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## Evaluating WIA Using Administrative Data

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# Evaluating WIA Using Administrative Data

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Kevin M. Hollenbeck

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# Purpose

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- Summarize and compare results from:
  - (1) Hollenbeck, Schroeder, King, and Huang, *Net Impact Estimates for Services Provided through the Workforce Investment Act, 2005* (Multi-state study)
  - (2) Hollenbeck & Huang, *Net Impact and Benefit-Cost Estimates of the Workforce Development System in Washington State, 2003*
  - (3) Hollenbeck & Huang, *Net Impact and Benefit-Cost Estimates of the Workforce Development System in Washington State, 2006*
  - (4) Hollenbeck & Huang, *Workforce Program Performance Indicators for The Commonwealth of Virginia, 2008*
- Present some evidence on rates of return to workforce programs

# Background

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- All four studies are net impact evaluations
  - An individual encounters a workforce program and is offered services (*treatment*).
  - Outcomes ensue (we're mainly interested in *employment and earnings*)
  - Net impact is the difference between outcomes and what would have happened if the individual did not receive the treatment (*counterfactual*)
- Null hypothesis is that net impact is zero.
- The two Washington State studies go beyond net impact and examine **cost effectiveness**.

# Approach (Methodology)

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- Quasi-experimental
  - “Treatment group” from administrative data; “comparison group” from Employment Service data (usually)
  - “Treatment” in studies (1) to (4) defined as “encountered the workforce program,” i.e. in WIASRD for WIA clients
  - Additional “treatment” in (1), which is “entered training” and “comparison group” includes WIA clients who did not receive training as well as Employment Service data
- Statistical matching used to construct comparison group
  - Matching variables – mainly pre-program labor force, and also demographics and education at program entry

# Approach

## (Data and time periods)

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- In multi-state study
  - Data are WIASRD and ES files linked to UI wage and TANF records for 7 or the 9 ADARE states: FL, GA, IL, MD, MO, TX, and WA. Exiters from programs in PY 2000 and 2001.
- In Washington
  - Data are program administrative files linked to UI wage, UI benefit, and TANF/Food Stamps/Medicaid records. Exiters from programs in PY 1997 and 1999 (study 2) and PY 2001 and 2003 (study 3).
- In Virginia
  - Data are program administrative files linked to UI wage records. Exiters in PY 2005.

# Results: Net impact comparisons

## Selected Net Impact Estimates for Any WIA/JTPA Services

Program	Study	Outcome			
		Employment Rate (%)	Quarterly Hours	Quarterly Wage Rate (\$)	Quarterly Earnings <sup>a</sup> (\$)
WIA-Adults	(1)	8.7***	--	--	856***
JTPA II-A	(2)	7.4***	23.9***	0.68	645***
WIA-Adults	(3)	6.6***	35.9***	0.67	455***
WIA-Dislocated Workers	(1)	13.5***	--	--	1,097***
JTPA III	(2)	7.3***	26.6***	-0.10	554***
WIA-Dislocated Workers	(3)	6.4***	48.8***	0.97***	771***
WIA-Adults & DW	(4)	3.4***	--	--	1,146**
JTPA II-C	(2)	5.3***	2.3	-0.71	-85
WIA Youth	(3)	10.3***	31.1***	0.77***	325***
WIA Youth	(4)	-3.9**	--	--	76**

**Notes:** \*\*\* represents statistical significance at the 0.01 level; \*\* represents statistical significance at the 0.05 level; \* represents statistical significance at the 0.10 level. <sup>a</sup> In \$2005/2006.

## Net Impacts of Receiving Any Training vs. Other Services (from multi-state study)

EMPLOYMENT		
	Adults	Dislocated Workers
<b>Overall impact</b>	4.4%**	5.9%**
<b>Impact range</b>	-1.3% -- 11.0% **	-1.3% -- 11.0% **
<b>Impact for men</b>	2.1% **	5.0% **
<b>Impact for women</b>	6.5%**	7.1%**
EARNINGS (\$2005/2006)		
<b>Overall impact</b>	\$771**	\$445**
<b>Impact range</b>	-\$300** -- \$1,362**	-\$286** -- \$1,435**
<b>Impact for men</b>	\$636**	\$412**
<b>Impact for women</b>	\$893**	\$486**

