

2007

# Evidence about the Effectiveness of Public Training Programs for Incumbent Workers

Kevin Hollenbeck

*W.E. Upjohn Institute*, [hollenbeck@upjohn.org](mailto:hollenbeck@upjohn.org)

Sarah M. Klerk

*W.E. Upjohn Institute*

---

## Citation

Hollenbeck, Kevin, and Sarah Klerk. 2007. "Evidence about the Effectiveness of Public Training Programs for Incumbent Workers." *Employment Research* 14(2): [1]–4. [https://doi.org/10.17848/1075-8445.14\(2\)-1](https://doi.org/10.17848/1075-8445.14(2)-1)

This title is brought to you by the Upjohn Institute. For more information, please contact [repository@upjohn.org](mailto:repository@upjohn.org).

# UPJOHN INSTITUTE

## Employment Research

APRIL 2007

### In this issue:

*Kevin Hollenbeck and Sarah Klerk*  
Evidence about the Effectiveness  
of Public Training Programs  
for Incumbent Workers



*Ann Markusen*  
Better Deals for State and Local  
Economic Development



Books on Regional  
Economic Development

Vol. 14, No. 2

*Employment Research* is published quarterly by the W.E. Upjohn Institute for Employment Research. Issues appear in January, April, July, and October.

The Institute is a nonprofit, independent research organization devoted to finding and promoting solutions to employment-related problems at the international, national, state, and local level. The Institute is an activity of the W.E. Upjohn Unemployment Trustee Corporation, which was established in 1932 to administer a fund set aside by Dr. W.E. Upjohn, founder of the Upjohn Company, to conduct research on the causes and effects of unemployment and seek measures for the alleviation of the hardships suffered by the unemployed.

W.E. Upjohn Institute  
for Employment Research  
300 S. Westnedge Avenue  
Kalamazoo, MI 49007-4686  
(269) 343-5541  
[www.upjohninstitute.org](http://www.upjohninstitute.org)

Randall W. Eberts  
Executive Director

*Kevin Hollenbeck and Sarah Klerk*

## Evidence about the Effectiveness of Public Training Programs for Incumbent Workers

**P**ublicly 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.

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

Characteristic	Year			
	2001	2002	2003	2004
State spending (\$, millions)	433.2	367.4	340.8	324.3
Total firms	7,440	9,018	7,042	7,793
Total workers trained	521,989	540,331	470,266	477,047
\$/firm	58,540	40,732	48,409	41,630
\$/worker	830	680	725	680
Workers trained/firm	70.2	59.9	66.8	61.2
Number of states reporting	21	23	23	22
Percent of U.S. population	53.14	55.54	55.54	54.88
Extrapolated total U.S. spending <sup>a</sup> (\$, millions)	815.2	661.5	613.6	590.9

<sup>a</sup>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.

**Table 2 Characteristics of Grants**

Characteristic	Average
Size of grant (\$)	59,294
Employees trained	100
Grant length (days)	549
Cost/trainee (\$)	1,284

The Upjohn Institute was awarded a contract to conduct an evaluation of the Massachusetts Workforce Training Fund Program.<sup>1</sup> 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

**Table 3 Characteristics of Firms Receiving Grants**

Characteristic	Percentage
Industry	
Food, textiles, apparel	4.0
Wood, paper, chemicals, plastic	12.7
Metal products, machines, electrical	48.5
Manufacturing, total	65.2
Retail: Books, music, general	7.2
Finance and insurance	5.2
Other services, except public admin.	14.3
All other	8.1
Nonmanufacturing, total	34.8
Union status	
Unionized	8.7
Nonunion	91.3
Region	
Central	15.1
Greater Boston	28.3
Northeast	15.6
Southeast	21.1
West	19.9
Profit status	
Nonprofit	9.4
For profit	90.6
Ownership	
Private	79.1
Public	20.9
Employment size, mean	309.4

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

1. See Hollenbeck (2007) for a report on a program evaluation of the Workforce Training Fund.

### References

Hollenbeck, Kevin. 2007. *Evaluation of Massachusetts Workforce Training Fund*. Final report presented to Commonwealth Corporation on behalf of the Massachusetts Department of Workforce Development and the Division of Career Services, Boston.

Moore, Richard W., Daniel R. Blake, G. Michael Phillips, and Daniel McConaughy. 2003. *Training That Works: Lessons from California's Employment Training Panel Program*. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research.

Training. 2006. "Analysis of Employer-Sponsored Training in the United States." December: 20–32.

U.S. General Accounting Office. 2004. *Workforce Training: Almost Half of States Fund Employment Placement and Training through Employer Taxes and Most Coordinate with Federally Funded Programs*. Report to congressional requestors, GAO-04-282, Washington, DC.

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