

The impact of the Great Recession upon the unemployment of Americans with disabilities

Neeta P. Fogg^a, Paul E. Harrington^a and Brian T. McMahon^{b,*}

^a*Center for Labor Market Studies, Northeastern University, Boston, MA, USA*

^b*Department of Rehabilitation Counseling, Virginia Commonwealth University, Richmond, VA, USA*

Accepted: June 2010

Abstract. Recent data from the U.S. Bureau of Labor Statistics allows assessment of the impact of the Great Recession on working age persons with disabilities in America. Following an overview of the nature and scope of the Great Recession, the labor market experiences of persons with and without disability are compared for 16 of the 22 months of its duration. Differences which favor those without disabilities were detected in the labor market activity rate, the official unemployment rate, and in the desire for work among those who have quit the workforce. These differences persist among subgroups based upon age and educational attainment. The level of educational attainment appears to not provide the same level of insulation from the consequences of labor market downturns for persons with disabilities as it does for persons without disabilities. Finally, the reasons for unemployment are quite different for persons with and without disabilities.

Keywords: Recession, disability, unemployment

1. Overview of the Great Recession

Among the most important sources of economic data in the U.S. is the Current Employment Statistics survey, which provides insight into job growth and decline. The Great Recession is generally attributed to the collapse of the financial system and spans the period from December 2007 through September 2009 for a total duration of 22 months [9, 10]. It generated massive payroll employment losses on the order of 8.1 million jobs, peaking at 779,000 jobs lost in the month of January 2009 alone. Five market segments accounted for nearly 89% of all job losses: 29% manufacturing; 21% construction; 23% trade (particularly retail), transportation and utilities; and 16% administrative and waste management services (largely contractual and/or temporary employment agencies). Other industries experienced smaller losses or even grew such as the private sector education

(up 2.7%) and healthcare (up 3.6%). Numbers of government employees at all levels were largely unchanged [5].

Employment changes by industry, in turn, result in changes for specific occupations. Blue-collar job losses (not seasonally adjusted) were enormous [5]: Over 2 million for construction workers; nearly 1.7 million for semi- and unskilled production workers; 678,000 for material movers including drivers and warehouse workers; and 574,000 for workers who performed installation and repair duties. These occupations alone declined by 4.98 million – more than two thirds of the total. Employment in office and clerical occupations also declined sharply especially in the retail trade sector that employs workers as cashiers. Together these blue-collar and clerical occupations employed high shares of persons with lower levels of education; i.e., less than “some college” but no degree. In contrast, managerial, financial and professional occupations employed more college graduates. These jobs actually increased slightly. Focusing on educational attainment (see Table 1), employment losses were especially large among adults with less schooling.

*Address for correspondence: Brian T. McMahon, VCU Department of Rehabilitation Counseling, PO Box 980330, Richmond, VA 23298 09330, USA. Tel.: +1 804 827 0917; Fax: +1 804 828 1321; E-mail: btmcmaho@vcu.edu.

Table 1
Trends in civilian employment, December 2007 and October 2009 (seasonally adjusted in 000s)

Educational attainment	12/2007 (000s)	10/2009 (000s)	Absolute change (000s)	Relative change (%)
Less than high school grad	11,317	10,426	-891	-8.0
High school graduate/GED	36,787	33,956	-3,375	-9.1
Some college	34,924	33,588	-1,336	-3.8
Bachelor's degree or higher	43,616	43,686	70	0.1

Source: [4], Tabulations by the authors.

Interventions in financial markets and a federal stimulus spending program began to reduce the pace of employment declines near the end of 2009. During the fourth quarter of that year, the Gross Domestic Product grew at an annual pace of over 5% (5). Payroll employment levels declined by just 107,000 jobs between September 2009 and March 2010. Job growth at this time was heavily concentrated in the areas of temporary help (+3.9%), education (+1.5%), social services (+1.4%), healthcare (+0.8%), and federal employment (+3.3%, e.g., census workers). Serious declines continued in construction (-3.8%). Performance of various elements of the economy became mixed including weak real estate markets, strong equity markets, low interest rates, and strong corporate profits.

2. Measuring labor market problems of persons with disabilities

Prior to 2008, it was not possible to effectively assess the impact of the business cycle on the employment and earnings experiences of persons with disabilities (PWDs) [11]. In June 2008, the U.S. Census Bureau began collecting systematic information on PWDs in the working age population through the Current Population Survey (CPS). The CPS is a monthly survey of approximately 60,000 households intended to measure characteristics of the population. The CPS now includes six questions to examine limitations associated with daily living activities: 1) Is one deaf or does one have serious difficulty hearing? 2) Is one blind or does one have serious difficulty seeing even when wearing glasses? 3) Because of a physical, mental, or emotional condition, does one have serious difficulty concentrating, remembering, or making decisions? 4) Does one have serious difficulty walking or climbing stairs? 5) Does one have difficulty dressing or bathing? 6) Because of a physical, mental, or emotional condition, does one have difficulty doing errands alone such as visiting a doctor's office or shopping?

