treatment because they are uninsured. Finally, we examine the share of households with at least one in-person essential and/or nonessential worker and whether such households have family members especially vulnerable to the virus, have children under 18 who may need child care or supervision during or after school, or are in multifamily buildings that may present additional exposure risks.

**Data.** Our data come from the one-year Public Use Microdata Series of the 2018 American Community Survey (ACS). The ACS is a sample of 1 percent of the US population that, when using sample weights, represents the noninstitutionalized US population. The ACS includes occupation and industry information on each respondent's primary job. It also provides information on household composition; the age, race, sex, income, work status, primary method for traveling to work, and insurance coverage status of each household member; and characteristics of the home dwelling. Our final dataset represents 152.7 million workers. Appendix A provides more detailed information on how



we determined essential worker status, whether workers in each occupation can work from home or must work in person, and whether workers work close to others.

**Defining essential workers.** We determined whether each worker is in an essential industry based on guidance for states from the US Department of Homeland Security (DHS), as coded in Kearney and Pardue (2020). We deem all workers in essential industries essential workers. We then merged this list onto the ACS to determine whether each worker's job was in an essential industry. DHS defined essential workers as those in industries involving health care/public health; law enforcement, public safety, and other first responders; food and agriculture; energy; water and wastewater; transportation and logistics; public works and infrastructure support services; communications and information technology; other community- or government-based operations and essential functions; critical manufacturing; hazardous materials; financial services; chemical; defense industrial base; commercial facilities; residential/shelter facilities, housing, and real estate and related services; and hygiene products and services (CISA 2020).

**Ability to work remotely.** To determine whether each worker can work remotely, we supplemented the ACS with a flag for the remote-work capability of the occupation from Dingel and Neiman (2020). Dingel and Neiman (2020) classified jobs as unable to be performed from home if the average Occupational Information Network (O\*NET) Work Context Questionnaire respondent said they use email less than once per month; deal with violent people at least once a week; are exposed to diseases or infection at least once a week; are exposed to minor burns, cuts, bites, or stings at least once a week; spend the majority of time walking or running; or spend the majority of time wearing common or specialized protective or safety equipment, or if most respondents say they work outdoors every day. They also classified jobs as unable to be performed from home if the average O\*NET Generalized Work Activities Questionnaire respondent affirmed any of the following as very important: performing general physical activities; handling and moving objects; controlling machines and processes [not computers or vehicles]; operating vehicles, mechanized devices, or equipment; performing for or working directly with the public; repairing and maintaining mechanical equipment; repairing and maintaining electronic equipment; or inspecting equipment, structures, or materials. Based on the verification work in Mongey, Pilossoph, and Weinberg (2020), we believe the classification relatively accurately conveys the ability to work from home.

**Need to work close to others.** We use data from the O\*NET Work Context Questionnaire to determine the extent to which each worker works close to other people. The O\*NET survey asks respondents, "To what extent does this job require the worker to perform job tasks in close physical proximity to other people?" We characterize workers as working in close proximity if they answered "moderately

close (at arm's length)" or "very close (near touching)." Workers who responded with "slightly close (e.g., a shared office)," "with others but not closely (e.g., private office)," or "not near other people (beyond 100 ft.)" do not work close to others.

**Stratifying by race and ethnicity.** When stratifying our results by race and ethnicity, we use terms based on the racial and ethnic groups in the ACS. We use "white" for those identifying as white, non-Hispanic, on the ACS; "Black" for those identifying as Black, non-Hispanic; "Native American" for those identifying as American Indian or Alaska Native; Asian (same as the survey); "multiracial" for those identifying as mixed-race and other, non-Hispanic; and "Hispanic/Latinx" for those identifying as being of Hispanic, Latino, or Spanish origin. We recognize the limitations of these choices, especially in surveys that ask people to self-report with limited options. In describing people of Hispanic origin, we use Hispanic/Latinx because it may be more inclusive of the way members of this population self-identify, but we recognize not every member of this population identifies with these terms. We also recognize the heterogeneity in people's experiences of and exposure to racism and discrimination within these broad racial and ethnic groups, which may be related to outcomes we are interested in (e.g., differences by country of origin in the Asian population or by race within the Hispanic/Latinx population).

We also stratify household characteristics by race and ethnicity. For household-level analyses, we focus only on households with workers. We classify each household's race and ethnicity as that of the household's primary respondent, even though 10 percent of households include people of different races. We considered other options for characterizing households that include people of different races and ethnicities, including using the race and ethnicity of the majority of people in the household. Among households that include people of different races, 52 percent have a majority of people of one race and 48 percent do not. In households where the majority of members are one race, that race is the same as that of the primary respondent in 57 percent of such cases. Consequently, household race is likely slightly mischaracterized, but not more than would occur with other strategies.

**Analysis.** By comparing nonwhite workers with white workers, we estimate unadjusted differences in (1) the share of workers in each worker group by race and ethnicity and (2) in the characteristics of workers. We make this comparison because white workers likely have the lowest level of exposure to the coronavirus, given their higher occupational status. We use Stata 16 to perform statistical analyses and incorporate individual sample weights for analyses of workers and household weights for analyses of households. Reported differences between a particular racial/ethnic group and white people are all statistically significant at the 5 percent level unless otherwise noted.

**Limitations.** Our broad approach has several limitations, including issues with our classification scheme. First, we use results from national surveys on job characteristics to determine whether a respondent could complete their job remotely and whether they worked close to others. However, we acknowledge that, even across specific occupations, conditions vary from workplace to workplace. Moreover, our information on the ability to work from home is measured with error generally, and more specifically in some instances. For example, restaurant workers are classified as nonessential workers, but some restaurants were open during lockdowns to provide takeout and curbside options. In addition, secondary school teachers are considered essential workers who can work from home but also work in close proximity. Though most school systems closed in the pandemic's early phases, many teachers must now work in person for at least part of the week. Appendix A provides more information on these two examples. We acknowledge both errors in our characterizations and that some of our characterizations based on information before the pandemic may have change during the pandemic and since this writing.

