Hammill Institute on Disabilities

Journal of Disability Policy Studies
2017, Vol. 28(3) 141–149

DOI: 10.1177/1044207317714747
jdps.sagepub.com
SAGE

# Impacts of the 2010 VA PTSD Rule Change on Veterans' Disability Compensation and Reported Cognitive Disability

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**Abstract**

In July 2010, the Department of Veterans Affairs (VA) simplified the process of obtaining veterans' disability compensation (DC) for veterans with posttraumatic stress disorder (PTSD) who served in combat zones but not in combat roles. In this article, we use data from the Current Population Survey (CPS) Veterans Supplement to estimate the impacts of the change in the VA PTSD rule on DC benefit receipt and self-reported cognitive disability. We hypothesize that the easing of eligibility rules led to an increase in DC receipt among veterans who served in combat zones but not in combat roles. It may also have led to reduced stigma among veterans with regard to reporting cognitive disability. Our results are consistent with these hypotheses. Self-reported rates of VA disability and DC receipt increased significantly among combat zone veterans. Self-reported VA disability rating and experience of cognitive disability also increased, but these increases were not statistically significant. During the same period, the rate of self-reported disability other than cognitive disability remained the same.

**Keywords**

mental health, policy, veterans, disability

## Introduction

In July 2010, the Department of Veterans Affairs (VA) changed its regulations regarding disability compensation (DC) awards for posttraumatic stress disorder (PTSD). The new rule applies to all veterans, including those who served before 9/11, and simplifies the process of obtaining DC for veterans with PTSD. The new regulation states that the VA will grant DC to veterans with a diagnosis of PTSD if they can prove they served in a combat zone and in a job consistent with PTSD-causing events (" . . . if the trauma claimed by a Veteran is related to fear of hostile military or terrorist activity and is consistent with the places, types, and circumstances of the Veteran's service") (VA, 2010). Before the new rule, noncombat zone veterans had to prove that a specific "hostile military activity" caused their PTSD to receive DC (VA, 2010). Many veterans did not serve in combat roles but experienced traumatic events during their tours of duty. For instance, driving over an improvised explosive device (IED) could induce trauma, and such experiences are not limited to combat personnel. Furthermore, because of the combat exclusion rule for women, which was lifted only in January 2013 and incrementally implemented, no women have been allowed to serve in combat roles, although many have served in combat zones and were thus likely subject to traumatic experiences (American Civil Liberties Union [ACLU], n.d.). In this article, we estimate the impacts of the change in the VA PTSD rule on DC benefit receipt and self-reported cognitive disability among veterans who served in combat zones, which includes people in both combat and noncombat roles (hereafter "combat zone veterans").

DC is a monthly benefit paid to qualified veterans with diseases or injuries that occurred or were aggravated by military service (VA, 2013a). The benefit amount received is connected to the severity of the veteran's disability, which ranges from 10% to 100%, in deciles. A veteran may receive benefits for disabilities that arise after military service if they are considered to be related to those that occurred while in service or to other circumstances of military service (VA, 2013a). The number of veterans receiving

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DC has risen rapidly since 2000. According to the Congressional Budget Office (CBO), the annual number of new DC awards more than tripled between 2000 and 2013 and the total number of recipients increased by nearly 55%, from 2.3 million to 3.5 million (CBO, 2014). The growth in DC recipients has led to rising expenditures, from US$20 billion in fiscal year 2000 to US$54 billion in 2013. Most of this growth comes from veterans who last served in the Vietnam War or the Gulf War—including the post-9/11 wars in Iraq and Afghanistan (Angrist, Chen, & Frandsen, 2010; Autor, Duggan, & Lyle, 2011; Duggan, Rosenheck, & Singleton, 2010). The majority of combat injuries in Operation Iraqi Freedom and Operation Enduring Freedom (Afghanistan) stem from acceleration/deceleration injuries, high-pressure waves, and shrapnel injuries that occur with explosions. Kevlar helmets and body armor have decreased the mortality rate, thus increasing the numbers of trauma survivors who may develop PTSD. Also, protective equipment cannot completely protect a person from injuries, particularly to the head, neck, and face, which are associated with PTSD (VA, Office of Research and Development, 2008). This decrease in the mortality rate has led to a new generation of veterans with chronic care needs, including PTSD (Spelman, Hunt, Seal, & Burgo-Black, 2012).

