Vermont's Progressive Employment Program: A Preliminary Impact Analysis

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Overview

- **Using data from the Division of Vocational Rehabilitation (DVR) and other Vermont administrative data to examine progressive employment (PE) impacts on customer outcomes**

- **Had to address various methodological issues**

- **Preview of findings:**
  - **Evidence of increased employment**
  - **Limited evidence of increased earnings**

- **PE has promise but needs stronger evidence**

A (Very) Quick History of PE

- **DVR created PE in 2009 with funding from the American Recovery and Reinvestment Act**

- **Four state VR agencies use the model:**
  - **DVR**
  - **The general agencies of Maine and Nebraska**
  - **Oregon's blind agency**

- **Other agencies are considering PE**

- **DVR expansion of PE varied over time and across district offices**

We Used Vermont Administrative Data for the Analysis

- **Data sources:**
  - DVR administrative data
  - Earnings data extracted from state Unemployment Insurance wage records
  - Supplemental Security Income (SSI) and Social Security Disability Insurance (SSDI) records from Vermont's public-benefits data system

- **Sample characteristics:**
  - Applied for services between May 1, 2009, and Dec. 31, 2014
  - Had a signed Individualized Plan for Employment
  - 2,356 PE recipients
  - 13,459 nonrecipients

This Is a Challenging Analysis for Several Reasons

- **Impact evaluation goal: find a valid comparison group**
  - **A group that behaves like PE recipients would have if they had not received PE services**
  - **Randomization is the best way to achieve this**

- **Challenges of PE impact analysis**
  - **Selection into PE is nonrandom**
    - **PE recipients and nonrecipients are fundamentally different**
    - **May be difficult to capture these differences in data**
    - **No randomness or unaffected regions in rollout**
  - **DVR data do not capture all PE recipients**
 - **Variation in PE services and economy over time**

We Had Some Things We Could Leverage for the Analysis

- **Rich baseline data**
  - **Customer characteristics**
  - **Relevant field office**
- **Gradual rollout of PE over time**

