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The labor supply of veterans with disabilities, 1995–2014

Veterans with disabilities are less likely to work today than in the past; between 1995 and 2014, the percentage of veterans who were working while receiving disability compensation from the U.S. Department of Veterans Affairs (VA) dropped from 62 percent to 49 percent. Using the Current Population Survey's Veterans Supplement, however, this article finds that the employment and labor force participation rates of veterans with disabilities have fallen only modestly more than those of nondisabled veterans, even for veterans with the most severe disabilities. Adjusting for the rapid aging of the disabled veteran population reduces the gap in labor market activity between disabled and nondisabled veterans by 40–70 percent. The results suggest that the decline in employment and labor force participation of disabled veterans is largely a function of age and the increased prevalence of severe disability rather than a changing propensity for work. In short, the veterans' disability system does not discourage employment any differently than in the past.

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The Veterans Benefits Administration (VBA), part of the U.S. Department of Veterans Affairs (VA), paid out nearly $50 billion in disability compensation benefits to 3.7 million veterans with service-connected health conditions in fiscal year 2013.[1] To qualify for benefits, a veteran must be assigned a "disability rating" by the VBA, a rating ranging from 0 (least disabled) to 100 (most disabled) percent. This rating is meant to capture how much a veteran's earnings potential has been reduced by his or her service-connected condition.

Despite bipartisan support, the VA system has come under criticism for insufficient consideration of employability in awarding disability benefits.[2] Some of these critiques echo concerns that have been expressed about Social Security Disability Insurance (SSDI) and Supplemental Security

Income (SSI)—namely, that some individuals capable of working are receiving disability compensation instead. For VA benefits, work and disability benefit receipt are not meant to be mutually exclusive, as they effectively are for SSDI. Just as research suggests that SSDI applications respond to economic conditions as well as deteriorating health,[3] studies of the VA system have found that low-skilled workers are particularly sensitive to macroeconomic conditions and liberalization of qualifying health conditions.[4]

Although expenditures for SSDI and SSI have grown substantially, VA disability compensation expenditures have grown even faster: 158 percent from 2000 to 2013 (adjusting for inflation with the use of the Consumer Price Index for all Urban Users), compared with 37 percent for SSI and 91 percent for SSDI.[5] This rapid growth occurred largely because the list of health conditions that qualify veterans for disability benefits was expanded with, among other things, posttraumatic stress disorder and health conditions associated with exposure to Agent Orange.[6] These facts raise two questions: (1) are today's disabled veterans less likely to work than disabled veterans of the past, and (2) if so, why?

To answer these questions, this article uses the Current Population Survey (CPS) Veterans Supplement to investigate the relationship between labor supply and a veteran's level of disability over the 1995–2014 period. The data therein, examined in isolation and without controls for the characteristics of the veteran population, indicate that veterans with disabilities are, indeed, working less than in the past; in 1995, 62 percent of veterans with a disability rating were employed but, in 2014, just 49 percent worked (the decrease is significant at the 99-percent confidence level). The fall in labor market activity is of interest, especially considering recent improvements in the work environment for individuals with health conditions. These improvements include advancements in healthcare, a reduction in the physicality of employment, and the expansion of employers' legal obligation to accommodate employees' disabilities (after passage of the Americans with Disabilities Act). In this narrow context, it is unclear why such a large employment drop would occur.

In a broader context, the fall in employment and labor force participation among veterans with disabilities is expected. This decrease looks very similar to the declines for nondisabled veterans, and much of this pattern has a simple explanation—the population is aging. In fact, the veteran population has aged faster than the general population, and the disabled veteran population has aged faster still; the plurality of current veterans served during the Vietnam era and are at least 60 years old, an age at which many would begin retiring. An analysis controlling for age and other personal characteristics indicates that the employment and labor force participation rates for veterans with disabilities have fallen only slightly faster than those of nondisabled veterans. However, even this faster relative decline has an age-related explanation: as veterans with disabilities age, their disabilities tend to worsen (as reflected by increased disability ratings), further limiting their ability to work. In other words, the population of veterans with disabilities has become both relatively older and relatively more disabled than it was in the mid-1990s, a trend that entirely explains the observed decline. In fact, the veterans with the most severe disabilities—those with ratings between 50 and 100 percent, a group that has ballooned since the early 2000s—have actually *increased* their labor supply relative to nondisabled veterans. In other words, veterans with disabilities today are not discouraged to work any differently than they have in the past.

This article is organized as follows. The next section provides background on the VA disability compensation program and reviews the literature on employment among its participants. The following section describes the CPS Veterans Supplement data and the methodology used in the analysis. The section after that presents descriptive figures and regression estimates, comparing employment and labor force participation rates between nondisabled

and disabled veterans or between nondisabled veterans and disabled veterans with high or low disability ratings. The final section concludes that the results show little evidence that work disincentives in the disability system lead to disproportionate reductions in the labor supply among the growing number of veterans with disabilities.

Background

Although the U.S. government has been paying veterans for service-connected health conditions since the American Revolution, the modern disability rating system—the VA Schedule for Rating Disabilities (VASRD)—was created in 1919, after World War I, and revised after World War II. The VASRD assigns veterans a rating between 0 and 100 percent (in increments of 10) on the basis of the nature and severity of injuries or illnesses suffered as a result of military service. The disability rating relies on a rule-based system in which a veteran's diagnosis leads to a particular rating, the rating yields a set monthly payment, and multiple conditions increase the payment (although at a diminishing rate). For example, a condition involving hearing impairment with frequent vertigo is assigned a disability rating of 100 percent, whereas hearing impairment with infrequent vertigo is assigned a rating of 30 percent. The end purpose of these rules is to capture the damage done to a veteran's ability to work that is due to a service-connected disability. A veteran's disability rating is the basis for the amount of disability compensation he or she can receive. For example, in 2015, disability ratings of 10, 50, and 100 percent were associated with monthly payments of $133, $836, and $2,907, respectively. Benefits are adjusted annually with the Consumer Price Index, and veterans with dependents (spouses, children, and dependent parents) receive larger monthly payments; for example, a 50-percent-rated disabled veteran with a spouse and one child receives $976 per month.

Interestingly, although the rating is supposed to take into account the extent to which the service-connected health condition impedes work, VA benefits are not earnings tested. The aforementioned 50-percent-rated veteran with a spouse and one child will continue to receive the $976 payment each month no matter how much he or she earns from employment. Because it lacks an earnings test, the VASRD stands in sharp contrast to SSDI, where earning over a certain amount ceases payment after a trial work period, and SSI, where each dollar of earnings (above a small threshold) reduces benefits by 50 cents. SSDI and SSI beneficiaries have work disincentives from both the income effect—the receipt of nonlabor income increases the demand for leisure—and the substitution effect—earnings may reduce the benefit, making work expensive. In contrast, as David Autor and Mark Duggan point out, the work decisions of VA disability recipients are not subject to the substitution effect because beneficiaries keep their full dollar of extra earnings; if veterans' benefits do decrease their labor supply, it is only through the income effect.[7] And while the income effect may reduce work effort, the analysis in this paper indicates that many VA disability recipients—even those with ratings of 50 percent or higher—choose to work. The question examined here is whether, despite this lack of work disincentives, veterans with disabilities have become less likely to work over time.

