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Evidence about the Effectiveness of Public Training Programs for Incumbent Workers

Kevin Hollenbeck
W.E. Upjohn Institute, hollenbeck@upjohn.org

Sarah M. Klerk
W.E. Upjohn Institute

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Publicly supported training for the most part is provided to nonemployed individuals. The Workforce Investment Act (WIA)—like its predecessors, the Job Training Partnership Act (JTPA) and Comprehensive Employment and Training Act (CETA)—targets public training funds toward individuals having difficulties becoming employed or facing worker dislocation. The rationale for this targeting is clear: shortening spells of nonemployment is likely to reduce public employment-conditioned transfer payments and increase the efficiency of the labor market. Furthermore, public subsidies overcome human capital investment borrowing constraints that may be especially severe for nonemployed individuals.

In addition to investments in job training for nonemployed individuals, the public also supports job training for employed workers and has done so for several years. One example of this type of support is economic development initiatives that include job training grants aimed at business attraction or expansion. These often take the form of customized training contracts with community or technical colleges for training the workers who will be employed in expanded or newly opened facilities.

More recently, for retention and competitiveness reasons, states have turned to the subsidization of incumbent worker training. The dynamics of economic change, especially the relative shift away from manufacturing and toward services, are leaving some states with obsolete manufacturing capacity and, often, relatively highly paid dislocated workers who lack skills or have high mobility costs that impede their employment prospects. In response, states are investing public funds in training activities for existing workers to try to retain businesses.

Estimates suggest that the private sector invests approximately $50–$60 billion a year on training (Training 2006); our own data suggest that only a small fraction of this spending (less than $500 million, or about 1 percent) is publicly subsidized. The purpose of this article is to document this estimate and to provide evidence about the social rate of return on those investments. In fact, we find the rate of return to be substantial, suggesting that perhaps there is an underinvestment in incumbent worker training subsidization.
in 2004. An extrapolation of this million on incumbent worker training 22 states reported spending $324.3 provided expenditure information. Those states about incumbent worker training. Thirty states responded, 22 of which states engaged.

**Table 1 Descriptive Statistics from Subsidized Employee Training Survey, by Year**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>State spending ($, millions)</td>
<td>433.2</td>
<td>367.4</td>
<td>340.8</td>
<td>324.3</td>
</tr>
<tr>
<td>Total firms</td>
<td>7,440</td>
<td>9,018</td>
<td>7,042</td>
<td>7,793</td>
</tr>
<tr>
<td>Total workers trained</td>
<td>521,989</td>
<td>540,331</td>
<td>470,266</td>
<td>477,047</td>
</tr>
<tr>
<td>$/firm</td>
<td>830</td>
<td>680</td>
<td>725</td>
<td>680</td>
</tr>
<tr>
<td>$/worker</td>
<td>70.2</td>
<td>59.9</td>
<td>66.8</td>
<td>61.2</td>
</tr>
<tr>
<td>Number of states reporting</td>
<td>21</td>
<td>23</td>
<td>23</td>
<td>22</td>
</tr>
<tr>
<td>Percent of U.S. population</td>
<td>53.14</td>
<td>55.54</td>
<td>55.54</td>
<td>54.88</td>
</tr>
<tr>
<td>Extrapolated total U.S. spending$ ($, millions)</td>
<td>815.2</td>
<td>661.5</td>
<td>613.6</td>
<td>590.9</td>
</tr>
</tbody>
</table>

*Calculated as total state spending from the first row of the table divided by percent of U.S. population in the eighth row.

**State Investments in Incumbent Worker Training**

Moore et al. (2003) document a total of 36 states that funded incumbent worker training in 1998–99 with a total budget of about $317.8 million. The U.S. GAO (2004) surveyed all 50 states plus the District of Columbia and found that 23 states used employer tax revenues to fund “employment placement and training programs” in 2002. Those states reported spending $278 million on these activities, of which $202 million was on training. Note that these two sources are not directly comparable because the Moore et al. study refers to customized training expenditures that may come from any source of revenues, whereas the U.S. GAO study focuses exclusively on employer tax revenues.