An affirmative answer to just one of these items would classify that individual household member as disabled in that month; i.e., a household resident over age 16 who has at least one limitation in a daily life activity. This does not conform to the ADA definition of disability or that of any other agency, policy, or law. The remainder of this paper is based on the findings of the monthly CPS survey for the period of June 2008 (the first month for which disability data was collected) through September 2009. This allows us to examine the major labor market problems of PWDs and compare them to those of persons without disabilities (PWODs) over 16 of the 22 months defining the Great Recession (12/07 to 09/09).

3. Unemployment characteristics of PWDs during the Great Recession

Open unemployment refers to the official unemployment reported each month by BLS. However, some jobless persons withdraw from the labor market even though they would like to work. This group is referred to as *the Labor Force Reserve*, a form of productive labor supply potential that is not being effectively utilized, but it is not counted in the official measure of unemployment. During economic recoveries, the Labor Force Reserve is likely to enter the Labor Force and engage in active job search activities, causing the official unemployment rate to rise. [For example, in April 2010 (after the study period in this paper) the economy added a robust 299,000 new jobs, yet the official unemployment rate increased from 9.7% to 9.9%.] To provide a comprehensive examination of unemployment problems experienced by working-age PWDs, we compare these measures to those of PWODs.

4. Labor force measures

Using CPS data, the BLS assigns every person over age 16 to one of three mutually exclusive Labor Force

categories: Employed, unemployed and not in the Labor Force [3]. The Labor Force includes:

- Employed persons include individuals who did any paid work at all during the survey reference week, as well as persons who worked unpaid for 15 or more hours in a family business. It also includes all persons who had jobs but were not at work due to labor disputes, illness, vacation or similar reasons. The count of employment is unique; i.e., persons who work at more than one job during the survey reference week are counted only once as employed. This measure is quite broad in nature and could include a wide range of workers from babysitters to corporate CEOs. “Employed” implies nothing about the quality or quantity of work activity undertaken.
- Unemployed persons include individuals who
 - 1) were not employed during the survey reference week and
 - 2) were actively engaged in a job search at some point in four weeks prior and
 - 3) are immediately available for work.

“Unemployed” provides a gauge of unutilized labor supply capacity. It measures the number of persons willing and able to go to work right away who remain active in job seeking.

5. Labor Force Participation Rates and disability

Table 2 below depicts the labor force status of three groups age 16–64: The total U.S. population, PWDs and PWODs. (These age boundaries were selected to exclude individuals in their retirement years and instead focus upon those for whom employment was a primary life activity.) The U.S. population averaged 197.4 million over the course of the study period. Of this number, 135.6 million persons were classified as employed yielding an employment to population ratio (E to P ratio) of 69.2%. The number of unemployed

persons averaged 11.9 million persons accounting for an additional 6.1% of the population cohort. (Note that this is not the unemployment rate but a share of the total population that is unemployed. The denominator reflects the entire population in the age group, not the total Labor Force.) The number of persons aged 16–64 classified in the Outside the Labor Force (residual) group averaged 48.9 million persons accounting for the remaining 24.7% of the entire 16 to 64 year old population.

To compute the Labor Force Participation Rate for any column, we use this formula:

$$\frac{(\text{Employed} + \text{Unemployed})}{\text{Population}} = \text{Labor Force Participation Rate.}$$

Note that those outside the Labor Force do not enter into this important statistic. A total of 5.353 million PWDs (4.607 million employed + 746,000 unemployed) out of the total population of 14.907 million or 35.9% were active participants in the Labor Force. This number represents the Labor Force Participation Rate for PWDs [1]. PWODs had a much higher Labor Force Participation Rate of 78.5% (see Fig. 1).

It is noteworthy that the share of PWDs who were unemployed was smaller than that of PWODs (5% vs. 6.1% respectively). These data indicate that none of the difference in Labor Force Participation Rates was associated with official unemployment.

For both groups, Labor Force participation was heavily influenced by age. Labor Force attachment in general is positively associated with age, and Table 3 affirms this dramatic increase for PWODs through the “prime work-force age” groups (25 to 54). Then it began to decline during the pre-retirement years of 55 to 64. The Labor Force participation of PWDs reveals a strikingly different pattern; i.e., after age 24 it was negatively associated with aging and it never came close to the PWOD level for any age group. Consequently, the size of the gap in Labor Force Participation Rates between groups rises with age.

Labor Force participation in general is also positively associated with educational attainment. Table 4 illus-

Table 2
Labor Force status by disability status monthly averages, June 2008 to September 2009

	All 16–64		PWDs		PWODs	
	Number	%	Number	%	Number	%
Population	197,357,000	100.0	14,907,000	100.0	182,449,000	100.0
Employed	136,549,000	69.2	4,607,000	30.9	131,942,000	72.3
Unemployed	11,948,000	6.1	746,000	5.0	11,202,000	6.1
Outside LF	48,859,000	24.7	9,554,000	64.1	39,305,000	21.5

Source: [4], Tabulations by the authors.

