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Estimates of the Net Impact of Career Technical Education in Washington

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Estimates of the Net Impact of Career Technical Education in Washington

September 16, 2002

Presentation to
NASDCTE Consortium's Fall Conference
Charleston, SC

Kevin M. Hollenbeck

W.E. Upjohn Institute
for Employment Research

Project

- Sponsored by Washington State Workforce Training and Education Coordinating Board (WTECB)
- Legislatively mandated

Sample Sizes

<u>Program</u>	<u>97/98</u>	<u>99/00</u>
JTPA II-A Adults	3,303	4,691
JTPA III	4,565	4,045
JTPA II-C Youth	2,403	3,057
Apprenticeship	3,212	3,198
→ CC Job Prep	17,206	16,748
CC Worker Retraining	3,317	6,894
CC ABE	11,421	13,623
Private Career School	--	10,992
→ Secondary Voc/Tech	6,212	10,030
<u>Comparison Group Pools</u>		
ES Labor Exchange Registrants **	106,440	223,608
HS General Track Survey	33,424	32,759

** Removed all observations who had ever participated in any of the education or training programs.

Methodology

- Quasi-experimental
- Administrative Data
 - Relatively inexpensive
 - Timely
 - More accurate

Net Impact vs. Gross Impact

Gross Impact - - What happened to program participants?

Net Impact - - What happened to program participants as compared to what would have happened if there were no program?

Preferred Methodology:

Random Assignment Experiment

e.g., clinical trials of a pharmaceutical

Calculate the difference between the “treatment” group and the “control” group.

Alternative methodology:

Quasi-experimental:

Identify a population with characteristics “like” program participants, but who didn’t participate in any programs.

Called a comparison group.

Alternative methodology (cont'd):

Calculate the difference between the “treatment” group and the “comparison” group.

Comparison Group Pool

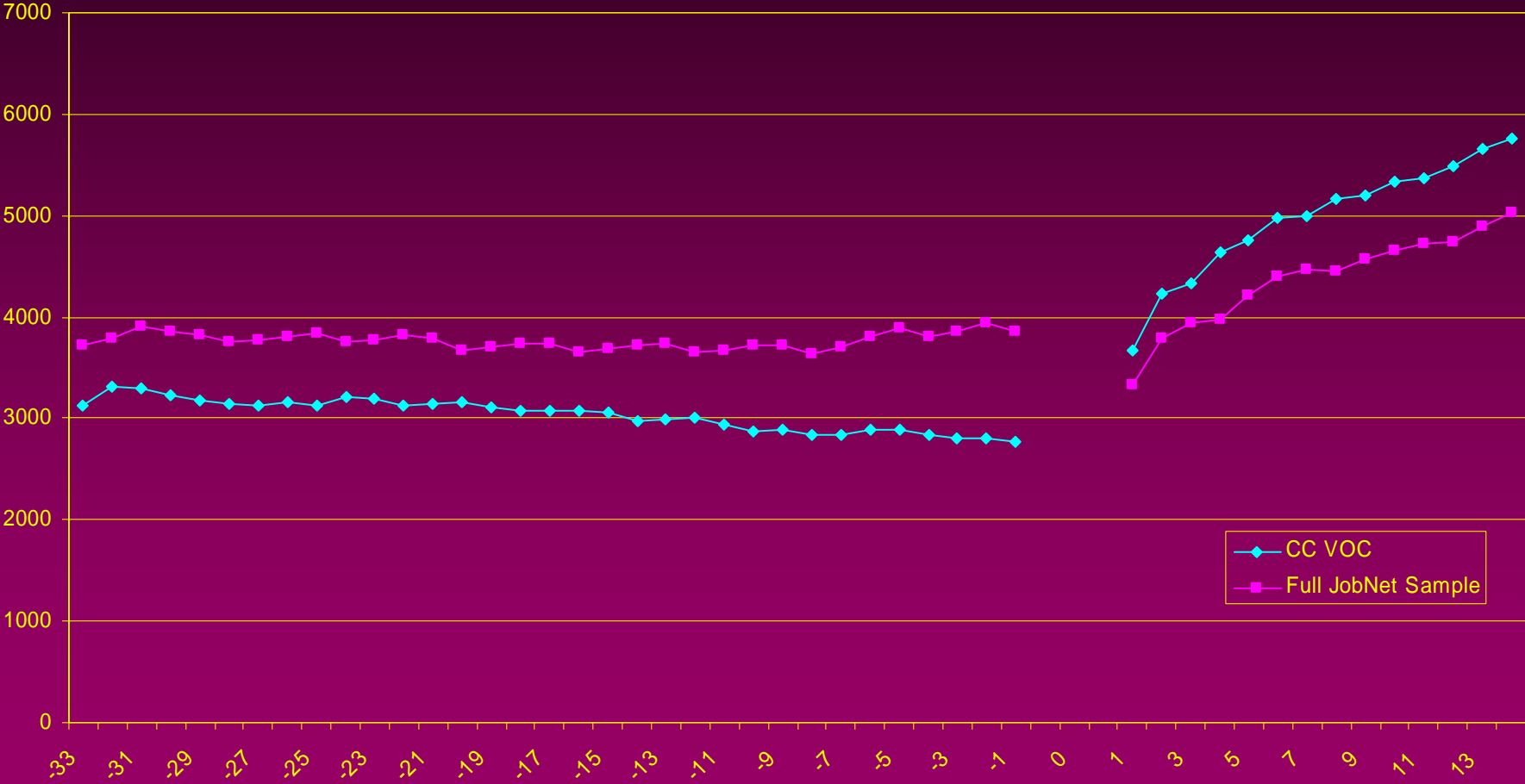
- Individuals who registered with ES, but didn't participate in any workforce education or training program

