DISABILITY RATES MAY BE CRESTING AMONG THE WORKING-AGE POPULATION; EMPLOYMENT PROSPECTS FOR PERSONS WITH DISABILITIES CONTINUE TO IMPROVE

New 2023 annual disability indicate two key trends. Among the working-age population, disability rates may be cresting, absent a coronavirus resurgence. Second, employment prospects for working-age persons with disabilities have been improving for nearly the past decade, and continue to improve so vigorously that the U.S. may be heading toward a historic peak employment rate for this population. Neither trend has received virtually any public attention, despite their historic importance.

The supporting data are attached above, and include considerably more information than is discussed here, including disability among both children and the elderly, disability among various demographic groups, disability rates using other definitions, and other disability employment indicators such as the unemployment rate and labor force participation rates. The focus of this analysis is on the two most important recent trends, noted above, preceded by a general review of how the disability rate has changed over time among working-age individuals. The most important points are highlighted in boldface **purple**. Most of the Census Bureau's annual *Current Population Survey*'s (CPS) Annual Social and Economic Supplement and American Community Survey (ACS) data come from my analyses of survey microdata, as much of these data are not (or are no longer) available from Census Bureau Web sites.

Important background. Many Federal surveys now report disability data, using definitions that sometimes vary significantly. This analysis relies upon the sources that use the most consistent definitions over the longest periods, and the surveys that provide the most accurate employment information.

The U.S. Center for Disease Control and Prevention's *National Health Interview Survey* (NHIS) has tracked annual disability rates since the late 1960s, albeit with periodic major survey and definitional changes. The U.S. Census Bureau's decennial census first asked about disability over a century-long period between 1830 and 1930, but then dropped its disability questions until 1970 – these questions do not permit a historical time series that is consistent with more current data. However, at the beginning of the 1980s the Bureau added disability questions to the *Current Population Survey*'s (CPS) Annual Social and Economic Supplement (ASEC). These questions are not generally consistent with the NHIS survey, and rely upon a definition of disability that stresses work-related disability limitations, but they have now been consistently asked for more than four decades. The Census Bureau initiated new disability questions, beginning in 2004 in its annual *American Community Survey* (ACS), and monthly in the CPS in early 2008. **Note that therefore the CPS now includes two types of disability questions: the new disability definition in the monthly and annual CPS, with the old disability definition continuing in the annual CPS.**

Persons with disabilities face severe employment-related hardship during recessions, and therefore it is important that several of the available sources – but not the relatively new CPS monthly data – span the period before and after the high employment associated with the Great Recession in 2009 and 2010.

Each of these surveys has its strengths and weaknesses. The older disability definitions were or are tracked over lengthy periods, whereas only the ACS enables the new disability definition to identify trends before 2008. The monthly CPS allows the most up-to-date tracking, of obvious importance during the coronavirus pandemic. For example, BLS issued 2023 annual disability data shortly after the beginning of that year, whereas the annual CPS and ACS 2023 data won't become available until autumn 2023, and the 2023 NHIS data will also be issued later this year. Unsurprisingly, the disability data vary across different surveys, although the trends are generally consistent.

Disability is an extremely difficult concept to measure, which explains why there is no widely accepted international disability definition, and why the U.S. has used changing and varied definitions. In fact, within a mere decade and a half of adopting a new disability definition in the CPS, the Census Bureau began testing a new disability definition.[1]

[1] U.S. Census Bureau memo, "2022 American Community Survey Content Test Evaluation Report: Disability," November 13, 2023, www.census.gov/content/dam/Census/library/working-papers/2023/acs/2023_Steinweg_01.pdf, 107 pp. See also the

Disability is not synonymous with health, and it is of course possible for someone to have a disability and be without disease and in good health. The concept of disability is probably most easily understood as the practical effect of conditions that are perceived as impeding common daily-life activities (including employment): conditions beginning at birth or later due to health problems or disease (physical or mental), an injury caused by an accident, physical or mental trauma, alcohol or drug use, and other factors. The presence or absence of disability exists within the context of societal technology and organization. To take two extremely common examples: without eyeglasses, contact lenses and corrective surgery, a huge proportion of any modern population would experience a vision disability; and if farming was still the occupation of 90 percent of the population, as it once was, the lower back problems of many millions of Americans would be another of the most common disabilities. Scientific, technological and societal changes explain why no disability definition can remain unaltered over time, and how the perception of disability has and likely will always change with history.

