

Adult Basic Education/English as a Second Language

Program Details

Adult Basic Education (ABE) and English as a Second Language (ESL) are provided by community and technical colleges and, to a lesser extent, community-based organizations. Among the ABE/ESL participants included in this report, 97.6 percent received their training at community and technical colleges and 2.4 percent received training at community-based organizations. 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.

ABE 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 ABE 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.

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.

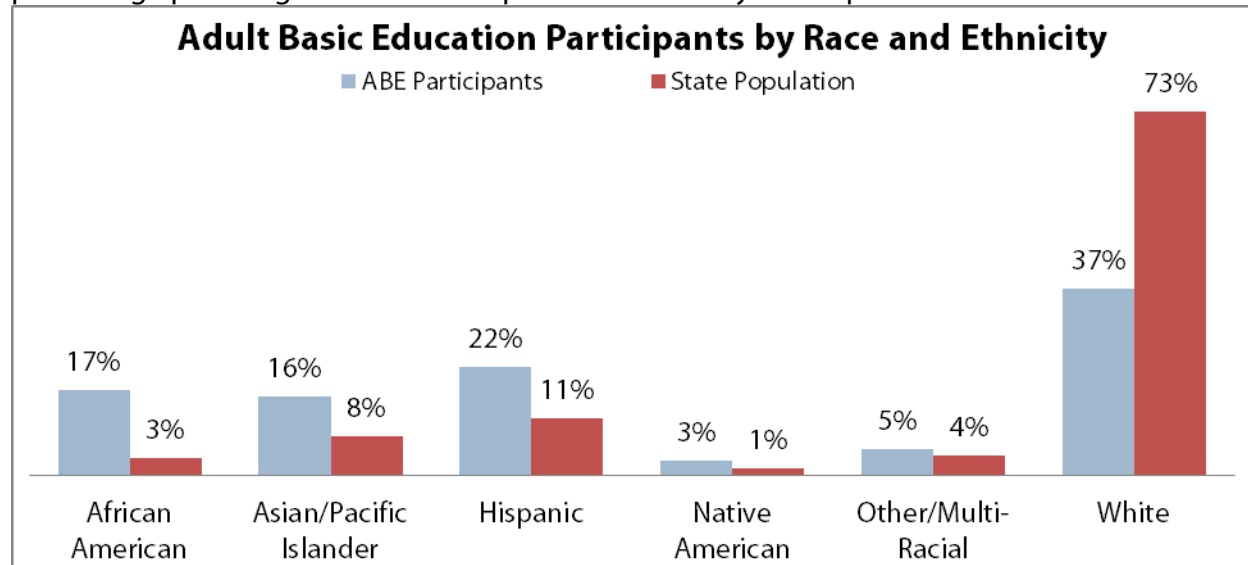
Participant Profile

For this 2012 report, researchers studied the results of 29,355 participants who left an ABE/ESL program during the most recent reporting year.² ABE/ESL serves the most racially and ethnically diverse participants of any workforce development programs in this report. The percentage of African Americans in ABE is significantly higher than the percentage of African Americans statewide (17 percent versus 3 percent), Asian/Pacific Islanders (16 percent versus 8 percent), and Hispanics (22 percent versus 11 percent). The percentage of ABE/ESL participants who are an ethnic/racial minority is significantly higher than the percentage of

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.

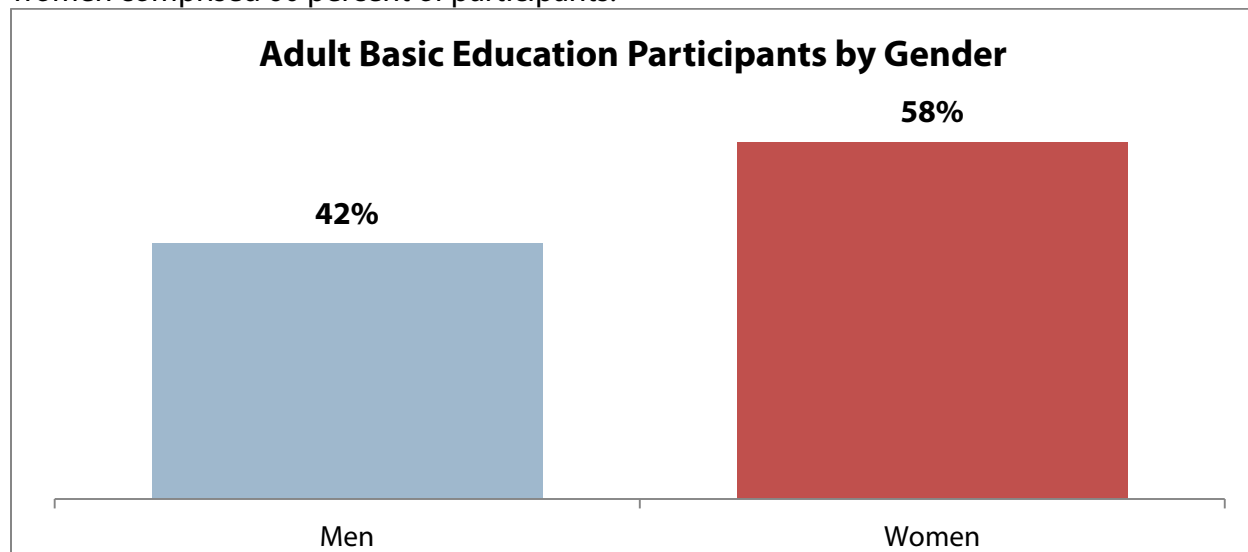
² The 2012 Workforce Training Results reports are based on data observed in 2010-11 for individuals exiting programs during 2009-10.

minorities statewide. Non-whites comprised 63 percent of the participants, which is one percentage point higher than the 62 percent from last year's report.³



Source: Community and Technical Colleges Administrative Data 2009-10 and 2010 U.S. Census Data from the American Community Survey.

Some 58 percent of participants were women, a slight decline from the previous report when women comprised 60 percent of participants.



Source: Community and Technical Colleges Administrative Data 2009-10.

³In 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/Pacific Islanders (also referred to as Asians/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 2010 U.S. Census Bureau estimates for Washington's population from the American Community Survey, 73 percent are white; 3 percent are African American; 1 percent is Native American; 8 percent are Asians/Pacific Islander; 4 percent are multiracial; and 11 percent are Hispanic.

The median age of participants leaving an ABE/ESL program was 29 years old. A quarter of participants were under age 23, while a quarter of the participants were over age 39.

State Core Measures: Tracking ABE/ESL 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 2012 Workforce Training Results includes information obtained from Employment Security Department wage files in Washington, Idaho, and Oregon, and federal employment records for 2010-11.

Net Impact Study Adds More Insight into Program Performance

In addition, this year's report includes a comprehensive Net Impact Study. To assess both short- and long-term employment and earnings trends, data on participant experiences through 2009 is used in the 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 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, 46 percent of ABE/ESL participants had employment during the third quarter after they left the program-- the same percentage of employed participants observed in 2011. Their median hourly wage of \$10.94, and median annual earnings of \$16,493, was slightly higher than in the prior program year.⁵ However, over the past decade, employment rates have declined and earnings have stagnated.

Turn to page 16 for the Net Impact Study. Conducted every four years, this in-depth report adds extra value to 2012 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.

Employment and Earnings for Adult Basic Education/English as a Second Language Participants, 2012

Performance Measure	Results
Employment Rate* (State Records)	46%
Full Time Employment **	48%
Median Hourly Wage***	\$10.94
Median Quarterly Hours	382
Median Annualized Earnings***	\$16,493

* 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 2011 dollars in order to account for inflation.

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 2011 dollars.

Earnings of ABE/ESL Participants

To better gauge the financial effectiveness of Washington's workforce programs, it helps to frame income levels. One common yardstick is the federal poverty level. In 2011, the federal poverty level for one person was \$10,890 per year.⁶

In 2012, ABE/ESL participants were able to support a median 2.5 people at the poverty level—meaning they could support themselves plus one and a half other people. They did not have enough earnings to support themselves, let alone others, at 200 percent of the poverty level (.8 people).

Number of People Supported at Poverty Level by Participant Income

Performance Measure	2004	2006	2008	2010	2011	2012
Number of people supported at poverty level	2.9 people	2.7 people	3.0 people	2.8 people	2.6 people	2.5 people
Number of people supported at 200 percent poverty*	0.8 people	0.8 people	0.8 people	0.8 people	0.8 people	0.8 people

*The number of people supported at the 200 percent of poverty level appears to stay the same because of rounding.

ABE/ESL Participants Receiving Benefits from Employers

Performance Measure	2004	2006	2008	2010*	2011	2012*
Self-Reported Medical Benefits from Employer	53%	44%	44%	N/A	38%	N/A
Self-Reported Retirement Benefits from Employer	32%	23%	28%	N/A	28%	N/A

*Due to budget limitations, the Participant Survey was not conducted in 2010 or 2012.

⁶ Poverty levels from 2011 were used in this edition of Workforce Training Results to measure the results of workforce programs on participants observed in 2010-11. The federal poverty level is determined by the Department of Health and Human Services. The level varies according to family size. The number is adjusted for inflation and reported annually in the form of poverty guidelines. Public assistance programs typically define eligibility income limits as some percentage of the federal poverty level.

The next table shows employment and earnings over the course of six study periods. This data is also represented in a graph on the following page for the years 2004 to 2012.

Employment and Earnings Trends for ABE/ESL Participants

Performance Measure	2004	2006	2008	2010	2011	2012
Employment Rate (Self-Reported)	64%	64%	69%	N/A	61%	N/A
Employment Rate* (State Records)	55%	56%	58%	55%	46%	46%
Full Time Employment**	54%	54%	54%	53%	49%	48%
Median Quarterly Hours	419	412	420	402	385	382
Median Hourly Wage***	\$11.05	\$11.14	\$11.20	\$11.54	\$11.12	\$10.94
Median Annualized Earnings***	\$18,137	\$17,552	\$18,348	\$17,909	\$16,879	\$16,493

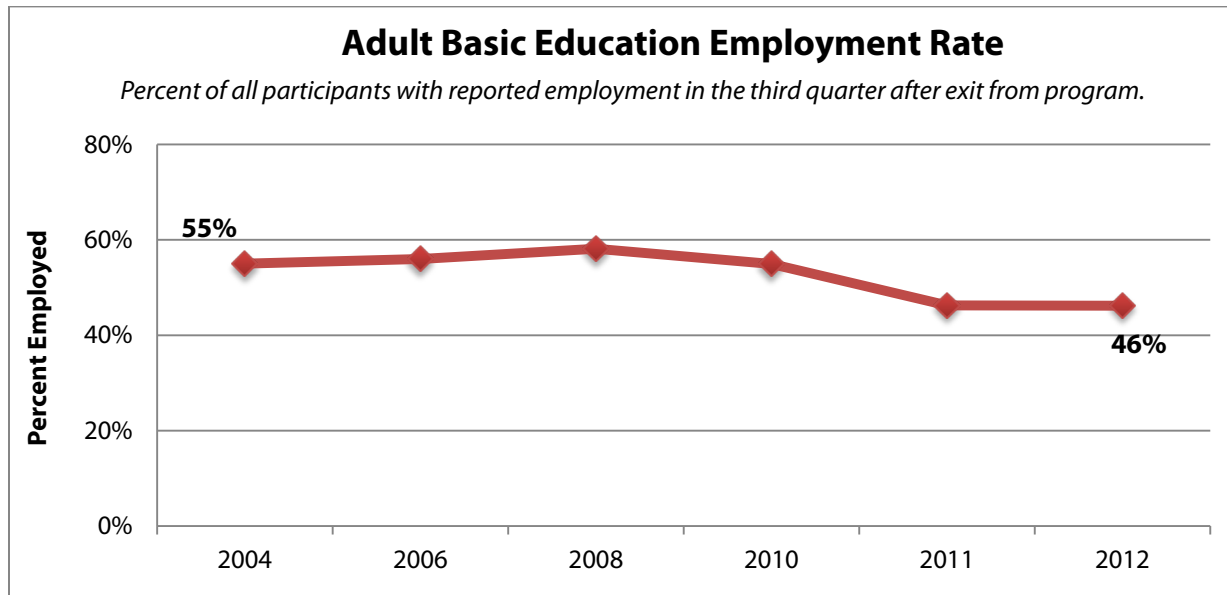
**These figures apply to those with employment reported to ESD six to nine months after leaving program. Rate does not include self-employment, employment outside the Northwest or military service and thus understates total employment by approximately 10 percent.*

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

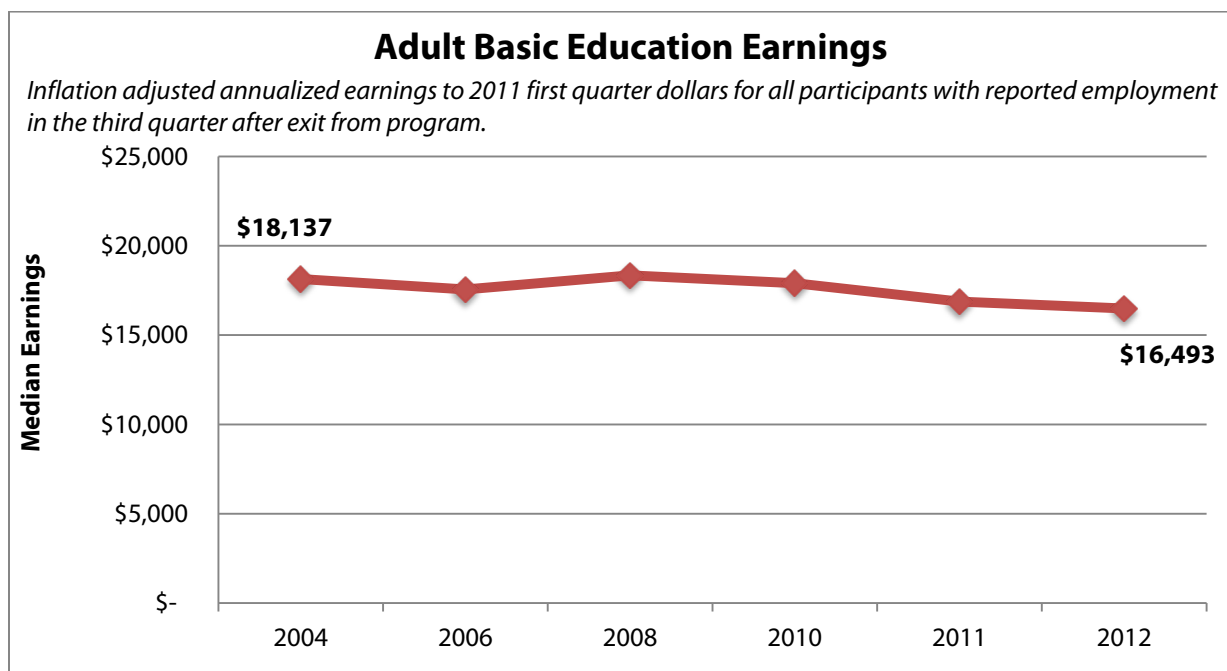
****Earnings/wages expressed in first quarter 2011 dollars in order to account for inflation.*

Since 2008, ABE/ESL participants who did not enroll in vocational training have experienced falling employment levels and earnings.

However, this year ABE/ESL participants held steady with a 46 percent employment rate and a slight decrease in annual earnings over the previous year.



Source: Workforce Training Results 2004-12.



Source: Workforce Training Results 2004-12.

Adult Basic Education Employment by Industry

Employment among ABE/ESL participants is heavily concentrated in services, retail trade, and manufacturing industries. In 2012, the percentage of participants employed in services is 3 percentage points lower than the prior year (56 percent compared to 59 percent).

Employment in the retail trades is two percentage points higher than the prior year, whereas manufacturing is roughly the same (10.3 percent versus 10.4 percent on the last report).

Industry Group
56.3% Services (See Breakout Below)
16.1% Retail Trades (See Breakout Below)
10.3% Manufacturing (See Breakout Below)
3.9% Construction
3.6% Natural Resources and Mining
2.8% Transportation, Warehousing and Utilities
2.8% Wholesale Trade
2.4% Financial Services
1.4% Public Administration
0.4% Information
Breakout of Services Industry
13.0% Administrative and Support and Waste Management and Remediation Services
12.8% Health Care
9.7% All Other Services
8.2% Social Assistance
6.1% Accommodation and Food Services
2.6% Arts, Entertainment, and Recreation
2.5% Education Services
1.4% Professional, Scientific, and Technical Services
Breakout of Retail Trade Industry
4.8% Department Stores and Warehouse Clubs
4.1% Groceries, Supermarkets & Specialty Foods
2.0% All Other Retail
1.9% Clothing and Accessories Stores
1.4% Gas Stations/Convenience Stores
1.1% Motor Vehicle and Accessories Sales
0.7% Home furnishings,Garden,Hardware
Breakout of Manufacturing
3.6% Food & Beverage
3.5% All Other Manufacturing
1.4% Transportation Equipment
0.9% Fabricated Metal Products
0.9% 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 codes.

Wages and Employment Results Vary by Population

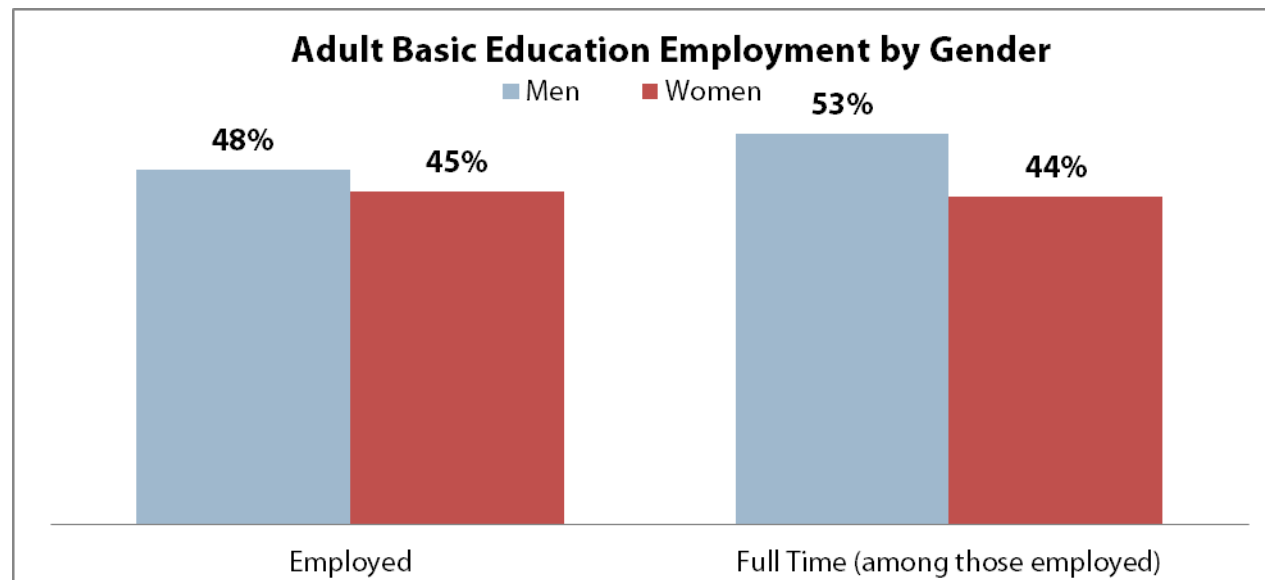
Wage and employment results can vary by gender, race and ethnicity, and disability. Among participants employed during the third quarter after exit, there is a substantial gender gap in labor market outcomes. In 2012, employment rates, hours worked, earnings, and wages are lower for women, although the ratios have slightly improved from those observed in the 2011 report.

Gender Differences in Labor Market Outcomes Among ABE/ESL Students in the Third Quarter After Leaving Program			
	Women	Men	Ratio
Employment Reported to ESD	45%	48%	94%
Median Quarterly Hours Worked	352	406	87%
Median Hourly Wage	\$10.61	\$11.59	92%
Median Annual Earnings	\$14,974	\$18,919	79%

Source: Matches with Employment Security Department data.

*Earnings/wages expressed in first quarter 2011 dollars in order to account for inflation.

The following chart shows the percentage of men and women ABE/ESL participants who reported being employed. Also broken out is the percentage of those working that held full-time jobs. Male ABE participants were more likely to be employed (48 percent compared to 45 percent) and also more likely to be working full-time (53 percent compared to 44 percent).



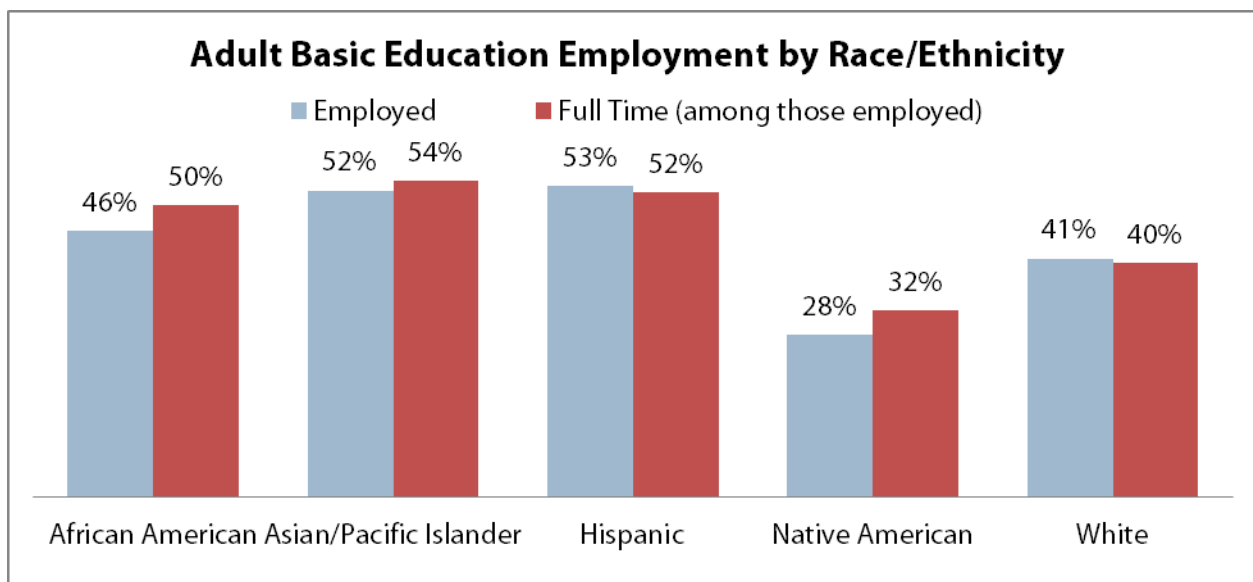
Source: Matches with Community and Technical Colleges Administrative Data and Employment Security Department data.

Race/Ethnicity Plays Role

ABE/ESL program graduates had different employment rates when comparing race and ethnicity. The highest employment rate was found among Hispanics (53 percent), followed by Asian/Pacific Islanders (52 percent), African Americans (46 percent), whites (41 percent) and Native Americans (28 percent). Of those ABE/ESL participants who were working, the percentage with full-time employment also varied according to race and ethnicity. Asian/Pacific Islanders had the highest percentage working full time (54 percent), followed by Hispanics (52 percent) and African Americans (50 percent) working full time compared to whites (40 percent) and Native Americans (32 percent).

Median hourly wages appear to follow the pattern of employment by race, with the highest wages earned by those with the highest employment rates: among Hispanics (\$11.46), Asian/Pacific Islanders (\$11.18), African Americans (\$10.84), and slightly lower wages among whites (\$10.63) and Native Americans (\$10.20).

Median annual earnings follow the same pattern as full time employment: Asian/Pacific Islanders have the highest earnings, at \$18,487, followed by Hispanics (\$18,108), African Americans (\$17,328), whites (\$13,813) and Native Americans (\$10,783).



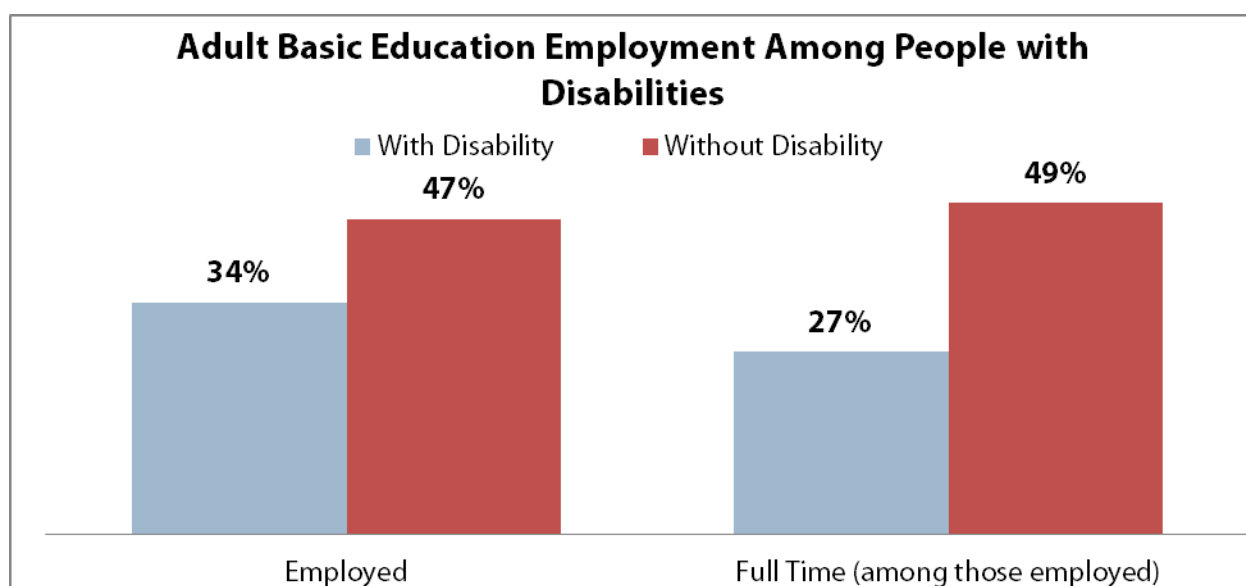
Source: Matches with Community and Technical Colleges Administrative Data and Employment Security Department data.

Disability Impacts Employment, Earnings

Among 2012 ABE/ESL participants, 3.5 percent had a disability (less than the 12 percent of the general population who have a disability).⁷ Participants with disabilities did less well in the labor market than other participants. They were less likely to have employment reported to the state's Employment Security Department (34 percent versus 47 percent for participants

⁷ 2010 U.S. Census Bureau estimates from the American Community Survey, Table S0201 – Selected Population Profile in the United States.

without a disability). This is an increase in the employment rate among those with disabilities, up from 29 percent observed in the last report. Participants with disabilities were also less likely to work full time than participants without a disability (27 percent versus 49 percent), their median hourly wage (\$10.24 versus \$10.96) was 93 percent of the amount earned by participants without a disability, and median annual earnings were nearly two-thirds for those with a disability compared to those without a disability (\$10,650 versus \$16,638).



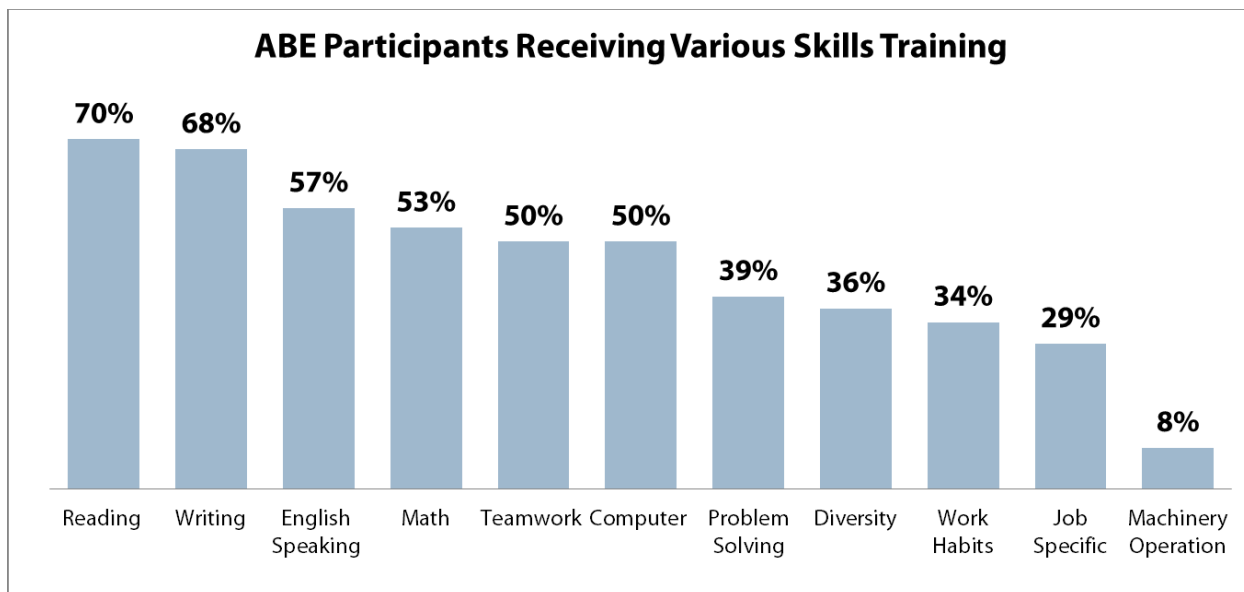
Source: Community and Technical Colleges Administrative Data and Employment Security Department data matches 2009-10.

Participant Survey

In 2011, the Workforce Board surveyed ABE/ESL participants who had left their program in 2009-10. The survey provided data on employment and participant satisfaction with the training. The survey was conducted by telephone and was completed by 253 participants.

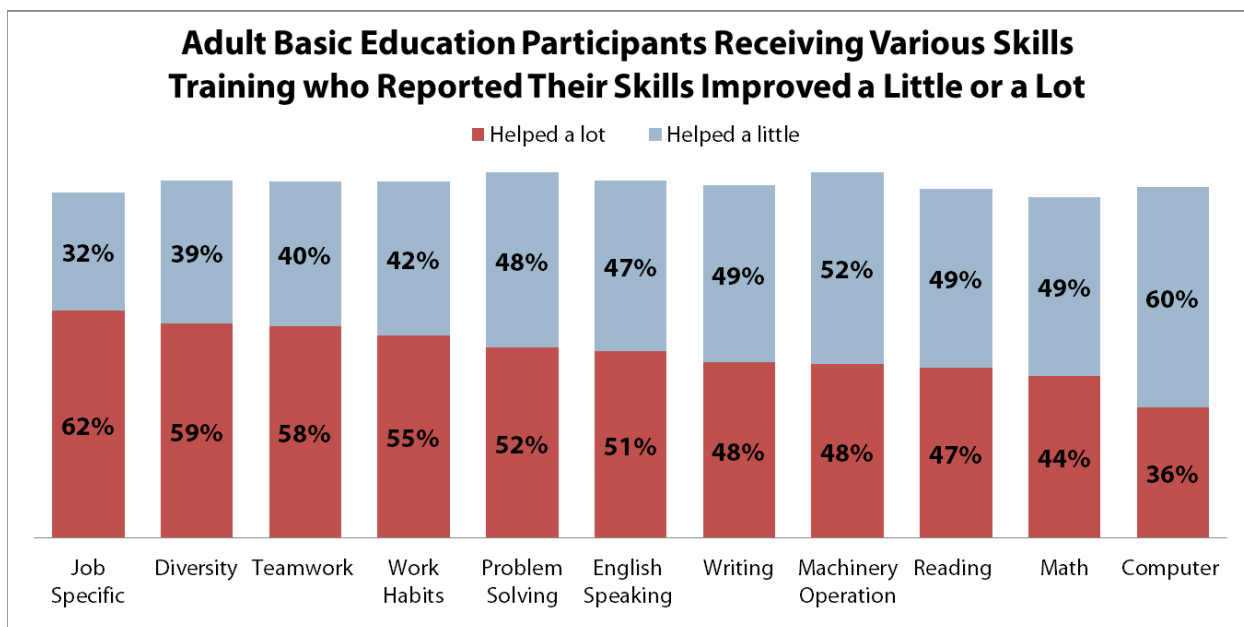
According to survey results, 73 percent of participants indicated they entered an ABE/ESL program to learn skills for a new job. Participants also said they enrolled for their own personal enjoyment or improvement (91 percent), or to improve their English speaking or reading skills (70 and 72 percent respectively).

As in previous studies, the majority of participants received training in basic skills such as teamwork, diversity and work habits. Participants also received training in other basic and workplace skills. Fewer received training in workplace skills such as problem solving, diversity, and work habits. The highest percentage of participants, 76 percent, said they gained reading skills, followed closely by 75 percent who reported writing skills.



Source: Workforce Board's Participant Satisfaction Survey 2011.

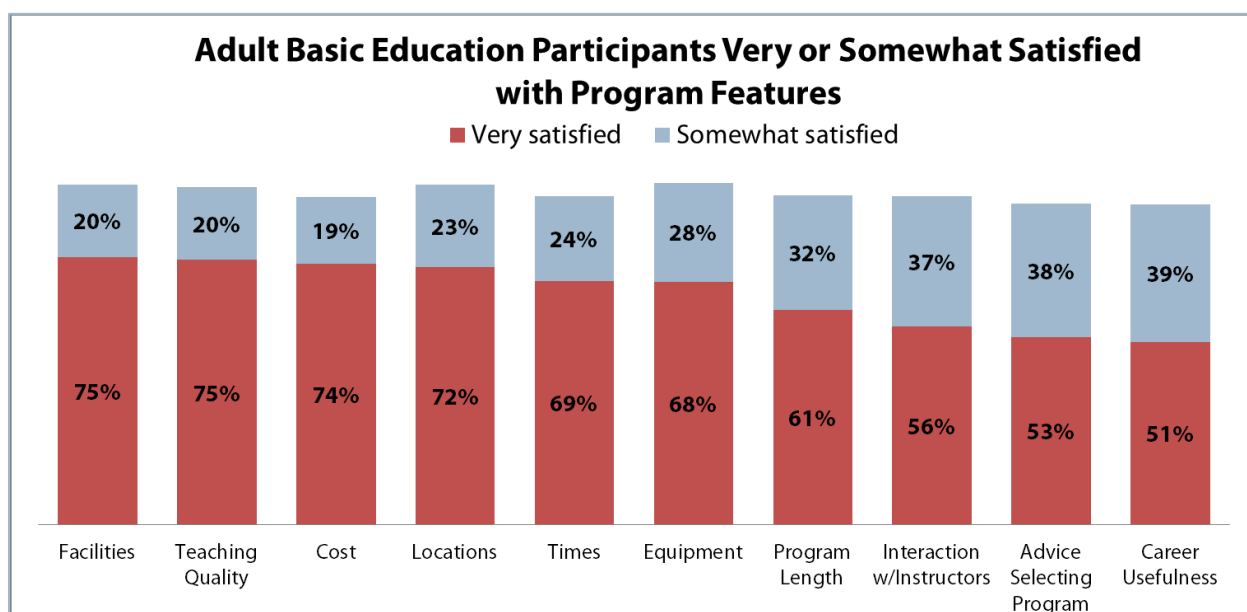
Participants tended to report higher levels of improvement with workplace skills, such as teamwork, diversity and work habits than with basic skills such as computer, writing or math. As in the previous study, most participants reported their skills in these areas improved as a result of the training. The percentage of participants who reported a lot of improvement in work habits increased 7 percentage points (from 48 percent to 55 percent). In all other areas the percent who reported their skills improving a lot remained the same or changed only marginally compared to the prior study.



Source: Workforce Board's Participant Satisfaction Survey 2011.

Participant Satisfaction

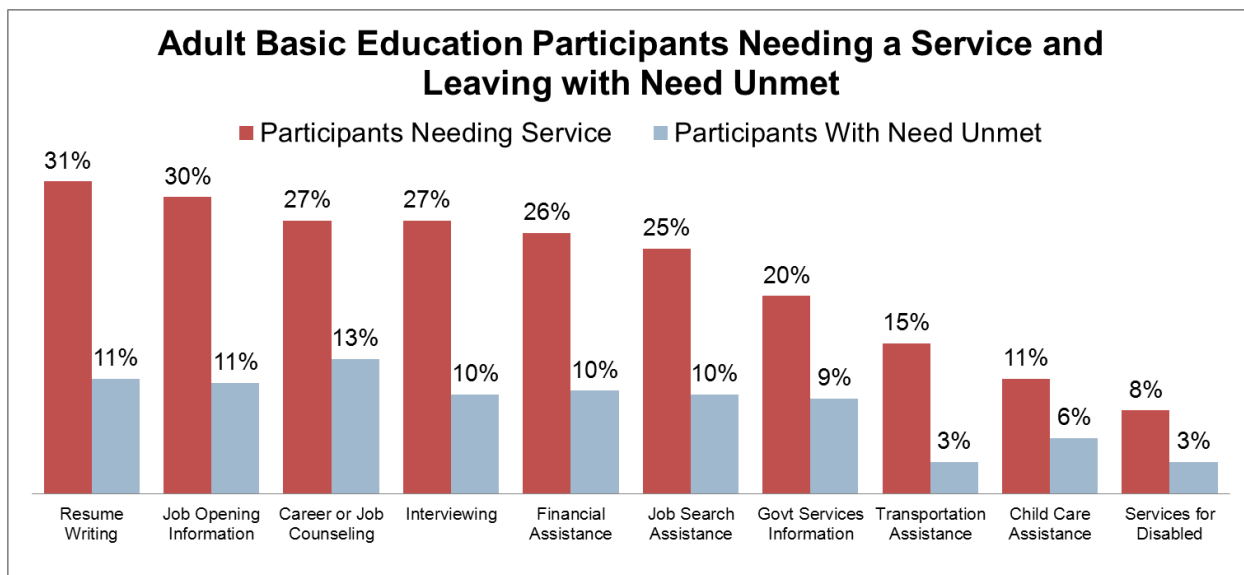
In general, participants were satisfied with the training they received. Some 93 percent of participants reported being satisfied with their program overall, down slightly from 96 percent in the previous survey. In addition, the percentage who stated that they had met their educational objectives decreased from 78 percent in the previous study to 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 facilities and teaching quality. Compared to the 2008 survey, the program feature with the largest increase of participants reporting they were "very satisfied" was equipment (which increased from 63 to 68 percent). The only feature to have a decrease in the percentage of students reporting they were "very satisfied" is career usefulness, which dropped from 56 percent to 51 percent since the last survey.



Source: Workforce Board's Participant Satisfaction Survey 2011.

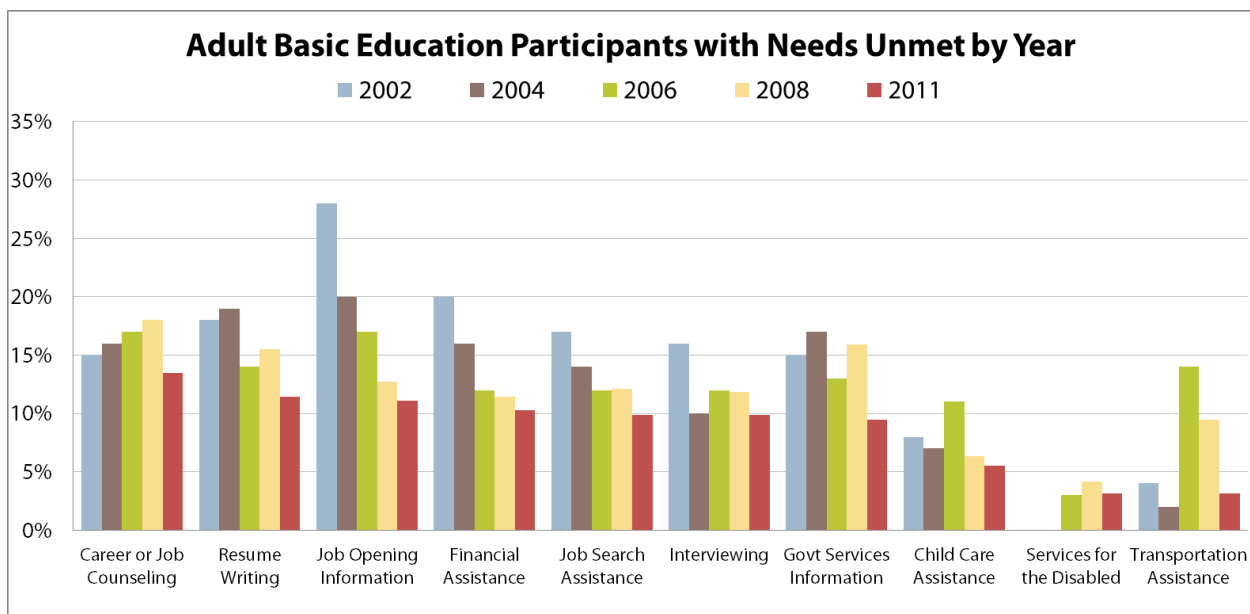
Participants reported financial assistance information as the support service most needed while enrolled. Participants also indicated high levels of need for information about resume writing, and interviewing. Participants were more likely than not to receive the services they needed. However, a relatively high 13 percent said they left the program with their need for job counseling unmet. An unmet need for resume writing, other government services, interviewing, and job opening information was reported by one in every 10 students.⁸

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 2011.

The percentage of participants who reported leaving the program with an unmet need has declined in nearly every category, not only since the last participant survey, but since 2004. The largest decrease in unmet need came in transportation assistance, which dropped from 9 percent to 3 percent since the last survey.



Source: Workforce Board's Participant Satisfaction Surveys 2004-11.

Relationship of Training to Employment

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?

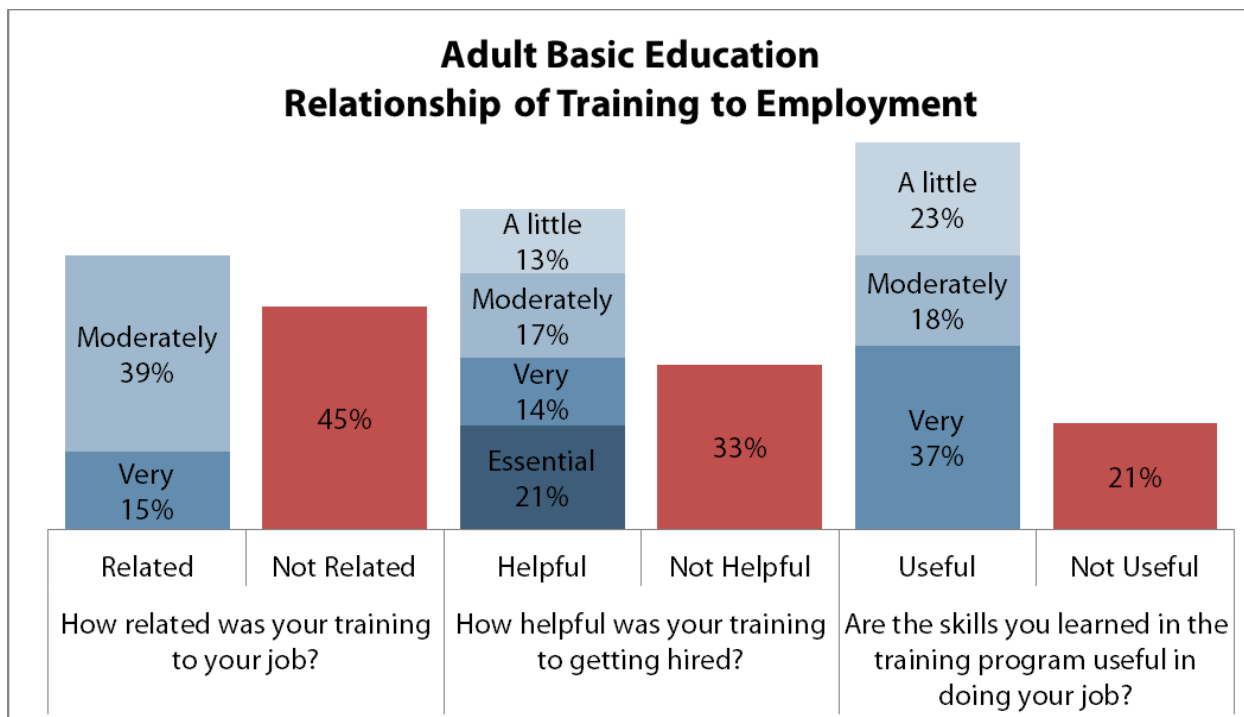
Asking about the relationship between training and employment in different ways can produce more complete information. For example, some participants said their training was not related to their job, but nevertheless found the skills acquired were useful on the job.

Among ABE participants employed seven to nine months after leaving a program, 15 percent said their training was "very related" to their job. A further 39 percent reported the training was "moderately related" to their job. Compared to 2008, participants in 2011 reported slightly lower rates of training related to employment, by 3 percentage points in each category.

Participants interviewed in 2011 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 14 percent indicated it was "very important," and 17 percent reported it was "moderately important." Thirteen percent said it was "a little helpful." Only 33 percent indicated their training was "not important at all" to getting their job.

Three out of four participants said the skills they learned in their training program were useful in doing their job. Some 37 percent of participants indicated the skills were "very useful," 18 percent said "moderately useful," and 23 percent "a little useful." The remaining 21 percent of ABE 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. Just 19 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.



Source: Workforce Board's Participant Satisfaction Survey 2011.

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 Adult Basic Education 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 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 ABE/ESL 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

ABE/ESL 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**	\$961	\$865

[^]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 2011 dollars; represent the average difference between ABE/ESL participants who got jobs and those in the control group who were employed.

To estimate these impacts, individuals who received employment-related ABE/ESL 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.⁹ Additional estimates were made for a cohort of ABE/ESL participants who also participated in CTC Professional Technical Education.

As can be seen above, Adult 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.

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 2011 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. The results are for those students who took only basic skills courses in the colleges.

⁹ The net impact study excludes individuals who enrolled in ABE/ESL programs for personal enhancement or non-employment-related purposes.

For each student in ABE/ESL only, the public (taxpayer) cost is about \$2,747 over the length of their enrollment, and the student cost is \$113 in foregone earnings while in school. The average ABE/ESL 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 Community and Technical Colleges ABE 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	-\$711	\$711	-\$1,065	\$1,065	
Costs					
Foregone net earnings	\$113	\$13	\$113	\$13	
Program costs	\$0	-\$2,747	\$0	-\$2,747	
Benefits	-	-	-	-	
Costs	\$113	-\$2,734	\$113	-\$2,734	
Total (Net)	-	-	-	-	

Note: Benefits and costs are expressed in 2011 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 ABE/ESL 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) has significant positive impacts on participant employment and earnings.

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

I-BEST Participants	Short-term [^]
Net Employment Impact*	3.9 percentage points
Net Hourly Wage Impact**	\$1.35
Net Quarterly Hours Impact	35.3
Annualized Earnings**	\$2,555

[^]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.

**Wages and earnings, expressed in first quarter 2011 dollars; represent the average difference between I-BEST participants who got jobs and those in the control group who were employed.

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 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 tile layers. 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. Apprenticeship in Washington is governed by the Washington State Apprenticeship and Training Council and administered by the Department of Labor and Industries.¹

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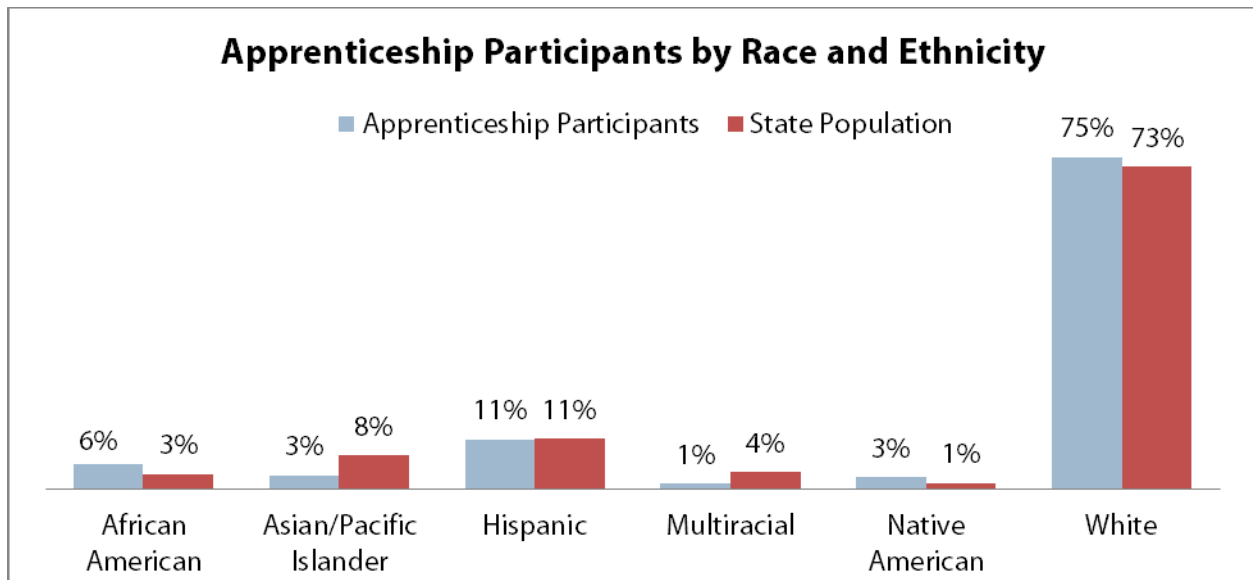
Participant Profile

For this 2012 report, researchers studied the results of 3,994 apprentices who left an apprenticeship program during the most recent reporting year.² Apprentices reflect the racial and ethnic diversity of the state population. Hispanics, African Americans, whites, and Native Americans are represented above their proportions of the state population. However, African Americans, Hispanics and Native Americans do 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. Asian/Pacific Islanders and those with a multi-racial background enroll in apprenticeship programs in lower numbers than their share of the state population.³

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

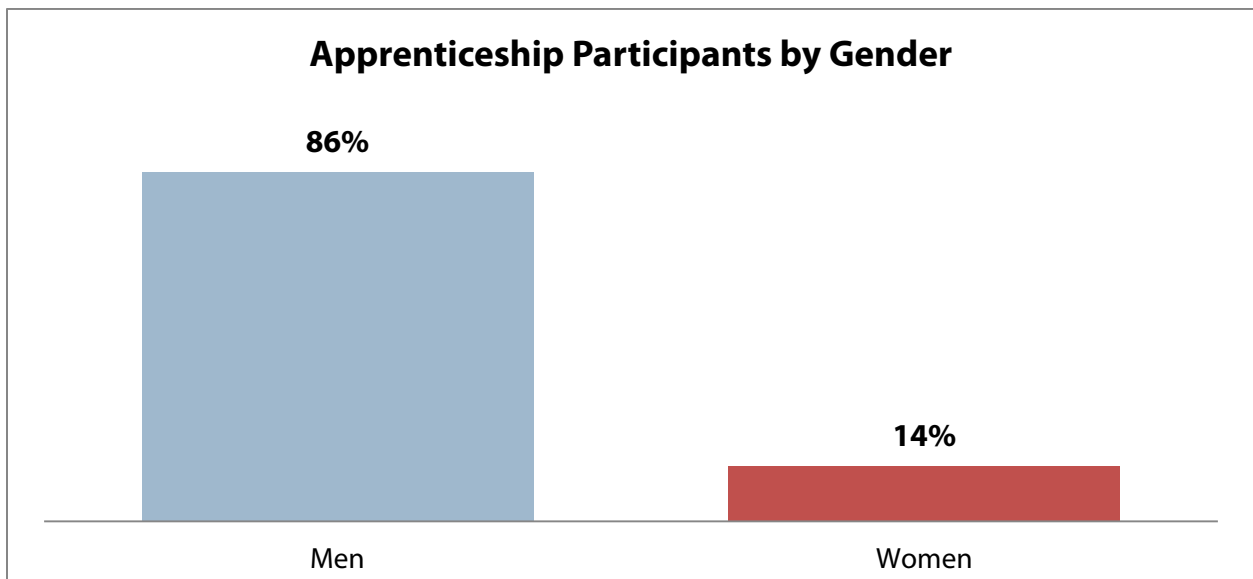
² The 2012 Workforce Training Results reports are based on data observed in 2010-11 for individuals exiting programs during 2009-10.

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/Pacific Islanders (also referred to as Asians/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 2010 U.S. Census Bureau estimates for Washington from the American Community Survey, 73 percent are white; 3 percent are African American; 1 percent are Native American; 8 percent are Asian/Pacific Islander; 4 percent are multiracial; and 11 percent are Hispanic.



Source: 2009-10 Apprenticeship Administrative Data, Department of Labor and Industries, Washington State Office of Financial Management and 2010 U.S. Census Data from the American Community Survey.

Relatively few women enter apprenticeship programs compared to men. Just 14 percent of apprentices were women. However, this is a higher percentage than in any of the last four studies; women comprised 8 percent of apprentices in the 2011 report, 11 percent in 2010 and 12 percent in 2008.



Source: 2009-10 Apprenticeship Administrative Data, Department of Labor and Industries.

The median age at program exit was 30. One quarter of those enrolled in apprenticeship programs were under age 25, and another quarter were age 39 or older.

Completion Rates

Overall, apprentices spent a median of 28 months in their program. This is an increase of 10 months over the prior cohort of apprentices. Among apprenticeship completers, the median program length was 37 months. Among apprentices leaving their program in the most recent program year, slightly more than half (50.5 percent) completed their program, up 13.5 percentage points from the prior report. However, 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.

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 four years to reach journey level status, while those training to become an esthetician require 2,000 hours, or approximately one year, to complete.

Number of Years Apprentices Participated in their Program		
Years in Program	Completers	Non Completers
less than 1	0.0%	0.1%
1-2	17.8%	25.5%
2-3	10.2%	34.7%
3-4	20.9%	19.3%
4-5	22.2%	7.9%
5-6	19.2%	3.7%
6-7	6.8%	1.5%
7-8	1.8%	0.6%
8-9	0.5%	3.8%
9-10	0.1%	1.6%
more than 10	0.6%	1.3%

Source: 2009-2010 Apprenticeship Administrative Data, Department of Labor and Industries.

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. These non-completers still tend to show wage gains in subsequent quarters due, most likely, to the skills acquired while in the apprenticeship program.

State Core Measures: 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?

Data Comes From State Wage Files & Employer Survey

The 2012 Workforce Training Results includes information obtained from Employment Security Department wage files in Washington, Idaho, and Oregon, and federal employment records for 2010-11. 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, this year's report includes a comprehensive Net Impact Study. To assess both short- and long-term employment and earnings trends, data on participant experiences through 2009 is used in the 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 the 2012 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 about the apprentices' post-program employment and earnings, participant records were matched with Employment Security Department wage files from Washington and neighboring states.⁴ Labor market outcomes for apprenticeships are higher than for any other program the Workforce Board studies. In addition to the quality of apprenticeship training and the wage levels in these occupations, this result may be due to the relatively long length of the program.

Record matches found 65 percent of apprentices had reported employment during the third quarter after they left the program. This is 5 percentage points above that observed on the last report. Their median wage was \$28.46 per hour—up \$3.01 from \$25.45 the prior year—and annualized earnings were \$47,637, an increase of \$7,800 from the 2011 Workforce Training Report.⁵ The median wage of apprentices is high, but there is considerable variation in wages, as the table below depicts. Limiting analysis to just those apprentices who completed their program, the outcomes are even better. The median earnings of completers was \$58,907. These results highlight the value of completing an apprenticeship program.

Distribution of Hourly Wages of Apprentices in the Third Quarter After Leaving Program who are not in Higher Education	
Quartile	Hourly Wage
Highest	Above \$37.18
Third	\$28.46-37.17
Second	\$18.47-\$28.45
Lowest	Below \$18.46

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 2011 dollars.

Employment and Earnings for Apprentices, 2012

Performance Measure	Results
Employment Rate* (State Records)	65%
Employment Rate* Completers (State Records)	81%
Full Time Employment **	64
Median Quarterly Hours	468
Median Hourly Wage***	\$28.46
Median Annualized Earnings***	\$47,637

** 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 2011 dollars in order to account for inflation.*

Earnings of Apprenticeship Participants

To better gauge the financial effectiveness of Washington's workforce programs, it helps to frame income levels. One common yardstick is the federal poverty level. In 2011, the federal poverty level for one person was \$10,890 per year.⁶

In 2012, Apprenticeship participants were able to support a median 10.6 people at the poverty level—meaning they could support themselves plus 9 and a half other people. They could support 4.4 people, including themselves, at double the poverty level.

⁶ Poverty levels from 2011 were used in this edition of Workforce Training Results to measure the results of workforce programs on participants observed in 2010-11. The federal poverty level is determined by the Department of Health and Human Services. The level varies according to family size. The number is adjusted for inflation and reported annually in the form of poverty guidelines. Public assistance programs typically define eligibility income limits as some percentage of the federal poverty level.

Number of People Supported at Poverty Level by Participant Income

	2004		2006		2008		2010		2011		2012	
	Completers	All	Completers	All	Completers	All	Completers	All	Completers	All	Completers	All
Number of people supported at poverty level	14.2	7.8	12.2	7.9	13.6	9.4	14.4	9.5	13.2	8.3	13.6	10.6
Number of people supported at 200 percent poverty	6.1	2.9	5.2	3.0	5.9	3.7	6.2	3.8	5.7	3.2	5.9	4.4

Apprentices Receiving Benefits from Employers

Performance Measure	2004	2006	2008	2010*	2011	2012*
Self-Reported Medical Benefits from Employer	87%	83%	81%	N/A	85%	N/A
Self-Reported Retirement Benefits from Employer	80%	82%	68%	N/A	81%	N/A

* Due to budget limitations, the Workforce Board's Participant Survey was not conducted in 2010 or 2012.

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

Employment and Earnings Trends for Apprentices

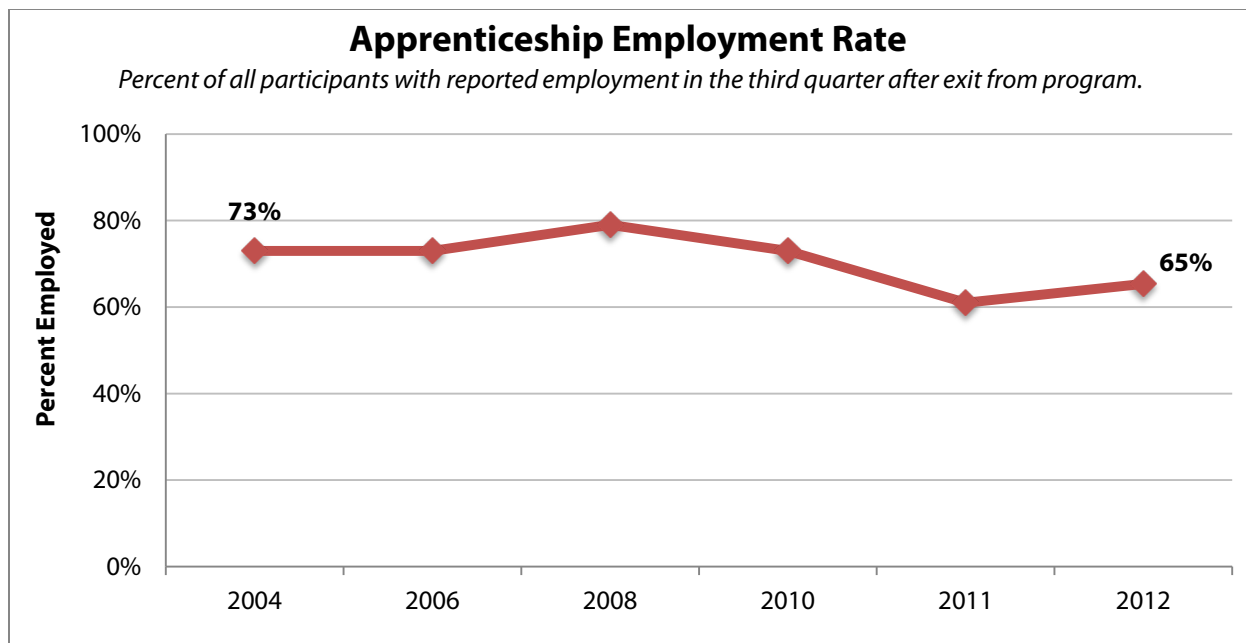
Performance Measure	2004	2006	2008	2010	2011	2012
Employment Rate (Self-Reported)	87%	87%	91%	N/A	78%	N/A
Employment Rate* (State Records)	73%	73%	79%	73%	61%	65%
Full Time Employment**	60%	61%	69%	65%	59%	64%
Median Quarterly Hours	442	451	476	465	444	468
Median Hourly Wage***	\$25.11	\$25.33	\$25.82	\$26.25	\$25.45	\$28.46
Median Annualized Earnings***	\$37,681	\$38,334	\$43,857	\$44,549	\$39,844	\$47,637

**These figures apply to those with employment reported to ESD 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.*

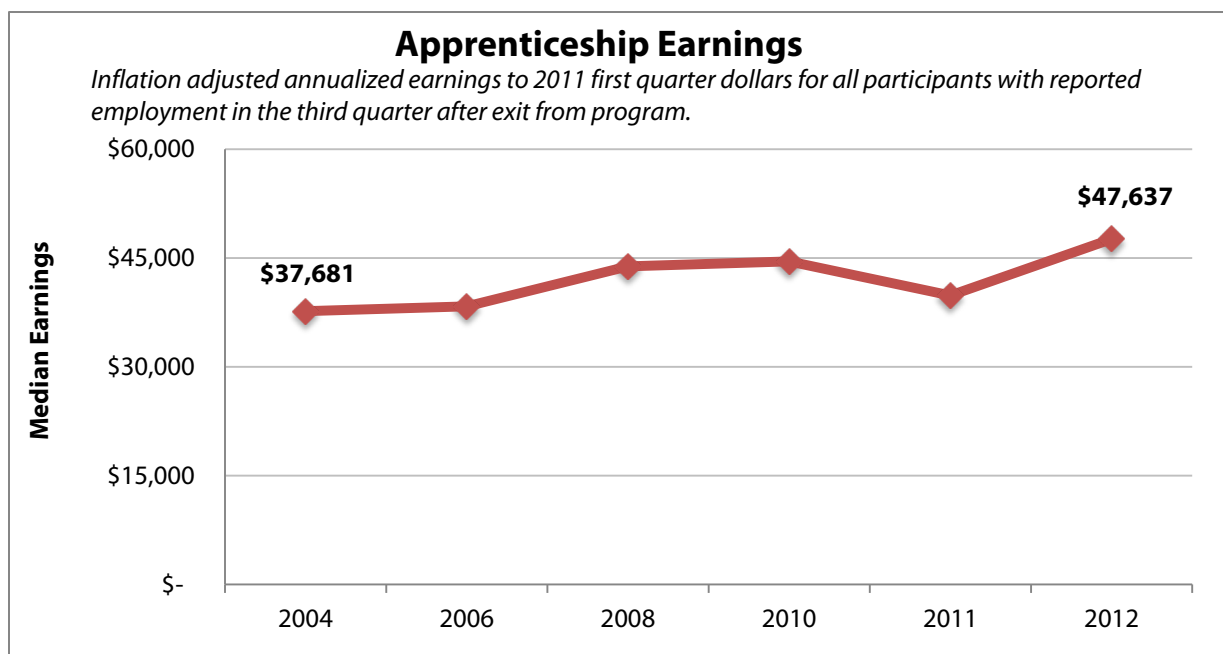
***Full-time employment averages 30 or more hours per week.*

****Earnings/wages expressed in first quarter 2011 dollars in order to account for inflation.*

Between 2004 and 2008, apprentices experienced increased earnings and employment. However, in 2010 employment decreased, and in 2011 employment decreased while earnings remained relatively stable. In this year's report both earnings and employment have increased compared to last year's findings. Employment rose from 61 percent to 65 percent, and median annualized earnings jumped dramatically from \$39,844 to \$47,637.