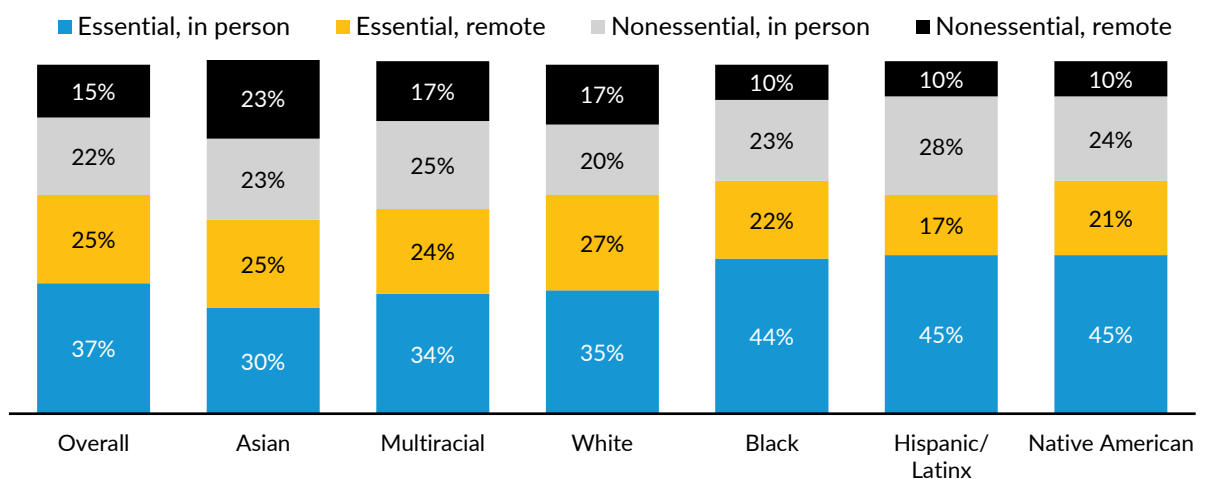
Second, we use the DHS essential industry designations, which did not always match each state's classifications. Third, we chose our racial and ethnic groups to estimate experiences across major groups but recognize such experiences may not reflect those of specific subgroups. Lastly, we use data collected in 2018 as a proxy for the composition of the workforce going into the pandemic, but the economy changed between 2018 and March 2020 and has changed since then.

## Results

**Composition of workers.** Figure 1 shows the estimated shares of essential and nonessential workers in 2018 by whether they can work from home or must work in person. Thirty-seven percent of workers were essential (i.e., working in essential industries) and had occupations requiring that they work in person. Another 25 percent were essential workers and had occupations where they can work from home. Fifteen percent of workers were nonessential (i.e., working in nonessential industries) and had occupations allowing them to work from home, and 22 percent were nonessential and had jobs requiring in-person work. These patterns varied considerably by race and ethnicity.

FIGURE 1

**Shares of Workers in Essential and Nonessential Industries, by Race and Ethnicity and Whether They Must Work In Person or Can Work Remotely, 2018**



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**Source:** Urban Institute analysis of 2018 American Community Survey data, using the Integrated Public Use Microdata Series.

**Notes:** Estimates are for employed adults. All estimates differ significantly from the estimate for white workers at the  $p < 0.05$  level, except estimates for the shares of nonessential, remote and essential, in-person multiracial workers.

Thirty-five percent of white workers, 34 percent of multiracial workers (not significantly different from the share of white workers), and 30 percent of Asian workers had essential jobs where they need to work in person and therefore would face higher risks of exposure to the virus at work. These rates were 44 percent for Black workers and 45 percent for Hispanic/Latinx and Native American workers. The share of nonessential workers needing to work in person also varies by race. As indicated above, these workers have faced potential workplace exposure, like essential workers, since states and localities have reopened their economies. Twenty percent of white workers, 23 percent of Black workers and Asian workers, 24 percent of Native American workers, 25 percent of multiracial workers, and 28 percent of Hispanic/Latinx workers fall into this category.

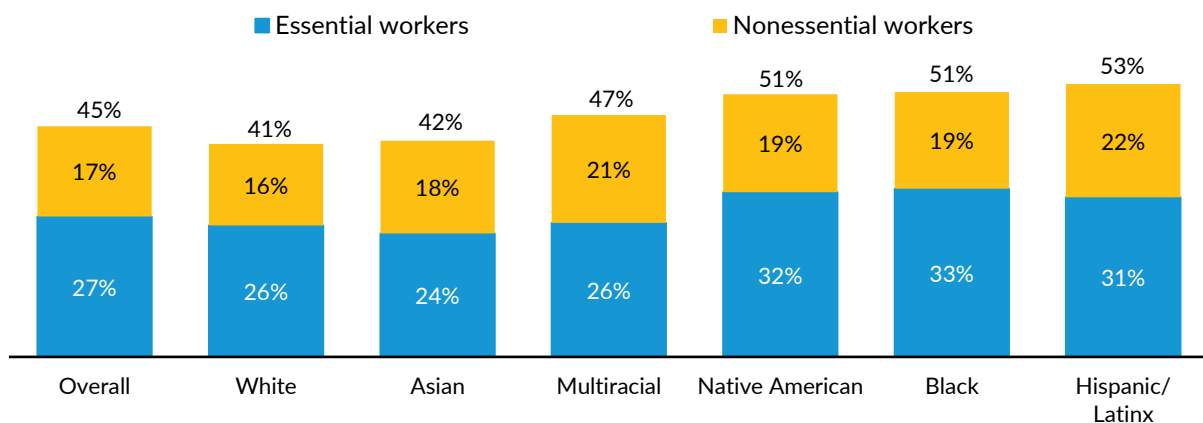
**In-Person, Close-Proximity Workers**

**Essential workers.** The occupations held by essential workers working in person and in close proximity, the people likely at greatest risk of being exposed to the virus through their work, vary considerably. In 2018, the top 20 occupations with the most essential close-proximity workers accounted for only 30 percent of these jobs and differed in distribution by race and ethnicity.<sup>17</sup> Workers included in this group hold various occupations, including registered nurses, carpenters, construction workers, cashiers, police officers, electricians, physicians, personal care aides and nursing assistants, plumbers and electricians, correctional officers and jailers, and physicians.

In 2018, 27 percent of all workers were essential, had to work in person, and worked close to others (figure 2; table A.1). This rate was about 25 percent for white, Asian, and multiracial workers (rates not significantly different from that for white workers), whereas about a third of Black, Native American, and Hispanic/Latinx workers had these jobs.

In-person, close-proximity jobs pay relatively low wages; 72 percent of workers in these jobs earned below \$50,372, the mean annual salary of all workers in our sample, in 2018 (table 1). These workers' mean annual income, including wages, salary, commissions, bonuses, and tips from all jobs, was \$45,626, and their median income was \$33,000. Both the share of essential in-person, close-proximity workers with incomes below the mean and their average incomes vary by race. These differences reflect discrimination in pay for the same jobs, occupational segregation's effects on the jobs people can obtain, and other factors like geography and years of experience (Bahn and Sanchez Cumming 2020; Bergmann 1971; Hamilton, Austin, and Darity 2011). Sixty-eight percent of white and 63 percent of Asian essential workers working in person and close to others had salaries below the mean in 2018, compared with 74 percent of these multiracial workers, 81 percent of these Black and Native American workers, and 83 percent of these Hispanic/Latinx workers. Annual incomes mirror these results; for those who need to work in person and close to others, average annual incomes were \$63,695 for Asian workers, \$49,607 for white workers, \$45,496 for multiracial workers, \$37,013 for Black workers, \$35,293 for Hispanic/Latinx workers, and \$35,081 for Native American workers.

**FIGURE 2**  
**Share of Workers Working In Person and Close to Others, by Essential or Nonessential Status and Race and Ethnicity, 2018**



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**Source:** Urban Institute analysis of 2018 American Community Survey data, using the Integrated Public Use Microdata Series.  
**Notes:** Estimates are for employed adults. All estimates differ significantly from the estimate for white workers at the  $p < 0.05$  level, except the estimate for nonessential multiracial workers.