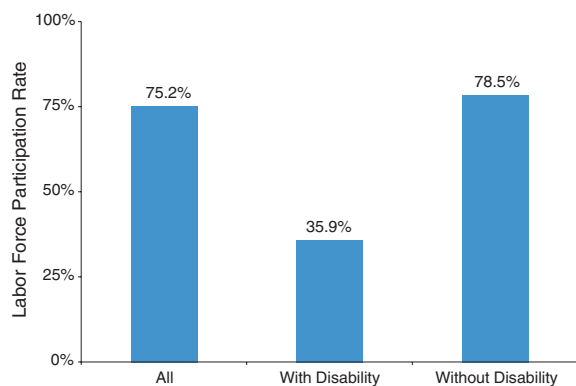


Fig. 1. Labor Force Participation Rates by disability status, June 2008 to September 2009.

Table 3

Labor Force Participation Rates by age and disability status, June 2008 to September 2009

Age	Without disabilities (%)	With disabilities (%)	Absolute difference (%)	Relative difference (%)
16–19	41	31	–9	–23.1
20–24	75	50	–26	–34.0
25–29	84	49	–34	–41.0
30–34	85	45	–40	–47.1
35–44	86	42	–44	–50.9
45–54	87	35	–51	–59.1
55–64	72	28	–43	–60.5

Source: [4], Tabulations by the authors.

Table 4

Labor Force Participation Rates by education and disability status, June 2008 to September 2009

Educational attainment	Without disabilities (%)	With disabilities (%)	Absolute difference (%)	Relative difference (%)
Less than high school	56.1	20.9	–35.2	–62.7
High school diploma/GED	79.6	33.7	–45.9	–57.7
Some college	81.1	42.5	–38.6	–47.6
Bachelor's degree	86.3	52.7	–33.6	–38.9
Master's or higher degree	88.1	59.8	–28.3	–32.1

Source: [4], Tabulations by the authors.

trates that years of schooling and degrees earned were associated with rising rates of Labor Force participation for both groups. Among high school dropouts for PWODs, the monthly Labor Force Participation Rate averaged 56.1%. This is in sharp contrast to PWDs at 20.9%. Thus PWDs who failed to complete high school

were only 37.5% as likely to participate in the labor force as their PWOD counterparts. The gap persists throughout the lifespan in favor of PWODs, though it narrows somewhat as education increases.

6. Unemployment rates and disability

The most frequently cited and best understood measure of labor market activity is the *official unemployment rate* measured, produced and published monthly by BLS in its Employment Situation release [3]. It is a direct, point-in-time measure of the underutilization of the nation's Labor Force; i.e., a proportion of idle human resources that are willing and able to be employed in some productive market-based activity. This measure considers those who are supplying labor through current employment and those who are actively trying to do so through job seeking efforts. Thus, the rate was calculated as follows:

$$\frac{(\text{Number Unemployed})}{(\text{Number in Labor Force})} \times 100 = \text{Unemployment Rate}$$

Using current monthly average data for the June 2008 to September 2009 period, we find the unemployment rate for PWDs was 13.9%: $746,444 \div 5,353,479 \times 100 = 13.9\%$.

Recalling Table 2, unemployment accounted for only 5% of the PWD population, lower than 6.1% share for PWODs. However, Fig. 2 illustrates that the PWD unemployment rate (when measured as a share of the PWD Labor Force) averaged a much higher 13.9% over the same period of economic decline, a full 1.8 times greater than PWODs (7.8%).

This formula reveals a true comparison using an official unemployment rate measured on the basis of the active Labor Force only. The 13.9% figure reveals a much more serious problem than a population based unemployment statistic.

Age and educational attainment are helpful indicators in examining unemployment statistics [17, 18, 20]. The findings in Table 5 reveal sharp differences across age groups. Typically, unemployment rates are inversely correlated with age; i.e., unemployment is most severe among the young and less severe among older workers. This pattern holds true with the PWOD population. Unemployment rates among PWDs also decline by age, but the decline is not nearly as sharp. *Thus the size of the unemployment rate difference between PWDs and the PWODs increases with age.* Teen PWDs are about 1.5 times more likely to be unem-

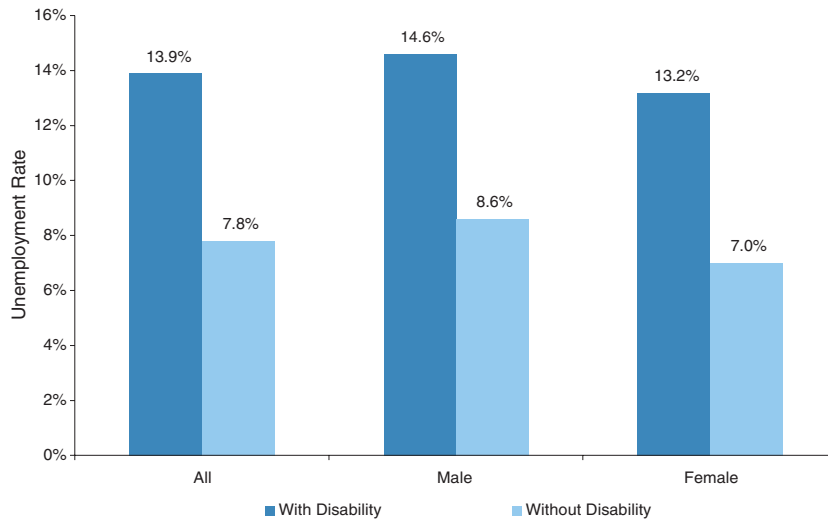


Fig. 2. Official Unemployment Rates by gender and disability status, June 2008 to September 2009.