While the VASRD's evaluation criteria have changed little since World War II,[8] enrollment in the disability compensation program has risen rapidly since 2000 because the list of service-related health conditions has expanded. In particular, veterans with documented cases of posttraumatic stress disorder or suffering from one of the many health conditions associated with exposure to chemicals now qualify for benefits, even if the effects of these conditions emerge only decades later. A number of studies, most of them conducted by Mark Duggan and coauthors, have examined the expansion of qualifying health conditions to estimate the effect of VA benefits on labor force participation and employment. These studies find that Vietnam-era veterans, who have benefited most from the expanded list of conditions, have lower labor force participation rates than nonveterans.[9] Joshua Angrist,

Stacey Chen, and Brigham Frandsen also compared veterans with nonveterans from the same birth cohorts, using the Vietnam draft lottery as an instrumental variable. They find that military service had no effect on labor force participation overall, but that less-educated white male veterans—the group most likely to take advantage of less stringent disability screening—were less likely to be in the labor force than similar nonveterans.[10] But these studies are focused almost entirely on the Vietnam era and require either: (1) strict assumptions about the differences between veterans and nonveterans; or (2) instrumental variables that randomly assign some to military service and some to civilian life, like the draft lottery of 1969, that are not available in later periods.

This study takes a different approach and limits the analysis to veterans, comparing employment outcomes of veterans with disabilities with those of nondisabled veterans, a logical control group. Limiting the analysis in this way is appropriate because labor market outcomes can differ between individuals who have served in the military and individuals who have not. Although other studies have also made comparisons among veterans, these comparisons have been limited to the Vietnam era. Duggan, Robert Rosenheck, and Perry Singleton find little difference in labor force participation between “boots on the ground” veterans who saw combat in Vietnam, Cambodia, or Laos and other veterans from the same era deployed elsewhere.[11] Autor, Duggan, Kyle Greenberg, and David Lyle find that a substantial share of new beneficiaries dropped out of the labor force upon becoming eligible, even if they were already receiving benefits.[12]

To our knowledge, this study is the first to compare labor-market outcomes for veterans with disabilities with those for nondisabled veterans who served at any time from World War II to the conflicts in Iraq and Afghanistan. This sample allows us to analyze how labor-market outcomes change with age and how the aging pattern changes over time, which provides evidence for whether, over time, veterans have become more responsive to the expanded availability of benefits.

Data and methodology

In addition to collecting data on labor market activity on a monthly basis, the CPS periodically surveys veterans in its monthly sample. Questions asked of veterans address issues pertaining to their military service and subsequent experience, in particular their interactions with public programs for veterans. The CPS Veterans Supplement was conducted biennially from 1995 to 2009, then annually after that.[13] The supplement is used because it includes information on whether the veterans have a service-connected disability.

This study’s key variables are based on information in the Veterans Supplement about the receipt of VA disability benefits. The respondent is asked whether the VA or Department of Defense has determined that he or she has a service-connected disability, defined in the questionnaire as “a health condition or impairment caused or made worse by military service.” A follow-up question asks for the respondent’s assigned disability rating. Different years of the public-use version of the supplement categorize the rating information differently, so we use the most fine-grained categorization that is consistent across years: 0 percent (this disability rating means the individual has a service-connected disability that does not impede employability), 10–20 percent, 30–40 percent, and 50–100 percent. The supplement also includes information on the period or conflict during which the veteran served.

The outcome variables of interest—whether the individual is employed or participating in the labor force—are derived from the monthly CPS produced the same month as the supplement. The analysis also includes other

veteran characteristics from the monthly CPS questionnaire as control variables. These characteristics include age at the time of the survey, gender, race, and educational attainment (see appendix).

Table 1 delineates how the analysis sample was constructed. Excluding individuals under 18 and over 70, along with those without valid answers to the service-connected disability question, the sample includes just over 85,000 veterans, among whom almost 12,000 report a service-connected disability.

Table 1. Sample construction for disabled and nondisabled veterans

Criterion	Remaining sample
In monthly Current Population Survey for month of Veterans Supplement, 1995–2014	1,961,206
Ages 18–69 at survey	1,145,141
In veterans sample	98,637
Valid answer for service-connected disability question	85,223
Disabled	11,903
Nondisabled	73,320
Valid answer for disability rating question	84,234
With disability rating	10,914
No disability rating	73,320

Source: U.S. Bureau of Labor Statistics, Current Population Survey, Veterans Supplement, 1995–2014.

Most of the analysis is descriptive, presenting figures that plot the trends over time in employment and labor force participation among disabled and nondisabled veterans. The disabled group is sometimes disaggregated by disability rating category. The analysis also includes regression analysis that examines how employment and labor force participation have changed over time for the disabled and nondisabled, controlling for the age, gender, race, and education of the veteran sample. The regression is specified as a probit, where the dependent variable is an indicator equal to 1 if the veteran is either employed or participating in the labor force:

$$Y_{it} = \Phi(\alpha D_{it} + \beta \mathrm{Year}_t + \delta D_{it}\mathrm{Year}_t + \gamma X_{it} + \varepsilon_{it}) \quad (1)$$

where Φ represents the standard normal cumulative distribution function; D_{it} is an indicator equal to 1 if individual *i* reports having a service-connected disability in survey year *t*; Year_t is a linear time trend; and X_{it} is a vector of personal characteristics—age, gender, and categorical variables for race and educational attainment. Because the regression is specified as a probit, we report marginal effects (i.e., the mean derivative of Y with respect to each variable).

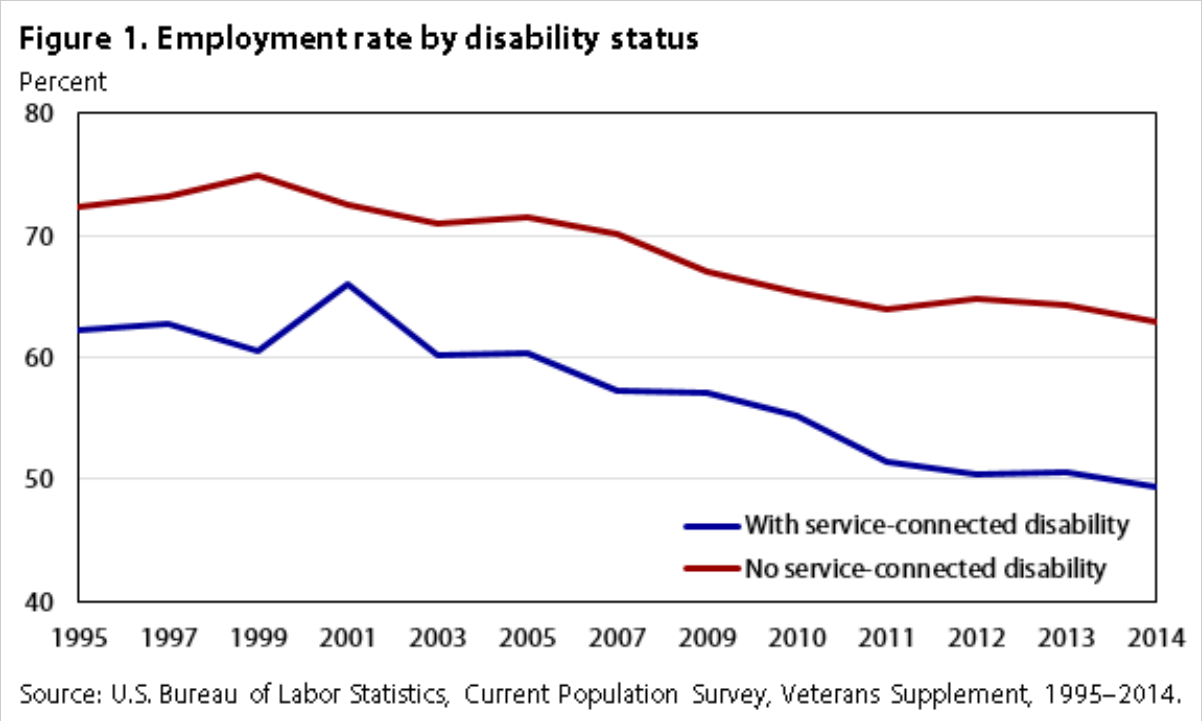
The coefficients of interest are α, the estimate of the average difference in employment or labor force participation between disabled and nondisabled veterans, all else equal; β, the average year-over-year change in employment or participation for nondisabled veterans; and δ, the difference between disabled and nondisabled veterans in the average year-over-year change in employment or participation, controlling for personal characteristics. The interaction effect δ provides an evaluation of how the work capacity of veterans with disabilities has changed over time; if veterans with disabilities are falling further behind nondisabled veterans in their labor market activity, δ would be negative and significant both substantively and statistically.