Source: Workforce Training Results 2004-12.



Source: Workforce Training Results 2004-12.

Apprenticeship Employment by Industry

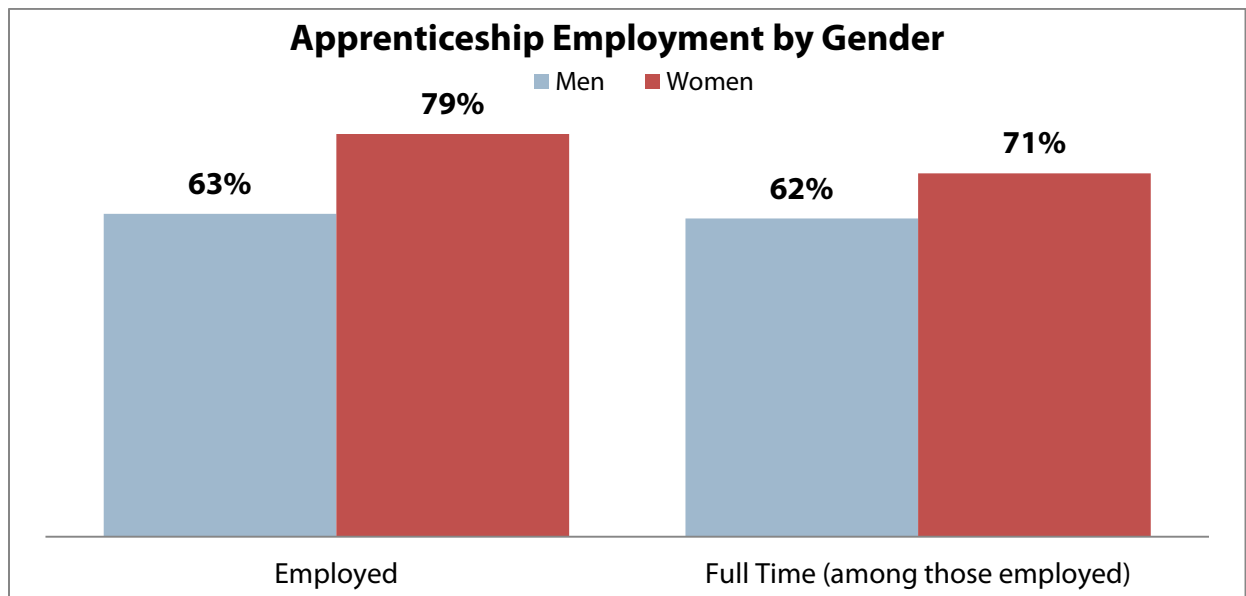
The majority of Apprenticeship program participants who were reported to be employed held jobs in construction (45.4 percent), services (18.6 percent), public administration (18.3 percent) retail trade (4.8 percent), and manufacturing (4.5 percent) industries. The number of Apprentices employed in the construction industry increased 27 percentage points between the 2011 and 2012 reports, following a 30 percentage point drop between 2008 and 2010. Apprentices working in the public administration industry increased 15 percentage points. The number of apprentices working in services dropped from 25.1 percent to 18.6 percent, and those who reported working in manufacturing dropped from 17.1 percent to 4.5 percent.

Industry Group	
45.4%	Construction (See Breakout Below)
18.6%	Services (See Breakout Below)
18.3%	Public Administration
4.8%	Retail Trade
4.5%	Manufacturing
3.9%	Transportation And Warehousing And Utilities
1.9%	Wholesale Trade
1.3%	Financial Services
0.9%	Natural Resources And Mining
0.4%	Information
Breakout of Construction Industry	
17.6%	Building Equipment Contractors
6.8%	Construction Of Buildings
6.4%	Heavy & Civil Engineering Construction
6.1%	Foundation, Structure & Building Exterior Contractors
6.0%	Building Finishing Contractors
2.5%	All Other Specialty Contractors
Breakout of Services Industry	
6.4%	Administrative And Support And Waste Management And Remediation Services
4.8%	Education Services
2.6%	Professional, Scientific, And Technical Services
1.5%	Health Care
1.5%	All Other Services
0.9%	Arts, Entertainment, And Recreation
0.5%	Social Assistance
0.4%	Accommodation And Food Services
<i>Note: Industry groups are based on North American Industry Classification System codes.</i>	

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 Vary by Population

Wages and employment results can vary by gender, race and ethnicity, and disability.⁷ Women were more likely than men to be employed in the third quarter after leaving their apprenticeship (79 percent compared to 63 percent), and were more likely to be employed full-time (71 percent versus 62 percent). Of those employed, women had median hourly wages (\$27.12), which was 92.5 percent of men's wages (\$29.31), an increase of 17.5 percentage points from the prior report. However, women had median annualized earnings that were 106 percent of males (\$49,699 compared to \$46,952). This is a substantial increase over the prior report when female's median annual earnings were 76 percent of men's (\$29,524 compared to \$38,796).



Source: 2009-10 Apprenticeship Administrative Data, Department of Labor and Industries.

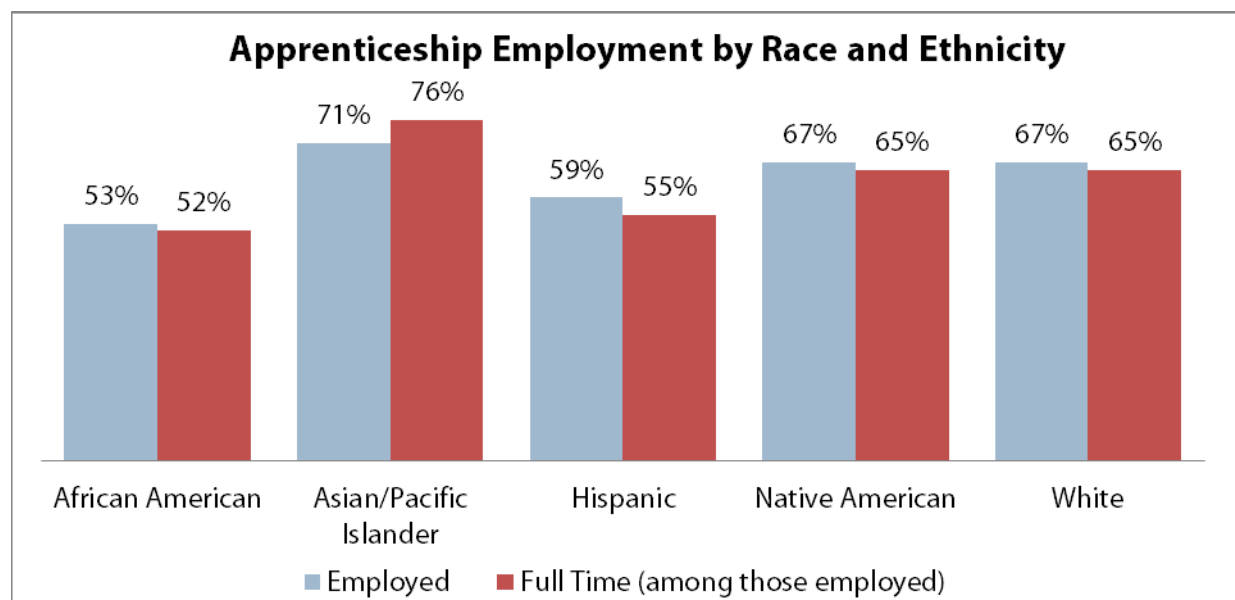
Race/Ethnicity Plays Role

African American apprentices were less likely than others to be employed in the third quarter after leaving their programs (53 percent). This employment rate compares to 67 percent for whites, 59 percent for Hispanics, 67 percent for Native Americans, and 71 percent for Asian Pacific Islanders. However, Asian/Pacific Islanders were more likely to be employed full time at 76 percent, with Native Americans and whites having a full time employment rate of 65 percent, and African Americans and Hispanics at 52 and 55 percent.

For those employed, whites had the highest median hourly wage at \$28.95. The median hourly wage for African American apprentices was 76 percent of whites (\$22.12), 99 percent for Asian/Pacific Islanders (\$28.78), 98 percent for Native Americans (\$28.40) and 81 percent for Hispanics (\$23.38).

⁷ Apprenticeship administrative records do not include information on disability status.

In terms of annual earnings, Asian/Pacific Islanders earned the most (\$55,996), followed by whites (\$50,195), Native Americans (\$44,975), Hispanics (\$33,729), and African Americans (\$30,868).



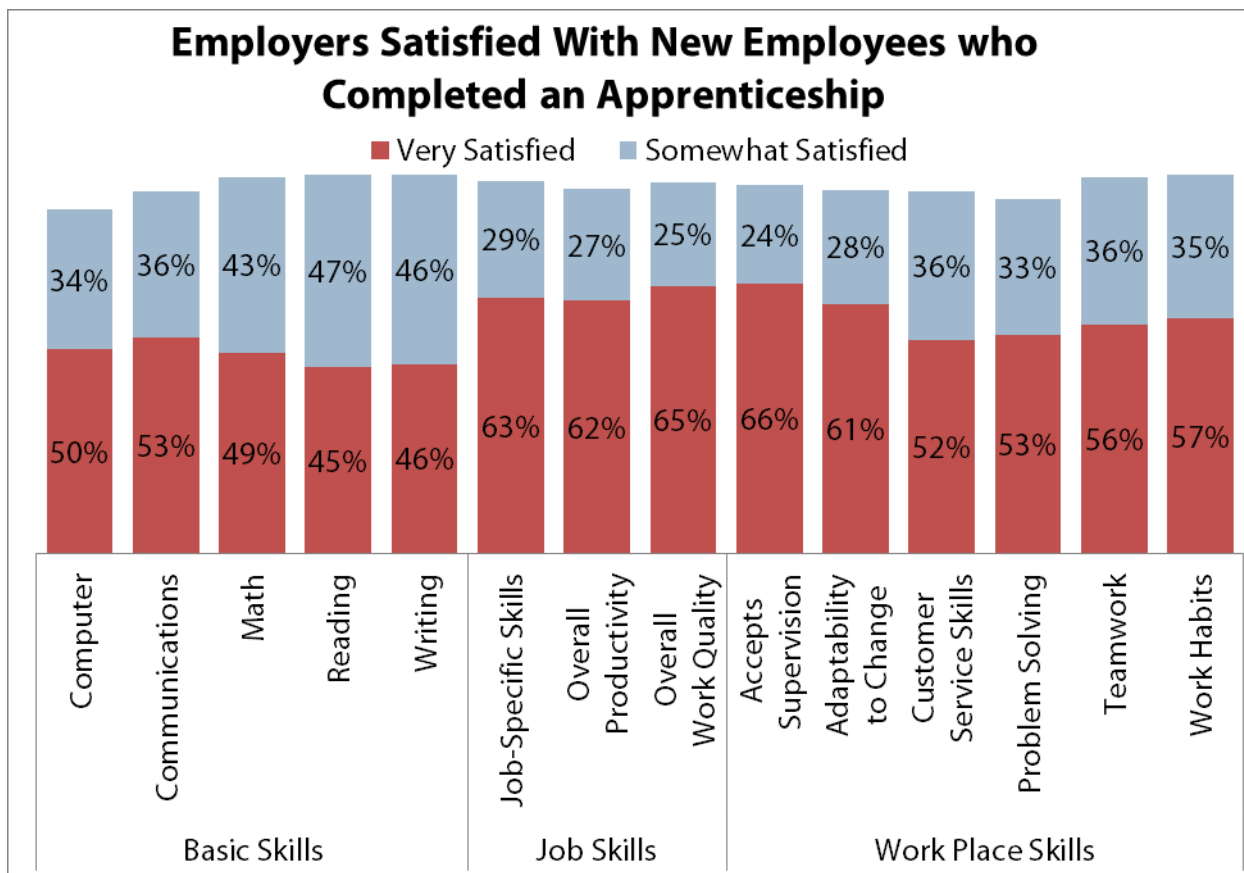
Source: 2009-10 Apprenticeship Administrative Data, Department of Labor and Industries.

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 91 percent of employers said they were either "somewhat satisfied" or "very satisfied" with the overall work quality of these new employees.

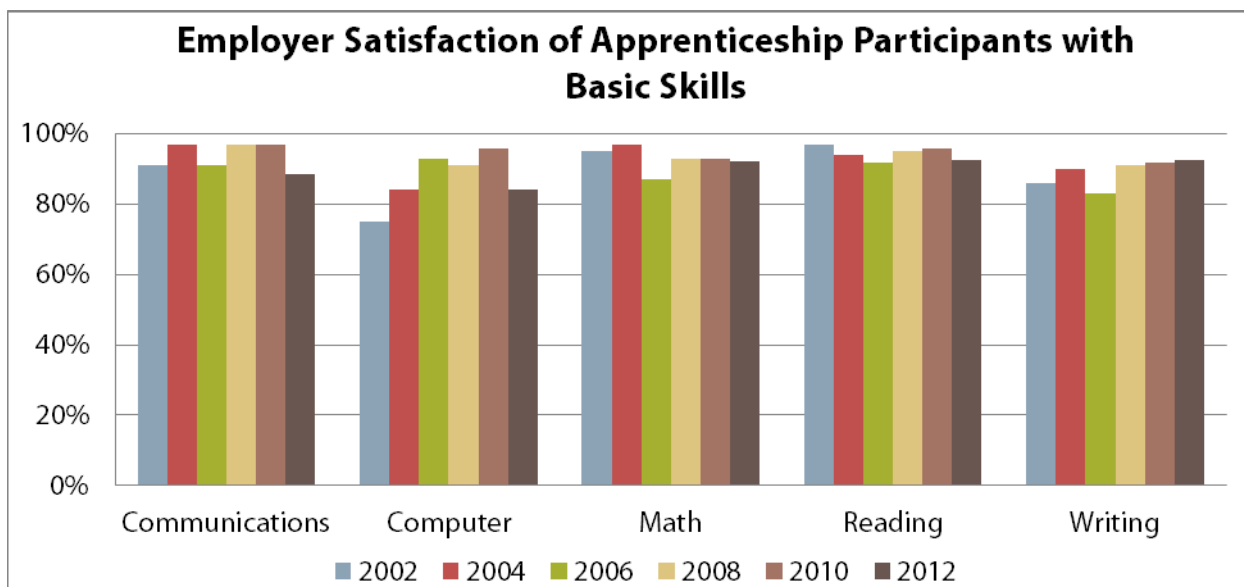
Employer satisfaction is broken down into three categories: Basic Skills, Job Skills and Work Place Skills. Basic skills refer to reading, writing, math, communication and computer skills. Job skills refer to skills specific to the job, as well as overall work quality and productivity. Work place skills 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, writing, and math. For job skills, their highest overall satisfaction was with job specific skills, and overall work quality. Among work place skills, employers were most satisfied with apprentices' work habits and teamwork skills.

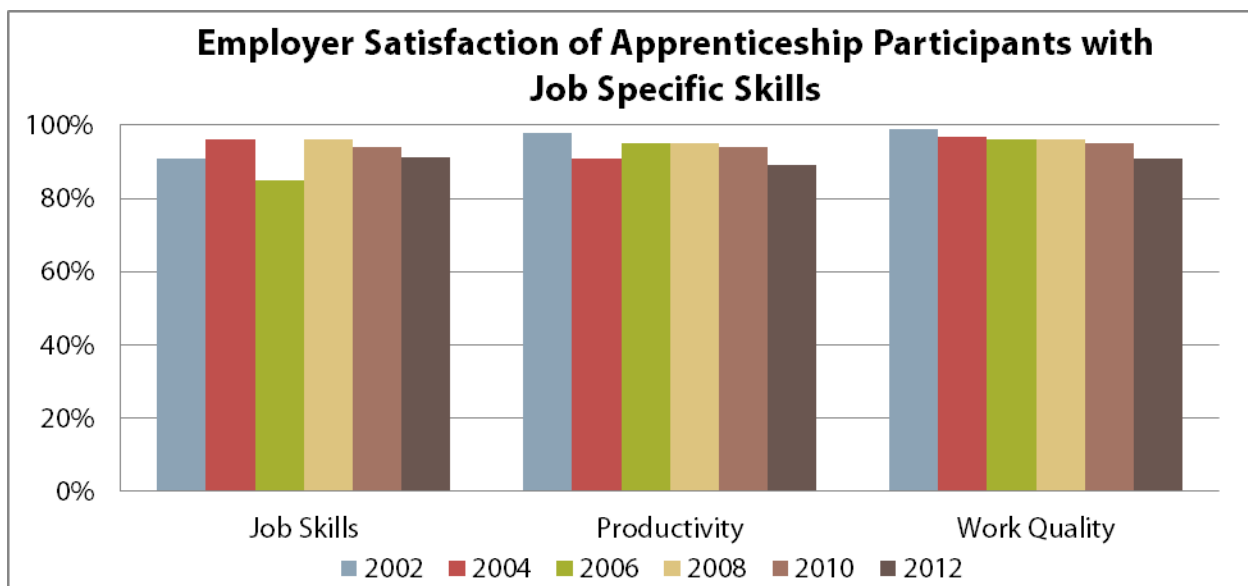


Source: Workforce Board Employer Survey conducted in 2012.

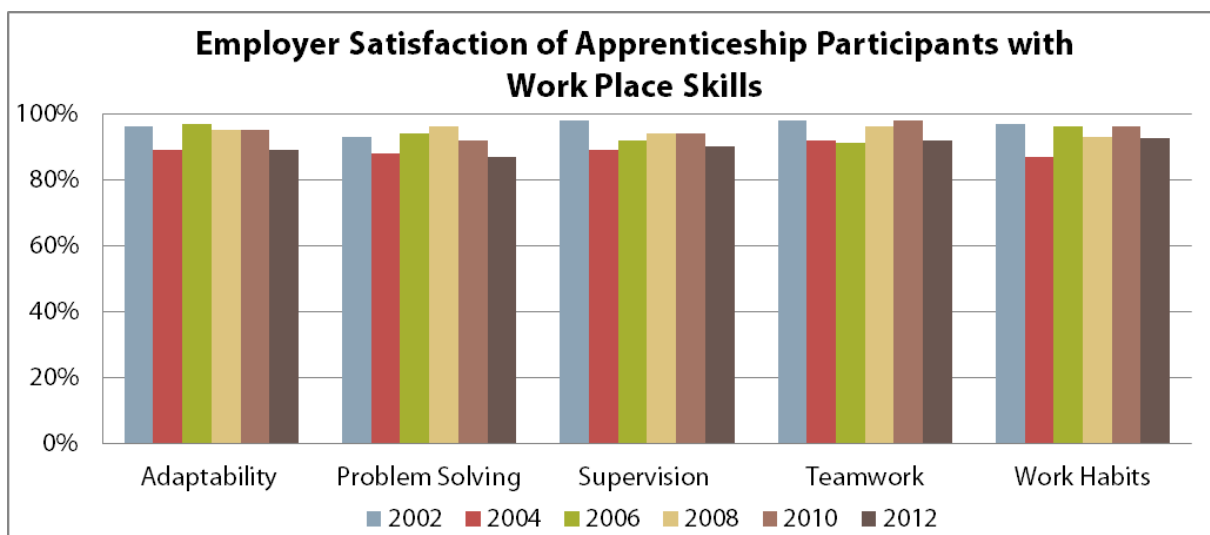
Overall, the levels of employer satisfaction reported in the Workforce Board's 2012 Employer Survey are lower than the previous survey, conducted in 2010. The following three charts show the overall satisfaction of employers with new employees who recently completed an apprenticeship program.



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?

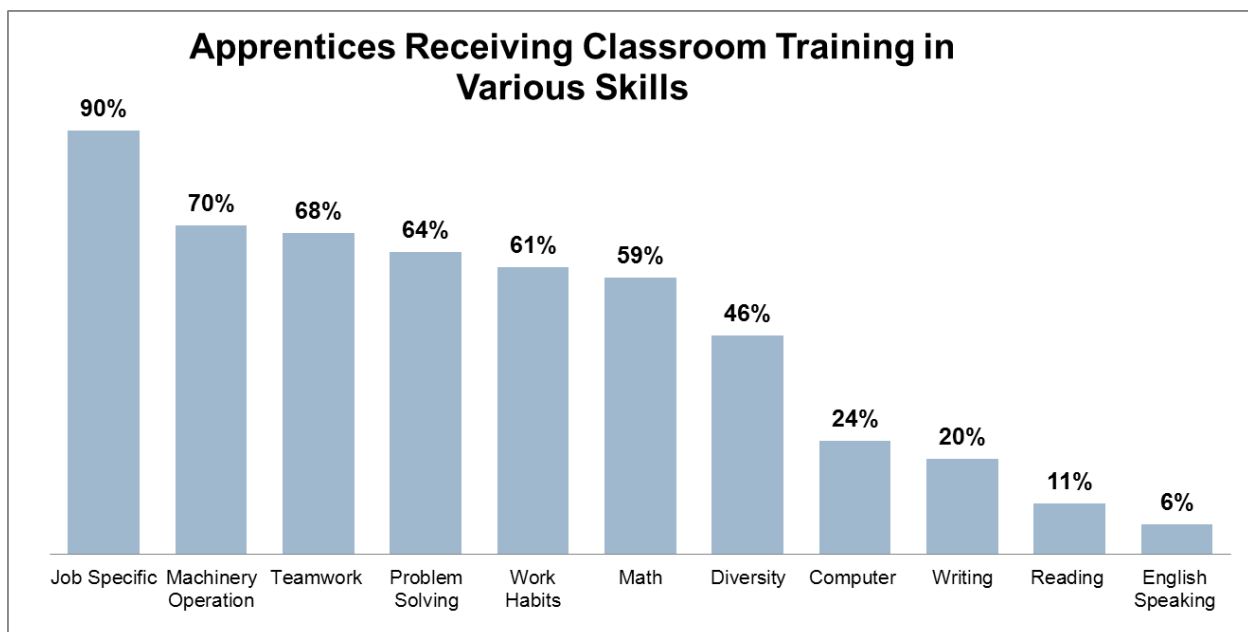
In 2011 the Workforce Board surveyed Apprentices who had left their program in 2009-10. The survey provided data on employment and participant satisfaction with the training. The survey was conducted by telephone and was completed by 317 participants.

Of the apprentices leaving their program who answered questions for the 2011 Participant Survey, 37 percent completed their apprentice program, which is a decrease of 5 percentage points from the previous survey conducted in 2008.

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. They receive both on-the-job training and classroom training.⁸

Classroom Training

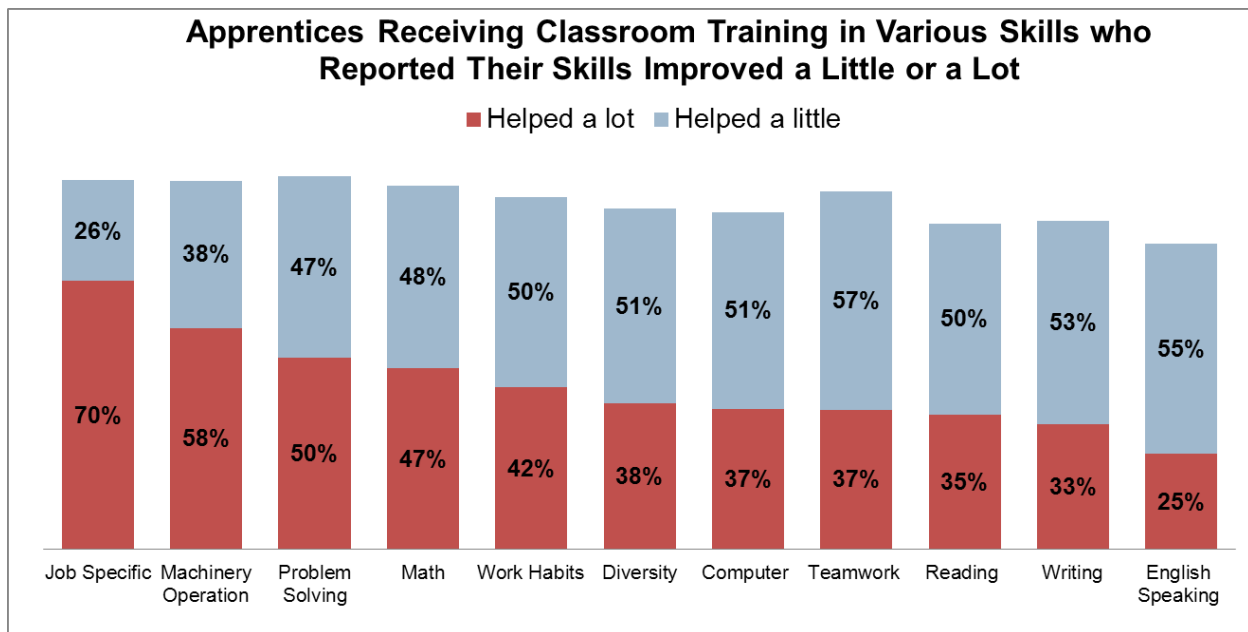
Apprentices receive various skills training, both in the classroom and during on-the-job training. During classroom training, apprentices were least likely to receive basic skills training such as English speaking, reading, and writing skills. One exception is the 59 percent of apprentices who received math skills training. Apprentices were most likely to receive training in job specific skills (90 percent). These results are similar to surveys completed in previous years.



Source: Workforce Board's Participant Satisfaction Survey 2011.

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 2011 survey indicated similar levels of improvement overall when compared with apprentices from 2008. However, compared to 2008, fewer apprentices reported the training they received in problem-solving, math and job specific skills helped "a lot." An increasing number reported that training in those areas helped "a little." One significant drop was in work habits. Apprentices reporting that work habits training helped "a lot" dropped by 9 percentage points.

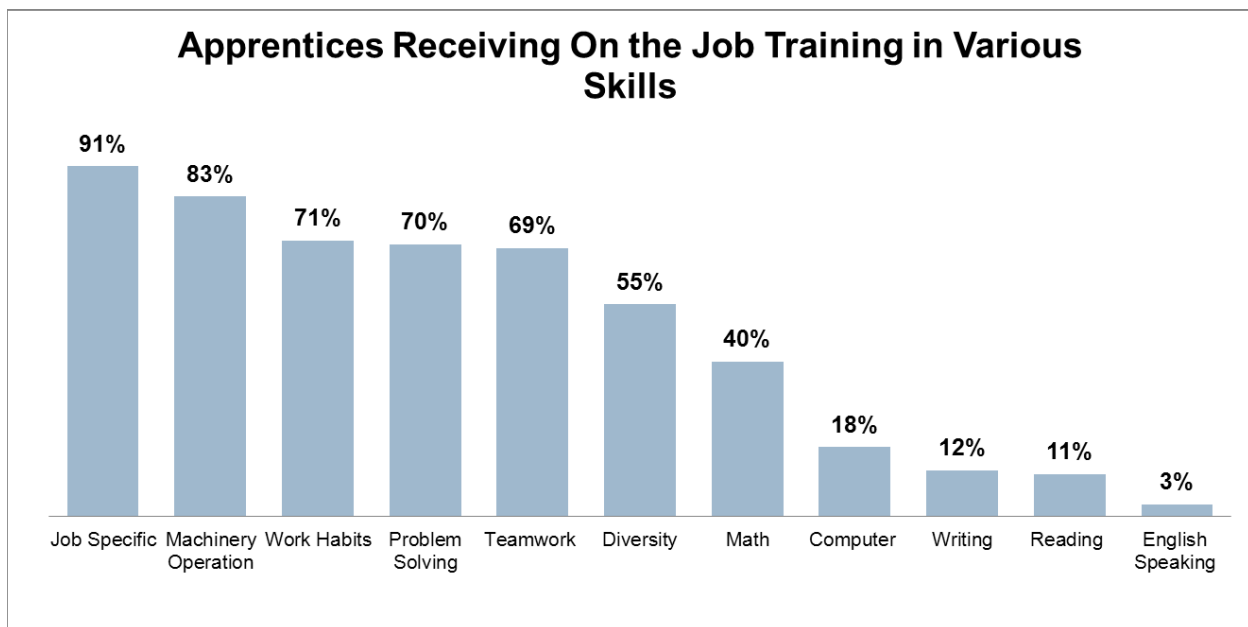
⁸ Apprentices are required to participate in at least 144 hours of classroom training annually.



Source: Workforce Board's Participant Satisfaction Survey 2011.

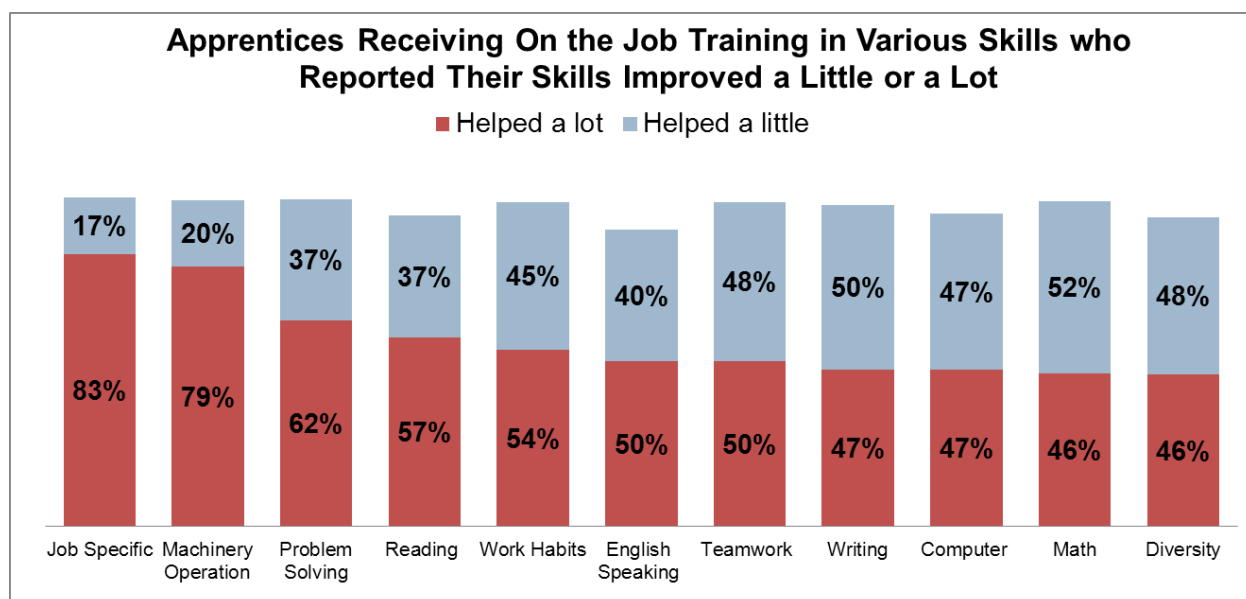
On-the-Job Skills Training

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 2008 and 2011. The exceptions are the level of apprentices receiving training in work habits and math skills, both of which increased 7 and 6 percentage points respectively. However, the level of apprentices receiving training in problem solving skills declined 10 percentage points in the same time period.



Source: Workforce Board's Participant Satisfaction Survey 2011.

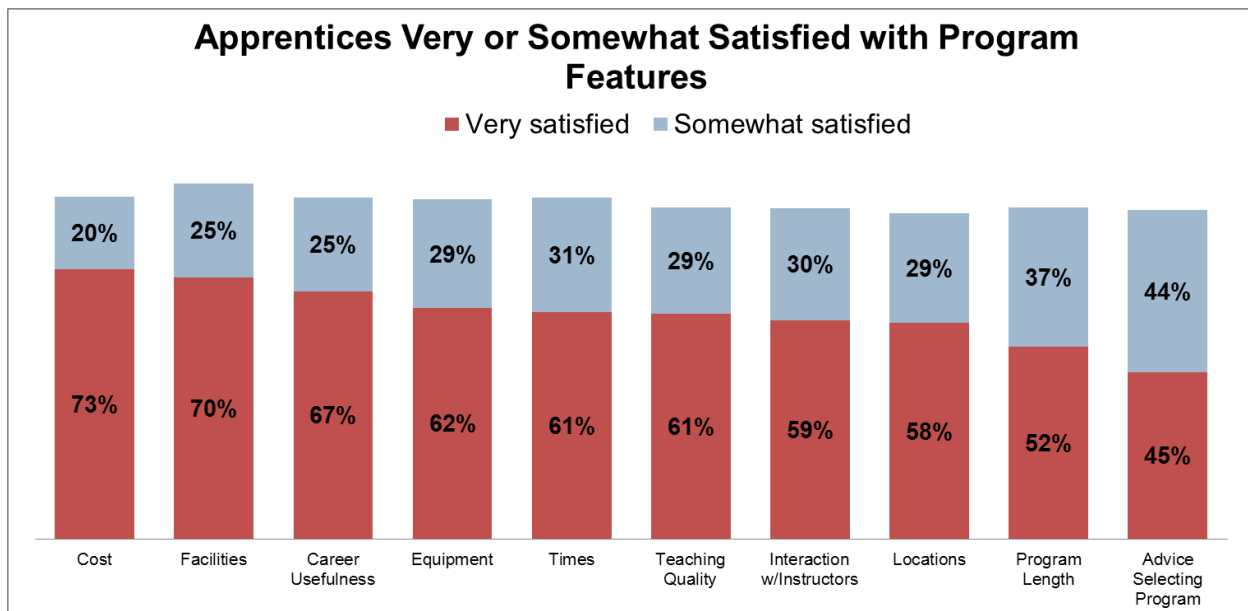
Apprentices continue to highly rate the skills received from on-the-job training. As expected, the highest percentages indicated “a lot” of improvement in their job-specific and machinery operation skills. In fact, the percentage of apprentices who indicated their job-specific skills improved “a lot” increased by 7 percentage points.



Source: Workforce Board's Participant Satisfaction Survey 2011.

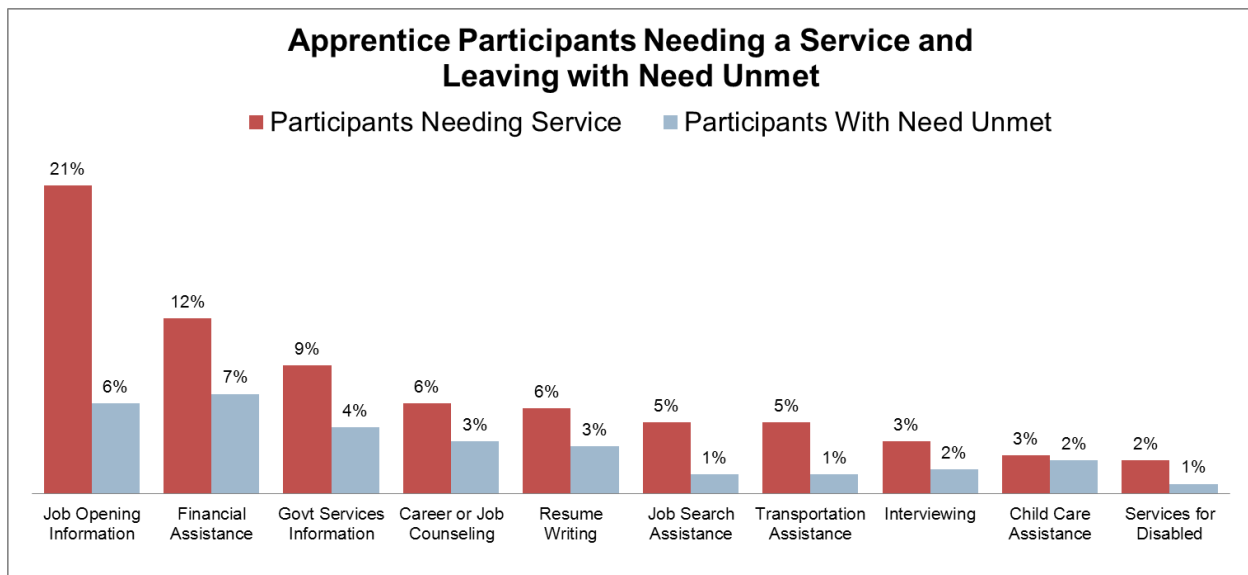
Participant Satisfaction

The apprentices surveyed in 2011 expressed similar high levels of overall satisfaction as in the previous study: 90 percent expressed satisfaction with their classroom training and another 88 percent with their on-the-job training. Some 86 percent met their educational objectives by participating in the training, up from the 75 percent of the apprentices in the 2008 survey. Overall satisfaction with program features has increased in every category. The largest gains in satisfaction have been in cost (“very satisfied” up 15 percentage points) and in location (“very satisfied” up 15 percentage points). However, apprentices reporting that they are “very satisfied” with program facilities and career usefulness has dropped 9 percentage points in both categories.



Source: Workforce Board's Participant Satisfaction Survey 2011.

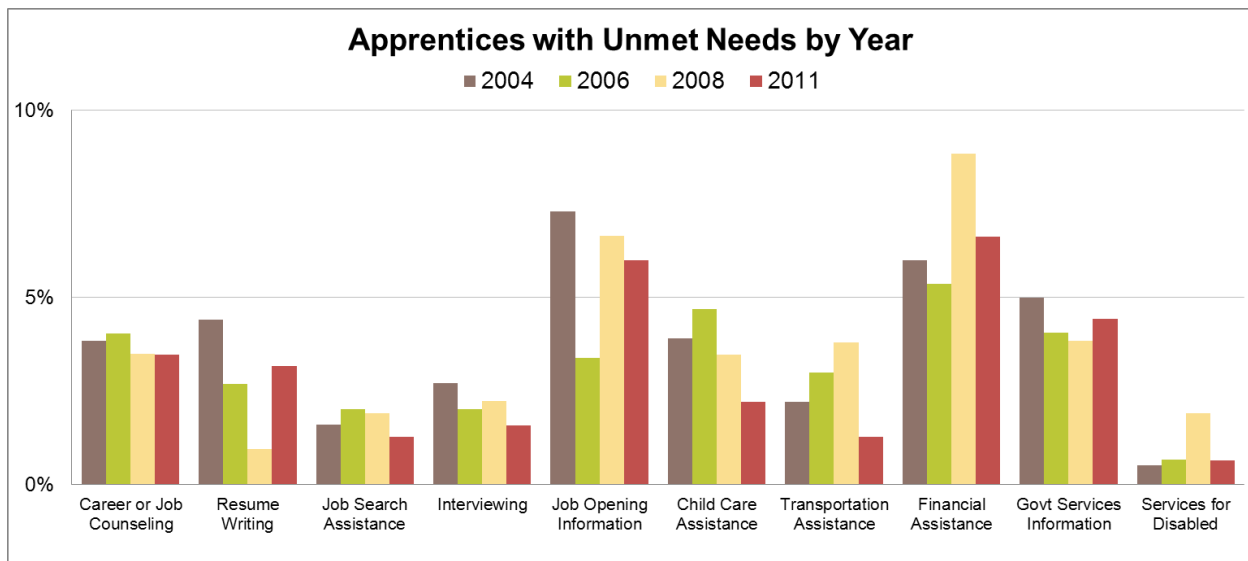
Apprentices reported a much lower need for support services than participants in the other programs included in the survey. Their greatest needs were for information on job openings, financial assistance, and government services information. In some cases their needs were not met. Of apprentices leaving their program, 7 percent left with an unmet need⁹ for financial assistance, and 6 percent left with an unmet need for job opening information.



Source: Workforce Board's Participant Satisfaction Survey 2011.

⁹ 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 apprentices with unmet needs has dropped in nearly every category since the last survey. However, the percentage reporting unmet needs for government services information and resume writing has increased since 2008.



Source: Workforce Board's Participant Satisfaction Survey 2011.

Relationship of Training to Employment

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.

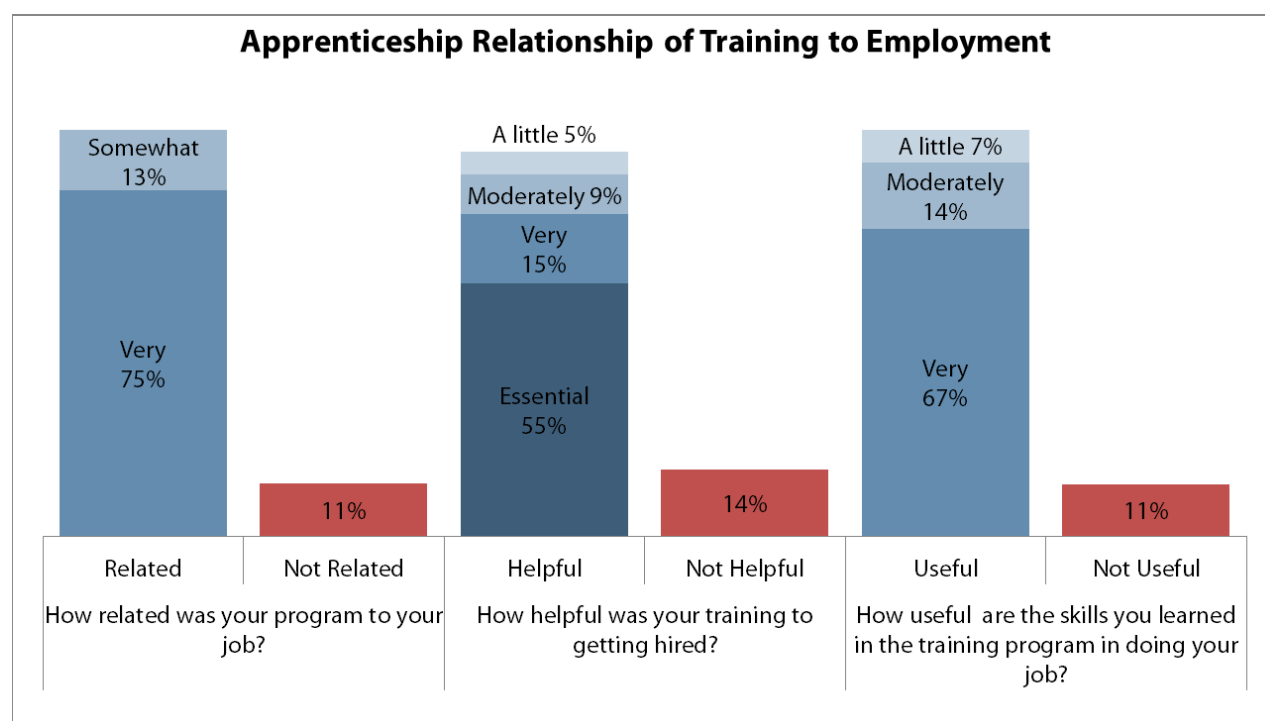
Among apprenticeship participants employed seven to nine months after leaving a program, 75 percent said their training was "very related" to their job. A further 13 percent reported the training was "somewhat related" to their job. Just 11 percent indicated that the training was not related to their job. In 2008, employed participants reported lower rates of training related to employment; only 72 percent indicated their training was either "very" or "somewhat" related to their job.

Apprenticeship participants surveyed in 2011 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 15 percent indicated it was "very important," and 9 percent reported it was "moderately important." Only 14 percent indicated their training was "not important at all" to getting their job.

Nearly 90 percent participants said the skills they learned in their training program were useful in doing their job. Some 67 percent of participants indicated the skills were “very useful,” 14 percent said “moderately useful,” and 7 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 7 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.

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



Source: Workforce Board's Participant Satisfaction Survey 2011.

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 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**	\$8.20	\$9.12		\$13.80	\$15.15
Net Hours Employed per Quarter Impact	46.9	26.4		71.8	43.0
Net Annualized Earnings Impact**	\$19,299	\$18,397		\$33,700	\$31,393

[^]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 2011 dollars, represent the average difference between Apprenticeship participants who got jobs and those in the control group who were employed.

As can be 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 over the longer term. For example, long-term apprenticeship completers earned about \$31,000 more per year than those who did not participate in such a program. Also, it's clear that completing an apprenticeship yields 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.¹⁰ 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 2011 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	\$36,770	\$0	\$314,829	\$0	
Fringe Benefits	\$7,354	\$0	\$62,966	\$0	
Taxes	-\$9,645	\$9,645	-\$82,580	\$82,580	
Transfers					
UI	\$859	-\$859	\$1,538	-\$1,538	
Costs					
Foregone net comp.	\$22,629	\$6,009	\$22,629	\$6,009	
Program costs	-\$1,791	-\$3,484	-\$1,791	-\$3,484	
Benefits	\$35,338	\$8,786	\$296,753	\$81,042	
Costs	\$20,837	\$2,526	\$20,837	\$2,526	
Total (Net)	\$56,176	\$11,311	\$317,591	\$83,567	\$401,158.39

Note: Benefits and costs are expressed in 2011 first quarter dollars.

For each apprentice in training, the public (taxpayer) cost is \$3,484 over the length of their enrollment, and the participant cost is \$1,791 in tuition. By definition, apprentices work during their program participation and their net earnings during training was \$22,629 higher than those who were not in training. During the course of working life to age 65, the average apprentice will gain about \$337,000 in net earnings (net impact earnings plus earnings while

¹⁰ Upjohn estimated the impact of the net change in earnings on social security, Medicare, federal income, and state sales taxes.

in apprenticeship training) and about \$63,000 in employee benefits.¹¹ 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 \$317,591.

Projected participant net benefits to age 65 far outweigh public investment in apprenticeship training by a ratio of \$91 to 1, or \$317,591 to \$3,484.

From the time of leaving training to age 65, the public is expected to gain about \$82,580 per apprentice in net additional Social Security, Medicare, federal income, and state sales taxes. The estimated lifetime net benefit to taxpayers is \$83,567 per participant.

Projected taxpayer net benefits to age 65 outweigh public costs invested in apprenticeship training by a ratio of \$23 to 1 or \$81,042 to \$3,484.

¹¹ 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 \$48,000.

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 2012 report, researchers examined 32,879 CTC Professional-Technical participants who completed or left the community or 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 nine months.

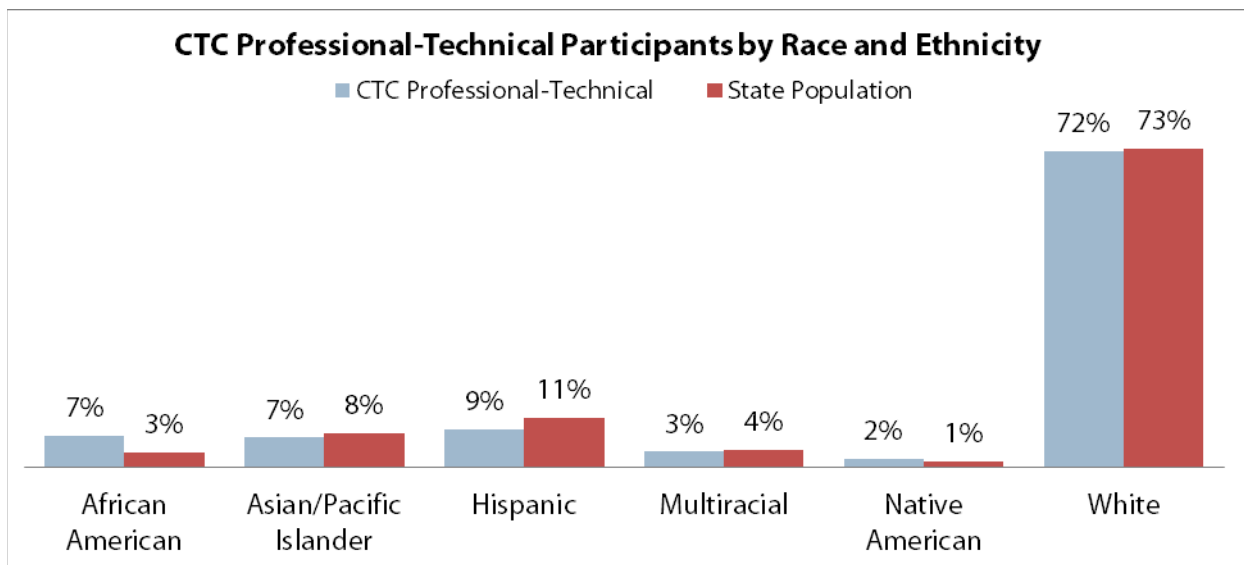
Participants from racial and ethnic minority backgrounds continue to be well represented among CTC Professional-Technical participants, especially among African Americans whose participation rate was nearly twice their representation in the state population. Native Americans are also slightly overrepresented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

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.

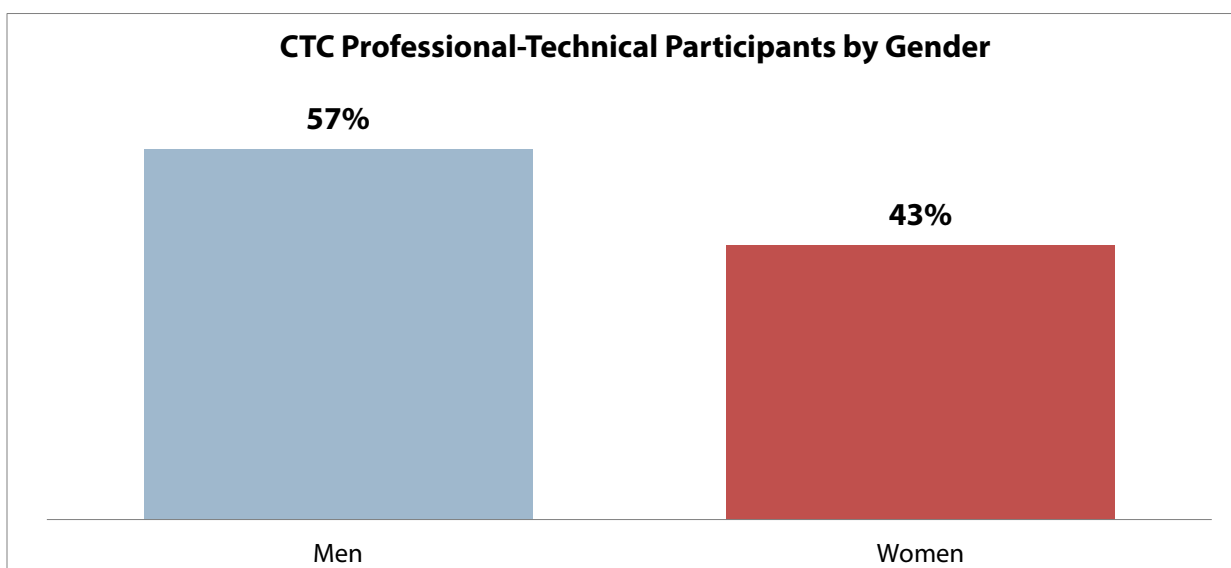
³ The 2012 Workforce Training Results reports are based on data observed in 2010-11 for individuals exiting programs during 2009-10.

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/Pacific Islanders (also referred to as Asians/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 2010 U.S. Census Bureau estimates of Washington's population from the American Community Survey, 73 percent are white; 3 percent are African American; 1 percent are Native American; 8 percent are Asian/Pacific Islander; 4 percent are multiracial; and 11 percent are Hispanic.



Source: Community and Technical Colleges Administrative Data. (Data Linking for Outcomes Assessment) and 2010 U.S. Census Data from the American Community Survey.

Gender differences were also examined. Among CTC Professional-Technical participants, 43 percent were women—a substantial decrease from the previous report when 59 percent of participants were women. Looking at completion rates, however, slightly more women completed their programs compared to men (57 percent versus 54 percent).



Source: Community and Technical Colleges Administrative Data. (Data Linking for Outcomes Assessment)

When they enrolled, 52 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; and 11 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.

State Core Measures: 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 2012 Workforce Training Results includes information obtained from Employment Security Department (ESD) wage files in Washington, Idaho, and Oregon, and federal employment records for 2010-11. 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, this year's report includes a comprehensive Net Impact Study. To assess both short- and long-term employment and earnings trends, data on participant experiences through 2009 is used in the 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:

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

Taken together, 56 percent of participants earned a credential.⁵

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 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. Nearly 63 percent of the CTC Professional-Technical participants were employed. Of those who were working, 54 percent were employed full time. The median hourly wage was \$14.92 and participants had median annualized earnings of \$24,413.⁷

Compared to employment and earnings data for CTC Professional-Technical participants from prior years, the Great Recession may well have negatively impacted the ability of program completers to thrive in the current economic situation. Given this context, the median wage of Professional-Technical participants, at \$14.92 an hour is only slightly less than the prior year, which was \$15.21. This is \$6.25 per hour more than Washington's minimum wage of \$8.67 an hour in 2011. However, there is considerable variation in wages. While one quarter earned more than \$20.01 an hour, another quarter had jobs that paid less than \$10.39 an hour.

Turn to page 16 for the Net Impact Study. Conducted every four years, this in-depth report adds extra value to 2012 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 56 percent due to rounding.

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).

⁷ All wages and earnings are stated in first quarter 2011 dollars.

Employment and Earnings for Community and Technical College Professional-Technical Education Participants, 2012

Performance Measure	Results
Employment Rate* (State Records)	63%
Full Time Employment **	54%
Median Hours Worked Quarterly	416 hours
Median Hourly Wage***	\$14.92
Median Annualized Earnings***	\$24,825

* 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 2011 dollars in order to account for inflation.

Earnings of CTC Professional-Technical Participants

To better gauge the financial effectiveness of Washington's workforce programs, it helps to frame income levels. One common yardstick is the federal poverty level. In 2011, the federal poverty level for one person was \$10,890 per year.⁸

In 2012, CTC Professional-Technical participants were able to support a median 4.5 people at the poverty level—meaning they could support themselves plus three and a half other people. They could support just slightly more than themselves (1.3) at 200 percent of the poverty level.

Number of People Supported at Poverty Level by Participant Income

Performance Measure	2004	2006	2008	2010	2011	2012
Number of people supported at the poverty level	4.9 people	4.9 people	5.1 people	5.5 people	4.9 people	4.5 people
Number of people supported at 200 percent poverty	1.5 people	1.5 people	1.6 people	1.8 people	1.5 people	1.3 people

⁸ Poverty levels from 2011 were used in this edition of Workforce Training Results to measure the results of workforce programs on participants observed in 2010-11. The federal poverty level is determined by the Department of Health and Human Services. The level varies according to family size. The number is adjusted for inflation and reported annually in the form of poverty guidelines. Public assistance programs typically define eligibility income limits as some percentage of the federal poverty level.

CTC Professional-Technical Participants Receiving Benefits from Employers

Performance Measure	2004	2006	2008	2010*	2011	2012*
Self-Reported Medical Benefits from Employer	71%	72%	62%	N/A	55%	N/A
Self-Reported Retirement Benefits from Employer	48%	52%	42%	N/A	44%	N/A

*Due to budget limitations, the Workforce Board's Participant Survey was not conducted in 2010 or 2012.

The following table shows employment and earnings information over the course of six 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	2004		2006		2008		2010		2011		2012	
	All	Comp.	All	Comp.	All	Comp.	All	Comp.	All	Comp.	All	Comp.
Employment Rate (Self-Reported)	82%	-	81%	-	84%	-	N/A	N/A	76%	-	N/A	N/A
Employment Rate* (State Records)	71%	74%	72%	75%	70%	74%	71%	77%	61%	65%	63%	69%
Full Time Employment**	62%	64%	62%	63%	63%	66%	65%	67%	59%	60%	54%	56%
Median Quarterly Hours	455	455	450	451	455	468	455	455	429	442	416	429
Median Hourly Wage***	\$15.01	\$15.38	\$15.07	\$15.42	\$15.46	\$15.96	\$15.85	\$16.52	\$15.21	\$16.08	\$14.92	\$15.70
Median Annualized Earnings***	\$25,650	\$26,755	\$25,905	\$27,094	\$26,569	\$28,322	\$28,196	\$30,308	\$25,679	\$27,810	\$24,413	\$26,726

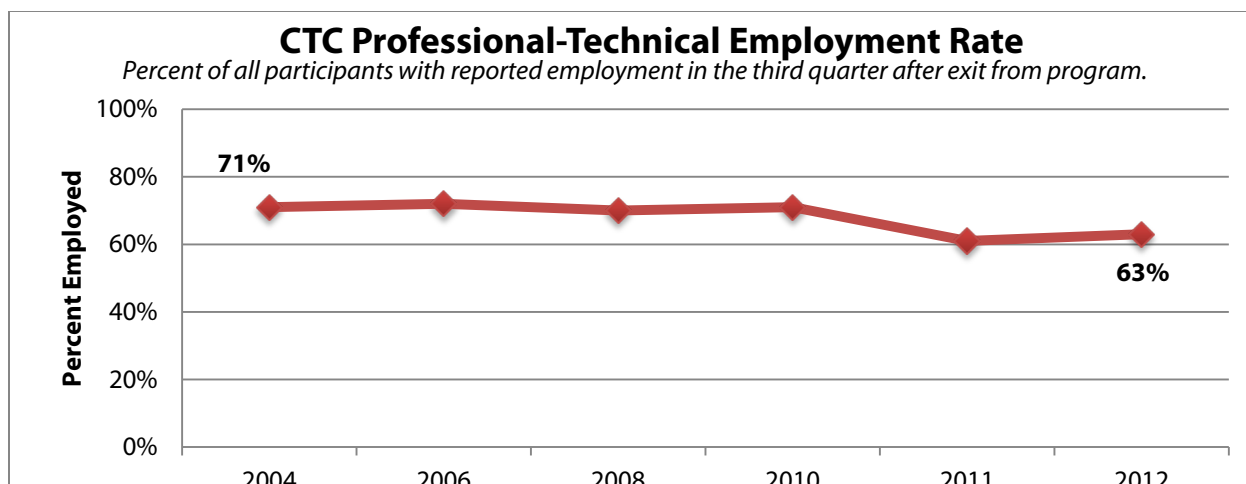
Source: Matches of Community and Technical College Administrative data with employment wage files.

*These figures apply to those with employment reported to ESD six to nine months after leaving program for all CTC Professional-Technical participants, 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.

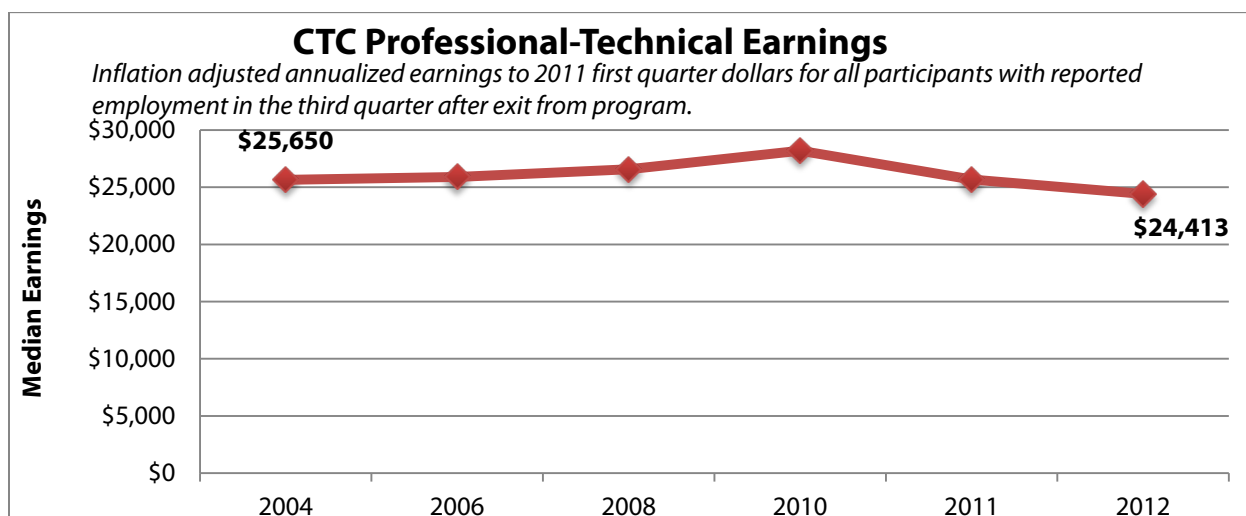
**Full-time employment averages 30 or more hours per week.

