



Employment of Persons with a Disability: Analysis of Trends during the COVID-19 Pandemic

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Summary of Key Findings

Unemployment

- The unemployment rate for persons with a disability surged from 7.8% in February 2020 to 18.9% in April 2020, while persons without a disability had a comparable increase from 3.6% to 14.3%. Unemployment rates subsequently declined rapidly by October 2020, and less quickly since then, reaching 7.9% for persons with a disability and 3.5% for persons without by December 2021.
- In April 2020, the proportion of the unemployed persons on layoff reached all-time highs of 75% for persons with a disability and 80% for persons without a disability but has since returned to pre-pandemic levels, as unemployment rates have gradually declined.
- Although the unemployment rate for persons with a disability declined to pre-pandemic levels in 2021, it remains twice as high as the rate experienced by persons without a disability.

Employment

- Due to the consequences of the COVID-19 pandemic, from February to April 2020 the employment-population ratio plummeted from 19.1% to 16.1% for persons with a disability, and from 66.5% to 55.9% for persons without a disability, with 25 million jobs lost combined.
- Two-thirds of this employment loss was reversed by October 2020. Thereafter, more gradual but still historically rapid improvement further restored nearly a fifth of this prior employment loss by December 2021. For persons with a disability, a record high employment-population ratio was reached in November 2021.
- Although both employment and labor force participation rates improved for persons with a disability in 2021, people with a disability continue to experience significantly lower rates of employment and labor force participation than those without a disability.

Employment by Industry and Occupation

- From 2019 to 2021, persons with a disability experienced increases in employment in all industries except Leisure and Hospitality, Educational and Health Services, and Other Services.
- From 2019 to 2021, persons with a disability experienced increases in employment in all occupational categories except Service occupations, Office/Administrative occupations, and Production occupations.

Effects of Social Distancing

- Ability to social distance, connected both to physical proximity others needed to perform the job (contact intensity) and the ability of the job to be performed at home via telework, was a crucial factor in determining employment change across occupations, both from February to April 2020 and over the longer term from 2019 to 2021.
- From 2019 to 2021, persons with a disability experienced similar employment declines to those without a disability in high contact-intensity occupations but had a much smaller decline in medium contact-intensity occupations and had a much larger increase in employment in low contact-intensity occupations.

Introduction

Prior to the COVID-19 pandemic, persons with a disability were experiencing the strongest labor market since the tracking of disability status began in 2008. The unemployment rate for persons with a disability reached a post-recession peak of 16.9% in June 2011, then gradually declined to 7.3% in 2019. The labor force participation rate rose from a post-recession trough of 18.2% in January 2014 to reach 20.8% in 2019. In February 2020, the last month before COVID-19 had a substantial impact on the labor market, persons with a disability had a labor force participation rate of 20.7%, an employment-population ratio of 19.1%, and an unemployment rate of 7.8%.

The spread of COVID-19 and actions taken in response resulted in historically drastic changes to the economy, with widespread implementation of social-distancing measures, temporary shutdowns or reductions in business operations, and individual efforts to avoid contracting the virus. Governments in 42 states and territories issued mandatory stay-at-home orders, with another eight issuing non-mandatory advisories or recommendations.¹ These government mandates and voluntary actions had a disparate impact across industries and occupations, with some businesses deemed “essential” and permitted to continue operating more or less as usual, while others with greater risk of spreading COVID-19 or considered less essential being shut down for a considerable period. The immediate consequences from February to April 2020 were a reduction in employment of 22.5 million or 15.3% and a rise in the unemployment rate from 3.8% to 14.4%. This sudden, unprecedented downturn was followed by an improvement that has also been rapid by historical standards, although much slower than the two-month decline.

This brief analyzes trends in key labor force statistics from the Current Population Survey (CPS) by disability status through December 2021.² Employment trends are also examined across broad categories of industry and occupation, since the impact of the COVID-19 pandemic has varied considerably across these categories. Primary reasons for this variance are the relative ease of social distancing in an occupation, given the necessary physical proximity between workers (or between workers and customers), referred to as “contact intensity,” and the extent to which jobs are suited for telework. Two independent research papers are used to define contact intensity and ability to telework by occupation, which allows observation of employment trends by disability status and by occupational categories classified according to contact intensity and the ability to telework.

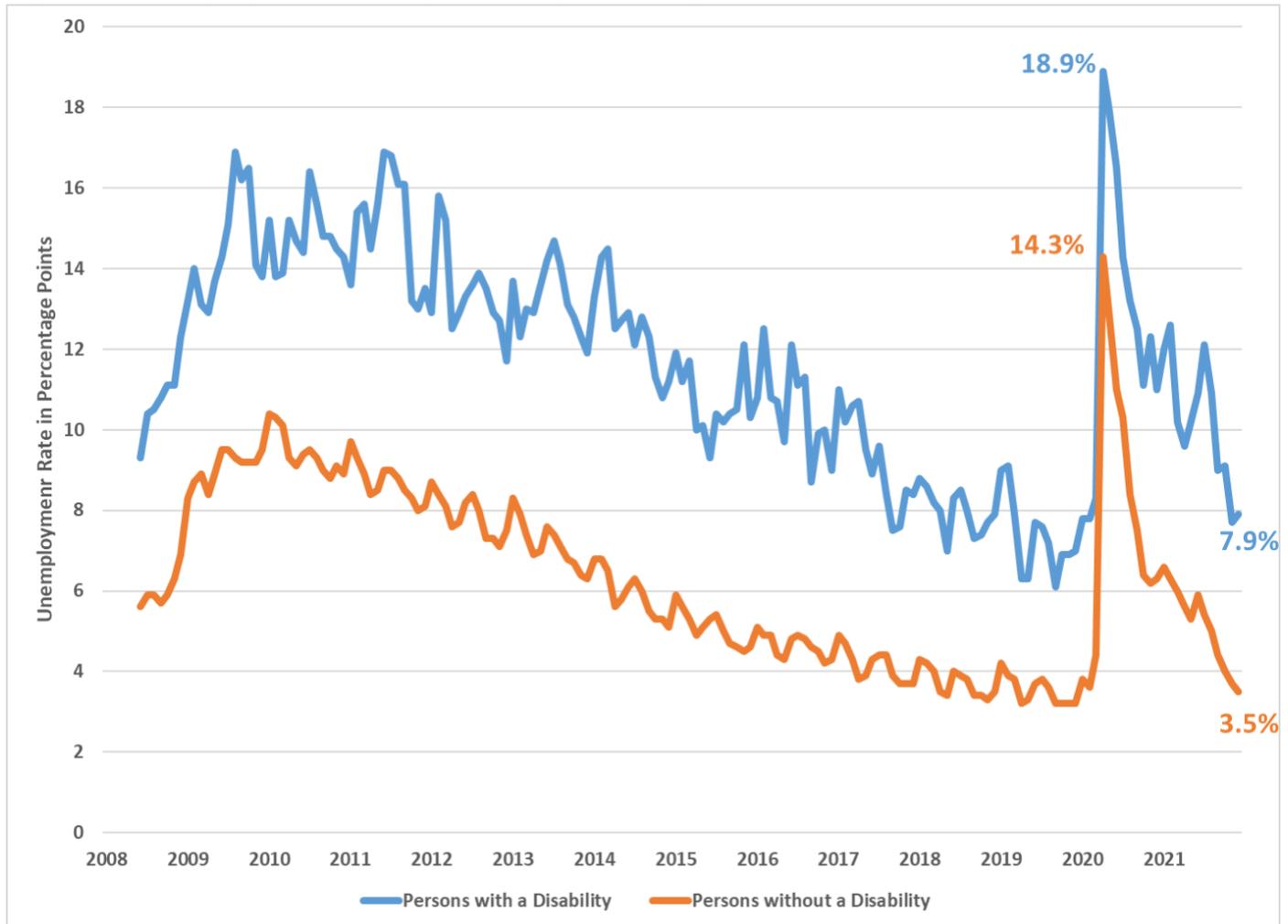
¹ See “Timing of State and Territorial COVID-19 Stay-at-Home Orders and Changes in Population Movement — United States, March 1–May 31, 2020,” <https://www.cdc.gov/mmwr/volumes/69/wr/mm6935a2.htm>

² The Current Population Survey is the source of official government statistics on the unemployment rate, employment-population ratio, and labor force participation rate. It is conducted by the Census Bureau for the Bureau of Labor Statistics, with a sample size of approximately sixty-thousand households each month. Data is collected on all individuals within each household, aiming to capture labor market statistics for the civilian, non-institutionalized, adult population. The CPS began tracking disability status in June 2008 via six questions, also found in the American Community Survey and various other federal surveys, with anyone answering affirmatively to at least one question classified as having a disability. These six questions ask whether a person 1) is deaf or has serious difficulty hearing, 2) is blind or has serious difficulty seeing (even with the assistance of corrective lenses), 3) has serious difficulty concentrating, remembering, or making decisions, 4) has serious difficulty walking or climbing stairs, 5) has difficulty dressing or bathing, and 6) has difficulty doing errands alone.