In other specifications, D is replaced by two indicators equal to 1 if the disability rating is (1) 0–40 percent or (2) 50–100 percent, with the nondisabled used as the control group. These specifications also include interactions between the rating categorical variables and the time trend, to examine whether the trends in employment and labor force participation among veterans with different disability ratings differ from the trend among nondisabled veterans.

Results

The results are presented in three ways: (1) comparisons of labor market activity for the full sample of disabled and nondisabled veterans, (2) an analysis of the employment and labor force participation of veterans by disability rating, and (3) regression analysis combining information gleamed from the first two steps.

Employment and participation for disabled and nondisabled veterans



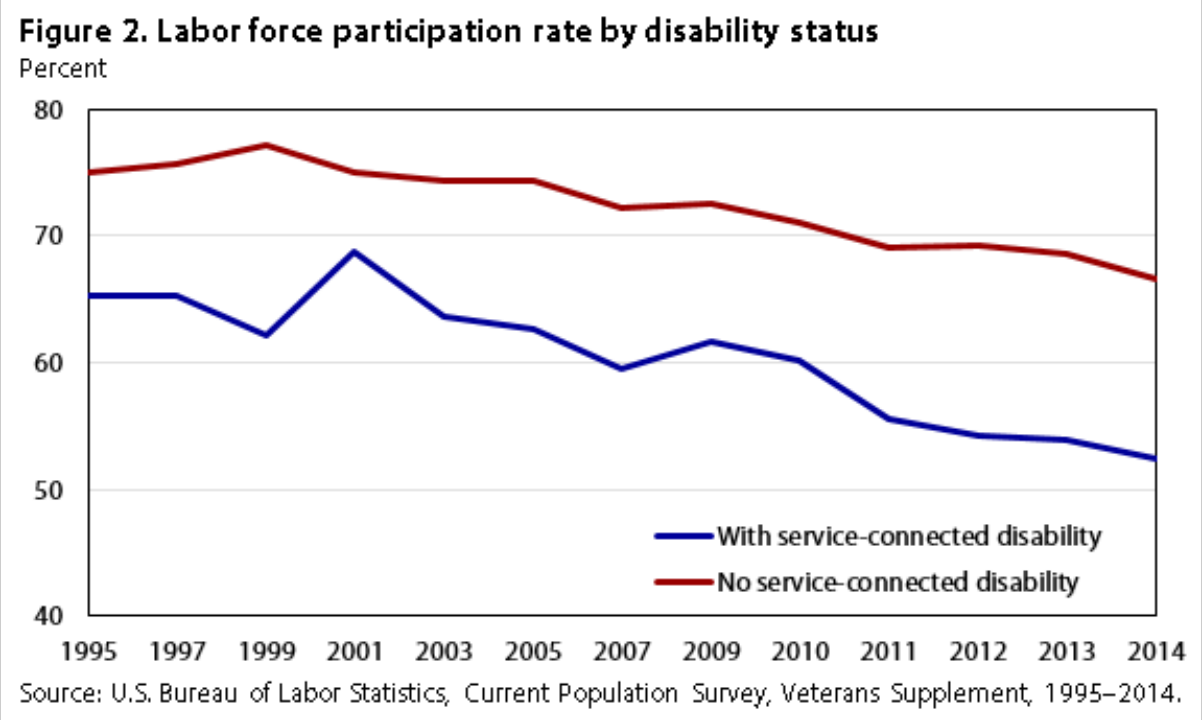
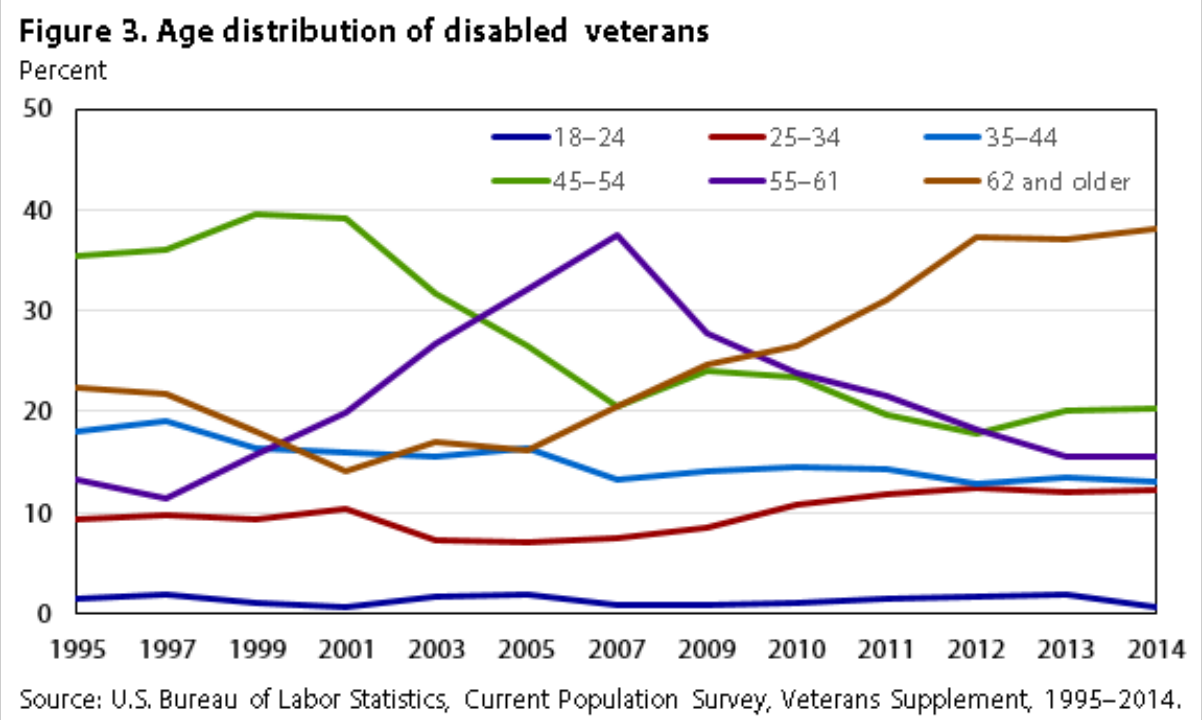
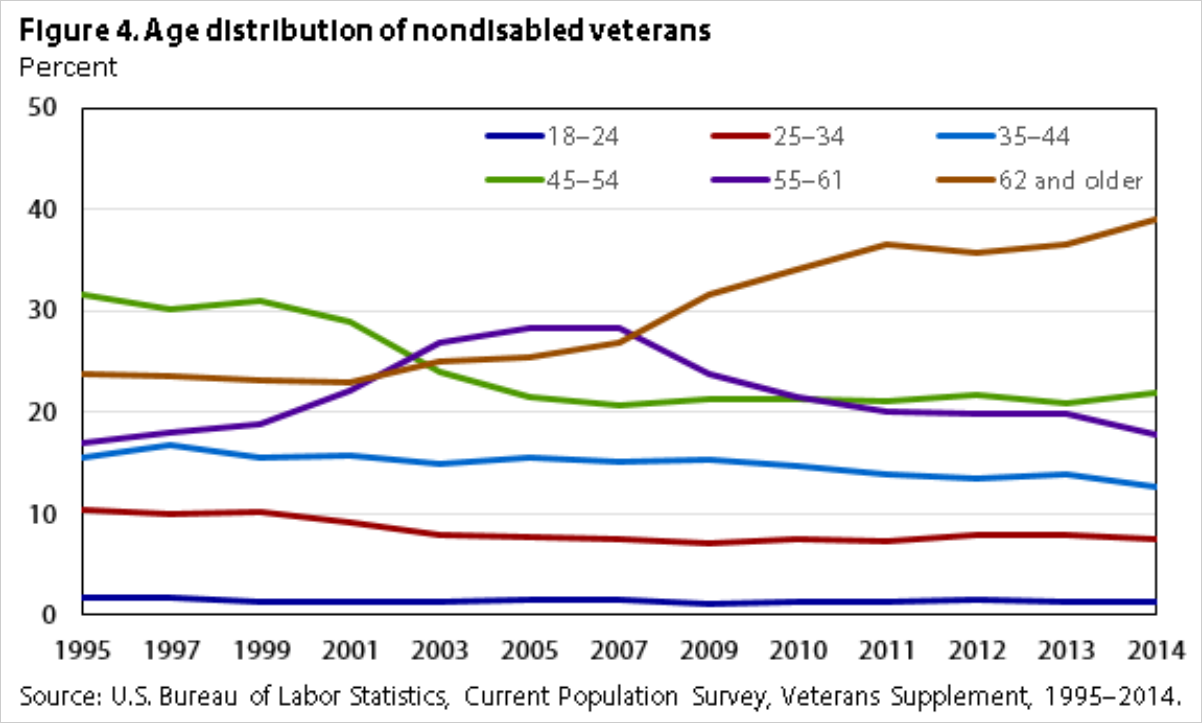