Comparison Groups:

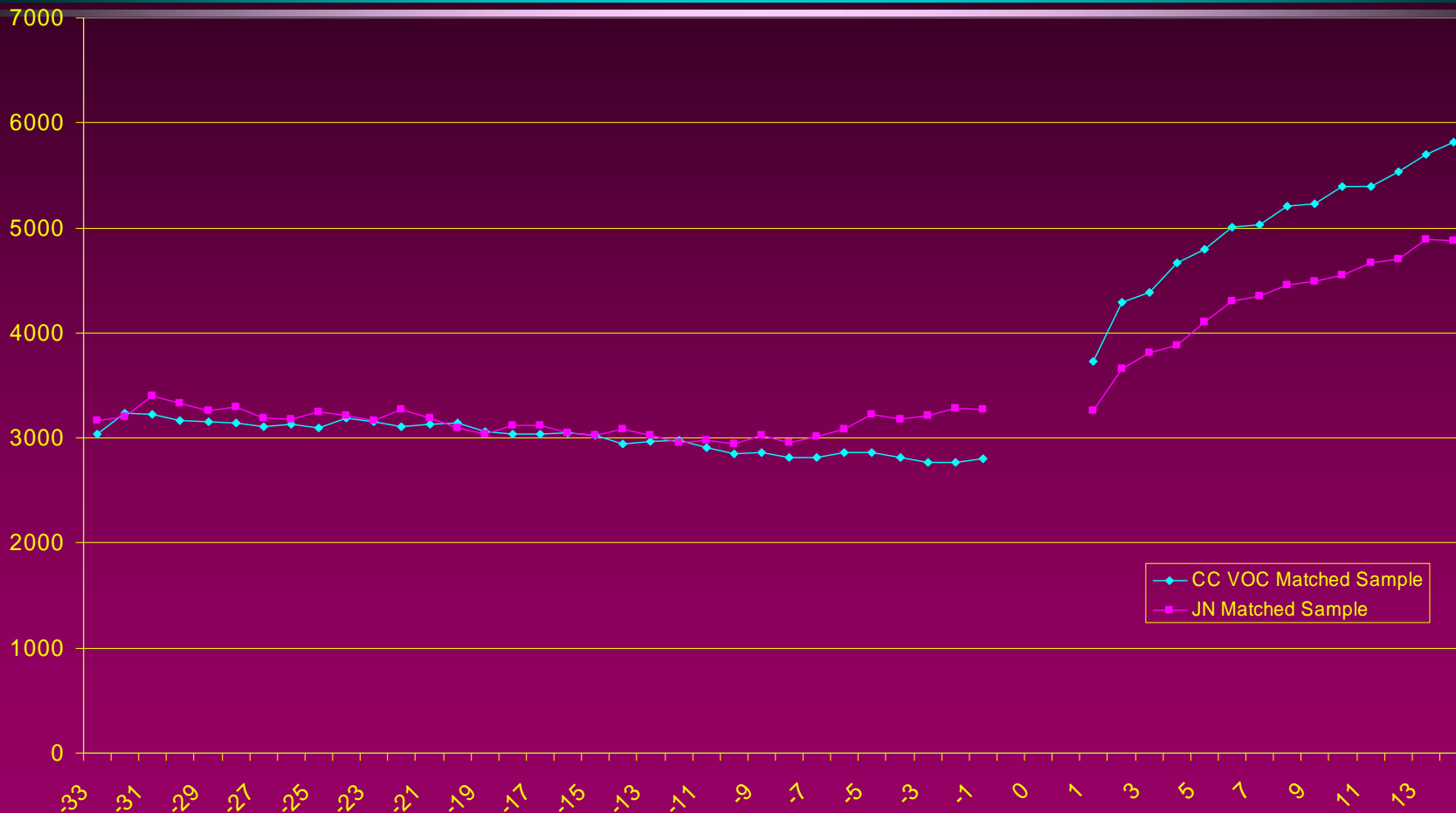
- Individuals among the ES registrants who are statistically similar to program participants
- Statistical similarity determined by technique called *statistical matching*