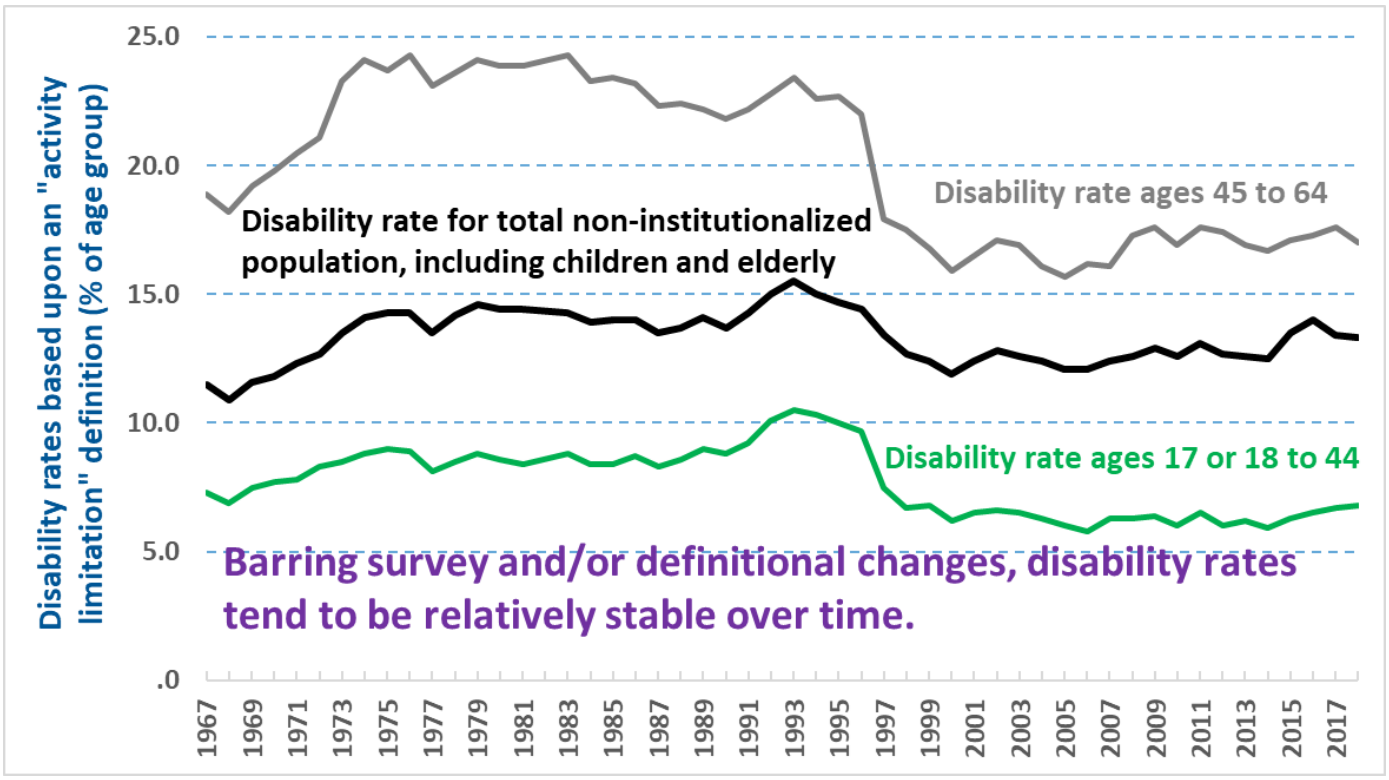
TRENDS

The initial section below describes how disability rates (the proportion of the population with a disability) have changed over time among those of working age, followed by sections on disability caused by the coronavirus pandemic, and employment among working-age individuals with a disability. The latter is technically called the "employment-to-population ratio," abbreviated here as the "employment rate."

