



Testimony

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Challenges in Estimating Work Disability and Implications for Veterans Affairs Disability Compensation

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Challenges in Estimating Work Disability and Implications for Veterans Affairs Disability Compensation

Testimony of Philip Armour, Ph.D.¹
RAND²

Before the Committee on Veterans' Affairs
Subcommittee on Disability Assistance and Memorial Affairs
United States House of Representatives

January 14, 2026

Chairman Luttrell, Ranking Member McGarvey, and members of the committee, thank you for your invitation to testify. My name is Dr. Philip Armour. I am a senior economist at RAND, a nonprofit, nonpartisan research organization, where I'm also the director of the Ph.D. program and a professor of policy analysis at the RAND School of Public Policy. As a labor economist, my research focuses on how health conditions impact individuals' ability to earn income and on the design of programs that provide compensation for reduced earnings capacity. Today, I will focus on four points related to the economic effects of disability and describe implications for Veterans Affairs Disability Compensation (VADC):

1. VADC benefits must take into account veterans' earnings losses from service-connected disabilities, not just a medical rating of their impairment level.
2. The most recently published U.S. Department of Veterans Affairs (VA) earnings loss study was in 2008. Although there have been more-recent studies, none of these studies have incorporated modern disability research findings: specifically, how benefits can directly impact earnings.

¹ The opinions and conclusions expressed in this testimony are the author's alone and should not be interpreted as representing those of RAND or any of the sponsors of its research.

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3. Evidence from other programs shows that cash and noncash disability benefits directly affect earnings, but no research exists on how VA programs impact today’s working-age veterans’ earnings.
4. Updated earnings loss studies that incorporate research on today’s veterans’ work disability would lead to more-accurate disability ratings. Alternatively, a move toward individualized disability determinations could also increase accuracy and eliminate the need for frequent earnings studies but would require statutory changes.

Defining *Disability*: Impairment Versus Disability

In disability studies, there is a distinction between impairment and disability. Physical or mental conditions can lead to impairment—a reduction in the functioning of a body system or structure—which can be diagnosed by medical professionals. Disability, however, relates to how these conditions lead to changes in societal participation,³ and for many disability programs in the United States, there is a specific focus on how impairments lead to *work* disability, or reductions in earnings capacity. Unlike with impairments, evaluating work disability requires consideration of the *economic* consequences of health conditions, and thus requires collaboration between medical *and* labor force experts to be accurately estimated.⁴ And the implications of work disability for employment and earnings can be substantial: 43 percent of persons with a disability are in the labor force, compared with 78 percent of those without a disability.⁵ RAND research on the California Workers Compensation system has found, on average, that those injured on the job see a 15- to 21-percent decline in earnings post-injury.⁶

VA Disability Compensation is aptly named. By statute, a veteran with a service-connected health condition receives a rating, ranging from 0 percent to 100 percent in increments of 10 percentage points, that “shall be based, as far as practicable, upon the average impairments of earning capacity resulting from such injuries in civil occupations.”⁷ VA implements this statute through its Schedule for Rating Disabilities (VASRD), which assigns specific ratings for each service-connected condition, which are then aggregated via a formula to arrive at a combined

³ World Health Organization, “International Classification of Functioning, Disability, and Health,” 2001.

⁴ Richard V. Burkhauser and Mary C. Daly, “Policy Watch: U.S. Disability Policy in a Changing Environment,” *Journal of Economic Perspectives*, Vol. 1, No. 1, Winter 2002. For an example of the challenges in estimating labor force consequences of impairments in the U.S. military service member context, see Raffaele Vardavas, Philip Armour, Sai Prathyush Katragadda, Toyya Pujol-Mitchell, Pedro Nascimento de Lima, Baqir Fateh, Helin Hernandez, Stacey Yi, Javier Rojas Aguilera, and Catria Gadwah-Meaden, *Cost-Benefit Analysis of Comprehensive Military Eye Examination Policies*, RAND Corporation, RR-A2188-1, 2024, https://www.rand.org/pubs/research_reports/RRA2188-1.html.

