



Zoom Meeting with Stakeholders

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VR-ROI Project Team

- George Washington University – Maureen McGuire-Kuletz, Joe Ashley, Crystal Garry, and John Walsh
- University of Richmond (Emeritus) – Bob Schmidt
- University of Virginia – John Pepper
- Stony Brook University – Steven Stern
- University of Chicago – Chris Clapp
- University of Montana Rural Institute – Catherine Ipsen

Objectives for Today

- Solicit feedback on the structural and simplified ROI models, including trade-offs between model detail and ease of implementation.
- Gain insights on integrating rapid engagement and service intensity into ROI models.
- Refine the VR-ROI model to ensure it remains practical, actionable, and valuable for the VR community.

Agenda for Today

- Overview of this Project: The VR-ROI Model – Bob Schmidt
- Updated Data from North Carolina – Chris Clapp
- Update on Rapid Engagement Measures – Steven Stern
- Update on Intensity & Source of Service Measures – Steven Stern
- Update on Model Simplification – John Pepper
- Challenges in Estimating Service Impacts – Steven Stern
- Wrap-up – All

Poll: Who is with us today? Select the option that best describes your current role

- Advocacy Organization Representative
- SRC members
- Consumer or Family Member
- Administrator – State VR Agency
- VR Counselor or Field Staff – State VR Agency
- Education Partner (e.g., Transition or Special Education)
- Independent Living (IL) Representative
- Community Rehabilitation Partner (CRP) Representative
- Workforce Development Partner (e.g., American Job Center, WIOA partner)
- Business Representative
- Other (please specify in chat)

Some Background About the VR – ROI Approach (1 of 3)

- 3rd of 3 NIDILRR grants; disclaimer
- Conducts longitudinal analyses with up to 3 years of pre-VR employment data and at least 4 years of post-application data
- Employs state-of-the-science statistical controls to ensure that the outcomes are the result of VR rather than other factors

Some Background About the VR – ROI Approach (2 of 3)

- Uses readily-available administrative data for an application cohort:
 - Characteristics of VR program participants
 - 9-11 VR service categories from 26 RSA categories
 - Each state does differently
 - From 3 sources: purchased, agency, comparable benefits
 - Intensity measured by expenditure and length of service
 - Rapid engagement
 - Employment and earnings from state UI program records

Some Background: Outcomes

(3 of 3)

- Estimates the impact of specific types of VR services on participants' employment and earnings
 - Made separately by disabling condition
 - Made at the individual level
- Estimates quarterly and annual rates of return (ROR) for specific disabling conditions as well as agency-wide

Updated Data from NC

(1 of 2)

Table 1: Sample Size by Group and Year

Disability	2018 or 2019
MI (Mental Illness)	12,414
PI (Physical Impairment)	8,562
CI (Cognitive Impairment)	8,910
BVI (Blind & Visual Impairment)	1,032
ASD (Autism Spectrum Disorder)	2,318
ADHD	2,933
TBI (Traumatic Brain Injury)	525
Substance Abuse	3,978
Overall	36,467

Updated Data from NC

(2 of 2)

**Table 2: Percent of Applicants Receiving Purchased Services
by Disability and Service Type, 2018-2019**

Service Type	MI	PI	CI	BVI
Education	2.6	3.2	2.1	6.1
Job Training	8.5	7.8	19.6	6.4
Job Search & Placement	17.0	10.9	23.9	4.2
Supported Employment	6.5	3.0	13.8	1.6
Other Supports	2.3	18.2	18.7	19.3
Sample size	12,414	8,562	8,910	1,032

Measures of Rapid Engagement (1 of 2)

All 2018 Applicants

- **Measures in Data: Days from Application to**
 - **Plan: Mean = 81, Median = 68**
 - **1st Service: Mean = 126, Median 84**
- **Varies by Disability: Median days to 1st service**
 - **66 for BVI**
 - **140 for CI**
 - **177 for ASD**

Measures of Rapid Engagement

(2 of 2)

Modelling Rapid (and meaningful) Engagement

- We will estimate how rapid engagement changes service mixes and/or the intensity of services.
 - We need to model the relationship between rapid engagement and employment and earnings to ensure that the estimates can be interpreted as causal rather than simply correlational.
- Which of these measures (App to Plan, App to 1st Service) should we use and why?
- How does time from Application to Plan or 1st Service matter to you?
 - Are there key time thresholds, and if so, why?

Measures of Service Intensity (1 of 2)

Relevant Available Data

- Service types and sources
 - Purchased Services from case management system
 - In-House and Comparable Benefits from RSA-911 quarterly reports
- Measures of Service Intensity
 - Dollar value of purchased services is reliable
 - Number of quarters for any service
 - For purchased services, these two are not perfectly correlated

Measures of Service Intensity (2 of 2): 4,942 VR applicants with a Cognitive Impairment

Examining Service Provision

- It is important to allow for different types of services.
 - Frequency of services received in same quarter (all quarters)
 - 1 service received in the quarter: 9,295 quarters
 - 2 different services in the quarter: 5,285 quarters
 - 3 or more services in the quarter: 4,680 quarters
- It is important to allow for different types of services from different sources: purchased, agency, comparable benefits.
 - Two examples of combinations of services by type and source in the same case
 - 62 cases with job training provided by both purchase and agency as well as education by comparable benefits
 - 21 cases with placement from purchase and agency, job training from agency, and supported employment from purchase