PTSD is a mental health condition that can develop after a traumatic event. Either experiencing the event or witnessing it can trigger PTSD. Symptoms include severe anxiety, flashbacks, nightmares, and uncontrollable thoughts about the trauma. PTSD recovery differs from the typical trauma recovery process in that the symptoms are persistent and interfere with functioning (Mayo Clinic, 2017). A recent article in *JAMA Psychiatry* found that approximately 271,000 Vietnam theater veterans have significant PTSD symptoms 40 or more years after the war (Marmar et al., 2015). A correlation exists between trauma and suicidal ideation and suicide attempts, although there is debate about the reasons behind this heightened risk (VA, 2015). According to a 2012 VA report, 22 veterans a day commit suicide (Kemp & Bossarte, 2012). Because of the disorder's persistent nature and its correlation with suicidal behaviors, veterans with PTSD diagnoses need long-term mental health services.

We hypothesize that the easing of eligibility rules likely led to an increase in DC receipt among veterans who served in combat zones but not in combat roles. It may also have led to reduced stigma (Acosta et al., 2014) among veterans with regard to reporting serious difficulties in concentrating, remembering, or making decisions (hereafter "cognitive disability"), which we use as a proxy for PTSD. We use the 2007–2014 waves of the Current Population Survey (CPS) Veterans Supplement to estimate the impacts of the rule change, applying an econometric model that examines how the trend in combat zone veterans' enrollment in DC and their self-reported cognitive disability differ from those of noncombat zone veterans.

## Data and Method

### *Data and Key Variables*

The CPS, sponsored by the Bureau of Labor Statistics (BLS) and conducted by the U.S. Census Bureau, is a monthly survey of households primarily used to produce monthly labor force, unemployment rate, and related estimates for the U.S. civilian noninstitutionalized population (U.S. Census Bureau, 2006). The CPS follows each housing unit for 16 months. A housing unit is in the sample for four consecutive months, then leaves the sample for 8 months, and then returns for another four consecutive months. A sample of eight panels (called rotation groups) is interviewed each month, with each panel being representative of the U.S. civilian noninstitutionalized population. The CPS Basic Monthly Survey (CPS-BMS) collects demographic data for all occupants of the sampled households and labor force data for all occupants ages 15 or older.

The CPS fields various periodic supplements that focus on more specific topics. The Veterans Supplement is released annually, most recently with data from August 2014; before 2009, the Veterans Supplement was administered every other year. It collects information on periods of military service, service in combat zones, service-connected disability, and participation in veterans' programs, including DC.

We used the following questions to identify veterans who met our research criteria:

- *Combat zone* veterans: "Did [you] ever serve in a combat or war zone? Persons serving in a combat or war zone often receive combat zone tax exclusion, Imminent Danger Pay, or Hostile Fire Pay."
- *VA-determined service-connected disability*: "Has the Department of Veterans Affairs (VA) or the Department of Defense determined that you have a service-connected disability; that is, a health condition or impairment caused or made worse by military service?"
- *Receipt of DC*: "Do you currently receive a monthly check for a service-connected disability from either the Department of Veterans Affairs (VA) or a branch of the military service?"
- *Disability rating of 30% or greater*: "What is your current service-connected disability rating?" (This measure is of particular interest because the PTSD rule change may have led some combat zone veterans to seek an increase in their disability rating.)
- *Cognitive disability*: "Because of a physical, mental, or emotional condition, does [the veteran] have serious difficulty concentrating, remembering, or making decisions?"

The six-question sequence on disability was first used in the 2008 American Community Survey as well as the June 2008 CPS-BMS. The six-question sequence on disability does not have a question specifically about PTSD, or any other psychiatric disability. However, it does include a question about cognitive disability: "Because of a physical, mental, or emotional condition, does [the veteran] have serious difficulty concentrating, remembering, or making decisions?" We use this question as an imperfect proxy for PTSD. The term *cognitive disability* applies to a larger set of functional limitations than those often associated with PTSD. To compare reports of cognitive disability and those of all other disability types, we also constructed an "other disability" measure, which includes only the remaining five noncognitive disability questions in the six-question disability sequence. The six-question sequence on disability appears in the CPS-BMS as follows: (A) "Is [the veteran] deaf or does [the veteran] have serious difficulty hearing?" (B) "Is [the veteran] blind or does [the veteran] have serious difficulty seeing even when wearing glasses?" (C) "Because of a physical, mental, or emotional condition, does [the veteran] have serious difficulty concentrating, remembering, or making decisions?" (D) "Does [the veteran] have serious difficulty walking or climbing stairs?" (E) "Does [the veteran] have difficulty dressing or bathing?" (F) "Because of a physical, mental, or emotional condition, does [the veteran] have difficulty doing errands alone such as visiting a doctor's office or shopping?" (BLS, 2012).