Table 5
Official Unemployment Rates by age and disability status, June 2008 to September 2009

Age	Without disabilities (%)	With disabilities (%)	Absolute difference (%)	Relative difference (%)
16–19	21.6	33.4	12	55.1
20–24	12.9	22.2	9	72.4
25–29	8.9	20.3	11	128.8
30–34	7.3	17.2	10	135.5
35–44	6.4	14.7	8	131.9
45–54	5.7	11.3	6	99.1
55–64	5.2	9.0	4	70.9

Source: [4], Tabulations by the authors.

ployed than their PWOD counterparts, but among prime age workers (25–54 years old), the unemployment rate of PWDs ranges from 2.0 to 2.3 times that of PWODs. This finding suggests a much more severe problem of unemployment among 25–44 year olds with disabilities compared to their PWODs counterparts during the Great Recession.

With respect to educational attainment, the official unemployment rate normally declines with more years of schooling. Table 6 reveals that the unemployment rate for PWD high school dropouts averaged 23.2% during the Great Recession, 1.4 times greater than that of PWOD dropouts. Moreover, although the unemployment rate among PWDs declined as education increased, it fell more sharply than it did for PWODs. The relative difference in unemployment per-

Table 6
Official Unemployment Rates by educational attainment and disability status, June 2008 to September 2009

Educational attainment	Without disabilities (%)	With disabilities (%)	Absolute difference (%)	Relative difference (%)
<H.S. Diploma	16.3	23.2	7	42.4
H.S. Diploma/ GED	9.5	14.6	5	52.5
Some college	7.0	13.1	6	86.3
Bachelor degree	4.5	9.1	5	103.2
Master's or higher degree	3.1	6.0	3	95.7

Source: [4], Tabulations by the authors.

sisted across all levels of education: +42% among high school dropouts, +52% among high school graduates, +86% among those with some college, and almost double (+96% to +103%) among those with an undergraduate degree or higher [1].

On balance, higher levels of education provided a powerful level of insulation against unemployment during the Great Recession for PWOD; much less so for PWDs.

7. Reasons for unemployment among Americans with disabilities

CPS results generate six different categories that describe why an individual becomes unemployed [2].

These terms are defined and their proportions given as follow:

- Job Losers: Temporary lay-off with an expected return within six months. PWD-9.4% vs. PWOD-11.9%.
- Permanent Job Losers: Involuntary job loss with no prospect for recall. PWD-37.3% vs. PWOD-38.5%.
- Temporary Job Ended: Expiration of a temporary job leading to unemployment. PWD-8.8% vs. PWOD-10.1%.
- Job Leavers: Quit job or otherwise separated but continue to look for work. PWD-8.5% vs. PWOD-7.5%.
- Re-Entrants to the Labor Market: Some prior work experience and resume active job search after a period of non-participation. PWD-30.2% vs. PWOD-23.8%.
- New Entrant to the Labor Market: No work experience, first time job seekers and first time Labor Force participants. PWD-5.8% vs. PWOD-8.2%.

The first three bullets suggest that PWDs were less likely than their PWODs counterparts to lose a job involuntarily. The fifth bullet suggests that unemployed PWDs were more likely than their PWOD counterparts to resume job seeking during the Great Recession.

A more meaningful approach for getting to the source of these differences involves an accounting framework (see Table 7). The first two columns allocate the overall unemployment rate for each group by shares according to the source/reason for unemployment calculated as follows:

$$\text{Number per Source of Unemployment} \div \text{Disability Status Labor Force} = \text{Source Share}$$

For example, 69,950 unemployed PWDs reported that they were job losers/on layoff. Dividing this number by the total Labor Force of PWDs (5.353 million)

yields a figure of 1.3%, a PWD allocation share. The same calculation for PWODs is 0.9%, a PWODs allocation share. Column 3 provides the difference in allocation share, or 0.4%, which in turn is equal to 6.6% share of the total difference between the unemployment rates of both groups (Column 4). Restated, the overall difference in unemployment rates between PWDs and the PWODs was 6.1% points; “jobs losers expecting recall” account for 6.6% ($0.4/6.1 = 0.066$) of this difference.

Viewed in these terms we have a much clearer understanding of the dynamic. The two sources contributing most to the large overall difference in unemployment rates are labor market Re-Entrants (37.7%) and Permanent Job Losers (36.1%). PWDs outside of the Labor Force who decide to begin looking for work experience over twice as much difficulty finding employment as their PWODs counterparts. PWD job losers with no prospects for recall have 1.7 times more difficulty finding work than their PWODs counterparts.