Figure 1 plots the proportion of veterans employed, by whether or not they report a service-connected disability. The downward trend of interest is represented by the red line—from 1995 to 2014, the employment rate for veterans with disabilities fell from 62 percent to 49 percent, and the decline was nearly monotonic from 2000 onward. Over the same period, however, the employment rate for nondisabled veterans also fell, from 72 percent to 63 percent. Not surprisingly, veterans with disabilities are less likely to be employed throughout the period.

Figure 2 shows that, from 1995 to 2014, the labor force participation rate for both groups fell, from 65 percent to 52 percent for veterans with disabilities and from 75 percent to 67 percent for nondisabled veterans. Until 2010, the employment and labor force participation rates of nondisabled veterans were each consistently about 11 percentage points higher than those of veterans with disabilities, but from 2011 to 2014 both gaps widened slightly, to 14 percentage points. The difference between the rates of decline for disabled and nondisabled veterans is small but statistically significant (at the 95-percent confidence level). Nondisabled veterans saw their employment rate fall by 0.6 percentage point per year, on average, while the employment rate among veterans with disabilities fell by 0.8 percentage point annually. The analogous declines in labor force participation are 0.4 percentage point among nondisabled veterans and 0.7 percentage point among veterans with disabilities.

These two figures indicate that veterans with disabilities have been less likely to participate in the labor force or be employed in recent years than they were two decades earlier. But nondisabled veterans exhibit the same pattern, albeit at a somewhat slower rate of decline. Therefore, declining labor force participation and employment rates are not exclusive to veterans receiving benefits for a service-connected disability.