Historical Trends in the Disability Rate

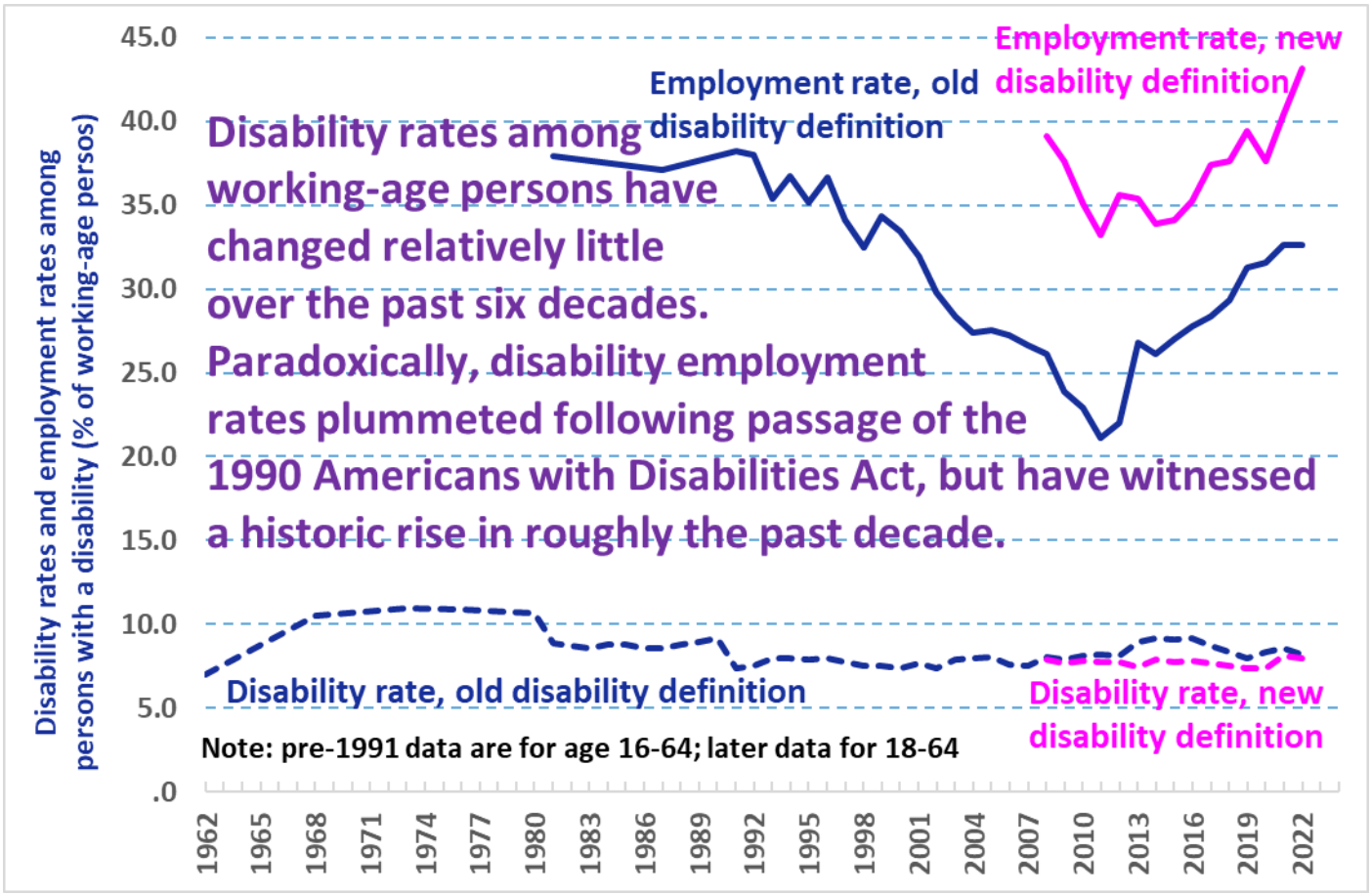
For disability rates within various age brackets, most surveys of the non-elderly show considerable consistency over time except when major survey and/or definitional changes occur (disability rates among the elderly declined until the pandemic – see the chart in the pandemic section below). The NHIS has asked similar types of questions annually over the longest span, although it has implemented major changes roughly every two decades. The earliest definition was based upon whether individuals were limited by a disability in their physical activities, which is generally referred to as an "activity limitation" definition, which is generally thought to exclude mental and psychological disabilities (questions about this type of disability weren't added until much later). The somewhat abrupt changes shown in the chart below are more likely attributable to survey and/or definitional changes than to genuine disability changes, and the data show a general consistency over long periods of time (the CDC dropped the activity limitation definition after 2018).

February 6, 2024 Census Bureau announcement on the subject, at www.census.gov/newsroom/blogs/director/2024/02/next-steps-on-acs-disability-questions.html?utm_medium=email&utm_source=govdelivery