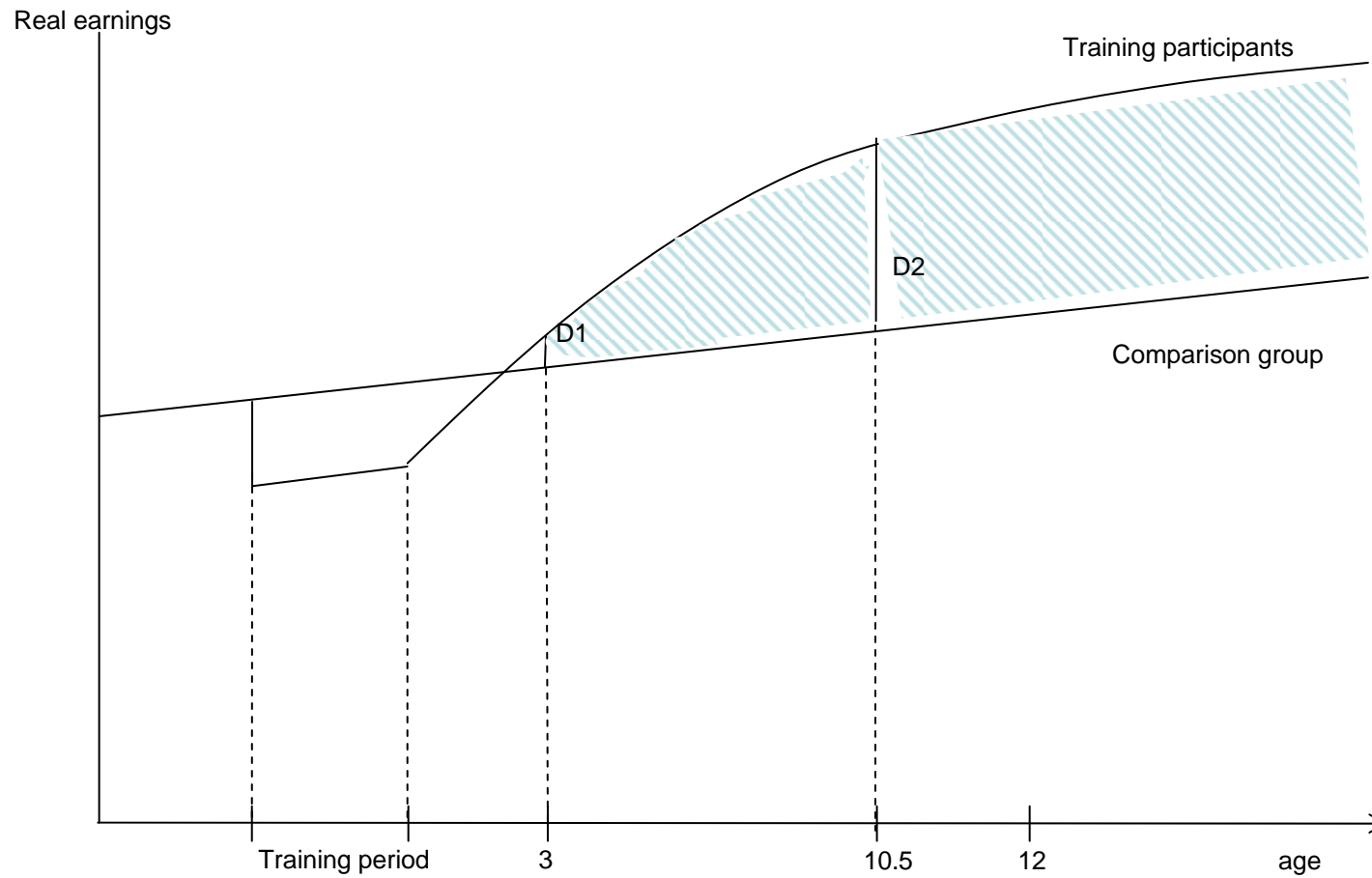
**Any training = WIA training (or referral to training services by ES in 2 states)  
in addition to core/intensive services**

**Other Services = If WIA client, then core or intensive services only; if ES, then  
no referral to training (in two states)**

