



Workforce Training and Education Coordinating Board

2015 Workforce Training Results

Basic Education for Adults

Program Details

Basic Education for Adults (Basic Education) is provided by community and technical colleges and, to a lesser extent, community-based organizations. This program was formerly called Adult Basic Education. Among the Basic Education participants included in this report, 97 percent received their education at community and technical colleges. This report is limited to adults who identified employment-related reasons for enrolling in basic skills courses and who proceeded to take only basic skills courses.¹ Those who took basic skills courses for non-employment-related reasons are not included, although their learning progress is tracked by the State Board for Community and Technical Colleges.

Every year, the Workforce Board measures the performance of key workforce programs. In this report, you'll find out more about the program and who is served, the metrics used to measure performance, and how the program performed.

Basic Education provides instruction in reading, writing, and mathematics for adults whose skills are at or below the eighth grade level; GED Test Preparation in basic academic skills beyond Basic Education for participants whose goal is to pass the high school equivalency examination; and High School Completion instruction for adults who want to earn an adult high school diploma. Students enrolled in Integrated Basic Education and Skills Training (I-BEST), for those transitioning into professional technical/academic certificate and degree programs, are briefly discussed in the net benefit section of this chapter, but are more extensively analyzed as part of the student population studied in the chapter on Community and Technical Colleges (CTC) Professional-Technical Education.

Many Basic Education participants are English as a Second Language (ESL) learners. ESL provides basic skills instruction and non-transfer level instruction across a wide range of competency levels in reading, writing, speaking, and listening in English. Some I-BEST programs also include ESL instruction.

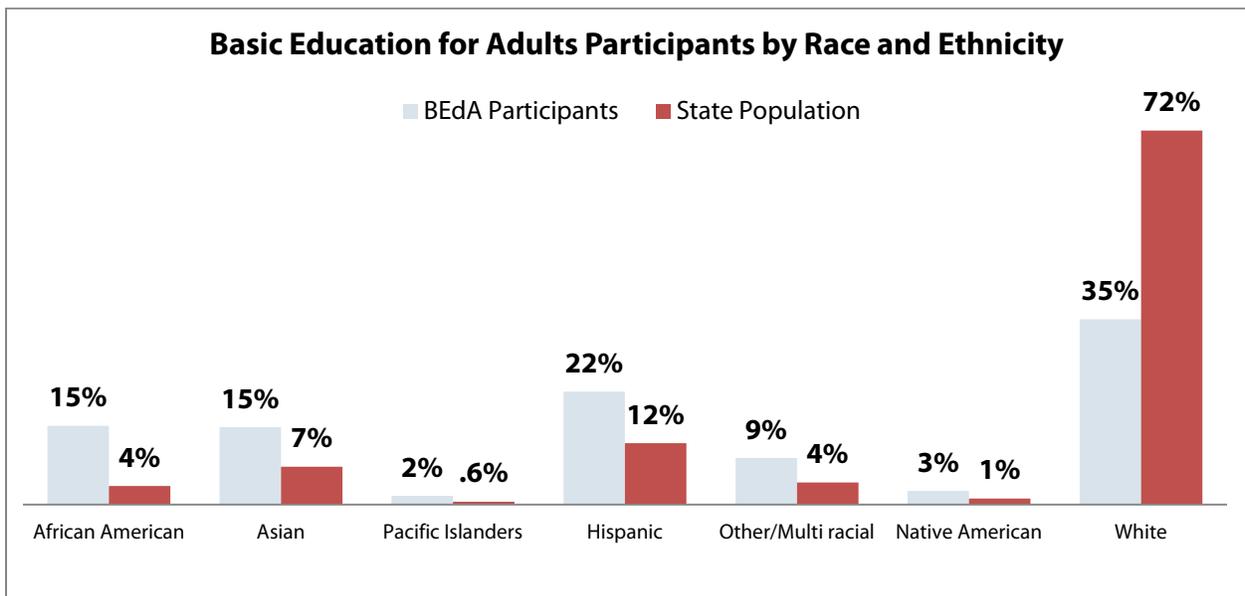
¹ Individuals taking both vocational courses and basic skills are included in the chapter on CTC Professional-Technical Education, which presents net impact estimates for participants taking a blend of basic skills and vocational training.



Participant Profile

For this 2015 report, researchers studied the results of 22,140 participants who left a Basic Education for Adults program during the most recent reporting year.² Basic Education serves the most racially and ethnically diverse participants of any workforce development program featured in Workforce Training Results. White participants made up a far smaller percentage of participants in Basic Education than their percentage of the overall population (35 percent in Basic Education vs. 72 percent of their share of the state population). However, other racial and ethnic groups had higher representation in Basic Education than their share of the population as a whole, particularly Hispanics, African Americans and Asians. This was particularly evident for Hispanics, who made up 12 percent of the population, but 22 percent of Basic Education participants.

Overall, non-whites comprised 65 percent of the participants, up 1 percentage point from last year's report.³



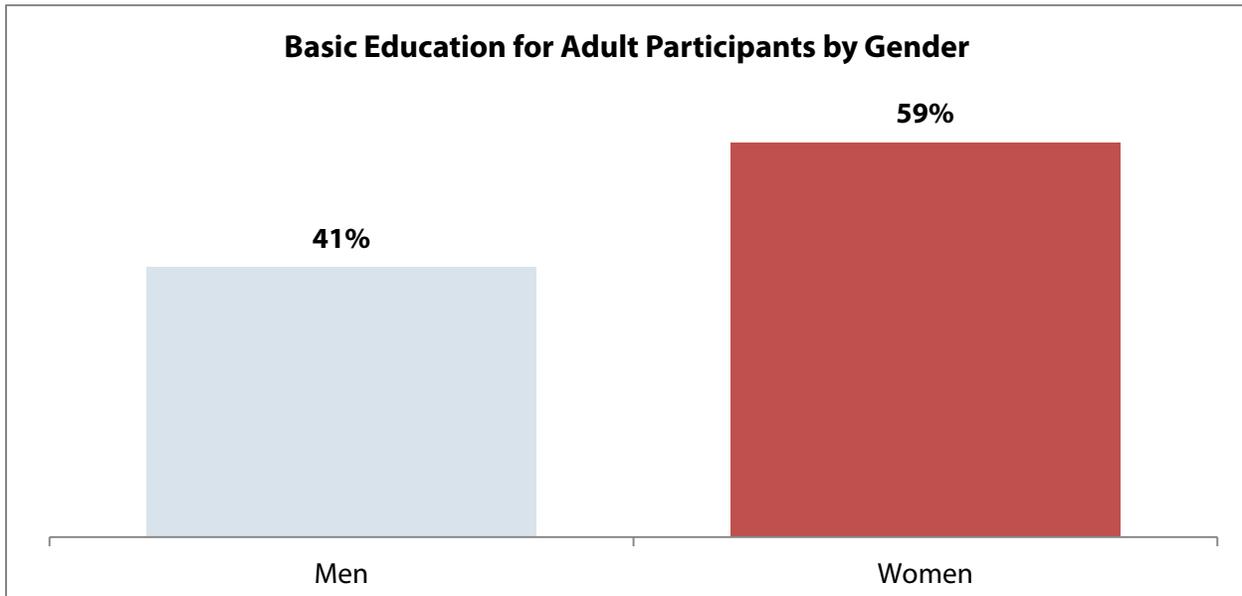
Source: Community and Technical Colleges Administrative Data 2012-13 and 2012 American Community Survey.

² The 2015 Workforce Training Results reports are based on data observed as recently as 2013-2014 for individuals exiting programs during 2012-13.

³ In this report, unless otherwise stated, racial and ethnic minority groups are mutually exclusive; that is, an individual belongs to one group only. The groups include the following: Hispanics of any race (also referred to as Hispanics); non-Hispanic African Americans (also referred to as African Americans); non-Hispanic Asians (also referred to as Asians); non-Hispanic Pacific Islanders (also referred to as Pacific Islanders); non-Hispanic Native Americans and Alaskan Natives (also referred to as Native Americans); non-Hispanic multiracial (also referred to as multiracial); and non-Hispanic whites (also referred to as whites). According to the 2012 U.S. Census Bureau estimates for Washington from the American Community Survey, 72 percent are white; 4 percent are African American; 3 percent are Native American; 7 percent are Asian; 2 percent are Pacific Islander; 4 percent are multiracial; and 12 percent are Hispanic.



Women also outnumbered men in Basic Education. Some 59 percent of participants were women, up 3 percentage points from the previous report.



Source: Community and Technical Colleges Administrative Data 2012-13.

The median age of participants leaving a Basic Education program was 29 years old. A quarter of participants were under age 23, while a quarter of the participants were over age 39.

Tracking Basic Education for Adults Progress

The Workforce Board routinely measures the performance of our state's largest workforce programs. As a customer-focused advocate for Washington's workers and employers, the Workforce Board strives to provide performance accountability, verifying whether worker education and training programs provide a return on investment for participants and taxpayers.

The Workforce Training Results report seeks to answer five core questions:

- Did participants get the skills they needed?
- Did participants get a job and how much were they paid?
- Were employers satisfied with the preparation workers received?
- Has the program made a difference in the participant's success?
- Did participants and the public receive a return on their investment?

Data Comes From State Wage Files

The 2015 Workforce Training Results includes information obtained from Employment Security Department wage files in Washington, Idaho, and Oregon, and federal employment records for 2013-14.



Net Impact Study Adds More Insight into Program Performance

In addition, the report includes a comprehensive Net Impact Study. Conducted every four years, this study provides a head-to-head comparison of participants and non-participants to help answer a central question: How much of a workforce participant's success in obtaining a job, or a higher wage, is due to the workforce program? By comparing program participants with similar individuals who did not participate in a workforce training program, the Net Impact Study indicates whether employment and earnings gains are due to the workforce program, or if workers could have made this progress on their own. This research also allows for a more detailed analysis as to whether the participant and the public received a return on their investment in the program.

Turn to page 17 for the Net Impact Study. Conducted every four years, this in-depth report adds extra value to 2015 Workforce Training Results. The study provides a side-by-side comparison of participants vs. similar non-participants, answering the question of whether the program is making a difference.

Did Participants Have a Job and How Much Were They Paid?

To find out whether participants had jobs and how much they earned, participant records were matched with Employment Security Department wage files from Washington and neighboring states.⁴

According to record matches, 51 percent of Basic Education participants had employment during the third quarter after they left the program- slightly higher than the percentage of employed participants observed in 2014 (49 percent). Their median hourly wage of \$11.54, and median annual earnings of \$17,764, was very similar to the prior program year.⁵ Following a decline between 2008 and 2011, employment has increased slightly. However, earnings have remained relatively flat since 2011.

⁴ These files contain quarterly earnings and hours worked information on those individuals with employment reported for unemployment insurance (UI) benefits purposes (approximately 90 percent of in-state employment, with self-employment, active duty military, and those working for religious nonprofit organizations being the major groups of employers not included).

⁵ Annual earnings are calculated as third quarter earnings multiplied by four. Quarterly earnings are the result of hourly wage rates and the number of hours worked in a calendar quarter. All wages and earnings are stated in first quarter 2014 dollars.



2014 Employment and Earnings for Basic Education Participants

Performance Measure	Results
Employment Rate*	51%
Full-Time Employment **	49%
Median Hourly Wage***	\$11.54
Median Quarterly Hours	388
Median Annualized Earnings***	\$17,764

* These figures apply to those with employment reported to state employment agencies six to nine months after leaving the program, through the first part of 2014. Rate does not include self-employment, employment outside the Northwest or military service and thus understates total employment by approximately 10 percent.

** Full-time employment averages 30 or more hours per week.

*** Earnings/wages expressed in first quarter 2014 dollars in order to account for inflation.

Earnings of Basic Education for Adults Participants

The next table shows employment and earnings over the course of five study periods. This data is also represented in a graph on the following page for the years 2011-2014.

Employment and Earnings Trends for Basic Education for Adults Participants

Performance Measure	2010	2011	2012	2013	2014
Employment Rate*	46%	46%	48%	49%	51%
Full-Time Employment**	49%	48%	50%	49%	49%
Median Quarterly Hours	385	382	386	384	388
Median Hourly Wage***	\$17,471	\$17,071	\$17,007	\$17,074	\$17,764
Median Annualized Earnings***	\$11.51	\$11.32	\$11.17	\$11.17	\$11.54

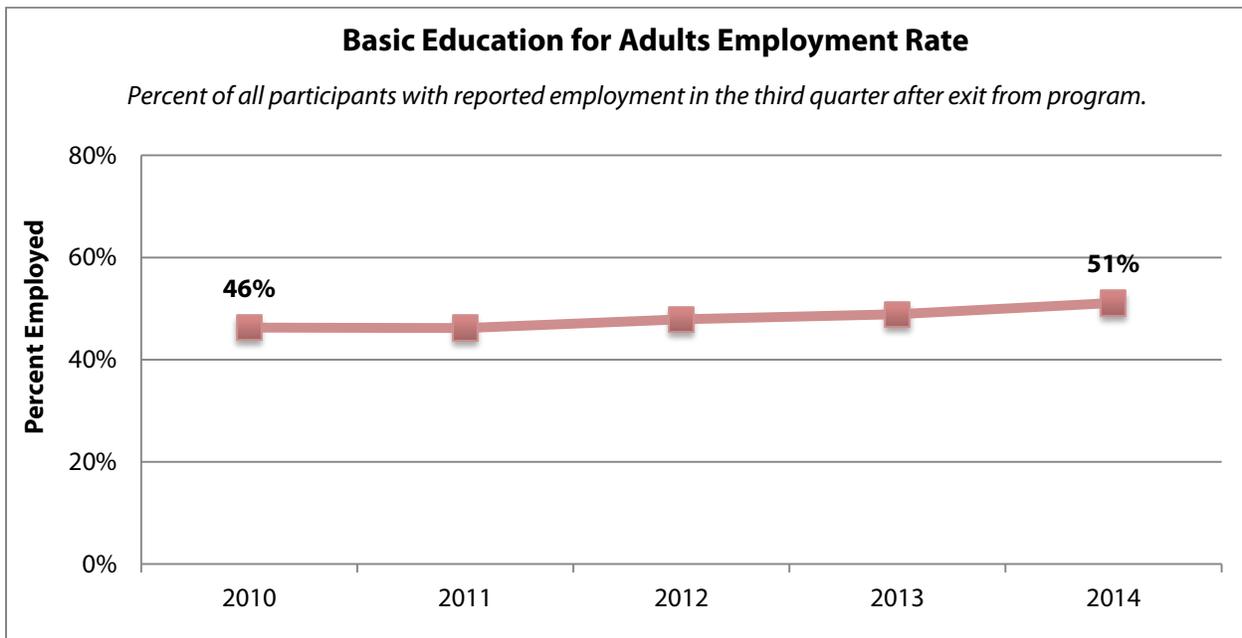
* These figures apply to those with employment reported to the state's Employment Security Department six to nine months after leaving program, through the first part of 2014. Rate does not include self-employment, employment outside the Northwest or military service and thus understates total employment by approximately 10 percent.

** Full-time employment averages 30 or more hours per week.

*** Earnings/wages expressed in first quarter 2014 dollars to account for inflation.

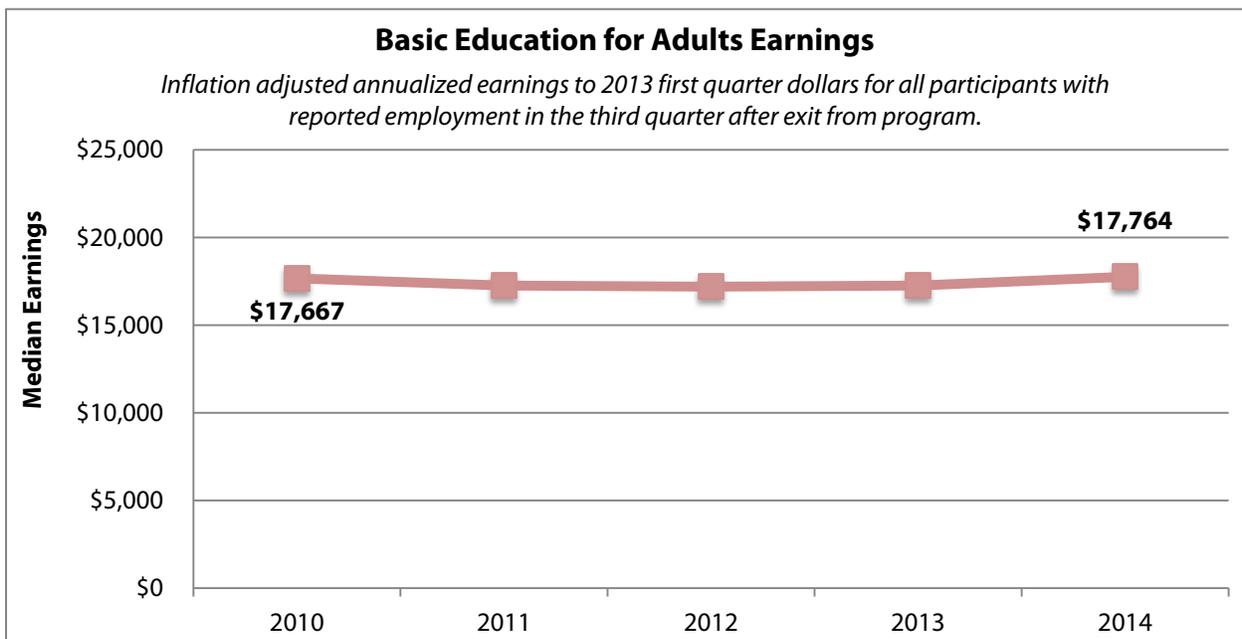
The percentage of participants employed in the 2015 report is similar to the percentage employed in the 2014 report (49 percent vs 51 percent).





Note: Rate does not include self-employment, employment outside the Northwest or military service, and thus understates total employment by approximately 10 percent.

Median annualized earnings for Basic Education participants are similar to the two previous reports, \$17,764 in this year's report compared to \$17,267 in the 2015 report and \$17,199 in the 2013 report.



Note: This chart shows annualized earnings in 2013 first quarter dollars to account for inflation.



Basic Education for Adults Employment by Industry

Employment among Basic Education participants is heavily concentrated in services, retail trade, and manufacturing industries. The percentage of participants employed in services is two percentage points above last year (61 versus 59 percent). Employment in the retail trades and manufacturing is nearly identical to the previous year.

Industry Group	
61%	Services Industry
14%	Retail Trade Industry
10%	Manufacturing
4%	Natural Resources and Mining
3%	Construction
3%	Transportation, Warehousing and Utilities
3%	Wholesale Trade
2%	Financial Services
1%	Public Administration
0.4%	Information
Breakout of Services Industry	
20%	Accommodation and Food Services
11%	Administrative, Support, Waste Management and Remediation
10%	Health Care
10%	Social Assistance
5%	All Other Services
2%	Arts, Entertainment, and Recreation
1%	Education Services
1%	Professional, Scientific, and Technical Services
Breakout of Retail Trade Industry	
3%	Department Stores and Warehouse Clubs
3%	Groceries, Supermarkets & Specialty Foods
2%	All Other Retail
1%	Clothing and Accessories Stores
1%	Motor Vehicle and Accessories Sales
1%	Home furnishings, Garden, Hardware
1%	Gas Stations/Convenience Stores

Source: Matches with Employment Security Department data in third quarter after exiting program.

Note: Industry groups are based on North American Industry Classification System (NAICS) codes.



Relationship of Training to Employment

In 2013, the Workforce Board surveyed Basic Education participants who had left their program in 2011-12. The survey provided data on employment and participant satisfaction with the training. The survey was conducted by telephone and 230 participants completed it.

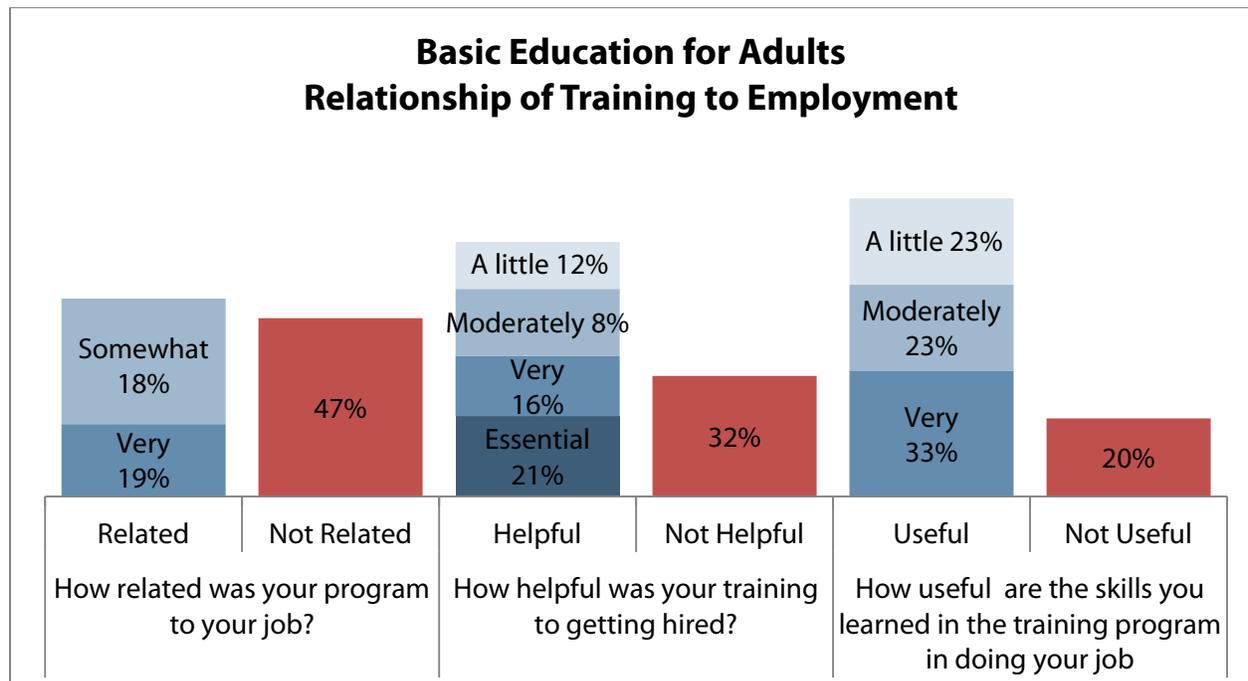
To measure the extent to which a participant’s education program and training related to employment, we asked participants three questions:

1. How related was the program to their job?
2. How important was the training in getting hired?
3. Are the skills they learned useful in their job?

Asking about the relationship between training and employment in different ways can produce more complete information. For example, some participants said their training was not related to their job, but nevertheless found the skills acquired were useful on the job.

Among Basic Education participants employed six to nine months after leaving a program, 19 percent said their training was “very related” to their job. A further 18 percent reported the training was “somewhat related” to their job. Compared to 2011, participants in 2013 reported slightly lower rates of training related to their job (by 2 percentage points).

Although 47 percent of Basic Education participants reported the program was unrelated to their job, Basic Education administrators point out that there is not a one-to-one correlation between the jobs students hold as they enroll and the job goals that motivate their enrollment. The new Basic Education for Adults State Plan Pathways to College and Careers for Washington’s Emerging Workforce, which went into effect July 1, 2014, should lead to a stronger relationship to employment over time.



Source: Workforce Board’s Participant Satisfaction Survey 2013.



Participants interviewed in 2013 also indicated the training was helpful to them in getting their job. Of those participants, 21 percent indicated their training was an “essential requirement,” another 16 percent indicated it was “very important,” and 8 percent reported it was “moderately important.” Another 12 percent said it was “a little helpful.” Some 32 percent indicated their training was “not important at all” to getting their job.

Nearly four out of five participants said the skills they learned in their training program were useful in doing their job. Some 33 percent of participants indicated the skills were “very useful,” 23 percent said “moderately useful,” and 23 percent “a little useful.” The remaining 20 percent of Basic Education participants who were employed indicated the skills were “not useful at all.”

When combining two of the questions about the program’s relationship to the job and about whether the skills acquired were helpful, a small percentage of participants answered negatively to both. Some 11 percent of participants employed the third quarter after exit said the training they received was *neither* helpful in their job nor related to the job they obtained.

Wages and Employment Results Vary by Population

Wage and employment results can vary by gender, race and ethnicity, and disability. Among participants employed during the third quarter after exit, there is a substantial gender gap in labor market outcomes. Women who participated in Basic Education had a lower employment rate, hours worked, hourly wage, and annual earnings than male participants. The ratios between men’s and women’s employment rates, hours worked, earnings, and wages have stayed much the same since the last report.

Gender Differences in Labor Market Outcomes Among Basic Education for Adults Students in the Third Quarter After Leaving Program			
	Women	Men	Ratio
Employment Reported to ESD	49%	54%	91%
Median Quarterly Hours Worked	355	427	83%
Median Hourly Wage	\$11.16	\$12.18	92%
Median Annual Earnings*	\$15,964	\$20,664	77%

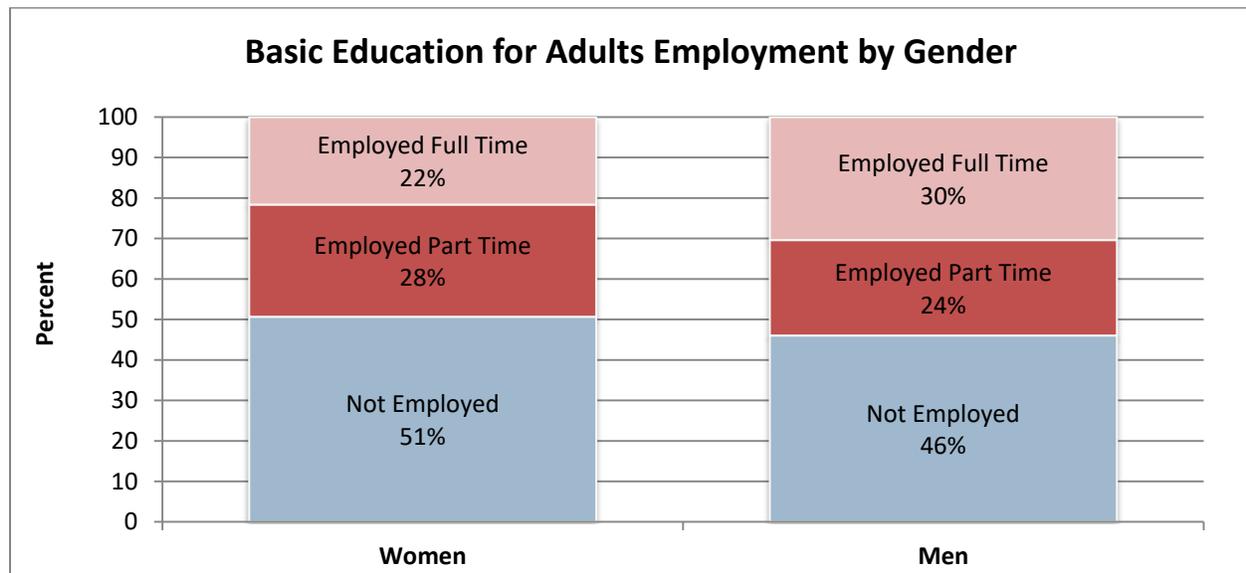
Source: Matches with Employment Security Department data.

*Earnings/wages expressed in first quarter 2014 dollars in order to account for inflation.

The following chart shows the percentage of men and women Basic Education participants who reported being employed. Also broken out is the percentage of those working that held full-time jobs. Twenty four percent of men worked part time, while 30 percent worked full time to reach an overall employment rate of 54 percent. This was higher than the overall



employment rate for women (50 percent). Women were more likely to be employed part time (28 percent) but less likely to be employed full time (22 percent).



Source: Matches with Community and Technical Colleges Administrative Data and Employment Security Department data.

Race/Ethnicity Plays Role

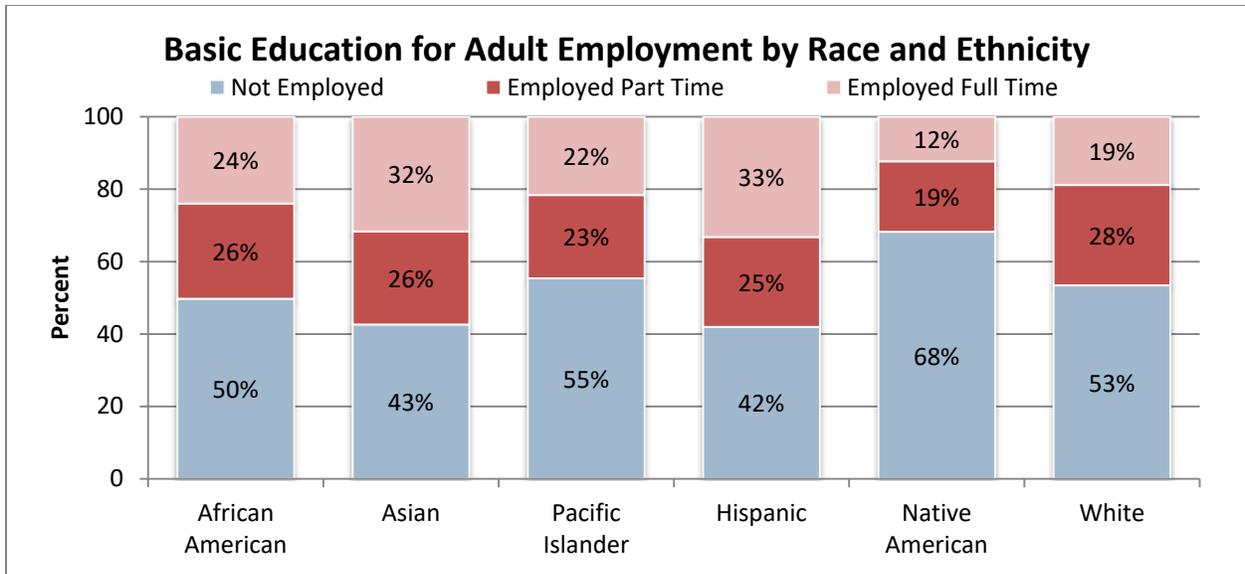
Basic Education program graduates had different employment rates depending on their race and ethnicity. The highest employment rate was found among Hispanics and Asians (both at 58 percent), followed by African Americans (50 percent), whites (47 percent) Pacific Islanders (45 percent), and Native Americans (31 percent).

Of those Basic Education participants who were working, the percentage with full-time employment also varied according to race and ethnicity. Hispanics had the highest percentage working full time at 33 percent (part time employment measured 25 percent), followed by Asians (32 percent), African Americans (24 percent), Pacific Islanders (22 percent), and whites (19 percent). The lowest percentage working full time was Native Americans (12 percent).

The highest median hourly wages were earned by Hispanics (\$12.15), then Asians (\$11.98), African Americans (\$11.25), and whites (\$11.19). Pacific Islanders had the lowest hourly wage (\$10.94), with Native Americans earning slightly more (\$11.11).

Hispanics had the highest annual earnings, at \$20,708, followed by Asians (\$20,297), African Americans (\$17,183), Pacific Islanders (\$16,077), whites (\$14,578), and Native Americans (\$14,043).





Source: Matches with Community and Technical Colleges Administrative Data and Employment Security Department data.

Disability Impacts Employment, Earnings

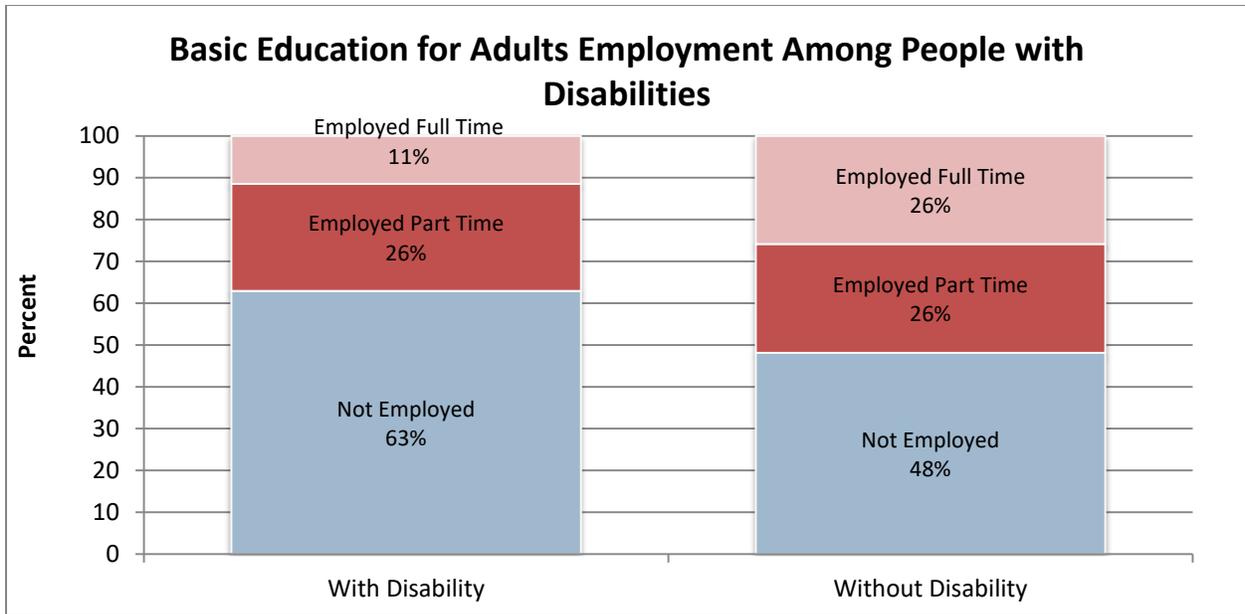
Among 2015 Basic Education participants, 5.2 percent had a disability (a significantly lower percentage than the 12 percent of the general population who have a disability).⁶ Participants with disabilities did less well in the labor market than other participants, with 26 percent working part time and 11 percent working full time (to reach an overall rate of 37 percent). Seventy percent of participants without a disability were employed. This is similar to the percentage difference observed in the last report (36 percent compared to 49 percent).

Participants with disabilities were even less likely to work full time than participants without a disability (11 percent compared to 26 percent).

The median hourly wage of participants with disabilities was 93 percent of the amount earned by participants without a disability (\$10.72 compared to \$11.58), and median annual earnings were 62 percent of those without a disability (\$11,103 compared to \$18,029).

⁶ 2012 U.S. Census Bureau estimates from the American Community Survey, Table S0201 - Selected Population Profile in the United States.





Source: Community and Technical Colleges Administrative Data and Employment Security Department data matches 2012-13.

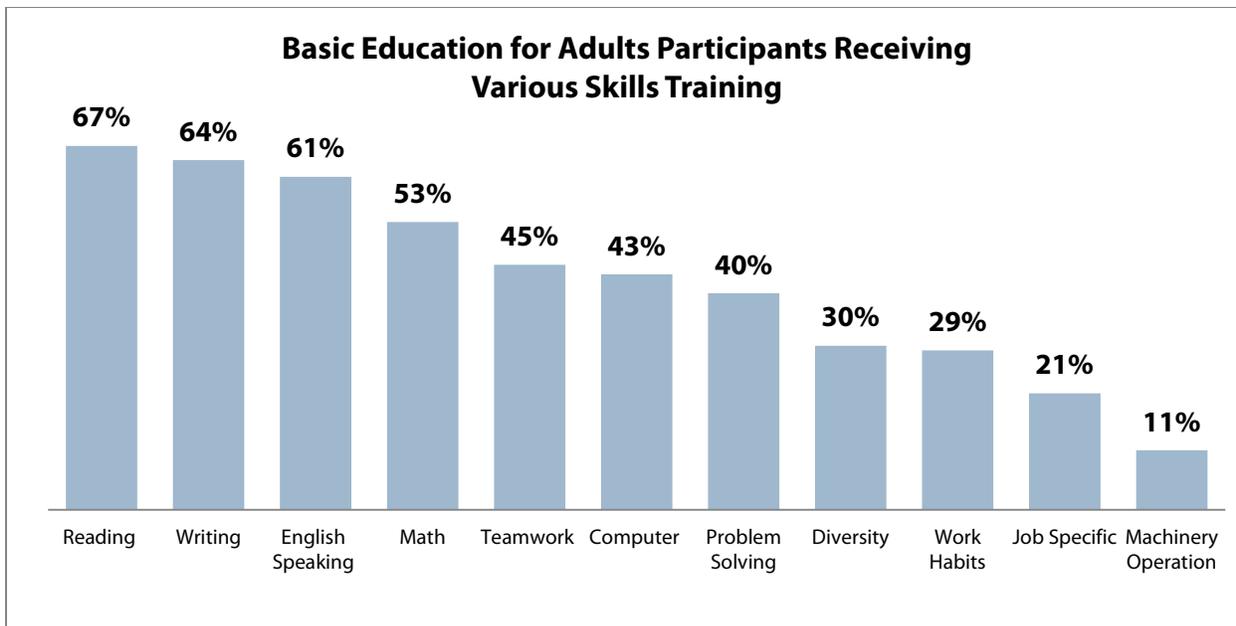
Participant Survey

In 2013, the Workforce Board surveyed Basic Education participants who had left their program in 2011-12. The survey provided data on employment and participant satisfaction with the training. The survey was conducted by telephone and was completed by 230 participants.

According to survey results, 73 percent of participants indicated they entered a Basic Education program to learn skills for a new job. Participants also said they enrolled for their own personal enjoyment or improvement (90 percent), or to improve their English speaking or reading skills (72 and 71 percent respectively).

As in previous studies, the majority of participants received instruction in reading and writing. Just a little over half of participants received instruction in math. Fewer received training in workplace skills such as problem solving, diversity, and work habits. The highest percentage of participants, 67 percent, said they gained reading skills, followed closely by the 64 percent who reported gaining writing skills.

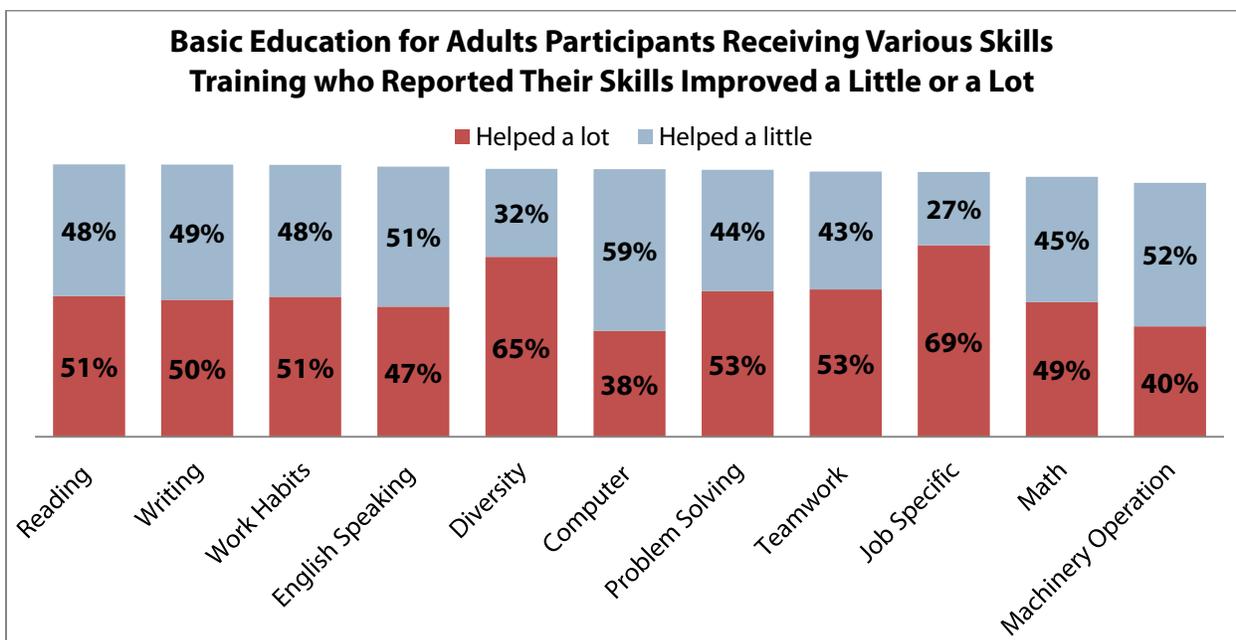




Source: Workforce Board's Participant Satisfaction Survey 2013.

As in the previous study, most participants reported their skills improved in the areas where they received instruction. Participants tended to report higher levels of improvement with workplace skills, such as job specific skills and diversity than with basic skills such as computer, writing or math.

Of the 11 different categories of skills training, six saw an increase in the percentage reporting that such training "helped a lot." These were led by job specific training (up 6 percentage points) and math (up 5 percentage points). The job specific category at 69 percent had the highest percent reporting it helped a lot. Computer training had the lowest at 38 percent.



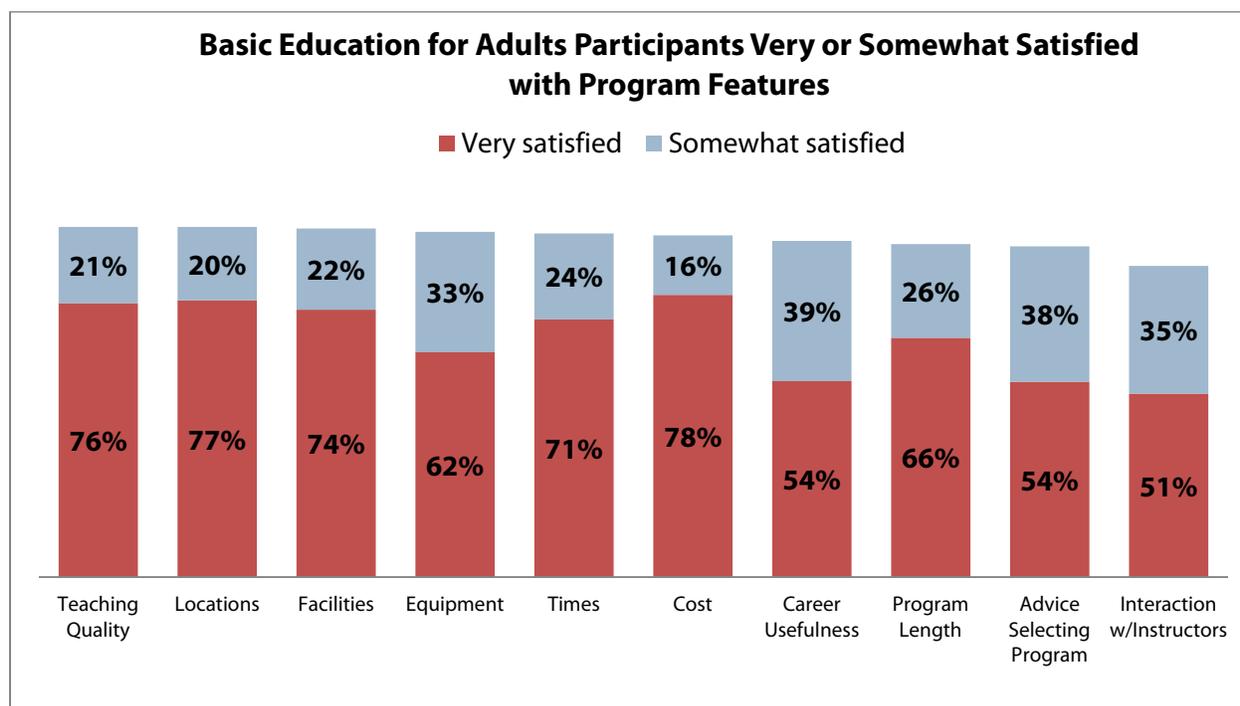
Source: Workforce Board's Participant Satisfaction Survey 2013.



Participant Satisfaction

In general, participants were satisfied with the training they received. Some 94 percent of participants reported being satisfied with their program overall. The percentage who stated that they had met their educational objectives remained at 68 percent this year. A majority of participants indicated satisfaction with various program features. Three-quarters of participants reported they were "very satisfied" with program locations and teaching quality.

Compared to the 2011 survey, the 2013 program feature with the largest increase of participants reporting they were "very satisfied" was program length (which increased from 61 to 66 percent). The program features "equipment" (68 to 62 percent) and "interaction with instructors" (56 to 51 percent) had the biggest drops in reporting "very satisfied".

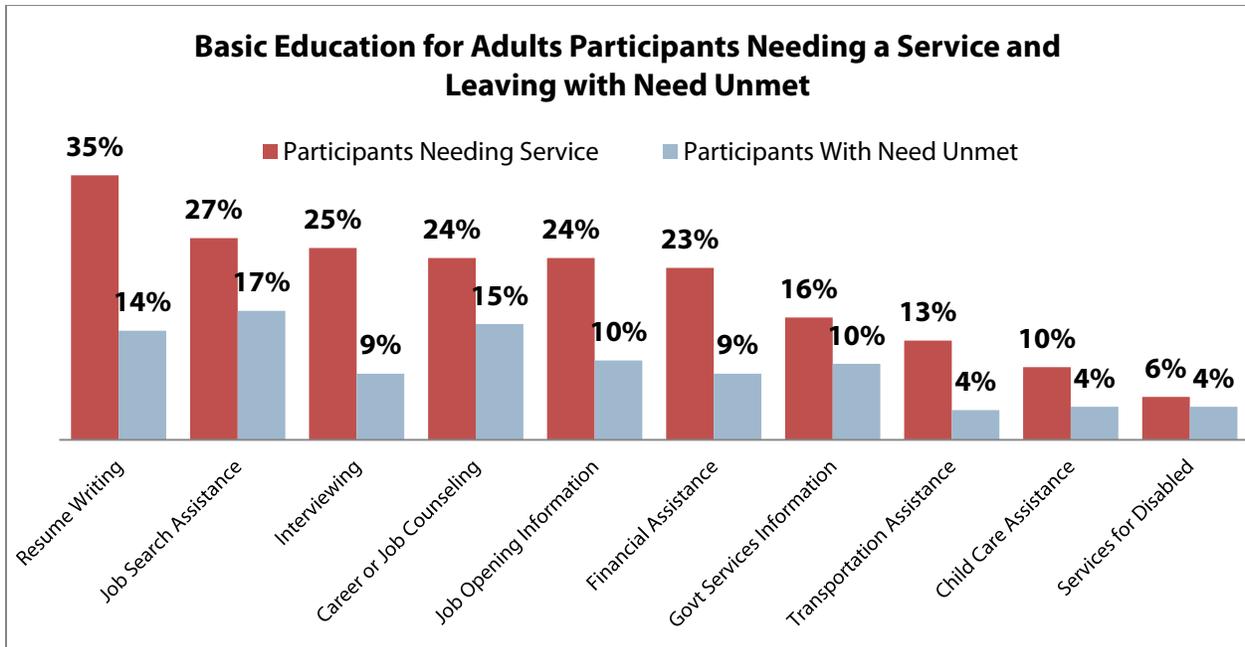


Source: Workforce Board's Participant Satisfaction Survey 2013.

The job hunt support services most needed by Basic Education participants surveyed was resume writing (35 percent), job search assistance (27 percent), and interviewing (25 percent). Job search assistance was also the area with the largest unmet need ⁷ (17 percent), followed by career counseling (15 percent), and resume writing (14 percent). At the other end of the spectrum only 6 percent of Basic Education participants said they needed services for the disabled and only 4 percent said they had an unmet need.

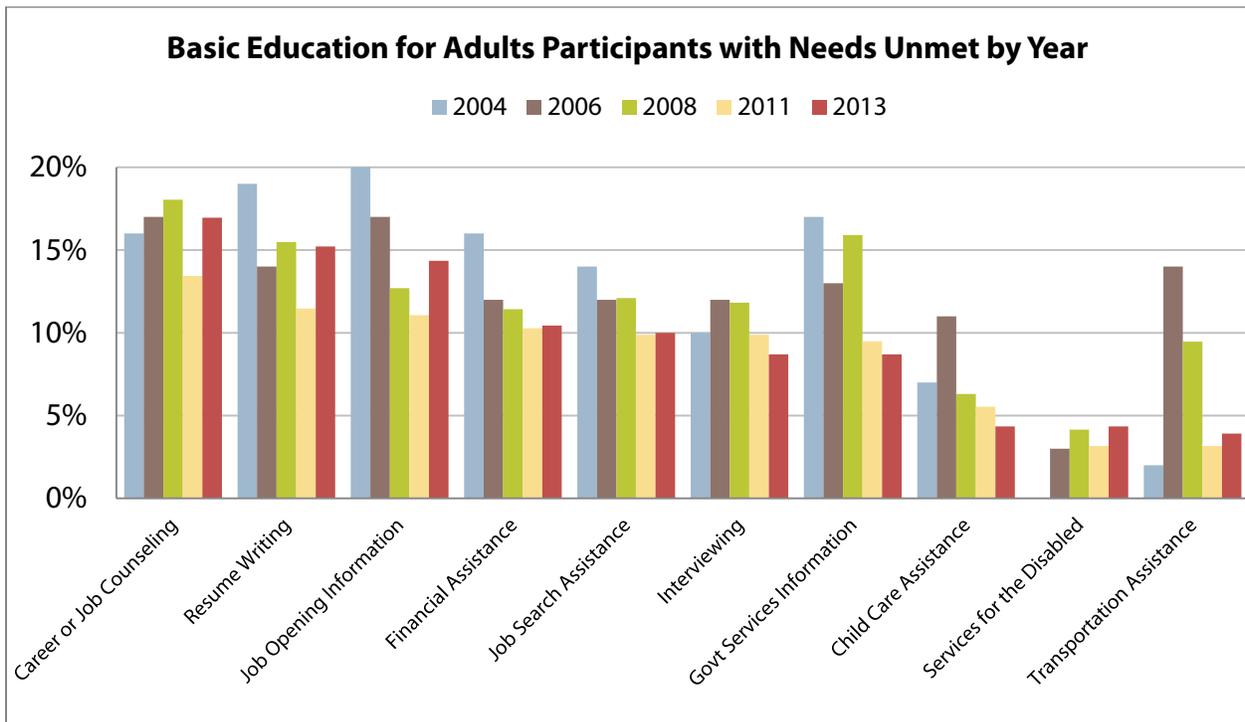
⁷ Unmet need refers to cases where the student reports that either they did not receive the required service or what was provided did not meet their needs.





Source: Workforce Board's Participant Satisfaction Survey 2013.

The percentage of participants who reported leaving the program with an unmet need was higher than the 2011 survey for several categories (career counseling, resume writing, and job opening information). However, over the past 10 years, percentages have fallen in nearly all categories. The largest decrease in unmet need came in government services information, falling by 8 percentage points.



Source: Workforce Board's Participant Satisfaction Surveys 2004-13.



Net Impact - Did Program Make a Difference in Participant Success?

Every four years the Workforce Board conducts net impact and cost-benefit analyses of workforce development programs. This detailed study compares participants and non-participants. The net impact part of this study attempts to measure whether the program made a difference in the participant's success.

Washington is the only state to periodically conduct rigorous net impact evaluations of its workforce programs.

The Basic Education for Adults program has positive net impacts on annualized earnings.

The net impact analysis was conducted by the W.E. Upjohn Institute for Employment Research (Upjohn), a national leader in evaluating training programs. To do the analysis, Upjohn studied program participants to see what results they achieved and compared these results with a control group. Individuals who participated in a Basic Education program were compared to individuals who had similar demographic characteristics, but who did not participate in any of the programs included in the study. The comparison group members were selected from among those who registered with WorkSource, Washington's one-stop career center system.

The most recent net impact analyses examined experiences of participants who left the Basic Education program through 2009. The short-term impact (Program Year 2007-08) was observed in 2008-09, while the long-term impact (Program Year 2005-06) was observed from 2006-07 through 2008-09.

Impact on Employment and Earnings: Participants vs. Control Group

Basic Education for Adults Participants	Short-term [^]	Long-term [^]
Net Employment Impact*	No significant positive impact	No significant positive impact
Net Hourly Wage Impact**	No significant positive impact	No significant positive impact
Net Quarterly Hours Impact	15.4	15.1
Annualized Earnings**	\$1,006	\$905

[^]Short-term is three quarters after program exit. Long-term is average across three years since program exit.

*Percentages listed are employment percentage points above those of the control group of non-participants.

**Wages and earnings, expressed in first quarter 2014 dollars; represent the average difference between Basic Education participants who got jobs and those in the control group who were employed.



To estimate these impacts, individuals who received employment-related Basic Education were compared to individuals who had similar characteristics within the state's employment service, but who did not participate in any of the programs included in the study.⁸ Additional estimates were made for a cohort of Basic Education participants who also participated in CTC Professional Technical Education.

As can be seen above, Basic Education participants worked more hours per quarter than non-participants in the control group. They also garnered higher annualized earnings than those who did not participate. However, the program did not have a significant positive impact on employment and hourly wages.

Positive impact of I-BEST

As will be shown on Page 18 of this report, Integrated Basic Education and Skills Training, or I-BEST, is a proven basic skills delivery model that shows substantial employment and earnings benefits to participants. I-BEST blends basic skills training with job skills training, with two instructors working in tandem to boost the relevance of coursework and the efficiency in which students gain skills that help advance their education and employability. I-BEST offers a different approach to basic education, which traditionally requires adults to complete all basic education courses before they can start training for a job. I-BEST, by contrast, provides students the chance to learn job skills right away and earn college credits at the same time. All 34 of the state's community and technical colleges offer some form of I-BEST.

The State Board for Community and Technical Colleges has moved the I-BEST model, with its emphasis on contextual learning and college and career pathways that lead to living-wage jobs, into other programs focused on low-skill, low-wage adults. Moving participants more rapidly into additional career-focused education and training is a primary goal. I-BEST has also become a national model and is being offered in a number of other states.

http://www.sbctc.ctc.edu/college/e_integratedbasiceducationandskillstraining.aspx

Costs and Benefits

The cost-benefit analysis estimates the value of the net impact on earnings, employee benefits (estimated at 25 percent of earnings), unemployment insurance benefits, and certain taxes.

Program costs include both direct program costs and support payments borne by the government and the earnings students gave up while participating in the program. Benefits and costs are calculated for both the observed period of time and based upon a statistical model that estimated the benefits and costs out to the age of 65. In order 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 2014 Q1 dollars to control for inflation. The benefits and costs presented here are based on impacts estimated for students leaving programs in 2005-2006 (observed from 2006-07 through 2008-09), because a longer-term

⁸ The net impact study excludes individuals who enrolled in Basic Education for Adults programs for personal enhancement or non-employment-related purposes.



follow up is required for this analysis. The results are for those students who took only basic skills courses in the colleges.

For each student in Basic Education, the public (taxpayer) cost is about \$2,875 over the length of their enrollment, and the student cost is \$119 in foregone earnings while in school. The average Basic Education student makes no net gains in earnings in either the first two and one-half years after leaving college or during the course of working life to age 65 compared to similar individuals who did not participate in any of the workforce development programs.

Participant and Public Benefits and Costs per Participant in Basic Education for Adults Programs

Benefit/Cost	First 2.5 years		Lifetime (until 65)		Sum of Costs and Benefits
	Participant	Public	Participant	Public	
Benefits *					
Earnings	-	-	-	-	
Fringe Benefits	-	-	-	-	
Taxes	-	-	-	-	
Transfers					
UI	-\$744	\$744	-\$1,115	\$1,115	
Costs					
Foregone net earnings	\$119	\$13	\$119	\$13	
Program costs	\$0	-\$2,875	\$0	-\$2,875	
Benefits	-	-	-	-	
Costs	\$119	-\$2,862	\$119	-\$2,862	
Total (Net)	-	-	-	-	

Note: Benefits and costs are expressed in 2014 first quarter dollars. Upjohn estimated the impact of the net change in earnings of Social Security, Medicare, federal income, and state sales taxes.

Again, the above findings are for students who participated in Basic Education only and do not include students who also participated in professional-technical education or other training. In contrast, Integrated Basic Skills Education and Training (I-BEST), that combines adult education with professional-technical training, has significant positive results.



Impact on Employment and Earnings: I-BEST Participants vs. Control Group

[^]Short-term is three quarters after program exit. Long-term results are not yet available for I-BEST

*Percentages listed are employment percentage points above those of the control group of non-participants.

I-BEST Participants	Short-term [^]
Net Employment Impact*	3.9 percentage points
Net Hourly Wage Impact**	\$1.42
Net Quarterly Hours Impact	35.3
Annualized Earnings**	\$2,675

**Wages and earnings, expressed in first quarter 2014 dollars; represent the average difference between I-BEST participants who got jobs and those in the control group who were employed.

Summary, Areas for Improvement, and Further Research

Basic Education for Adults has historically had a significantly higher minority enrollment than is reflected in the state’s overall population. This can be attributed, at least in part, to the higher poverty rates among some groups and higher levels of limited English proficiency, both of which Basic Education addresses. This higher minority representation was again the case this year, particularly among Hispanics who made up 22 percent of participants, but 12 percent of Washington’s wider population. Women were more prevalent (59 percent) than men among participants.

Employment and earnings are up a bit in this year’s report, although the results remain weak overall for students who participate in Basic Education for Adults without also receiving professional-technical training. This has been documented in previous Workforce Training Results reports. Although participants report high levels of satisfaction with their program, the study does not find a significant positive impact on the average participant’s employment and hourly wages. On a positive note, there has been a general trend over time toward meeting more participant needs for support services.

Basic Education program administrators hope to see an increased focus on pathways to college and careers as the new Workforce Innovation and Opportunity Act is implemented in the coming year. A more direct connection between Basic Education and this far-reaching federal workforce act, with its focus on employment and training, may also increase male participation over time.

However, the findings show a significant positive impact on employment and earnings for students who participated in I-BEST, which pairs two instructors in the classroom—one to teach professional and technical content and the other to teach basic skills in reading, math, writing or English language. This combination of basic education and job skills training allows students to move through school and into employment faster. The results for I-BEST are strong evidence of the importance of investing resources in this model, which originated in Washington and has since been replicated in a number of other states.





Workforce Training and Education Coordinating Board

2015 Workforce Training Results

Apprenticeship

Program Details

Apprenticeship combines classroom studies with extensive on-the-job training under the supervision of a journey-level craft person or trade professional. Apprentices receive progressively increasing wages and may receive health, pension, and other benefits while learning occupational skills. This “earn while you learn” model has proven successful across a range of industries—from asbestos workers to certified medical assistants. Apprenticeships require applicants be at least 16 years old (18 for construction trades), and most require at least a high school diploma or GED for entrance. Registered apprenticeship in Washington is governed by the Washington State Apprenticeship and Training Council and administered by the Department of Labor and Industries.¹

Every year, the Workforce Board measures the performance of key workforce programs. In this report, you’ll find out more about the program and who is served, the metrics used to measure performance, and how the program performed.

Participant Profile

For this 2015 report, researchers studied the results of 3,181 apprentices who exited an apprenticeship program during the most recent reporting year.² Apprenticeship programs reflect the racial and ethnic diversity of the state population. African Americans, whites, and Native Americans are represented above their proportions of the state population. Asians, Hispanics, and those with a multiracial background enroll in apprenticeship programs in lower numbers than their share of the state population.³ African Americans and Hispanics do

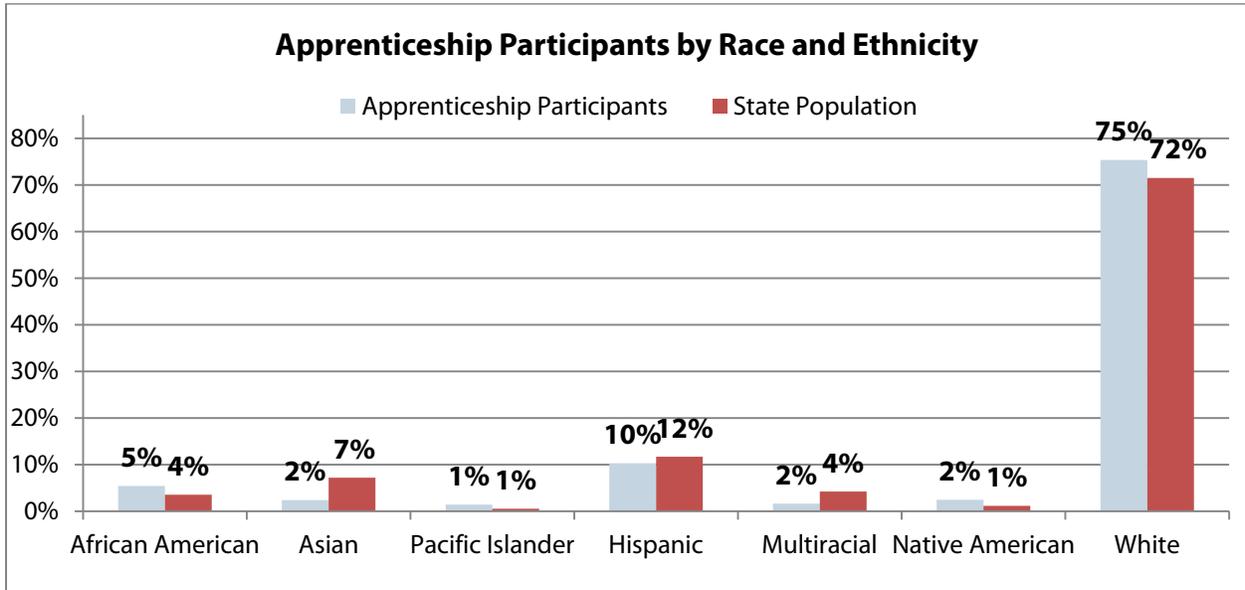
¹ This report focuses solely on Washington apprenticeships. More information at the federal level is available at www.doleta.gov/oa/.

² The 2015 Workforce Training Results reports are based on data observed as recently as 2013-2014 for individuals exiting programs during fiscal year July 1, 2012 through June 30, 2013.

³ In this report, unless otherwise stated, racial and ethnic minority groups are mutually exclusive; that is, an individual belongs to one group only. The groups include the following: Hispanics of any race (also referred to as Hispanics); non-Hispanic African Americans (also referred to as African Americans); non-Hispanic Asians (also referred to as Asians); non-Hispanic Pacific Islanders (also referred to as Pacific Islanders); non-Hispanic Native Americans and Alaskan Natives (also referred to as Native Americans); non-Hispanic multiracial (also referred to as multiracial); and non-Hispanic whites (also referred to as whites). According to the 2012 U.S. Census Bureau estimates for Washington from the American Community Survey, 72 percent of state residents are white; 4 percent are African American; 1 percent are Native American; 7 percent are Asian; 1 percent are Pacific Islander; 4 percent are multiracial; and 12 percent are Hispanic.

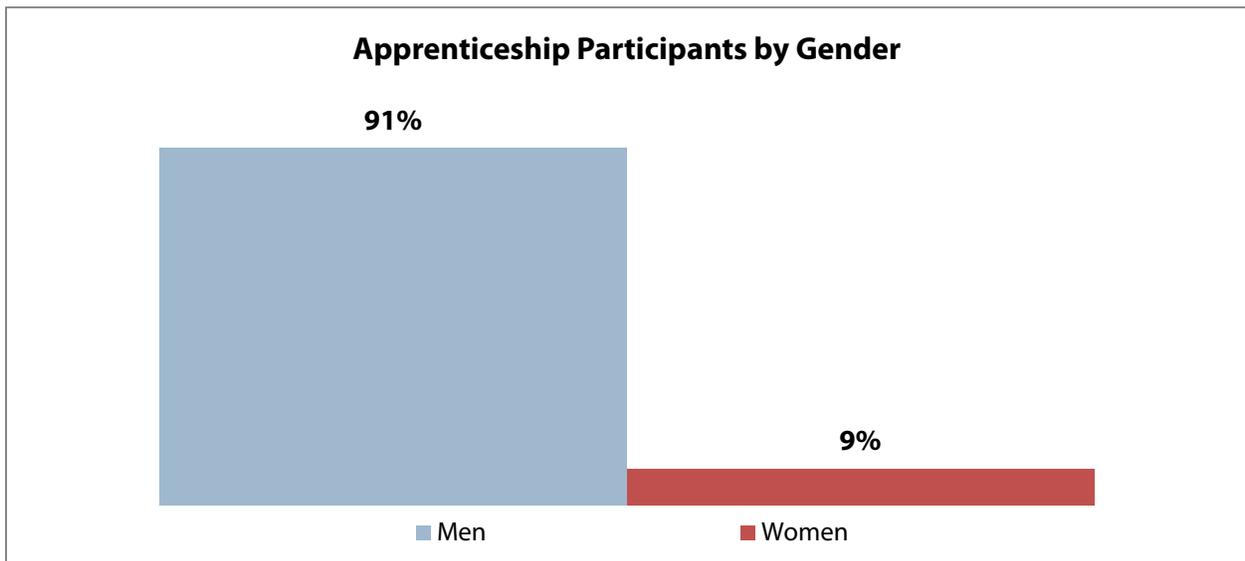


not complete the apprenticeship programs at the same rates as they enroll, with relatively fewer reaching the finish line in their apprenticeships than those of other backgrounds.



Source: 2012-13 Apprenticeship Administrative Data, Department of Labor and Industries, Washington State Office of Financial Management and 2012 U.S. Census Data from the American Community Survey.

Relatively few women enter apprenticeship programs compared to men. Some 9 percent of apprentices were women in the current study. This represented a decline from last year's study when women comprised 15 percent of apprentices.



Source: 2012-13 Apprenticeship Administrative Data, Department of Labor and Industries.

The median age at program entrance was 27, while the median age at exit was 30.



Completion Rates

Overall, apprentices spent a median of 39 months in their program. This is an increase of 9 months over the 2014 cohort of apprentices. The median program length was 56 months for Apprenticeship completers. Among apprentices leaving their program in the most recent program year, slightly a little over half (54 percent) completed their program, three percentage points less than on the prior report. The length of participation varied widely. The number of years spent in apprenticeship programs is reflected in the following table, comparing those who completed with those who did not complete.

Number of Years Apprentices Participated in their Program		
Years in Program	Completers	Non Completers
less than 1	0%	0%
1-2	12%	45%
2-3	7%	19%
3-4	9%	9%
4-5	11%	5%
5-6	23%	9%
6-7	27%	8%
7-8	9%	3%
8-9	2%	1%
9-10	0%	1%
more than 10	1%	1%

Source: 2012-13 Apprenticeship Administrative Data, Department of Labor and Industries.

It's worth noting that apprenticeship programs cover a broad array of occupations, from construction trades and early learning to dispensing optician and cosmetologist. Not only are apprenticeship occupations wide-ranging, the length of time it takes to complete a program varies considerably. For example, a Washington resident training to become a construction electrician can expect an apprenticeship to last at least five years to reach journey-level status, while those training to become an esthetician require 2,000 hours, or approximately one year, to complete.

Because apprenticeship programs can last many years, a significant number of people do not reach the finish line. However, even those who exit early still show wage gains from the skills they acquired.



Tracking Apprenticeship Progress

The Workforce Board routinely measures the performance of our state's largest workforce programs. As a customer-focused advocate for Washington's workers and employers, the Workforce Board strives to provide performance accountability, verifying whether worker education and training programs provide a return on investment for participants and taxpayers.

The Workforce Training Results report seeks to answer five core questions:

- Did participants get the skills they needed?
- Did participants get a job and how much were they paid?
- Were employers satisfied with the preparation workers received?
- Has the program made a difference in the participant's success?
- Did participants and the public receive a return on their investment?

Turn to page 20 for the Net Impact Study. Conducted every four years, this in-depth report adds extra value to the 2015 Workforce Training Results. The study provides a side-by-side comparison of participants vs. similar non-participants, answering the question of whether the program is making a difference.

Data Comes From State Wage Files & Employer Survey

The 2015 Workforce Training Results includes information obtained from Employment Security Department wage files in Washington, Idaho, and Oregon, and federal employment records for 2013-14. Information on employer satisfaction among firms that hired new employees who recently exited an apprenticeship program was assessed through the Workforce Board's 2012 Employer Survey.

Net Impact Study Adds More Insight into Program Performance

In addition, the report includes a comprehensive Net Impact Study. Conducted every four years, this study provides a head-to-head comparison of participants and non-participants to help answer a central question: How much of a workforce participant's success in obtaining a job, or a higher wage, is due to the workforce program? By comparing program participants with similar individuals who did not participate in a workforce training program, the Net Impact Study indicates whether employment and earnings gains are due to the workforce program, or if workers could have made this progress on their own. This research also allows for a more detailed analysis as to whether the participant and the public received a return on their investment in the program.



Did Participants Have a Job and How Much Were They Paid?

To determine the employment rate and earnings of apprenticeship participants, their records were matched with Employment Security Department wage files from Washington and neighboring states.⁴ Labor market outcomes for apprenticeships are significantly higher than for other programs the Workforce Board studies. The quality of apprenticeship training, the higher wage levels of many apprenticeship-related occupations, and the typically long length of training are factors.

Record matches found 75 percent of apprentices had reported employment during the third quarter after they left the program. This was one percentage point up from the 2014 report. The median wage was \$30.47 per hour - down \$1.27 from \$32.74 in the last report and down \$3.90 from the 2013 report. Annualized earnings were \$51,504, an increase of \$6,926 from the 2014 Workforce Training Results report.⁵ Although the median wage of apprentices is high, there is considerable variation in how much apprentices earn, as can be seen in the table below.

Hourly Wages of Apprentices (Quartiles)	
Quartile	Hourly Wage
Highest	Above \$40.46
Third	\$30.17-\$40.46
Second	\$19.56-\$30.16
Lowest	Below \$19.33

Third quarter after exit, this table excludes those enrolled in higher education.

When looking only at those who had completed their apprenticeship program, rather than at all exiters, the outcomes are more positive. The median annualized earnings of completers was \$67,551. The median hourly wage was \$37.12. These results illustrate the value of completing an apprenticeship program.

⁴ These files contain quarterly earnings and hours worked information on those individuals with employment reported for unemployment insurance (UI) benefits purposes (approximately 90 percent of in-state employment, with self-employment, active duty military, and those working for religious nonprofit organizations being the major groups of employers not included).

⁵ Annual earnings are calculated as third quarter earnings multiplied by four. Quarterly earnings are the result of hourly wage rates and the number of hours worked in a calendar quarter. All wages and earnings are stated in first quarter 2014 dollars.



2014 Employment and Earnings for Apprentices

Performance Measure	
Employment Rate*	75%
Employment Rate* (Completers)	86%
Full-Time Employment **	71%
Median Quarterly Hours	481
Median Hourly Wage***	\$30.47
Median Annualized Earnings***	\$51,504
Median Annualized Earnings (Completers)	\$67,551

* These figures apply to those with employment reported to state employment agencies six to nine months after leaving the program. Rate does not include self-employment, employment outside the Northwest, or military service and thus understates total employment by approximately 10 percent.

** Full-time employment averages 30 or more hours per week.

*** Earnings/wages expressed in first quarter 2014 dollars to account for inflation.

Earnings of Apprenticeship Participants

The next table shows employment and earnings information over five study periods.

Employment and Earnings Trends for Apprentices

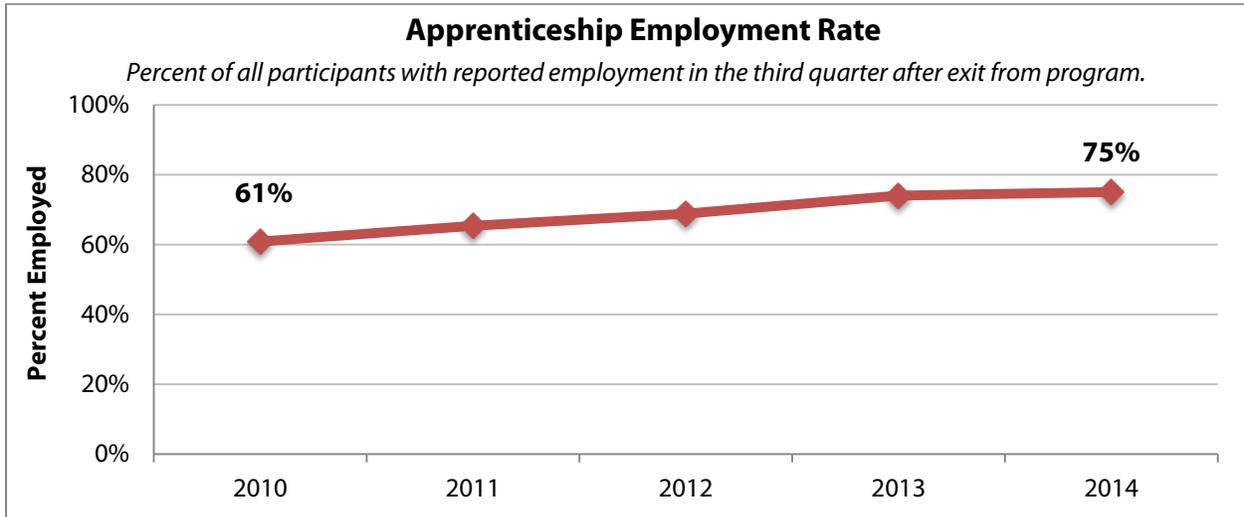
Performance Measure	2010	2011	2012	2013	2014
Employment Rate* (State Records)	61%	65%	69%	74%	75%
Full-Time Employment**	59%	64%	65%	62%	71%
Median Quarterly Hours	444	468	472	460	481
Median Hourly Wage***	\$30.14	\$33.71	\$34.64	\$32.74	\$30.47
Median Annualized Earnings***	\$41,241	\$49,307	\$47,673	\$44,578	\$51,504

* These figures apply to those with employment reported to the state's Employment Security Department six to nine months after leaving program for all Apprenticeship participants, and are not limited to those who completed a program. Rate does not include self-employment, employment outside the Northwest or military service and thus understates total employment by approximately 10 percent.



**Full-time employment averages 30 or more hours per week.

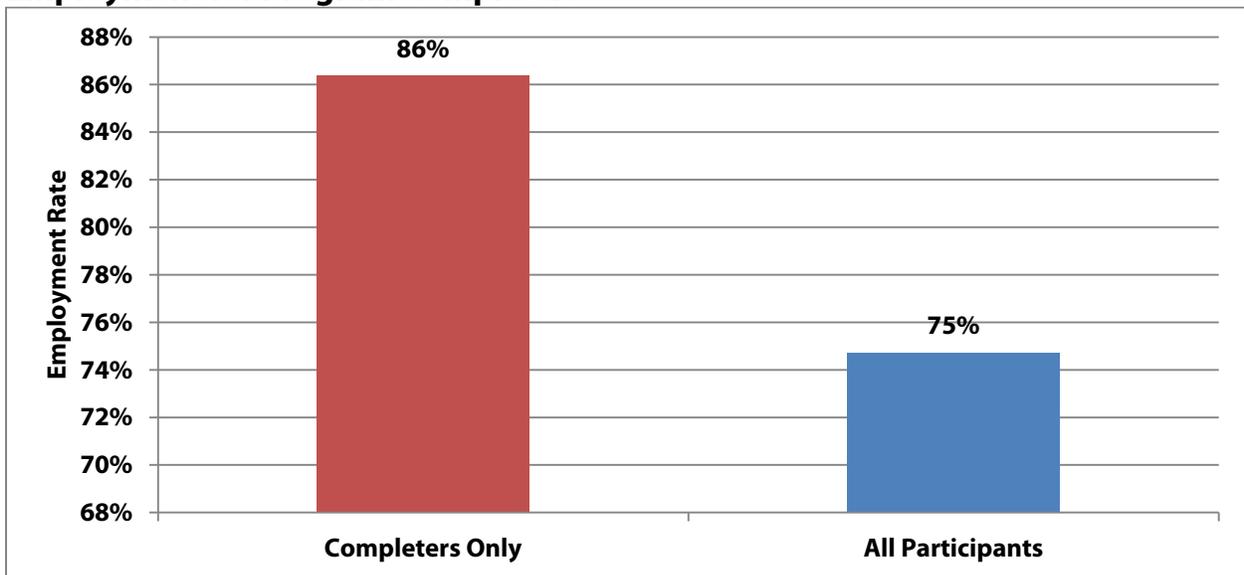
***Earnings/wages expressed in first quarter 2014 dollars to account for inflation.



Note: Rate does not include self-employment, employment outside the Northwest or military service and thus understates total employment by approximately 10 percent.

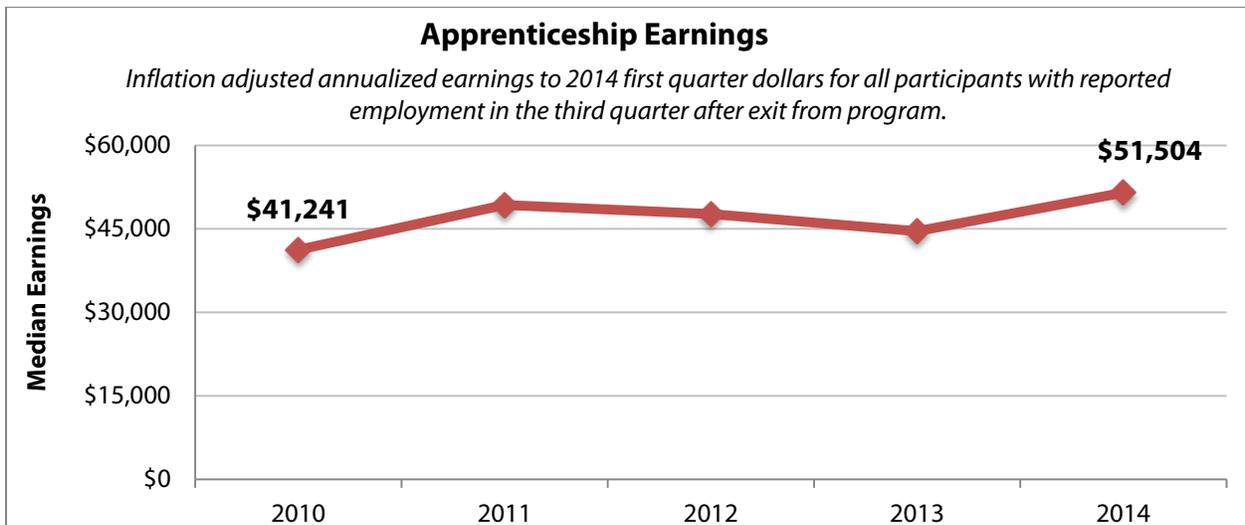
The employment rate trend indicates a steady increase since 2011 – rising 14 percentage points in four years. The chance of gaining employment is somewhat higher (86 percent) for those that completed the program compared to the overall employment rate (75 percent).