TABLE 1

**Mean and Median Annual Incomes and the Share of Workers Earning Less Than the Mean Income among Workers Working In Person and Close to Others, by Race and Ethnicity, 2018**

	Overall	Asian	White	Multiracial	Black	Native American	Hispanic/Latinx
<b>All workers</b>							
Mean income	\$50,372	\$64,371	\$55,538	\$45,968	\$38,559	\$36,337	\$35,718
Median income	\$35,000	\$44,000	\$40,000	\$31,200	\$30,000	\$30,000	\$27,000
Share earning less than mean	68%	57%	63%	71%	78%	80%	81%
<b>In-person, close-proximity workers</b>							
Mean income	\$38,910	\$48,709	\$42,543	\$36,088	\$32,447	\$31,207	\$30,736
Median income	\$27,700	\$29,000	\$30,000	\$24,000	\$25,000	\$24,000	\$25,000
Share earning less than mean	78%	74%	74%	81%	85%	84%	87%
<b>Essential</b>							
Mean income	\$45,626	\$63,695	\$49,607	\$45,496	\$37,013	\$35,081	\$35,293
Median income	\$33,000	\$38,000	\$36,500	\$30,000	\$29,300	\$27,000	\$28,000
Share earning less than mean	72%	63%	68%	74%	81%	81%	83%
<b>Nonessential</b>							
Mean income	\$28,441	\$28,462	\$31,148	\$24,123	\$24,510	\$24,513	\$24,316
Median income	\$20,000	\$20,000	\$20,000	\$16,400	\$19,500	\$20,000	\$20,000
Share earning less than mean	87%	88%	84%	90%	91%	91%	92%

**Source:** Urban Institute analysis of 2018 American Community Survey data, using the Integrated Public Use Microdata Series.

**Notes:** Employment income is the pretax income an employee receives through wages, salaries, commissions, cash bonuses, tips, and other money income from an employer. All estimates differ significantly from the estimate for white workers at the  $p < 0.05$  level, except the estimate for the share of Asian workers earning less than the mean income.

**Nonessential workers.** The top 20 occupations for nonessential workers needing to work in person and close to others accounted for 47 percent of the jobs in this category. This list is quite similar across racial and ethnic groups.<sup>18</sup> These workers include waitstaff and servers, chefs, cooks and bartenders, food service and prep managers, landscaping and groundskeeping workers, hairdressers and cosmetologists, cashiers and salespeople in nonessential industries, real-estate brokers and agents, and security guards.

Nonessential in-person, close-proximity workers accounted for 17 percent of the workforce in 2018 (figure 2; table A.1). Though 16 percent of white workers had these jobs, 18 percent of Asian workers, 19 percent of Black workers and Native American workers, 21 percent of multiracial workers, and 22 percent of Hispanic/Latinx workers had such jobs.

Nonessential workers needing to work in person and close to others take home even lower incomes, on average, than similar essential workers; 87 percent of such workers had annual incomes below the mean income for all workers, an annual average income of \$28,441, and a median income of \$20,000 in 2018 (table 1). Eighty-four percent of white and 88 percent of Asian nonessential in-person, close-proximity workers had annual incomes below the national average, whereas 90 percent or more of these workers from other racial and ethnic groups had incomes below the national mean. For workers working in person and close to others, annual incomes also varied across race and ethnicity and were relatively low: those who are white had average annual incomes of \$31,148, compared with \$28,462 for Asian workers, \$24,513 for Native American workers, \$24,510 for Black workers, \$24,316 for Hispanic/Latinx workers, and \$24,123 for multiracial workers.

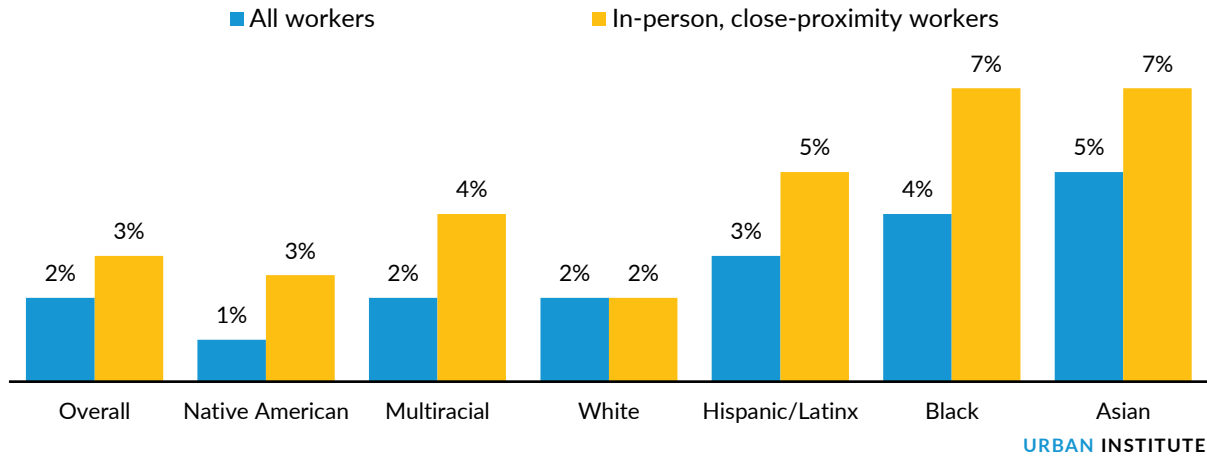
**Essential and nonessential workers working in person and close to others.** Given that most states and localities have reopened and many nonessential workers are back at work, we combine the essential and nonessential workers needing to work in person and close to others to better represent who currently risks the greatest exposure to the coronavirus at work. In 2018, 45 percent of all workers, both essential and nonessential, needed to work in person and close to others. However, only 41 percent of white workers and 42 percent of Asian workers faced these work conditions, compared with 47 percent of multiracial workers, 51 percent of Black workers and Native American workers, and 53 percent of Hispanic/Latinx workers.

**Public transportation.** Public transportation poses an additional risk for commuting workers, who may be forced into close proximity to infected individuals, presenting an additional vector for contagion (Hu et al. 2020). Consequently, several governors are still asking people not to use public transportation unless necessary.<sup>19</sup> Figure 3 presents the share of all workers who take public transportation compared with both essential and nonessential workers needing to work in person and in close proximity. In 2018, 2 percent of all workers and 3 percent of in-person, close-proximity workers reported that public transportation was their primary way of commuting to work. But, these patterns varied by race, and those who work in person and close to others had higher rates of reliance on public transportation than all workers; 2 percent of those who are white and 3 percent of those who are Native American took public transportation to work, compared with 4 percent and 5 percent of those who are multiracial or Hispanic/Latinx and 7 percent of those who are Black or Asian. The same racial/ethnic pattern holds for all workers.