Our primary study sample included veterans in the Veterans Supplements of 2007 and 2009–2014. We did not use the 2007 Veterans Supplement in the analysis of self-reported disability because the six-question disability sequence was not introduced until 2008.

### Analytic Methods

We used an econometric model to explore how the trend in combat zone veterans' enrollment in DC differs from that of noncombat zone veterans, specifically looking for large changes that occurred at the time of the policy change for the former—but not the latter—group. In addition to a number of outcomes related to DC, we also investigated differential trends by combat zone deployment in self-reported experience of cognitive disability. We controlled for a set of individual characteristics previously shown to be related to DC receipt and self-reported disability (Ben-Shalom, Tennant, & Stapleton, 2016). Using the CPS data described above, we estimated the following linear probability regression model (results were similar using a logit model):

$$y_{it} = \alpha + \gamma_0 \times Combat_i + \sum_{2009}^{2014} \gamma_t \times \mathbf{I}_t + \sum_{2009}^{2014} \delta_t \times \mathbf{I}_t \times Combat_i + X'_{it}\beta + \varepsilon_{it}.$$

Our dependent variables ($y_{it}$) are a set of binary variables: whether or not a veteran reported that the VA had determined he or she has a combat-related disability, whether a veteran reported receiving a monthly check from the VA, whether the veteran's combat rating was 30% or higher, whether the veteran reported experiencing symptoms of cognitive disability, and whether he or she reported experiencing symptoms of any disability other than cognitive. The term $Combat_i$ is an indicator variable equal to 1 if the veteran reported serving in a combat zone and equal to 0 otherwise. $\mathbf{I}_t$ is a vector of indicator variables for each year, with 2007 or 2009 excluded as a baseline, as appropriate. The term $X_{it}$ is a set of individual-level control variables including age, age squared, sex, race, education, region of residence, and whether the veteran served after 9/11. Age squared is included as a regressor because age might have a nonlinear relationship with the various dependent variables. As some veterans were surveyed more than once in subsequent years, robust standard errors are clustered at the individual level.

The coefficient $\gamma_0$ gives the conditional baseline (i.e., in 2007 or 2009, depending on the dependent variable) difference in the outcome variable between combat zone veterans and those who served exclusively in noncombat zones. The vector $\gamma_t$ captures the yearly trend in outcome. For example, $\gamma_{2010}$ gives the difference in outcome variable associated with the year 2010 relative to 2007 (or 2009). Our main coefficient of interest is the vector $\boldsymbol{\delta}_t$, which estimates the difference in the gap between combat zone and noncombat zone veterans in each year.

## Results

Figures 1 to 5 show the 2007–2014 trends in our outcome variables. For the three questions on VA administrative action (VA-adjudicated disability [1], receipt of a monthly disability check from the VA [2], having a VA disability rating higher than 30% [3]), there appears to be an uptick starting in 2012 among combat zone veterans. There is also an uptick among noncombat zone veterans that begins a year later. Self-reported cognitive disability (4) exhibits an upward trend throughout our time frame, with a larger slope for combat zone than noncombat zone veterans. This pattern does not appear for other types of disability (5).

Combat zone veterans differ from veterans who served only in noncombat zones in a number of ways (see Table 1). Although more than 13% of noncombat zone veterans are female, fewer than 6% of combat zone veterans are. This finding is perhaps unsurprising, given restrictions on women serving in combat roles.

Combat zone veterans also appear to be better educated, on average, with fewer reporting that they have a high school education or less. However, the rate of college graduation is the same for the two groups. Racially, the groups

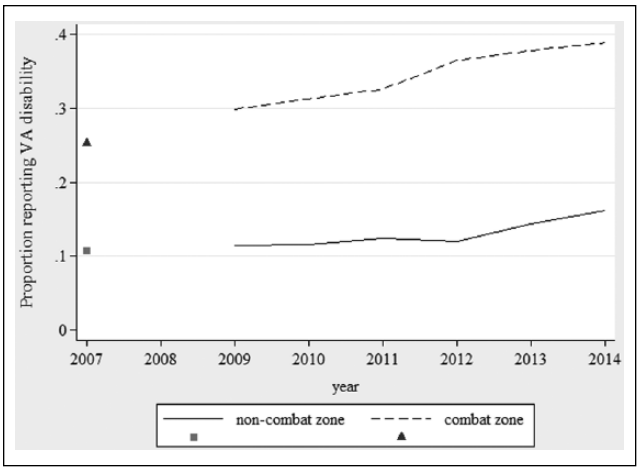


**Figure 1.** Trend in self-reported VA disability for veterans who served in noncombat versus combat zones, 2007–2014.
*Note.* VA = Department of Veterans Affairs.