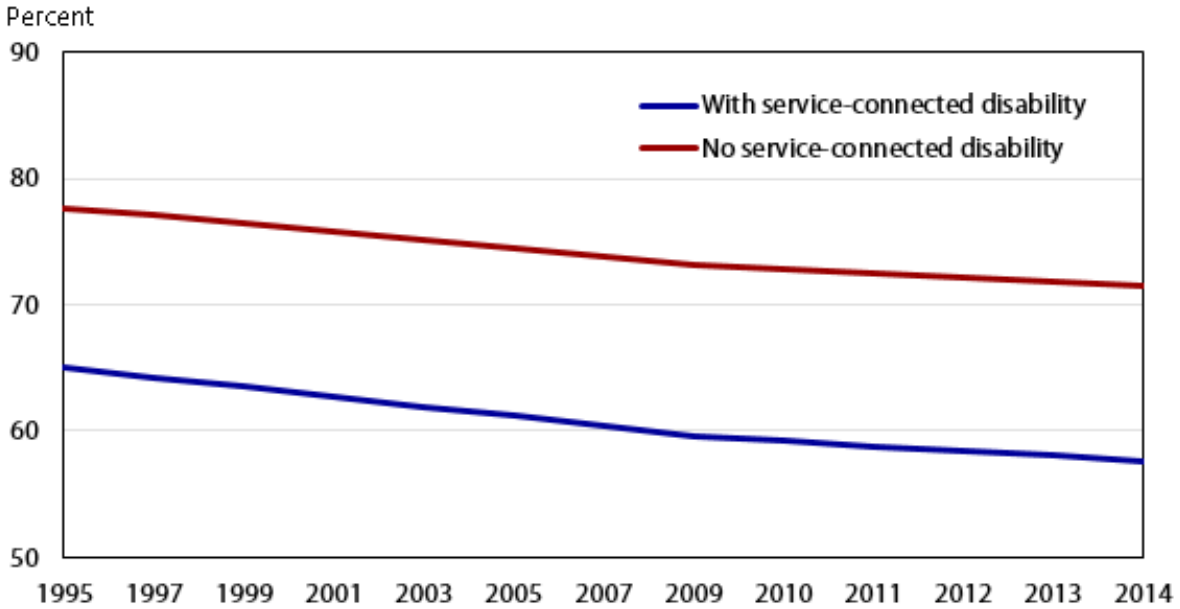




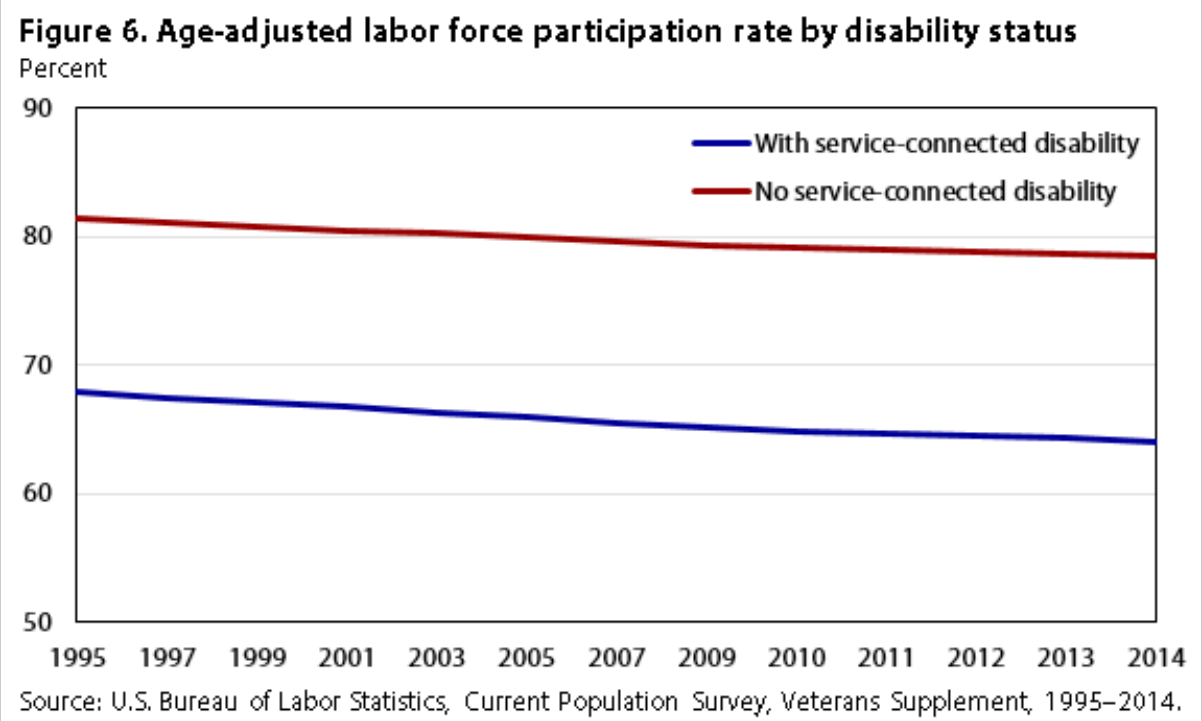
The decline in participation and employment rates for both groups of veterans may be a consequence of the aging of the veteran population. Figures 3 and 4 display the distribution of disabled and nondisabled veterans, respectively, by age category. The proportion of veterans under 45 years of age has been relatively constant for both groups (22–28 percent for the nondisabled and 22–31 percent for the disabled), but the three eldest age groups demonstrate how the veteran population has aged.

The highest points in figures 3 and 4—first for those ages 45 to 54, then for those ages 55 to 61, then for those ages 62 and older—correspond to the Vietnam-era cohort, the largest cohort by service period in our sample. As a result, the plurality of veterans in the late 1990s was the 45 to 54 age group. By the mid-2000s, veterans in their late fifties had become the largest age group. By 2009, because of the aging of the Vietnam-era cohort, the plurality had moved to those ages 62 and older, who became eligible for Social Security benefits and were in the process of winding down their careers. The peaks are especially large among the disabled (see figure 3). For example, Vietnam-era veterans represent an even greater proportion of veterans with disabilities than of all veterans.

Figure 5. Age-adjusted employment rate by disability status



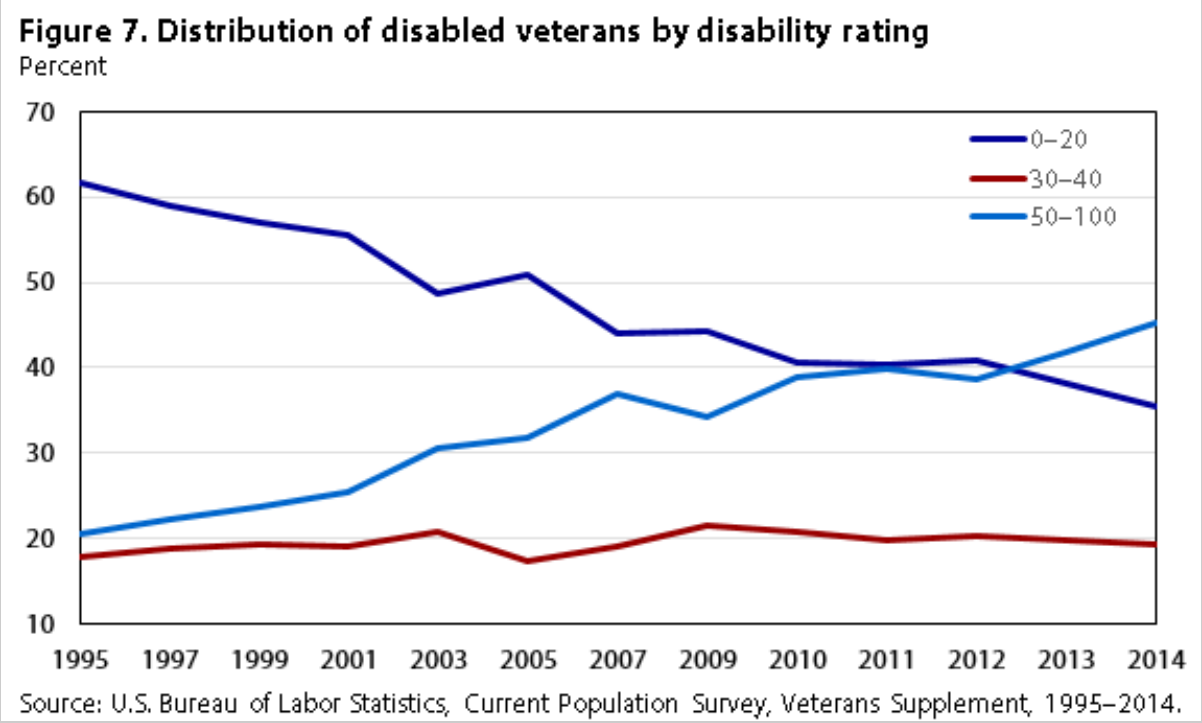
Source: U.S. Bureau of Labor Statistics, Current Population Survey, Veterans Supplement, 1995–2014.



