

## Construction Employment, Businesses, and COVID-19 Vaccinations During the Pandemic

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### OVERVIEW

This Data Bulletin provides updated information on construction employment, business, and vaccination rates and attitudes since March 2020. Employment and work losses due to COVID-19 were estimated from monthly data of the Current Population Survey, a data collection of the U.S. Bureau of Labor Statistics. The effects of COVID-19 on construction businesses were assessed using the U.S. Census Bureau's weekly Small Business Pulse Survey. Employment and business trends were compared between construction and all industries, and among construction subgroups. Percentages of worker vaccination and hesitancy were calculated using data from the COVID Symptom Survey, a voluntary online survey of active Facebook users to track COVID-19 across the United States, conducted by the Delphi Group at Carnegie Mellon University through collaboration with Facebook. Patterns of vaccination and hesitancy were analyzed and compared among major occupational categories. Time periods covered by this report varied by source according to data availability.



### THIS ISSUE

This issue focuses on COVID-19's impact on the construction industry through spring 2021, including trends in employment, small business conditions, and vaccination rates and attitudes.

### KEY FINDINGS

**Compared to March 2020, employment in April 2021 was 3% lower in all industries but 2% higher in construction.**

Chart 1

**Hispanic employment fell more than non-Hispanic employment in construction, but rebounded and was 4% higher in April 2021 than in March 2020.**

Chart 2

**The large negative effect of COVID-19 declined by over 40% in construction and all nonfarm businesses from April 2020 to May 2021.**

Chart 8

**By the end of May 2021, workers in construction and extraction occupations had the lowest COVID-19 vaccination rate (51%) and the highest hesitancy rate (42%) among all workers included in the survey.**

Chart 10

**Among hesitant construction and extraction workers, top barriers included distrust of vaccines (56%) or the government (55%).**

Chart 11

### NEXT DATA BULLETIN

OSHA inspections of construction falls

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 Numbers in text and charts were calculated by the CPWR Data Center.

Employment in all industries plummeted at the start of the pandemic, falling 14.1% from March to April 2020, but has recovered gradually since then (chart 1). Despite the improvement, in April 2021, employment in all industries combined remained 2.6% below March 2020 levels. Construction employment followed a similar pattern, dropping 14.9% from March to April 2020. However, it surpassed its March 2020 levels by 2.2% in April 2021.

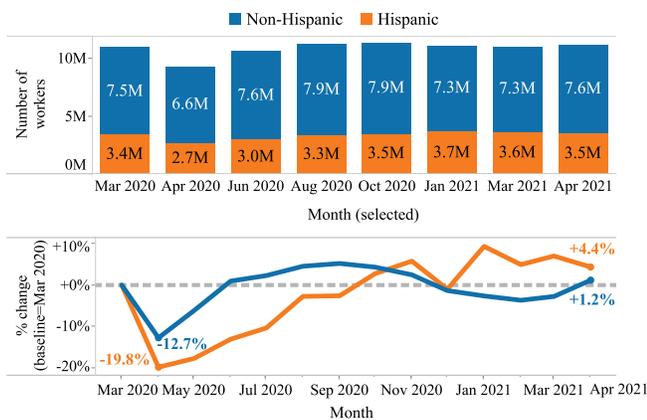
**1. Percentage change in employment, March 2020 - April 2021, construction versus all industries**



Source: U.S. Bureau of Labor Statistics, Current Population Survey.

Hispanic construction workers were hit harder than non-Hispanics: their employment fell 19.8% from March to April 2020, versus a drop of 12.7% for non-Hispanics, but regained more since January 2021 (chart 2).

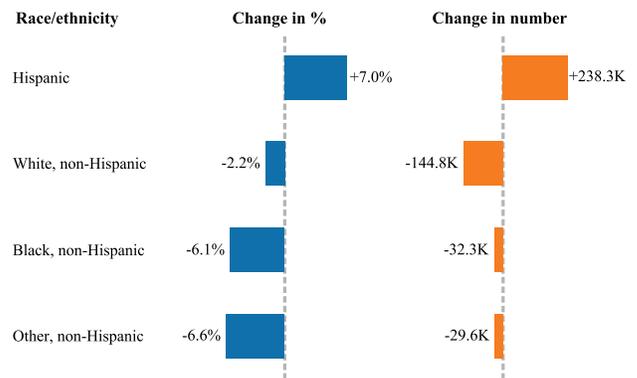
**2. Construction employment, by Hispanic ethnicity, March 2020 - April 2021**



Source: U.S. Bureau of Labor Statistics, Current Population Survey.

Compared to March 2020, construction employment in April 2021 was 4.4% higher for Hispanic workers but just 1.2% higher for non-Hispanic workers. By race, employment fell over 6% among non-Hispanic racial minorities in the first year of the pandemic but only dropped 2% among white, non-Hispanics (chart 3).