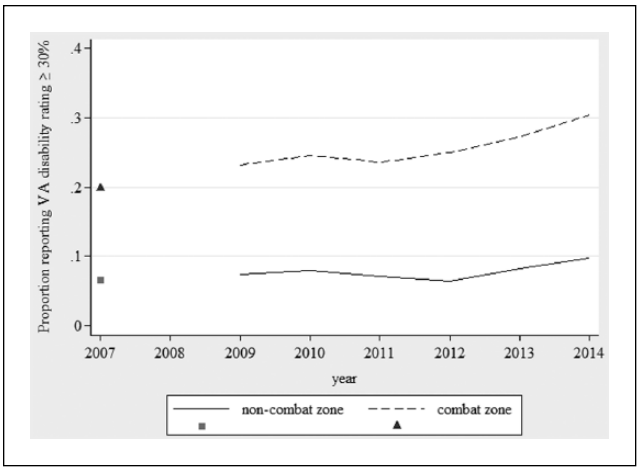


**Figure 3.** Trend in self-reported VA disability rating ≥30% for veterans who served in noncombat versus combat zones, 2007–2014.
*Note.* VA = Department of Veterans Affairs.

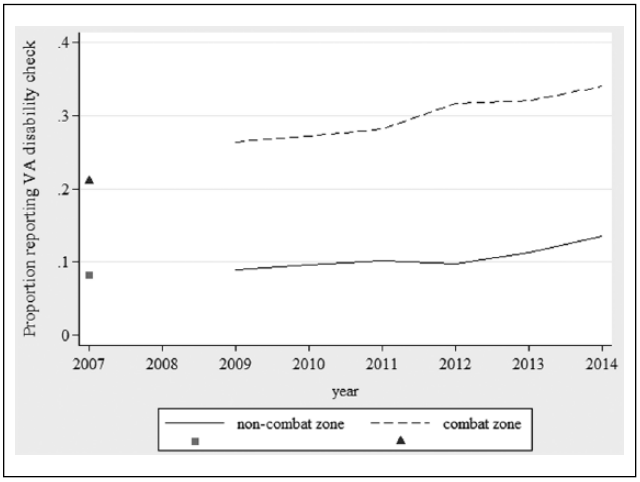


**Figure 2.** Trend in self-reported VA disability check receipt for veterans who served in noncombat versus combat zones, 2007–2014.
*Note.* VA = Department of Veterans Affairs.

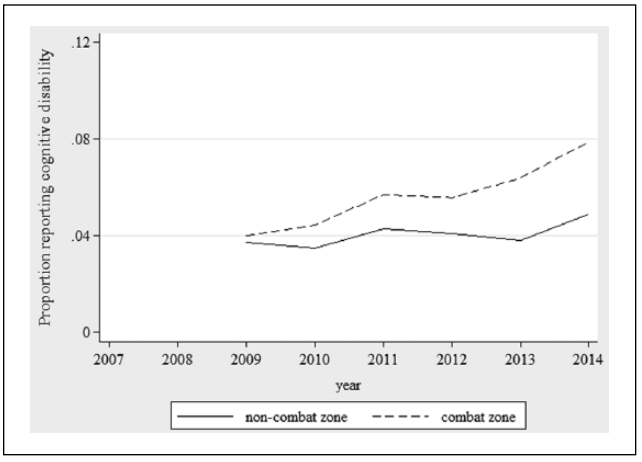


**Figure 4.** Trend in self-reported cognitive disability for veterans who served in noncombat versus combat zones, 2007–2014.

are largely similar. We found no statistically significant differences in age but did find that a much larger proportion of the combat zone veterans served in the post-9/11 period (see Note 1).