It comes as no surprise that access to employment for both job Re-Entrants and Permanent Job Losers relates to fewer years of schooling. PWD high school dropouts represent 27.1% of the job Re-Entrants and 17.1% of Permanent Job Losers. PWD college graduates represent just 5.9% of job re-entrants and 6.9% Permanent Job Losers.

8. Duration of unemployment

Another impact of the Great Recession involves the mean duration of unemployment, which is based on an individual’s ongoing, current spell of unemployment. This is not a measure of a completed spell of unemployment in which the unemployed person either obtains employment or withdraws from the Labor Force. It is well documented in both labor economics [12, 14] as well as vocational rehabilitation research [7] that the long periods of unemployment bode poorly for

Table 7
Sources of unemployment rate differences, between PWD and PWOD Labor Force Participants

Source of unemployment rate	(Col. 1) Not disabled (%)	(Col. 2) Disabled (%)	(Col. 3) Difference (%)	(Col. 4) Share of difference (%)
Job Loser/On Layoff	0.9	1.3	0.4	6.6
Permanent Job Loser	3.0	5.2	2.2	36.1
Temporary Job Ended	0.8	1.2	0.4	6.6
Job Leaver	0.6	1.2	0.6	9.8
Re-Entrant	1.9	4.2	2.3	37.7
New-Entrant	0.6	0.8	0.2	3.3
Total unemployment rate	7.8	13.9	6.1	100.0

Source: [4], Tabulations by the authors.

eventual return-to-work. Unemployment is often a lagging indicator of recovery after a recession. For the Great Recession, the mean duration of an unemployment episode reached a historical high of 26 weeks by September 2009, when the recession is believed to have ended. However, in January 2010 this figure reached 30 weeks. For the study period used here (06/08 to 09/09), PWDs experienced an average length of continuous unemployment of 25 weeks, 20% longer than the 20.9 week figure for PWOD. Nearly one-third of unemployed PWDs were out of work for at least six months vs. one-fourth of PWODs [6].

9. Labor Force Reserve

As the definition of “unemployed” confirms, not all jobless persons are classified as unemployed. Those who are not actively seeking work or who are not available to work immediately are excluded from official measures of the American Labor Force, and so they are not included in the official unemployment count. They are classified, rather, into a residual category known as the Labor Force Reserve. This would include those persons receiving long term disability, public or private, or who are retired or busy with home or family responsibilities. Members of this group “want a job,” but they

do not meet the job search requirements to be classified as officially unemployed. In simple terms, members of this group have “simply given up on work” [8].

To measure the Labor Force Reserve ratio, an Adjusted Labor Force was computed which is the sum of the official Labor Force plus the Labor Force Reserve; i.e., all employed persons plus all persons with a current job desire regardless of their official unemployment status.

$$\begin{aligned} & (\text{Labor Force}) + (\text{Labor Force Reserve}) \\ & = (\text{Adjusted Labor Force}): 149.5 + 4.5 = 154 \text{ mm.} \end{aligned}$$

The Adjusted Labor Force for our study period was, on average, 154 million persons.

$$\begin{aligned} & (\text{Labor Force Reserve}) \div (\text{Adjusted Labor Force}) \\ & = (\text{LForce Reserve Ratio}): 4.5 \div 154 = 2.9\%. \end{aligned}$$

When comparing groups, PWDs have a Labor Force Reserve Ratio of 7.3% which was 2.6 times higher than that their PWOD counterparts: 2.9%.

Labor Force Reserve Ratios varied considerably by age as seen in Fig. 3. During the Great Recession, the teen and young adult Labor Force Reserve Ratios were extremely high [8]. For both PWD and PWOD groups, the ratios dropped sharply with age but large differences persisted at every point on the age spectrum. Once again, the relative size of the differences between PWD and PWOD actually rises with age, suggesting that the

