

State Use of Workforce System Net Impact Estimates and Rates of Return

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Purpose

Synthesize and extend:

- (1) Hollenbeck & Huang, *Net Impact and Benefit-Cost Estimates of the Workforce Development System in Washington State*, 2003
 - (2) Hollenbeck & Huang, *Net Impact and Benefit-Cost Estimates of the Workforce Development System in Washington State*, 2006
 - (3) Hollenbeck & Huang, *Workforce Program Performance Indicators for The Commonwealth of Virginia*, 2008
- First presentation of a full set of rates of return

Methodology

- Propensity score match of program data to Job Service registrants (i.e., participants)
- Matching variables – mainly pre-program labor force, and also demographics and education at program entry

Table 2**Outcomes Examined and Time Periods, by Study**

Outcomes	Study 1 and Study 2	Study 3
Employment	Defined as \geq \$100 in a quarter	Defined as \geq \$50 in a quarter <u>or</u> enrolled in school if \leq 18
Earnings	Quarterly earnings totaled across all employers	Quarterly earnings totaled across all employers
Hours Worked per Quarter	Hours totaled across all employers	Not available
Hourly wages	Earnings divided by hours worked	Not available
Credential completion	Not available	Credential earned while in program or within 12 months of exit
Unemployment compensation	Benefits of at least \$1 in quarter	Not available
TANF/Food Stamp benefits	Benefits received by assistance unit that included participant of at least \$1 in quarter	Not available
Medicaid eligibility	State Medicaid administrative data indicated participant was “enrollee” during at least one day in quarter	Not available
<u>Time Periods:</u>	3 full quarters after exit	2 full quarters after exit
Short term	8–11 full quarters after exit in study 1;	4 full quarters after exit
Long term	9–12 full quarters after exit in study 2	

Note: Study 1 is Hollenbeck and Huang 2003 (Washington State); Study 2 is Hollenbeck and Huang 2006 (Washington State); Study 3 is Hollenbeck and Huang 2008 (Virginia).

^aYear of participation defined as year of exit from services.

^bCombined in this study.

^cAdult basic education as delivered by community and technical colleges only.

Results

- Net impact comparisons
- Benefits and costs and rates of return

Table 4
Long-Term Net Impact Estimates

Program	Study	Outcome			
		Employment Rate	Quarterly Hours	Wage Rate ^c	Quarterly Earnings ^c
Federal Job Training (Adults)					
JTPA II-A	1	0.074***	23.9***	\$0.68**	\$645***
WIA I-B	2	0.066***	35.9***	\$0.67**	\$455***
Federal Job Training (Youth)					
JTPA II-C	1	0.053**	2.3	-\$0.71	-\$85
WIA I-B Youth	2	0.103***	31.1***	\$0.77***	\$325***
Dislocated Workers					
JTPA III	1	0.073***	26.6***	-\$0.10	\$554***
WIA I-B	2	0.064***	48.8***	\$0.97***	\$771***
Worker Retraining ^a	1	0.063***	35.1***	-\$0.53	\$503***
Worker Retraining ^a	2	0.046***	29.8***	\$0.18	\$306***
Education					
Secondary CTE	1	0.057***	27.1***	\$0.60***	\$536***
Secondary CTE	2	0.054***	35.5***	\$0.67***	\$426***
Comm. College Job Prep	1	0.070***	54.9***	\$2.02***	\$1,409***
Comm. College Job Prep	2	0.067***	39.7***	\$2.11***	\$1,034***
Private Career Schools	2	0.043***	21.0***	\$1.06***	\$351***
Adult Basic Ed. ^b	1	0.016*	-4.9	-\$0.26*	-\$53
Adult Basic Ed. ^b	2	0.059***	18.5***	-\$0.02	-\$27
Apprenticeships	1	0.053***	11.6*	\$4.42***	\$2,269***
	2	0.068***	20.3***	\$5.73***	\$2,340***
Disability Services					
Vocational Rehabilitation	2	0.110***	44.8***	\$1.38***	\$699***
Blind and Visually Impaired	2	0.203***	78.4***	\$5.73***	\$1,531***

Notes: Study 1 is Hollenbeck and Huang 2003 (Washington State); Study 2 is Hollenbeck and Huang 2006 (Washington State).