Historical Unemployment Rate and Proportion of the Unemployed Persons on Layoff

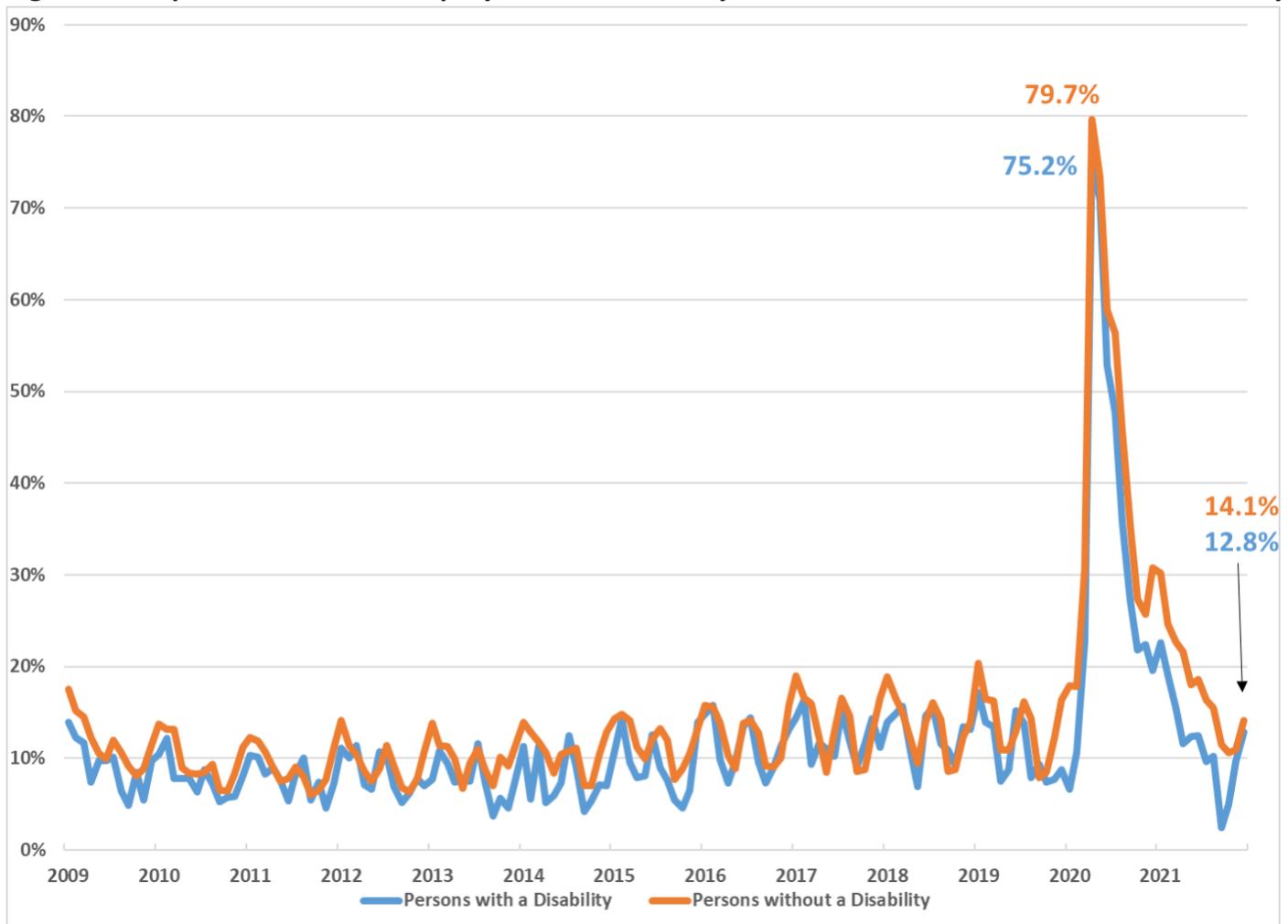
As a consequence of the COVID-19 pandemic, unemployment rates spiked in the two months from February to April 2020, as can be seen in Figure 1 below, which presents the monthly unemployment rate by disability status from June 2008 through December 2021 (note that all data are sourced from the Current Population Survey). Since the data is not seasonally adjusted, the unemployment rate exhibits regular seasonal fluctuations within each year, but across years there was a consistent, slow, downward trend in unemployment starting in 2010 for persons without disability and 2012 for persons with a disability. The unemployment rate for persons with a disability surged from 7.8% in February 2020 to 18.9% in April 2020, while persons without a disability had a comparable increase from 3.6% to 14.3%. Unemployment rates subsequently declined rapidly by October 2020, and less quickly since then, reaching 7.9% for persons with a disability and 3.5% for persons without by December 2021.

Figure 1. Unemployment Rate by Disability Status, Ages 16+



Persons are defined as being *unemployed* if they fall into one of two categories: (1) Not employed and had made specific efforts to find employment during the four-week reference period, or (2) On layoff, meaning a temporary separation from a job.³ Figure 2 below illustrates the proportion of those unemployed in any given month who were on layoff by disability status from January 2009 through December 2021. As with the prior figure, this data is not seasonally adjusted, and historically there have been regular fluctuations over the course of each year. Moreover, there was a slight upward trend from 2009 to 2019 due to a more rapid reduction in the number of unemployed in the primary category of seeking a job. However, this proportion was generally in the range 5% to 18%, with a maximum value of 17.2% for persons with a disability and 20.3% for persons without a disability through February 2020. From February to April 2020, the number of persons on layoff increased to an unprecedented level, reaching 75.2% of all unemployed for persons with a disability and 79.7% of all unemployed for persons without a disability. From February to April 2020, the number of persons on layoff increased to an unprecedented level, reaching 75.2% of all unemployed for persons with a disability and 79.7% of all unemployed for persons without a disability. From February to April 2020, the number of persons on layoff increased to an unprecedented level, reaching 75.2% of all unemployed for persons with a disability and 79.7% of all unemployed for persons without a disability.

Figure 2. Proportion of the Unemployed Persons on Layoff – Persons with and without a Disability