**Uninsurance.** In 2018, 15 percent of workers needing to work in person and close to others were uninsured and thus at high risk of facing financial barriers to accessing testing and treatment should they become sick. However, this varied by race and ethnicity (figure 4): 10 percent of white workers

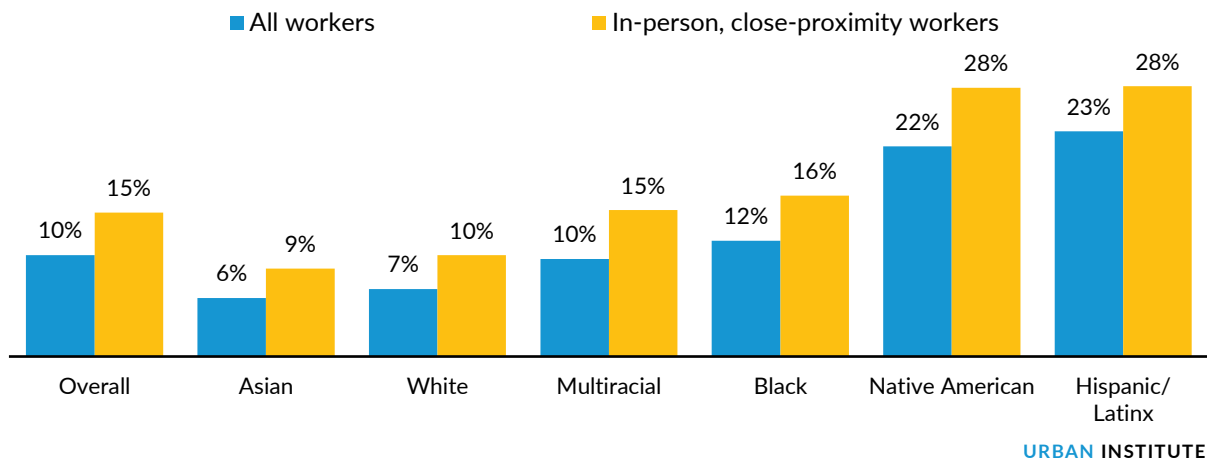
and 9 percent of Asian workers working in person and close to others were uninsured, compared with 15 percent of multiracial workers, 16 percent of Black workers, and 28 percent of Native American workers and Hispanic/Latinx workers in these jobs.<sup>20</sup>

**FIGURE 3**  
**Share of Workers Who Primarily Use Public Transit to Commute to Work among All Workers and Those Working In Person and Close to Others, by Race and Ethnicity, 2018**



**Source:** Urban Institute analysis of 2018 American Community Survey data, using the Integrated Public Use Microdata Series.  
**Notes:** Estimates are for employed adults. All estimates differ significantly from the estimate for white workers at the  $p < 0.05$  level.

**FIGURE 4**  
**Uninsurance Rates for All Workers and Those Working In Person and Close to Others, by Race and Ethnicity, 2018**



**Source:** Urban Institute analysis of 2018 American Community Survey data, using the Integrated Public Use Microdata Series.  
**Notes:** Estimates are for employed adults. All estimates differ significantly from the estimate for white workers at the  $p < 0.05$  level.

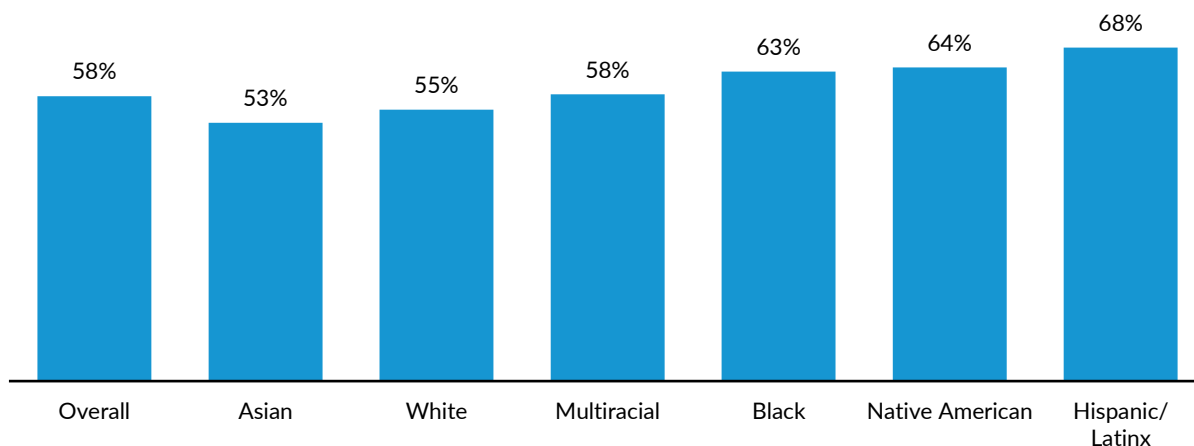


## Workers' Household Characteristics

Evidence indicates homes are a critical coronavirus transmission vector (Li et al. 2020). Fifty-eight percent of households with workers had at least one worker needing to work in person and close to others in 2018 (figure 5). This varied by race, with 53 percent of Asian households, 55 percent of white households, 58 percent of multiracial households, 63 percent of Black households, 64 percent of Native American households, and 68 percent of Hispanic/Latinx households having at least one worker needing to work in person and close to others.

When examining the potential adverse effects of workplace exposure to the coronavirus, considering the age composition of a worker's household is critical. Given that older adults are at increased risk for developing severe illness from COVID-19 (Jordan, Adab, and Cheng 2020),<sup>21</sup> we assess whether multiple generations of adults live together in households with workers. In 2018, 21 percent of all households with workers had two or more generations of adults living together, compared with 28 percent of households with a worker who must work in person and close to others (figure 6). These patterns also varied by race and ethnicity: about a quarter of white and multiracial households (not significantly different) with workers needing to work in person and close to others had two generations of adults, compared with 31 percent of Black households and Native American households, 38 percent of Hispanic/Latinx households, and 39 percent of Asian households.