*** represents statistical significance at the 0.01 level; ** represents statistical significance at the 0.05 level; * represents statistical significance at the 0.10 level.

^a A state-funded program for dislocated worker training.

^b As administered by the Community and Technical College system.

^c In \$2005/2006.

Figure 2 Typical Earnings Profiles of a Training Participant and Comparison Group Member

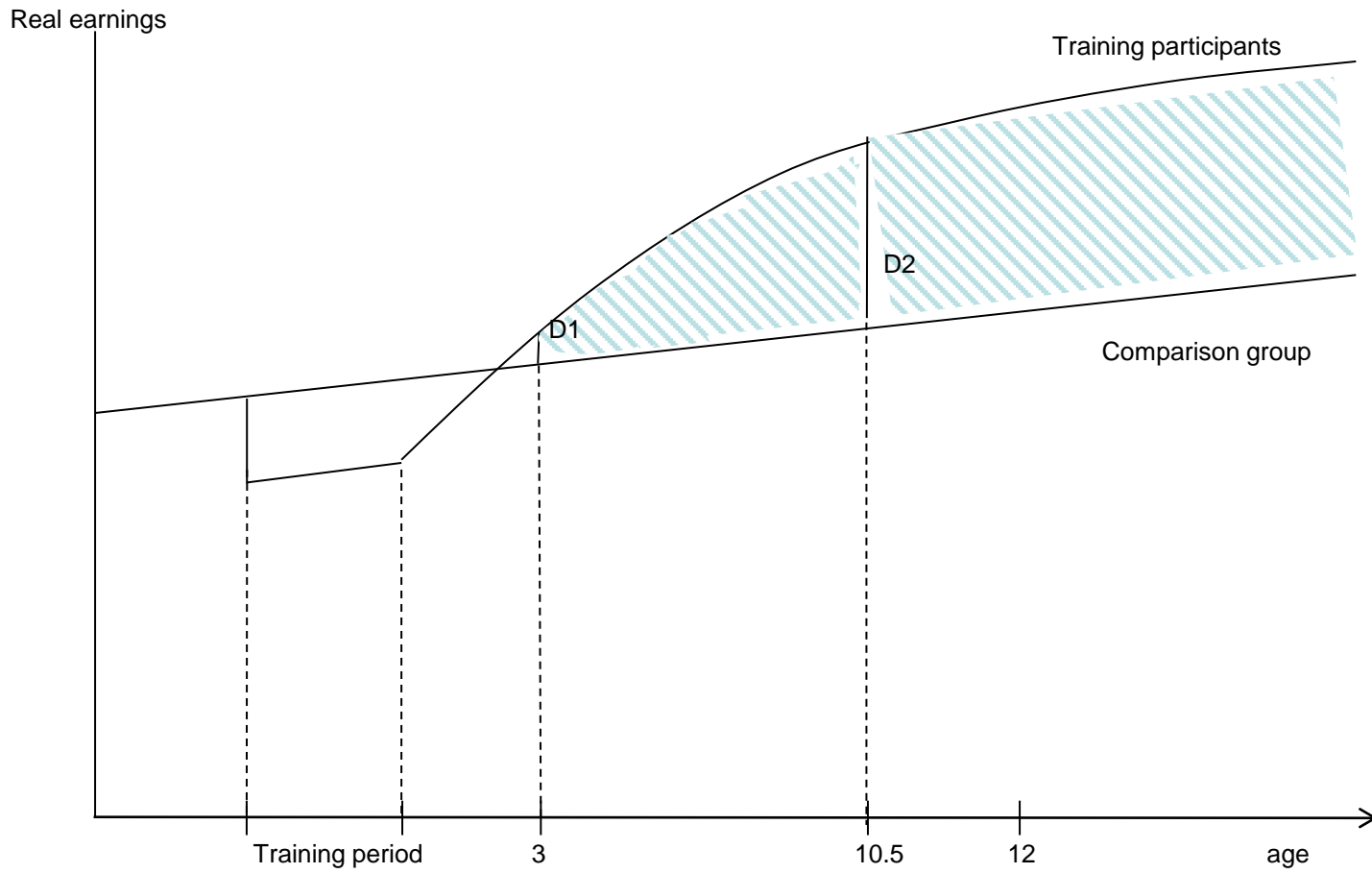


Table 6
Discounted Benefits and Costs and Rates of Return for Washington's Education and Training System
over Working Lifetime, by Program

Program	Study	Private			Public			Social		
		Benefits	Costs	r.o.i.	Benefits	Costs	r.o.i.	Benefits	Costs	r.o.i.
Federal Job Training (Adults)										
JTPA II-A	1	\$62744	\$ 403	20.52%	\$25,092	\$3,791	9.26%	\$87,836	\$4,194	13.23%
WIA I-B	2	38,928	-1,111	—	6,241	5,744	0.21%	45,170	4,633	15.14%
Federal Job Training (Youth)										
JTPA II-C	1	30,235	384	3.08%	6,770	2,605	6.08%	37,005	2,989	3.61%
WIA I-B Youth	2	29,002	0	—	8,282	6,617	0.07%	37,284	6,617	4.55%
Dislocated Workers										
JTPA III	1	81,327	13,640	5.19%	25,719	2,885	6.81%	107,046	16,525	5.53%
WIA I-B	2	49,201	10,746	5.00%	18,440	7,081	5.15%	67,641	17,827	5.04%
Worker Retraining ^a	1	70,012	18,631	2.86%	22,803	5,256	3.93%	92,815	23,887	3.08%
Worker Retraining ^a	2	23,938	8,952	2.82%	7,049	5,421	0.60%	30,987	14,373	2.14%
Education										
Secondary CTE	1	70,505	432	37.05%	13,389	974	10.39%	83,894	1,406	23.04%
Secondary CTE	2	43,491	-32	—	8,414	811	9.29%	51,905	779	43.97%
Comm. College Job Prep	1	103926	5,034	10.44%	31,235	7,748	3.55%	135,161	12,783	7.08%