⁵ Office of Disability Employment Policy, U.S. Department of Labor, “Disability Employment Statistics,” webpage, undated, <https://www.dol.gov/agencies/odep/research-evaluation/statistics>.

⁶ Michael Dworsky, Stephanie Rennane, and Nicholas Broten, *Earnings Losses and Benefit Adequacy in California’s Workers’ Compensation System: Estimates for 2005–2017 Injury Dates*, RAND Corporation, RR-A964-1, 2022, https://www.rand.org/pubs/research_reports/RRA964-1.html.

⁷ U.S. Code, Title 38, Section 1155, Authority for Schedule for Rating Disabilities.

rating.⁸ Monthly, tax-free VADC compensation is based on this combined rating, and veterans with a service-connected rating are potentially eligible for a range of health, employment, and financial benefits offered by VA and other agencies.⁹ Because the program is required to provide compensation based on average impairment of earnings capacity, also referred to as *earnings loss*, VA requires estimates of how these health conditions translate into average earnings loss.

Challenges to Accurate Earnings Loss Studies

Over the years, VA has commissioned several earnings loss studies to estimate the average amount of earnings losses for veterans with service-connected health conditions, and thus whether VADC benefits indeed provide accurate compensation.¹⁰ Additionally, other interested stakeholders have commissioned their own studies, one of which was performed by RAND in 2012 and another by the Congressional Budget Office in 2023.¹¹

In general, these earnings loss studies take one of two approaches:

1. comparing veterans who have service-connected disability ratings with otherwise similar veterans who do not have these ratings or with nonveterans
2. comparing earnings of veterans before and after they receive a rating.

Providing accurate estimates of earnings losses with these methodologies generally requires access to individual-level data linked across government agencies to track veterans at the point of separation from military service and to observe both their service-connected ratings and their earnings in civilian life. Furthermore, to ensure accuracy, earnings loss studies need to be conducted frequently, since both the state of medicine and the U.S. labor market are constantly evolving, meaning that the average earnings losses associated with a particular health condition will change over time.

However, published VA-commissioned earnings loss studies and the 2012 RAND study, which provided estimates based on individual-level, linked data, used earnings measurements from at least 20 years ago.¹² Since then, there have been substantial changes in medical

⁸ First established in 1945, VA has been undergoing an update of the various sections of the VASRD; some of these updates, notably the mental condition section, have included transitions from impairment-based determinations to General Rating Formulas, which combine a diagnosis with a determination of how disabling that health condition is.

⁹ Madeline E. Moreno, Benjamin Collins, and Libby Perl, *Benefits for Service-Disabled Veterans*, Congressional Research Service, R44837, updated November 26, 2025.

¹⁰ Eric Christensen, Joyce McMahon, Elizabeth Schaefer, Ted Jaditz, and Dan Harris, *Final Report for the Veterans' Disability Benefits Commission: Compensation, Survey Results, and Selected Topics*, CNA Corporation, August 2007; George Kettner, statement before the Senate Committee on Veterans' Affairs, U.S. Senate Committee on Veterans' Affairs, September 17, 2009, <https://www.veterans.senate.gov/services/files/BD08F44D-E870-4782-A676-3385FA174659>.

¹¹ Richard Buddin and Bing Han, *Is Military Disability Compensation Adequate to Offset Civilian Earnings Losses from Service-Connected Disabilities?* RAND Corporation, MG-1098-OSD, 2012, <https://www.rand.org/pubs/monographs/MG1098.html>; Congressional Budget Office, *Income of Working-Age Veterans Receiving Disability Compensation*, December 2023, <https://www.cbo.gov/publication/59836>.