**FIGURE 5**  
**Share of Households with at Least One Member Working In Person and Close to Others, by Race and Ethnicity, 2018**



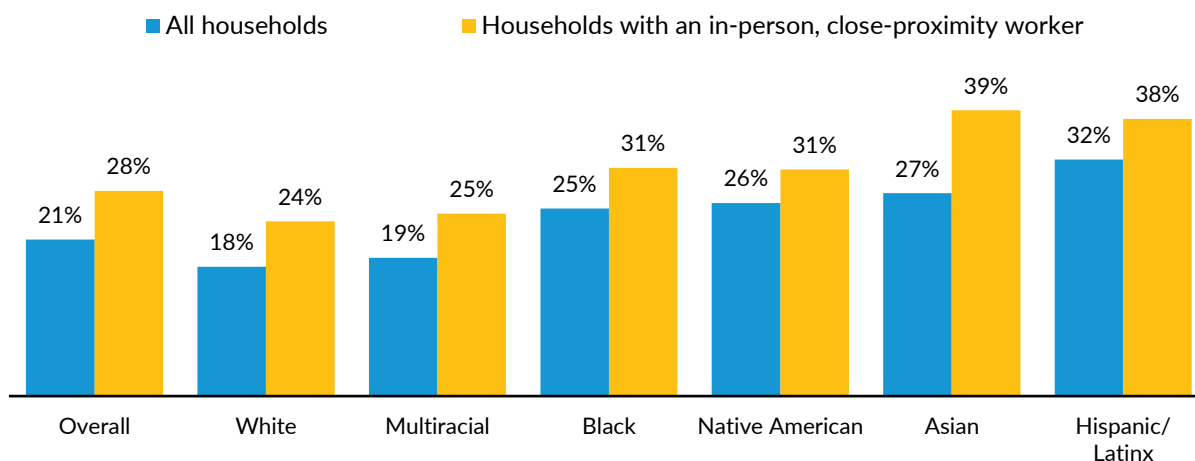
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**Source:** Urban Institute analysis of 2018 American Community Survey data, using the Integrated Public Use Microdata Series.

**Notes:** Estimates are for all households with employed adults. All estimates differ significantly from the estimate for white workers at the  $p < 0.05$  level.

FIGURE 6

Share of Households with Multiple Adult Generations among All Households with Workers and Those with a Member Who Works In Person and Close to Others, by Race and Ethnicity, 2018



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**Source:** Urban Institute analysis of 2018 American Community Survey data, using the Integrated Public Use Microdata Series.

**Notes:** Estimates are for all households with employed adults. All estimates differ significantly from the estimate for white workers at the  $p < 0.05$  level, except the estimate for the share of multiracial households with an in-person, close-proximity worker.

We also assess the presence and age of children in the household (table 2). Workers working in person and close to others, because they face greater virus exposure in the workplace, may also pose higher transmission risks to household members, including children. In turn, this may spread the virus to and from day care and schools (Laxminarayan et al. 2020). In addition, workers who cannot work remotely also face challenges associated with taking care of and educating their children and going to work, especially given widespread partial and full school closings this fall. In 2018, 33 percent of households with at least one worker needing to work in person and close to others had children under 18, and 25 percent of such households had children under 13; such rates were similar for all households with workers. But the share of households with workers needing to work in person and close to others with children varied by race, from 30 percent of white households to 45 percent of Hispanic/Latinx households. The share with children under 13 varied from 22 percent for white households to 35 percent for Hispanic/Latinx households.

Finally, one's housing structure may affect exposure, particularly through shared spaces inside multifamily buildings.<sup>22</sup> In 2018, 13 percent of all households with workers were in multifamily buildings with 10 or more units, and 11 percent of workers needing to work in person and close to others lived in such buildings (table 3). Only 8 percent of white workers and 7 percent of Native American workers working in person and close to others lived in buildings with more than 10 units, compared with 16 percent of Hispanic/Latinx workers, 17 percent of multiracial workers, and 18 percent of Asian workers and Black workers.

**TABLE 2**

**Shares of Households with and without Children among All Households with Workers and Those with a Member Working In Person and Close to Others, by Race and Ethnicity, 2018**

*Percent*

	Overall	White	Black	Native American	Multiracial	Asian	Hispanic/Latinx
<b>Households with workers</b>							
No children	69	73	70	70	67	63	57
Children under 18	31	27	30	30	33	37	43
Children under 13	23	21	23	23	27	29	34
<b>Households with in-person, close-proximity workers</b>							
No children	67	70	68	68	65	63	55
Children under 18	33	30	32	32	35	37	45
Children under 13	25	22	25	25	28	28	35

**Source:** Urban Institute analysis of 2018 American Community Survey data, using the Integrated Public Use Microdata Series.

**Note:** All estimates differ significantly from estimates for white households at the  $p < 0.05$  level.

TABLE 3

**Shares of Households in Single-Unit Residences, Residences with 2 to 9 Units, and Residences with 10 or More Units, by Household Worker Composition and Race and Ethnicity, 2018**

Percent

	Single unit	2–9 units	10+ units
<b>Overall</b>			
Any worker	75	12	13
In-person, close-proximity worker	76	13	11
<b>Native American</b>			
Any worker	81	12	8
In-person, close-proximity worker	81	12	7
<b>White</b>			
Any worker	81	9	9
In-person, close-proximity worker	83	9	8
<b>Hispanic/Latinx</b>			
Any worker	65	18	17
In-person, close-proximity worker	66	19	16
<b>Multiracial</b>			
Any worker	64	17	19
In-person, close-proximity worker	66	17	17
<b>Asian</b>			
Any worker	63	14	22
In-person, close-proximity worker	68	14	18
<b>Black</b>			
Any worker	60	21	20
In-person, close-proximity worker	60	21	18

**Source:** Urban Institute analysis of 2018 American Community Survey data, using the Integrated Public Use Microdata Series.

**Notes:** All estimates differ significantly from estimates for white households at the  $p < 0.05$  level, except the estimate for the share of Native American households with an in-person, close-proximity worker in a residence structure with 10+ units.

## Discussion

This report documents the greater coronavirus exposure risks facing Black, Hispanic/Latinx, and Native American workers and their family members. Based on 2018 data, workers in these three racial and ethnic groups are more likely than white workers to have jobs they must do in person and close to others. The greater virus exposure risks faced by these workers likely contribute to the higher rates of COVID-19 cases and death among these groups. These workers also face other characteristics that could compound the workplace exposure risks they face. For example, Black workers face increased

risks because of their greater use of public transportation for commuting and residence in large multifamily buildings. In addition, Black, Native American, and Hispanic/Latinx workers are more likely to live in households with multiple generations and, particularly in the case of Hispanic/Latinx workers, to have children in their households. Workers in jobs that that need to be done in person and close to others have lower average incomes than other workers. And among those doing these jobs, Black, Native American, and Hispanic/Latinx workers tend to have lower incomes relative to their white colleagues and, particularly for Hispanic/Latinx and Native American workers, to be more likely to be uninsured. These factors place such workers and their families at greater risk of experiencing adverse health and financial consequences during the pandemic, thereby further exacerbating preexisting racial and ethnic inequities in health and economic well-being. And new evidence regarding how aerosols transmit the virus means some workers working in person but not necessarily close to others may also be at risk of exposure to the coronavirus (Environmental Health Matters Initiative 2020). Though this means a greater share of workers face potential exposure to the coronavirus at work, the racial and ethnic patterns of exposure are similar to those for workers in close contact.

Reducing disease burdens and mitigating other adverse COVID-19 outcomes on these groups will require policy changes and resources targeted toward communities with large concentrations of Black, Hispanic/Latinx, and Native American residents and toward employers whose workforces experience significant exposure risks on the job. To lower virus exposure and transmission risks and improve outcomes for those who contract COVID-19, policy changes and resources are needed to develop systems that protect workers most exposed to COVID-19, who are disproportionately people of color: public health practices in the community that reduce transmission risk, employer practices to protect workers on the job, and access to affordable health care for those who contract the virus.