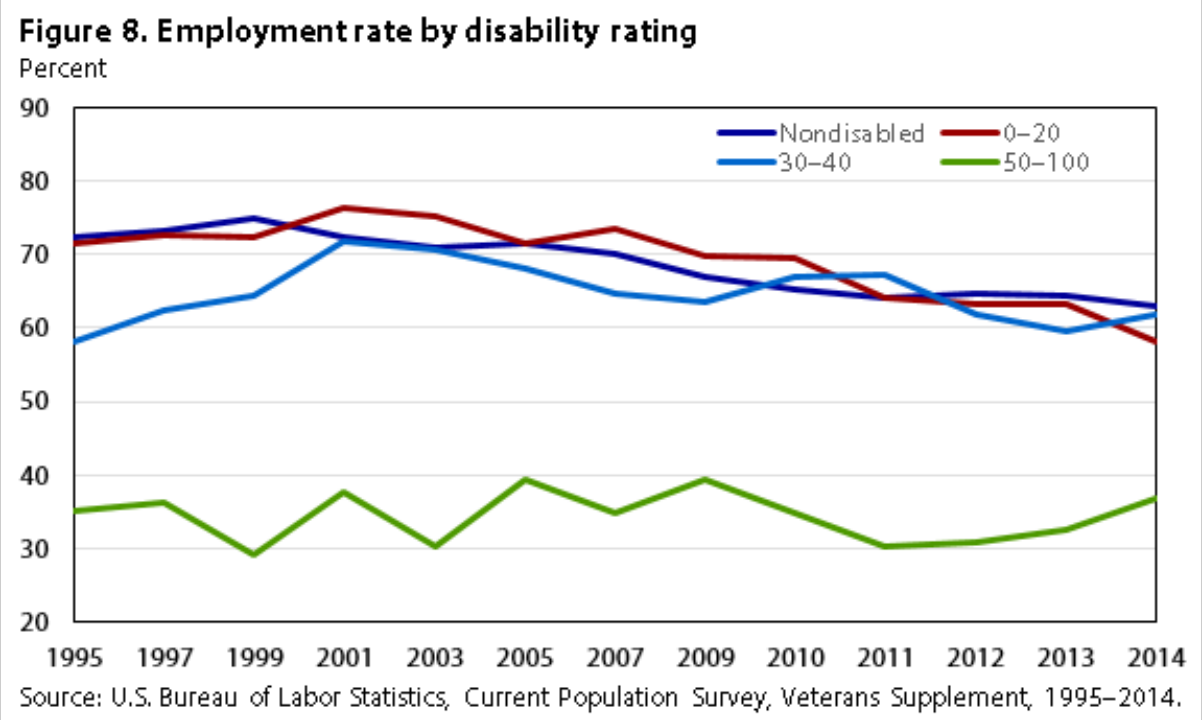
Figures 5 and 6 plot the age-adjusted employment and labor force participation rates of disabled and nondisabled veterans. To adjust for age, a probit regression is estimated for indicators for employment (figure 5) and labor force participation (figure 6) on age, year dummies, and a constant. A predicted value is then calculated for each year, assuming that the value of the age variable remains at its 1995 average—50 for veterans with disabilities and 51 for nondisabled veterans. When age is held constant, the declining trends previously demonstrated for employment and labor force participation flatten out. Accordingly, the age-adjusted employment rate falls by only 7 percentage points for veterans with disabilities and 6 percentage points for nondisabled veterans; these decreases compare with declines of 13 percentage points and 9 percentage points, respectively, when there is no age adjustment.

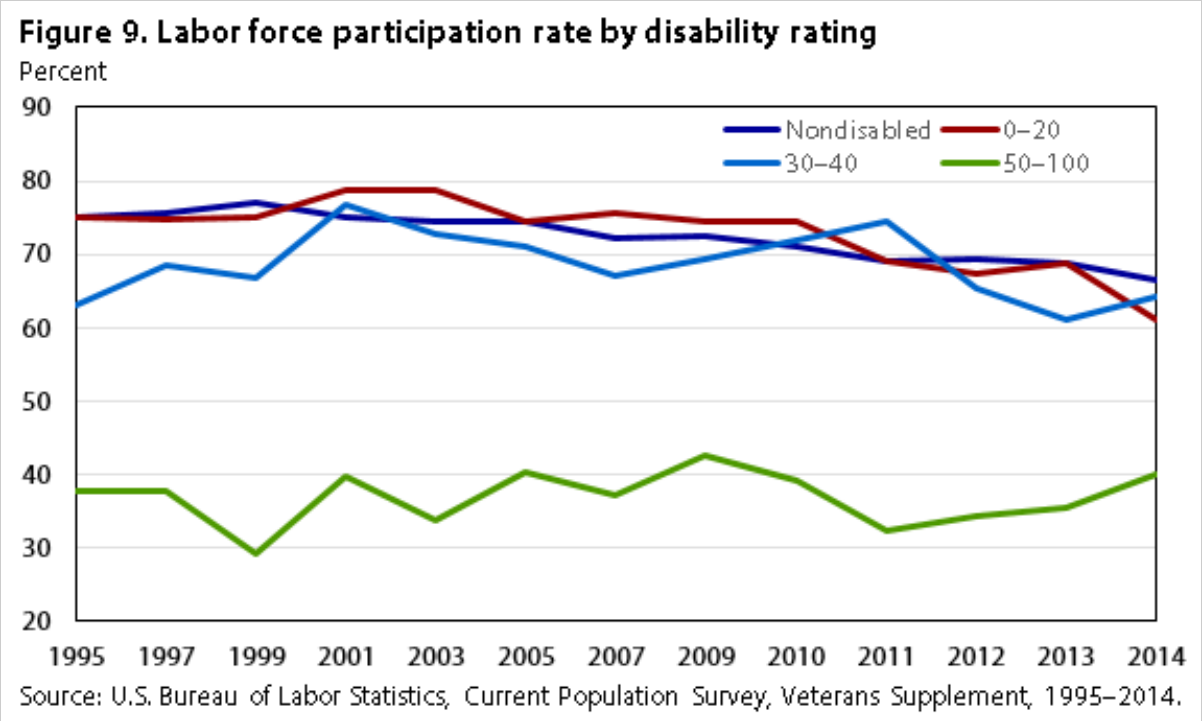
Labor force participation flattens even more with the age adjustment, declining by only 4 percentage points for veterans with disabilities and 3 percentage points for nondisabled veterans. The aging of the overall veteran population, therefore, accounts for about 40 percent of the decline in employment and about 70 percent of the decline in labor force participation.