Note: significance \*\* =  $p < 0.01$ ,  
\* =  $p < 0.05$ , not shown for range



# Typical Earnings Profiles of a Training Participant and Comparison Group Member



## Discounted Benefits and Costs and Rates of Return for Washington's Education and Training System over Working Lifetime, by Program (r.o.i. are quarterly interest rates)

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	(2)	\$62,744	\$ 403	20.52%	\$25,092	\$3,791	9.26%	\$87,836	\$4,194	13.23%
WIA I-B	(3)	38,928	-1,111	—	6,241	5,744	0.21%	45,170	4,633	15.14%
Federal Job Training (Youth)										
JTPA II-C	(2)	30,235	384	3.08%	6,770	2,605	6.08%	37,005	2,989	3.61%
WIA I-B Youth	(3)	29,002	0	—	8,282	6,617	0.07%	37,284	6,617	4.55%
Dislocated Workers										
JTPA III	(2)	81,327	13,640	5.19%	25,719	2,885	6.81%	107,046	16,525	5.53%
WIA I-B	(3)	49,201	10,746	5.00%	18,440	7,081	5.15%	67,641	17,827	5.04%
Worker Retraining <sup>a</sup>	(2)	70,012	18,631	2.86%	22,803	5,256	3.93%	92,815	23,887	3.08%
Worker Retraining <sup>a</sup>	(3)	23,938	8,952	2.82%	7,049	5,421	0.60%	30,987	14,373	2.14%
Education										
Secondary CTE	(2)	70,505	432	37.05%	13,389	974	10.39%	83,894	1,406	23.04%
Secondary CTE	(3)	43,491	-32	—	8,414	811	9.29%	51,905	779	43.97%
Comm. College Job Prep	(2)	103,926	5,034	10.44%	31,235	7,748	3.55%	135,161	12,783	7.08%
Comm. College Job Prep	(3)	95,228	6,474	15.10%	14,873	7,523	2.20%	110,101	14,397	9.19%
Private Career Schools	(3)	35,089	308	— <sup>c</sup>	1,279	0	— <sup>c</sup>	36,368	308	— <sup>c</sup>
Adult Basic Ed. <sup>b</sup>	(2)	4,944	311	++	3,020	1,101	1.34%	7,964	1,412	5.75%
Adult Basic Ed. <sup>b</sup>	(3)	5,558	-146	—	-5,558	2,570	—	0	2,424	—
Apprenticeships	(3)	197,896	-24,465	—	49,288	2,668	24.25%	247,184	-21,797	—
Disability Services										
Vocational Rehabilitation	(3)	56,560	-643	—	11,302	8,504	0.75%	67,862	7,861	11.99%
Blind and Visually Impaired	(3)	100,799	1,059	++	20,094	24,358	-0.55%	120,893	25,417	7.39%

### Notes to Previous Table

Study (2) is Hollenbeck and Huang 2003 (Washington State); Study (3) 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.

<sup>a</sup> A state-funded program for dislocated worker training.

<sup>b</sup> As administered by the Community and Technical College system.

<sup>c</sup>No data collected on tuition or fees, so costs are partial. We therefore did not calculate r.o.i.

# Comparisons to National JTPA Study (NJS)

- Net Impacts of JTPA II-A

NJS (U.S. GAO study using wage record data; inflated to \$2005/2006))

Year after assignment	Males		Females	
	Annual employment	Quarterly earnings	Annual employment	Quarterly earnings
+2	0.6	200*	2.6*	270*
+3	2.4	206*	3.1*	210*
+4	3.7*	196	2.0	196*
+5	1.2	110	1.3	137

\*Significant at 0.05 level.

## Washington State JTPA II-A (from above)

Quarters after exit  
8-11

Employment  
7.4\*\*\*

Earnings  
645\*\*\*

- Benefit-Cost of JTPA II-A

NJS	30 months after registration	Social b-c	1.50 (Abt report)
WA state	30 months after exit	Social b-c	1.21

# Policy Implications

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- Can use administrative data to estimate net impacts of education and training programs
- Decomposing earnings impacts into employment, hours, and wage rates adds insight
- Public and society reap substantial returns on virtually all education and training programs

Comments or questions are welcome.

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