***Earnings/wages expressed in first quarter 2011 dollars in order to account for inflation.

The program results in the table above indicate that employment among all CTC Professional-Technical participants remained stable between 2004 and 2010, and declined in 2011 before increasing to 63 percent in 2012. In terms of earnings, all CTC Professional-Technical participants experienced increases from 2004 to 2010, after which earnings declined the following two study periods.



Source: Workforce Training Results 2004-12.



Source: Workforce Training Results 2004-12.

CTC Professional-Technical Participant Employment by Industry

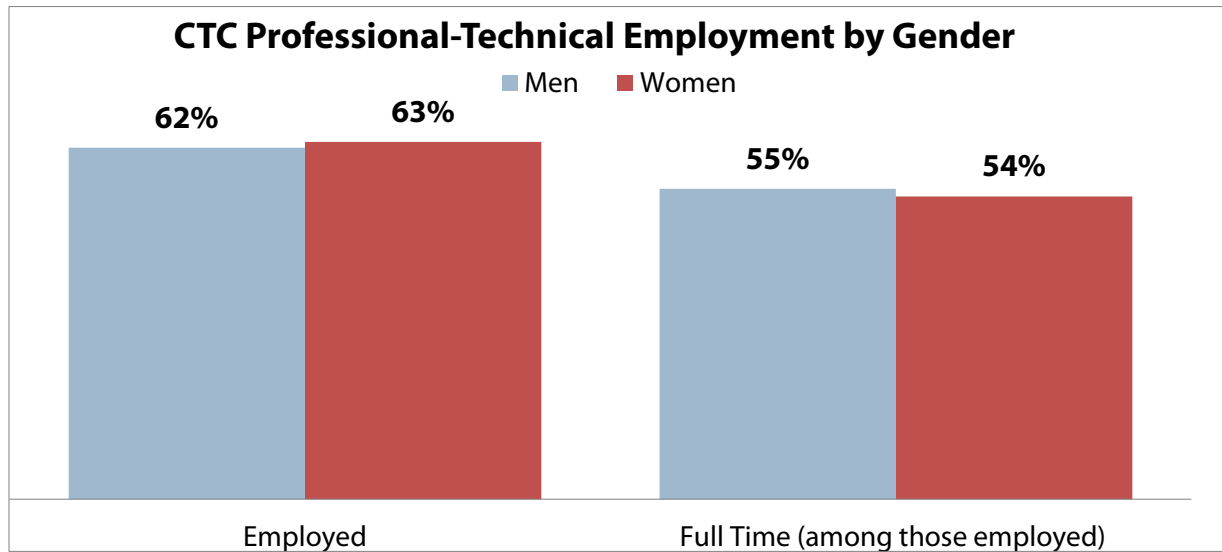
CTC Professional-Technical participant employment is concentrated in the services industry followed by retail trade, public administration, and manufacturing. Compared to employment in the prior report, this report identified higher percentages were employed in these top industries—services, retail trade, and public administration—while the percentages working in industries such as construction, manufacturing, natural resources and mining, transportation and wholesale trade decreased.

Industry Group	
57.3%	Services (See Breakout)
12.8%	Retail Trade (See Breakout)
9.5%	Public Administration
3.4%	Financial Services
3.3%	Construction
3.2%	Manufacturing
2.7%	Transportation and Warehousing and Utilities
2.6%	Wholesale Trade
1.6%	Aerospace
1.3%	Information
1.2%	Natural Resources and Mining
0.8%	Food & Beverage
0.3%	Correctional Facilities
Breakout of Services Industry	
24.7%	Health Care
8.3%	Administrative and Support and Waste Management and Remediation Services
6.2%	Education Services
5.5%	Social Assistance
4.8%	All Other Services
3.8%	Professional, Scientific, and Technical Services
2.2%	Arts, Entertainment, and Recreation
1.7%	Accommodation and Food Services
Breakout of Retail Trades Industry	
3.3%	Department and Warehouse Stores
2.4%	Food and Liquor Stores
1.6%	Vehicle Sales
1.4%	Clothing and Accessories Stores
1.0%	Miscellaneous Store Retailers
0.8%	Hardware, Garden and Farm Supplies
0.7%	Health Care and Beauty Products
0.7%	Books, Music and Hobbies Sales
0.5%	Gasoline Stations
0.3%	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.

Wages and Employment Results Vary by Population

Wage and employment results may vary by gender, race and ethnicity, and disability. However, female participants (63 percent) were just as likely to be employed in the third quarter after leaving their programs as male participants (62 percent). Women and men were also just as likely to be employed full time (54 percent and 55 percent).



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

Among employed participants, women's median annual earnings were \$23,373, or 90 percent of what men earned (\$26,052). Women's median hourly wages were \$14.69, or 96 percent of men's hourly wages (\$15.28) – a 2 percentage point increase from the prior year. Despite the narrowing disparity in earnings between men and women, 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.

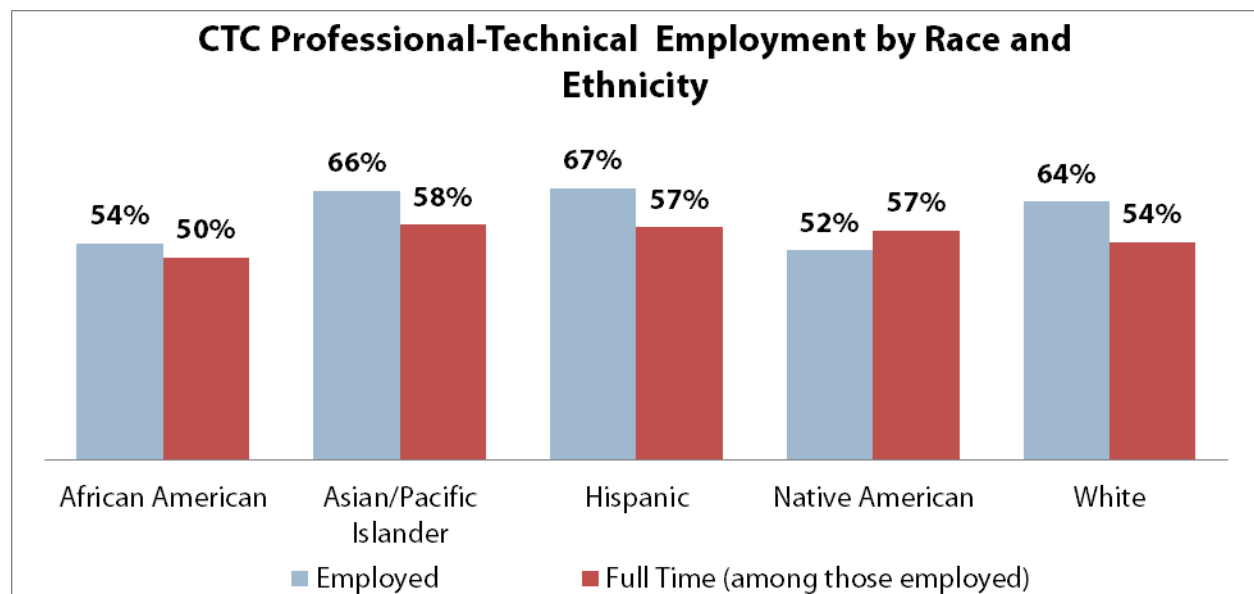
The service industry, for example, has a heavily female workforce. Some 71 percent of women CTC Professional-Technical participants obtained work in the service industry compared to 39 percent of men. Conversely, 10 percent of men obtained work in manufacturing while 3 percent of women obtained manufacturing jobs. Slightly more men than women work in retail trades. However, 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 (52 percent) were the least likely racial and ethnic group to be employed in the third quarter after leaving their programs. This compares to employment rates of 67 percent for Hispanics, 66 percent for Asian/Pacific Islanders, 64 percent for whites, and 54 percent for African Americans. Among those employed, the percent employed full time was slightly higher for Asian/Pacific Islanders (58 percent), Hispanics (57 percent) and Native Americans (57 percent), and slightly lower for the other groups (50 percent for African Americans and 54 percent for whites).

Of those employed the median hourly wages were \$15.14 for whites, with African Americans (\$14.12), Hispanics (\$13.13) and Native Americans (\$14.70) all earning on average less than whites. Asian/Pacific Islanders' median hourly wage, \$15.61, was the highest among the racial and ethnic groups.

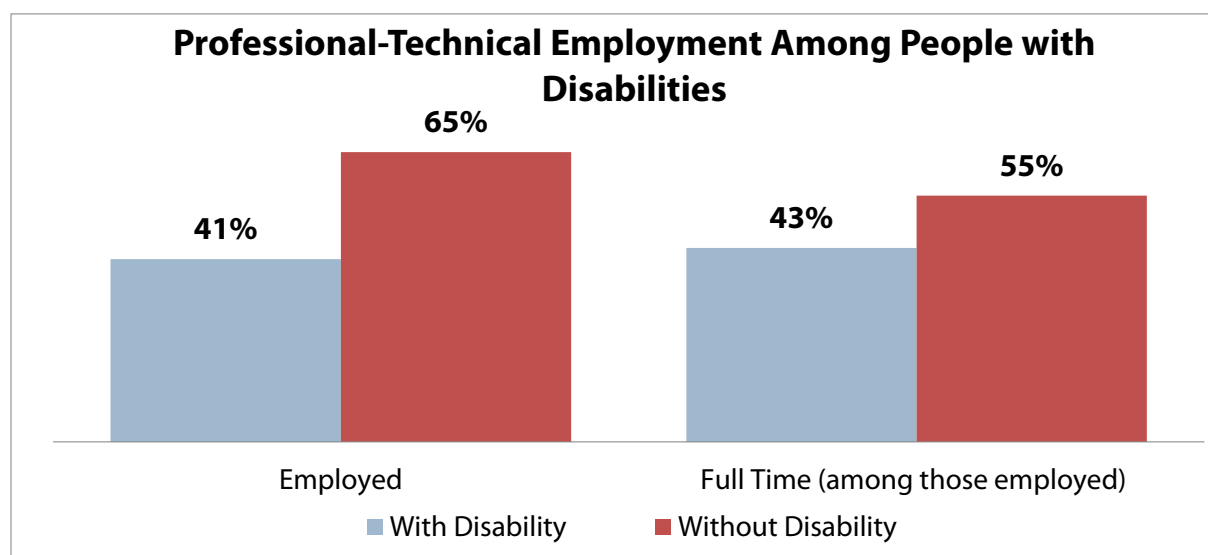
The same pattern among racial and ethnic groups was found when focusing on median annual earnings, with Asian/Pacific Islanders earning the most (\$28,314). Earnings for whites were \$24,463, while median annual earnings were lower for African Americans (\$23,191), Hispanics (\$22,258) and Native Americans (\$22,034).



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 6 percent of the participants included in this study had a disability. These participants were less likely to have employment during the third quarter after exit (41 percent versus 65 percent of those without a disability). This is similar to the prior year, in which 42 percent of disabled participants were employed, compared to 62 percent of the non-disabled. Disabled participants were also less likely to work full time (43 percent versus 55 percent for non-disabled). Among those working, the median hourly wage rate of those with a disability (\$12.74) was 85 percent of those without a disability (\$15.06), and their median annual earnings (\$17,305) were 70 percent of those with no reported disability (\$24,723).



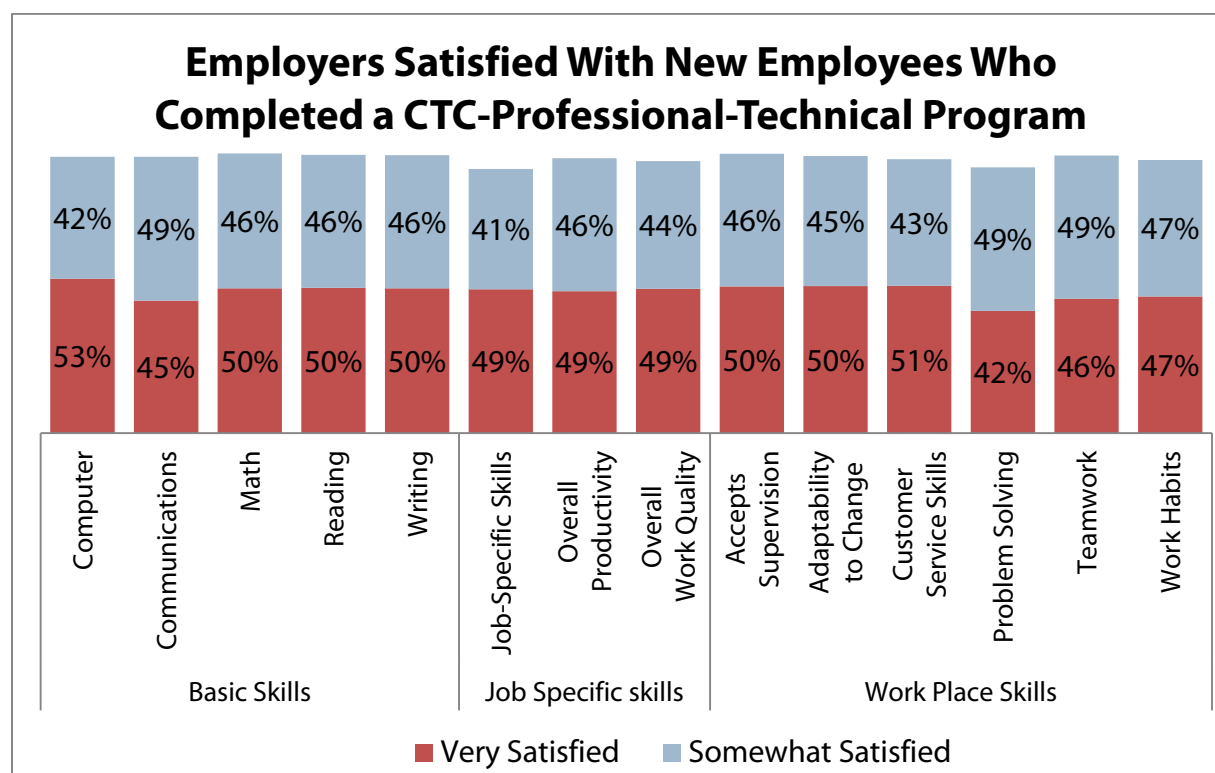
Source: Matches with Community and Technical Colleges Administrative Data and Employment Security Department data.

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.

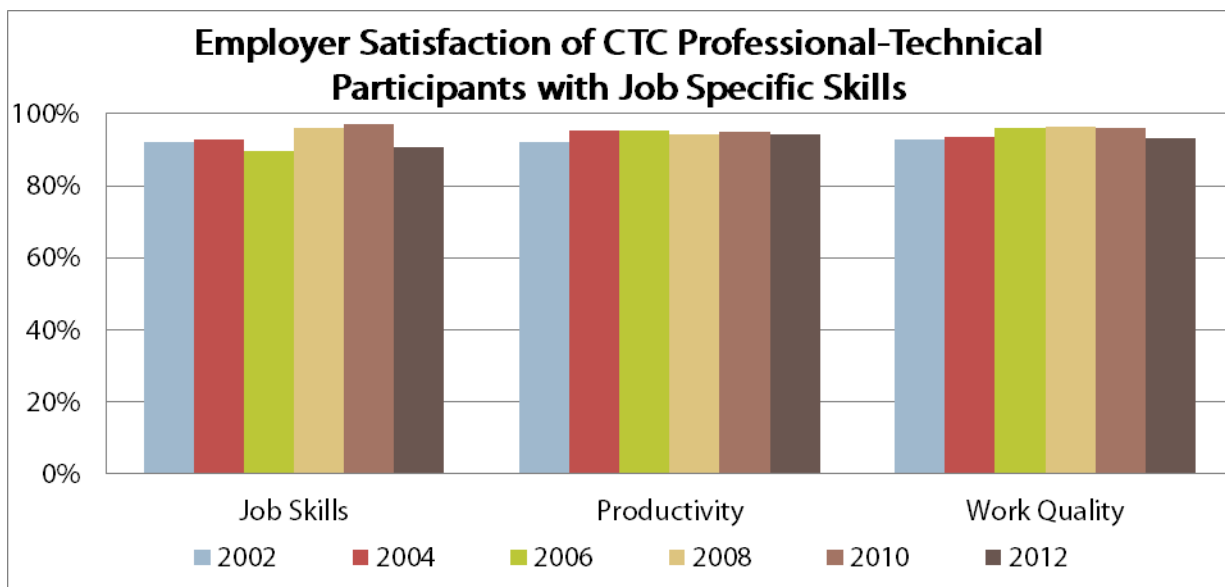
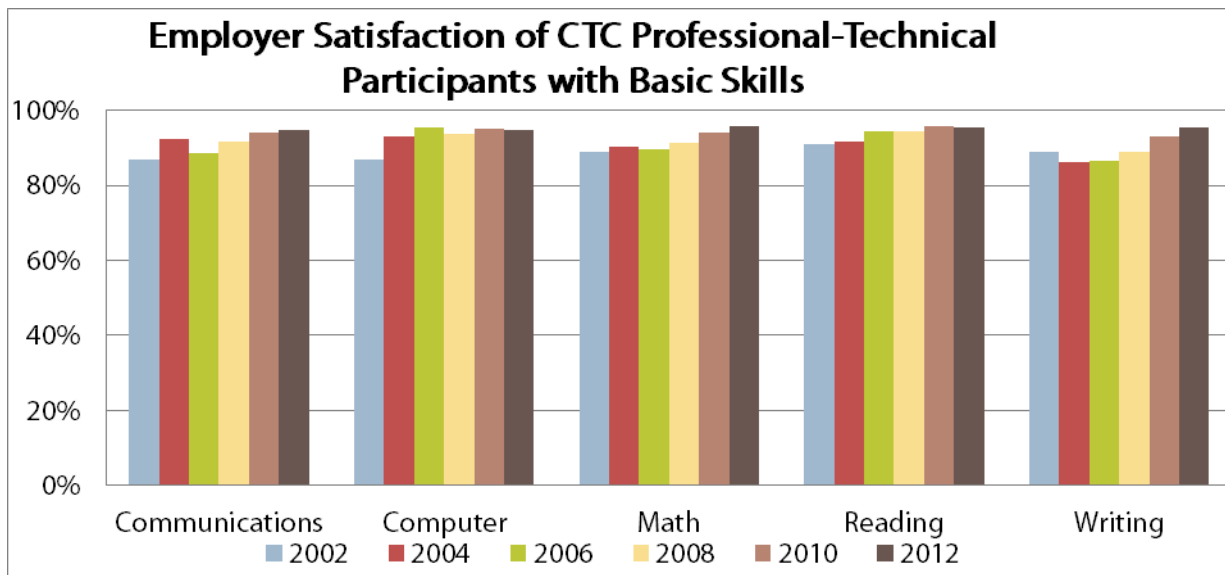
Employer satisfaction is broken down into three categories: Basic Skills, Job Skills and Work Place Skills. Basic skills refer to reading, writing, math, communication and computer skills. Job skills refer to skills specific to the job, as well as overall work quality and productivity. Work place skills 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.

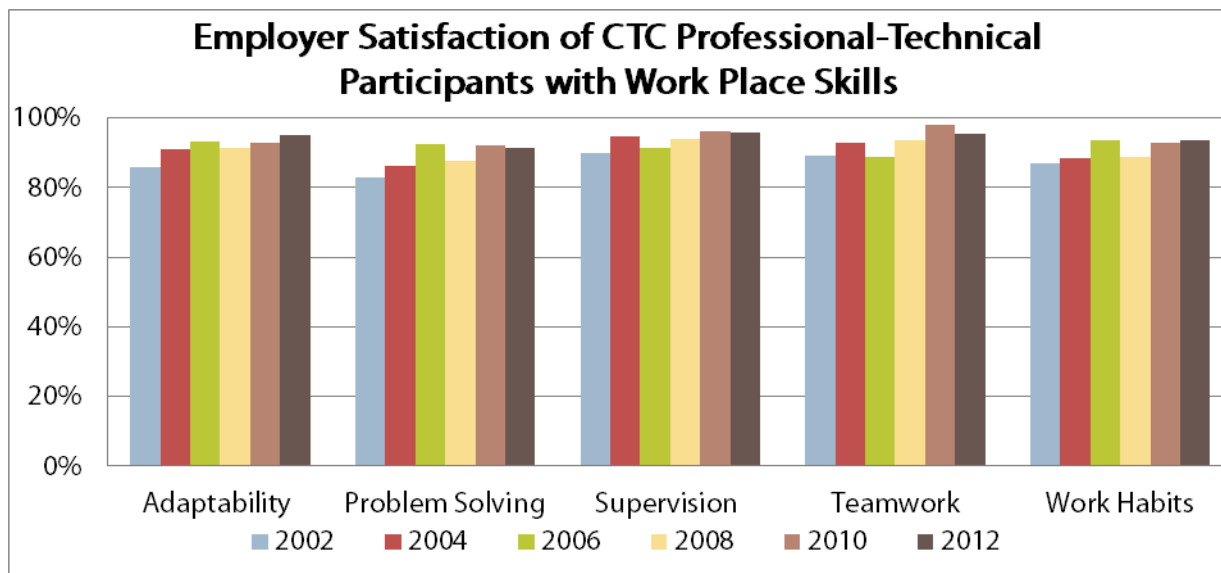
In 2012, employers report highest overall satisfaction in the basic skills category with math. For job skills, employer's highest overall satisfaction was with productivity. Among work place skills, employers were most satisfied with participant's ability to accept supervision.



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 overall satisfaction of employers with new employees who recently completed a CTC Professional-Technical program.





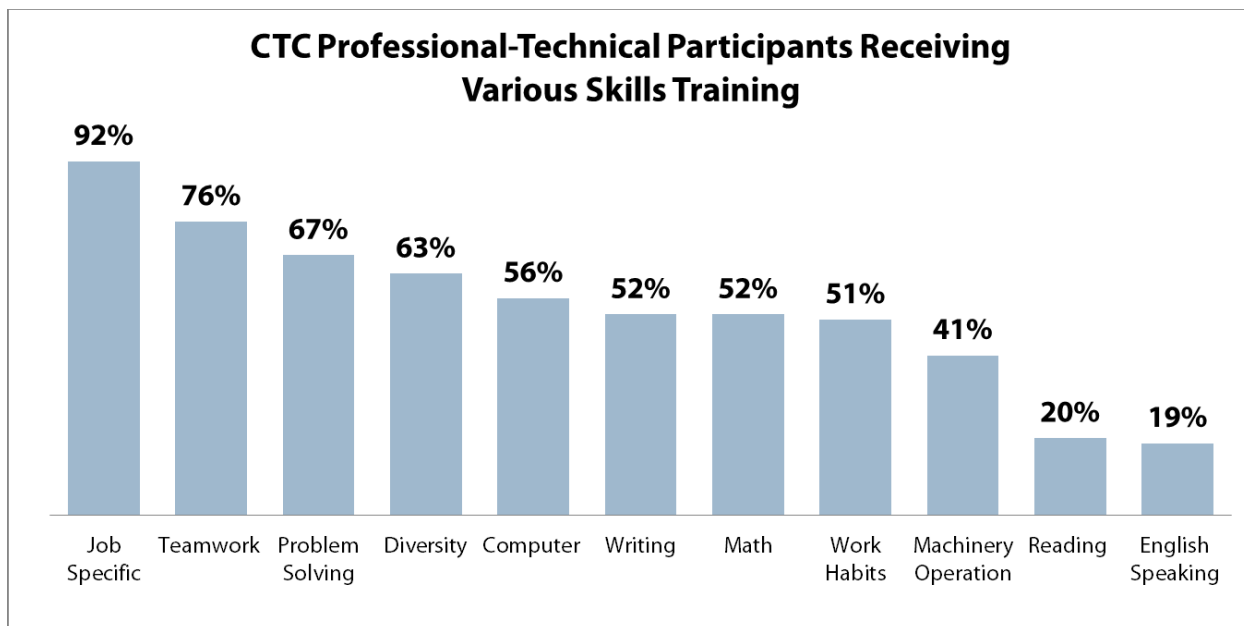
Source: Workforce Board's biennial Employer Surveys from 2002 through 2012.

Competency Gains

In 2011, the Workforce Board surveyed CTC Professional-Technical Education Participants who had left their program in 2009-10. The survey provided data on employment and participant satisfaction with the training. The survey was conducted by telephone and was completed by 379 participants.

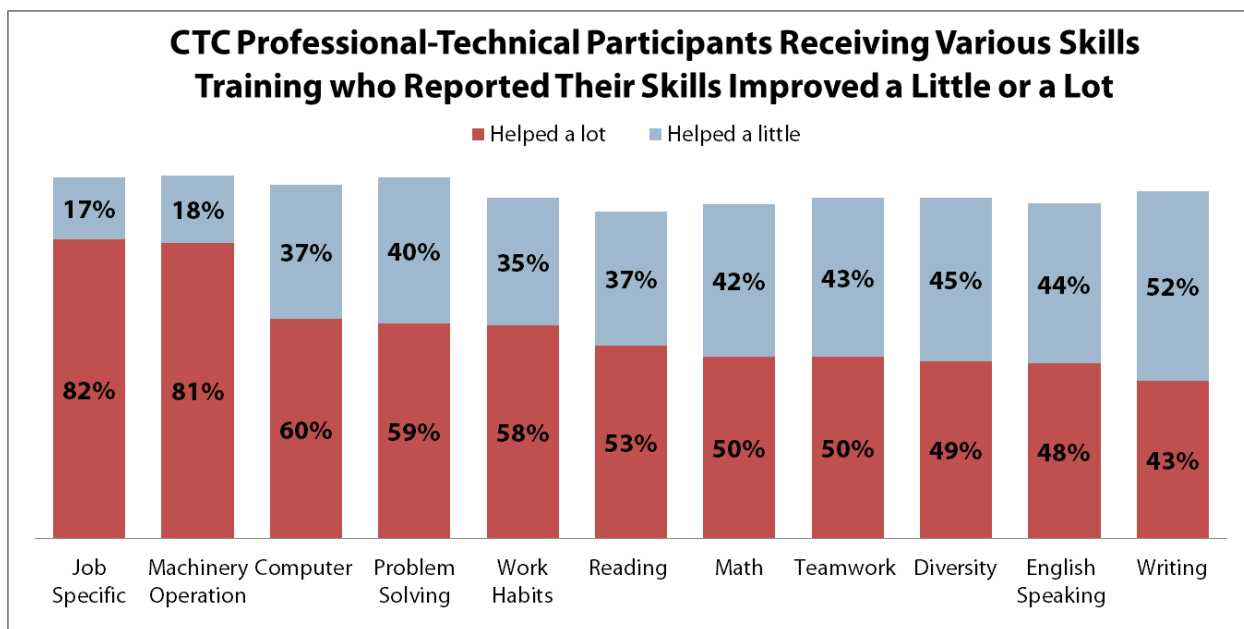
The primary goal of workforce training and education is to provide individuals with the skills and abilities required in the workplace. CTC Professional-Technical participants appear to agree: 86 percent of the participants surveyed for the 2011 Workforce Board Participant Survey indicated that they enrolled in college to learn skills for a new job, which is similar to participants in the previous study. At 87 percent, the number one reason participants decided 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 67 percent received training in problem solving. In comparison to the 2008 study, participants from 2011 appear to have received a wider variety of skills training. The percentage of participants indicating they received training increased in the areas of machinery operation, diversity, teamwork and problem solving. However, the percentage of participants indicating they received training in English speaking dropped 5 percentage points.



Source: Workforce Board's Participant Satisfaction Survey 2011.

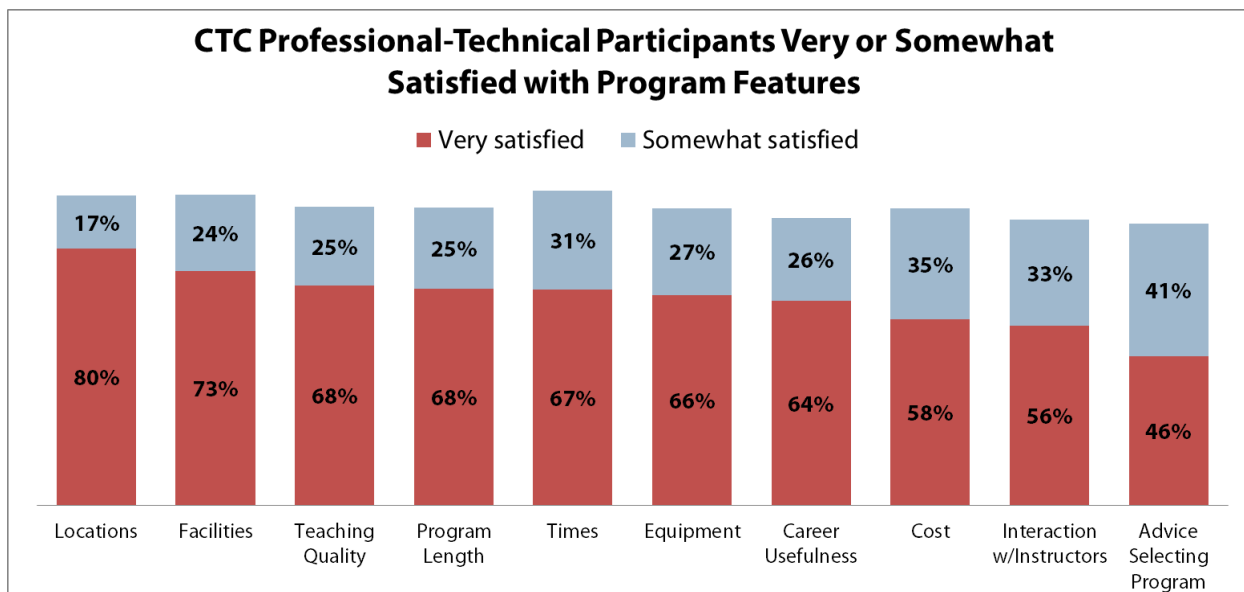
As in the previous study, most participants reported their skills improved as a result of training, and higher percentages reported substantial improvements in their job specific skills than in their workplace or basic skills. Compared with the study in 2008, slightly higher or similar percentages of participants this year reported their skills improved "a lot" across most skills training. However, participants indicating that the training improved their writing and diversity skills "a lot" decreased by around 7 percentage points.



Source: Workforce Board's Participant Satisfaction Survey 2011.

Participant Satisfaction

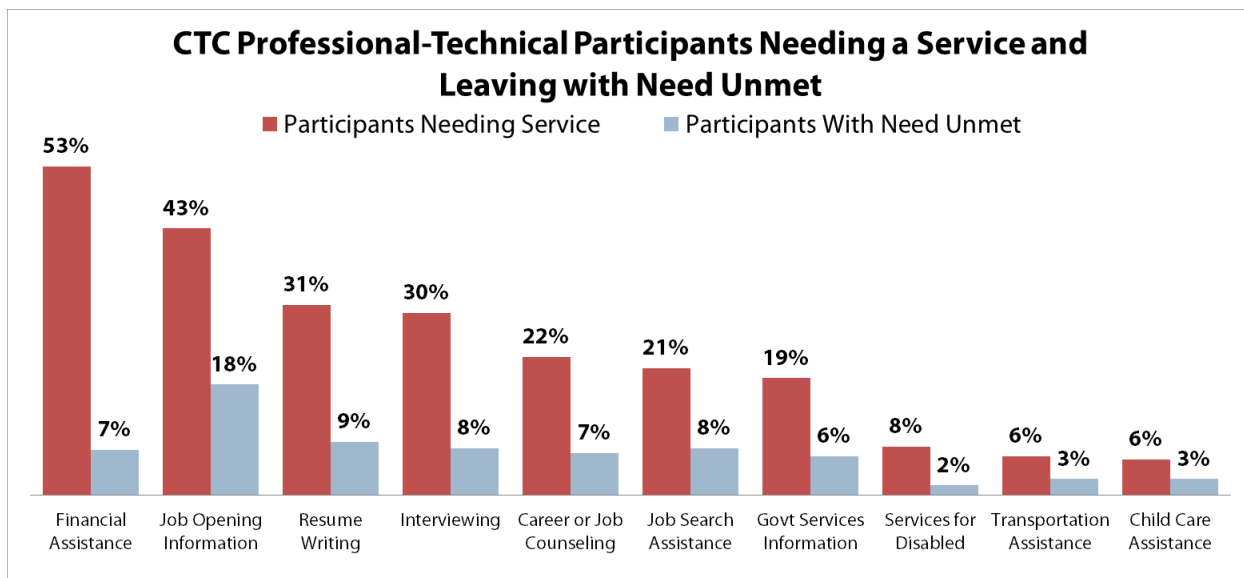
In the 2011 Workforce Board Participant Satisfaction Survey participants expressed high levels of satisfaction, similar to previous studies. Some 96 percent of participants reported they had met their educational objectives. And 91 percent reported they were “very satisfied” or “somewhat satisfied” with the program as a whole. Participants tended to be “very satisfied” with various features of their programs including location, facilities, quality of teaching, times offered, and usefulness of the program to their career. They were less satisfied with advice on selecting a training program.



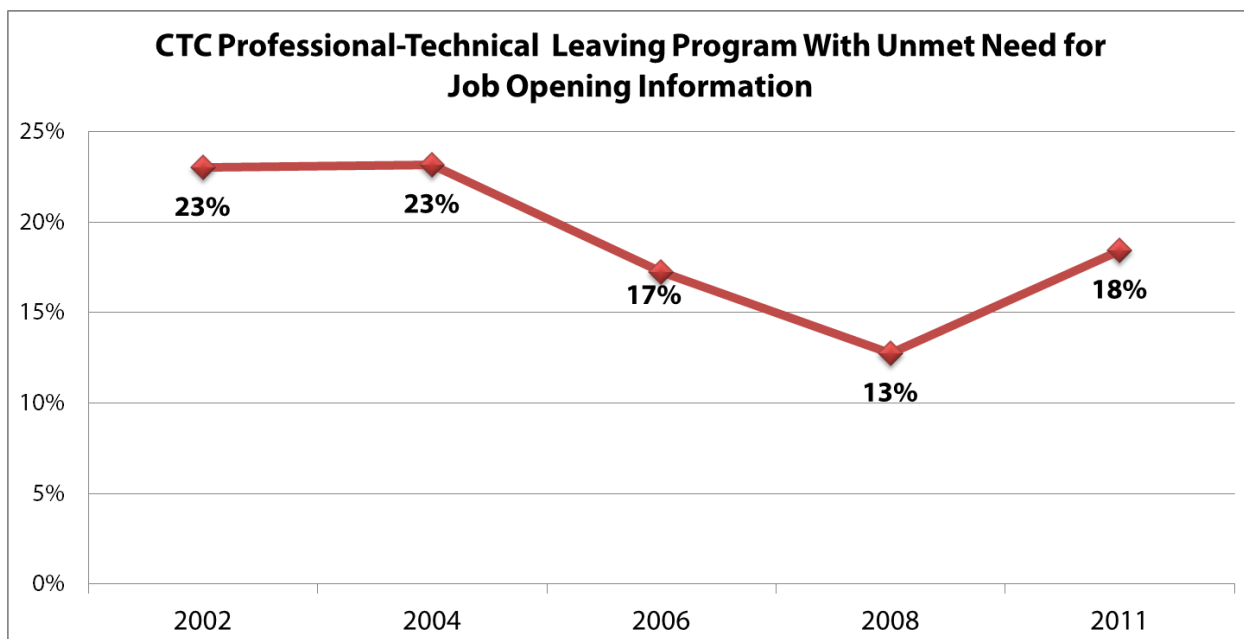
Source: Workforce Board's Participant Satisfaction Survey 2011.

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. In 2011 an increased percentage of participants reported leaving the program with an unmet need in this area.⁹

⁹ 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.

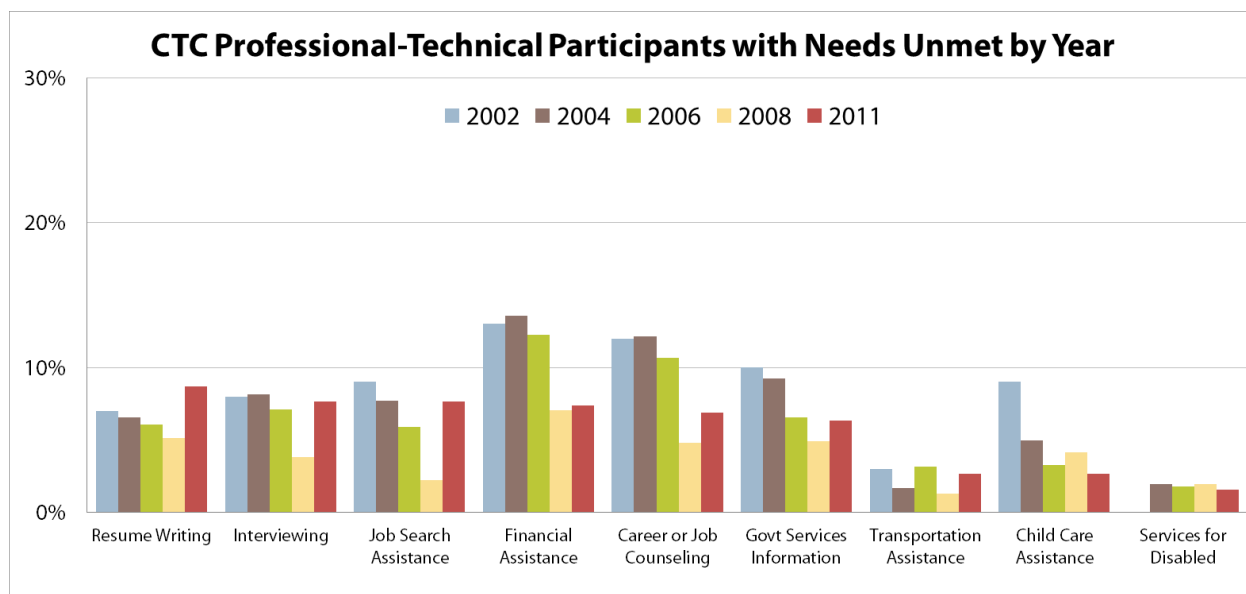


Source: Workforce Board's Participant Satisfaction Survey 2011.



Source: Workforce Board's Participant Satisfaction Survey 2011.

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 nearly every category. The largest jumps in unmet need were in job opening information, interviewing and job search assistance, all of which increased by 6 percentage points. However, one program reported a decline in the percentage of participants indicating they left with an unmet need: child care assistance, which dropped slightly to 2.6 percent from 4.1 percent in 2008 and 9 percent in 2002.



Source: Workforce Board's Participant Satisfaction Surveys 2002-2011.

Relationship of Training to Employment

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.

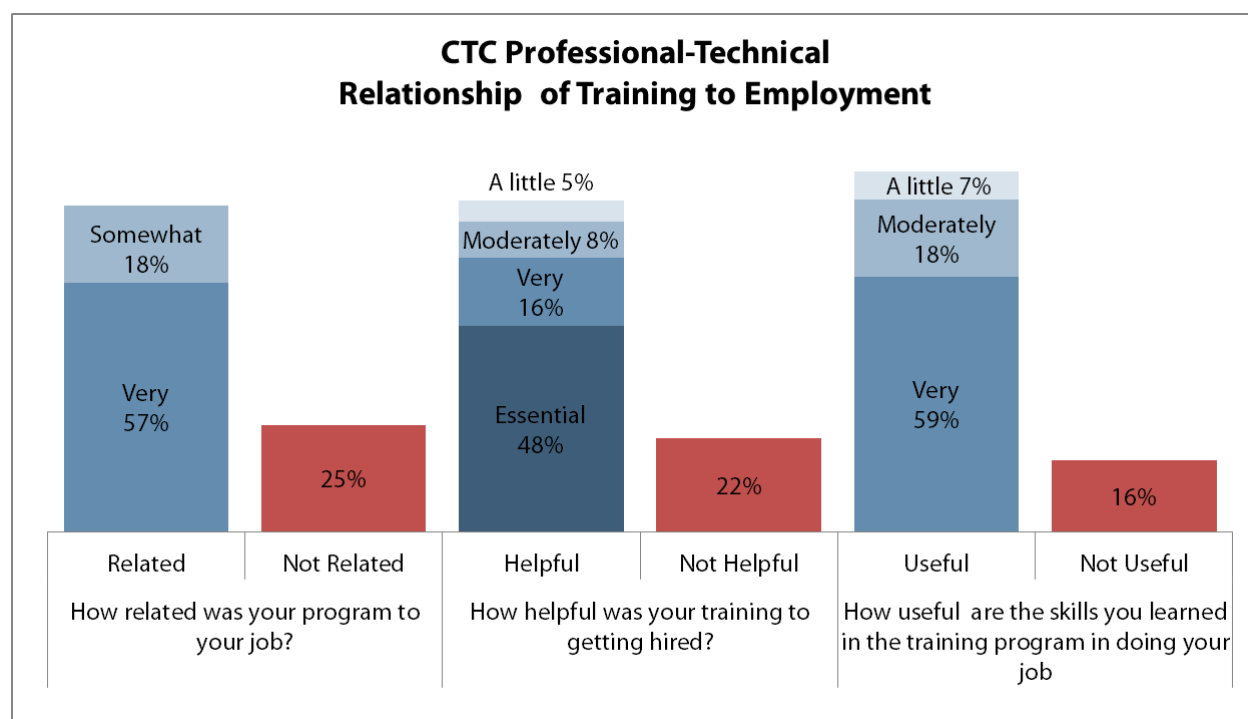
Among CTC-Professional-Technical participants employed seven to nine months after leaving a program, 57 percent said their training was "very related" to their job. A further 18 percent reported the training was "somewhat related" to their job. Only 25 percent said that the training was "not related at all" to their job. In 2008, employed participants reported slightly higher rates of training related to employment (79 percent reported training was related to their job, versus 75 percent this year).

Participants interviewed in 2011 also indicated the training was helpful to them in getting their job. Of those participants, 48 percent indicated their training was an "essential requirement," another 16 percent indicated it was "very important," and 8 percent reported it was "moderately important." Five percent said it was "a little helpful." Only 22 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 59 percent of participants indicated the skills were "very useful," 18 percent

said “moderately useful,” and 7 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 14 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.



Source: Workforce Board’s Participant Satisfaction Survey 2011.

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.

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

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

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**	\$3.15	\$3.33
Net Quarterly Hours Impact	59.8	59.5
Net Annualized Earnings Impact**	\$8,496	\$9,045

[^]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 2011 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. In particular, those who exited a CTC Professional-Technical program in 2005-2006, experienced significant gains in employment when compared to 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.¹⁰ 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 2011 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 Colleges Professional-Technical Programs

Benefit/Cost	First 2.5 years		Lifetime (until 65)		Sum of Costs and Benefits
	Participant	Public	Participant	Public	
Benefits					
Earnings	\$15,405	\$0	\$140,810	\$0	
Fringe Benefits	\$3,851	\$0	\$35,202	\$0	
Taxes	-\$3,181	\$3,181	-\$29,077	\$29,077	
Transfers					
UI	-\$996	\$996	-\$900	\$900	
Costs					
Foregone net earnings	-\$3,243	-\$641	-\$3,243	-\$641	
Program costs	-\$5,317	-\$10,652	-\$5,317	-\$10,652	
Benefits	\$15,079	\$4,177	\$146,035	\$29,977	
Costs	-\$8,560	-\$11,293	-\$8,560	-\$11,293	
Total (Net)	\$6,519	-\$7,116	\$137,475	\$18,684	\$156,159

Note: Benefits and costs are expressed in 2011 first quarter dollars.

For each student in CTC Professional-Technical Education, the public (taxpayer) cost is \$10,652 over the length of their enrollment, and the student cost is \$5,317 in tuition and \$3,243 in foregone earnings while training. During the first two and one-half years after leaving college, the average student will gain \$15,405 in earnings. During the course of working life to age 65, the average student will gain about \$137,567 in net earnings (earnings minus foregone earnings) and about \$35,202 in employee benefits. These are net gains

¹⁰ Upjohn estimated the impact of the net change in earnings on social security, Medicare, federal income, and state sales taxes.

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 \$137,475.

Projected participant net benefits to age 65 outweigh public costs invested in college training by a ratio of about \$13 to 1, or \$137,475 to \$10,652.

From the time of leaving training to age 65, the public is forecasted to gain about \$29,077 per participant in net additional Social Security, Medicare, federal income, and state sales taxes and to save \$900 in UI benefits—far greater than the direct cost of college training. The estimated lifetime net benefit to taxpayers is \$18,684 per participant.

Projected taxpayer net benefits to age 65 outweigh public costs invested in college training by a ratio of \$3 to 1, or \$29,977 to \$10,652.

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 training programs for Washington citizens, 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 skills, basic skills and literacy. 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

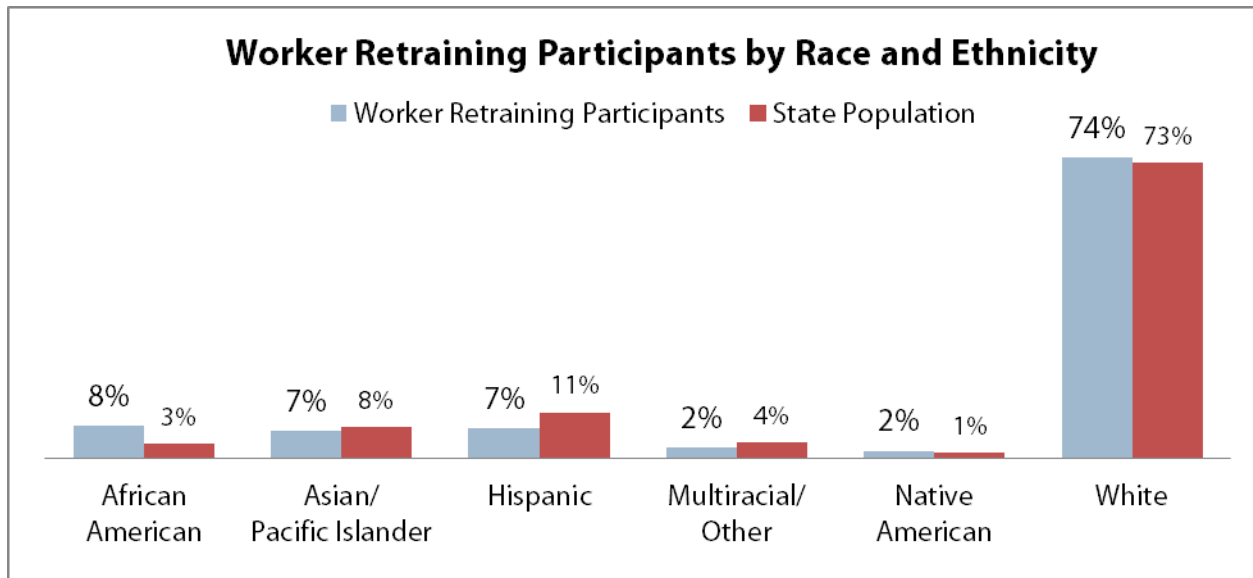
For this report, researchers studied the results of 7,188 Worker Retraining participants who completed or otherwise left a community or technical college program during the most recent reporting year.¹ The median length of enrollment for these participants was 12 months, up from six months on the last report.

The racial and ethnic composition of Worker Retraining participants roughly reflects the general population in Washington for Asian/Pacific Islanders (7 percent) and whites (74 percent). African Americans (8 percent) and Native Americans (2 percent) are represented at a greater percentage than their portion of the general population, whereas Hispanics (7 percent) are at a slightly lower percentage.² In terms of program completion by racial and

¹ The 2012 Workforce Training Results reports are based on data observed in 2010-11 for individuals exiting programs during 2009-10.

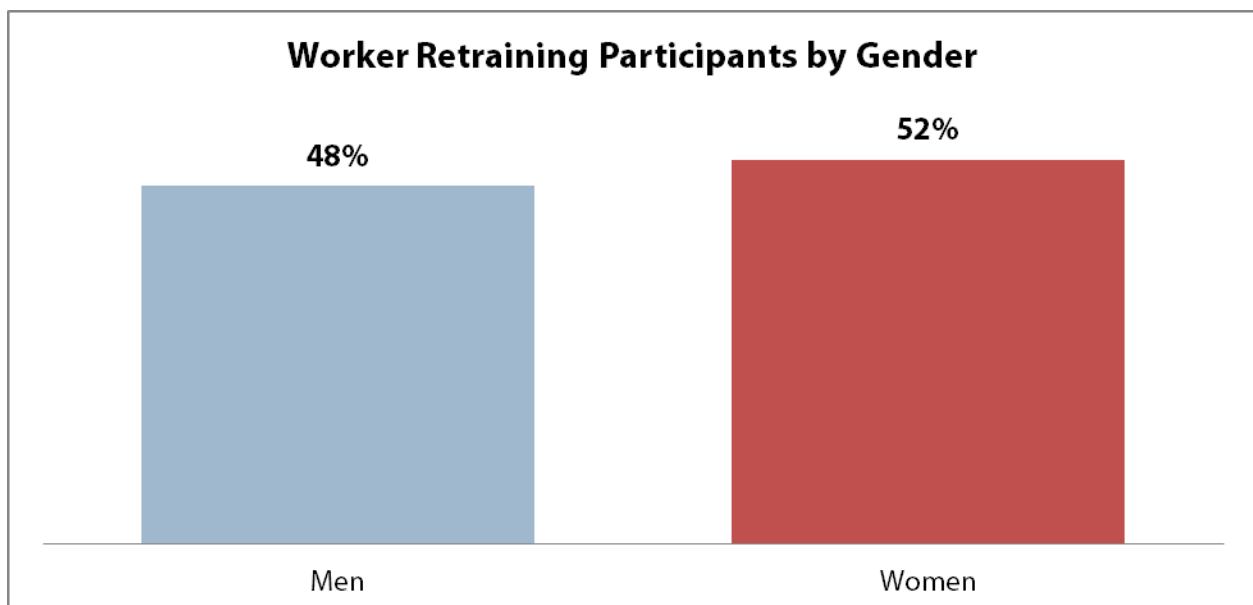
² In this report, unless otherwise stated, racial and ethnic minority groups are mutually exclusive; that is, an individual belongs to one group only. The groups include the following: Hispanics of any race (also referred to as Hispanics); non-Hispanic African Americans (also referred to as African Americans); non-Hispanic Asians/Pacific Islanders (also referred to as Asians/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 2010 U.S. Census Bureau estimates for Washington from the American Community Survey, 73 percent are white; 3 percent are African American; 1 percent are Native American; 8 percent are Asians/Pacific Islander; 4 percent are multiracial; and 11 percent are Hispanic.

ethnic groups, the rates are nearly identical to the proportion participating in the program. However, whites make up slightly more of the completers (76 percent) and Hispanics slightly fewer (6 percent).



Source: Community and Technical Colleges Administrative Data and 2010 U.S. Census Data from the American Community Survey.

Among Worker Retraining participants, 52 percent were women, a decrease of 2 percentage points from the 2008-09 participants.



Source: Community and Technical Colleges Administrative Data.

When they enrolled in the program, 41 percent of participants had not previously attended college, 23 percent had attended college without receiving a credential, 15 percent had received a certificate or associate's degree, and 15 percent had received a baccalaureate or higher degree. The median age at the start of the last quarter of the program was 43 years. One in four participants was under age 33, while another one in four participants was over 52.

State Core Measures: 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?

Data Comes From State Wage Files

The 2012 Workforce Training Results includes information obtained from Employment Security Department wage files in Washington, Idaho, and Oregon, and federal employment records for 2010-11.³

Net Impact Study Adds More Insight into Program Performance

In addition, this year's report includes a comprehensive Net Impact Study. To assess both short- and long-term employment and earnings trends, data on participant experiences through 2009 is used in the 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

Turn to page 15 for the Net Impact Study. Conducted every four years, this in-depth report adds extra value to 2012 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.

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.

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 2009-10:

- 15 percent received an associate's degree.
- 19 percent received a certificate.
- 2 percent received another type of credential.

Another 15 percent were defined as completers because they completed 45 or more credits or a unique (non-degree) program.

Altogether, 51 percent of participants completed their program. This completion rate is lower than the 54 percent for those who left Worker Retraining programs in the 2011 report. In that year, 13 percent received an associate's degree, 15 percent received a certificate, and 15 percent were defined as completers because they completed 45 or more credits or a unique (non-degree) program.

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 left a Worker Retraining program. Record matches found that 61 percent of the participants had reported employment during the third quarter after they left their program, 3 percentage points lower than that reported in the last report. Their median hourly wage was \$16.90, and they had median annualized earnings of \$27,583.⁵ Program completers were more likely to be working full time than those who did not complete their training programs (64 percent compared to 57 percent) and had higher annual earnings (\$28,073 compared to \$27,583).

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 2011 dollars.

Employment and Earnings for Worker Retraining Participants, 2012

Performance Measure	Results
Employment Rate* (State Records)	61%
Full Time Employment **	58%
Median Quarterly Hours	442 hours
Median Hourly Wage***	\$16.90
Median Annualized Earnings***	\$27,583

* 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 2011 dollars in order to account for inflation.

Earnings of Worker Retraining Participants

To better gauge the financial effectiveness of Washington's workforce programs, it helps to frame income levels. One common yardstick is the federal poverty level. In 2011, the federal poverty level for one person was \$10,890 per year.⁶

In 2012, Worker Retraining participants were able to support a median 5.4 people at the poverty level—meaning they could support themselves and nearly four and a half other people. They could support slightly more than themselves (1.8) at 200 percent of poverty level.

Number of People Supported at Poverty Level by Participant Income

Performance Measure	2004	2006	2008	2010	2011	2012
Number of people supported at poverty level	5.0 people	5.2 people	5.9 people	6.1 people	5.3 people	5.4 people
Number of people supported at 200 percent poverty	1.6 people	1.7 people	2.0 people	2.1 people	1.7 people	1.8 people

⁶ Poverty levels from 2011 were used in this edition of Workforce Training Results to measure the results of workforce programs on participants observed in 2010-11. The federal poverty level is determined by the Department of Health and Human Services. The level varies according to family size. The number is adjusted for inflation and reported annually in the form of poverty guidelines. Public assistance programs typically define eligibility income limits as some percentage of the federal poverty level.

Worker Retraining Participants Receiving Benefits from Employers

Performance Measure	2004	2006	2008	2010*	2011	2012*
Self-Reported Medical Benefits from Employer	67%	72%	68%	N/A	64%	N/A
Self-Reported Retirement Benefits from Employer	42%	48%	51%	N/A	38%	N/A

*Due to budget limitations, the Workforce Board's Participant Survey was not conducted in 2010 or in 2012.

The next table shows employment and earnings information over six study periods, starting with 2004. Wages continue to be widely distributed among Worker Retraining participants. Although the median hourly wage in 2012 was \$16.90, one quarter earned more than \$23.44 an hour, while another quarter had jobs that paid less than \$12.68 an hour. This wide distribution of wages is reflected in the dispersion of employment across higher and lower-wage industries.

Employment and Earnings Trends for All Worker Retraining Participants

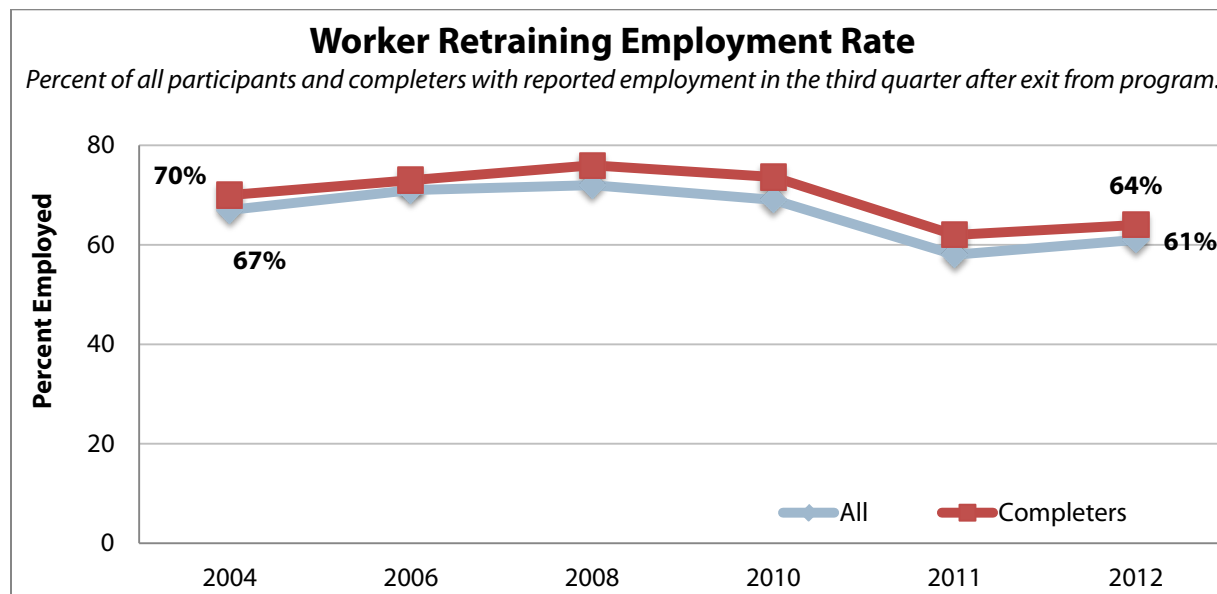
Performance Measure	2004	2006	2008	2010	2011	2012
Employment Rate (Self-Reported)	71%	85%	75%	N/A	67%	N/A
Employment Rate* (State Records)	67%	71%	72%	69%	58%	61%
Full Time Employment**	61%	65%	65%	67%	57%	58%
Median Quarterly Hours	455	467	468	468	429	442
Median Hourly Wage***	\$15.31	\$15.71	\$16.56	\$16.69	\$16.29	\$16.90
Median Annualized Earnings***	\$25,995	\$27,052	\$29,499	\$30,358	\$27,360	\$27,583

*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 the Northwest or military service and thus understates total employment by approximately 10 percent.

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

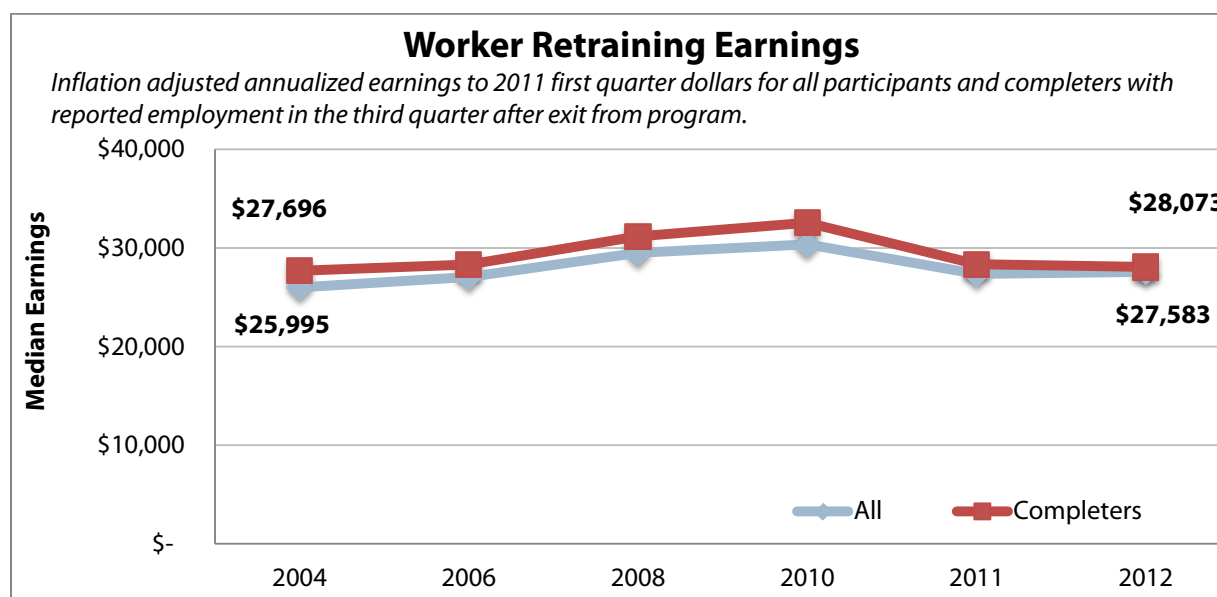
***Earnings/wages expressed in first quarter 2011 dollars in order to account for inflation.

After making minor gains in employment since the beginning of the 2000s, the state-reported employment rate among all Worker Retraining participants declined during the Great Recession. However, there was a slight increase in employment to 61 percent in 2012. The rates were slightly higher among those completing the Worker Retraining program.



Source: Workforce Training Results 2004-12.

Among all Worker Retraining participants, earnings steadily increased between 2004 and 2010; however they declined in 2011 and remained steady over the past year. The decrease was likely due to the Great Recession. Earnings were slightly higher for those participants who completed the program.



Source: Workforce Training Results 2004-12.

Worker Retraining Participants Employment by Industry

While slightly over half of those employed found jobs in the service industry, 13 percent of those employed were working in manufacturing, 9 percent in retail trade and 8 percent in construction. Within the service industry, jobs were primarily held in health care (16 percent), followed by administrative and support (14 percent).

