Workforce Training Results

2008

Workforce Training and Education Coordinating Board
128 - 10th Avenue SW, PO Box 43105, Olympia, 98504-3105
360-753-5662, Fax 360-586-5862
www.wtb.wa.gov • E-mail: wtecb@wtb.wa.gov
Workforce Development System Overall Results
This section presents the data for all the workforce development programs combined.

Participant Characteristics
The demographic characteristics of program participants are an important factor in evaluating program results. Programs serving participants who have significant work experience and basic skills can be expected to have higher labor market outcomes than those serving participants with little work experience, low levels of literacy, and other barriers to employment.

The racial and ethnic composition of participants in our workforce development programs is typically more diverse than similarly aged populations in our state (Figure 1).

Competency Gains
Desired Outcome: Washington’s workforce possesses the skills and abilities required in the workplace.

Many workforce development program participants attain competencies by virtue of participating in these programs (Figure 2). In many programs, however, successful completion of a credential is the ultimate goal and typically results in certificates, degrees, or specified levels of competency. In the 2005-2006 program year, 66 percent of all the workforce participants successfully completed their programs.

The 2006 Washington State Population Survey was the source of data for the racial and ethnic background of the state’s population, which was comprised of 78 percent white; 3 percent African American; 7 percent Asian/Pacific Islanders; 8 percent Hispanic; 2 percent multiracial; and 1 percent Native American.

Completion data is included for Job Preparatory, Division of Vocational Rehabilitation, Department of Services for the Blind, Worker Retraining, Apprenticeships and Private Career Schools.

Figure 1 Workforce Development Participants by Race and Ethnicity 2005-2006

---

5 The 2006 Washington State Population Survey was the source of data for the racial and ethnic background of the state’s population, which was comprised of 78 percent white; 3 percent African American; 7 percent Asian/Pacific Islanders; 8 percent Hispanic; 2 percent multiracial; and 1 percent Native American.

6 Completion data is included for Job Preparatory, Division of Vocational Rehabilitation, Department of Services for the Blind, Worker Retraining, Apprenticeships and Private Career Schools.
Another measure of whether training provided participants with the right skills is whether the participants believed their training was related to their post-program employment. Overall, a majority of program participants indicated their training was related to the job they held during the third quarter after leaving the program. In program year 2005-2006, 27 percent said their training was somewhat related to their job and 36 percent said it was very related.

**Employment**

**Desired Outcome:** Washington's workforce finds employment opportunities.

We evaluate the labor market outcomes of program participants by examining their employment and earnings during the third quarter after leaving a program. Participants leaving programs in 2005-2006 encountered an economy that was robust. The state's unemployment rate was still on the decline from the 2003-2004 program year. (Figure 3)
Most program participants reported having a job during the third quarter (seven to nine months) after they left their program. Although employment rates vary across programs, overall 77 percent of the participants reported being employed which is virtually the same as reported in 2003-2004. Records from the state Employment Security Department indicate employment at 59 percent in the third quarter after program participation. (These records do not include self-employment or all out-of-state employment.) This is a 9 percent improvement over the rate recorded for participants from the 2003-2004 program year.

**Earnings**

**Desired Outcome:** Washington’s workforce achieves a family-wage standard of living from earned income.

Research has shown that post-program earnings are very much affected by the characteristics of the participants who entered the program. Youth had the lowest post-program median hourly wages ($9.01) and median annualized quarterly earnings ($9,520), and adults had the highest hourly wages ($14.26) and earnings ($24,970). Adults with barriers, such as those served by the Division of Vocational Rehabilitation, the Department of Services for the Blind, Adult Basic Education, WorkFirst and Workforce Investment Act-Adult had a median hourly wage of $9.72 and median annualized earnings of $13,922. In 2008, the federal poverty guidelines stood at $10,400 per year for a household of one and $14,000 for a family of two.

In most instances, post-program earnings and hourly wages were lower for women than for men. However, the wage gap is decreasing. In most programs, the median hourly wage of women relative to men went from 83 percent in 1999-2000 to 88 percent in 2005-2006 (Figure 4).

