

Trends in the Rate of Unemployment of Individuals with Disabilities

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Abstract

One in four adults, which is an estimated 61 million people, live with some type of disability.

Disabilities can be extremely diverse and may require extensive healthcare needs, however, the exclusion of people with disabilities is not often seen as a public health crisis. Individuals with disabilities are ostracized by society in various aspects of life, one of the biggest being employment.

Aim of this project was to show if there is a correlation between having a disability and being unemployed. The general trend was measured by analyzing historical census data from the Bureau of Labor Statistics by:

1. Quantifying the rates unemployment over the last 11 years for individuals with disabilities while taking age and gender into account
2. Comparing the unemployment rates of individuals with disabilities to that of individuals without disabilities
3. Identifying the Labor Participation rate of Individuals with Disabilities

After analyzing the data, it was shown that the unemployment rate of individuals with disabilities has consistently been twice the rate of unemployment for individuals without disabilities.

Furthermore, the unemployment rate has also been persistent without much fluctuation over the past 10 years (adjusted for the macroeconomic trends), indicating a need to identify solutions that can combat this issue. For example, the advancement for governmental welfare programs and employment training could help.

Methods

Historical data for the employment civilian population by sex, age, and disability status was obtained for the past 11 years (2009-2020) directly from the Labor Force Statistics (CPS) of the US Bureau of Labor Statistics website to ensure accuracy.

Both annual and monthly data was procured and analyzed in Microsoft Excel

Data Analysis

- Basic Statistics for each of the data series (stratified by gender and age): Mean and Standard Deviation
 - Similar analysis was performed on the labor force participation data series
- Correlation Coefficient was calculated between the unemployment of individuals with disabilities and individuals without disabilities
- Regression analysis was performed between the unemployment variable for non-disabled and GDP growth to see if unemployment rate of general population is macro sensitive
- Second Regression analysis was performed between the unemployment rates of individuals with disabilities and individuals without disabilities

Possible Biases

- Historical Data Series available is short (11 years) – any data analysis done on this short time series may be biased
- Data is not stratified based on the severity of disability, which may inflate unemployment numbers

Results

- Average Unemployment Rate for disabled Individuals is 11.8% versus the 6.4% for nondisabled individuals (almost twice as much)
 - Correlation of 0.96 between both groups (association is strong)

Year	Unemployment Rate	
	All Disabled (16 and over)	All with No Disability (16 and over)
2009	14.5	9.0
2010	14.8	9.4
2011	15.0	8.7
2012	13.4	7.9
2013	13.2	7.1
2014	12.5	5.9
2015	10.7	5.1
2016	10.5	4.6
2017	9.2	4.2
2018	8.0	3.7
2019	7.3	3.5
2020	12.6	7.9
Correlation		0.96
Mean	11.8	6.4
Standard Deviation	2.64	2.17

The unemployment rate of disabled individuals is significantly higher than nondisabled individuals, and the opposite can be seen for labor participation of both groups.

The first graph, adjusted for the changes in economy, the data shows that the employment situation has not improved for people with disabilities in the past 10 years. This is important because the data indicates that individuals with disabilities are not given opportunities and training.

The second graph is important in establishing the lack of encouragement that individuals with disabilities are facing.

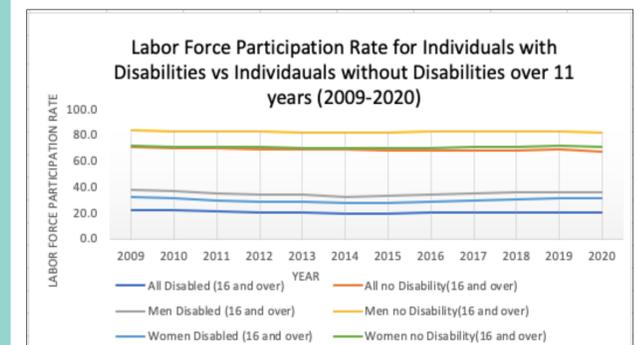
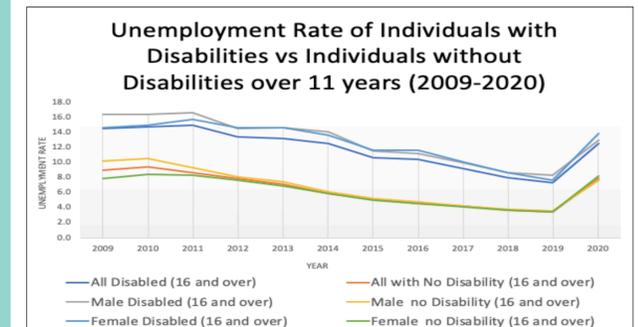
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Images



Conclusion

Unemployment Rate for individuals with disabilities is significantly higher than individuals without disabilities (almost double), and this trend has been maintained consistently over the past 10 years. In addition. The labor force participation rate for individuals with disabilities is also very low, indicating a lack of motivation to work. The data analyzed indicates not only the need the need for more job opportunities but better vocational training that helps improve the motivation to work as well give resources for individuals with disabilities. Further studies need to show whether these programs can actually aid in job acquisition and if so, what sort of programs would be most effective. The scope of this study is limited to showing the general trend of unemployment for individuals with disabilities and therefore sets the stage for further research on what to do to improve this problem.