Employment for Program Completers



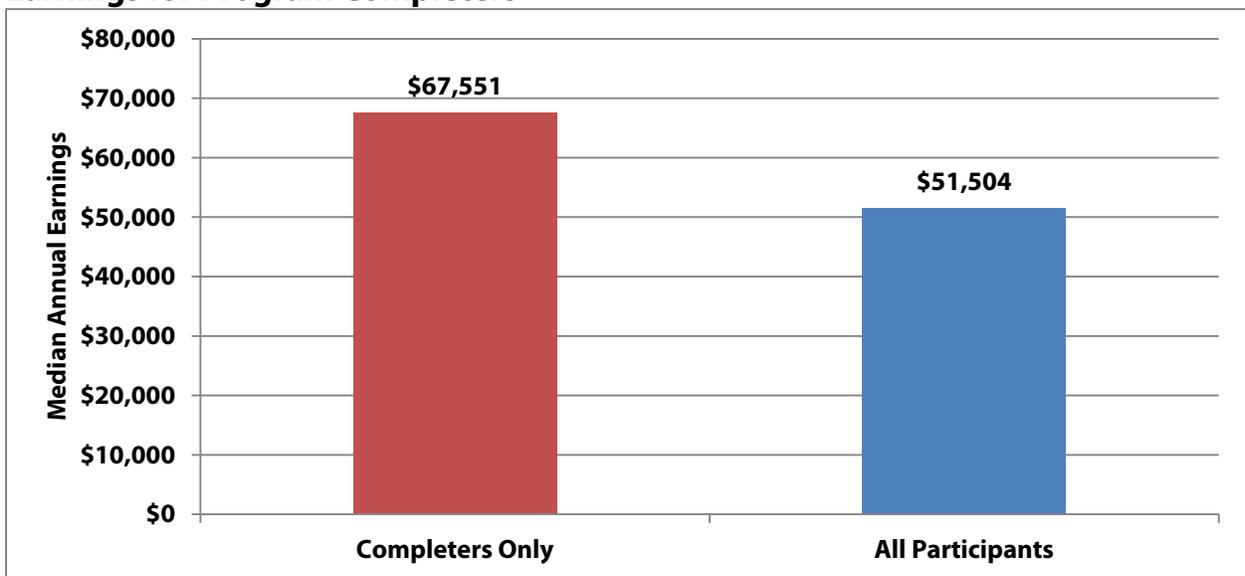
Earnings are also up – rising by 15 percent in one year to reach \$51,504. Annual earnings for those that completed the program were 31 percent higher than for those that did not ((\$67,551 compared to \$51,504).





Note: This chart shows annualized earnings in 2013 first quarter dollars to account for inflation.

Earnings for Program Completers



Apprenticeship Employment by Industry

The majority of Apprenticeship program participants who were reported to be employed, held jobs in construction (52 percent), services (15.9 percent), and manufacturing (8.5 percent). About one-quarter of the construction apprentices were in the “Building Equipment Contractors” sub-industry. Apprentices in the services industry were most likely in the “Administrative, Support, Waste Management, and Remediation Services” sub-industry.



Industry Group	
52.1%	Construction (see breakout below)
15.0%	Services (see breakout below)
12.2%	Public Services
8.5%	Manufacturing
4.6%	Retail Trade
4.4%	Transportation and Warehousing and Utilities
1.4%	Financial Services
0.9%	Natural Resources and Mining
Breakout of Construction Industry	
24.5%	Building Equipment Contractors
7.3%	Foundation, Structure & Building Exterior Contractors
6.4%	Heavy & Civil Engineering Construction
6.2%	Construction of Buildings
5.7%	Building Finishing Contractors
2.1%	All Other Specialty Contractors
Breakout of Services Industry	
6.4%	Administrative and Support and Waste Management and Remediation Services
2.3%	Accommodation and Food Services
1.5%	Education Services
1.5%	All Other Services
1.4%	Professional, Scientific, and Technical Services
0.9%	Social Assistance
0.8%	Arts, Entertainment, and Recreation
0.8%	Health Care
Breakout of Public Services	
5.8%	Justice and Public Safety
5.4%	Government Support
0.7%	Administration of Public Programs
0.2%	Regulation
0.05%	Other Public Service

Source: Matches with Employment Security Department data in third quarter after exiting program. Industry groups based on North American Industry Classification System (NAICS) codes.

Relationship of Training to Employment

In 2013 the Workforce Board surveyed apprentices who exited their program in 2011-12. The survey provided data on employment and participant satisfaction with the training. The survey was conducted by telephone and was completed by 223 participants.

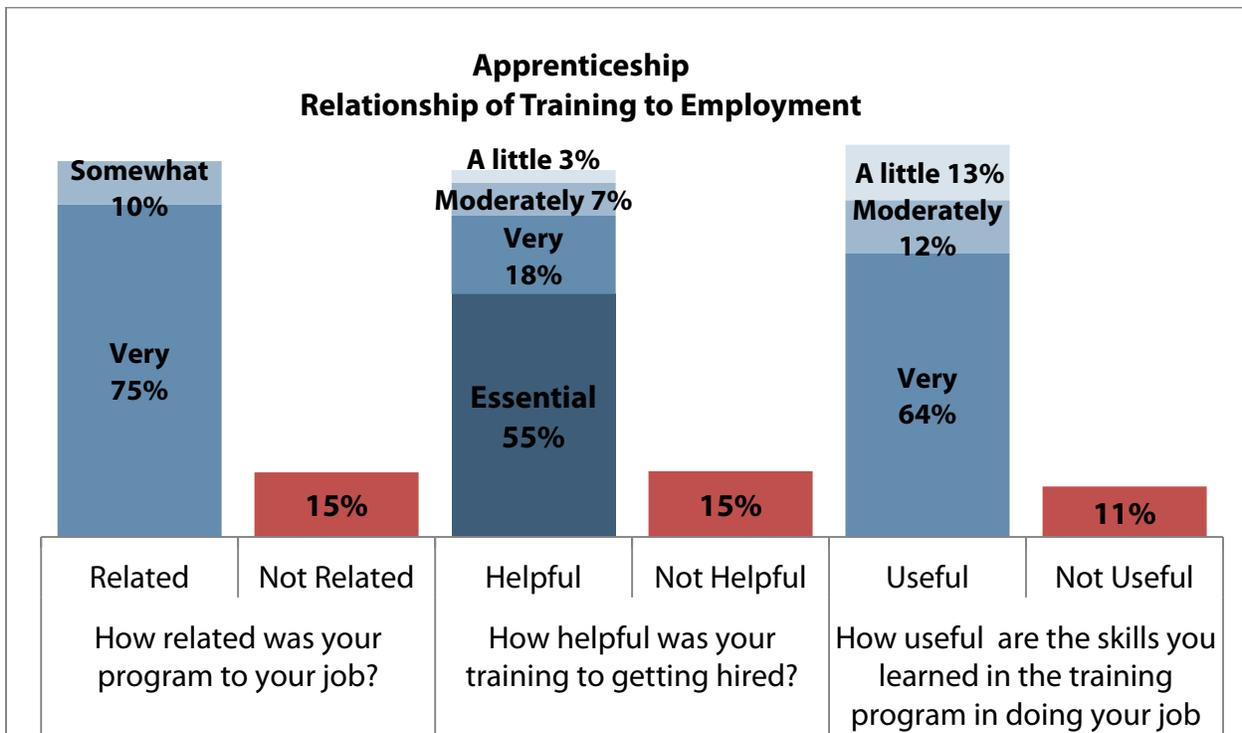
To measure the extent to which a participant's education program and training related to employment, we asked participants three questions:



1. How related was the program to their job?
2. How important was the training in getting hired?
3. Are the skills they learned useful in their job?

Asking about the relationship between training and employment in different ways can produce more complete information. For example, some participants said their training was not related to their job, but nevertheless found the skills acquired were useful on the job.

Among apprenticeship participants employed seven to nine months after leaving a program, 75 percent said their training was “very related” to their job. An additional 10 percent reported the training was “somewhat related” to their job. Just 15 percent indicated that the training was not related to their job. In 2011, employed participants reported identical rates of training being very related, but the rate of somewhat related was higher at 13 percent. Overall, the rates have remained very close between the 2011 and 2013 surveys.



Source: Workforce Board's Participant Satisfaction Survey 2013.

Apprenticeship participants surveyed in 2013 also indicated the training was helpful to them in getting their job. Of those participants, 55 percent indicated their training was an “essential requirement,” another 18 percent indicated it was “very important,” and 7 percent reported it was “moderately important.” Only 15 percent indicated their training was “not important at all” to getting their job.

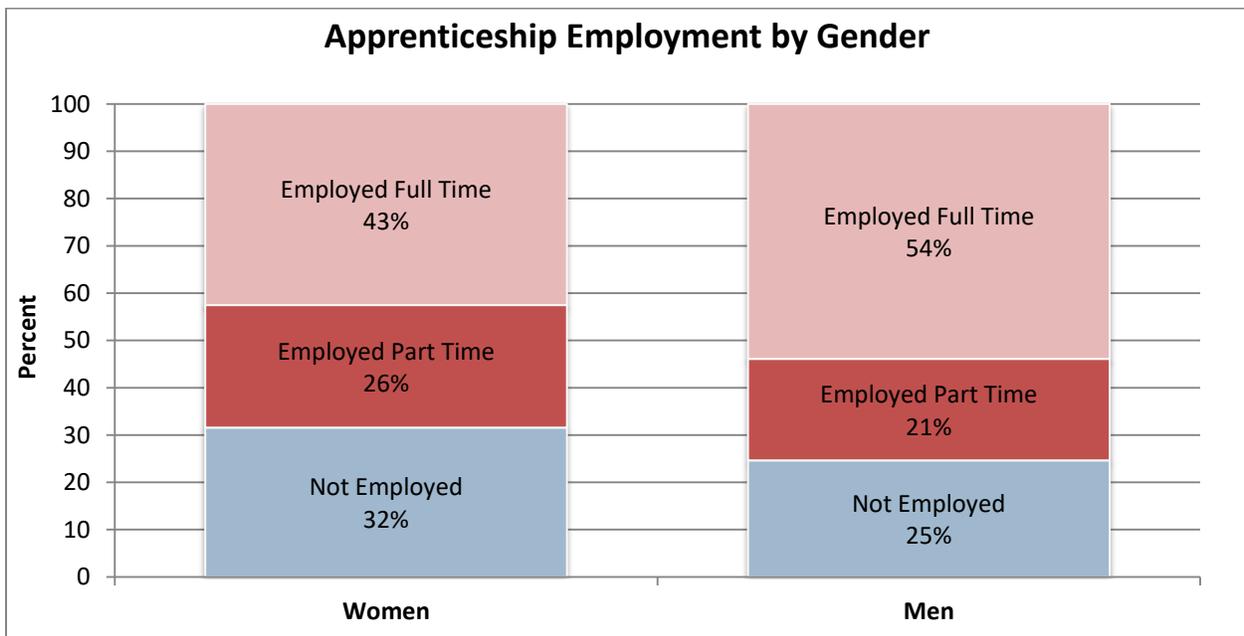
Nearly 90 percent of participants said the skills they learned in their training program were useful in doing their job. Some 64 percent of participants indicated the skills were “very useful,” 12 percent said “moderately useful,” and 13 percent “a little useful.” The remaining 11 percent of participants who were employed indicated the skills were “not useful at all.”



When combining two of the questions about the program’s relationship to the job and about whether the skills acquired were helpful, a small percentage of participants answer negatively to both. Just 4 percent of participants employed the third quarter after exit said the training they received was *neither* helpful in their job nor related to the job they obtained.

Wages and Employment Results Vary by Population

Wages and employment results can vary by gender, race and ethnicity, and disability.⁶ During the third quarter after leaving the program, 51 percent of men worked full time, while 21 percent worked part time to reach an overall employment rate of 75 percent. They were more likely to be employed than women (69 percent) and also more likely to work full time than women (46 percent). Of those employed, women had median hourly wages (\$19.74), which was 63 percent of men’s wages (\$31.20). Women had median annualized earnings that were also 63 percent of males (\$33,427 compared to \$53,384).



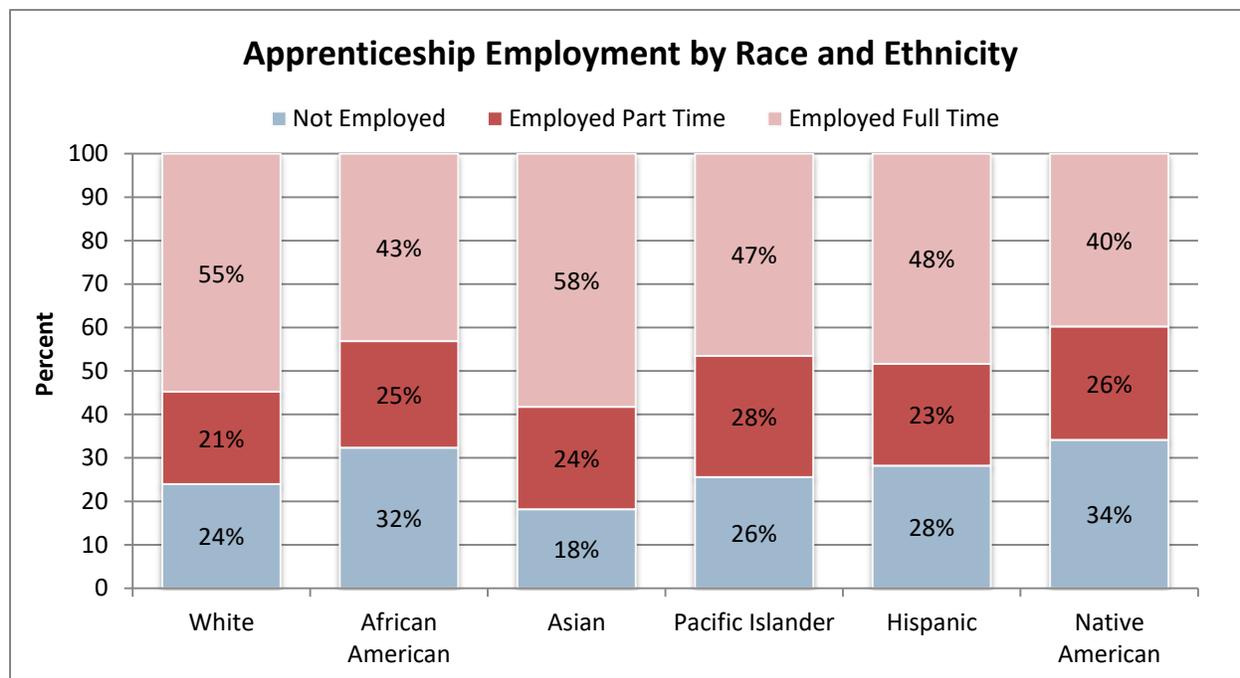
Source: 2012-13 Apprenticeship Administrative Data, Department of Labor and Industries.

⁶ Apprenticeship administrative records do not include information on disability status.



Race/Ethnicity Plays Role

Asians had the highest full time employment rate at 58 percent (part time employment measured 24 percent) and the highest overall employment rate (82 percent). White (76 percent), Pacific Islander (75 percent), and Hispanic (71 percent) apprentices followed closely behind and all had relatively high employment rates in the third quarter after leaving their programs. African American and Native American apprentices were somewhat less likely than others to be employed in the third quarter after leaving their programs (68 percent and 66 percent, respectively).



Source: 2012-13 Apprenticeship Administrative Data, Department of Labor and Industries.

For those employed, whites had the highest median hourly wage at \$31.87, followed by Asians at \$30.82, Pacific Islanders (\$29.76), Native Americans (\$26.93), Hispanics (\$23.89), and African Americans (\$18.55).

In terms of median annualized earnings, Asians earned the most (\$60,776) followed by whites (\$54,469), Pacific Islanders (\$50,229), Hispanics (\$42,071), Native Americans (\$36,269), and African Americans (\$31,297).

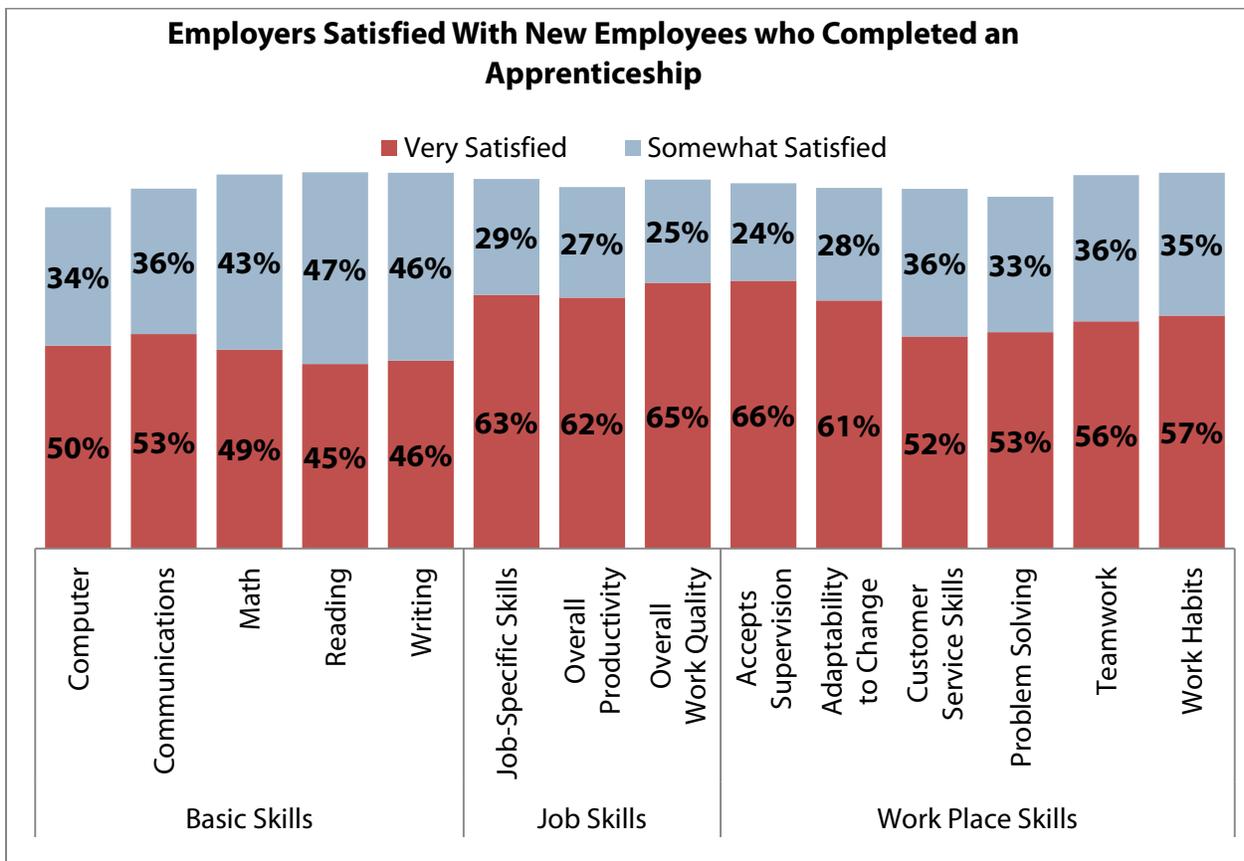
Were Employers Satisfied with the Preparation Workers Received?

The Workforce Board's Employer Survey, administered during 2012, asked firms to evaluate new employees who had recently completed an apprenticeship program. Some 88 percent of employers said they were either "somewhat satisfied" or "very satisfied" with the overall work quality of these new employees.



Employer satisfaction is broken down into three categories: Basic Skills, Job Skills and Work Place Skills. Basic skills refer to reading, writing, math, communication, and computer skills. Job skills refer to skills specific to the job, as well as overall work quality and productivity. Work place skills refer to the skills necessary to get along in the workplace, such as the ability to accept supervision, the ability to adapt to changes in duties and responsibilities, teamwork, customer service, problem solving or critical thinking skills, and positive work habits and attitudes.

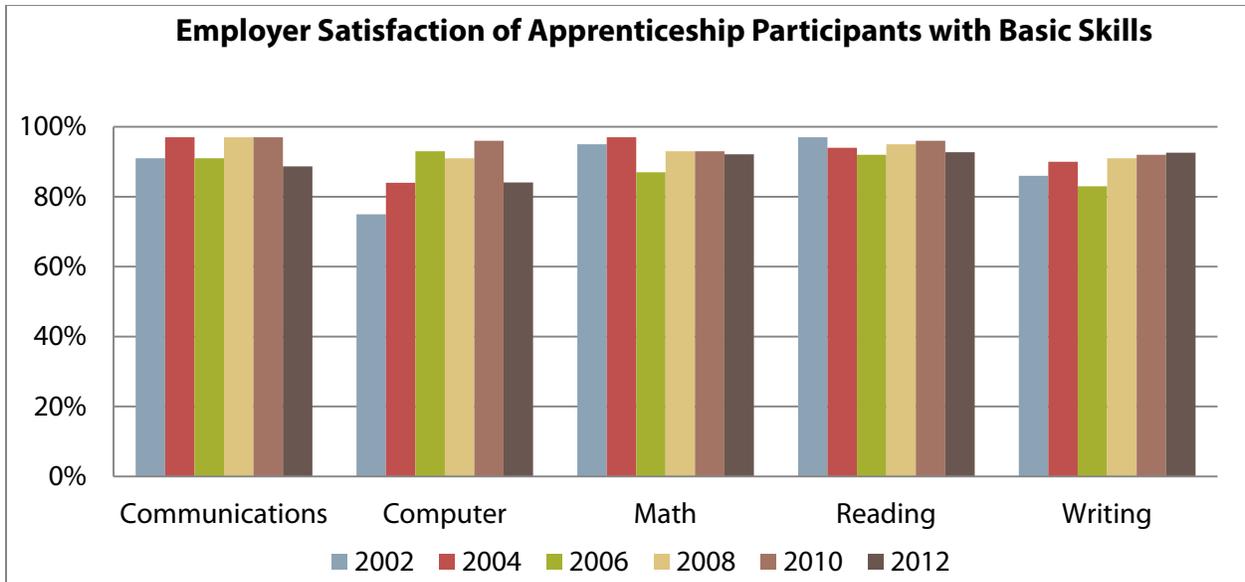
Employers were most likely to report they were very satisfied with the overall work quality, productivity, and job-specific skills of apprentices. Employers were least likely to be very satisfied with the basic skills of reading, writing, and math, although nearly half of employers were very satisfied with the basic skills, and almost all of the remainder were somewhat satisfied.



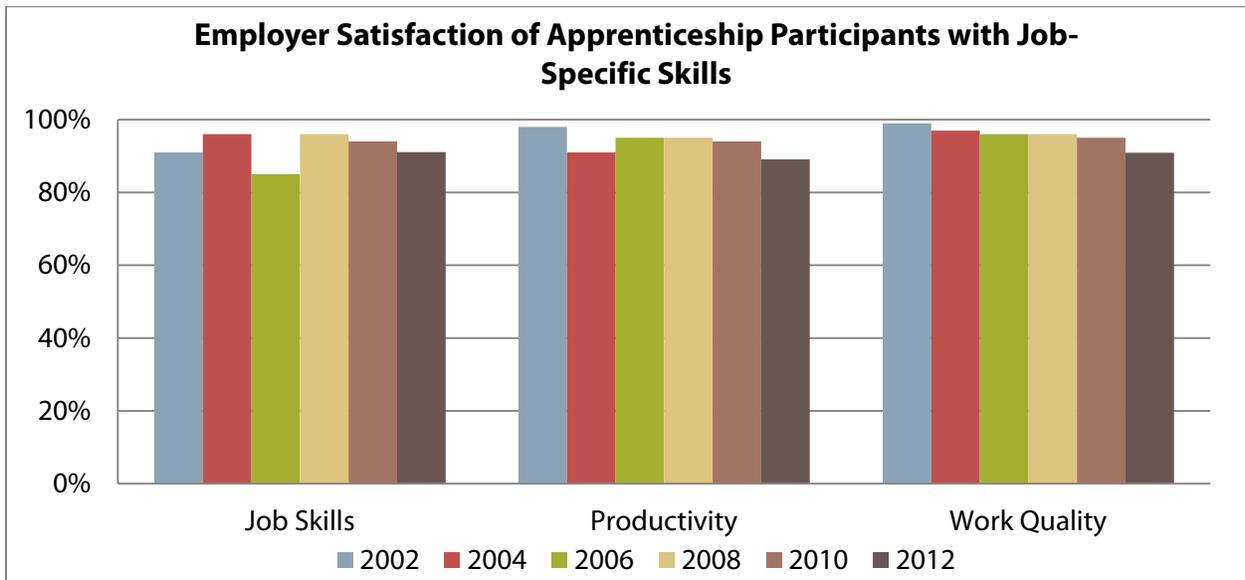
Source: Workforce Board Employer Survey conducted in 2012.

The following three charts show the trends in satisfaction of employers with new employees who recently completed an apprenticeship program.



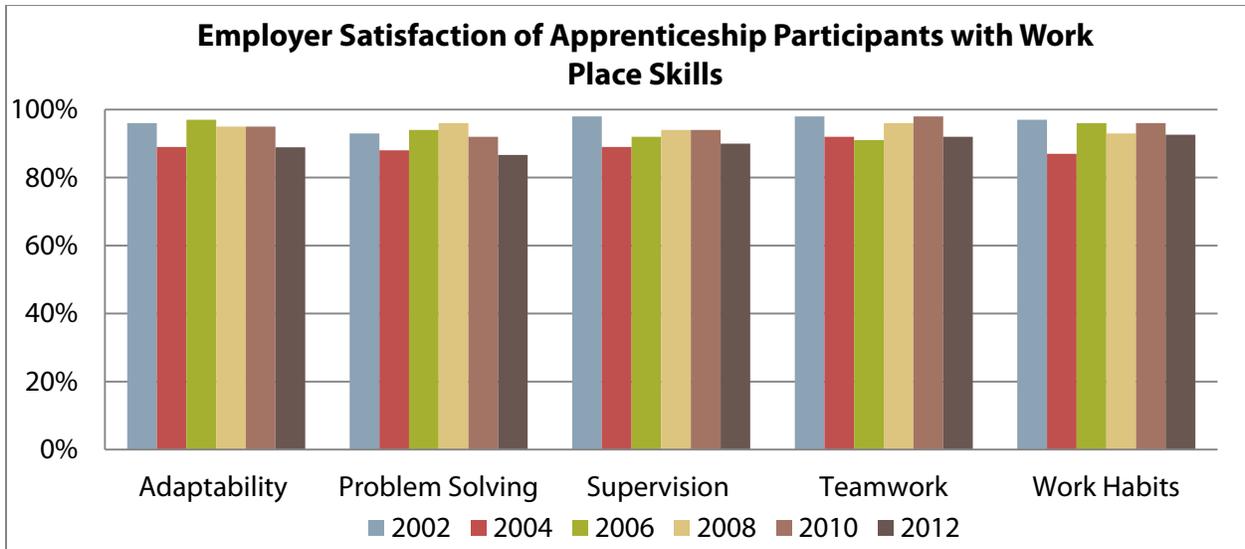


Source: Workforce Board's biennial Employer Surveys from 2002 through 2012.



Source: Workforce Board's biennial Employer Surveys from 2002 through 2012.





Source: Workforce Board's biennial Employer Surveys from 2002 through 2012.

Participant Survey - Did Participants Get the Skills They Needed?

Of the apprentices leaving their program who answered questions for the 2013 Participant Survey, 73 percent completed their apprentice program, which is an increase of one percentage point from the previous survey conducted in 2011.

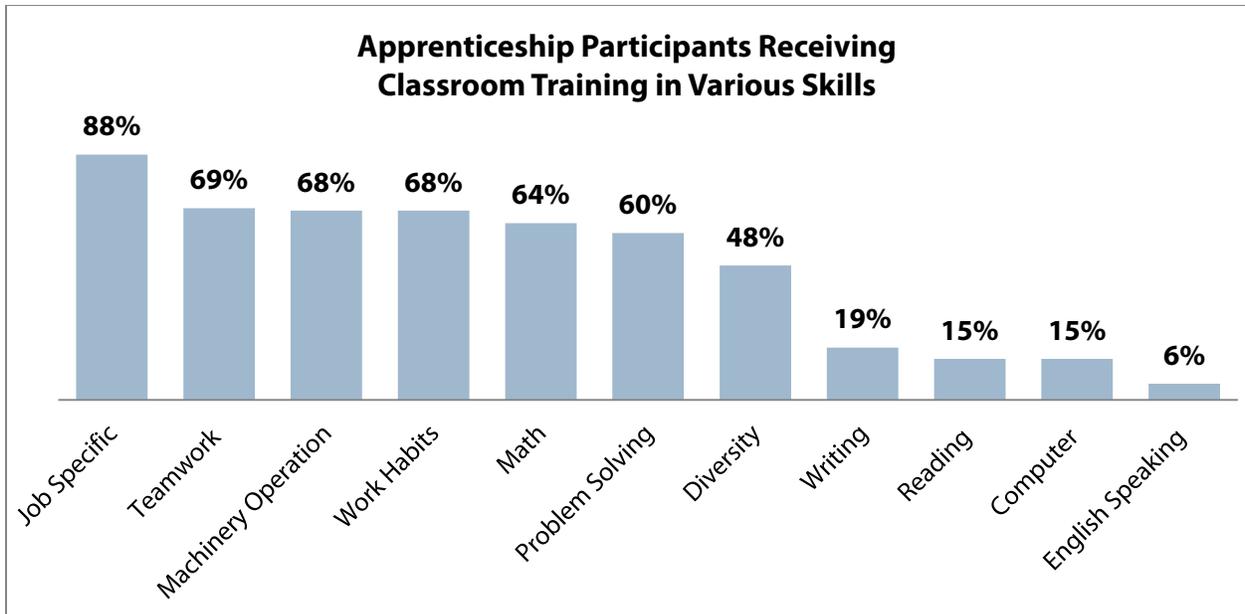
By definition, people enter an apprenticeship program to acquire occupation or industry-specific training. As they gain these skills, they are paid to work and hold down jobs that both bolster their resume and pay the bills. Many apprentices also receive training in general workplace skills such as teamwork and problem solving.

Classroom Training

Apprentices receive various skills training⁷, both in the classroom and during on-the-job training. During classroom training, apprentices were least likely to receive basic skills training such as English speaking, reading, and writing skills. One exception is the 64 percent of apprentices who received math skills training. Apprentices were most likely to receive training in job-specific skills (88 percent). These results are similar to surveys completed in previous years.

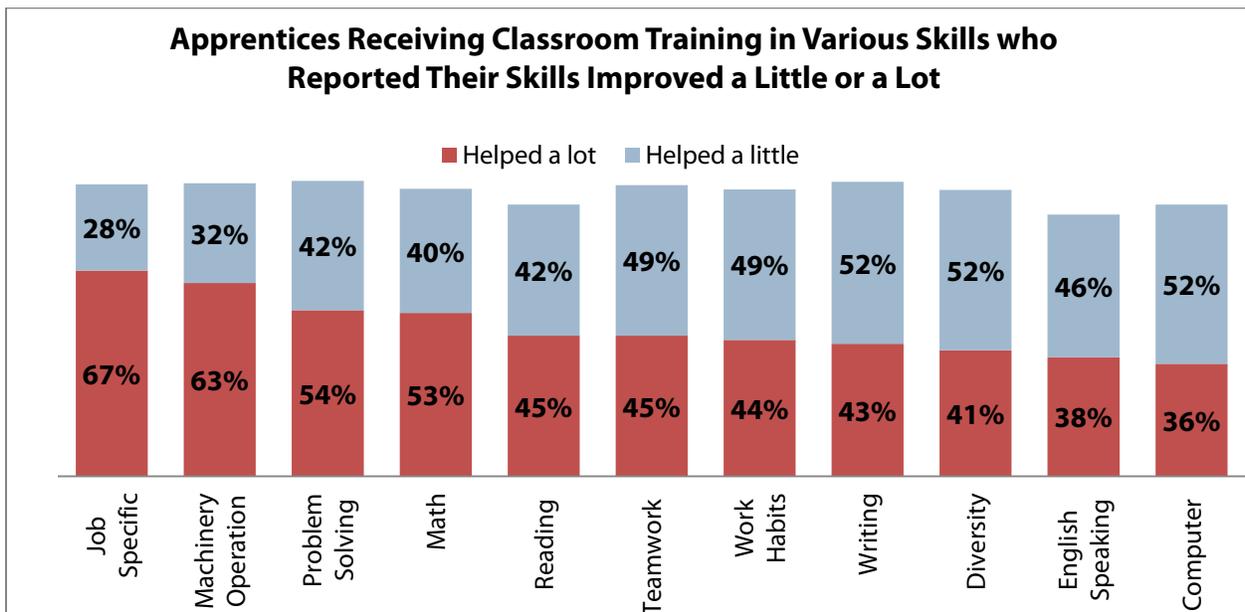
⁷ Apprentices are required to participate in at least 144 hours of classroom training annually.





Source: Workforce Board's Participant Satisfaction Survey 2013.

In both the previous and current studies, apprentices reported their skills in many areas improved as a result of classroom training. The apprentices from the 2013 survey indicated similar levels of improvement overall when compared with apprentices from 2011. Compared to 2011, more apprentices reported skill improvement after these job-specific trainings: machinery operation, problem solving, and math skills. More respondents received work habits, math, and reading training in 2013 than in 2011.

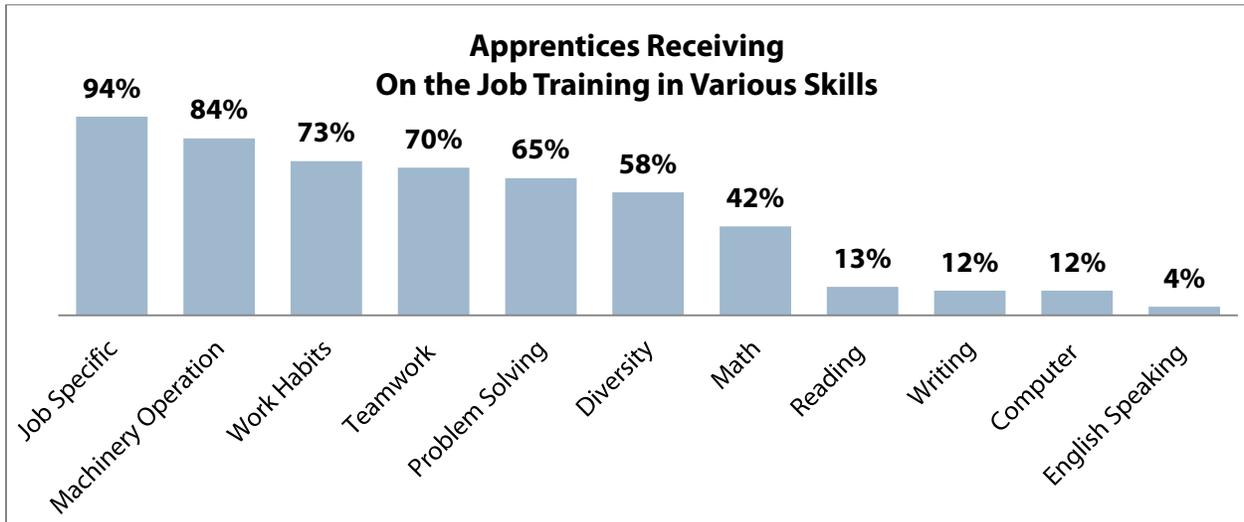


Source: Workforce Board's Participant Satisfaction Survey 2013.



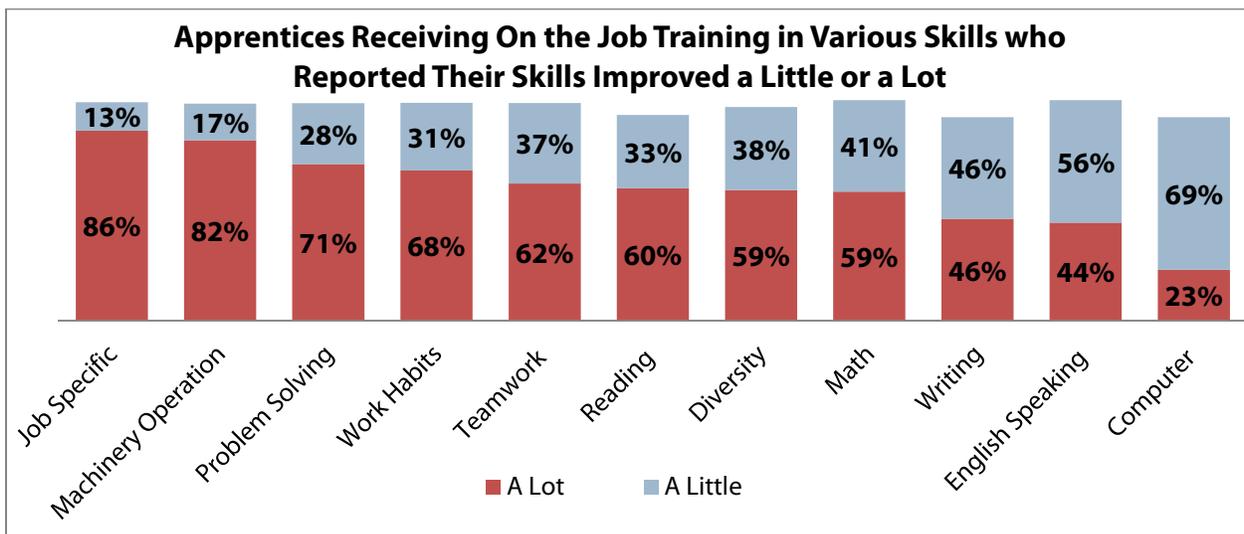
On-the-Job Skills Training

As in the previous survey, high percentages of apprentices reported receiving on-the-job training in job-specific skills, machinery operations, work habits, and teamwork. The percentage of apprentices receiving training in various skills has remained mostly the same between 2011 and 2013. Generally the 2013 participants had slightly higher rates of on-the-job training, with the exception being computer skills.



Source: Workforce Board's Participant Satisfaction Survey 2013.

Apprentices continue to highly rate the skills received from on-the-job training. As expected, the highest percentages indicated "a lot" of improvement in their job-specific and machinery operation skills. Both job-specific and machinery operation skills increased by 3 percentage points in the category "helped a lot" over the 2011 survey. The biggest decrease in helped a lot was in computer skills – falling from 46 percent in 2011 to 23 percent in 2013.

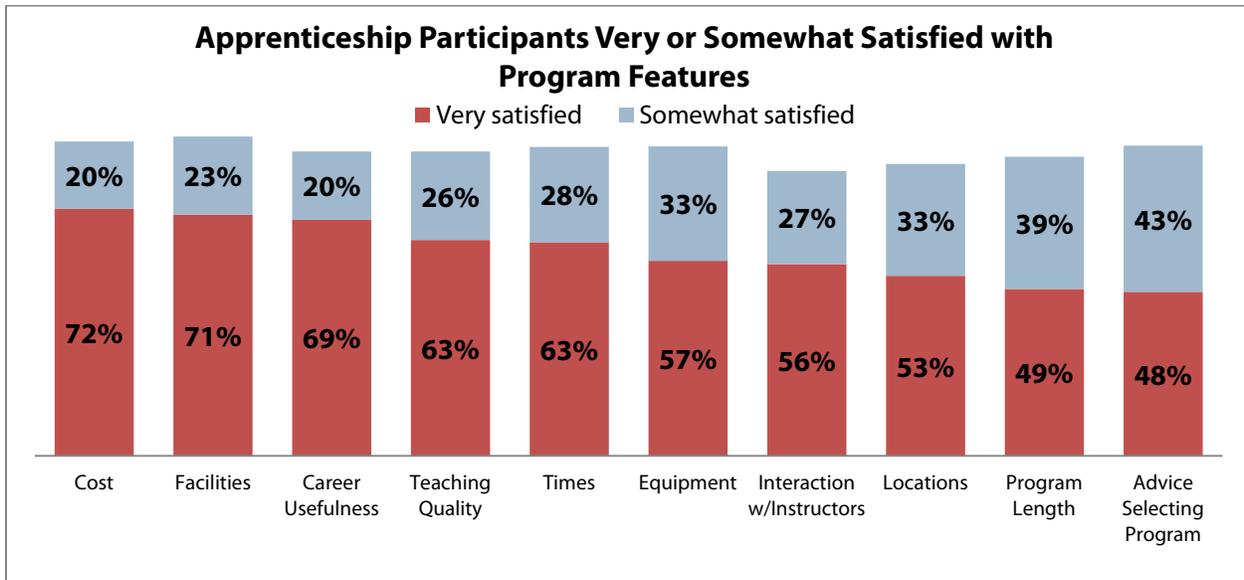


Source: Workforce Board's Participant Satisfaction Survey 2013.



Participant Satisfaction

The apprentices surveyed in 2013 expressed high levels of overall satisfaction that was similar to the previous study: 87 percent expressed that classroom training helped to some degree with their classroom training, and another 89 percent with their on-the-job training. Some 85 percent met their educational objectives by participating in the training – about the same as in the 2011 survey. Satisfaction was down by a small amount in most categories, with the exceptions being career usefulness, teaching quality, times, and advice selecting programs.

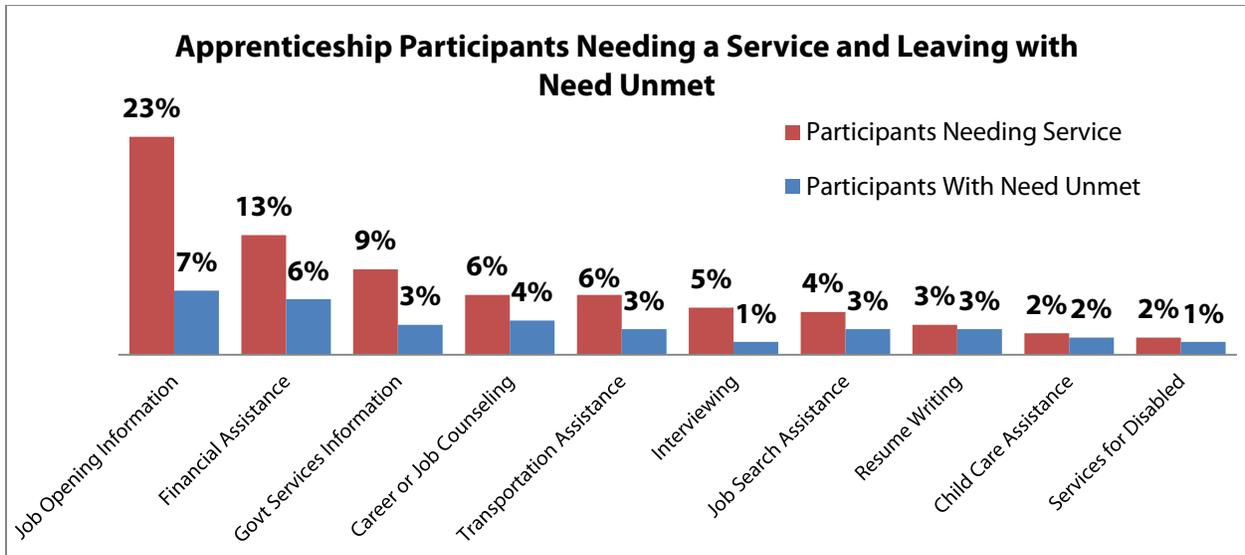


Source: Workforce Board's Participant Satisfaction Survey 2013.

Apprentices reported a much lower need for support services than participants in the other workforce programs included in the survey. As with the 2011 survey, the greatest needs were for information on job openings, financial assistance, and government services information. In some cases their needs were not met. Of apprentices leaving their program, 7 percent left with an unmet need⁸ for job opening information, and 6 percent for financial assistance.

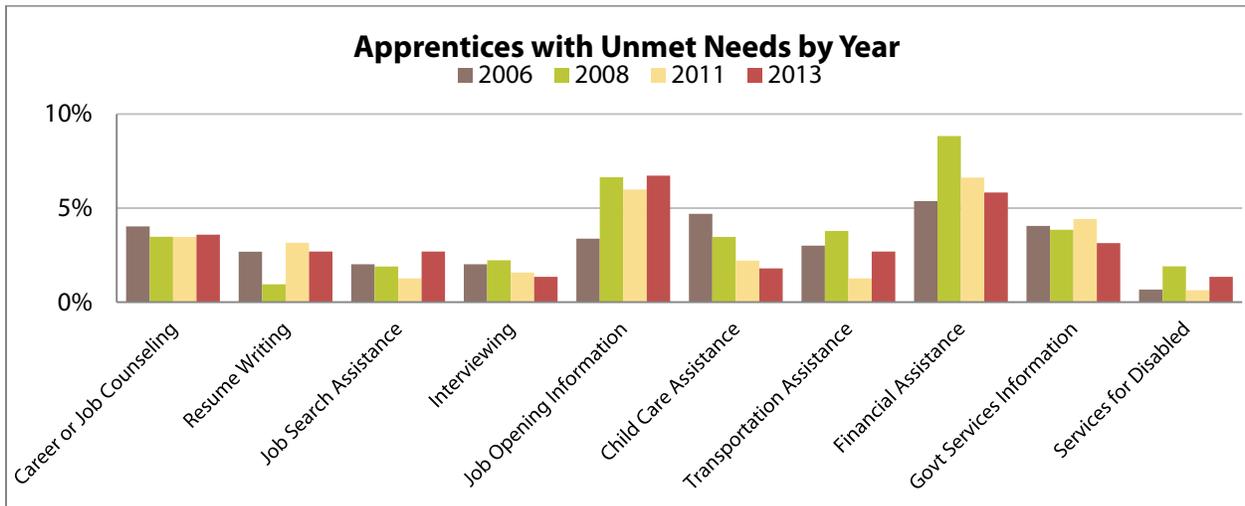
⁸ Unmet need refers to cases where the student reports that either they did not receive the required service or what was provided did not meet their needs.





Source: Workforce Board's Participant Satisfaction Survey 2013.

The percentage of apprentices with unmet needs has dropped in nearly every category since the last survey. However, the percentage reporting unmet needs for job search assistance, transportation assistance, career counseling, and job opening information has increased marginally since 2011.



Source: Workforce Board's Participant Satisfaction Survey 2013.



Net Impact – Did Program Make a Difference in Participant Success

Every four years the Workforce Board conducts net impact and cost-benefit analyses of workforce development programs. This detailed study compares participants and non-participants. The net impact part of this study attempts to measure whether the program made a difference in the participant’s success. Washington is the only state to periodically conduct rigorous net impact evaluations of its workforce programs.

Apprenticeship programs have very large, positive impacts on employment, wages, hours worked, and earning. Training substantially increases the lifetime earnings of apprentices.

The net impact analysis was conducted by the W.E. Upjohn Institute for Employment Research (Upjohn), a national leader in evaluating training programs. To do the analysis, Upjohn studied program participants to see what results they achieved and compared these results with a control group. Individuals who participated in an Apprenticeship program were compared to individuals who had similar demographic characteristics, but who did not participate in any of the programs included in the study. The comparison group members were selected from among those who registered with WorkSource, Washington’s one-stop career center system.

The most recent net impact analyses examined experiences of participants who left the Apprenticeship training program through 2009. The short-term impact (Program Year 2007-08) was observed in 2008-09, while the long-term impact (Program Year 2005-06) was observed from 2006-07 through 2008-09.

Apprenticeship	All Apprenticeship		Completers	
	Short Term [^]	Long Term [^]	Short Term [^]	Long Term [^]
Net Employment Impact*	7.80 percentage points	9.80 percentage points	24.70 percentage points	24.00 percentage points
Net Hourly Wage Impact**	\$8.59	\$9.55	\$14.45	\$15.86
Net Hours Employed per Quarter Impact	46.9	26.4	71.8	43
Net Annualized Earnings Impact**	\$20,201	\$19,257	\$35,275	\$32,860

[^]Short-term is three quarters after program exit; Long-term is average across three years since program exit.

*Percentages listed are employment percentage points above those of the control group of non-participants.

**Wages and earnings, expressed in first quarter 2014 dollars, represent the average difference between Apprenticeship participants who got jobs and those in the control group who were employed.



As seen above, apprenticeship programs had significant positive net impacts on employment, wages, hours worked, and annualized earnings when apprenticeship participants are compared with non-participants. These impressive results get even stronger for those who complete an apprenticeship, yielding nearly twice as much in annualized earnings, hourly wages and employment compared with those apprenticeship program participants who exited a program early. The benefits of not only starting, but completing an apprenticeship program are clear.

Costs and Benefits

The cost-benefit analysis estimates the value of the net impact on earnings, employee benefits (estimated at 25 percent of earnings), UI benefits, and certain taxes.⁹ Program costs include both direct program costs and support payments borne by taxpayers and the tuition paid by participants, as well as the earnings participants would have otherwise received had they continued working.

Benefits and costs are calculated for both the observed period of time and based upon a statistical model that estimated the benefits and costs out to age 65. 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 2014 Q1 dollars to control for inflation. The benefits and costs presented here are based on impacts estimated for apprentices leaving programs in 2005-2006 (observed from 2006-07 through 2008-09), because a longer-term follow-up is required for this analysis.

Participant and Public Benefits and Costs per Apprentice

Benefit/Cost	First 2.5 years		Lifetime (until 65)		Sum of Costs and Benefits
	Participant	Public	Participant	Public	
Benefits					
Earnings	\$38,488	\$0	\$329,541	\$0	
Fringe Benefits	\$7,698	\$0	\$65,908	\$0	
Taxes	-\$10,096	\$10,096	-\$86,439	\$86,439	
Transfers					
UI	\$900	-\$900	\$1,610	-\$1,610	
Costs					
Foregone net comp.	\$23,686	\$6,290	\$23,686	\$6,290	
Program costs	-\$1,875	-\$3,646	-\$1,875	-\$3,646	
Benefits	\$36,990	\$9,196	\$310,620	\$84,829	
Costs	\$21,811	\$2,644	\$21,811	\$2,644	
Total (Net)	\$58,801	\$11,840	\$332,432	\$87,472	\$419,904

Note: Benefits and costs are expressed in 2014 first quarter dollars.

⁹ Upjohn estimated the impact of the net change in earnings on Social Security, Medicare, federal income, and state sales taxes.



For each apprentice in training, the public (taxpayer) cost is \$3,646 over the length of their enrollment, and the participant cost is \$1,875 in tuition. By definition, apprentices work during their program participation, and their net earnings during training was \$23,686 higher than those who were not in training. During the course of working life to age 65, the average apprentice will gain about \$353,227 in net earnings (net impact earnings plus earnings while in apprenticeship training) and about \$65,908 in employee benefits.¹⁰ These are net gains compared to the earnings of similar individuals who did not participate in a program included in this study. Including program costs and the net impacts on taxes and unemployment insurance benefits, the total net benefit per participant is \$332,432.

Projected participant net benefits to age 65 far outweigh public investment in apprenticeship training by a ratio of \$91 to 1, or \$332,432 to \$3,646.

From the time of leaving training to age 65, the public is expected to gain about \$86,439 per apprentice in net additional Social Security, Medicare, federal income, and state sales taxes. The estimated lifetime net benefit to taxpayers is \$87,472 per participant.

Projected taxpayer net benefits to age 65 outweigh public costs invested in apprenticeship training by a ratio of \$23 to 1 or \$84,829 to \$3,646.

Summary, Areas for Improvement, and Further Research

Apprenticeship has been proven to be a very successful training program based on both employment and earnings outcomes and cost-benefit analysis. Moreover, public costs are low, as trust funds established by employers and workers cover the majority of the expense. Employers continue to report high levels of satisfaction with the skills of those who completed an apprenticeship program, and participants report they are satisfied with the program.

This evaluation does find some areas that could be stronger. The median age of those leaving apprenticeships is 30. More should be done to enroll younger people and women (9 percent of participants are women) into apprenticeships, especially in higher paying fields. The most recent hourly wages and annual earnings of women are only 63 percent of men's wages. Finally, while Washington's apprenticeship program continues to enroll people of color at rates similar to their population in the state, there continues to be disparities between the post-program wages and earnings for people of color compared to whites. This suggests that minority groups may not be enrolling in the higher paying fields. This issue needs continued attention.

¹⁰ This employee benefits amount does not account for the employee benefits associated with the earnings during participation. If the same benefit percentage (20 percent) were applied to such earnings, the gain in employee benefits in the longer term would be about \$50,000.



A related issue is the high number of apprenticeships in the construction industry. This year over half of those who found work did so in construction. This percent has risen in recent years as construction has recovered from the housing bust. In the 2011 report, only a quarter of apprenticeship employees found work in construction. While the growth in construction is positive, ideally apprenticeships would grow in other industries, which would also help address the gender imbalance.

This year's report also found a strong return for apprenticeship participants who completed training. The employment rate for completers was 11 percentage points higher than for all participants, and earnings were 31 percent higher.

The Apprenticeship Section of the Department of Labor and Industries and the apprenticeship community recognize the importance of recruiting and retaining more women and people of color into high paying apprenticeship programs. They are engaged in activities to make this happen. For example, the Apprenticeship Section is partnering with the state's Department of Transportation to prepare women and people of color for jobs related to highway construction and maintenance. The Apprenticeship Section is also addressing the need to enroll younger participants; for example by establishing culinary arts and early child care programs that begin in middle and high schools. The Washington State Apprenticeship and Training Council has developed and formalized an Apprenticeship Preparation Program recognition process for preparatory or pre-apprenticeship programs. The purpose is to build a recognized pipeline for apprenticeship preparation throughout the state.





Workforce Training and Education Coordinating Board

2015 Workforce Training Results

Community and Technical Colleges Professional-Technical Education

Program Details

Washington's 34 community and technical colleges offer professional technical training that provides participants with skills required for specific occupations. Community and Technical Colleges (CTC) Professional-Technical Education training covers a broad range of occupational fields and credentials, from one-year certificates to two-year technical degrees. However, it does not include participants who intend to transfer to a four-year college or university; participants who enroll in a program to raise their basic skills to a high school level; or working adults who take a few classes to improve skills for their current jobs.¹

Every year, the Workforce Board measures the performance of key workforce programs. In this report, you'll find out more about the program and who is served, the metrics used to measure performance, and how the program performed.

Participant Profile

For this 2015 report, researchers examined 31,182 CTC Professional-Technical participants who completed or left the community and technical college system.² These participants comprise the Professional-Technical cohort included in this study.³ The median length of enrollment for these participants was 16 months.

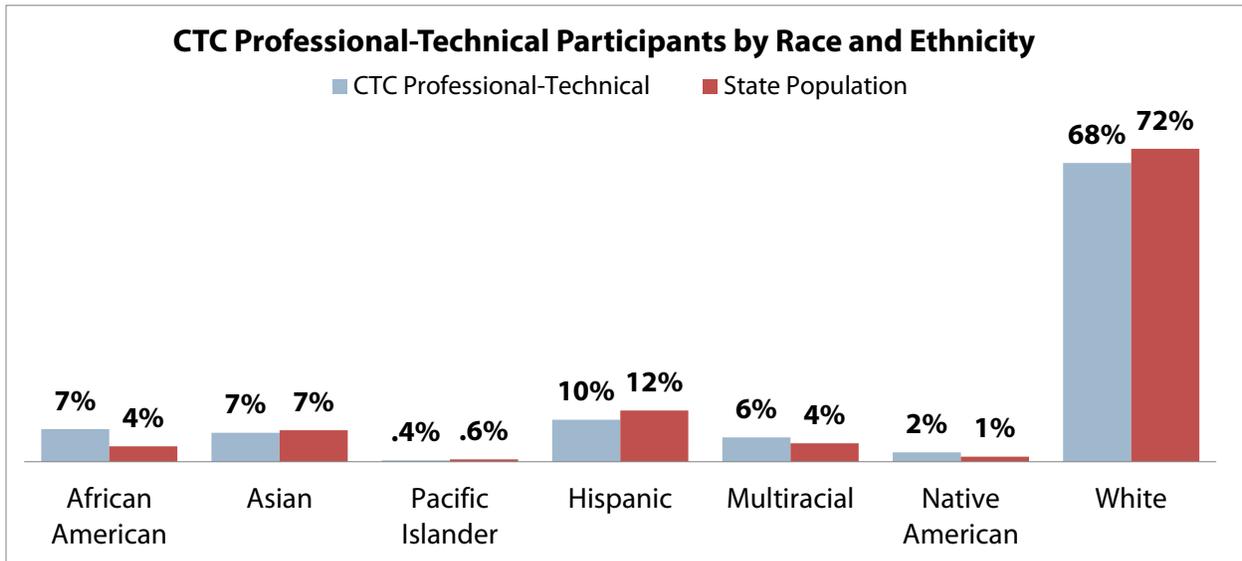
¹ While the Worker Retraining program at the community and technical colleges also provides occupational training, the results for participants who participated in this program are evaluated separately.

² CTC Professional-Technical Education participants identified themselves as vocational participants and have either enrolled for six or more vocational credits or have completed three or more vocational credits. Additionally, the participants included in this study exited their program during the academic year and did not enroll in a community or technical college for a period of one full year.

³ The 2015 Workforce Training Results reports are based on data observed as recently as 2013-2014 for individuals exiting programs during 2012-13.



Participants from racial and ethnic minority backgrounds continue to be well represented among CTC Professional-Technical participants, especially among African Americans whose participation rate was almost double their representation in the state population. Native Americans are also slightly overrepresented in comparison to their share of the state population.⁴

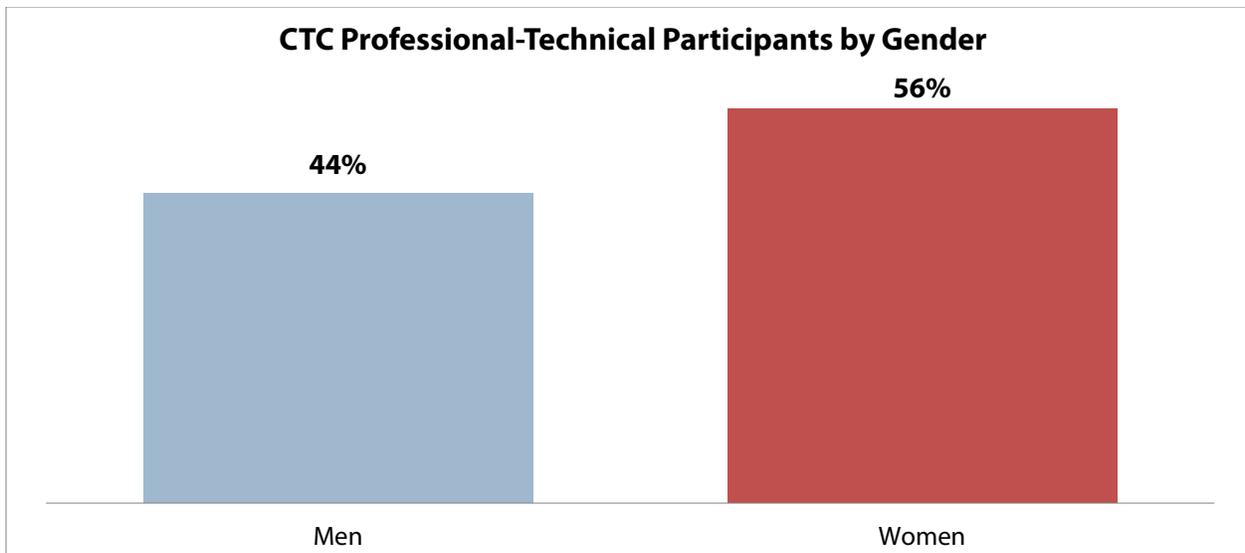


Source: Community and Technical Colleges Administrative Data. Data Linking for Outcomes Assessment (DLOA) and 2012 U.S. Census Data from the American Community Survey.

Gender differences were also examined. Among CTC Professional-Technical participants, 44 percent were men. Men and women completed their programs at nearly the same rate, 62 percent for women and 61 percent for men.

⁴In this report, unless otherwise stated, racial and ethnic minority groups are mutually exclusive; that is, an individual belongs to one group only. The groups include the following: Hispanics of any race (also referred to as Hispanics); non-Hispanic African Americans (also referred to as African Americans); non-Hispanic Asians (also referred to as Asians); non-Hispanic Pacific Islanders (also referred to as Pacific Islanders); non-Hispanic Native Americans and Alaskan Natives (also referred to as Native Americans); non-Hispanic multiracial (also referred to as multiracial); and non-Hispanic whites (also referred to as whites). According to the 2012 U.S. Census Bureau estimates for Washington from the American Community Survey, 72 percent are white; 4 percent are African American; 1 percent are Native American; 7 percent are Asian, less than 1 percent are Pacific Islander; 4 percent are multiracial; and 12 percent are Hispanic.





Source: Community and Technical Colleges Administrative Data. (DLOA)

When they enrolled, 53 percent of the participants had not previously attended college; 21 percent had attended college without receiving a credential; 12 percent had a certificate or associate’s degree; 10 percent had a baccalaureate or higher degree; and 5 percent had some other credential.

The median age in the last quarter of training was 29, with one quarter of the participants under age 23, and another quarter of the participants over age 39.

Tracking CTC Professional-Technical Progress

The Workforce Board routinely measures the performance of our state’s largest workforce programs. As a customer-focused advocate for Washington’s workers and employers, the Workforce Board strives to provide performance accountability, verifying whether worker education and training programs provide a return on investment for participants and taxpayers.

The Workforce Training Results report seeks to answer five core questions:

- Did participants get the skills they needed?
- Did participants get a job and how much were they paid?
- Were employers satisfied with the preparation workers received?
- Has the program made a difference in the participant’s success?
- Did participants and the public receive a return on their investment?



Data Comes From State Wage Files & Employer Survey

The 2015 Workforce Training Results includes information obtained from Employment Security Department wage files in Washington, Idaho, and Oregon, and federal employment records for 2013-14. Information on employer satisfaction among firms that hired new employees who recently completed a CTC Professional-Technical program was assessed through the Workforce Board's 2012 Employer Survey.

Net Impact Study Adds More Insight into Program Performance

In addition, the report includes a comprehensive Net Impact Study. Conducted every four years, this study provides a head-to-head comparison of participants and non-participants to help answer a central question: How much of a workforce participant's success in obtaining a job, or a higher wage, is due to the workforce program? By comparing program participants with similar individuals who did not participate in a workforce training program, the Net Impact Study indicates whether employment and earnings gains are due to the workforce program, or if workers could have made this progress on their own. This research also allows for a more detailed analysis as to whether the participant and the public received a return on their investment in the program.

Did Participants Get the Skills They Needed?

As a measure of whether participants received the skills they needed, this study tracks the credentials and degrees earned by participants.

Among CTC Professional-Technical participants leaving programs:

- 24 percent received an associate's degree.
- 22 percent received a vocational certificate.
- 13 percent were deemed ready for work because they completed 45 or more credits.
- 1 percent completed a non-credit vocational program that led to a certificate.

Taken together, 61 percent of participants earned a credential.⁵

Turn to page 20 for the Net Impact Study. Conducted every four years, this in-depth report adds extra value to 2015 Workforce Training Results. The study provides a side-by-side comparison of participants vs. similar non-participants, answering the question of whether the program is making a difference.

⁵ Upon exiting a college, the system determines whether the participant is considered to have completed the program. The percentages do not sum to 59 percent due to rounding.



Did Participants Have a Job and How Much Were They Paid?

To find out whether participants obtained jobs and how much they earned, participant records were matched with Employment Security Department wage files from Washington and neighboring states.⁶ The study looks at employment and earnings three calendar quarters (seven to nine months) after the participant left the CTC Professional-Technical program. The table below displays the employment and earnings of participants who exited the program during the prior year. Over 65 percent of the CTC Professional-Technical participants were employed. Of those who were working, 61 percent were employed full time. The median hourly wage was \$15.80; this is \$6.48 per hour more than Washington’s minimum wage of \$9.32 an hour in 2014. However, there is considerable variation in wages. While one quarter earned \$22.51 an hour, another quarter had jobs that paid less than \$11.98 an hour. Median annualized earnings are \$27,220, up a bit over the 2014 report.

2014 Employment and Earnings for Community and Technical College Professional-Technical Education Participants

Performance Measure	Results
Employment Rate* (State Records)	66%
Employment Rate (Completers)	71%
Full-Time Employment **	61%
Median Hours Worked Quarterly	442 hours
Median Hourly Wage***	\$15.80
Median Annualized Earnings***	\$27,220
Median Annualized Earnings (Completers)	\$29,817

* These figures apply to those with employment reported to state employment agencies six to nine months after leaving the program. Rate does not include self-employment, employment outside the Northwest or military service and thus understates total employment by approximately 10 percent.

** Full-time employment averages 30 or more hours per week.

*** Earnings/wages expressed in first quarter 2014 dollars in order to account for inflation.

⁶ These files contain quarterly earnings and hours-worked information on those individuals with employment reported for unemployment insurance (UI) benefits purposes (approximately 90 percent of in-state employment, with self-employment, active duty military, and those working for religious nonprofit organizations being the major groups of employers not included).



Earnings of CTC Professional-Technical Participants

The following table shows employment and earnings information over the course of five study periods. Performance results are shown for *all* CTC Professional-Technical participants and broken down further to focus on program completers.

Employment and Earnings Trends for Community and Technical College Professional-Technical Education Participants

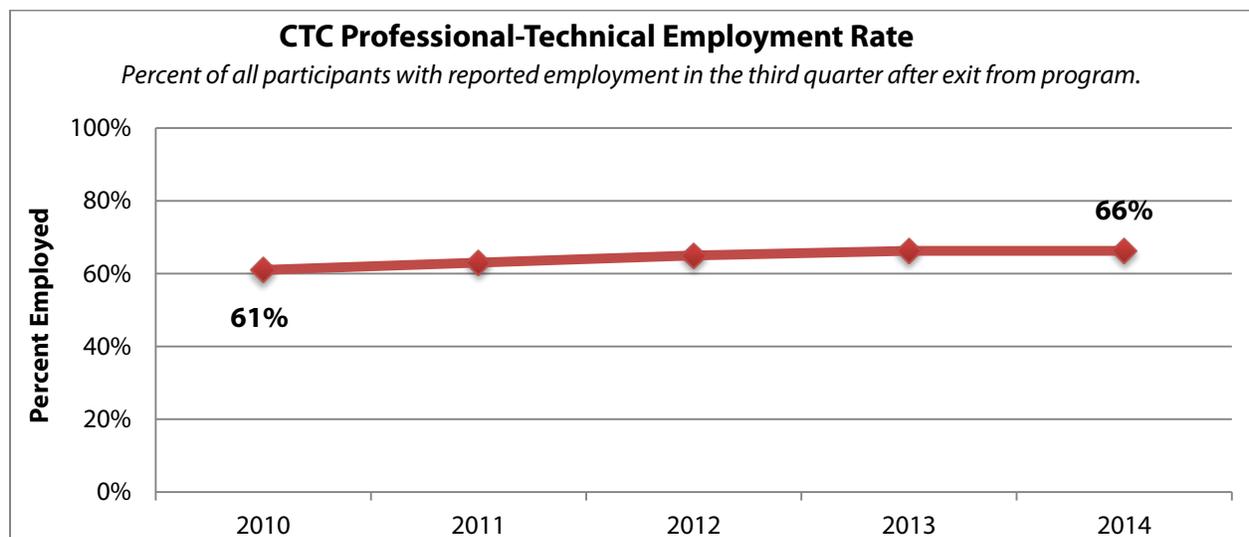
Performance Measure	2010		2011		2012		2013		2014	
	All	Comp.								
Employment Rate* (State Records)	61%	65%	63%	69%	65%	70%	66%	70%	66%	71%
Full-Time Employment**	59%	60%	54%	56%	62%	64%	60%	66%	61%	69%
Median Quarterly Hours	429	442	416	429	429	442	416	442	442	442
Median Hourly Wage***	\$15.75	\$16.64	\$15.45	\$16.25	\$15.23	\$16.12	\$15.67	\$16.45	\$15.80	\$16.59
Median Annualized Earnings***	\$26,580	\$28,785	\$25,269	\$27,663	\$26,448	\$29,219	\$26,360	\$28,812	\$27,220	\$29,817

Source: Matches of Community and Technical College Administrative data with employment wage files.

*These figures apply to those with employment reported to the state's Employment Security Department six to nine months after leaving program for all CTC Professional-Technical participants, and are not limited to those who completed a program. Rate does not include self-employment, employment outside the Northwest or military service and thus understates total employment by approximately 10 percent.

**Full-time employment averages 30 or more hours per week.

***Earnings/wages expressed in first quarter 2014 dollars in order to account for inflation.

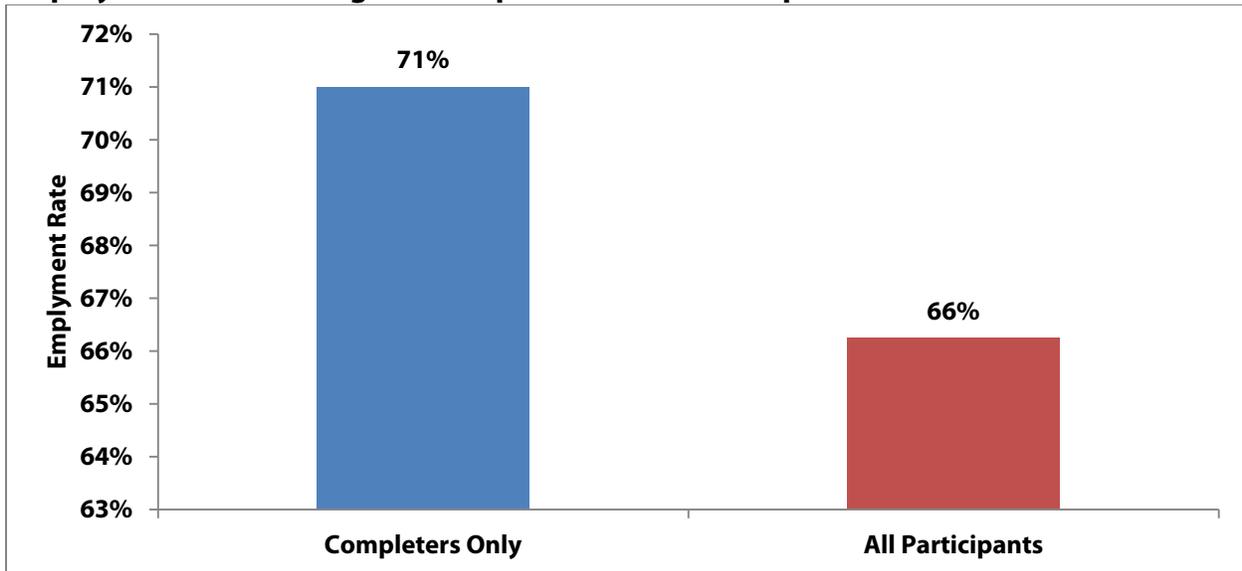


Note: Rate does not include self-employment, employment outside the Northwest or military service and thus understates total employment by approximately 10 percent.

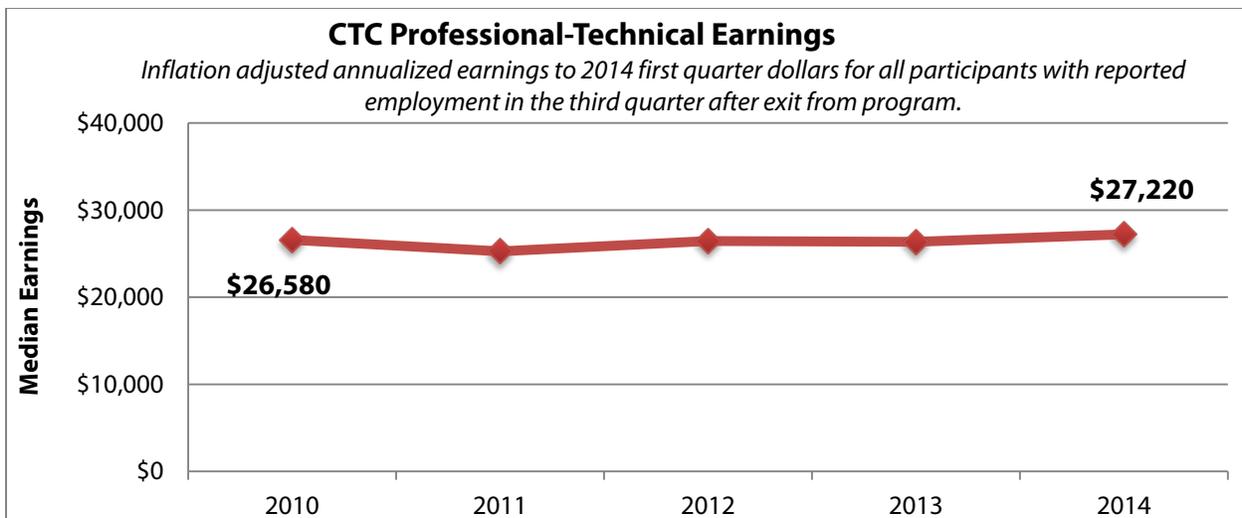


As can be seen in the table above, employment among all CTC Professional-Technical participants has increased at a moderate pace since 2011. Program completers fared better than participants as a whole. Completers were five percent more likely to be employed (71 percent vs. 66 percent).

Employment Rate of Program Completers vs. All Participants



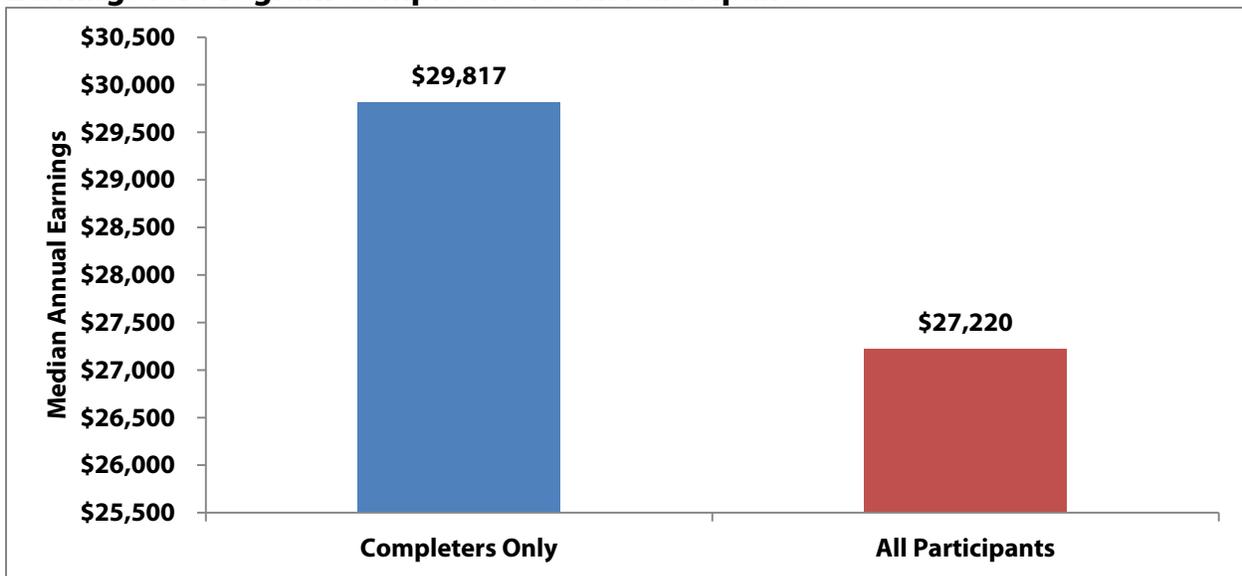
In terms of earnings, CTC Professional-Technical participants have seen slight increases from \$26,580 in 2011 to \$27,220 in 2014. This amounts to an annual average growth rate of less than one percent. However, earnings were 10 percent higher for those that completed the program, compared to the overall participant earnings.



Note: This chart shows annualized earnings in 2014 first quarter dollars to account for inflation.



Earnings for Program Completers vs. All Participants



Source: 2015 Workforce Training Results

Completion is goal of Student Achievement Initiative

Between 2007 and 2012, Washington's community and technical colleges saw a 46 percent increase in the number of degrees and certificates awarded. This boost in completed credentials was accomplished in the midst of historic budget cuts to higher education, and is due in part because of the Student Achievement Initiative. Launched in 2007, the initiative rewards community and technical colleges for moving students further and faster in college. Colleges earn a portion of their funding based on results, not just enrollments. They earn points and funding when students reach key academic momentum points, such as finishing college-level math, completing a first year of college, and earning a degree or certificate.

In the 2013-14 school year, the Student Achievement Initiative began a new approach that awards more points for basic skills students who reach academic milestones (by recognizing their more challenging educational journey); provides points when students reach the highest level of pre-college (remedial classes); adds another momentum point for 45 credits in a professional-technical field or university transfer, and rewards schools when students show steady progress from year to year.

CTC Professional-Technical Participant Employment by Industry

Employment is concentrated in the services industry followed by retail trade, manufacturing, and public administration. About 60 percent of CTC employment was found in the services industry, where healthcare accounted for the largest share.



Industries	
59.6%	Services (see breakout)
11.6%	Retail Trade (see breakout)
7.7%	Manufacturing (see breakout)
6.4%	Public Administration
3.8%	Construction
2.9%	Financial Services
2.5%	Wholesale Trade
2.4%	Transportation and Warehousing and Utilities
1.1%	Information
0.9%	Natural Resources and Mining
Breakout of Services Industry	
21.7%	Health Care
8.7%	Accommodation and Food Services
8.5%	Admin., Support, Waste Management, and Remediation Services
6.4%	Social Assistance
4.7%	Education Services
4.4%	Professional, Scientific, and Technical Services
3.4%	All Other Services
2.0%	Arts, Entertainment, and Recreation
Breakout of Retail Trades Industry	
3.0%	Department and Warehouse Stores
1.8%	Vehicle Sales
1.8%	Food and Liquor Stores
1.3%	Clothing and Accessories Stores
1.1%	Hardware, Garden and Farm Supplies
0.7%	Books, Music and Hobbies Sales
0.7%	Health Care and Beauty Products
0.5%	Gasoline Stations
0.4%	Electronics and Appliance Stores
0.3%	Home Furnishings Sales
1.0%	Miscellaneous Store Retailers
Breakout of Manufacturing Industry	
2.8%	All Other Manufacturing
2.7%	Aerospace
0.9%	Fabricated Metal Products
0.9%	Food & Beverage
0.4%	Wood & Paper Products

Source: Matches with Employment Security Department data in third quarter after exiting program. Industry groups based on North American Industry Classification System (NAICS) codes.



Relationship of Training to Employment

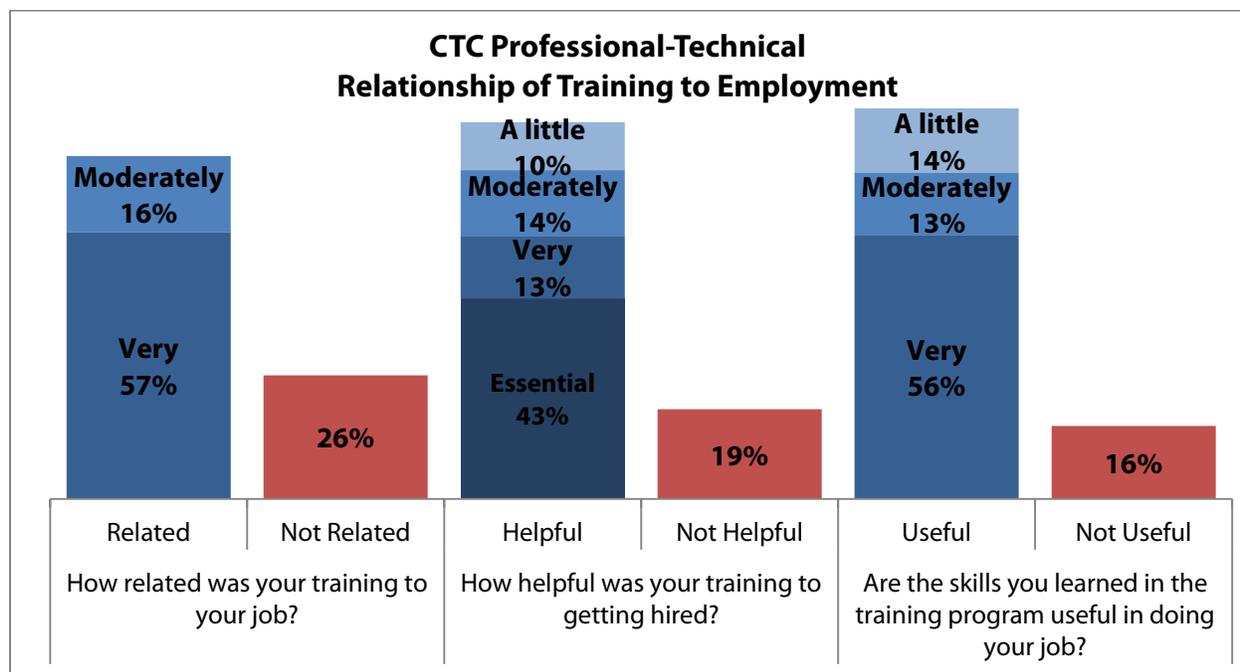
In 2013, the Workforce Board surveyed CTC Professional-Technical Education Participants who had left their program in 2011-12. The survey provided data on employment and participant satisfaction with the training. The survey was conducted by telephone and was completed by 225 participants.

