

2002

Estimates of the Net Impact of Career Technical Education in Washington

Kevin Hollenbeck

W.E. Upjohn Institute, hollenbeck@upjohn.org

Citation

Hollenbeck, Kevin. 2002. "Estimates of the Net Impact of Career Technical Education in Washington." Presented at NASDCTE (National Association of State Directors of Career Technical Education) Consortium's Fall conference, Charleston, SC, September 16. <https://research.upjohn.org/confpapers/33>

This title is brought to you by the Upjohn Institute. For more information, please contact repository@upjohn.org.

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

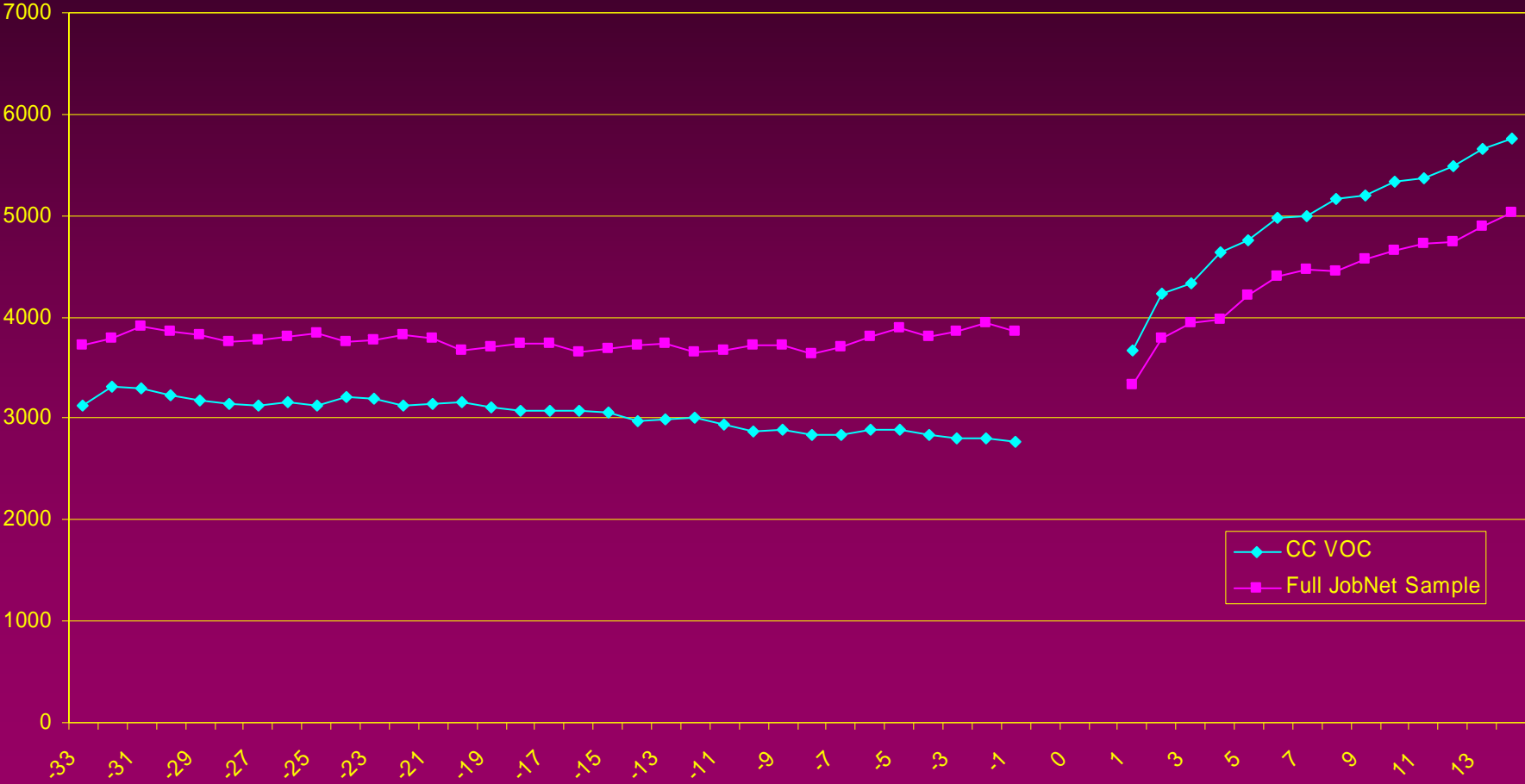
- Individuals who registered with ES, but didn't participate in any workforce education or training program