Our regression results support our hypothesis that the 2010 policy change increased the rate at which combat zone veterans received DC from the VA. The first column of Table 2 shows the results for VA-adjudicated disability. The coefficient on combat service indicates a baseline gap of almost 14 percentage points in the rates at which combat zone and noncombat zone veterans reported VA-determined disability. That baseline gap is adjusted for sex, age, age squared, race, education, region of residence, and an indicator for having served after 9/11. The following rows display the estimates for the combat-year interaction terms. The statistically significant estimates of 0.04 to 0.05 for 2009–2011 indicate that disability award rates were increasing more rapidly among combat zone than noncombat zone veterans during that period (by less than 0.01 percentage points per year—see Table A1 in the appendix). However, the differences from one another in the estimates for these 3 years are not statistically significant. In 2012, the coefficient of the interaction term jumps from 0.05 to 0.09, a statistically significant difference (see Table A1). The findings in the second column, for reported receipt of a monthly check from the VA, exhibit the same pattern. The coefficient increases from five percentage points in 2011 to nine percentage

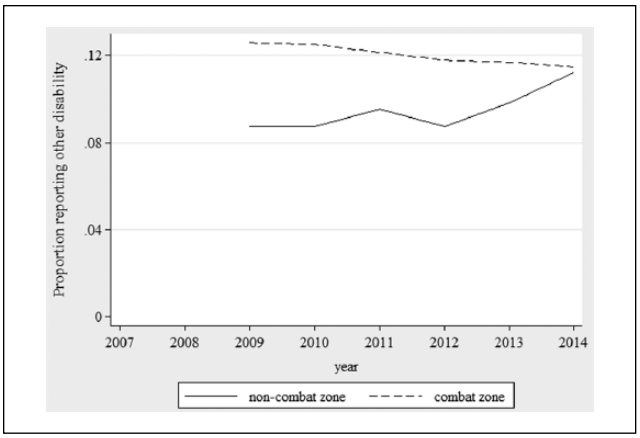


**Figure 5.** Trend in self-reported other (noncognitive) disability for veterans who served in noncombat versus combat zones, 2007–2014.

**Table 1.** Summary Statistics for Veterans Who Served in Noncombat Versus Combat Zones, Mean and (*SD*).

| Characteristic | Did not serve in combat zone | Served in combat zone | Difference |
|---|---|---|---|
| Age | 50.22 | 50.04 | 0.18 |
| | (10.51) | (12.23) | |
| % female | 13.09 | 5.40 | 7.69*** |
| | (33.73) | (22.60) | |
| % White | 80.37 | 79.53 | 0.84 |
| | (39.72) | (40.35) | |
| % Black | 10.04 | 9.76 | 0.28 |
| | (30.05) | (29.68) | |
| % Hispanic | 4.95 | 5.60 | −0.65** |
| | (21.70) | (23.00) | |
| % Other race/ ethnicity | 4.64 | 5.10 | −0.46 |
| | (21.03) | (0.22) | |
| % with less than high school education | 3.15 | 2.55 | 0.60*** |
| | (17.46) | (15.77) | |
| % with high school education | 31.42 | 28.95 | 2.47*** |
| | (46.42) | (45.35) | |
| % with some college education | 39.03 | 42.11 | −3.07*** |
| | (48.78) | (49.38) | |
| % with a college degree | 26.40 | 26.40 | 0.01 |
| | (44.08) | (44.08) | |
| % served after 9/11 | 10.87 | 24.20 | −13.33*** |
| | (31.13) | (42.83) | |
| Observations | 19,404 | 10,153 | |

**$p < .05$. ***$p < .01$.

points in 2012, a statistically significant change. The probability of having a VA disability rating of 30% or higher (column 3) changes in a similar way during the study period, but the jump between 2011 and 2012, although sizable, is not statistically significant.

One surprising finding is that the gap between combat zone and noncombat zone veterans in reported disability status and check receipt seemed to narrow again after the large increase between 2011 and 2012 (see Figure 6). Given that disability status for the VA is an absorbing state, with veterans rarely removed from the disability rolls, it is unlikely that this narrowing could arise from reduced disability rates among combat zone veterans in the years following the policy change. Rather, it likely comes from an increase in disability status and check receipt among noncombat zone veterans. Indeed, referring back to Figures 1 and 2, there does appear to be an uptick in disability status and check receipt among noncombat zone veterans beginning in 2012. Thus, the effect of the policy in increasing disability benefit receipt for combat zone veterans is likely robust, but it becomes more difficult to observe when using our methodology in later years, as disability rates for noncombat zone veterans also increase. We consider a likely reason for this phenomenon in the "Discussion" section.