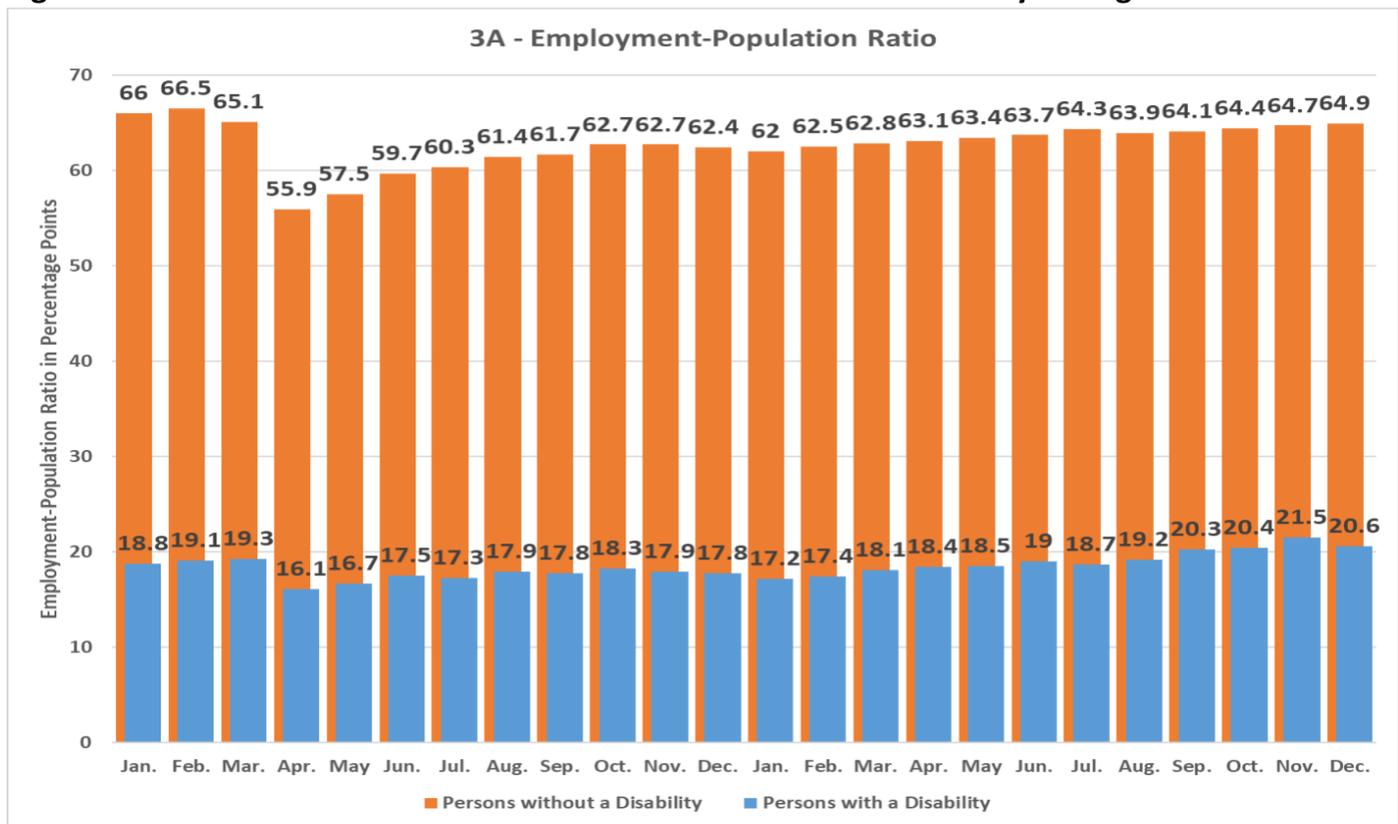
³ See Current Population Survey Technical Paper 77, October 2019, <https://www.census.gov/programs-surveys/cps/technical-documentation/complete.html>

After April 2020, the number of unemployed who were on layoff declined more rapidly than the number of unemployed who were seeking employment, a trend lasting more than a year that returned this metric to its pre-pandemic levels by mid-2021. This suggests considerable attachment to the labor force, possibly even attachment to specific firms, as workers on layoff returned to employment as employers resumed operations.

Key Labor Force Statistics for Persons with and without a Disability during COVID

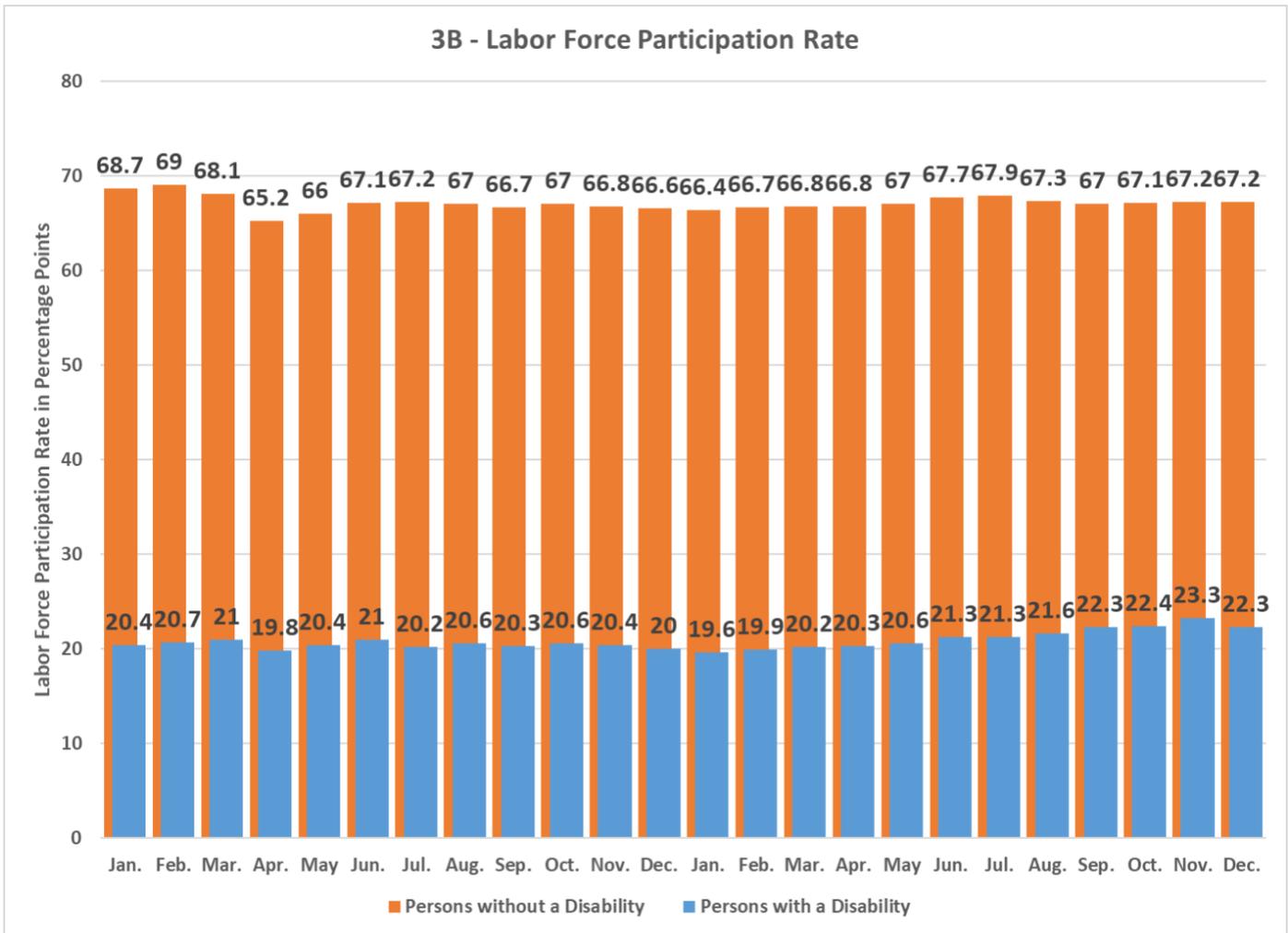
The key labor force statistics presented in each month’s release of Current Population Survey data are the employment-population ratio, the labor force participation rate, and the unemployment rate.⁴ These monthly statistics are shown below in Figures 3A and 3B (the unemployment rate is displayed in Figure 1 above) by disability status for the period January 2020 through December 2021. Due to the consequences of the COVID-19 pandemic, from February to April 2020 the employment-population ratio plummeted from 19.1% to 16.1% for persons with a disability, and from 66.5% to 55.9% for persons without a disability, with 25 million jobs lost combined. However, two-thirds of this employment loss was reversed by October 2020, and thereafter more gradual but still historically rapid improvement further restored nearly a fifth of this prior employment loss by December 2021.

Figure 3. Labor Force Statistics for Persons with and without a Disability during COVID-19



⁴ These are defined as follows: (1) the employment-population ratio equals the total number of employed divided by the total population, (2) the labor force participation rate equals the number of employed and the unemployed (i.e., the labor force) divided by the total population, (3) the unemployment rate equals the number of unemployed divided by the number in the labor force.

