Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.
BRIEF REPORT

Changes in the Employment Status of People With and Without Disabilities in the United States During the COVID-19 Pandemic

Andrew J. Houtenville, PhD, Shreya Paul, MPA, Debra L. Brucker, PhD

From the Institute on Disability, University of New Hampshire, Durham, NH.

Abstract

Objective: Using data from the monthly Current Population Survey, this paper provides monthly employment and unemployment statistics for people with and without disabilities in the United States before and during the coronavirus disease 2019 pandemic to date (January 2021).

Design: Cross-sectional analysis of the Current Population Survey.

Setting: The United States.

Participants: People with and without disabilities ages 16-64 years.

Intervention: N/A

Main Outcome Measures: Percentage employed, percentage unemployed, percentage not in labor force, percentage on temporary layoff, percentage looking for work.

Results: Estimates show that, like workers without disabilities, workers with disabilities experienced increases in unemployment at the beginning of the pandemic but continued to remain engaged in the labor force. Our analysis finds that employment rates dropped from 74.8% to 63.2% for those without disabilities and from 31.1% to 26.4% for those with disabilities between February 2020 and April 2020 but gradually improved in the succeeding months.

Conclusions: As the pandemic continued, the percentage of unemployed people with and without disabilities on temporary layoff decreased and those looking for work increased.

Archives of Physical Medicine and Rehabilitation 2021;102:1420–3

© 2021 The American Congress of Rehabilitation Medicine. Published by Elsevier Inc. All rights reserved.
population ratios dropping to 26% for people with disabilities and to 63% for people without disabilities.8

As the pandemic relents and the economy adjusts and recovers, there is concern that the employment of people with disabilities will take longer to recover than for people without disabilities, like it did the Great Recession. This article examines monthly trends in employment status (ie, employed, unemployed, not in the labor force) and unemployment status (ie, temporary layoff, job seeking) of people with and without disabilities to get a sense of how people with disabilities are faring.

Methods

Data

Estimates are derived from the monthly public use microdata files of the Current Population Survey (CPS). Because of the nature of the study and the publicly available deidentified data, institutional review board approval was not required and the need for informed consent was waived.

The CPS is the source of the official monthly unemployment rate of the United States (US) and is conducted by the US Census Bureau on behalf of the US Bureau of Labor Statistics. Data are collected from a nationally representative, multistage stratified random sample of approximately 60,000 households, with responses from all household members 15 years and older.9 To be consistent with publicly released Bureau of Labor Statistics (BLS) data, our sample is restricted to civilians aged 16-64 years not living in group quarters (such as small group homes).

Measures

Consistent with BLS practices, disability status is identified using a sequence of 6 disability-related questions regarding hearing, vision, cognitive, ambulatory, self-care, and independent living difficulty. A person is coded as having a disability if they have any of these 6 difficulties.9

Employment status is coded by the BLS using a series of over 40 questions and has 3 general categories: employed, unemployed, and not in the labor force. A person is employed if they had a paid job in the survey reference week (the week containing the 12th day of the month). A person is considered unemployed if they are on temporary layoff or actively looking for work in the last 4 weeks. If not employed nor unemployed, a person is considered not in the labor force.9 Persons are considered unemployed if they are on temporary layoff or actively looking for work. They are considered to be on temporary layoff if they were terminated but are expecting to be recalled. They are considered looking for work if they are not on temporary layoff and are actively looking for work in the last 4 weeks. If not employed nor unemployed, a person is considered not in the labor force.9

Analytical approach

Percentage distributions across employment statuses (employed, unemployed, not in labor force) are estimated by disability status and for each month from February 2020 and January 2021. Percentage distributions across unemployment statuses (on temporary layoff, looking for work) are also estimated by disability status and for each month in the same period. To examine changes over time, difference-in-percentages tests were performed with February 2020 as the reference month. To adjust for the CPS complex sample design, sample weights were used to adjust estimated percentages and standard errors, and generalized variance function parameters, provided by the BLS, were also used to further adjust the standard errors.9

Results

Table 1 provides the estimated percentage distributions across employment statuses by month and disability status. From February 2020 to April 2020, the percentage employed dropped from 31.1% to 26.4% for people with disabilities (a relative reduction of 15.1%) and from 74.8% to 63.2% for people without disabilities (a relative reduction of 15.5%). The percentage unemployed rose from 3.0% to 6.5% for persons with disabilities and from 2.9% to 10.5% for people without disabilities. An increase in the percentage not in the labor force was not detected for people with disabilities, while for people without disabilities an increase from 22.3% to 26.3% was detected. In the succeeding months, percentage employed generally increased, while the percentage unemployed decreased for both people with and without disabilities but are yet to recover to their February 2020 proportions (see table 1).

Table 2 provides the estimated percentage distributions of unemployment statuses by month and disability status. From February 2020 to April 2020, the percentage on temporary layoff increased from 9.1% to 72.9% for unemployed people with disabilities and from 17.1% to 79.2% for unemployed people without disabilities. The percentage actively looking for work decreased from 90.9% to 27.1% for unemployed persons with disabilities and from 82.9% to 21.0% for unemployed people without disabilities. In the succeeding months, the percentage on temporary layoff decreased, while the percentage looking for work increased for both unemployed people with and without disabilities but have yet to recover to their February 2020 proportions (see table 2).