Comm. College Job Prep	2	95,228	6,474	15.10%	14,873	7,523	2.20%	110,101	14,397	9.19%
Private Career Schools	2	35,089	308	— ^c	1,279	0	— ^c	36,368	308	— ^c
Adult Basic Ed. ^b	1	4,944	311	++	3,020	1,101	1.34%	7,964	1,412	5.75%
Adult Basic Ed. ^b	2	5,558	-146	—	-5,558	2,570	—	0	2,424	—
Apprenticeships	2	197896	-24465	—	49,288	2,668	24.25%	247,184	-21797	—
Disability Services										
Vocational Rehabilitation	2	56,560	-643	—	11,302	8,504	0.75%	67,862	7,861	11.99%
Blind and Visually Impaired	2	100799	1,059	++	20,094	24,358	-0.55%	120,893	25,417	7.39%

Notes: : Study 1 is Hollenbeck and Huang 2003 (Washington State); Study 2 is Hollenbeck and Huang 2006 (Washington State). Table entries are for average participant. Benefits include earnings, fringe benefits, and income-related transfers payments. Costs include tuition and fees (if any), foregone earnings, and public program costs per participant. \$ figures are in real \$2005/2006. – means that r.o.i. could not be calculated because of 0 or negative benefits or costs. ++ means r.o.i. is implausibly high.

^a A state-funded program for dislocated worker training.

^b As administered by the Community and Technical College system.

^cNo data collected on tuition or fees, so costs are partial. We therefore did not calculate r.o.i.

Policy Implications

- 1) Can use administrative data to estimate net impacts of education and training programs
- 2) Decomposing earnings impacts into employment, hours, and wage rates adds insight

Policy Implications (Continued)

- 3) Public and society reap substantial returns on virtually all education and training programs
- 4) Implications for individual programs