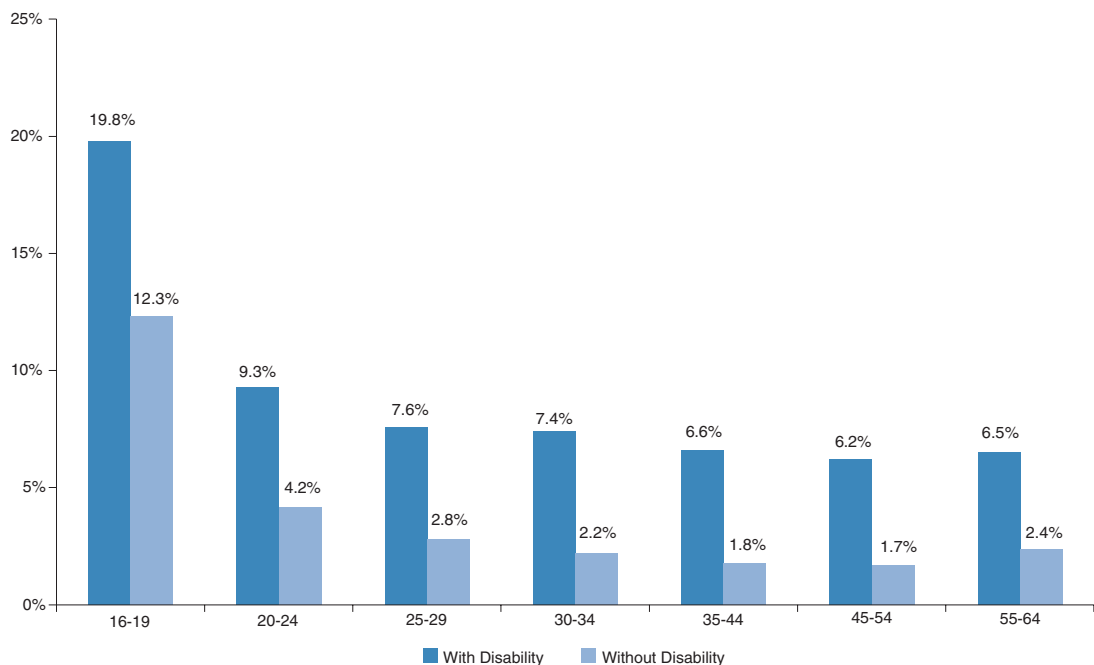


Fig. 3. Labor Force Reserve Ratio by Disability Status and Age, June 2008 to September 2009.

impact of disability on the likelihood of being in the Labor Force Reserve increases with age. For example, PWD teens have a Labor Force Reserve ratio that is about 1.6 times that of PWOD teens. Prime working age PWDs (age 25–54) have a ratio that is more than 3 times that of their PWOD counterparts.

The magnitude of the Labor Force Reserve Ratio is closely connected to level of educational attainment, and an inverse relationship is obvious for both groups as seen in Fig. 4. Regardless of disability status, high school dropouts had Labor Force Reserve Ratios that were about double those of high school graduates: 13.3% vs. 7.5% for PWDs and 7.5% vs. 3.0% for PWODs. As level of education rises, the Labor Force Reserve Ratio for both groups declined, but the rate of decline was slower for PWDs. Consequently, the relative difference of the gap in ratios between PWD and PWOD groups increased with level of educational attainment, from 1.7 times for H.S. dropouts to 3.5 times for B.S. degree holders. These findings suggest that higher levels of educational attainment did reduce the Labor Force Reserve Ratio and the joblessness associated with this status, but the decline was much more dramatic for PWODs.

Finally, the CPS provides data regarding why those in the Labor Force Reserve were not engaged in active job seeking. These reasons were compared for both

groups in Fig. 5. These surprising findings suggest that the roots of “dropping out” of the Labor Force are quite different for PWDs and PWODs. Labor market conditions were frequently mentioned by both groups as one would expect during a serious recession. This rationale was given by over one-fourth of PWODs, yet only one-sixth of PWDs listed this reason. The primary reasons for PWD respondents were primarily linked to health status/disability and family/child care responsibilities. PWD membership in the Labor Force Reserve was far less influenced by lack of training/schooling, lack of skills, or even workplace discrimination or transportation which may reflect positively on the scope of traditional vocational rehabilitation services. These findings remind us that the reasons joblessness are multifaceted and include not only adverse labor market conditions (the focus of the present study) but also financial disincentives, healthcare availability and portability, outsourcing of entry level jobs, the quality of special education, and job discrimination [15].

10. Conclusion

It is clear that the Great Recession imposed a far greater level of hardship on PWD in America when measured by various aspects of unemployment. It is