Discussion

The initial effect of the pandemic and corresponding restrictions to economic activities had a devastating effect on the employment status of people with and without disabilities. Both groups experienced a dramatic increase in unemployment, dominated by temporary layoffs. As unemployment declined in subsequent months, there was a shift in the proportion of unemployed persons to actively looking for work. This may reflect people on temporary layoff returning to their jobs and/or transitioning to permanent layoff (ie, termination)—for people without disabilities this may also reflect people returning to the labor force by actively looking for work.

Although we found a statistically significant change in the percentage not in the labor force for people without

List of abbreviations:

| Abbreviation          | Description             |
|-----------------------|-------------------------|
| BLS                   | Bureau of Labor Statistics |
| COVID-19              | coronavirus disease 2019 |
| CPS                   | Current Population Survey |
| US                    | United States            |

www.archives-pmr.org
disabilities, there is a lack of a detectible change in the percentage not in the labor force for people with disabilities. Although not definitive evidence, this is suggestive of people with disabilities staying engaged in the labor force during the pandemic. This maybe because workers with disabilities are more likely than those without disabilities both to work primarily from home and to do any work at home. Additional analysis on the industry and occupation of the working age population is needed to gain a deeper understanding of the effect of COVID-19 on the employment status of people with and without disabilities.

Study limitations

When the CPS asks about employment status, a person that was employed but absent from work in the reference week is asked whether the absence was because of vacation, illness, bad weather, job training, childcare problems, or other reasons. In April 2020, the number reporting other reasons increased well beyond prior months. The BLS suspects that in the early months of the pandemic (April-June) some respondents who were classified as absent from work for other reasons may have been misclassified and that the percentage on temporary layoff (and thus the percentage unemployed) may be underestimated. Skip patterns in the CPS survey instrument do not allow for the identification of people engaged in multiple employment-related activities, such as (1) employed people who are also looking for work or (2) unemployed people on temporary layoff who are also looking for work. A further limitation is that time trends independent from the pandemic are not considered in the analysis.

Conclusions

Consistently tracking employment changes for persons with disabilities as the economy reacts to COVID-19 will be important in the coming months and perhaps years. Trends in the monthly employment status of people with and without disabilities appears to be improving since the spring of 2020. Whether the economic effects of COVID-19 persist for workers with disabilities points to a need for continued surveillance of these data points because the findings have implications for persons with disabilities as well as for the programs and policies that support people with disabilities and their families.
Keywords
COVID-19; Disability; Employment; Rehabilitation; Unemployment

Corresponding author
Shreya Paul, MPA, 10 W Edge Dr 101, Durham, NH 03824. E-mail addresses: Andrew.Houtenville@unh.edu Shreya.Paul@unh.edu Debra.Brucker@unh.edu.

References
1. Schuchat A. Public health response to the initiation and spread of pandemic COVID-19 in the United States, February 24-April 21, 2020. MMWR 2020;69:551–6.
2. Moreland A, Herhihy C, Tynan M, et al. Timing of state and territorial COVID-19 stay-at-home orders and changes in population movement in the United States, March 1-May 31, 2020. MMWR 2021;69:1198–203.
3. Houtenville A, Rafal M. Annual report on people with disabilities in America. Available at: https://disabilitycompendium.org/. Accessed February 23, 2021.
4. Livermore G, Honeycutt T. Employment and economic well-being of people with and without disabilities before and after the great recession. J Disabil Policy Stud 2015;26:70–9.
5. McAlpine D, Alang S. Employment and economic outcomes of persons with mental illness and disability: the impact of the great recession in the United States. Psychiatr Rehabil J 2020. Oct 8. [Epub ahead of print].
6. Kessler Foundation and Institute on Disability at the University of New Hampshire. nTIDE lunch & learn webinar series, Friday May 8, 2020. Available at: https://researchondisability.org/home/ntide/. Accessed February 23, 2021.
7. Kessler Foundation and Institute on Disability at the University of New Hampshire. National trends in disability and employment: February 2020 jobs report: third month of job gains for Americans with disabilities. Available at: https://researchondisability.org/home/ntide/. Accessed February 23, 2021.
8. Kessler Foundation and Institute on Disability at the University of New Hampshire. National trends in disability and employment: April 2020 jobs report: COVID recession hits workers with disabilities harder. Available at: https://researchondisability.org/home/ntide/. Accessed February 23, 2021.
9. US Census Bureau; US Bureau of Labor Statistics. Design and methodology, current population survey, technical paper 77. Available at: https://www2.census.gov/programs-surveys/cps/methodology/. Accessed February 23, 2021.
10. Schur L, Ameri M, Kruse D. Telework after COVID: a “silver lining” for workers with disabilities? J Occup Rehabil 2020;30:521–36.
11. US Bureau of Labor Statistics. Labor force characteristics from the Current Population Survey. Available at: https://www.bls.gov/cps/definitions.htm. Accessed February 23, 2021.