We Used a Complex Method for Impact Estimation

- **Created predicted PE propensity**

- **Calculated differences in outcomes and PE propensity across years**

- **Estimated impacts using a version of difference-in-differences**

Intuition of Impact Estimation Methodology

Difference in predicted outcome

Difference in PE propensity
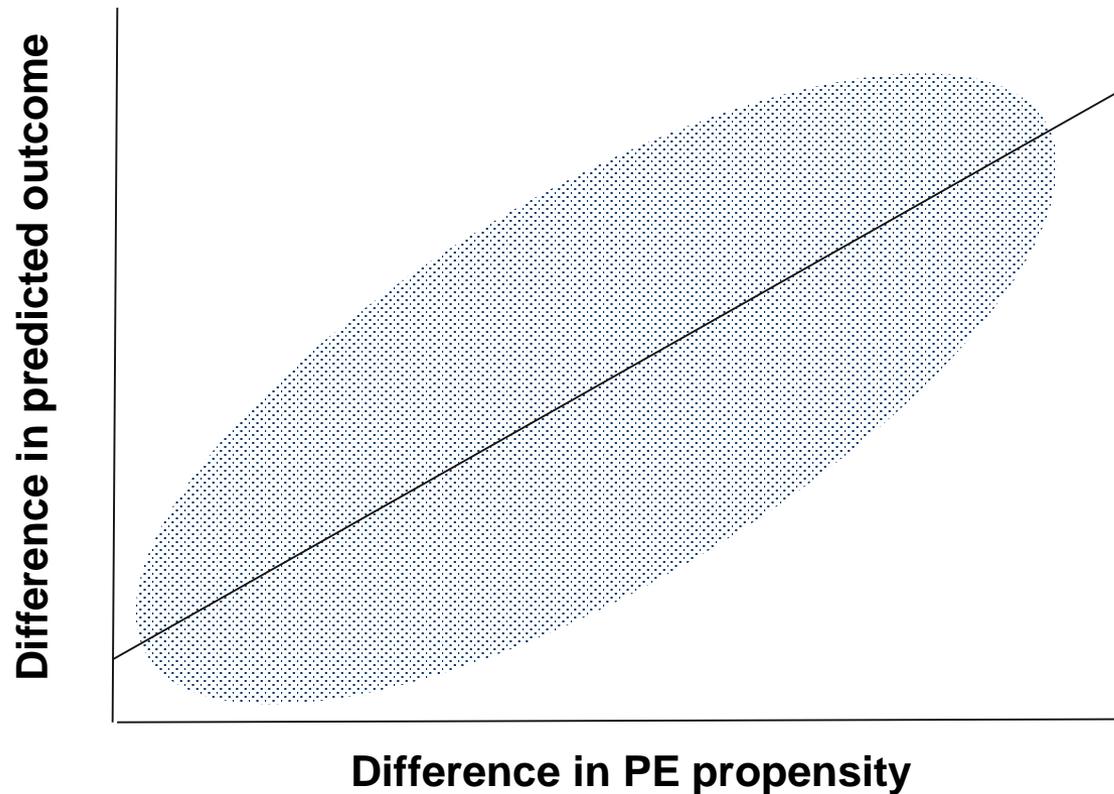
Approach Addresses Some Concerns, but Key Assumptions Remain
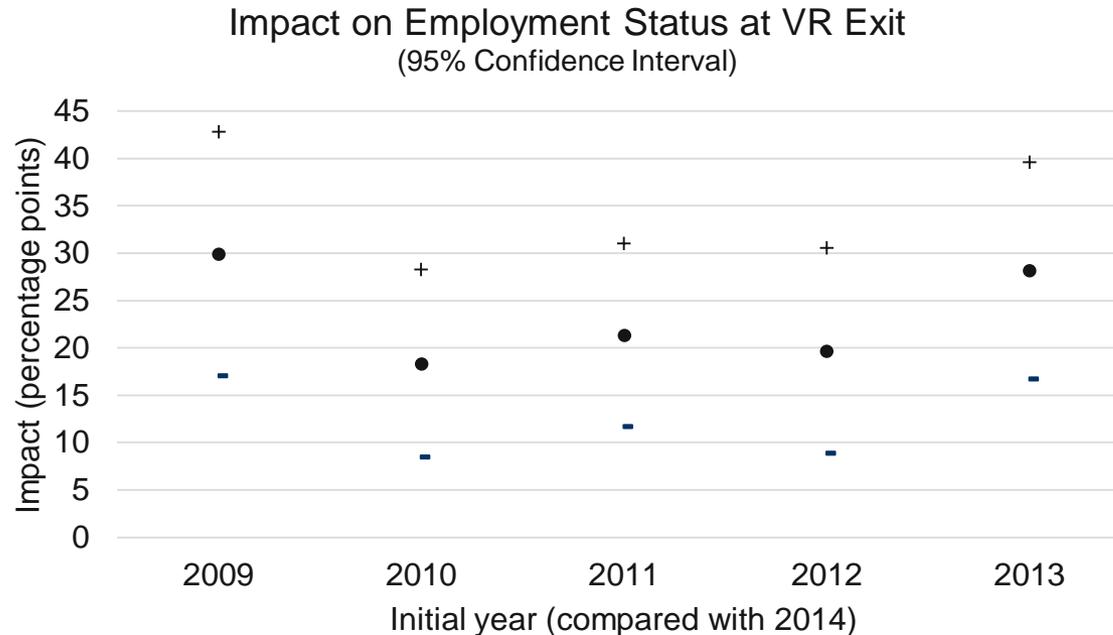
- **Addresses:**
  - The fact that not all PE receipt is observed
  - Variation across time
- **Key assumptions**
  - We can create good predicted probabilities using the data we have
  - Factors other than PE propensity did not affect customer outcomes differently

Findings for Employment at VR Exit

Impact on Employment Status at VR Exit
(95% Confidence Interval)

- **Weighted mean impact of PE on employment at exit**
  - **21.3 percentage point increase**
  - **50% increase in employment relative to "no PE"**

Other Findings Smaller but Encouraging

- **Earnings outcomes**
  - **Outcomes**
    - **Percentage with earnings**
    - **Percentage with quarter-of-coverage earnings**
  - **Impacts more variable across years**
  - **Not consistently significant across years**
- **Positive estimates for SSI and SSDI benefit receipt—but based on poor measures**

PE Shows Promise, So We Suggest Another, More Rigorous Test

- **Summary of impacts**
  - Employment at closure increased
  - Earnings may have increased as well
  - Questionable evidence for SSI/SSDI receipt

- **As in non-experimental impact evaluation:**
  - Estimates may be biased
  - Estimates are limited by available data

- **A randomized controlled trial could provide better evidence but would require a new state partner**

Reference

Mann, D.R., D.C. Stapleton, and A. Porter. "Vermont's Progressive Employment Program: A Preliminary Impact Analysis." Washington, DC: Mathematica Policy Research, Center for Studying Disability Policy, September 2018.

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Appendix: Details on Impact Estimation Methodology

- **Treated 2014 applicants as "baseline group"**

- **For 2009–2013 applicants, used data to predict:**
  - **PE receipt propensity**
    - **If applicant had applied in 2014**
    - **Year of actual application**
  - **Outcome (if applicant had applied in 2014)**

- **Calculated changes in outcomes and PE propensity between 2014 and actual application year**

- **Estimated impacts using a probabilistic version of difference-in-differences**

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