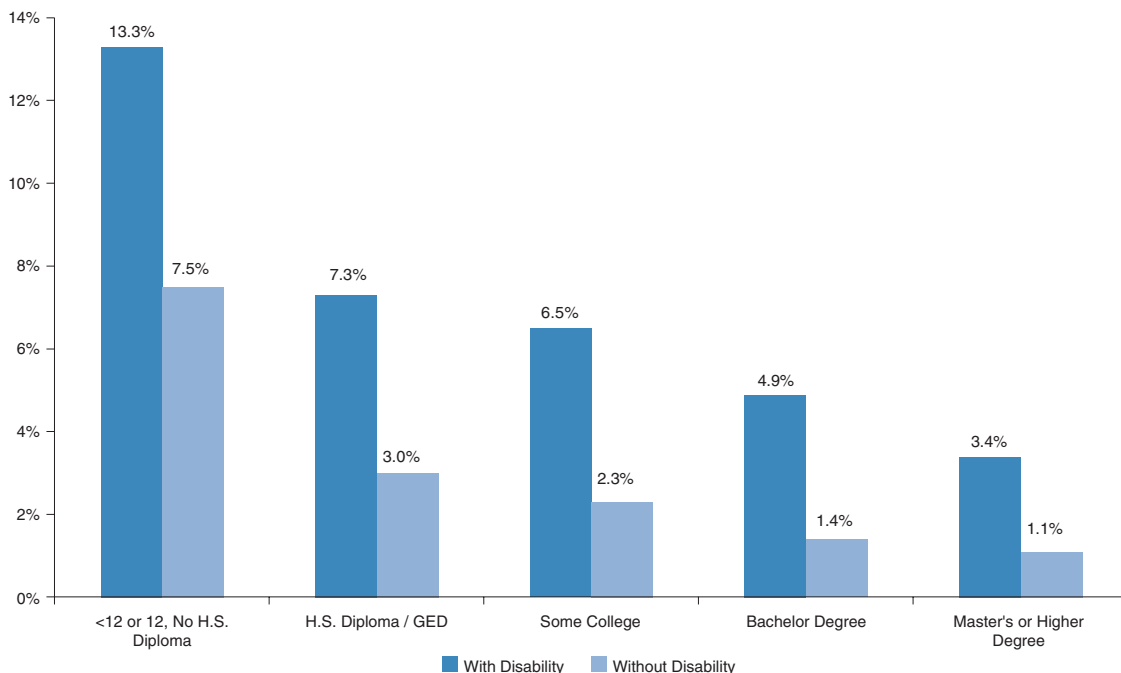


Fig. 4. Labor Force Reserve Ratio by disability status and educational attainment, June 2008 to September 2009.

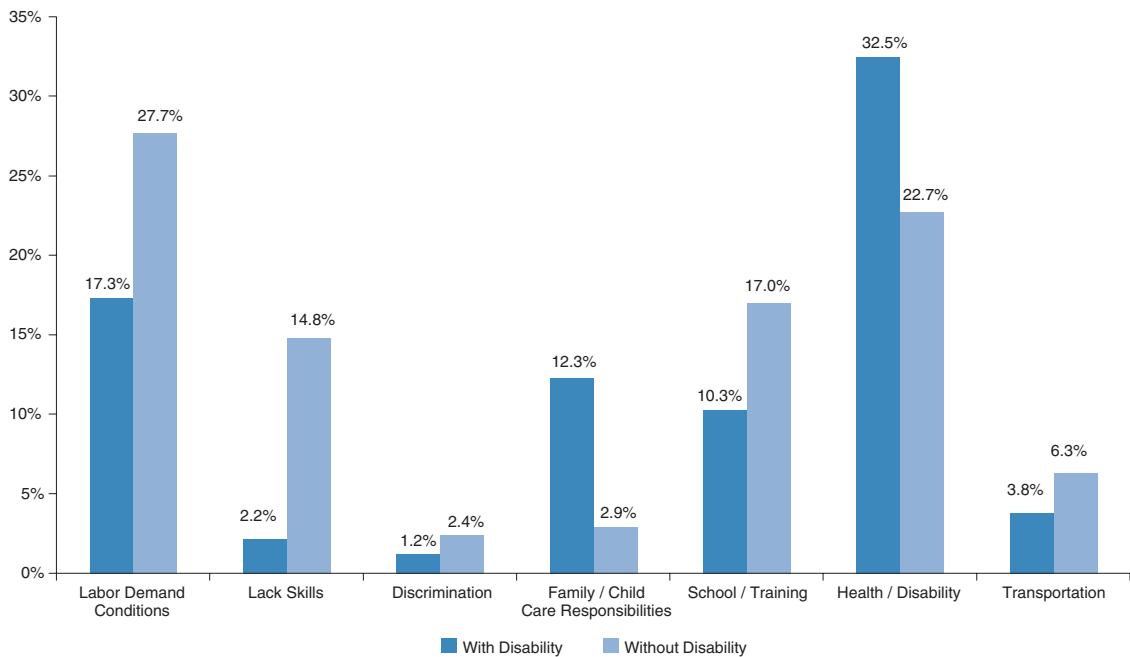


Fig. 5. Reasons for "Dropping out" of the Labor Force, June 2008 to September 2009.

equally clear that the nature of unemployment, the reasons for it, and the experience of it were markedly different for PWDs than for PWODs. Personal characteristics which tend to "soften the blow" in hard economic times, such as age, experience, and education, were less effective for PWD. Moreover, primary reasons for PWD unemployment, such as health status and family responsibilities, were not aligned with the thrust of vocational rehabilitation interventions which are largely training related. To be sure, however, the Great Recession created a serious setback for this population segment that was already lagging in virtually every aspect of labor market activity.

There are strong and compelling messages in these findings for vocational rehabilitation policy makers. After 94 years of VR service delivery and 20 years of a major civil rights initiative (ADA), PWD are faring poorly in terms of employment. The young and less educated are markedly disenfranchised, and the vocational benefits of maturity and higher education offer fewer protections to PWD. On the bright side, disability policy has been effective in the operation of a training-oriented vocational rehabilitation system, and in minimizing the effects of reported workplace discrimination [15]. The results of the former in terms of "job placements that stick", however, are not evident. The recent shift in vocational rehabilitation to more "demand

side" job placement interventions is probably well advised [15].