Changes in the labor force participation rate were relatively modest compared to the change in employment, but there was nonetheless a considerable drop in the combined labor force participation rate, from 63.3% in February 2020 to 60.0% in April 2020, of which half has since been restored. There has been greater improvement for persons with a disability, who have recently experienced higher labor force participation rates and employment-population ratios than prior to COVID-19, with the labor force participation rate reaching 23.3% in November 2021, its second-highest rate since records began in June 2008, even as the unemployment rate declined to reach 7.7% in the same month.



Changes in Employment by Industry and Occupation

The consequences of the COVID-19 pandemic had widely disparate impacts across industries and occupations, as certain types of jobs were considered essential and exempt from COVID-related restrictions, while others were temporarily suspended in the effort to slow the spread of the disease. Figures 4 and 5 below demonstrate the impact of COVID-19 on employment within major industry categories by disability status and for two different time periods: February to April 2020, and 2019 to 2021 on an annual basis (note that all data are sourced from the Current Population Survey).

Although the figures present employment changes in percentage terms within each industry, it is important to note that the magnitude of employment varies greatly across industries, from Education and Health Care (with 36.4 million workers in February 2020) to Mining (with 0.8 million workers in February 2020).⁵ Note also that all changes in employment are adjusted by the overall population change in each disability status category.⁶

Figure 4 below presents change in employment by industry and by disability status from February to April 2020. With the exception of Information/Finance for persons with a disability, every combination of industry and disability status experienced a decline in employment. However, job loss was especially substantial in the Leisure/Hospitality sector, where employment declined by more than twice the overall rate across industries, and the heterogeneous “Other Services” category. More limited job losses were experienced by persons with a disability in the Information/Finance, Professional/Business Services, and Public Administration categories.

Although initial employment losses were nearly identical in percentage terms for persons with and without a disability, by the end of 2021 there had been a stronger recovery for persons with a disability. This is demonstrated both by Figure 5, displaying employment change by industry and disability status from 2019 to 2021. For persons without a disability, the only industries to have gained employment from 2019 to 2021 were Transportation/Utilities and Public Administration. For persons with a disability, however, the only industries not to have gained employment from 2019 to 2021 were Education/Health Services, Leisure/Hospitality, and Other Services.

⁵ Industry classifications are based on North American Industrial Classification System (NAICS) codes. The category labelled “other goods-producing” combines agriculture, mining, and construction.

⁶ For persons with a disability, population change in the CPS was -3.7% from February to April 2020, 4.6% from February 2020 to December 2021, and 2.3% from 2019 to 2021. For persons without disability, changes over the same periods were 0.6%, 0.5%, and 0.7%, respectively.

Figure 4. Change in Employment by Industry and Disability Status: Feb. 2020 to Apr. 2020 (Population-Adjusted)

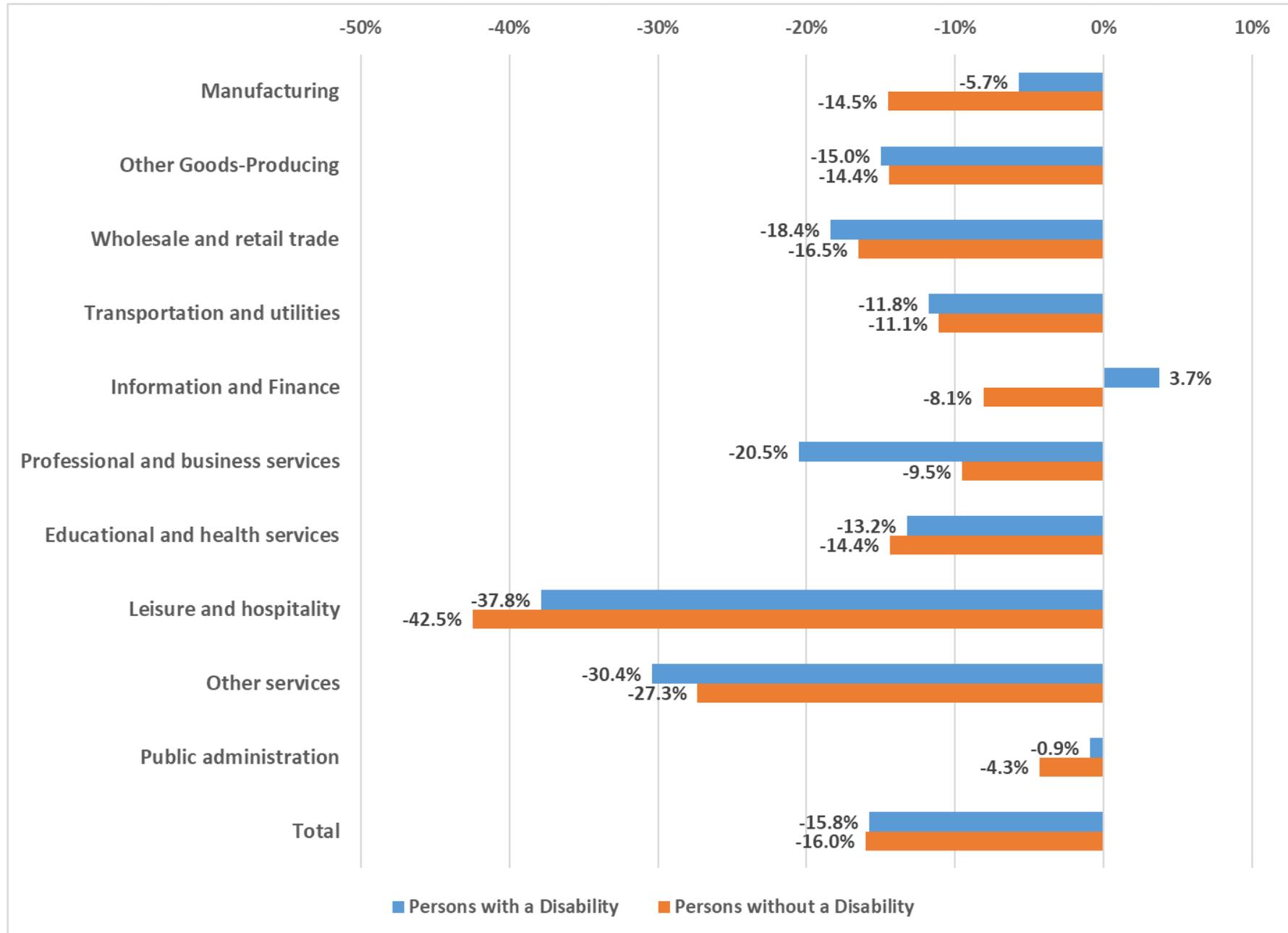
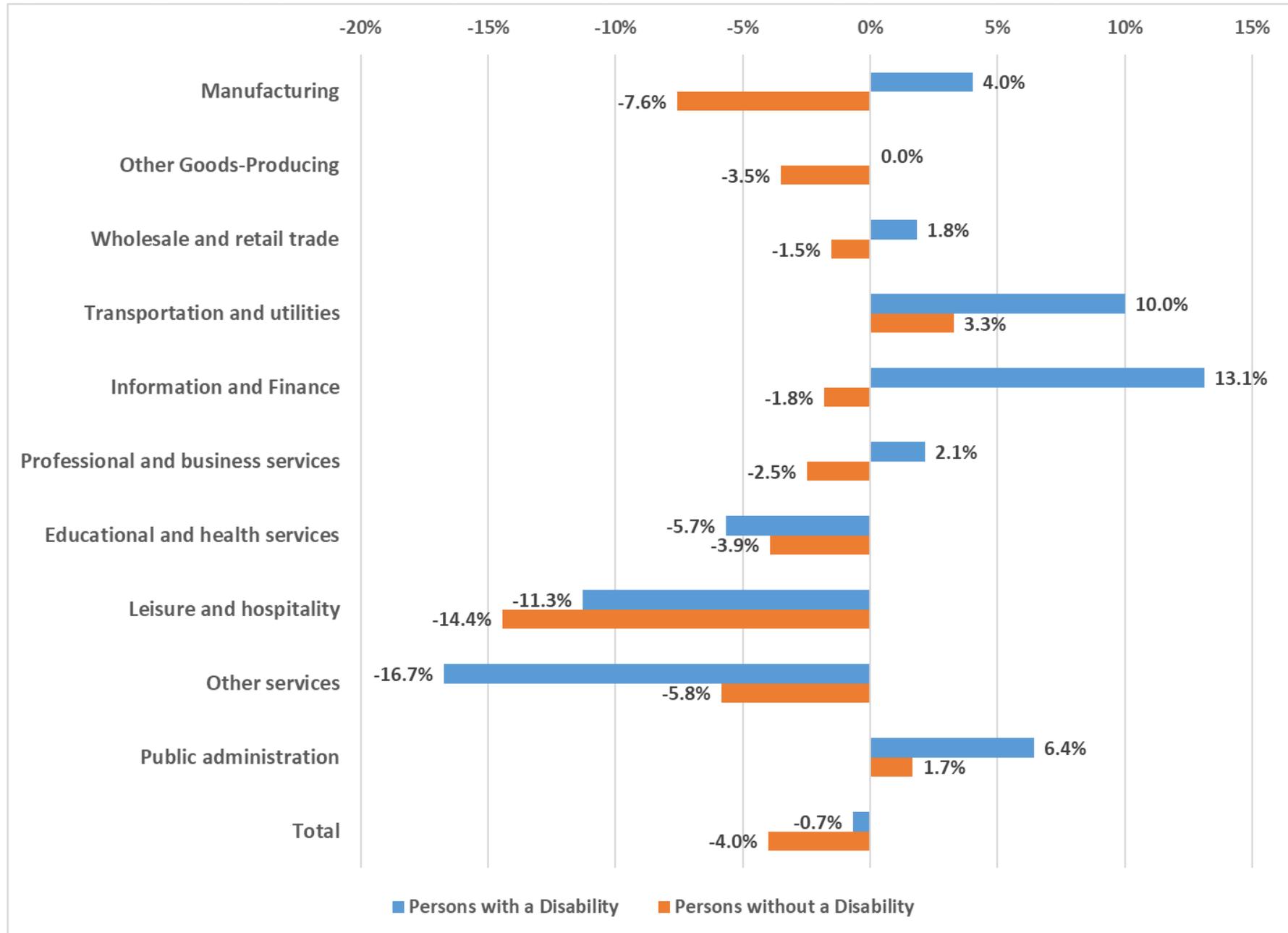