To measure the extent to which a participant’s education program and training related to employment, we asked participants three questions:

1. How related was the program to their job?
2. How important was the training in getting hired?
3. Are the skills they learned useful in their job?

Asking about the relationship between training and employment in different ways can produce more complete information. For example, some participants said their training was not related to their job, but nevertheless, found the skills acquired were useful on the job.

Among Community and Technical College Professional-Technical participants employed six to nine months after leaving a program, 57 percent said their training was “very related” to their job. A further 16 percent reported the training was “somewhat related” to their job. Only 26 percent said that the training was “not related at all” to their job. In 2011, employed participants reported slightly higher rates of training related to employment (75 percent reported training was related to their job versus 73 percent this year).



Source: Workforce Board’s Participant Satisfaction Survey 2013.

Participants interviewed in 2011 also indicated the training was helpful to them in getting their job. Of those participants, 43 percent indicated their training was an “essential



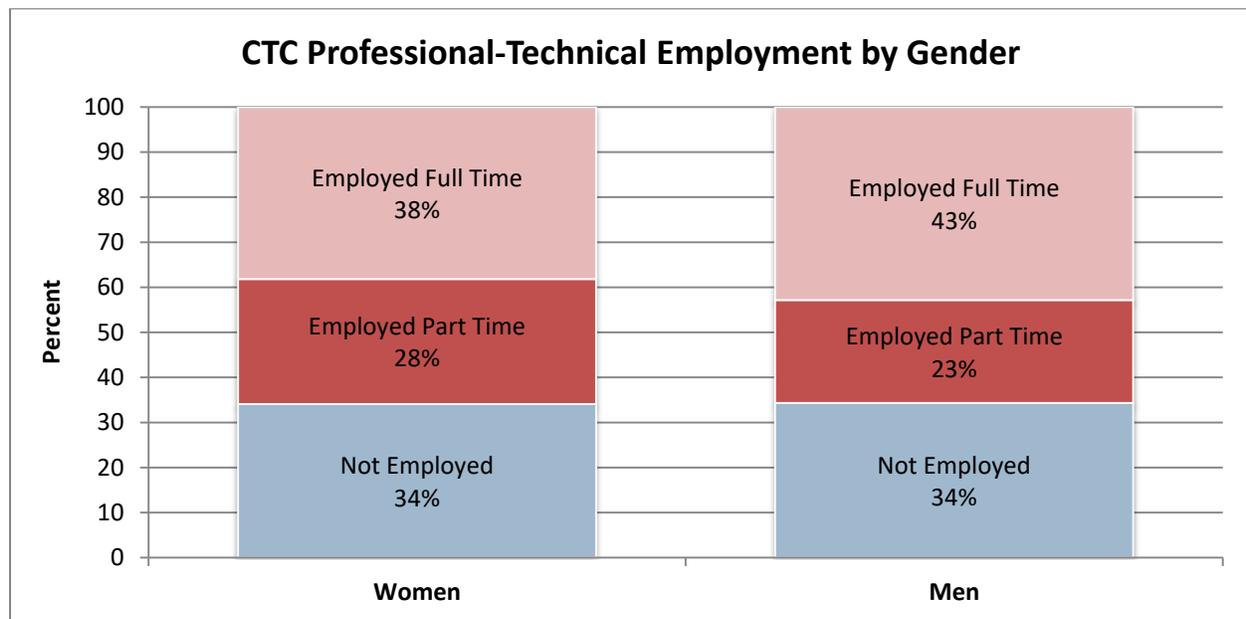
requirement,” another 13 percent indicated it was “very important,” and 14 percent reported it was “moderately important.” Ten percent said it was “a little helpful.” Only 19 percent indicated their training was “not important at all” to getting their job.

Most participants said the skills they learned in their training program were useful in doing their job. Some 56 percent of participants indicated the skills were “very useful,” 13 percent said “moderately useful,” and 14 percent “a little useful.” The remaining 16 percent of participants who were employed indicated the skills were “not useful at all.”

When combining two of the questions about the program’s relationship to the job and about whether the skills acquired were helpful, a small percentage of participants answer negatively to both. Just 11 percent (down from 14 percent in 2011) of participants employed the third quarter after exit said the training they received was *neither* helpful in their job nor related to the job they obtained.

Wages and Employment Results Vary by Population

Wage and employment results may vary by gender, race and ethnicity, and disability. Female participants had an overall employment rate of 66 percent (38 percent full time and 28 percent part time), and were employed at the same overall rate as men. However, men were more likely to be employed full time than women (43 percent vs. 38 percent).



Source: Matches with Community and Technical Colleges Administrative Data and Employment Security Department data.

Among employed participants, women’s median annual earnings were \$25,486, or 85 percent of men’s (\$29,833). Women’s median hourly wages were \$15.45, or 96 percent of men’s hourly wages (\$16.12). An earnings gap persists; one possible reason is that women and men tend to enroll in different types of programs, which lead to jobs that pay different amounts.

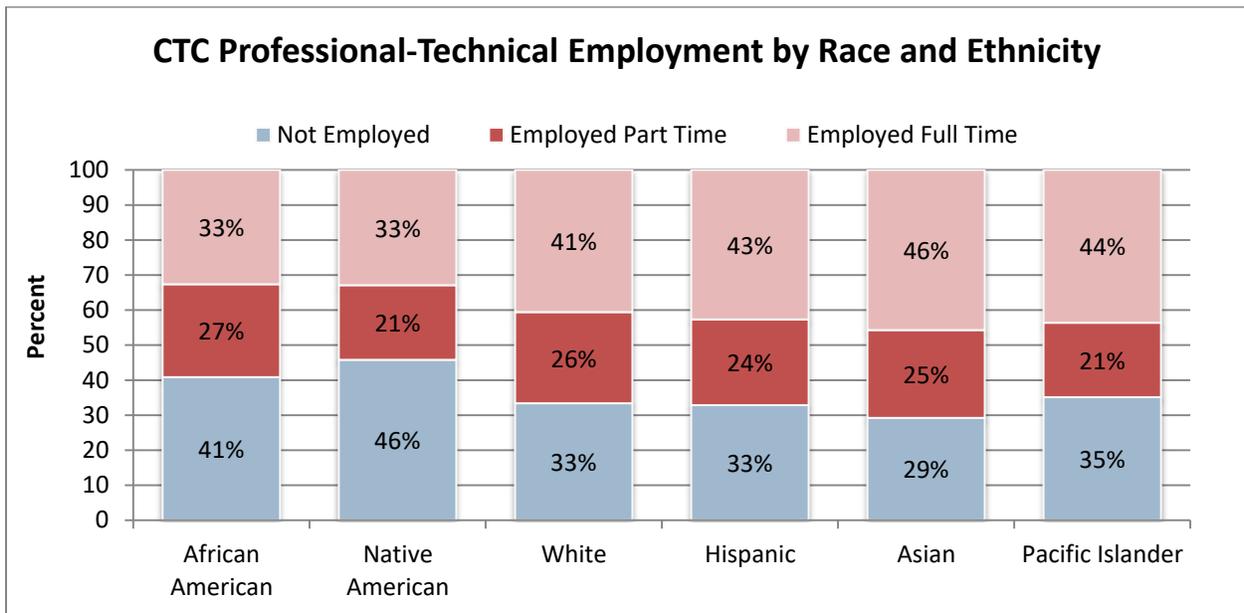


The service industry, for example, has a heavily female workforce. Some 72 percent of women CTC Professional-Technical participants obtained work in the service industry compared to 43 percent of men. Conversely, 13 percent of men obtained work in manufacturing while two percent of women obtained manufacturing jobs. A higher percentage of male workers than female workers were found in retail trades. Within retail, men were more likely to work in such jobs as vehicle sales while women were more likely to work in clothing and health care and beauty products stores.

Race and Ethnicity Play Roles

Native Americans were the least likely racial/ethnic group to be employed in the third quarter after leaving their programs with an overall employment rate of 54 percent (33 percent worked full time and 21 percent part time). This compares to employment rates of 71 percent for Asians, 67 percent for Hispanics and whites, 65 percent for Pacific Islanders, and 60 percent for African Americans. Those employed full time was highest for Asians (46 percent), followed by Pacific Islanders (44 percent), then Hispanics (43 percent), and whites (41 percent). The lowest full-time employment was true for both African Americans and Native Americans at 33 percent.

Of those employed, the median hourly wages were highest Asians at \$16.75, followed by Native Americans (\$16.19), whites (\$16.00), Pacific Islanders (\$14.71), Hispanics (\$14.03) and African Americans (\$13.78). Asians had the highest median annual earnings (\$30,487), followed by whites (\$27,850) and Pacific Islanders (\$27,014). Native Americans (\$26,720), Hispanics (\$25,011), and African Americans (\$22,888), all had lower median annual earnings.

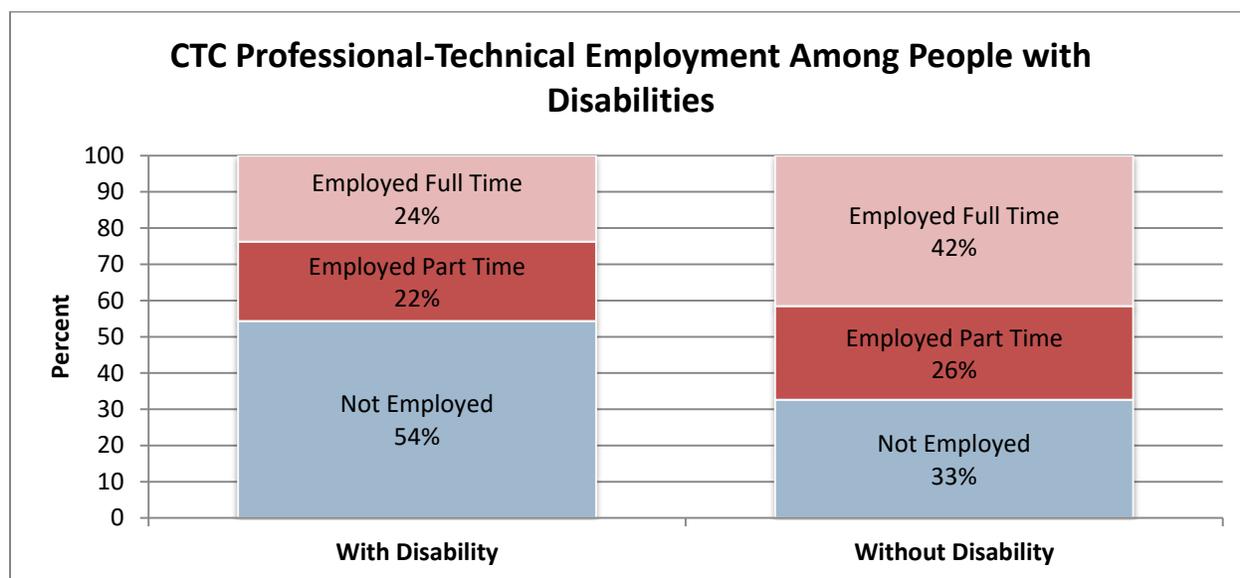


Source: Matches with Community and Technical Colleges Administrative Data and Employment Security Department data.



Disability Impacts Employment and Earnings

Employment outcomes and earnings also varied by disability status. College records indicate that 7 percent of the participants included in this study had a disability. Participants with a disability were employed at an overall rate of 46 percent (24 percent full time and 22 percent part time), which was a much lower rate of employment than those without a disability (68 percent). This is slightly higher than the prior year, in which 44 percent of disabled participants were employed, compared to 67 percent of the non-disabled. Disabled participants were also less likely to work full time (24 percent versus 42 percent for non-disabled). Among those working, the median hourly wage rate of those with a disability (\$14.05) was 89 percent of those without a disability (\$15.86), and their median annual earnings (\$21,518) were 78 percent of those with no reported disability (\$27,575).



Source: Matches with Community and Technical Colleges Administrative Data and Employment Security Department data.

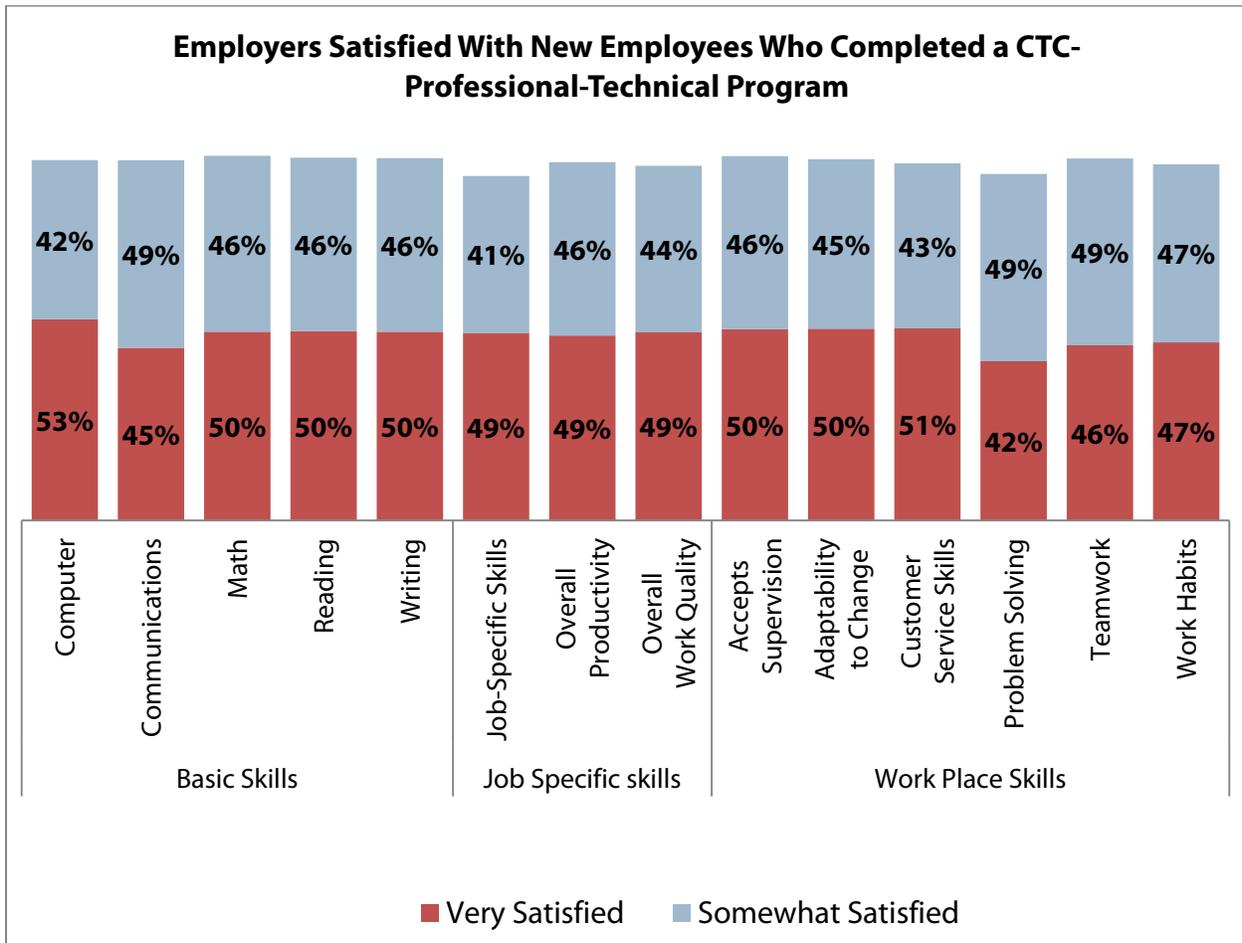
Were Employers Satisfied with the Preparation Workers Received?

The Workforce Board's Employer Survey, administered during 2012, asked firms to evaluate new employees who had recently completed a CTC Professional-Technical program. Some 93 percent of employers said they were either "somewhat satisfied" or "very satisfied" with the overall work quality of these new employees.

Employer satisfaction is broken down into three categories: Basic Skills, Job Skills, and Work Place Skills. Basic skills refer to reading, writing, math, communication and computer skills. Job skills refer to skills specific to the job, as well as overall work quality and productivity. Work place skills refer to the skills necessary to get along in the workplace such as the ability to accept supervision, the ability to adapt to changes in duties and responsibilities, teamwork, customer service, problem solving or critical thinking skills, and having positive work habits and attitudes.



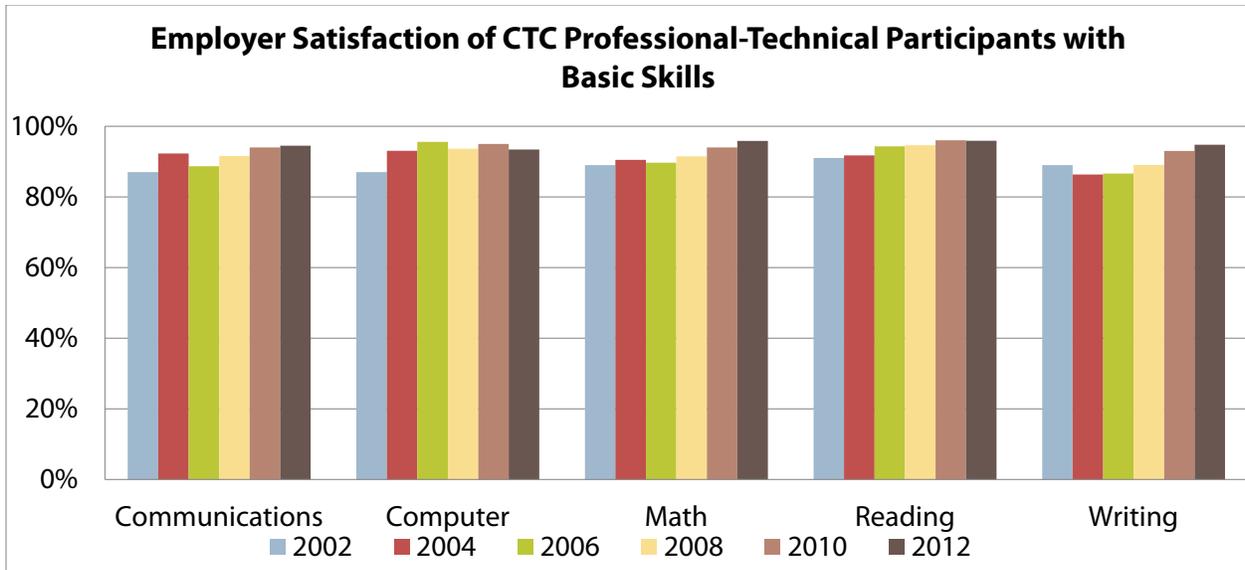
In 2012, employer satisfaction was consistently high across skill types, with just slightly lower satisfaction with new employees' problem-solving and communication skills.



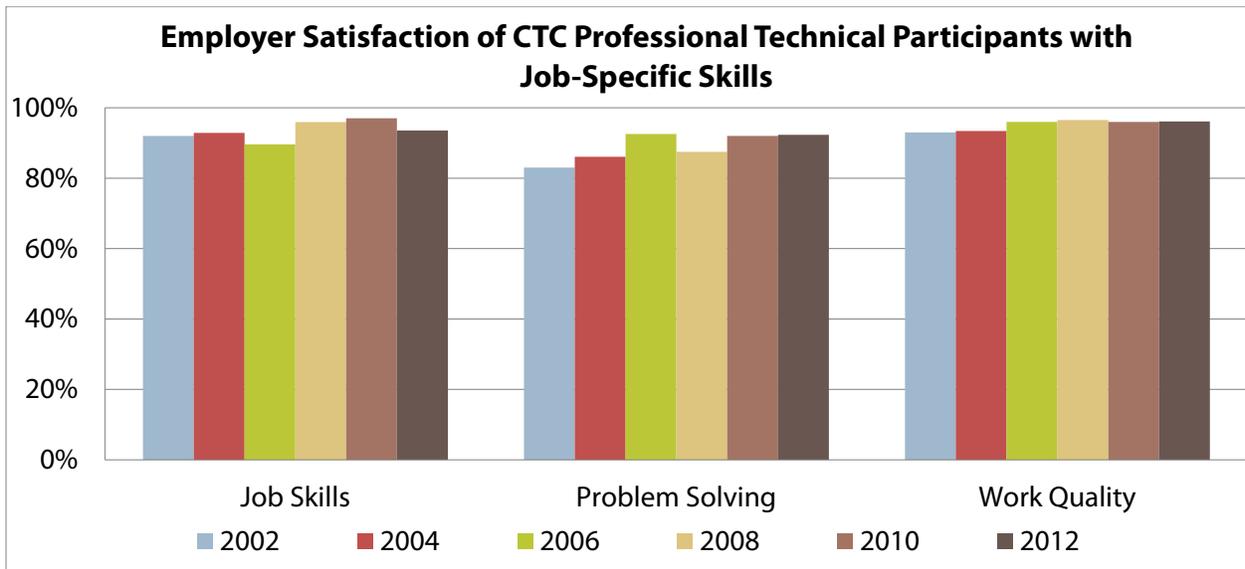
Source: Workforce Board Employer Survey conducted in 2012.

Overall, employer satisfaction has increased in most categories over the last decade, and has remained stable since the last survey. The following three charts show the trends in satisfaction of employers with new employees who recently completed a CTC Professional-Technical program.



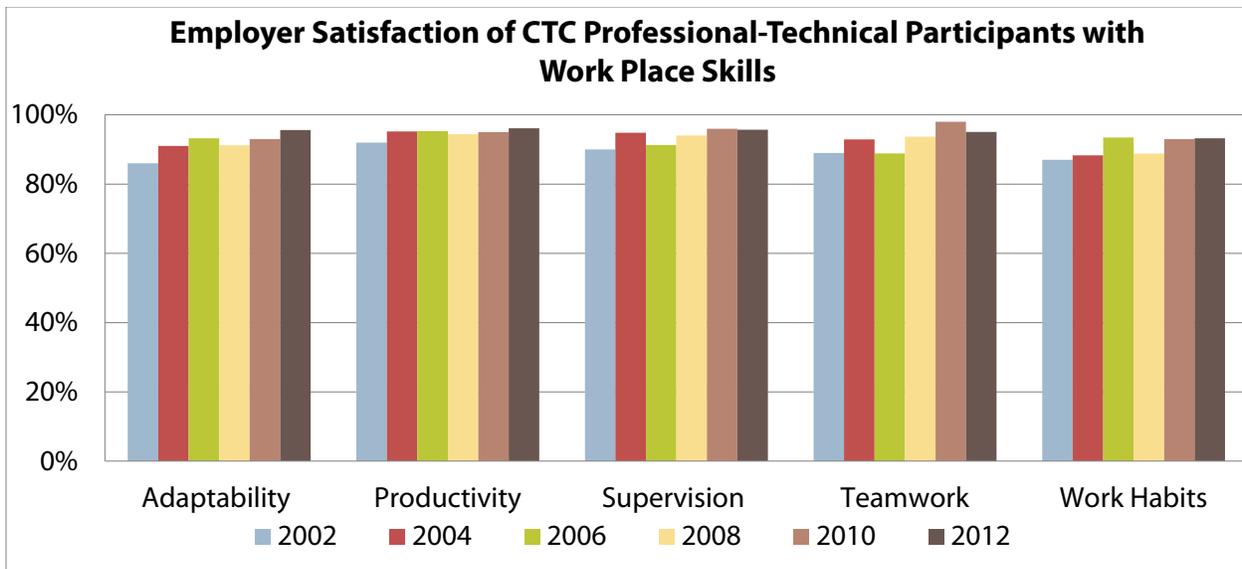


Source: Workforce Board's biennial Employer Surveys from 2002 through 2012.



Source: Workforce Board's biennial Employer Surveys from 2002 through 2012.



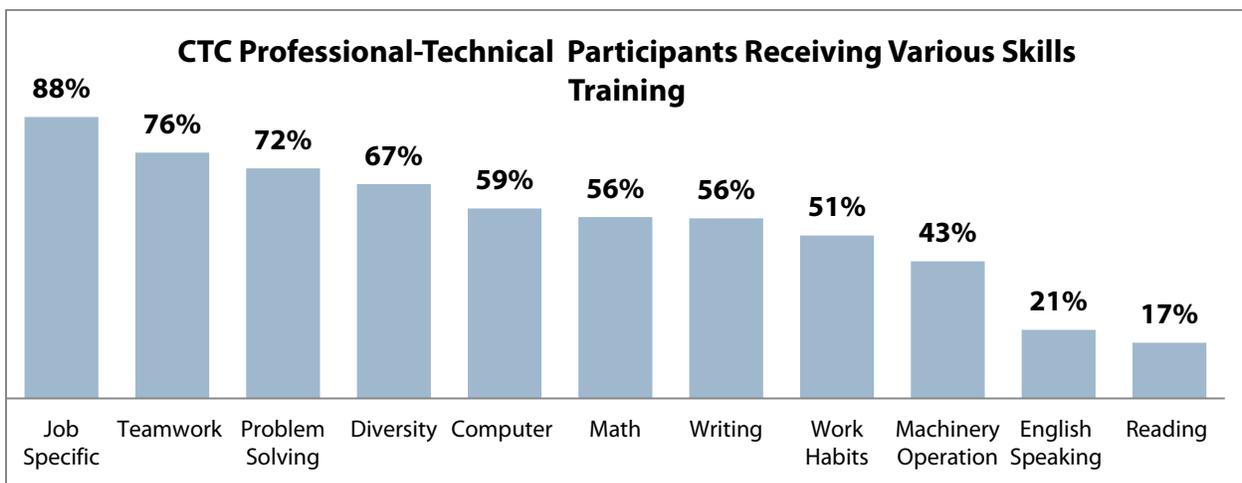


Source: Workforce Board's biennial Employer Surveys from 2002 through 2012.

Competency Gains

The primary goal of workforce training and education is to provide individuals with the skills and abilities required in the workplace. CTC Professional-Technical participants appear to agree: 89 percent of the participants surveyed for the 2013 Workforce Board Participant Survey indicated that they enrolled in college to learn skills for a new job, which is slightly higher than participants in the previous study. The second most common reason (86 percent) for a participant's decision to enroll was to either obtain or finish a degree or certificate.

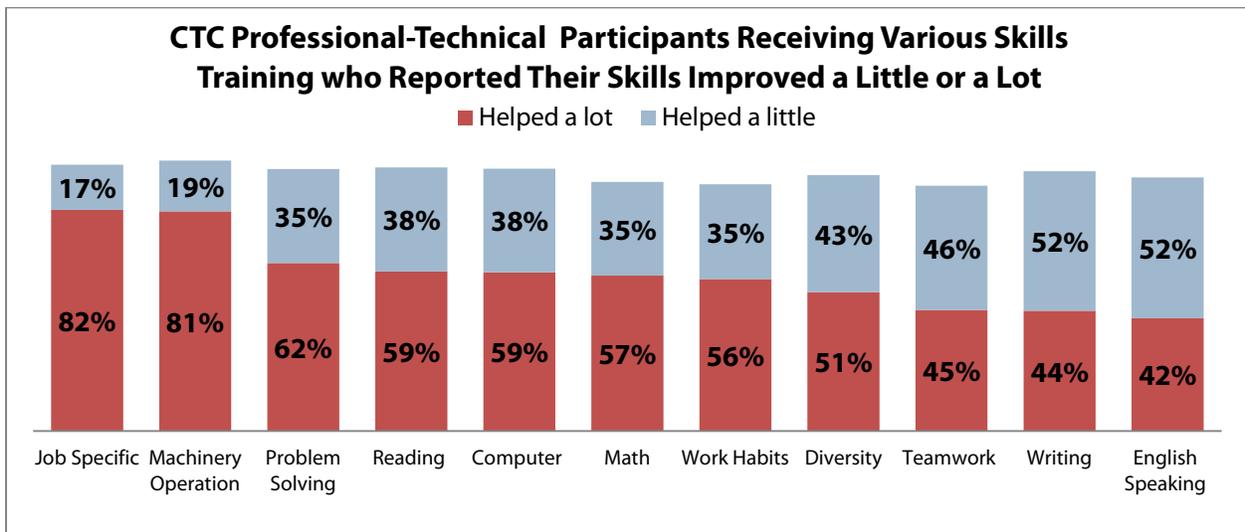
In addition to learning job-specific skills, CTC Professional-Technical participants also receive other types of training. Over 76 percent received training in teamwork, and 72 percent received training in problem solving. Job-specific (92 percent in 2011) and reading (20 percent in 2011) were the only skills that saw a decrease in numbers between the 2013 and 2011 surveys.



Source: Workforce Board's Participant Satisfaction Survey 2013.



As in the previous study, most participants reported their skills improved as a result of training, and higher percentages reported substantial improvements in their job-specific skills than in their workplace or basic skills. The percentage of participants receiving various skills showed little change for the most part between 2001 and 2013. The only strong deviations between surveys were teamwork (decreased 5 percentage points), English speaking (decreased 6 percentage points), reading (increased 6 percentage points), and math (increased 7 percentage points).

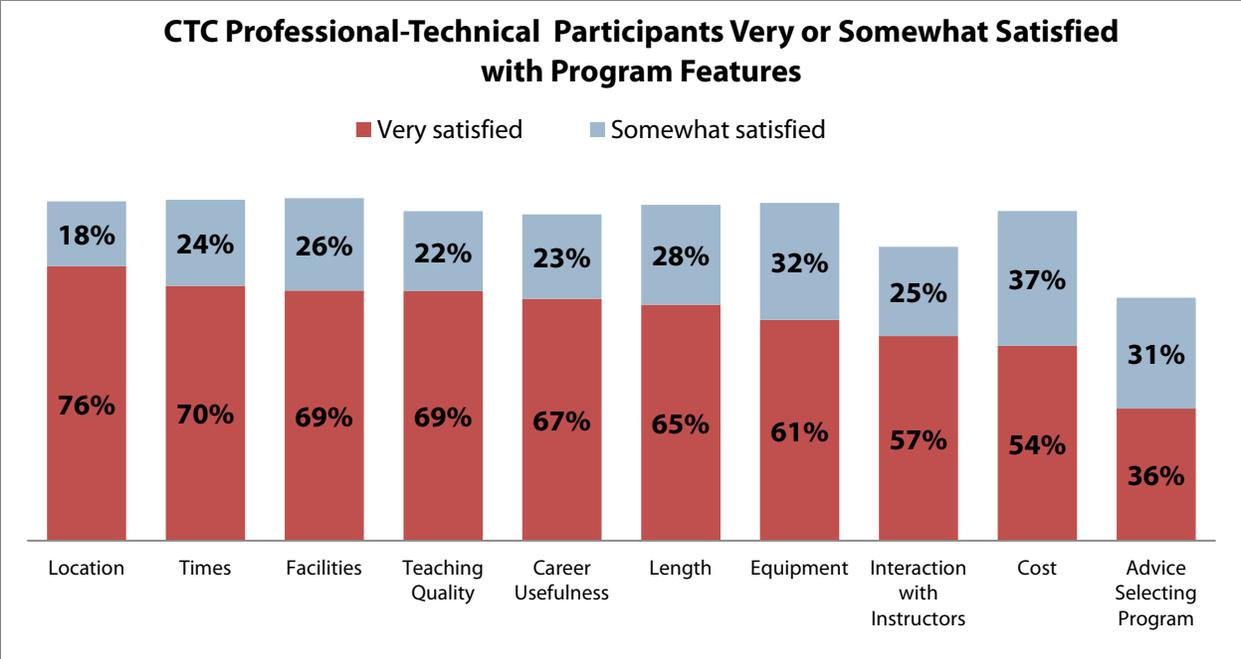


Source: Workforce Board's Participant Satisfaction Survey 2013.

Participant Satisfaction

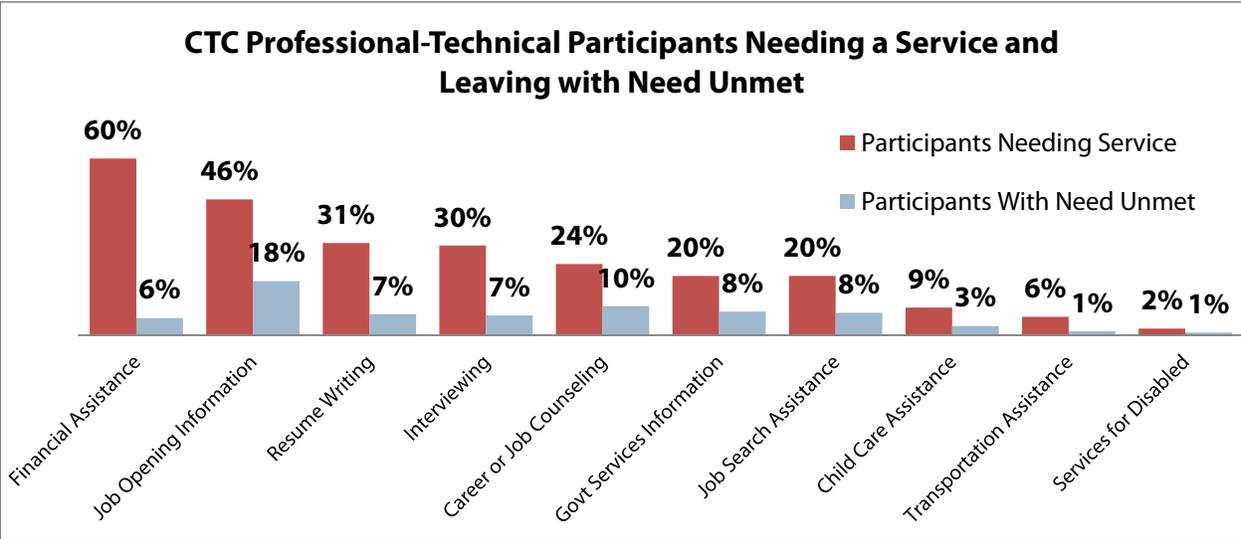
In the 2013 Workforce Board Participant Satisfaction Survey, participants expressed high levels of satisfaction, similar to previous studies. Some 94 percent of participants reported they had met their educational objectives, and 93 percent reported they were “very satisfied” or “somewhat satisfied” with the program as a whole. Participants tended to be “very satisfied” with various features of their programs including location, times, facilities, quality of teaching, and usefulness of the program to their career. They were less satisfied with advice on selecting a training program.





Source: Workforce Board's Participant Satisfaction Survey 2013.

Similar to previous studies, participants indicated financial assistance and information about job openings as the support services they most needed while enrolled. Fewer participants needed transportation or child care assistance. Participants tended to receive the support services they needed; the exception continues to be information about job openings. The past two surveys have shown similarly high levels reporting leaving the program with an unmet need in this area.⁷

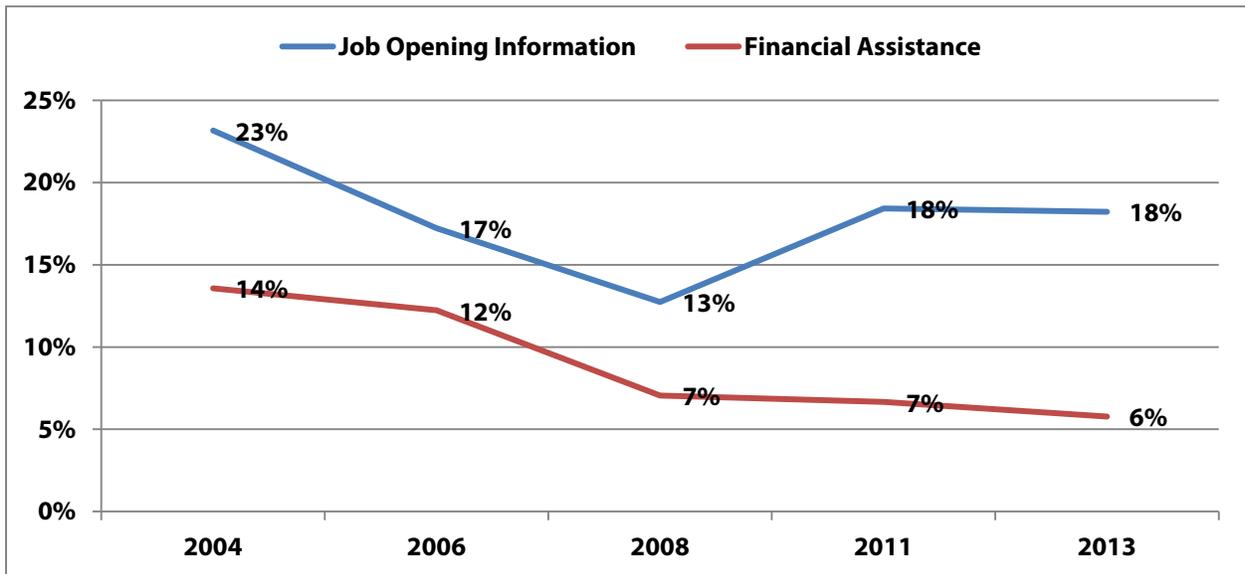


Source: Workforce Board's Participant Satisfaction Survey 2013.

⁷ Unmet need refers to cases where the student reports that either they did not receive the required service or what was provided did not meet their needs.

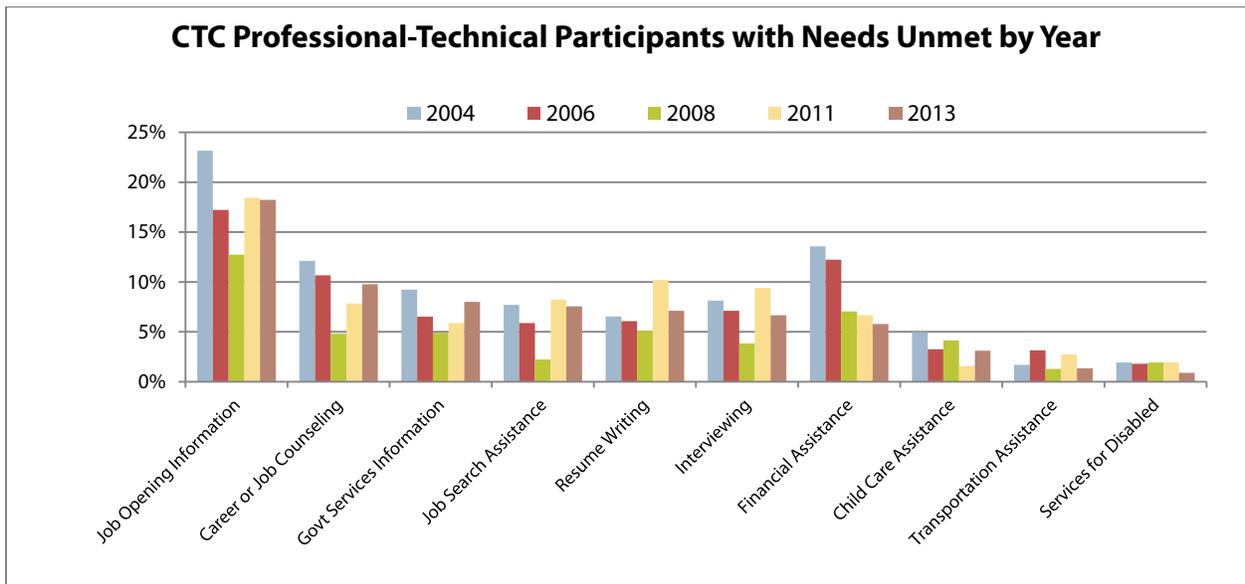


Unmet Need for Job Opening Information and Financial Assistance 2004-2013



Source: Workforce Board's Participant Satisfaction Survey 2004-2013.

After a nearly a decade of declines in unmet needs, the percentage of participants reporting that they left the program with an unmet need has increased in about half the categories. The largest jumps in unmet need were in job opening information, which fell 6 percentage points between 2004 and 2008 before rising 5 points by 2011. The financial assistance unmet need fell by 8 percentage points between 2004 and 2013.



Source: Workforce Board's Participant Satisfaction Surveys 2004-2013.



Net Impact – Did the Program Make a Difference in Participant Success?

Every four years, the Workforce Training and Education Coordinating Board conducts a net impact analysis of workforce development programs. This detailed study compares participants and non-participants. The net impact part of this study attempts to measure whether the program made a difference in the participant’s success. Washington is the only state to periodically conduct rigorous net impact evaluations of its workforce programs.

CTC Professional-Technical training has strong positive net impacts on employment, wages, hours worked, and earnings. Training substantially increases the lifetime earnings of participants.

The net impact analysis was conducted by the W.E. Upjohn Institute for Employment Research (Upjohn), a national leader in evaluating training programs. To do the analysis, Upjohn studied program participants to see what results they achieved and compared these results with a control group. Individuals who participated in a Community or Technical College Professional-Technical Education program were compared to individuals who had similar demographic characteristics, but who did not participate in any of the programs included in the study. The comparison group members were selected from among those who registered with WorkSource, Washington’s one-stop career center system.

The most recent net impact analyses examined experiences of participants who left the CTC Professional-Technical Training program through 2009. The short-term impact (Program Year 2007-08) was observed in 2008-09, while the long-term impact (Program Year 2005-06) was observed from 2006-07 through 2008-09.

Impact on Employment and Earnings: Participants vs. Control Group

Community and Technical College Professional-Technical Education	Short-term [^]	Long-term [^]
Net Employment Impact*	6.6 percentage points	10.1 percentage points
Net Hourly Wage Impact**	\$3.30	\$3.49
Net Quarterly Hours Impact	59.8	59.5
Net Annualized Earnings Impact**	\$8,892	\$9,467

[^]Short-term is three quarters after program exit; Long-term is average across three years since program exit.

*Percentages listed are employment percentage points above those of the control group of non-participants.

**Wages and earnings, expressed in first quarter 2014 dollars, represent the average difference between CTC Professional-Technical participants who got jobs and those in the control group who were employed.



As can be seen above, Community and Technical College Professional-Technical Education participants fared better in both the short- and long-term in employment, hourly wages, hours worked and annualized earnings than those with similar demographic characteristics who did not participate in a workforce program. These net gains hold up and even increased over time.

Costs and Benefits

The cost-benefit analysis estimates the value of the net impact on earnings, employee benefits (estimated at 25 percent of earnings), UI benefits, and certain taxes.⁸ Program costs include both direct program costs and support payments borne by taxpayers and the tuition and foregone earnings borne by program participants.

Benefits and costs are calculated for both the observed period of time and based upon a statistical model that estimated the benefits and costs out to age 65. In order 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 2014 Q1 dollars to control for inflation. The benefits and costs presented here are based on impacts estimated for students leaving programs in 2005-2006 (observed from 2006-07 through 2008-09), because a longer-term follow-up is required for this analysis.

⁸ Upjohn estimated the impact of the net change in earnings on Social Security, Medicare, federal income, and state sales taxes.



Participant and Public Benefits and Costs per Participant in Community and Technical Colleges Professional-Technical Programs

Benefit/Cost	First 2.5 years		Lifetime (until 65)		Sum of Costs and Benefits
	Participant	Public	Participant	Public	
Benefits					
Earnings	\$16,125	\$0	\$147,390	\$0	
Fringe Benefits	\$4,031	\$0	\$36,847	\$0	
Taxes	-\$3,330	\$3,330	-\$30,436	\$30,436	
Transfers					
UI	-\$1,042	\$1,042	-\$942	\$942	
Costs					
Foregone net earnings	-\$3,395	-\$671	-\$3,395	-\$671	
Program costs	-\$5,565	-\$11,150	-\$5,565	-\$11,150	
Benefits	\$15,783	\$4,372	\$152,859	\$31,378	
Costs	-\$8,960	-\$11,821	-\$8,960	-\$11,821	
Total (Net)	\$6,823	-\$7,448	\$143,899	\$19,557	\$163,456

Note: Benefits and costs are expressed in 2014 first quarter dollars.

For each student in CTC Professional-Technical Education, the public (taxpayer) cost is \$11,150 over the length of their enrollment, and the student cost is \$5,565 in tuition and \$3,395 in foregone earnings while training. During the first two and one-half years after leaving college, the average student will gain \$16,125 in earnings. During the course of working life to age 65, the average student will gain about \$143,995 in net earnings (earnings minus foregone earnings) and about \$36,847 in employee benefits. These are net gains compared to the earnings of similar individuals who did not receive the training. Including program costs and the net impacts on taxes and unemployment insurance benefits, the total net benefit per participant is \$143,899.

Projected participant net benefits to age 65 outweigh public costs invested in college training by a ratio of about \$13 to 1, or \$143,899 to \$11,150.

From the time of leaving training to age 65, the public is forecasted to gain about \$30,436 per participant in net additional Social Security, Medicare, federal income, and state sales taxes and to save \$1,042 in UI benefits—far greater than the direct cost of college training. The estimated lifetime net benefit to taxpayers is \$19,557 per participant.

Projected taxpayer net benefits to age 65 outweigh public costs invested in college training by a ratio of \$3 to 1, or \$31,378 to \$11,150.



Summary, Areas for Improvement, and Further Research

Community and Technical Colleges (CTC) Professional-Technical Education training covers a broad range of occupational fields and credentials, from one-year certificates to two-year technical degrees.

While the length of time spent in the program (the median was 16 months) was relatively short, nearly two-thirds of participants earned a credential. In addition, it was found that Professional-Technical education has substantial positive net impacts on participant employment and earnings and returns more revenue to taxpayers than the program costs (by a ratio of about 3 to 1). Employer and participant satisfaction are very high. Participant employment rates are up by 5 percentage points from the low point in 2010. Annual earnings however, have been relatively flat over the last several years. However, those earnings were 10 percent higher for those that completed training compared to the group as a whole.

There are some areas to focus on for improvement. Participant support services needs in some cases were not met, especially information on job openings, career counseling, and job search assistance. This likely reflects reductions in these services due to budget cuts. Also, the breakdown of results by subpopulations reveals the greatest disparities in labor market outcomes for students with disabilities. The employment rate for people with a disability is 22 percentage points lower than for people without a disability. The annual earnings for people with a disability are 78 percent of the earnings of those with no reported disability. Enhancing support services, especially services related to post-program employment and services for students with a disability are areas for improvement.





Workforce Training and Education Coordinating Board

2015 Workforce Training Results

Secondary Career and Technical Education (CTE)

Program Details

Secondary Career and Technical Education (CTE) serves high school-age youth in approximately 235 school districts and 14 Skills Centers serving multiple districts throughout the state. CTE is a planned sequence of courses that utilize a unique hands-on approach to create learning experiences that begin with the exploration of career options, supports basic skill development, and enables high levels of personal and academic achievement, leadership, career preparation, and continuing education.

Instructional programs are organized within the following 16 career clusters:

- Agriculture, Food, and Natural Resources
- Architecture and Construction
- Arts, AV Technology, and Communications
- Business, Management, and Administration
- Education and Training
- Finance
- Government and Public Administration
- Health Science
- Hospitality and Tourism
- Human Services
- Information Technology
- Law, Public Safety, Corrections, and Security
- Manufacturing
- Marketing
- Science, Technology, Engineering, and Mathematics
- Transportation, Distribution, and Logistics

Every year, the Workforce Board measures the performance of key workforce programs. In this report, you'll find out more about the program and who is served, the metrics used to measure performance and how the program performed.

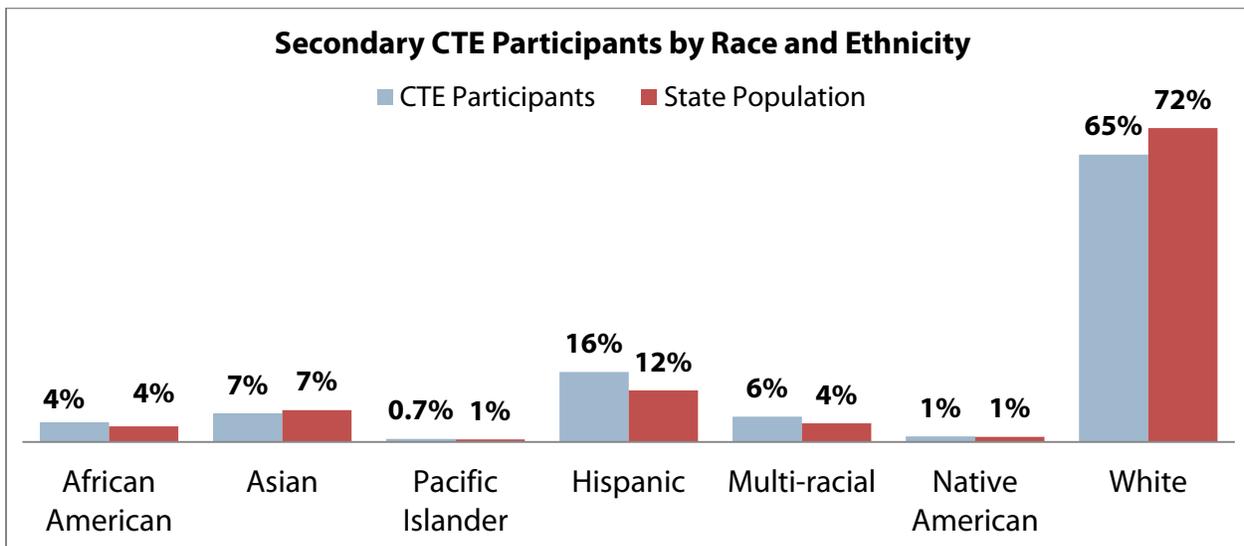


This program’s evaluation was limited to students identified by their districts as CTE completers.¹

This study focuses on 19,342 CTE completers who left their senior year during the 2012-13 school year. This study includes information from the Office of Superintendent of Public Instruction’s student records and Employment Security Department wage files. Enrollment data from Washington community and technical colleges, public four-year institutions, and private career schools were analyzed to examine the extent to which CTE completers continued their education.

Participant Profile

CTE completers have a fairly similar racial and ethnic diversity as the state population, with whites comprising 65 percent, followed by Hispanics (16 percent), Asians (7 percent), African Americans (4 percent), Native Americans (1 percent), and Pacific Islanders (1 percent).²



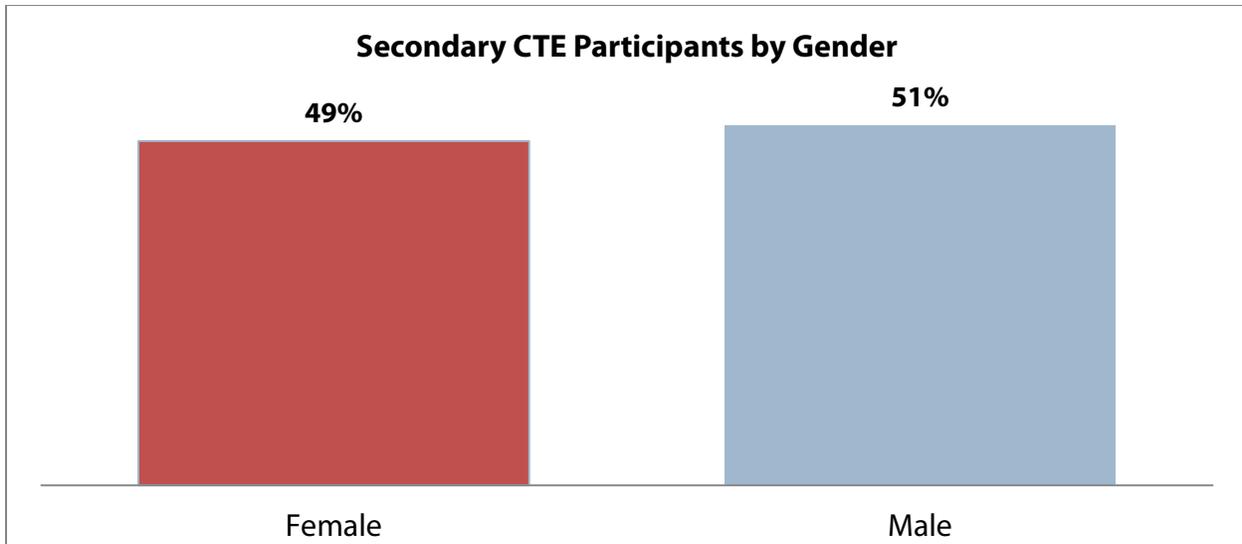
Source: Office of the Superintendent of Public Instruction and the U.S. Census data from the 2012 American Community Survey.

Among CTE completers, females and males are nearly equally represented among the program participants. This is equivalent to what was reported in the last two reports.

¹ The state defines a student who completes 360 hours of instruction (whether or not they earn a diploma) in a single CTE program area with grades of D or better as a CTE completer.

² In this report, unless otherwise stated, racial and ethnic minority groups are mutually exclusive; that is, an individual belongs to one group only. The groups include the following: Hispanics of any race (also referred to as Hispanics); non-Hispanic African Americans (also referred to as African Americans); non-Hispanic Asians (also referred to as Asians); non-Hispanic Pacific Islanders (also referred to as Pacific Islanders); non-Hispanic Native Americans and Alaskan Natives (also referred to as Native Americans); non-Hispanic multiracial (also referred to as multiracial); and non-Hispanic whites (also referred to as whites).





Source: Office of the Superintendent of Public Instruction.

Tracking Secondary CTE Progress

The Workforce Board routinely measures the performance of our state’s largest workforce programs. As a customer-focused advocate for Washington’s workers and employers, the Workforce Board strives to provide performance accountability, verifying whether worker education and training programs provide a return on investment for participants and taxpayers.

The Workforce Training Results report seeks to answer five core questions:

- Did participants get the skills they needed?
- Did participants get a job or continue their education and training?
- Were employers satisfied with the preparation workers received?
- Has the program made a difference in the participant’s success?
- Did participants and the public receive a return on their investment?

Data comes from state wage files, Employer Survey

The 2015 Workforce Training Results includes information obtained from Employment Security Department wage files in Washington, Idaho, and Oregon, and federal employment records for 2013-14. In some cases, school districts do not supply student social security numbers. Driver’s licenses are used to help provide more accurate employment and earnings results among students in these districts. Information on employer satisfaction among firms that hired new employees who recently exited a Secondary CTE program was assessed through the Workforce Board’s 2012 Employer Survey.

Net Impact Study adds more insight into program performance

In addition, the report includes a comprehensive Net Impact Study. Conducted every four years, this study provides a head-to-head comparison of participants and non-participants to help answer a central question: How much of a workforce participant’s success in obtaining a



job, or a higher wage, is due to the workforce program? By comparing program participants with similar individuals who did not participate in a workforce training program, the Net Impact Study indicates whether employment and earnings gains are due to the workforce program, or if workers could have made this progress on their own. This research also provides for a more detailed analysis as to whether the participant and the public received a return on their investment in the program.

Did Participants Get the Skills They Needed?

This study is limited to students who completed a sequence of CTE courses. While completing a secondary CTE sequence, in itself, provides students with significant skills for the labor market, it more importantly provides a pathway to postsecondary education and training where students can learn additional skills. Most good paying jobs require some form of postsecondary education or training. During the most recent reporting year, 47 percent of CTE completers continued on with their postsecondary education—9 percentage points lower than the previous reporting year.³ However, when looking at both employment and postsecondary education and training, the number of CTE completers landing a job or moving forward with further education reached nearly 80 percent.

Turn to page 11 for the Net Impact Study. Conducted every four years, this in-depth report adds extra value to 2015 Workforce Training Results. The study provides a side-by-side comparison of participants vs. similar non-participants, answering the question of whether the program is making a difference.

Did Participants Have a Job and How Much Were They Paid?

For some students, employment is the next step after high school. To find out whether participants had jobs and how much they earned, participant records were matched with Employment Security Department wage files from Washington.⁴ Record matches found 61 percent of CTE completers who were not enrolled in higher education had reported employment.

It's worth noting that young people continue to face high unemployment. Some 15.5 percent of Washington's young adults were unemployed in 2013, more than double the rate (6.1 percent) of those aged 25-64.⁵

³ Matches are made against enrollments at Washington's community and technical colleges, public four-year institutions, and private career schools. However, in-state private four-year colleges and universities and out-of-state postsecondary enrollments are not included in the match. Therefore, the percentage enrolled in higher education is understated.

⁴ These files contain quarterly earnings and hours-worked information on those individuals with employment reported for unemployment insurance (UI) purposes (approximately 90 percent of in-state employment, with self-employment, active duty military, and those working for religious nonprofit organizations being the major groups of employers not included).

⁵ Workforce Board Multiple Pathways for Young Adults, A Report to the Washington Legislature on Young Adult Unemployment, 2014.



Nearly four out of five (or 79 percent) of all CTE completers were either employed or were enrolled in higher education during the third quarter after leaving.

Among those not enrolled in higher education, the median annualized earnings were \$10,930.⁶ Though these earnings seem low, it is important to remember these are young, entry-level workers fresh from high school, and only 28 percent are working full time.

The chart below shows employment and earnings results for CTE completers.

2014 Employment and Earnings for Secondary CTE Completers

Performance Measure	Results
Postsecondary Education and/or Employment*	79%
Employment Rate* (State Records)	50%
Enrolled in Higher Education	47%
Full-Time Employment**	28%
Median Quarterly Hours **	272
Median Hourly Wage***	\$9.97
Median Annualized Earnings***	\$10,930

* These figures apply to those with employment reported to state employment agencies six to nine months after leaving the program. Rate does not include self-employment, employment outside of Washington, or military service and thus understates total employment by approximately 10 percent. Employment rate (state records) is only those not enrolled in further education.

** Of those not enrolled in higher education. Full-time employment averages 30 or more hours per week.

*** Earnings/wages expressed in first quarter 2013 dollars in order to account for inflation. Of those not enrolled in higher education.

⁶ Annual earnings are calculated as third quarter earnings multiplied by four. All wages and earnings are stated in first quarter 2014 dollars.



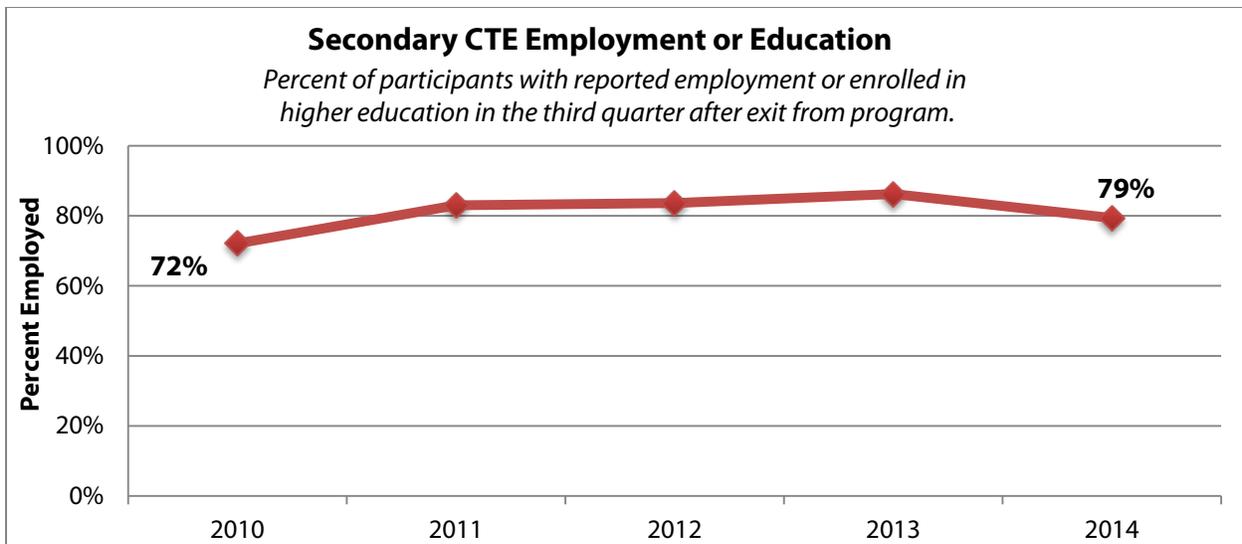
Employment and Earnings Trends for Secondary CTE Participants

Performance Measure	2010	2011	2012	2013	2014
Postsecondary Education and/or Employment	72%	83%	84%	86%	79%
Employment Rate* (State Records)	49%	60%	63%	68%	61%
Enrolled in Higher Education	45%	58%	56%	57%	47%
Full-Time Employment**	29%	27%	30%	29%	28%
Median Quarterly Hours	265	265	270	273	272
Median Hourly Wage***	\$10.84	\$9.66	\$9.95	\$10.14	\$9.97
Median Annualized Earnings***	\$11,077	\$10,822	\$11,350	\$11,948	\$10,930

These figures apply to those with employment reported to ESD six to nine months after leaving program. Rate does not include self-employment, employment outside Washington, or military service and thus understates total employment by approximately 10 percent. Employment rate (state records) is only those not enrolled in further education. **Full-time employment averages 30 or more hours per week, of those not enrolled in higher education. *Earnings/wages expressed in first quarter 2014 dollars in order to account for inflation. Those not enrolled in higher education.*

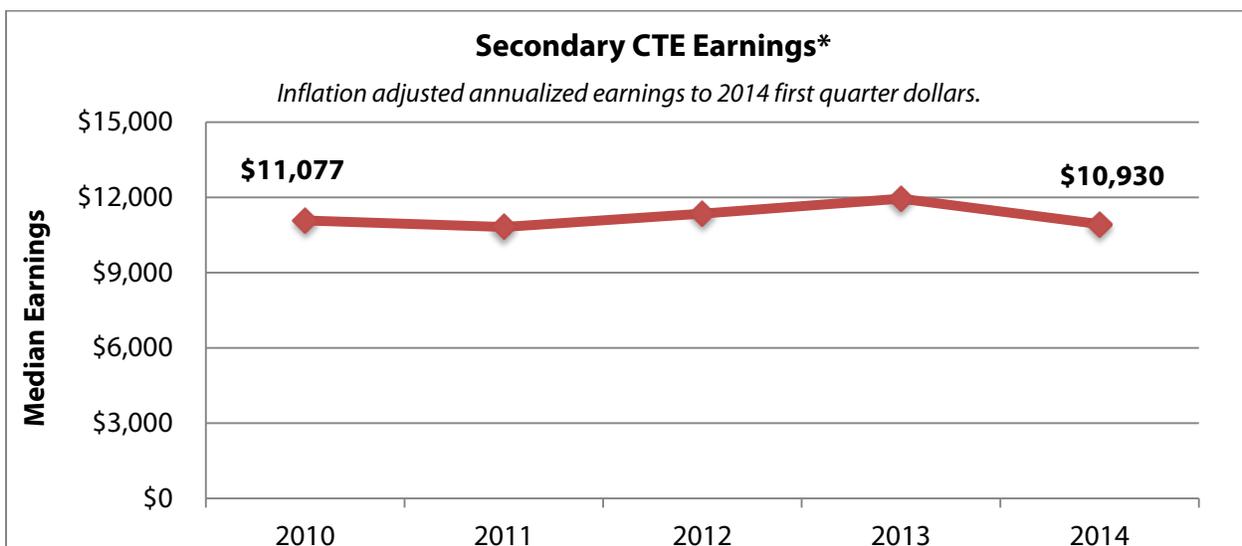
The percentage of secondary CTE participants who were in higher education or employed rose 7 percentage points since the 2011 report but is down by 7 percentage points from last year's 86 percent.





Note: Rate does not include self-employment, employment outside the Northwest or military service and thus understates total employment by approximately 10 percent.

While the employment rate for CTE completers has risen over the past several years, annual earnings are down. This is due to a nearly 9 percent drop in annual earnings. Median hours worked dipped only slightly so the trend was driven by falling real hourly wages (from \$10.14 in 2014 to \$9.97 in 2015).



**Does not include those enrolled in higher education.*

Secondary CTE Employment by Industry

Employment of CTE completers continued to be heavily concentrated in services (55 percent) and retail trade (27 percent). Within the service industry, the largest category was accommodation and food services at 30 percent (compared to 25 percent on the last report). The largest retail sub-industry was general merchandise stores (8 percent).



Industry Group	
55.3%	Services (see breakout)
27.4%	Retail Trades (see breakout)
4.0%	Manufacturing
3.3%	Construction
2.1%	Wholesale Trade
2.1%	Transp., Warehousing, & Utilities
1.9%	Natural Resources and Mining
1.5%	Financial Services
1.5%	Information
0.8%	Public Administration
Breakout of Services Industry	
29.6%	Accommodation and Food Services
6.0%	Administrative and Support and Waste Management and Remediation Services
4.6%	All Other Services
4.5%	Health Care
3.9%	Arts, Entertainment, and Recreation
3.2%	Social Assistance
1.9%	Professional, Scientific, and Tech. Services
1.6%	Education Services
Breakout of Retail Trade Industry	
7.6%	General Merchandise Stores
6.7%	Clothing and Clothing Accessories Stores
4.6%	Other Retail Trade stores
3.9%	Food & Beverage
2.4%	Motor Vehicle and Parts Dealers
1.2%	Hardware, Farm, Home & Garden Stores
0.7%	Home Appliance & Electronics Stores
0.4%	Gasoline and Convenience stores

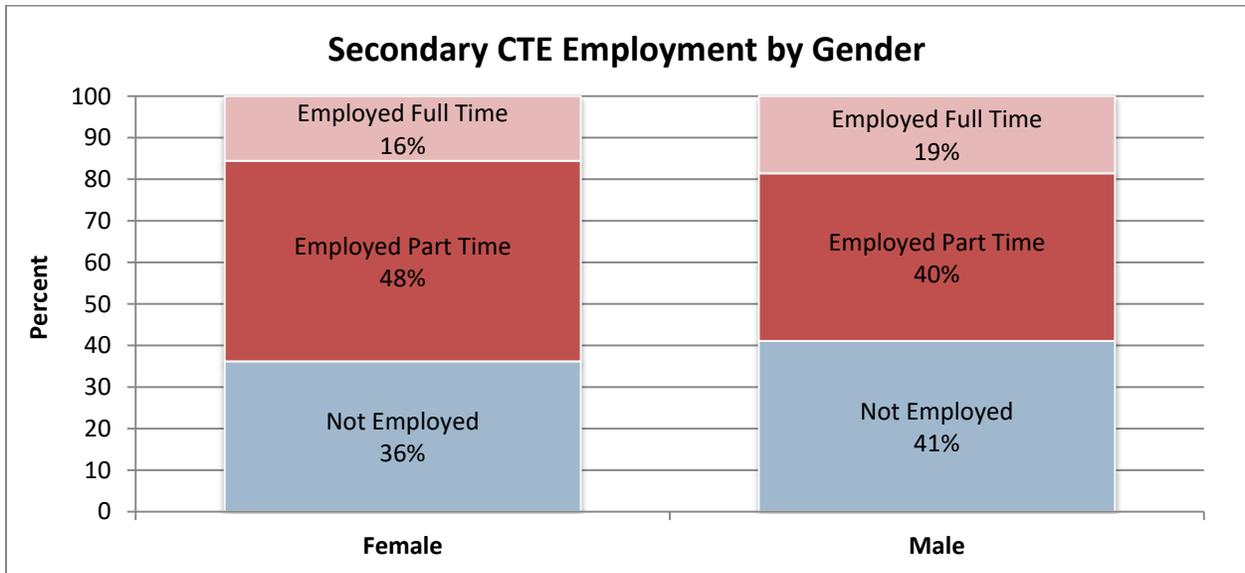
Source: Matches with Employment Security Department data in third quarter after exiting program.

Note: Industry groups based on North American Industry Classification System (NAICS) codes.



Wages and Employment Results Vary by Population

Wages and employment results of CTE completers who are not enrolled in higher education can vary by gender, race and ethnicity, and disability. Some 48 percent of females worked part time, while 16 percent worked full time to reach an overall employment rate of 64 percent. This was higher than the overall employment rate for males (59 percent), yet males were more likely (19 percent) to be employed full time than females (16 percent). Women had median annual earnings that were 88 percent of men (\$10,279 versus \$11,630). Women’s hourly wages were 95 percent of wages earned by men (\$9.68 versus \$10.17).



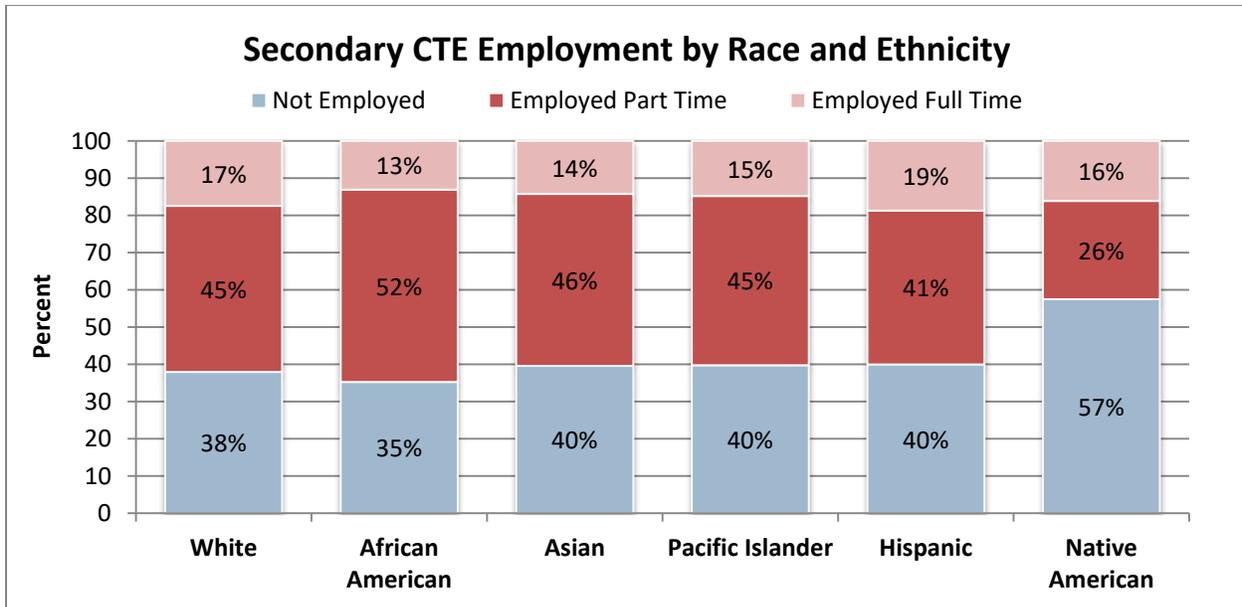
Source: Matches with Employment Security Department data. Among those who are not in higher education.

Race/Ethnicity Plays Role

Wages and employment results also differ by race and ethnicity. African Americans had the highest reported employment (65 percent), but most worked part time (52 percent compared to 13 percent full time). Whites had the second highest overall employment rate (62 percent), followed by Asians, then Hispanics, and Pacific Islanders (all 60 percent). Native Americans had the lowest employment rate (43 percent). Hispanics had the highest full-time rate (19 percent) followed by whites (17 percent), then Native Americans (16 percent), Pacific Islanders (15 percent), and Asians (14 percent).

Native Americans had the highest median hourly rate (\$10.12), followed by whites (\$9.99), Hispanics (\$9.98), Asians (\$9.90), and Pacific Islanders (\$9.78). African Americans had both the lowest hourly rate (\$9.71) and lowest annual rate (\$8,988). Native Americans had the highest annual rate (\$11,612), followed by Hispanics (\$11,271), whites (\$11,040), Asians (\$10,485), and Pacific Islanders (\$10,021).



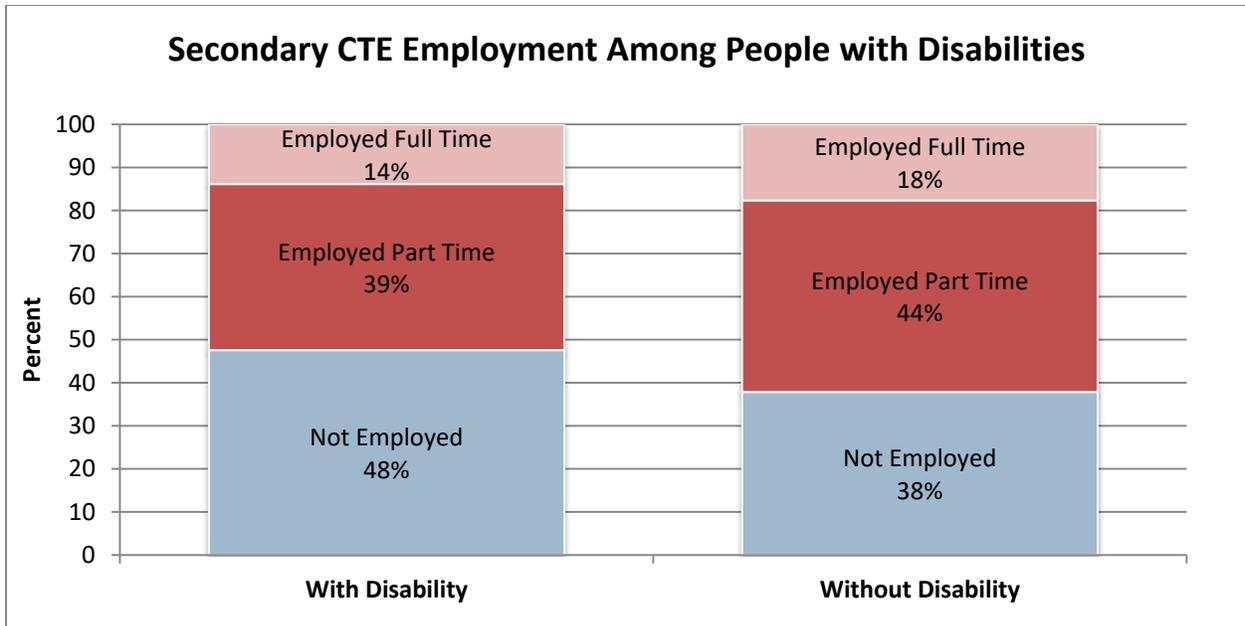


Source: Matches with Employment Security Department data. (Among those who are not in higher education.)

Disability Impacts Employment, Earnings

Earnings and employment outcomes also varied by disability status. Records from the Office of Superintendent of Public Instruction indicate 7 percent of secondary CTE completers included in this study had a disability. Those with a disability were less likely to be employed than completers who did not have a disability (52 percent versus 62 percent). Just 14 percent of disabled participants were working full time, while 39 percent worked part time (to reach an overall rate of 52 percent). By comparison 18 percent of those without a disability worked full time and 44 percent part time. The median annualized earnings of those with a disability (\$10,022) were lower than those without a disability (\$11,040). However, students with a disability had median hourly wages identical to students without a disability (\$9.97).

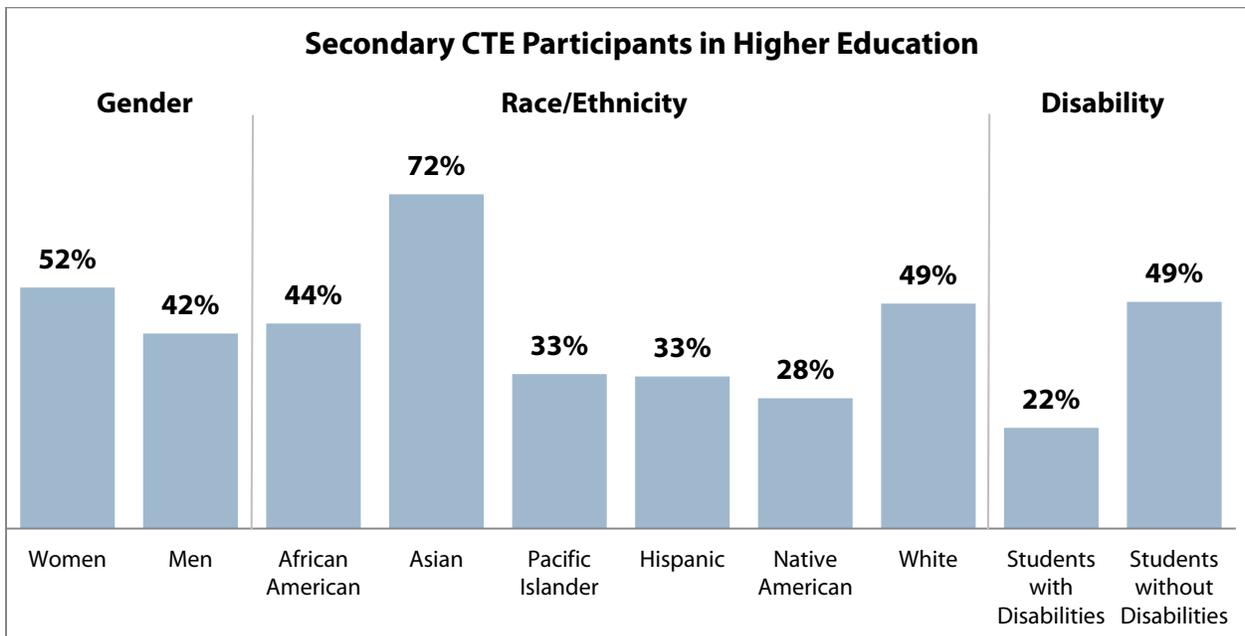




Source: Matches with Employment Security Department data (among those who are not in higher education).

CTE completers also progressed to postsecondary education at different rates, depending on ethnicity and gender.

Of the CTE completers, the following percentages of each group were enrolled in higher education: Females, 52 percent; males, 42 percent; students with disabilities, 22 percent; students without disabilities, 49 percent; whites, 49 percent; African Americans, 44 percent; Asians, 72 percent; Pacific Islanders, 33 percent; Hispanics, 33 percent; and Native Americans, 28 percent.



Source: Matches with State Board for Community and Technical Colleges' postsecondary data.



Participant Survey

No participant survey done for 2013.

Impact on Employment and Earnings: Participants vs. Control Group

Secondary CTE	Short-term [^]	Long-term [^]
Net Employment Impact*	6 percentage points	8.4 percentage points
Net Hourly Wage Impact**	No significant positive impact	No significant positive impact
Net Hours Employed per Quarter Impact	19.2	32.2
Net Annualized Earnings Impact**	\$755	\$2,157

[^]Short-term is 3 quarters after program exit; Long-term is average across 3 years since program exit.

*Percentages listed are employment percentage points above those of the control group of non-participants.

**Wages and earnings, expressed in first quarter 2014 dollars, represent the average difference between secondary CTE participants who got jobs and those in the control group who were employed.

As can be seen above, secondary CTE participants experienced positive net impacts in employment, hours worked, and net annualized earnings, particularly over the long-term, when compared with the control group. Net hourly wages weren't boosted significantly by the program, however.

Benefits and Costs

The cost-benefit analysis examines the value of the net impact on earnings, employee benefits (estimated at 25 percent of earnings), and certain taxes. Program costs include both direct program costs and support payments borne by taxpayers and the tuition and foregone earnings borne by program participants. The program cost is the *difference* in the cost of a student completing CTE compared to the cost of a student completing another type of high school program. (The difference is primarily due to smaller student/teacher ratios in CTE.) The intent of the cost-benefit evaluation is to analyze the net value of exiting high school having completed a CTE program, rather than exiting not having completed a CTE program.

Benefits and costs are evaluated for both the observed period of time and based upon a statistical model that estimated the benefits and costs out to the age of 65. In order 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 2014 Q1 dollars to control for inflation. The benefits and costs presented here are based on impacts estimated for participants leaving programs in 2005-2006, because a longer-term follow-up is required for this analysis.