There exists considerable evidence of a host of formidable barriers to the unemployment problems for PWD [13, 16, 19, 22]. These include the substandard special education system replete with abysmal graduation rates, historical lack of health insurance availability and portability, financial disincentives to work in the form of long term disability indemnity payments, employer resistance to regulation of the workplace including ADA, outsourcing of entry level jobs, and prospective immigration reform which may include a guest worker program. Indeed, contrary to the VR emphasis upon ability and not disability, it is obvious that disability does affect ability for many as evidenced by the 14.5 million PWD now receiving SSI or SSDI payments. The non-institutionalized portion of these beneficiaries comprises a large share of the PWD Labor Force Reserve. Denial of this reality serves no one. Also, career paths that tend to benefit the less educated and impoverished young person are not available to PWD. For example, the U.S. Armed Forces employs 1.5 million active military personnel and 848,000 reservists. Military service has long been a launching pad for higher education, career development, and assimilation for many underserved populations. This option is not available to PWD despite

the widespread availability of assistive technology and accommodations.

All of these barriers contribute to low labor market activity and high unemployment. Ironically, unemployment is a measure of the aggregate effects of these barriers as well as a self-perpetuating contributor to itself.

Acknowledgements

This study was supported by the New England ADA Center and the Coordination, Outreach and Research Center, both part of the ADA National Network by DBTAC (formerly known as “DBTAC: National Network of ADA Centers”), under the auspices of the National Institute of Disability and Rehabilitation Research, Grant #s H133A060092 and H133A060097.

References

- [1] Bureau of the Census. Monthly Current Population Public Use Data Files, 2010. Retrieved May 11, 2010 from <http://www.census.gov>
- [2] Bureau of Economic Analysis. Gross Domestic Product, 2010. Retrieved May 11, 2010 from <http://www.bea.gov>
- [3] Bureau of Labor Statistics. Labor Force Statistics from the Current Population Survey: How the Government Measures Unemployment. Retrieved May 11, 2010 from http://www.bls.gov/cps/cps_htgm.htm
- [4] F. Chan, D. Strauser, P. Maher, E.J. Lee, R. Jones and E.T. Johnson, Demand-side factors related to employment of people with disabilities: A survey of employers in the midwest region of the united states, *J Occ Rehab* (in press), 2010.
- [5] Current Employment Statistics Survey. Retrieved May 11, 2010, from <http://www.bls.gov> (various months).
- [6] Current Population Survey, Employment Situation, Table A-12, 2010. Retrieved May 11, 2010, from <http://www.bls.gov>.
- [7] G.L. Dent, *Return to Work by Design*, Martin Dennison Press, Stockton, CA, 1990.
- [8] K. Edwards and H. Shierholz, Leaving in Doves, Economic Policy Institute. Retrieved May 11, 2010 from http://www.epi.org/economic_snapshots/entry/leaving_in_doves/
- [9] D. Elmendorf, The State of the Economy, Statement before the Committee on the Budget, U.S. House of Representatives, May 21, 2009.
- [10] N.P. Fogg and P.E. Harrington, From labor shortage to labor surplus: The changing labor market context and its meaning for higher education, *Continuing Higher Ed. Review* **73** (2009), 18–31.
- [11] T.W. Hale, The lack of a disability measure in today's current population survey, *Monthly Lab Rev* **124** (2001), 38–40.
- [12] R. Jackman and R. Layard, Does long-term unemployment reduce a person's chance of a job? A time-series test, *Economiac* **58** (1991), 93–106.
- [13] M.L. Lengnick-Hall, *Hidden Talent*, Praeger Publishers, Westport, CT, 2007.
- [14] L.M. Lynch, The youth labor market in the eighties: Determinants of re-employment probabilities for young men and women, *Rev Econ and Stats* **71** (1989), 37–45.
- [15] B.T. McMahon, R. Edwards, P. Rumrill and N. Hursh, An overview of the national EEOC ADA research project, phase one, *WORK: A Journal of Assessment, Prevention, and Rehabilitation* **25**(1) (2005), 1–8.
- [16] B.T. McMahon, P. Wehman, V. Brooke, R. Habeck, H. Green and R. Fraser, *Business Disability and Employment: Corporate Models of Success*. VCU Rehabilitation Research and Training Center on Workplace Supports, Richmond, VA, 2004.
- [17] A. Mosisa and S. Hipple, Trends in labor force participation in the United States, *Monthly Labor Review* **129**(10) (2006), 35–57.
- [18] G. Psacharopoulos and Z. Tzaanatos, Education and Female Labor Force Participation. Presented at Sixth World Conference of Comparative Ed, Rio de Janeiro, July 1987.
- [19] C.A. Riley, *Disability and Business*, University Press of New England, Lebanon, NH, 2006.
- [20] M. Toosi, Labor force projections to 2016: More workers in their golden years, *Monthly Labor Review* **130**(11) (2007), 33–52.
- [21] The Economist. The man who fell to earth (Editorial). January 21, 2010.
- [22] United States Department of Labor: Office of Disability Employment Policy, *Survey of Employer Perspectives on the Employment of People with Disabilities*, Author, Washington, DC, 2008.