Employment and labor force participation by disability rating



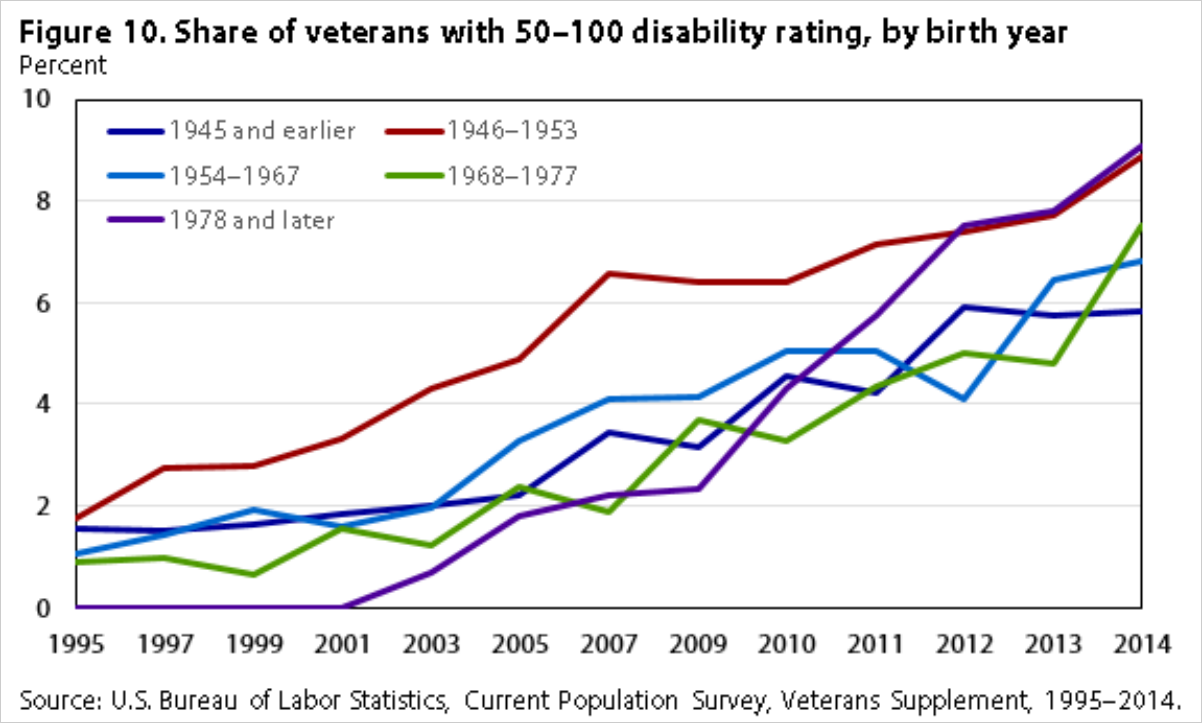
Even conditional on age, employment and labor force participation rates have declined more steeply for veterans with disabilities than for nondisabled veterans. But as figure 7 shows, the disabled group is changing too—by becoming more disabled. The share of veterans with disability ratings of 50 percent or greater grew to become the largest among veterans with disabilities in 2010, and then continued to climb, reaching 45 percent in 2014. Meanwhile, the share of veterans with disability ratings of 1 to 29 percent has fallen from nearly half of veterans with disabilities in 1995 to just a third by 2014. Another potential explanation for the declines in labor force participation and employment for veterans with disabilities, therefore, is a compositional effect. Specifically, as the average disabled veteran becomes more disabled, the entire pool of veterans with disabilities is less able to participate in the labor force or work, even if the relationship between disability rating and employment has remained constant.





Figures 8 and 9, which plot the share of veterans with disabilities employed and participating in the labor force, suggest that the shifting composition of veterans with disabilities toward higher ratings accounts for much of the remaining decline in labor market activity. As expected, veterans with disability ratings of 50 to 100 percent are about half as likely to work (figure 8) and participate in the labor force (figure 9) as nondisabled veterans. But even as nondisabled veterans are working and participating in the labor force less, the most disabled group of veterans has seen almost no change in employment or labor force participation over the past two decades. In contrast, the patterns for veterans with disability ratings below 50 percent are almost indistinguishable from the patterns for

nondisabled veterans. These results indicate that the gaps in employment and participation between disabled and nondisabled veterans have increased mostly because more veterans today have ratings of 50 and over than in the past; the gap would have grown even wider if labor market outcomes for this group had not remained flat.



Besides the expansion of medical conditions that are service connected, the shift in disability ratings may be, in part, a byproduct of the aging of the veteran population and the preponderance of Vietnam-era veterans in the sample. Although the CPS Veterans Supplement lacks information on a veteran's disability rating upon program entry, the cross-sectional disability rating distribution in figure 10 indicates that the share of veterans with ratings of 50 to 100 percent likely increased long after their service was completed. Autor et al. point to an "escalator effect": VA disability beneficiaries can apply for reevaluation to earn greater benefits at a higher rating level.[14] The proportions of veterans with disability ratings of 50 to 100 percent (see figure 10) suggest that benefits escalate quickly as veterans get older.

Regression results

Table 2 shows the marginal effects (and their associated standard errors) from probit regressions of employment on either a disability indicator or separate indicators for disability ratings of 0–40 percent and 50–100 percent, a linear time trend and, in some specifications, interactions between the disability indicator(s) and the time trend. The regressions also control for the veteran's age, gender, educational attainment, and race.

Table 2. Probit regression estimates for employment

Characteristic	Specification (Spec.)			
	Spec. 1	Spec. 2	Spec. 3	Spec. 4
Disabled (0/1)	−0.1375[(1)]	−0.135[(1)]	—	—

See footnotes at end of table.

Table 2. Probit regression estimates for employment

Characteristic	Specification (Spec.)			
	Spec. 1	Spec. 2	Spec. 3	Spec. 4
	(.0046)	(.0064)	—	—
0–49-percent rating	—	—	−.0450[1]	−.0458[1]
	—	—	(.0055)	(.0076)
50–100-percent rating	—	—	−.3178[1]	−.3308[1]
	—	—	(.0079)	(.0116)
Time trend	−.0035[1]	−.0035[1]	−.0030[1]	−.0030[1]
	(.0002)	(.0003)	(.0002)	(.0004)
Disabled × time trend	—	−.0017[1]	—	—
	—	(.0007)	—	—
0–49 × time trend	—	—	—	0.0004
	—	—	—	(.0009)
50–100 × time trend	—	—	—	.0039[1]
	—	—	—	(.0013)
Age	−.0146[1]	−.0146[1]	−.0145[1]	−.0145[1]
	(.0002)	(.0002)	(.0002)	(.0002)
Male	.1643[1]	.1643[1]	.1628[1]	.1627[1]
	(.0063)	(.0063)	(.0064)	(.0064)
High school only	.1055[1]	.1054[1]	.1029[1]	.1054[1]
	(.0060)	(.0060)	(.0060)	(.0060)
Some college	.1448[1]	.1446[1]	.1407[1]	.1409[1]
	(.0060)	(.0060)	(.0061)	(.0061)
College or more	0.2056[1]	0.2055[1]	0.2004[1]	0.2004[1]
	(.0056)	(.0057)	(.0057)	(.0058)
Black	−.0628[1]	−.0628[1]	−.0596[1]	−.0596[1]
	(.0055)	(.0055)	(.0055)	(.0055)
Asian	−.0055	−.0055	−.0103	−.0104
	(.0138)	(.0138)	(.0139)	(.0139)
Other race (American Indian, Pacific Islander, multiple races)	−.0463[1]	−.0462[1]	−.0431[1]	−.0432[1]
	(.0094)	(.0094)	(.0094)	(.0094)
Sample size	85,223	85,223	84,234	84,234
Pseudo-R^2	.1418	.1418	.1502	.1503

Notes:

[1] $p < 0.001$. Standard errors calculated using the delta method. Statistically significant at the 1-percent level.

Specifications 1, 2, 3, and 4 represent different versions of the same regression, using different variables.

Source: U.S. Bureau of Labor Statistics, Current Population Survey, Veterans Supplement, 1995–2014.

As seen previously in the figures, veterans with disabilities are less likely to work than nondisabled veterans, by 14 percentage points. Veterans with a 50- to 100-percent disability rating are 32–33 percentage points less likely to work than nondisabled veterans. The difference in employment between nondisabled veterans and veterans with a 0- to 40-percent rating is small (5 percentage points) but statistically significant, as was seen in figure 8.

The negative and statistically significant marginal effect for the time trend confirms that employment rates have fallen for nondisabled veterans by a statistically significant 0.3 percentage point per year, even after accounting for age and other personal characteristics. Employment rates for veterans with disabilities have fallen by an additional 0.2 percentage point. The difference with nondisabled veterans is statistically significant, but quite small.