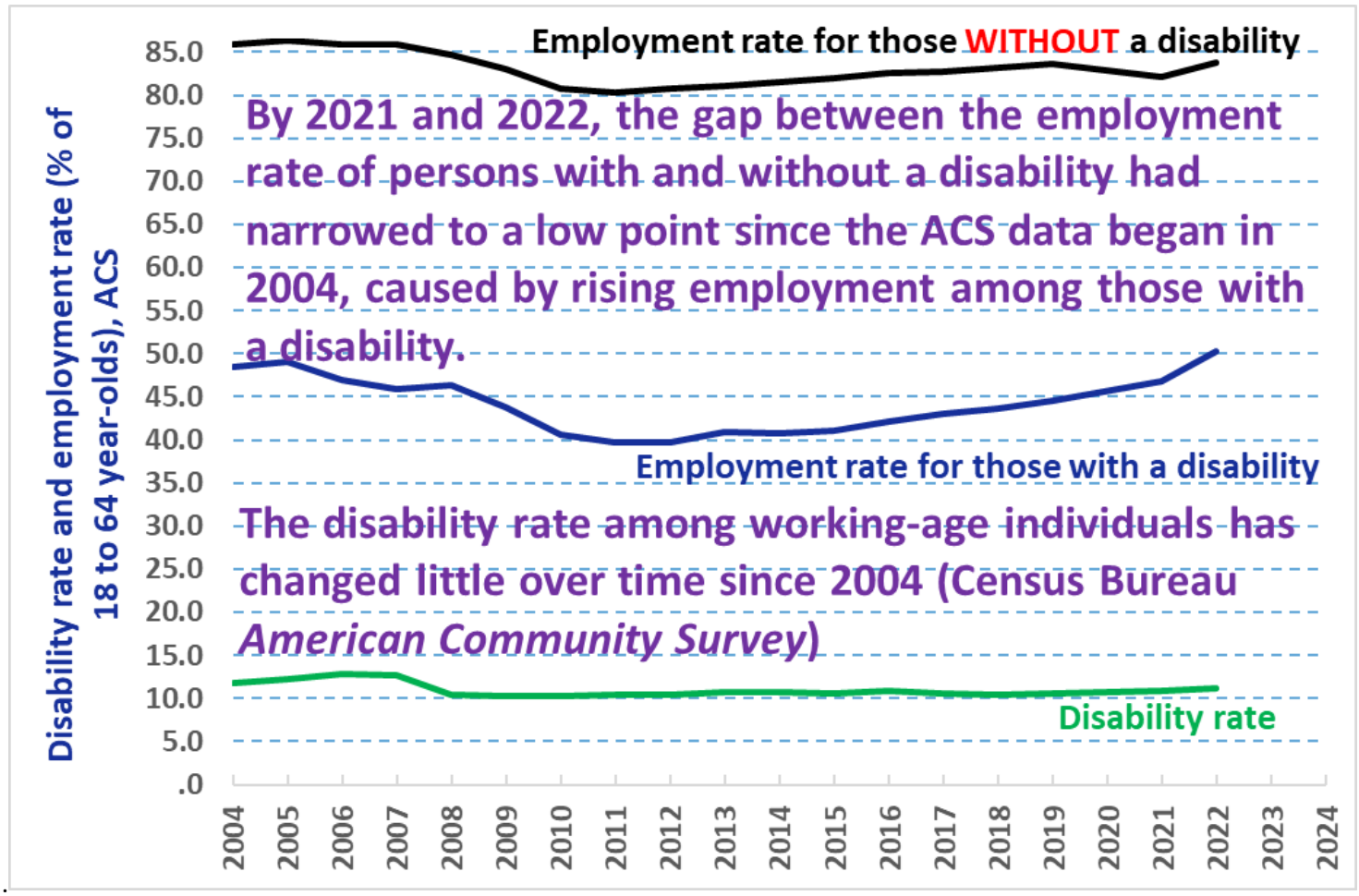
Source: U.S. Center for Disease Control and Prevention (CDC), *National Health Interview Survey* (NHIS)

Similarly, disability rates based upon the CPS definitions – both the old work disability and the new definition based upon broader functional categories – have tended to be extremely stable over time, as shown at the bottom of the chart below.



Source: U.S. Census Bureau, *Current Population Survey* (CPS), both the monthly and the Annual Social and Economic Supplements (ASEC)
Note: pre-1981 data from selected years are from Barbara Wolfe and Robert Havemann, "Trends in the prevalence of work disability from 1962 to 1984, and their correlates," *Milbank Quarterly*, Vol. 68, Number 1, 1990, pp. 53-80, Table 1 (using the CPS), p. 56

Finally, the same general pattern of stability in the disability rate is shown by the Census Bureau's ACS, which is available for 2004 forward, as shown at the bottom of the chart below.



Source: U.S. Census Bureau, *American Community Survey* (ACS)

The Coronavirus Pandemic and Disability

Starting in 2020, the coronavirus pandemic had important impacts upon persons with disabilities, although the pandemic's impact may now be cresting. Including undercounted deaths, **roughly 1.5 million Americans have died from coronavirus through early February 2024**, nearly .5 percent (.46) of the U.S. population when the pandemic began. **This makes it the third most deadly mass death event in American history, following the Civil War** (2.4 percent death rate) **and the 1918-1920 flu pandemic** (.65 percent death rate). **Coronavirus has had countervailing impacts upon disability. Because the disease was much more deadly among those with a pre-existing disability, it decreased the number of persons with disabilities by killing them. However, coronavirus also increased the number of persons with disabilities, especially via persistent coronavirus symptoms (commonly called "long COVID").** Unfortunately, because of inadequate data collection, we are much less informed about either factor than we should be, although some of the implications can be seen in our existing data. Given that coronavirus has certainly resulted in more long-term disability than deaths, the Federal failure to

investigate this vital topic is indefensible, especially as other countries such as the United Kingdom have successfully incorporated coronavirus-related disability questions in surveys.[2]