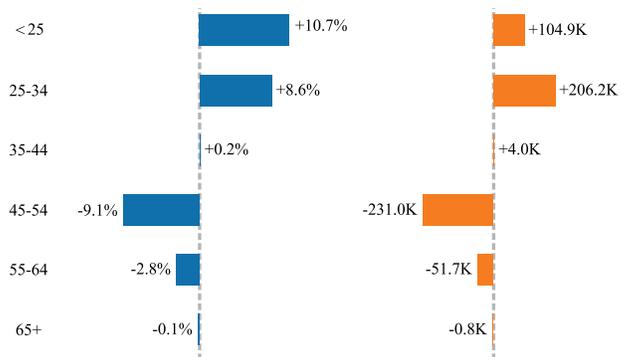
**3. Change in construction employment, by race/ethnicity, March 2021 versus March 2020**



Source: U.S. Bureau of Labor Statistics, Current Population Survey.

Construction employment trends also varied by age. While the number of workers under age 35 rose between March 2020 and March 2021, the number of workers ages 45-54 dropped 9.1%, or by 231,000, in this period (chart 4).

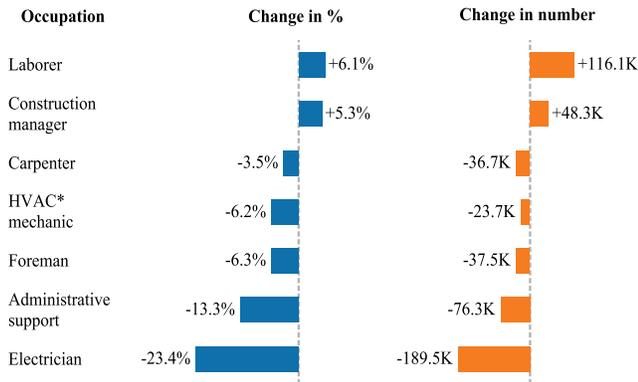
**4. Change in construction employment, by age group, March 2021 versus March 2020**



Source: U.S. Bureau of Labor Statistics, Current Population Survey.

Additionally, employment increased among laborers (+6.1%) and construction managers (+5.3%) but decreased among electricians (-23.4%) and administrative support workers (-13.3%; chart 5).

**5. Change in construction employment, by selected occupation, March 2021 versus March 2020**

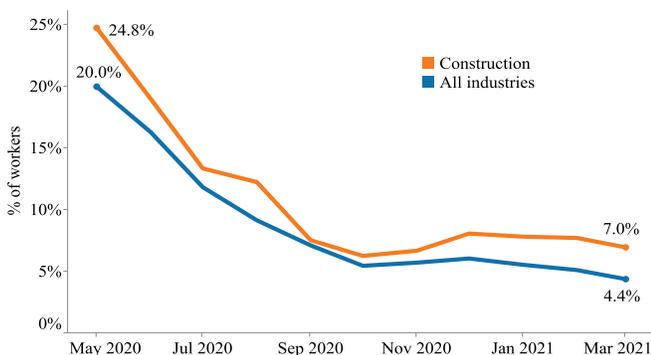


Source: U.S. Bureau of Labor Statistics, Current Population Survey.  
\*HVAC: heating, ventilation, and air conditioning.

Employment variability reflected changes in business environments during the pandemic. In May 2020, one in four construction workers (24.8%) and one in five workers in all industries (20.0%) reported that they were unable to work in the past four weeks because their employer closed or lost business due to the pandemic (chart 6). However, by March 2021 this proportion had fallen to 7% in construction and 4.4% in all industries.

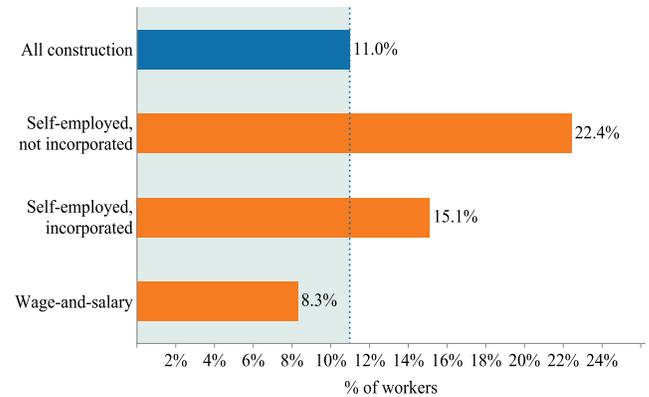
Compared to wage-and-salary workers in construction, over twice as many unincorporated self-employed workers were unable to work because of changes in business conditions during the pandemic (monthly average of 22.4% versus 8.3%; chart 7).

