

11-14-2007

## The Return on Investment to Training Programs for Incumbent Workers

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### Citation

Hollenbeck, Kevin. 2007. "The Return on Investment to Training Programs for Incumbent Workers." Presented at the Washington Workforce and Economic Development 2007 Leadership Conference, Tacoma, WA, November 14.

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# The Return on Investment to Training Programs for Incumbent Workers

November 14, 2007

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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  $\approx$  \$50–\$60 billion; subsidized training  $\approx$  \$600–\$800 million (about 1%)

# Estimated Subsidized Employee Training, by Year (Nominal Dollars)

Spending                      FY 2001    FY 2002    FY 2003    FY 2004    FY 2005    FY 2006

## Upjohn Institute Surveys

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Total spending	\$ 815.2 M	\$ 661.5	\$ 613.6	\$ 590.9	—	\$ 716.6M
Total firms	14,000	16,237	12,679	14,200	—	38,157
Total workers	982,290	972,868	846,716	869,255	—	1,257,321

## Duscha and Graves (2006)

Total budgets	\$ 633.5M	\$ 607.5	\$ 584.4	\$ 513.2	\$ 552.0	\$ 571.3
Total workers					918,250	
					(40 states)	

# “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
- Started in 1999
- Competitive bids by firms
- 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 Study

- 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  $\Delta$  Value Added

# Return on Investment — Firms

- Employment effect  
3,995 new hires = 1.7% employment growth
- CRTS → \$306M in  $\Delta$  Value Added
- Total  $\Delta$  in VA = \$472–\$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 → 7,022 population growth
- Non-welfare state government expenditures per capita = \$4,211
- State expenditure ↑ by \$30M

# Return on Investment — Massachusetts

- Net revenue = \$97 – \$88M
- WTF cost = \$49M
- 1<sup>st</sup> 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