Figure 5. Change in Employment by Industry and Disability Status: 2019 to 2021 (Population-Adjusted)



Similar to the figures above on employment change by industry, Figures 6 and 7 below demonstrate the impact of COVID-19 on employment within major occupational categories, by disability status and for two different time periods: February to April 2020, and 2019 to 2021 on an annual basis. Although the figures present employment changes in percentage terms within each occupation, here too it is important to note that the magnitude of employment varies greatly across occupations, from Professional and Related occupations (38.2 million in February 2020) to Farming, Fishing, and Forestry occupations (1.1 million in February 2020).⁷ Note also that all changes in employment are adjusted by the overall population change in each disability status category.⁸

Figure 6 presents employment change by occupational category and disability status from February to April 2020. Every combination of occupational category and disability status experienced a decline in employment during this period. However, declines were especially large in Service occupations and Production occupations but were relatively limited in Management/Financial occupations and Professional occupations.

For persons without a disability, Figure 7 demonstrates that the only occupations with an increase in employment from 2019 to 2021 were Management/Financial occupations and Transportation or Material-Moving occupations. For persons with a disability, however, the only occupational categories not to increase in employment from 2019 to 2021 were Service occupations, Office/Administrative occupations, and Production occupations.

⁷ Occupational classifications are based on Standard Occupational Classification (SOC) codes. The category labelled "Agr./Constr./Extr." combines farming, fishing, and forestry occupations with construction and extraction occupations.

⁸ For persons with a disability, population change in the CPS was -3.7% from February to April 2020, 4.6% from February 2020 to December 2021, and 2.3% from 2019 to 2021. For persons without a disability, changes over the same periods were 0.6%, 0.5%, and 0.7%, respectively.

Figure 6. Change in Employment by Occupation and Disability Status: Feb. 2020 to Apr. 2020 (Population-Adjusted)

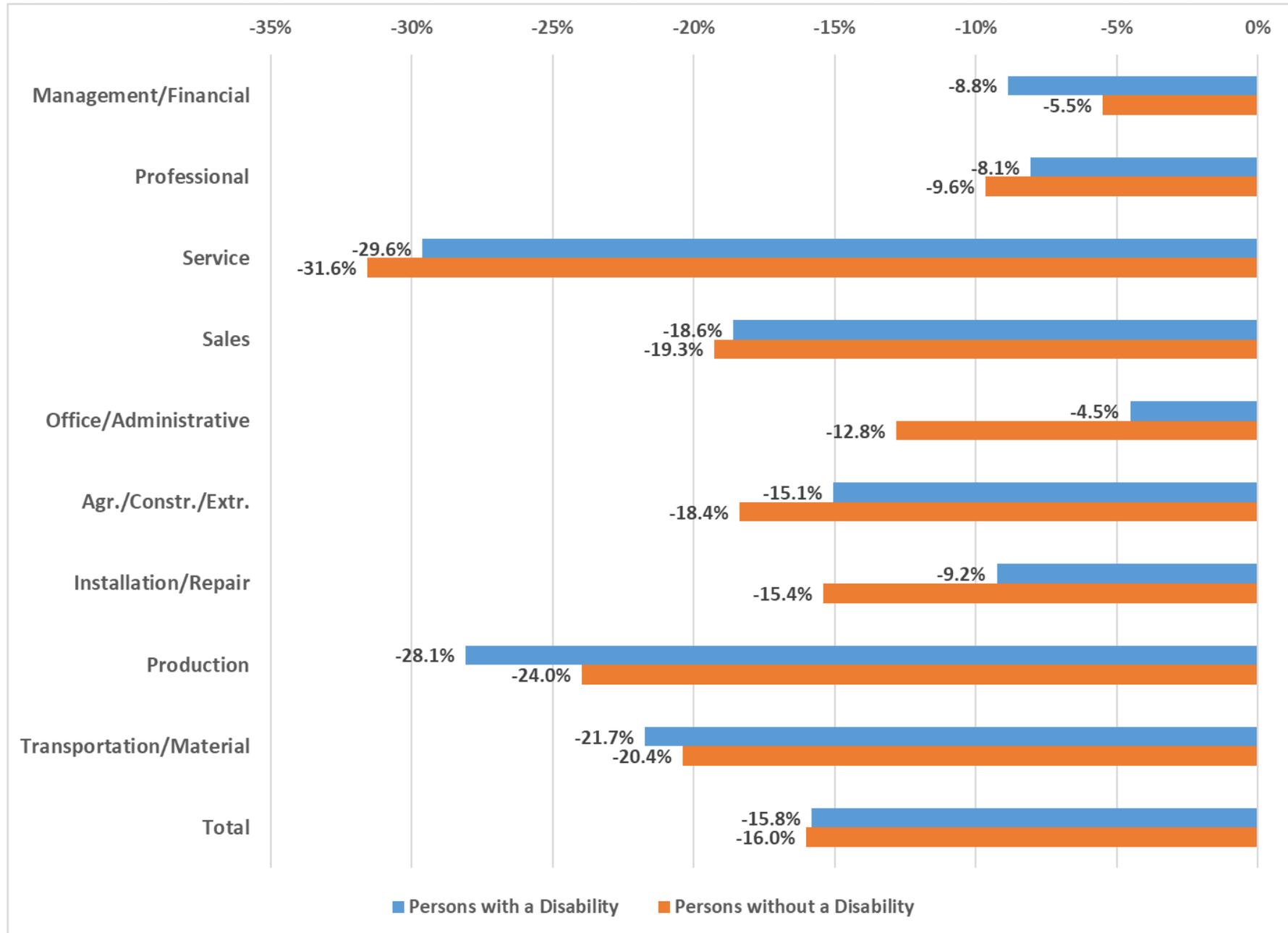
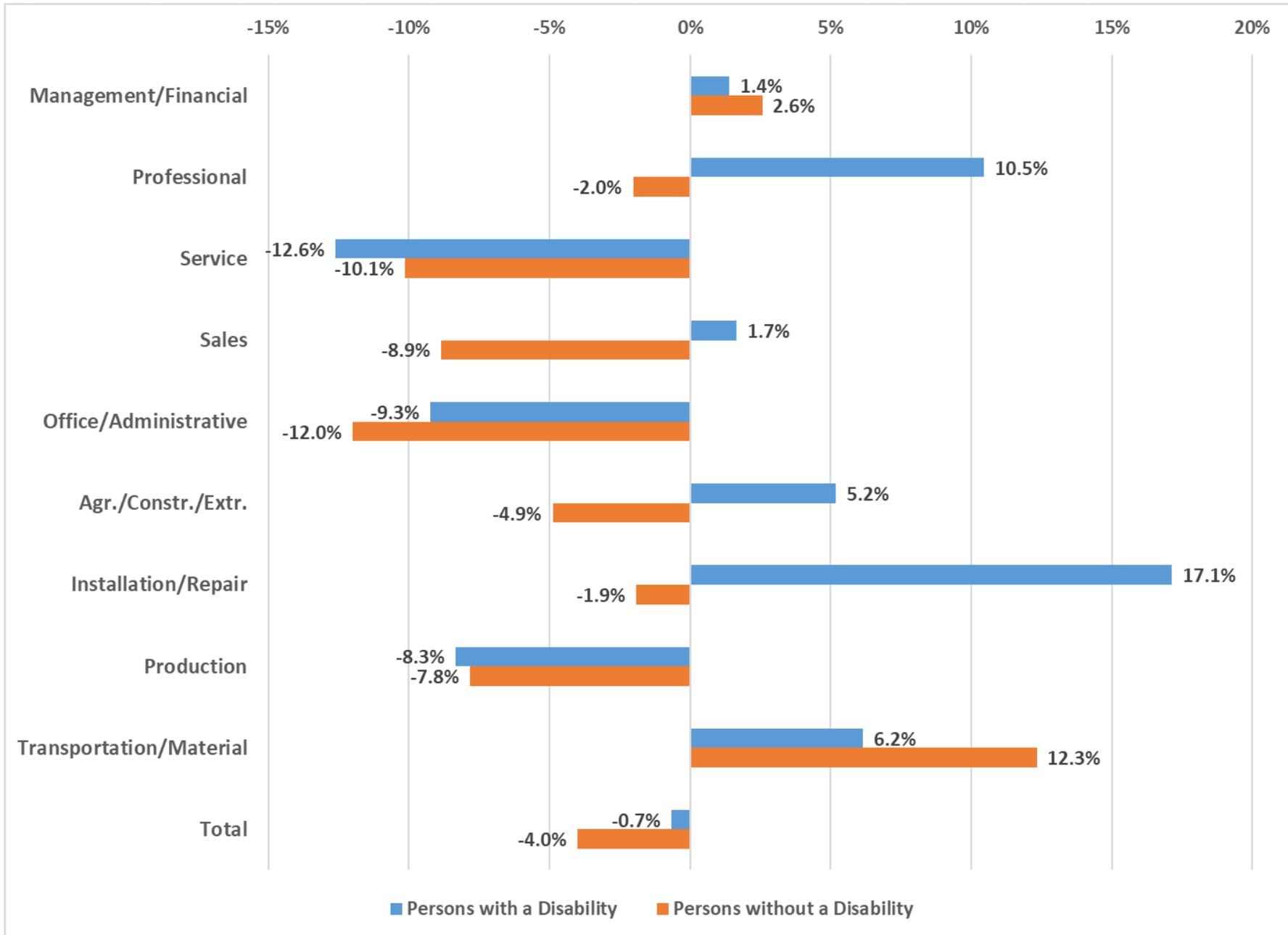