<table>
<thead>
<tr>
<th>Year</th>
<th>Median Hourly Wage of Women Relative to Men (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997-98</td>
<td>85%</td>
</tr>
<tr>
<td>1999-00</td>
<td>83%</td>
</tr>
<tr>
<td>2001-02</td>
<td>86%</td>
</tr>
<tr>
<td>2003-04</td>
<td>87%</td>
</tr>
<tr>
<td>2005-06</td>
<td>88%</td>
</tr>
</tbody>
</table>

Earnings were also lower for people with disabilities. Earnings were generally lower for people of ethnic/racial minorities than for whites with the exception of Asians and Pacific Islanders (Figure 5). These differences in post-program wages and earnings by gender, disability status, and race/ethnicity generally reflect differences observed in the overall labor market.
Participant Satisfaction

**Desired Outcome:** Workforce development participants and their employers are satisfied with workforce development services and results.

The vast majority of programs had increasing levels of participant satisfaction since 2001.

Although results vary by program, participants tended to be most dissatisfied with the advice provided to them in selecting a training program. Most participants reported receiving the support services they needed while participating in their program. Many participants in several programs, however, reported an unmet need for information about job openings. This is similar to earlier evaluations.7

---

7 *Unmet need refers to cases where participants report that either they did not receive the required service or what was provided did not meet their needs.*
Employer Satisfaction

**Desired Outcome:** Workforce development participants and their employers are satisfied with workforce development services and results.

Employers were generally satisfied with the overall work quality of new employees who recently completed one of these programs and the percentage of satisfied employers has increased over the last three program years (Figure 7).

**Figure 7** Average Percent of Employer Satisfaction with Quality of Work for All Workforce Participants by Program Year

![Bar chart showing employer satisfaction by program year.](chart1)

In terms of being “very satisfied,” employers tended to rate the job-specific skills of new employees higher than their general workplace skills or basic skills. (Figure 8).^8

**Figure 8** Employers Very Satisfied With Skills of New Employees

![Bar chart showing employer satisfaction by skill type and program type.](chart2)

---

^8 For basic skills and general workplace skills, the percentage of “very satisfied” was an average across the types of basic and general workplace skills.
Return on Investment

Desired Outcome: Workforce development programs provide returns that exceed program costs.

Every four years the Workforce Board conducts net impact and cost-benefit analyses of workforce development programs. The last net impact study, conducted in 2006, examined the experience of participants who left programs during the 2003-2004 and 2001-2002 program years. Study results were presented in the last edition of Workforce Training Results, and the results are reproduced here for informational purposes. (The next such study will occur in 2010 and will examine the experience of participants leaving programs in 2005-2006 and 2007-2008.)

These evaluations attempt to estimate what happens to program participants as compared to what would have happened if they had not participated in a workforce development program. The objective is to determine the difference the program made for the participant. The Workforce Board contracted with the W.E. Upjohn Institute for Employment Research (Upjohn) to conduct the net impact and cost-benefit evaluations.

Individuals who participated in these workforce development programs were compared to similar individuals who did not. For most of the programs, the comparison group was selected from registrants with the state’s employment service. Different sources of data were used for the comparison groups for Secondary Career and Technical Education (CTE), division of Vocational Rehabilitation (DVR) and Department of Services for the Blind (DSB) clients.

This Graduate Follow-Up Study was used to identify both students completing a CTE sequence, as well as comparable students who had not. For both DVR and DSB the comparison group was selected from eligible applicants who left the program before starting a service plan. An empirical approach, called statistical matching, was used to find the employment service registrant, secondary student, DVR client, or DSB client who most closely matched each program participant in terms of a long list of characteristics.

For the cost-benefit analyses, Upjohn calculated the value of the net impacts on participant earnings, employee benefits, social welfare benefits, unemployment insurance (UI) benefits, and taxes. Benefits and costs were estimated for both the observed post-program period and out to the age of 65.

Upjohn found that during the third year after program participation, the payoffs to education and training are strong and pervasive (Figure 9). The employment impacts for all programs are positive. Most programs, with the exception of Adult Basic Education, increased the average lifetime earnings of participants. The combined effects on average earnings and employment rates result in sizable impacts on total lifetime earnings.