CC VOC

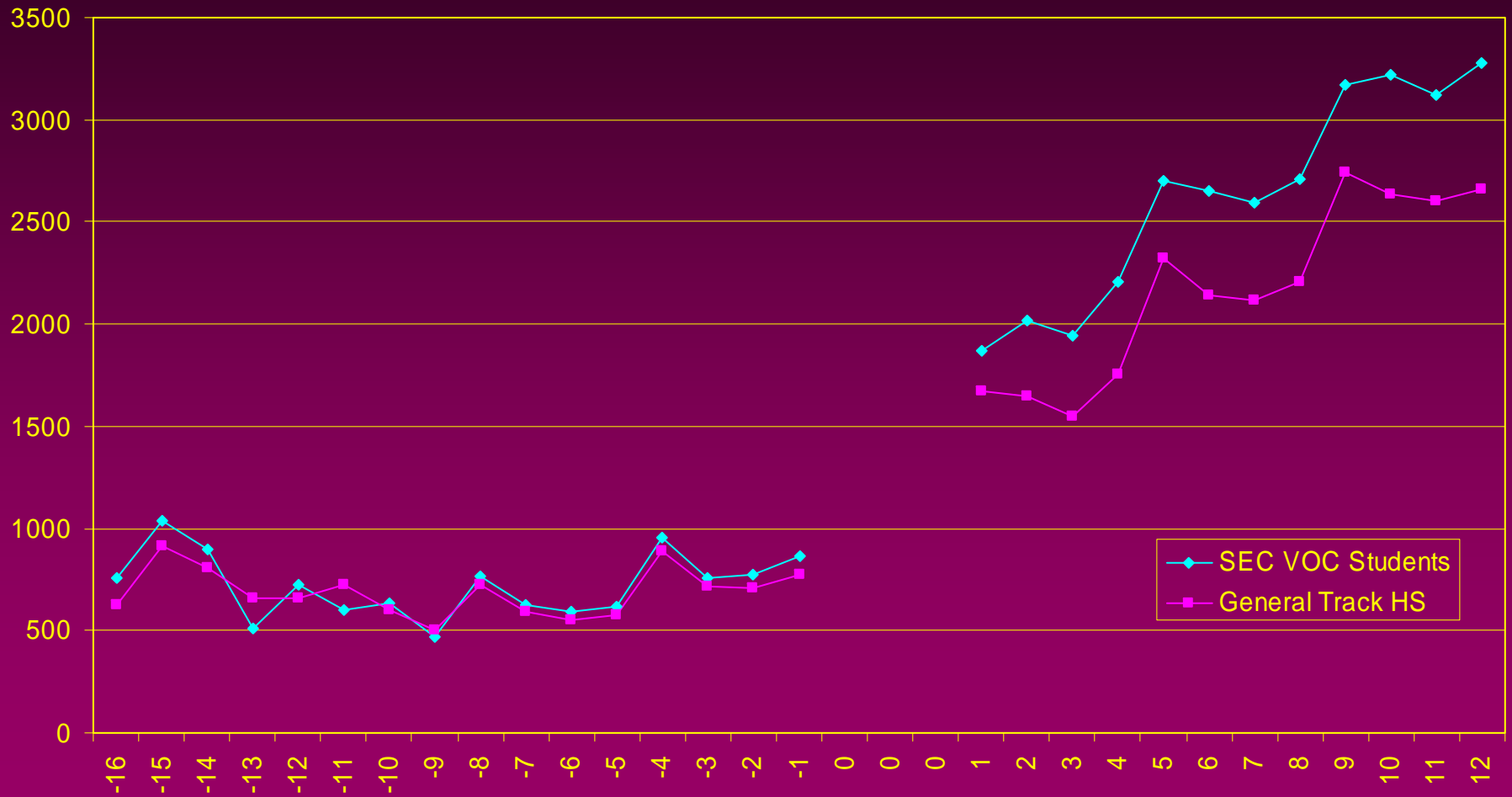
Earnings Trend, 1997/1998



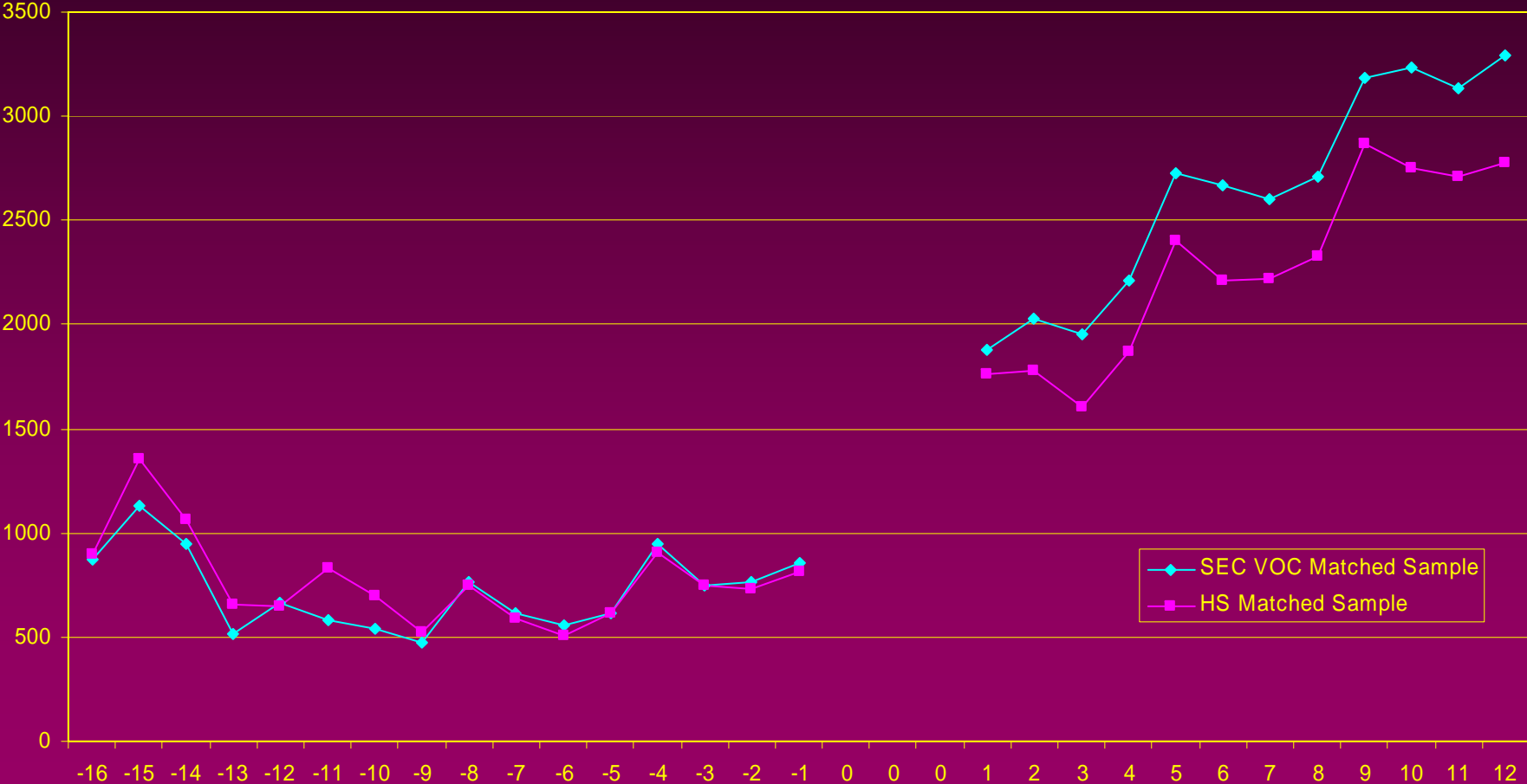
CC VOC Earnings Trend, 1997/1998



SEC VOC Earnings Trend, 1997/1998



SEC VOC Earnings Trend, 1997/1998



Results

- Current project results are **PRELIMINARY – Please do not cite.**

Job Preparation Training

at

Community and Technical Colleges

Short-Term Net Impacts (during 3rd Quarter after Leaving)

	Comparison Group	Net Impact	Participants (Adjusted)*
Employment: (%age in reported employment)	71.0%	4.5%	75.5%
Mean Hourly Wage (of those working)	\$11.56	\$1.76	\$13.32