Participant and Public Benefits and Costs per Participant in Secondary CTE

Benefit/Cost	First 2.5 years		Lifetime (until 65)		Sum of Costs and Benefits
	Participant	Public	Participant	Public	
Benefits					
Earnings	\$5,143	\$0	\$71,430	\$0	
Fringe Benefits	\$1,285	\$0	\$17,857	\$0	
Taxes	-\$668	\$668	-\$9,293	\$9,293	
Transfers					
UI	-\$6	\$6	\$622	-\$622	
Costs					
Foregone net earnings	-\$782	-\$91	-\$782	-\$91	
Program costs	\$0	-\$921	\$0	-\$921	
Benefits	\$5,753	\$674	\$80,616	\$8,672	
Costs	-\$782	-\$1,012	-\$782	-\$1,012	
Total (Net)	\$4,971	-\$338	\$79,833	\$7,659	\$87,493

Note: Benefits and costs are expressed in 2014 first quarter dollars.

Secondary CTE enhances the lifetime earnings of program completers. Gains in earnings and employee benefits outweigh the costs of CTE to the public. For each CTE completer, the cost to the public (taxpayer) is roughly \$921 over the length of their enrollment. During the first two and one-half years after leaving school, the average completer will gain \$5,143 in earnings. During the course of their working life to age 65, they will gain about \$70,648 in net earnings (earnings minus foregone earnings) and \$9,293 in employee benefits. These are net gains compared to the earnings of similar individuals who were not CTE completers. Including program costs and the net impacts on taxes and unemployment insurance benefits, the total net benefit per participant is \$79,833.

Projected participant net benefits to age 65 outweigh public costs invested in college training by a ratio of \$87 to 1, or \$79,833 to \$921.

From the time of leaving the senior year in high school to age 65, the public is forecast to gain about \$9,293 in net additional Social Security, Medicare, federal income, and state sales taxes and to save \$622 per participant in total UI benefits and other social welfare costs—greater than the cost of CTE completion. The estimated lifetime net benefit to taxpayers is \$7,659 per completer.



Summary, Areas for Improvement, and Further Research

Secondary Career and Technical Education (CTE) serves high school-age youth with the exploration of career options and enables achievement of high academic standards, strong technical skills training, leadership, options for employment preparation, and advanced and continuing education.

Outcomes for CTE participants are generally down compared to last year's report, but up over the longer term. Some 79 percent of completers were either enrolled in postsecondary education or employed, or both. This is down from 86 percent in 2013, but higher than the 72 percent achieved in 2010. Similarly, median quarterly hours dropped from last year's 273 to 272 this year, but is seven hours more than the median in 2010. On a positive note, a recent report from the Office of Superintendent of Public Instruction showed that 88 percent of CTE completers graduated high school in 2013 vs. 77 percent of all students.

Also, the net impact evaluation shows a strong net impact on employment rates and earnings. For example, three years after exit, CTE graduates earn an additional \$2,157 per year compared to those with similar demographics, who did not participate in CTE. The cost-benefit evaluation shows that Secondary CTE returns more money in tax revenue than the program costs taxpayers.

Going forward, the CTE program may want to focus on helping CTE students focus on higher-paying occupational areas. Among all CTE graduates who were employed, 55 percent were employed in retail trade or accommodations and food services. These tend to be lower-paying industries, which is reflected in the low hourly (\$9.97) and annual (\$10,930) earnings achieved by completers. However, it's also worth noting that CTE graduates are fresh from high school and often hold part-time jobs, bringing down annual wages. As they spend more time in the workforce, wages and hours worked tend to rise.

Also, it should be noted that equipping CTE classrooms with the technology required for higher-paying occupational clusters can be expensive. So this is a challenge going forward.

Finally, 22 percent of students with disabilities continued on to postsecondary education. This is a 10 percentage point reduction from last year's report and another challenge that merits attention.





Workforce Training and Education Coordinating Board

2015 Workforce Training Results

Department of Services for the Blind

Program Details

The Department of Services for the Blind (DSB) provides vocational rehabilitation services including information, assessment, and referral; vocational counseling including guidance, referral, and placement; and rehabilitation training in adaptive skills, job skills, and assistive technology. DSB also provides occupational licenses, tools, equipment, technological aids, and other goods and services that can be reasonably expected to help clients achieve successful employment outcomes.

To receive services, an individual must be legally blind or have a visual disability that causes an impediment to employment, and vocational rehabilitation services are required for the individual to prepare for, enter, engage in, or retain employment.

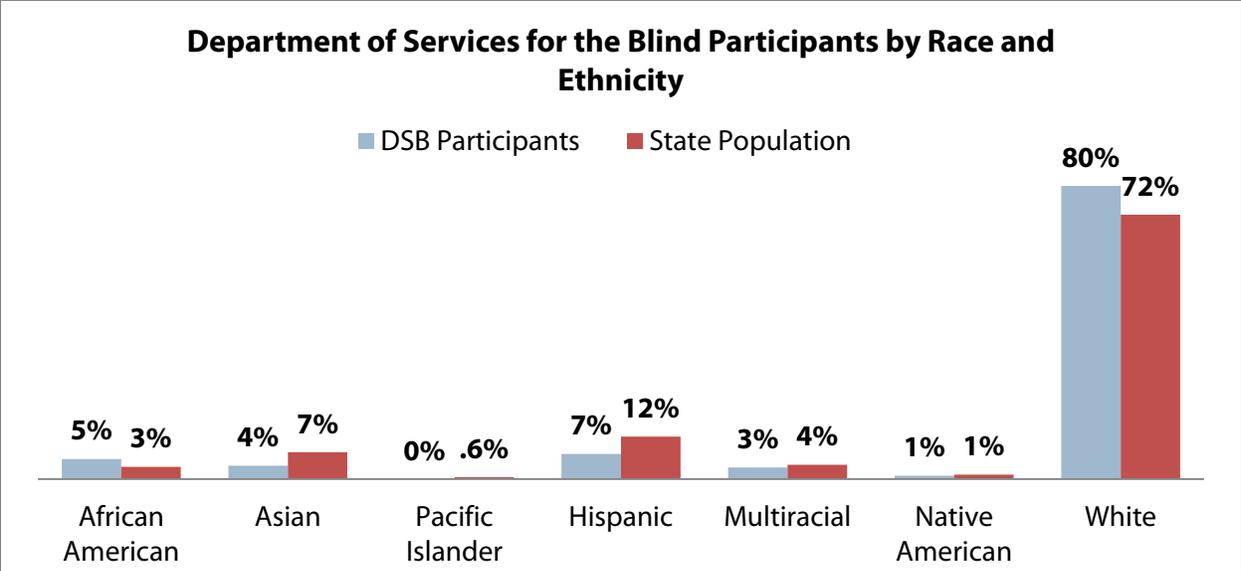
For this 2015 report, researchers studied the results of 243 clients who left DSB programs during the most recent reporting year.¹ The median length of program enrollment from application to exit was 16 months. Program participants were more likely to be white (72 percent) or African American or Multiracial (8 percent); however, they were slightly less likely to be Hispanic (7 percent) or Asian (4 percent) than the general population of Washington.² 52 percent of the DSB clients were women, down from 55 percent the prior program year.

Every year, the Workforce Board measures the performance of key workforce programs. In this report, you'll find out more about the program and who is served, the metrics used to measure performance, and how the program performed.

¹ The 2015 Workforce Training Results reports are based on data observed as recently as 2013-2014 for individuals exiting programs during 2012-13.

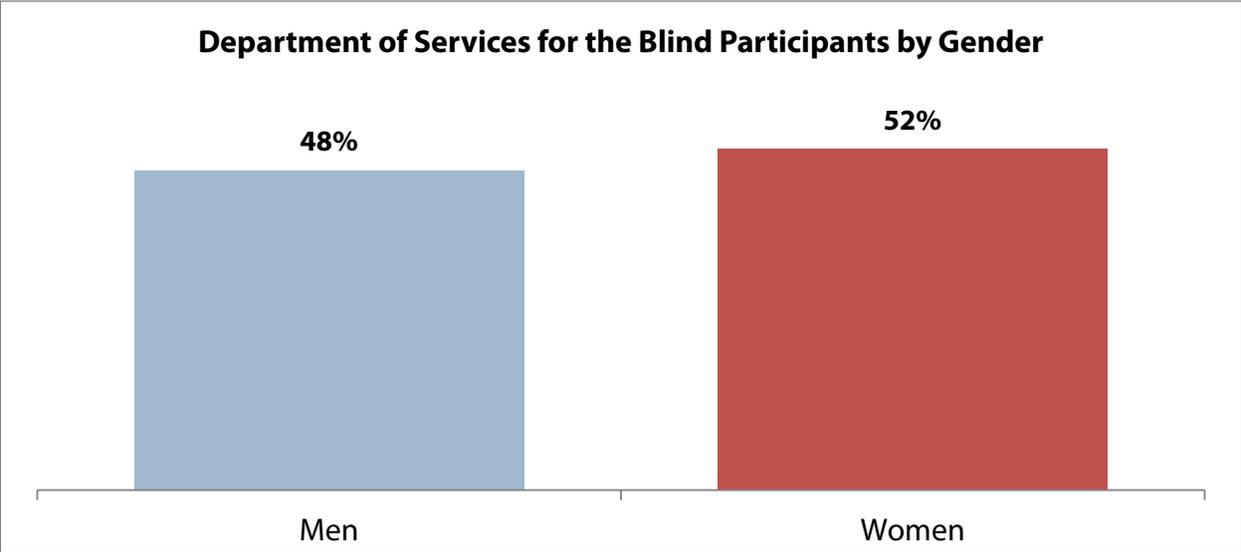
² In this report, unless otherwise stated, racial and ethnic minority groups are mutually exclusive; that is, an individual belongs to one group only. The groups include the following: Hispanics of any race (also referred to as Hispanics); non-Hispanic African Americans (also referred to as African Americans); non-Hispanic Asians (also referred to as Asians); non-Hispanic Pacific Islanders (also referred to as Pacific Islanders); non-Hispanic Native Americans and Alaskan Natives (also referred to as Native Americans); non-Hispanic multiracial (also referred to as multiracial); and non-Hispanic whites (also referred to as whites).





Source: Department of Services for the Blind Administrative Records and 2012 U.S. Census Data from the American Community Survey.

The median age upon applying for the program was 44, with one quarter under age 30 and another quarter over age 55.



Source: Department of Services for the Blind Administrative Records

When they applied for the program, 37 percent had not previously received postsecondary education, 27 percent had postsecondary education but no degree or certificate, 14 percent had an associate’s degree or a vocational certificate, and 22 percent had a bachelor’s degree or higher.

Tracking Department of Services for the Blind Progress

The Workforce Board routinely measures the performance of our state's largest workforce programs. As a customer-focused advocate for Washington's workers and employers, the Workforce Board strives to provide performance accountability, verifying whether worker education and training programs provide a return on investment for participants and taxpayers.

The Workforce Training Results report seeks to answer five core questions:

- Did participants get the skills they needed?
- Did participants get a job and how much were they paid?
- Were employers satisfied with the preparation workers received?
- Has the program made a difference in the participant's success?
- Did participants and the public receive a return on their investment?³

Data Comes From State Wage Files

The 2015 Workforce Training Results includes information obtained from Employment Security Department wage files in Washington, Idaho, and Oregon, and federal employment records for 2013-14.

Did Participants Get the Skills They Needed?

Some 54 percent of DSB clients were classified as rehabilitated upon leaving the program (that is, they were working for at least 90 days prior to completing the program), 3 percentage points higher than the last report.

Did Participants Have a Job and How Much Were They Paid?

To find out whether participants had jobs and how much they earned, participant records were matched with Employment Security Department wage files from Washington and neighboring states.⁴ Record matches found 45 percent of DSB clients had reported employment three quarters after program exit. Among those who were considered rehabilitated upon leaving the program (that is, those who had been working for 90 days prior to exit), 73 percent had reported employment in the third quarter after exit, about 7 percentage points more than for the last cohort of participants. Among all participants who were working during the third quarter after leaving the program, the median hourly wage

³ Due to small sample size and difficulty in identifying a comparison group, DSB participants were not included in the 2010 Net Impact Study and Cost-Benefit analysis that detailed the performance of several of Washington's workforce programs by comparing participant outcomes with non-participants. Also, DSB participants were not included in the Workforce Board's 2012 Employer Survey, which provides feedback on how well workforce program participants perform in the workplace in areas such as job skills; reading, writing and math, and teamwork, among others.

⁴ These files contain quarterly earnings and hours-worked information on those individuals with employment reported for UI benefits purposes (approximately 90 percent of in-state employment, with self-employment, active duty military, and those working for religious nonprofit organizations being the major groups of employers not included).



was \$15.46 and the median annualized earnings were \$24,362.⁵ Rehabilitated participants not only had better employment outcomes than all participants combined, they also had better earnings (\$15.97 median hourly wage; \$24,999 median annualized earnings).

2014 Employment and Earnings for Department of Services for the Blind Participants

Performance Measure	Results
Employment Rate* (State Records)	45%
Full-Time Employment **	53%
Median Hours Worked Quarterly	411
Median Hourly Wage***	\$15.46
Median Annualized Earnings***	\$24,362

* These figures apply to those with employment reported to state employment agencies six to nine months after leaving the program. Rate does not include self-employment, employment outside the Northwest or military service and thus understates total employment by approximately 10 percent.

** Full-time employment averages 30 or more hours per week.

*** Earnings/wages expressed in first quarter 2014 dollars in order to account for inflation.

Employment & Earnings Trends for Department of Services for the Blind

	2010	2011	2012	2013	2014
Employment Rate* (State Records)	45%	43%	42%	39%	45%
Full-Time Employed**	59%	57%	48%	50%	53%
Median Quarterly Hours	411	424	370	398	411

⁵ Annual earnings are calculated as third quarter earnings multiplied by four. Quarterly earnings are the result of hourly wage rates and the number of hours worked in a calendar quarter. All wages and earnings are stated in first quarter 2014 dollars.

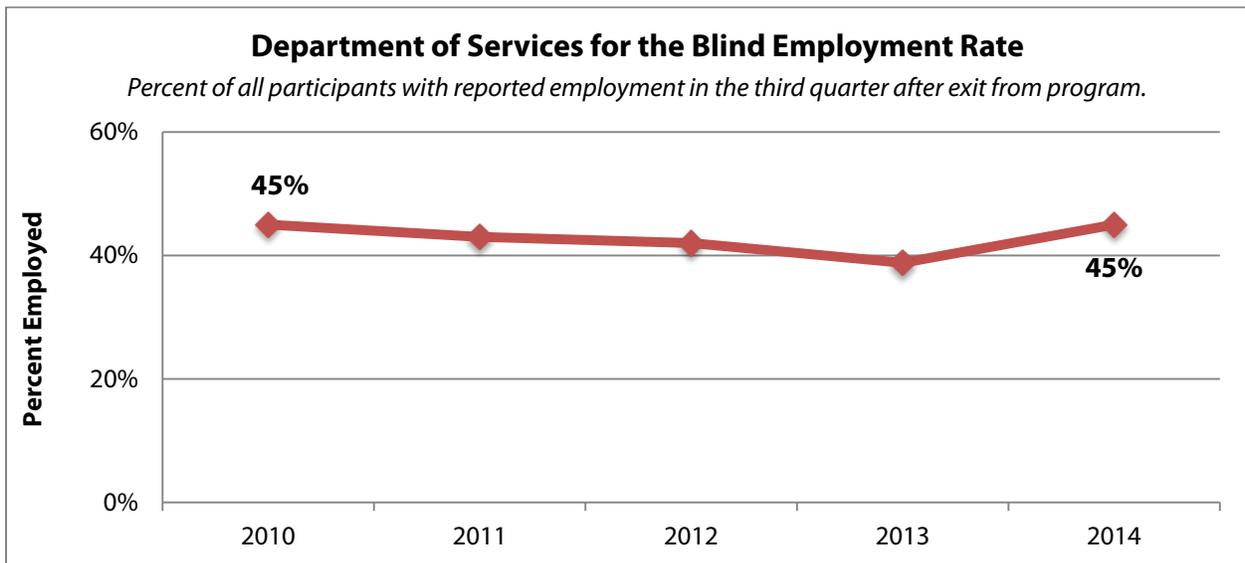


Median Hourly Wage***	\$13.44	\$16.60	\$15.15	\$14.31	\$15.46
Median Annual Earnings***	\$22,421	\$25,009	\$23,331	\$23,973	\$24,362

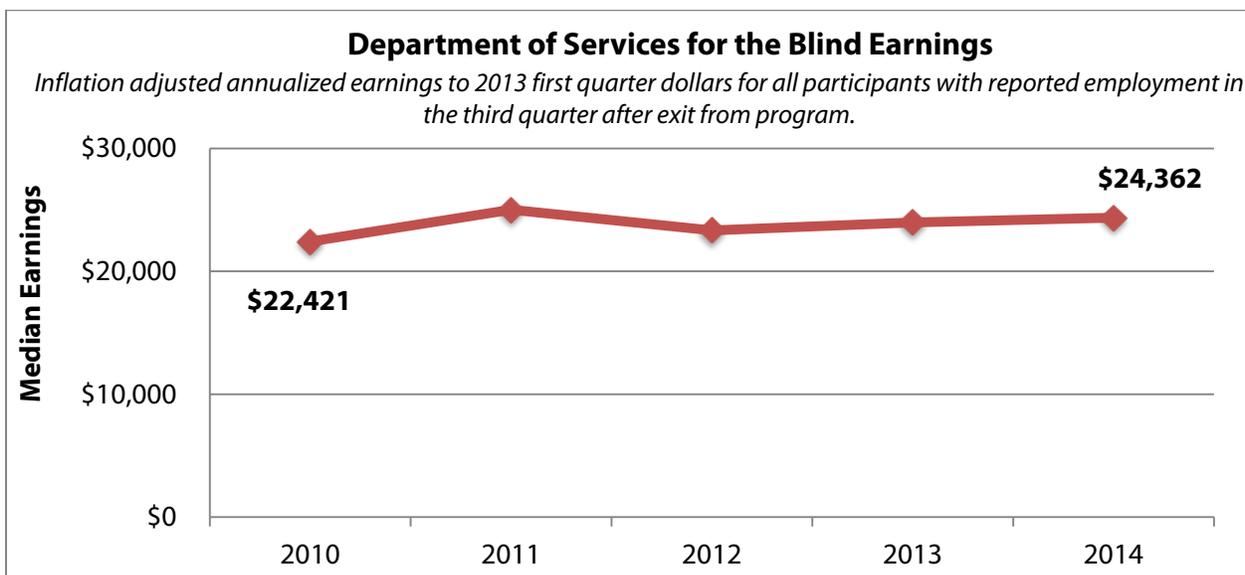
*These figures apply to those with employment reported to the state's Employment Security Department six to nine months after leaving program. Rate does not include self-employment, employment outside the Northwest or military service and thus understates total employment by approximately 10 percent.

**Full-time employment averages 30 or more hours per week.

***Earnings/wages expressed in first quarter 2014 dollars in order to account for inflation.



Note: Rate does not include self-employment, employment outside the Northwest or military service and thus understates total employment by approximately 10 percent.



DSB Employment by Industry

Most DSB participants were employed in Services. The next largest employment group is Manufacturing, employing almost 15 percent of DSB participants.

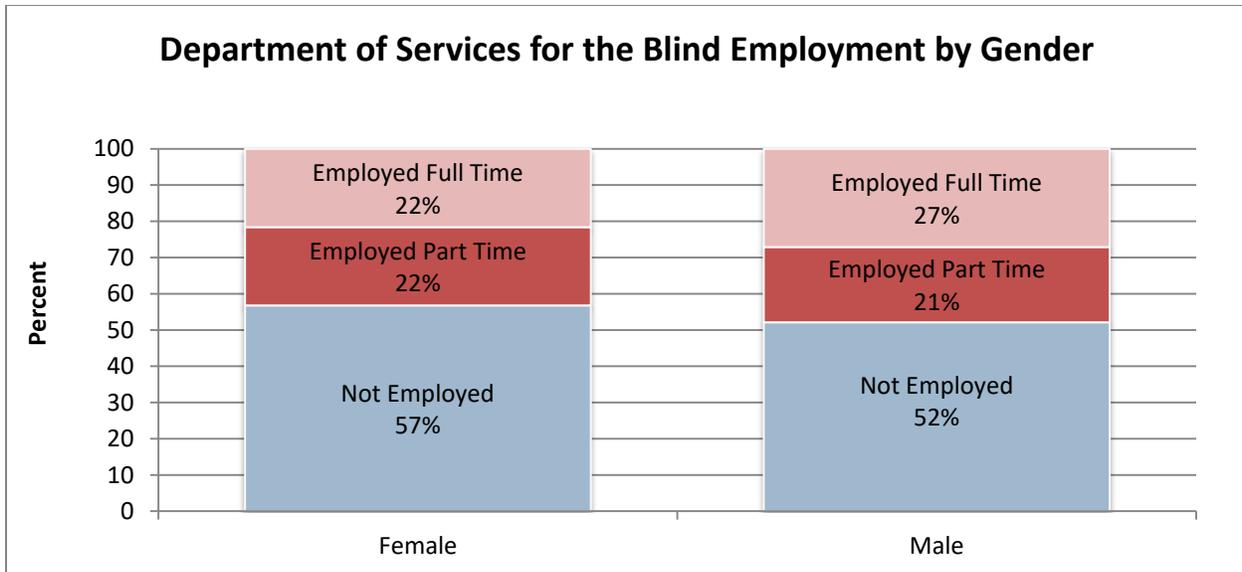
Percent	Employment by Industrial Group
17.4%	All Other Services
14.7%	Manufacturing
12.8%	Educational Services
11.9%	Social Assistance
10.1%	Public Administration
8.3%	Health Care
5.5%	Administrative & Support & Waste Management and Remediation
4.6%	All Other Retail Trade
3.7%	General Merchandize Stores
2.8%	Financial Activities
1.8%	Natural Resources and Mining
1.8%	Wholesale Trade
1.8%	Transportation and Warehousing and Utilities
0.9%	Construction
0.9%	Food & Beverage Stores
0.9%	Information

Source: Matches with Employment Security Department data in third quarter after exiting program. Industry groups based on North American Industry Classification System codes.

Wages and Employment Results by Population

Employment and earnings can vary by gender, race and ethnicity, and disability status. Twenty-two percent of women were employed full time and 22 percent part time for an overall employment rate of 44 percent. Men were more likely to be employed (overall employment rate of 48 percent) and were more likely to be employed full time than women (27 percent versus 22 percent). However, women's hourly wages were substantially higher than men's hourly wages (\$17.29 vs \$13.11). The ratio of women's median hourly wages versus men's was 132 percent, 38 percentage points higher than last year's ratio of 94 percent. Women's earnings were also higher than men's (\$24,524 compared to \$23,886). The ratio of women's earnings to men's was 23 percentage points higher during this reporting year compared to the previous year (103 percent vs 80 percent). In summary, although women had lower employment rates and were less likely to work full time, their higher median hourly wage resulted in median earnings that were more than \$600 above men's.





Source: Matches with Employment Security Department data.

Disability and Race/Ethnicity Play a Role

Although data from other chapters provide evidence that employment rates, wages and earnings vary among racial and ethnic groups and those with disabilities, the sample size for program participants was too small to make valid statistical inferences among DSB participants.

Summary, Areas for Improvement, and Further Research

The Department of Services for the Blind (DSB) provides vocational counseling; blindness rehabilitation assessment and skills-training services; blindness adaptive technology assessment, device matching and training services; blindness and low vision tools, equipment, and technological aids; a progression of services and work-based learning experiences for youth/students with a disability; internships and work experiences for adults; support for higher education and vocational training certifications; entrepreneurial training, business start-up services and occupational licenses; English as a Second Language and literacy training for individuals with visual impairment; and other goods and services that can be reasonably expected to help clients achieve successful employment or self-employment outcomes.

DSB program participants tend to be older (median age was 44 at entrance), and disproportionately white and African American, and female. Although their level of prior educational attainment tends to be high (only 37 percent had no postsecondary education), this population faces serious challenges. The employment and earnings results are relatively low (45 percent reported employment and median earnings of \$24,362), but have improved since the previous report. In addition, the pool of participants is fairly small, meaning that the data can easily be distorted by untypical performance results from just a handful of participants.



It's because of this relatively small sample size that we do not know the full impact of the DSB program on participants. A detailed net impact evaluation, which measures the performance of participants vs. a control group with similar demographics, was conducted for the majority of workforce programs the Workforce Board evaluates. However, with DSB it was not feasible to construct a comparison group because of the unique characteristics of the participant population.

DSB program participants also were not included in the most recent participant survey for similar reasons.

DSB has implemented targeted outreach and service provision efforts to close gaps in underserved populations, and has been successful since 2012 in narrowing the service gap to Washington's Hispanic/Latino residents.

A significant proportion of DSB customers who close services with an employment outcome are self-employed, and are not accounted for in the Employment Rate data within this report. For example, of the 192 employment outcomes that occurred in the most recent federal fiscal year 2014, 20 outcomes (or 10.4 percent) were individuals who were self-employed.

DSB has put considerable emphasis on serving young people with visual impairments by offering a series of independent-living and work-based programs for students with disabilities. The program works with blind youth from birth to 13, and their families, to provide advocacy, access to independent living skills resources and workshops, and pre-vocational awareness. DSB accepts vocational rehabilitation applications at age 14, and provides year-round transition services and summer vocational programs: a two-week work-experience program (ages 14-15); a six-week paid-work independent living skills experience (ages 16-19); and a five-week summer self-advocacy program to transition students with disabilities to managing disability needs in the higher education system.





Workforce Training and Education Coordinating Board

2015 Workforce Training Results

Division of Vocational Rehabilitation

Program Details

The Division of Vocational Rehabilitation (DVR) within the state's Department of Social and Health Services offers services to help individuals with disabilities become employed. Depending on the individual and their functional limitations, this may include part-time employment, self-employment, or supported employment. Services are based on the needs of the individual and include: assessment; counseling; vocational, academic, and other training services; physical and mental restoration services; assistive technology; independent living services; mobility and transportation; communication services; and job search and placement.

Every year, the Workforce Board measures the performance of key workforce programs. In this report, you'll find out more about the program and who is served, the metrics used to measure performance, and how the program performed.

Eligibility requires certification by DVR that the individual:

- Has a physical, mental, or sensory impairment that constitutes or results in a substantial impediment to employment.
- Requires vocational rehabilitation services to prepare for, enter into, engage in, or retain employment.
- Can benefit from vocational rehabilitation services in obtaining a job.

These strict eligibility requirements should be considered when reviewing the outcomes of DVR clients.

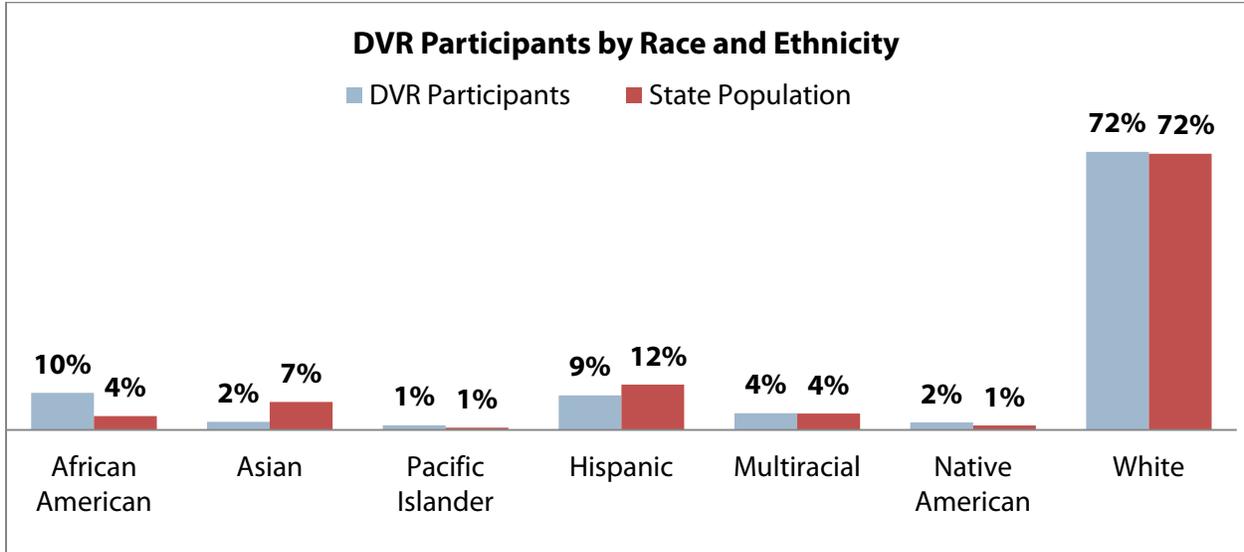
Participant Profile

For this 2015 report, researchers studied the results of 5,041 participants who left DVR programs during the most recent program year.¹ The median length of time DVR clients engaged in individualized employment plans was 12 months.

¹ The 2015 Workforce Training Results reports are based on data observed as recently as 2013-2014 for individuals exiting programs during 2012-13.

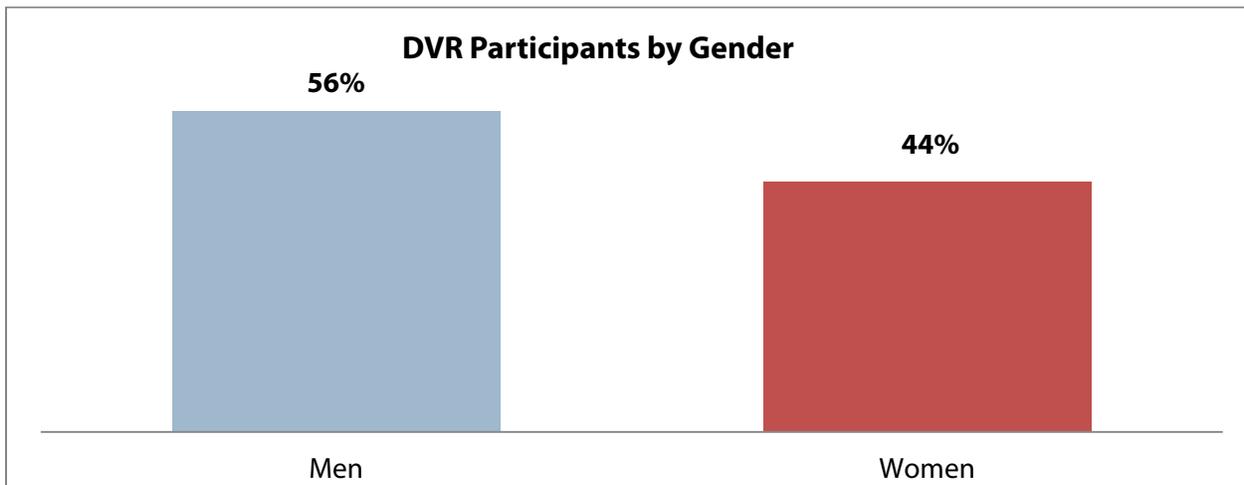


The racial/ethnic composition of the DVR clients roughly reflects those of the general population in Washington; although the African American population is over represented and the Asian and Hispanic populations are underrepresented.



Source: Division of Vocational Rehabilitation administrative records 2012-13 and 2012 U.S. Census Data from the American Community Survey.

Nearly 44 percent of the clients were women, identical to the prior four program years. Women were just as likely as men to finish the program.



Source: Division of Vocational Rehabilitation administrative records.



The median age upon entering a plan in the program was 38. One quarter of participants at entrance were under age 25 at entry, while another one quarter of participants were age 49 or older.

Tracking DVR Progress

The Workforce Board routinely measures the performance of our state's largest workforce programs. As a customer-focused advocate for Washington's workers and employers, the Workforce Board strives to provide performance accountability, verifying whether worker education and training programs provide a return on investment for participants and taxpayers.

The Workforce Training Results report seeks to answer five core questions:

- Did participants get the skills they needed?
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- Has the program made a difference in the participant's success?
- Did participants and the public receive a return on their investment?

Data Comes From State Wage Files

The 2015 Workforce Training Results includes information obtained from Employment Security Department wage files in Washington, Idaho, and Oregon, and federal employment records for 2013-14.²

Net Impact Study Adds More Insight Into Program Performance

In addition, the report includes a comprehensive Net Impact Study. Conducted every four years, this study provides a head-to-head comparison of participants and non-participants to help answer a central question: How much of a workforce participant's success in obtaining a job, or a higher wage, is due to the workforce program? By comparing program participants with similar individuals who did not participate in a workforce training program, the Net Impact Study indicates whether employment and earnings gains are due to workforce programs, or if workers could have made this progress on their own. This research also allows for a more detailed analysis as to whether the participant and the public received a return on their investment in the program.

Turn to page 11 for the Net Impact Study. Conducted every four years, this in-depth report adds extra value to 2015 Workforce Training Results. The study provides a side-by-side comparison of participants vs. similar non-participants, answering the question of whether the program is making a difference.

² The Workforce Board's 2012 Employer Survey, which measures the satisfaction of Washington's employers with workforce programs such as DVR, is not included in this report because DVR's sample size is not large enough.



Did Participants Get the Skills They Needed?

Some 55 percent of the DVR clients were classified as rehabilitated upon leaving the program (that is, they were working for 90 days prior to exit). This rehabilitation rate about the same as observed in the last report.

Did Participants Have a Job and How Much Were They Paid?

To find out whether participants had jobs and how much they earned, participant records were matched with Employment Security Department wage files from Washington and neighboring states.³ The study looks at employment and earnings three calendar quarters after the participant left the DVR program. Record matches found 50 percent had reported employment during the third quarter after they left the program. This is the same percent in the prior program year. The median hourly wage for all DVR participants declined from \$11.58 to \$11.29. Median annualized earnings were \$13,718 (down from \$13,808 of last year's earnings when inflation adjusted to 2014 first quarter dollars).⁴ Both median hourly wages and median annual earnings are down from the prior program year. Individuals deemed rehabilitated upon leaving the program—that is, those who had been working for 90 days—tended to have better employment and earnings outcomes than those not considered rehabilitated (74 percent employed and median earnings of \$14,517).

DVR clients observed for the 2015 Workforce Training Results had employment rates holding steady with rates reported in 2014. Full-time employment was likewise equivalent to rates reported in 2014. When looking at those considered to be rehabilitated, the employment rate was 2 percentage points lower than employment for rehabilitated clients in the previous report. Participants that are considered rehabilitated had their inflation-adjusted median hourly wage at \$11.31, down from \$11.78 from the previous year and the annual earnings were \$14,517 compared to the 2013 report (\$14,857).

³ These files contain quarterly earnings and hours worked information on those individuals with employment reported for unemployment insurance (UI) benefits purposes (approximately 90 percent of in-state employment, with self-employment, active duty military, and those working for religious nonprofit organizations being the major groups of employers not included).

⁴ Annual earnings are calculated as third quarter earnings multiplied by four. Quarterly earnings are the result of hourly wage rates and the number of hours worked in a calendar quarter. All wages and earnings are stated in first quarter 2014 dollars.



2014 Employment and Earnings DVR Participants

Performance Measure	Results
Employment Rate* (State Records)	50%
Full-Time Employment**	38%
Median Hours Worked Quarterly	302 hours
Median Hourly Wage***	\$11.29
Median Annualized Earnings***	\$13,718
Median Annualized Earnings (rehabilitated)	\$14,517

*These figures apply to those with employment reported to state employment agencies six to nine months after leaving the program. Rate does not include self-employment, employment outside the Northwest or military service and thus understates total employment by approximately 10 percent.

**Full-time employment averages 30 or more hours per week.

***Earnings/wages expressed in first quarter 2014 dollars in order to account for inflation.

Earnings of DVR Participants

The following table shows employment and earnings information over the course of five study periods.

Employment and Earnings Trends for DVR Participants

Performance Measure	2010	2011	2012	2013	2014
Employment Rate* (State Records)	46%	43%	47%	50%	50%
Full-Time Employed **	28%	38%	40%	38%	38%
Median Quarterly Hours	285	294	307	297	302
Median Hourly Wage***	\$11.66	\$11.70	\$11.92	\$11.58	\$11.29
Median Annualized Earnings***	\$12,628	\$13,716	\$14,858	\$14,857	\$13,718

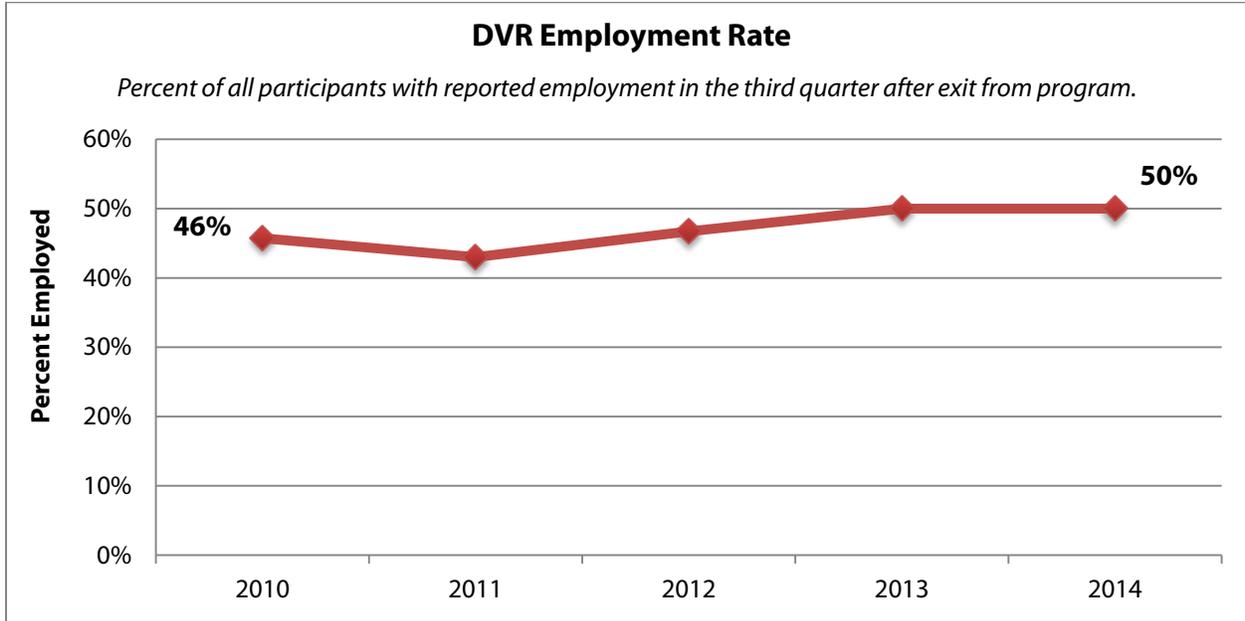
*These figures apply to those with employment reported to the state's Employment Security Department six to nine months after leaving program. Rate does not include self-employment, employment outside the Northwest or military service and thus understates total employment by approximately 10 percent.

**Full-time employment averages 30 or more hours per week.

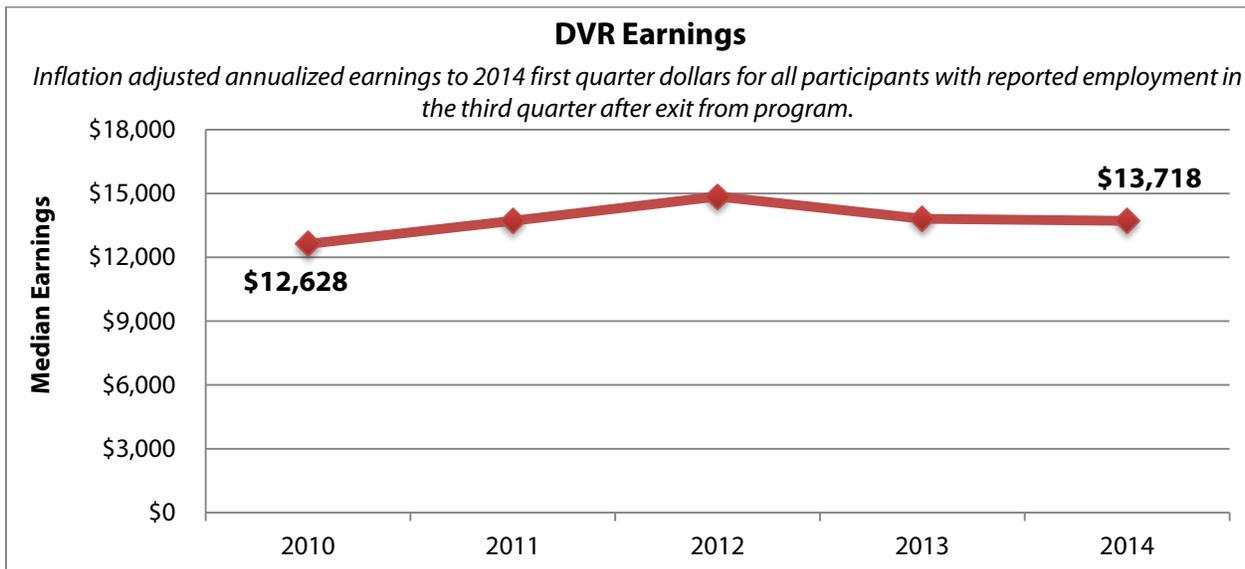
***Earnings/wages expressed in first quarter 2014 dollars in order to account for inflation.



The state employment rate and median annual earnings among all participants remained at the same levels since the last report. Median hourly wages decreased, whereas median quarterly hours increased since the last report.



Note: Rate does not include self-employment, employment outside the Northwest or military service and thus understates total employment by approximately 10 percent.



Note: This chart shows annualized earnings in 2013 first quarter dollars to account for inflation.



DVR Employment by Industry

Employment among DVR clients continued to be heavily concentrated in the services. Within services, "All Other Services" (20 percent) was the largest employer of DVR program exiters, followed by social assistance.

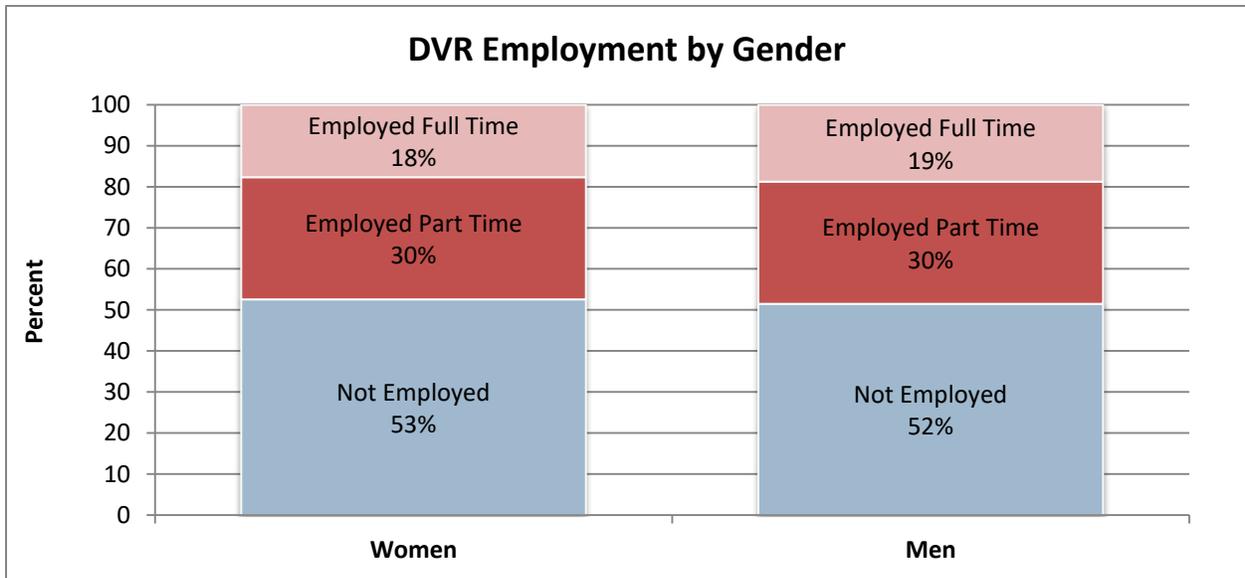
Industry Group	
57.5%	Services (see breakout)
17.3%	Retail Trades (see breakout)
7.7%	Manufacturing
4.0%	Transportation and Warehousing and Utilities
3.2%	Financial Activities
2.9%	Public Administration
2.6%	Construction
2.4%	Wholesale Trade
1.5%	Natural Resources and Mining
1.1%	Information
Breakout of Services	
20.0%	All Other Services
11.6%	Social Assistance
9.8%	Health Care
5.3%	Educational Services
10.8%	Administrative & Support & Waste Mgmt & Remediation
Breakout of Retail Trades	
7.3%	All Other Retail Trade
5.6%	General Merchandise Stores
4.1%	Food & Beverage Stores
0.3%	Gasoline Stations

Source: Matches with Employment Security Department data in third quarter after exiting program. Industry groups based on North American Industry Classification System (NAICS) codes.



Wages and Employment Results Vary by Population

Wage and employment results can vary by gender, and race and ethnicity. Women and men in the DVR program had comparable rates of employment, differing by 1 percentage point (48 percent versus 49 percent). They also had comparable rates of full time and part time employment. Nineteen percent of men were employed full time (30 percent part time) while 18 percent of females were employed full time (18 percent part time). Women’s median hourly wages were slightly lower than men’s (\$11.23 versus \$11.34); but median annual earnings for women were slightly higher than men’s earnings (\$13,781 versus \$13,687).



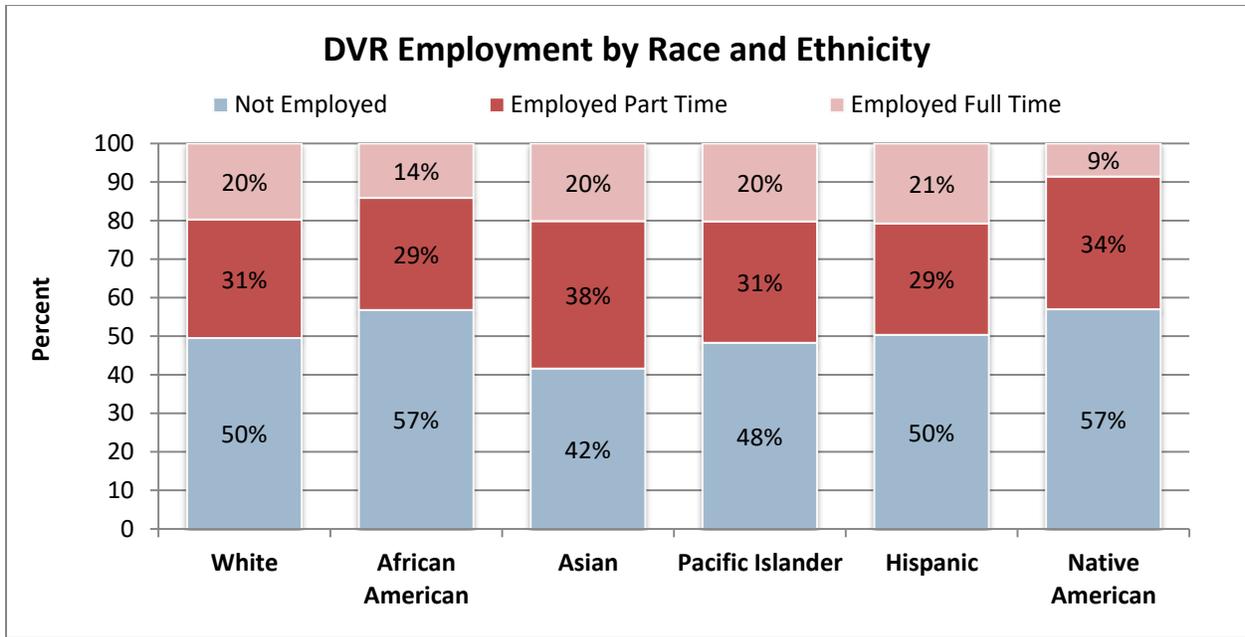
Source: Matches with Employment Security Department data.

Race/Ethnicity Plays Role

Substantial variation was found among employment rates by race and ethnicity. Asians had the highest employment rate at 58 percent (20 percent were employed full time and 38 percent part time). Pacific Islanders and Whites both had the second highest employment rates (51 percent) followed closely by Hispanics (50 percent). African Americans and Native Americans had identical rates (43 percent). Full-time employment rates also varied. Hispanics had the highest full-time employment rate (21 percent), followed closely by whites, Asians, and Pacific Islanders (all at 20 percent). African Americans and Native Americans had the lowest full-time employment rates at 14 and 9 percent, respectively.

Earnings were slightly up for Whites and down sharply for all others. Whites had the highest hourly wage (\$11.37), followed by African Americans (\$11.22), Native Americans \$11.20, Hispanics (\$10.92), Asians (\$10.47), and Pacific Islanders (\$10.10). Hispanics had the highest median annual earnings at \$14,693, followed by Whites (\$14,124), Asians (\$12,954), African Americans (\$11,780), Native Americans (\$9,163), and Pacific Islanders (\$7,355).





Source: Matches with Employment Security Department data.

Participant Survey

No participant survey was conducted for the DVR program due to a statistically invalid sample size.



Net Impact - Did Program Make a Difference in Participant Success

Every four years the Workforce Board conducts net impact and cost-benefit analyses of workforce development programs. This detailed study compares participants and non-participants. The net impact part of this study attempts to measure whether the program made a difference in the participant's success. Washington is the only state to periodically conduct rigorous net impact evaluations of its workforce programs.

The Division of Vocational Rehabilitation program has positive net impacts on employment and hours worked each quarter.

The net impact analysis was conducted by the W.E. Upjohn Institute for Employment Research (Upjohn), a national leader in evaluating training programs. To do the analysis, Upjohn studied program participants to see what results they achieved and compared these results with a control group. Individuals who participated in a Division of Vocational Rehabilitation program were compared to individuals who had similar demographic characteristics, but who did not

participate in any of the programs included in the study. The comparison group members were selected from among those who had been found eligible for DVR services, but chose not to participate.

The most recent net impact analyses examined experiences of participants who left Division of Vocational Rehabilitation programs through 2009. The short-term impact (Program Year 2007-08) was observed in 2008-09, while the long-term impact (Program Year 2005-06) was observed from 2006-07 through 2008-09.



Impact on Employment and Earnings: Participants vs. Control Group

Vocational Rehabilitation	Short-term [^]	Long-term [^]
Net Employment Impacts*	12.80 percentage points	12.40 percentage points
Net Hourly Wage Impacts**	No significant positive impact	No significant positive impact
Net Quarterly Hours Impacts	No significant positive impact	47.4
Net Annualized Earnings**	\$1,370	\$1,461

[^]Short-term is three quarters after program exit; Long-term is average across three years since program exit.

*Percentages listed are employment percentage points above those of the control group of non-participants.

**Wages and earnings, expressed in first quarter 2014 dollars; they represent the average difference between DVR participants who got jobs and those in the control group who were employed.

As can be seen above, the DVR program had a significant impact on employment, and boosted wages when comparing participants with non-participants. Also, the long-term impact on the number of hours worked each quarter was substantial for program participants.

Costs and Benefits

The cost-benefit analysis estimates the value of the net impact on earnings, employee benefits (estimated at 25 percent of earnings), UI benefits, and certain taxes.⁵ Program costs include both direct costs and support payments borne by the taxpayers and the tuition and foregone earnings borne by program participants. Benefits and costs are calculated for both the observed period of time and based upon a statistical model that estimated the benefits and costs out to age 65. 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 2013 Q1 dollars to control for inflation. The benefits and costs presented here are based on impacts estimated for clients leaving programs in 2005-2006 (observed from 2006-07 through 2008-09), because a longer-term follow-up is required for this analysis.

⁵ Upjohn estimated the impact of the net change in earnings on social security, Medicare, federal income, and state sales taxes.



Participant and Public Benefits and Costs per Participant in Division of Vocational Rehabilitation

Benefit/Cost	First 2.5 years		Lifetime (until 65)		Sum of Costs and Benefits
	Participant	Public	Participant	Public	
Benefits					
Earnings	\$4,577	\$0	\$19,256	\$0	
Fringe Benefits	\$1,144	\$0	\$4,814	\$0	
Taxes	-\$700	\$700	-\$2,944	\$2,944	
Transfers					
UI	-\$246	\$246	-\$284	\$284	
Costs					
Foregone net earnings	\$840	\$116	\$840	\$116	
Program costs	\$0	-\$7,637	\$0	-\$7,637	
Benefits	\$4,776	\$945	\$20,842	\$3,228	
Costs	\$840	-\$7,520	\$840	-\$7,520	
Total (Net)	\$5,616	-\$6,575	\$21,682	-\$4,292	\$17,390

Note: Benefits and costs are expressed in 2014 first quarter dollars.

For each client in a DVR program, the public (taxpayer) cost is \$7,637 over the length of their enrollment. Typically while participating in employment and training programs, individuals forego earnings. DVR clients, however, had net earnings during participation of \$840 over non-participants. During the first two and one-half years after leaving DVR, the average client will gain \$4,577 in earnings. During the course of working life to age 65, the average client will gain about \$20,126 in net earnings (net impact earnings plus earnings during participation) and about \$4,814 in employee benefits.

These are net gains compared to the earnings of similar individuals who did not receive DVR services. Including program costs and the net impacts on taxes and unemployment insurance benefits, the total net benefit per participant is \$21,682.

Projected participant net benefits to age 65 outweigh public costs for the DVR program by a ratio of \$3 to \$1, or \$21,682 to \$7,637.

From the time of leaving the DVR program to age 65, the public is forecast to gain about \$2,944 per participant in net additional Social Security, Medicare, federal income, and state sales taxes and to save \$284 per client in UI benefits. The estimated lifetime net cost to taxpayers is \$4,292 per participant.



Projected taxpayer net benefits to age 65 are less than public costs invested in DVR services by a ratio of \$.4 to \$1 or \$3,228 to \$7,637.

Summary, Areas for Improvement, and Further Research

The Division of Vocational Rehabilitation (DVR) offers services to help individuals with disabilities become employed. Disabled individuals often face significant challenges to employment, yet the program achieves positive net impacts on employment and earnings. The return to participants far exceeds the cost of the services. This evaluation reveals some strong results, and some possibilities of how this return could be made stronger.

While the study found positive impacts on employment and earnings, both remained lower than ideal. Half of the participants found employment within nine months of leaving the program, but median annual wages fell slightly to \$13,718, from \$13,808 the previous year.

The racial/ethnic composition of the DVR clients roughly reflects that of the general population but there was more variation in employment rates. Asians, Pacific Islanders, and whites had had the highest employment rates among DVR participants. Native Americans and African Americans had the lowest employment rate and Native Americans had the lowest full-time employment rate.

Under the 2014 State Plan, DVR will, among other steps, make greater use of labor market and postsecondary training information to improve vocational assessments and assist participants in better selecting employment goals that match the availability of jobs; develop more relationships with employers to create opportunities for participants to gain work experience through internships and obtain employment; and meet regularly with staff from workforce partners to identify current trends in local labor markets.





Workforce Training and Education Coordinating Board

2015 Workforce Training Results

Private Career Schools

Program Details

Private career schools are independent businesses that provide participants with training in a variety of occupations. No public funds are appropriated for private schools, but eligible participants may:

- Obtain federal grants and loans to pay for educational expenses if the school they choose has been authorized to participate in federal student aid programs.
- Secure funding under the state's Worker Retraining program.
- Use "Individual Training Account" vouchers, funded under the Workforce Investment Act (WIA) Title I-B.
- Program results in this study were limited to those institutions licensed by the Workforce Board.

Every year, the Workforce Board measures the performance of key workforce programs. In this report, you'll find out more about the program and who is served, the metrics used to measure performance, and how the program performed.

The Workforce Training and Education Coordinating Board (Workforce Board) licenses all certificate-granting private career schools operating in Washington. Program results are reflective of approximately 300 private career schools reporting to the Workforce Board during the time of this study.

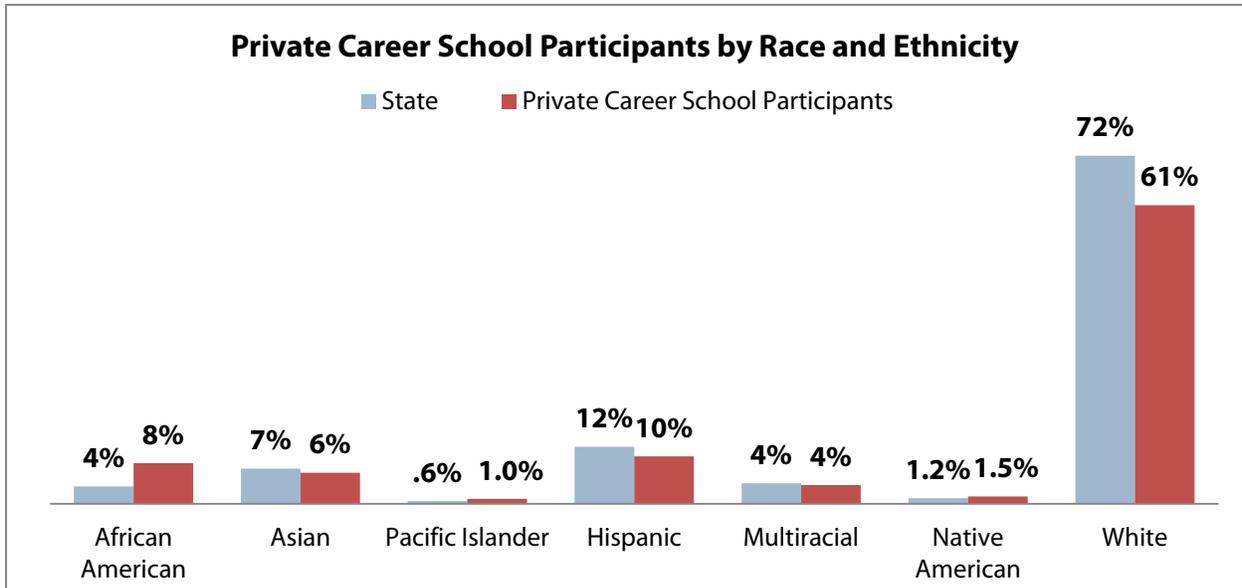
For this 2015 report, records were collected on 17,392 participants who left programs during the most recent reporting year.¹ The median length of enrollment for these participants was three months. However, the duration of private career school programs vary widely. One quarter of participants had enrollment lengths of nine months or longer, while another quarter was enrolled for one month or less.

¹ The 2015 Workforce Training Results reports are based on data observed as recently as 2013-2014 for individuals exiting programs during 2012-13.



Participant Profile

Washington residents from racial and ethnic minorities are well represented among private career school participants.² The racial and ethnic make-up of the Washington state population and those in private career schools is generally comparable. Asians participated at a rate similar to their overall percentage of the state population. Hispanics accounted for 10 percent of participants, which is 2 percentage points below their representation in the general state population. Whites comprised 61 percent of participants, 11 percentage points below their general population representation in the state. African Americans accounted for 8 percent of those in Private Career Schools, double their percentage in the state's population.

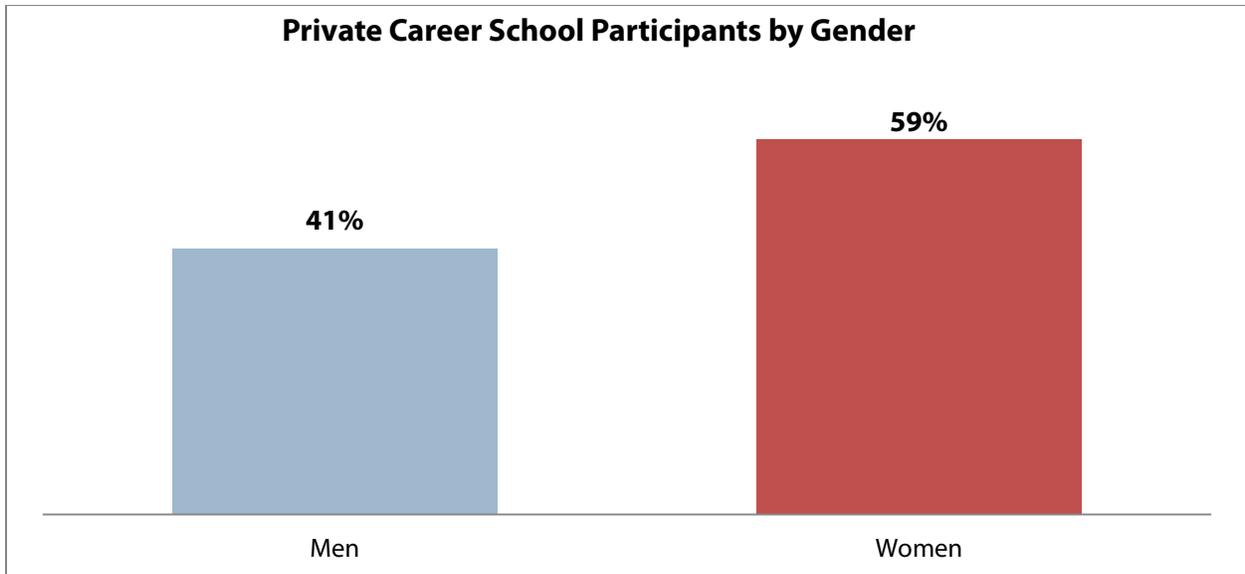


Source: *Private Career Schools' administrative records 2012-13 and 2012 U.S. Census Data from the American Community Survey.*

Among those exiting private career schools, women represented 59 percent of the participants and men represented 41 percent. Of the completers, men were almost identical to last year's report (85%), whereas, women's completion rates dropped 9 percent (from 85% to 76%).

² In this report, unless otherwise stated, racial and ethnic minority groups are mutually exclusive; that is, an individual belongs to one group only. The groups include the following: Hispanics of any race (also referred to as Hispanics); non-Hispanic African Americans (also referred to as African Americans); non-Hispanic Asians (also referred to as Asians); non-Hispanic Pacific Islanders (also referred to as Pacific Islanders); non-Hispanic Native Americans and Alaskan Natives (also referred to as Native Americans); non-Hispanic multiracial (also referred to as multiracial); and non-Hispanic whites (also referred to as whites).





Source: Private Career Schools' administrative records 2012-13

Education Level

When Private Career School participants enrolled they had the following education levels:

- 63 percent had not previously attended college.
- 16 percent had attended college without receiving a credential.
- 7 percent had a certificate or associate's degree.
- 7 percent had a bachelor's degree or higher credential.

The typical student, based on the median, was age 26 when enrolled. One quarter of the participants were under age 21 at enrollment, while another quarter were over 37 years old.

Tracking Private Career School Progress

The Workforce Board routinely measures the performance of our state's largest workforce programs. As a customer-focused advocate for Washington's workers and employers, the Workforce Board strives to provide performance accountability, verifying whether worker education and training programs provide a return on investment for participants and taxpayers.

The Workforce Training Results report seeks to answer five core questions:

- Did participants get the skills they needed?
- Did participants get a job and how much were they paid?
- Were employers satisfied with the preparation workers received?
- Has the program made a difference in the participant's success?
- Did participants and the public receive a return on their investment?



Data Comes From State Wage Files & Employer Survey

The 2015 Workforce Training Results includes information obtained from Employment Security Department wage files in Washington, Idaho, and Oregon, and federal employment records for 2013-14. Information on employer satisfaction among firms that hired new employees recently exited a Private Career School program was assessed through the Workforce Board's 2012 Employer Survey.

Net Impact Study Adds More Insight into Program Performance

In addition, the report includes a comprehensive Net Impact Study. Conducted every four years, this study provides a head-to-head comparison of participants and non-participants to help answer a central question: How much of a workforce participant's success in obtaining a job, or a higher wage, is due to the workforce program? By comparing program participants with similar individuals who did not participate in a workforce training program, the Net Impact Study indicates whether employment and earnings gains are due to the workforce program, or if workers could have made this progress on their own. This research also allows for a more detailed analysis as to whether the participant and the public received a return on their investment in the program.

Turn to page 20 for the Net Impact Study. Conducted every four years, this in-depth report adds extra value to 2015 Workforce Training Results. The study provides a side-by-side comparison of participants vs. similar non-participants, answering the question of whether the program is making a difference.

Did Participants Get the Skills They Needed?

As a measure for whether participants got the skills they needed, this study tracks the credential and degrees earned by participants, along with completion rates. Of this year's participants, 79 percent had completed their program by receiving a credential. This percentage is down by 6 percentage points from the previous report.

Did Participants Have a Job and How Much Were They Paid?

To find out whether participants had jobs and how much they earned, participant records were matched with Employment Security Department wage files from Washington and neighboring states.³ The study looks at employment and earnings three calendar quarters after the participant left a Private Career School program. The chart below shows the employment and earnings of participants who left a program during the most recent reporting year. Sixty percent of participants were employed, with a median hourly wage of

³ These files contain information on only those individuals with employment reported for unemployment insurance (UI) benefits purposes (approximately 90 percent of in-state employment, with self-employment, active military duty, and those working for religious, nonprofit organizations being the major groups of employees not included).



\$13.79, and median annualized earnings of \$22,026.⁴ Those who completed their programs had a higher employment rate and earnings: 62 percent and \$23,403, respectively.

2014 Employment and Earnings for Private Career School Participants

Performance Measure	Results
Employment Rate* (State Records)	60%
Employment Rate (Completers)	62%
Full-Time Employment **	54%
Median Quarterly Hours	412
Median Hourly Wage***	\$13.79
Median Annualized Earnings***	\$22,026
Median Annualized Earnings (completers)	\$23,403

* These figures apply to those with employment reported to ESD six to nine months after leaving the program. Rate does not include self-employment, employment outside the Northwest or military service and thus understates total employment by approximately 10 percent.

**Full-time employment averages 30 or more hours per week.

***Earnings/wages expressed in first quarter 2014 dollars in order to account for inflation.

Outcomes of Private Career School Participants

The following table shows employment information for Private Career School participants over five study periods.

⁴ Annual earnings are calculated as third quarter earnings multiplied by four. Quarterly earnings are the result of hourly wage rates and the number of hours worked in a calendar quarter. All wages and earnings are stated in first quarter 2014 dollars.



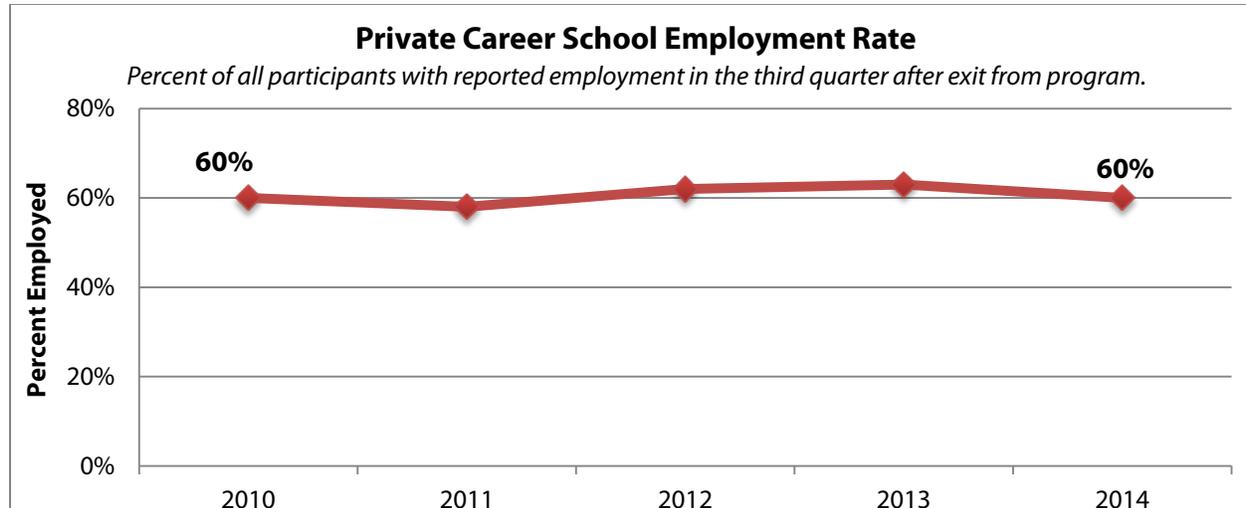
Private Career School Participants Employment and Earnings Trends

Performance Measure	2010	2011	2012	2013	2014
Employment Rate* (State Records)	60%	58%	62%	63%	60%
Full-Time Employment**	52%	52%	53%	53%	54%
Median Quarterly Hours	402	399	411	406	412
Median Hourly Wage***	\$14.75	\$15.25	\$14.63	\$14.03	\$13.79
Median Annualized Earnings***	\$22,465	\$21,406	\$21,295	\$20,870	\$22,026

*Employment reported to the state's Employment Security Department six to nine months after leaving program. Rate is not limited to those who completed a program. Rate does not include self-employment, employment outside the Northwest or military service and thus understates total employment by approximately 10 percent.

**Full-time employment averages 30 or more hours per week.

***Earnings/wages expressed in first quarter 2014 dollars in order to account for inflation.

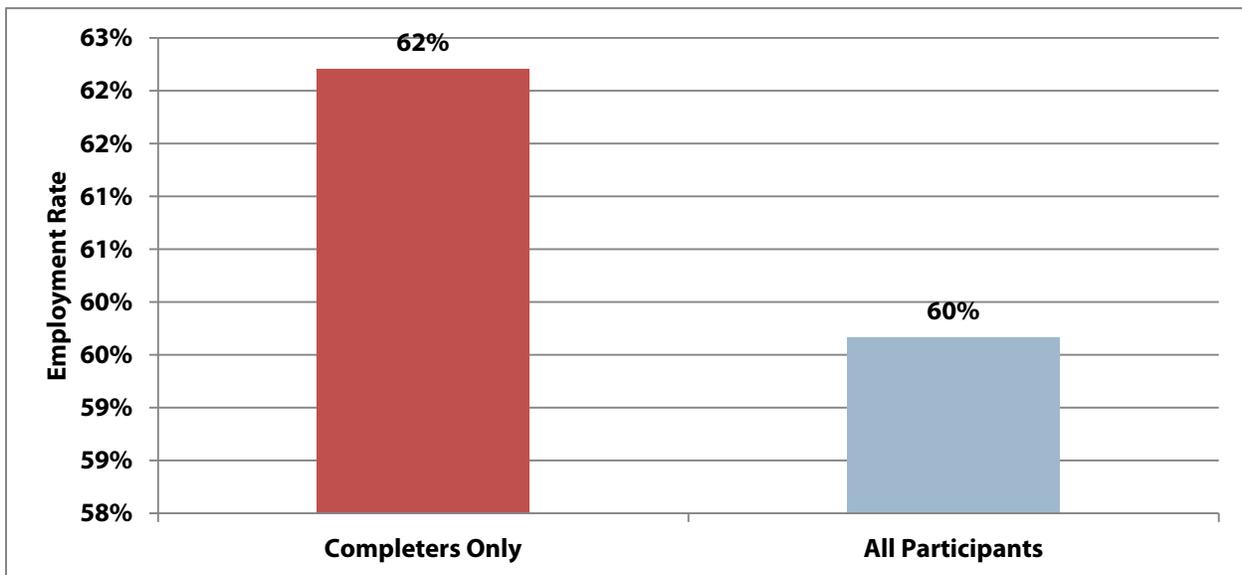


Note: Rate does not include self-employment, employment outside the Northwest or military service and thus understates total employment by approximately 10 percent.

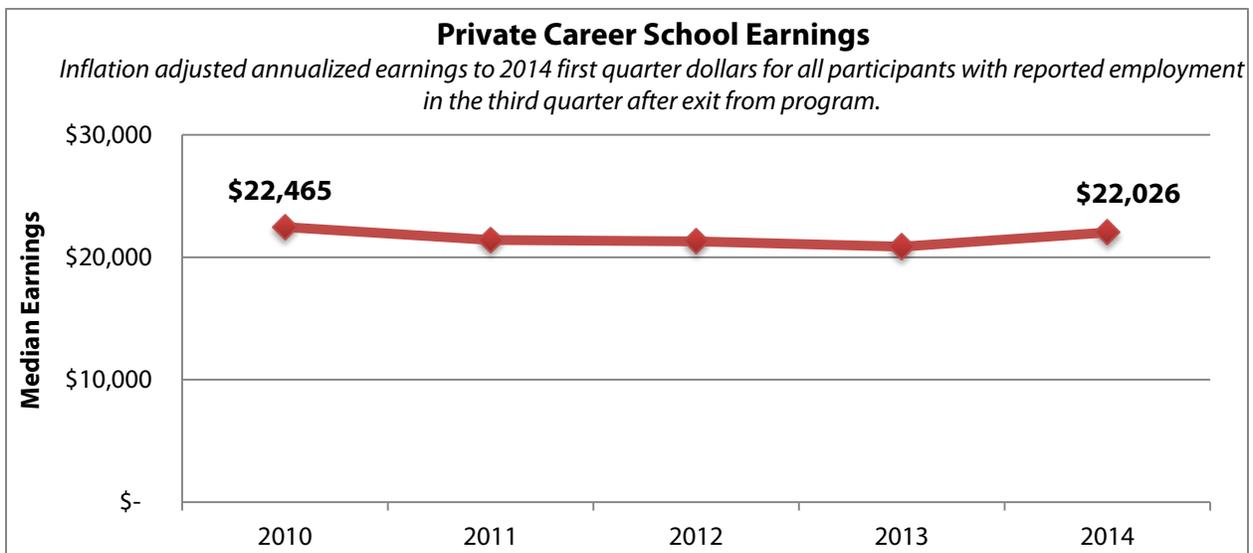
After increasing in 2013 and 2014, Private Career School participant's employment has decreased 3 percentage points since 2014. Full-time employment has remained stable over the last four reports. The employment rate was two percentage points higher (62 percent) for those that completed the program when compared to all participants.



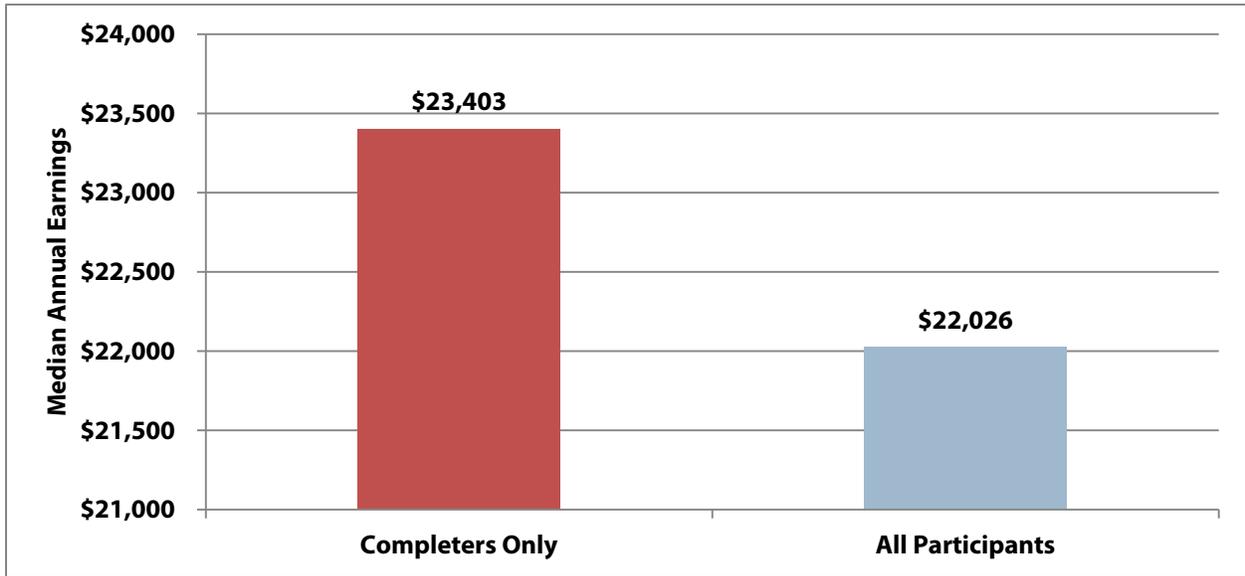
Employment Rates for Completers Compared to All



Median hourly wage and median annual earnings decreased each year between 2011 and 2014, but increased in 2015. For those that completed training in the most recent year, earnings were 6 percent higher than overall earnings.



Annual Earnings for Completers Compared to All



Private Career School Student Employment by Industry

As in the previous study, employment of Private Career School students is concentrated in services (56 percent), especially health services (30 percent). Overall, employment in services decreased 13 percentage points from the last report.



Industry Group	
56.1%	Services
12.3%	Retail Trades
7.6%	Administrative and Support and Waste Management and Remediation Services
6.7%	Transportation and Warehousing and Utilities
4.2%	Manufacturing
3.9%	Construction
3.4%	Wholesale Trade
2.2%	Public Administration
1.4%	Natural Resources and Mining
1.3%	Information
1.0%	Financial Services
Breakout of the Services Industry	
30.0%	Health Care
9.1%	Accommodation and Food Services
6.1%	Social Assistance
4.0%	All Other Services
3.2%	Professional, Scientific, and Technical Services
2.1%	Education Services
1.7%	Arts, Entertainment, and Recreation
Breakout of the Retail Trade Industry	
2.7%	Department and Warehouse Stores
1.7%	Food and Liquor Stores
1.3%	Health Care and Beauty Products
1.3%	Vehicle Sales
1.2%	Clothing and Accessories Stores
1.1%	Finance and Insurance
0.8%	Hardware, Garden and Farm Supplies
0.7%	Miscellaneous Store Retailers
0.5%	Books, Music and Hobbies Sales
0.5%	Gasoline Stations
0.3%	Electronics and Appliance Stores
0.2%	Home Furnishings Sales

Source: Matches with Employment Security Department data in third quarter after exiting program. Industry groups based on North American Industry Classification System codes.

Relationship of Training to Employment

In 2013, the Workforce Board surveyed Private Career School participants who had left their program in 2010-11. The survey provided data on employment and participant satisfaction with the training. The survey was conducted by telephone and was completed by 222 participants.