¹² In contrast, the 2023 Congressional Budget Office study used publicly available, self-reported, cross-sectional American Community Survey data.

treatments, the labor market, and veteran disability evaluation. For example, in 2007, the Integrated Disability Evaluation System, a collaboration between the U.S. Department of Defense (DoD) and VA, was introduced. Around the same time, DoD began substantial outreach to accurately diagnose post-traumatic stress disorder and traumatic brain injury, resulting in a substantial change in the population of veterans with corresponding ratings.¹³ Earnings loss studies have relied on data from before these changes, and so do not account for the increase in veterans with ratings for these conditions.

A lack of recently published earnings loss studies is not the only issue. Veterans with a disability rating differ from those without a rating in more ways than their medical conditions. In addition to VADC payments, service-connected disabled veterans are potentially eligible for other medical, vocational, educational, and financial benefits, yet statute requires that VADC ratings be based on the reduction in earnings capacity from the injury. A rated health condition has an impact on earnings capacity, but how the receipt of additional VA benefits may affect the earnings of veterans is largely unknown, and earnings loss studies produce average estimates that do not disentangle these additional benefit impacts on earnings from underlying work disability.

There is strong reason to believe that noncash VA benefits have a direct, causal impact on the employment and earnings of veterans. First, some of these programs, such as the Veteran Readiness and Employment program, are specifically designed to encourage employment or earnings of service-disabled veterans. Moreover, as I will discuss next, other federal and state programs provide similar types of benefits to injured or ill workers, and recent research has found substantial causal impacts of these benefits on these workers' post-injury earnings.

Insights from Research on Other Disability Programs

There has been limited research on how VADC affects veterans' employment rates and earnings. However, since the publication of the last VA-commissioned earnings loss study, research on the causal impacts of other disability compensation programs (such as Social Security Disability Insurance [SSDI] and Workers' Compensation) has proliferated, providing insights that could be valuable for VADC. Although each disability program differs in its design, research has found that features of these programs that are similar to VA programs may have a direct impact on one's earnings.¹⁴

For example, RAND work found employment declines caused by SSDI receipt, with especially large effects among workers with mental conditions, and subsequent studies have provided increasingly sophisticated understanding of how SSDI benefits affect employment for different kinds of disabilities and disabled workers. However, VADC benefits differ from SSDI

¹³ Heather Krull, Carrie M. Farmer, Stephanie Rennane, Evan Goldstein, Philip Armour, and Teague Ruder, "Trends in Department of Defense Disability Evaluation System Ratings and Awards for Posttraumatic Stress Disorder and Traumatic Brain Injury, 2002–2017," *RAND Health Quarterly*, Vol. 9, No. 3, 2022, <https://www.rand.org/pubs/periodicals/health-quarterly/issues/v9/n3/22.html>.

¹⁴ Philip Armour and Catria Gadwah-Meaden, "Veteran Affairs Disability Compensation: Likely the U.S.'s Largest Disability Program, but What Do We Know About Its Impacts on Service-Disabled Veterans?" *Journal of Policy Analysis and Management*, Vol. 44, No. 1, January 2025.

benefits, and although we have a rich evidence base on how and for whom Social Security benefits change employment, we do not have comparable data on VADC programs. Thus, the size and direction of these impacts on veterans' earnings—whether VA benefits, on average, increase or decrease earnings—are unknown. These impacts are likely to be complicated, since decreases in private-sector earnings may be mitigated by increases in self-employment rates or government hiring preferences.¹⁵

Other research has examined the relationship between nonfinancial benefits and employment outcomes for disabled workers. For example, RAND research found that access to zero-cost health care for work-related injuries led to higher post-injury earnings in the California Workers' Compensation system.¹⁶ Other recent evidence indicates that targeted vocational rehabilitation benefits, similar to those offered by the Veteran Readiness and Employment program, can facilitate return to work and higher earnings, although program design matters substantially.¹⁷ Because we do not have a clear understanding of the relationship between VADC, noncash disability VA programs, and a veteran's ability to work, we have limited ability to evaluate these noncash disability support programs' effectiveness and limited ability to evaluate the earnings losses from service-connected disabilities.