Interestingly, separating veterans by disability rating shows that the employment rates for the disabled veteran groups have not fallen by any more than the employment rate for the nondisabled. The interaction effect for the 0- to 40-percent group is a positive, but minuscule and statistically insignificant, 0.04 percentage point, seemingly confirming the result from figure 8 that the employment trend for this group is essentially no different than that for the nondisabled. For veterans with a 50- to 100-percent rating, the interaction effect is actually positive and statistically significant and offsets the marginal effect on the uninteracted time-trend variable almost exactly (although their sum is statistically insignificant). In other words, the regression-adjusted employment rate for veterans with the most severe disabilities has been essentially flat from 1995 to 2013, and we can rule out, with 95-percent confidence, that this group has seen a greater decline in employment than the group of nondisabled veterans.

The other estimates in table 2 are consistent with expectations. Employment falls slightly with age. Male veterans are about 16 percentage points more likely to work at any given age than female veterans, Blacks and other non-White races are slightly less likely to work than Whites, and employment rates correlate strongly with education.

Table 3 repeats the analysis, this time with labor force participation as the dependent variable, and the results are quite similar. Compared with nondisabled veterans, veterans with disabilities have labor force participation rates that are 14 to 15 percentage points lower, although variance exists across veterans with different disability ratings. Veterans with a 50- to 100-percent disability rating are 33 to 34 percentage points less likely to participate in the labor force, while veterans with ratings of 0 to 40 percent are only 5 percent less likely. After controlling for age, gender, race, and education, the trend in labor force participation among nondisabled veterans is only slightly downward sloping, but the negative slope is statistically significant.

Table 3. Probit regression estimates for labor force participation

Characteristic	Specification (Spec.)			
	Spec. 1	Spec. 2	Spec. 3	Spec. 4
Disabled (0/1)	−0.1468[(1)]	−0.1440[(1)]	—	—
	(.0045)	(.0062)	—	—
0–49-percent rating	—	—	−.0493[(1)]	−.0490[(1)]
	—	—	(.0053)	(.0073)
50–100-percent rating	—	—	−.3289[(1)]	−.3413[(1)]
	—	—	(.0077)	(.0113)
Time trend	−.0017[(1)]	−.0018[(1)]	−.0013[(1)]	−.0013[(1)]
	(.0002)	(.0003)	(.0002)	(.0003)
Disabled × time trend	—	−.0020[(1)]	—	—
	—	(.0007)	—	—
0–49 × time trend	—	—	—	−.0002
	—	—	—	(.0008)
50–100 × time trend	—	—	—	.0037[(1)]

See footnotes at end of table.

Table 3. Probit regression estimates for labor force participation

Characteristic	Specification (Spec.)			
	Spec. 1	Spec. 2	Spec. 3	Spec. 4
	—	—	—	(.0013)
Age	−.0165[(1)]	−.0165[(1)]	−.0164[(1)]	−.0164[(1)]
	(.0002)	(.0002)	(.0002)	(.0002)
Male	.1799[(1)]	.1799[(1)]	.1790[(1)]	.1789[(1)]
	(.0063)	(.0063)	(.0064)	(.0064)
High school only	.0929[(1)]	.0927[(1)]	.0898[(1)]	.0899[(1)]
	(.0056)	(.0056)	(.0056)	(.0056)
Some college	.1290[(1)]	.1288[(1)]	.1245[(1)]	.1245[(1)]
	(.0056)	(.0057)	(.0057)	(.0057)
College or more	.1856[(1)]	.1854[(1)]	.1797[(1)]	.1797[(1)]
	(.0053)	(.0054)	(.0054)	(.0054)
Black	−.0420[(1)]	−.0420[(1)]	−.0381[(1)]	−.0381[(1)]
	(.0053)	(.0053)	(.0053)	(.0053)
Asian	−.0098	−.0098	−.0142	−.0143
	(.0133)	(.0133)	(.0133)	(.0133)
Other race (American Indian, Pacific Islander, multiple races)	−.0361[(1)]	−.0359[(1)]	−.0324[(1)]	−.0325[(1)]
	(.0090)	(.0090)	(.0090)	(.0090)
Sample size	85,223	85,223	84,234	84,234
Pseudo-R^2	.1817	.1818	.1921	.1922

Notes:

[(1)] $p < 0.001$. Standard errors calculated using the delta method. Statistically significant at the 1-percent level.

Specifications 1, 2, 3, and 4 represent different versions of the same regression, using different variables.

Source: U.S. Bureau of Labor Statistics, Current Population Survey, Veterans Supplement, 1995–2014.

As in table 2, participation rates among veterans with disabilities have a greater negative slope by a statistically significant but small margin, but the difference between the nondisabled and the disabled with ratings of 50 to 100 percent is again positive and statistically significant. Similar to employment rates, labor supply among the most disabled is almost certainly not falling; it may even be rising because the sum of the time trend (fourth row) and the 50–100 × time-trend interaction (seventh row) is positive and statistically significant at the 90-percent confidence level.

Conclusion

This article documents the decline in employment and labor force participation rates among veterans with disabilities. At face value, the significant declines reported here are consistent with concerns that today's VA disability recipients are less likely to be in the labor force and employed than veterans with disabilities from previous generations. This trend has become especially pronounced since 2000, when the list with health conditions qualifying veterans for disability benefits was expanded, and is similar to trends seen among SSDI and SSI beneficiaries. However, the analysis finds that employment levels and labor force participation for nondisabled veterans have declined by almost the same amount; after accounting for age and other personal characteristics, the difference between disabled and nondisabled veterans is statistically significant but small. Furthermore, much

of the difference can be explained by a simple fact: as veterans with disabilities age, their disabilities worsen and they become even less likely to work. Indeed, among veterans with the most severe disabilities, those with ratings of 50 percent or greater, employment and labor force participation actually increased relative to nondisabled veterans (and are flat overall). The fact that veterans with disabilities have shown a steeper trend toward not working than nondisabled veterans reflects the fact that the former group is aging faster, and their disabilities have worsened as they have aged.

These results provide little evidence that, for a given level of disability, recent cohorts of veterans with disabilities are less likely to work than past cohorts, which were subject to more stringent disability evaluations. The VA may still continue to adopt reforms to reassess their disability screening process, including tying awards more closely to earnings losses[15] and providing better information, including earnings histories and medical records, more consistently to its disability examiners.[16] But the analysis in this paper suggests that the veteran's disability system does not discourage employment any differently than in the past.

Appendix. Summary statistics

Characteristic	Mean	Standard deviation
Employed	0.679	0.467
In labor force	.713	.452
Disabled (0/1)	.140	.347
0–40 percent disability rating	.086	.280
50–100 percent disability rating	.044	.205
Age	52.4	11.9
Male	.929	.257
Less than high school	.054	.227
High school only	.334	.472
Some college	.355	.479
College or more	.257	.437
White	.874	.332
Black	.087	.281
Asian	.012	.110
Other race (American Indian, Pacific Islander, multiple races)	.027	.163
Total number of observations		85,223

Source: U.S. Bureau of Labor Statistics, Current Population Survey, Veterans Supplement, 1995–2014.

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