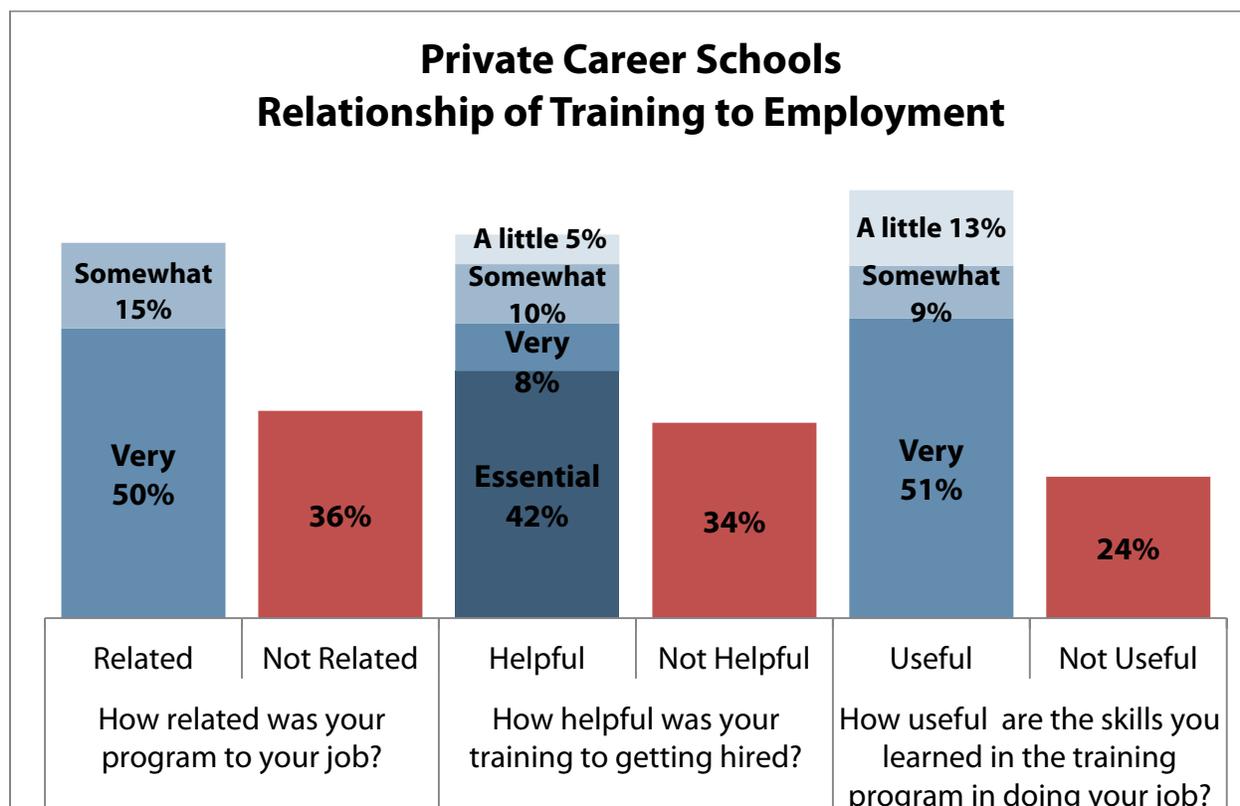


To measure the extent to which a participant’s education program and training related to employment, we asked participants three questions:

1. How related was the program to their job?
2. How important was the training in getting hired?
3. Are the skills they learned useful in their job?

Asking about the relationship between training and employment in different ways can produce more complete information. For example, some participants said their training was not related to their job, but nevertheless found the skills acquired were useful on the job.

Among participants employed six to nine months after leaving a program, 65 percent indicated their training was related to their job. This is broken down further, with 50 percent saying their training was “very related” to their job. An additional 15 percent reported the training was “somewhat related” to their job. In the 2011 participant survey, 66 percent of employed participants reported their training was related to their job.



Source: Workforce Board’s Participant Satisfaction Survey 2013.



Most participants interviewed in 2013 also indicated the training was helpful to them in getting their job. Of those participants, 42 percent indicated their training was an “essential requirement,” another 8 percent indicated it was “very important,” and 10 percent reported it was “somewhat important. Five percent said it was “a little helpful.” The remaining 34 percent indicated their training was “not important at all” to getting their job.

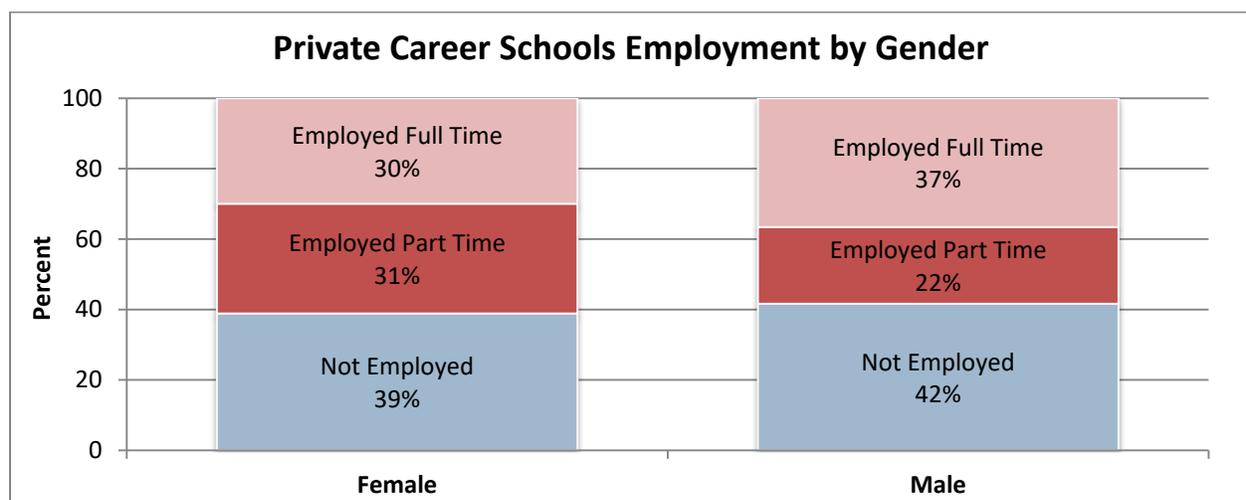
Most participants said the skills they learned in their training program were useful in doing their job. Some 51 percent of participants indicated the skills were “very useful,” 9 percent said “somewhat useful,” and 13 percent “a little useful.” Twenty-four percent of participants who were employed indicated the skills were “not useful.”

When combining two of the questions about the program’s relationship to the job and about whether the skills acquired were helpful, a certain percentage of participants answered negatively to both. Some 17 percent of participants employed the third quarter after exit said the training they received was *neither* helpful in their job nor related to the job they obtained.

Wages and Employment Results Vary by Population

Wage and employment results can vary by gender, race and ethnicity, and disability. The following chart shows the percentage of women and men private career school participants who were reported to be employed. Also broken out is what percentage of those working held a full-time job.

During the third quarter after exiting the program, 39 percent of women were employed full time and 31 percent part time for an overall employment rate of 61 percent. Women were more likely to be employed than men (59 percent). However, they were less likely than men to be employed full time (30 percent compared to 37 percent), and among those employed, women’s median hourly wage was 79 percent of men’s (\$12.89 compared to \$16.38). An even greater disparity was found in terms of median annual earnings, with women earning only 66 percent of men’s yearly income (\$19,530 compared to \$29,404).



Source: Employment Security Department data matches.



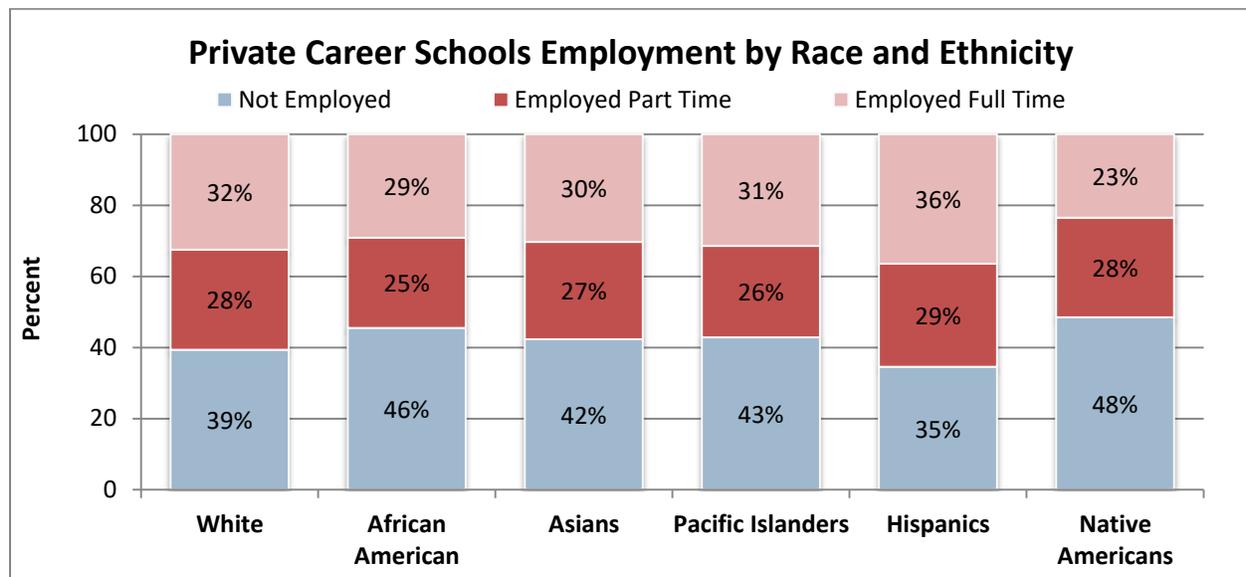
Race-Ethnicity Plays Role

Employment rates varied between racial and ethnic groups. Hispanics had the highest overall employment three quarters after exit at 65 percent (36 percent full time and 29 percent part time), whereas Native Americans had the lowest (51 percent overall).

Hispanics also had the highest rate of full-time employment at 36 percent, followed by whites (32 percent), Pacific Islanders (31 percent), Asians (30 percent), and African Americans (29 percent). Native Americans had the lowest rate at 23 percent.

Among those employed, median hourly wages were highest for whites at \$14.33; followed by Native Americans (\$13.35), Pacific Islanders (\$13.22), Asians (\$13.09), Hispanics (\$12.99), and African Americans (\$12.27).

In terms of median annual earnings, Whites earned the most at \$22,608, followed by Pacific Islanders (\$22,101), Hispanics (\$21,298), African Americans (\$21,059), Asians (\$21,021), and Native Americans (\$19,601).



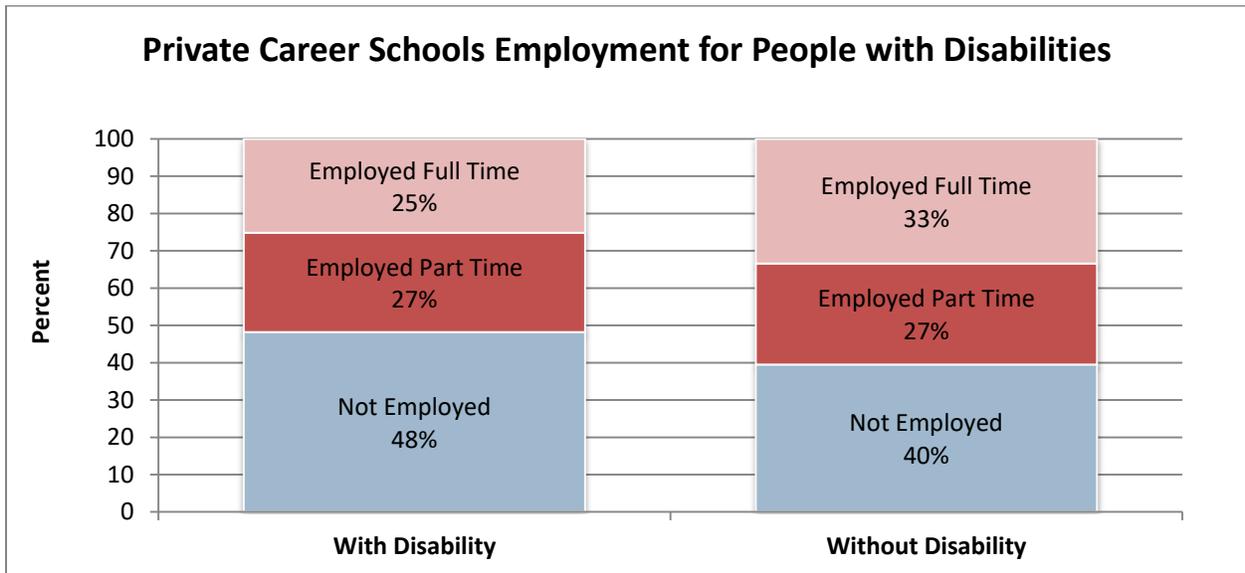
Source: Matches with Employment Security Department data.

Disability Impacts Employment, Earnings

Employment outcomes and earnings also varied by disability status. College records indicate about one percent of the participants included in this study had a disability. Fifty-two percent of participants with a disability reported being employed (25 percent full time and 27 percent part time), 8 percentage points below those without disabilities (60 percent). Those with a disability were also less likely to be employed full time (25 percent) compared to those without a disability (33 percent). Participants with a disability earned about 98 percent of median wages as those without a disability (\$22,647 compared to \$22,967). In terms of



median hourly wages, participants with a disability earned 96 percent of non-disabled participants (\$13.48 compared to \$14.11).



Source: Matches with Employment Security Department data.

Were Employers Satisfied with the Preparation Workers Received?

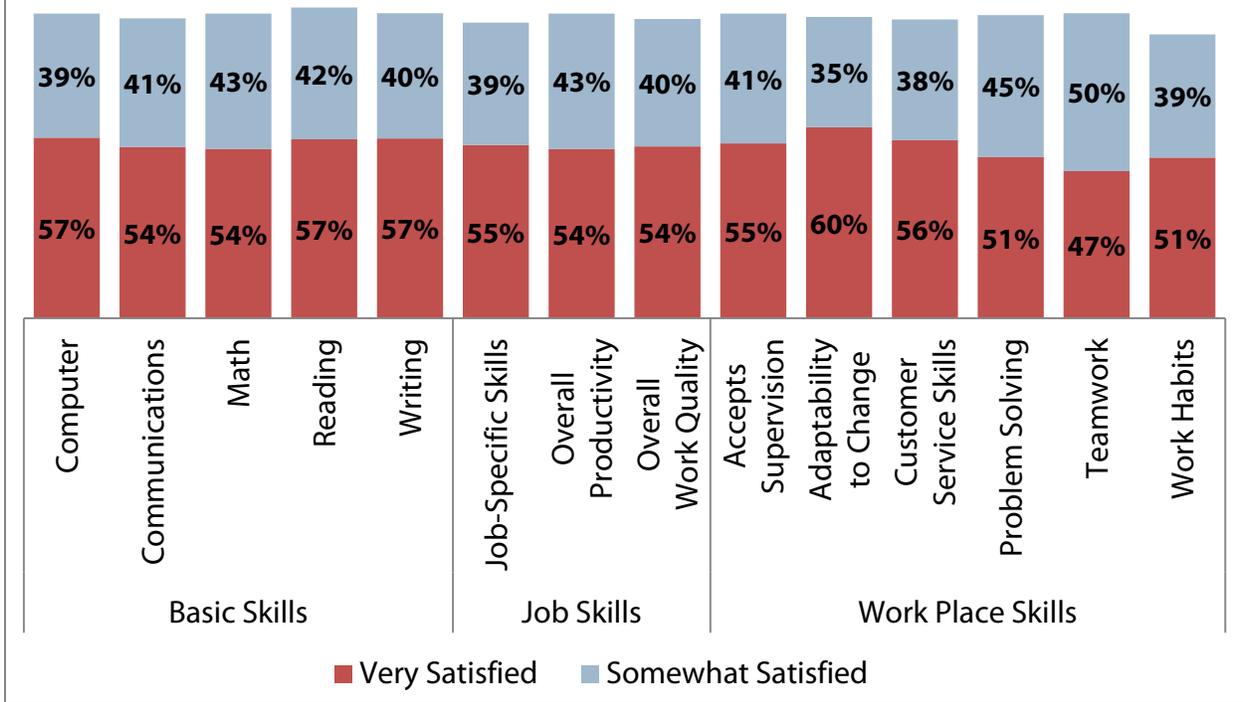
The Workforce Board’s Employer Survey, administered during 2012, asked firms to evaluate new employees who had recently completed a program at a Private Career School. Some 94 percent of employers said they were either “somewhat satisfied” or “very satisfied” with the overall work quality of these new employees.

Employer satisfaction is broken down into three categories: Basic Skills, Job Skills and Work Place Skills. Basic skills refer to reading, writing, math, communication and computer skills. Job skills refer to skills specific to the job, as well as overall work quality and productivity. Work Place Skills refer to the skills necessary to get along in the workplace such as the ability to accept supervision, the ability to adapt to changes in duties and responsibilities, teamwork, customer service, problem solving or critical thinking skills, and having positive work habits and attitudes.

In 2012, employers reported high levels of satisfaction with the skills of new employees who had recently completed a private career school program. The majority of employers were very satisfied with their basic skills, workplace skills, and job-specific skills.



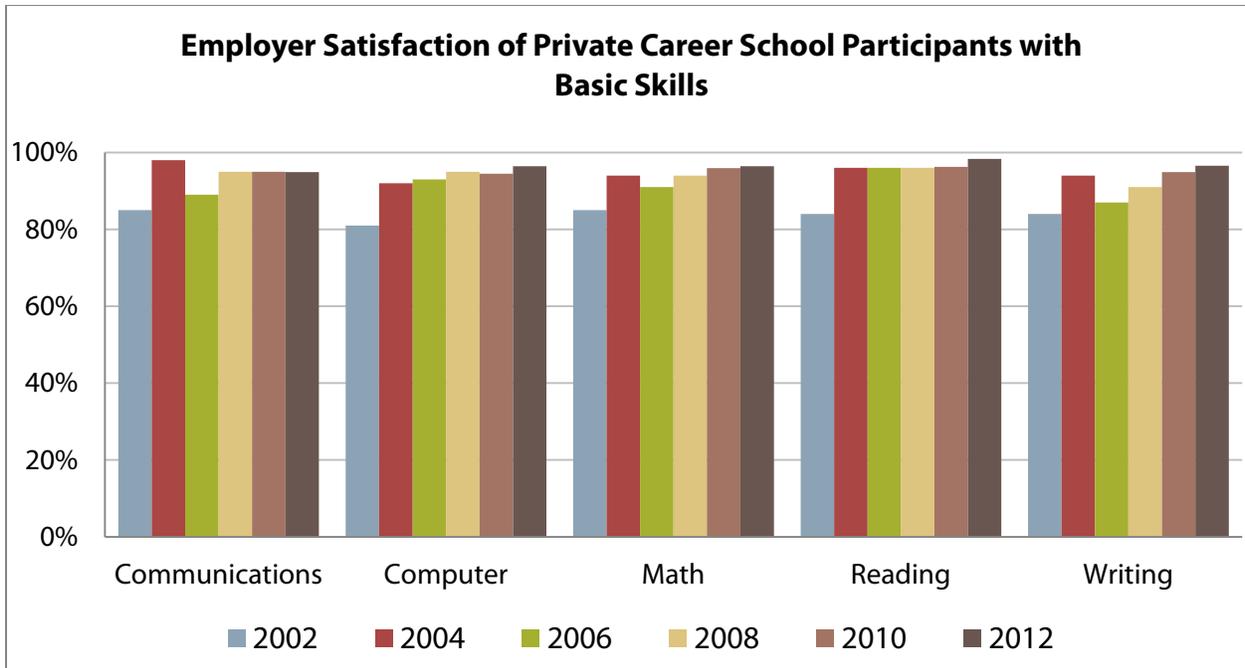
Employers Very or Somewhat Satisfied with New Employees who Completed a Private Career School



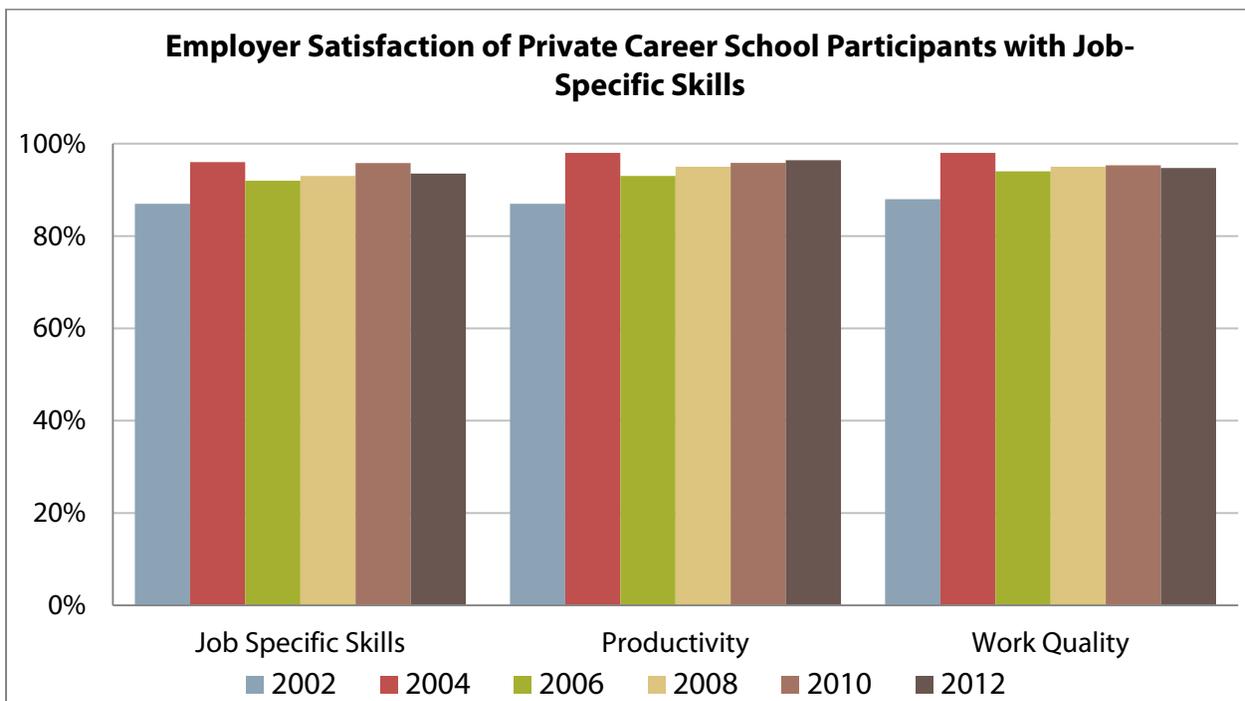
Source: Workforce Board Employer Survey conducted in 2012.

Overall, the levels of employer satisfaction reported in the Workforce Board’s 2012 Employer Survey were similar to the previous survey, conducted in 2010. The following three charts show the trends in satisfaction of employers with new employees who recently completed a program at a Private Career School. From 2002 to 2012, an upward trend is apparent.



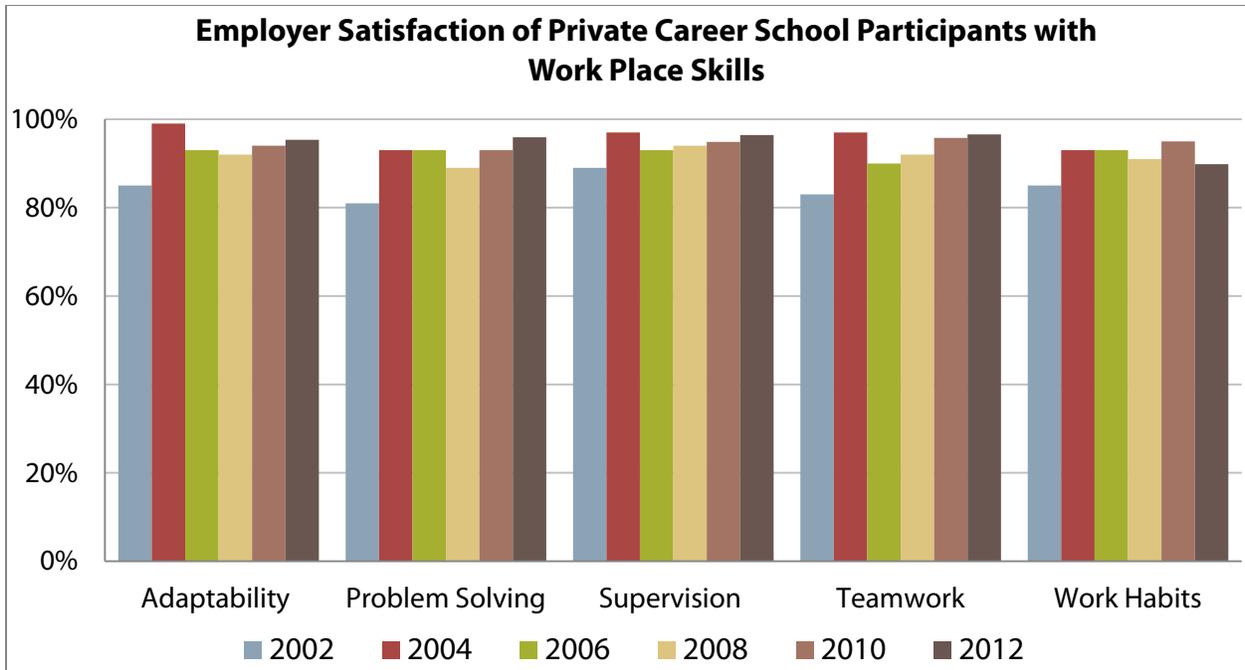


Source: Workforce Board's biennial Employer Surveys from 2002 through 2012.



Source: Workforce Board's biennial Employer Surveys from 2002 through 2012.





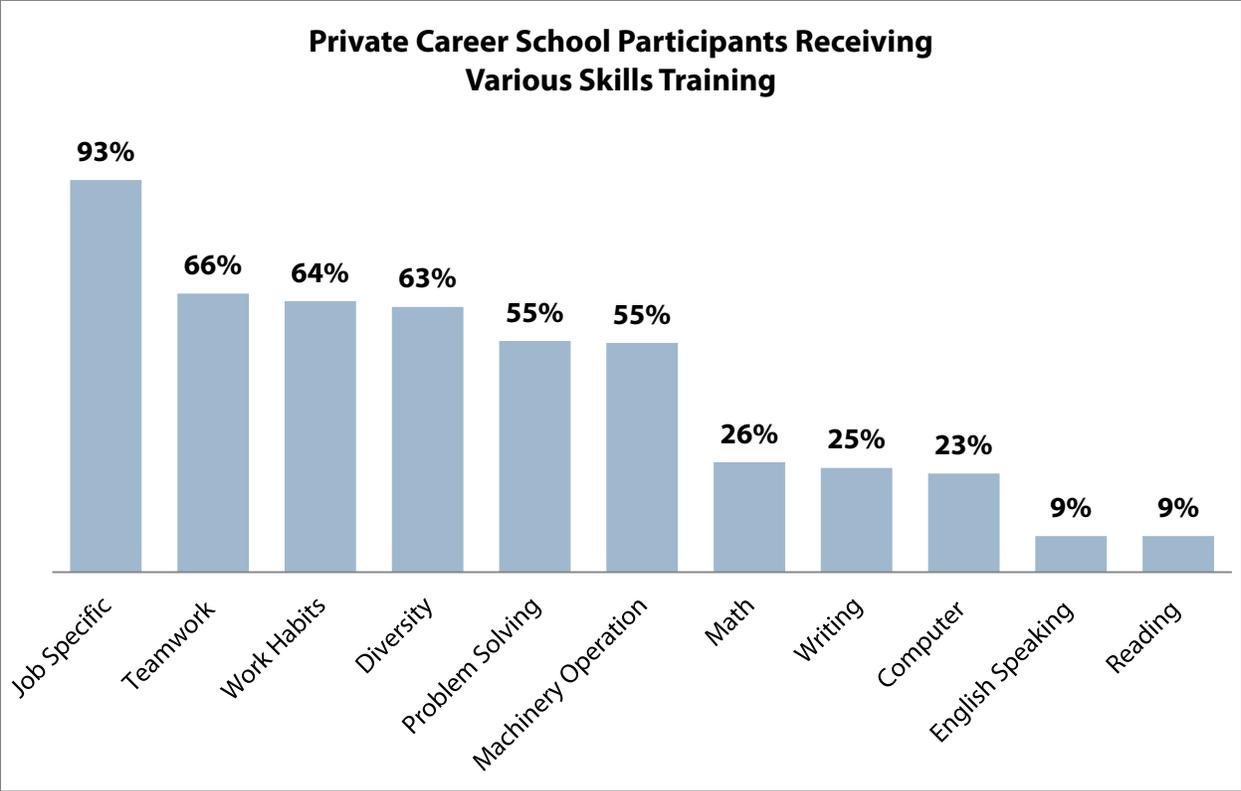
Source: Workforce Board's biennial Employer Surveys from 2002 through 2012.

Participant Survey - Did Participants Get the Skills They Needed?

According to 2013 Participant Survey results, 86 percent of participants indicated they entered a private career school to learn skills for a new job, similar to two years ago. Participants also indicated that they enrolled for their own personal enjoyment or improvement (83 percent), to get a degree or certificate (78 percent), or to improve skills for a job they already had (17 percent).

The highest percentage of participants, 93 percent, reported receiving job-specific skills. In addition, participants received training in basic and workplace skills. As in previous studies, the majority of participants received training in workplace skills such as teamwork (66 percent), work habits (64 percent), and diversity (63 percent). Fewer participants received training in basic skills like reading and English speaking. About 25 percent received training in math and writing skills.

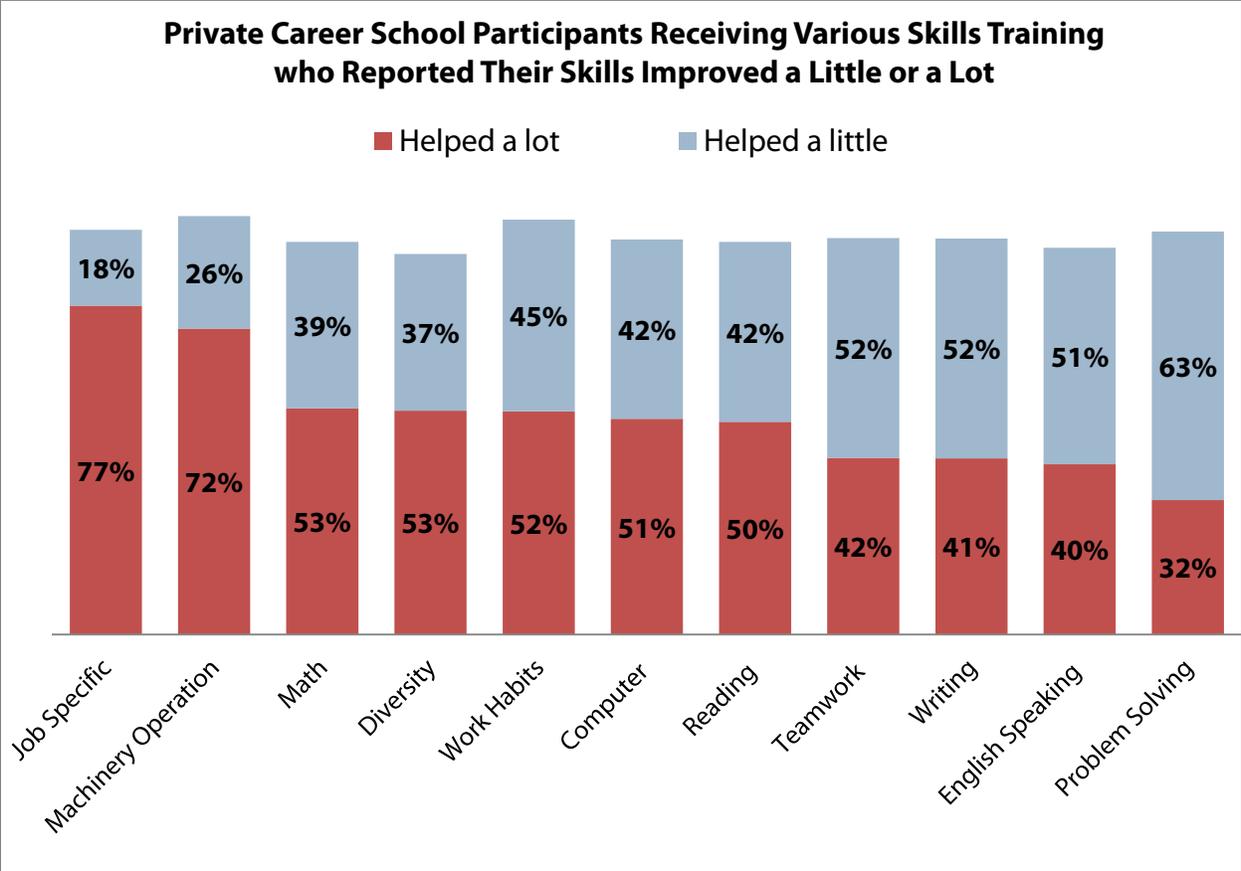




Source: Workforce Board's Participant Satisfaction Survey 2013.

Participants tended to report their skills improved as a result of training. Participants were more likely to report “a lot” of improvement in technical skills such as job-specific skills and machinery operations, and less likely to report “a lot” of improvement in basic skills such as writing, English speaking and problem solving. Compared to previous surveys, a slightly higher percentage of participants reported “a lot” of improvement in job-specific skills (77 percent in 2013 versus 74 percent in 2011).

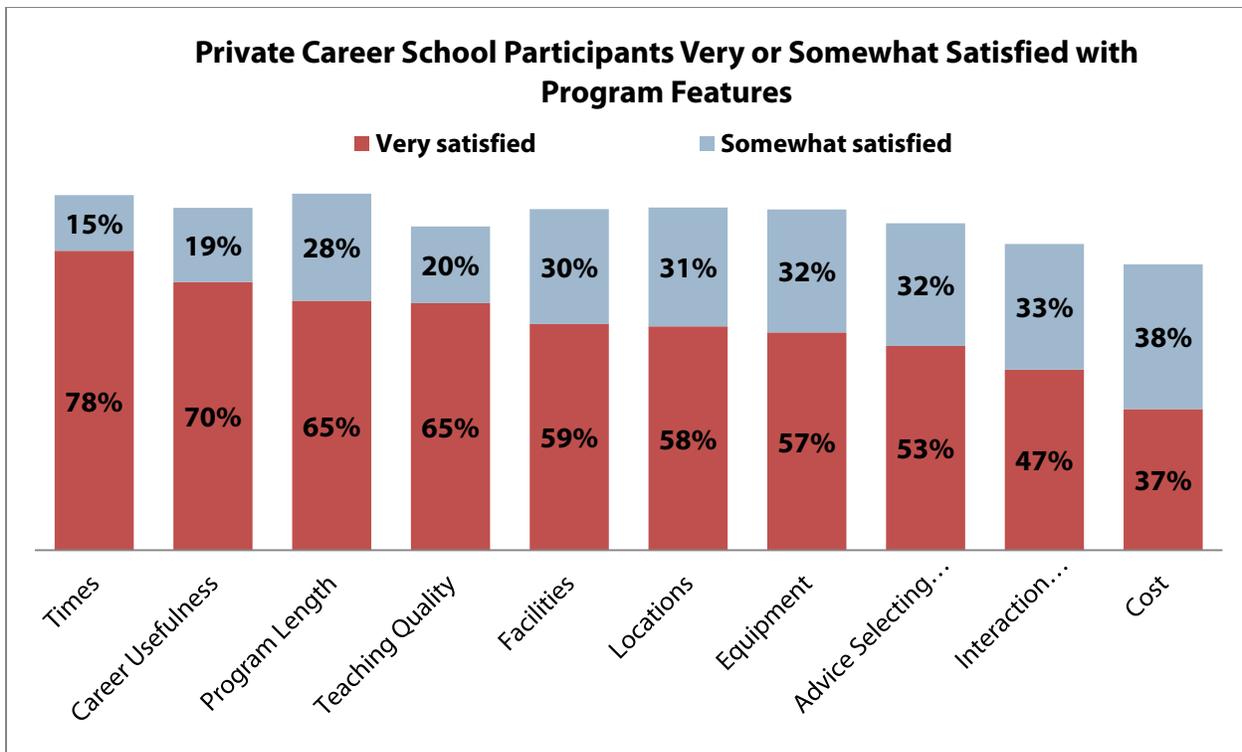




Source: Workforce Board's Participant Satisfaction Survey 2013.

The participants in the current survey reported higher levels of satisfaction with their programs as participants from the previous survey. Some 88 percent reported they had “definitely” or “somewhat” met their educational objectives. The percentage indicating that they were “very” or “somewhat” satisfied with their program overall was 88 percent. When asked about specific program features, satisfaction was highest with program times and career usefulness. Satisfaction was somewhat higher this year with teacher quality but there was a decrease in satisfaction with interaction with instructors outside the classroom. Overall, participants were most satisfied with time, career usefulness, program length, teaching quality, and facilities. Participants were least satisfied with program cost.



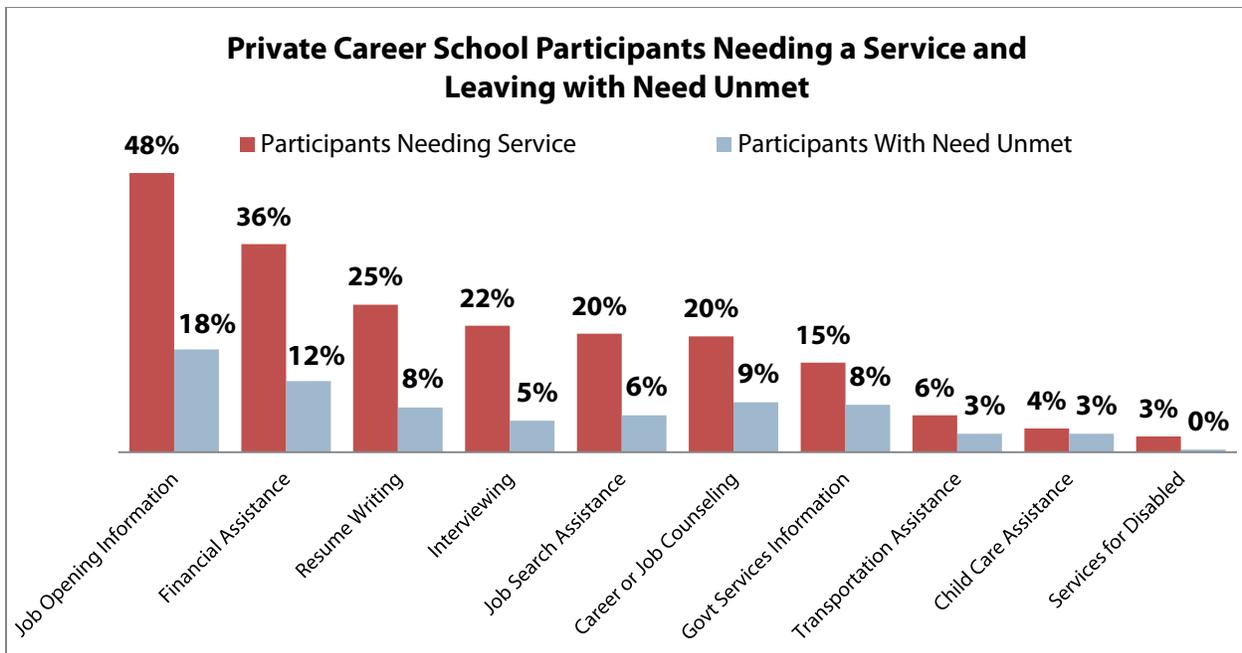


Source: Workforce Board's Participant Survey 2013.

In most cases the needed services were provided. As in previous studies, participants said they were most in need of information about job openings and financial assistance. However, participants also reported the highest percent of unmet needs⁵ in these two areas. Just under one fifth of participants reported their need for job opening information was not met. Twelve percent indicated that their need for information regarding financial assistance was not met.

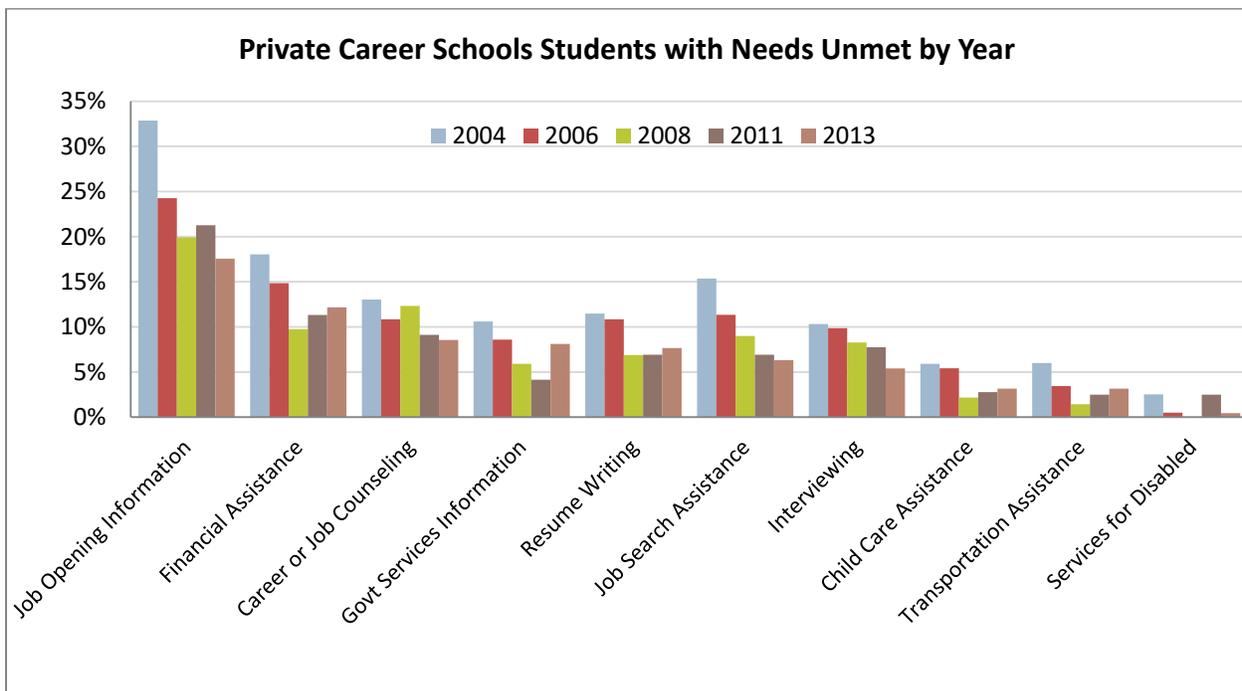
⁵ Unmet need refers to cases where the student reports that either they did not receive the required service or what was provided did not meet their needs.





Source: Workforce Board's Participant Survey 2013.

In the past decade there has been an overall decline in the percentage of participants reporting they left private career schools with unmet needs.



Source: Workforce Board's Participant Surveys 2004-13.



Net Impact - Did Program Make a Difference in Participant Success?

Every four years the Workforce Board conducts a net impact analysis of workforce development programs. This detailed study compares participants and non-participants. The net impact part of this study attempts to measure whether the program made a difference in the participant's success. Washington is the only state to periodically conduct rigorous net impact evaluations of its workforce programs.

Private Career School programs have positive net impacts on hourly wages and annualized earnings.

The net impact analysis was conducted by the W.E. Upjohn Institute for Employment Research (Upjohn), a national leader in evaluating training programs. To do the analysis, Upjohn studied program participants to see what results they achieved and compared these results with a control group. Individuals who participated in a Private Career School program were compared to individuals who had similar demographic characteristics, but who did not participate in any of the programs included in the study. The comparison group members were selected from among those who registered with WorkSource, Washington's one-stop career center system.

The most recent net impact analyses examined experiences of participants who left the Private Career Schools through 2009. The short-term impact (Program Year 2007-08) was observed in 2008-09, while the long-term impact (Program Year 2005-06) was observed from 2006-07 through 2008-09.

Impact on Employment and Earnings: Participants vs. Control Group

Private Career Schools	Short-term [^]	Long-term [^]
Net Employment Impact*	No significant positive impacts	3.40 percentage points
Net Hourly Wage Impact**	\$1.11	\$0.67
Net Hours Employed per Quarter Impact	20.8	27.1
Net Annualized Earnings Impact**	\$2,674	\$2,251

[^]Short-term is three quarters after program exit; Long-term is average across three years since program exit.

*Percentages listed are employment percentage points above those of the control group of non-participants.

**Wages and earnings, expressed in first quarter 2014 dollars, represent the average difference between Private Career School participants who got jobs, and those in the control group who were employed.

Private Career School participants experienced positive long-term net impacts on their employment, hours worked per quarter, and on annualized earnings. In the short-term, Private Career School participants did not experience the same positive net impact on employment but did benefit from higher hourly wages; hours worked per quarter and increased annualized earnings.



Costs and Benefits

The cost-benefit analysis estimates the value of the net impact on earnings, employee benefits (estimated at 25 percent of earnings), UI benefits, and certain taxes. Program costs include both direct program costs and support payments borne by the state and the tuition and foregone earnings borne by students. Benefits and costs are calculated for both the observed period of time and based upon a statistical model that estimated the benefits and costs out to age 65. In order 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 2014 Q1 dollars to control for inflation. The benefits and costs presented here are based on impacts estimated for students leaving programs in 2005-2006 (observed from 2006-07 through 2008-09), because a longer-term follow-up is required for this analysis.

Participant and Public Benefits and Costs per Participant in Private Career Schools

Benefit/Cost	First 2.5 years		Lifetime (until 65)		Sum of Costs and Benefits
	Participant	Public	Participant	Public	
Benefits					
Earnings	\$3,074	\$0	\$15,396	\$0	
Fringe Benefits	\$769	\$0	\$3,849	\$0	
Taxes	-\$574	\$574	-\$2,871	\$2,871	
Transfers					
UI	-\$725	\$725	-\$738	\$738	
Costs					
Foregone net earnings	-\$2,052	-\$359	-\$2,052	-\$359	
Program costs	-\$10,619	\$0	-\$10,619	\$0	
Benefits	\$2,544	\$1,299	\$15,636	\$3,609	
Costs	-\$12,671	-\$359	-\$12,671	-\$359	
Total (Net)	-\$10,127	\$939	\$2,965	\$3,250	\$6,215

Note: Benefits and costs are expressed in 2014 first quarter dollars.

For each student in a private career school program, tuition is estimated at an average of \$10,619, although there is wide variability among schools and programs, and students frequently receive financial aid. Student costs include an average of \$2,052 in foregone earnings while in training, and the public (taxpayer) costs include \$359 in lost tax revenues from the foregone earnings. During the first two and one-half years after leaving a school, the average trainee will gain about \$3,074 in earnings. During the course of working life to age



65, the average trainee will gain about \$13,334 in net earnings (earnings minus foregone earnings) and \$3,849 in employee benefits.

These are net gains compared to the earnings of similar individuals who did not receive training. Including program costs and the net impacts on taxes and unemployment insurance benefits, the total net benefit per participant is \$2,965.

From the time of leaving training to age 65 the public is expected to gain \$2,871 in net additional Social Security, Medicare, federal income, and state sales taxes and to save \$738 in UI benefits. The estimated lifetime net benefit to taxpayers is \$2,965 per participant.⁶

Summary, Areas for Improvement, and Further Research

Private career schools are independent businesses that provide participants with training in a variety of occupations. The schools reviewed here are licensed by the Workforce Board, offer certificated programs, and had a median attendance of three months. Consistent with this length of training, the completion rate is high (79 percent) while employment and earnings are modest-- 60 percent reported employment and median annual earnings were \$22,026. However, it should be noted that earnings moved up significantly from last year's report, when participants earned just over \$20,800.

Students who completed their training were 2 percentage points more likely to find work. Earnings were also 6 percent higher when compared to the group overall. The employment rate of private career school participants dropped from last year, but median hours worked rose, which increased annual earnings despite a lower median hourly wage rate.

Participants reported relatively high rates of disconnect between their training programs and employment. For example, 36 percent said their training was unrelated to their job and 34 percent reported their training was unhelpful in getting hired. Despite this unfavorable feedback, participants reported that job-specific training "helped a lot." Generally speaking, the percent of students reporting unmet needs has declined over time, but job opening information continues to be the biggest need that private career school students say isn't being met.

The long-term net impact on employment and earnings is positive, but whether or not the net impact is sufficient to offset the cost of training depends on a particular program's tuition and fees (tuition and fees vary widely among the schools), the financial aid students receive, and employment and earnings of students after they leave school. As a result, there is a premium on students being well-informed consumers when they choose a school.

⁶ Financial aid is outside the scope of this study and is not included in either the public or participant cost estimates.





Workforce Training and Education Coordinating Board

2015 Workforce Training Results

Workforce Investment Act Title I-B Adult Program

Program Details

All customers age 18 and older who walk into a WorkSource Center are eligible for core services through the federal Workforce Investment Act (WIA) Title I-B Adult program - from skill assessments to job search and placement assistance.

These core services include:

- Skill assessment.
- Labor market information.
- Consumer reports on training programs.
- Information on job openings.

Every year, the Workforce Board measures the performance of key workforce programs. In this report, you'll find out more about the program and who is served, the metrics used to measure performance and how the program performed.

Core services tend to be self-service and do not require participants to meet certain eligibility requirements. Instead, they are part of the primary offerings at Washington's WorkSource Centers, helping a wide variety of job-seekers find their way back into employment.

For some, particularly those unable to land a job through the above core services, the WIA Adult program provides intensive services. These services include:

- More intensive assessments.
- Individual counseling.
- Career planning.
- Short-term pre-vocational services.

More than half of the program participants (approximately 55 percent) also participated in job training where training costs are supported by the WIA Adult Program. For this 2015 report, researchers studied the results of 2,778 participants who left the WIA Adult program during the most recent reporting year.¹

¹ The 2015 Workforce Training Results reports are based on data observed as recently as 2013-2014 for individuals exiting programs during 2012-13.

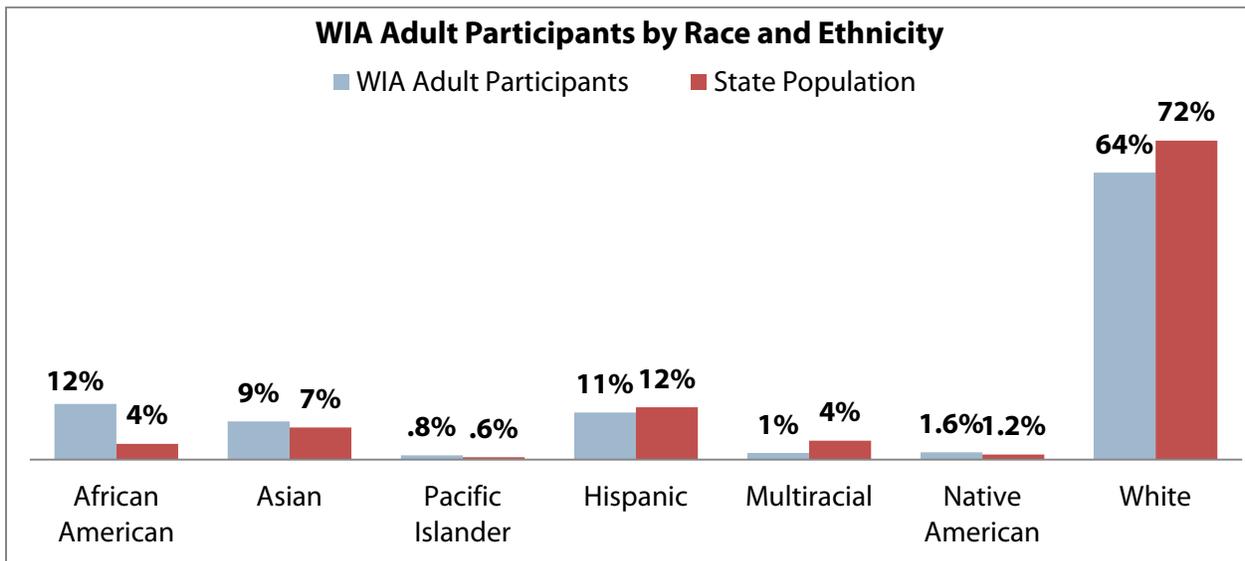


Workforce Innovation and Opportunity Act to replace WIA

The Workforce Innovation and Opportunity Act passed in the summer of 2014 with broad bipartisan support. It's the first federal reform of the workforce system in 15 years. WIOA replaces and modifies the Workforce Investment Act (WIA), which started in 1998. WIOA provides a framework for better integration and seamless delivery of services across programs and funding streams, with a focus on improving economic outcomes for jobseekers and filling the skills gap for employers. The majority of WIOA provisions become effective on July 1, 2015, with additional requirements set for July 1, 2016. The Workforce Board has been designated by Governor Inslee to oversee planning and policy development for Washington's effective implementation of WIOA. The WIA program remains in effect as WIOA is implemented over the coming year.

Participant Profile

Participants in the WIA Adult program were more likely to be a racial or ethnic minority than the general population in Washington, largely due to the overrepresentation of African Americans in the program.² Among program participants, 11 percent were Hispanic (versus 12 percent in the general population), and 12 percent were African American (versus 4 percent in the general population). Representation among white participants was 64 percent, 8 percentage points below their proportion of the state population.

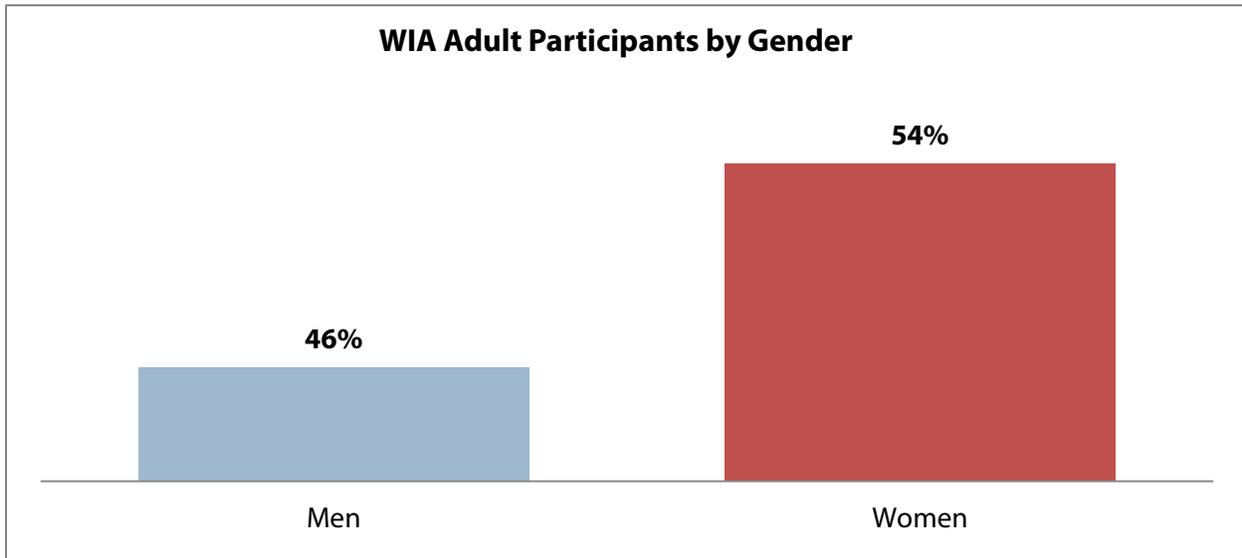


Source: WIA Standardized Record Data (WIASRD) and 2012 U.S. Census Data from the American Community Survey.

² In this report, unless otherwise stated, racial and ethnic minority groups are mutually exclusive; that is, an individual belongs to one group only. The groups include the following: Hispanics of any race (also referred to as Hispanics); non-Hispanic African Americans (also referred to as African Americans); non-Hispanic Asians (also referred to as Asians); non-Hispanic Pacific Islanders (also referred to as Pacific Islanders); non-Hispanic Native Americans and Alaskan Natives (also referred to as Native Americans); non-Hispanic multiracial (also referred to as multiracial); and non-Hispanic whites (also referred to as whites).



A higher percentage of women than men participated in the WIA Adult program (54 percent versus 46 percent). This rate is similar to last year (55 versus 45 percent).



Source: WIASRD and Office of Financial Management.

Upon enrollment, 11 percent of the participants had neither a high school diploma nor a GED, 33 percent had a high school diploma as their highest credential, 15 percent had a GED, and 42 percent had previously attended college. Nine percent had limited English proficiency and 59 percent received public assistance while enrolled in the program.³

The median age of participants when leaving the program was 36. One quarter of the participants were age 28 or below when leaving the program and one quarter were over 48 years of age at program exit.

Tracking WIA Adult Progress

The Workforce Board routinely measures the performance of our state's largest workforce programs. As a customer-focused advocate for Washington's workers and employers, the Workforce Board strives to provide performance accountability, verifying whether worker education and training programs provide a return on investment for participants and taxpayers.

³ Public assistance recipients includes 59 percent who received cash assistance from state or local General Assistance, Refugee Cash Assistance, or Supplemental Security Income; 9 percent who received Temporary Aid for Needy Families (TANF) assistance; and 8 percent who received both types of assistance.



The Workforce Training Results report seeks to answer five core questions:

- Did participants get the skills they needed?
- Did participants get a job and how much were they paid?
- Were employers satisfied with the preparation workers received?
- Has the program made a difference in the participant's success?
- Did participants and the public receive a return on their investment?

Data Comes From State Wage Files, Employer Survey

The 2015 Workforce Training Results includes information obtained from Employment Security Department wage files in Washington, Idaho, and Oregon, and federal employment records for 2013-14. Information on employer satisfaction among firms that hired new employees who recently completed a WIA program was assessed through the Workforce Board's 2012 Employer Survey.⁴

Net Impact Study Adds More Insight into Program Performance

In addition, the report includes a comprehensive Net Impact Study. Conducted every four years, this study provides a head-to-head comparison of participants and non-participants to help answer a central question: How much of a workforce participant's success in obtaining a job, or a higher wage, is due to the workforce program? By comparing program participants with similar individuals who did not participate in a workforce training program, the Net Impact Study indicates whether employment and earnings gains are due to the workforce program, or if workers could have made this progress on their own. This research also allows for a more detailed analysis as to whether the participant and the public received a return on their investment in the program.

Turn to page 18 for the Net Impact Study. Conducted every four years, this in-depth report adds extra value to 2015 Workforce Training Results. The study provides a side-by-side comparison of participants vs. similar non-participants, answering the question of whether the program is making a difference.

Did Participants Get the Skills they needed?

The study follows the progress of all WIA Adult participants who left the program during the most recent reporting year. The median amount of time spent in the WIA Adult program by this cohort was 7 months. There is some variation, however, as one quarter of participants were enrolled less than 4 months and one quarter longer than 15 months.

⁴ The Employer Survey includes employers who hired a participant who completed at least one of the three WIA programs: Adult, Dislocated Worker, or Youth.



An estimated 55 percent of these WIA Adult participants received training as part of their program. This means that 1,544 of those who left the WIA program received one or more types of training:

- Occupational skills training.
- Programs that combine workplace training with related instruction.
- Training programs operated by the private sector.
- Skill upgrading and retraining.
- Entrepreneurial training.
- Job readiness training.
- Customized training.
- On-the-Job Training.⁵

As a measure of whether participants got the skills they needed, this study tracks the credentials and degrees earned by participants. Among those leaving the WIA Adult program:

- 2 percent received a high school diploma/equivalency/GED.
- 6 percent received an associate's degree.
- 7 percent received an occupational skills license.
- 18 percent received an occupational skills certificate/credential.
- Less than one percent received another type of credential.

Most participants who received training through the WIA Adult program attended a state community or technical college to advance their education and skill levels.

Did Participants Have a Job and How Much Were They Paid?

To find out whether participants had jobs and how much they earned, participant records were matched with Employment Security Department wage files from Washington and neighboring states.⁶ The study looks at employment and earnings three calendar quarters after the participant left the WIA program. The chart below shows the employment and earnings of participants who exited the program during the most recent reporting year. Some 69 percent of WIA Adult participants were employed. Of those who were working, 61 percent were employed full time. The median hourly wage of those working was \$14.34, just over \$5 per hour higher than Washington's minimum wage of \$9.32 an hour in 2014. The median annual earnings among program participants was \$24,866.

⁵ Some 8 percent of participants received on-the-job training. This refers to training provided by an employer to a paid participant engaged in productive work that (a) provides knowledge or skills essential to the performance of the job; (b) provides reimbursement to the employer or up to 50 percent of the wage of the participant; and (c) is limited to the period of time required for a participant to become proficient in the occupation.

⁶ These files contain quarterly earnings and hours worked information on those individuals with employment reported for unemployment insurance (UI) benefits purposes (approximately 90 percent of in-state employment, with self-employment, active duty military, and those working for religious nonprofit organizations being the major groups of employers not included).



2014 Employment and Earnings for WIA Adult Participants

Performance Measure	Results
Employment Rate* (State Records)	69%
Full-Time Employment**	61%
Median Quarterly Hours	450 hours
Median Hourly Wage***	\$14.34
Median Annualized Earnings***	\$24,866

* These figures apply to those with employment reported to state employment agencies six to nine months after leaving the program. Rate does not include self-employment, employment outside the Northwest or military service and thus understates total employment by approximately 10 percent.

** Full-time employment averages 30 or more hours per week.

*** Earnings/wages expressed in first quarter 2014 dollars in order to account for inflation.

Earnings of WIA Adult Participants

The following table shows employment and earnings information over the course of five study periods.

Employment and Earnings Trends for WIA Adult Participants

Performance Measure	2010	2011	2012	2013	2014
Employment Rate* (State Records)	65%	62%	67%	69%	69%
Full-Time Employment**	60%	63%	61%	60%	61%
Median Quarterly Hours	435	452	442	443	450
Median Hourly Wage***	\$22,666	\$23,818	\$22,513	\$24,450	\$24,866
Median Annualized Earnings***	\$13.96	\$13.73	\$13.64	\$14.32	\$14.34

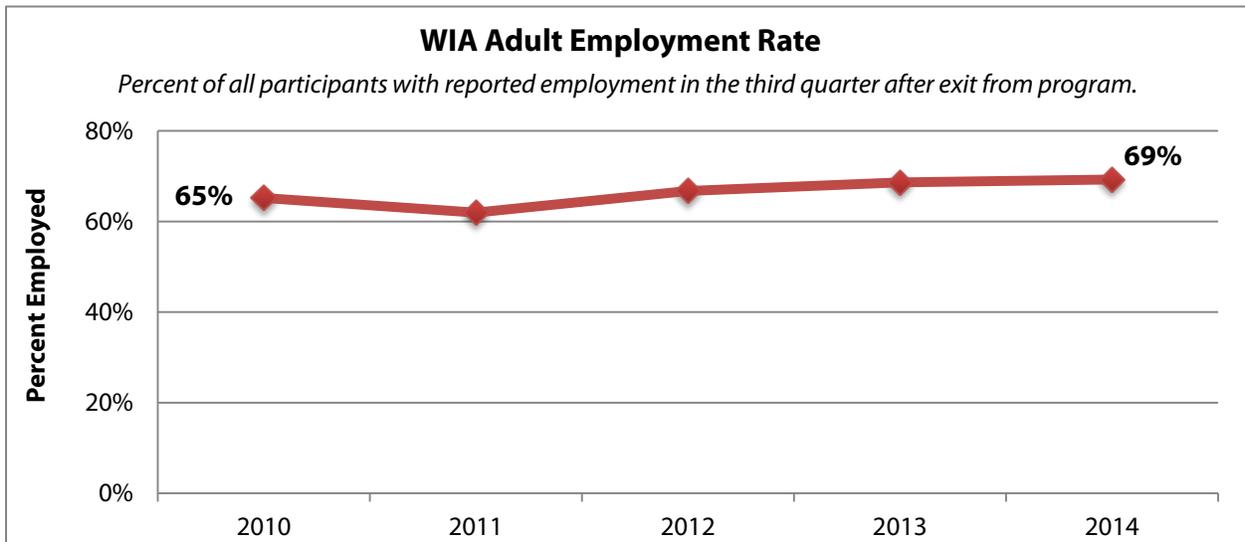
* These figures apply to those with employment reported to the state's Employment Security Department six to nine months after leaving program. Rate does not include self-employment, employment outside the Northwest or military service and thus understates total employment by approximately 10 percent.

** Full-time employment averages 30 or more hours per week.

*** Earnings/wages expressed in first quarter 2014 dollars in order to account for inflation.

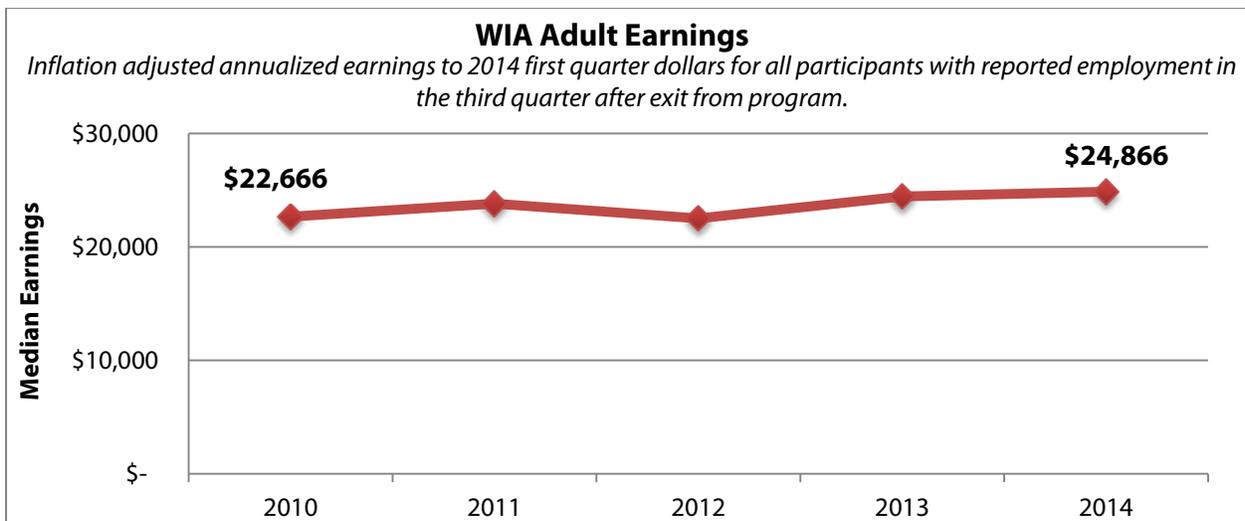


WIA adult participants' employment has increased each year since the low point of 62 percent in the 2012 Workforce Training Result.



Note: Rate does not include self-employment, employment outside the Northwest or military service and thus understates total employment by approximately 10 percent.

After a moderate dip to \$22,513 in 2013, annual earnings for WIA adult exiters have risen every year.



Note: This chart shows annualized earnings in 2014 first quarter dollars to account for inflation.



WIA Adult Participant Employment by Industry

The majority of employed WIA Adult program participants held jobs in three main areas:

- Services (57 percent)
- Manufacturing industries (15 percent)
- Retail trade (9 percent)

Employment in services decreased by nearly 3 percentage points from the 2014 report. The share of retail trade fell by more than a percentage point, while manufacturing's share increased by more than 2 percentage points.

Industry Group	
56.9%	Services
14.9%	Manufacturing
8.5%	Retail Trade
4.5%	Transportation and Warehousing and Utilities
4.4%	Construction
3.2%	Financial Services
3.0%	Wholesale Trade
2.3%	Public Administration
1.5%	Natural Resources and Mining
0.5%	Information
0.3%	Other NAICS GROUPS
Breakout of the Services Industry	
23.8%	Health Care
9.8%	Admin., Support, Waste Management, and Remediation Services
7.2%	Social Assistance
6.7%	Accommodation and Food Services
3.0%	Professional, Scientific, and Technical Services
2.9%	Education Services
2.4%	All Other Services
1.0%	Arts, Entertainment, and Recreation

Source: Matches with Employment Security Department data in third quarter after exiting program. Industry groups based on North American Industry Classification System (NAICS) codes.



Relationship of Training to Employment

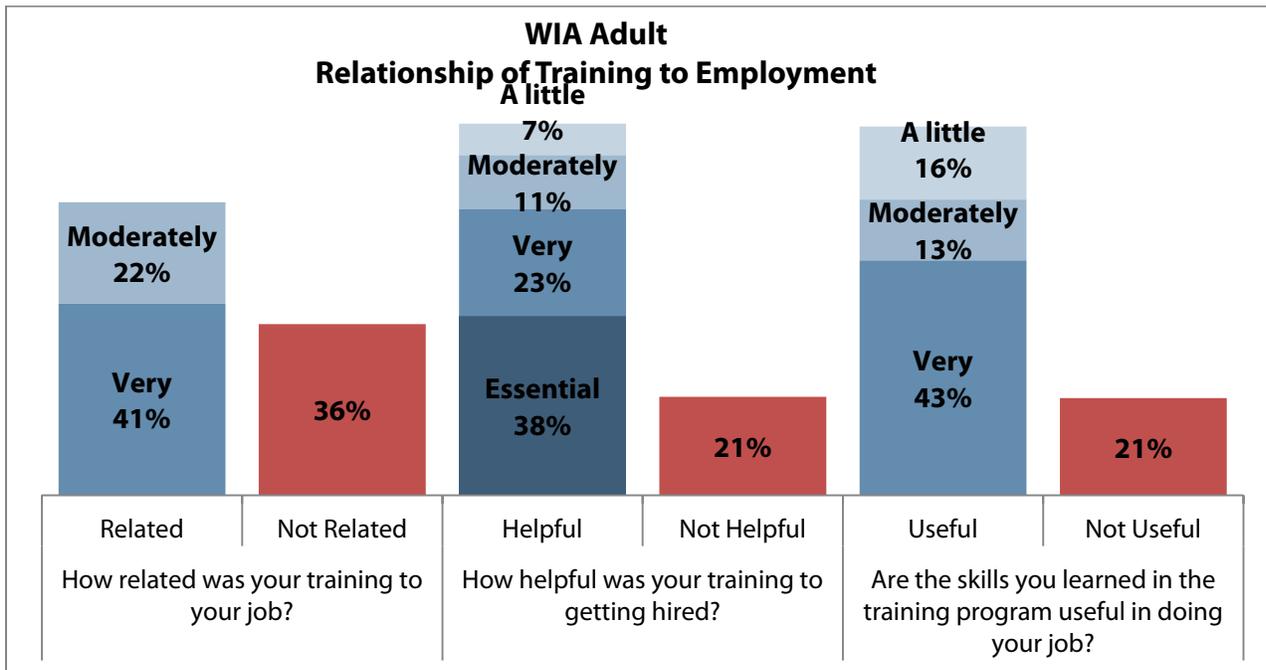
In 2013, the Workforce Board surveyed WIA participants who had left their program in 2011-12. The survey provided data on employment and participant satisfaction with the training. The survey was conducted by telephone and was completed by 227 participants.

To measure the extent to which a participant’s education program and training related to employment, we asked participants three questions.

1. How related was the program to their job?
2. How important was the training in getting hired?
3. Are the skills they learned useful in their job?

Asking about the relationship between training and employment in different ways can produce more complete information. For example, some participants said their training was not related to their job, but nevertheless found the skills acquired were useful on the job.

Among participants employed six to nine months after leaving a program, 41 percent said their training was “very related” to their job. A further 22 percent reported the training was “somewhat related” to their job. In 2008, the same rate of employed participants reported their training was related to their job.



Source: Workforce Board’s Participant Satisfaction Survey 2013.

Participants interviewed in 2013 also indicated the training was helpful to them in getting their job. Of those participants, 38 percent indicated their training was an “essential requirement,” another 23 percent indicated it was “very important,” 11 percent reported it was “moderately important,” and 7 percent said it was “a little useful.” Some 21 percent indicated their training was “not important at all” to getting their job.



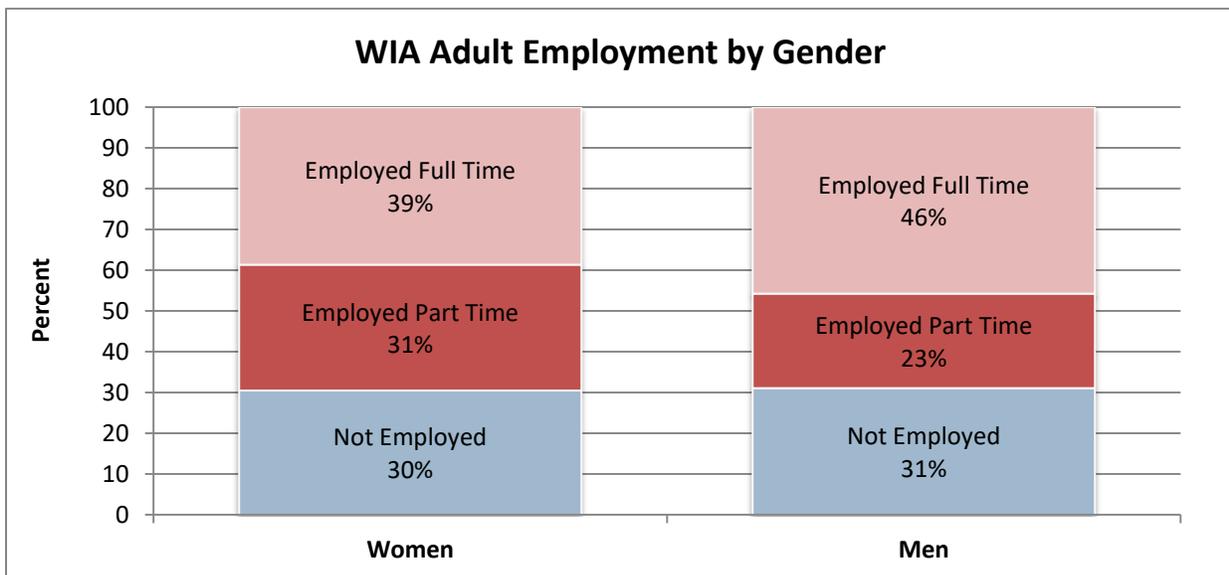
Most participants said the skills they learned in their training program were useful in doing their job. Forty-three percent of participants indicated the skills were “very useful,” 13 percent said “moderately useful,” and 16 percent “a little useful.” Just over one-fifth of participants who were employed indicated the skills were “not useful at all.”

When combining two of the questions about the program’s relationship to the job and about whether the skills acquired were helpful, a small percentage of participants answer negatively to both. Just 8 percent of participants employed the third quarter after exit said the training they received was *neither* helpful in their job nor related to the job they obtained.

Wages and Employment Results Vary by Population

Wage and employment results can vary by gender, race and ethnicity, and disability. The next chart shows the percentage of men and women WIA Adult participants who were reported to be employed. Also broken out is what percentage of those working held full-time jobs.

During the third quarter after leaving the program, 31 percent of women worked part time, while 39 percent worked full time to reach an overall employment rate of 70 percent. This was slightly higher than the overall employment rate for men (69 percent). However, fewer men were employed part time and were more likely than women to be employed full time (46 percent). Among those employed, the hourly wage rate for women (\$13.16) was 84 percent of men (\$15.72). The median annual earnings of women (\$22,559) were 79 percent of men’s (\$28,540).



Source: Matches with Employment Security Department data and WIASRD.



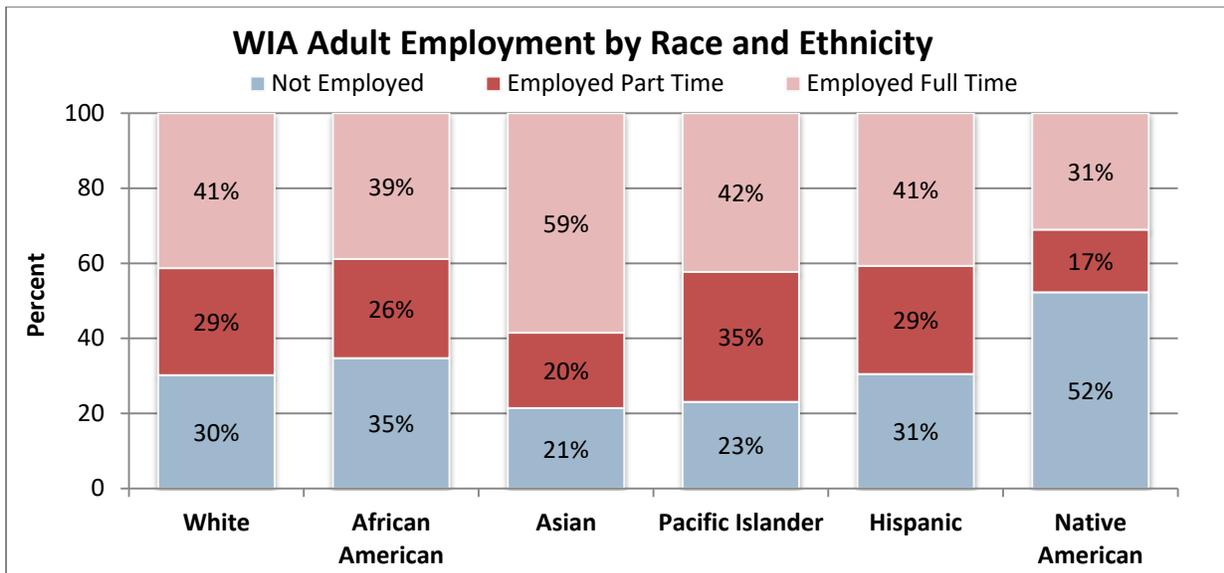
Race/Ethnicity Plays Role

Participants from racial and ethnic minority backgrounds were just as likely to be employed as white participants. Asians had the highest employment rate at 79 percent, and also the highest rate of full-time employment at 59 percent (part-time employment measured 20 percent). Pacific Islanders had the second highest overall employment rate at 77 percent. Other ethnic group employment rates ranged from 65-70 percent, with the exception of Native Americans (48 percent).

Pacific Islanders had the second highest full-time employment rate (42 percent), followed by whites and Hispanics (41 percent), and African Americans (39 percent). Native Americans had the lowest full-time employment at 31 percent.

Asian participants had the highest median hourly wage at \$15.17 followed by whites (\$15.04), Hispanics (\$13.97), Pacific Islanders (\$13.66), African Americans (\$13.22), and Native Americans (\$12.98).

Among program participants Asians had the highest median annual earnings at \$29,030, followed by whites (\$24,680), African Americans (\$24,452), Native Americans (\$24,001), Hispanics (\$23,652), and Pacific Islanders (\$23,535).

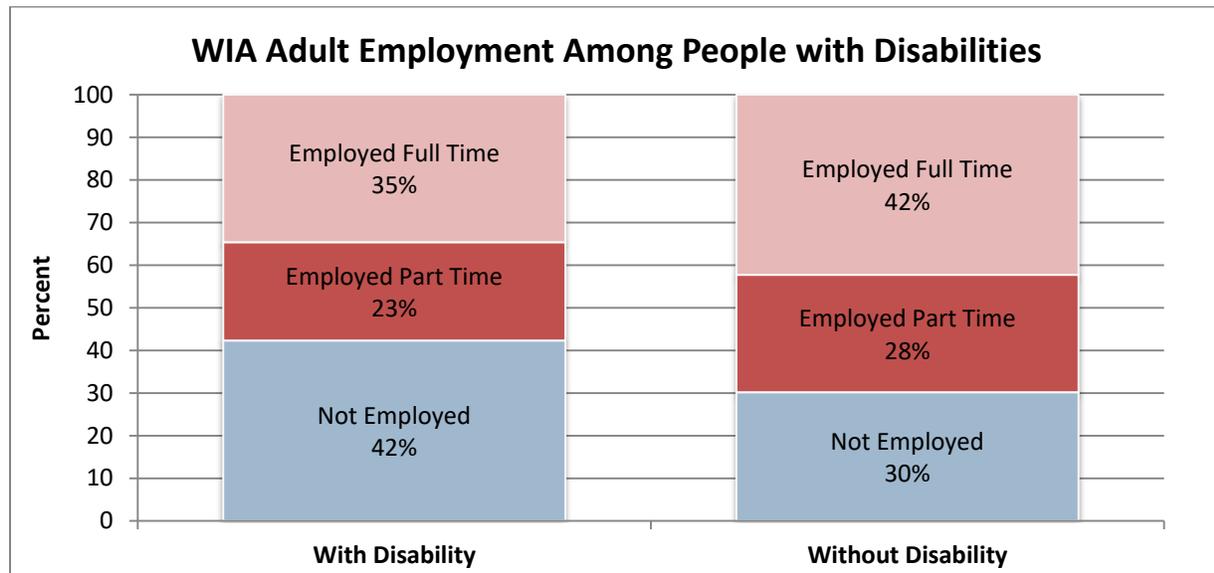


Source: Matches with Employment Security Department data and WIASRD.