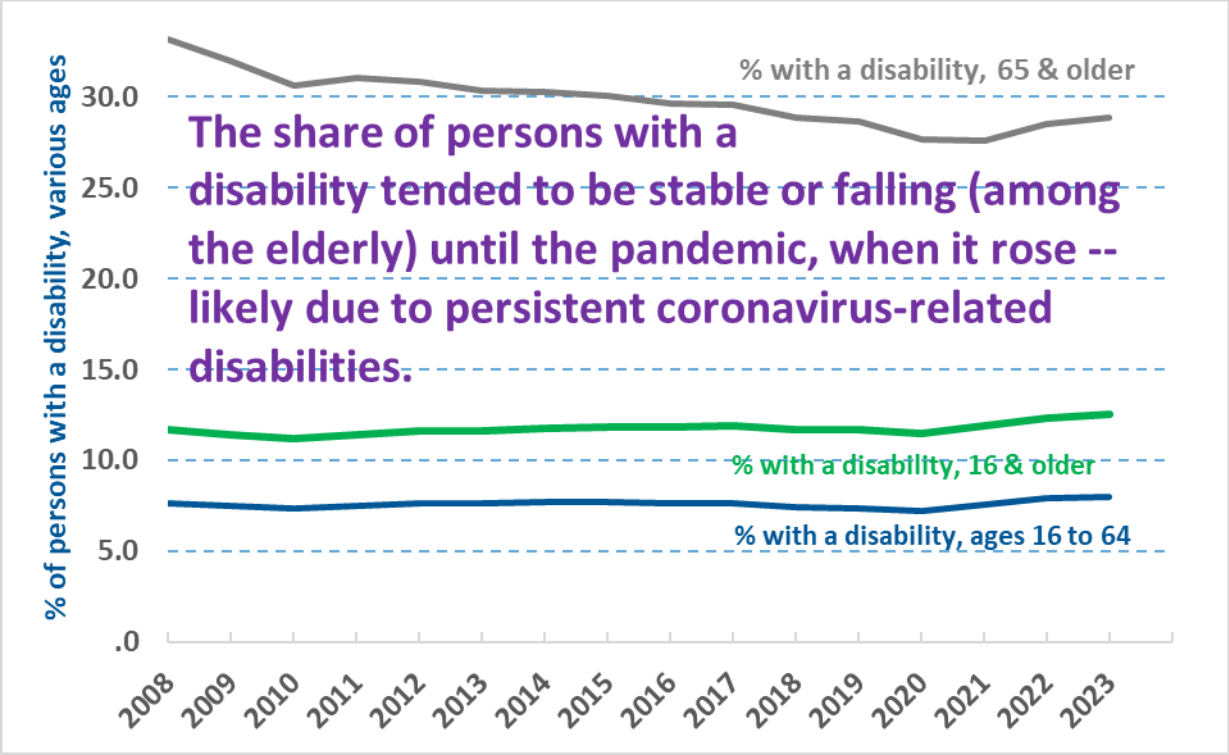
Coronavirus has been much more deadly among the elderly, but even among the working-age population of 16 to 64 year-olds, there was a pronounced decline of 400,000 persons with disabilities between 2019 and 2020 (although note that a similar drop occurred between 2017 and 2018, without a pandemic). **The 2020 population decline caused the disability rate to fall by .2 percentage points. However, subsequent increases in 2021 and 2022 caused significant increases in the disability rate – likely due in large part to persistent coronavirus – of .4 and .3 percentage points, respectively, as shown in the table below. Through 2023 the disability rate had risen to a peak of 8.0 percent – the highest rate since this survey was introduced in 2008. However, the slight increase of only .1 percentage point in 2023 may mean that the impact of coronavirus upon disability is now cresting, unless there is a resurgence of the disease in 2024 (coronavirus hospitalizations have been rising).**

	Total population	Population with disabilities	Population without disabilities	Proportion of population with disabilities
	16 to 64	16 to 64	16 to 64	16 to 64
	Thousands	Thousands	Thousands	% disabled
2008	197,022	15,006	182,016	7.6
2009	197,802	14,845	182,957	7.5
2010	199,124	14,730	184,394	7.4
2011	199,889	15,047	184,842	7.5
2012	201,416	15,339	186,077	7.6
2013	202,267	15,450	186,817	7.6
2014	202,988	15,613	187,375	7.7
2015	204,292	15,771	188,521	7.7
2016	205,504	15,746	189,758	7.7
2017	205,536	15,696	189,840	7.6
2018	206,509	15,326	191,183	7.4
2019	206,270	15,231	191,039	7.4
2020	205,721	14,826	190,895	7.2
2021	205,254	15,585	189,669	7.6
2022	207,264	16,441	190,823	7.9
2023	**208,683**	**16,685**	**191,998**	8.0

Source: U.S. Census Bureau, monthly Current Population Survey (CPS) annual averages, with 2008 data covering only the last 7 months of the year in which this data collection began

[2] The planned July 2024 CPS disability supplement includes an important new question about coronavirus and disability: "(Is/Are any of) the health condition(s) or difficulty(ies) related to long-termCOVID-19 symptoms lasting 3 months or longer? Read if necessary: Long-term symptoms may include: Tiredness or fatigue, difficulty thinking, concentrating, forgetfulness, or memory problems(sometimes referred to as "brain fog"),difficulty breathing or shortness of breath, joint or muscle pain, fast-beating or pounding heart (also known as heart palpitations), chest pain, dizziness on standing, menstrual changes, changes to taste/smell, or inability to exercise." See www.aeaweb.org/forum/4161/disability-supplement-invites-comments-proposed-revision for the proposed questionnaire; the comment period for the FRN closed in January 2024.