## **Public Health Practices**

Implementing public health practices that reduce community spread and keep COVID-19 prevalence low helps reduce exposure risks for everyone, but especially for workers working in person and close to others. These practices include imposing mask and social distancing requirements outside the home (particularly indoors and when outdoors but close to others for a prolonged time); encouraging handwashing; restricting the size of gatherings; greatly limiting gatherings within or even closing churches, bars, gyms, and restaurants; and improving those places' indoor ventilation systems and outdoor air flow.<sup>23</sup> Such measures are often within the purview of state and, sometimes, local officials.

As of this writing, 42 states and the District of Columbia have mask requirements; 36 mandate mask use in at least all public indoor spaces and six more require them in certain settings.<sup>24</sup> State and local officials have disagreed on this policy in some places: The governor of Georgia sought to block enforcement of the mask-wearing mandate and the slower, phased reopening enacted by the mayor of Atlanta.<sup>25</sup> In Colorado, localities indicated unwillingness to enforce the governor's mask mandate.<sup>26</sup> Though enforcement is critical to the success of these public health measures, enforcement must not punitively target particular groups or reinforce inequities in policing for Black people and other communities of color (Ray 2020).

Businesses that serve communities with a high proportion of Black, Hispanic/Latinx, or Native American residents where COVID-19 prevalence has been high will also need resources to institute procedures that minimize transmission risks to neighborhood residents. Efforts that would help reduce exposure and transmission risks in these neighborhoods include distributing personal protective equipment and other needed supplies to residents and businesses and expanding access to free broadband internet service. The latter allows people to lower exposure risks by relying on online delivery options or substituting telehealth appointments for in-person visits. Earlier this year, Virginia distributed 20,000 masks and bottles of hand sanitizer to households in predominantly Black communities.<sup>27</sup> Given the budget woes facing state and local governments, federal support for these activities will likely be critical.<sup>28</sup>

An effective public health response to the pandemic in these communities also involves making testing widely available, accessible, and affordable for both symptomatic and asymptomatic people.<sup>29</sup> It is also critical that testing results be provided rapidly, so people who test positive know quickly that they should isolate and limit their contact with others.<sup>30</sup> To date, many areas still lack sufficient access to tests and the ability to provide timely results,<sup>31</sup> and testing strategies have not met the needs of asymptomatic carriers.<sup>32</sup> Though states have increased testing capacity, they have also competed with one another to acquire tests in the absence of a unified, adequately financed federal approach.<sup>33</sup> Moreover, access to tests has been uneven across communities,<sup>34</sup> with residents in counties with lower incomes and larger nonwhite populations needing to travel further to test sites (Rader et al. 2020). Even within cities, residents of majority Black and majority Hispanic/Latinx census block groups may have to get tested at a site other than the nearest one, because closer sites may face greater backlogs.<sup>35</sup>

Additional efforts are needed to ensure affordable testing reaches communities of color, who face elevated risks of exposure to the virus and resulting complications and mortality (Ray 2020). Several states and cities have sought to increase testing in hard-hit communities. Michigan and New Jersey

have established walk-up testing sites within COVID-19 hot spots to provide testing for residents without cars and ensure costs are correctly waived for all people, including the uninsured.<sup>36</sup> Other states, such as Ohio and Illinois, have partnered with federally qualified health centers to increase testing rates for communities of color and high-risk populations. Utah has increased mobile testing in the Navajo Nation to help address the shortage of testing provided by the federal government to the Indian Health Service. Lastly, states and cities have partnered with non-health care entities, such as fire departments, libraries, and houses of worship, to increase testing in communities of color.

Cost can be another barrier to COVID-19 testing among Black, Hispanic/Latinx, and Native American people with low incomes, particularly for the uninsured and those with private coverage, for whom surprise bills and even modest out-of-pocket costs can be burdensome (Fehr et al. 2020). Though the CARES Act and Families First Coronavirus Response Act provide everyone with free access to COVID-19 testing, poor communication about the policy and restrictions from insurers are still barriers.<sup>37</sup> The public is unaware that insurers must cover the cost of tests and that providers are required to bill the federal government instead of uninsured people. Reducing cost barriers to testing would likely require publicizing the available funding for the uninsured; eliminating the federal guidance on “appropriate testing,” which restricts the number of tests people can receive and when; enforcing the provision that requires that providers bill the federal government for testing, instead of the uninsured; and capping out-of-network test pricing. Contact tracing for those with positive test results would help limit further spread of the virus, though this is difficult to implement where COVID-19 prevalence is high. Proposed federal assistance includes additional funding for states’ testing and tracing efforts.<sup>38</sup> Targeting that funding toward communities of color hardest by the pandemic, particularly those with higher levels of uninsurance and poverty, would help reduce affordability barriers to COVID-19 testing. These efforts should be developed and implemented with and in a way that empowers trusted community members and institutions to address the well-founded distrust of health care and other authorities existing in some communities.

Paid sick leave is also essential to limiting community transmission of the virus; people who are sick or exposed to the virus must miss work to self-isolate, but many essential and frontline workers do not have paid sick leave.<sup>39</sup> Moreover, some were also excluded from the Families First Coronavirus Response Act provision of two weeks’ guaranteed paid sick leave through December 2020, which applies only to firms with fewer than 500 employees, with exemptions for health care providers, first responders, and others (CLASP 2020). Thus, employees at chain grocery stores and pharmacies, big-box retailers, national meat- and poultry-packing plant workers, and those in the gig economy (including ride-share drivers and delivery workers) are not assured two weeks of paid sick leave should

they be exposed to the virus or contract COVID-19. To address this, some states have expanded paid sick leave coverage to those working for larger companies, those who test positive for or show symptoms of COVID-19, and those who must stay home to care for children unable to attend school or day care in person.<sup>40</sup>

In addition to paid sick leave, those who are exposed to the virus and test positive for COVID-19 will need a safe place to isolate. Several cities have contracted with hotels to provide temporary housing for those who need space to quarantine, including infected patients, those awaiting test results, essential workers, and people experiencing homelessness.<sup>41</sup> A few cities have even expanded such programs to include people in crowded homes, who feel unsafe in their living situations.<sup>42</sup>

With several effective vaccines emerging for COVID-19,<sup>43</sup> it is essential that distribution of free or very low-cost vaccines be prioritized for essential workers whose jobs place them in frequent contact with others. This strategy, recommended by the Centers for Disease Control and Prevention,<sup>44</sup> will allow health care and other essential workers to be the first to receive vaccines, should they so desire. Efforts to vaccinate workers should encourage voluntary receipt while accounting for workers' potential concerns about vaccine safety and cost. At the same time, outreach campaigns about increasing vaccination rates should provide accurate information about safety and be developed and implemented with community input and trusted messengers.<sup>45</sup> In particular, people of color are overrepresented among both essential workers and those who have contracted and died from COVID-19. Given past abuses and disinvestment in these communities, health care providers and government officials will need to earn and sustain trust regarding the safety of any COVID-19 vaccine. Importantly, prioritizing vaccines for essential workers leaves out nonessential workers, who constitute 38 percent of people working in person and close to others and who will continue facing a greater risk of contracting COVID-19.