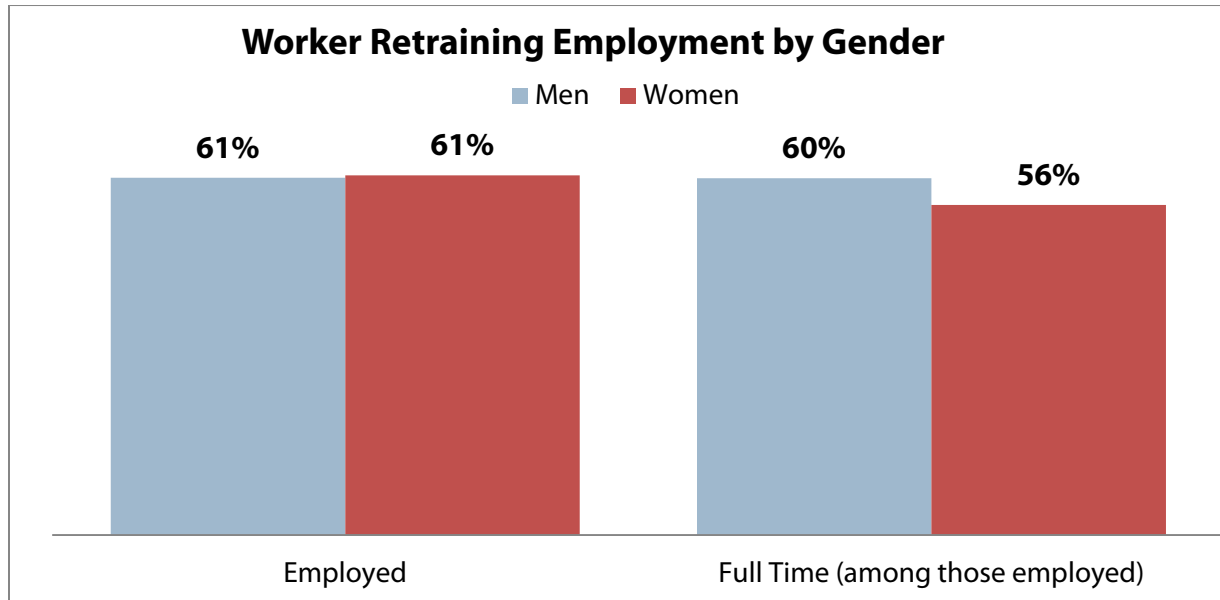
Industry Group	Percent Employed
Services	53%
Manufacturing	13%
Retail Trade	9%
Construction	8%
Public Administration	5%
Financial Services	4%
Transportation and Warehousing and Utilities	4%
Wholesale Trade	3%
Information	2%
Natural Resources and Mining	1%
Breakout of Services	53%
Health Care	16%
Administrative and Support	14%
Professional, Scientific, and Technical Services	7%
Education Services	6%
Social Assistance	4%
All Other Services	4%
Arts, Entertainment, and Recreation	2%
Accommodation and Food Services	1%
Breakout of Manufacturing	13%
All Other Manufacturing	5%
Aerospace	4%
Wood & Paper Products	3%
Food & Beverage	1%
Fabricated Metal Products	1%

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 Vary by Population

Employment and earnings can vary by gender, race and ethnicity, and disability status. There was no marked difference between men and women in employment rates, however, men were more likely to be employed full-time than women (60 percent versus 56 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 (\$15.80 vs. \$18.49) and their annual earnings were 81 percent of men's (\$24,957 vs. \$30,738).



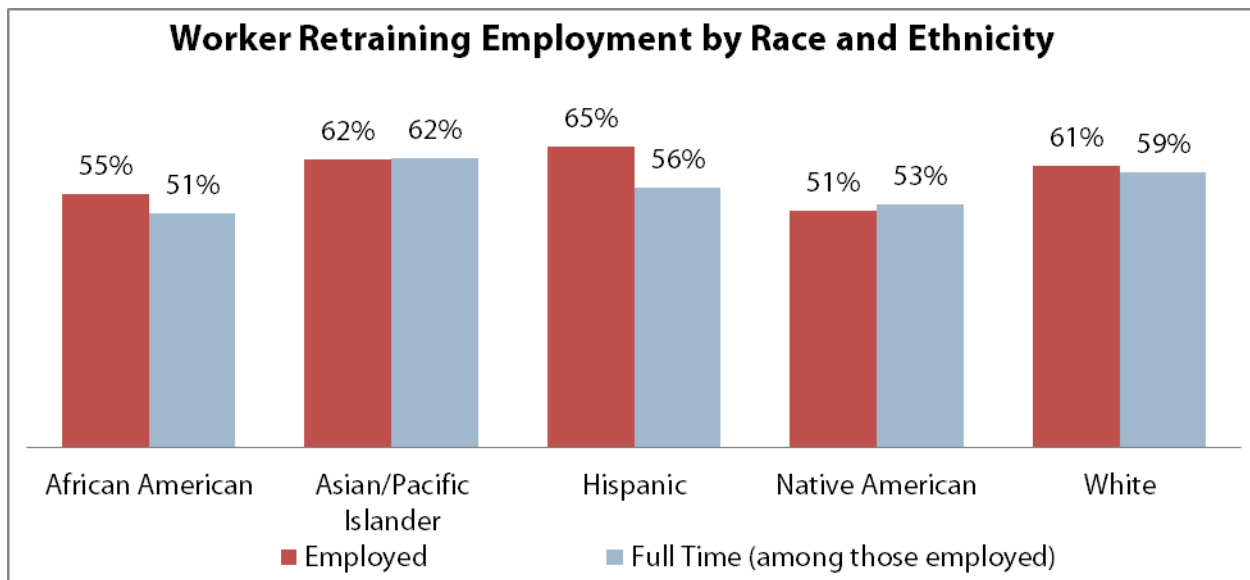
Source: Community and Technical College Administrative Data (DLOA)

Race and Ethnicity Plays Role

Variation was also found for employment rates among racial and ethnic groups. Hispanics had the highest rate of employment at 65 percent, followed by Asian/Pacific Islanders (62 percent), whites (61 percent), African Americans (55 percent) and Native Americans (51 percent). Racial and ethnic variation was less significant when looking at full time employment.

Asian/Pacific Islanders had the highest median hourly wage at \$17.04, followed closely by Native Americans (\$17.00) and whites (\$16.99). The median hourly wage was lower for African Americans (\$15.94) and Hispanics (\$14.91)

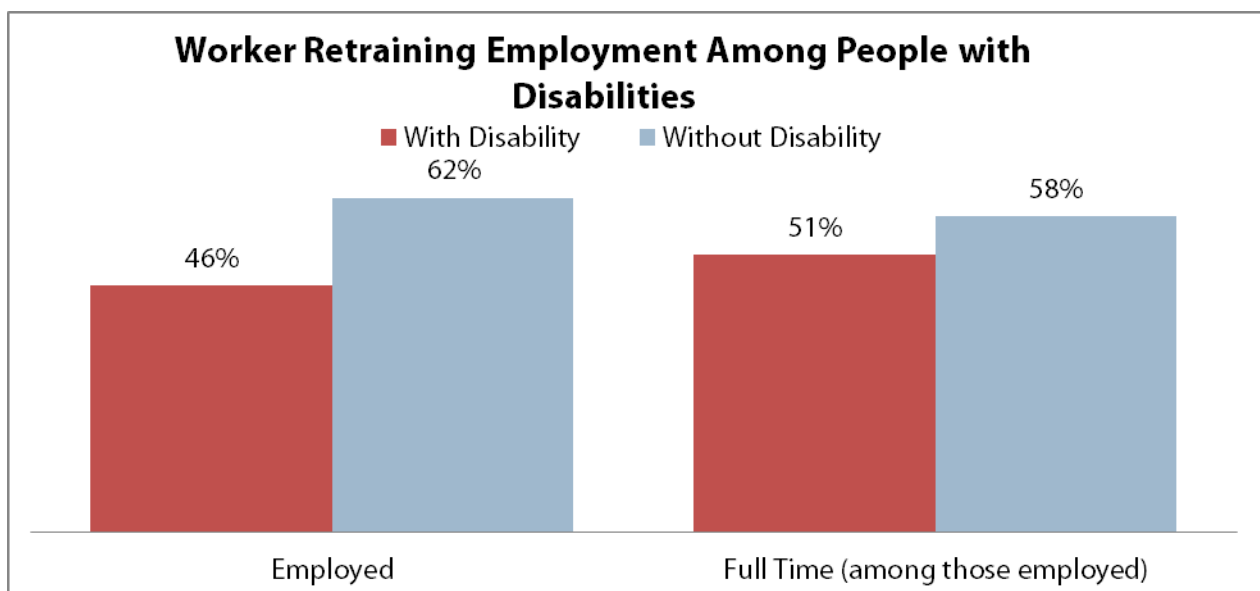
The breakdown for annual earnings among different racial and ethnic groups was distributed slightly differently from that of median hourly wages. Asian/Pacific Islanders had the highest earnings (\$31,103), followed by whites (\$28,290), Native Americans (\$25,474), Hispanics (\$23,905), and African Americans (\$21,807).



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. These participants were less likely to have employment reported to the Employment Security Department during the third quarter after exit (46 percent versus 62 percent) and were less likely to be employed full time (51 percent versus 58 percent). Among those working, the median hourly wage rate of those with a disability (\$14.24) was 84 percent of those without a disability (\$17.03), whereas the annual earnings of those with a disability (\$19,959) was 70 percent of those without a disability (\$28,224).



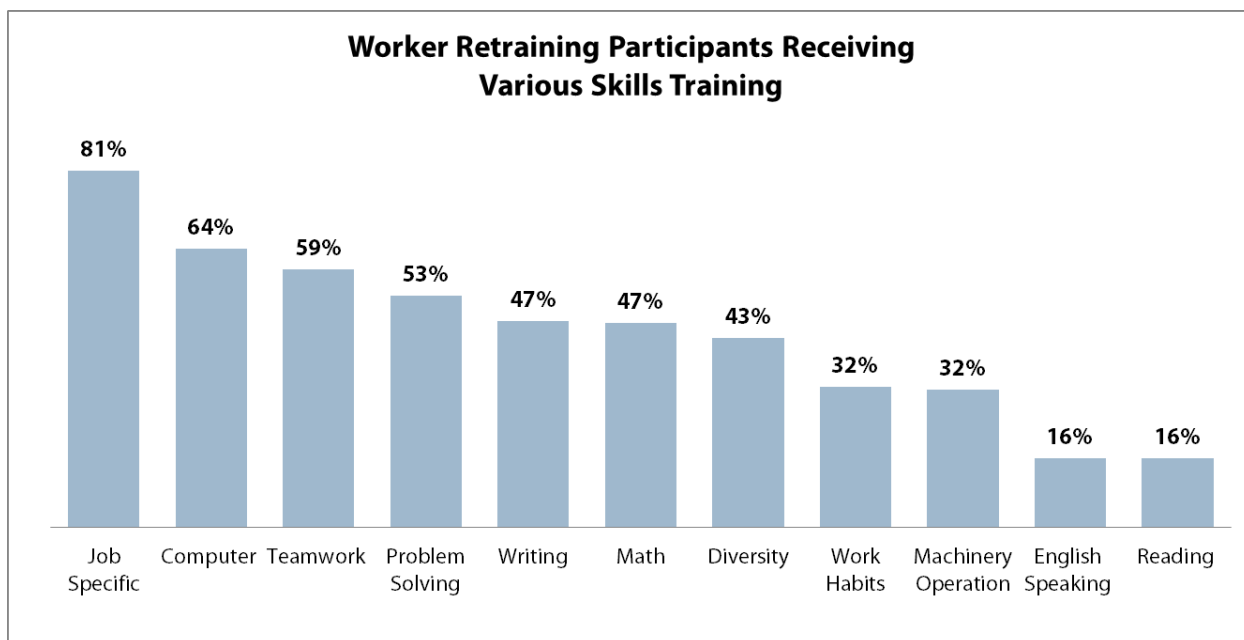
Source: Community and Technical College Administrative Data (DLOA)

Competency Gains

In 2011, the Workforce Board surveyed Worker Retraining Participants who had left their program in 2009-10. 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 365 participants.

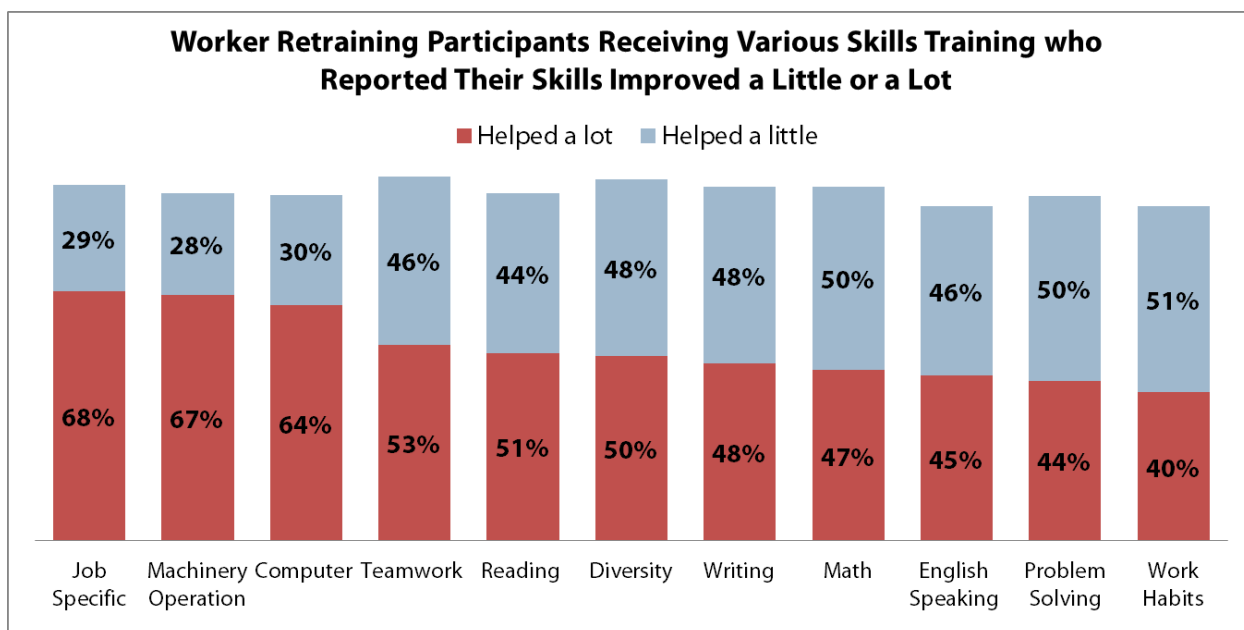
The primary goal of Worker Retraining is to prepare dislocated workers for new jobs. Worker Retraining participants agree: 90 percent indicated one of the main reasons they enrolled was to learn skills for a new job, and 76 percent reported they enrolled to get or finish a degree or certificate. In addition, 70 percent decided to enroll for personal improvement or enjoyment.

Complementing job specific skills, many participants also received other types of training. Compared to the 2008 Workforce Board Participant Survey, the current participants appear to have received less of some types of training. For example, the percentage of participants receiving computer skills, diversity, and writing skills training dropped by 11 percentage points. Math skills training dropped the most, going from 61 percent in 2008 to 47 percent this year, a drop of 14 percentage points. One exception to this decrease in skills training has been machinery operations, which increased by 12 percentage points.



Source: Workforce Board's Participant Satisfaction Survey 2011.

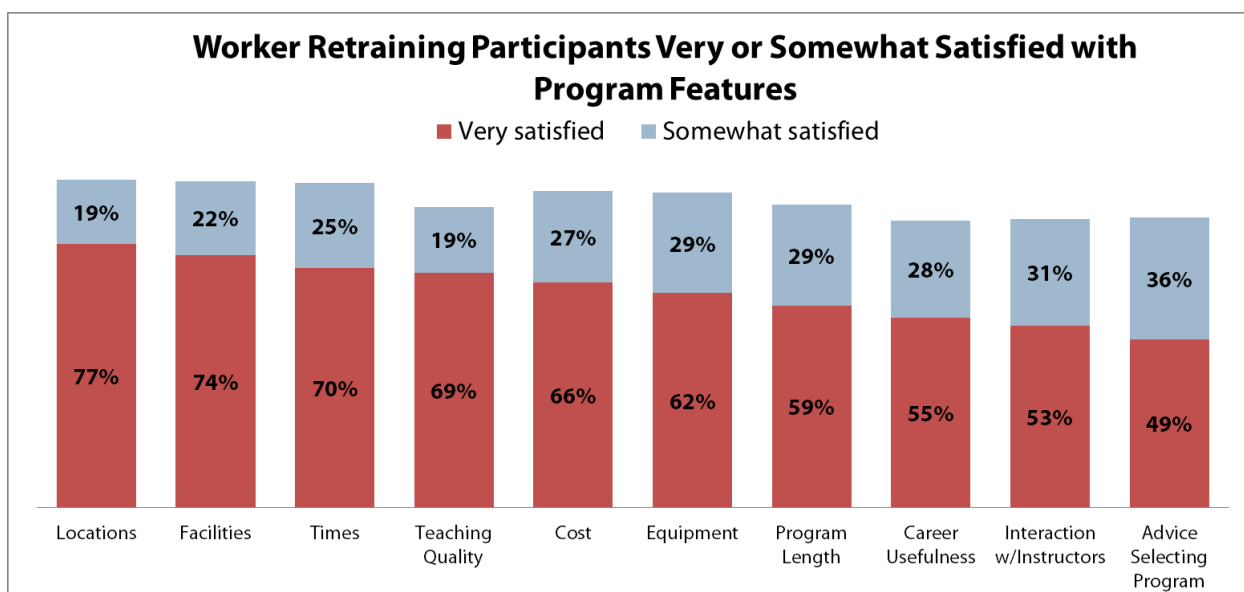
Compared to the participants in the 2008 survey, the participants in the 2011 survey tended to respond that their skills improved "a little" versus "improved a lot." For example, participants responding that their job specific skills had "improved a lot" declined from 81 percent in 2008 to 68 percent in 2011, and the percentage indicating their skills improved "a little" increased from 17 percent in 2008 to 29 percent in 2011. The percentage of participants reporting overall improvement in teamwork, diversity, and work habits skills as a result of training increased from 2008 to 2011.



Source: Workforce Board's Participant Satisfaction Survey 2011.

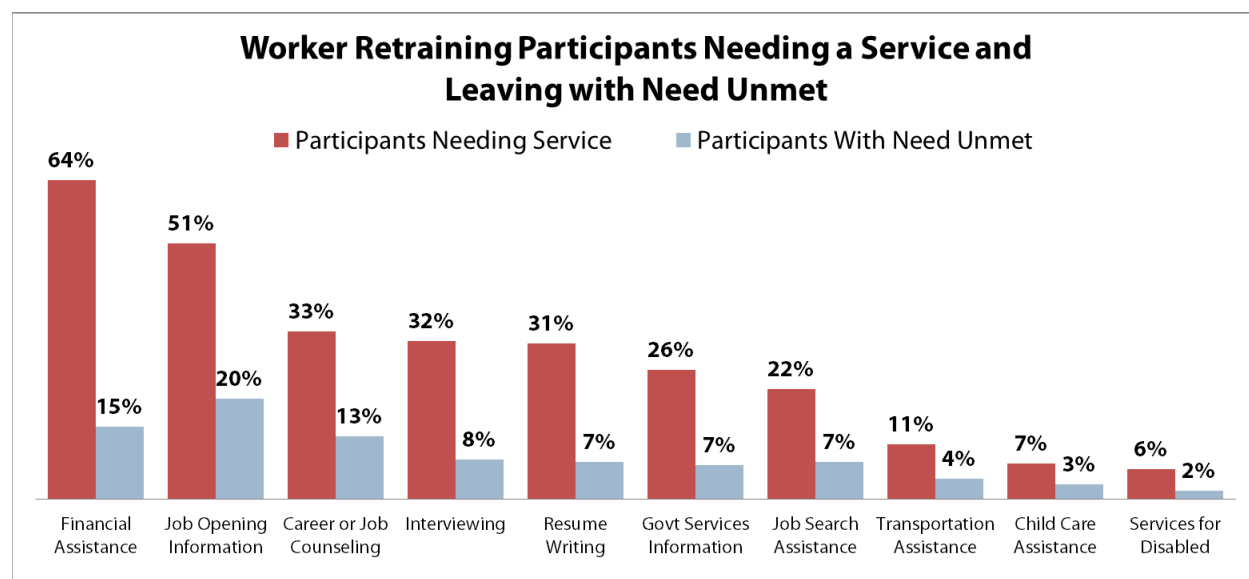
Participant Satisfaction

Similar to the previous study, participants expressed very high levels of satisfaction with their program. Some 83 percent reported they had met their educational objectives compared to 84 percent in 2008 and 90 percent in 2006. Similarly, 86 percent of the participants reported they were "very satisfied" or "somewhat satisfied" with the program, down from 90 percent in 2008 and 93 percent in 2006. Participants tended to be "very satisfied" with most aspects of the program, particularly location, facilities, and the times held. Advice selecting a program and interaction with instructors showed the lowest percentage reporting being "very satisfied."



Source: Workforce Board's Participant Satisfaction Survey 2011.

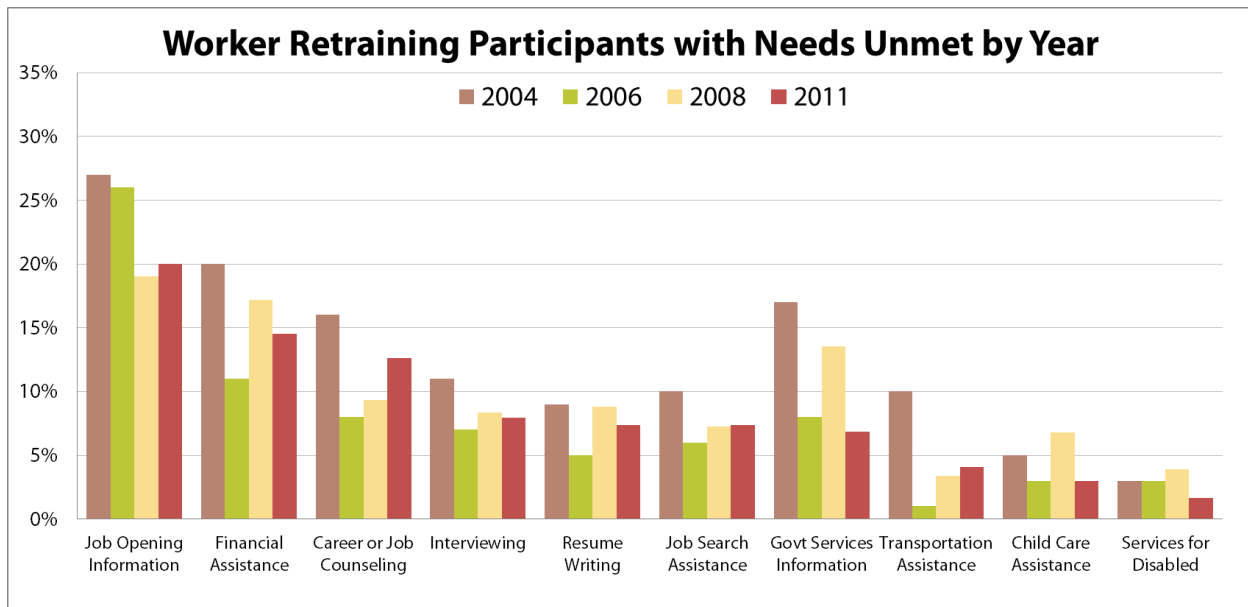
As in the past, the two most frequently needed support services while enrolled were financial assistance and job opening information. The percentage of participants who reported needing financial assistance dropped from 71 percent to 64, and the percentage that left with an unmet need⁷ in this area dropped from 17 to 15 percent. While most participants received the support services needed, the same as was found in 2008, one in five participants left the program with an unmet need for job opening information.



Source: Workforce Board's Participant Satisfaction Survey 2011.

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. However, there are a few exceptions. The percent leaving with an unmet need in career or job counseling increased in the past five years, although it is still not as high as it was in 2004.

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 Participant Satisfaction Surveys 2002-2011.

Relationship of Training to Employment

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?

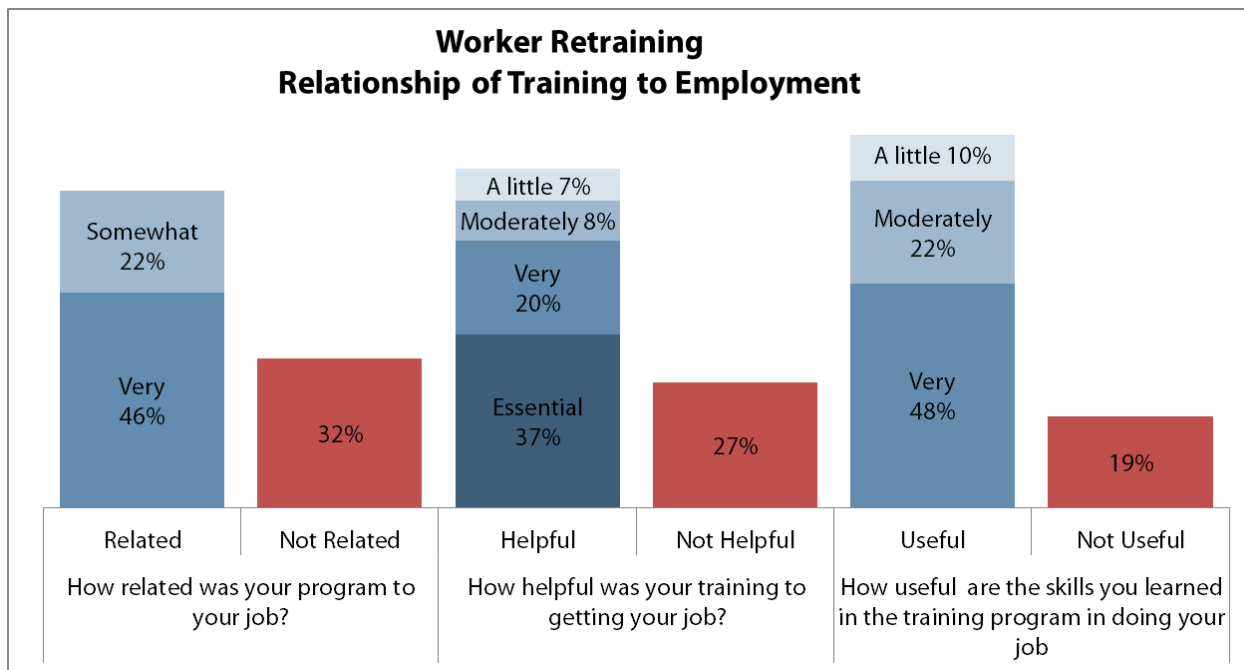
Asking about the relationship between training and employment in different ways can produce more complete information. For example, some participants said their training was not related to their job, but nevertheless found the skills acquired were useful on the job.

Among Worker Retraining participants employed seven to nine months after leaving a program, 46 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, slightly lower rates of employed participants reported their training was "very related" (41 versus 46 percent) while 8 percent more participants said the training was "somewhat related."

Participants interviewed in 2011 also indicated the training was helpful to them in getting their job. Of those participants, 37 percent indicated their training was an "essential requirement," another 20 percent indicated it was "very important," and 8 percent reported it was "moderately important." Seven percent said it was "a little helpful." The remaining 27 percent indicated their training was "not important at all" to getting their job.

Most participants said skills they learned in their training program were useful in doing their job. Some 48 percent of participants indicated the skills were "very useful," 22 percent said "moderately useful," and 10 percent "a little useful." Only 19 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 19 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.



Source: Workforce Board's Participant Satisfaction Survey 2011.

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 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 Worker Retraining program has positive net impacts on employment and wages.

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	\$1.04
Net Quarterly Hours Impacts	26.6	23.5
Net Annualized Earnings**	\$1,680	\$2,870

[^]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 2011 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 above, 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.⁸ 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 abased 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 2011 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 College Worker Retraining Programs

Benefit/Cost	First 2.5 years		Lifetime (until 65)		Sum of Costs and Benefits
	Participant	Public	Participant	Public	
Benefits					
Earnings	\$9,789	\$0	\$76,725	\$0	
Fringe Benefits	\$2,447	\$0	\$19,182	\$0	
Taxes	-\$2,021	\$2,021	-\$15,843	\$15,843	
Transfers					
UI	-\$152	\$152	\$1,135	-\$1,135	
Costs					
Foregone net earnings	-\$12,211	-\$2,416	-\$12,211	-\$2,416	
Program costs	-\$3,638	-\$7,077	-\$3,638	-\$7,077	
Benefits	\$10,063	\$2,173	\$81,198	\$14,708	
Costs	-\$15,849	-\$9,493	-\$15,849	-\$9,493	
Total (Net)	-\$5,786	-\$7,320	\$65,349	\$5,215	\$70,565

Note: Benefits and costs are expressed in 2011 first quarter dollars.

For each student in the CTC Worker Retraining program, the public (taxpayer) cost is about \$7,077 over the length of their enrollment, and the student costs are about \$3,638 in tuition and \$12,211 in foregone earnings while training. During the course of working life to age 65, the average trainee will gain about \$64,514 in net earnings (earnings minus foregone earnings) and \$19,182 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 \$65,349.

Projected participant net benefits to age 65 outweigh public costs invested in college training by a ratio of 9 to 1, or \$65,349 to \$7,077.

From the time of leaving training to age 65, the public is forecasted to gain \$15,843 in net additional Social Security, Medicare, federal income, and state sales taxes. The estimated lifetime net benefit to taxpayers is \$5,215 per participant.

Projected taxpayer net benefits to age 65 outweigh public costs invested in college training by a ratio of 2 to 1 or \$14,708 to \$7,077.

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.

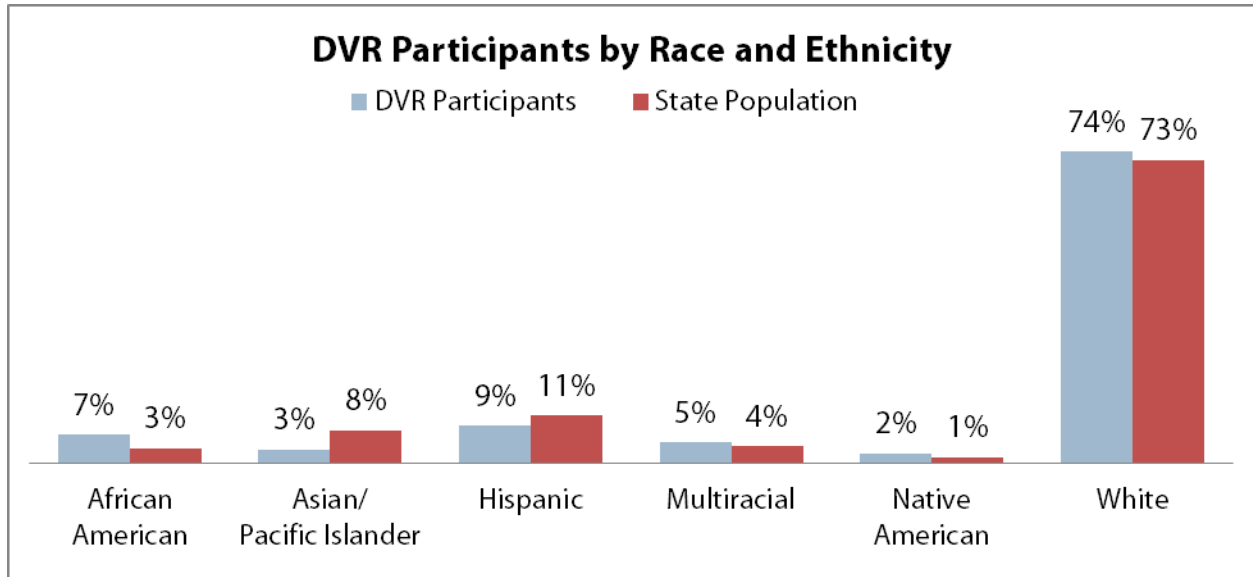
Participant Profile

For this 2012 report, researchers studied the results of 4,841 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 10 months.

Significant programmatic changes need to be considered when examining outcomes for DVR clients over time. The most important of these is the adoption of an order-of-selection policy. Since the end of 2000, when program funds and staff resources were insufficient to serve all eligible applicants, DVR was required to maintain a waiting list for services. In initiating services to individuals on the waiting list, priority was given to those with the most significant disabilities: Priority 1 was individuals with most severe disabilities, Priority 2 was individuals with severe disabilities. By revamping the order-of-selection policy, and implementing other service improvements, DVR was able to eliminate the waiting list for clients in 2008.

¹ The 2012 Workforce Training Results reports are based on data observed in 2010-11 for individuals exiting programs during 2009-10.

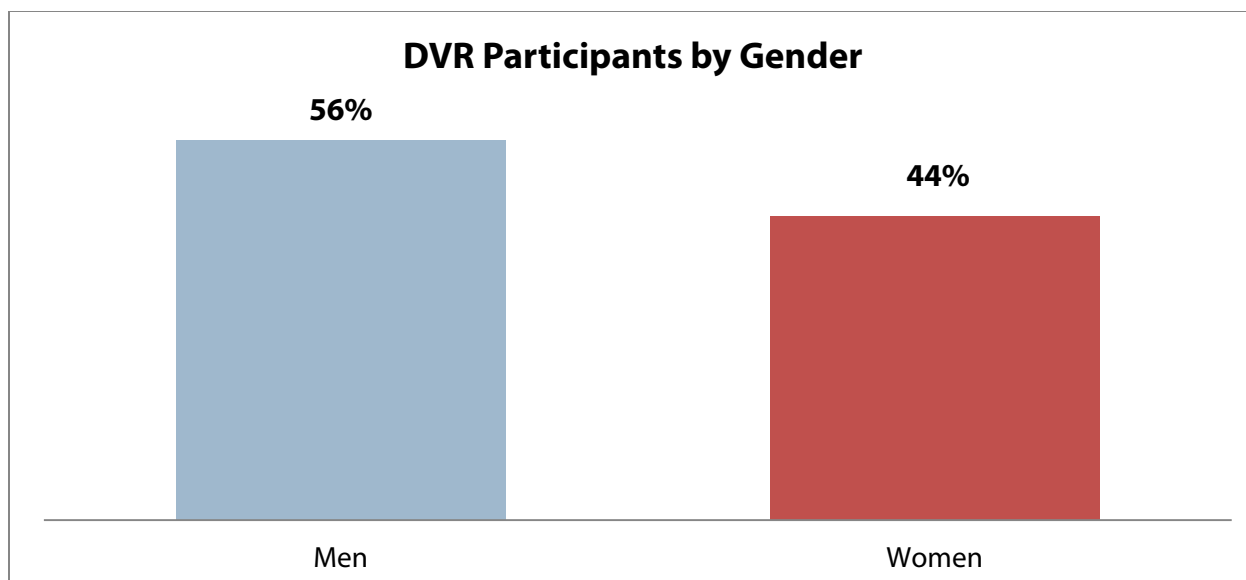
The racial/ethnic composition of the DVR clients roughly reflects those of the general population in Washington, though the African American and Native American population are slightly under represented and Asian/Pacific Islanders and Hispanics are slightly over represented.²



Source: Division of Vocational Rehabilitation administrative records 2009-10 and 2010 U.S. Census Data from the American Community Survey.

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

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/Pacific Islanders (also referred to as Asians/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 2010 U.S. Census Bureau estimates for Washington from the American Community Survey, 73 percent are white; 3 percent are African American; 1 percent are Native American; 8 percent are Asians/Pacific Islander; 4 percent are multiracial; and 11 percent are Hispanic.



Source: Division of Vocational Rehabilitation administrative records.

The median age upon entering a plan in the program was 39. One quarter of participants were under age 25 at entry, while another one quarter of participants were age 49 or older.

State Core Measures: 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?
- 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 2012 Workforce Training Results includes information obtained from Employment Security Department wage files in Washington, Idaho, and Oregon, and federal employment records for 2010-11.³

³ 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.

2012 Workforce Training Results
Division of Vocational Rehabilitation

Net Impact Study Adds More Insight Into Program Performance

This year's report includes a comprehensive Net Impact Study. To assess both short- and long-term employment and earnings trends, data on participant experiences through 2009 is used in the 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 14 for the Net Impact Study. Conducted every four years, this in-depth report adds extra value to 2012 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?

Some 51 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 is lower than the 56 percent 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.⁴ The study looks at employment and earnings three calendar quarters after the participant left the DVR program. Record matches found 43 percent had reported employment during the third quarter after they left the program. This is down from 46 percent the prior program year. The median hourly wage was \$11.18, and median annualized earning was \$13,103.⁵ Both median hourly wages and median annual earnings are up 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 (69 percent employed and median earnings of \$14,175.)

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 2011 dollars.

DVR clients observed in 2012 had employment rates 3 percentage points lower than those in 2011. However, full time employment jumped 10 percentage points. Also, when looking at those considered to be rehabilitated, the employment rate was just 1 percentage point less than employment for rehabilitated clients in the previous report. Participants that are considered rehabilitated had their inflation-adjusted median hourly wage increase slightly and annual earnings increased by just over \$1,500, or about 12 percent from the 2011 report.

Employment and Earnings DVR Participants, 2012

Performance Measure	Results
Employment Rate* (State Records)	43%
Full Time Employment **	38%
Median Hours Worked Quarterly	294 hours
Median Hourly Wage***	\$11.18
Median Annualized Earnings***	\$13,103

* 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 2011 dollars in order to account for inflation.

Earnings of DVR Participants

To better gauge the financial effectiveness of Washington's workforce programs, it helps to frame income levels. One common yardstick is the federal poverty level. In 2011, the federal poverty level for one person was \$10,890 per year.⁶

In 2012, DVR participants were able to support a median 1.5 people at the poverty level—meaning they could support themselves and half of another person. They did not have enough earnings to support themselves, let alone others, at 200 percent of the poverty level (.6 people).

Number of People Supported at Poverty Level by Participant Income

Performance Measure	2004	2006	2008	2010	2011	2012
Household size-poverty level	2.1	2.5	1.5	1.9	1.2	1.5
Household size-poverty level at 200 percent	0.7	0.8	0.6	0.7	0.5	0.6

⁶ Poverty levels from 2011 were used in this edition of Workforce Training Results to measure the results of workforce programs on participants observed in 2010-11. The federal poverty level is determined by the Department of Health and Human Services. The level varies according to family size. The number is adjusted for inflation and reported annually in the form of poverty guidelines. Public assistance programs typically define eligibility income limits as some percentage of the federal poverty level.

DVR Participants Receiving Benefits from Employers

Performance Measure	2004	2006	2008	2010*	2011	2012*
Self-Reported Medical Benefits from Employer	44%	37%	44%	N/A	55%	N/A
Self-Reported Retirement Benefits from Employer	25%	18%	28%	N/A	31%	N/A

* Due to budget limitations, the Workforce Board's Participant Survey was not conducted in 2010 or 2012.

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

Employment and Earnings Trends for DVR Participants, 2010-11

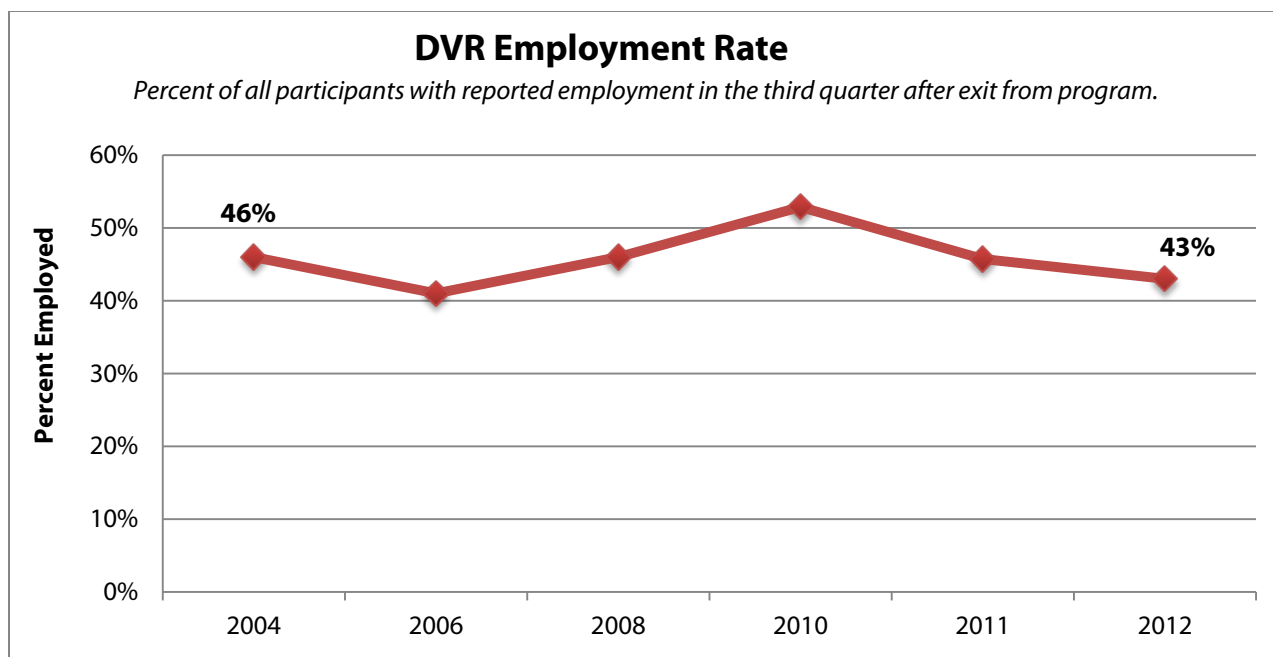
Performance Measure	2004	2006	2008	2010	2011	2012
Employment Rate (Self-Reported)	52%	40%	56%	N/A	56%	N/A
Employment Rate* (State Records)	46%	41%	46%	53%	46%	43%
Full Time Employed **	43%	39%	37%	37%	28%	38%
Median Quarterly Hours	310	299	284	284	285	294
Median Hourly Wage***	\$11.90	\$10.88	\$10.40	\$10.74	\$11.14	\$11.18
Median Annualized Earnings***	\$14,495	\$12,794	\$11,508	\$11,571	\$12,064	\$13,103

*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 the Northwest or military service and thus understates total employment by approximately 10 percent.

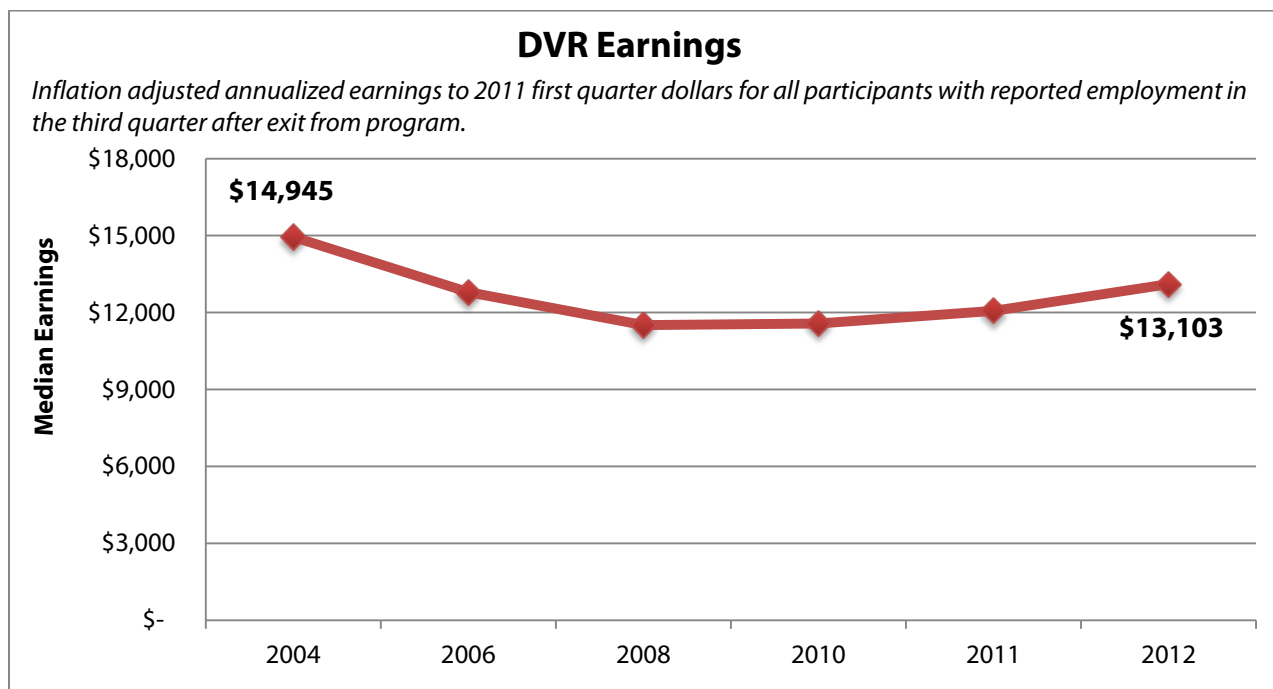
**Full-time employment averages 30 or more hours per week.

***Earnings/wages expressed in first quarter 2011 dollars in order to account for inflation.

The official state employment rate among all participants has declined for the second consecutive year to 43 percent in 2012 after reaching a high of 53 percent in 2012. Median hourly wages are nearly identical to the prior year, whereas median annual earnings increased in 2012 by over \$1,000.



Source: Workforce Training Results 2004-12.



Source: Workforce Training Results 2004-12.

DVR Employment by Industry

Employment among DVR clients continued to be heavily concentrated in services (56 percent) and the retail trade industries (20 percent). Within services, social assistance (13 percent) and health care (12 percent) are the largest employers of DVR program exiters.

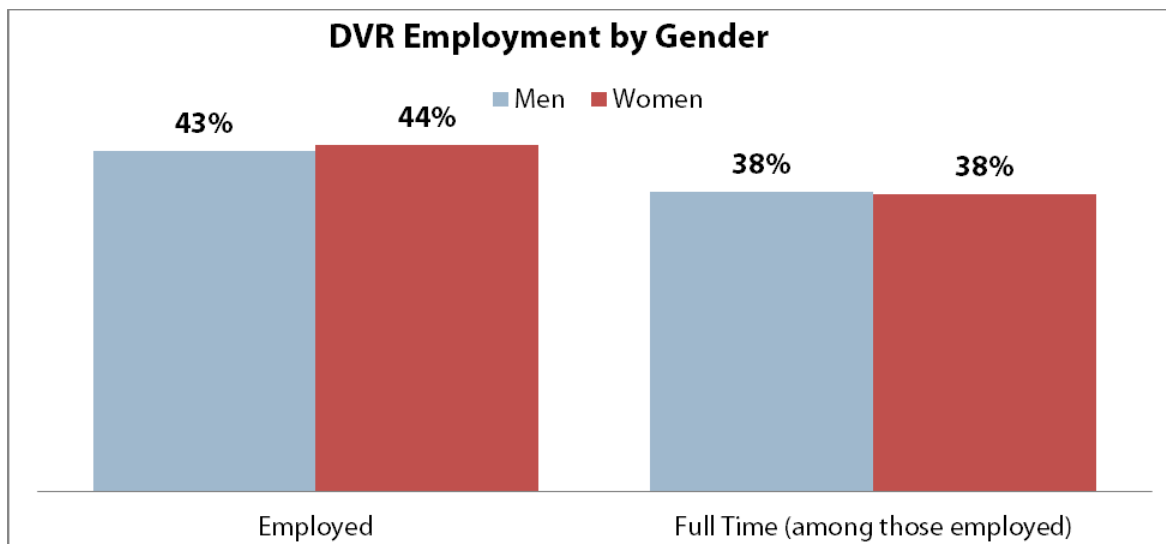
Industry Group	Percent
Services	55.9%
Retail Trade	20.1%
Manufacturing	5.6%
Public Administration	4.4%
Transportation and Warehousing and Utilities	2.9%
Construction	2.8%
Financial Activities	2.7%
Natural Resources and Mining	2.1%
Wholesale Trade	2.0%
Information	1.4%
Breakout of Services Industry	
All Other Services	15.1%
Social Assistance	13.4%
Health Care	12.2%
Administrative & Support & Waste Mgmt & Remediation	8.6%
Educational Services	6.6%
Breakout of Retail Trade Industry	
All Other Retail Trade	7.7%
General Merchandise Stores	6.4%
Food & Beverage Stores	5.5%
Gasoline Stations	0.5%

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 Vary by Population

Wage and employment results can vary by gender, and race and ethnicity.

However, in terms of gender parity, women are doing quite well compared to men in the DVR program. The employment rate for women exiting the DVR program was nearly equal to that of men (44 versus 43 percent), and men and Women were just as likely to be working full time (38 percent). Further, women's median hourly wages were slightly higher than men's (\$11.29 versus \$11.11), while their median annual earnings were nearly identical to men's (\$13,137 versus \$13,039)

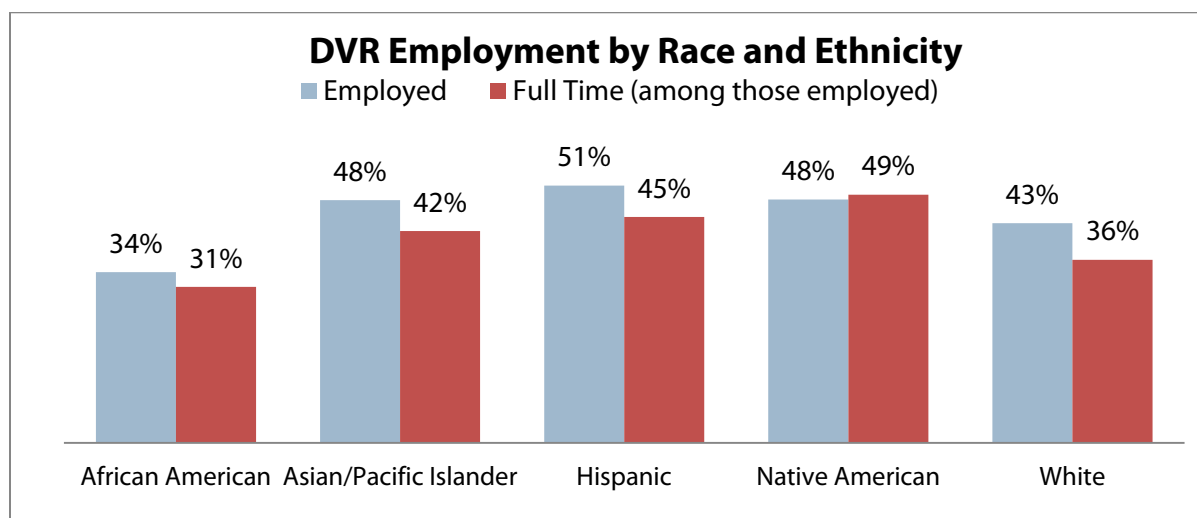


Source: Matches with Employment Security Department data.

Race/Ethnicity Plays Role

Substantial variation was found among employment rates by race and ethnicity. Hispanics had the highest employment rate at 51 percent, followed by Asian/Pacific Islanders and Native Americans (48 percent), whites (43 percent), and African Americans (34 percent). Full time employment rates were also varied. Native Americans had the highest full time employment rate (49 percent), followed by Hispanic (45 percent), Asian/Pacific Islander (42 percent), white (36 percent) and African Americans (31 percent).

Native Americans had the highest median annual wage at \$11.62. Hispanics had the lowest median hourly wage at \$10.68, with African Americans (\$11.48), Asian/Pacific Islanders (\$11.07) and whites (\$11.28) having earnings in between. Median annual earnings were about the same for African Americans as whites (\$13,375 versus \$12,282), while Asians/Pacific Islanders (\$15,441) Native Americans (\$19,419) and Hispanics (\$15,049) earned more.

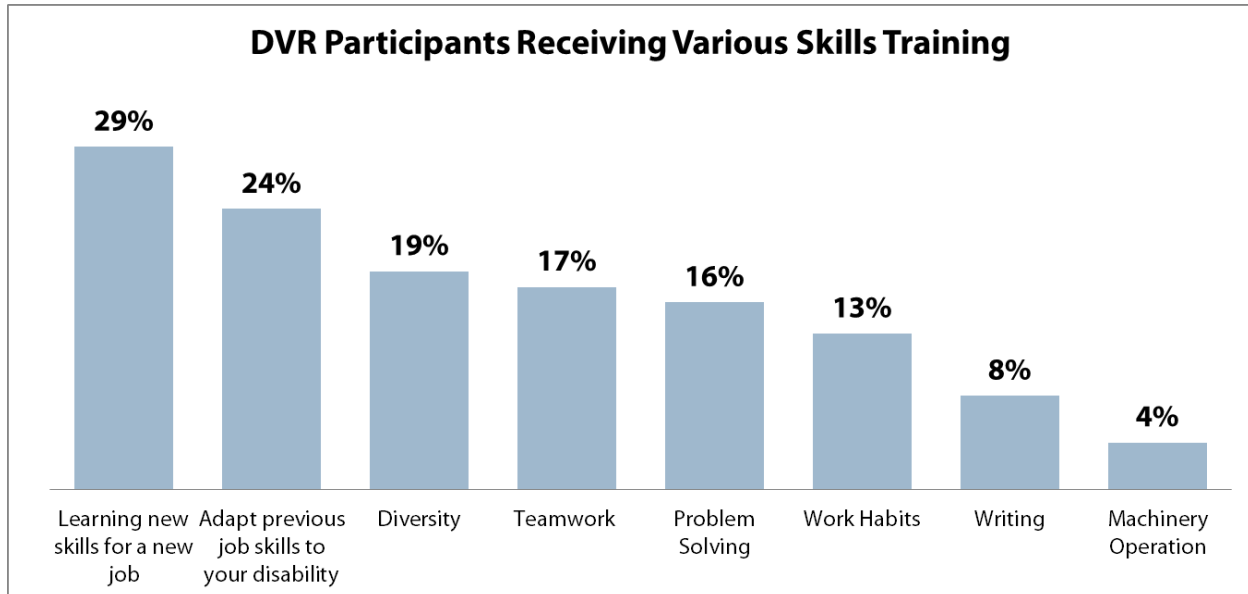


Source: Matches with Employment Security Department data.

Competency Gains

In 2011, the Workforce Board surveyed DVR participants who had left their program in 2009-10. The survey provided data on employment and participant satisfaction with the training. The survey was conducted by telephone and was completed by 75 participants.

Of those responding to the survey, 80 percent entered the DVR program to get job search assistance and 68 percent of DVR clients enrolled in the program to learn skills for a new job. Among the skills provided by DVR, most clients received training in learning new skills for a new job (29 percent) and adapting previous job skills to their disability (24 percent).

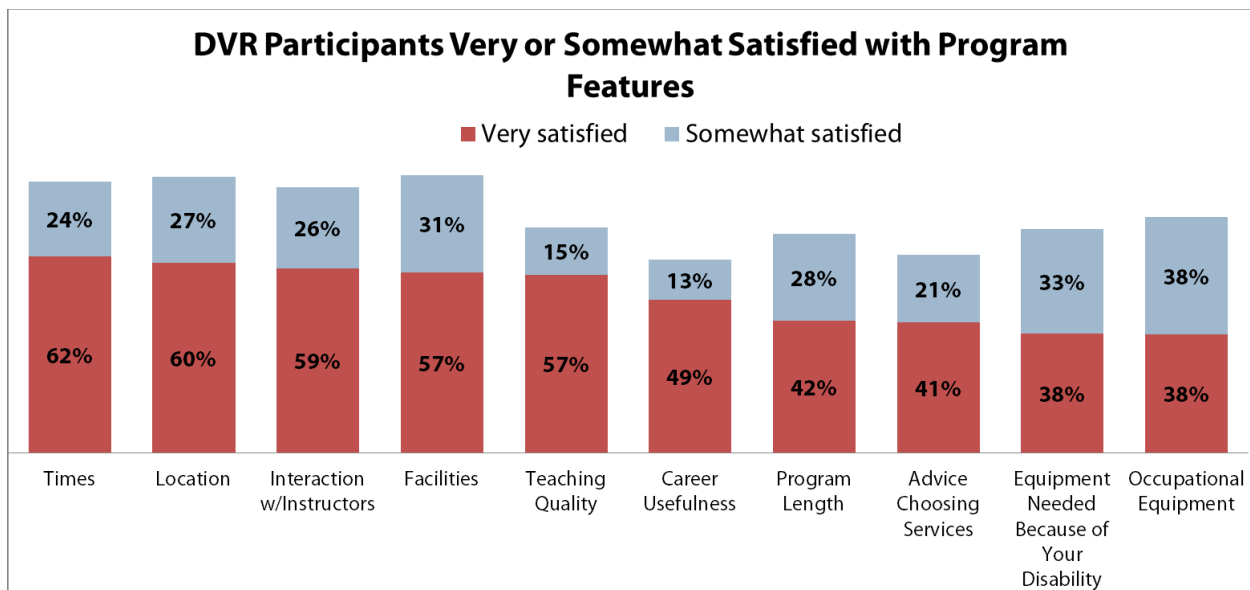


Source: Workforce Board's Participant Satisfaction Survey 2011.

Among those employed in the third quarter after leaving the program, 58 percent indicated their training was related to their job, which was up from 55 percent on the 2008 survey.

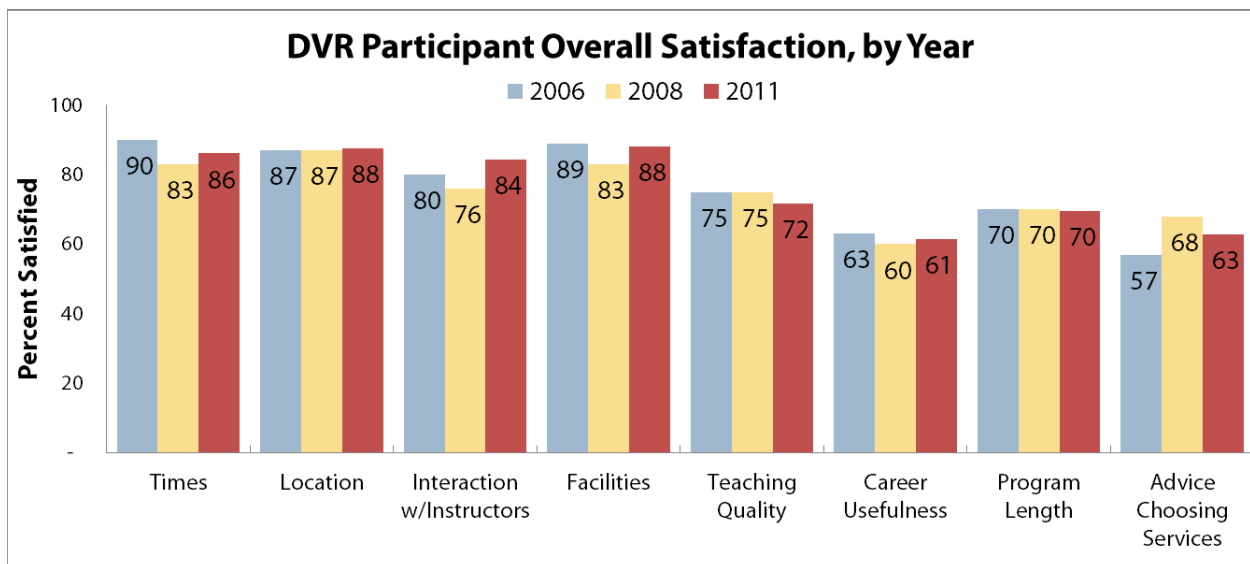
Participant Satisfaction

Some 75 percent of clients said they were "very satisfied" or "somewhat satisfied" with their DVR program, slightly lower than the satisfaction level reported in 2008. Respondents reported relatively high overall levels of satisfaction with times, location, interaction with instructors, and the program's facilities. Overall satisfaction (participants indicating they were either very or somewhat satisfied) was lowest with respect to usefulness of the program to their careers. However, since 2008 the percentage of participants who indicated they were "very satisfied" with DVR's career usefulness has increased 10 percentage points.