In summer 2005, we surveyed all states about incumbent worker training. Thirty states responded, 22 of which provided expenditure information. Those 22 states reported spending $324.3 million on incumbent worker training in 2004. An extrapolation of this figure on a population basis yields a national estimate of approximately $591 million. This figure is considerably larger than either of the sources cited above, but according to our survey, the total spending had decreased every year for the prior four years. Between 2001 and 2004, there was a 30 percent decline. Table 1 shows that the annual levels of spending on subsidized training in the responding states fell from about $433 million to $324 million (nominal dollars).

In all, our data suggest that states, on average, fund about 200–300 firms per year at a level of $40,000–$60,000 per firm for incumbent worker training. The firms train 60–70 individuals, on average. Of course, these averages mask considerable variation across the states, but we believe they give the reader a sense of the types of subsidies in which the states are engaging.

**Massachusetts Workforce Training Fund**

Massachusetts has a program with a scale that is close to the “typical” state. In 1999, Massachusetts initiated a competitive grant program to support incumbent worker training. The Massachusetts Workforce Training Fund program is funded by an employer contribution of 0.06 percent on unemployment insurance taxable wages (a maximum of $8.40 per year per employee). In FY 2005, the program distributed through a competitive solicitation about $21.2 million to 209 companies to train 25,669 employees. By regulation, the grants require a 100 percent match from companies and may not exceed two years in length.

The Upjohn Institute was awarded a contract to conduct an evaluation of the Massachusetts Workforce Training Fund Program. This evaluation included site visits to nine firms that had been awarded grants and quantitative analyses of administrative data. The administrative data included information from the firms’ applications for the grant and from an evaluation report that firms are required to complete to get final payment when their grants have ended.

Table 2 provides general descriptive information about the grants that were in the administrative data. The average grant was just under $60,000, trained about 100 workers, and lasted 18 months. On average, the grant supported training costs of $1,284 per worker. In the typical grant, the company’s match would be comprised of the employees’ wages during training, so those costs would not be included in this figure. As would be expected, these averages mask considerable variation across firms.

What kinds of firms received grants? Table 3 provides descriptive information. Relative to the number of employers in the private sector economy, manufacturing employers are overrepresented. Over 65 percent of the grants have been awarded to manufacturing firms, whereas only 14 percent of the state’s private sector firms are in manufacturing. The average employment size of the firms was about 310, but it ranged from 2 to over 11,250. About one-third of the grant recipients have less than 50 employees, whereas only about 12 percent have more than 500. The median employment size is 115. Just under 10 percent of the firms with training grants were nonprofit organizations, and about 9 percent were unionized.

The evaluation study offers the Commonwealth of Massachusetts several...
administrative recommendations intended to improve the efficiency and efficacy of the program. In addition, as part of our program evaluation, we estimate rates of returns received by firms, workers, and the Commonwealth of Massachusetts, which acts on the behalf of its taxpayers. Using self-reported data from the companies that received grants, we calculate that workers receive approximately a 5.4 percent return to their participation in the training funded by the state and their employer. Firms received benefits in the form of profits on the increased productivity of trained workers and on the revenues received from retained or expanded employment. We estimate that their return was approximately 16.6 percent on the investments made with grant-matching dollars.

Massachusetts received fiscal benefits in the form of tax receipts from expanded economic activity. In fact, we approximate that since 1999, the state has generated about 5,570 new or retained jobs, at a cost of about $8,750 per created job. We estimate an increase in state expenditures to support the population growth engendered by the employment growth. Netting this figure out of the increase in state revenues yielded a fiscal return of about 38.9 percent.

The estimated returns to workers, firms, and the state have considerable uncertainty associated with them because rather broad assumptions were used in developing the estimates, although we attempted to be conservative in these assumptions.

**Summary**

The evidence presented here implies the following:

- Public subsidy of incumbent worker training, especially in export-based firms, may be an effective economic development tool for states.
- The rates of return that accrue to states for their training subsidies are substantial and may indicate that states are underinvesting.

- Despite reaping substantial rates of return, our survey of states suggests a sharp decline in the level of funding for such training.

More information on this project may be found at http://www.commcorp.org/researchandevaluation/pdf/ResearchBrief4-08.pdf.

**Note**


**References**


Kevin Hollenbeck is a senior economist and Sarah Klerk is a special projects coordinator, both at the W.E. Upjohn Institute for Employment Research.