Figure 7. Change in Employment by Occupation and Disability Status: 2019 to 2021 (Population-Adjusted)



Change in Employment by “Contact Intensity” and Ability to Telework

The considerable variation in employment change by industry and occupation, demonstrated in the previous section of this report, stems in part from two key aspects of jobs functioning during the COVID-19 pandemic: whether a job requires workers to be in close physical proximity with others (“contact intensity”) and whether a job can be performed remotely from home (“ability to telework”). Based on assessments of contact intensity and ability to telework from independent research, this analysis groups occupations into categories based on contact intensity and ability to telework and examines employment change by these categories and by disability status.

A measure of occupational contact intensity is defined based on the physical proximity to others required as part of work duties, with each occupation assigned to either low, medium, or high contact-intensity categories.⁹ In February 2020, approximately 29 percent of the workforce was employed in low contact-intensity occupations, 49 percent in medium contact intensity, and 22 percent in high contact intensity. Examples of high contact-intensity occupations include barbers/hairstylists, occupational/physical therapists, and home/personal care aides; examples of medium contact intensity include retail salespersons, cashiers, and cooks; and examples of low contact-intensity occupations include software developers, chief executives, and accountants.

Figure 8 below displays change in employment by contact-intensity category and disability status from February to April 2020 (note that all data is sourced from the Current Population Survey). In general, employment declines were considerably lower in low contact-intensity occupations, while greatest in high contact-intensity occupations. Figure 9 compares the time periods 2019 to 2021, revealing that persons without a disability had modest employment gains in low contact-intensity occupations but had considerable employment losses in medium contact-intensity occupations and even higher job losses in high-contact intensity occupations. Persons with a disability experienced similar employment declines in high-contact intensity occupations but only a small decline in medium-contact intensity occupations and had a much larger increase in employment in low-contact intensity occupations.

⁹ Estimation of contact intensity within specific occupational categories is based on Leibovici, Santacreu, and Famiglietti (2020), which drew upon the O*NET occupational database of the Department of Labor. O*NET includes a question on the extent to which a job requires tasks to be performed in physical proximity to others, with response options of “I don’t work near other people (beyond 100 ft.),” “I work with others but not closely (e.g., private office),” “Slightly close (e.g., shared office),” “Moderately close (at arm’s length),” and “Very close (near touching).” These response options were then assigned numerical scores of 0, 25, 50, 75, and 100, respectively. Finally, an average score was calculated from the responses for each occupational category, which was assigned to one of three contact-intensity categories: low contact intensity with an average below 50, medium contact intensity with an average from 50 to 75, and high contact intensity with an average above 75.

Figure 8. Change in Employment by Contact Intensity and Disability Status: Feb. 2020 to Apr. 2020 (Population-Adjusted)