**6. Proportion of workers unable to work due to the pandemic, construction versus all industries, May 2020 - March 2021\***



Source: U.S. Bureau of Labor Statistics, Current Population Survey  
\*April 2021 data unavailable.

**7. Proportion of construction workers unable to work due to the pandemic, by class of worker, average of May 2020 - March 2021\***

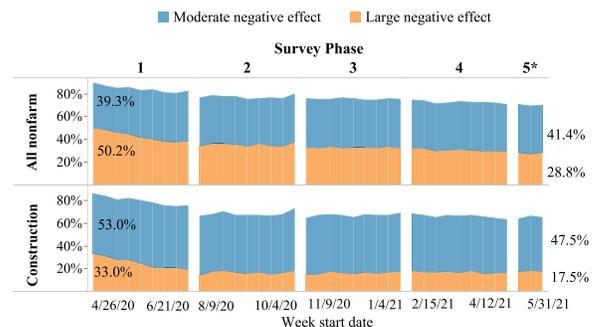


Source: U.S. Bureau of Labor Statistics, Current Population Survey.  
\*April 2021 data unavailable.

For individual businesses, the effect of COVID-19 was lower in construction than it was in all nonfarm industries, and that impact weakened over time. By late May 2021, 17.5% of construction business owners reported they experienced a large negative effect of COVID-19, compared with 28.8% of those in all nonfarm industries (chart 8). In both construction and all nonfarm industries, this proportion had decreased over 40% since late April 2020.

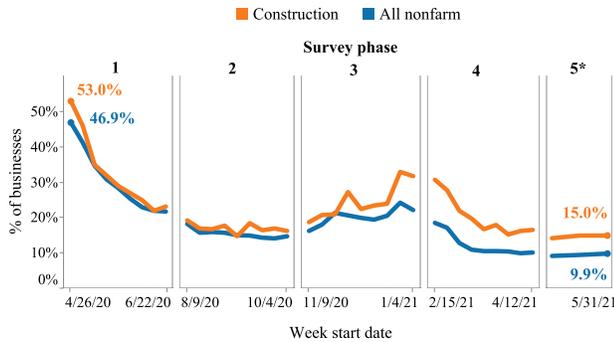
By May 2021, fewer businesses reported work hour reductions for their employees, dropping over 70% in both construction and all nonfarm businesses compared to April 2020 (chart 9). However, the proportion of businesses reducing work hours in late May 2021 was larger in construction than in all nonfarm industries (15% versus 9.9%).

**8. Impact of COVID-19 on small businesses, construction versus all nonfarm industries, April 2020 - May 2021**



Source: U.S. Census Bureau, Small Business Pulse Survey  
\*Only the first 3 weeks of phase 5 data were available when the chart was created.

**9. Reduction in hours worked by paid employees, construction versus all nonfarm industries, April 2020 - May 2021**

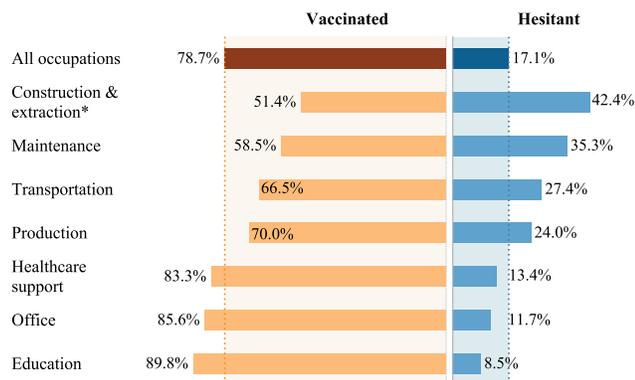


*Source: U.S. Census Bureau, Small Business Pulse Survey.  
\*Only the first 3 weeks of phase 5 data were available when the chart was created.*

While more and more populations have reached the [vaccination goal](#) President Joe Biden set, the COVID-19 vaccination rate was lower among workers in construction and extraction occupations (51.4%) than in any other major occupational category (chart 10). Additionally, 42.4% of workers in construction and extraction reported vaccine hesitancy. Among these hesitant workers, the most common barriers were distrust of vaccines (56.2%) or the government (54.8%; chart 11).

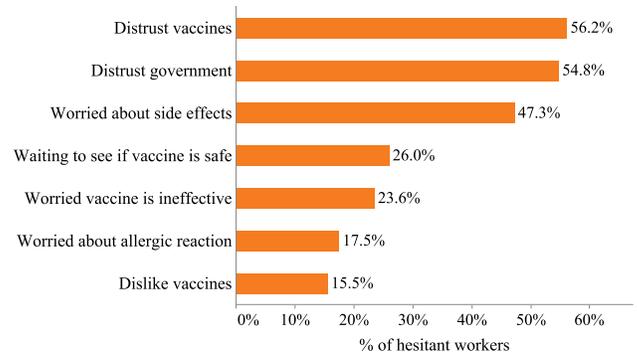
Detailed vaccination trends are available in the new Interactive Data Dashboard: [COVID-19 Vaccination in Construction](#).

