

The Economic Imperative of Vocational Rehabilitation: Enhancing U.S. Economic Vitality and Competitiveness

POLICY BRIEF

Michelle Yin and Diego Guerrero
Northwestern University

The United States is at a pivotal moment where economic growth, labor market participation, and workforce development must align to ensure sustained national competitiveness. As the nation faces persistent labor shortages, an aging workforce, and increasing global competition, it is imperative to maximize human capital potential. A significant but often overlooked contributor to economic resilience is the integration of individuals with disabilities into the workforce through Vocational Rehabilitation (VR) programs.

In addition to these economic shifts, the rapid advancement of technology is reshaping the labor market, demanding new skills and competencies across industries. Automation, artificial intelligence, and digital transformation are not only changing the nature of work but also creating opportunities for reskilling and upskilling. VR programs play a critical role in preparing individuals with disabilities to participate in the modern workforce by providing training in emerging fields, facilitating digital literacy, and equipping participants with skills aligned with technological advancements. Investing in VR ensures that people with disabilities are not left behind in this era of technological revolution but are instead positioned as valuable contributors to innovation-driven economies.

This policy brief highlights the substantial economic benefits of VR, not just as a social service but as a high-return investment that enhances labor force participation, increases earnings, and reduces reliance on government assistance programs. By providing targeted employment services, VR programs unlock career opportunities for individuals with disabilities while simultaneously addressing workforce gaps in critical industries.

Key Economic Findings	Value
Individual Perspective	
VR participation increases quarterly earnings	\$1,442
Employment rate increase after VR	+15.4 percentage points
ROI per \$1 invested in VR (Maine, 3.5 years)	\$2.55
ROI per \$1 invested in VR (Maine, lifelong)	\$21.54
ROI per \$1 invested in VR (Utah, lifelong)	\$5.64
ROI per \$1 invested in VR (Virginia & Maryland, 1 year)	+\$0.19 - \$1.69
Societal Perspective	
Reduction in reliance on SSI/SSDI (Utah)	-23%
Average cost per VR participant	\$5,872
Present value of lifelong benefits to taxpayers per participant	\$9,261.66
Social ROI-Working Life	1.58

Despite existing federal and state efforts, individuals with disabilities remain underrepresented in the labor market, contributing to unnecessary economic inefficiencies. Addressing these disparities through well-funded and effectively implemented VR programs is a strategic imperative for policymakers, business leaders, and workforce development professionals. This brief explores the economic context of VR, assesses its return on investment (ROI) from both societal and individual perspectives, and provides data-driven recommendations to strengthen workforce participation among individuals with disabilities. With a strong foundation in empirical evidence, this brief highlights why VR should be a key component of national economic and labor policy.

The Economic Context: A Workforce in Need of Expansion

The U.S. labor market is undergoing substantial changes, with job vacancies outpacing available workers in several sectors. The labor force participation rate remains below pre-pandemic levels, with approximately 7.1 million unemployed individuals actively seeking work as of early 2025 (U.S. Bureau of Labor Statistics, 2025). At the same time, businesses in manufacturing, healthcare, and technology continue to struggle with filling skilled positions. This imbalance presents an opportunity: expanding employment opportunities for individuals with disabilities through VR can help bridge labor gaps, ensuring a more resilient and competitive economy.

Despite this opportunity, people with disabilities remain significantly detached to the labor market. Recent data from the U.S. Bureau of Labor Statistics (BLS) indicate that only 24% of working-age individuals with disabilities participate in the labor force, compared to 68% of their non-disabled counterparts (U.S. Bureau of Labor Statistics, 2025). Additionally, individuals with disabilities face an unemployment rate more than twice that of the general population. VR programs offer a proven mechanism to address these disparities by providing training, career services, and job placement support, ultimately facilitating workforce attachment and economic contribution.

Individual Returns: Economic Independence and Career Growth

From an individual standpoint, VR participation has transformative effects on economic self-sufficiency and career mobility. The average VR participant spends approximately 11 quarters in the program, engaging in services such as job training, apprenticeships, and on-the-job support (Yin & Guerrero, 2025). The benefits of this investment are clear: individuals who engage in VR services experience significantly higher earnings over time, with those employed during their participation in VR seeing particularly strong labor market attachment.