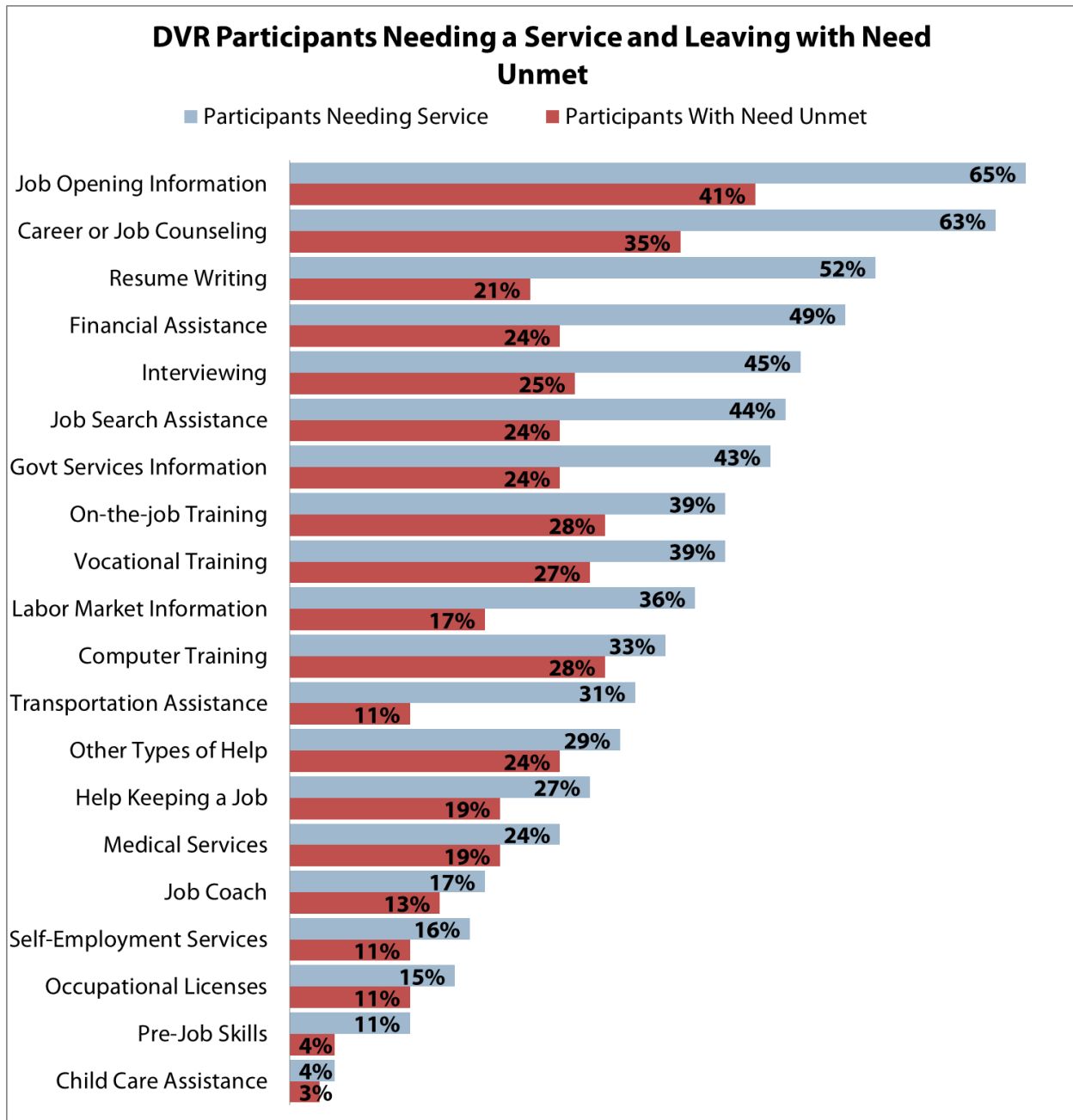
Source: Workforce Board's Participant Satisfaction Survey 2011.

Over the past three surveys, participant satisfaction with various program features has remained fairly steady. The largest gain in satisfaction was with interaction with instructors. Participant satisfaction with instructors increased by 8 percentage points, from 76 percent in 2008 to 84 percent in 2011. Participant satisfaction with program facilities also increased, from 83 percent in 2008 to 88 percent in 2011. The largest decrease was in advice choosing services, which dropped from 68 percent in 2008 to 63 percent in 2011. All other programs had changes of 3 percentage points or lower, or did not change at all. Satisfaction with program length held steady for the last three surveys, with 70 percent of participants indicating they were satisfied with the length of the program.



Source: Workforce Board's Participant Satisfaction Survey 2011.

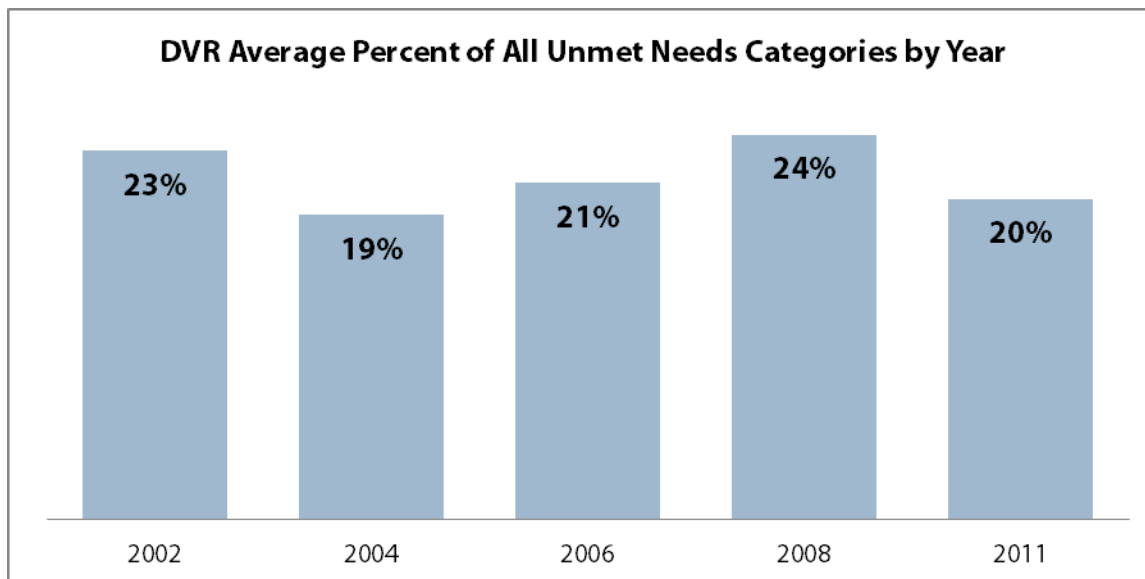
Similar to 2008, DVR clients indicated information about job openings and job counseling as the support services they needed most while participating in the program. While the majority of clients had their support service needs met, over 40 percent left with an unmet need for job opening information, and 35 percent left with an unmet⁷ need for information about job counseling.



Source: Workforce Board's Participant Satisfaction Survey 2011.

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.

Overall, the percentage of unmet needs reported by DVR participants has decreased since the last participant survey in 2008.



Source: Workforce Board's Participant Satisfaction Survey 2011.

Relationship of Training to Employment

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

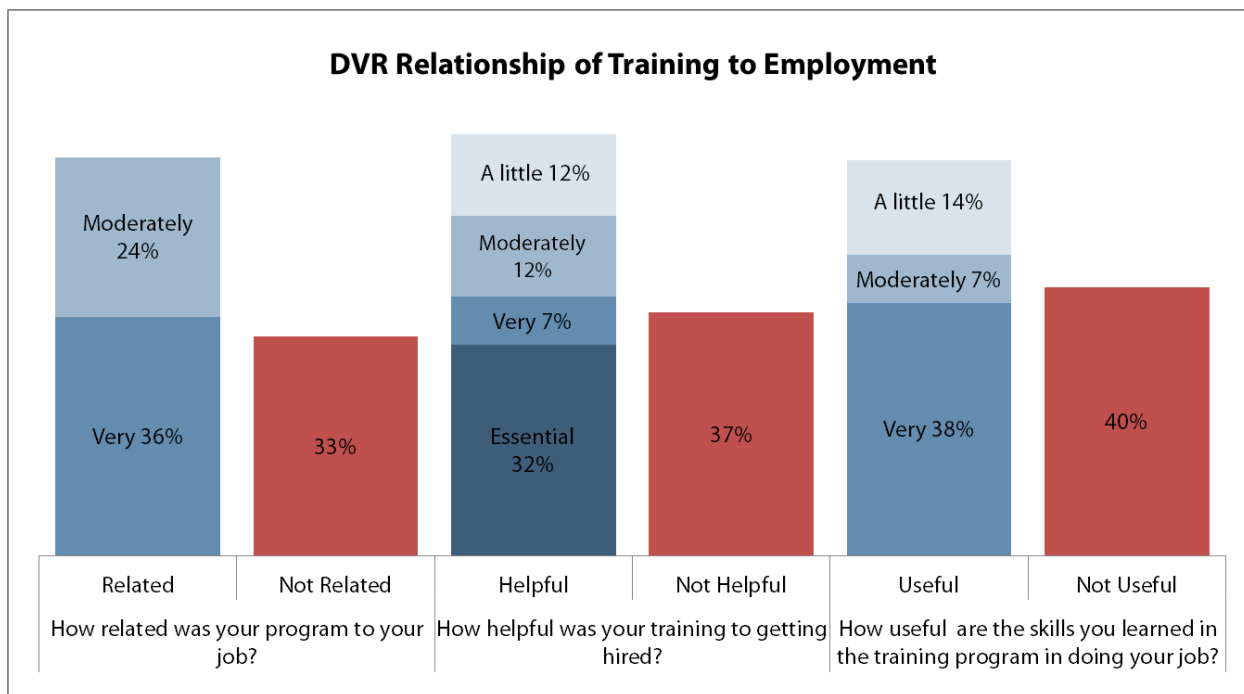
1. How related was the program to their job?
2. How important was the training in getting hired?
3. Are the skills they learned useful in their job?

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 seven to nine months after leaving a program, 36 percent said their training was "very related" to their job. A further 24 percent reported the training was "somewhat related" to their job. In 2008, slightly lower rates of employed participants reported their training was "very related" (30 percent) while a similar percentage of participants said the training was "somewhat related."

DVR participants interviewed in 2011 also indicated the training was helpful to them in getting their job. Of those participants, 32 percent indicated their training was an "essential requirement," another 7 percent indicated it was "very important," and 12 percent reported it was "moderately important." Twelve percent said it was "a little helpful." The remaining 37 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 38 percent of participants indicated the skills were “very useful,” 12 percent said “moderately useful,” and 10 percent “a little useful.” The remaining 40 percent of participants who were employed indicated the skills were “not useful at all.”



Source: Workforce Board's Participant Satisfaction Survey 2011.

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**	\$1,309	\$1,396

[^]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 2011 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.⁸ 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 2011 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.

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 Division of Vocational Rehabilitation

Benefit/Cost	First 2.5 years		Lifetime (until 65)		Sum of Costs and Benefits
	Participant	Public	Participant	Public	
Benefits					
Earnings	\$4,373	\$0	\$18,396	\$0	
Fringe Benefits	\$1,093	\$0	\$4,599	\$0	
Taxes	-\$668	\$668	-\$2,813	\$2,813	
Transfers					
UI	-\$235	\$235	-\$271	\$271	
Costs					
Foregone net earnings	\$802	\$111	\$802	\$111	
Program costs	\$0	-\$7,296	\$0	-\$7,296	
Benefits	\$4,563	\$903	\$19,912	\$3,084	
Costs	\$802	-\$7,185	\$802	-\$7,185	
Total (Net)	\$5,365	-\$6,282	\$20,714	-\$4,100	\$16,613

Note: Benefits and costs are expressed in 2011 first quarter dollars.

For each client in a DVR program, the public (taxpayer) cost is \$7,296 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 \$802 over non-participants. During the first two and one-half years after leaving DVR, the average client will gain \$5,175 in earnings. During the course of working life to age 65, the average client will gain about \$19,199 in net earnings (net impact earnings plus earnings during participation) and about \$4,599 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 \$20,714.

Projected participant net benefits to age 65 outweigh public costs for the DVR program by a ratio of 3 to 1, or \$20,714 to \$7,296.

From the time of leaving the DVR program to age 65, the public is forecast to gain about \$2,813 per participant in net additional social security, Medicare, federal income, and state sales taxes and to save \$271 per client in UI benefits. The estimated lifetime net cost to taxpayers is \$4,100 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 \$3,084 to \$7,296.

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.

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.

During the time of this study, there were approximately 360 private career schools in Washington. Of these, the Workforce Training and Education Coordinating Board (Workforce Board) licensed approximately 275 certificate-granting vocational institutions. Program results in this study were limited to those institutions licensed by the Workforce Board.

For this 2012 report, records were collected on 16,413 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.

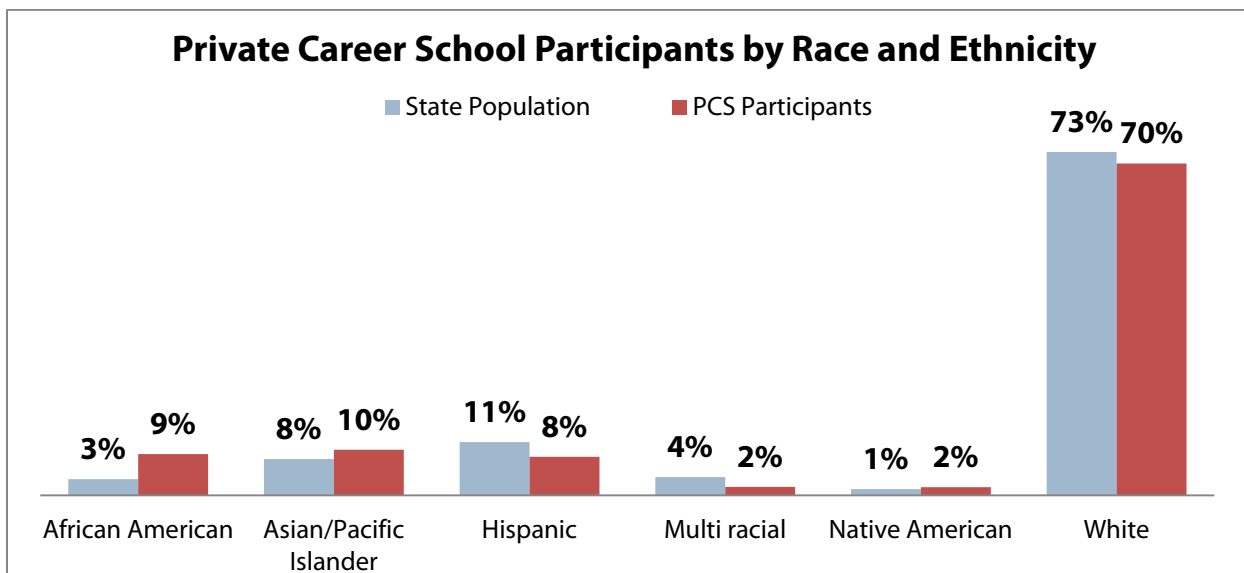
Participant Profile

Washington residents from racial and ethnic minorities are well represented among private career school participants.² African Americans accounted for 9 percent of participants, a representation that is triple their portion of the state's population. Hispanics accounted for 8 percent of participants, which is 3 percentage points below their representation in the

¹ The 2012 Workforce Training Results reports are based on data observed in 2010-11 for individuals exiting programs during 2009-10.

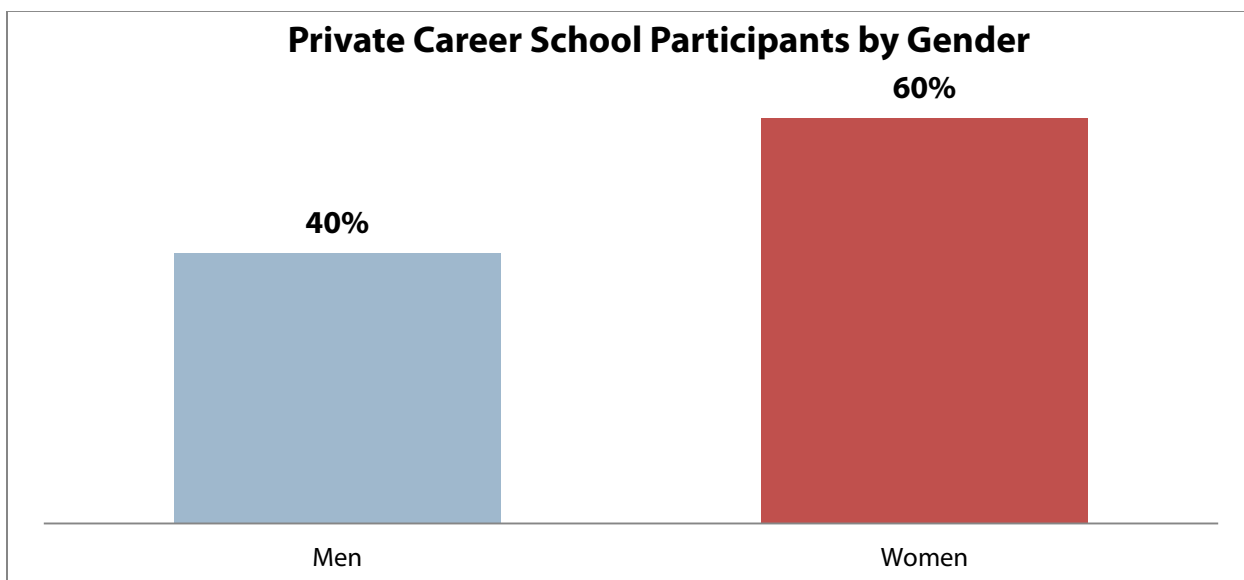
² In this report, unless otherwise stated, racial and ethnic minority groups are mutually exclusive; that is, an individual belongs to one group only. The groups include the following: Hispanics of any race (also referred to as Hispanics); non-Hispanic African Americans (also referred to as African Americans); non-Hispanic Asians/Pacific Islanders (also referred to as Asians/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 2010 U.S. Census Bureau estimates for Washington from the American Community Survey, 73 percent are white; 3 percent are African American; 1 percent are Native American; 8 percent are Asians/Pacific Islander; 4 percent are multiracial; and 11 percent are Hispanic.

general state population. Whites are 70 percent of participants, three percentage points below their general population representation in the state. Overall, the racial and ethnic make-up of those who successfully completed their private career school program mirrors the distribution of participants.



Source: Private Career Schools' administrative records 2009-10 and 2010 U.S. Census Data from the American Community Survey.

Among those exiting private career schools, 60 percent were women, nearly the same percentage as the last report (59 percent). Of the completers, 60 percent were women, although men completed at a higher rate than women (82 percent versus 79 percent).



Source: Private Career Schools' administrative records 2009-10.

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.
- 11 percent had a certificate or associate's degree.
- 9 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.

Turn to page 19 for the Net Impact Study. Conducted every four years, this in-depth report adds extra value to 2012 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.

State Core Measures: 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 2012 Workforce Training Results includes information obtained from Employment Security Department wage files in Washington, Idaho, and Oregon, and federal employment records. 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, this year's report includes a comprehensive Net Impact Study. To assess both short- and long-term employment and earnings trends, data on participant experiences through 2009 is used in the 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 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, 80 percent had completed their program by receiving a credential. This percentage is up from 76 percent 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 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. Some 58 percent of participants were employed, with a median hourly wage of \$13.40, and median annualized earnings of \$20,451.⁴ Those who completed their programs had a higher employment rate and earnings: 61 percent and \$21,754 respectively.

Employment and Earnings for Private Career School Participants, 2012

Performance Measure	Results
Employment Rate* (State Records)	58%
Full Time Employment **	52%
Median Quarterly Hours	399 hours
Median Hourly Wage***	\$13.40
Median Annualized Earnings***	\$20,451

** 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 2011 dollars in order to account for inflation.*

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).

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 2009 dollars.

Earnings of Private Career School Participants

To better gauge the financial effectiveness of Washington's workforce programs, it helps to frame income levels. One common yardstick is the federal poverty level. In 2011, the federal poverty level for one person was \$10,890 per year.⁵

In 2012, Private Career School participants were able to support a median 3.5 people at the poverty level—meaning they could support themselves and two and a half other people. They did not have enough earnings to support themselves, let alone others, at 200 percent of the poverty level (.8 people).

Number of People Supported at Poverty Level by Participant Income

Performance Measure	2004	2006	2008	2010	2011	2012
Number of people supported at poverty level	4.3 people	3.8 people	4.3 people	4.3 people	3.8 people	3.5 people
Number of people supported at 200 percent poverty	1.2 people	1.0 people	1.2 people	1.2 people	1.0 people	.8 people

The percentage of Private Career School participants who self-report receiving medical benefits from their employers has dropped since 2006, while the percentage receiving retirement benefits has remained fairly stable.

Private Career School Participants Receiving Benefits from Employers

Performance Measure	2004	2006	2008	2010*	2011	2012*
Self-Reported Medical Benefits from Employer	64%	68%	62%	N/A	60%	N/A
Self-Reported Retirement Benefits from Employer	36%	36%	35%	N/A	34%	N/A

* Due to budget limitations, the Workforce Board's Participant Survey was not conducted in 2010 or 2012.

⁵ Poverty levels from 2011 were used in this edition of Workforce Training Results to measure the results of workforce programs on participants observed in 2010-11. The federal poverty level is determined by the Department of Health and Human Services. The level varies according to family size. The number is adjusted for inflation and reported annually in the form of poverty guidelines. Public assistance programs typically define eligibility income limits as some percentage of the federal poverty level.

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

Private Career School Participants Employment and Earnings Trends

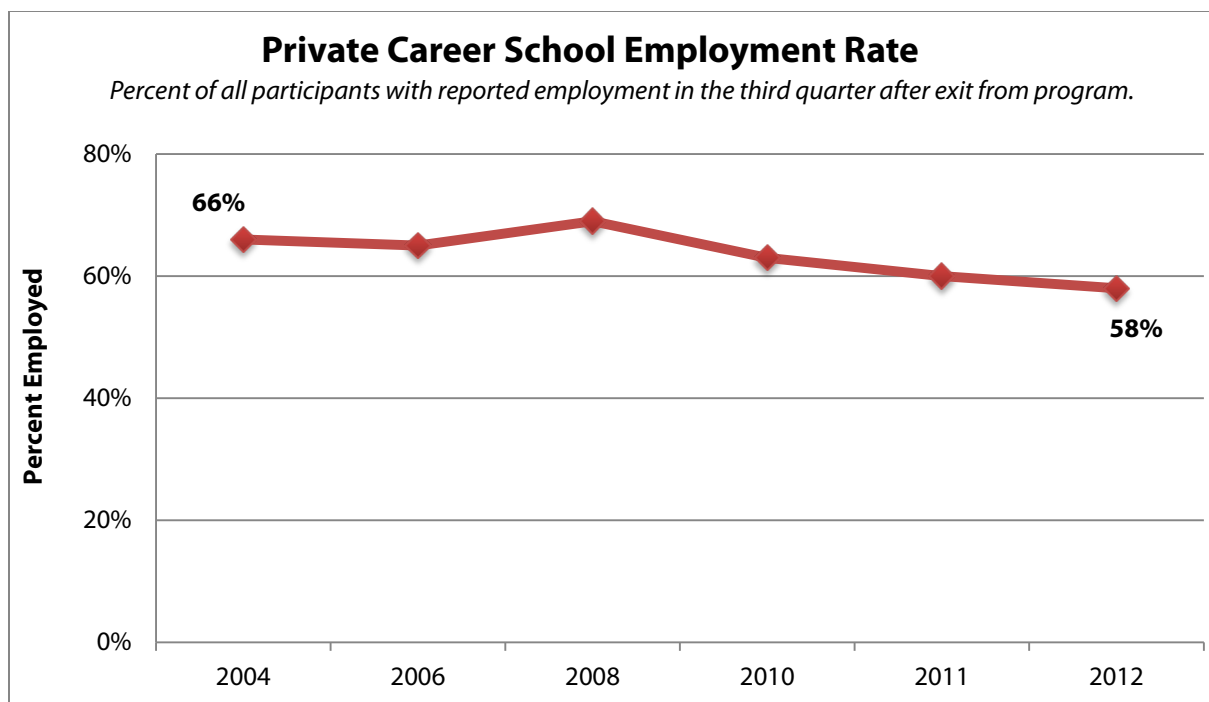
Performance Measure	2004	2006	2008	2010	2011	2012
Employment Rate (Self-Reported)	77%	78%	82%	N/A	74%	N/A
Employment Rate* (State Records)	66%	65%	69%	63%	60%	58%
Full Time Employment**	57%	56%	60%	56%	52%	52%
Median Quarterly Hours	428	428	443	423	402	399
Median Hourly Wage***	\$14.07	\$13.43	\$14.09	\$14.57	\$13.97	\$13.40
Median Annualized Earnings***	\$23,359	\$21,744	\$23,622	\$23,607	\$21,462	\$20,451

*Employment reported to ESD 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.

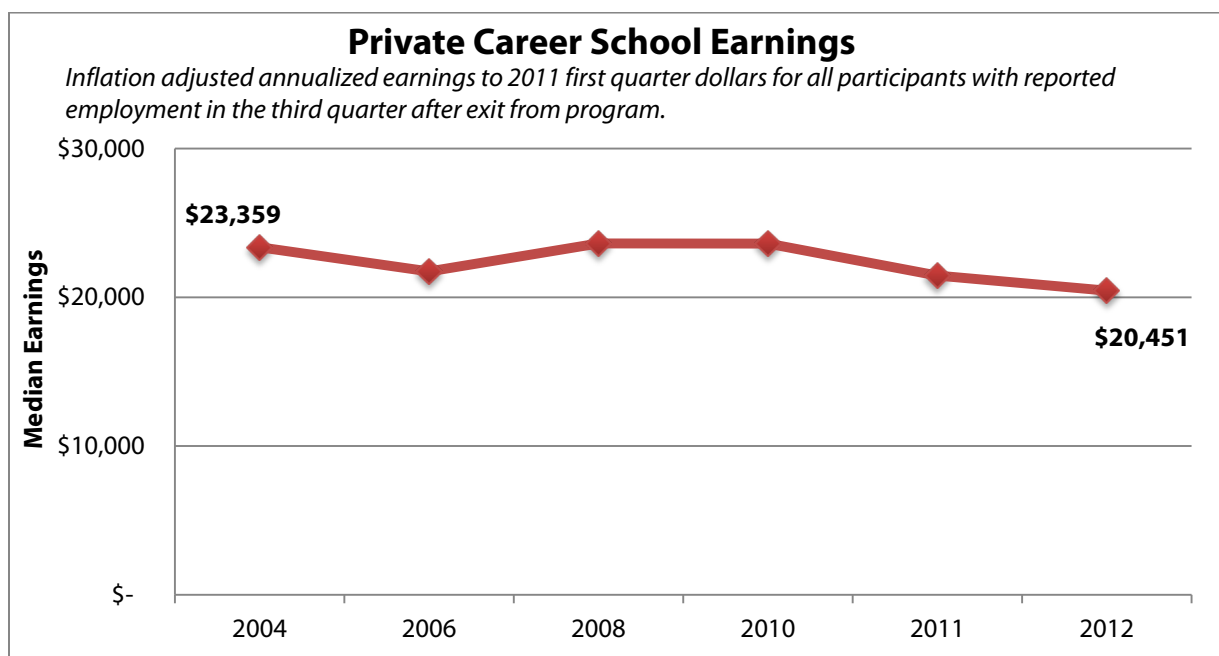
**Full-time employment averages 30 or more hours per week.

***Earnings/wages expressed in first quarter 2011 dollars in order to account for inflation.

After peaking in 2008, the employment rate for Private Career School participants has been declining and is 58 percent in 2012. The most recent employment decline in all likelihood reflects the continued effect of the Great Recession. Full time employment and median hours worked have also declined since 2008, although they remained stable over the last two reports. Median annual earnings among Private Career School participants have declined over each of the last four studies, whereas median hourly wages have declined over the last three studies.



Source: Workforce Training Results 2004-12.



Source: Workforce Training Results 2004-12.

Private Career School Student Employment by Industry

As in the previous study, employment among Private Career School participants is concentrated in services (see following chart), especially health services. Compared to those observed in the 2011 report, participants in 2012 were 4 percentage points more likely to be employed in services. Employment in manufacturing dropped by more than 1 percentage point compared to the prior year. Employment in health services increased by nearly 10 percent—from 25.7 percent to 34 percent this year.

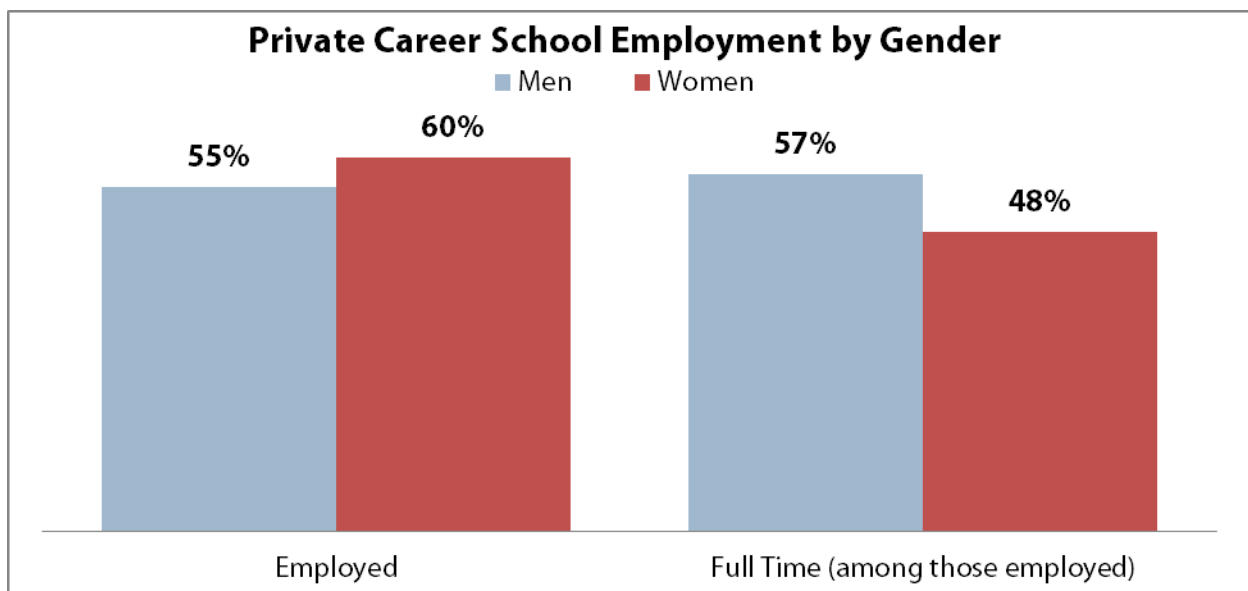
Industry Group	
64.4%	Services (<i>See breakout below</i>)
13.4%	Retail Trade (<i>See breakout below</i>)
5.8%	Transportation and Warehousing and Utilities
3.7%	Construction
3.7%	Manufacturing
2.7%	Wholesale Trade
2.7%	Financial Services
1.6%	Public Administration
1.3%	Natural Resources and Mining
0.7%	Information
0.1%	Correctional Facilities
Breakout of the Services Industry	
34.0%	Health Care
7.7%	Administrative and Support and Waste Management and Remediation Services
5.2%	Social Assistance
5.1%	All Other Services
4.0%	Education Services
3.2%	Professional, Scientific, and Technical Services
2.8%	Accommodation and Food Services
2.5%	Arts, Entertainment, and Recreation
Breakout of the Retail Trade Industry	
3.3%	Department and Warehouse Stores
2.3%	Clothing and Accessories Stores
2.0%	Food and Liquor Stores
1.4%	Health Care and Beauty Products
1.3%	Vehicle Sales
1.1%	Miscellaneous Store Retailers
0.7%	Hardware, Garden and Farm Supplies
0.5%	Gasoline Stations
0.5%	Books, Music and Hobbies Sales
0.4%	Home Furnishings Sales
0.01%	Electronics and Appliance Stores

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 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.

Women (60 percent) were more likely to be employed in the third quarter after leaving their programs than men (55 percent). Women, however, were less likely than men to be employed full-time (48 percent compared to 57 percent), and among those employed, women's median hourly wage was 88 percent of men's (\$12.87 compared to \$14.58). An even greater disparity was found in terms of median annual earnings, with women earning only 79 percent of men's (\$18,991 compared to \$24,125).



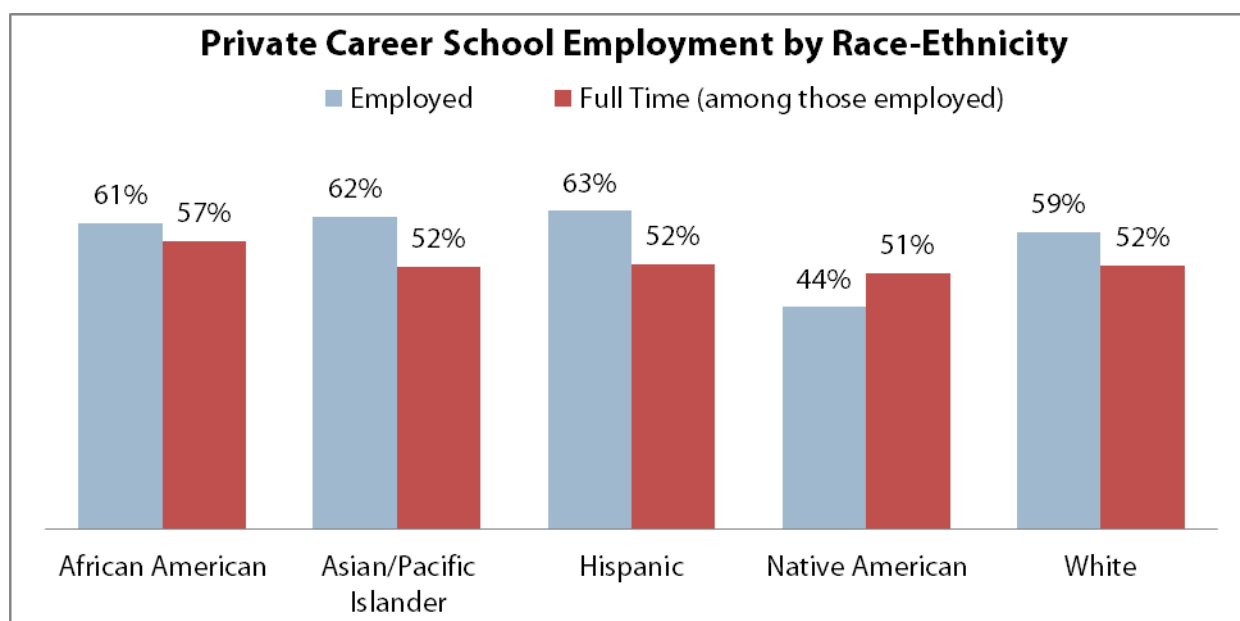
Source: Employment Security Department data matches.

Race-Ethnicity Plays Role

All program participants, with the exception of Native Americans, had employment close to 60 percent in the third quarter after leaving their programs. Hispanics had the highest rate of employment at 63 percent. In terms of full time employment, all racial and ethnic groups had employment rates between 52 and 57 percent, with African Americans having the highest rate.

Among those employed, the median hourly wages were highest among whites at \$14.09. Wages for African Americans (\$12.07), Asian/Pacific Islanders (\$12.82), Hispanics (\$13.02) and Native Americans (\$12.87) were, on average, less than what white program participants earned.

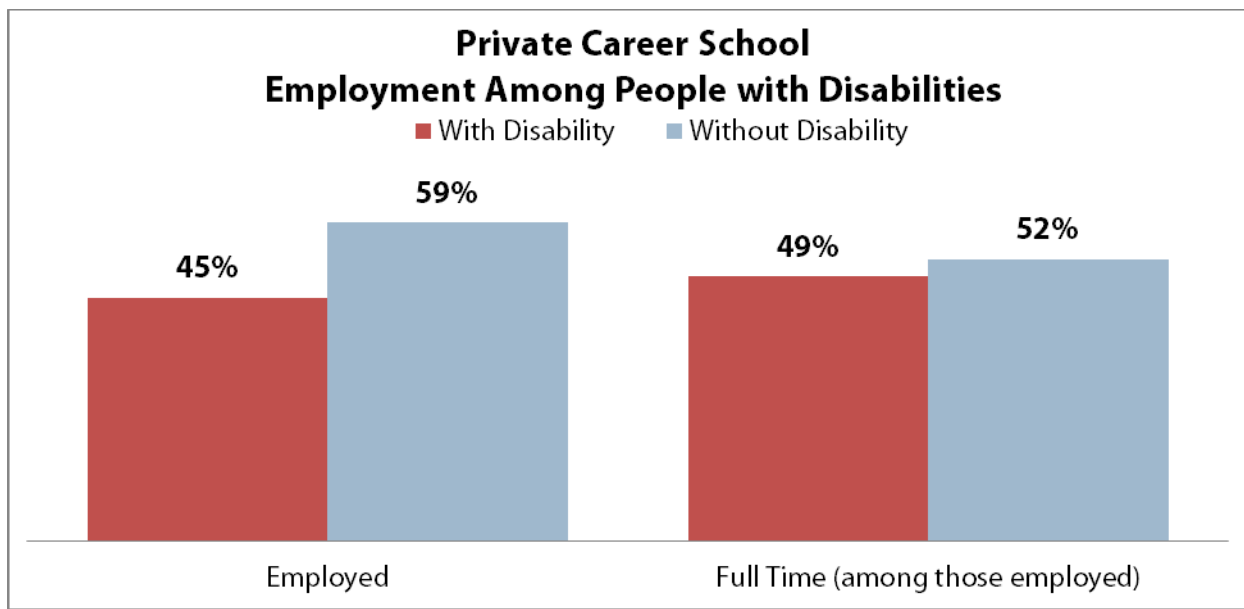
In terms of median annual earnings, African Americans earned the most at \$21,589 per year, followed by whites at \$21,297. Hispanics earned \$20,473, Asian/Pacific Islanders earned \$20,432 and Native Americans earned \$19,892 annually.



Source: Matches with Employment Security Department data..

Disability Impacts Employment, Earnings

Employment outcomes and earnings also varied by disability status. College records indicate that less than 1 percent of the participants included in this study had a disability. Compared to participants without disabilities, participants with disabilities were less likely to have reported employment during the third quarter after exit (45 percent versus 59 percent). They were also less likely to be working full-time (49 percent versus 52 percent). Participants with a disability earned about 97 percent of median wages as those without a disability (\$20,327 compared to \$20,861). Yet, in terms of median hourly wages, participants with a disability earned more than non-disabled participants (\$15.90 compared to \$13.60). The difference in these two earnings patterns are due to the lower number of hours worked by disabled participants.



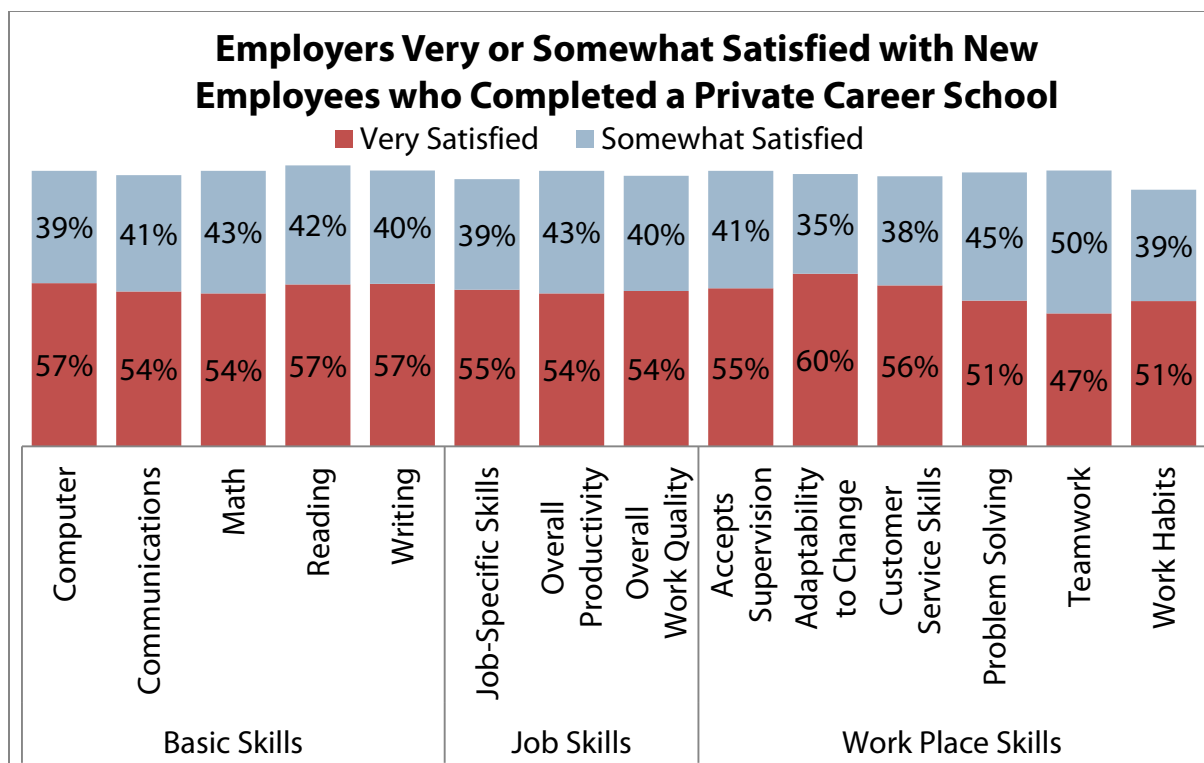
Source: Matches with Employment Security Department data.

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 95 percent of employers said they were either "somewhat satisfied" or "very satisfied" with the overall work quality of these new employees.

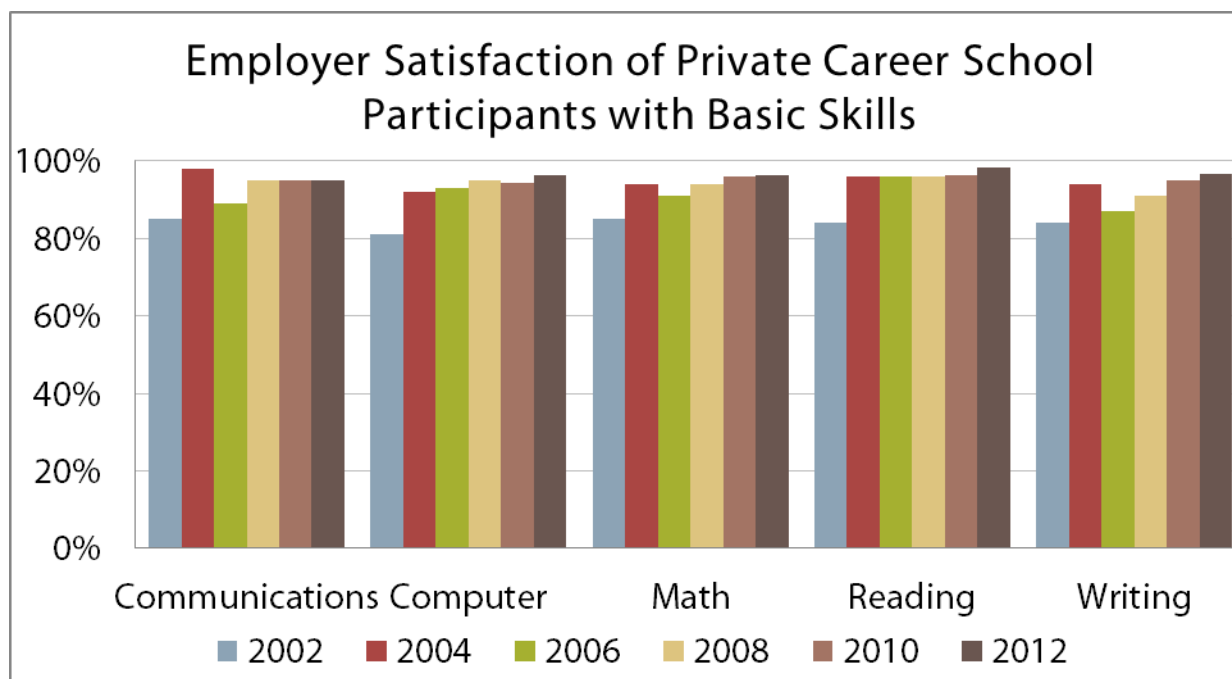
Employer satisfaction is broken down into three categories: Basic Skills, Job Skills and Work Place Skills. Basic skills refer to reading, writing, math, communication and computer skills. Job skills refer to skills specific to the job, as well as overall work quality and productivity. Work place skills 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. computers. For job skills, their highest overall satisfaction was with overall productivity. Among work place skills, employers were most satisfied with teamwork.

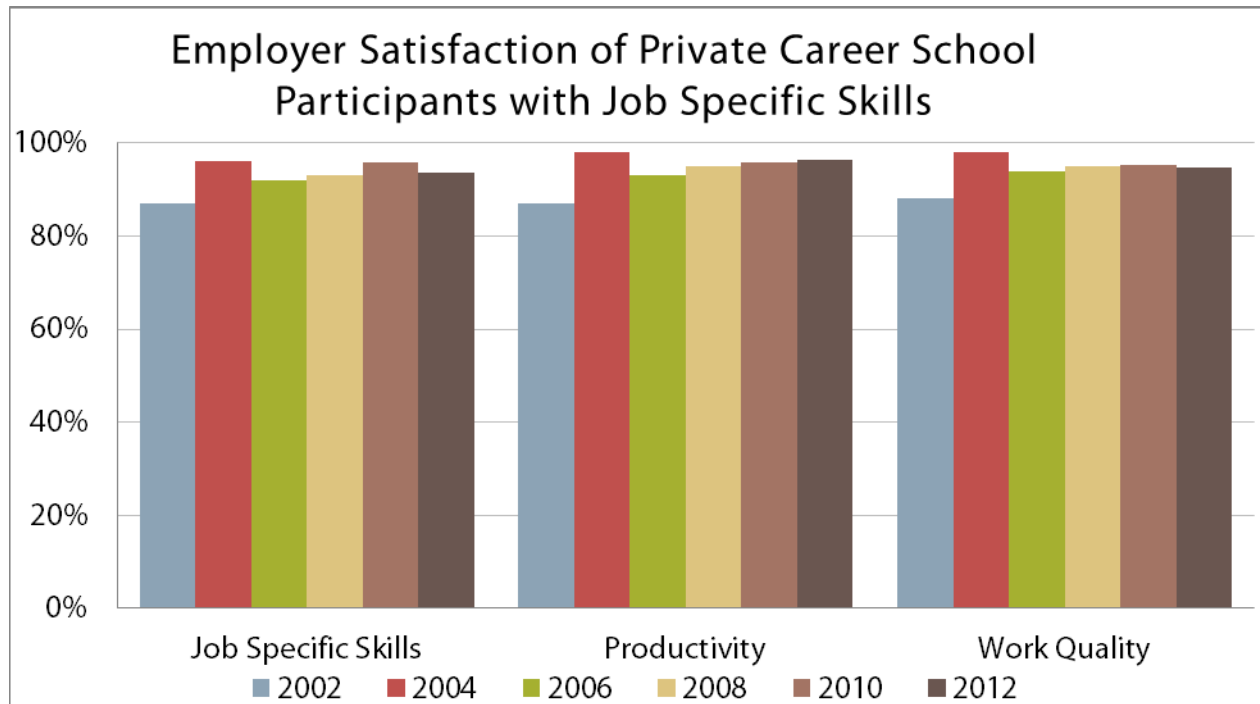


Source: Workforce Board Employer Survey conducted in 2012.

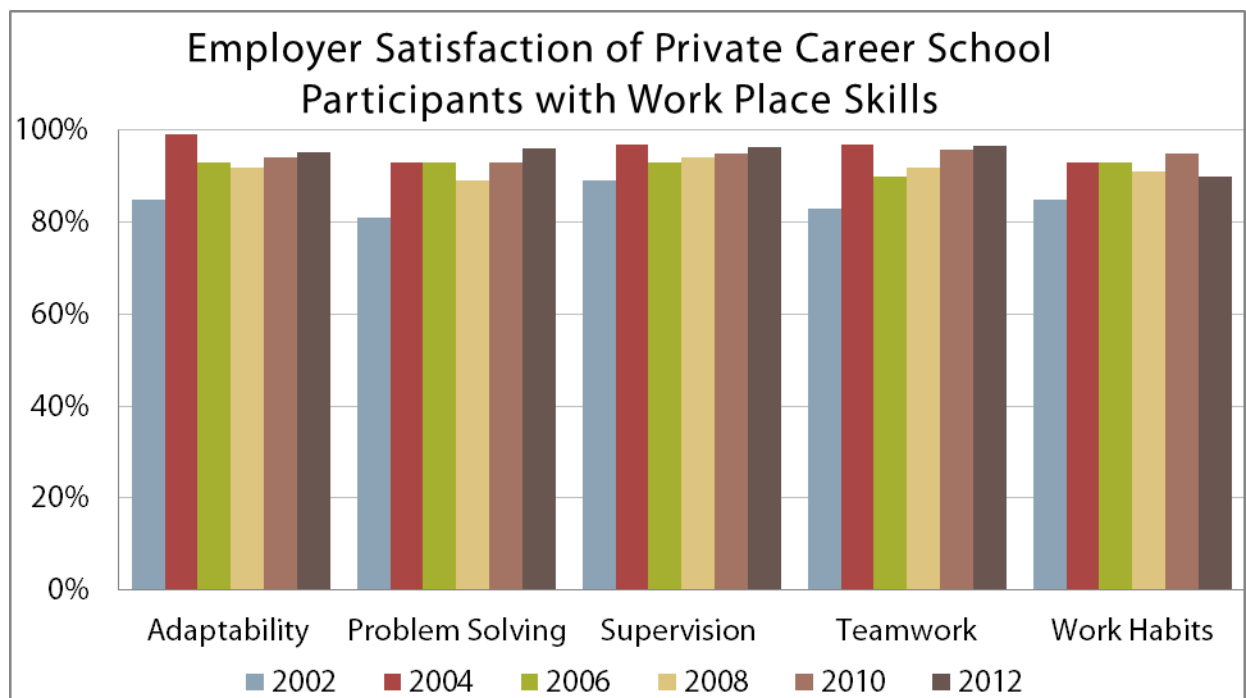
Overall, the levels of employer satisfaction reported in the Workforce Board's 2012 Employer Survey were similar the previous survey, conducted in 2010. The following three charts show the overall satisfaction of employers with new employees who recently completed a program at a Private Career School.



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



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



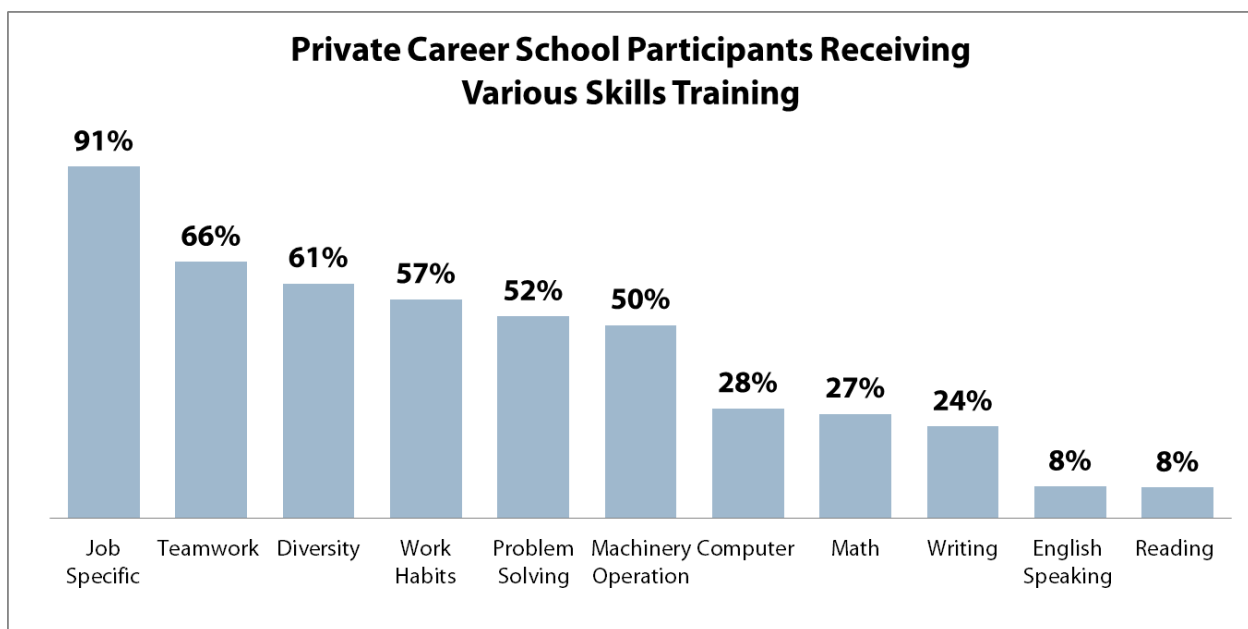
Source: Workforce Board's biennial Employer Surveys from 2002 through 2012.

Participant Survey – Did Participants Get the Skills They Needed?

In 2011 the Workforce Board surveyed Private Career School participants who had left their program in 2009-10. The survey provided data on employment and participant satisfaction with the training. The survey was conducted by telephone and was completed by 362 participants.

According to survey results, 88 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 (77 percent), to get a degree or certificate (75 percent), or to improve skills for a job they already had (21 percent).

The highest percentage of participants, 91 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), diversity (61 percent) and work habits (57 percent). Fewer received training in basic skills like reading, English speaking, math, and writing.

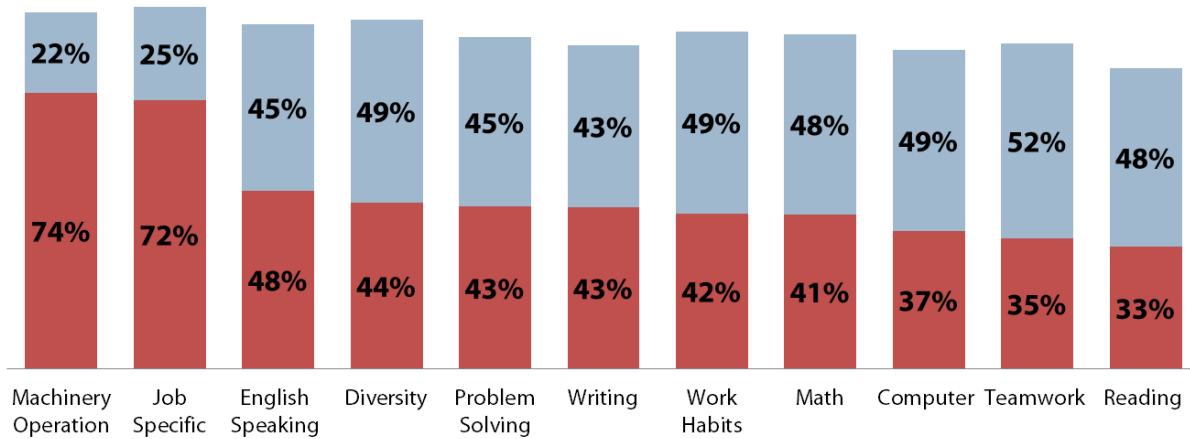


Source: Workforce Board's Participant Satisfaction Survey 2011.

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, math and computer skills. Compared to previous surveys, a slightly lower percentage of participants reported "a lot" of improvement in job-specific skills (72 percent in 2011 versus 79 percent in 2008).

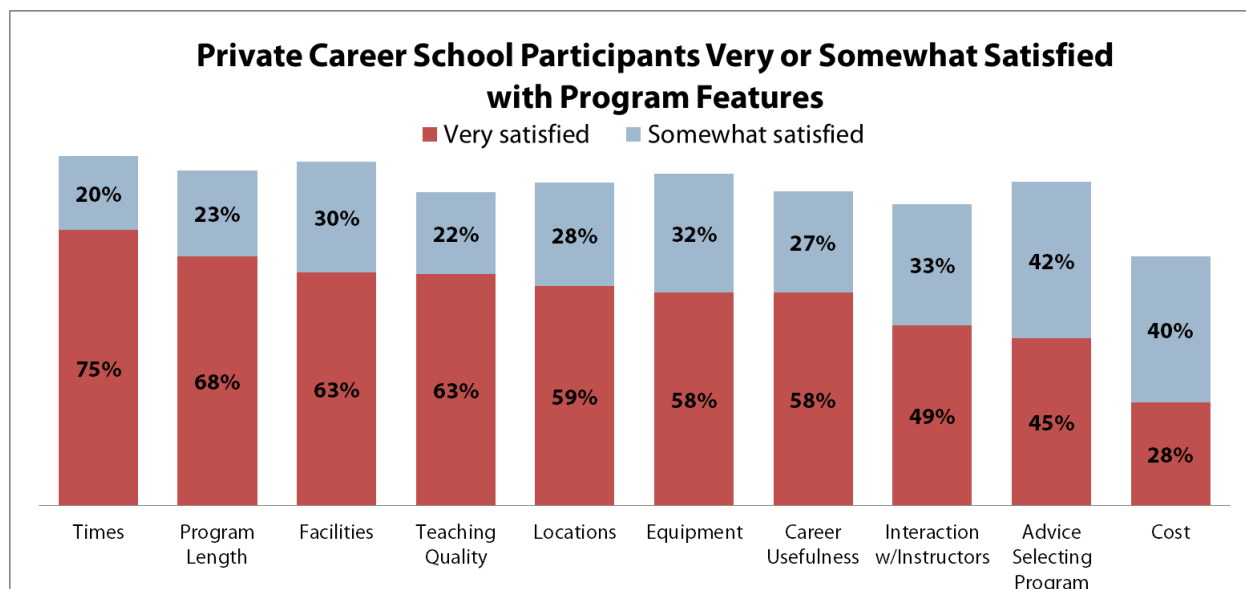
Private Career School Participants Receiving Various Skills Training who Reported Their Skills Improved a Little or a Lot

■ Helped a lot ■ Helped a little



Source: Workforce Board's Participant Satisfaction Survey 2011.

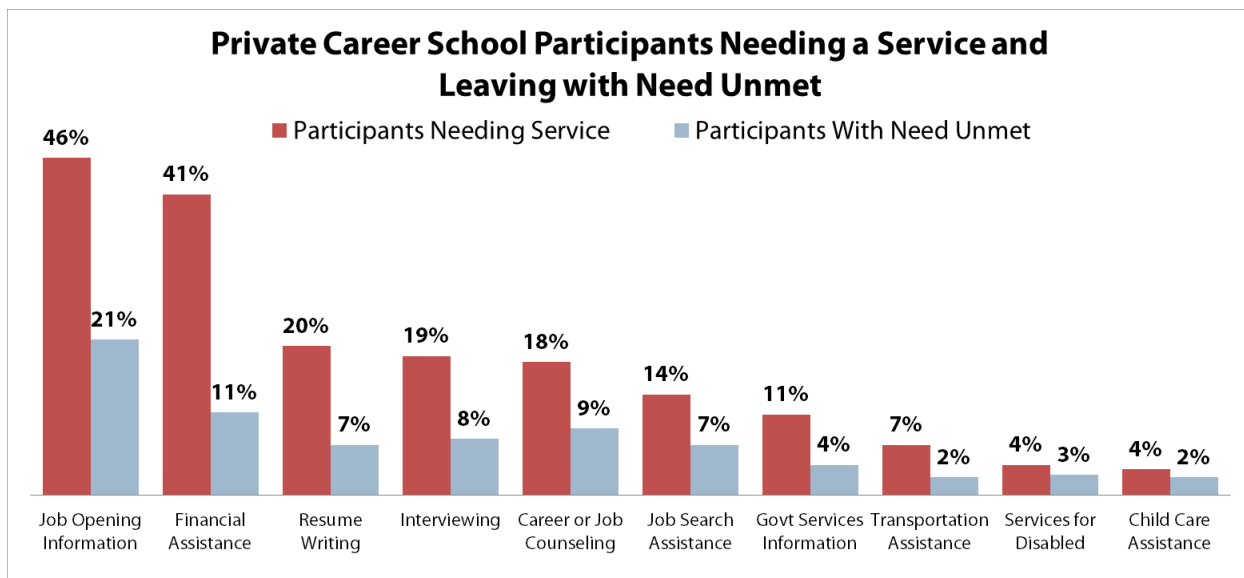
The participants in the current survey reported nearly identical levels of satisfaction with their programs as participants from the previous survey. Some 86 percent reported they had met their educational objectives. The percentage indicating that they were “very” or “somewhat” satisfied with their program overall was 85 percent. When asked about specific program features, satisfaction was highest with program times and length. Satisfaction was lower this year with teacher quality and interaction with instructors outside the classroom. Overall, participants were most satisfied with time, length of program, facilities and teacher quality and least satisfied with program cost.



Source: Workforce Board's Participant Survey 2011.

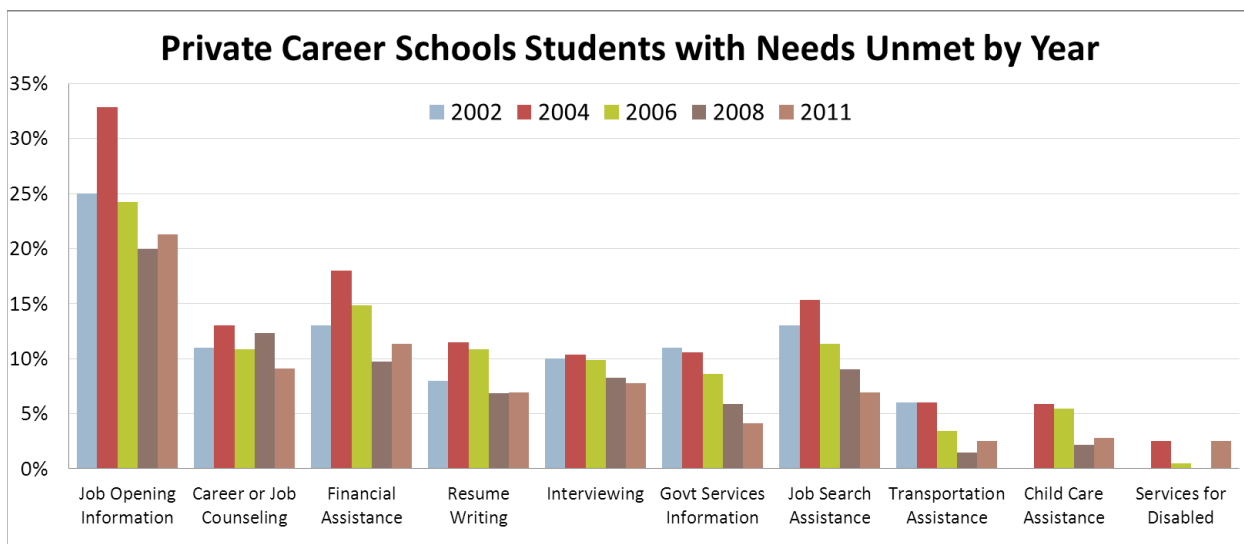
In most cases the needed services were provided. As in previous studies, participants said they were most in need of information about job openings and financial assistance. However, participants also reported the highest percent of unmet needs⁶ in these two areas. Just over one-fifth of participants reported that their need for job opening information was not met. Eleven percent indicated that their need for information regarding financial assistance was not met.