The chart below graphs these trends, along with the changing disability rate among the elderly.



As summarized in the table below, there were significantly fewer coronavirus deaths in 2023 than in 2022: about 70,000, down from about 270,000 (these data have not been corrected for undercounted deaths).

Key Indicator (survey source shown in parentheses)	2020 Annual Average	2021 Annual Average	2022 Annual Average	2023 Annual Average
Cumulative number of U.S. deaths (Worldometer)	376,599	475,353	269,511	69,997
Number of U.S. deaths per month (Worldometer)	37,660	39,613	22,459	5,833

Source: Worldometer, without correction for estimated undercounted coronavirus deaths

The Employment Rate among Persons with Disabilities

Paradoxically, the available data suggests that employment rates among working-age persons with disabilities rose before the watershed 1990 Americans with Disabilities Act (ADA), *fell* in the two decades following the ADA, but within nearly the past decade the trend has reversed course and – if the present pattern continues – will reach a historic height.

Background. To understand the long-term employment rate trends among working-age persons with disabilities, it is necessary to cobble together information from multiple sources that utilize different data sets, although CPS ASEC data are available from the late 1980s through the present.

As noted, the introduction of monthly disability questions into the CPS in 2008 enables the most accurate, detailed picture of disability employment trends that we have ever had. Prior to this, the CPS asked about disability in only one month each year

starting in the early 1980s, although that was an extremely important month because this annual supplement also asked about work, income and poverty for the entire previous year (and many other topics). Prior to 1980, we are mostly dependent upon the NHIS, which does not have the focus on employment than the CPS has always had, although it does include employment questions.

The 1970s and 1980s. The available data on persons with disabilities for the pre-1981 period involves the labor force participation rate, not the employment rate, although this presents no great difficulties because the former is merely the addition of employment plus unemployment, and employment dominates the combined percentage. **Except for the deep recessions of the mid-1970s and early 1980s, labor force participation rates for persons with disabilities rose between 1970 and the early 1990s**, based upon NHIS data. Moreover, the progress between 1981 and 1992 among 18 to 64 year-olds with disabilities was nearly identical in the NHIS and the CPS (5.2 versus a 5.1 percentage point rise in the labor force participation rates, respectively).[3] For persons with disabilities aged 18 to 54, the annual trends were erratic, while for those aged 55 to 64, there was a steady decline between 1971 and 1983. A separate study, based solely on NHIS data, showed the following trends between 1983 (the annual unemployment rate in both 1982 and 1983 was almost 10 percent) and 1994. Note however that **the level of progress had basically stalled at about 52 percent by 1986**.[4] This stability is also reflected in the CPS annual employment rates of 37-38 percent in the available years of 1981, 1987, 1991, and 1992, as shown in the second chart above (this, however, is inconsistent with the labor force participation rate data above). Note that the labor force participation rate gap among persons with and without disabilities barely changed between 1983 and 1994.

Labor force participation rates for persons with disabilities	Persons with disabilities	Persons WITHOUT disabilities	Gap of non-disabled minus disabled
	% of population	% of population	% point difference
1983	48.6	79.1	30.5
1984	49.9	80.3	30.4
1985	49.7	81.1	31.4
1986	52.1	81.8	29.7
1987	50.5	81.7	31.2
1988	51.6	82.4	30.8
1989	52.6	82.4	29.8
1990	52.6	82.7	30.1
1991	52.2	81.0	28.8
1992	51.9	83.0	31.1
1993	52.1	82.7	30.6
1994	51.8	83.0	31.2

Source: NHIS, as shown in footnote 4 below

Declining employment rates among persons with disabilities for the 1990s through 2011. Oddly, the available data and research covering the two decades following the ADA suggest not only no further progress in employing individuals with a disability, but the clear decline shown in the second chart above.[5] Between 1992 and 2006, the annual employment rate for 18 to 64 year-old persons with disabilities fell from 38 to 27 percent, and then fell further during the severe Great

[3] See Tables 1 and 2, and Chart 3, of Edward Yelin and Patricia Katz, "Labor force trends of persons with and without disabilities," BLS *Monthly Labor Review*, October 1994, pp. 36-42, www.bls.gov/opub/mlr/1994/10/art4full.pdf

[4] Laura Trupin et al, *Trends in Labor Force Participation among Persons with Disabilities, 1983-1994*, April 1997, U.S. Department of Education, National Institute on Disability and Rehabilitation Research, Disability Statistics Report number 10, Table 1, pp. 22-23, https://eric.ed.gov/?id=ED409699