Recent quasi-experimental evidence indicates that VR services increase participants' quarterly earnings by approximately \$1,442 while raising employment rates by 15.4 percentage points (Yin et al., 2023). These effects persist over time, creating a sustainable impact on individual financial stability. However, the timing and intensity of VR services play a crucial role in determining long-term success. Evidence suggests that individuals who participate in work-based learning experiences, such as internships or apprenticeships, during their VR tenure have higher post-program employment rates and greater earnings potential. Instead, other participants receive services related to

assessment and technology provision that, although essential, do not constitute hands-on job experiences. Extended VR participation without employment experience is associated with weaker labor market outcomes due to rising opportunity costs.

The estimated ROI over a three-year period suggests that for every dollar invested in VR services, participants receive up to \$2.99 in personal returns, depending on long-term employment outcomes and reduced reliance on disability benefits (Yin & Guerrero, 2025). By increasing earnings and reducing reliance on public benefits, VR not only improves individual career trajectories but also promotes economic self-sufficiency.

Societal Returns: VR as a High-Return Public Investment

Investing in VR is not merely a social good; it is an economically sound decision with measurable, positive financial returns for both individuals and society. Over a full working life, the benefits far outweigh the costs. For every \$5,872 invested in a VR participant, taxpayers receive \$9,261.66 in direct benefits, resulting in a Social ROI of 1.58—taxpayer's benefits from participant's tax payments divided by the program's cost. This means that for every dollar spent on VR, society gains \$1.58 in economic benefits through increased tax contributions.

In Maine, ROI calculations suggest that every dollar invested in VR generates an economic return of \$2.55 within 3.5 years and an extraordinary \$21.50 over a 43-year working lifespan (Yin et al., 2023). Similarly, in Utah, the VR program yields a return of \$5.70 for every dollar spent (Wilhelm & Robinson, 2013). Virginia and Maryland present more conservative estimates, with ROI varying depending on disability type—ranging from \$0.19 for individuals with cognitive impairments and mental illnesses to \$1.69 for those with physical disabilities (Dean et al., 2018, 2017, 2015).

From a fiscal standpoint, the return on investment for VR programs often surpasses traditional workforce training initiatives. Across studies, VR participants experience an employment rate increase of 15.5 percentage points and an additional \$1,442 in quarterly earnings, with many maintaining long-term employment stability (Yin et al., 2023). The tax revenue generated from these earnings—adding each year to \$700 per participant in payroll taxes, federal income tax, state income tax, and sales tax—contributes significantly to government budgets, helping to offset the costs of program administration (Yin et al., 2023; Wilhelm & Robinson, 2013; Dean et al., 2018). In comparison, other vocational training programs have shown disappointing results either because of large investment requirements or because the benefits to participants do not persist over time—e.g. the Job Corps program is estimated to rise participants' earnings by \$1,500 but the government invested \$17,000 per participant (LaLonde and Sullivan, 2010).

Moreover, VR programs have demonstrated success in reducing long-term dependency on public benefits. Research in Utah indicates that participation in VR services results in a 23% reduction in reliance on Supplemental Security Income (SSI) and Social Security Disability Insurance (SSDI) within a decade (Wilhelm & Robinson, 2013). These reductions not only improve individual financial independence but also alleviate fiscal pressures on government-funded disability programs.

Policy Recommendations

To fully capitalize on the economic and social benefits of VR, policymakers must act decisively to strengthen and expand VR programs and services. Failing to invest in VR would be a missed opportunity to fuel economic growth, enhance workforce participation, and reduce long-term dependency on government assistance. Expanding funding and access to VR is essential to ensure that more eligible individuals can benefit from services that have been proven to generate high economic returns. Without sufficient funding, too many qualified individuals are left without the support they need to contribute to the workforce and the economy.

Strengthening employer partnerships will further enhance job placement success by creating targeted employment and internship opportunities that align with industry needs. Employers must be encouraged, through incentives and policy measures, to actively engage in VR-supported hiring initiatives, ensuring that businesses benefit from a more robust workforce.