Disability Impacts Employment, Earnings

Administrative records show 5 percent of the WIA Adult participants included in this study reported having a disability.⁷ Thirty-five percent of disabled persons worked full time, while 23 percent worked part time (to reach an overall rate of 58 percent). This is a lower employment rate than those without a disability (an overall rate of 70 percent). Those with disabilities worked had a full-time employment rate of 35 percent compared to 42 percent for those without disabilities. The median wage of participants who had a disability (\$14.13) was 98 percent of those without a disability (\$14.37). This is an improvement over last year when participants with disabilities earned 90 percent of those without a disability. Median annual earnings of those with disabilities were 92 percent of those without a disability (\$22,908 compared to \$24,929).



Source: Matches with Employment Security Department data and WIASRD.

Were Employers Satisfied with the Preparation Workers Received?

The Workforce Board's Employer Survey, administered during 2012, asked firms to evaluate new employees who had recently completed a WIA program. All three WIA Title I programs (Adult, Dislocated Worker, and Youth) were grouped together because there are relatively few participants in each category and employers would find it difficult to distinguish one from another. This section presents findings on employer satisfaction with new employees who completed *any type* of WIA program. Some 89 percent of employers said they were either "somewhat satisfied" or "very satisfied" with the overall work quality of these new employees.

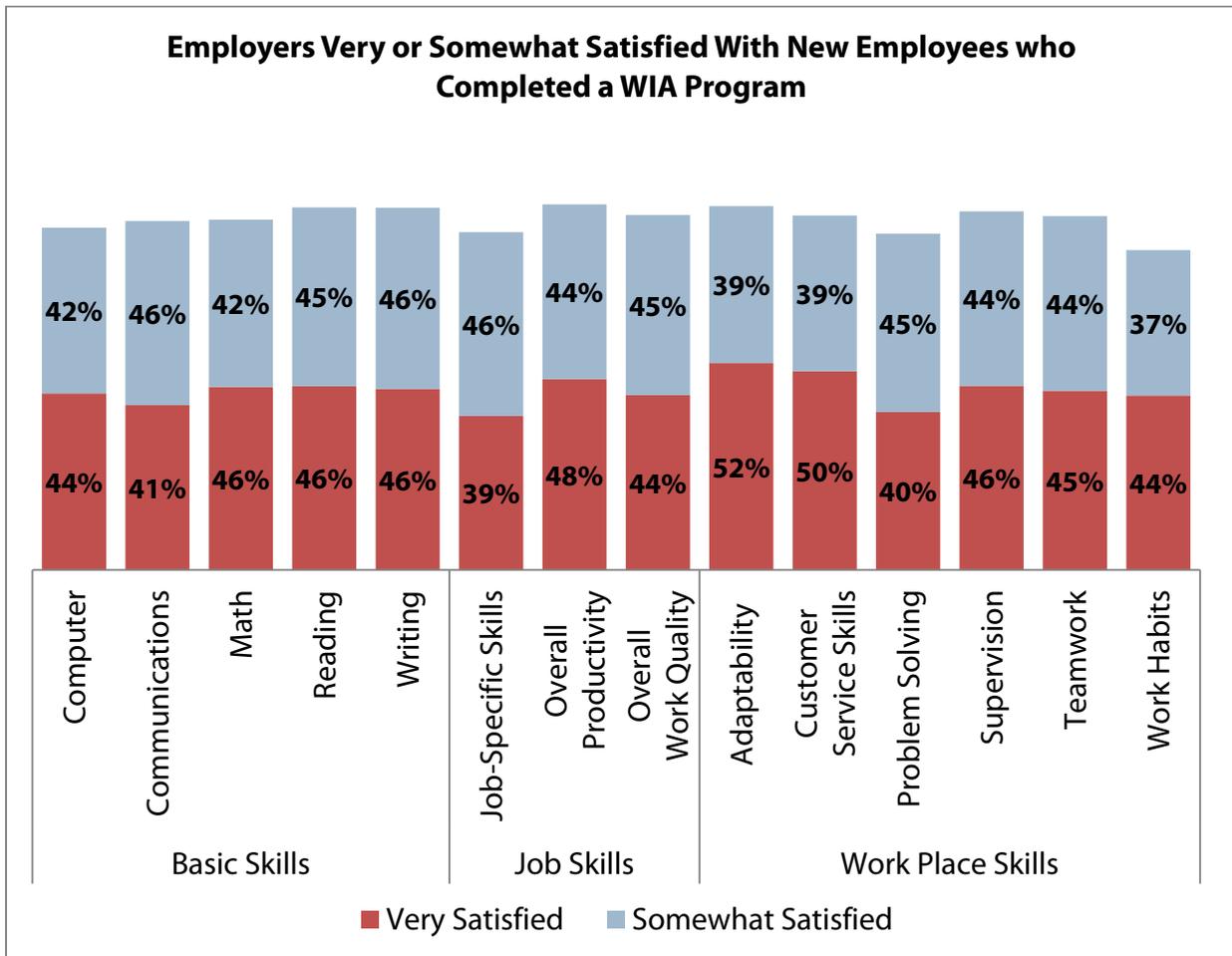
Employer satisfaction is broken down into three categories: Basic Skills, Job Skills and Work Place Skills. Basic skills refer to reading, writing, math, communication and computer skills.

⁷ In accordance with the Americans with Disabilities Act of 1990 a disability is defined as "a physical or mental impairment that substantially limits one or more of the person's major life activities."



Job skills refer to skills specific to the job, as well as overall work quality and productivity. Work place skills refer to the skills necessary to get along in the workplace such as the ability to accept supervision, the ability to adapt to changes in duties and responsibilities, teamwork, customer service, problem solving or critical thinking skills, and having positive work habits and attitudes.

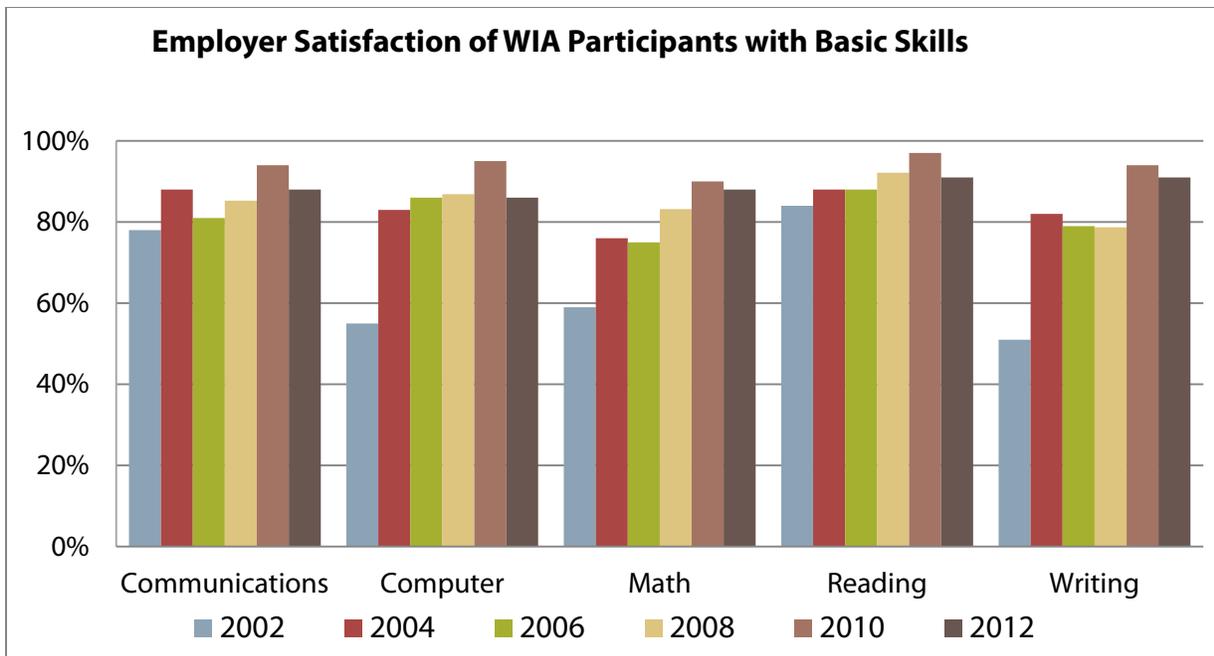
In 2012, between 39 and 52 percent of employers were very satisfied with the new employees' skills, depending on the skill type. Virtually all the remaining employers were somewhat satisfied.



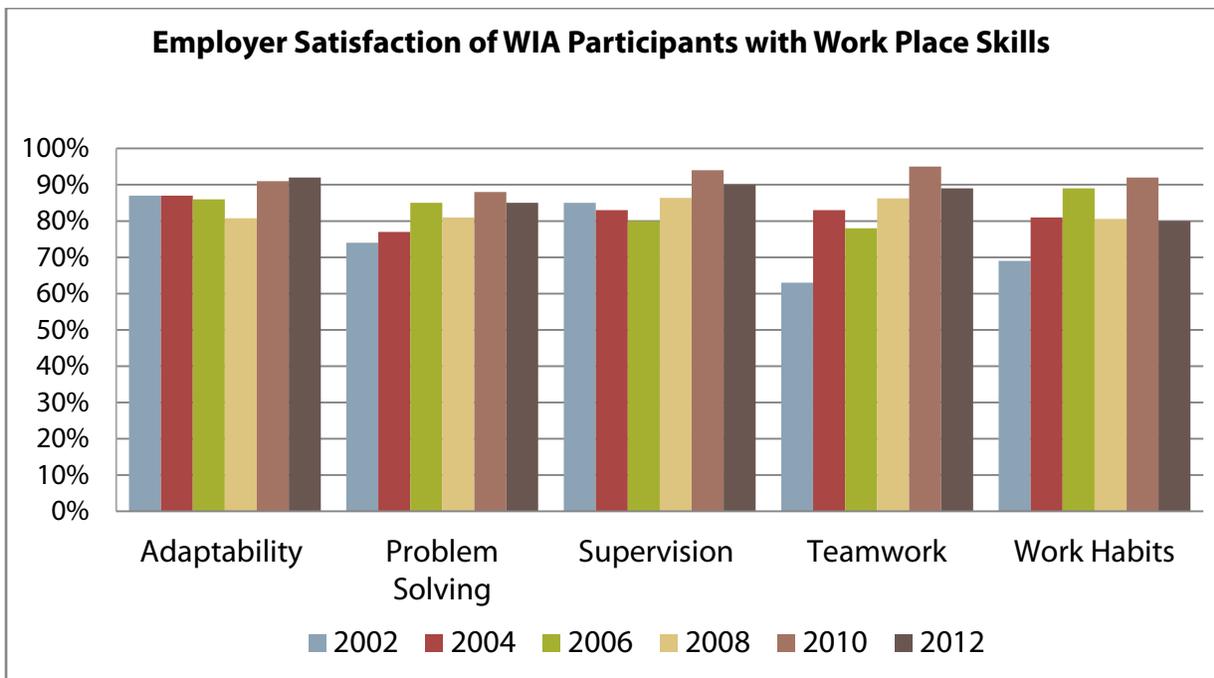
Source: Workforce Board Employer Survey conducted in 2012.

Overall, the levels of employer satisfaction (91 percent) reported in the Workforce Board's 2012 Employer Survey are slightly lower than on the previous survey, conducted in 2010. The following three charts show the trends in satisfaction of employers with new employees who recently completed WIA program. During the past decade there has generally been an upward trend in employer satisfaction.



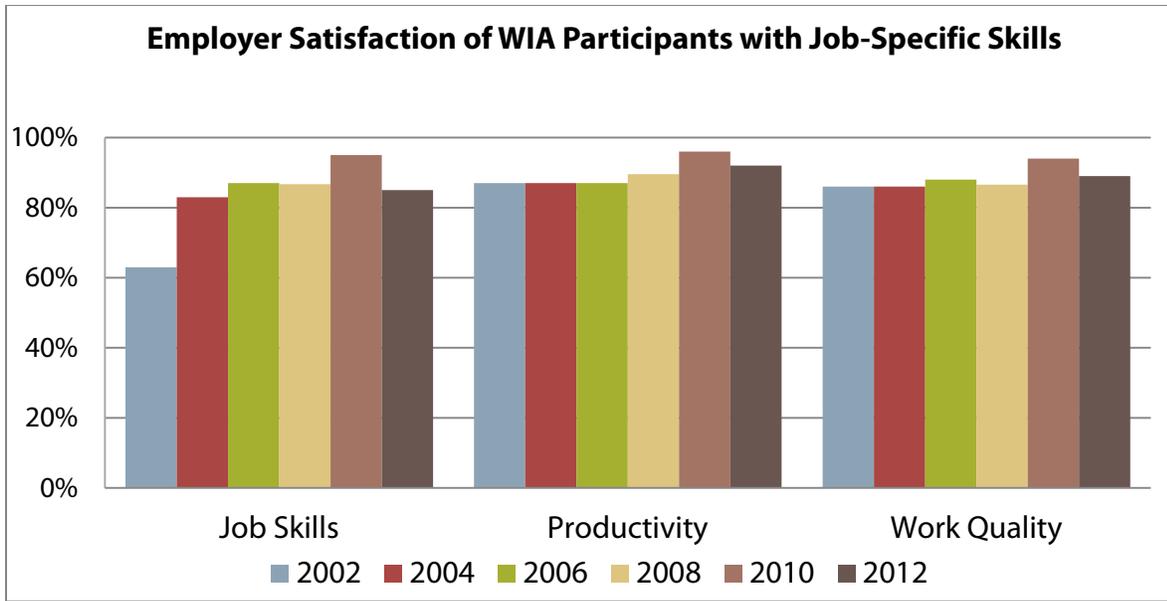


Source: Workforce Board's biennial Employer Surveys from 2002 through 2012.



Source: Workforce Board's biennial Employer Surveys from 2002 through 2012.



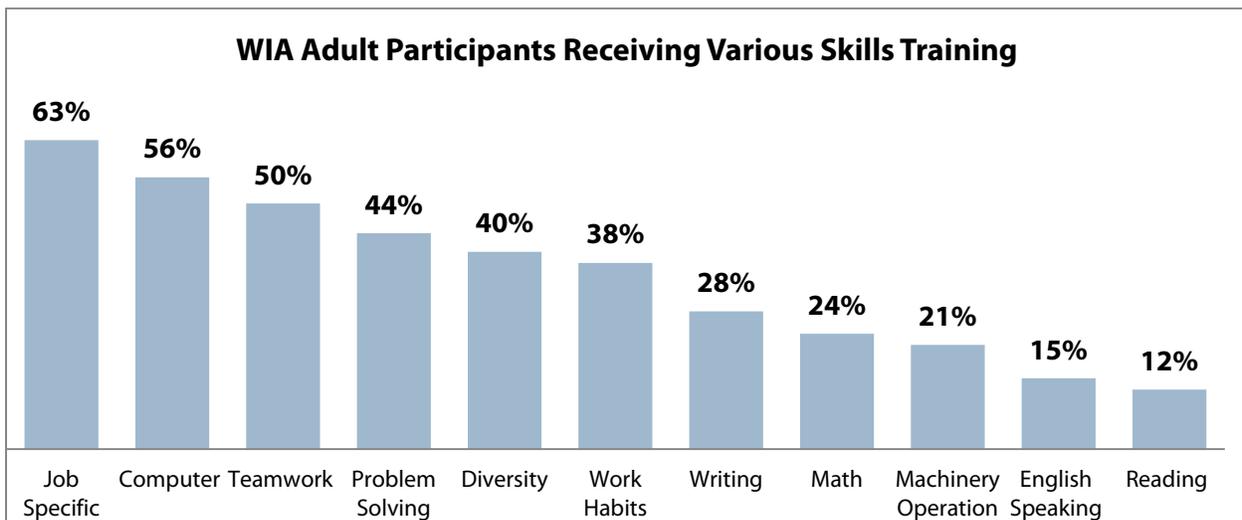


Source: Workforce Board's biennial Employer Surveys from 2002 through 2012.

Participant Survey

Most participants enroll in the WIA Adult program for employment-related reasons. Based on Participant Survey results, 78 percent of adults entered the program to learn skills for a new job, 70 percent enrolled to get job search assistance, and 48 percent enrolled for on-the-job training. Participants also indicated that they enrolled to improve basic skills (math 18 percent, reading 12 percent, and English speaking 15 percent).

Some 64 percent of WIA Adult participants reported receiving some type of training as part of their program. As in the previous study, the most common types of training were in job-specific and computer skills, among those who received training, 63 percent received job specific skills training and 56 percent received computer skills training.

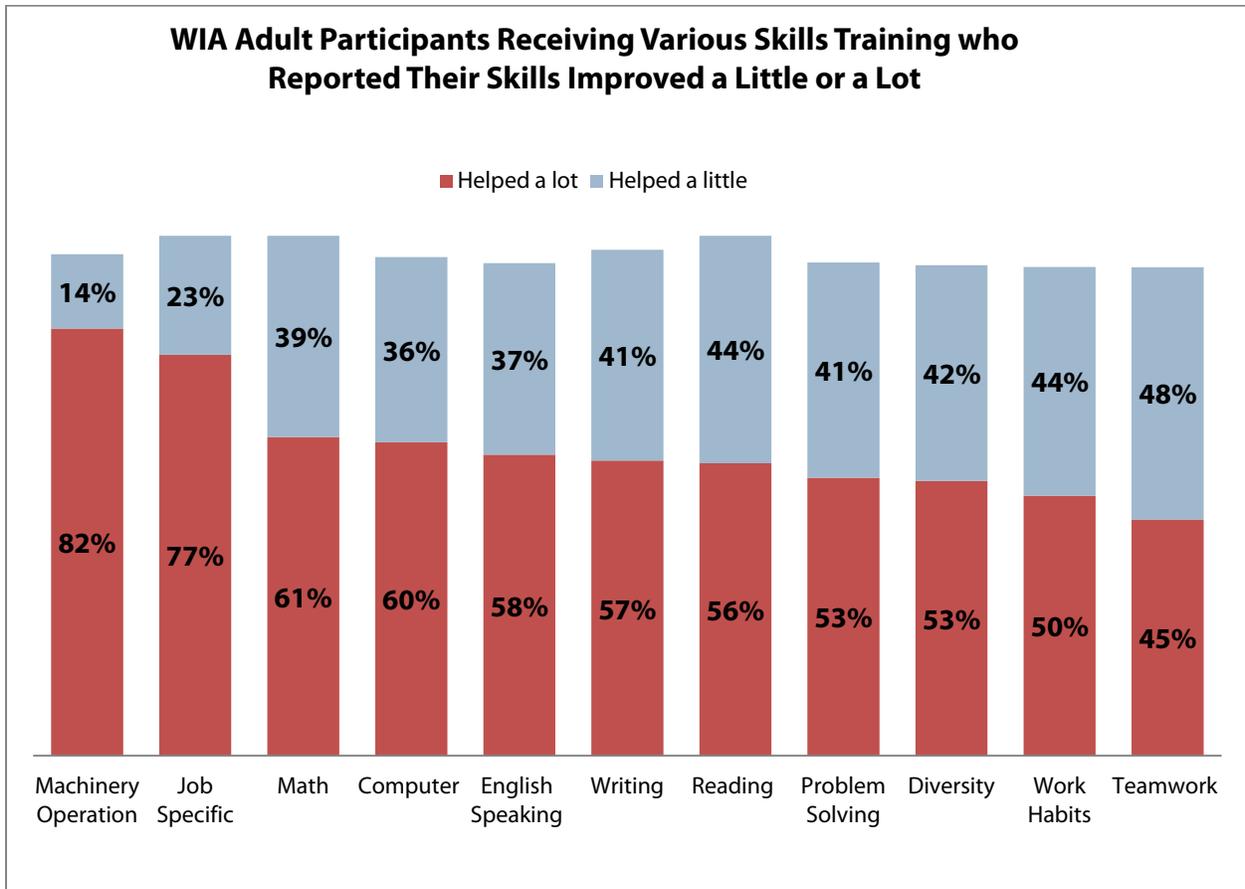


Source: Workforce Board's Participant Satisfaction Survey 2013.



The large majority of WIA Adult participants who received training felt it improved their skills. Similar to the 2011 survey, the percentage reporting their skills improved “a lot” was highest for occupational training; particularly machinery operation and job-specific skills.

Compared to the previous survey, participants reported similar levels of “a lot” of improvement in basic skills. Overall, participants were much more likely to respond that the training helped “a lot” versus helped “a little.”

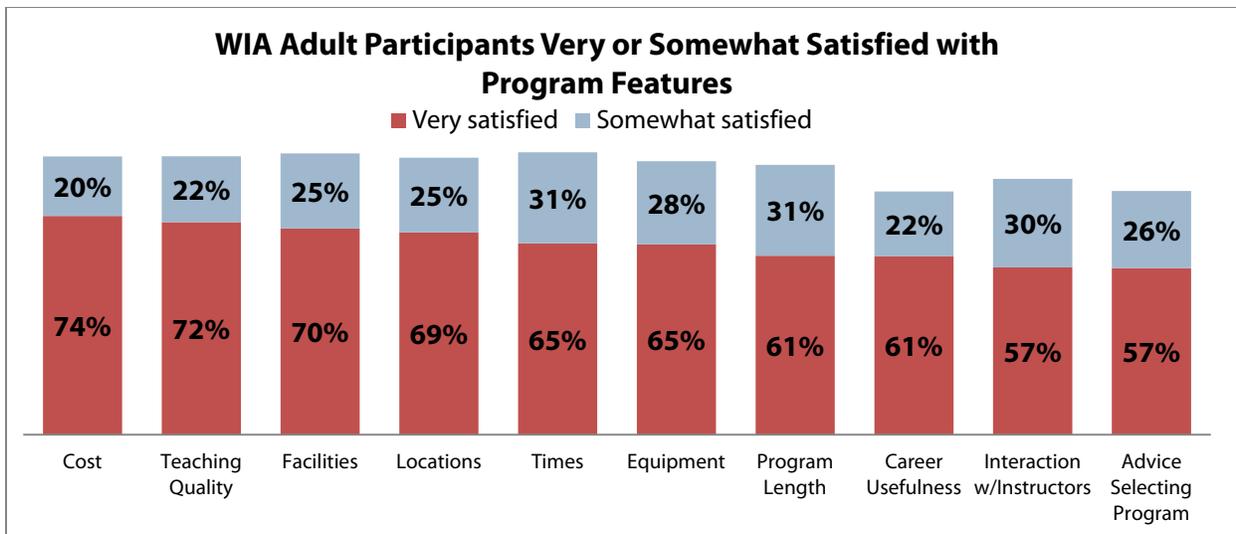


Source: Workforce Board's Participant Satisfaction Survey 2013.

Participant Satisfaction

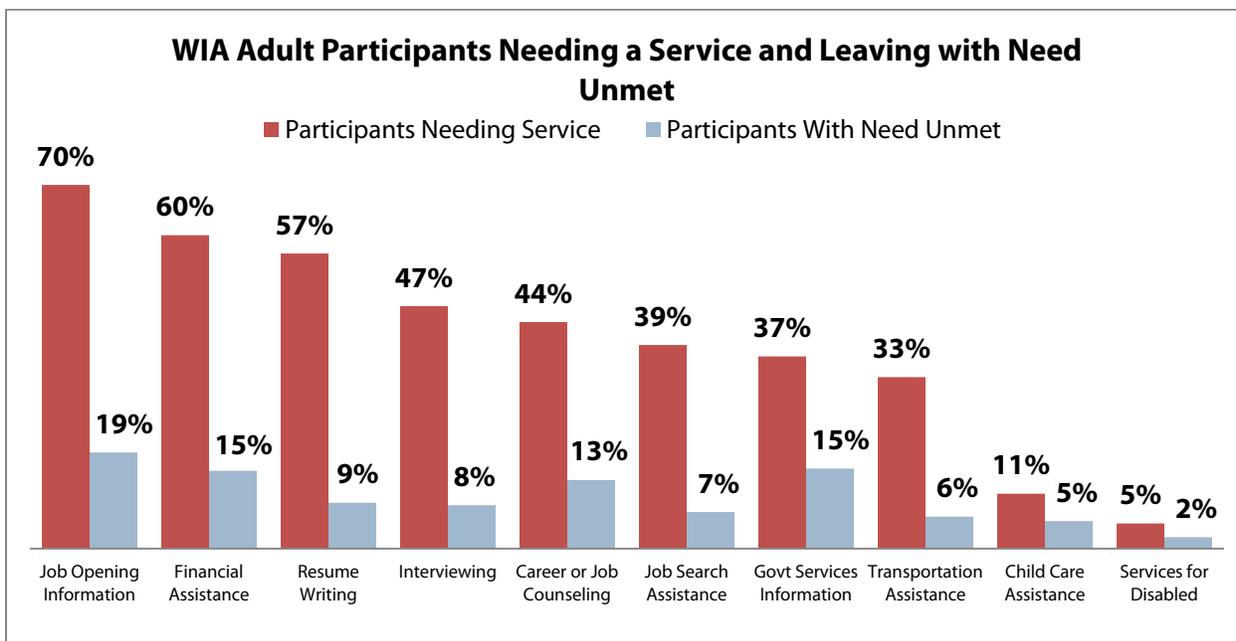
Some 90 percent of participants reported they were satisfied with the overall quality of the program. Also, 86 percent said their educational objectives were at least partially met; the same level as the last survey. Participants tended to be “very satisfied” with various features of the program including program cost, teaching quality, and facilities. Participants were less likely to indicate “a lot” of satisfaction with advice on selecting programs or interaction with instructors.





Source: Workforce Board's Participant Satisfaction Survey 2013.

Similar to previous surveys, WIA Adult participants frequently reported needing information on job openings and financial assistance. Most participants needing services received them.



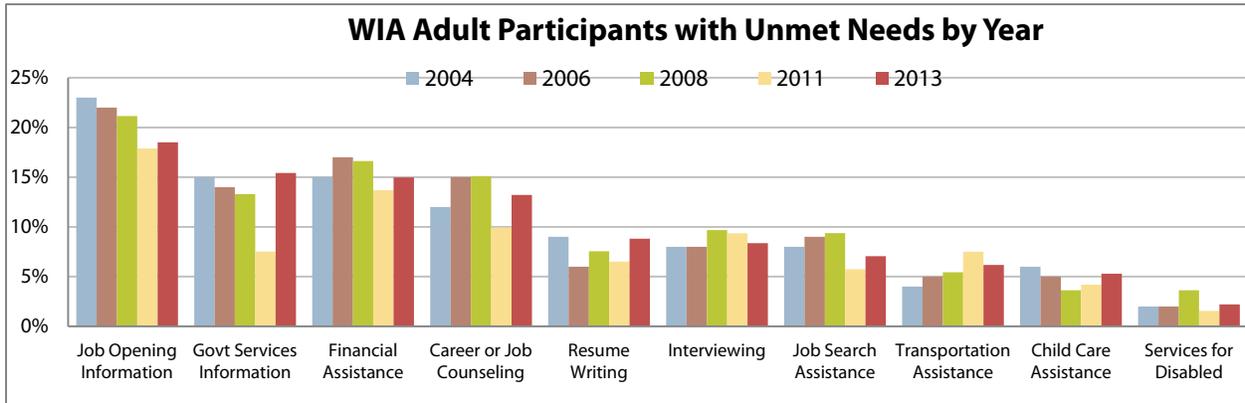
Source: Workforce Board's Participant Satisfaction Survey 2013.

The largest unmet need⁸ was for information about job openings, for which 19 percent of respondents reported an unmet need. This is not a new problem; although it dropped one percentage point from 2011, it ranged from 23 to 21 percent from 2004 to 2008. WIA Adult participants reporting unmet needs have declined in nearly every category since the previous

⁸ Unmet need refers to cases where the student reports that either they did not receive the required service or what was provided did not meet their needs.



survey, and in fact, since 2004. The exceptions are the percentage exiting with an unmet need for transportation assistance and career counseling.



Source: Participant Satisfaction Surveys 2004-2013.

Net Impact - Did Program Make a Difference in Participant Success

Every four years the Workforce Board conducts a net impact analysis of workforce development programs. This detailed study compares participants and non-participants. The net impact part of this study attempts to measure whether the program made a difference in the participant’s success. Washington is the only state to periodically conduct rigorous net impact evaluations of its workforce programs.

The WIA Title I-B Adult program has positive net impacts on employment, wages, hours worked, and earnings. Participation increases lifetime earnings.

The net impact analysis was conducted by the W.E. Upjohn Institute for Employment Research (Upjohn), a national leader in evaluating training programs. To do the analysis, Upjohn studied program participants to see what results they achieved and compared these results with a control group. Individuals who participated in a WIA Adult program were compared to individuals who had similar demographic characteristics, but who did not participate in any of the programs included in the study. The comparison group members were selected from among those who registered with WorkSource, Washington’s one-stop career center system.

The most recent net impact analyses examined experiences of participants who left the WIA Adult training program through 2009. The short-term impact (Program Year 2007-08) was observed in 2008-09, while the long-term impact (Program Year 2005-06) was observed from 2006-07 through 2008-09.

Impact on Employment and Earnings: Participants vs. Control Group

The analysis also separates out WIA Adult participants who received job training, in addition to other WIA services. Roughly 49 percent of WIA adult participants received some type of



formal training or education while the rest received core or intensive services only. (See program details at beginning of chapter for explanation of the range of services.)

In the table below, the WIA Adult participant employment rate in the short-term was 12.8 percentage points higher than the rate of those in the comparison group. WIA participants who received training achieved an employment rate that was 15.4 percentage points higher than their comparison group.

Similarly, the average annualized earnings of WIA participants who found jobs is higher (by the amounts listed below) than those non-participants who were employed.

WIA Adult	All WIA Adult Participants		Received Training	
	Short-term [^]	Long-term [^]	Short-term [^]	Long-term [^]
Net Employment Impact*	12.8 percentage points	10.8 percentage points	15.4 percentage points	13.2 percentage points
Net Hourly Wage Impact**	\$1.80	\$1.75	\$3.08	\$3.18
Net Hours Employed per Quarter Impact	73.6	43.6	91.2	56.6
Net Annualized Earnings Impact**	\$7,468	\$4,562	\$10,841	\$7,614

[^]Short-term is three quarters after program exit; Long-term is average across three years since program exit.

*Percentages listed are employment percentage points above those of the control group of non-participants.

**Wages and earnings, expressed in first quarter 2014 dollars, represent the average difference between WIA Adult participants who got jobs and those in the control group who were employed.

As can be seen above, WIA Adult program participants experienced gains in employment, hourly wages, hours worked per quarter, and net annualized earnings, when compared to the control group. Gains tended to be somewhat more pronounced in the short-term than the long-term, but were evident several years after completing the program.

Benefits and Costs

The cost-benefit analysis estimates the value of the net impact on earnings, employee benefits (estimated at 25 percent of earnings), UI benefits, and certain taxes. Program costs include both direct costs and support payments borne by the state and the foregone earnings borne by participants.

Benefits and costs are calculated for both the observed period of time and based upon a statistical model that estimated the benefits and costs out to age 65. 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 2014 Q1 dollars. The benefits and costs presented here are based on impacts estimated for participants leaving programs in 2005-2006 (observed from 2006-07 through 2008-09), because a longer-term follow-up is required for this analysis.

Participant and Public Benefits and Costs per Participant in WIA Adult Programs

Benefit/Cost	First 2.5 years		Lifetime (until 65)		Sum of Costs and Benefits
	Participant	Public	Participant	Public	
Benefits					
Earnings	\$9,586	\$0	\$43,352	\$0	
Fringe Benefits	\$2,397	\$0	\$10,839	\$0	
Taxes	-\$1,634	\$1,634	-\$7,392	\$7,392	
Transfers					
UI	-\$213	\$213	\$444	-\$444	
Costs					
Foregone net earnings	-\$2,454	-\$388	-\$2,454	-\$388	
Program costs	\$0	-\$5,773	\$0	-\$5,773	
Benefits	\$10,135	\$1,847	\$47,242	\$6,948	
Costs	-\$2,454	-\$6,161	-\$2,454	-\$6,161	
Total (Net)	\$7,681	-\$4,314	\$44,788	\$787	\$45,575

Note: Benefits and costs are expressed in 2014 first quarter dollars.

For each participant in WIA Adult programs, the public (taxpayer) cost is \$5,773 over the length of their enrollment, and the participant cost is \$2,454 in foregone earnings while enrolled. During the first two and one-half years after leaving the program, the average participant will gain \$9,586 in earnings. During the course of working life to age 65, they will gain about \$40,898 in net earnings (earnings minus foregone earnings) and about \$10,839 in employee benefits. These are net gains compared to the earnings of similar individuals who did not participate in a workforce program. Including program costs and the net impacts on taxes and unemployment insurance benefits, the total net benefit per participant is \$44,788.

Projected participant benefits to age 65 outweigh public costs for WIA Adult services and training by a ratio of \$8 to 1, or \$44,788 to \$5,773.

From the time of leaving the program to age 65, the public is forecast to gain almost \$7,392 per participant in net additional Social Security, Medicare, federal income, and state sales



taxes; the public, however, is expected to pay out \$444 per participant in total UI benefits. The estimated lifetime net benefit to taxpayers is \$787 per participant.

Projected taxpayer net benefits to age 65 outweigh public costs invested in WIA Adult services by a ratio of \$1.20 to 1, or \$6,948 to \$5,773.

Summary, Areas for Improvement, and Further Research

The WIA program provides services for adults seeking preparation or assistance for participation in the labor force. The services depend on what participants need to find suitable employment. Approximately 55 percent of participants reviewed in this study received vocational training.

For two consecutive years, WIA Adult exiters achieved employment rates of 69 percent – the highest level since the beginning of the Great Recession. Similarly, annual earnings, even on an inflation-adjusted basis, are above pre-recession levels. The program was found to have strong net impacts on participants' employment and earnings. The strongest net impacts were for those who received vocational training. This suggests the importance of continuing to provide vocational training to a majority of program participants.

Only 8 percent of the participants reported that their program was neither helpful in finding a job nor related to their employment. Some 78 percent of participants entered the program to learn skills for a new job, and 72 percent found the skills learned to be useful in doing their job. Some 90 percent of participants reported they were satisfied with the overall quality of the program. Also, 86 percent said their educational objectives were at least partially met.

One area that could be stronger is providing participants with information on job openings, financial assistance, and government services information. Nineteen percent of participants left their program with an unmet need for job opening information, and 15 percent with unmet needs for financial assistance and government services information.

The Workforce Development Councils indicate that they will continue to work with partners to provide job seekers with information on job openings; educating job seekers on the value of online tools; utilizing resource rooms, job clubs, workshops, and one-on-one meetings with WorkSource counselors; developing social media resources; and following up with participants one year after exit.





Workforce Training and Education Coordinating Board

2015 Workforce Training Results

Workforce Investment Act Title I-B Program for Dislocated Workers

Program Details

The Workforce Investment Act (WIA) Dislocated Worker program provides employment and training services to meet dislocated workers' needs; establishes early intervention for workers and firms facing substantial layoffs; and fosters labor, management, and community partnerships with government to address worker dislocation. In general, dislocated workers are individuals who lost jobs due to plant closures, or company downsizing, and are unlikely to return to their industry or occupation.

Dislocated workers are eligible for "core services" that include:

- Skills assessment.
- Labor market information.
- Consumer reports on training programs.
- Job search and placement assistance.

Intensive services and training are available for eligible dislocated workers unable to land a suitable job through the above core services. These services include:

- More intensive assessments.
- Counseling.
- Pre-vocational and vocational training.

For this 2015 study, program records were obtained on 3,129 individuals who left the program during the most recent reporting year.¹ Employment-related information was

Every year, the Workforce Board measures the performance of key workforce programs. In this report, you'll find out more about the program and who is served, the metrics used to measure performance and how the program performed.

¹The 2015 Workforce Training Results reports are based on data observed as recently as 2013-2014 for individuals exiting programs during 2012-13.



obtained through a match with the Employment Security Department (ESD) wage files from Washington, Idaho, and Oregon, and federal employment records.²

The typical participant was enrolled in the program for 12 months. There was, however, considerable variation in the amount of time participants spent in the program. One quarter of participants were enrolled for six months or less, while another quarter were enrolled for over 24 months.

Workforce Innovation and Opportunity Act to replace WIA

The Workforce Innovation and Opportunity Act passed in the summer of 2014 with broad bipartisan support. It's the first federal reform of the workforce system in 15 years. WIOA replaces and modifies the Workforce Investment Act (WIA), which started in 1998. WIOA provides a framework for better integration and seamless delivery of services across programs and funding streams, with a focus on improving economic outcomes for jobseekers and filling the skills gap for employers. The majority of WIOA provisions become effective on July 1, 2015, with additional requirements set for July 1, 2016. The Workforce Board has been designated by Governor Inslee to oversee planning and policy development for Washington's effective implementation of WIOA. The WIA program remains in effect as WIOA is implemented over the coming year.

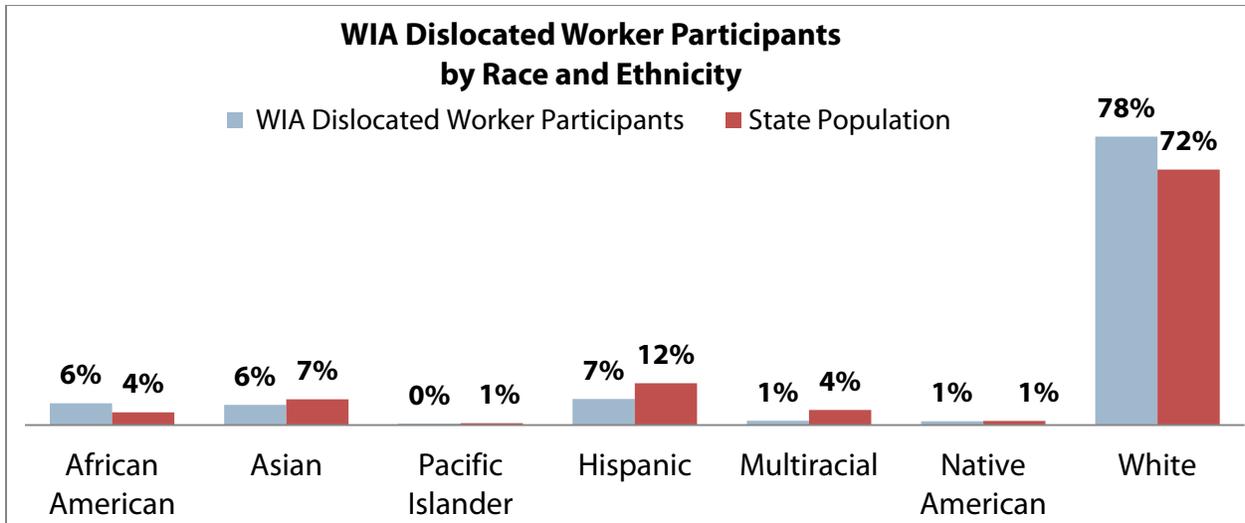
Participant Profile

Participants roughly mirrored the state's racial-ethnic population distribution with whites represented slightly above the state population estimate, and Hispanics and participants of more than one race slightly lower.³ An estimated 78 percent of participants were white, which is higher than the proportion whites have in the general population (72 percent).

² The employer survey includes employers who hired a participant who completed at least one of the three WIA Title I-B programs: Adult, Dislocated Worker, or Youth.

³ In this report, unless otherwise stated, racial and ethnic minority groups are mutually exclusive; that is, an individual belongs to one group only. The groups include the following: Hispanics of any race (also referred to as Hispanics); non-Hispanic African Americans (also referred to as African Americans); non-Hispanic Asians (also referred to as Asians); non-Hispanic Pacific Islanders (also referred to as Pacific Islanders); non-Hispanic Native Americans and Alaskan Natives (also referred to as Native Americans); non-Hispanic multiracial (also referred to as multiracial); and non-Hispanic whites (also referred to as whites).

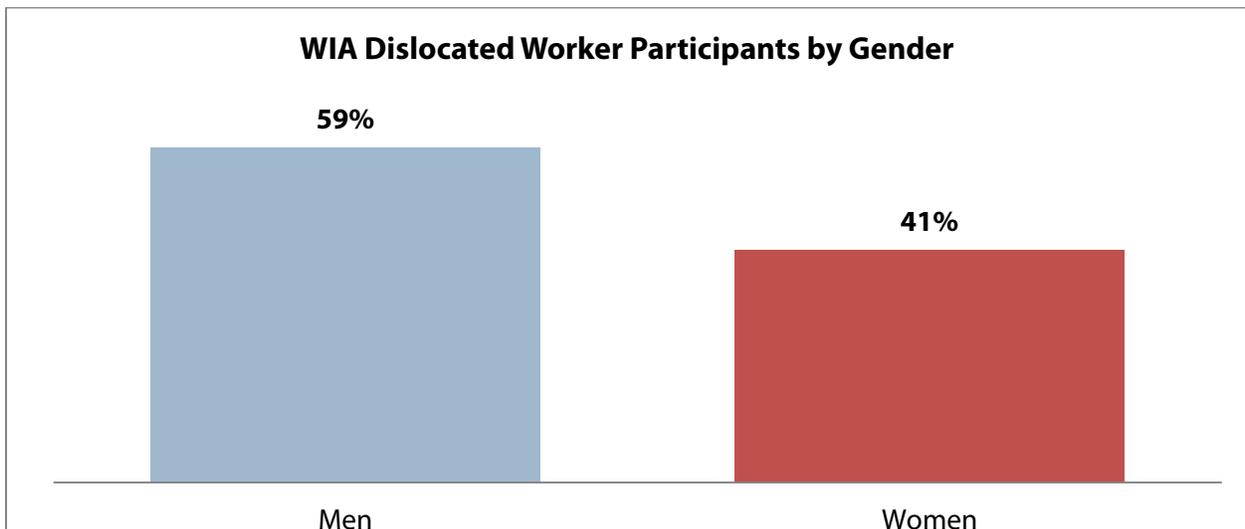




Source: WIA standardized record data (WIASRD) and 2012 U.S. Census Data from the American Community Survey.

The median age at program registration was 45, with one quarter age 53 and older and one quarter under age 36.

Women represented 41 percent of dislocated workers, down one percentage point from the program last year.



Source: WIA standardized record data (WIASRD).

At the time participants enrolled,

- 43 percent had not previously attended college.
- 36 percent had some college or an associate's degree.
- 21 percent had a bachelor's degree or higher.⁴

⁴ May not add to 100 percent due to rounding.



Tracking WIA Dislocated Worker Progress

The Workforce Board routinely measures the performance of our state's largest workforce programs. As a customer-focused advocate for Washington's workers and employers, the Workforce Board strives to provide performance accountability, verifying whether worker education and training programs provide a return on investment for participants and taxpayers.

The Workforce Training Results report seeks to answer five core questions:

- Did participants get the skills they needed?
- Did participants get a job and how much were they paid?
- Were employers satisfied with the preparation workers received?
- Has the program made a difference in the participant's success?
- Did participants and the public receive a return on their investment?

Turn to page 19 for the Net Impact Study. Conducted every four years, this in-depth report adds extra value to 2015 Workforce Training Results. The study provides a side-by-side comparison of participants vs. similar non-participants, answering the question of whether the program is making a difference.

Data Comes From State Wage Files, Employer Survey

The 2015 Workforce Training Results includes information obtained from Employment Security Department wage files in Washington, Idaho, and Oregon, and federal employment records for 2013-14. Information on employer satisfaction among firms that hired new employees who recently completed a WIA program was assessed through the Workforce Board's 2012 Employer Survey.⁵

Net Impact Study Adds More Insight into Program Performance

In addition, the report includes a comprehensive Net Impact Study. Conducted every four years, this study provides a head-to-head comparison of participants and non-participants to help answer a central question: How much of a workforce participant's success in obtaining a job, or a higher wage, is due to the workforce program? By comparing program participants with similar individuals who did not participate in a workforce training program, the Net Impact Study indicates whether employment and earnings gains are due to the workforce program, or if workers could have made this progress on their own. This research also allows for detailed analysis as to whether the participant and the public received a return on their investment in the program.

Did Participants Get the Skills They Needed?

⁵ The Employer Survey includes employers who hired a participant who completed at least one of the three WIA programs: Adult, Dislocated Worker, or Youth.



The study follows the progress of all WIA Dislocated Worker participants who left the program during the most recent reporting year.

As a measure of whether participants got the skills they needed, this study tracks the credentials and degrees earned by participants. Among those leaving the WIA Dislocated Worker program:

- 11 percent received an associate’s degree.
- Less than one percent received a bachelor’s degree.
- 7 percent received a license.
- 26 percent received a certificate.
- Less than one percent received another type of credential.

Taken together, 45 percent of all participants received a diploma, credential or degree, with a certificate being the most common (26 percent of participants).

Did Participants Have a Job and How Much Were They Paid?

To find out whether participants had jobs and how much they earned, participant records were matched with Employment Security Department wage files from Washington and neighboring states.⁶ The study looks at employment and earnings three calendar quarters after the participant left the WIA program.

At the time of program entry, 2015 WIA Dislocated Worker participants had slightly higher wages than those enrolled during the prior program year, but down a bit when compared to two years prior.



Source: Matches with Employment Security Department data.

⁶ These files contain quarterly earnings and hours worked information on those individuals with employment reported for unemployment insurance (UI) benefits purposes (approximately 90 percent of in-state employment, with self-employment, active duty military, and those working for religious nonprofit organizations being the major groups of employers not included).



The chart below shows the employment and earnings of participants who left the program during the 2012-13 program year. Record matches found 73 percent had reported employment the third quarter after leaving the program. The median hourly wage was \$18.44, and median annualized earnings were \$33,972.⁷ The typical (median) hourly wage replacement rate was 87 percent.⁸

2014 Employment and Earnings for WIA Dislocated Workers

Performance Measure	Results
Employment Rate* (State Records)	73%
Full-Time Employment**	72%
Median Quarterly Hours	481
Median Hourly Wage***	\$18.44
Median Annualized Earnings***	\$33,972

* These figures apply to those with employment reported to state employment agencies six to nine months after leaving the program. Rate does not include self-employment, employment outside the Northwest, or military service and thus understates total employment by approximately 10 percent.

**Full-time employment averages 30 or more hours per week.

***Earnings/wages expressed in first quarter 2014 dollars in order to account for inflation.

The median hourly wage of WIA Dislocated workers is relatively high at \$18.44, but there is considerable variation in wages. While one quarter of dislocated workers had a median hourly wage of over \$25.05 after program exit, another quarter had median hourly wages below \$14.23.

⁷ Annual earnings are calculated as third quarter earnings multiplied by four. Quarterly earnings are the result of hourly wage rates and the number of hours worked in a calendar quarter. All wages and earnings are stated in first quarter 2014 dollars.

⁸ Median wage replacement rate calculated using third quarter prior to registration compared to the third quarter post-program. (The median replacement rate was hourly post-wage (\$18.44)/pre-wage (\$21.27) = 86.7 percent.)



Distribution of Hourly Wages Third Quarter After Leaving	
Quartile	Hourly Wage
Highest	\$25.05 and up
Third	\$18.44-25.04
Second	\$14.23-18.43
Lowest	Below \$14.23

Source: Employment Security Department data matches.

Earnings of WIA Dislocated Worker Participants

The following table shows employment and earnings information over the course of five study periods.

Employment and Earnings Trends for WIA Dislocated Workers

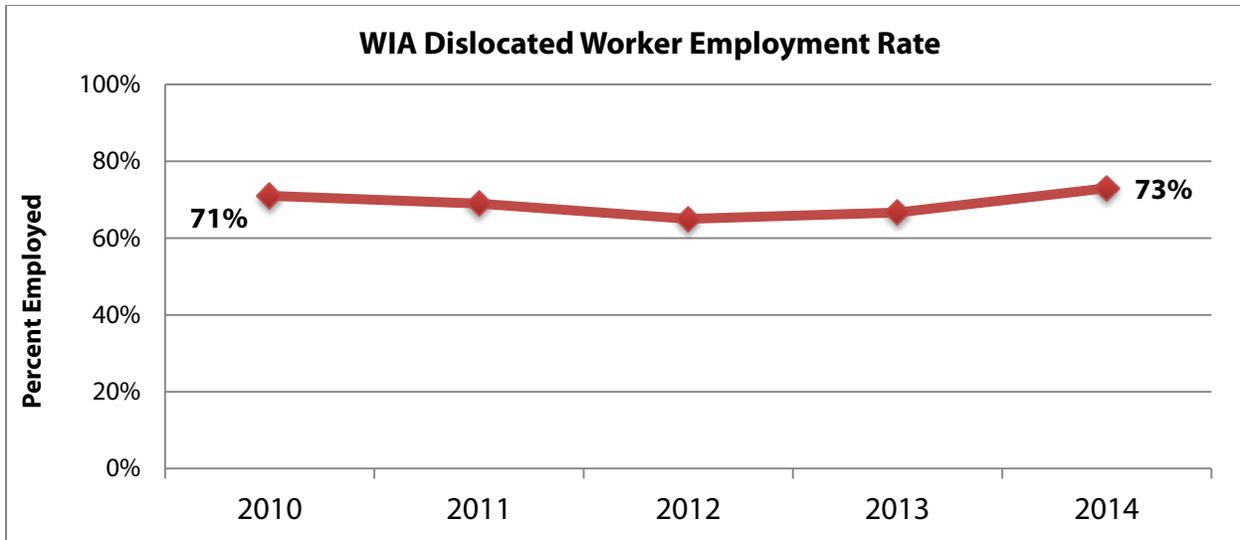
Performance Measure	2010	2011	2012	2013	2014
Employment Rate* (State Records)	71%	69%	65%	67%	73%
Full-Time Employment**	68%	56%	73%	73%	72%
Median Quarterly Hours	480	491	488	484	481
Median Hourly Wage	\$16.96	\$17.92	\$18.46	\$18.25	\$18.44
Median Annualized Earnings***	\$31,504	\$35,453	\$34,681	\$34,504	\$33,972

*These figures apply to those with employment reported to the state's Employment Security Department six to nine months after leaving program, and are not limited to those who completed a program. Rate does not include self-employment, employment outside the Northwest, or military service and thus understates total employment by approximately 10 percent.

**Full-time employment averages 30 or more hours per week.

***Earnings/wages expressed in first quarter 2014 dollars in order to account for inflation.





Note: The figure shows a percent of all participants with reported employment in the third quarter after exit from program. This rate does not include self-employment, employment outside the Northwest, or military service and thus understates total employment by approximately 10 percent.

The employment rate among participants is up by 8 percentage points since 2013 and 10 percentage points since 2010. However, median earnings have been declining since the 2012 peak of \$35,453. Current median wages are at their lowest level for dislocated workers participants since 2011.



Note: This chart shows annualized earnings in 2014 first quarter dollars to account for inflation.

WIA Dislocated Workers Find New Jobs in New Fields

Prior to program participation, 36 percent of participants were working in services, 21 percent were employed in manufacturing, 10 percent in construction and eight percent in retail trade. After training, 42 percent were employed in services, a six percentage point increase. There



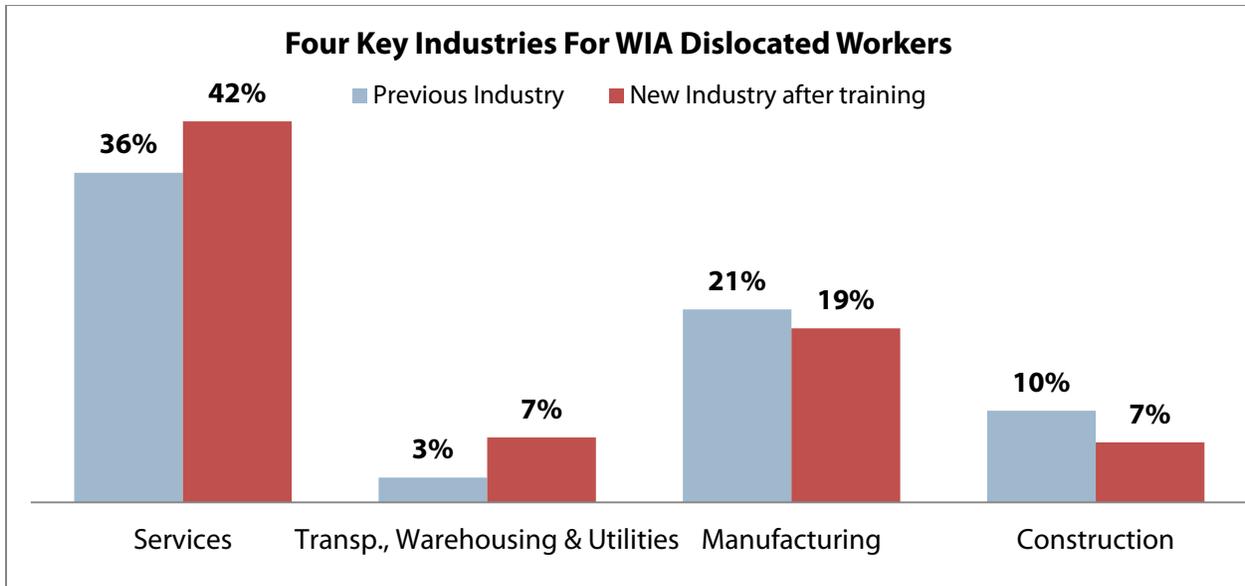
was a decline of two percentage points for WIA Dislocated Worker participants working in the Manufacturing industry. Within services, participants were most likely to end up in healthcare after training. Prior to training, only six percent were in health care, but after training, 13 percent were.

Industry	Pre-Program Employment	Post-Program Employment
Services	36%	42%
Manufacturing	21%	19%
Retail Trade	8%	8%
Transportation and Warehousing and Utilities	3%	7%
Construction	10%	7%
Wholesale Trade	5%	5%
Public Administration	6%	5%
Financial Services	7%	5%
Information	3%	2%
Natural Resources and Mining	1%	1%
Breakout of Services		
Health Care	6%	13%
Admin., Support, Waste Management, and Remediation Services	10%	9%
Professional, Scientific, and Technical Services	7%	6%
Education Services	3%	5%
Social Assistance	3%	3%
All Other Services	5%	3%
Accommodation and Food Services	3%	2%
Arts, Entertainment, and Recreation	1%	1%
Breakout of Manufacturing		
All Other Manufacturing	8%	7%
Aerospace	1%	6%
Wood & Paper Products	9%	3%
Fabricated Metal Products	1%	2%
Food & Beverage	1%	2%

Source: Matches with Employment Security Department data in third quarter after exiting program. Industry groups based on North American Industry Classification System (NAICS) codes.

When comparing before and after program participation, participants tended to move from the manufacturing and construction industries to services. Among service industries, the transportation, warehousing, and utilities sub-industries gained the most.





Source: Matches with Employment Security Department data seven to nine months prior to entering and likewise after exiting program.

Relationship of Training to Employment

In 2013, the Workforce Board surveyed WIA Dislocated Worker participants who had left their program in 2011-12. The survey provided data on employment and participant satisfaction with the training. The survey was conducted by telephone and was completed by 229 participants.

To measure the extent to which a participant’s education program and training related to employment, we asked participants three questions:

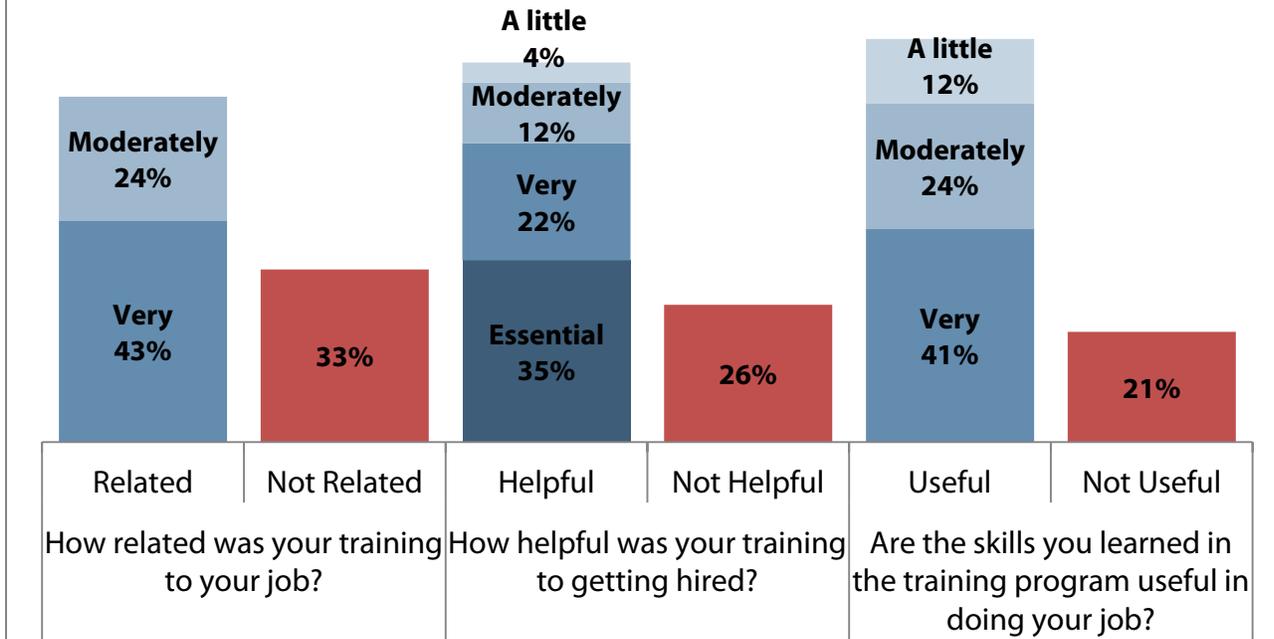
1. How related was the program to their job?
2. How important was the training in getting hired?
3. Are the skills they learned useful in their job?

Asking about the relationship between training and employment in different ways can produce more complete information. For example, some participants said their training was not related to their job, but nevertheless found the skills acquired were useful on the job.

Among participants employed six to nine months after leaving a program, 43 percent said their training was “very related” to their job. A further 24 percent reported the training was “somewhat related” to their job. Those that felt it was “very related” were up by five percentage points compared to 2011.



WIA Dislocated Worker Relationship of Training to Employment



Source: Workforce Board's Participant Satisfaction Survey 2013.

Participants also indicated the training was helpful to them in getting their job. Of those participants, 35 percent indicated their training was an “essential requirement,” another 22 percent indicated it was “very important,” and 12 percent reported it was “moderately important.” Four percent said the training was “a little helpful.” The remaining 26 percent indicated their training was “not important at all” to getting their job.

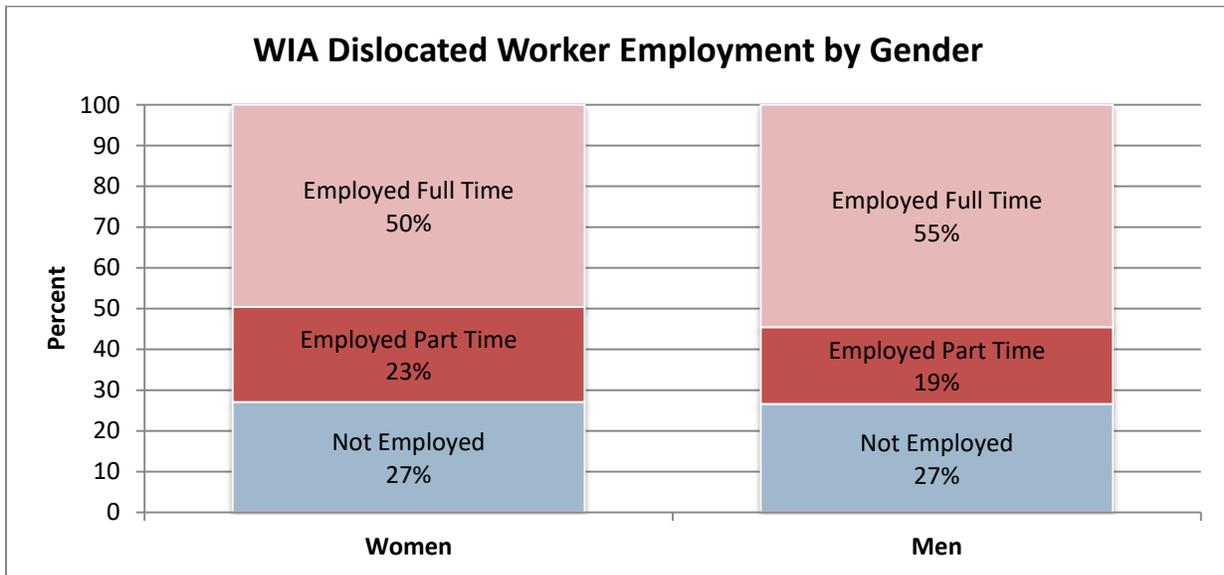
Most participants said the skills they learned in their training program were useful in doing their job. Some 43 percent of participants indicated the skills were “very useful,” 24 percent said “moderately useful,” and 12 percent “a little useful.” Some 21 percent of participants who were employed indicated the skills were “not useful at all.”

When combining two of the questions about the program’s relationship to the job and about whether the skills acquired were helpful, a certain percentage of participants answered negatively to both. Some 12 percent of participants employed the third quarter after exit said the training they received was *neither* helpful in their job nor related to the job they obtained.



Wages and Employment Results Vary by Population

Wages and employment results can vary by gender, race and ethnicity, and disability. During the third quarter after exiting the Dislocated Worker program, 50 percent of female participants worked full time, while 23 percent worked part time to reach an overall employment rate of 73 percent. This was slightly lower than the overall employment rate of men (74 percent). However, men were more likely to be working full time (55 percent versus 50 percent of women). The median hourly wage for women was 83 percent of men (\$16.23 compared to \$19.52). Women had median annual earnings comprising 79 percent of men's (\$29,627 compared to \$37,353).



Source: Employment Security Department and WIASRD

Race/Ethnicity Plays Role

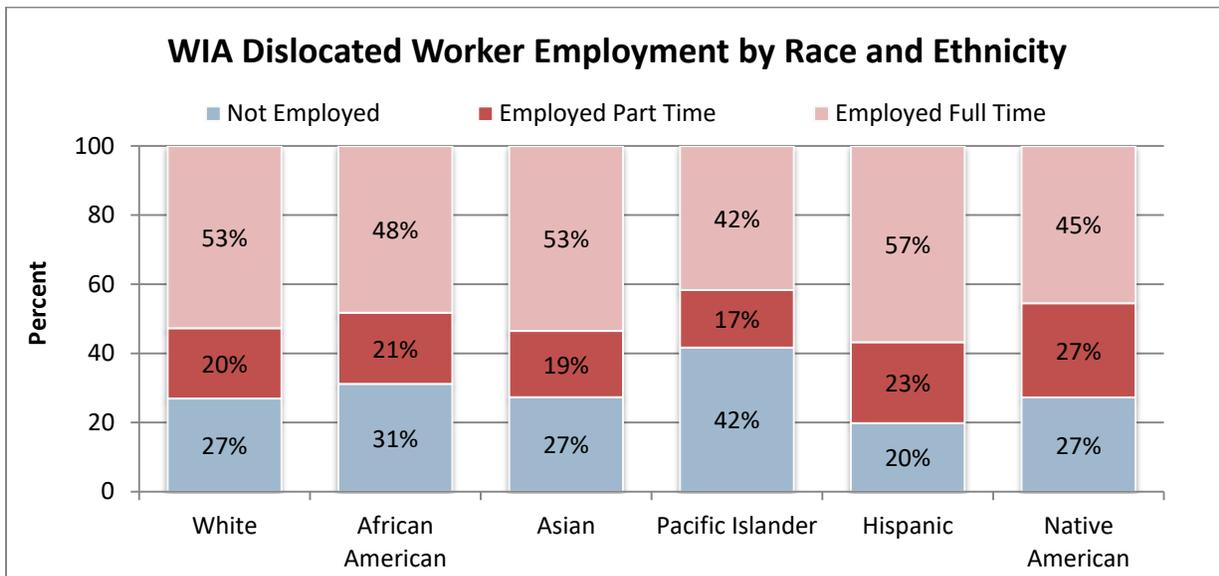
Hispanics had the highest overall employment rate at 80 percent (57 percent full time and 23 percent part time), followed by Asians, Native Americans, and whites, all near 73 percent. African American participants had 69 percent employment rate. Pacific Islanders had the lowest employment rate at about 59 percent.

Hispanics also had the highest full-time employment rate at 57 percent, followed by Asians and whites at 53 percent. African Americans had a full-time employment rate of 48 percent, followed by Native Americans (45 percent), then Pacific Islanders (42 percent).

There is also variation among median hourly wages. Whites had the highest median hourly wage at \$18.27, followed by Native Americans (\$17.89), African Americans (\$17.15), Pacific Islanders (\$16.99), Hispanics (\$16.58), and Asians (\$16.50).

African Americans had the highest median annual earnings at \$36,583. Whites' median annual earnings were \$34,644, followed by Pacific Islanders (\$33,043), and Asians (\$32,688). Native Americans had the lowest annual earnings at \$26,204.





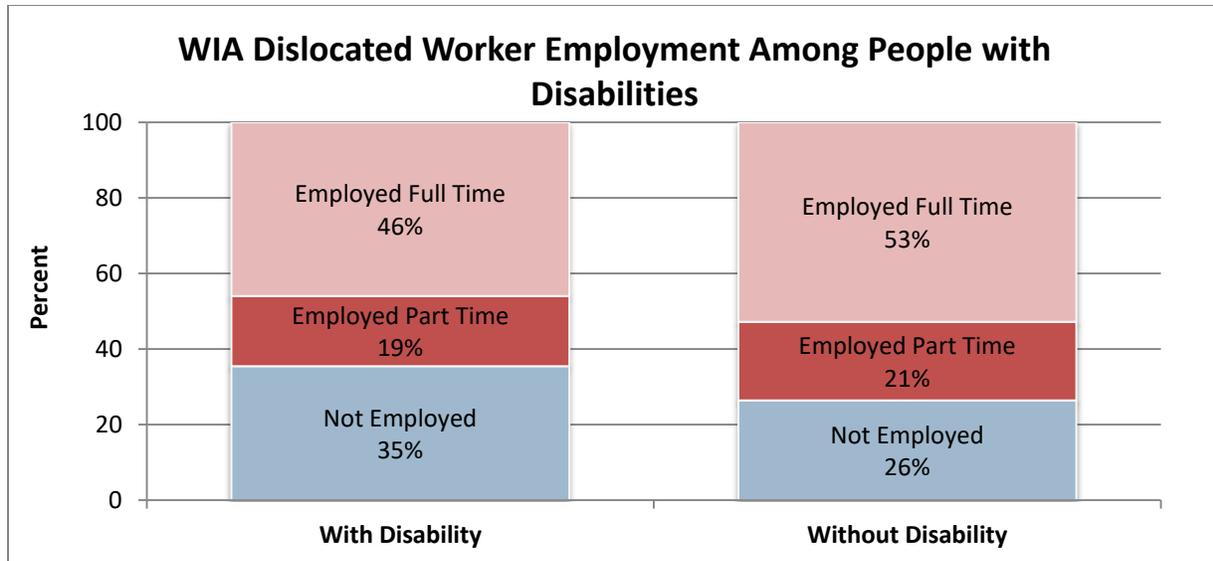
Source: Employment Security Department and WIASRD

Disability Impacts Employment, Earnings

Employment and earnings also varied by disability status. Administrative records suggest 4 percent of the participants included in this study had a disability.⁹ Forty-six percent of dislocated workers with disabilities were employed full time, and 19 percent part time for an overall rate of 65 percent. They were less likely to be employed than those without a disability (overall employment rate of 74 percent) and less likely to be working full time (46 percent versus 53 percent). Median hourly wages were slightly lower than those with no reported disability (\$17.72 versus \$18.10). Median annual earnings among dislocated workers with a disability were higher than those without a disability (\$35,680 versus \$33,852).

⁹ In accordance with the Americans with Disabilities Act of 1990, a disability is defined as a “physical or mental impairment that substantially limits one or more of the person’s major life activities.”





Source: Employment Security Department and WIASRD

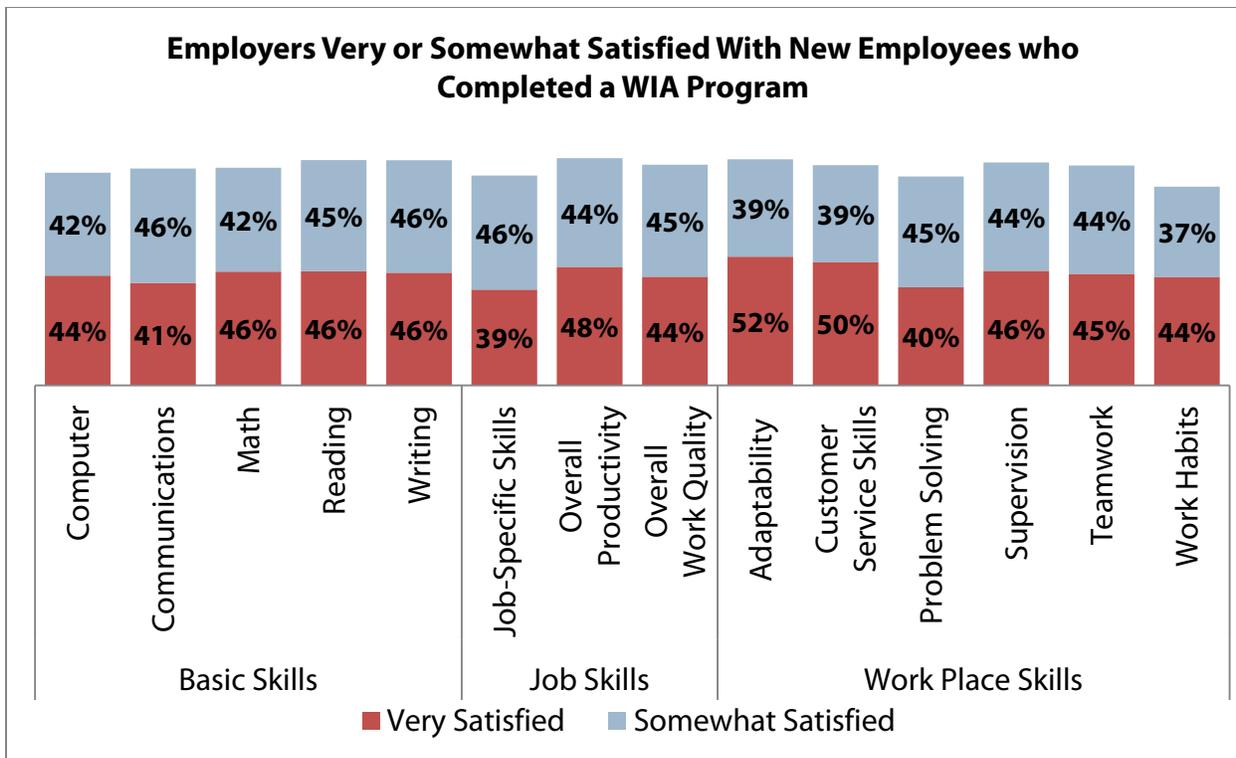
Were Employers Satisfied with the Preparation Workers Received?

The Workforce Board’s Employer Survey, administered during 2012, asked firms to evaluate new employees who had recently completed a WIA program. All three WIA Title I programs (Adult, Dislocated Worker, and Youth) were grouped together because there are relatively few participants in each category and employers would find it difficult to distinguish one from another. This section presents findings on employer satisfaction with new employees who completed *any type* of WIA program. Some 89 percent of employers said they were either “somewhat satisfied” or “very satisfied” with the overall work quality of these new employees.

Employer satisfaction is broken down into three categories: Basic Skills, Job Skills and Work Place Skills. Basic skills refer to reading, writing, math, communication, and computer skills. Job skills refer to skills specific to the job, as well as overall work quality and productivity. Work place skills refer to the skills necessary to get along in the workplace such as the ability to accept supervision, the ability to adapt to changes in duties and responsibilities, teamwork, customer service, problem solving or critical thinking skills, and having positive work habits and attitudes.

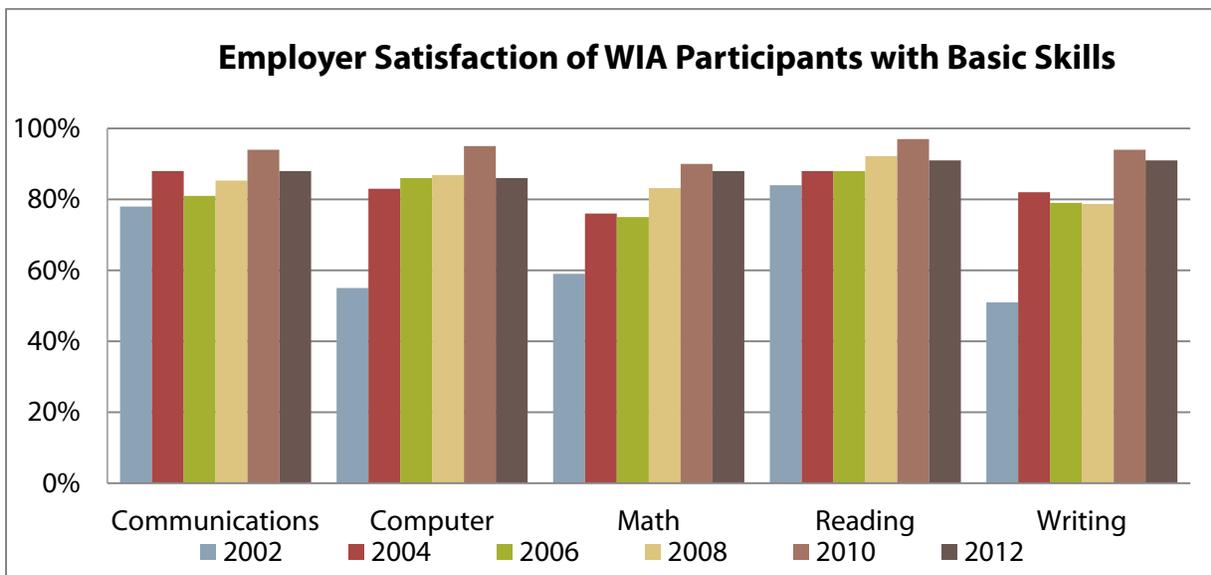
In 2012, employers report highest overall satisfaction in the basic skills category with reading, and writing. For job skills, their highest overall satisfaction was with overall productivity. Among work place skills, employers were most satisfied with WIA participants’ adaptability.





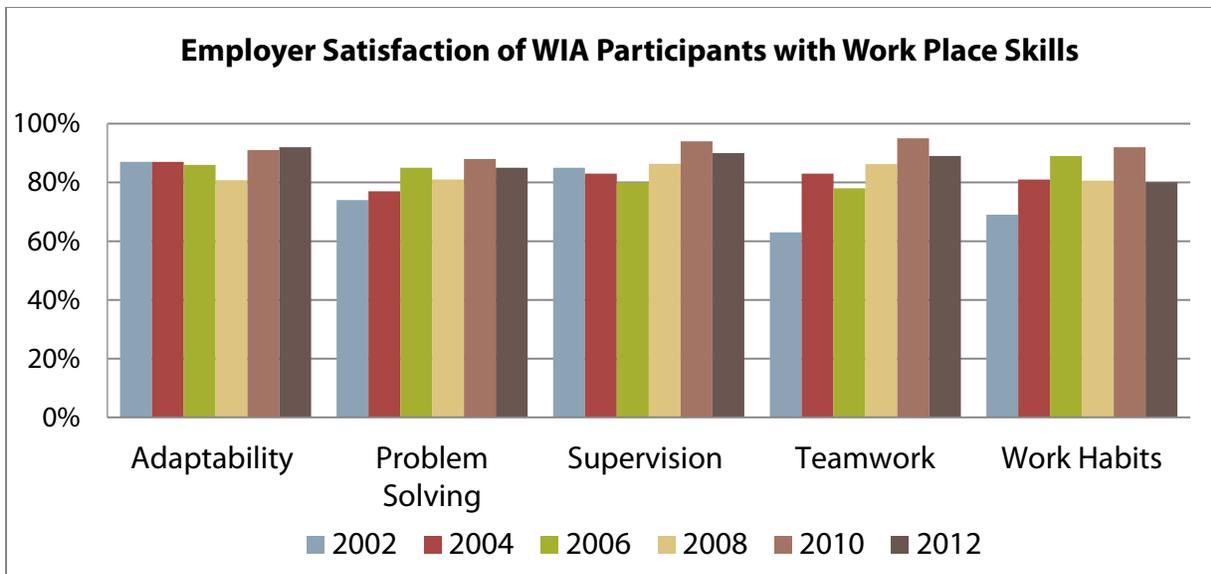
Source: Workforce Board Employer Survey conducted in 2012.

Overall, the levels of employer satisfaction (91 percent) reported in the Workforce Board's 2012 Employer Survey are lower than on the previous survey, conducted in 2010. The following three charts show the trends in satisfaction of employers with new employees who recently completed the WIA program.

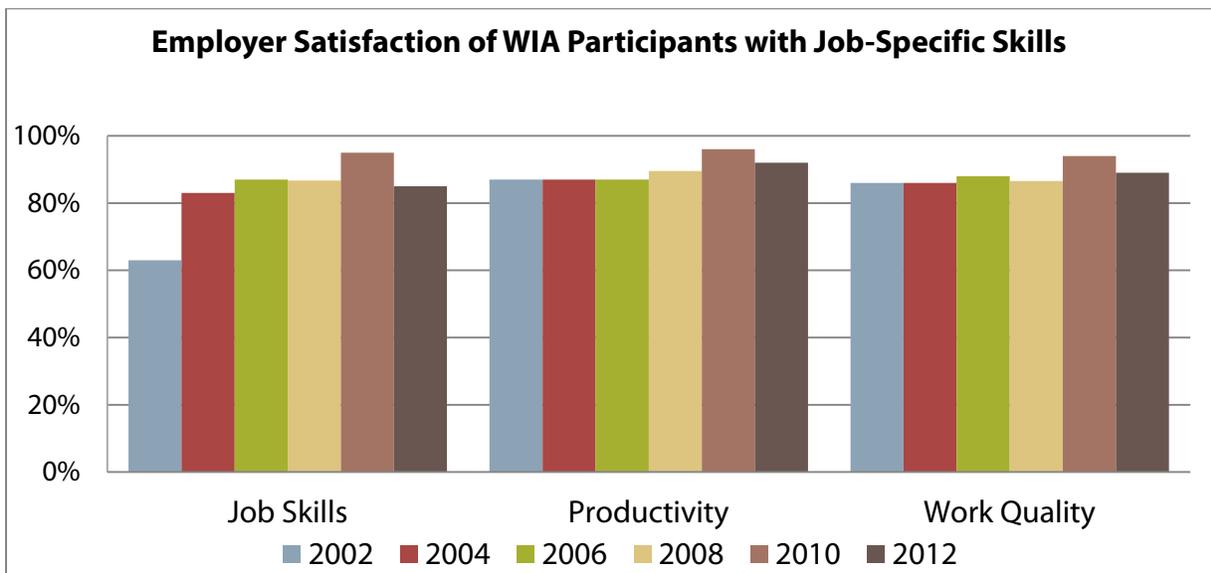


Source: Workforce Board's biennial Employer Surveys from 2002 through 2012.





Source: Workforce Board's biennial Employer Surveys from 2002 through 2012.