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.



Source: Workforce Board's Participant Survey 2011.

In the past decade there has been an overall decline in the percentage of participants reporting they left private career schools with unmet needs. However, the percentage of participants reporting an unmet need regarding services for the disabled has increased.



Source: Workforce Board's Participant Surveys 2002-11.

Relationship of Training to Employment

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.

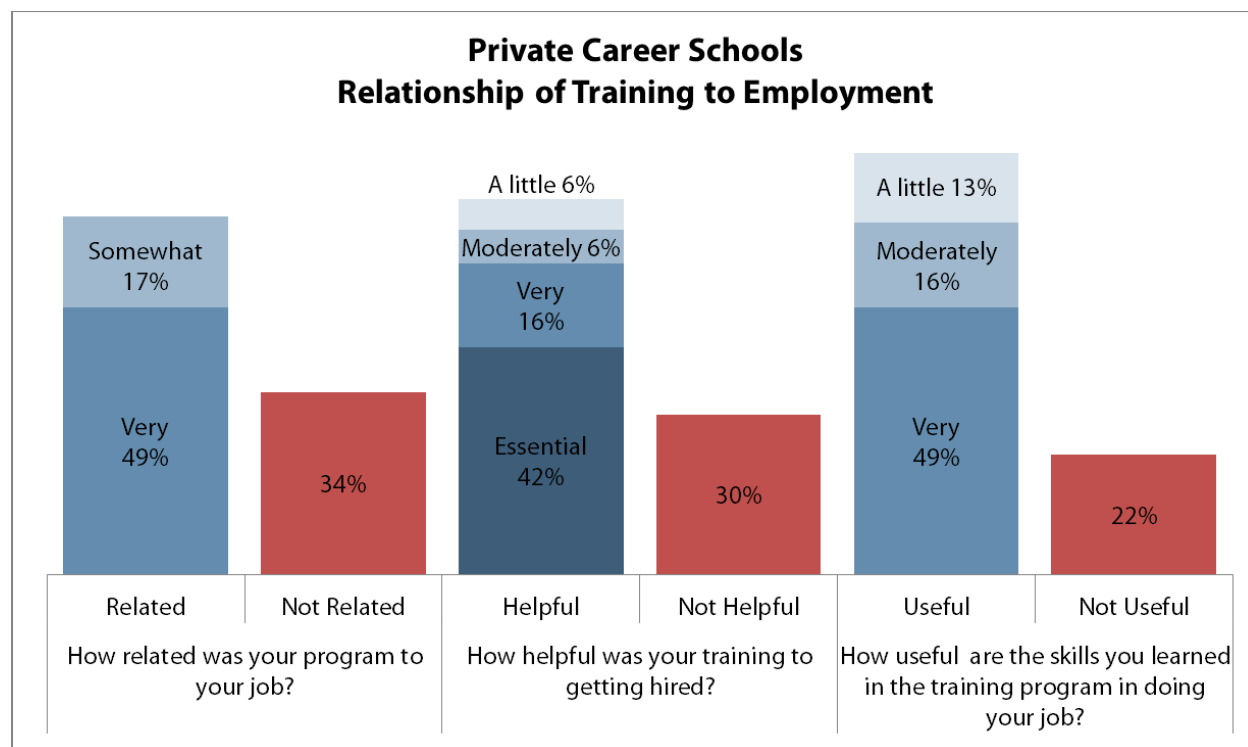
Asking about the relationship between training and employment in different ways can produce more complete information. For example, some participants said their training was not related to their job, but nevertheless found the skills acquired were useful on the job.

Among participants employed seven to nine months after leaving a program, 66 percent indicated their training was related to their job. This is broken down further, with 49 percent saying their training was “very related” to their job. An additional 17 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 (66 percent).

Participants interviewed in 2011 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 16 percent indicated it was “very important,” and 6 percent reported it was “moderately important.” Six percent said it was “a little helpful.” The remaining 30 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 49 percent of participants indicated the skills were “very useful,” 16 percent said “moderately useful,” and 13 percent “a little useful.” Some 22 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 answered negatively to both. Just 18 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.



Source: Workforce Board's Participant Satisfaction Survey 2011.

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**	\$1.07	\$0.64
Net Hours Employed per Quarter Impact	20.8	27.1
Net Annualized Earnings Impact**	\$2,554	\$2,151

[^]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 2011 dollars, represent the average difference between Private Career School participants who got jobs and those in the control group who were employed.

As can be seen above, 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 2011 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	\$2,937	\$0	\$14,709	\$0	
Fringe Benefits	\$735	\$0	\$3,677	\$0	
Taxes	-\$548	\$548	-\$2,743	\$2,743	
Transfers					
UI	-\$692	\$692	-\$705	\$705	
Costs					
Foregone net earnings	-\$1,960	-\$343	-\$1,960	-\$343	
Program costs	-\$10,145	\$0	-\$10,145	\$0	
Benefits	\$2,431	\$1,241	\$14,938	\$3,448	
Costs	-\$12,106	-\$343	-\$12,106	-\$343	
Total (Net)	-\$9,675	\$897	\$2,832	\$3,105	\$5,937

Note: Benefits and costs are expressed in 2011 first quarter dollars.

For each student in a private career school program, tuition is estimated at an average of \$10,145, although there is wide variability among schools and programs, and students frequently receive financial aid. Student costs include an average of \$1,960 in foregone earnings while in training, and the public (taxpayer) costs include \$343 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 \$2,937 in earnings. During the course of working life to age 65, the average trainee will gain about \$12,749 in net earnings (earnings minus foregone earnings) and \$3,677 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 \$2,832.

From the time of leaving training to age 65 the public is expected to gain \$2,743 in net additional Social Security, Medicare, federal income, and state sales taxes and to save \$705 in UI benefits. The estimated lifetime net benefit to taxpayers is \$3,105 per participant.⁷

⁷ Financial aid is outside the scope of this study and is not included in either the public or participant cost estimates.

Secondary Career and Technical Education (CTE)

Program Details

Secondary Career and Technical Education (CTE) serves high school-age youth in approximately 238 school districts and 11 Skills Centers throughout the state. CTE is a planned program of courses and learning experiences that begin with the exploration of career options, supports basic academic and life skills, and enables achievement of high academic standards, leadership, options for employment preparation, and advanced 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 two years, 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.

Because of data limitations, this program's evaluation was restricted to students identified by their districts as CTE completers. (School districts define a CTE completer as someone who completed a CTE sequence, whether or not the participant earns a diploma).¹

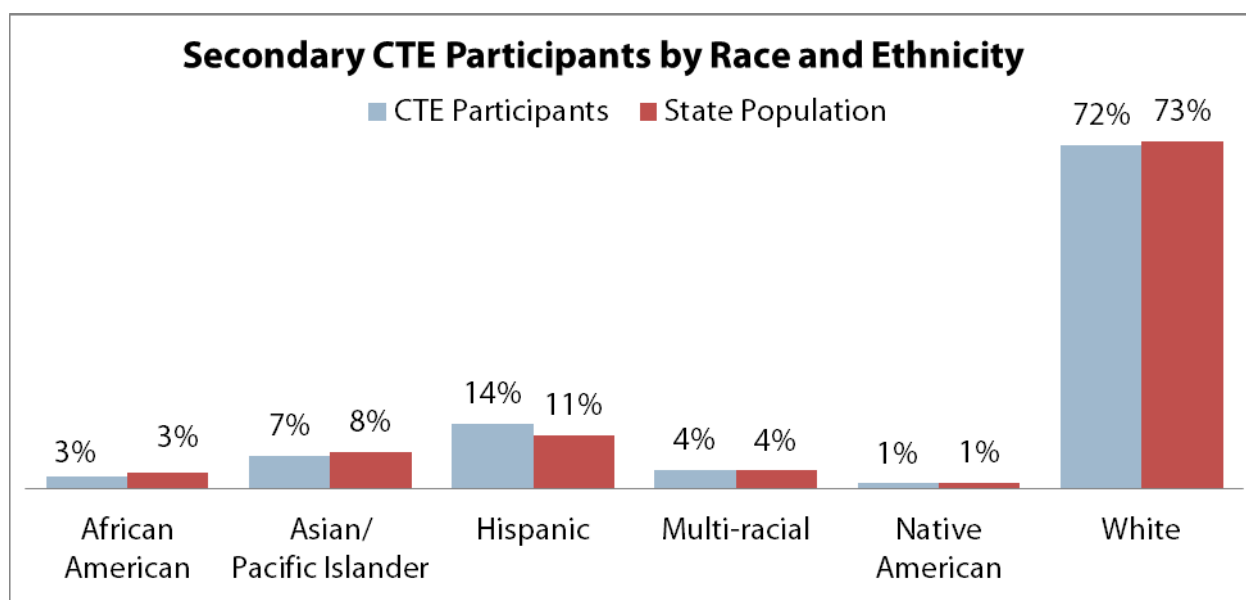
This strategy is different than the other program evaluations included in the Workforce Training Results study, which were not limited to completers only. This study focuses on 10,320 CTE completers who left their senior year during the 2010-11 school year.

¹ The state defines a student who completes 360 hours of instruction in a single CTE program area with grades of D or better as a CTE completer. The designation of who is a completer, however, does vary across some school districts. Smaller schools with fewer resources, for example, will offer the most complete sequence they can, but it may be fewer than 360 hours. These schools may still consider the students who finish the sequence to be completers.

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

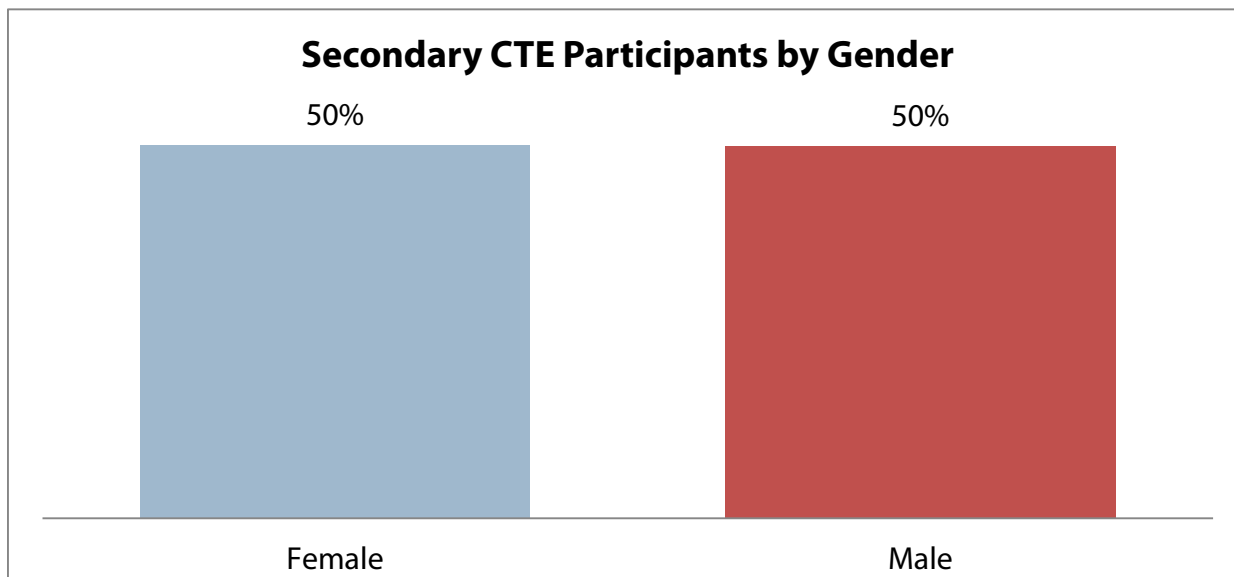
CTE completers have nearly the same racial and ethnic diversity as the state population, with whites comprising 72 percent, Hispanics (14 percent), Asian/Pacific Islanders (7 percent), African Americans (3 percent) and Native Americans (1 percent).²



Source: Office of the Superintendent of Public Instruction.

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/Pacific Islanders (also referred to as Asians/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 2011 U.S. Census Bureau estimates of Washington's population from the American Community Survey, 73 percent are white; 3 percent are African American; 1 percent are Native American; 8 percent are Asian/Pacific Islander; 4 percent are multiracial; and 11 percent are Hispanic.

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



Source: Office of the Superintendent of Public Instruction.

State Core Measures: 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 2012 Workforce Training Results includes information obtained from Employment Security Department wage files in Washington, Idaho, and Oregon, and federal employment records. 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, this year's report includes a comprehensive Net Impact Study. Data used in the Net Impact Study also reached back to 2005-06 employment records, to help assess trends over a slightly longer time frame. 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 2012 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?

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, more importantly, it 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, 59 percent of CTE completers continued on with their postsecondary education—14 percentage points higher than the previous reporting year.³

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

As was noted in the previous section, the primary focus of Secondary CTE is to prepare students for employment, postsecondary education or apprenticeship. 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 In 2012, record matches found 46 percent of CTE completers who were not enrolled in higher education reported employment, and 78 percent

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).

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 \$10,734.⁵ Though these earnings seem low, it is important to remember these are young, entry-level workers fresh from high school.

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

Employment and Earnings for Secondary CTE Completers, 2012

Performance Measure	Results
Postsecondary Education and/or Employment*	78%
Employment Rate* (State Records)	46%
Enrolled in Higher Education	60%
Full Time Employment**	29% ⁶
Median Quarterly Hours	239 hours ⁶
Median Hourly Wage***	\$10.36 ⁶
Median Annualized Earnings***	\$10,734

* 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.

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

***Earnings/wages expressed in first quarter 2011 dollars in order to account for inflation. Of those not enrolled in higher education.

Earnings of Secondary CTE Completers

To better gauge the financial effectiveness of Washington's workforce programs, it helps to frame income levels. One common yardstick is the federal poverty level. In 2011, the federal poverty level for one person was \$10,890 per year.⁷

In 2012, Secondary CTE completers were able to support themselves at the poverty level.⁸ They did not have enough earnings to support themselves, let alone others, at 200 percent of the poverty level (.5 people).

⁵ Annual earnings are calculated as third quarter earnings multiplied by four. All wages and earnings are stated in first quarter 2011 dollars.

⁶ The 2012 WTR uses 2011 data for full time employment, median quarterly hours, and median wage, because this data was not available at time of publication for 2012.

⁷ Poverty levels from 2011 were used in this edition of Workforce Training Results to measure the results of workforce programs on participants observed in 2010-11. The federal poverty level is determined by the Department of Health and Human Services. The level varies according to family size. The number is adjusted for inflation and reported annually in the form of poverty guidelines. Public assistance programs typically define eligibility income limits as some percentage of the federal poverty level.

⁸ This reflects CTE completers who are not in school and working.

Number of People Supported at Poverty Level by Participant Income*

Performance Measure	2004	2006	2008	2010	2011	2012
Number of people supported at poverty level	1.4 people	1.2 people	1.5 people	0.9 people	0.9 people	1.0 people
Number of people supported at 200 percent poverty	0.6 people	0.6 people	0.5 people	0.5 people	0.5 people	0.5 people

*For those not enrolled in higher education.

Secondary CTE Participants Receiving Benefits from Employers

Performance Measure	2004	2006	2008	2010*	2011	2012*
Percentage Self-Reporting Receipt of Medical Benefits from Employer	35%	36%	38%	N/A	19%	N/A
Percentage Self-Reporting Receipt of Pension Benefits from Employer	16%	13%	15%	N/A	5%	N/A

*Due to budget limitations, the Workforce Board's Participant Survey was not conducted in 2010 or 2012.

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

Employment and Earnings Trends for Secondary CTE Participants

Performance Measure	2006	2008	2010	2011	2012
Postsecondary Education and/or Employment	73%	76%	73%	72%	78%
Employment Rate (Self-Reported)	67%	66%	N/A*	43%	N/A*
Employment Rate** (State Records)	56%	58%	51%	49%	46%
Enrolled in Higher Education	39%	40%	46%	45%	59%
Full Time Employment***	35%	42%	29%	29%	N/A ⁹
Median Quarterly Hours	296	341	280	265	N/A ⁹
Median Hourly Wage****	\$9.92	\$10.10	\$10.36	\$10.36	N/A ⁹
Median Annualized Earnings****	\$11,576	\$12,756	\$10,504	\$10,583	\$10,734

* Due to budget limitations, the Workforce Board's Participant Survey was not conducted in 2010 or 2012.

**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.

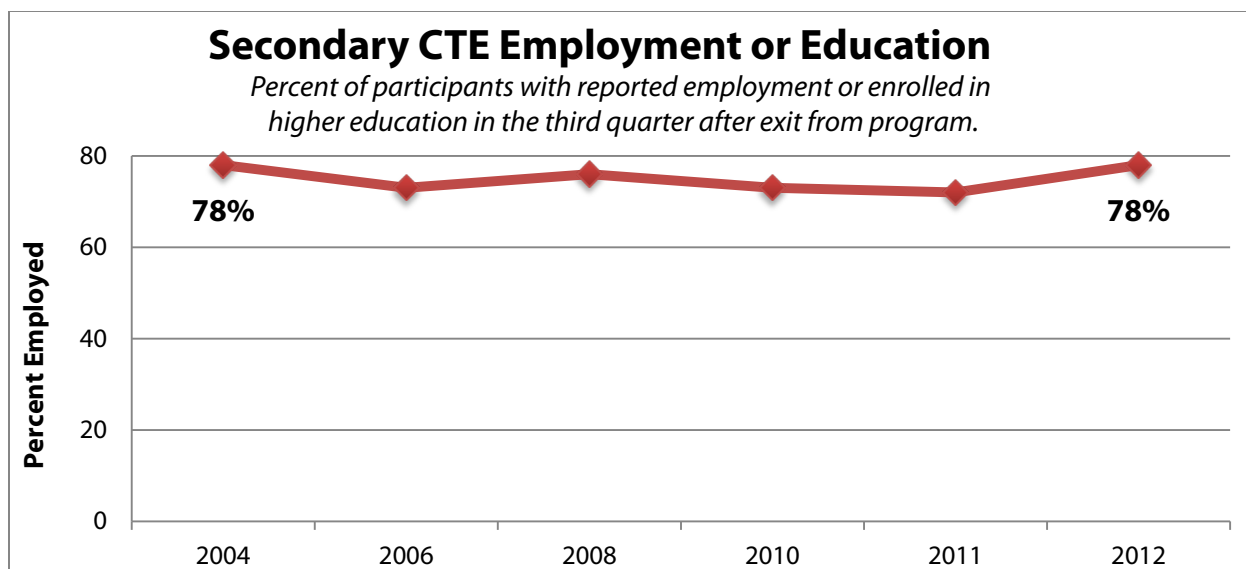
***Full-time employment averages 30 or more hours per week, of those not enrolled in higher education.

***Earnings/wages expressed in first quarter 2011 dollars in order to account for inflation. Those not enrolled in higher education.

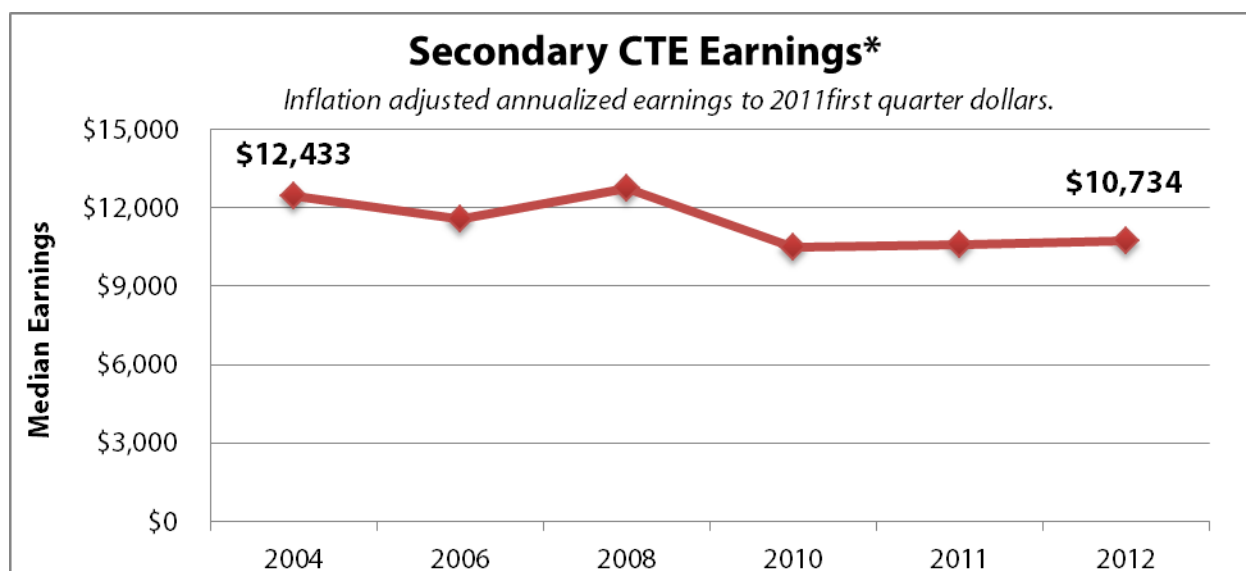
After declining in 2010 and 2011 the percentage of CTE completers who reported employment or enrolled in higher education increased in 2012. The earnings of CTE completers dropped in 2010, and have yet to recover – this may reflect the ongoing impact of the Great Recession. Young people, who suffer unemployment rates higher than the general population, have been especially hard hit by the recent recession.¹⁰

⁹ The 2012 WTR uses 2011 data for full time employment, median quarterly hours, and median hourly wage, because this data was not available at time of publication for 2012.

¹⁰ See "Multiple Pathways for Young Adults," a 2012 report to the Washington Legislature from the Workforce Training and Education Coordinating Board.



Source: Workforce Training Results 2004-2012.



Source: Workforce Training Results 2004-2012. *Does not include those enrolled in higher education.

Secondary CTE Employment by Industry

Employment of CTE completers continued to be heavily concentrated in services (nearly 49 percent) and retail trade (32 percent). Within the service industry, the largest category was accommodation and food services at 24 percent (compared to 21 percent in 2010), followed by health care and social assistance at 8 percent, which reported the same level of employment the prior year.¹¹

Industry Group	
48.5%	Services (see breakout below)
32.1%	Retail Trade (see breakout below)
4.1%	Manufacturing
3.6%	Construction
2.8%	Financial Services
2.3%	Wholesale Trade
1.8%	Information
1.8%	Transportation and Warehousing and Utilities
1.6%	Public Administration
1.5%	Natural Resources and Mining
Breakout of Services Industry	
24.0%	Accommodation and Food Services
8.2%	Health Care and Social Assistance
4.3%	Arts, Entertainment, and Recreation
3.9%	Other Services (except Public Administration)
3.8%	Administrative and Support and Waste Management and Remediation Services
1.9%	Education Services
1.8%	Professional, Scientific, and Technical Services
0.4%	Management of Companies and Enterprises
Breakout of Retail Trade Industry	
9.9%	All Other Retail Trade
8.1%	General Merchandise Stores
6.0%	Food & Beverage
5.9%	Clothing and Clothing Accessories Stores
2.3%	Motor Vehicle and Parts Dealers

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

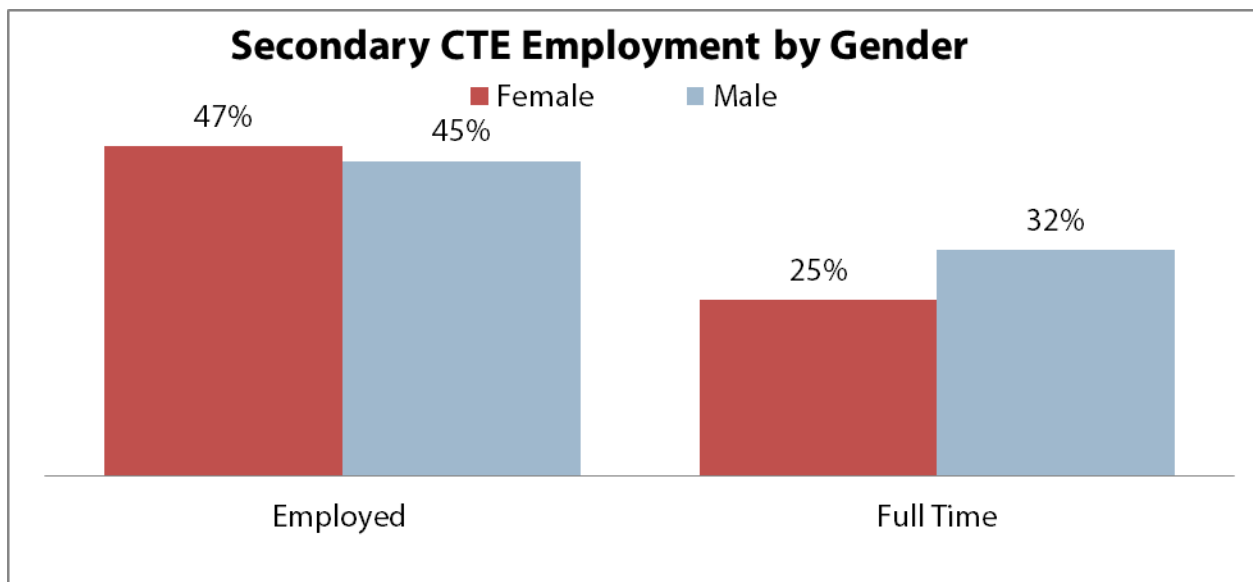
Note: Industry groups based on North American Industry Classification System codes.

¹¹ 2011 data is used because more current information regarding industry of employment was not available at time of publication.

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. The following chart depicts the percentage of female (47 percent) and male (45 percent) Secondary CTE completers who were reported to be employed and not enrolled in higher education. These numbers are lower than the previous year, when 51 percent of females and 48 percent of males were employed. Females had a 25 percent full-time employment rate and males had a 32 percent full-time employment rate.¹²

Women continue to have lower annual earnings and women have median annual earnings that are 84 percent of men (\$9,723 versus \$11,537). Women's wages were 94 percent of wages earned by men (\$9.97 versus \$10.57)¹²



Source: Matches with Employment Security Department data.¹²

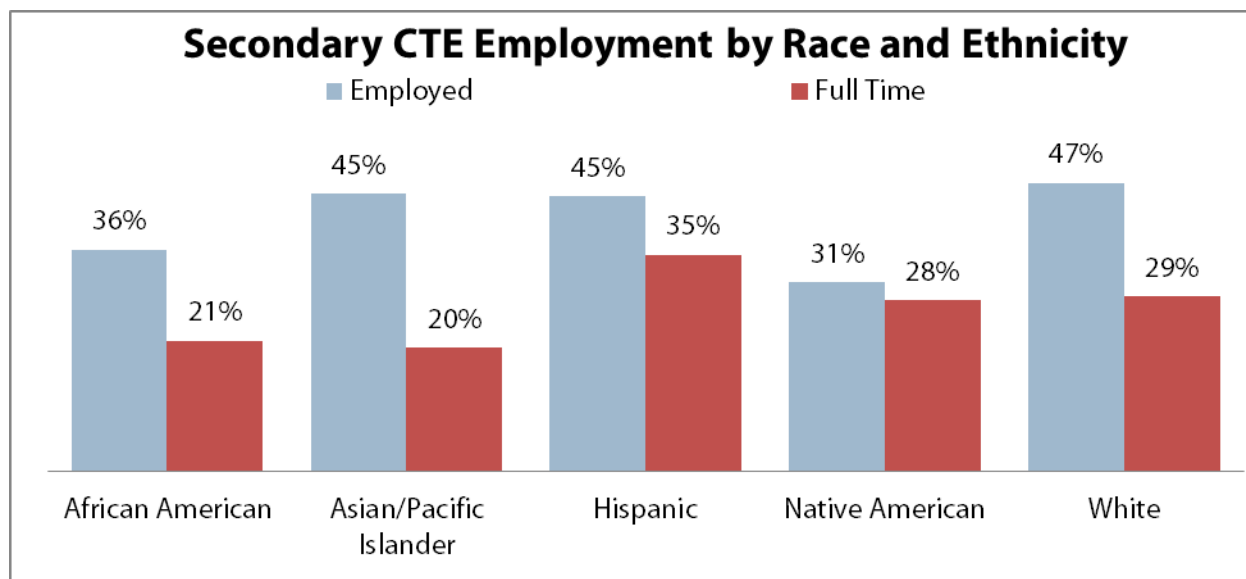
Race/Ethnicity Plays Role

Most racial and ethnic minorities were just as likely to be employed as white CTE completers. Whites had a 47 percent employment rate, Asian/Pacific Islanders and Hispanics had a 45 percent employment. However, African Americans (36 percent) and Native Americans (31 percent) had lower employment rates than other groups.

Asian/Pacific Islanders had the highest median hourly wage at \$10.57, followed by \$10.38 for whites, \$10.16 for Hispanics, \$10.07 for African Americans, and \$10.05 for Native Americans. The breakdown for annual earnings among different racial and ethnic groups was distributed slightly differently from that of median hourly wages. Typically, differences between hourly wages and annual earnings occur because of variances in the number of hours worked. Among those not in school, Native Americans had the highest earnings (\$12,865), followed by

¹²The 2012 WTR uses 2011 data for full time employment, median quarterly hours, and median wage, because this data was not available at time of publication for 2012.

whites (\$11,129), Hispanics (\$9,987), Asian/Pacific Islanders (\$9,361), and African Americans (\$5,596).¹²



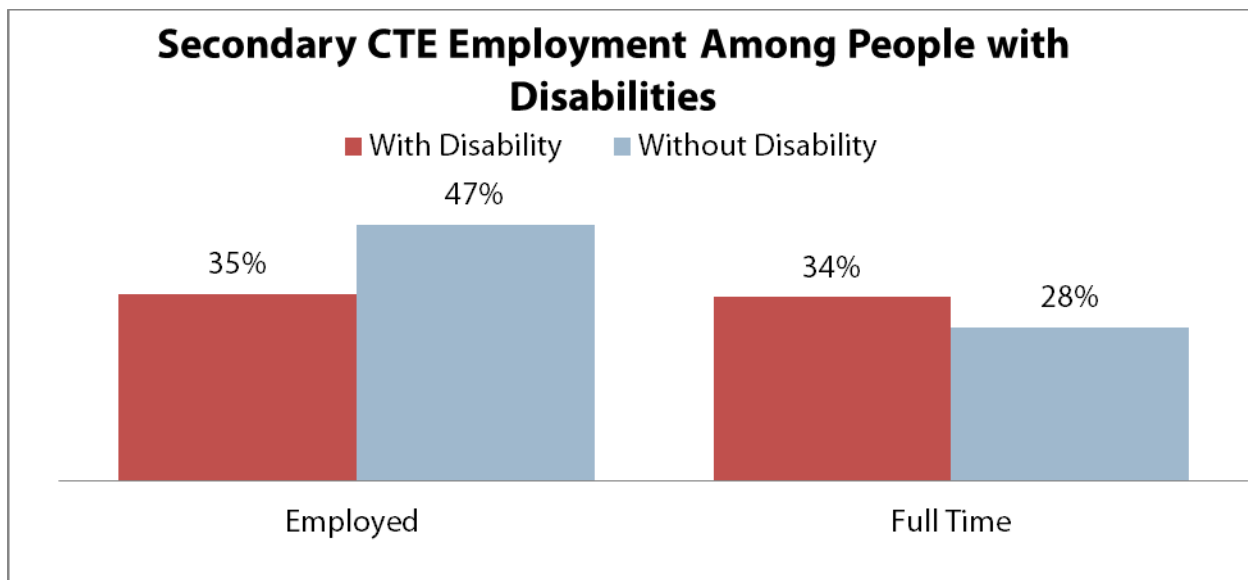
Source: Matches with Employment Security Department data.¹³

Disability Impacts Employment, Earnings

Earnings and employment outcomes also varied by disability status. Records from the Office of the Superintendent of Public Instruction indicate 6 percent of the Secondary CTE completers included in this study had a disability. Students with a disability were less likely to have employment compared to students without a disability (35 percent versus 47 percent). However, the annual earnings of those with a disability (\$10,907) were slightly higher without a disability (\$10,689).

Students with a disability were more likely to be employed full time (34 percent versus 28 percent) than students without a disability and they had a higher median hourly wage (\$10.54 versus \$10.34).¹³

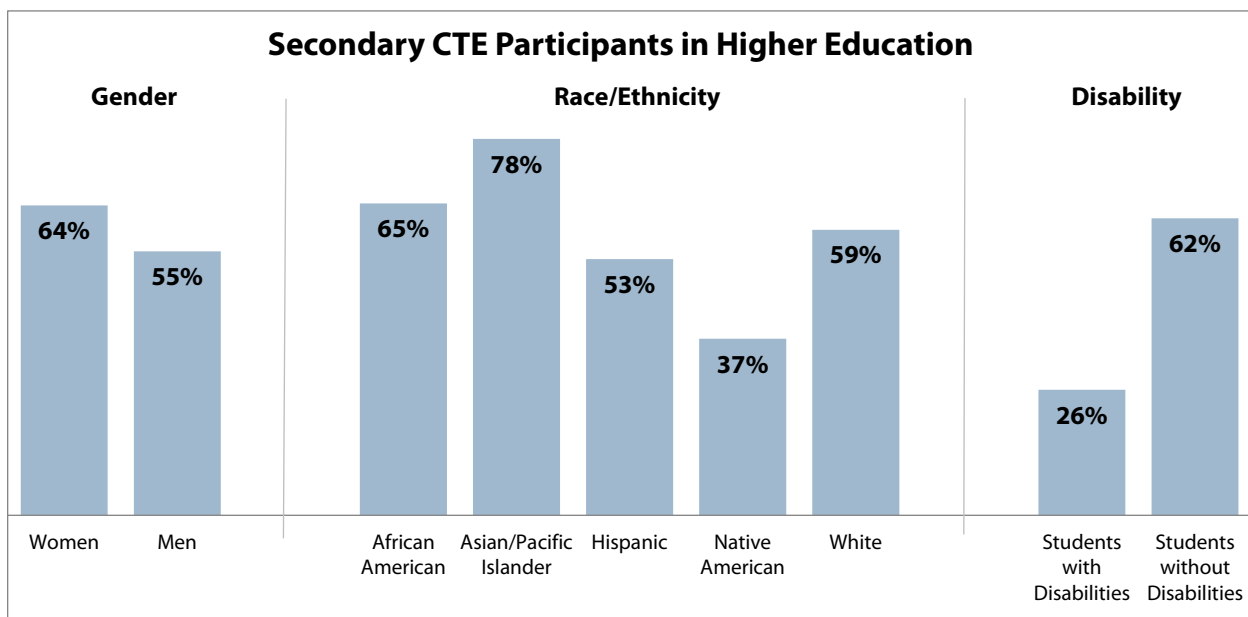
¹³The 2012 WTR uses 2011 data for full time employment, median quarterly hours, and median wage, because this data was not available at time of publication for 2012.



Source: Matches with Employment Security Department data.¹⁴

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, 64 percent; males, 55 percent; students with disabilities, 26 percent; students without disabilities, 62 percent; whites, 59 percent; African Americans, 65 percent; Asian/Pacific Islanders, 78 percent; Hispanics, 53 percent; and Native Americans, 37 percent.



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

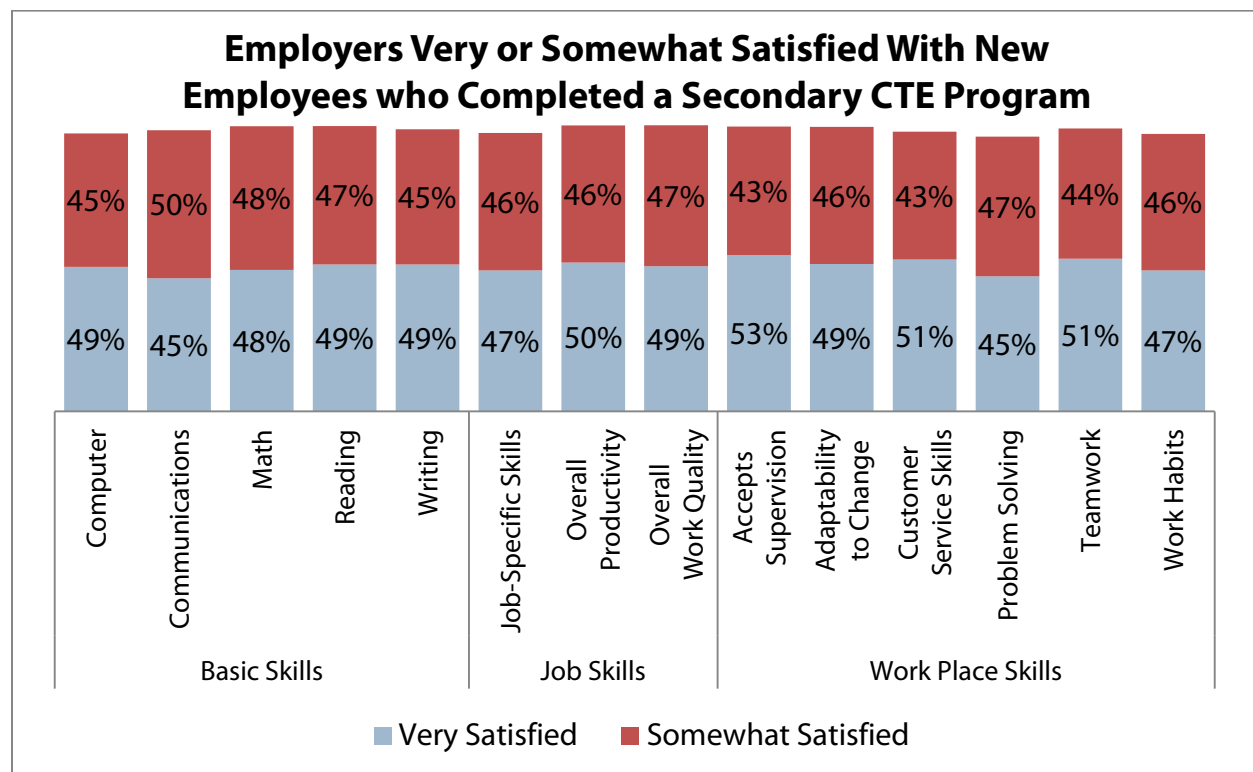
¹⁴ The 2012 WTR uses 2011 data for full time employment, median quarterly hours, and median wage, because this data was not available at time of publication for 2012.

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 Secondary CTE program. Some 96 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.

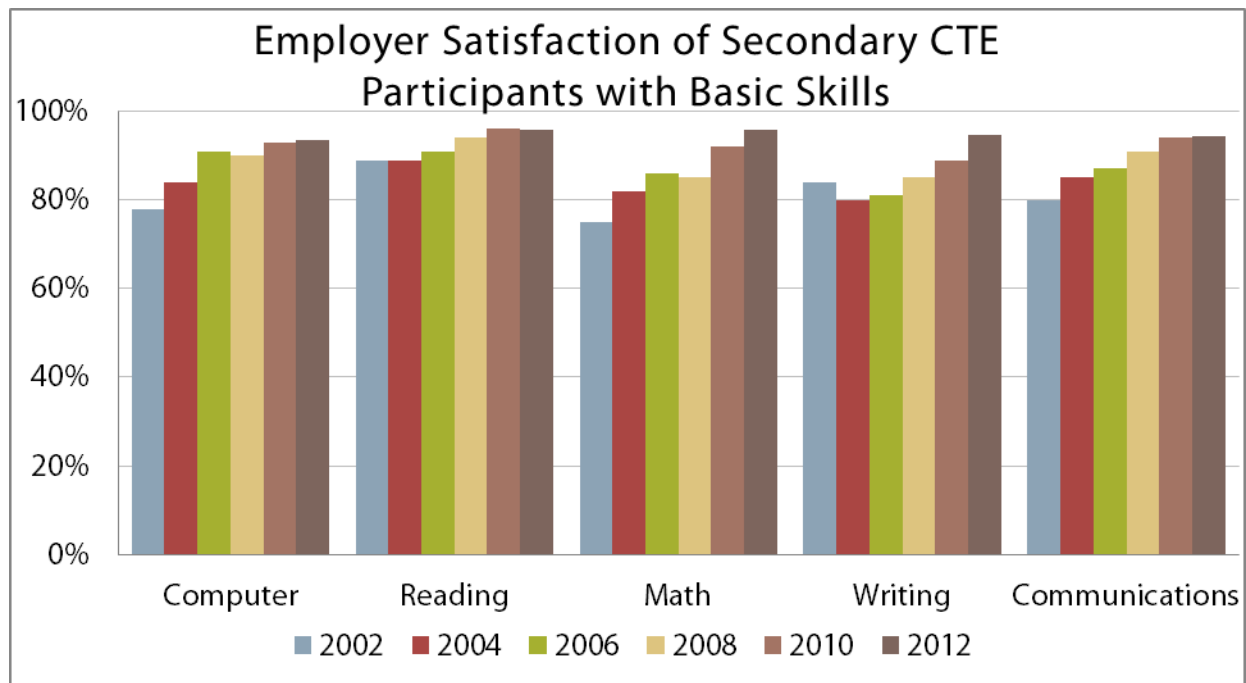
In 2012, employers report highest overall satisfaction in the basic skills category with reading and math. For job skills, their highest overall satisfaction was with overall work quality and productivity. Among work place skills, employers were most satisfied with Secondary CTE participant's ability to accept supervision and adapt to change.



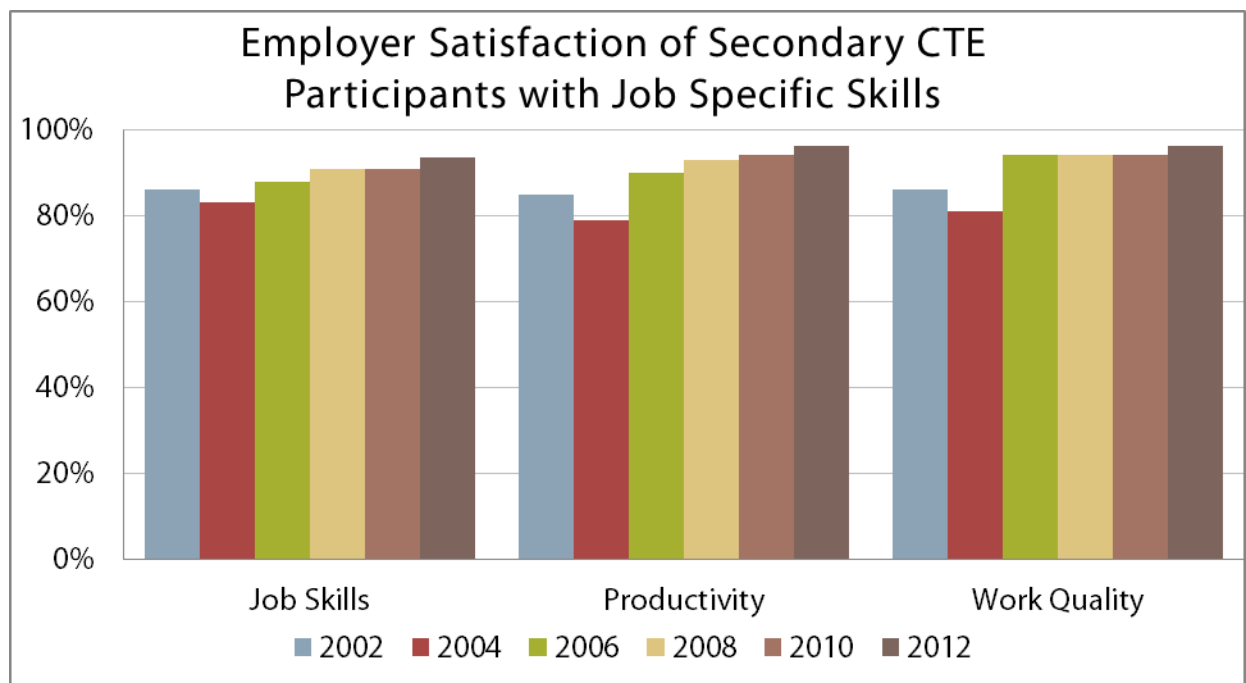
Source: Workforce Board Employer Survey conducted in 2012.

Overall, the levels of employer satisfaction reported in the Workforce Board's 2012 Employer Survey are higher than on the previous survey, conducted in 2010. There is also a clear upward trend in employer satisfaction over the last decade. The following three charts show

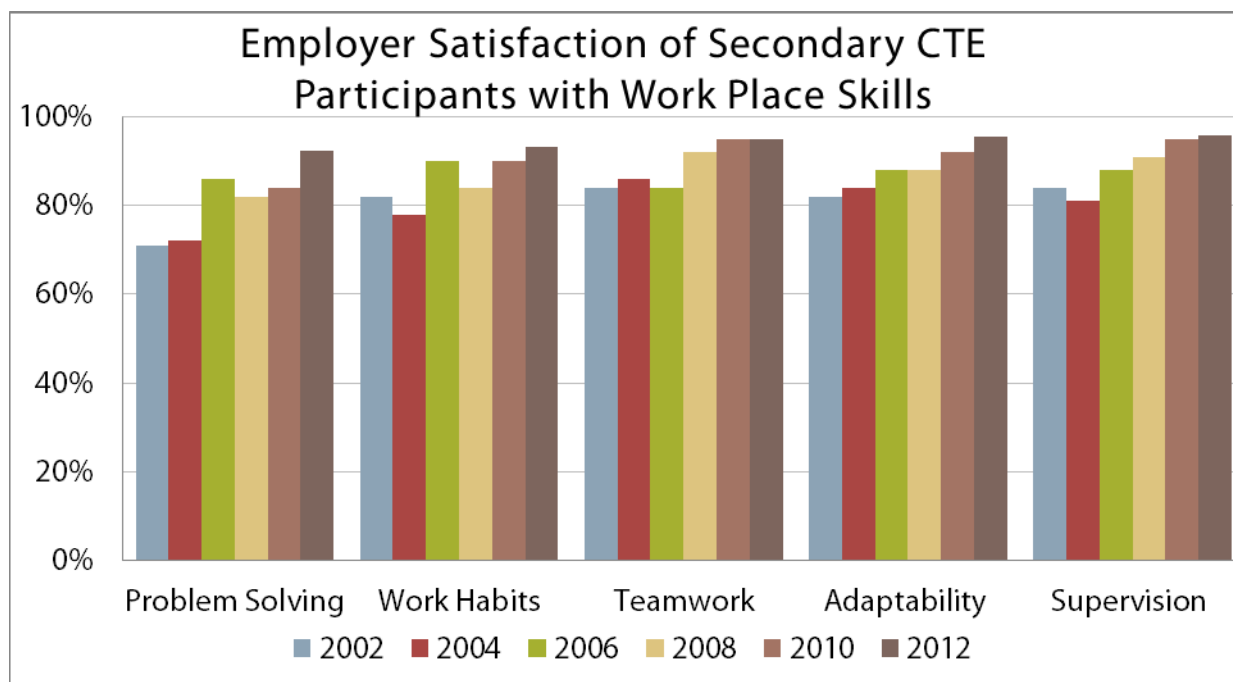
the overall satisfaction of employers with new employees who recently completed a Secondary CTE program.



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



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



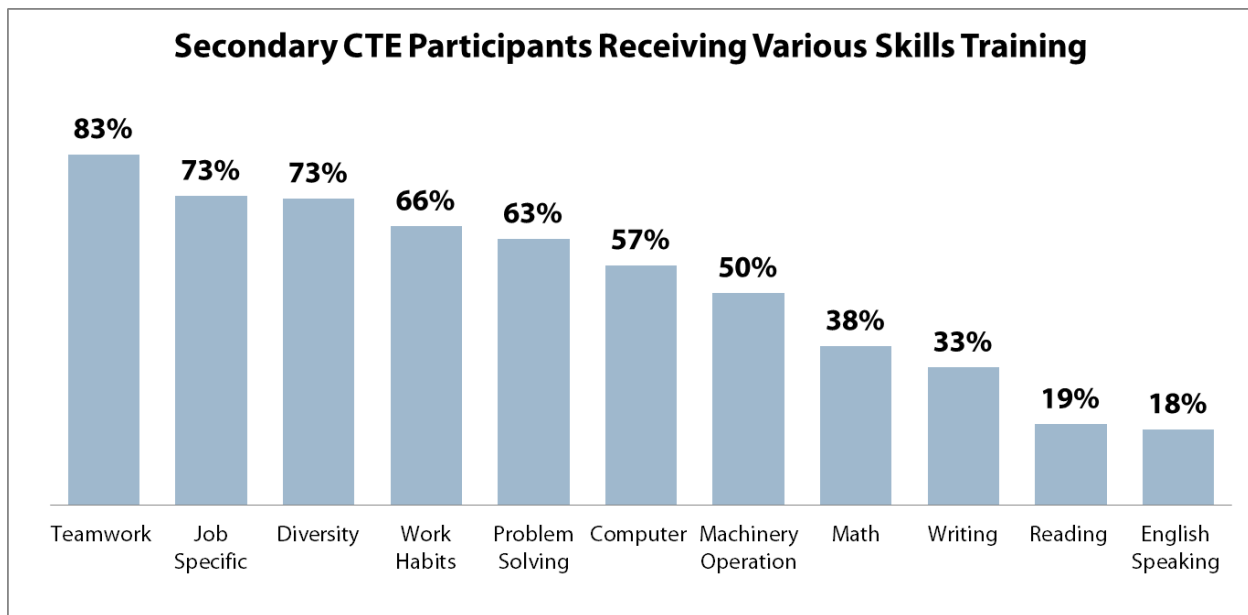
Source: Workforce Board's biennial Employer Surveys from 2002 through 2012.

Competency Gains

In 2011, the Workforce Board surveyed Secondary CTE participants who had left their program in 2008-09. The Participant Satisfaction Survey provided data on employment and documented how satisfied participants were with training. The survey was conducted by telephone and was completed by 334 participants.

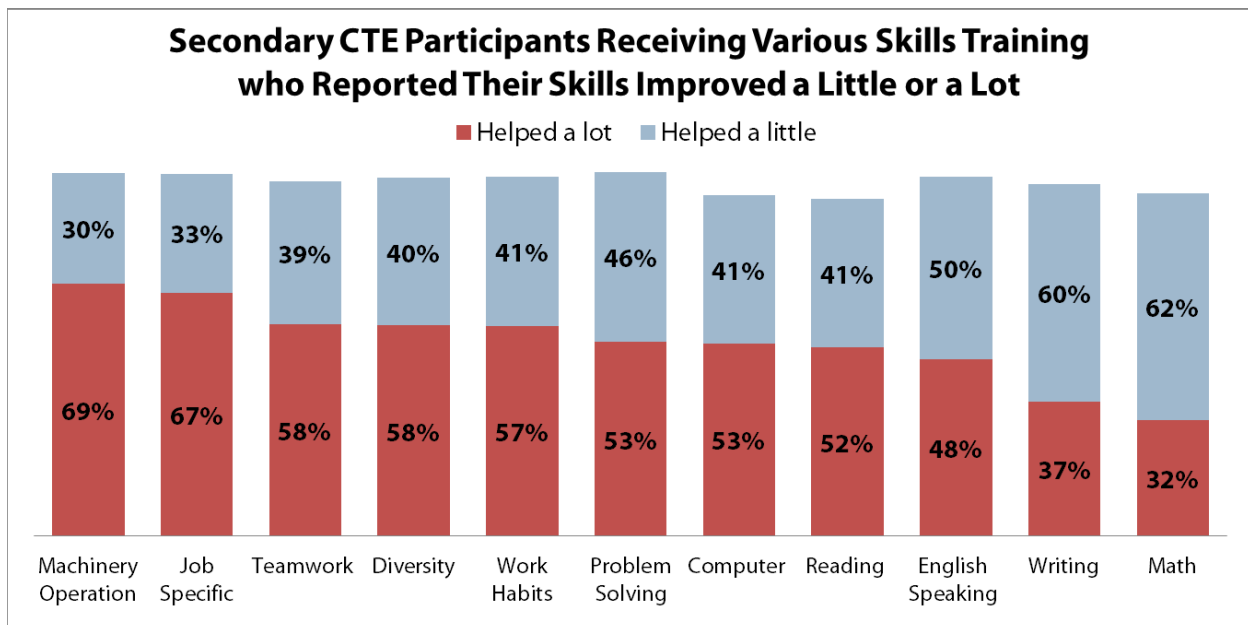
According to the survey, the highest percentage of CTE students indicated that they enrolled for personal enjoyment and improvement (96 percent). In addition, 72 percent enrolled to prepare for postsecondary education, and a further 68 percent of CTE participants enrolled to gain skills for a job or to get work place experience.

Students who completed CTE received training in many different skill areas. The largest percentage of CTE students, 83 percent, reported that they received training in teamwork. This is an increase of 6 percentage points since 2008. Other skill areas where large percentages of students reported that they received training are diversity and job-specific skills (73 percent each).



Source: Workforce Board's Participant Satisfaction Survey 2011.

Most participants said their skills improved as a result of taking CTE classes. Similar to participants from both 2006 and 2008, higher percentages indicated “a lot” of improvement in technical and general workplace skills than in basic skills. However, the percentage of CTE students who indicated that their reading skills improved “a lot” went up 17 percentage points.



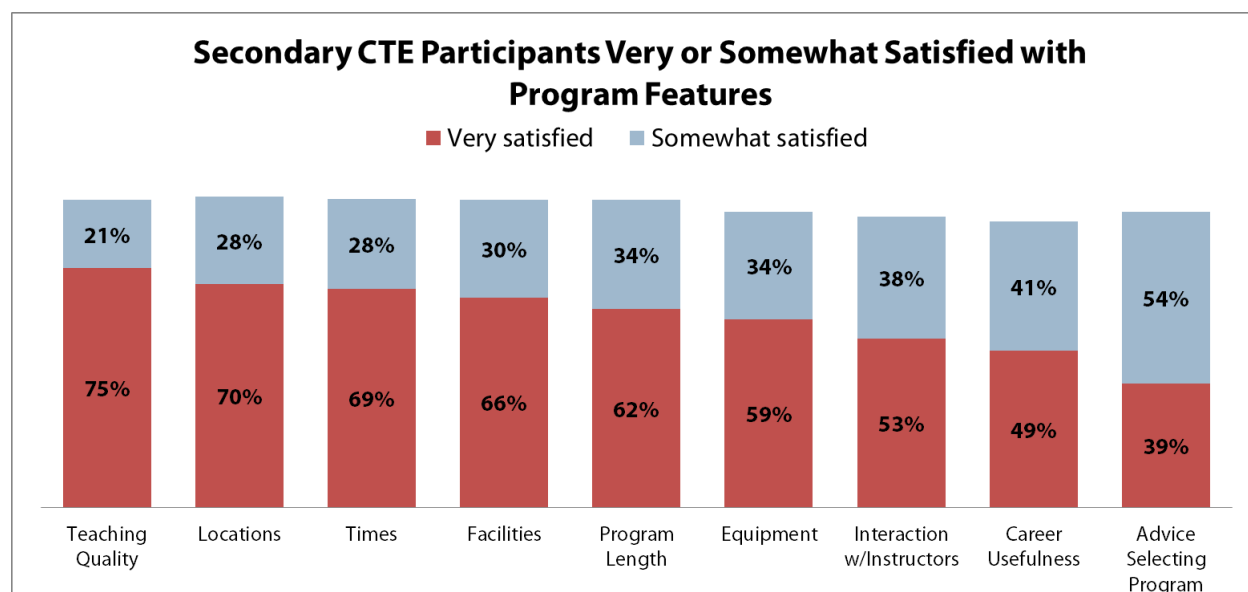
Source: Workforce Board's Participant Satisfaction Survey 2011.

Many of the participants continued their education at a community or technical college or public four-year university. In the third quarter after completing their program, 45 percent of the completers were enrolled in postsecondary education.

Participant Satisfaction

According to the Workforce Board's 2011 Participant Satisfaction Survey, participants were very satisfied with their CTE programs. Some 98 percent said the program met their objectives and 99 percent were satisfied with the program overall. These high levels of satisfaction are slightly higher than those reported two years earlier.

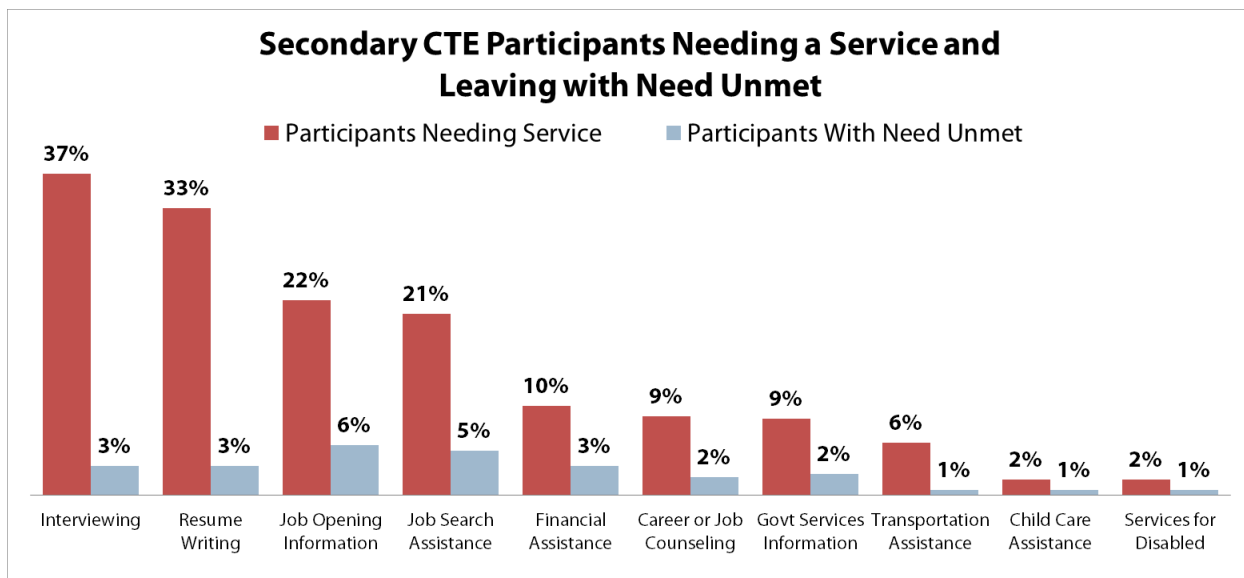
Three-fourths of participants were "very satisfied" with the quality of teaching, and 70 percent were "very satisfied" with the location of classes. Their satisfaction level was much lower with respect to advice on selecting a program, with just under 40 percent being "very satisfied."



Source: Workforce Board's Participant Satisfaction Survey 2011.

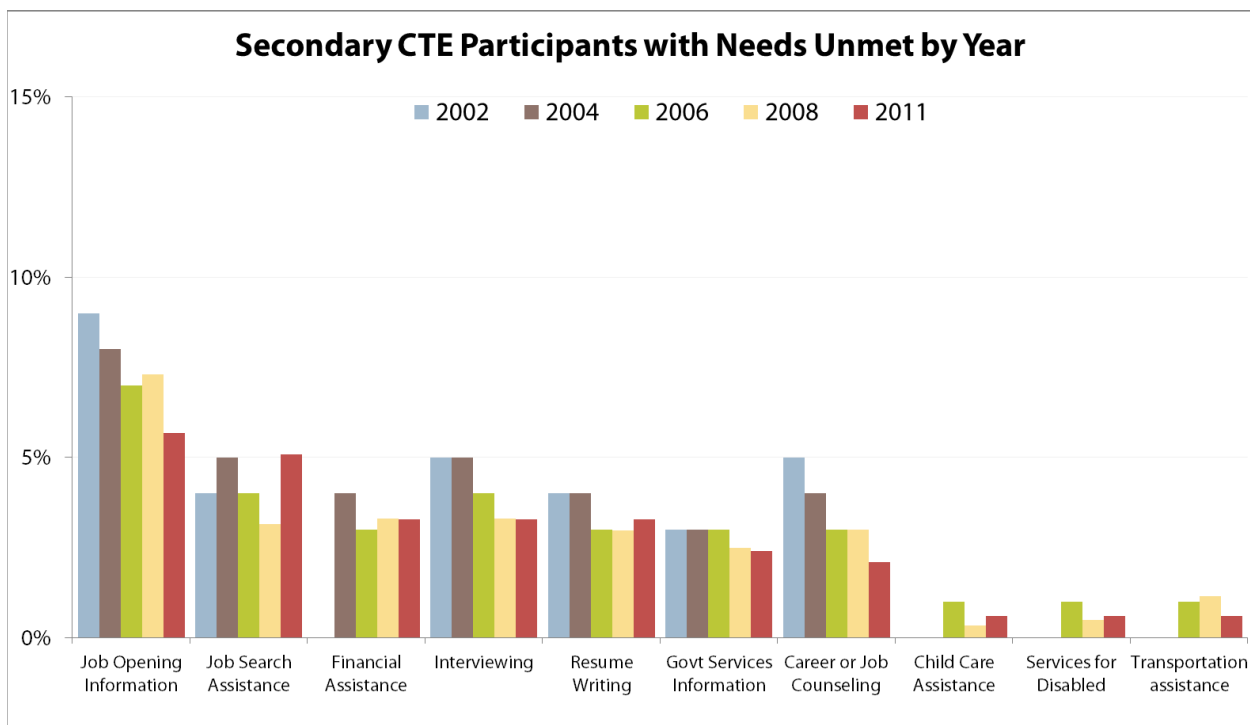
In general, CTE participants reported needing fewer support services than other groups studied, and when they did need these services, they generally received them. The services most frequently needed by participants were assistance with job interviewing and resume writing. The percentage of students indicating they needed these services increased by 7 and 4 percentage points respectively since 2008. The highest unmet needs¹⁵ were for job opening information (6 percent) and job search assistance (5 percent).