Accurately estimating earnings losses, and thus ensuring that VADC benefits fulfill their statutory requirement, requires explicitly accounting for both the effects of receipt of disability compensation and the array of benefits available to veterans with service-connected ratings. Research from other programs suggests that these impacts could be substantial, but VADC benefits differ from these other programs, and we do not have evidence on the earnings impacts of VA disability benefits on today's working-age veterans.

Alternative Designs: Average or Individual Justice?

Beyond suggesting that VA disability benefits may directly affect veterans' earnings, other disability programs offer potential alternatives to the average earnings loss approach to determining service-connected ratings. Per the governing statute, VADC benefits should be based on the average reduction in earnings capacity associated with the rating. This concept is

¹⁵ Nicole Maestas, Kathleen J. Mullen, and Alexander Strand, "Does Disability Insurance Receipt Discourage Work? Using Examiner Assignment to Estimate Causal Effects of SSDI Receipt," *American Economic Review*, Vol. 103, No. 5, August 2013; Eric French and Jae Song, "The Effect of Disability Insurance Receipt on Labor Supply," *American Economic Journal: Economic Policy*, Vol. 6, No. 2, May 2014; Alexander Gelber, Timothy J. Moore, and Alexander Strand, "The Effect of Disability Insurance Payments on Beneficiaries' Earnings," *American Economic Journal: Economic Policy*, Vol. 9, No. 3, August 2017; David H. Autor, Mark Duggan, Kyle Greenberg, and David S. Lyle, "The Impact of Disability Benefits on Labor Supply: Evidence from the VA's Disability Compensation Program," *American Economic Journal: Applied Economics*, Vol. 8, No. 3, July 2016; Courtney Coile, Mark Duggan, and Audrey Guo, "To Work for Yourself, for Others, or Not at All? How Disability Benefits Affect the Employment Decisions of Older Veterans," *Journal of Policy Analysis and Management*, Vol. 40, No. 3, Summer 2021.

¹⁶ David Powell and Seth Seabury, "Medical Care Spending and Labor Market Outcomes: Evidence from Workers' Compensation Reforms," *American Economic Review*, Vol. 108, No. 10, October 2018.

¹⁷ Austin Nichols, Judy Geyer, Michel Grosz, Zachary Epstein, and Michelle Wood, *Synthesis of Evidence About Stay-at-Work/Return-to-Work (SAW/RTW) and Related Programs*, Abt Associates, July 2020.

known within social insurance policy as disability-based *average justice*, or the notion that individuals with similar levels of disability should receive similar compensation, even if additional circumstances mean that the individual earnings losses of two veterans with the same disability rating differ. For this system to be implemented accurately, earnings loss studies need to account for the various effects of how receiving a rating, and access to and use of the associated benefits, affects average earnings directly.

VADC essentially combines two aspects that most other programs separate: disability determination and compensation. In VADC, determination is based on an average-justice concept, and service-connected ratings, once determined, directly translate into compensation amounts.

SSDI, the largest U.S. disability program by number of beneficiaries but the second largest behind VADC by total expenditures, instead takes an *individual-justice* approach. An SSDI applicant is determined to be disabled based on the impacts of their health condition on their own earnings capacity, not on the average earnings capacity loss of individuals with similar disabilities. The determination is based on whether an applicant's health conditions lead to *that individual* being unable to earn above a Substantial Gainful Activity level of \$1,690 per month. For compensation, SSDI benefits are based on that individual's own earnings history. Social Security implements this determination through a multistage process, but the two most relevant stages are

1. Applicants who meet conditions and/or diagnostic criteria (a Listing of Impairments) that are sufficiently severe are awarded benefits.
2. Applicants with health conditions that do not meet these criteria are then evaluated to determine their residual functional capacity and resulting individual ability to earn no more than the Substantial Gainful Activity level.

The conditions in the Listing of Impairments are severe enough and clearly diagnosable from medical records alone such that there is no need for a further "judgment call."¹⁸ Most SSDI applications are not decided at the Listings level, however; they are instead based on physician and disability examiner assessments of how health conditions impact that individual's functional capacity.