We do not find strong support for our hypothesis that the policy change would result in more veterans self-reporting cognitive disabilities. We do observe a similar enlargement of the gap between combat zone and noncombat zone veterans between 2012 and 2013, which resembles that observed in the measures from the Veterans Supplement (see Table 2). Such an enlargement is consistent with a delayed effect of the policy in encouraging veterans to acknowledge and report PTSD. However, the difference between the 2012 and 2013 interaction coefficients is not statistically significant (see Table A1), and may simply be part of a long-term trend in veterans becoming more willing to acknowledge mental health conditions. It is worth pointing out the absence of a gap between combat zone and noncombat zone veterans at baseline. It is only in the last few years that an appreciable gap has emerged between self-reported cognitive disability among combat zone veterans and noncombat zone veterans, with much of the gap beginning between 2012 and 2013. It is also notable that we do not observe any enlargement of the gap between combat zone and noncombat zone veterans in the "other disability" measure, which suggests that these trends are specific to cognitive disability.

We performed a number of robustness checks. As mentioned above, we estimated our regression models using logit rather than ordinary least squares (OLS), with quantitatively and qualitatively similar results. We also ran alternative specifications allowing for the effect of the policy change to differ by gender or by having served after 9/11. The results by gender were similar to those reported above—we did not find support for a differential effect by gender (results not shown). We did, however, find some evidence suggesting that combat zone veterans who served after 9/11 were more likely to receive DC after the policy change than other combat zone veterans. This result may be because post-9/11 veterans were discharged in a period

**Table 2.** Ordinary Least Squares Regression Coefficients for Primary Independent Variables in Preferred Specification.

| | Dependent variable | | | | |
|---|---|---|---|---|---|
| Independent variable | Reports having a VA disability rating | Reports receiving a VA disability check | Reports a VA rating of at least 30% | Reports cognitive disability | Reports other disability |
| Served in combat zone | .14*** | .12*** | .12*** | .00 | .03*** |
| | (.01) | (.01) | (.01) | (.01) | (.01) |
| Combat × 2009 | .04** | .05*** | .02* | | |
| | (.02) | (.02) | (.02) | | |
| Combat × 2010 | .05*** | .04*** | .03* | .01 | .01 |
| | (.02) | (.02) | (.02) | (.01) | (.01) |
| Combat × 2011 | .05*** | .05*** | .03* | .01 | .00 |
| | (.02) | (.02) | (.02) | (.01) | (.01) |
| Combat × 2012 | .09*** | .09*** | .05*** | .01 | .01 |
| | (.02) | (.02) | (.02) | (.01) | (.01) |
| Combat × 2013 | .08*** | .07*** | .05*** | .03*** | .01 |
| | (.02) | (.02) | (.02) | (.01) | (.01) |
| Combat × 2014 | .06*** | .06*** | .06*** | .03*** | −.00 |
| | (.02) | (.02) | (.02) | (.01) | (.01) |
| Observations | 29,426 | 29,357 | 29,557 | 24,305 | 24,305 |
| $R^2$ | .08 | .08 | .08 | .01 | .04 |

*Note.* Cluster robust standard errors in parentheses. Controls included year dummies, female, age, age squared, race, education, region, and served post-9/11. The year 2007 is the reference year for Regressions 1 to 3; 2009 is the reference year for Regressions 4 and 5. VA = Department of Veterans Affairs.
*$p$ < .10. **$p$ < .05. ***$p$ < .01.