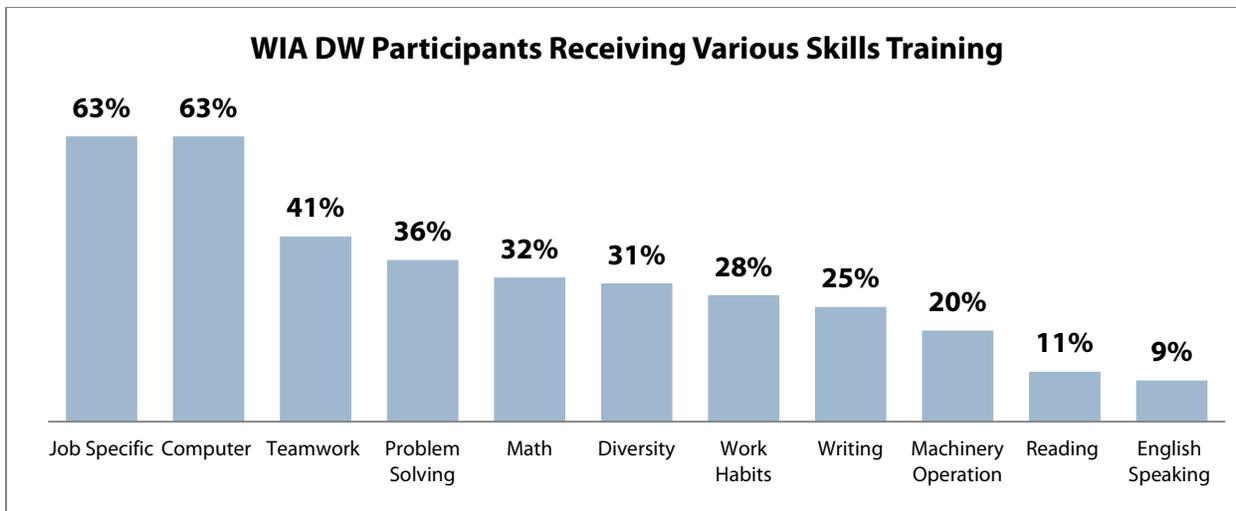
Source: Workforce Board's biennial Employer Surveys from 2002 through 2012.

Participant Survey

Most participants enroll in the WIA Dislocated Worker program for employment-related reasons. Based on Participant Survey results, 84 percent of adults entered the program to learn skills for a new job, 63 percent enrolled to get job search assistance, and 39 percent enrolled for on-the-job training. Most participants also indicated that they enrolled to finish a degree or a certificate (65 percent).

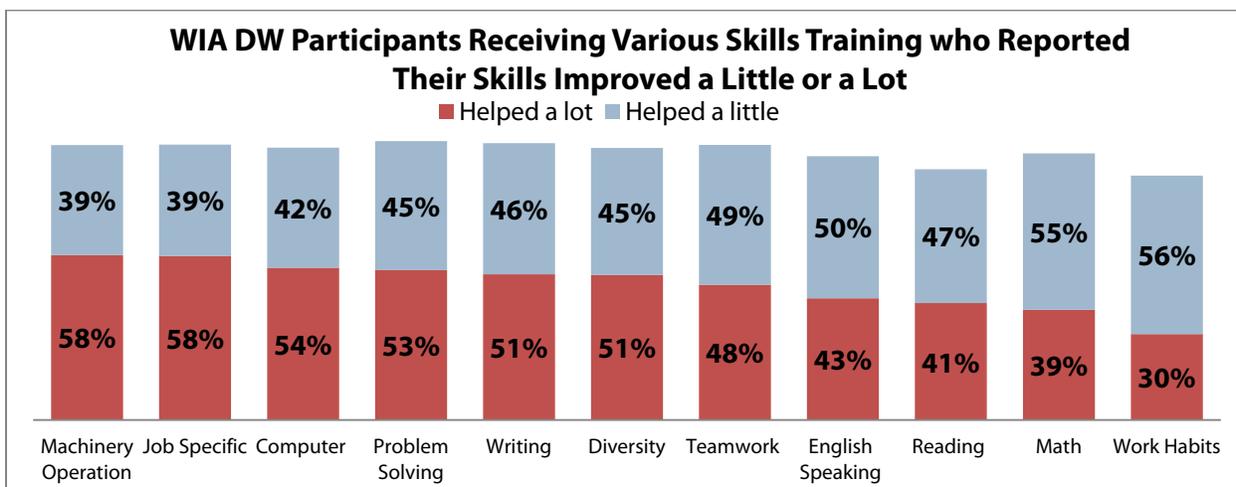
Some 67 percent of WIA Dislocated Workers reported receiving some type of training as part of their program. As in the previous study, by far the most common types of training were in job-specific and computer skills.





Source: Workforce Board's Participant Satisfaction Survey 2013.

A majority of WIA Dislocated Workers who received training felt it improved their skills. The percentage reporting their skills improved “a lot” was highest for occupational training, particularly machinery operation and job-specific skills.



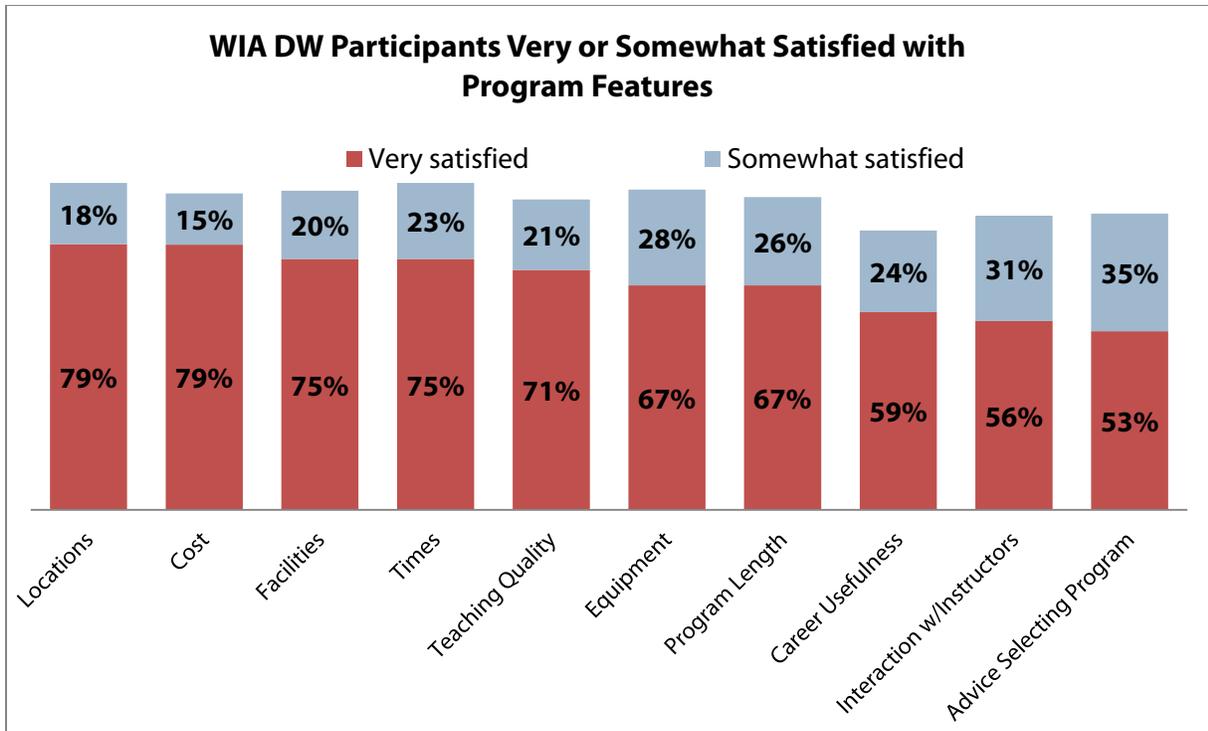
Source: Workforce Board's Participant Satisfaction Survey 2013.

Participant Satisfaction

Survey results indicate participants were generally satisfied with the program. Some 89 percent of participants reported they were satisfied with the overall quality of the program. Eighty-four percent said their educational objectives had been at least partially met. These were similar levels of satisfaction as reported in the last survey.

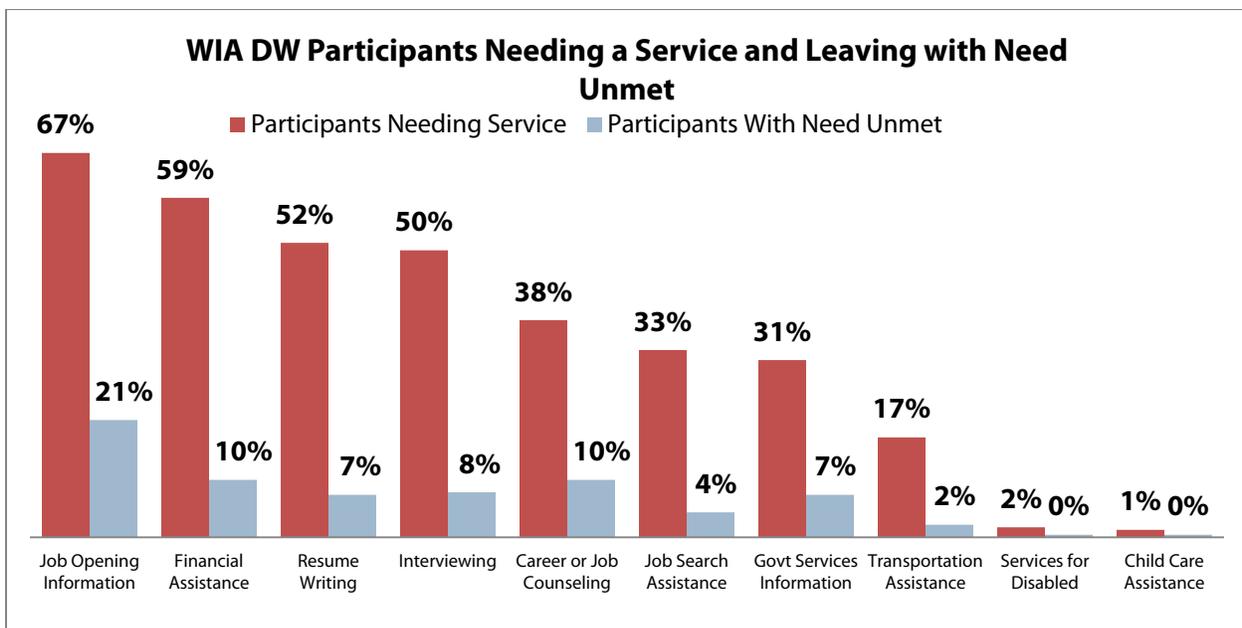
Participants tended to be “very satisfied” with various features of the program including program cost, facilities, times, and location. Participants were less likely to indicate “very” satisfied with career usefulness and advice provided on selecting programs.





Source: Workforce Board's Participant Satisfaction Survey 2013.

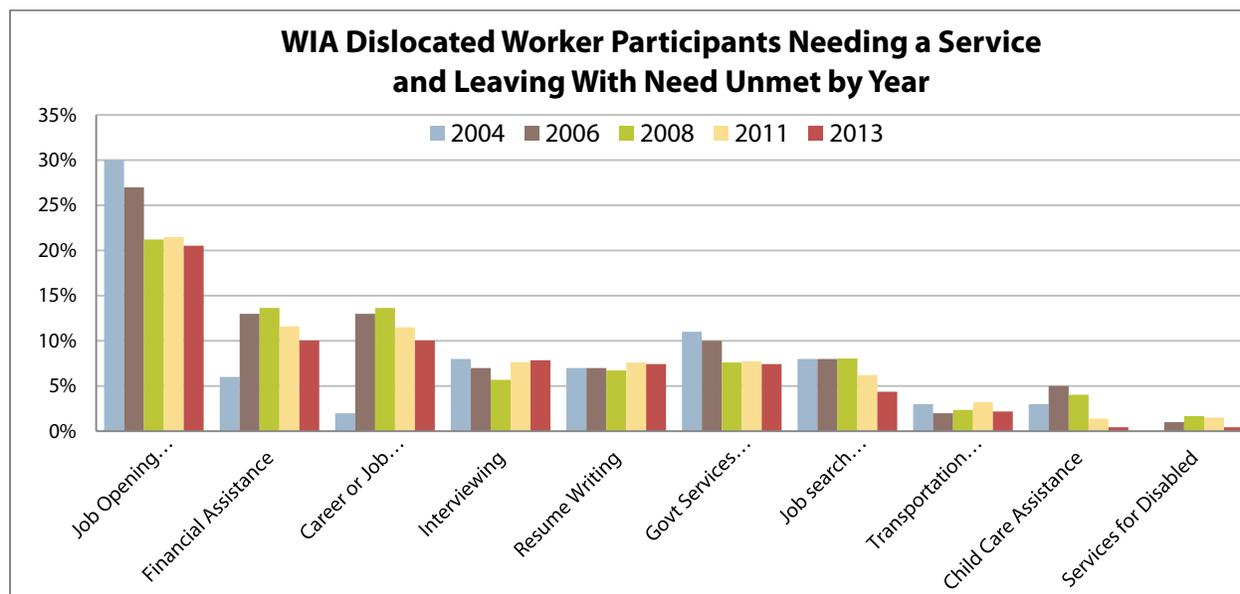
Similar to previous surveys, WIA Dislocated Workers most frequently reported needing information on job openings, with more than two-thirds of participants in need this survey. However, one out of every five participants left without that need met. Nearly 60 percent of participants required financial assistance, and more than half of participants also indicated that they needed help with resume writing and interviewing.



Source: Workforce Board's Participant Satisfaction Survey 2013.



Most of the participants needing support services received them. The largest unmet need¹⁰ was for information about job openings. Over the past three surveys, 21 percent of participants left with an unmet need in this area. This is down from a high of 30 percent in 2004. WIA Dislocated Worker participants reporting unmet needs declined in most categories since the previous survey.



Source: Workforce Board's Participant Satisfaction Surveys 2004-2013.

Net Impact - Did the Program Make a Difference in Participant Success?

Every four years the Workforce Board conducts net impact and cost-benefit analyses of workforce development programs. This detailed study compares participants and non-participants. The net impact part of this study attempts to measure whether the program made a difference in the participant's success.

Washington is the only state to periodically conduct rigorous net impact evaluations of its workforce programs.

The net impact analysis was conducted by the W.E. Upjohn Institute for Employment Research (Upjohn), a national leader in evaluating training programs. To do the analysis, Upjohn studied program participants to see what results they achieved and compared these results with a control group.

Individuals who participated in a WIA Dislocated Worker program were compared to individuals who had similar demographic characteristics, but who did not participate in any of

The WIA Dislocated Worker program has strong, positive net impacts on long-term employment, hourly wage, hours worked, and earnings. Participation increases lifetime earnings of dislocated workers.

¹⁰ Unmet need refers to cases where the student reports that either they did not receive the required service or what was provided did not meet their needs.



the programs included in this study. The comparison group members were selected from among those who registered with WorkSource, Washington’s one-stop career center system. The most recent net impact analyses examined experiences of participants who left the WIA Dislocated Worker program through 2009. The short-term impact (Program Year 2007-08) was observed in 2008-09, while the long-term impact (Program Year 2005-06) was observed from 2006-07 through 2008-09.

The analysis also separates out WIA Dislocated Worker participants who received job training, in addition to other WIA services. Roughly 76 percent of WIA Dislocated Worker participants received some type of formal training or education while the rest received only core or intensive services.

In the table below, the employment rate in the short-term for WIA Dislocated Worker participants was 10.1 percentage points higher than the comparison group’s employment rate. Also, long-term average earnings of WIA Dislocated Worker participants who found jobs are higher than for employed non-participants. A wide range of training is provided to WIA participants who qualify, including occupational skills training, skill upgrading and retraining, on-the-job training, and Basic Education for Adults when delivered in combination with career and technical education.

Impact on Employment and Earnings: Participants vs. Control Group

WIA Dislocated Worker Program	All WIA Dislocated Worker Participants		WIA Dislocated Worker Training Recipients	
	Short-term [^]	Long-term [^]	Short-term [^]	Long-term [^]
Net Employment Impact*	10.1 percentage points	4.7 percentage points	10.2 percentage points	5.0 percentage points
Net Hourly Wage Impact**	No significant positive impacts	\$1.54	No significant positive impacts	\$2.05
Net Hours Employed per Quarter Impact	42.4	28.4	41.7	29.7
Net Annualized Earnings Impact**	No significant positive impacts	\$3,622	No significant positive impacts	\$4,872

[^]Short-term is three quarters after program exit; Long-term is average across three years since program exit.

*Percentages listed are employment percentage points above those of the control group of non-participants.

**Wages and earnings, expressed in first quarter 2014 dollars, represent the average difference between WIA Dislocated Worker participants who got jobs and those in the control group who were employed.



As can be seen above, WIA Dislocated Worker Program participants saw higher employment and greater number of hours worked when compared to the control group. Long-term impacts for annualized earnings were significant among all WIA Dislocated Worker participants and for those who received training. The long-term impacts were stronger for workers who received training in addition to other WIA services.

Benefits and Costs

The cost-benefit analysis estimates the value of the net impact on earnings, employee benefits (estimated at 25 percent of earnings), UI benefits, and certain taxes. Program costs include both direct program costs and support payments borne by the state and the foregone earnings borne by program participants. Benefits and costs are calculated for both the observed period of time and based upon a statistical model that estimated the benefits and costs out to age 65. In order 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 2014 Q1 dollars. The benefits and costs presented here are based on impacts estimated for participants leaving programs in 2005-2006 (observed from 2006-07 through 2008-09), because a longer-term follow-up is required for this analysis.

Participant and Public Benefits and Costs per Participant in the WIA Dislocated Worker Program

Benefit/Cost	First 2.5 years		Lifetime (until 65)		Sum of Costs and Benefits
	Participant	Public	Participant	Public	
Benefits					
Earnings	\$9,414	\$0	\$53,833	\$0	
Fringe Benefits	\$2,354	\$0	\$13,458	\$0	
Taxes	-\$2,469	\$2,469	-\$14,121	\$14,121	
Transfers					
UI	-\$769	\$769	\$1,723	-\$1,723	
Costs					
Foregone net earnings	-\$13,958	-\$3,706	-\$13,958	-\$3,706	
Program costs	\$0	-\$6,273	\$0	-\$6,273	
Benefits	\$8,530	\$3,238	\$54,893	\$12,398	
Costs	-\$13,958	-\$9,980	-\$13,958	-\$9,980	
Total (Net)	-\$5,428	-\$6,742	\$40,936	\$2,419	\$43,354

Note: Benefits and costs are expressed in 2014 first quarter dollars.



For each participant in the program, the public (taxpayer) program cost is \$6,273 over the length of their enrollment, and the participant cost is about \$13,958 in foregone earnings. During the course of working life to age 65, the average participant will gain \$39,875 in net earnings (earnings minus foregone earnings) and \$13,958 in employee benefits. These are net gains compared to the earnings of similar individuals who did not receive services or training. Including program costs and the net impacts on taxes and unemployment insurance benefits, the total net benefit per participant is \$40,936.

Projected participant benefits to age 65 outweigh public costs invested in the WIA Dislocated Worker program by a ratio of about \$7 to 1, or \$40,936 to \$6,273.

From the time of leaving the program to age 65, the public is forecasted to gain about \$14,000 per participant in net additional Social Security, Medicare, federal income, and state sales taxes. However, the public is forecasted to spend \$1,723 in total UI benefits. The estimated lifetime net benefit to taxpayers is \$2,392 per participant. Projected taxpayer net benefits to age 65 outweigh public costs invested in WIA Dislocated Worker services by a ratio of \$2 to 1, or \$12,398 to \$6,273.

Summary, Areas for Improvement, and Further Research

This WIA Dislocated Worker program evaluation takes place in the aftermath of some of the worst labor market conditions since the Great Depression, and the program is intended to help individuals who lost their jobs gain new employment. Program participants hit an employment rate low of 65 percent in the 2013 report. Since that time, the rate has risen modestly to 73 percent – an improvement, but still below the 78 percent achieved in the 2008 report. When comparing the industries dislocated workers came from and where they ended up, the trend was to move from manufacturing and construction to services.

Compared to similar individuals who did not participate in a workforce development program, WIA Dislocated Worker participants were much better off after going through the program. The evaluation finds the program had strong positive net impacts on employment rates and earnings. The results were especially strong for participants who received vocational training. The report finds that approximately 51 percent of recent participants received a recognized credential, while 70 percent received some type of award (diploma, credential, or degree).

The participants reported a high level of satisfaction with the program, with 89 percent reporting satisfaction with the overall quality of the program. One area that could be stronger is providing information on job openings. Some 21 percent of participants say they left the program with an unmet need for job opening information. This does, however, represent a substantial improvement over the past decade. The 2004 report found 30 percent of participants had unmet needs for job opening information.

The Workforce Development Councils indicate that they will continue to work with partners to provide job seekers with information on job openings; educating job seekers on the value



of online tools; utilizing resource rooms, job clubs, workshops, and one-on-one meetings with WorkSource counselors; developing social media resources; and following up with participants one year after exit.





Workforce Training and Education Coordinating Board

2015 Workforce Training Results

WorkFirst

Program Details

Washington's WorkFirst program began in 1997 to help low-income families move forward on a pathway to self-sufficiency. The program provides job search assistance, support services, basic skills, and vocational education to help parents get a job, keep a job, and move up their career ladder. WorkFirst is unique among workforce development programs in its sole focus on families receiving cash assistance through Temporary Assistance to Needy Families (TANF).¹ It is an important population in terms of state workforce development, and overlaps partially with the population served by several of the other workforce development programs in this study. It should also be noted that the WorkFirst population is diverse, especially with respect to job readiness and employability, as it includes parents who face barriers such as language, domestic violence, mental and physical health problems, chemical dependency, and long-term disabilities.

Every year, the Workforce Board measures the performance of key workforce programs. In this report, you'll find out more about the program and who is served, the metrics used to measure performance and how the program performed.

Participant Profile

For this 2015 report, researchers studied the results of 14,644 participants who took part in one or more WorkFirst employment and training-related services during the most recent reporting year.² All participants received Temporary Assistance for Needy Families (TANF) payments during participation. Participating in WorkFirst employment and training services did not necessarily mean completion of TANF.

¹ The TANF program provides time-limited cash assistance and a variety of other services and supports to low-income pregnant women and families with children. Adult TANF recipients, with some exceptions, are subject to work participation requirements.

² The 2015 Workforce Training Results reports are based on data observed as recently as 2013-2014 for individuals exiting programs during 2012-13. For WorkFirst this includes those in services between July 1, 2012 and June 30, 2013.



The number of WorkFirst participants evaluated in this year's report (just over 14,600) reflects a nearly 38 percent decline from the previous year's report when 23,530 participants took part in one or more WorkFirst employment and training related services.

An improving economy, and recent policy and service delivery changes in Washington's TANF program, likely contributed to the notable decline in the number of WorkFirst participants covered in this year's Workforce Training Results report. After rising sharply during the Great Recession to a high of over 70,000 cases in early 2011, the state's TANF caseload has been steadily declining. The TANF caseload currently stands at nearly 36,000 cases (November 2014).

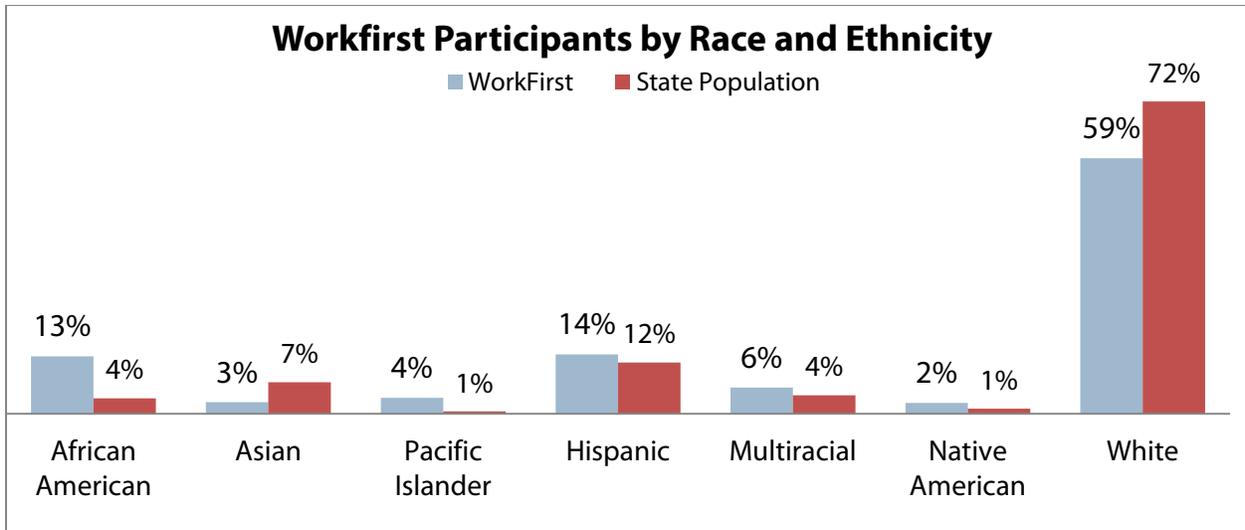
Starting in early 2011, the state narrowed who qualifies for a TANF time limit hardship extension. With this change, fewer families in Washington State are eligible for continued TANF benefits after 60 months.³ Also, participants who were sanctioned three or more times for not meeting program requirements began to be permanently disqualified from TANF.

WorkFirst participants who exited services were racially and ethnically diverse with Hispanics, African Americans, Multiracial, and Native Americans represented at a significantly higher percentage than their portion of the state's general population.⁴ Some 59 percent of participants were white, 13 percent African American, 14 percent Hispanic, 3 percent Asian, 3 percent Pacific Islander, and 2 percent Native American.

³ When the policy change took effect in February 2011, about 13,000 adults and children were terminated in February as they had received 60 months or more of TANF assistance and did not qualify for an extension using the new hardship criteria.

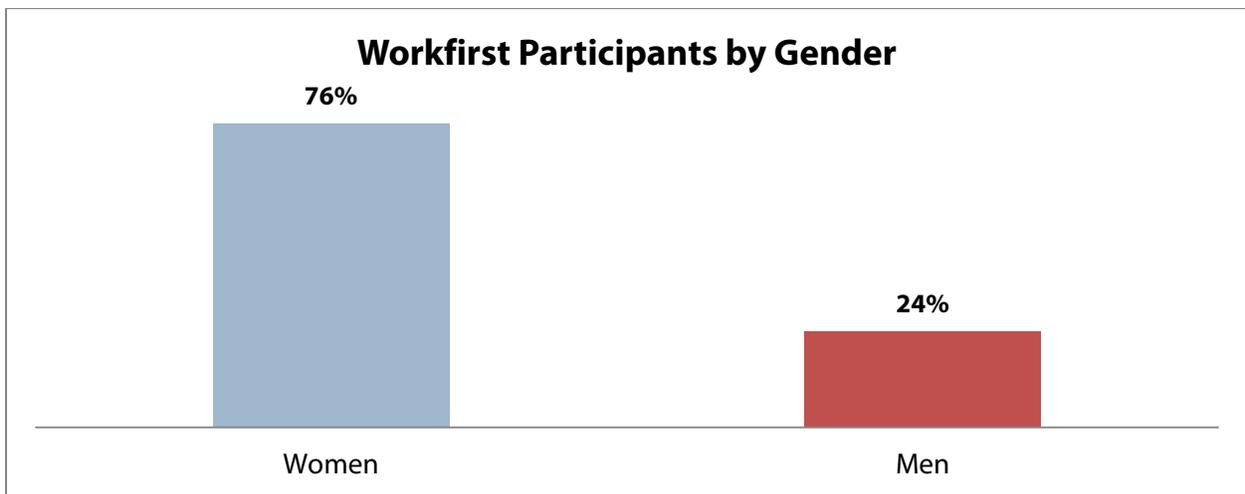
⁴ In this report, unless otherwise stated, racial and ethnic minority groups are mutually exclusive; that is, an individual belongs to one group only. The groups include the following: Hispanics of any race (also referred to as Hispanics); non-Hispanic African Americans (also referred to as African Americans); non-Hispanic Asians (also referred to as Asians); non-Hispanic Pacific Islanders (also referred to as Pacific Islanders); non-Hispanic Native Americans and Alaskan Natives (also referred to as Native Americans); non-Hispanic multiracial (also referred to as multiracial); and non-Hispanic whites (also referred to as whites).





Source: Department of Social and Health Services, Administrative Records and 2012 U.S. Census Data from the American Community Survey.

Some 76 percent of participants were women, 6 percentage points more than last year.



Source: Department of Social and Health Services, Administrative Records.

Education Level

WorkFirst participants entered the program with the following education levels:

- 30 percent had not completed high school.
- 53 percent had a high school diploma or GED but no post-high school education.
- 14 percent had attended one to three years of postsecondary education.
- 2 percent had completed four or more years of postsecondary education.

The median age of participants when leaving the program was 28 years, with one quarter over age 35 and another quarter of participants under age 24.



Tracking WorkFirst Progress

The Workforce Board routinely measures the performance of our state's largest workforce programs. As a customer-focused advocate for Washington's workers and employers, the Workforce Board strives to provide performance accountability, verifying whether worker education and training programs provide a return on investment for participants and taxpayers.

The Workforce Training Results report seeks to answer several core questions, including:

- Did participants get the skills they needed?
- Did participants get a job and how much were they paid?

For WorkFirst, these questions are the sole focus of this Workforce Training Results report. Additional questions asked of other workforce programs are not addressed. Those questions include: Were employers satisfied with the preparation workers received; has the program made a difference in the participant's success; and did participants and the public receive a return on their investment. WorkFirst was not included in the Workforce Board's 2012 Employer Survey, and was not included in a net impact study or cost-benefit analysis.

Did Participants Get the Skills they Needed?

This report focuses exclusively on participants who participated in one or more of the following employment and training components.

- Community Jobs (subsidized employment)
- Job Search
- Customized Job Skills Training
- Basic Education
- English as a Second Language
- General Education Diploma
- High School
- High Wage / High Demand
- Skills Enhancement Training
- On the Job Training
- VE – Vocational Education
- VU – Vocational Education - Unapproved
- Work Experience
- Structured Community Service

It should be noted that unlike participants of other workforce development programs, WorkFirst participants can be sanctioned (have their grant reduced) for not complying with employment and training activity requirements (typically 20-35 hours of activities per week, which can include full or part-time employment).



Among the employment and training components provided to WorkFirst participants, job search was used most frequently (53 percent); this was a 2 percentage point decrease in the participant use of job search assistance over the last year. The percentage of WorkFirst participants attending high school has decreased each year since 2011; going from 11 percent to 2 percent. Some 8.7 percent of WorkFirst participants participated in Vocational Education. The largest increase (2 percent points more than the previous report) occurred in Structured Community Service. However, the overall percentage of participants was small (just 2.2 percent).

Did Participants Have a Job and How Much Were They Paid?

To find out whether participants had jobs and how much they earned, participant records were matched with Employment Security Department wage files from Washington, Idaho, Oregon, and federal wage records for 2013-14.⁵ This study looks at employment and earnings three calendar quarters after the participant left a WorkFirst program. The following table displays the employment and earnings of participants who left the program during the most recent reporting year.

According to state records, 53 percent of WorkFirst participants were employed. Of those who were working, 40 percent were employed full time. The median hourly wage of those working was \$10.92, with median annualized earnings of \$14,650.⁶ Employment rates and earnings are typically low for this population compared to other workforce training programs the Workforce Board assesses, and this year, earnings were somewhat higher than prior program years.

2014 Employment and Earnings for WorkFirst Participants

Performance Measure	Results
Employment Rate*	53%
Full-Time Employment**	40%
Median Quarterly Hours	335 hours
Median Hourly Wage***	\$10.92
Median Annualized Earnings***	\$14,650

* These figures apply to those with employment reported to state employment agencies six to nine months after leaving the program. Rate does not include self-employment, employment outside the Northwest, or military service and thus understates total employment by approximately 10 percent.

** Full-time employment averages 30 or more hours per week.

*** Earnings/wages expressed in first quarter 2014 dollars in order to account for inflation.

⁵ These files contain quarterly earnings and hours-worked information on those individuals with employment reported for unemployment insurance (UI) purposes (approximately 90 percent of in-state employment, with self-employment, active duty military, and those working for religious nonprofit organizations being the major groups of employers not included).

⁶ Annual earnings are calculated as third quarter earnings multiplied by four. Quarterly earnings are the result of hourly wage rates and the number of hours worked in a calendar quarter. All wages and earnings are stated in first quarter 2014 dollars.



Earnings of WorkFirst Participants

The table below shows employment and earnings over five study periods.

Employment and Earnings Trends for WorkFirst Participants

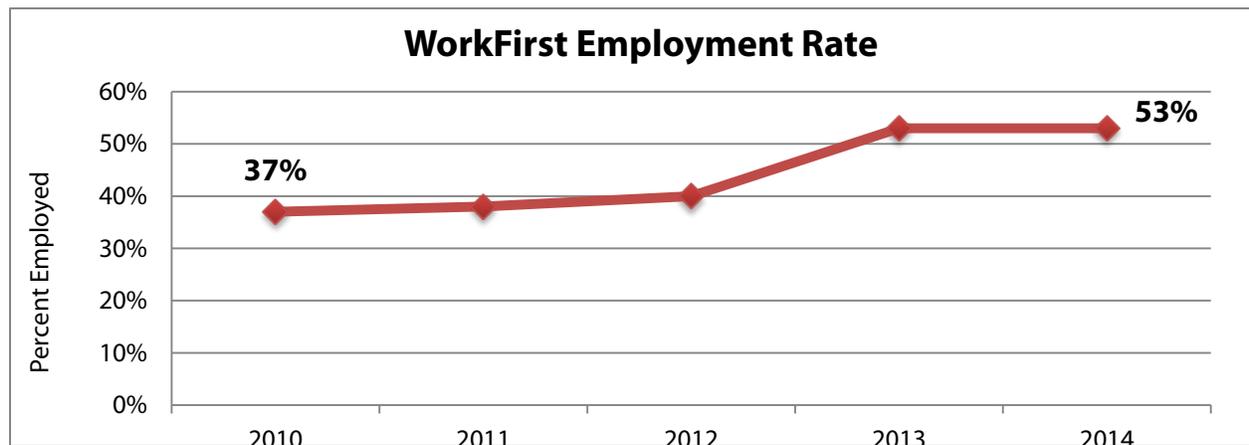
Performance Measure	2010	2011	2012	2013	2014
Employment Rate*	37%	38%	40%	53%	53%
Full-Time Employment**	37%	37%	37%	44%	40%
Median Quarterly Hours	304	304	303	356	335
Median Hourly Wage***	\$11.03	\$10.70	\$10.58	\$11.04	\$10.92
Median Annualized Earnings***	\$13,556	\$13,099	\$12,714	\$15,653	\$14,650

*These figures apply to those with employment reported to the state's Employment Security Department six to nine months after program exit and are not limited to those who completed a program. Rate does not include self-employment, employment outside the Northwest, or military service and thus understates total employment by approximately 10 percent.

**Full-time employment averages 30 or more hours per week.

***Earnings/wages expressed in first quarter 2014 dollars in order to account for inflation.

The employment rate at 53 percent is unchanged from last year's report, and 13 percentage points higher than in the 2013 report.



Rate does not include self-employment, employment outside the Northwest, or military service and thus understates total employment by approximately 10 percent.



Earnings of WorkFirst participants declined on each report between 2011 and 2013, before a sharp increase in 2014. However, the most recent report shows \$14,640 annually, a 6 percent decline from last year's earnings.



This chart shows annualized earnings in 2014 first quarter dollars to account for inflation.

WorkFirst Employment by Industry

The majority of WorkFirst participants who were working were employed in the service sector (63.8 percent) or retail trade (15.8 percent). Looking more in-depth at the service sector, participants were largely working in Accommodation and Food Services (17.6 percent), Administrative and Support and Waste Management⁷ (14.1 percent), and the Health Care sub-industry (11.8 percent).

⁷ This occupational area includes Temporary Employment Services, a popular option for many WorkFirst participants.



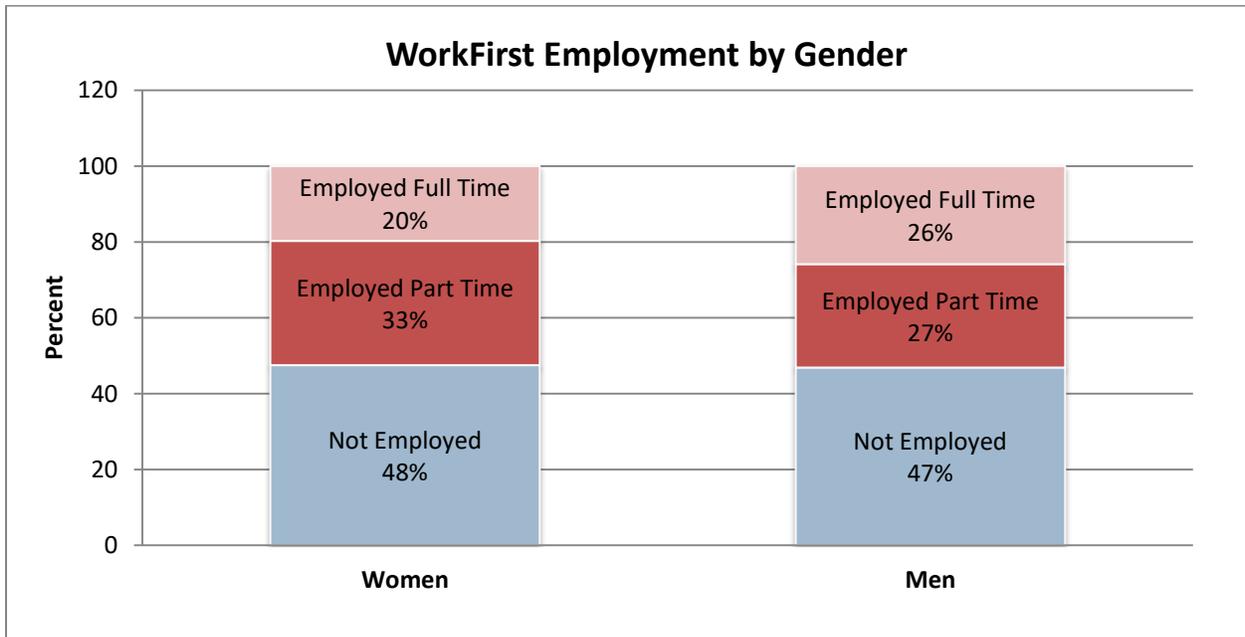
Industry Group	
63.8%	Services
15.8%	Retail Trades
5.5%	Manufacturing
3.3%	Construction
2.7%	Financial Services
2.6%	Transportation, Warehousing and Utilities
2.4%	Wholesale Trade
2.2%	Natural Resources and Mining
1.1%	Public Administration
0.7%	Information
Breakout of Services	
17.6%	Accommodation and Food Services
14.1%	Admin., Support, Waste Management, and Remediation Services
11.8%	Health Care
10.5%	Social Assistance
3.8%	All Other Services
2.1%	Education Services
1.9%	Arts, Entertainment, and Recreation
1.9%	Professional, Scientific, and Technical Services
Breakout of Retail Trades	
4.6%	Department Stores and Warehouse Clubs
3.2%	All Other Retail
2.4%	Groceries, Supermarkets & Specialty Foods
1.8%	Gas Stations/Convenience Stores
1.6%	Clothing and Accessories Stores
1.3%	Home furnishings, Garden, Hardware
1.0%	Motor Vehicle and Accessories Sales

Source: Matches with Employment Security Department data in third quarter after exiting program.
 Industry groups based on North American Industry Classification System (NAICS) codes.



Wages and Employment Results Vary by Population

Wage and employment results can vary by gender, race and ethnicity, and disability. Men were employed at an overall identical rate than women (53 percent), but differed in their part time and full time employment rates. Men were employed full time at a higher rate of 26 percent (part time 27 percent) compared to a full time rate of 20 percent (part time 33 percent) for women. Women had an hourly wage that was 91 percent of men (\$10.71 versus \$11.83). Women's median annual earnings were 78 percent of men's (\$13,868 vs \$17,807).



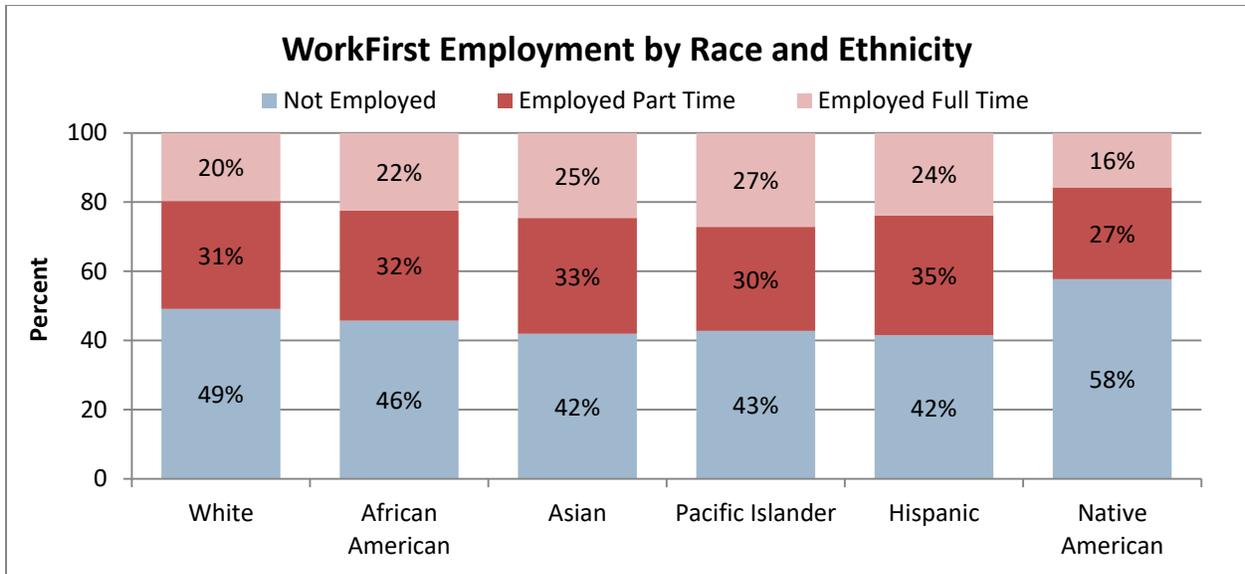
Source: Matches with Employment Security Department data.

Race/Ethnicity Plays Role

Overall employment rates were highest among Hispanics (59 percent) who were employed at a full time rate of 24 percent and a part time rate of 35 percent, followed by Asians (58 percent), Pacific Islanders (57 percent), African Americans (54 percent), whites (51 percent), and Native Americans (approaching 43 percent). However, when looking at full-time work among those employed, Pacific Islanders had the highest rate (27 percent). Asians (25 percent) had the second highest full-time employment rate, followed by Hispanics (24 percent), African Americans (22 percent), and whites (20 percent). Native Americans had the lowest (16 percent) full-time employment rate.

For those employed, median hourly wages did not vary much by race and ethnicity. Native Americans at \$11.21 had the highest median hourly wage, followed closely by African Americans (\$11.06) and whites (\$11.93). Pacific Islanders and Hispanics (\$10.72) had the lowest median hourly wages.



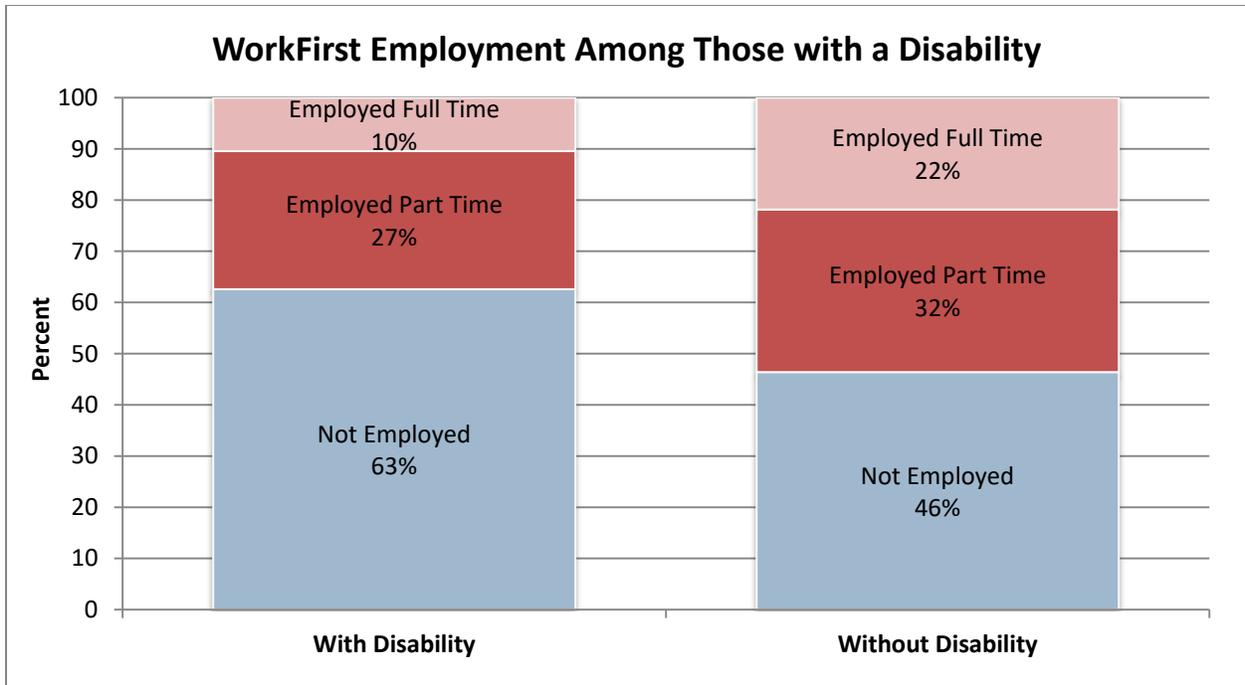


Source: Matches with Employment Security Department data.

Disability Impacts Employment, Earnings

Earnings and employment outcomes also varied by disability status. Participant records suggest 6 percent of the WorkFirst participants included in this study had a disability. Thirty seven percent of participants with disabilities were employed (10 percent full time and 27 percent part time). Those with disabilities were less likely than those without disabilities to have employment reported to the state’s Employment Security Department during the third quarter after exit (37 percent versus 54 percent), and were less likely to be employed full time (10 percent versus 22 percent). The median wage for WorkFirst participants with disabilities was higher than for those without disabilities (\$10.99 compared to \$10.92). However, when hours worked were taken into account, disabled participants earned only 76 percent of the annual median wage of those without disabilities (\$11,298 compared to \$14,832).





Source: Matches with Employment Security Department data.

Summary, Areas for Improvement, and Further Research

The WorkFirst program provides job search assistance, support services, basic skills and vocational education to help parents move forward on a pathway to self-sufficiency. More than three-quarters of WorkFirst participants were women, while both genders had equal employment rates of 53 percent.

After solid increases in hours and annual earnings last year, this year the program saw a moderate setback. The hourly wage rate was nearly the same on an inflation-adjusted basis. However, the number of hours worked were down, leading to downward pressure on earnings. The employment rate remained steady at 53 percent, unchanged from last year’s report, but 13 percentage points higher than in the 2013 report.

Over half of WorkFirst participants received job search services, higher than any other service received. Of those that did find work, most found it in the service industry, accommodation and food services in particular.





Workforce Training and Education Coordinating Board

2015 Workforce Training Results

Worker Retraining Program

Program Details

In response to dramatic changes in the structure of Washington's economy, the layoffs of thousands of workers in major industries, and the long-term need for retraining programs for Washington workers, the Legislature enacted the Workforce Employment and Training Act in 1993. This law significantly expanded the training available to the thousands of jobless workers who need to change careers in order to re-enter the workforce.

The Worker Retraining program provides dislocated workers and the long-term unemployed with access to job retraining for a new career. Program enrollments vary from year to year in response to layoffs and, during recessions, the need increases. The industries from which participants are laid off also vary over time. About one percent of worker retraining participants receive their training at private career schools. This evaluation, however, is limited to training at community and technical colleges. The colleges provide training in occupational and basic skills. Qualifying participants may receive financial assistance to help with their tuition.

Every year, the Workforce Board measures the performance of key workforce programs. In this report, you'll find out more about the program and who is served, the metrics used to measure performance and how the program performed.

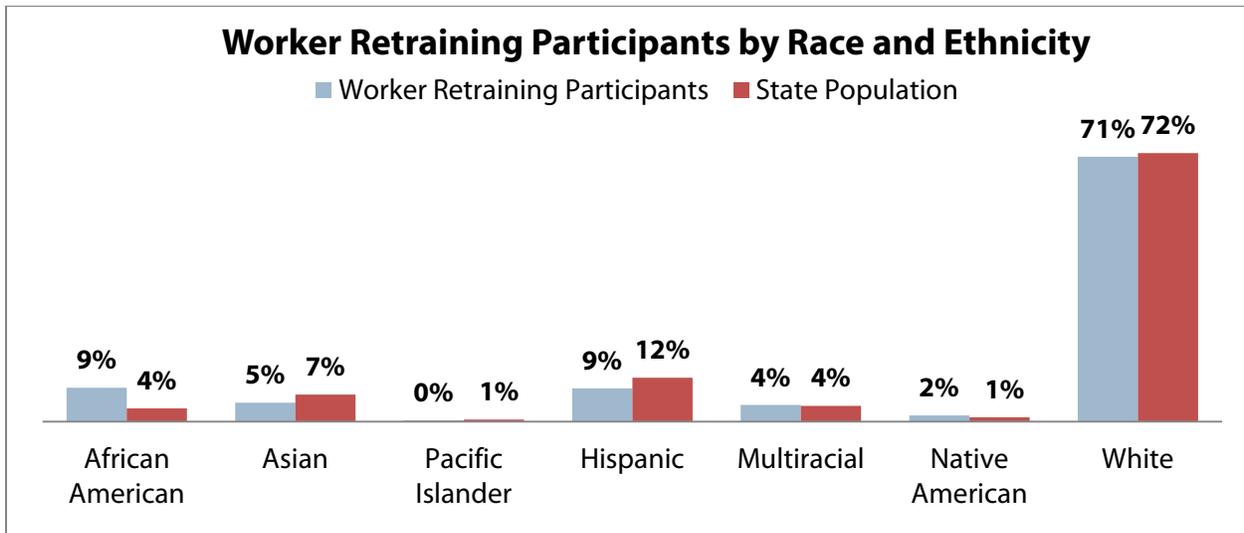
Participant Profile

For this report, researchers studied the results of 6,600 Worker Retraining participants who completed or otherwise left a community or technical college program during the most recent reporting year.¹ The median length of enrollment for these participants was 18 months, up from six months on the last report.

¹ The 2015 Workforce Training Results reports are based on data observed as recently as 2013-2014 for individuals exiting programs during 2012-13.



The racial and ethnic composition of Worker Retraining participants roughly reflects the general population in Washington for Pacific Islanders (1 percent), Multiracial (4 percent), and Whites (71 percent). African Americans (9 percent) are represented at a greater percentage than their portion of the general population, whereas Hispanics (9 percent) and Asians (5 percent) are at a slightly lower percentage.²



Source: Community and Technical Colleges Administrative Data and 2012 U.S. Census Data from the American Community Survey.

In terms of program completion by racial and ethnic groups, the rates are nearly identical to the proportion participating in the program. Overall, Pacific Islanders had the highest completion rate (68 percent), followed by Asians (65 percent), and Whites (64 percent). African Americans had the lowest completion rate (51 percent) followed by Hispanics (54 percent), and Native Americans (56 percent).

Among Worker Retraining participants, 52 percent were women, and 48 percent were men.
Source: Community and Technical Colleges Administrative Data.

When they enrolled in the program, 45 percent of participants had not previously attended college, 25 percent had attended college without receiving a credential, 14 percent had received a certificate or associate’s degree, and 11 percent had received a baccalaureate or higher degree. The median age at the start of the last quarter of the program was 41 years. One in four participants was under age 32, while another one in four participants was over 51.

² In this report, unless otherwise stated, racial and ethnic minority groups are mutually exclusive; that is, an individual belongs to one group only. The groups include the following: Hispanics of any race (also referred to as Hispanics); non-Hispanic African Americans (also referred to as African Americans); non-Hispanic Asians (also referred to as Asians); non-Hispanic Pacific Islanders (also referred to as Pacific Islanders); non-Hispanic Native Americans and Alaskan Natives (also referred to as Native Americans); non-Hispanic multiracial (also referred to as multiracial); and non-Hispanic whites (also referred to as whites).



Tracking Worker Retraining Progress

The Workforce Board routinely measures the performance of our state's largest workforce programs. As a customer-focused advocate for Washington's workers and employers, the Workforce Board strives to provide performance accountability, verifying whether worker education and training programs provide a return on investment for participants and taxpayers.

The Workforce Training Results report seeks to answer five core questions:

- Did participants get the skills they needed?
- Did participants get a job and how much were they paid?
- Were employers satisfied with the preparation workers received?
- Has the program made a difference in the participant's success?
- Did participants and the public receive a return on their investment?

Turn to page 15 for the Net Impact Study. Conducted every four years, this in-depth report adds extra value to 2015 Workforce Training Results. The study provides a side-by-side comparison of participants vs. similar non-participants, answering the question of whether the program is making a difference.

Data Comes From State Wage Files

The 2015 Workforce Training Results includes information obtained from Employment Security Department wage files in Washington, Idaho, and Oregon, and federal employment records for 2013-14.³

Net Impact Study Adds More Insight into Program Performance

In addition, the report includes a comprehensive Net Impact Study. Conducted every four years, this study provides a head-to-head comparison of participants and non-participants to help answer a central question: How much of a workforce participant's success in obtaining a job, or a higher wage, is due to the workforce program? By comparing program participants with similar individuals who did not participate in a workforce training program, the Net Impact Study indicates whether employment and earnings gains are due to the workforce program, or if workers could have made this progress on their own. This research also allows for a more detailed analysis as to whether the participant and the public received a return on their investment in the program.

Did Participants Get the Skills They Needed?

As a measure of whether participants got the skills they needed, this study tracks the credentials and degrees earned by participants. Among those leaving a Worker Retraining program in 2012-13:

³ Worker Retraining participants were not included in the Workforce Board's 2012 Employer Survey, which provides feedback on how well workforce program participants perform in the workplace in areas such as job skills; reading, writing and math, and teamwork, among others.



- 26 percent received an associate’s degree.
- 16 percent received a certificate.
- 1 percent received another type of credential.

Another 18 percent were defined as completers because they completed 45 or more credits or a unique (non-degree) program.

Altogether, 61 percent of participants completed their program. This completion rate is down by a small amount from the 62 percent for those who left Worker Retraining programs in the 2013 report. In that report, 26 percent received an associate’s degree, 16 percent received a certificate, and 19 percent were defined as completers because they completed 45 or more credits or a unique (non-degree) program. Although there was a slight decline in the completion rate, it’s not clear whether this is a function of the improving labor market. More students may have left their training earlier because of the opportunity to go to work.

Did Participants Have a Job and How Much Were They Paid?

To find out whether participants had jobs and how much they earned, participant records were matched with Employment Security Department wage files from Washington and neighboring states.⁴ The study looks at employment and earnings three calendar quarters after the participant exited a Worker Retraining program. Record matches found that 66 percent of the participants had reported employment during the third quarter after they left their program, 2 percentage points lower than that reported in the last report.

Their median hourly wage was \$16.91, and they had median annualized earnings of \$31,290.⁵ Program completers were more likely to be working full time than the overall participant population (69 percent compared to 67 percent) and had higher annual earnings (\$32,551 compared to \$31,290).

⁴ These files contain quarterly earnings and hours worked information on those individuals with employment reported for unemployment insurance (UI) benefits purposes (approximately 90 percent of in-state employment, with self-employment, active duty military, and those working for religious nonprofit organizations being the major groups of employers not included).

⁵ Annual earnings are calculated as third quarter earnings multiplied by four. Quarterly earnings are the result of hourly wage rates and the number of hours worked in a calendar quarter. All wages and earnings are stated in first quarter 2014 dollars.



2014 Employment and Earnings for Worker Retraining Participants

Performance Measure	Results
Employment Rate* (State Records)	66%
Employment Rate (Completers)	69%
Full-Time Employment**	67%
Median Quarterly Hours	468
Median Hourly Wage***	\$16.91
Median Annualized Earnings***	\$31,290
Median Annualized Earnings (completers)	\$32,551

*These figures apply to those with employment reported to state employment agencies six to nine months after leaving the program. Rate does not include self-employment, employment outside the Northwest, or military service and thus understates total employment by approximately 10 percent.

**Full-time employment averages 30 or more hours per week.

***Earnings/wages expressed in first quarter 2014 dollars in order to account for inflation.

Earnings of Worker Retraining Participants

The next table shows employment and earnings information over five study periods, starting with 2011. Wages continue to be widely distributed among Worker Retraining participants. Although the median hourly wage was \$16.91, one quarter earned more than \$23.44 an hour, while another quarter had jobs that paid less than \$12.83 an hour. This wide distribution of wages is reflected in the dispersion of employment across higher and lower-wage industries.

Performance Measure	2010	2011	2012	2013	2014
Employment Rate* (State Records)	58%	61%	66%	68%	66%
Full-Time Employment**	57%	58%	64%	61%	67%
Median Quarterly Hours	429	442	468	455	468
Median Hourly Wage***	\$17.05	\$17.69	\$17.67	\$16.48	\$16.91
Median Annualized Earnings***	\$28,639	\$28,872	\$31,036	\$29,104	\$31,290

*These figures apply to those with employment reported to the Employment Security Department six to nine months after leaving program. Rate does not include self-employment, employment outside the Northwest, or military service and thus understates total employment by approximately 10 percent.

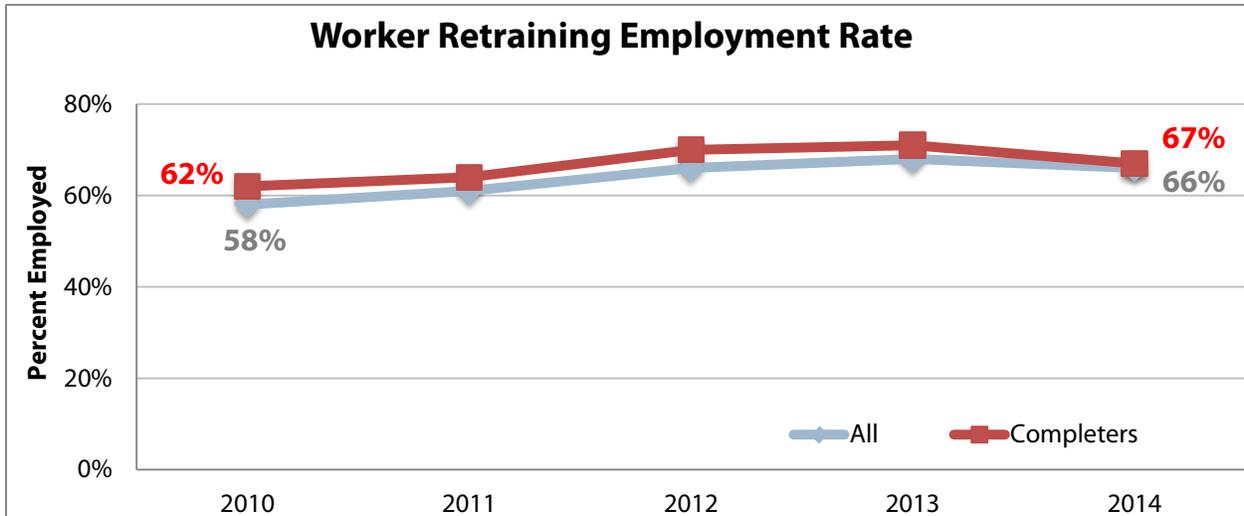
**Full-time employment averages 30 or more hours per week.

***Earnings/wages expressed in first quarter 2014 dollars in order to account for inflation.



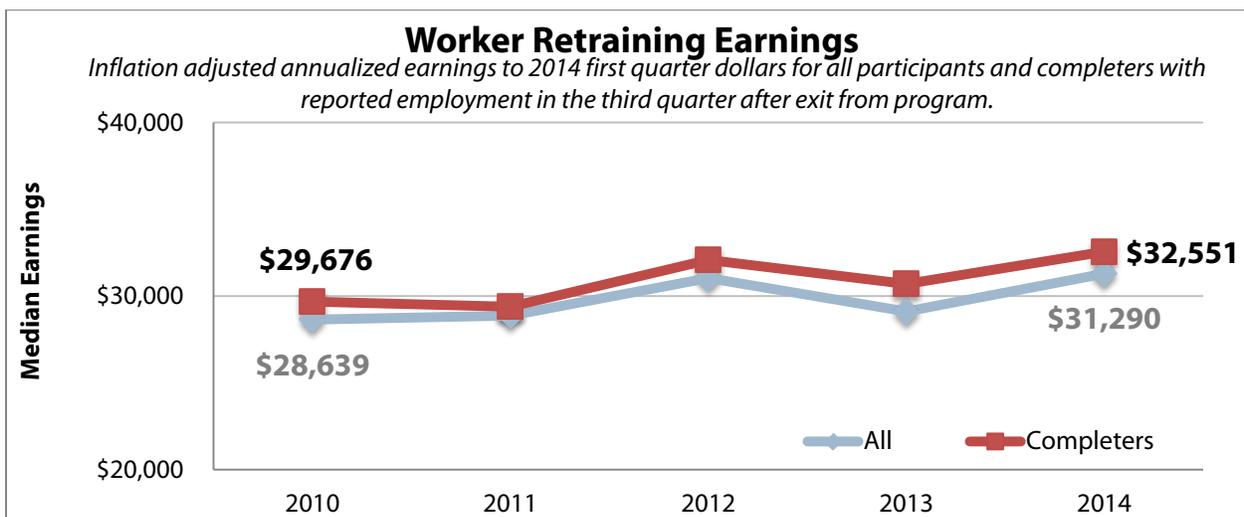
Employment and Earnings Trends for All Worker Retraining Participants

The employment rate among all Worker Retraining participants declined during the Great Recession. However, there has been an increase in employment from a low of 58 percent in 2011, to 68 percent in 2014, before a moderate decline in 2015. The employment rate among those completing the Worker Retraining program was only a little higher than for all participants. However, there has historically been a larger employment rate difference between completers and general participants.



Note: Rate does not include self-employment, employment outside the Northwest, or military service and thus understates total employment by approximately 10 percent.

Among all Worker Retraining participants, earnings rose between the 2014 and 2015 Workforce Training Results, to just above the 2013 levels. Earnings were four percent higher for those participants who completed the program, a trend that has borne out over time.



Note: Workforce Training Results 2010-15 reports. Note: This chart shows annualized earnings in 2013 first quarter dollars to account for inflation.



Worker Retraining Participants Employment by Industry

While over half of those employed found jobs in the service industry, 10 percent were working in manufacturing, 9 percent in retail trade, and 8 percent in construction. Healthcare was the top services sub-industry, accounting for 18 percent.

Industry Group	
54%	Services
10%	Manufacturing
9%	Retail Trades
8%	Construction
5%	Public Administration
4%	Transportation and Warehousing and Utilities
4%	Financial Services
4%	Wholesale Trade
1%	Information
1%	Natural Resources and Mining
Breakout of Services	
18%	Health Care
12%	Admin., Support, Waste Management, and Remediation Services
6%	Social Assistance
6%	Professional, Scientific, and Technical Services
5%	Education Services
4%	Accommodation and Food Services
3%	All Other Services
1%	Arts, Entertainment, and Recreation
Breakout of Manufacturing	
4.3%	All Other Manufacturing
2.4%	Aerospace
1.4%	Fabricated Metal Products
1.2%	Food & Beverage
1.0%	Wood & Paper Products

Source: Matches with Employment Security Department data in third quarter after exiting program. Industry groups based on North American Industry Classification System (NAICS) codes.

Relationship of Training to Employment

In 2013, the Workforce Board surveyed Worker Retraining Participants who had left their program in 2011-12. The survey provided data on employment and documented how satisfied participants were with their training. The Participant Satisfaction Survey was conducted by telephone and was completed by 160 participants.

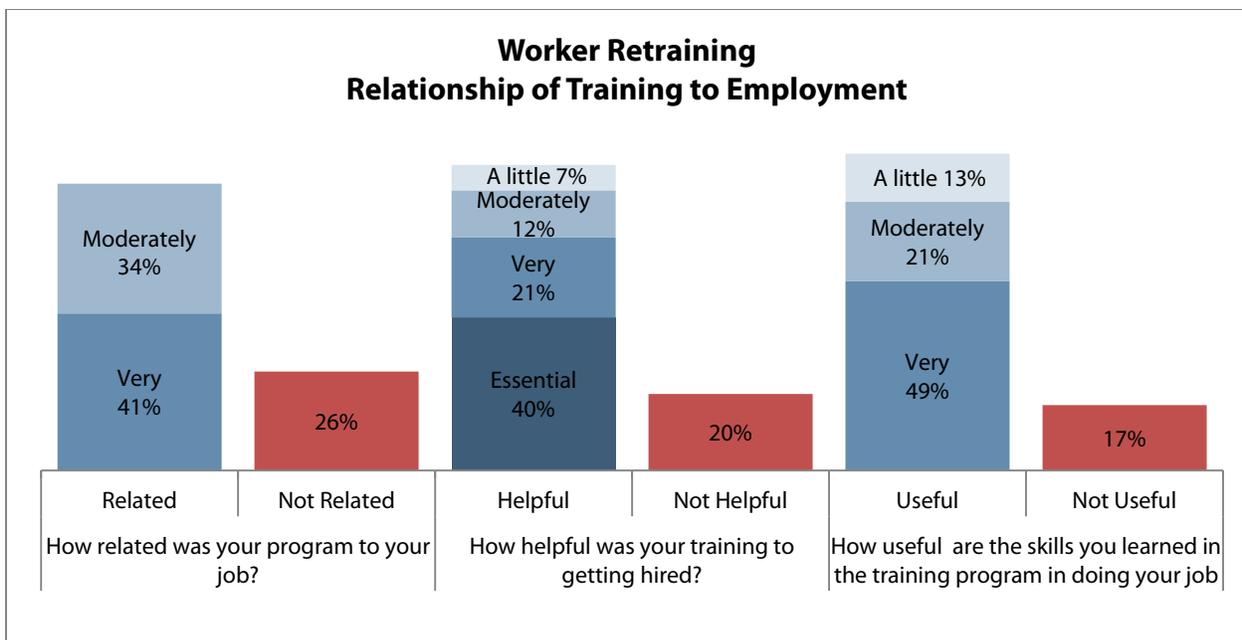
To measure the extent to which a participant's education program and training related to employment, we asked participants three questions:



1. How related was the program to their job?
2. How important was the training in getting hired?
3. Are the skills they learned useful in their job?

Asking about the relationship between training and employment in different ways can produce more complete information. For example, some participants said their training was not related to their job, but nevertheless found the skills acquired were useful on the job.

Among Worker Retraining participants employed seven to nine months after leaving a program, 41 percent said their training was “very related” to their job. A further 18 percent reported the training was “somewhat related” to their job. In 2011, slightly higher rates of employed participants reported their training was “very related” (46 versus 41 percent) while 22 percent more participants said the training was “somewhat related.”



Source: Workforce Board's Participant Satisfaction Survey 2013.

Participants interviewed in 2013 also indicated the training was helpful to them in getting their job. Of those participants, 40 percent indicated their training was an “essential requirement,” another 21 percent indicated it was “very important,” and 12 percent reported it was “moderately important.” Seven percent said it was “a little helpful.” The remaining 20 percent indicated their training was “not important at all” to getting their job, 7 percentage points below the 2011 survey.

Most participants said skills they learned in their training program were useful in doing their job. Some 49 percent of participants indicated the skills were “very useful,” 21 percent said “moderately useful,” and 10 percent “a little useful.” Only 17 percent of participants who were employed indicated the skills were “not useful at all.”

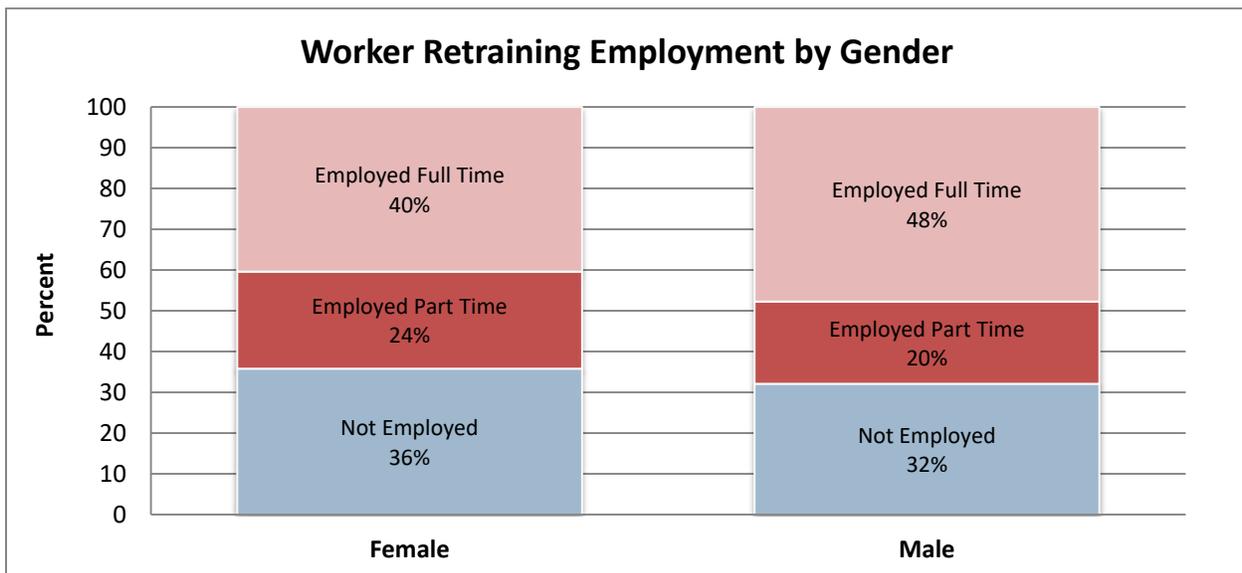


When combining two of the questions about the program’s relationship to the job and about whether the skills acquired were helpful, a small percentage of participants answer negatively to both. Just 12 percent of participants employed the third quarter after exit said the training they received was *neither* helpful in their job nor related to the job they obtained.

Wages and Employment Results Vary by Population

Employment and earnings can vary by gender, race and ethnicity, and disability status. Forty-eight percent of men were employed full time, and 20 percent part time for an overall rate of 68 percent. Women’s overall employment rate was 64 percent. Men were also more likely to be employed full time than women (48 percent versus 40 percent).

The wage gap between men and women in the Worker Retraining program is notable. Women’s hourly wages were 85 percent of men’s (\$15.65 vs. \$18.32) and their annual earnings were 80 percent of men’s (\$28,302 vs. \$35,507).



Source: Community and Technical College Administrative Data (DLOA)

Race and Ethnicity Plays Role

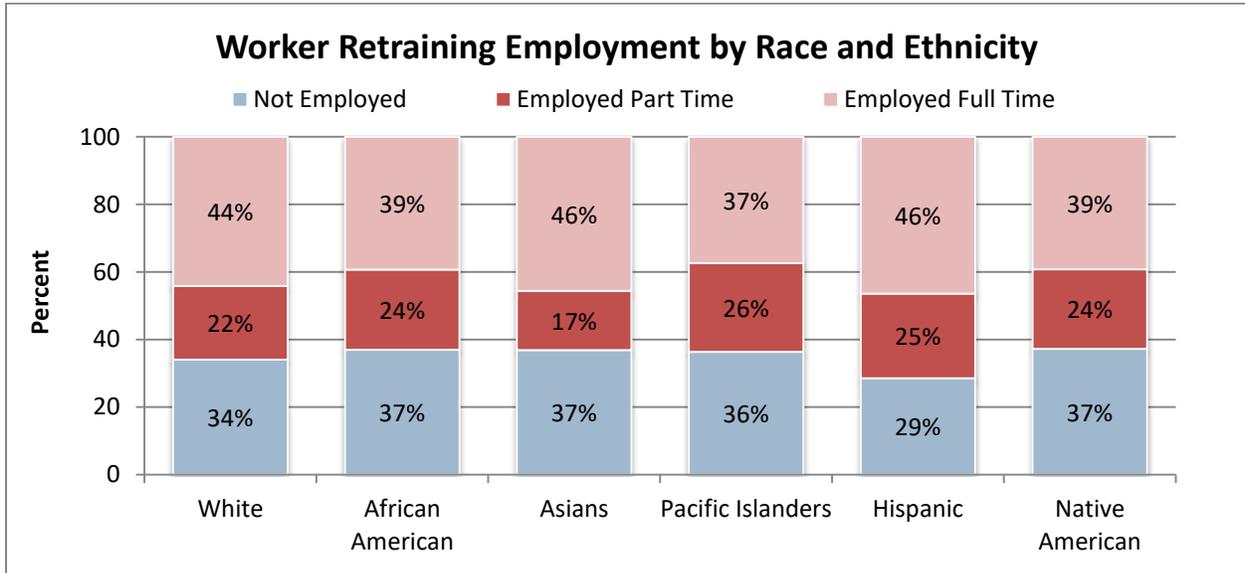
Variation was also found for employment rates among racial and ethnic groups. Hispanics had the highest overall rate of employment at 71 percent (46 percent full time and 25 percent part time), followed by whites (66 percent overall, 44 percent full time), and Pacific Islanders, African Americans, Asians and Native Americans all at 63 percent.

Racial and ethnic variation was also found with full-time employment. Asians and Hispanics were most likely to be working full time (46 percent); Pacific Islanders had the lowest percentage of people working full time (37 percent).

Pacific Islanders had the highest median hourly wage at \$18.58, followed by Asians (\$17.76), whites (\$17.22), Native Americans (\$16.15), Hispanics (\$15.41), and African Americans (\$14.83)



The breakdown for annual earnings among different racial and ethnic groups was distributed slightly differently from that of median hourly wages. Asians had the highest earnings (\$35,511), followed by Pacific Islanders (\$34,346), whites (\$32,070), Native Americans (\$28,781), Hispanics (\$28,401), and African Americans (\$27,236).



Source: Community and Technical College Administrative Data (DLOA)

Disability Impacts Employment, Earnings

Earnings and employment outcomes also varied by disability status. College records indicate 7 percent of the Worker Retraining participants included in this study had a disability. Twenty-nine percent of participants with a disability were employed full time, and 19 percent part time to reach an overall rate of 48 percent. These participants were less likely to have overall employment reported to the Employment Security Department during the third quarter after exit than participants without a disability (48 percent versus almost 69 percent) and were less likely to be employed full time (29 percent versus 46 percent). Among those working, the median hourly wage rate of those with a disability (\$15.55) was 91 percent of those without a disability (\$17.05), whereas the annual earnings of those with a disability (\$26,162) was 83 percent of those without a disability (\$31,625).



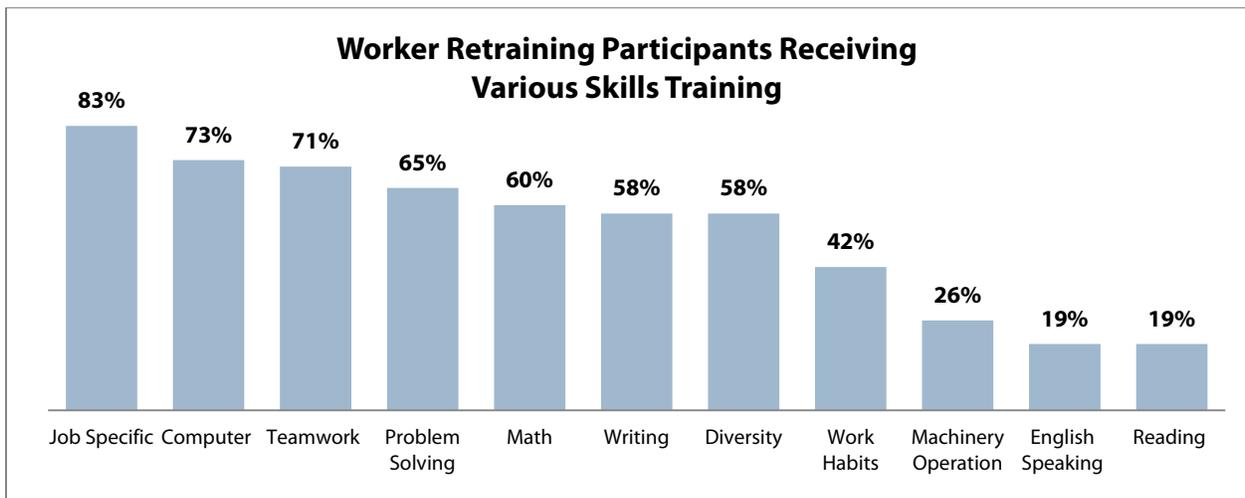


Source: Community and Technical College Administrative Data (DLOA)

Competency Gains

The primary goal of Worker Retraining is to prepare dislocated workers for new jobs. Worker Retraining participants agree; 95 percent indicated one of the main reasons they enrolled was to learn skills for a new job, and 93 percent reported they enrolled to get or finish a degree or certificate. In addition, 73 percent decided to enroll for personal improvement or enjoyment.

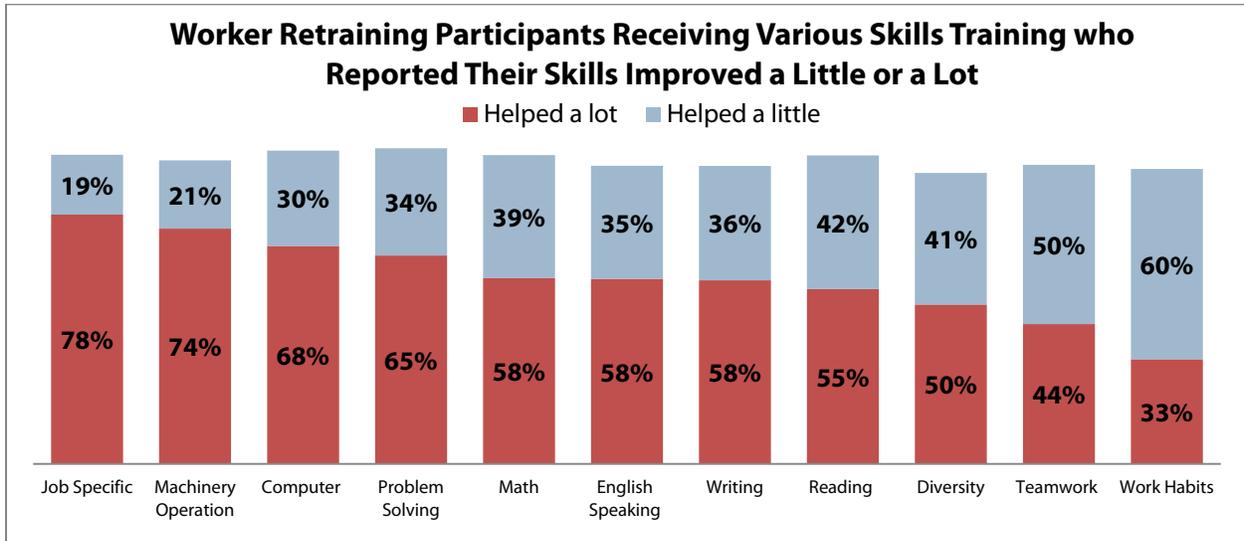
Complementing job specific skills, many participants also received other types of training. Compared to the 2011 Workforce Board Participant Survey, the current participants received more of the most common types of training. For example, the percentage of participants receiving job specific, computer, teamwork, and problem solving training rose in 2013. In fact, the only skill training that saw a decrease in participants receiving training between the two surveys was machinery operation.



