

UI BENEFITS STUDY

Reexamining Worker Profiling Methods

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Background

- Worker Profiling and Reemployment Services (WPRS)
 - Identifies UI recipients most likely to exhaust benefits
 - Provides selected recipients with reemployment services
- DOL Recommendations to States
 - Use statistical profiling or characteristics screening to identify exhausters
 - Update statistical profiling models with new data
 - Update specification of profiling models to include additional recipient characteristics

Background

- Current Profiling Practice in States
 - Number of states using statistical profiling: 40
 - Number of states that have never updated their model: 26
 - Since 2000, only 12 states have updated both profiling coefficients and the specification of their model

- Montana Profiling
 - Model developed in 1993
 - Model developed using 1986 data
 - Model never updated

Scope of Paper

- Update Montana's statistical profiling model using 2003 UI claims data
- Examine the characteristics of profiled claimants under original model and updated model
- Propose a new profiling model designed to produce a more cost-effective allocation of reemployment services

Research Approach

- Step 1: Run current model using 2003 UI data
- Step 2: Update model specification (add recipient characteristics such as occupation, MBA, etc.)
- Step 3: Construct profiling score under
 - Model A - Current model (same variables)
 - Model B - Updated model (additional variables)
- Step 4: Select recipients in the top 10 percent of profiling scores under each model
- Step 5: Compare characteristics of the selected recipients

Compare Current vs. Updated Profiling Models

Characteristics of Recipients in Top 10 percent of Profiling Scores

	All Recipients	Top 10 Percent of Profiling Scores	
		A. Current Model (2003 Data)	B. Updated Model (2003 Data)
Number of Recipients	9,086	908	908
Eligible for 26 Weeks	3,695 (41%)	32 (4%)	48 (5%)
Benefits Received	\$2,958	\$2,078	\$2,754
Exhausters	2,469 (27%)	409 (45%)	427 (47%)
Exhausters Eligible for 26 Weeks	849 (34%)	17 (4%)	24 (6%)
Exhausters Benefits Received	\$4,164	\$2,623	\$2,782

Proposed Profiling Model

- Estimate model B using amount of benefits received as the dependent variable
- In other words, replace benefit exhaustion dummy variable with amount of UI benefits received

Compare Updated vs. Proposed Profiling Model

Characteristics of Recipients in Top 10 percent of Profiling Scores

	All Recipients	Top 10 Percent of Profiling Scores	
		B. Updated Model (2003 Data)	C. Proposed Model (2003 Data)
Number of Recipients	9,086	908	908
Eligible for 26 Weeks	3,695 (41%)	48 (5%)	783 (86%)
Benefits Received	\$2,958	\$2,754	\$5,114
Exhausters	2,469 (27%)	427 (47%)	225 (25%)
Exhausters Eligible for 26 Weeks	849 (34%)	24 (6%)	179 (80%)
Exhausters Benefits Received	\$4,164	\$2,782	\$6,920



Proposed profiling model does better in selecting maximum-eligibility, costly UI recipients

Conclusions

- Updated Profiling Models (A and B)
 - Results are dominated by those eligible for less than 26 weeks
 - Models select recipients who receive relative low benefits (lower amount of benefits than the average recipient)

- Proposed New Profiling Model (C)
 - Identifies recipients who are more costly to the UI program
 - May generate UI savings by providing reemployment services to high cost participants

Proposed Extension

- Re-Estimate model B using probability of exhaustion for those eligible for 26 weeks as the dependent variable
- In other words,
Dependent variable in Model D: $\text{Pr}(\text{exhaust}, \text{if } 26 \text{ weeks})$

Compare Updated (Model B) vs. Proposed New Profiling Model D

Characteristics of Recipients in Top 10 percent of Profiling Scores

	All Recipients	Top 10 Percent of Profiling Scores	
		B. Updated Model (2003 Data)	D. Proposed Model (2003 Data)
Number of Recipients	9,086	908	908
Eligible for 26 Weeks	3,695 (41%)	48 (5%)	706 (78%)
Benefits Received	\$2,958	\$2,754	\$4,495
Exhausters	2,469 (27%)	427 (47%)	262 (29%)
Exhausters Eligible for 26 Weeks	849 (34%)	24 (6%)	198 (76%)
Exhausters Benefits Received	\$4,164	\$2,782	\$6,185



Proposed profiling model does better in selecting maximum-eligibility, costly UI recipients

Conclusions - 2

- Updated Profiling Models (A and B)
 - Results are dominated by those eligible for less than 26 weeks
 - Models select recipients who receive relative low benefits (lower amount of benefits than the average recipient)
- Proposed New Profiling Model (C)
 - Identifies recipients who are more costly to the UI program
 - May generate UI savings by providing reemployment services to high cost participants
- Proposed New Profiling Model (D)
 - Results are very similar to results from Model C
 - Model D may achieve desired results in variable states

Further Recent Additions

- Results for Additional States
 - **Hawaii** (uniform eligibility state) – current profiling methods do better in identifying high-cost recipients since everyone is eligible for 26 weeks
 - **Wisconsin** (variable eligibility state) – similar results as Montana
 - **Pennsylvania** (variable eligibility state) – similar results as Montana