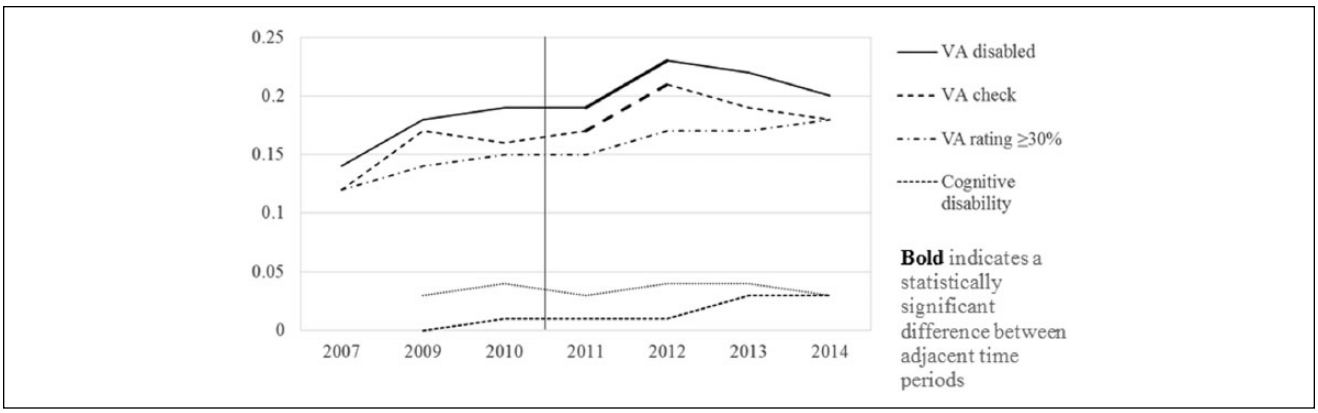


**Figure 6.** Regression-adjusted gap in reported outcomes between combat zone veterans and noncombat zone veterans.

when PTSD was more widely recognized and acknowledged as a disability—even before the DC rule change (results not shown). Finally, we performed our analysis of VA disability rating using an ordered logit model instead of a linear probability model on a dummy for having a rating greater than or equal to 30%, and results were similar. (The Veterans Supplement uses the following categories: 0%, 1%–29%, 30%–49%, 50%–69%, and 70% and above.)

## Discussion

Our results suggest that the reduction in the burden of proof on veterans who served in combat zones seeking DC for PTSD increased DC receipt among these veterans. Self-reported rates of VA disability and DC receipt increased significantly following the policy change. Self-reported VA disability rating and experience of cognitive disability also increased, but these increases were not statistically significant. During the same period, the rate of self-reported disability other than cognitive disability remained the same.

Our findings are consistent with a policy-induced increase in disability award along with a sizable lag between application for and award of DC benefits, which is common in the VA system. (To interpret the jump in the trend as a causal effect of the policy change, we must assume that the preexisting

difference in the trend between combat zone and noncombat zone veterans would have continued after 2011.)

This analysis has some limitations that are important to consider. First, all data are self-reported. Although respondents are unlikely to misremember many of the outcomes we consider, their information is not verified. A large number of survey respondents (3,007) declined to answer the question about whether they had ever served in a combat zone. If nonresponse is correlated with combat experience and any of our outcomes, our results will be biased. In other cases, self-response is an advantage. For our research question on self-reported cognitive disability, it is precisely the ability to misreport mental health status that enables us to ask questions about ability and willingness to recognize and self-report PTSD due to greater awareness and reduced stigma.

Furthermore, we had a limited number of observations before and after the policy change, which makes it difficult to identify trends based on those periods. This shortcoming is compounded by the fact that it took a substantial amount of time for veterans to learn of the policy change and apply for and receive disability benefits from the VA. We see this phenomenon in the delay between the policy change and detectable behavioral changes. With a longer time horizon, it may be possible to better identify changes.

Finally, the policy change under consideration did not occur in a vacuum. Other changes to VA disability policy may have obscured some of the impact of this change. In particular, noncombat zone veterans were unaffected by this policy change, but we observe a jump in their rate of disability designation and benefit receipt a few years after the change occurred. The trend observed among noncombat zone veterans is likely due to other changes that occurred during the intervening years. First, a series of changes simplified the process of applying for DC by moving parts of the process online (VA, 2010). Second, beginning in December 2011, there was special training for all VA regional offices that process Military Sexual Trauma (MST) claims, as well as the mental health clinicians who conduct the examinations for these claims. At that time, the VA also urged those who had their previous MST-PTSD claims denied to request a reevaluation (VA, 2016). Third, in 2011, the Department of Defense and VA rolled out the Integrated Disability Evaluation System (IDES). Under the IDES, when service members are evaluated for fitness for duty and found unfit, they receive help filing a VA benefits claim before leaving the service (Department of Defense, Office of Warrior Care Policy, n.d.). Fourth, in August 2012, President Barack Obama issued an Executive Order calling for improved access to mental health services for veterans, service members, and military families (Federal Register, 2012). This Executive Order and subsequent efforts to improve access to mental health care applied to all veterans, not just those who served in combat zones. These changes likely increased the number of veterans who were able to receive diagnoses for PTSD and apply for DC benefits. Notably, the Executive Order occurred too late to explain the increase in disability benefit receipt we observe among combat zone veterans. However, the jump in outcomes we observe for noncombat zone veterans partly obscures the effect of the policy change under study here.