Mean Hours Worked: (per quarter for those working)	402.1	38.6	440.7
Mean Quarterly Earnings: (of those working)	\$4,560	\$931	\$5,491
TANF: (%age receiving aid)	6.1%	-0.6%	5.5%
Food Stamps (%age receiving)	10.8%	-0.9%	9.9%
Medicaid Benefits: (%age receiving)	15.2%	-0.8%**	13.4%

*Statistically adjusted to control for demographic differences.

**Not statistically significant at the 0.10 level.

Longer-Term Net Impacts (during 8th – 11th Quarters after Leaving)

	Comparison Group	Net Impact	Participants (Adjusted)*
Employment: (%age in reported employment)	68.4%	7.0%	75.4%
Mean Hourly Wage (of those working)	\$12.74	\$1.70	\$14.44
Mean Hours Worked: (per quarter for those working)	398.0	44.8	442.8
Mean Quarterly Earnings: (of those working)	\$5,097	\$1,185	\$6,282
Unemployment Insurance: (%age receiving)	10.6%	-0.7%	9.9%
TANF: (%age receiving aid)	5.2%	-0.4%**	9.1%
Food Stamps (%age receiving)	10.5%	-1.4%	9.1%
Medicaid Benefits: (%age receiving)	16.7%	-1.8%	14.9%

* Statistically adjusted to control for demographic differences

**Not statistically significant at the 0.10 level.

Private Career Schools

Short-Term Net Impacts (during 3rd Quarter after Leaving)