Source: Workforce Board's Participant Satisfaction Survey 2013.



Compared to the participants in the 2011 survey, the participants in the 2013 survey saw increasing percentages of “helped a lot.” All skill areas saw increases in “helped a lot” with the three exceptions: teamwork and work habits declined in 2013, and diversity showed no change.



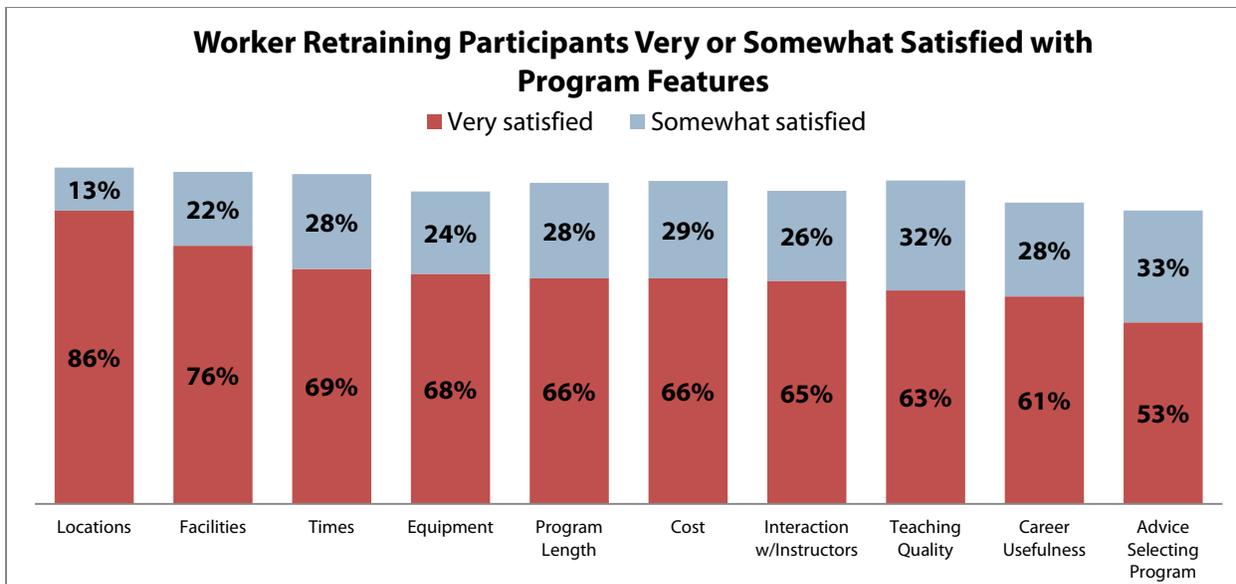
Source: Workforce Board's Participant Satisfaction Survey 2013.

Participant Satisfaction

Similar to the previous study, participants expressed very high levels of satisfaction with their program. Some 86 percent reported they had met their educational objectives compared to 83 percent in 2011 and 84 percent in 2008.

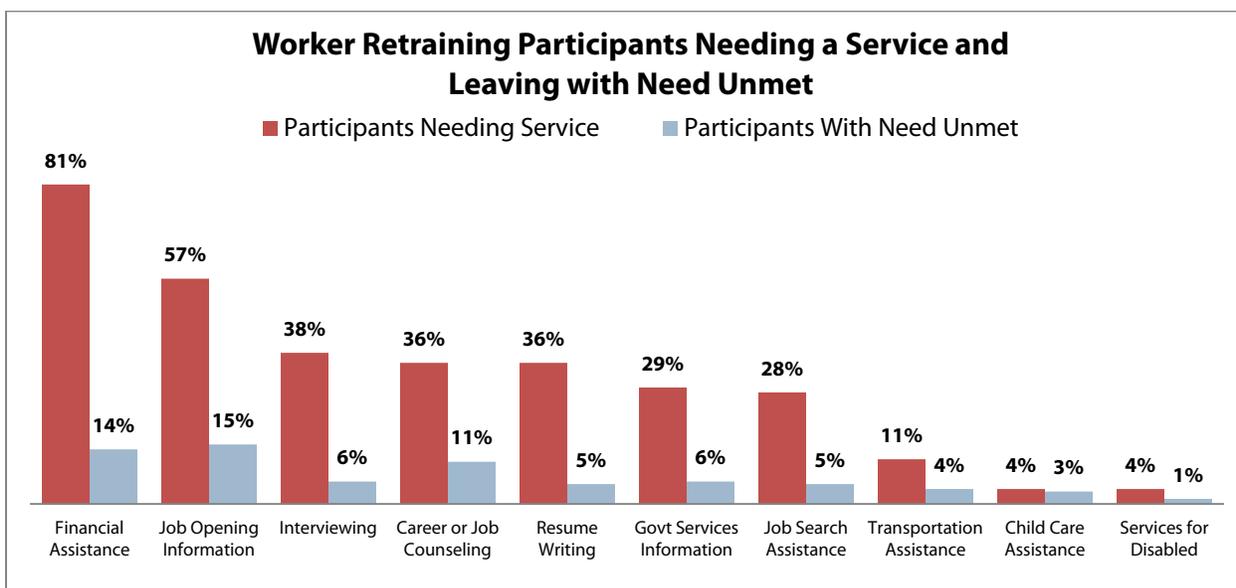
Similarly, 91 percent of the participants reported they were “very satisfied” or “somewhat satisfied” with the program, up from 86 percent in 2011 and 90 percent in 2008. Participants tended to be “very satisfied” with most aspects of the program, particularly location, facilities, and the times held. Advice selecting a program and career usefulness showed the lowest percentage reporting being “very satisfied.”





Source: Workforce Board's Participant Satisfaction Survey 2013.

As in the past several surveys, the two most frequently needed support services while enrolled were financial assistance and job opening information. The percentage of participants who reported needing financial assistance rose from 64 percent to 81, and the percentage that left with an unmet need⁶ in this area dropped from 15 to 14 percent. While most participants received the support services needed, 15 percent of participants left the program with an unmet need for job opening information.

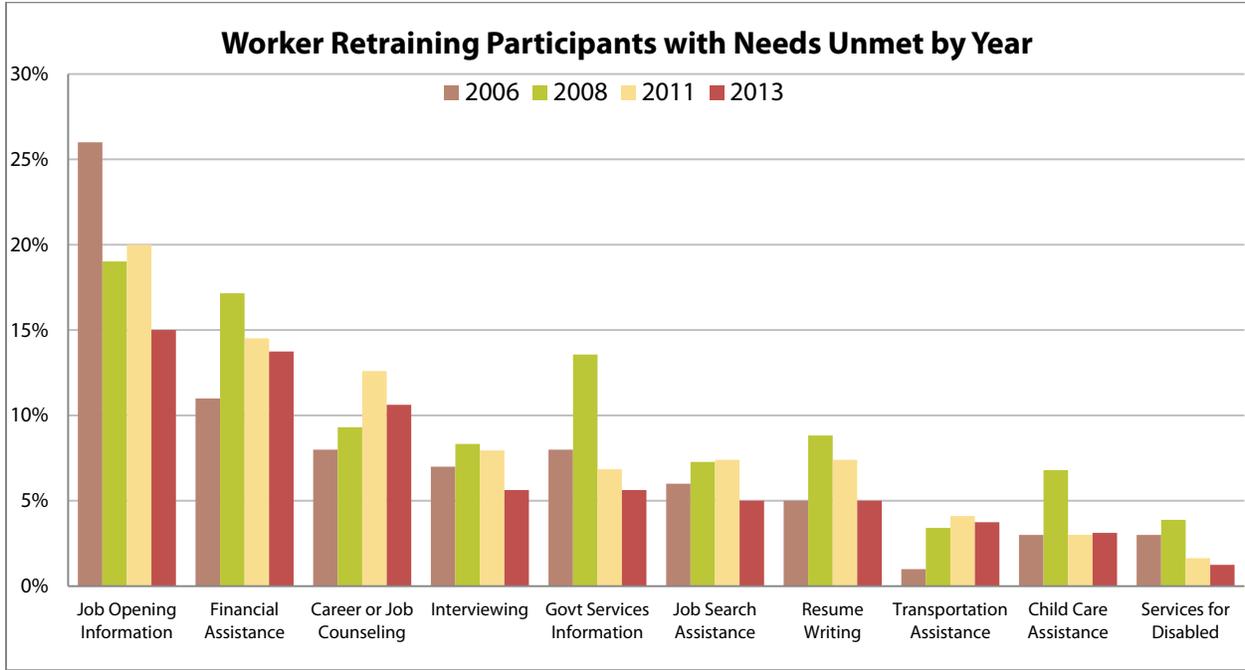


Source: Workforce Board's Participant Satisfaction Survey 2013.

⁶ Unmet need refers to cases where the student reports that either they did not receive the required service, or what was provided did not meet their needs.



Overall, during the past three surveys there has been a decline in participants reporting that they left their program with an unmet need in most categories. In addition, most need areas have shown decline when compared with previous surveys. The need for career counseling and transportation assistance decreased since the 2011 survey



Source: Workforce Board Participant Satisfaction Surveys 2006-2013.



Net Impact - Did Program Make a Difference in Participant Success

Every four years, the Workforce Training and Education Coordinating Board conducts a net impact analysis of workforce development programs. This detailed study compares participants and non-participants. The net impact part of this study attempts to measure whether the program made a difference in the participant's success. Washington is the only state to periodically conduct rigorous net impact evaluations of its workforce programs.

The Worker Retraining program has positive net impacts on employment and wages.

The net impact analysis was conducted by the W.E. Upjohn Institute for Employment Research (Upjohn), a national leader in evaluating training programs. To do the analysis, Upjohn studied program participants to see what results they achieved and compared these results with a control group. Individuals who participated in a community or technical college Worker Retraining program were compared to individuals who had similar demographic characteristics, but who did not participate in any of the programs included in the study. The comparison group members were selected from among those who registered with WorkSource, Washington's one-stop career center system.

The most recent net impact analyses examined experiences of participants who left the Worker Retraining program through 2009. The short-term impact (Program Year 2007-08) was observed in 2008-09, while the long-term impact (Program Year 2005-06) was observed from 2006-07 through 2008-09.

Impact on Employment and Earnings: Participants vs. Control Group

Worker Retraining	Short-term [^]	Long-term [^]
Net Employment Impact*	8.80 percentage points	7.50 percentage points
Net Hourly Wage Impacts**	No significant positive impacts	\$1.08
Net Quarterly Hours Impacts	26.6	23.5
Net Annualized Earnings**	\$1,759	\$3,004

[^]Short-term is 3 quarters after program exit; Long-term is average across 3 years since program exit.

*Percentages listed are employment percentage points above those of the control group of non-participants.

**Wages and earnings, expressed in first quarter 2014 dollars, represent the average difference between Worker Retraining participants who got jobs and those in the control group who were employed.



As can be seen in the previous table, the Worker Retraining Program had a positive impact on employment, hours worked and annualized earnings. The long-term net impacts on hourly wages were also positive among Worker Retraining participants versus the control group.

Costs and Benefits

The cost-benefit analysis estimates the value of the net impact on earnings, employee benefits (estimated at 25 percent of earnings), UI benefits, and certain taxes.⁷ Program costs include both direct program costs and support payments borne by taxpayers and the tuition and foregone earnings borne by students. Benefits and costs are calculated for both the observed period of time based upon a statistical model that estimated the benefits and costs out to age 65 in order 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 2014 Q1 dollars to control for inflation. The benefits and costs presented here are based on impacts estimated for students leaving programs in 2005-2006 (observed from 2006-07 through 2008-09), because a longer-term follow-up is required for this analysis.

Participant and Public Benefits and Costs per Participant in Community and Technical College Worker Retraining Programs

Benefit/Cost	First 2.5 years		Lifetime (until 65)		Sum of Costs and Benefits
	Participant	Public	Participant	Public	
Benefits					
Earnings	\$10,247	\$0	\$80,310	\$0	
Fringe Benefits	\$2,561	\$0	\$20,078	\$0	
Taxes	-\$2,115	\$2,115	-\$16,584	\$16,584	
Transfers					
UI	-\$159	\$159	\$1,188	-\$1,188	
Costs					
Foregone net earnings	-\$12,781	-\$2,529	-\$12,781	-\$2,529	
Program costs	-\$3,808	-\$7,408	-\$3,808	-\$7,408	
Benefits	\$10,533	\$2,275	\$84,993	\$15,395	
Costs	-\$16,590	-\$9,937	-\$16,590	-\$9,937	
Total (Net)	-\$6,057	-\$7,662	\$68,403	\$5,459	\$73,862

Note: Benefits and costs are expressed in 2014 first quarter dollars.

⁷ Upjohn estimated the impact of the net change in earnings on social security, Medicare, federal income, and state sales taxes.



For each student in a community or technical college Worker Retraining program, the public (taxpayer) cost is about \$7,408 over the length of their enrollment, and the student costs are about \$3,808 in tuition and \$12,781 in foregone earnings while training. During the course of working life to age 65, the average trainee will gain about \$67,529 in net earnings (earnings minus foregone earnings) and \$20,078 in employee benefits.

These are net gains compared to the earnings of similar individuals who did not receive training. Including program costs and the net impacts on taxes and unemployment insurance benefits, the total net benefit per participant is \$68,403.

Projected participant net benefits to age 65 outweigh public costs invested in college training by a ratio of \$9 to 1, or \$68,403 to \$7,408.

From the time of leaving training to age 65, the public is forecasted to gain \$16,584 in net additional Social Security, Medicare, federal income, and state sales taxes. The estimated lifetime net benefit to taxpayers is \$5,459 per participant.

Projected taxpayer net benefits to age 65 outweigh public costs invested in college training by a ratio of \$2 to 1 or \$15,395 to \$7,408.

Summary, Areas for Improvement, and Further Research

The Worker Retraining program provides dislocated workers and the long-term unemployed with access to job retraining for a new career. The Worker Retraining program has strong net impacts on participant's long-term employment and earnings, and provides a positive return to taxpayers. In addition, participants report high levels of satisfaction, with 86 percent meeting their educational objectives. While results for post-program employment rates and earnings are still lower than prior to the Great Recession, employment rates and earnings are on the rebound. Earnings were 4 percent higher for those that completed training, compared to all participants.

Community and technical colleges are launching innovative programs to increase student completion rates through "intrusive" outreach and one-stop advising enrollment centers. For the 2015-17 biennium, the State Board for Community and Technical Colleges is requesting \$18 million in new funding for advising, career planning, and development services. These support services help keep students on track with program requirements to ensure they graduate on time.

There is some room for improvement in the Worker Retraining program. While the program has relatively high participation by women and African Americans, they, and those with disabilities, tend to have lower labor market outcomes. These poorer employment outcomes are not particular to the Worker Retraining program but are generally the case for these populations, overall. However, lower employment and earnings are also tied to program choice. Better career and job counseling, and advice on program selection, could help more students prepare for higher-paying, in-demand occupations. Career and job counseling



support services were rated less highly by Worker Retraining program participants than other services. Also, more than one in six students reported their need for job opening information was not met. Strengthening these services would likely benefit all students, including those program participants whose results have been lagging.





Workforce Training and Education Coordinating Board

2015 Workforce Training Results

Workforce Investment Act Title I-B Program for Youth

Program Details

The WIA Youth program prepares youth for academic and employment success. To receive services, youth must be 14 through 21 years old, low income, and meet other criteria such as needing additional assistance to complete an education program or to secure and hold employment. To be considered low income, potential participants must be a welfare or food stamp recipient, homeless, a foster child, or in a family with income below 70 percent of the lower living standard income level.

Eligible youth are assessed to determine academic, skill level, and support service needs. Strategies are developed for each person based on the assessment results. They may receive:

- Counseling.
- Tutoring.
- Job training.
- Mentoring.
- Work experience.

Other strategies include summer employment, study skills training, or instruction in obtaining a GED or equivalent. Youth may access information services through WorkSource, the state's one-stop career center system. Youth ages 18 through 21 may be co-enrolled in WIA Adult programs. At least 30 percent of the WIA Youth funds must be used to provide activities for eligible out-of-school youth.

The Employment Security Department administers the program at the state level. Twelve local workforce development councils, in consultation with chief local elected officials, oversee WIA activities in local areas. Local youth councils assist with the WIA program.

Every year, the Workforce Board measures the performance of key workforce programs. In this report, you'll find out more about the program and who is served, the metrics used to measure performance and how the program performed.



Workforce Innovation and Opportunity Act to replace WIA

The Workforce Innovation and Opportunity Act passed in the summer of 2014 with broad bipartisan support. It's the first federal reform of the workforce system in 15 years. WIOA replaces and modifies the Workforce Investment Act (WIA), which started in 1998. WIOA provides a framework for better integration and seamless delivery of services across programs and funding streams, with a focus on improving economic outcomes for jobseekers and filling the skills gap for employers. The majority of WIOA provisions become effective on July 1, 2015, with additional requirements set for July 1, 2016. The Workforce Board has been designated by Governor Inslee to oversee planning and policy development for Washington's effective implementation of WIOA. The WIA program remains in effect as WIOA is implemented over the coming year.

Participant Profile

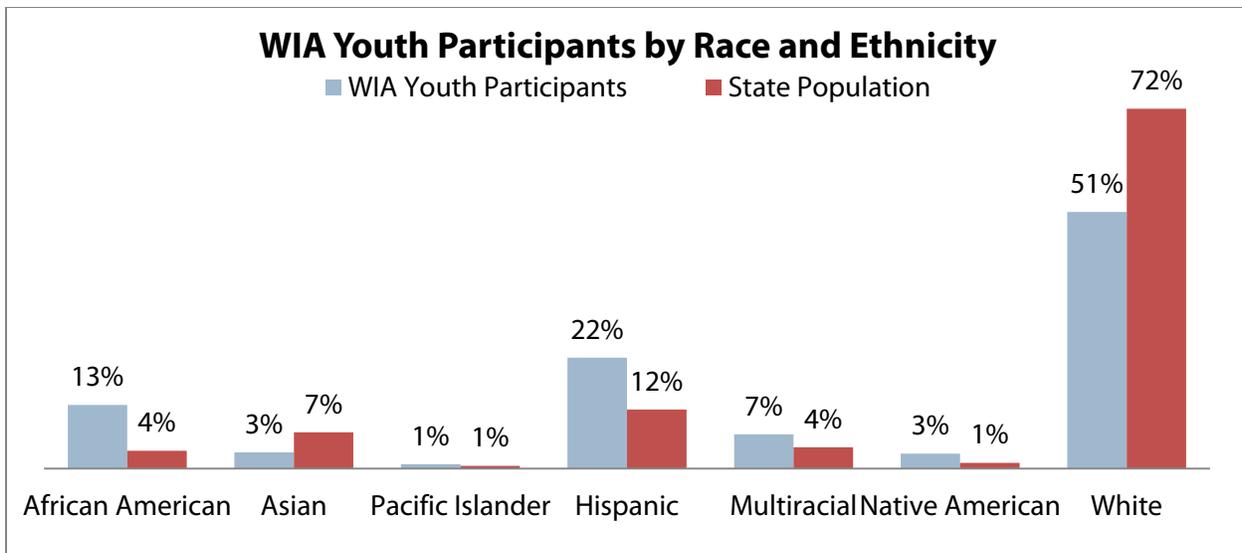
For this 2015 report, researchers studied the results of 2,005 participants who left the WIA Youth program during the most recent reporting year.¹ The median length of time a participant was in the program was 12 months. There was, however, considerable variation in the amount of time participants spent in the program. One quarter enrolled for less than seven months, while another quarter enrolled for over 19 months.

WIA Youth program participants were more racially and ethnically diverse than the general state population.² Among program participants, 51 percent were white, 22 percent were Hispanic, 13 percent were African American, 3 percent were Asian, 3 percent Native American and 1 percent were Pacific Islander.

¹The 2015 Workforce Training Results reports are based on data observed as recently as 2013-2014 for individuals exiting programs during 2012-13.

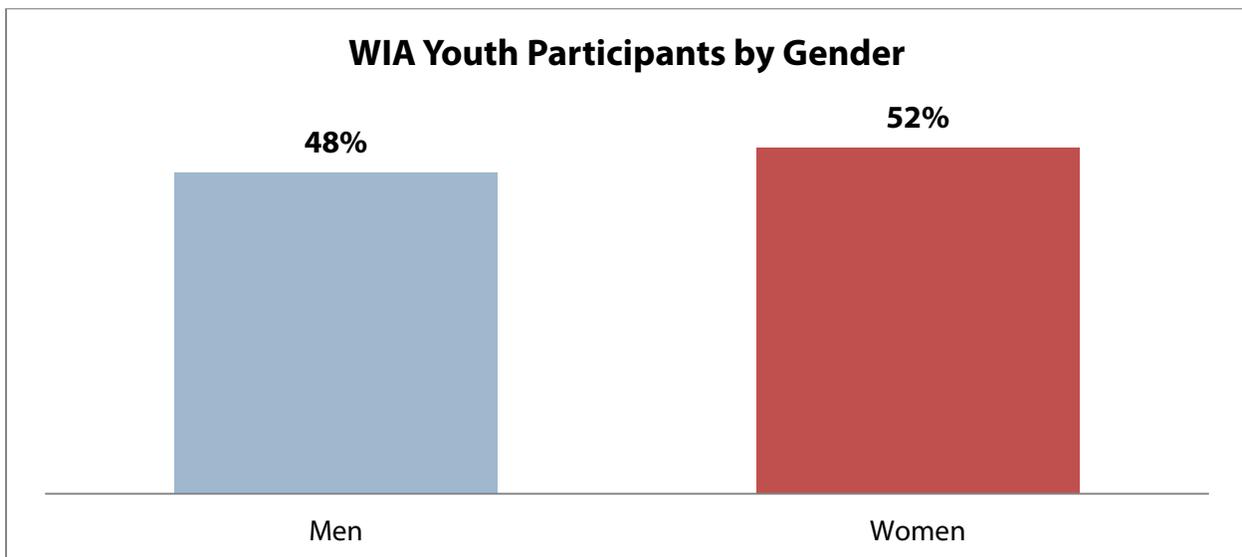
² In this report, unless otherwise stated, racial and ethnic minority groups are mutually exclusive; that is, an individual belongs to one group only. The groups include the following: Hispanics of any race (also referred to as Hispanics); non-Hispanic African Americans (also referred to as African Americans); non-Hispanic Asians (also referred to as Asians); non-Hispanic Pacific Islanders (also referred to as Pacific Islanders); non-Hispanic Native Americans and Alaskan Natives (also referred to as Native Americans); non-Hispanic multiracial (also referred to as multiracial); and non-Hispanic whites (also referred to as whites).





Source: WIA Standardized Record Data (WIASRD) and 2012 U.S. Census Data from the American Community Survey.

Among those leaving the program, 52 percent were female—four percentage points lower than last year. This was a higher percentage³ than females made up in the total population (50.1 percent) and even more so among 15-24 year olds (48.6 percent).



Source: WIA Standardized Record Data (WIASRD).

Many WIA Youth participants faced substantial barriers to success in school and the labor market.

- 46 percent were high school dropouts when they entered the program.⁴

³ 2012 one year estimate from the American Community Survey for Washington State.

⁴ These are defined as youth who had no high school diploma and who were not enrolled in school at registration.



- 17 percent had records of arrest or conviction.
- 11 percent reported a disability.
- 53 percent lived in households that were receiving public assistance.

Tracking WIA Youth Progress

The Workforce Board routinely measures the performance of our state’s largest workforce programs. As a customer-focused advocate for Washington’s workers and employers, the Workforce Board strives to provide performance accountability, verifying whether worker education and training programs provide a return on investment for participants and taxpayers.

The Workforce Training Results report seeks to answer five core questions:

- Did participants get the skills they needed?
- Did participants get a job and how much were they paid?
- Were employers satisfied with the preparation workers received?
- Has the program made a difference in the participant’s success?
- Did participants and the public receive a return on their investment?

Turn to page 18 for the Net Impact Study. Conducted every four years, this in-depth report adds extra value to 2015 Workforce Training Results. The study provides a side-by-side comparison of participants vs. similar non-participants, answering the question of whether the program is making a difference.

Data Comes From State Wage Files, Employer Survey

The 2015 Workforce Training Results includes information obtained from Employment Security Department wage files in Washington, Idaho, and Oregon, and federal employment records for 2013-14. Information on employer satisfaction among firms that hired new employees recently completed a WIA program was assessed through the Workforce Board’s 2012 Employer Survey.⁵

Net Impact Study Adds More Insight into Program Performance

In addition, the report includes a comprehensive Net Impact Study. Conducted every four years, this in-depth, detailed study provides a head-to-head comparison of participants and non-participants to help answer a central question: How much of a workforce participant’s success in obtaining a job, or a higher wage, is due to the workforce program? By comparing program participants with similar individuals who did not participate in a workforce training program, the Net Impact Study indicates whether employment and earnings gains are due to workforce programs, or if workers could have made this progress on their own. This research

⁵ The Employer Survey includes employers who hired a participant who completed at least one of the three WIA programs: Adult, Dislocated Worker, or Youth.



also allows for a more detailed analysis as to whether the participant and the public received a return on their investment in the program.

Did Participants Get the Skills They Needed?

Promoting academic success is an objective of the WIA Youth program. Administrative records provide information on school enrollment and high school completion.⁶ Among younger participants,⁷ data indicate nearly the same level of school enrollment and completion as last year.

Educational Status of WIA Youth Upon Leaving the Program

Educational Status	2010	2011	2012	2013	2014
Obtained a High School Diploma	28%	30%	30%	31%	29%
Obtained a GED	28%	25%	26%	25%	27%
Still Enrolled in High School at Exit	6%	12%	11%	11%	12%
Not in School, no Diploma or GED	38%	33%	34%	33%	32%

Source: WIA Standardized Record Data (WIASRD).

Did Participants Have a Job and How Much Were They Paid?

To find out about the participants' post-program employment and earnings, participant records were matched with Employment Security Department wage files from Washington and neighboring states.⁸ The study looks at employment and earnings of participants who left the program during the most recent reporting year. Some 52 percent of all participants were employed. The employment rate goes up to 53 percent when the 12 percent of the WIA Youth participants still enrolled in high school upon exiting the program were removed from consideration. Of WIA participants who were employed, 30 percent of participants were working full time.

Were Participants Enrolled in Higher Education?

When it comes to young people, a measure of success isn't only employment, but whether they continued with their education. As can be seen in the following chart, 58 percent of WIA Youth were either employed or enrolled in higher education.⁹ Of those participants who were not enrolled in high school or higher education and were employed, 32 percent were working

⁶ These records are collected through the Service, Knowledge, and Information Exchange System (SKIES) maintained by the state's Employment Security Department.

⁷ These youth were ages 14 to 18 when registering in WIA.

⁸ These files contain quarterly earnings and hours worked information on those individuals with employment reported for unemployment insurance (UI) benefits purposes (approximately 90 percent of in-state employment, with self-employment, active duty military, and those working for religious nonprofit organizations being the major groups of employers not included).

⁹ Higher education enrollment figures obtained from data matches with the State Board for Community and Technical Colleges and National Student Clearinghouse.



full time. Median annualized earnings for WIA Youth participants who were not in school were \$11,952, on an inflation-adjusted basis down a little from the 2014 results.

2014 Employment and Earnings for WIA Youth Participants

Performance Measure	Results
Employment or Higher Education*	58%
Full-Time Employed**	32%
Median Hours Worked Quarterly	296 hours
Median Hourly Wage***	\$10.35
Median Annualized Earnings***	\$11,952

* These figures apply to those with employment reported to state employment agencies six to nine months after leaving the program. Rate does not include self-employment, employment outside the Northwest, or military service and thus understates total employment by approximately 10 percent.

** Full-time employment averages 30 or more hours per week for those not enrolled in high school or higher education.

*** Earnings/wages are for those not enrolled in high school or higher education and are expressed in first quarter 2014 dollars in order to account for inflation.

Earnings of WIA Youth Participants

The next table shows employment and earnings over the course of five study periods.

Employment and Earnings Trends for WIA Youth Participants

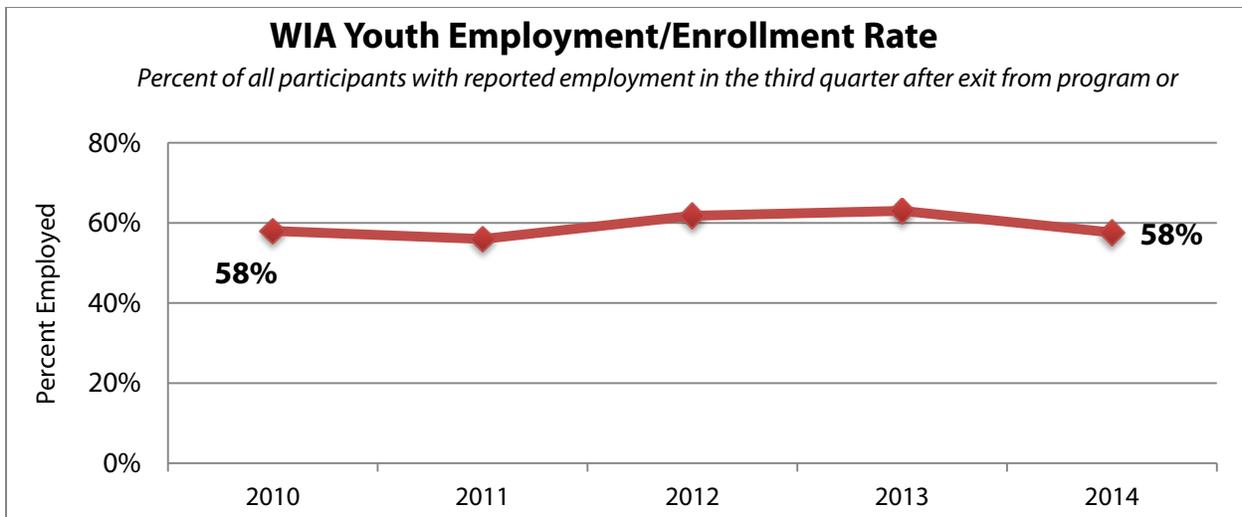
Performance Measure	2010	2011	2012	2013	2014
Employment or Higher Education*	58%	56%	62%	63%	58%
Percentage Employed Full-Time**	32%	29%	36%	35%	32%
Median Quarterly Hours	281	306	306	303	296
Median Hourly Wage***	\$10.58	\$10.42	\$10.43	\$10.28	\$10.35
Median Annualized Earnings***	\$11,312	\$12,341	\$12,439	\$12,253	\$11,952

* These figures apply to those with employment reported to the state's Employment Security Department six to nine months after leaving program, and is not limited to those who completed a program. Rate does not include self-employment, employment outside the Northwest, or military service and thus understates total employment by approximately 10 percent.

** Full-time employment averages 30 or more hours per week for those not enrolled in high school or higher education.

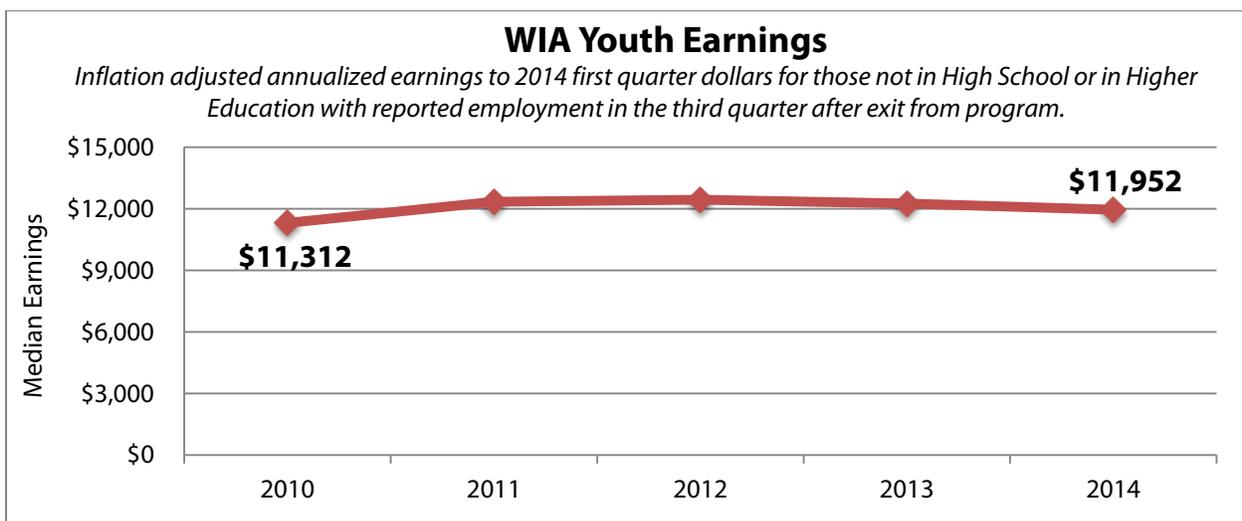
*** Earnings/wages are for those not enrolled in high school or higher education and are expressed in first quarter 2014 dollars in order to account for inflation.





Note: Rate does not include self-employment, employment outside the Northwest, or military service and thus understates total employment by approximately 10 percent.

After peaking at 63 percent in last year's report, the employment/enrollment rate dropped to 58 percent. Median annual earnings were down to \$11,952 for youth, the lowest since 2011. This was largely due to a drop-off in quarterly hours to 296, also the lowest level since 2011.



Note: This chart shows annualized earnings in 2014 first quarter dollars to account for inflation.

Among those not enrolled in high school or higher education, the median hourly wage was \$10.35, and median annualized earnings were \$11,952.¹⁰ These earnings levels are low, but need to be considered within the proper context: these participants were young, entry-level workers, and faced substantial barriers to success in the labor market.

¹⁰ Annual earnings are calculated as third quarter earnings multiplied by four. Quarterly earnings are the result of hourly wage rates and the number of hours worked in a calendar quarter. All wages and earnings are stated in first quarter 2014 dollars.



Distribution of Hourly Wages of WIA Youth in the Third Quarter After Leaving Program	
Quartile	Hourly Wage
Highest	Above \$11.61
Third	\$10.27 – \$11.61
Second	\$9.67 - \$10.26
Lowest	Below \$9.57

Wage rates among WIA Youth participants reflected less variation than programs serving adults. One quarter of participations had median hourly wages above \$11.61, while another quarter had wages below \$9.57—a little above the 2014 state minimum wage of \$9.32.

WIA Youth Participant Employment by Industry

Employment among WIA Youth continues to be concentrated in services (61 percent) and retail trade (21 percent). Participants who worked in Services mostly worked in Accommodation and Food Services.

Industry Group	
61%	Services (see breakout below)
21%	Retail Trade
4%	Manufacturing
3%	Natural Resources and Mining
3%	Construction
2%	Transportation and Warehousing and Utilities
2%	Financial Services
2%	Wholesale Trade
1%	Public Administration
1%	Information
Services Industry	
25%	Accommodation and Food Services
11%	Admin., Support, Waste Management and Remediation Services
11%	Health Care
6%	Social Assistance
3%	All Other Services
2%	Arts, Entertainment, and Recreation
2%	Education Services
1%	Professional, Scientific, and Technical Services

Source: Matches with Employment Security Department data in third quarter after exiting program. Industry groups based on North American Industry Classification System (NAICS) codes.



Relationship of Training to Employment

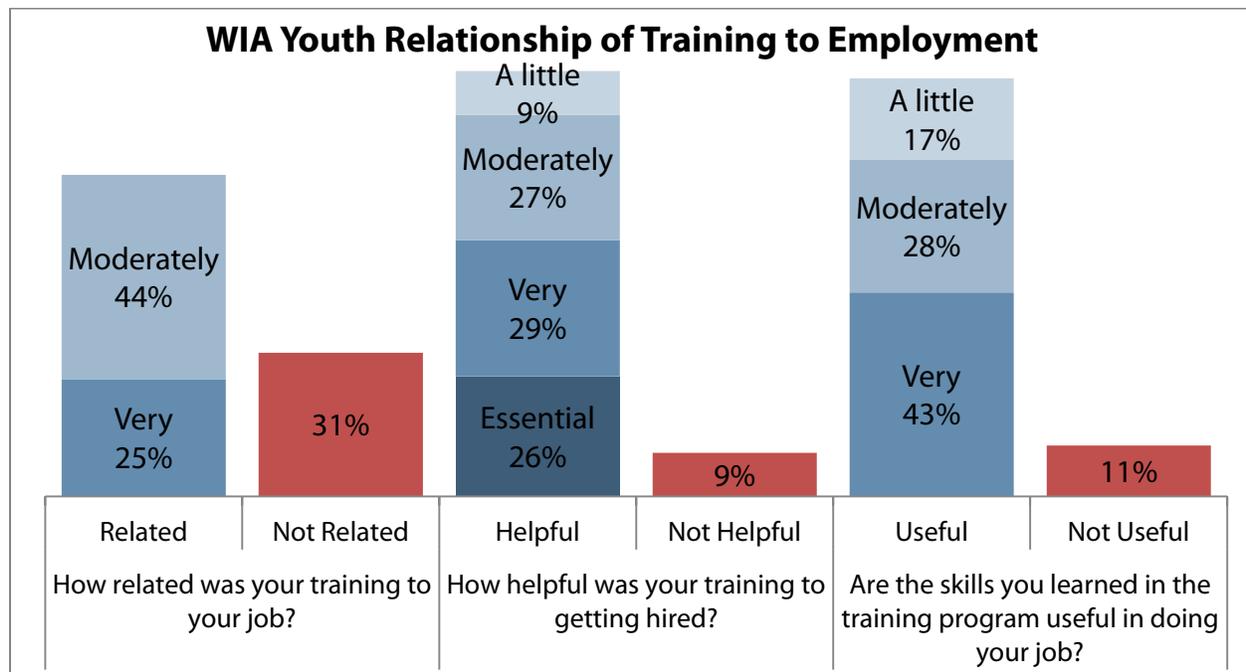
In 2013, the Workforce Board surveyed WIA Youth participants who had left their program in 2011-12. The Participant Satisfaction Survey provided data on employment and documented how satisfied participants were with the training. The survey was conducted by telephone and was completed by 200 participants.

To measure the extent to which a participant’s education program and training related to employment, we asked participants three questions:

1. How related was the program to their job?
2. How important was the training in getting hired?
3. Are the skills they learned useful in their job?

Asking about the relationship between training and employment in different ways can produce more complete information. For example, some participants said their training was not related to their job, but nevertheless found the skills acquired were useful on the job.

Among participants employed six to nine months after leaving a program, 25 percent said their training was “very related” to their job. A further 44 percent reported the training was “moderately related” to their job. Compared the 2011 survey, a lower percentage of employed participants reported their training was “very related” to their job (down from 35 percent), while a higher percentage indicated the training was “moderately related” (up from 25 percent).



Source: Workforce Board’s Participant Satisfaction Survey 2013.

Participants interviewed in 2013 also indicated the training was helpful to them in getting their job. Of those participants, 26 percent indicated their training was an “essential



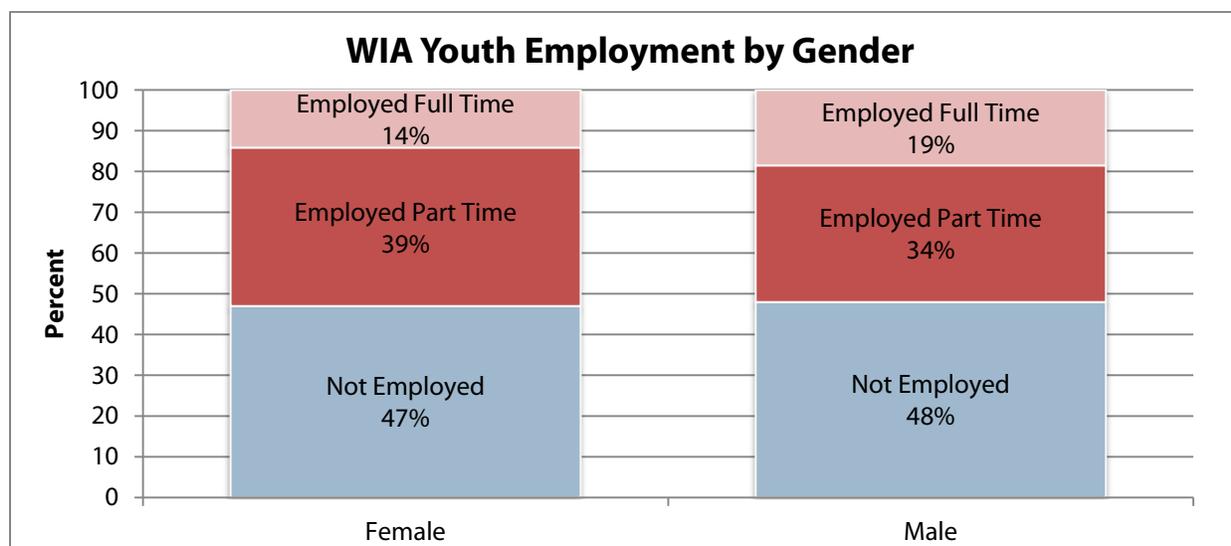
requirement,” another 29 percent indicated it was “very important,” and 27 percent reported it was “moderately important.” Nine percent said it was “a little helpful.” Only 9 percent indicated their training was “not important at all” to getting their job.

Most participants said the skills they learned in their training program were useful in doing their job. Some 43 percent of participants indicated the skills were “very useful,” 28 percent said “moderately useful,” and 17 percent “a little useful.” Only 11 percent of participants who were employed indicated the skills were “not useful at all.”

When combining two of the questions about the program’s relationship to the job and about whether the skills acquired were helpful, a small percentage of participants answer negatively to both. Just 4 percent of participants employed the third quarter after exit said the training they received was *neither* helpful in their job nor related to the job they obtained.

Wages and Employment Results Vary by Population

Employment and earnings outcomes by gender, race/ethnicity, and disability status were less likely to be significant for WIA youth participants than for participants in other programs.¹¹ In the third quarter after exit, 14 percent of females were employed full time, and 39 percent part time for an overall employment rate of 53 percent. This is a slightly higher employment rate than males, who had an overall employment rate of 52 percent. However, women were less likely to work full time than men (14 percent versus 19 percent). Of those employed, women had median hourly wages of \$10.24 compared to \$10.44 for men, and median annualized earnings of \$11,864 compared to \$12,005 for men. The hourly wages for women were 98 percent of men’s wages. Women’s annualized earnings were also 98 percent of men’s earnings.



Source: Matches with Employment Security Department data and WIASRD.

¹¹ These employment and earnings group comparisons were based on data from youth who were not in high school at exit.

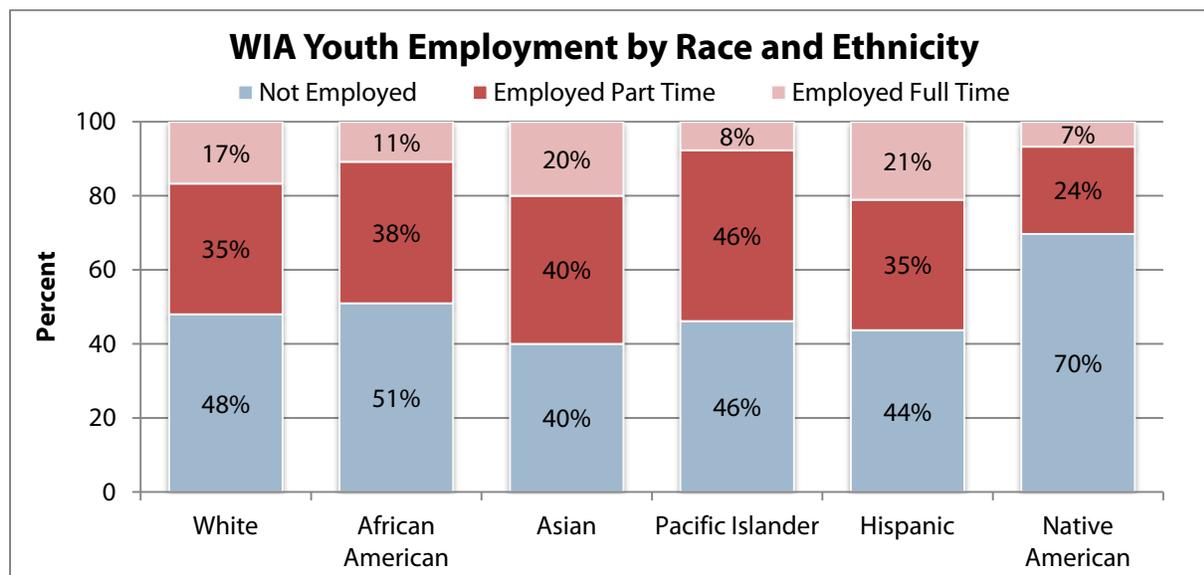


Race and Ethnicity Play a Role

Twenty percent of Asians were employed full time, and 40 percent part time, for the highest overall employment rate (60 percent) among different race/ethnic groups. Hispanics followed with an employment rate of 56 percent, then Pacific Islanders (54 percent), whites (52 percent), and African Americans (49 percent). Native Americans had the lowest employment rate at 30 percent.

Among those working, Hispanics had the highest rate of full-time employment (21 percent), followed by Asians (20 percent), whites (17 percent), and African Americans (11 percent). Pacific Islanders (8 percent) and Native Americans (7 percent) had the lowest rates of full-time employment.

Asians had the highest median hourly wage at \$11.04, followed by whites at \$10.42, Native Americans at \$10.41, Pacific Islanders at \$10.39, and Hispanics at \$10.26. African Americans at \$10.08 had the lowest median hourly wage. There was more variation in the median annual earnings than there was with hourly wages. Again, Asians earned the most, with median annual earnings of \$14,657, followed by Hispanics (\$13,545), Native Americans (\$13,120), Pacific Islanders (\$12,999), whites (\$12,475), and African Americans (\$10,397).



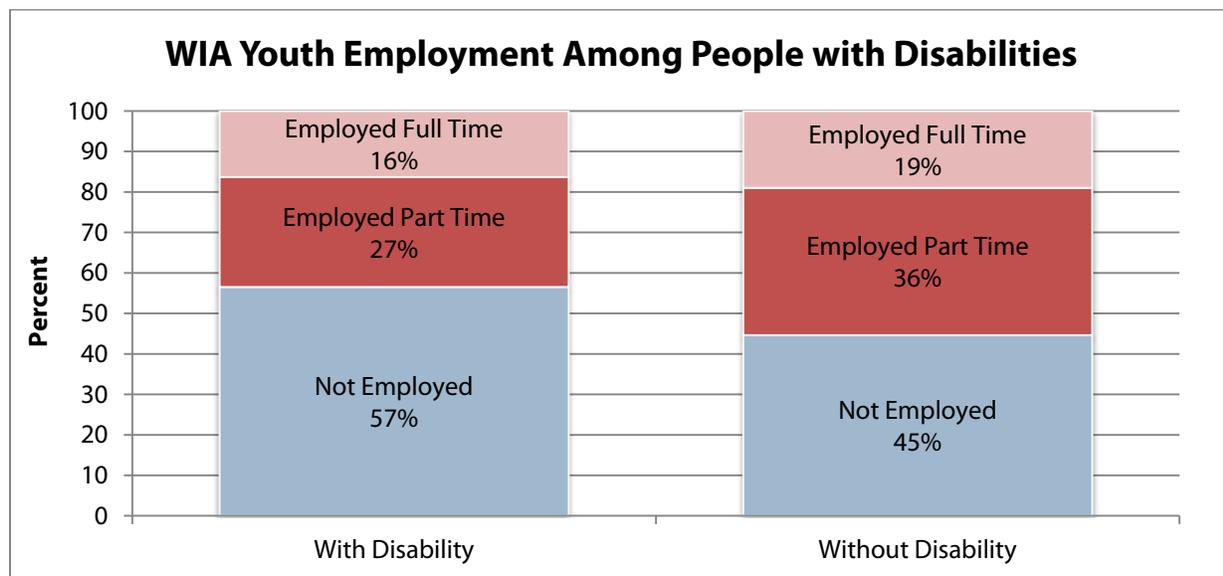
Source: Matches with Employment Security Department data and WIASRD.

Disability Impacts Employment and Earnings

Youth with disabilities had an overall employment rate of 43 percent (16 percent full time and 27 percent part time), which was more than 10 percentage points lower than the overall employment rate of youth without a disability (55 percent). Youth with disabilities were employed full time at 16 percent compared to youth without disabilities at 19 percent. Disabled youth had median hourly wages 95 percent of those without a disability (\$9.84



versus \$10.39) and median annual earnings that were 92 percent of youth without disabilities (\$11,035 versus \$12,014).



Source: Matches with Employment Security Department data and WIASRD.

Were Employers Satisfied with the Preparation Workers Received?

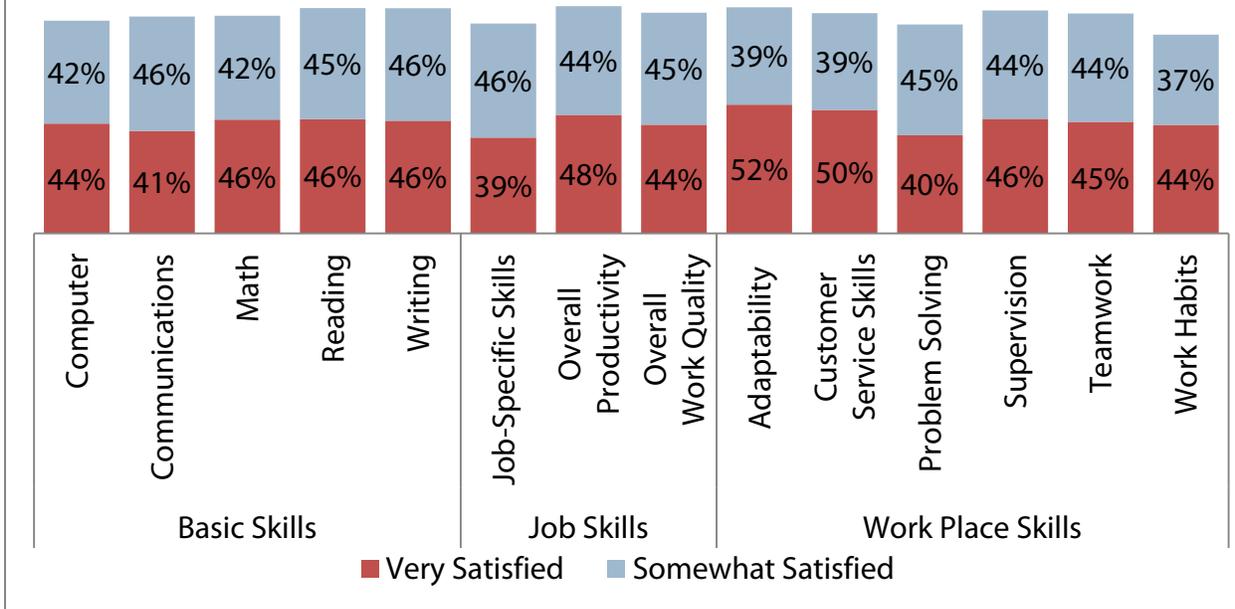
The Workforce Board’s Employer Survey, administered during 2012, asked firms to evaluate new employees who had recently completed a WIA program. All three WIA Title I programs (Adult, Dislocated Worker, and Youth) were grouped together because there are relatively few participants in each category and employers would find it difficult to distinguish one from another. This section presents findings on employer satisfaction with new employees who completed *any type* of WIA program. Some 89 percent of employers said they were either “somewhat satisfied” or “very satisfied” with the overall work quality of these new employees.

Employer satisfaction is broken down into three categories: Basic Skills, Job Skills and Work Place Skills. Basic skills refer to reading, writing, math, communication, and computer skills. Job skills refer to skills specific to the job, as well as overall work quality and productivity. Work place skills refer to the skills necessary to get along in the workplace, such as the ability to accept supervision, the ability to adapt to changes in duties and responsibilities, teamwork, customer service, problem solving or critical thinking skills, and having positive work habits and attitudes.

In 2012, employers reported highest overall satisfaction in the basic skills category with reading, and writing. For job skills, their highest overall satisfaction was with overall productivity. Among work place skills, employers were most satisfied with WIA participants’ adaptability.



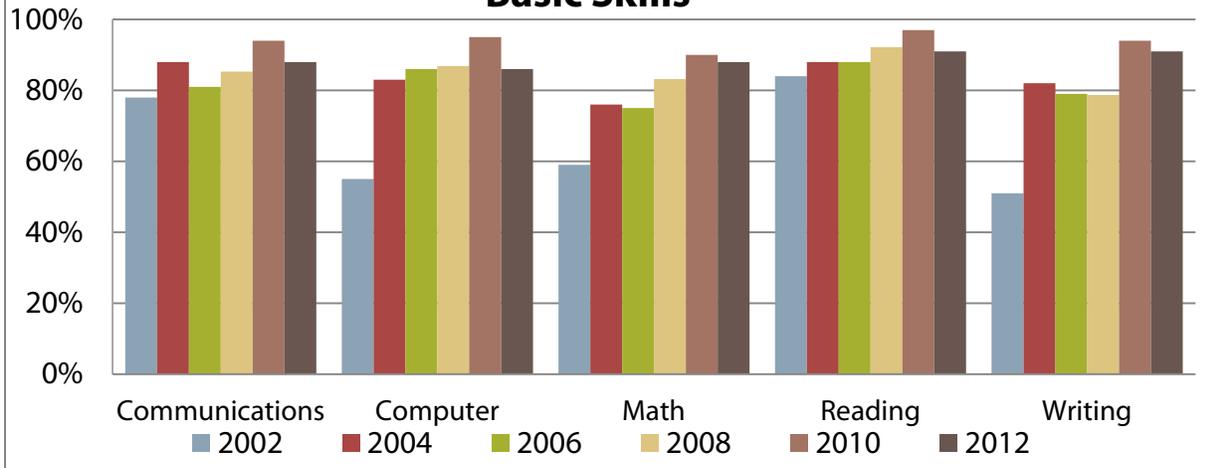
Employers Very or Somewhat Satisfied With New Employees who Completed a WIA Program



Source: Workforce Board Employer Survey conducted in 2012.

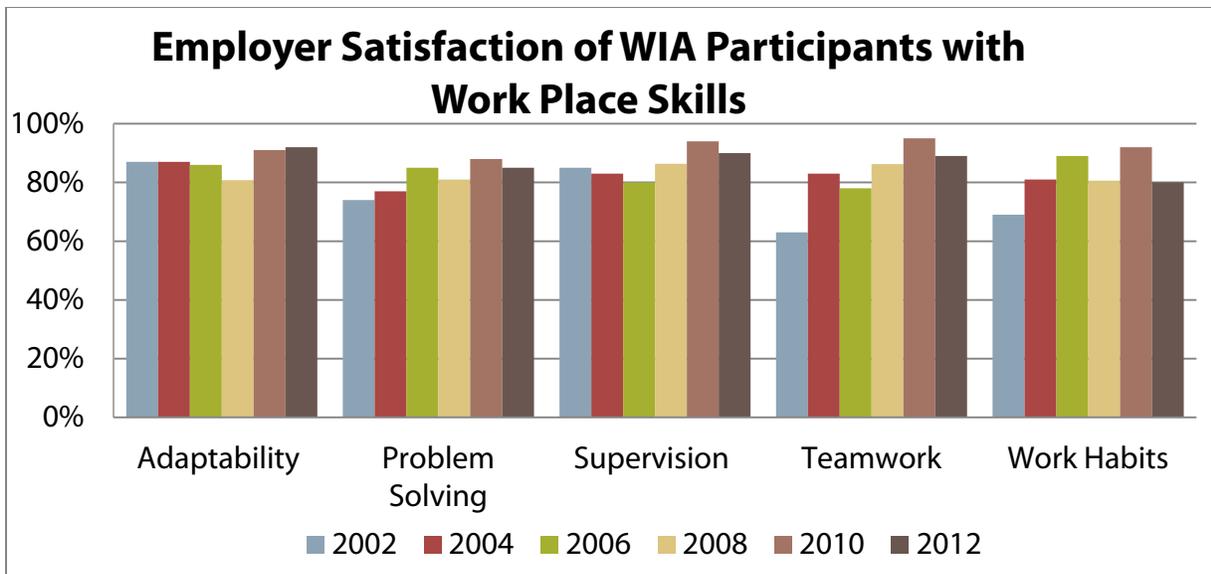
Overall, the levels of employer satisfaction (91 percent) reported in the Workforce Board’s 2012 Employer Survey were lower than on the previous survey, conducted in 2010. The following three charts show the trends in satisfaction of employers with new employees who recently completed a WIA program.

Employer Satisfaction of WIA Participants with Basic Skills

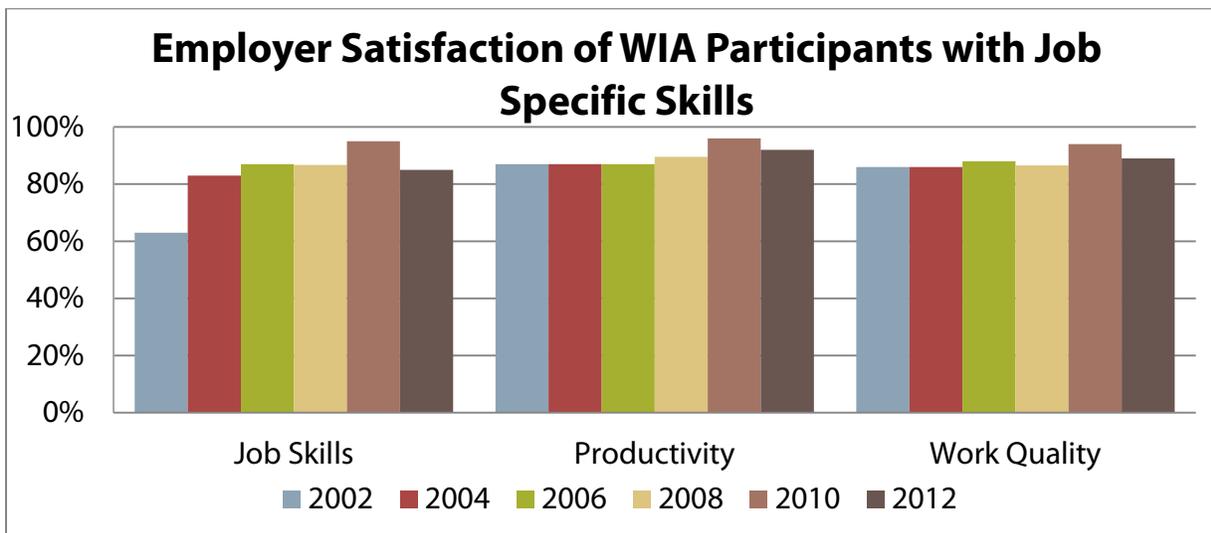


Source: Workforce Board’s biennial Employer Surveys from 2002 through 2012.





Source: Workforce Board's biennial Employer Surveys from 2002 through 2012.



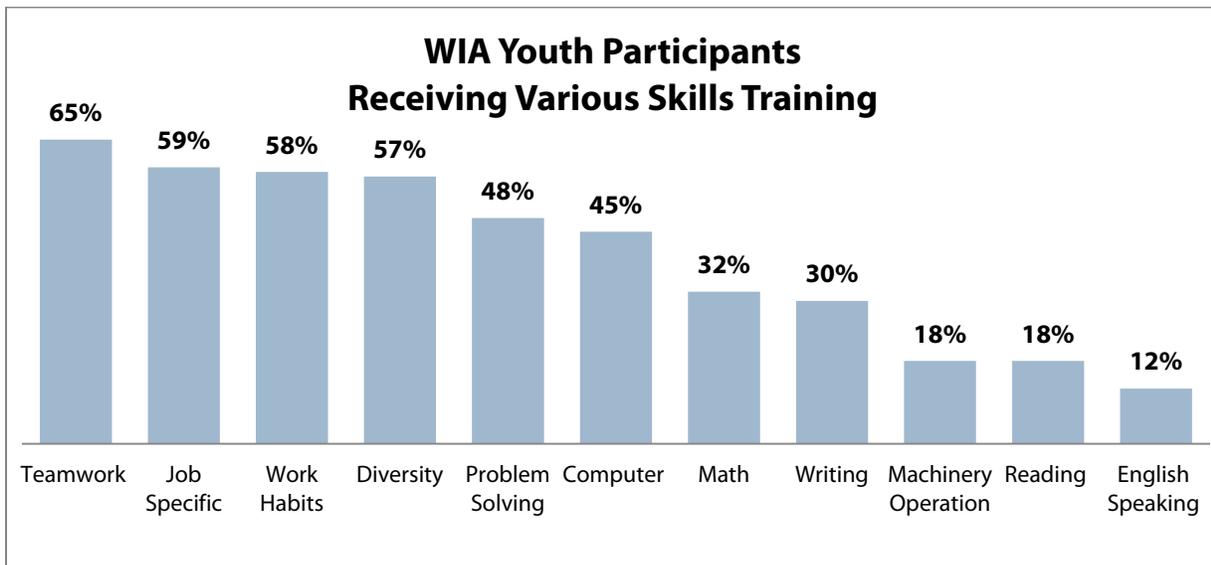
Source: Workforce Board's biennial Employer Surveys from 2002 through 2012.

Participant Survey

Based on Participant Survey results, most WIA Youth participants entered the program for employment-related reasons; 85 percent enrolled to get work experience and 81 percent to learn skills for a new job. Some 89 percent also enrolled for personal improvement.

The majority of WIA Youth participants reported they received some type of training (59 percent). As in the previous study, the two most common types of training received were teamwork (65 percent among those who received training) and job-specific skills (59 percent among those who received training). This is a decrease from the previous Participant Survey, when 76 percent received teamwork training, and 74 percent in job-specific skills. Similar to the previous survey, fewer participants received training in basic skills like reading and English speaking.



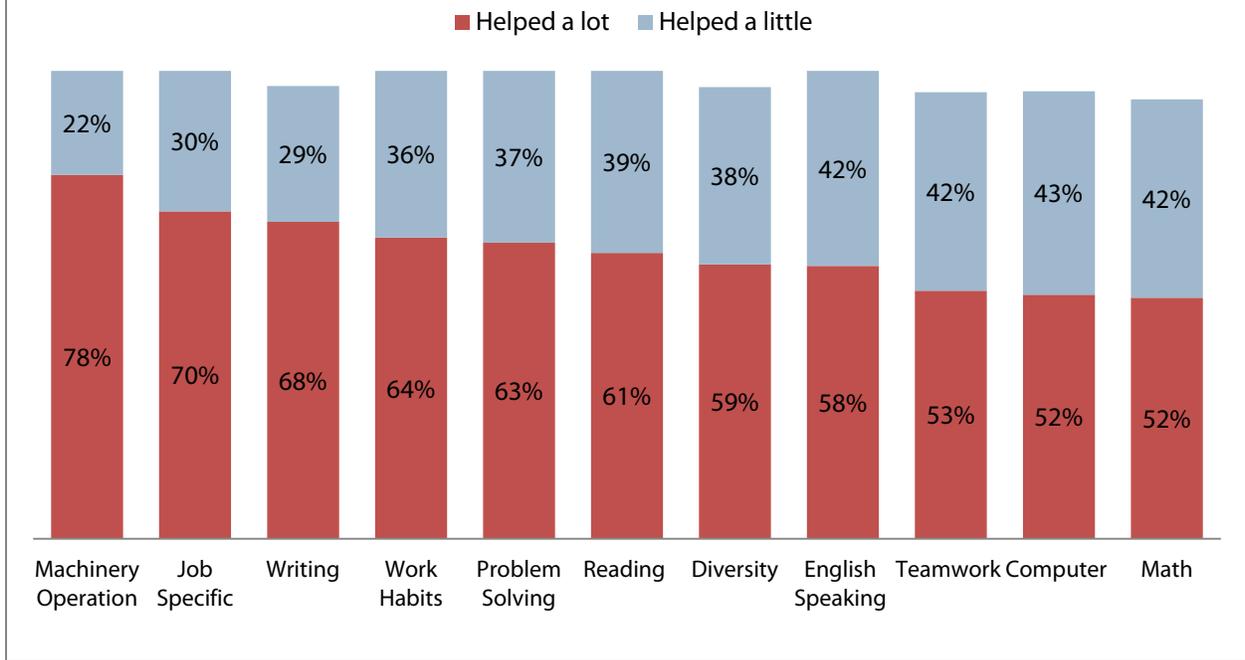


Source: Workforce Board's Participant Satisfaction Survey 2013.

As in prior surveys, nearly all WIA Youth participants reported their skills improved as a result of training. Higher percentages reported "a lot" of improvement in job-specific skills than in computer or math skills. The percentage of WIA Youth participants who reported that the machinery operation training helped "a lot" increased from 64 to 78 percent, and for writing increased from 52 to 68 percent in the 2013 survey. However, diversity training "helped a lot" fell from 66 to 59, teamwork fell from 65 to 53, and computer fell from 61 to 52 percentage points.



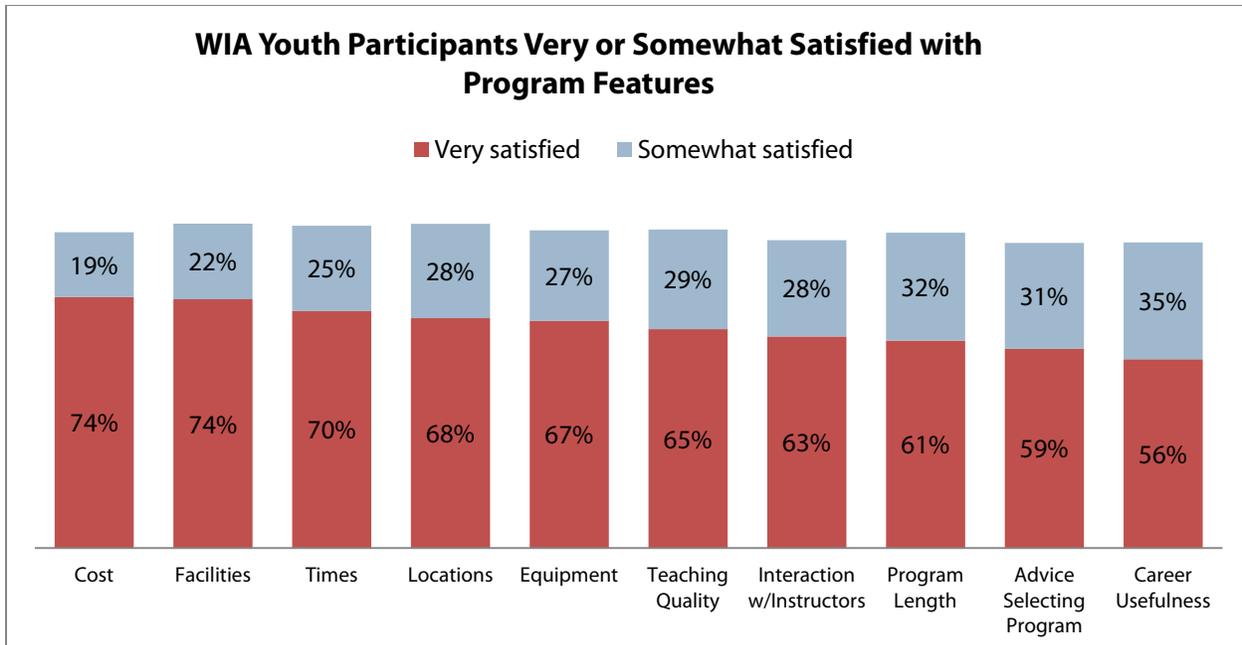
WIA Youth Participants Receiving Various Skills Training who Reported Their Skills Improved a Little or a Lot



Source: Workforce Board's Participant Satisfaction Survey 2013.

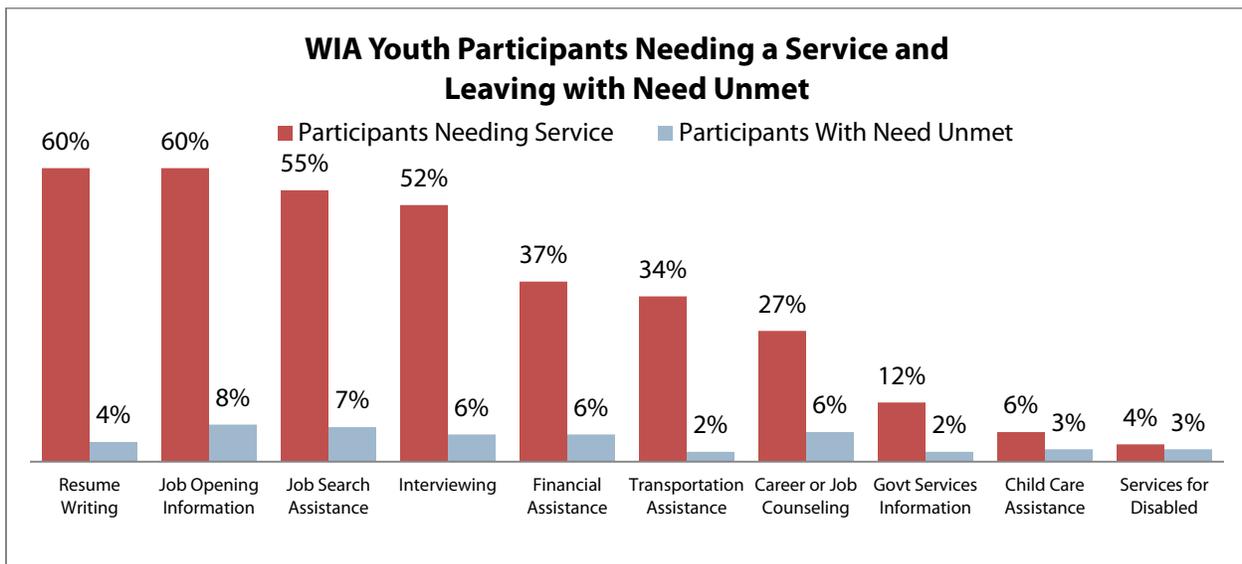
Survey results revealed participants were satisfied with the training and support services they received as part of their WIA Youth program. Some 90 percent of the participants surveyed said they had met their educational objectives in the program, down from 93 percent in 2011. Overall satisfaction with the program was nearly as high as in 2008 (95 percent compared to 96 percent). When asked about specific program features, satisfaction was highest with cost and program facilities, followed by times, location, equipment and teaching quality. Satisfaction was lower this year with career usefulness.





Source: Workforce Board's Participant Satisfaction Survey 2013.

Most of the participants who needed support services while enrolled received them. As in previous studies, participants said the services most frequently needed were information on resume writing and job openings, job search assistance, and assistance with interviewing. Most youth had their needs met in these areas. The greatest unmet need¹² remains job opening information (7 percent in 2011 vs. 8 percent in 2013).

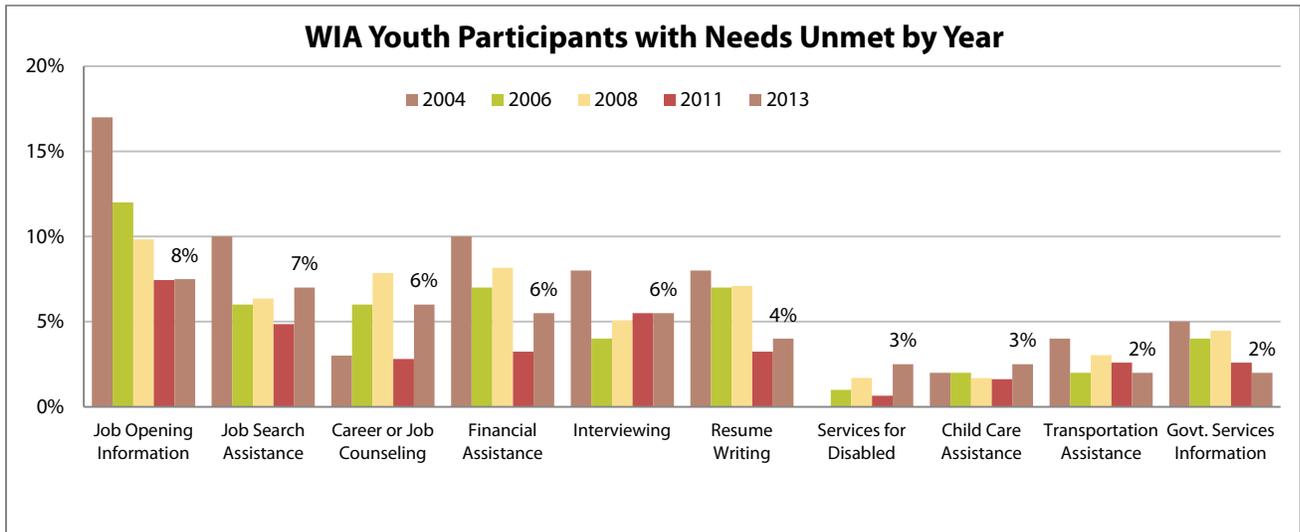


Source: Workforce Board's Participant Satisfaction Survey 2013.

¹² Unmet need refers to cases where the student reports that either they did not receive the required service or what was provided did not meet their needs.



The percentage of WIA Youth participants who left their program with an unmet need has declined since 2004, with the exception of child care assistance (one percentage point higher than in 2004). The largest declines since the 2004 Participant Survey were in job opening assistance and financial assistance. Most of the categories were up slightly since the 2011 survey, led by career counseling increasing by three percentage points.



Source: Workforce Board's Participant Satisfaction Surveys 2004-13

Net Impact - Did the Program Make a Difference in Participant Success?

Every four years the Workforce Board conducts net impact and cost-benefit analyses of workforce development programs. This detailed study compares participants and non-participants. The net impact part of this study attempts to measure whether the program made a difference in the participant's success. Washington is the only state to periodically conduct rigorous net impact evaluations of its workforce programs.

The net impact analysis was conducted by the W.E. Upjohn Institute for Employment Research (Upjohn), a national leader in evaluating training programs. To do the analysis, Upjohn studies program participants to see what results they achieved and compared these results with a control group. Individuals who participated in a WIA Youth program were compared to individuals who had similar demographic characteristics, but who did not participate in any of the programs included in the study. The comparison group members were selected from among those who registered with WorkSource, Washington's one-stop career center system.

The WIA Title I-B Youth program has positive net impacts on employment, hours worked and earnings. Participation increases lifetime earnings.

The most recent net impact analyses examined experiences of participants who left the WIA Youth program through 2009. The short-term impact (Program Year 2007-08) was observed



in 2008-09, while the long-term impact (Program Year 2005-06) was observed from 2006-07 through 2008-09.

Impact on Employment and Earnings: Participants vs. Control Group

In the next table, the WIA Youth participant employment rate in the short-term was 8 percentage points higher than the rate of those in the comparison group. WIA participants who received training achieved an employment rate that was 13.1 percentage points higher than their comparison group. Training included occupational skills training, skill upgrading and retraining, on-the-job training, and Basic Education for Adults when delivered in combination with career and technical education.

Similarly, the average annualized earnings of WIA participants who found jobs is higher (by the amounts listed below) than those non-participants who were employed.

WIA Youth	All WIA Youth Participants		Received Training	
	Short-term [^]	Long-term [^]	Short Term [^]	Long-term [^]
Net Employment Impact*	8.0 percentage points	4.3 percentage points	13.1 percentage points	4.5 percentage points
Net Hourly Wage Impact**	No significant positive impact	No significant positive impact	No significant positive impact	\$1.17
Net Hours Employed per Quarter Impact	46.5	30.8	52.2	50.5
Net Annualized Earnings Impact**	\$1,720	\$2,055	\$3,354	\$4,682

[^]Short-term is three quarters after program exit; Long-term is average across three years since program exit.

*Percentages listed are employment percentage points above those of the control group of non-participants.

**Wages and earnings, expressed in first quarter 2014 dollars, represent the average difference between WIA Youth participants who got jobs and those in the control group who were employed.

Participants report high levels of satisfaction with 90 percent saying they met their educational objectives and few leaving with unmet needs for support services. After participation, 58 percent were either in higher education, were working, or both, and among those employed virtually all said their program was either helpful in getting their job or related to their job.



Benefits and Costs

The cost-benefit analysis estimates the value of the net impact on earnings, employee benefits (estimated at 25 percent of earnings), UI benefits, and certain taxes. Program costs include both direct costs and support payments borne by the state and the foregone earnings borne by program participants.

Benefits and costs are calculated for both the observed period of time and based upon a statistical model that estimated the benefits and costs out to age 65. In order 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 2014 Q1 dollars. The benefits and costs presented here are based on impacts estimated for youth participants leaving programs in 2005-2006 (observed from 2006-07 through 2008-09), because a longer-term follow-up is required for this analysis.

Participant and Public Net Benefits and Costs per Participant in WIA Youth Programs

Benefit/Cost	First 2.5 years		Lifetime (until 65)		Sum of Costs and Benefits
	Participant	Public	Participant	Public	
Benefits					
Earnings	\$5,158	\$0	\$38,177	\$0	
Fringe Benefits	\$1,289	\$0	\$9,545	\$0	
Taxes	-\$671	\$671	-\$4,966	\$4,966	
Transfers					
UI	\$169	-\$169	\$1,600	-\$1,600	
Costs					
Foregone net earnings	-\$1,315	-\$152	-\$1,315	-\$152	
Program costs	\$0	-\$7,155	\$0	-\$7,155	
Benefits	\$5,945	\$502	\$44,356	\$3,366	
Costs	-\$1,315	-\$7,307	-\$1,315	-\$7,307	
Total (Net)	\$4,630	-\$6,805	\$43,040	-\$3,941	\$39,099

Note: Benefits and costs are expressed in 2014 first quarter dollars.

For each WIA Youth participant, the public (taxpayer) program cost is about \$7,155 over the length of enrollment, and the student cost is \$1,315 in foregone earnings while training. During the first two and one-half years after leaving the program, participation increases the average youth participant's earnings by \$5,158. During the course of working life to age 65, the average youth participant will gain about \$36,862 in net earnings (earnings minus foregone earnings) and about \$9,545 in employee benefits. These are net gains compared to



the earnings of similar individuals who did not participate in a program. Including program costs and the net impacts on taxes and unemployment insurance benefits, the total net benefit per participant is \$43,040.

Projected participant benefits to age 65 outweigh public costs for the WIA Youth program by a ratio of \$6 to \$1, or \$43,040 to \$7,155.

From the time of leaving the program to age 65, the public is expected to gain about \$4,966 per youth participant in net additional Social Security, Medicare, federal income, and state sales taxes. However, the public is expected to spend about \$1,600 per youth participant in Unemployment Insurance benefits. The estimated lifetime net cost to taxpayers is \$3,941 per participant. Projected taxpayer net benefits to age 65 are less than public costs invested in WIA Youth services by a ratio of \$0.47 to \$1 or \$3,366 to \$7,155.

Summary, Areas for Improvement, and Further Research

The WIA Youth program prepares youth (14-21 years old) with substantial barriers for success in school and employment. These barriers are reflected in the program's outcomes. After participation, 32 percent still did not possess a high school diploma or GED and were not enrolled in school. The median earnings of those working and not enrolled in education was \$11,952 annually and \$10.35 hourly.

Given the barriers this population faces, these outcomes must be compared to those in similar circumstances. When compared to a control group with similar characteristics, the study found a positive net impact of 4.3 percentage points on the WIA Youth employment rate, and a \$2,055 net impact on annual earnings for those who participated in the program. In addition, the net impact on annual earnings for those who received training was \$4,682 (compared to \$2,055 for all participants).

The Workforce Development Councils indicate they will continue to work with school districts and community partners on re-engagement, retention, and completion strategies for out-of-school young adults; consortia-based service delivery approaches with multiple youth agencies; and strong connections with school staff to provide support services and address barriers to student completion.