Comparison Groups:

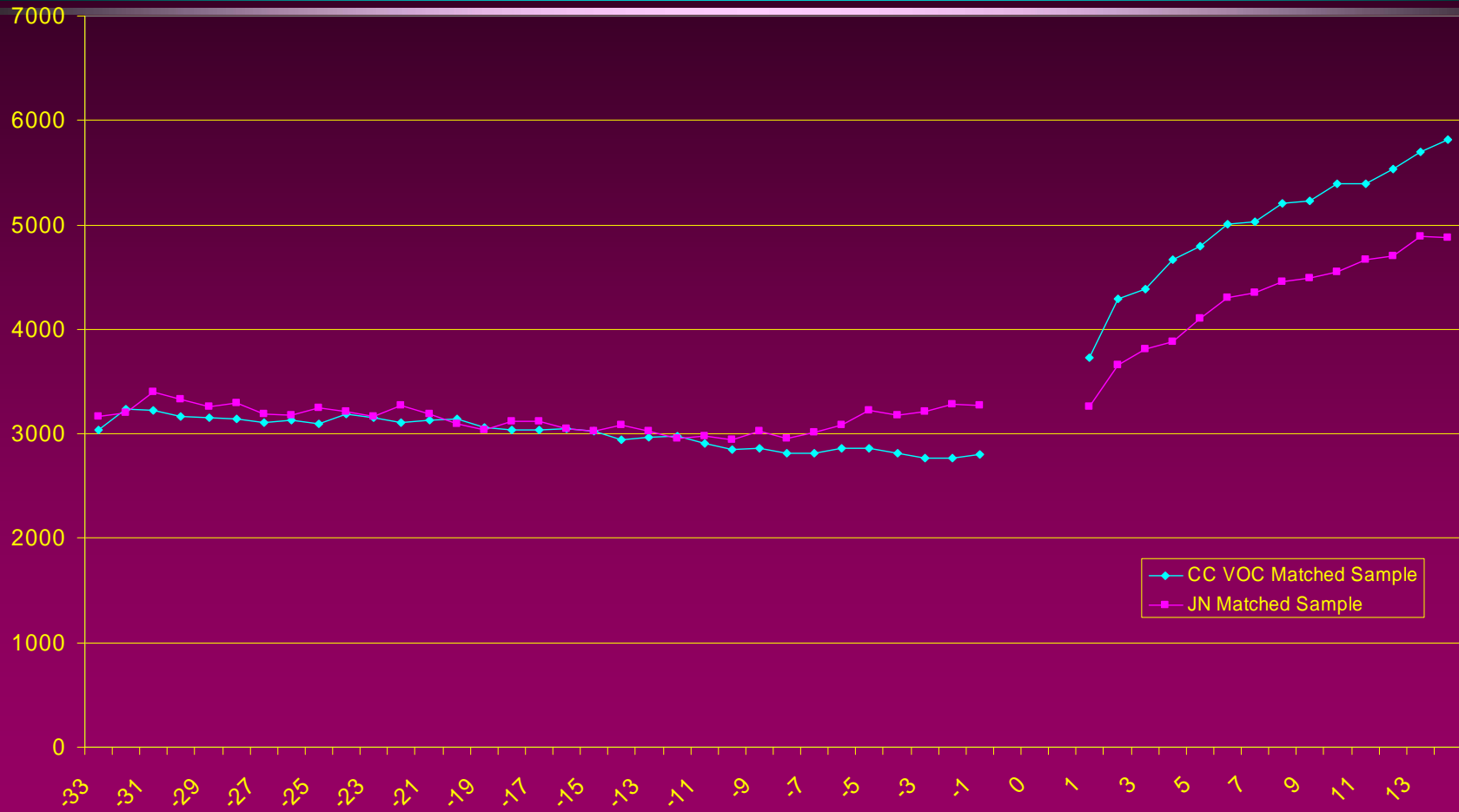
- Individuals among the ES registrants who are statistically similar to program participants
- Statistical similarity determined by technique called *statistical matching*