Prioritizing paid internship or work-based learning within VR programs will help bridge the gap between training and long-term career placement, ensuring that participants enter the workforce with the experience necessary to thrive. Hands-on learning opportunities not only improve employment retention but also accelerate skill development, making VR graduates more competitive in the labor market.

Leveraging data for program optimization is critical, as aligning VR training with high-growth industries will enhance workforce sustainability and job retention rates. The workforce of tomorrow requires adaptability, and VR programs must continue evolving by integrating real-time labor market insights to ensure participants are trained for the jobs that will drive economic growth.

Investing in VR is not just a commitment to economic opportunity—it is an economic necessity. The numbers are irrefutable: VR delivers high returns, strengthens the labor market, and reduces long-term public expenditures. Policymakers and business leaders must act now to scale and optimize these programs, ensuring that the United States harnesses the full potential of individuals with disabilities, bolstering national economic competitiveness while fostering a more resilient workforce.

References

- Dean, D., Schmidt, R., Pepper, J., & Stern, S. (2018). The effects of vocational rehabilitation for people with physical disabilities. *Journal of Human Capital*, 12(1), 1-37.
- Dean, D., Pepper, J. V., Schmidt, R., & Stern, S. (2017). The effects of vocational rehabilitation services for people with mental illness. *Journal of Human Resources*, 52(3), 826-858.
- Dean, D., Pepper, J., Schmidt, R., & Stern, S. (2015). The effects of vocational rehabilitation for people with cognitive impairments. *International Economic Review*, 56(2), 399-426.
- LaLonde, R., & Sullivan, D. (2010). Vocational Training. In P. Levine & J. Zimmerman (Eds.), *Targeting investments in children: Fighting poverty when resources are limited* (pp. 323–349). University of Chicago Press.
- U.S. Bureau of Labor Statistics. (2025, March 8). Employment Situation Summary. U.S. Department of Labor. <https://www.bls.gov/news.release/empstat.nr0.htm>
- Wilhelm, S., & Robinson, J. L. (2013). The economic impact of Utah's vocational rehabilitation program. *Journal of Disability Policy Studies*, 24(3), 148-157.
- Yin, M., & Guerrero, D. (2025). The Economics of Vocational Rehabilitation: Time Use and Labor Market Payoffs. RISEI Working Paper.
<https://sites.northwestern.edu/risei/risei-working-paper-series/the-economics-of-vocational-rehabilitation-time-use-and-labor-market-payoffs-risei-working-paper/>
- Yin, M., Siwach, G., & Lin, D. (2023). Vocational rehabilitation services and labor market outcomes for transition-age youth with disabilities in Maine. *Journal of Policy Analysis and Management*, 42(1), 166-197.

Appendix - Economic Calculations: Measuring the ROI of VR

Data

This analysis draws from administrative data provided by the Maine Department of Vocational Rehabilitation (DVR). The dataset includes VR case and service records for transition-age youth who applied between 2014 and 2017, matched with individual-level wage records from the Unemployment Insurance database. The final sample includes 11,974 case records.

Estimating the Benefits of VR

The benefits of VR are computed using a net present value approach, accounting for increased quarterly earnings and tax contributions over time. Findings indicate that VR participants earn, on average, an additional \$1,442 in real quarterly earnings and experience a 15.5 percentage-point increase in employment rates. Using a discount rate of 10%, the present value of these additional earnings over 3.5 years is \$10,114.98, while over 43 years, it reaches \$34,112.92.

Direct benefits to taxpayers are derived from payroll taxes (6.2%), federal income tax (9.65%), sales tax (5.5%), and state income tax (5.8%). Over a working lifetime, the present value of these contributions total \$9,261.66 per participant.

Estimating the Costs of VR

The cost of VR is estimated from service expenditures, with purchased services averaging \$2,525 per participant and in-house services costing \$3,347, for a total cost of \$5,872 per participant. Additionally, the opportunity cost of participant time is calculated by measuring work hours lost during VR participation, demonstrating the importance of optimizing service timelines to minimize economic trade-offs.

Overall, these findings reinforce that VR is a high-return investment, with long-term economic benefits significantly exceeding initial costs, supporting workforce integration, and reducing long-term reliance on public assistance programs.