Is There a Role for Public Support of Incumbent Worker On-the-Job Training?

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Citation
http://research.upjohn.org/presentations/14

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Public Job Training

- Most support goes to non-employed individuals
- Have had customized job training for employed individuals for attraction/expansion purposes
- Now using training for incumbent workers for retention/competitiveness purposes
- Total OJT ≈ $50–$60 billion; subsidized training ≈ $600–$800 million (about 1%)
Why Public Subsidy is Warranted

- Avoid social costs of unemployment
- Employers underinvest in general training
- Human capital not valued in corporate financial statements
- Equity reasons (front line/production/low-wage workers do not receive anywhere near proportionate share of training)
## Estimated Subsidized Employee Training, by Year (Nominal Dollars)

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td><strong>Upjohn Institute Surveys</strong></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Total spending</td>
<td>$815.2 M</td>
<td>$661.5</td>
<td>$613.6</td>
<td>$590.9</td>
<td>—</td>
<td>$716.6M</td>
</tr>
<tr>
<td>Total firms</td>
<td>14,000</td>
<td>16,237</td>
<td>12,679</td>
<td>14,200</td>
<td>—</td>
<td>38,157</td>
</tr>
<tr>
<td>Total workers</td>
<td>982,290</td>
<td>972,868</td>
<td>846,716</td>
<td>869,255</td>
<td>—</td>
<td>1,257,321</td>
</tr>
<tr>
<td><strong>Duscha and Graves (2006)</strong></td>
<td></td>
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</tr>
<tr>
<td>Total budgets</td>
<td>$633.5M</td>
<td>$607.5</td>
<td>$584.4</td>
<td>$513.2</td>
<td>$552.0</td>
<td>$571.3</td>
</tr>
<tr>
<td>Total workers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>918,250 (40 states)</td>
</tr>
</tbody>
</table>
## Estimated Subsidized Training in FY 2006, by Type

<table>
<thead>
<tr>
<th>Program</th>
<th>Number of states/Number Verified</th>
<th>Extrapolated total spending</th>
<th>Extrapolated Firms</th>
<th>Extrapolated Workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>WIA Incumbent Worker Training</td>
<td>30/45</td>
<td>$85.3M</td>
<td>3,177</td>
<td>159,905</td>
</tr>
<tr>
<td>Econ. Dev. Customized Training</td>
<td>22/38</td>
<td>157.7</td>
<td>9,457</td>
<td>381,182</td>
</tr>
<tr>
<td>General Appropriations</td>
<td>15/35</td>
<td>158.8</td>
<td>5,776</td>
<td>334,507</td>
</tr>
<tr>
<td>Payroll taxes or UI trust fund</td>
<td>18/38</td>
<td>314.8</td>
<td>19,743</td>
<td>381,727</td>
</tr>
<tr>
<td>trust fund interest</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>$716.6M</td>
<td>38,157</td>
<td>1,257,321</td>
</tr>
</tbody>
</table>
“Average” State Program

- 500+ firms per year
- $20k per firm
- 30 - 40 workers/firm
Massachusetts Workforce Training Fund Grant Program

- Funded by surcharge on state UI tax — $21M per year
- Started in 1999
- Competitive bids by firms, not clear how much of a market test because funding rate was high
- Must include 100% match
Massachusetts WTF Average Grant

- $60K
- 18 months
- 100 workers
- Manufacturing sector (65%)
Massachusetts WTF Evaluation Self-Report

- Improve productivity? 90.8%
- Improve competitiveness? 91.8%
- Other benefits? 91.2%
Massachusetts WTF

- Return on Investment
  - Workers
  - Firms
  - Massachusetts
Self-Reported Data

4. Were there any new hires as a direct result of the training program?

Yes  No

4.a. If yes, how many? _______________

5. Were any layoffs prevented as a direct result of the training Program?

Yes  No

5.a. If yes, how many? _______________
Self-Reported Data

6. Have you increased (or, within the next six months do you expect to increase) wages as a direct result of this grant?  
   Yes  No

6.a. If yes, what was the average wage increase?  
   _______________

7. Did other employees, not trained through the grant, also receive a wage increase during the same period?  
   Yes  No

7.a. If yes, what was the average increase?  
   _______________
Worker Returns

- 35% of respondents had wage differential (7a-6a)

- Mean = 8%

- Return = [2.8, 8.0]; midpoint = 5.4
Return on Investment — Firms

- Productivity effect
  State average VA/Employee Comp = 1.595
  (equivalent to compensation share = 62.7%)

- Productivity Effect = $176–$503M in Δ Value Added
Return on Investment — Firms

- Employment effect
  3,995 new hires = 1.7% employment growth

- CRTS $\rightarrow$ $306M in \Delta \text{ Value Added}$

- Total $\Delta$ in VA = $482–$809M
Return on Investment — Firms

- Corporate profit rate on VA = 11.0%
- Profits ↑ by $53-$89M
- Cost (Match) = $49-$73M
- ROI = 16.6% at midpoints
Return on Investment — Massachusetts

- Of 3,995 jobs, 2,784 were export-based
- Multiplier of 2.0 → 5,568 jobs
- MA cost per job = $8,750
Return on Investment — Massachusetts

• State personal income/job = $66,014

• 5,568 jobs → +$377M in PI
Return on Investment — Massachusetts

- Productivity effect (above) = $176 – $503M

  = $151 – $431M in PI

- Total personal income ↑ $518 – $798M

- State revenues ↑ $77 – $118m (14.77%)
Return on Investment — Massachusetts

- 5,568 new jobs $\rightarrow$ 7,022 population growth

- Non-welfare state government expenditures per capita = $4,211

- State expenditure $\uparrow$ by $30M
Return on Investment — Massachusetts

- Net revenue = $47 – $88M
- WTF cost = $49M
- 1st year return = 38.9%
Rates of Return

- Worker 5.4%
- Firm 16.6%
- Commonwealth 38.9%
Summary

- Effective economic development tool
  - $8,750/new job created

- High rates of return may imply underinvestment

- Decline in level of funding since 2000-2001
  - 30% drop from 2001 to 2004; however increases since 2004
Policy Implication

- U.S. education and training “policy” virtually excludes front line/production workers

- Investment in infrastructural (curriculum, location, instructional capacity, training modality) design is advisable

- Federal government should use FUTA tax receipts as an incentive for states