CC VOC

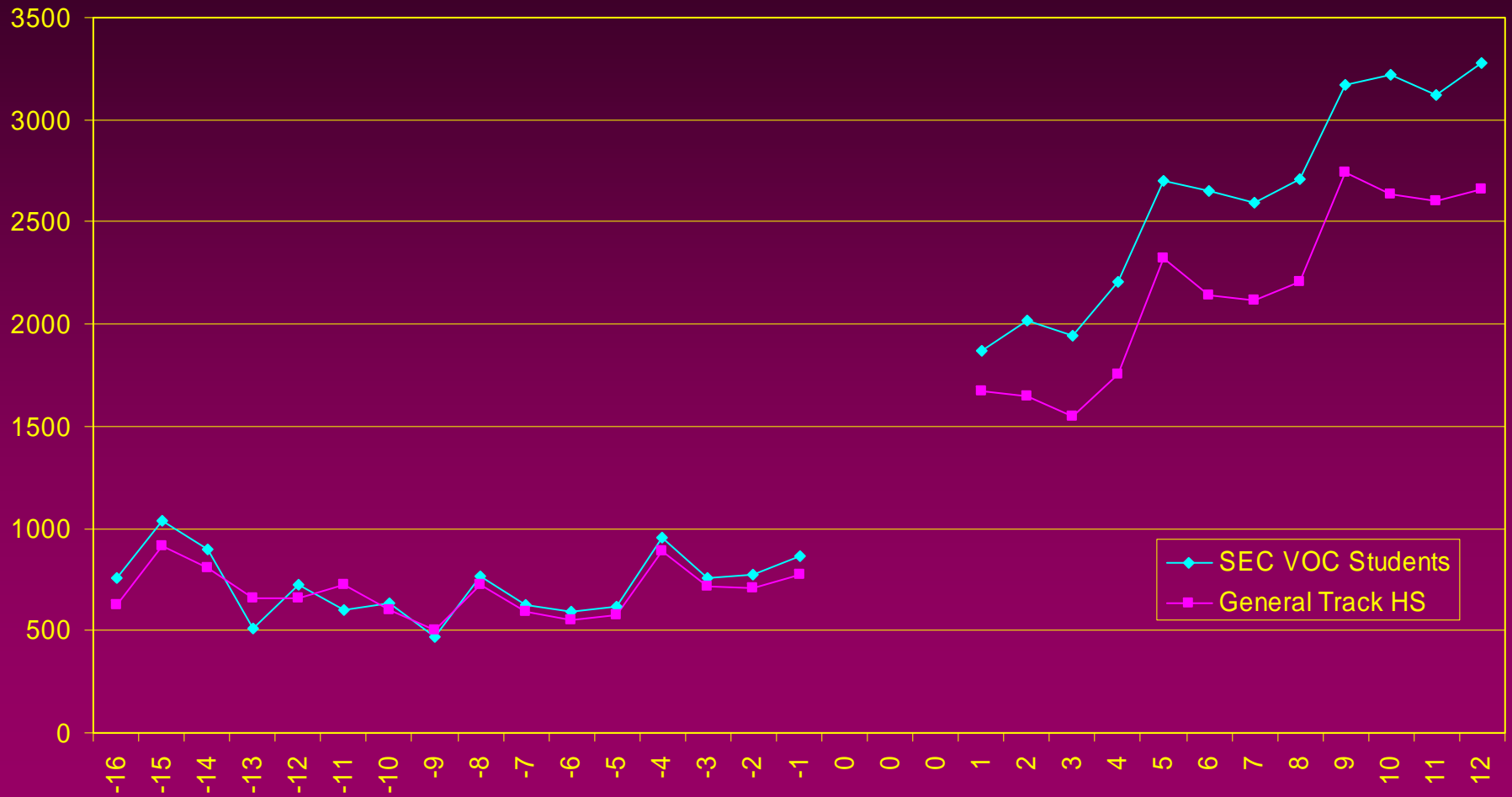
Earnings Trend, 1997/1998



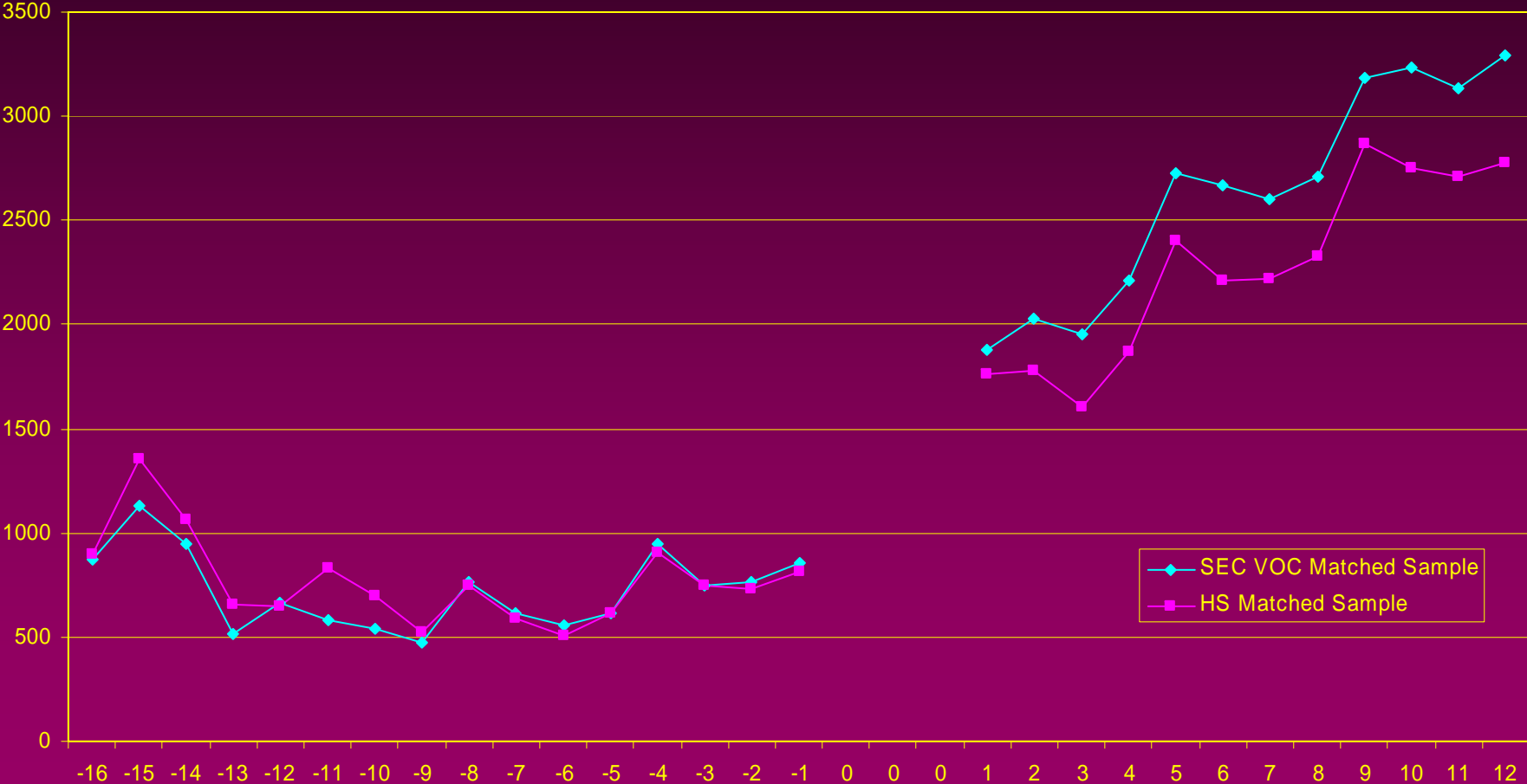
CC VOC Earnings Trend, 1997/1998



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.