


# Change in Disabilities in the United States

Period: February 2021 - November 2022

This Project Brief investigates the changes in US disabilities in the different population cohorts, namely, the whole population, of which some are in the civilian labor force and others are out, and the employed.

The following table provides a summary of different statistics that measure different aspects of the nature of the changes in disabilities that occurred from 2/2021 to 11/2022. The table condenses a lot of information which we will explain below.

	Equation	Population, 16-64	Civilian Labor Force, 16-64	Not in Labor Force, 16-64	Employed, 16-64
Non Disabled 2021/02	A	190,499,000	144,768,000	45,731,000	135,500,000
Disabled 2021/02	A'	14,888,000	4,978,000	9,910,000	4,285,000
Population 2021/02	$N1 = A' + A$	205,386,000	149,746,000	55,641,000	139,785,000
Non Disabled 2022/11	B	190,878,000	146,843,000	44,035,000	142,047,000
Disabled 2022/11	B'	16,348,000	6,344,000	10,004,000	5,962,000
Population 2022/11	$N2 = B' + B$	207,226,000	153,187,000	54,039,000	148,009,000
Disability rate 2021/02	$R1 = A' / (A' + A)$	7.25%	3.32%	17.81%	3.07%
Disability rate 2022/11	$R2 = B' / (B' + B)$	7.89%	4.14%	18.51%	4.03%
Change in disabilities	$B' - A'$	1,460,000	1,366,000	94,000	1,677,000
Change in disability rate	$R2 - R1$	0.64%	0.82%	0.70%	0.96%
Rate of change in disability rate	$R2 / R1 - 1$	8.83%	24.58%	3.94%	31.41%
Rate of new disabilities	$(B' - A') / A$	0.76%	0.93%	0.21%	1.18%
Relative to Not in LF		358.32%	435.78%	100.00%	553.06%

## Rise in US Disabilities: Absolute Numbers

For the general US population aged 16–64, from 2/2021 to 11/2022, the absolute numbers of the increase in disabled individuals amounted to about 1.460 million, of which 1.366 million were in the Civilian Labor Force and only 94 thousand were not in the labor force.

The disabilities in the employed population rose by 1.677 million, which is a conundrum as it above the rise in the whole population and Civilian Labor Force. The explanation is that the unemployment rate dropped significantly during that time period and therefore there was a drop in the absolute number of unemployed individuals with disability. The record low unemployment rate and tight labor market led to the employment of a higher number of disabled individuals (within the labor force) that added to the rise in disabilities in the employed population.

## Relative Rise in US Disabilities

In relative terms, we can observe that increase in the disability rate was 0.64% for whole population which corresponded to a 8.8% rise. For the Civilian Labor Force the rise in the disability rate was to 0.82%, corresponding to a 24.6% rise for the period.

We observe that the overall population suffered a lower relative rise in the disability rate (8.8%) when compared to the Civilian Labor Force (24.6%), which seems to suggest that perhaps the vaccine mandates for employment contributed to the higher relative rise in disability rates. However, as previously mentioned we must be cautious before making that statement as the whole population had a much higher base disability rate (7.25%) when compared to the Civilian Labor Force (3.3%).

A preferable method measure to compare the rise in disabilities in the whole population vis-à-vis the Civilian Labor Force is to use the rate of new disabilities. For the whole population we can observe that the rate of new disabilities for the 2/2021 to 11/2022 period was 0.76% while for the Civilian Labor Force it was 0.93% (which is a 22.3% higher rate).

Perhaps the best way to have an idea if being in the workforce, and therefore subject to the vaccine mandates for employment, was detrimental to one's health compared to opting to be "not in the workforce" (with the choice of taking the vaccine or not) is by comparing the rate of new disabilities in these two cohorts. For individuals in the Workforce, the rate of new disabilities was 0.93% for the period, while for those not in the workforce it was 0.21% (which is a 4.4x lower rate).

These results add support to the hypothesis that having "choice" in taking the inoculation was beneficial to one's health during the rollout period.