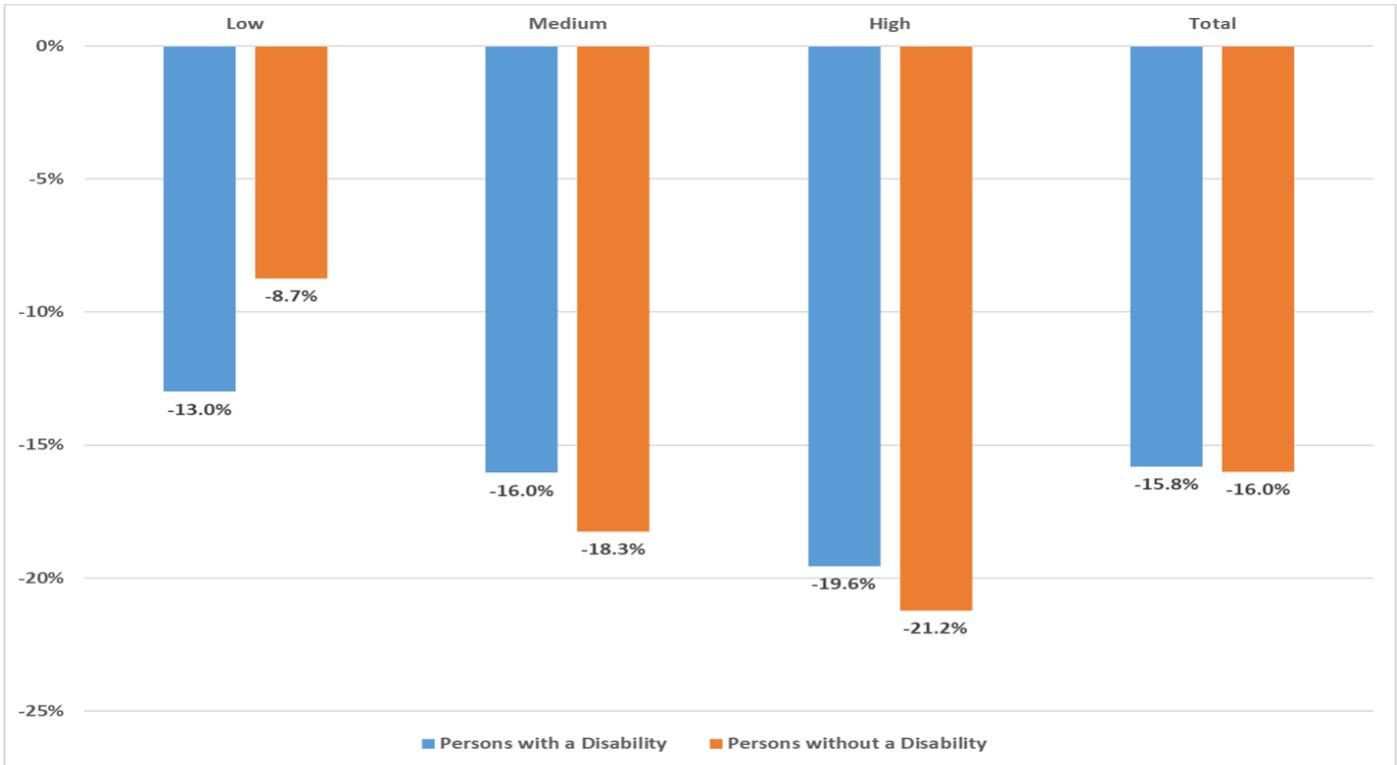
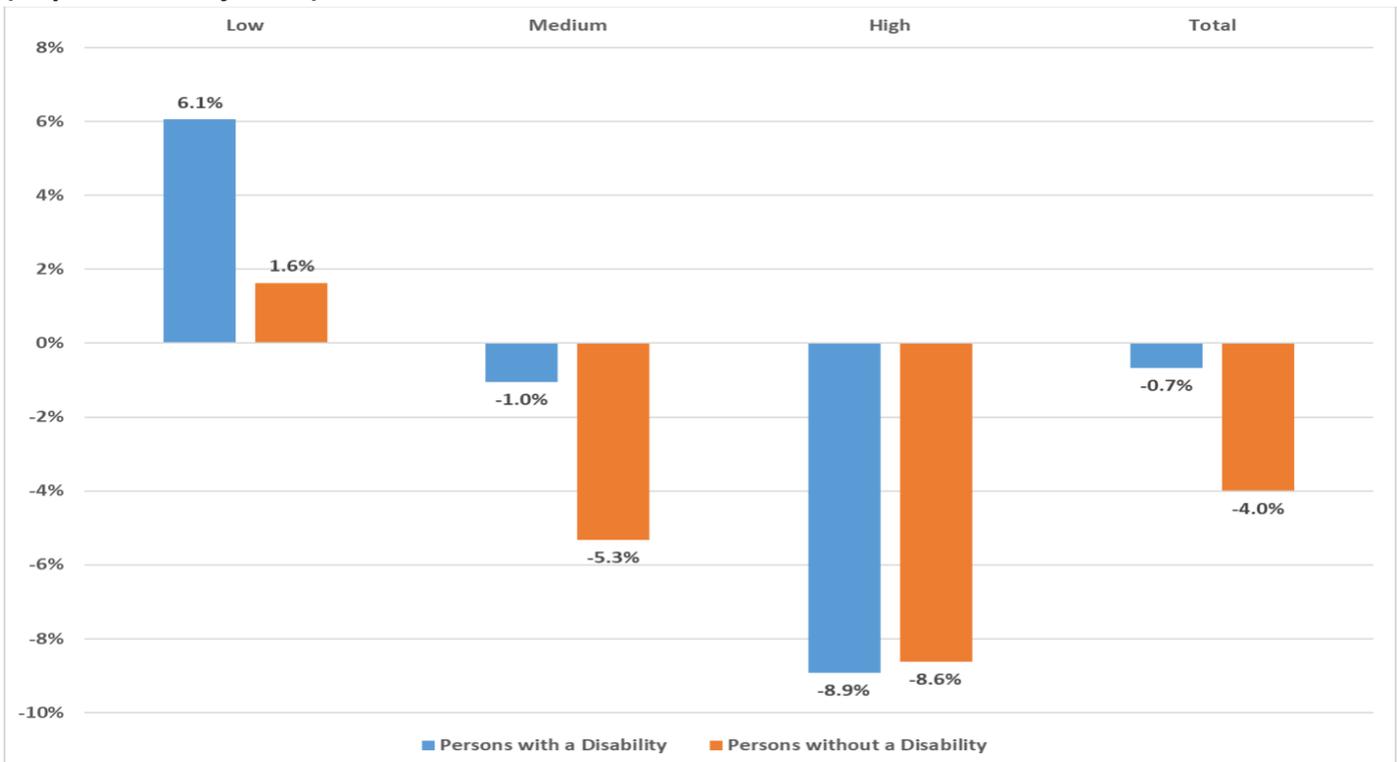


Figure 9. Change in Employment by Contact Intensity and Disability Status: 2019 to 2021 (Population-Adjusted)



Occupations are assigned to a binary categorization of displaying ability to telework or lacking ability to telework, based on a number of factors.¹⁰ In 2019, 36.1% of jobs had the ability to perform via full time telework, and 63.9% of jobs did not have that feature.

Figure 10 below displays change in employment by ability to telework and disability status from February to April 2020. The short-term impact of the COVID-19 pandemic was much greater for occupations that could not be performed from home, with employment losses of 20-21%, than on occupations that could be performed at home, which had employment losses of around 9%. The longer-term change in employment from 2019 to 2021 by ability to telework and disability status is displayed in Figure 11 below. For persons without a disability, there was moderately lower employment loss in occupations conducive to telework relative to occupations that could not be performed via telework. Persons with a disability, however, experienced considerable employment gains among telework-ready occupations, while employment loss in other jobs was similar to persons without a disability. This is a possible indication that because the COVID-19 pandemic made access to telework more standard, new doors to opportunity may have been opened for people with disabilities by removing certain barriers to employment relating to commuting, the need for social distancing, and workplace accessibility.

¹⁰ Estimation of ability to telework by specific occupation is based on Dingel and Neiman (2020), which drew upon the O*NET database of the Department of Labor to assess whether a job could be performed at home. Each occupation is categorized as being unable to be performed at home if any one of nine conditions are true for the average respondent in the Work Context Questionnaire, or if any one of eight conditions are true for the average respondent in the Generalized Work Activities Questionnaire. Since this is a binary condition, each occupation is then classified by the ability to perform via telework.

Figure 10. Change in Employment by Ability to Telework and Disability Status: Feb. 2020 to Apr. 2020 (Population-Adjusted)