---

9 The net impact and cost-benefit analyses did not include the WorkFirst program.
10 These include demographics (such as race and ethnicity, gender, disability status, prior education, age, region of the state), preprogram earnings and employment history, UI benefit receipt history, and preprogram receipt of public assistance.
11 Upjohn estimated the impact of the net change in earnings on Social Security, Medicare, federal income, and state sales taxes.
12 To compare benefits and costs in terms of net present values, post-program benefits and costs are discounted by 3 percent per year and all figures are stated in 2005 Q1 dollars.
Figure 9 Longer-Term Participant Net Increases (Difference compared to Non-Participants)

<table>
<thead>
<tr>
<th>Program</th>
<th>Increased Employment</th>
<th>Increased Quarterly Earnings</th>
<th>Increased Lifetime Earnings**</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTC Job Preparatory</td>
<td>6.7%</td>
<td>$1,008</td>
<td>$90,455</td>
</tr>
<tr>
<td>Private Career School</td>
<td>4.3%</td>
<td>$343</td>
<td>$29,719</td>
</tr>
<tr>
<td>Apprenticeship</td>
<td>6.8%</td>
<td>$2,281</td>
<td>$205,825</td>
</tr>
<tr>
<td>CTC Worker Retraining</td>
<td>4.6%</td>
<td>$298</td>
<td>$21,128</td>
</tr>
<tr>
<td>WIA Dislocated Workers</td>
<td>6.4%</td>
<td>$752</td>
<td>$45,544</td>
</tr>
<tr>
<td>ABE</td>
<td>5.9%</td>
<td>*</td>
<td>$0</td>
</tr>
<tr>
<td>WIA Adults</td>
<td>6.6%</td>
<td>$443</td>
<td>$29,945</td>
</tr>
<tr>
<td>DVR</td>
<td>11.0%</td>
<td>$688</td>
<td>$45,850</td>
</tr>
<tr>
<td>DSB</td>
<td>20.3%</td>
<td>$1,492</td>
<td>$78,429</td>
</tr>
<tr>
<td>Secondary CTE</td>
<td>5.4%</td>
<td>$416</td>
<td>$38,041</td>
</tr>
<tr>
<td>WIA Youth</td>
<td>10.3%</td>
<td>$317</td>
<td>$27,780</td>
</tr>
</tbody>
</table>

Note: Longer-term refers to impacts observed 9 to 12 quarters after leaving the program. Earnings are expressed in 2005 Q1 dollars.
* Not statistically significant at the 0.05 level.
** This is the increase in earnings (above that of the comparison group) projected to age 65 and discounted at 3 percent. Includes effects from increased employment and increased earnings among those employed.

Figure 10 compares lifetime participant benefits to public costs. For example, during the course of working life to age 65, the average Community Technical College (CTC) Job Preparatory participant will gain about $106,000 in net earnings (earnings minus foregone earnings while in training) and employee benefits. These are net gains compared to the earnings of similar individuals who did not receive training (discounted at 3 percent and expressed in 2005 Q1 dollars). For CTC Job Preparatory participants, the ratio of participant benefits to program costs, not considering impacts on social welfare benefits or taxes, is $106,237 to $7,560, or about 14 to 1. Lifetime participant benefits far exceed public costs for each of the programs, with the exception of Adult Basic Education (when participants do not also receive vocational training).

Tax revenues are affected by the change in participant earnings (Figure 10). For example, during the entire post training period to age 65, the public gains an estimated $15,603 in tax revenues for each CTC Job Preparatory participant. Estimated increases in tax receipts alone outweigh public costs for six of the 11 programs in the study. Moreover, many of the programs were found to reduce reliance on social welfare (specifically TANF, food stamps, and medical benefits).
### Figure 10  Participant Benefits, Increases in Tax Receipts, and Public Costs to Age 65