These findings have implications for the VA. It appears the policy change achieved its goal of making it easier for veterans who served in combat zones and experienced trauma to receive DC, whether or not they served in combat roles. The long-term implications for DC enrollment and finances will depend on access and availability of treatment for these veterans, as well as its effectiveness in reducing disability associated with PTSD. By 2013, after the aforementioned Executive Order, the VA had hired 1,600 new mental health professionals (VA, 2013b), expanded the capacity of its crisis line for veterans, improved collaboration with community mental health providers, and taken a number of other steps to improve access and care (VA, n.d.). These efforts, coupled with the policy expansion we examine in this article, could affect DC enrollment in two ways. On one hand, DC enrollment could increase because of a rise in PTSD diagnoses. On the other hand, it could be reduced by ensuring access to treatment for affected veterans. Both of these effects have the potential to strengthen the safety net and improve care for veterans with PTSD. Over time, the number of mental health practitioners may need to be increased.

The 2011 change in MST claims processing could also work in concert with the 2010 PTSD rule easing, as women have not been in official combat roles but have served in combat zones. Military sexual trauma could be one of the traumas suffered in the combat zone. Kintzle et al. (2015) reported that about one third of the women in their study on MST reported clinically significant PTSD symptoms. The VA may need to hire more claims processors and mental health professionals to accommodate these policy changes and better serve the needs of veterans.

Another potential policy implication of this expansion in PTSD eligibility for veterans in combat zones is related to justice-involved veterans. The Veterans Justice Outreach Initiative states that "a large number of veterans have contact with the criminal justice system, are eligible for VA services, and have significant risk factors and unmet clinical needs." They also state that at minimum, "90,000 of the 9 million unique inmates annually released from U.S. jails are veterans" and 82% of those are likely eligible for VA services because they were discharged honorably (McGuire & Clark, n.d.). Self-medication of undiagnosed PTSD symptoms could lead to crime and imprisonment. The increase in PTSD diagnoses and DC receipt stemming from this policy expansion could lead to more effective care and lower

imprisonment rates for veterans with PTSD. More effective support for veterans with PTSD may have implications for veteran homelessness as well.

Finally, veterans with disabilities are potentially eligible for both DC from the VA as well as Social Security Disability Insurance (SSDI). VA and SSA are required to share with each other medical evidence and hospital records, disability determination, and benefit receipt and payment amounts (Muller, Early, & Ronca, 2014). If veterans consider DC a substitute for other forms of assistance, other programs may experience reduced demand for services as a result of the policy change—perhaps most notably SSDI. It is also possible, however, that attaining DC benefits for PTSD will make it easier for veterans to attain SSDI as well. In future research, we plan to use CPS data matched to SSA data to investigate spillover effects of this policy on SSDI receipt by veterans with disabilities.

In all, our work sheds light on veterans' responses to a policy change regarding the availability of DC. Increasing understanding of one of the most important support programs for veterans may help improve policy and program decision making moving forward.

## Appendix

**Table A1.** Year-to-Year Difference in Combat-Year Interaction Term Coefficients.

| | Dependent variable | | | | |
|---|---|---|---|---|---|
| Year-to-year difference | Reports having a VA disability rating | Reports receiving a VA disability check | Reports a VA rating of at least 30% | Reports cognitive disability | Reports other disability |
| 2010–2009 | .01 | −.00 | .00 | | |
| 2011–2010 | .00 | .00 | −.00 | .01 | −.00 |
| 2012–2011 | .04** | .04** | .02 | .00 | .01 |
| 2013–2012 | −.01 | −.01 | .01 | .01 | −.00 |
| 2014–2013 | −.02 | −.01 | .01 | .01 | −.01 |
| Observations | 29,426 | 29,357 | 29,557 | 24,305 | 24,305 |
| $R^2$ | .08 | .08 | .08 | .01 | .04 |

*Note.* VA = Department of Veterans Affairs.
**$p < .05$.

### Authors' Note

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### Acknowledgments

The authors are grateful for the programming support of Adele Rizzuto, and for the helpful comments of David Stapleton and participants of the 2015 Fall Research Conference of the Association for Public Policy Analysis and Management and the Eastern Economic Association 2016 Conference.

### Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

### Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: The research reported herein was performed pursuant to a grant from the U.S. Social Security Administration (SSA) funded as part of the Disability Research Consortium (Grant DRC12000001-04-00).

### Note

1. The seeming incongruence between the similar ages but a larger proportion of combat zone veterans having served after 9/11 can be explained by a number of factors. The number of older individuals enlisting after 9/11 increased (Mador, 2011), and the military relaxed the ascension and retention policies that previously had kept older individuals out (Lopez, 2008). Furthermore, the Great Recession of 2007–2009 made the option of civilian employment less attractive, especially when considered alongside the higher deployment pay available to enlisted personnel serving abroad in combat zones.

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