## **Workplace Practices**

Beyond public health strategies that reduce community transmission and lower COVID-19 prevalence in areas with large concentrations of Black, Hispanic/Latinx, and Native American residents, workplace practices that protect workers from exposure to the virus are critical to limiting risks to these groups. As more information has become available about the virus and how it spreads, recommended practices have evolved. And though the Centers for Disease Control and Prevention emphasizes the importance of masks, social distancing, ventilation, and daily health checks in minimizing risks, their guidance provides few specifics.<sup>46</sup> To this point, the Occupational Safety and Health Administration



has not put regulations in place to enforce these guidelines; as of the end of September, it had issued just 56 citations for employers violating safety standards despite receiving 9,160 complaints.<sup>47</sup> Some states have adopted stronger worker protections. In July, Virginia became the first state to pass a workplace safety standard specific to COVID-19.<sup>48</sup> Along with providing new guidance for workplace safety during the pandemic, the new program gives Virginia's Occupational Safety and Health Program authority to impose civil penalties on those who do not follow the state's guidance.<sup>49</sup> Other states, including California, Michigan, and Oregon, have also investigated workplace complaints and issued citations and fines in the absence of federal regulation.<sup>50</sup>

Though many workplaces have taken recommended precautions to provide a safe work environment, some workers and their family members have health conditions that place them at higher risk of serious complications and death from COVID-19 (Selden and Berdahl 2020). Though the Americans with Disability Act (ADA) should offer protections to such workers, the specific conditions that qualify for exemptions are unclear and at an employer's discretion. Moreover, the ADA does not provide protections to workers whose family members have health risks if the worker does not.<sup>51</sup> Absent these protections, some workers may either need to work in conditions that jeopardize their health or that of a family member or risk losing income from leaving their jobs. Though eligibility for unemployment benefits has been extended to people who leave their jobs over concerns about virus exposure, such benefits rarely replace lost wages, especially given that the added federal support for unemployment benefits, which expired in July, has not been renewed as of this writing.<sup>52</sup> Hispanic/Latinx and Black workers are disproportionately facing job losses related to the pandemic (Karpman, Zuckerman, and Kenney 2020). To reduce material hardships for those workers and their families, it will be critical to expand public assistance to mitigate the adverse effects of lost income.

## **Ensuring Access to Health Care**

For Black, Hispanic/Latinx, and Native American workers who contract the virus and become symptomatic, ensuring access to high-quality and affordable health care will be key to determining both the trajectory of their illness and the financial burden on the family from meeting the worker's treatment needs. Analysis of May 2020 data from the Urban Institute's Coronavirus Tracking Survey showed much higher unmet needs for medical care due to cost in households that have faced pandemic-related job and income losses and have one or more uninsured household members. The data also showed that Hispanic/Latinx adults and Black adults were more than 50 percent more likely than non-Hispanic/Latinx white adults facing pandemic-related job and income losses to report unmet medical needs due to costs (Gonzalez et al. 2020).<sup>53</sup>

Lack of health insurance coverage exposes individuals and families to high out-of-pocket medical costs, which can deter them from seeking care (Fehr et al. 2020).<sup>54</sup> This, in turn, can put people in much greater jeopardy of developing serious complications or dying from COVID-19. Though the costs of treating COVID-19 vary substantially by patient, those who require hospitalization can incur treatment costs in the tens of thousands of dollars (FAIR Health 2020). The CARES Act provided a fund that hospitals and other providers could tap to cover lost revenue from expenses related to COVID-19, including supplies, equipment, workforce training, reporting test results, building temporary structures to care for patients with COVID-19, and developing and staffing emergency operation centers.<sup>55</sup> In addition, people who have private insurance with high deductibles or out-of-pocket maximums may avoid seeking care because of concerns about predatory billing, financial burdens, and accumulating medical debt (Johnston et al. 2020).<sup>56</sup>

Ensuring adequate funding for federally qualified health centers, the Indian Health Service, and other direct service providers will help meet the health care needs of the uninsured and assure care for Medicaid-enrolled and privately insured individuals in underserved communities. Many health care providers have experienced a dramatic drop in revenues from decreased health care use, particularly for care that can only be delivered in person. Federal funds have been distributed to health care providers, but it is unclear if the funds are adequately targeted to sustain the health care safety net, particularly regarding nonhospital providers serving the uninsured or larger shares of Black, Hispanic/Latinx, and Native American patients and people in medically underserved areas.<sup>57</sup> Without federal leadership, states may need to step in to support these communities: because the Navajo Nation has suffered greatly from the pandemic and received insufficient resources from the federal government, New Mexico officials have worked with the Navajo people to establish field hospitals and triage centers within the Navajo Nation.<sup>58</sup> Other states have provided support for federally qualified health centers to ensure the communities they serve receive sufficient testing.

Uninsurance was a problem before the pandemic, but economic fallout from the pandemic is expected to cause as many as 30 million additional people to lose employer-sponsored coverage by the end of 2020 (Banthin and Holahan 2020). These losses are expected to have larger effects on uninsurance rates for people living in states that have yet to expand Medicaid under the Affordable Care Act. Federal legislation passed in the House of Representatives earlier in 2020 seeks to mitigate some of these coverage losses<sup>59</sup> by increasing the federal Medicaid matching rate and funding for COBRA premiums, establishing special enrollment periods for the Marketplaces, and increasing funding for Marketplace outreach and enrollment assistance. However, additional steps are needed to address coverage gaps and help people maintain access to needed health care during the pandemic-

related recession, including expanding eligibility for Medicaid coverage and increasing subsidies for Marketplace coverage (Banthin and Holahan 2020; Blumberg and Mann 2020; Blumberg et al. 2020; Gangopadhyaya and Garrett 2020).

In addition to facing affordability barriers, Black, Hispanic/Latinx, and Native American people may also have less access to high-quality COVID-19 treatment. Disparities in care may be even further exacerbated right now for those who do not speak English, when translators must perform their jobs remotely.<sup>60</sup> In Chicago and Houston, hospitals that disproportionately serve Black and Hispanic/Latinx patients faced capacity constraints treating COVID-19 patients; their staff and resources were so overburdened, they had to find hospitals where they could transfer patients, likely compromising outcomes for the patients they were serving.<sup>61</sup> State and local governments will need to work to address these issues by (1) ensuring emergency resources are provided to the communities most in need and (2) creating support systems for hospitals and providers most affected by the pandemic, so patients can receive care at facilities that have excess capacity. Moreover, reports from New Orleans document inappropriate hospital discharges when the pandemic surged during the spring, where Black COVID-19 patients were disproportionately sent to home hospice care without personal protective equipment or adequate hospice support for family members. And case reviews indicate the patients could still have benefited from care provided in the hospital and potentially recovered from COVID-19, instead of dying in pain at home and infecting other family members.<sup>62</sup> Reducing inequities in the care provided to Black patients and other patients of color by managed-care organizations, hospitals, and other health care providers will likely require (1) improved monitoring of process and outcome measures differentiated by race and ethnicity and (2) payment policies for Medicaid, Medicare, and other payers that penalize unequal treatment and reward reducing disparities.