**10. COVID-19 vaccine uptake and hesitancy, by selected major occupational category, May 2021**



*Source: Delphi Group, COVID Symptom Survey.  
\*Some workers may work in non-construction industries.*

**11. Barriers\* to COVID-19 vaccination among hesitant construction and extraction\*\* workers, May 2021**



*Source: Delphi Group, COVID Symptom Survey.  
\*Respondents were allowed to select one or more barrier items that applied.  
\*\*Some workers may work in non-construction industries.*

Construction employment and business conditions fluctuated since the pandemic. The impact of COVID-19 on the construction industry was substantial, as has been documented in [previous data bulletins](#). While some construction workers remained jobless this spring due to the pandemic, overall construction employment recovered to its pre-pandemic level. With COVID-19 curbs eased, the relatively low vaccination rate among construction workers raises important concerns about continuing COVID-19 infections and possible compounded exposures with other [risk factors](#) in the industry.

COVID-19 vaccination is a crucial construction safety and health measure. It is essential to remove barriers to vaccination among hesitant workers so that they can be protected from infections. CPWR has developed several [resources](#) to help construction employers and workers understand the science and benefits of the COVID-19 vaccine. CDC has offered a [Workplace COVID-19 Vaccine Toolkit](#) for employers and employees. NIOSH has also put [COVID-19 workplace information](#) together, including [COVID-19 Vaccination for Essential Workers and Tips for How to Get a COVID-19 Vaccine](#). Moreover, it is easy to use [Vaccines.gov](#) to find a vaccination location nearby, then call or visit their website to make an appointment. At the same time, [worksites preventions](#) remain important to protect workers who have not been vaccinated. CPWR has created a free [planning tool](#), aligned with the [COVID-19 Construction Clearinghouse](#), to help construction employers of all sizes develop a COVID-19 exposure control strategy.

## ACCESS THE CHARTS & MORE

View the [charts](#) (including supplement charts) in PowerPoint and the [data](#) underlying the charts in Excel. Downloading will start when you click on each link. Detailed vaccination trends are available in the new Interactive Data Dashboard: [COVID-19 Vaccination in Construction](#).

## DEFINITIONS

**Construction and extraction occupations** – This category includes workers in non-construction industries (e.g., mining).

**COVID-19 vaccination rate** – Proportion of workers who received at least one dose of the COVID-19 vaccine as of May 2021.

**Unable to work due to COVID-19** – Individuals who lost work at any point in the past four weeks because their employer closed or lost business due to the pandemic. This includes workers who did not work at all or who worked fewer hours, even if they still received pay from their employer for the work that was lost.

**Vaccine hesitancy** – Workers who were unvaccinated for COVID-19 and said they would definitely or probably not choose to get vaccinated if a vaccine were offered to them at the time of the survey.

## DATA SOURCES

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Downloaded through IPUMS: Sarah Flood, Miriam King, Renae Rodgers, Steven Ruggles and J. Robert Warren. Integrated Public Use Microdata Series, Current Population Survey: Version 8.0 [dataset]. Minneapolis, MN: IPUMS, 2020. <https://doi.org/10.18128/D030.V8.0>

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The CPWR Data Center is part of CPWR–The Center for Construction Research and Training. CPWR is a 501(c)(3) nonprofit research and training institution created by NABTU, and serves as its research arm. CPWR has focused on construction safety and health research since 1990. The Data Bulletin, a series of publications analyzing construction-related data, is part of our ongoing surveillance project funded by the National Institute for Occupational Safety and Health (NIOSH).

Besides cpwr.com, visit CPWR's other online resources to help reduce construction safety and health hazards:

- Choose Hand Safety  
<https://choosehandsafety.org/>
- Construction Safety and Health Network  
<https://safeconstructionnetwork.org/>
- Construction Solutions  
<https://www.cpwrconstructionsolutions.org/>
- Construction Solutions ROI Calculator  
<https://www.safecalc.org/>
- COVID-19 Construction Clearinghouse  
<https://covid.elcosh.org/index.php>
- COVID-19 Exposure Control Planning Tool  
<https://www.covidcpwr.org>
- Electronic Library of Construction Occupational Safety and Health  
<https://www.elcosh.org/index.php>
- Exposure Control Database  
<https://ecd.cpwrconstructionsolutions.org/>
- Safety Climate Assessment Tool (S-CAT)  
<https://cpwr.com/safetyclimate>
- Safety Climate Assessment Tool for Small Contractors (S-CAT<sup>SC</sup>)  
<https://www.cpwr.com/scat-sc>
- Stop Construction Falls  
<https://stopconstructionfalls.com/>
- Work Safely with Silica  
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