[5] See U.S. Congressional Research Service (CRS), *The Employment of People with Disabilities: Federal Data Sources and Trends*, January 22, 2007, RL30653, 18 pp., www.everycrsreport.com/reports/RL30653.html

Recession to 21 percent by 2011 (as in the early 1980s, the peak unemployment rate in 2009 and 2010 again approaching 10 percent). **Thus, the employment rate for persons with disabilities was nearly halved over these two decades. The reasons behind this decline are no more apparent than those explaining the subsequent improvement that began in about 2014, following several intervening years of stability.**[6] However, it is possible that employment discrimination faced by persons with disabilities has lessened in recent years.

The other main employment rate data source covering the pre-Great Recession period – the ACS series that began in 2004 -- similarly shows declining rates, as shown in the third chart above.

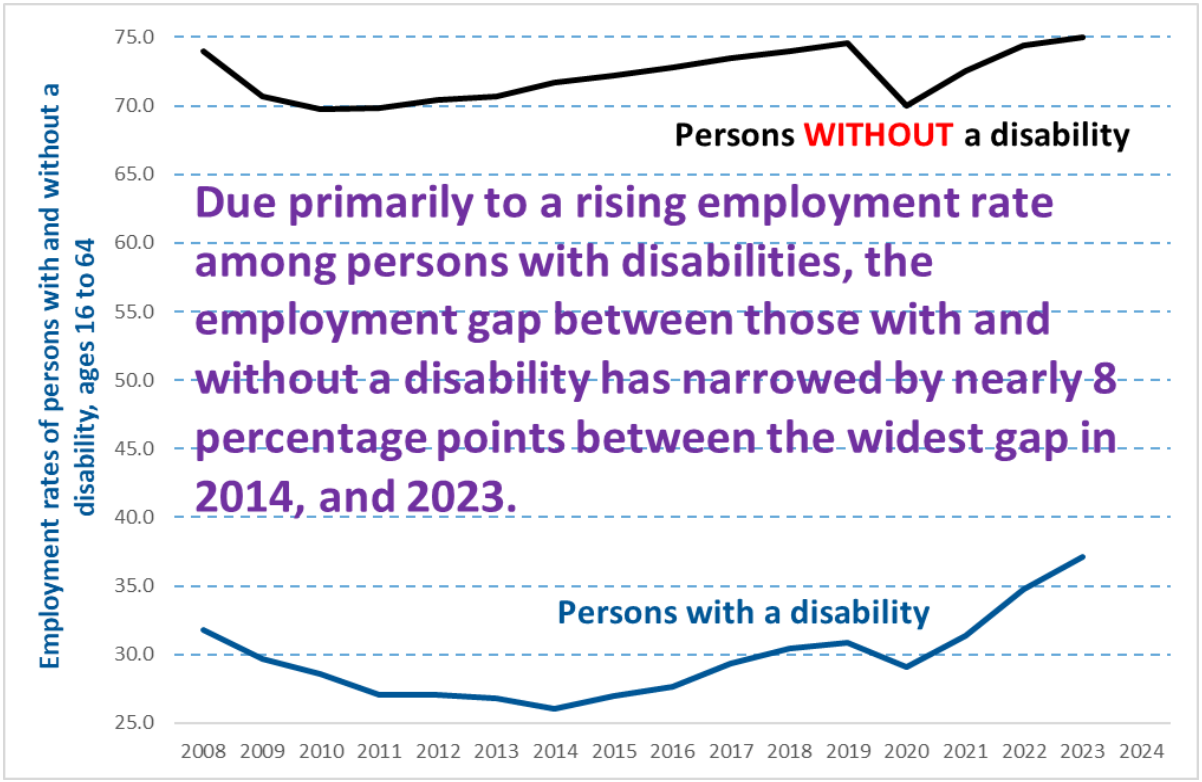
Marked improvement over nearly the past decade. Except for the initial pandemic year of 2020, the best available and most up to date data source, shows strong, consistent improvement in the employment rate for persons with disabilities each year between 2014 and 2019. Further progress in the past few years has been even more impressive, so much so that by 2021 the 2019 employment rate was superseded. **The 2022 to 2023 increase of 2.4 percentage points surpassed even the best pre-pandemic single-year rise of 1.7 percentage points between 2016 and 2017. Such dramatic progress narrowed the employment gap between persons with and without disabilities from the 2014 peak of 45.6 percentage points to 37.8 points by 2023, the smallest gap since this data series began in 2008**, as shown in the table and chart below.[7]