In addition, for some patients of color, provider bias may mean their symptoms go undetected or get ignored, which can delay testing and put other family and community members at risk. This also has financial implications, because out-of-pocket-cost waivers are contingent on a patient receiving a COVID-19 test.<sup>63</sup> Historic problems within the health care system, such as lack of racial and ethnic diversity among physicians and other health professions, discrimination, racism, language barriers, and segmentation of providers, have led to lower quality health care and worse health outcomes for Black, Hispanic/Latinx, and Native American patients—and likely contribute to the large racial and ethnic disparities in COVID-19 mortality rates (Institute of Medicine 2003).<sup>64</sup>

Reducing provider bias in health care will likely require providing antiracist training in medical and nursing schools and for other health professions, providing ongoing training at health care institutions, and tying payment to lowering racial differences in the care provided and outcomes achieved. So far,

only a couple states have issued guidance on discriminatory care and started implicit bias training in response to disparities in COVID-19 infection and mortality rates.<sup>65</sup> Evidence that racial concordance between providers and patients can improve outcomes is also growing, adding to the many reasons for improving Black, Hispanic/Latinx, and Native American representation among doctors, nurses, midwives, and other health professionals.<sup>66</sup> Meanwhile, health care models that include paraprofessionals, such as doulas and community health workers, can help patients navigate language gaps, providers' biases, and other systemic barriers to effective care and improved outcomes for Black, Hispanic/Latinx, and Native American patients (CDC 2014; Ellmann 2020).<sup>67</sup>

Our nation's long history of settler colonialism and structural racism has limited educational and economic opportunities for people of color and inflicted long-term harms on their health. And these injustices have resulted in an inequitable burden of COVID-19 cases and deaths. The policy changes outlined above are designed to protect workers and their families at greatest risk of exposure to the coronavirus at work—who are disproportionately Black, Native American, and Hispanic/Latinx people—as the nation continues dealing with the consequences of the pandemic. However, these strategies do not address the policies, practices, and conditions that produced the inequities that have driven these outcomes in the first place. Eliminating racial and ethnic inequities in employment, health, and well-being will require comprehensive changes in policy and practice that address these underlying issues.

# Appendix A. Methodology

**Data.** We use data from the one-year Public Use Microdata Series of the 2018 American Community Survey, taken from [IPUMS.org](https://www.ipeds.org/). In addition to characteristics like age, income, and primary method for commuting to work, the ACS includes occupation and industry information for each respondent's primary job. Respondents with multiple jobs are encouraged to report on the job from which they make the most money or, if they do not know that, the job in which they work the most hours.

**Defining essential workers.** As noted, we determined whether each worker is in an essential industry based on guidance from DHS and coded as in Kearney and Pardue (2020). We then merged this list onto the ACS using respondents' North American Industry Classification System (NAICS) codes. Of the 42 states that defined essential industries in their state of emergency declarations, 20 deferred to the DHS definition and 22 developed their own (NCSL 2020). Of those 22 states, some used less restrictive guidelines (e.g., Delaware) and some used more restrictive guidelines (e.g., Pennsylvania) than those from DHS.

**Ability to work remotely.** We supplemented the ACS with a flag for an occupation's remote work capability from Dingel and Neiman (2020) to determine if workers can do their jobs remotely. Dingel and Neiman used responses to Occupational Information Network (O\*NET) surveys to make this determination. The study calculated remote work capability by occupation using the US Bureau of Labor Statistics' six-digit Standard Occupation Classification (SOC) system codes. We merged those classifications onto the ACS data using a crosswalk from the Bureau of Labor Statistics, matching the occupation codes on the ACS to the SOC codes. Because not all codes have a corresponding match in the other dataset, we used a process similar to that used by Dingel and Neiman (when moving from the O\*NET to SOC) to merge multiple SOC occupation codes into one ACS code. We then calculated the employment-weighted ability to work remotely for each ACS occupation code. In the less common situation where one SOC code corresponded to multiple ACS codes, we applied the SOC occupation's ability-to-work-remotely score to respondents with all corresponding ACS occupation codes. Our estimates for the share of primary jobs that can be completed at home are slightly below Dingel and Neiman's estimates.

**Limitations.** Our classification scheme has a few limitations. First, our final dataset represents 152.7 million workers. But, the DHS guidance for states classified restaurants as nonessential, so the 9.6 million workers employed in the restaurant industry are classified as nonessential in our dataset. Almost all of these workers (9.1 million) must work in person and the vast majority (8.6 million) do so close to others. Though restaurant workers are considered nonessential, some continued working

during the economic shutdown (e.g., those working in restaurants that provide curbside pickup and takeout). But this was not the case for all restaurant workers: the 2.3 million waitstaff and servers were more likely to at least temporarily lose employment than the 3.2 million chefs and cooks, though both must perform their work in person and were classified as nonessential.

Second, elementary and secondary school teachers and librarians are classified as essential and able to work remotely based on their responses to the O\*NET Work Context and Generalized Work Activities surveys. Our dataset contains 5.8 million of these workers, and 98 percent of them report working predominantly within arm’s length of others or close to touching. Most school systems moved to remote learning last spring and many have continued these arrangements during the current school year, which aligns with these professions’ classifications based on the O\*NET survey. However, not all school districts have implemented remote learning and many are using hybrid models of in-person and remote instruction. So, some of these workers’ needs to work in person and close to others may be mischaracterized. Our dataset also contains 1.6 million college, university, and professional school professors, teaching assistants, and librarians classified as essential and able to work remotely, but many of them are also being encouraged or required to teach in person.

**TABLE A.1**  
**Percentage of Workers by Essential Designation, Ability to Work Remotely, Proximity to Others While Working, and Race and Ethnicity, 2018**

	Overall	Asian	Multiracial	White	Black	Native American	Hispanic /Latinx
<b>Essential</b>							
In-person, not close-proximity	10	6***	8***	9	11***	12***	13***
In-person, close-proximity	27	24***	26	26	33***	32***	31***
Remote, not close-proximity	17	20**	16***	19	14***	15***	11***
Remote, close-proximity	7	5***	7***	8	8	6***	6***
<b>Nonessential</b>							
In-person, not close-proximity	5	5***	4	5	5	5*	6***
In-person, close-proximity	17	18***	21***	16	19***	19***	22***
Remote, not close-proximity	12	19***	13***	14	7***	6***	7***
Remote, close-proximity	3	3	4***	3	4***	4	3***

**Source:** Urban Institute analysis of 2018 American Community Survey data, using the Integrated Public Use Microdata Series.

**Note:** \*/\*\*/\*\* Estimate differs from that for white people at the  $p < 0.1/0.05/0.01$  level.

# Notes

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