Simplified Model (1 of 4)

Figure 1A: Employment Rate by Quarter

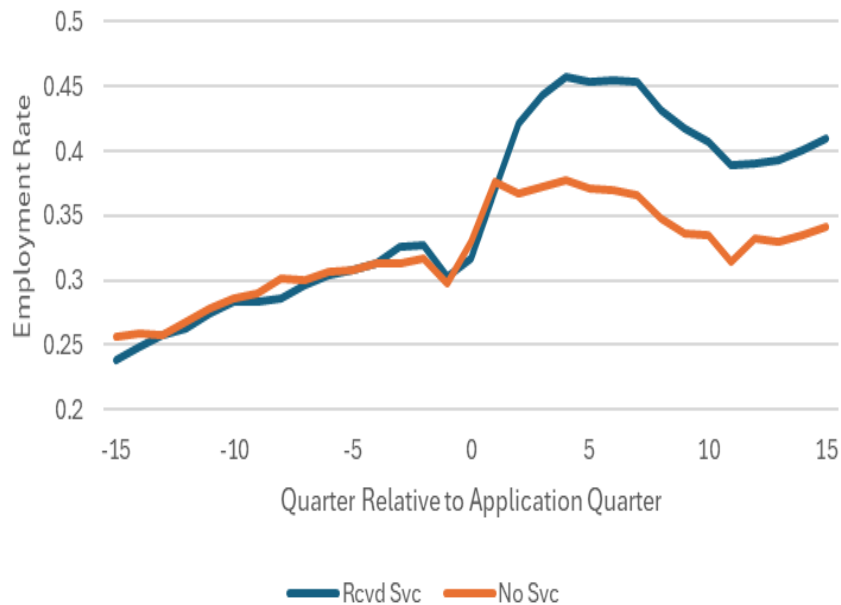
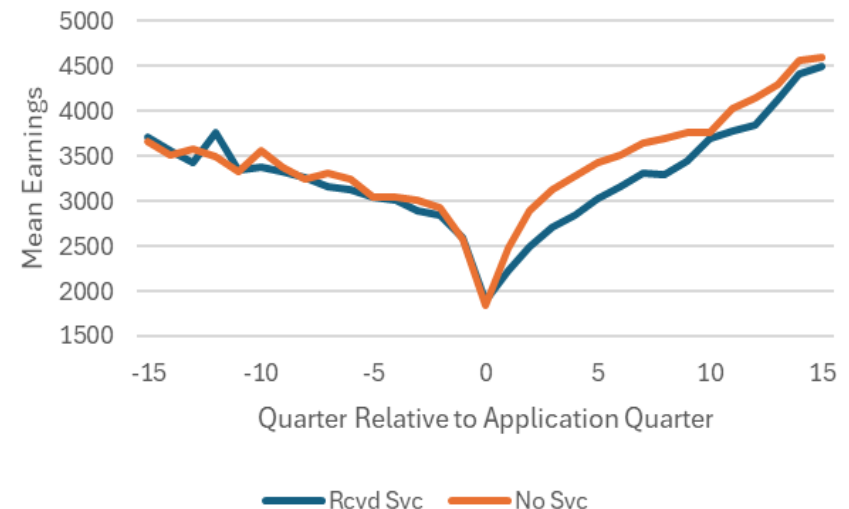


Figure 2A: Mean Earnings Among Employed, by Quarter



Simplified Model (2 of 4)

Table 4: Simple Model Regression (“DinD”), 2018 MI

Services	Employment Short Run	Employment Long Run	% Change in Earnings for the Employed Short Run	% Change in Earnings for Employed Long Run
Received Services	0.073	0.067	−0.123	−0.037
Education	0.043	0.104	−0.196	−0.018
Job Training	0.047	0.128	−0.184	−0.058
Job Search & Placement	0.085	0.080	−0.116	−0.009
Supported Employment	0.077	0.090	−0.090	0.037

Simplified Model (3 of 4)

Table 5: Mean Value of Purchased Services, 2018

Disability	Earnings
MI (Mental Illness)	484
PI (Physical Impairment)	-571
CI (Cognitive Impairment)	250
BVI (Blind & Visual Impairment)	551
ASD	1,584

NOTE: These estimates have not accounted for costs. Net benefits will be lower after subtracting costs.

Simplified Model (4 of 4)

Structural Model:

How does it differ from the Simplified Model?

- Controls for individual characteristics
- Variability: Estimates vary by disability, service type, source of service, short & long run
- Formal model of service receipt and labor market outcomes

Challenges in Estimating Service Impacts

- Estimating different impacts for different service categories and sources
- Aggregating Services, 12 currently:
 - Assessment
 - Disability & Treatment
 - Education
 - Job Training
 - Job Search and Placement
 - Supported Employment
 - Other supports
 - Benefits
 - Disability Accommodation
 - Adjustment to Disability
 - Rehabilitation Technology
 - Other Services

Wrap-up & Questions

Contact Information

- Bob Schmidt rschmidt@richmond.edu
- Chris Clapp cclapp@uchicago.edu
- Steven Stern steven.stern@stonybrook.edu
- John Pepper jvp3m@virginia.edu