<table>
<thead>
<tr>
<th>Program Type</th>
<th>Increased Participant Compensation*</th>
<th>Increased Tax Receipts**</th>
<th>Public Costs***</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTC Job Preparatory</td>
<td>$106,237</td>
<td>$15,603</td>
<td>$7,560</td>
</tr>
<tr>
<td>Apprenticeship</td>
<td>$270,988</td>
<td>$53,515</td>
<td>$2,546</td>
</tr>
<tr>
<td>Private Career School</td>
<td>$35,369</td>
<td>$5,126</td>
<td>$0</td>
</tr>
<tr>
<td>CTC Worker Retraining</td>
<td>$19,459</td>
<td>$5,494</td>
<td>$5,172</td>
</tr>
<tr>
<td>WIA Dislocated Workers</td>
<td>$44,399</td>
<td>$11,841</td>
<td>$6,757</td>
</tr>
<tr>
<td>ABE</td>
<td>$0</td>
<td>$0</td>
<td>$2,453</td>
</tr>
<tr>
<td>WIA Adults</td>
<td>$34,874</td>
<td>$5,166</td>
<td>$5,481</td>
</tr>
<tr>
<td>DVR</td>
<td>$55,633</td>
<td>$7,909</td>
<td>$8,114</td>
</tr>
<tr>
<td>DSB</td>
<td>$83,472</td>
<td>$13,529</td>
<td>$23,243</td>
</tr>
<tr>
<td>Secondary CTE</td>
<td>$45,680</td>
<td>$6,562</td>
<td>$924</td>
</tr>
<tr>
<td>WIA Youth</td>
<td>$33,336</td>
<td>$4,792</td>
<td>$6,314</td>
</tr>
</tbody>
</table>

Notes: Compensation, receipts, costs are expressed in 2005 Q1 dollars.

* Present value of the additional lifetime earnings and employee benefits less foregone earnings during program participation.

** Present value of additional Social Security, Medicare, federal income, and state sales taxes generated by increased participant earnings to age 65.

*** Includes state and federal program costs per participant, with the exception of student financial aid programs.

### Data Sources

Findings are based on the following data sources:

- Program records on over 135,364 individuals who left one of these programs during the 2005-2006 program year. These records include information for most participants leaving these programs.

- Telephone survey responses from 1,042 firms that hired new employees who had recently completed one of the programs.

- Telephone survey responses from approximately 2,994 participants who left one of these programs during 2005-2006.

- Computer matches with Washington state Employment Security Department employment records and those of two other states (Idaho and Oregon) as well as federal employment records. These matches provide valuable information on employment and earnings outcomes. The data are incomplete, however, and employment rates among participants are underestimated. Self-employment, for example, is not reported. Also, employment figures in states outside the Pacific Northwest are not included in this analysis.

- Computer matches with enrollment data from the state’s 34 community and technical colleges and all public four-year institutions in the state, private career schools licensed by the Workforce Board, and apprenticeships overseen by the state Department of Labor & Industries. These data underestimate post-program enrollment rates; private four-year colleges and out-of-state schools are not included in the record matches.
Except for Secondary Career and Technical Education, the results presented in this report are for all participants, not just those who completed their program. Participants are defined as individuals who entered a program and demonstrated the intent to complete a sequence of program activities. The number of participants who leave their program before completion affects program results.

For more detailed study results, go to www.wtb.wa.gov/wtr2008.
Our Vision

Washington’s Workforce Training and Education Coordinating Board is an active and effective partnership of labor, business, and government leaders guiding the best workforce development system in the world.

Our Mission

The Workforce Training and Education Coordinating Board’s mission is to bring business, labor, and the public sector together to shape strategies to best meet the state and local workforce and employer needs of Washington in order to create and sustain a high-skill, high-wage economy.

To fulfill this Mission, Board members, with the support of staff, work together to:

► Advise the Governor and Legislature on workforce development policy.
► Promote a system of workforce development that responds to the lifelong learning needs of the current and future workforce.
► Advocate for the nonbaccalaureate training and education needs of workers and employers.
► Facilitate innovations in workforce development policy and practices.
► Ensure system quality and accountability by evaluating results and supporting high standards and continuous improvement.

Board Members

David Harrison, Chair

Representing Labor
Rick Bender
Washington State Labor Council

Janet Lewis
International Brotherhood of Electrical Workers

Beth Thew
Spokane Regional Labor Council, AFL-CIO

Target Populations
Tony Lee
Fremont Public Association

Representing Government
Randy Dorn
Office of Superintendent of Public Instruction

Charlie Earl
State Board for Community and Technical Colleges

Karen Lee
Employment Security Department

Executive Director
Eleni Papadakis
Workforce Board

Representing Business
Creigh H. Agnew
Weyerhaeuser (Retired)

Mike Hudson
Association of Washington Business

Martin Bean
Microsoft Corporation

Representing Local Elected Officials
Kris Stadelman
Seattle-King County Workforce Development Council

Participating Officials

Stan Marshburn
State Department of Social and Health Services

Larry Williams
Department of Community, Trade and Economic Development