	Employment-to-population ratio with disabilities	Employment-to-population ratio without disabilities	Non-disabled minus disabled
	16 to 64	16 to 64	17 to 64
	%	%	% point gap
2008	**31.8**	74.0	**42.2**
2009	**29.7**	70.7	**41.0**
2010	**28.6**	69.7	**41.2**
2011	**27.0**	69.9	**42.8**
2012	**27.0**	70.4	**43.4**
2013	**26.8**	70.7	**43.9**
2014	**26.0**	71.7	**45.6**
2015	**27.0**	72.2	**45.2**
2016	**27.7**	72.8	**45.1**
2017	**29.3**	73.5	**44.2**
2018	**30.4**	74.0	**43.5**
2019	**30.9**	74.6	**43.7**
2020	**29.1**	70.0	**40.9**
2021	**31.4**	72.5	**41.2**
2022	**34.8**	74.4	**39.7**
2023	**37.1**	75.0	**37.8**

Source: annual average of CPS monthly data (2008 data encompass only the last 7 months of the year)

[6] See Michelle Maroto and David Pettinicchio, "Twenty-Five Years after the ADA," *Disability Studies Quarterly*, 2015, Vol. 35, Number 3, https://dsq-sds.org/index.php/dsq/article/view/4927/4024; and Christine Jolls and J.J. Prescott, *Disaggregating Employment Protection: The Case of Disability Discrimination*, National Bureau for Economic Research (NBER) Working Paper 10740, September 2004, www.nber.org/papers/w10740

[7] Note that the low and high points for the disability employment rate differ somewhat across the available surveys, but the trends are very similar.



Source: BLS CPS monthly data, annual averages

Similarly, the ACS data, available from 2004 through 2022, also exhibit a significantly narrowing gap of the employment rate between persons with and without disabilities (also by about 8 percentage points, although the peak ACS gap occurred in 2012), as shown in the table below (and the third chart above).

Employment rate by work-related disability, ages 18 to 64	Total population	Worked during year	% who worked	With disability	Worked during year	% who worked	Without disability	Worked during year	% who worked	Disability rate	Employment gap of non-disabled minus disabled
	000s	000s	%	000s	000s	%	000s	000s	%	%	
2004	178,533,398	145,451,109	81.5	20,998,039	10,170,495	48.4	157,535,359	135,280,614	85.9	11.8	37.4
2005	180,533,045	147,644,462	81.8	22,227,039	10,895,710	49.0	158,306,006	136,748,752	86.4	12.3	37.4
2006	188,419,480	152,524,287	80.9	24,146,370	11,340,145	47.0	164,273,110	141,184,142	85.9	12.8	39.0
2007	189,909,797	153,455,616	80.8	24,087,336	11,045,245	45.9	165,822,461	142,410,371	85.9	12.7	40.0
2008	191,372,181	154,443,516	80.7	19,925,405	9,241,168	46.4	171,446,776	145,202,348	84.7	10.4	38.3
2009	193,042,192	152,536,719	79.0	19,988,563	8,744,141	43.7	173,053,629	143,792,578	83.1	10.4	39.3
2010	194,767,949	149,295,690	76.7	19,902,050	8,085,996	40.6	174,865,899	141,209,694	80.8	10.2	40.1
2011	196,353,268	149,466,123	76.1	20,445,208	8,126,942	39.7	175,908,060	141,339,181	80.3	10.4	40.6
2012	197,156,279	150,867,340	76.5	20,484,865	8,129,393	39.7	176,671,414	142,737,947	80.8	10.4	41.1
2013	197,963,854	152,000,666	76.8	21,195,992	8,673,570	40.9	176,767,862	143,327,096	81.1	10.7	40.2
2014	199,153,073	153,673,144	77.2	21,385,358	8,718,854	40.8	177,767,715	144,954,290	81.5	10.7	40.8
2015	200,161,658	155,281,657	77.6	21,301,493	8,738,488	41.0	178,860,165	146,543,169	81.9	10.6	40.9
2016	200,347,839	156,565,944	78.1	21,685,373	9,150,050	42.2	178,662,466	147,415,894	82.5	10.8	40.3
2017	201,353,795	158,170,133	78.6	21,284,328	9,154,262	43.0	180,069,467	149,015,871	82.8	10.6	39.7
2018	201,486,951	159,207,444	79.0	21,004,315	9,152,078	43.6	180,482,636	150,055,366	83.1	10.4	39.6
2019	201,250,810	159,875,141	79.4	21,176,796	9,415,782	44.5	180,074,014	150,459,359	83.6	10.5	39.1
2020											
2021	202,586,658	158,540,770	78.3	22,198,479	10,403,896	46.9	180,388,179	148,136,874	82.1	11.0	35.3
2022	203,237,216	162,661,806	80.0	22,827,237	11,460,835	50.2	180,409,979	151,200,971	83.8	11.2	33.6

Source: U.S. Census Bureau, *American Community Survey* (ACS)

Note: due to pandemic-related survey problems, very little ACS data were issued for 2020.

[2-13-24, by Frank Gallo, at Gallo.Frank@DOL.gov]