This two-stage process leads to expeditious determination for those with severe disabilities, while providing individualized determination for applicants for whom individualized factors will affect how health conditions impact earnings capacity.

Although SSDI makes an "all or nothing" disability determination, other programs, such as Workers' Compensation, evaluate partial disability from injuries or illnesses that were caused or exacerbated at work. Thirteen states even determine the degree of permanent partial disability based on loss in earnings capacity due to work-related injury or illness, similar to VADC's percentage-based service-connected rating system, yet make these determinations at the

¹⁸ For example, the Listings include such conditions as inoperable cancers, cystic fibrosis with at least three separate hospitalizations per year, and amyotrophic lateral sclerosis (also known as Lou Gehrig's disease).

individual level.¹⁹ The Integrated Disability Evaluation System used to determine fitness for duty also operates with an individual-justice framework; that is, medical diagnoses trigger an evaluation of whether the health conditions in question interfere with a service member's duty.²⁰

Neither approach for disability determination—average justice or individual justice—is perfect. Researchers in this space have long acknowledged that an individual-justice system is not without its own costs, most notably the variation that can arise in making individual evaluations.²¹ Yet SSDI, many states' Workers' Compensation systems, and DoD implement individual-justice-based systems of disability determination with oversight of the examiners and judges making these determinations.²² Introducing such a system for VADC would require statutory reform, and additional analyses would be necessary to apply lessons from other disability programs to the unique composition and experiences of the U.S. veteran population.

Conclusions

Today my testimony looked at four points related to the economic effects of disability and the possible implications for VA's disability compensation program. In each of these points, it is important to remember that the medical field, the labor market, and the ability for a veteran to work despite disability have changed over the past two decades, which affects assessments of the effectiveness of VADC.

Currently, the average-justice VADC system, wherein a veteran is compensated based on the average loss of earnings based on the veteran's rating, requires accurate and comprehensive earnings loss studies. Yet earnings loss studies are generally based on outdated data and do not account for how VA disability benefits may directly affect earnings, since there is no causal evidence on these effects for today's working-age veterans.

Additional research establishing these effects, along with more-frequently published VA earnings loss studies, would lead to more-accurate evaluation of whether VADC benefits do indeed offset average earnings losses at each rating level, as well as across types of health conditions. The results of frequent earnings loss studies would thus necessitate frequent adjustments to the rating schedule to ensure accuracy.

Regardless of the conceptual framework, recent research findings from Social Security and Workers' Compensation programs can provide insight into how the impact of VA benefits on earnings could be incorporated into the current average-justice framework or how VADC could

¹⁹ Peter S. Barth, "Compensating Workers for Permanent Partial Disabilities," *Social Security Bulletin*, Vol. 65, No. 4, May 2005.

²⁰ Stephanie Rennane, Beth J. Asch, Michael G. Mattock, Heather Krull, Douglas C. Ligor, Michael Dworsky, and Jonas Kempf, *U.S. Department of Defense Disability Compensation Under a Fitness-for-Duty Evaluation Approach*, RAND Corporation, RR-A1154-1, 2022, https://www.rand.org/pubs/research_reports/RRA1154-1.html.

²¹ Peter S. Barth and Michael Niss, *Permanent Partial Disability Benefits: Interstate Differences*, Workers' Compensation Research Institute, 1999.

²² Gerald K. Ray and Jeffrey S. Lubbers, "A Government Success Story: How Data Analysis by the Social Security Appeals Council (with a Push from the Administrative Conference of the United States) Is Transforming Social Security Disability Adjudication," *George Washington Law Review*, Vol. 83, No. 4/5, September 2015.

implement an individual-justice framework. Yet these other programs serve distinct populations; additional research on the experiences of today's veterans with service-connected ratings is necessary to ensure an accurately implemented VADC program.

Thank you for your time, and I look forward to your questions.