¹⁵ 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 2011.

Over the past decade the unmet needs reported by CTE students have mostly decreased. However, students leaving the program with an unmet need for job search assistance increased sharply this year.



Source: Participant Satisfaction Surveys 2002-11.

Relationship of Training to Employment

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?

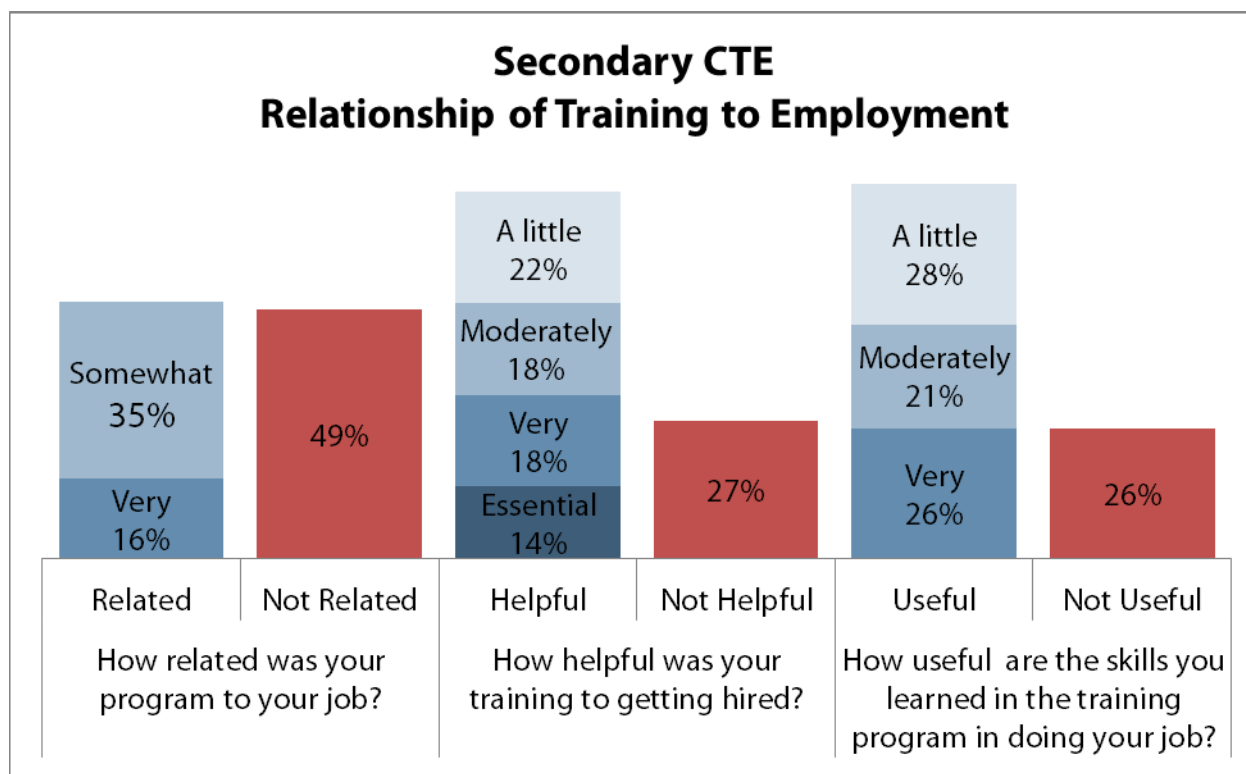
Asking about the relationship between training and employment in different ways can produce more complete information. For example, some participants said their training was not related to their job, but nevertheless found the skills acquired were useful on the job.

Among Secondary CTE participants employed seven to nine months after leaving a program, 16 percent said their training was "very related" to their job. A further 35 percent reported the training was "somewhat related" to their job. In 2008, similar rates of employed participants reported their training was related to their job.

Participants interviewed in 2011 also indicated the training was helpful to them in getting their job. Of those participants, 14 percent indicated their training was an "essential requirement," another 18 percent indicated it was "very important," 18 percent reported it was "moderately important," and 22 percent reported it was "a little helpful." The remaining 27 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 26 percent of participants indicated the skills were "very useful," 21 percent said "moderately useful," and 28 percent "a little useful." Some 26 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 22 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.



Source: Workforce Board's Participant Satisfaction Survey 2011.

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

Every four years the Workforce Training and Education Coordinating 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 and the return on investment (next section) analyses were conducted by the W.E. Upjohn Institute for Employment Research (Upjohn), a national leader in evaluating training programs. To do the analyses, Upjohn studied program participants to see what results they achieved and compared these results with a control group. Individuals who completed a Secondary CTE program were compared to similar secondary students who were not CTE completers.

The most recent analyses examined the experience of participants who left Secondary CTE programs, including the short term impacts on participants leaving in 2007-08 and the long term impacts on those who left in 2005-06.

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**	\$721	\$2,060

[^]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 2011 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 high school 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 2011 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	\$4,913	\$0	\$68,241	\$0	
Fringe Benefits	\$1,228	\$0	\$17,060	\$0	
Taxes	-\$639	\$639	-\$8,878	\$8,878	
Transfers					
UI	-\$6	\$6	\$594	-\$594	
Costs					
Foregone net earnings	-\$747	-\$87	-\$747	-\$87	
Program costs	\$0	-\$880	\$0	-\$880	
Benefits	\$5,497	\$644	\$77,017	\$8,284	
Costs	-\$747	-\$967	-\$747	-\$967	
Total (Net)	\$4,749	-\$323	\$76,269	\$7,317	\$83,587

Note: Benefits and costs are expressed in 2011 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 marginal cost to the public (taxpayer) is roughly \$880 over the length of their enrollment. During the first two and one-half years after leaving school, the average completer will gain \$4,913 in earnings. During the course of their working life to age 65, they will gain about \$67,494 in net earnings (earnings minus foregone earnings) and \$8,878 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 \$76,269.

Projected participant net benefits to age 65 outweigh public costs invested in college training by a ratio of \$87 to 1, or \$76,269 to \$880.

From the time of leaving the senior year in high school to age 65, the public is forecast to gain about \$8,878 in net additional Social Security, Medicare, federal income, and state sales taxes and to save \$594 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 \$7,317 per completer.

Projected taxpayer net benefits to age 65 outweigh public costs invested in Secondary CTE by a ratio of \$9 to 1, or \$8,284 to \$880.

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.

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.

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.

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

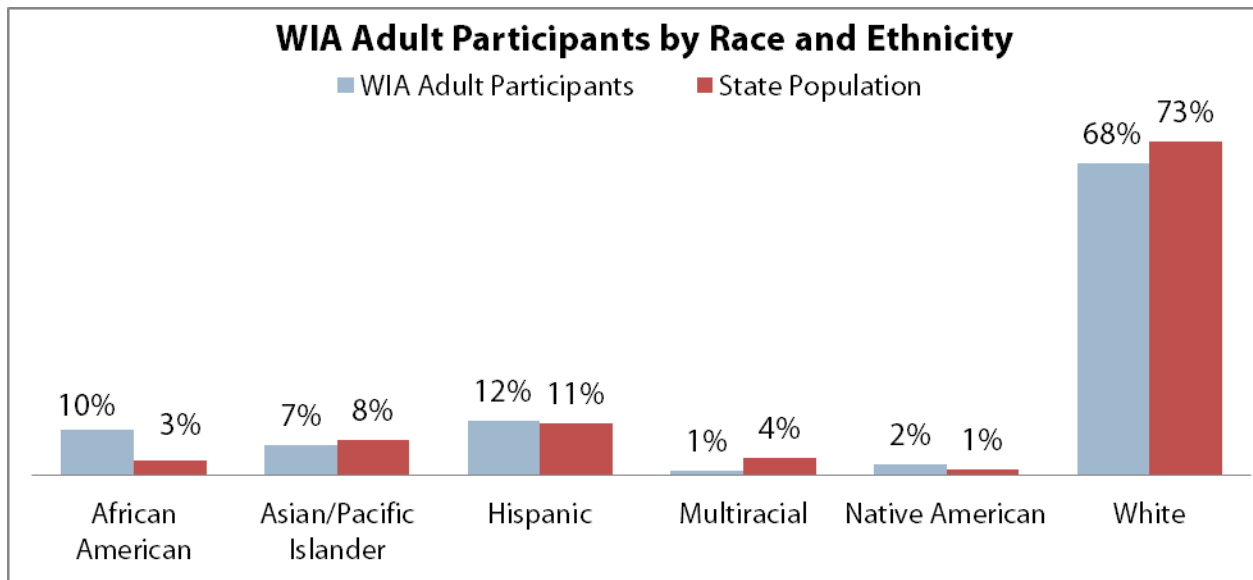
- More intensive assessments.
- Individual counseling.
- Career planning.
- Short-term pre-vocational services.

Nearly half of the program participants (approximately 44 percent) also participated in job training where training costs are supported by the WIA Adult Program. For this 2012 report, researchers studied the results of 3,131 participants who left the WIA Adult program during the most recent reporting year.¹

¹ The 2012 Workforce Training Results reports are based on data observed in 2010-11 for individuals exiting programs during 2009-10.

Participant Profile

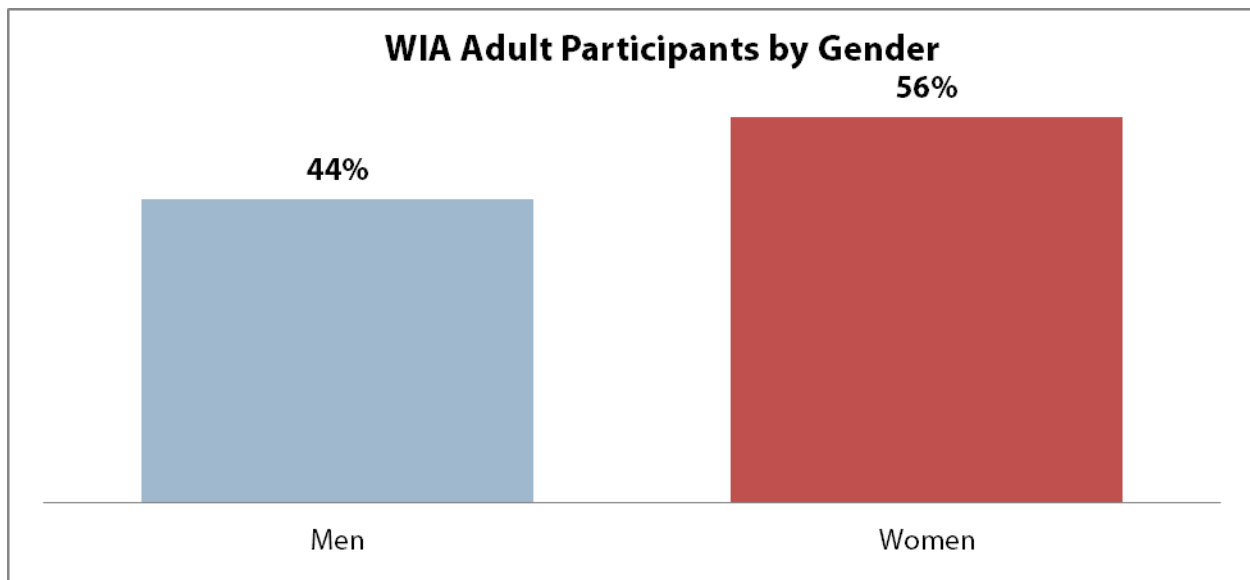
Participants in the WIA Adult program were more likely to be a racial or ethnic minority than the general population in Washington, largely due to the overrepresentation of American Americans in the program.² Among program participants, 12 percent were Hispanic (versus 11 percent in the general population), 10 percent were African American (versus 3 percent in the general population), and 2 percent were Native American (versus 1 percent in the general population). The percentage of Asian/Pacific Islanders participating in the WIA Adult program (7 percent) was slightly lower than their representation in the overall state population, whereas the representation among white participants was 68 percent, 5 percentage points below their proportion of the state population.



Source: WIA Standardized Record Data (WIASRD) and 2010 U.S. Census Data from the American Community Survey.

A higher percentage of women than men participated in the WIA Adult program (56 percent versus 44 percent). This rate is a bit more balanced than what was observed last year (61 percent versus 39 percent).

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/Pacific Islanders (also referred to as Asians/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 2010 U.S. Census Bureau estimates for Washington from the American Community Survey, 73 percent are white; 3 percent are African American; 1 percent are Native American; 8 percent are Asians/Pacific Islander; 4 percent are multiracial; and 11 percent are Hispanic.



Source: WIASRD and Office of Financial Management.

Upon enrollment, 12 percent of the participants had neither a high school diploma nor a GED, 36 percent had a high school diploma as their highest credential, 18 percent had a GED, and 35 percent had previously attended college.³ Ten percent had limited English proficiency and 45 percent received public assistance while enrolled in the program.⁴

The median age of participants when leaving the program was 37. One quarter of the participants were age 28 or below when leaving the program and one quarter were over 47 years of age at program exit.

State Core Measures: 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 According to the 2010 U.S. Census Bureau estimates from the American Community Survey, Table S1501, of those ages 25-64 in Washington, 34 percent have the equivalent of a high school diploma or less, and 66 percent have at least attended college.

⁴ Public assistance recipients includes 43 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 2012 Workforce Training Results includes information obtained from Employment Security Department wage files in Washington, Idaho, and Oregon, and federal employment records for 2010-11. 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, this year's report includes a comprehensive Net Impact Study. To assess both short- and long-term employment and earnings trends, data on participant experiences through 2009 is used in the 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 21 for the Net Impact Study. Conducted every four years, this in-depth report adds extra value to 2012 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 nine months—two more months than the prior program year. There is some

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.

variation, however, as one quarter of participants are enrolled less than five months and one quarter longer than fifteen months.

An estimated 44 percent of these WIA Adult participants received training as part of their program. This means that 1,387 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.⁶

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:

- 3 percent received an associate's degree.
- 12 percent received an occupational skills license.
- 17 percent received an occupational skills certificate/credential.
- 2 percent received another type of credential.

Taken together, 33 percent of all participants, or 66 percent of those participants who received training, earned a 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.

⁶ Some 6 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.

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.⁷ 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 left the program during the most recent reporting year. Some 62 percent of WIA Adult participants were employed. Of those who were working, 62 percent were employed full time. The median hourly wage of those working was \$13.11, more than \$4 per hour higher than Washington's minimum wage of \$8.67 an hour in 2011. The median annual earnings among program participants was \$23,024, about \$1,000 more than in the prior program year.

Employment and Earnings for WIA Adult Participants, 2012

Performance Measure	Results
Employment Rate* (State Records)	62%
Full Time Employment **	62%
Median Quarterly Hours	452 hours
Median Hourly Wage***	\$13.11
Median Annualized Earnings***	\$23,024

** 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 2011 dollars in order to account for inflation.*

Earnings of WIA Adult Participants

To better gauge the financial effectiveness of Washington's workforce programs, it helps to frame income levels. One common yardstick is the federal poverty level. In 2011, the federal poverty level for one person was \$10,890 per year.⁸

⁷ 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).

⁸ Poverty levels from 2011 were used in this edition of Workforce Training Results to measure the results of workforce programs on participants observed in 2010-11. The federal poverty level is determined by the Department of Health and Human Services. The level varies according to family size. The number is adjusted for inflation and reported annually in the form of poverty guidelines. Public assistance programs typically define eligibility income limits as some percentage of the federal poverty level.

In 2012, WIA Adult participants were able to support a median of 4.2 people at the poverty level—meaning they could support themselves and a little more than three other people. They could support themselves at the 200 percent of poverty level plus a little extra.

Number of People Supported at Poverty Level by Participant Income

Performance Measure	2004	2006	2008	2010	2011	2012
Number of people supported at poverty level	3.5 people	3.7 people	3.9 people	4.0 people	3.9 people	4.2 people
Number of people supported at 200 percent poverty	0.9 people	1.0 people	1.0 people	1.0 people	1.0 people	1.1 people

WIA Adult Participants Receiving Benefits from Employers

Performance Measure	2004	2006	2008	2010*	2011	2012*
Self-Reported Medical Benefits from Employer	59%	61%	62%	N/A	63%	N/A
Self-Reported Retirement Benefits from Employer	34%	35%	35%	N/A	32%	N/A

**Due to budget limitations, the Workforce Board's Participant Survey was not conducted in 2010 or in 2012.*

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

Employment and Earnings Trends for WIA Adult Participants

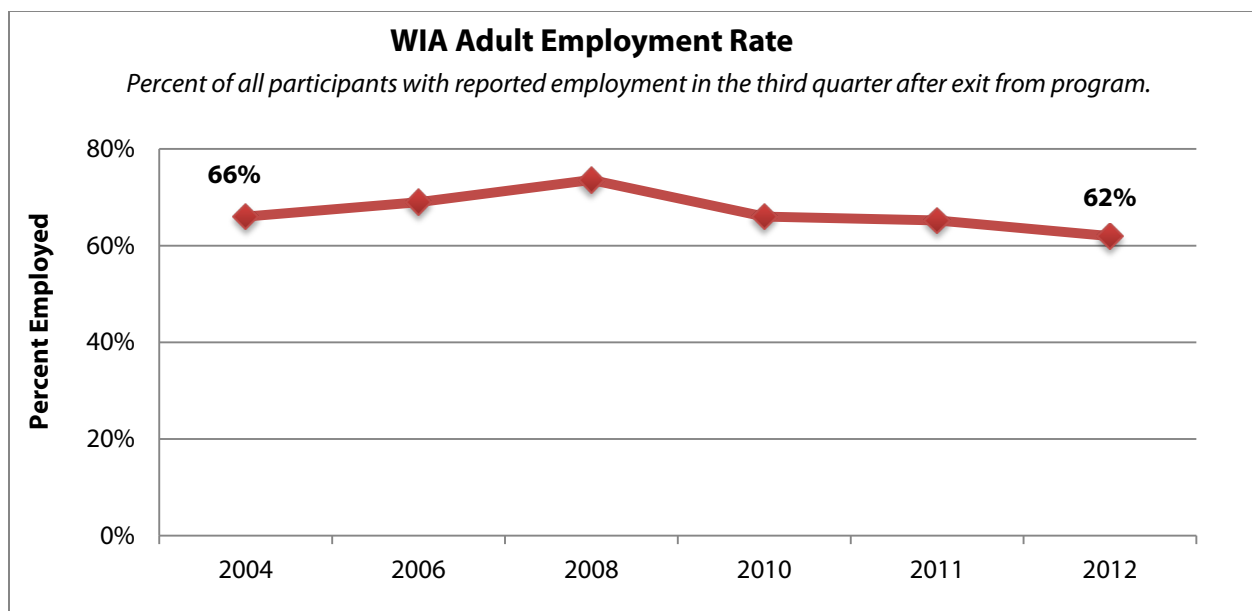
Performance Measure	2004	2006	2008	2010	2011	2012
Employment Rate (Self-Reported)	81%	82%	84%	N/A	74%	N/A
Employment Rate* (State Records)	66%	69%	74%	66%	65%	62%
Full Time Employment**	57%	58%	62%	59%	60%	62%
Median Quarterly Hours	430	440	452	439	435	452
Median Hourly Wage***	\$12.43	\$12.61	\$12.94	\$13.12	\$13.34	\$13.11
Median Annualized Earnings***	\$20,338	\$21,171	\$22,086	\$22,180	\$21,910	\$23,024

*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 the Northwest or military service and thus understates total employment by approximately 10 percent.

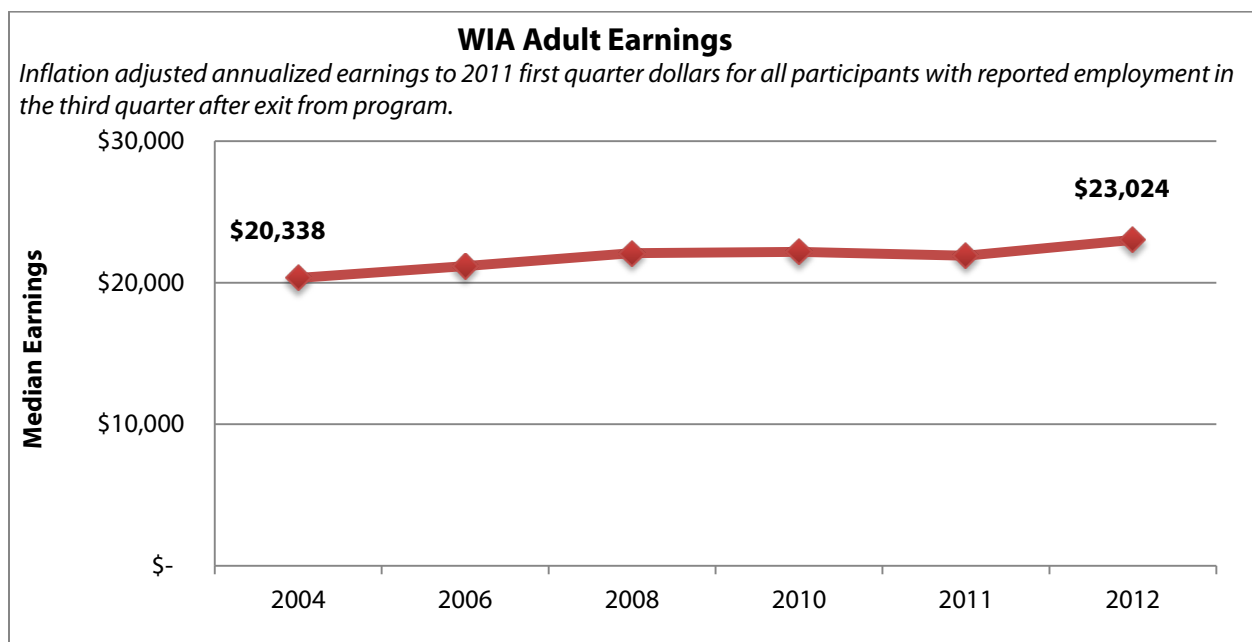
**Full-time employment averages 30 or more hours per week.

***Earnings/wages expressed in first quarter 2011 dollars in order to account for inflation.

Since 2004, WIA Adult participants have had median annual earnings between \$20,000 and \$23,000. In 2012, participants had median annual earnings of \$23,024, up over \$1,000 from 2011. Employment rates have been slowly decreasing since 2008, with 2012 employment dropping to 62 percent. Additionally, full-time employment dipped below 50 percent for the first time in 2012.



Source: Workforce Training Results 2004-12.



Source: Workforce Training Results 2004-12.

WIA Adult Participant Employment by Industry

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

- Services (62 percent)
- Retail trade (9 percent)
- Manufacturing industries (8 percent)

Employment in services decreased 2 percentage points from the previous report, retail trade declined 2 percentage points, and manufacturing increased 2 percentage points.

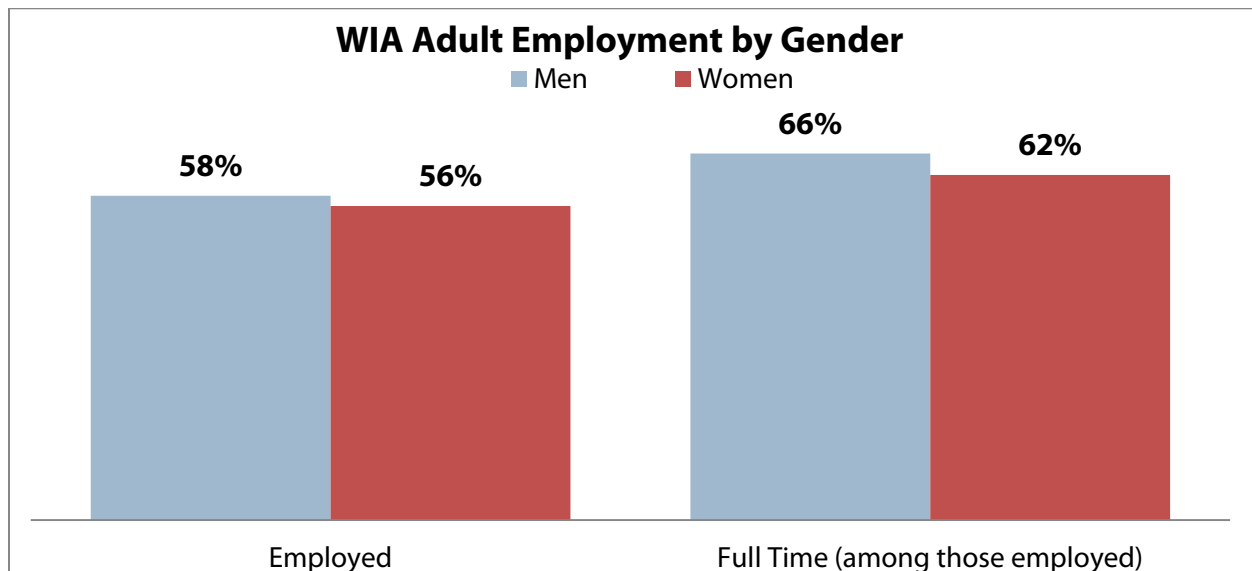
Industry Group	
61.9%	Services (<i>See breakout below</i>)
9.0%	Retail Trade
8.1%	Manufacturing
5.6%	Transportation and Warehousing and Utilities
4.8%	Construction
3.0%	Public Administration
2.9%	Wholesale Trade
2.8%	Financial Activities
1.4%	Natural Resources and Mining
0.5%	Information
Breakout of the Services Industry	
27.8%	Health Care
10.0%	Administrative and Support and Waste Management and Remediation Services
7.2%	Social Assistance
5.8%	All Other Services
3.5%	Education Services
3.5%	Accommodation and Food Services
2.7%	Professional, Scientific, and Technical Services
1.4%	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 codes.

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 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, women participants were 2 percentage points less likely to be employed than men. Women were employed full time at a slightly lower rate than men (62 percent versus 66 percent). Among those employed, the hourly wage rate for women (\$12.42) was 88 percent of men (\$14.16), a decrease from the 96 percent reported in the previous program year. The median annual earnings of women (\$21,231) were substantially less than men (\$25,747)—a decline from the parity reported in the prior program year.



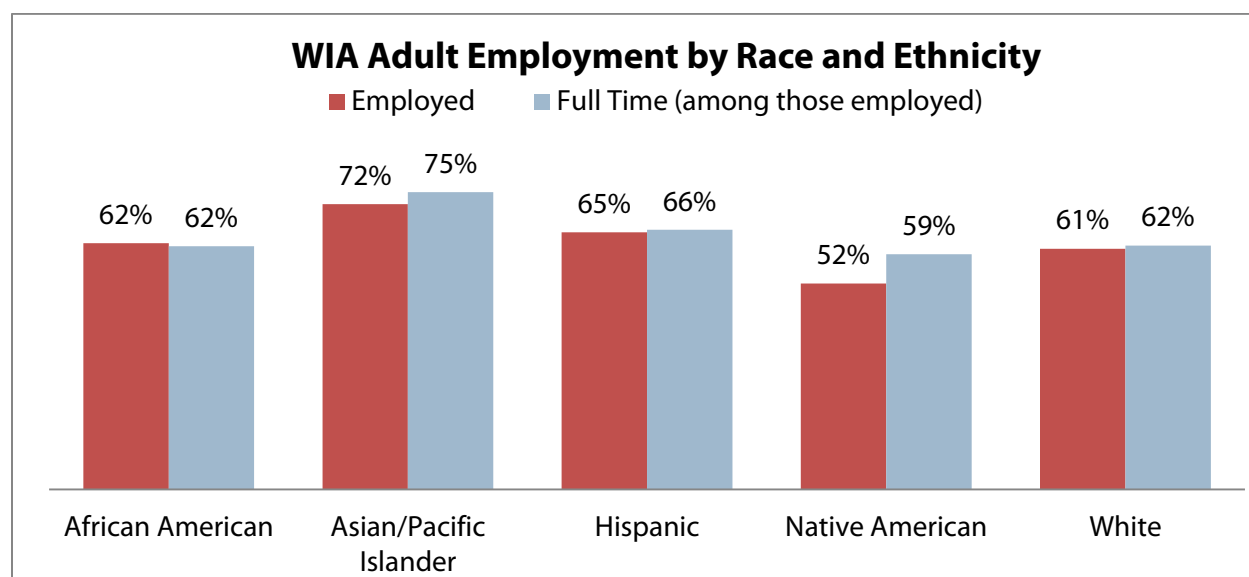
Source: Matches with Employment Security Department data and WIASRD.

Race/Ethnicity Plays Role

Participants from racial and ethnic minority backgrounds were generally more likely to be employed than white participants. Asian/Pacific Islanders had the highest employment rate at 72 percent, followed by Hispanics at 65 percent, African Americans at 62 percent, whites at 61 percent and Native Americans at 52 percent. For full time employment, Asian/Pacific Islanders had the highest rate at 75 percent, followed by Hispanics at 66 percent, African Americans and whites at 62 percent, and Native Americans at 59 percent.

White participants had the highest median hourly wage at \$13.78. All other groups had lower hourly wages, including Asian/Pacific Islanders (\$12.55), African Americans (\$12.41), Hispanics (\$11.95), and Native Americans (\$10.89).

Among program participants Asian/Pacific Islanders had the highest median annual earnings at \$25,819; followed by whites (\$23,194), African Americans (\$22,420), Hispanics (\$22,047), and Native Americans (\$20,142).

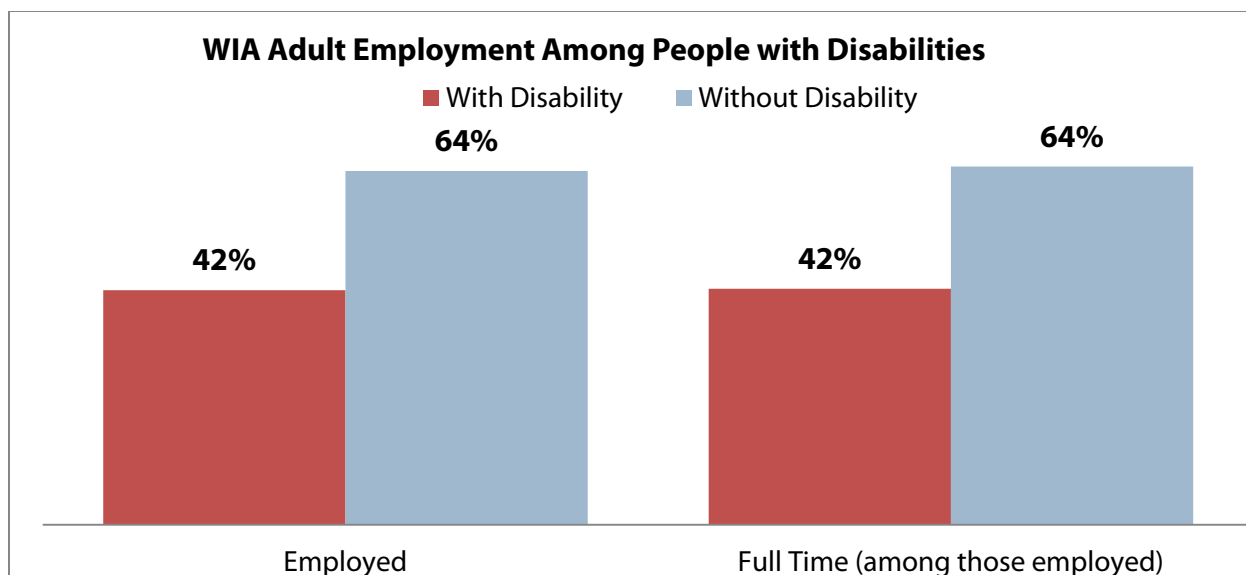


Source: Matches with Employment Security Department data and WIASRD.

Disability Impacts Employment, Earnings

Administrative records show 7 percent of the WIA Adult participants included in this study reported having a disability.⁹ These participants were less likely to have employment reported to a state's employment agency (42 percent compared to 64 percent for those without a disability). Only 42 percent of the employed people who were disabled were employed in full-time jobs versus 64 percent among those without a disability. The median wage of participants who had a disability (\$12.57) was 95 percent of those without a disability (\$13.19). This is an increase over last year when participants with disabilities made only 87 percent of those without a disability. Median annual earnings of those with disabilities were 74 percent of those without a disability (\$17,153 compared to \$23,230).

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."



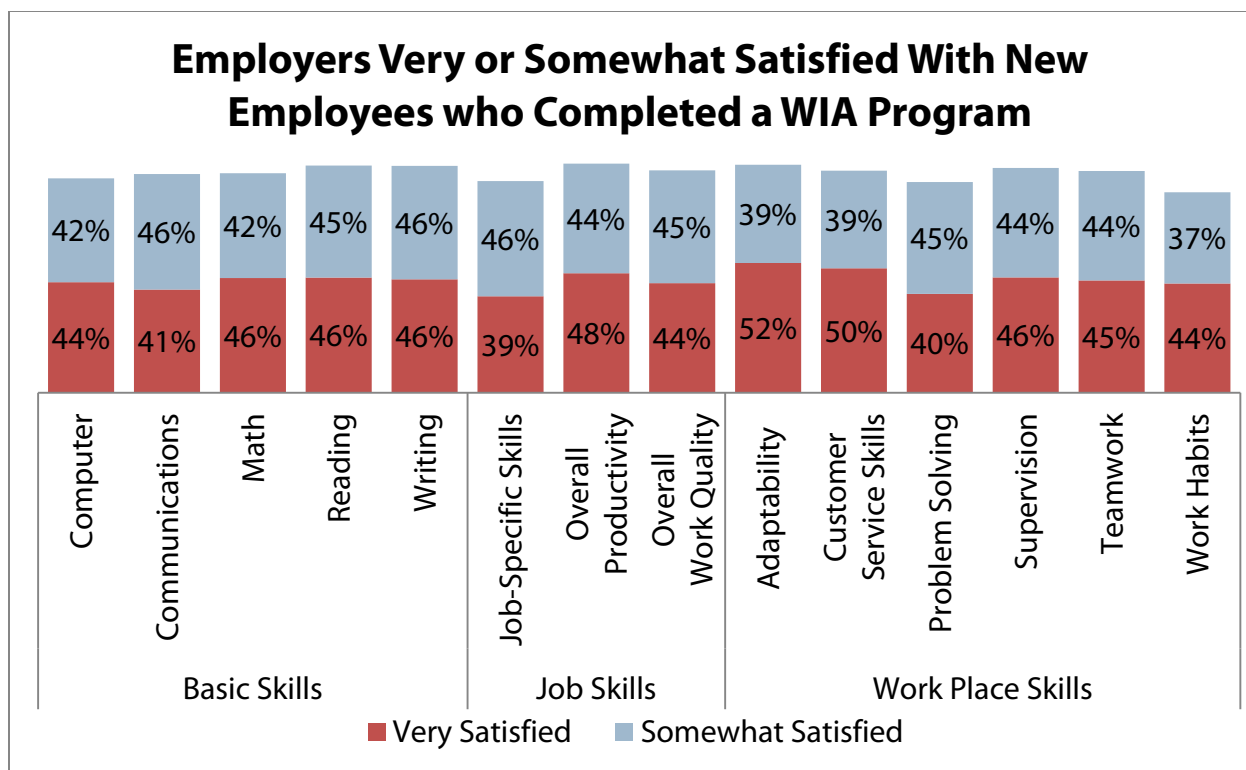
Source: Matches with Employment Security Department data and WIASRD.

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.

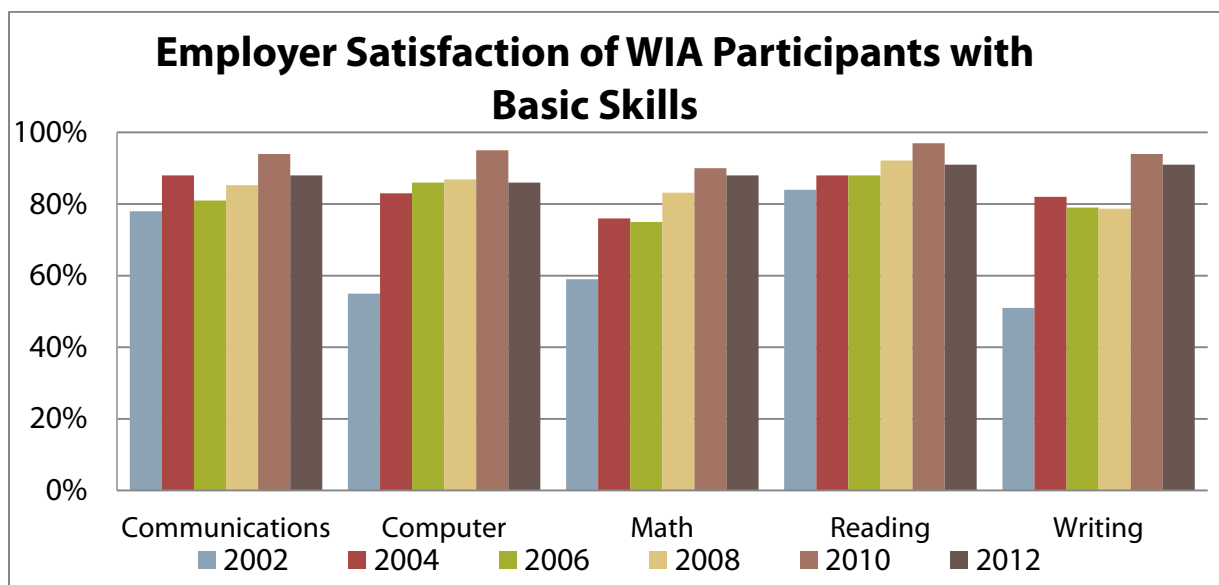
Employer satisfaction is broken down into three categories: Basic Skills, Job Skills and Work Place Skills. Basic skills refer to reading, writing, math, communication and computer skills. Job skills refer to skills specific to the job, as well as overall work quality and productivity. Work place skills 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 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 participant's adaptability.

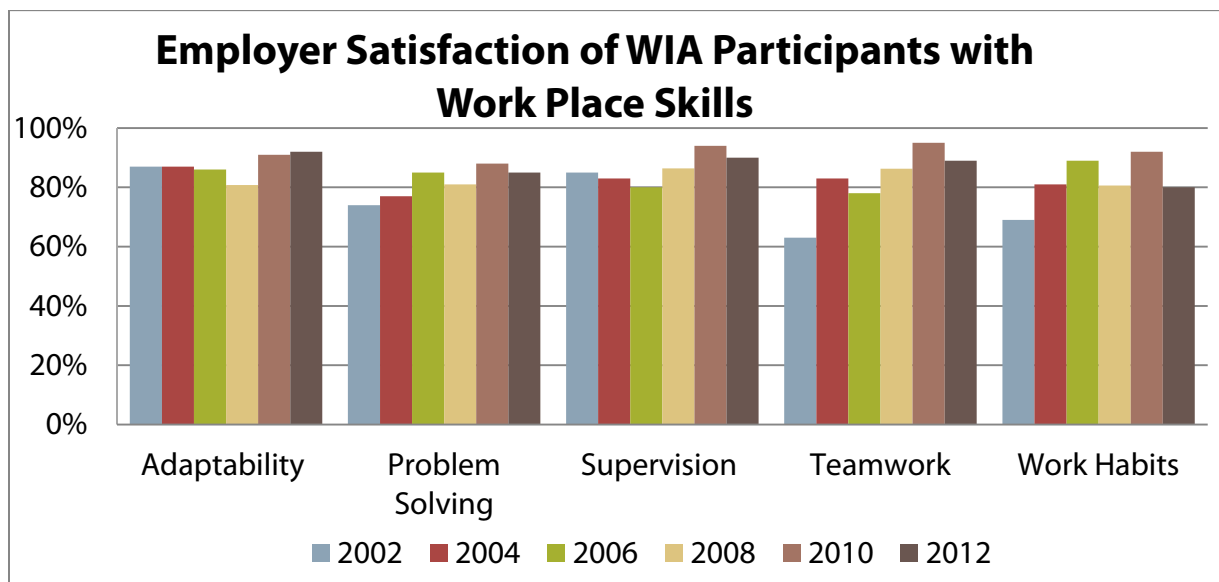


Source: Workforce Board Employer Survey conducted in 2012.

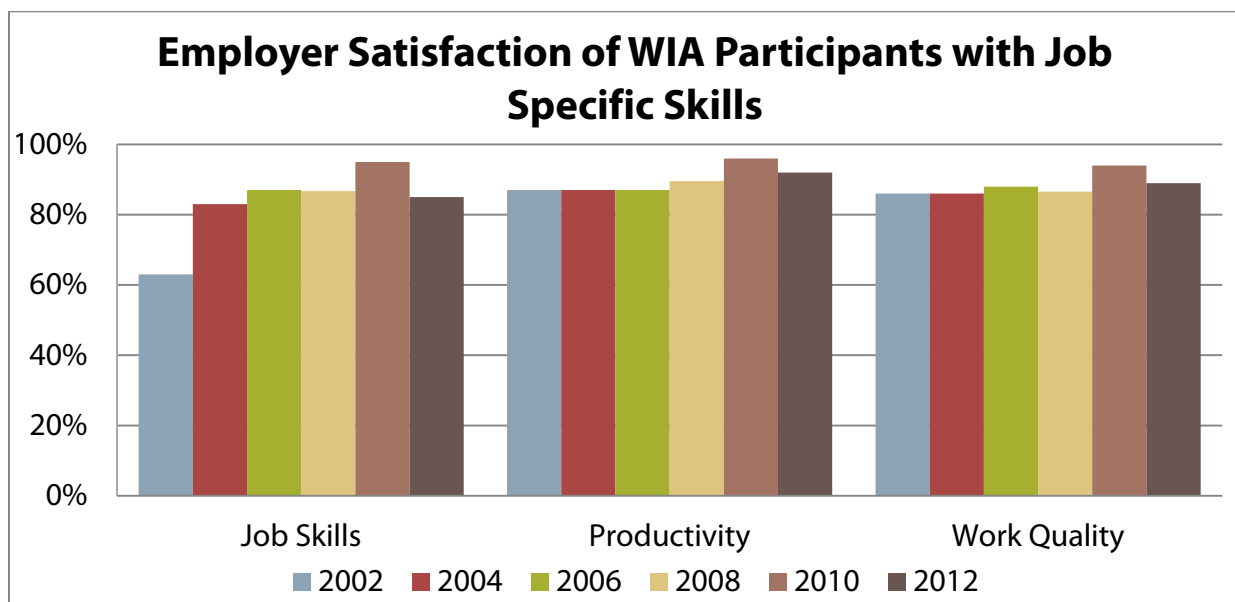
Overall, the levels of employer satisfaction reported in the Workforce Board's 2012 Employer Survey are lower than on the previous survey, conducted in 2010. The following three charts show the overall satisfaction of employers with new employees who recently completed WIA program.



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



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



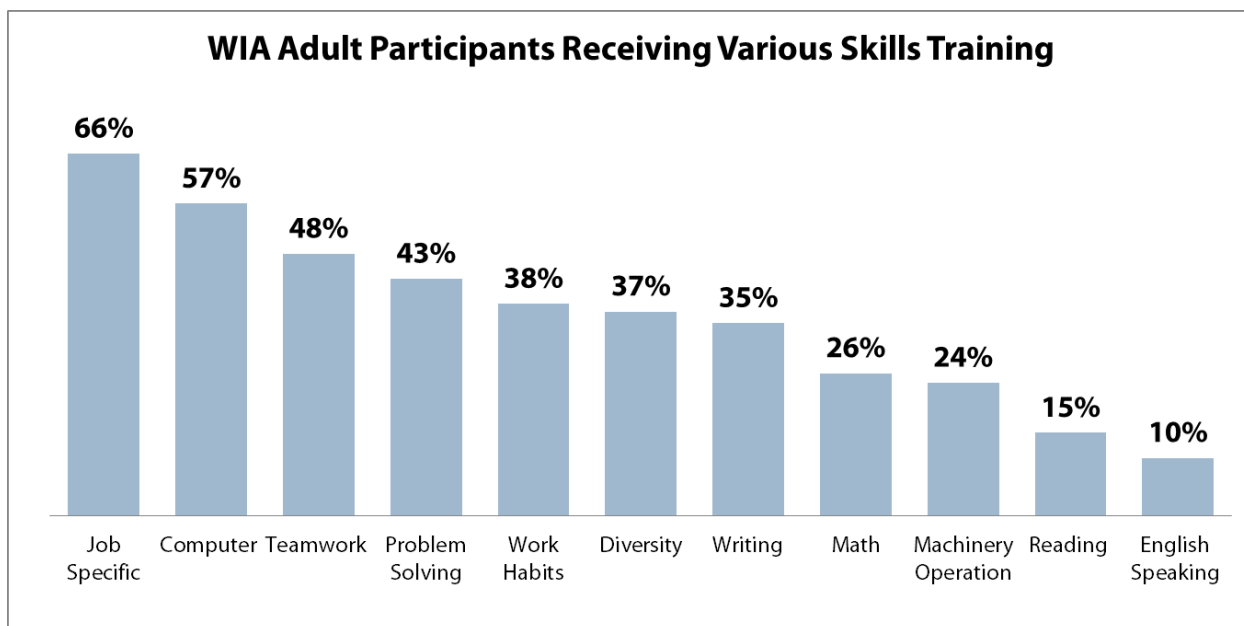
Source: Workforce Board's biennial Employer Surveys from 2002 through 2012.

Participant Survey

In 2011, the Workforce Board surveyed WIA participants who had left their program in 2009-10. The survey provided data on employment and participant satisfaction with the training. The survey was conducted by telephone and was completed by 492 participants.

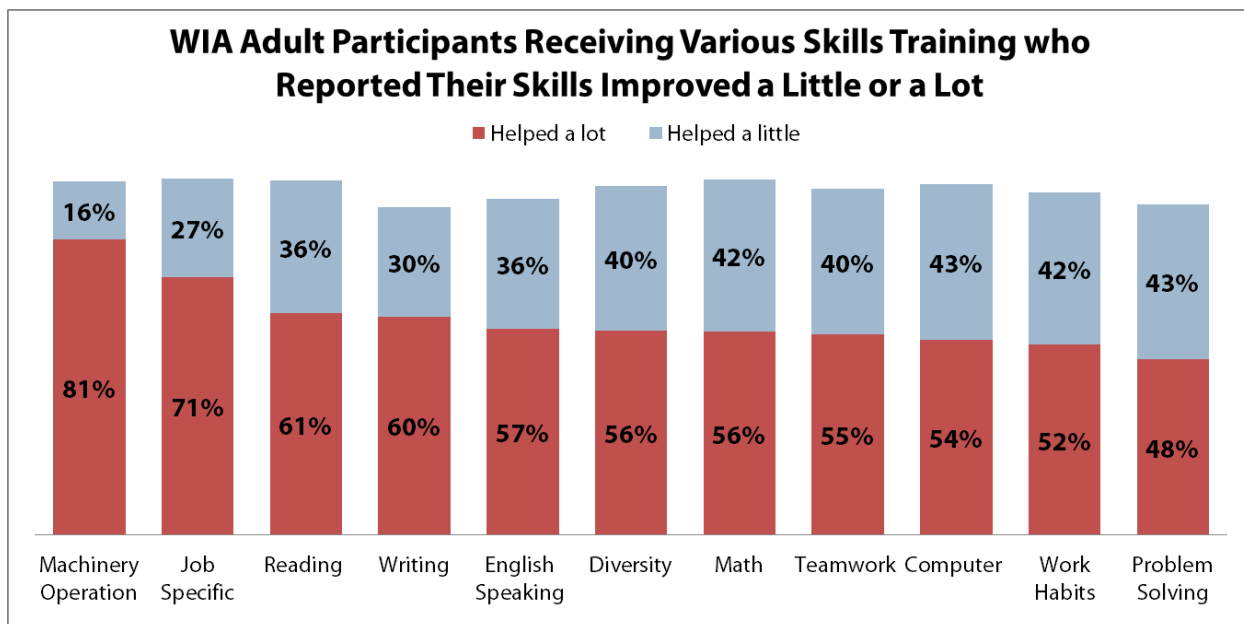
Most participants enroll in the WIA Adult program for employment-related reasons. Based on survey results, 79 percent of adults entered the program to learn skills for a new job, 70 percent enrolled to get job search assistance, and 51 percent enrolled for on-the-job training. Participants also indicated that they enrolled to improve basic skills (reading 17 percent, math 20 percent, and English speaking 13 percent).

Some 58 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 computer and job-specific skills, among those who received training, 66 percent received job specific skills training and 57 percent received computer skills training.



Source: Workforce Board's Participant Satisfaction Survey 2011.

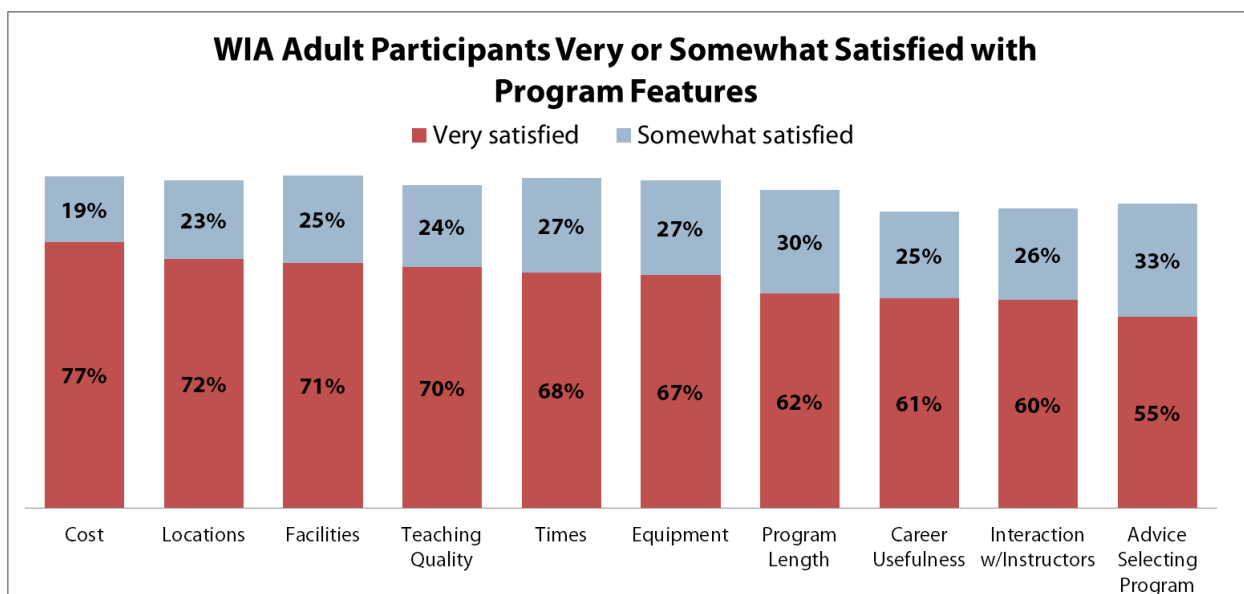
The large majority of WIA Adult participants who received training felt it improved their skills. Similar to the 2008 survey, the percentage reporting their skills improved “a lot” was highest for occupational training; particularly machinery operation and job-specific skills. Compared to the previous survey, participants reported much higher levels of “a lot” of improvement in basic skills; writing increased 14 percentage points, while math increased 16 percentage points. 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 2011.

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 met; higher levels than the last survey. Participants tended to be "very satisfied" with various features of the program including program cost, location, and facilities. Participants were less likely to indicate "a lot" of satisfaction with advice on selecting programs or interaction with instructors.

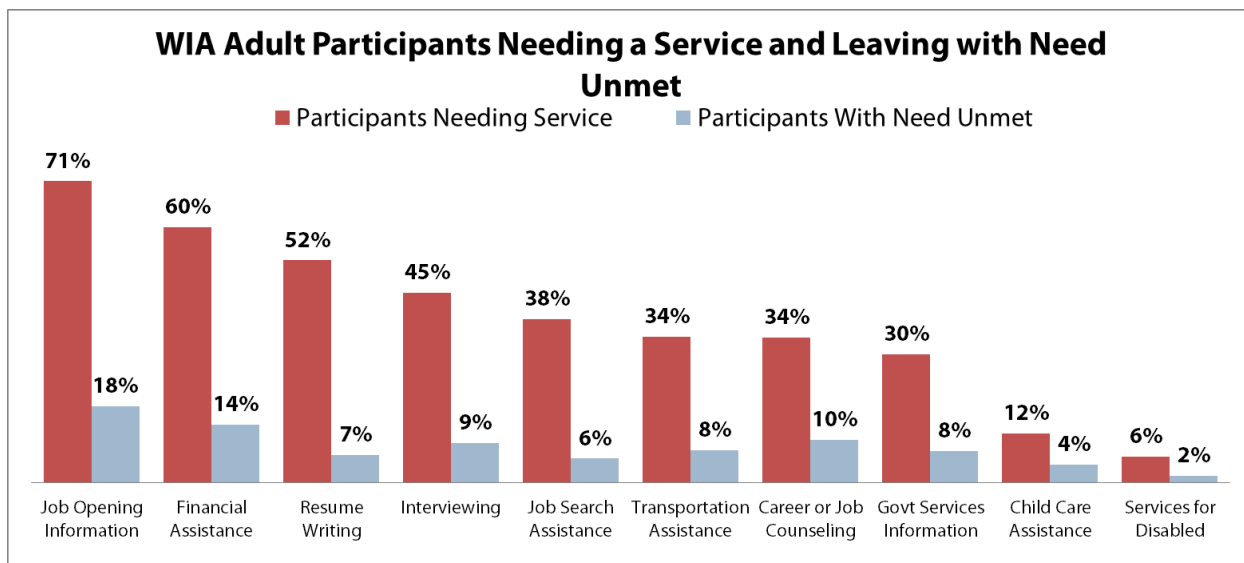


Source: Workforce Board's Participant Satisfaction Survey 2011.

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

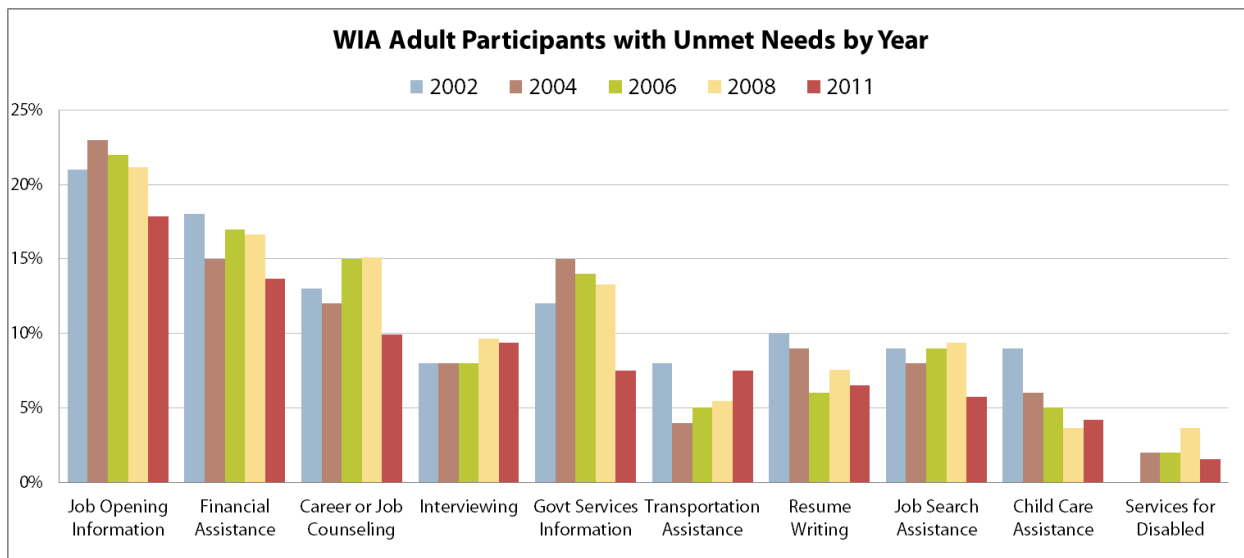
2012 Workforce Training Results

Workforce Investment Act—Adult Title I-B



Source: Workforce Board's Participant Satisfaction Survey 2011.

The largest unmet need¹⁰ was for information about job openings. This is not a new problem. Although the percentage reporting leaving the program with this need unmet has decreased in the past decade, it is still quite high. WIA Adult participants reporting unmet needs have declined in nearly every category since the previous survey, and in fact since 2002. An exception is the percentage leaving with an unmet need for transportation assistance, which has doubled from a low of 4 percent in 2004 to 8 percent this year.



Source: Participant Satisfaction Surveys 2002-2011.

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.

Relationship of Training to Employment

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.

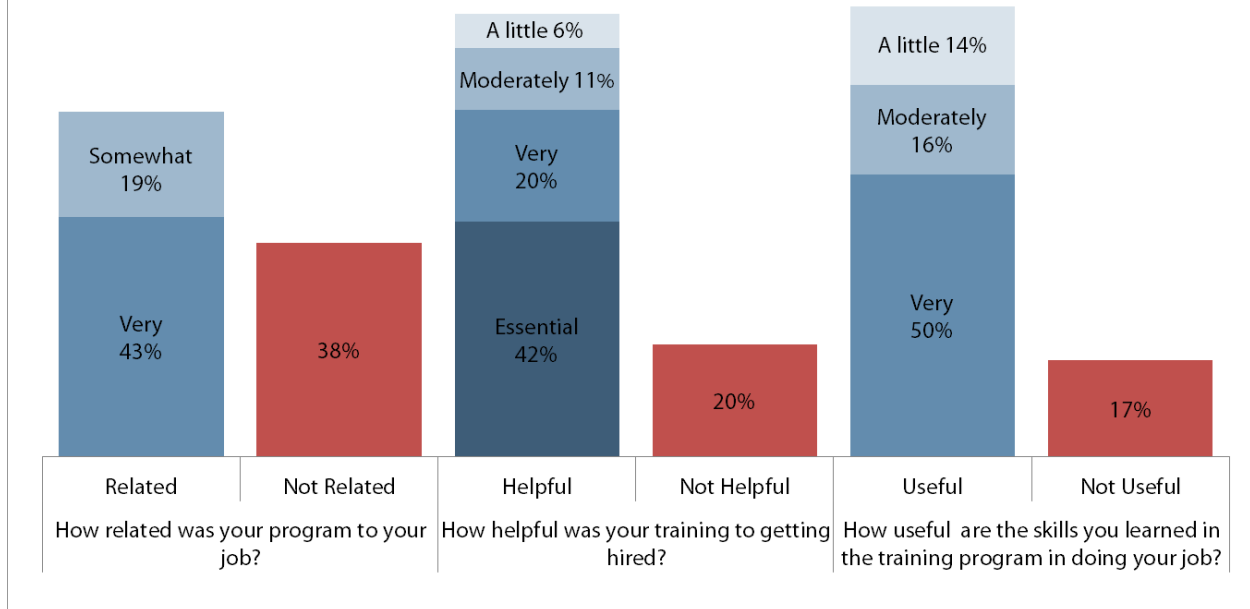
Among participants employed seven to nine months after leaving a program, 43 percent said their training was "very related" to their job. A further 19 percent reported the training was "somewhat related" to their job. In 2008, the same rate of employed participants reported their training was related to their job.

Participants interviewed in 2011 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 20 percent indicated it was "very important," 11 percent reported it was "moderately important," and 6 percent said it was "a little useful." Some 20 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. Half of participants indicated the skills were "very useful," 16 percent said "moderately useful," and 14 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 14 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.

WIA Adult Relationship of Training to Employment



Source: Workforce Board's Participant Satisfaction Survey 2011.

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 45 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**	\$1.72	\$1.67	\$2.94	\$3.03
Net Hours Employed per Quarter Impact	73.6	43.6	91.2	56.6
Net Annualized Earnings Impact**	\$7,136	\$4,358	\$10,358	\$7,274

^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 2011 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 2011 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	\$9,158	\$0	\$41,416	\$0	
Fringe Benefits	\$2,290	\$0	\$10,355	\$0	
Taxes	-\$1,561	\$1,561	-\$7,062	\$7,062	
Transfers					
UI	-\$204	\$204	\$425	-\$425	
Costs					
Foregone net earnings	-\$2,345	-\$371	-\$2,345	-\$371	
Program costs	\$0	-\$5,515	\$0	-\$5,515	
Benefits	\$9,683	\$1,765	\$45,133	\$6,638	
Costs	-\$2,345	-\$5,886	-\$2,345	-\$5,886	
Total (Net)	\$7,338	-\$4,121	\$42,789	\$752	\$43,540

Note: Benefits and costs are expressed in 2011 first quarter dollars.