	Comparison Group	Net Impact	Participants (Adjusted)*
Employment: (%age in reported employment)	70.5%	2.6%	73.1%
Mean Hourly Wage (of those working)	\$12.54	\$0.25**	\$12.79
Mean Hours Worked: (per quarter for those working)	393.7	-4.9**	388.8
Mean Quarterly Earnings: (of those working)	\$4,742	\$10**	\$4,751
TANF: (%age receiving aid)	4.9%	2.7%	7.6%
Food Stamps (%age receiving)	11.0%	2.9%	13.9%
Medicaid Benefits: (%age receiving)	18.4%	3.8%	22.2%

*Statistically adjusted to control for demographic differences.

**Not statistically significant at the 0.10 level.

Secondary Voc/Tech

Short-Term Net Impacts (during 3rd Quarter after Leaving)

	Comparison Group	Net Impact	Participants (Adjusted)*
Employment: (%age in reported employment)	50.7%	5.5%	56.2%
Mean Hourly Wage (of those working)	\$9.74	\$0.29**	\$10.03
Mean Hours Worked: (per quarter for those working)	252.7	11.4	264.1
Mean Quarterly Earnings: (of those working)	\$2,143	\$112	\$2,255
TANF: (%age receiving aid)	1.0%	0.0%**	1.0%
Food Stamps (%age receiving)	2.6%	-0.4%	2.2%
Medicaid Benefits: (%age receiving)	9.4%	-0.6%**	8.8%

*Statistically adjusted to control for demographic differences.

**Not statistically significant at the 0.10 level.

Longer-Term Net Impacts (during 8th – 11th Quarters after Leaving)

	Comparison Group	Net Impact	Participants (Adjusted)*
Employment: (%age in reported employment)	62.4%	5.7%	68.1%
Mean Hourly Wage (of those working)	\$9.70	\$0.50	\$10.21
Mean Hours Worked: (per quarter for those working)	302.6	27.1	329.7
Mean Quarterly Earnings: (of those working)	\$2,991	\$451	\$3,442
Unemployment Insurance: (%age receiving)	4.3%	1.0%	5.3%
TANF: (%age receiving aid)	2.3%	0.1%**	2.4%
Food Stamps (%age receiving)	3.7%	0.1%**	3.8%
Medicaid Benefits: (%age receiving)	9.2%	-0.3%**	8.9%

*Statistically adjusted to control for demographic differences.

**Not statistically significant at the 0.10 level.

Benefits and Costs (from previous study)

Benefits and Costs of Postsecondary Training at Community and Technical Colleges

	First 3.5 years after program		Forecast to age 65	
	Participant	Public	Participant	Public
Earnings	\$13,260		\$91,381	
Employee Benefits	\$1,801		\$17,425	
Foregone Earnings	-\$4,255		-\$4,255	
UI Benefits	-\$967	\$967	\$2,787	-\$2,787
Welfare Benefits	-\$257	\$257	-\$5,310	\$5,310
Program Costs		-\$6,543		-\$6,543
Tuition	-\$1,828		-\$1,828	
Taxes*	-\$2,320	\$3,216	-\$22,740	\$31,409
TOTAL	\$5,434	-\$2,103	\$77,460	\$27,389

* Tax revenues are greater than the tax cost to the participant because revenues include unemployment insurance, social security, and medicare payroll taxes paid by employers.

Benefits and Costs of Secondary Vocational-Technical Education

	First 1.5 years after program	
	Participant	Public
Earnings	\$2,107	
Employee Benefits	\$508	
Foregone Earnings	\$435	
UI Benefits	-\$52	\$52
Welfare Benefits	-\$597	\$597
Program Costs		-\$1,316
Taxes	-\$300	\$552
TOTAL	\$2,101	-\$115

* Tax revenues are greater than the tax cost to the participant because revenues include unemployment insurance, social security, and medicare payroll taxes paid by employers.