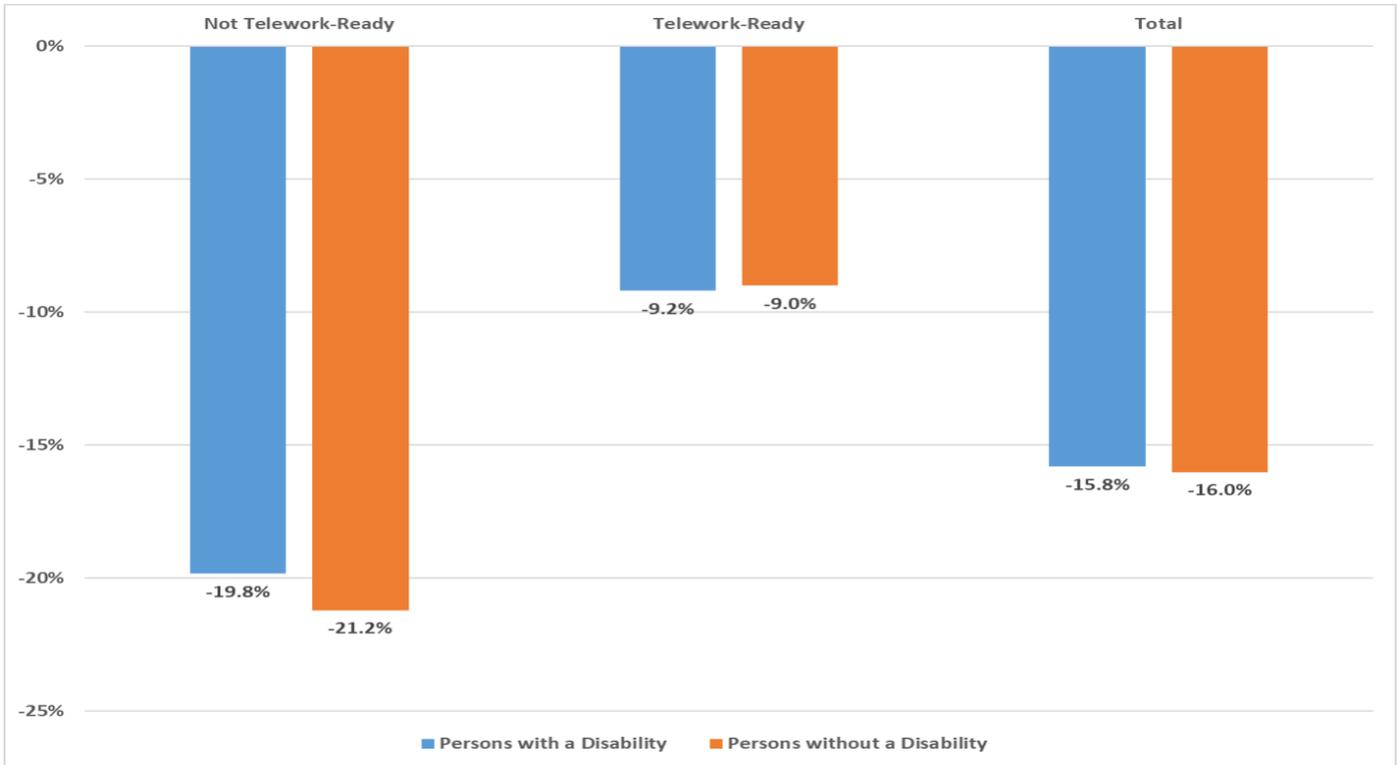
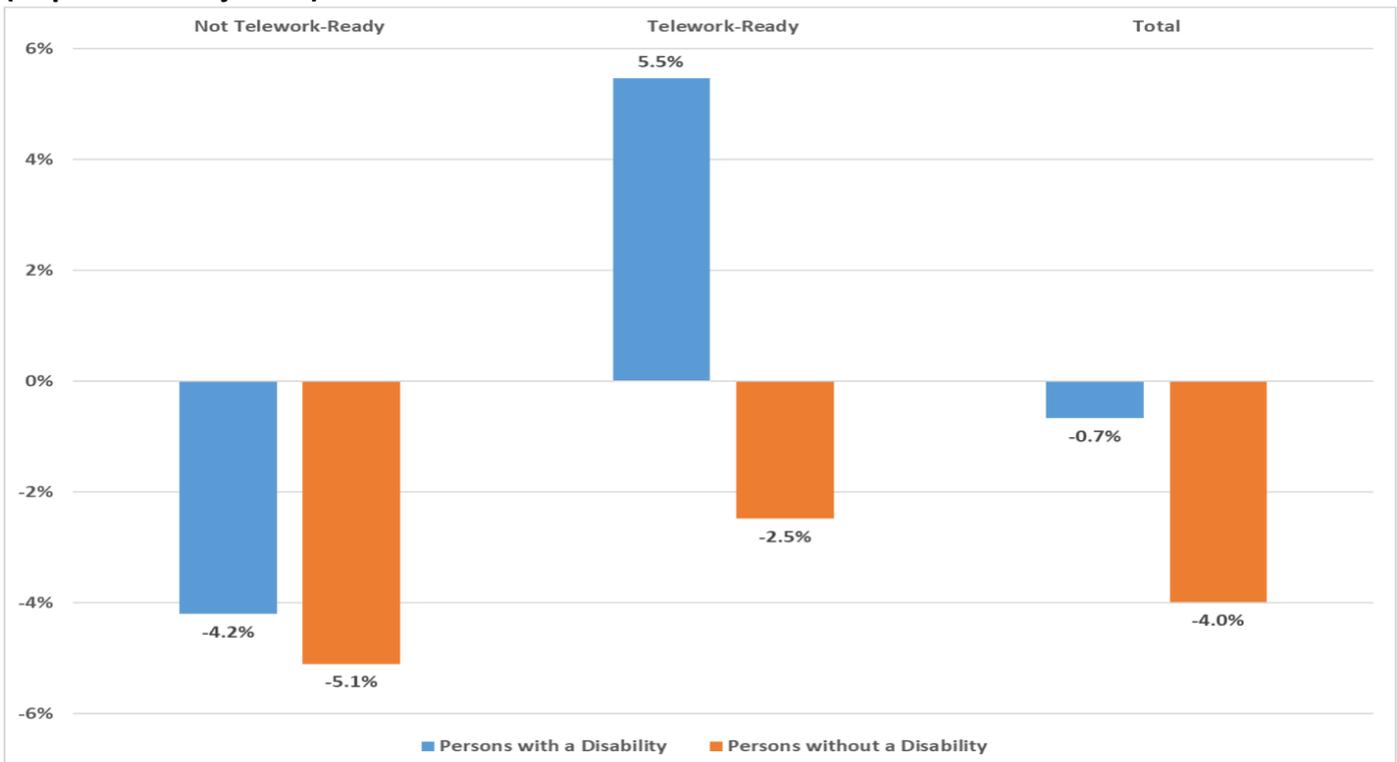


Figure 11. Change in Employment by Ability to Telework and Disability Status: 2019 to 2021 (Population-Adjusted)



Conclusion

Over the past two years, the United States has experienced historically unprecedented declines and recovery in employment resulting from the COVID-19 pandemic. As detailed in this report, there have been substantial differences in how COVID-19 has affected industries and occupations, with contact intensity and ability to telework being major drivers of this variation, and also in employment levels for persons with and without a disability. As of the end of 2021, there has been a greater recovery in the labor market for persons with a disability, which might be attributable to an overall increase in access to teleworking, which allows for social distancing and helps to mitigate other barriers to workplace accessibility and employment, including transportation, that individuals with disabilities commonly face. Despite these more recent gains, it is important to note that persons with a disability continue to experience higher unemployment and lower labor force participation compared to those without a disability and chronic disparities between the two groups persist. Therefore, continued vigilance is needed to build upon these gains to address the disparities and improve the labor market conditions for persons with a disability.

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References

- Dingel, Johnathan I., and Brent Neiman. "How Many Jobs Can Be Done at Home?" University of Chicago Becker Friedman Institute White Paper, 2020. Available at: https://bfi.uchicago.edu/wp-content/uploads/BFI_White-Paper_Dingel_Neiman_3.2020.pdf
- Leibovici, Fernando, Ana Maria Santacreu, and Matthew Famiglietti. 2020. "Social Distancing and Contact-Intensive Occupations." Federal Reserve Bank of St. Louis, 2020. Available at: <https://www.stlouisfed.org/on-the-economy/2020/march/social-distancing-contact-intensive-occupations>
- Moreland A, Herlihy C, Tynan MA, et al. Timing of State and Territorial COVID-19 Stay-at-Home Orders and Changes in Population Movement – United States, March 1 – May 31, 2020. MMWR Morbidity and Mortality Weekly Rep 2020; 69: 1198-1203. DOI: <http://dx.doi.org/10.15585/mmwr.mm6935a2>.
- U.S. Bureau of Labor Statistics and Census Bureau, Current Population Survey, <https://www.bls.gov/cps/> and <https://www.census.gov/data/datasets/time-series/demo/cps/cps-basic.html>

About ODEP

The Office of Disability Employment Policy (ODEP) promotes policies and coordinates with employers and all levels of government to increase workplace success for people with disabilities. ODEP's mission is to develop and influence policies and practices that increase the number and quality of employment opportunities for people with disabilities. For more information please visit: dol.gov/agencies/odep.