For each participant in WIA Adult programs, the public (taxpayer) cost is \$5,515 over the length of their enrollment, and the participant cost is \$2,345 in foregone earnings while enrolled. During the first two and one-half years after leaving the program, the average participant will gain \$9,158 in earnings. During the course of working life to age 65, they will gain about \$39,744 in net earnings (earnings minus foregone earnings) and about \$10,355 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 \$42,789.

Projected participant benefits to age 65 outweigh public costs for WIA Adult services and training by a ratio of \$8 to 1, or \$42,789 to \$5,515.

From the time of leaving the program to age 65, the public is forecast to gain almost \$7,062 per participant in net additional social security, Medicare, federal income, and state sales taxes; the public, however, is expected to pay out \$425 per participant in total UI benefits. The estimated lifetime net benefit to taxpayers is \$752 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 \$6,638 to \$5,515.

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:

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

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.

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

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

For this 2012 study, program records were obtained on 3,236 individuals who left the program during the most recent reporting year.¹ Employment-related information was obtained through a match with the Employment Security Department (ESD) wage files from Washington, Idaho, and Oregon, and federal employment records.²

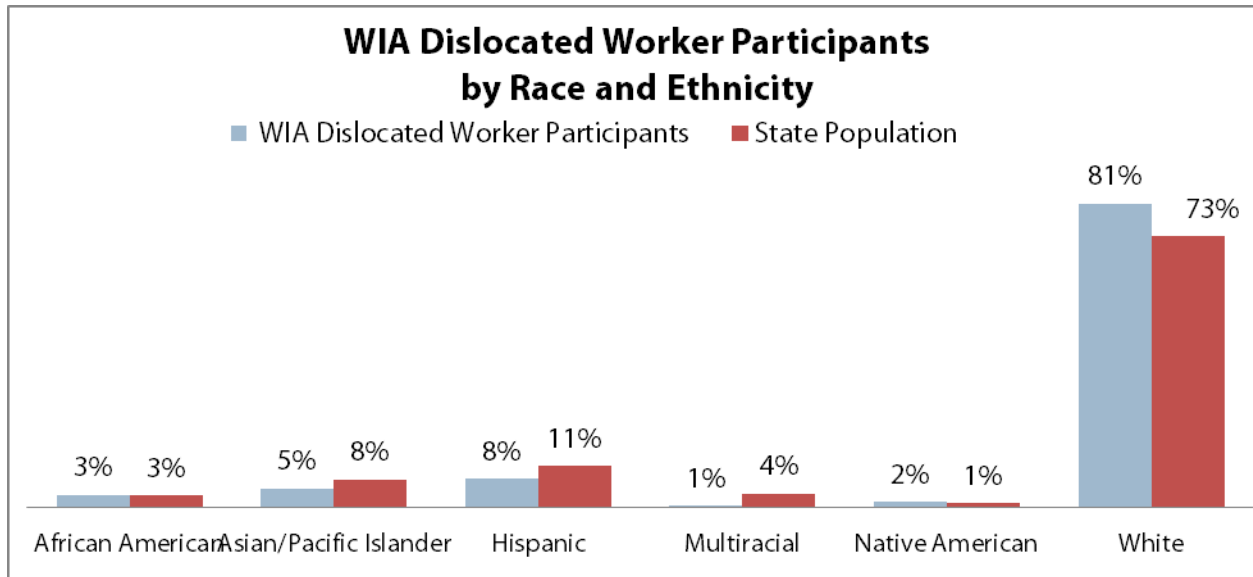
The typical participant was enrolled in the program for 11 months. There was, however, considerable variation in the amount of time participants spent in the program. One quarter of participants were enrolled for six months or less, while another quarter were enrolled for over 20 months.

¹ The 2012 Workforce Training Results reports are based on data observed in 2010-11 for individuals exiting programs during 2009-10.

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.

Participant Profile

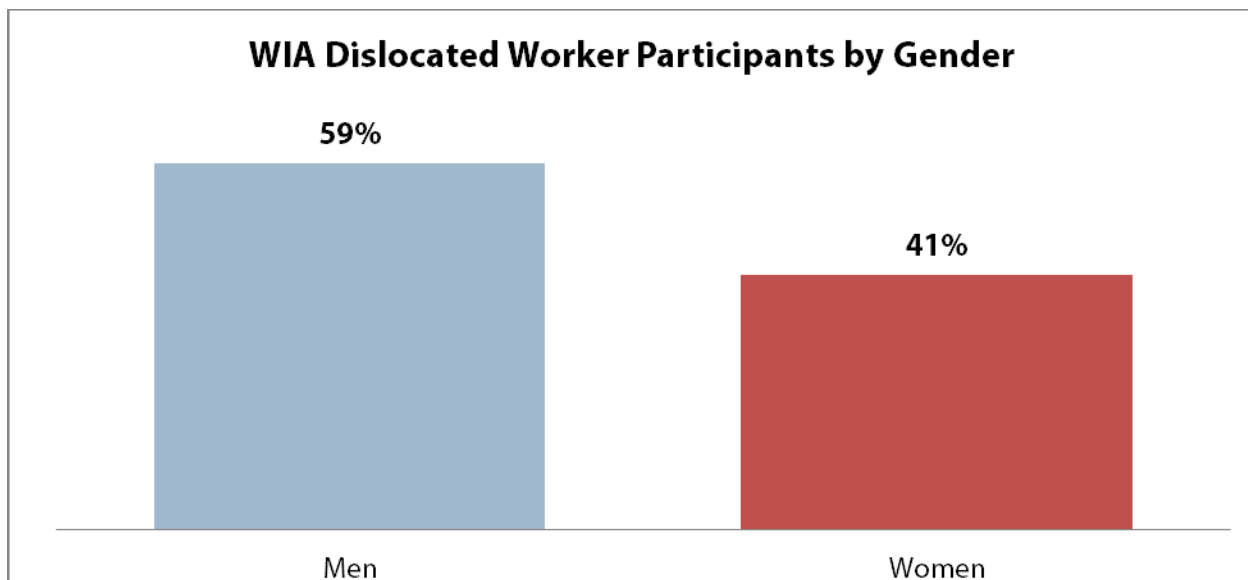
Participants roughly mirrored the state's racial-ethnic population distribution with whites and Native Americans represented slightly above the 2010 state population estimate, and Hispanics and Asian/Pacific Islanders slightly lower.³ An estimated 81 percent of participants were white, 2 percentage points lower than in the last cohort. The median age at program registration was 44, with one quarter age 52 and older and one quarter under age 35.



Source: WIA standardized record data(WIASRD) and 2010 U.S. Census Data from the American Community Survey.

Women represented 41 percent of dislocated workers, down 14 percentage points from the program last year.

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/Pacific Islanders (also referred to as Asians/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 2010 U.S. Census Bureau estimates for Washington from the American Community Survey, 73 percent are white; 3 percent are African American; 1 percent are Native American; 8 percent are Asians/Pacific Islander; 4 percent are multiracial; and 11 percent are Hispanic.



Source: WIA standardized record data(WIASRD).

At the time they enrolled, 50 percent of participants had not previously attended college, 33 percent had some college or an associate's degree, and 17 percent had a bachelor's degree or higher. At the other end of the spectrum, 10 percent had a high school diploma or GED as their highest credential and another 6 percent lacked a high school diploma.

State Core Measures: 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?

Data Comes From State Wage Files, Employer Survey

The 2012 Workforce Training Results includes information obtained from Employment Security Department wage files in Washington, Idaho, and Oregon, and federal employment records. 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, this year's report includes a comprehensive Net Impact Study. To assess both short- and long-term employment and earnings trends, data on participant experiences through 2009 is used in the 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.

Turn to page 20 for the Net Impact Study. Conducted every four years, this in-depth report adds extra value to 2012 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 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:

- 8 percent received an associate's degree.
- 1 percent received a bachelor's degree
- 18 percent received a license.
- 35 percent received a certificate.
- 2 percent received another type of credential.

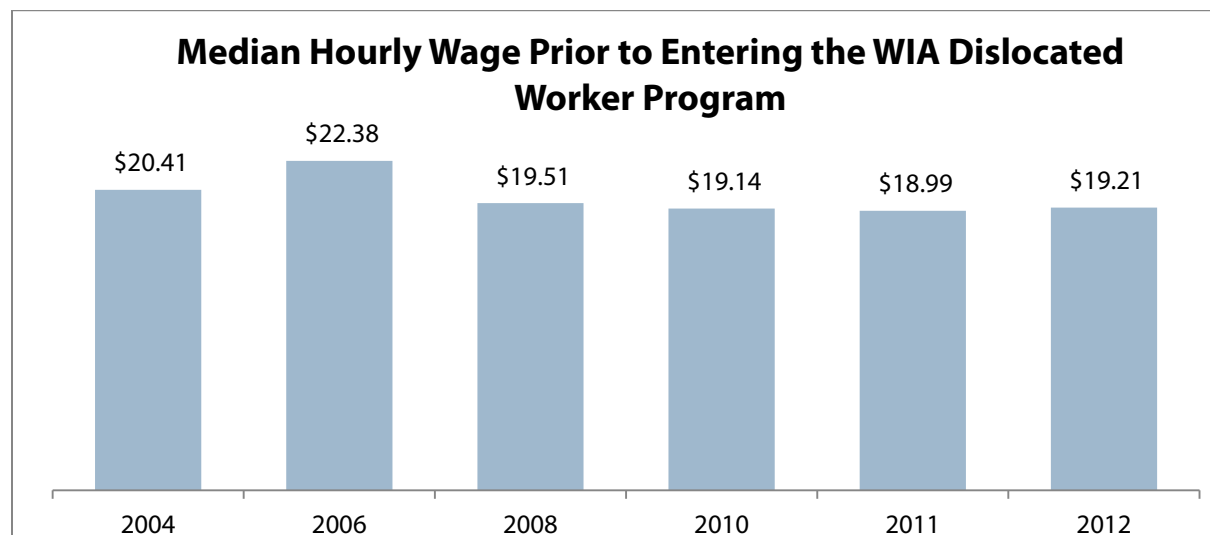
Taken together, 64 percent received a recognized credential. This is roughly the same as last year's 65 percent who received a recognized credential.

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.

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.⁵ The study looks at employment and earnings three calendar quarters after the participant left the WIA program.

At the time of program entry, 2012 WIA Dislocated Worker participants had slightly higher wages than those enrolled during in the prior program year.



Source: Matches with Employment Security Department data.

The chart below shows the 2010-11 employment and earnings of participants who left the program during the 2009-10 program year. Record matches found 69 percent had reported employment the third quarter after leaving the program. The median hourly wage was \$17.51, and median annualized earnings were \$33,870.⁶ The typical (median) hourly wage replacement rate was 91.2 percent.⁷

⁵ 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).

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 2011 dollars.

⁷ 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 (\$17.51)/pre-wage (\$19.21) = 91.2 percent.)

Employment and Earnings for WIA Dislocated Workers, 2012

Performance Measure	Results
Employment Rate* (State Records)	69%
Full Time Employment**	56%
Median Quarterly Hours	491 hours
Median Hourly Wage***	\$17.51
Median Annualized Earnings***	\$33,870

* 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 2011 dollars in order to account for inflation.

Distribution of Hourly Wages 3rd Quarter After Leaving	
Quartile	Hourly Wage
Highest	Above \$27.11
Third	\$20.02-27.10
Second	\$15.61-20.01
Lowest	Below \$15.60

The median hourly wage of WIA Dislocated workers is relatively high at \$17.51, but there is considerable variation in wages. While one quarter of dislocated workers had a median hourly wage of over \$27.11 after program exit, another quarter had median hourly wages below \$15.60.

Source: Employment Security Department data matches.

Earnings of WIA Dislocated Worker Participants

To better gauge the financial effectiveness of Washington's workforce programs, it helps to frame income levels. One common yardstick is the federal poverty level. In 2011, the federal poverty level for one person was \$10,890 per year.⁸

In 2012, WIA Dislocated Worker participants were able to support a median of seven people at the poverty level—meaning they could support themselves and six other people. At the 200 percent of poverty level, they could support themselves and one and a half other people.

⁸ Poverty levels from 2011 were used in this edition of Workforce Training Results to measure the results of workforce programs on participants observed in 2010-11. The federal poverty level is determined by the Department of Health and Human Services. The level varies according to family size. The number is adjusted for inflation and reported annually in the form of poverty guidelines. Public assistance programs typically define eligibility income limits as some percentage of the federal poverty level.

Number of People Supported at Poverty Level by Participant Income

Performance Measure	2004	2006	2008	2010	2011	2012
Number of people supported at poverty level	6.4 people	6.6 people	6.6 people	6.5 people	6.0 people	7.0 people
Number of people supported at 200 percent poverty	2.3 people	2.4 people	2.4 people	2.3 people	2.1 people	2.6 people

WIA Dislocated Worker Participants Receiving Benefits from Employers

Performance Measure	2004	2006	2008	2010*	2011	2012*
Self-Reported Medical Benefits from Employer	75%	70%	78%	N/A	68%	N/A
Self-Reported Retirement Benefits from Employer	43%	39%	43%	N/A	42%	N/A

**Due to budget limitations, the Workforce Board's Participant Survey was not conducted in 2010 or in 2012.*

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

Employment and Earnings Trends for WIA Dislocated Workers

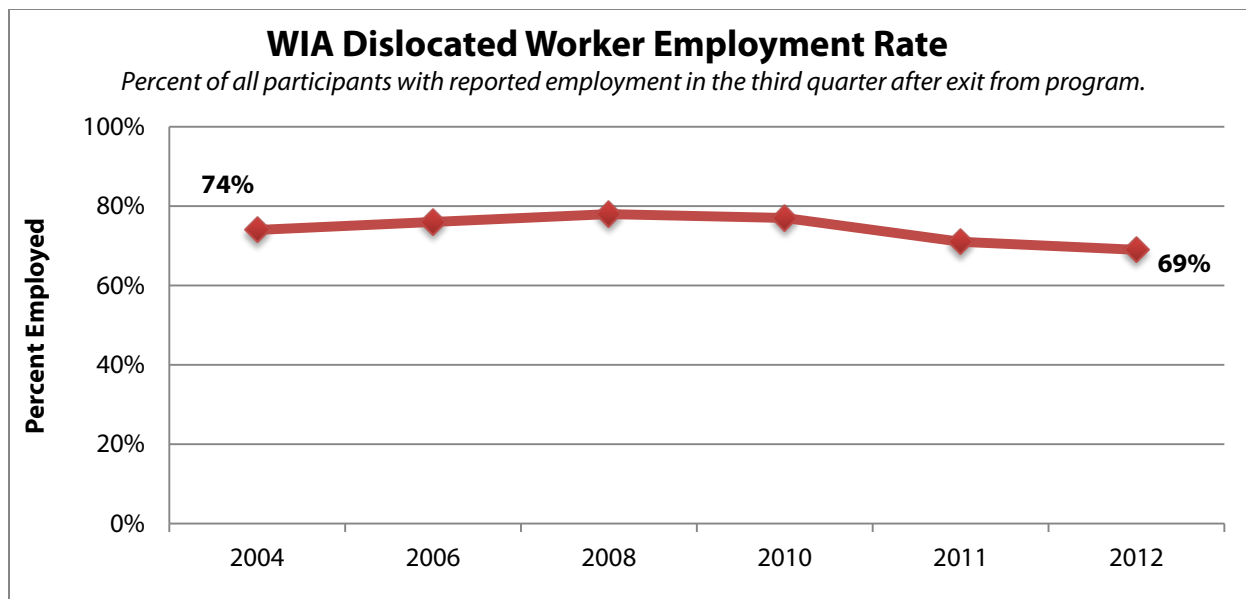
Performance Measure	2004	2006	2008	2010	2011	2012
Employment Rate (Self-Reported)	82%	85%	78%	N/A	74%	N/A
Employment Rate* (State Records)	74%	76%	78%	77%	71%	69%
Full Time Employment**	74%	73%	75%	73%	68%	56%
Median Quarterly Hours	494	486	491	484	480	491
Median Hourly Wage***	\$16.62	\$17.10	\$17.47	\$16.89	\$16.58	\$17.51
Median Annualized Earnings***	\$31,577	\$32,219	\$32,454	\$31,822	\$30,097	\$33,870

**These figures apply to those with employment reported to ESD 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.*

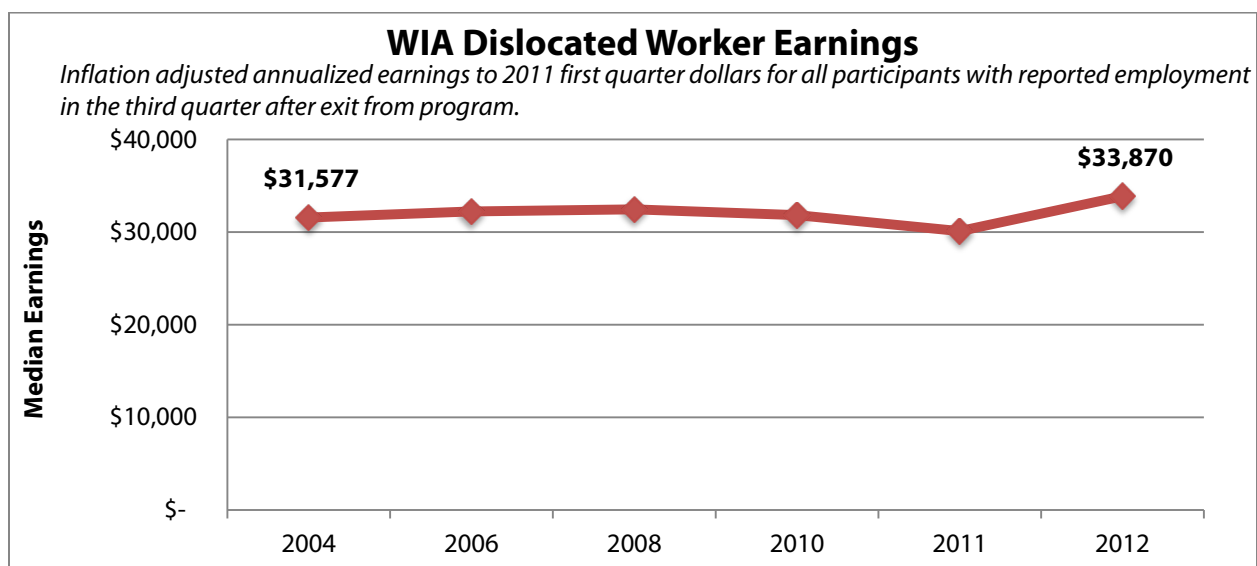
***Full-time employment averages 30 or more hours per week.*

****Earnings/wages expressed in first quarter 2011 dollars in order to account for inflation.*

Since the onset of the Great Recession in late 2008, program participants have largely experienced lower employment rates, median earnings, median wages and median quarterly hours worked. The employment rate among participants declined by 9 percentage points between 2008 and 2012. In 2012, however, median hourly wages increased to \$17.51, nearly a full dollar higher than reported in 2011. Further, median annual earnings increased \$3,800 since the last report, increasing to \$33,870 as of 2012.



Source: Workforce Training Results 2004-12.



Source: Workforce Training Results 2004-12.

WIA Dislocated Workers Find New Jobs in New Fields

Prior to program participation, 27 percent of participants were working in services, 30 percent were employed in manufacturing, 9 percent in construction and 8 percent in retail trade. After training, 41 percent were employed in services, a 14 percentage point increase. There was a decrease of 10 percentage points for WIA Dislocated Worker participants are working in the Manufacturing industry. The percentage of those working in construction also declined.

Prior Employment	Post-Program Employment	Industry Group
30%	20%	Manufacturing
27%	41%	Services
8%	8%	Retail Trade
9%	7%	Construction
3%	6%	Transportation and Warehousing and Utilities
4%	6%	Public Administration
8%	5%	Financial Activities
6%	5%	Wholesale Trade
2%	2%	Natural Resources and Mining
3%	1%	Information
Breakout of Manufacturing		
11%	6%	All Other Manufacturing
11%	6%	Wood & Paper Products
2%	2%	Aerospace
2%	2%	Fabricated Metal Products
1%	2%	Food & Beverage
3%	2%	Computer & Electronic Products
Breakout of Services		
4%	13%	Health Care
7%	10%	Administrative, Support, Waste Management, Remediation Services
6%	6%	Professional, Scientific, and Technical Services
1%	4%	Education Services
1%	3%	Social Assistance
6%	3%	All Other Services
2%	2%	Leisure and Hospitality

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

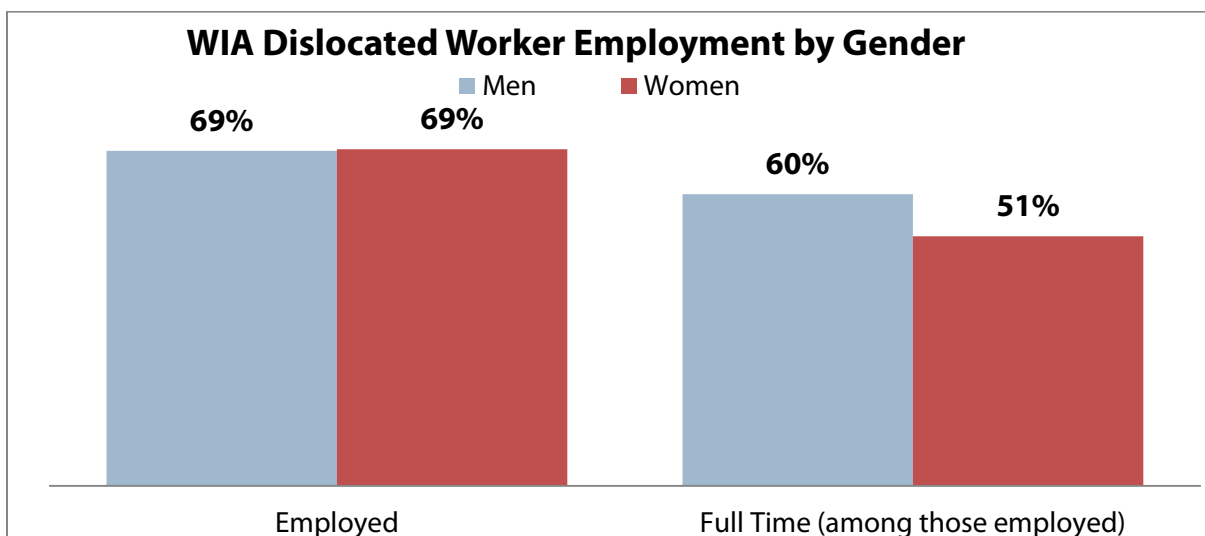
Among the four key industries in which program participants were employed after program exit, many went to work in new industries—with the service sector the primary destination of many.



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

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 exit, women were as likely as men to be working (69 percent). However, men were more likely to be working full time (60 percent versus 51 percent)—a substantial change from the last report where men and women were both employed full time at 68 percent. The median hourly wage for women was 85 percent of men's (\$15.80 versus \$18.64). Women had median annual earnings comprising 79 percent of men's (\$29,076 versus \$36,987), a drop from last year when women's earnings were 87 percent of men's.



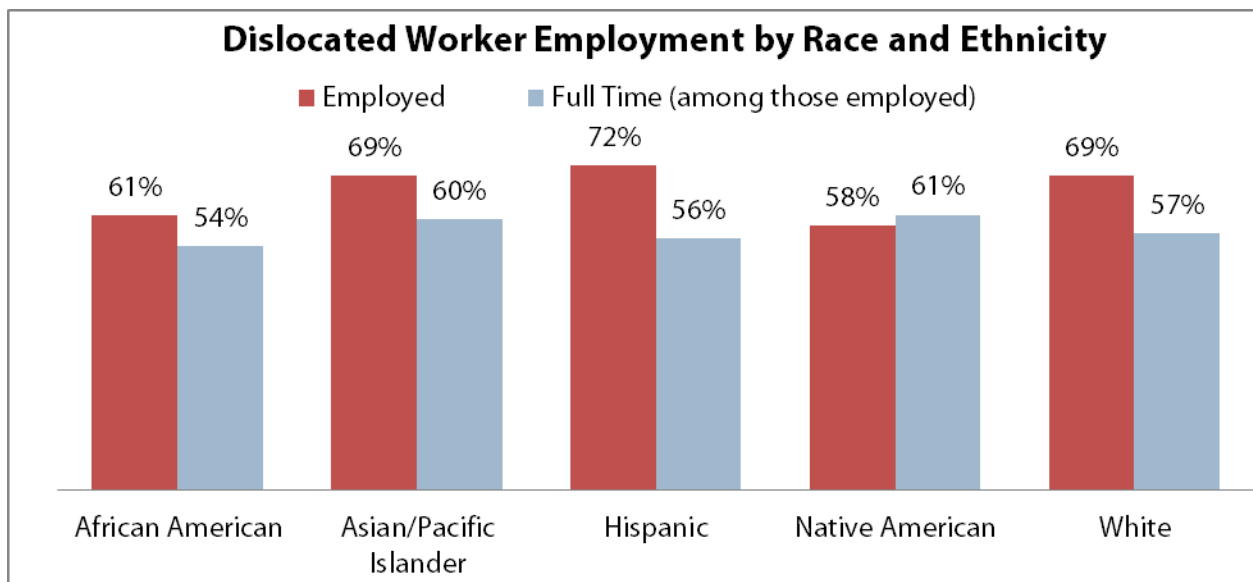
Source: Employment Security Department and WIASRD

Race/Ethnicity Plays Role

Hispanics have the highest employment rate at 72 percent, followed by Asian/Pacific Islander and whites (69 percent), African Americans (61 percent) and Native Americans (58 percent). Program participants have similar full time employment rates across racial and ethnic groups. All groups have full-time employment rates with less variation, ranging from 54 to 61 percent.

There is more variation among median hourly wages. Whites had the highest median hourly wage at \$17.94, followed by Asian/Pacific Islander (\$16.59), Native Americans (\$16.27), African Americans (\$15.88), and Hispanics (\$15.37).

White program participants also had the highest median annual earnings at \$34,210. African Americans had the next highest at \$34,853, followed by Native Americans (\$28,857), and Hispanics (\$27,733).

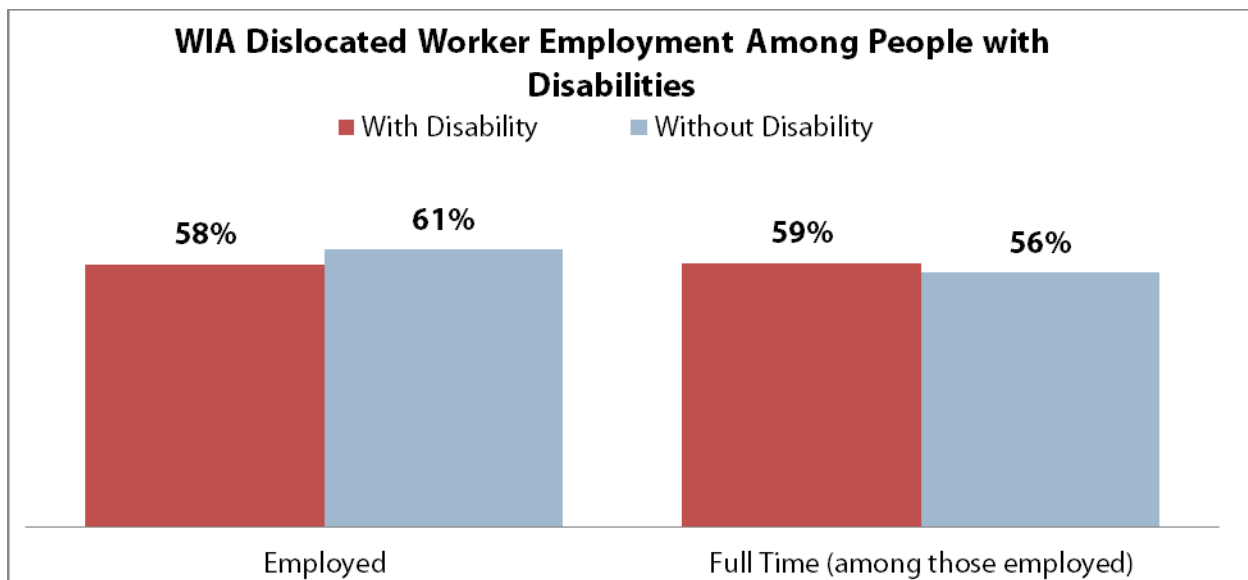


Source: Employment Security Department and WIASRD

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 Dislocated workers with disabilities were less likely to be employed (58 percent versus 61 percent for those without a disability), but are more likely to be working full time (59 percent versus 56 percent). Their median hourly wages were the same as those with no reported disability (\$17.53 versus \$17.51). Median annual earnings among dislocated workers with a disability were 103 percent of those without a disability (\$34,772 versus \$33,850).

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.”



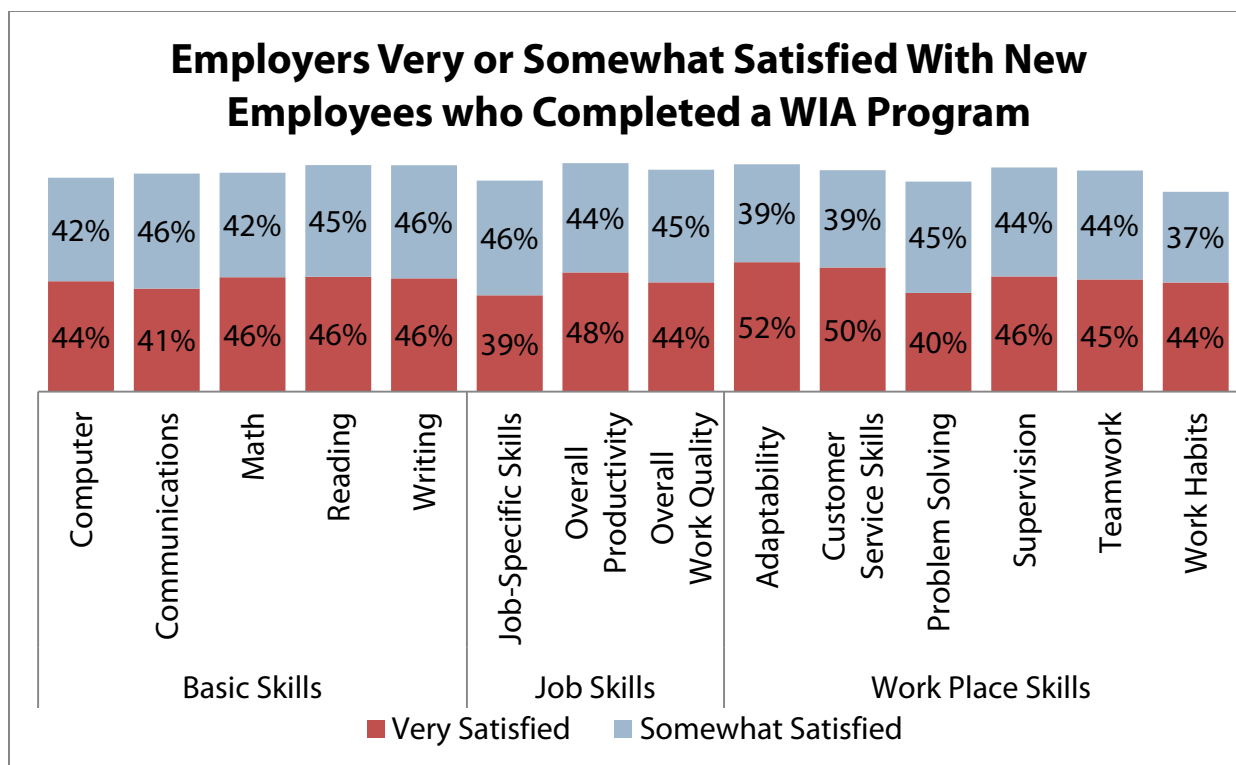
Source: Employment Security Department and WIASRD

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.

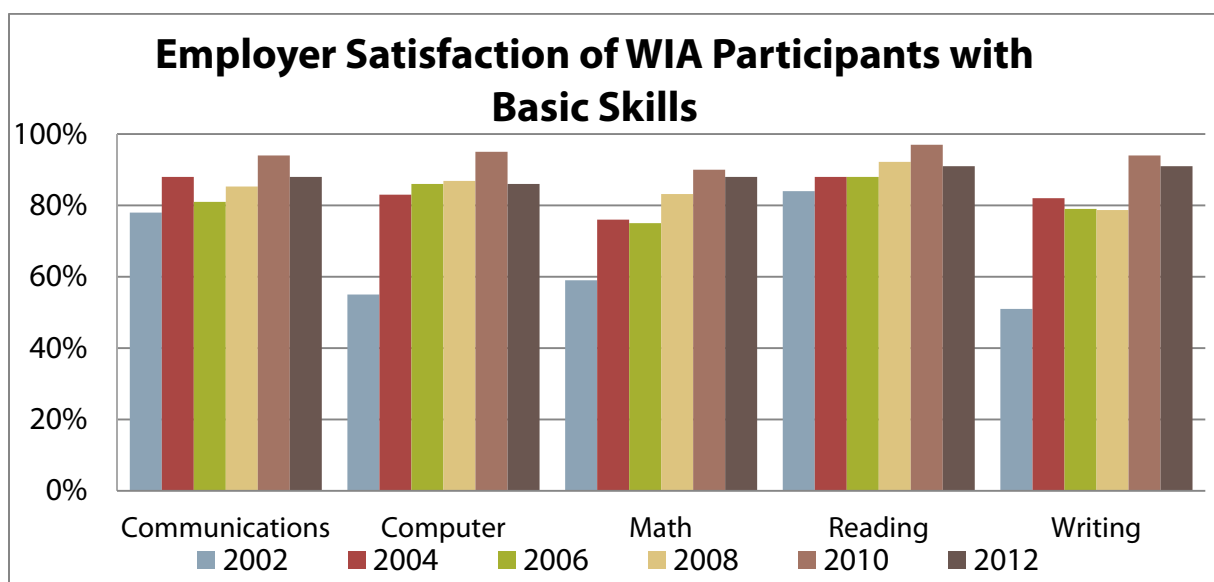
Employer satisfaction is broken down into three categories: Basic Skills, Job Skills and Work Place Skills. Basic skills refer to reading, writing, math, communication and computer skills. Job skills refer to skills specific to the job, as well as overall work quality and productivity. Work place skills 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 participant's adaptability.

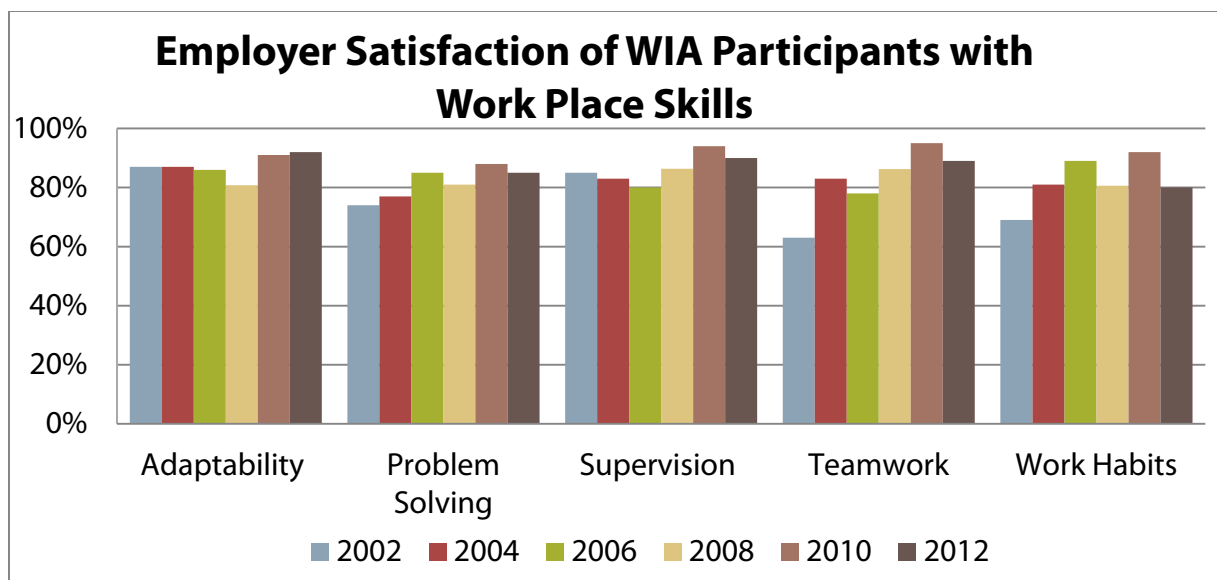


Source: Workforce Board Employer Survey conducted in 2012.

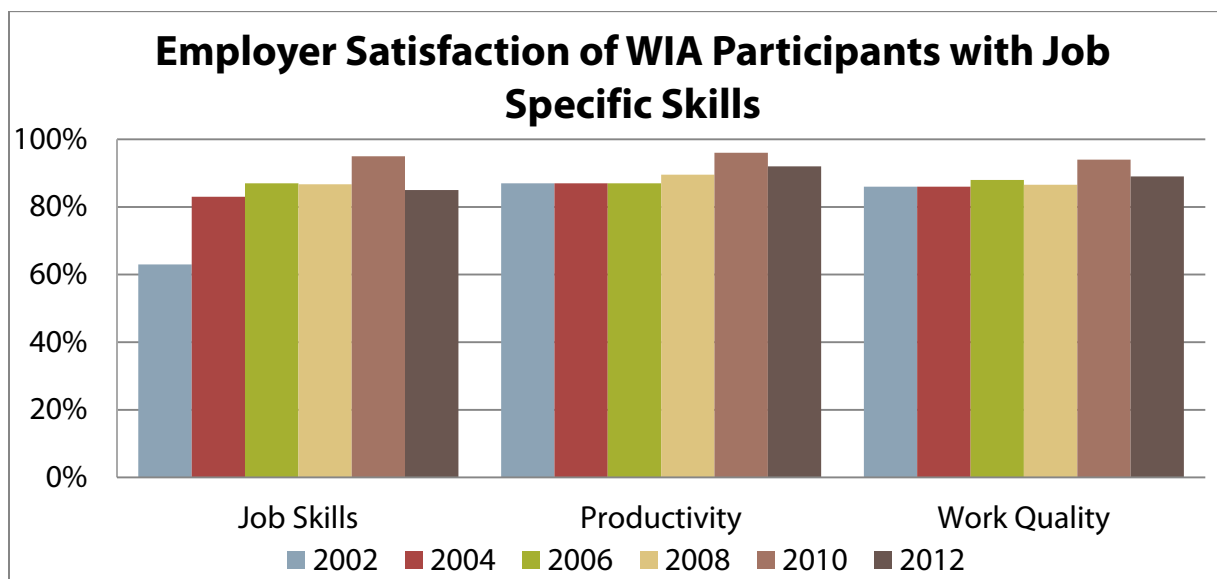
Overall, the levels of employer satisfaction reported in the Workforce Board's 2012 Employer Survey are lower than on the previous survey, conducted in 2010. The following three charts show the overall satisfaction of employers with new employees who recently completed WIA program.



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



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



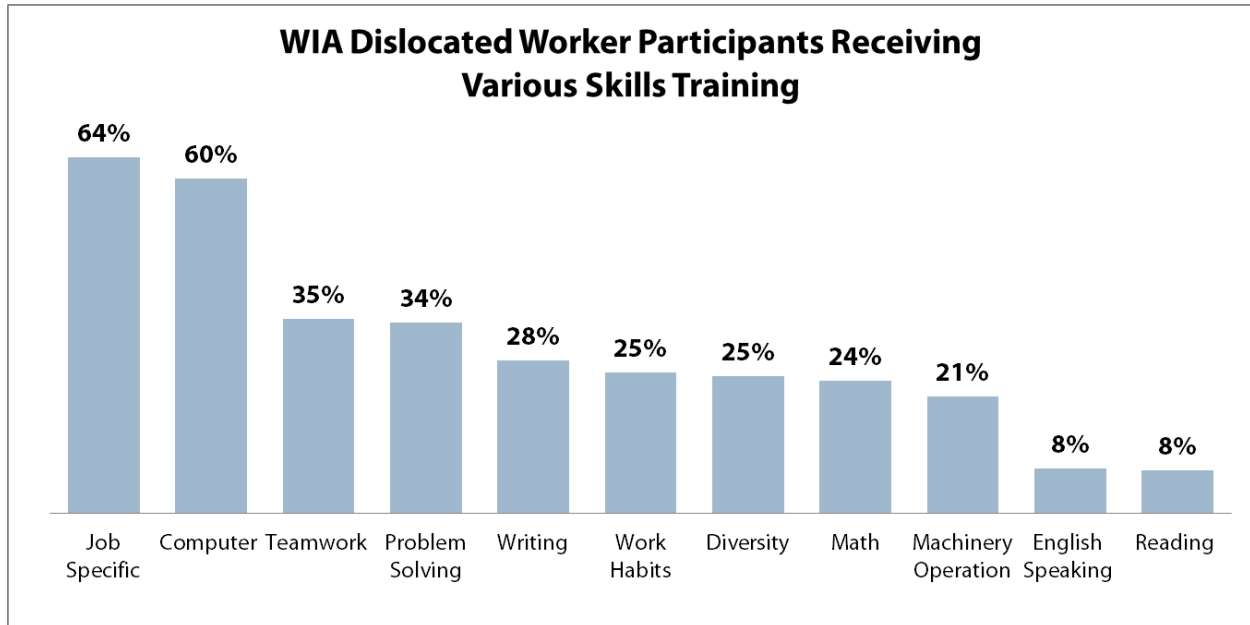
Source: Workforce Board's biennial Employer Surveys from 2002 through 2012.

Participant Survey

In 2011, the Workforce Board surveyed WIA Dislocated Worker participants who had left their program in 2009-10. The survey provided data on employment and participant satisfaction with the training. The survey was conducted by telephone and was completed by 545 participants.

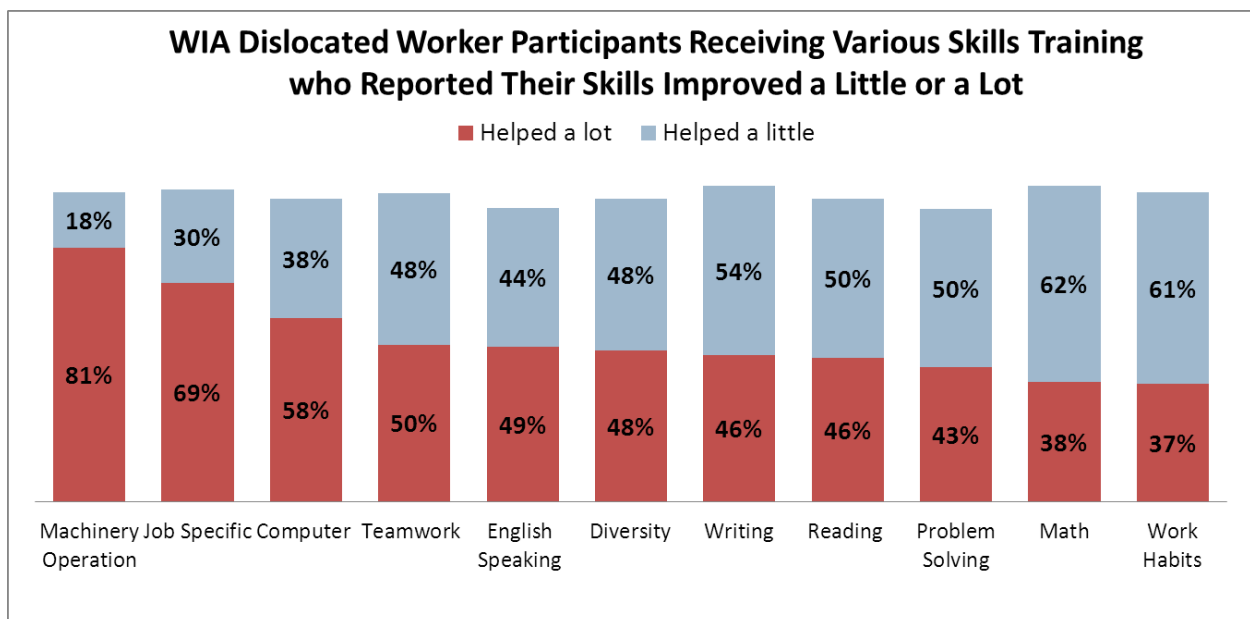
Most participants enroll in the WIA Dislocated Worker program for employment-related reasons. Based on survey results, 82 percent of adults entered the program to learn skills for a new job, 65 percent enrolled to get job search assistance, and 38 percent enrolled for on-the-job training. Participants also indicated that they enrolled to finish a degree or a certificate (51 percent).

Some 64 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 computer and job-specific skills.



Source: Workforce Board's Participant Satisfaction Survey 2011.

The vast 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 computer skills.

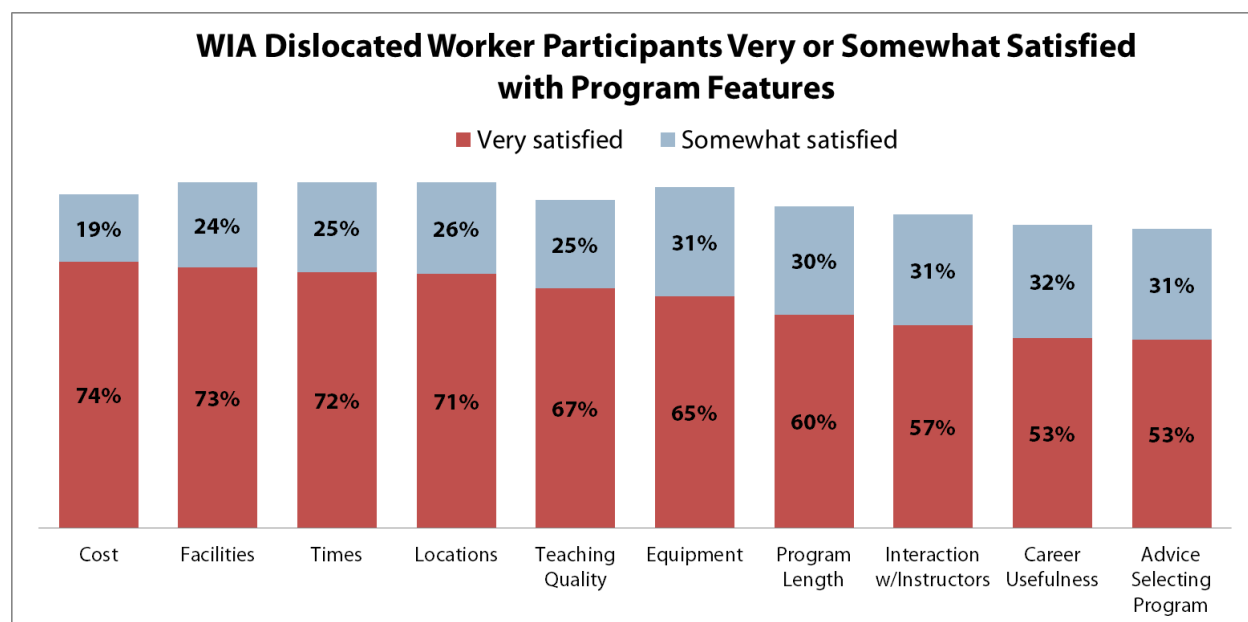


Source: Workforce Board's Participant Satisfaction Survey 2011.

Participant Satisfaction

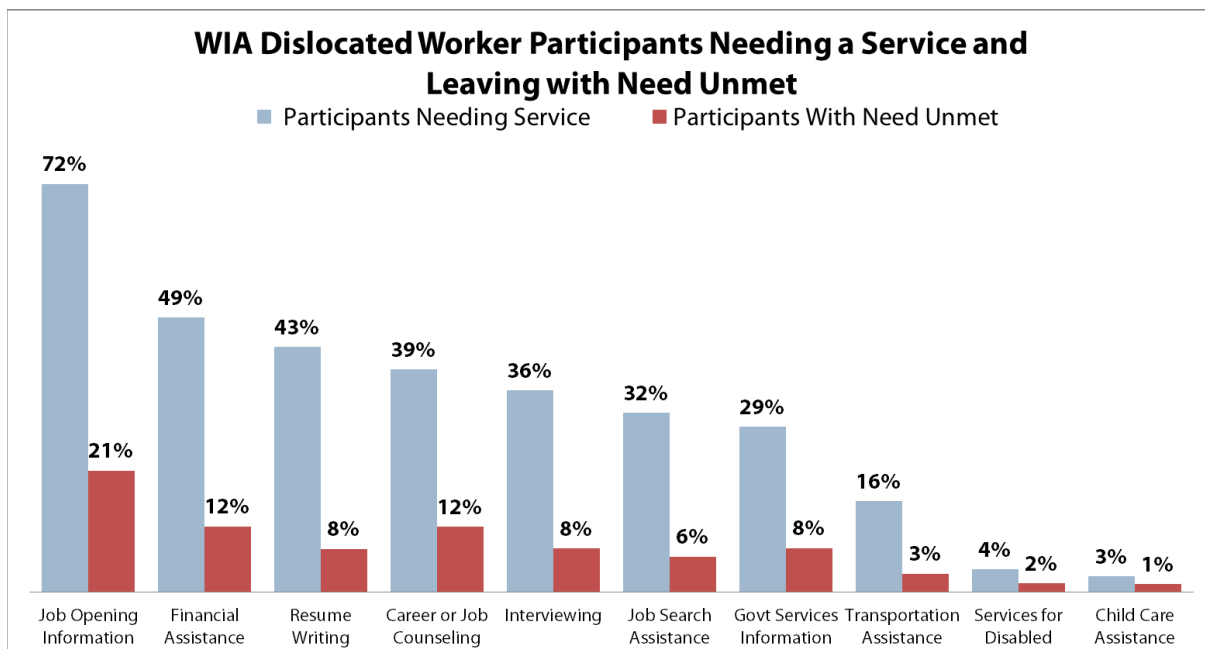
Survey results indicate participants were generally satisfied with the program. Some 88 percent of participants reported they were satisfied with the overall quality of the program. Eighty-three percent said their educational objectives had been met. These were similar levels of satisfaction as reported in the last survey.

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



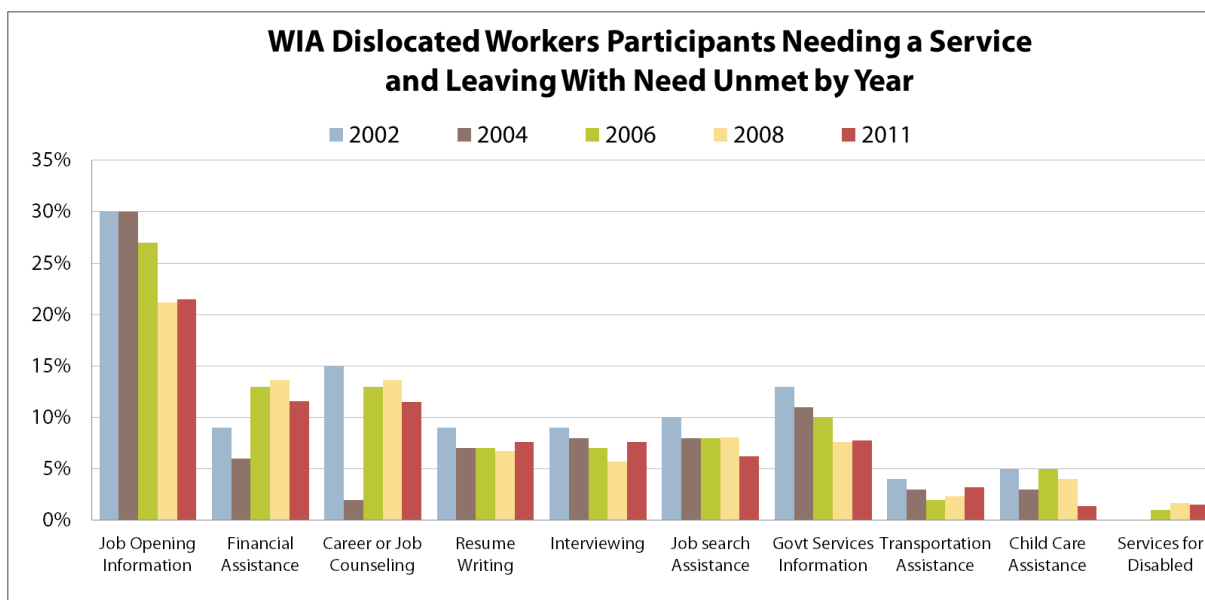
Source: Workforce Board's Participant Satisfaction Survey 2011.

Similar to previous surveys, WIA Dislocated Workers most frequently reported needing information on job openings. (Nearly three out of every four participants needed job opening information.) However, one out of every five participants left without that need met. Nearly 50 percent of participants required financial assistance, and many participants also indicated that they needed help with resume writing and job counseling.



Source: Workforce Board's Participant Satisfaction Survey 2011.

Most of the participants needing support services received them. The largest unmet need¹⁰ was for information about job openings. Both this year and in 2008, 21 percent of participants left with an unmet need in this area. This is down from a high of 30 percent in 2002 and 2004. WIA Dislocated Worker participants reporting unmet needs declined in most categories since the previous survey.



Source: Workforce Board's Participant Satisfaction Surveys 2002-2011.

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.

Relationship of Training to Employment

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?

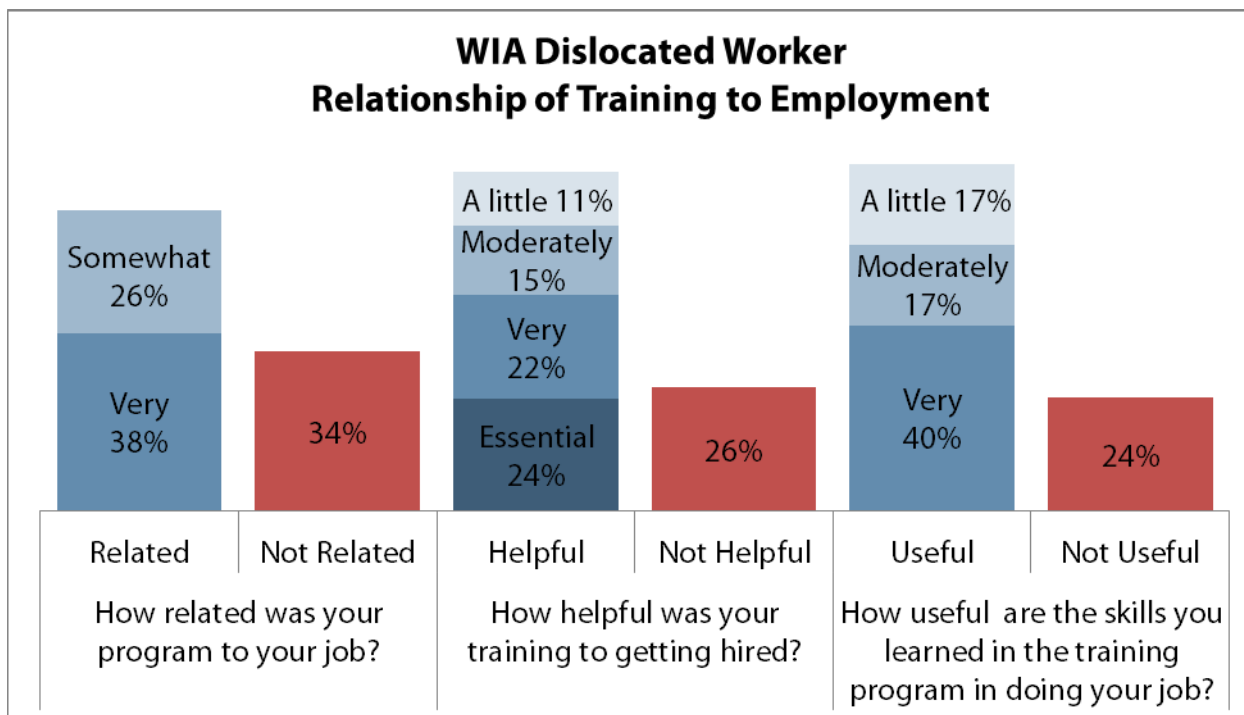
Asking about the relationship between training and employment in different ways can produce more complete information. For example, some participants said their training was not related to their job, but nevertheless found the skills acquired were useful on the job.

Among participants employed seven to nine months after leaving a program, 38 percent said their training was "very related" to their job. A further 26 percent reported the training was "somewhat related" to their job. In 2008, similar rates of employed participants reported their training was related to their job.

Participants also indicated the training was helpful to them in getting their job. Of those participants, 24 percent indicated their training was an "essential requirement," another 22 percent indicated it was "very important," and 15 percent reported it was "moderately important." Eleven 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 40 percent of participants indicated the skills were "very useful," 17 percent said "moderately useful," and 17 percent "a little useful." Some 24 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 18 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.



Source: Workforce Board's Participant Satisfaction Survey 2011.

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 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 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.

The analysis also separates out WIA Dislocated Worker participants who received job training, in addition to other WIA services. Roughly 65 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 Adult Basic Education 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 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	\$1.47	No significant positive impacts	\$1.96
Net Hours Employed per Quarter Impact	42.4	28.4	41.7	29.7
Net Annualized Earnings Impact**	No significant positive impacts	\$3,461	No significant positive impacts	\$4,655

^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 2011 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 significantly higher employment and 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 2011 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	\$8,994	\$0	\$51,430	\$0	
Fringe Benefits	\$2,249	\$0	\$12,857	\$0	
Taxes	-\$2,359	\$2,359	-\$13,490	\$13,490	
Transfers					
UI	-\$735	\$735	\$1,646	-\$1,646	
Costs					
Foregone net earnings	-\$13,335	-\$3,541	-\$13,335	-\$3,541	
Program costs	\$0	-\$5,993	\$0	-\$5,993	
Benefits	\$8,149	\$3,093	\$52,443	\$11,845	
Costs	-\$13,335	-\$9,534	-\$13,335	-\$9,534	
Total (Net)	-\$5,185	-\$6,441	\$39,108	\$2,311	\$41,419

Note: Benefits and costs are expressed in 2011 first quarter dollars.

For each participant in the program, the public (taxpayer) program cost is almost \$5,993 over the length of their enrollment, and the participant cost is about \$13,335 in foregone earnings. During the course of working life to age 65, the average participant will gain about \$38,095 in net earnings (earnings minus foregone earnings) and nearly \$12,900 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 \$39,108.

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 \$39,108 to \$5,993.

From the time of leaving the program to age 65, the public is forecasted to gain about \$13,490 per participant in net additional Social Security, Medicare, federal income, and state

sales taxes. However, the public is forecasted to spend \$1,646 in total UI benefits. The estimated lifetime net benefit to taxpayers is \$2,311 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 \$11,845 to \$5,993.

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 educational 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.

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.

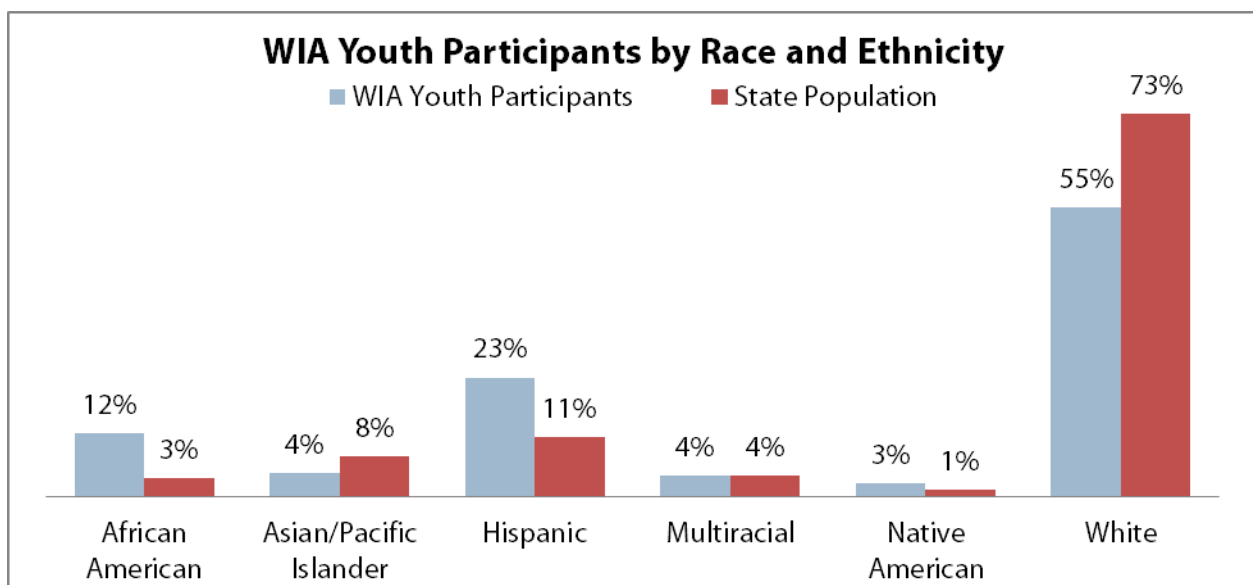
Other strategies include summer employment, study skills training, or instruction in obtaining a GED or equivalent. Youth may access information services through WorkSource, the state's one-stop career center system. Youth ages 18 through 21 may be co-enrolled in WIA Adult programs. At least 30 percent 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.

Participant Profile

For this 2012 report, researchers studied the results of 2,184 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 14 months. There was, however, considerable variation in the amount of time participants spent in the program. One quarter enrolled for less than eight months, while another quarter enrolled for over 22 months.

WIA Youth program participants were more racially and ethnically diverse than the state population.² Among program participants, 55 percent were white, 23 percent were Hispanic, 12 percent were African American, 4 percent were Asian/Pacific Islander and 3 percent Native American.

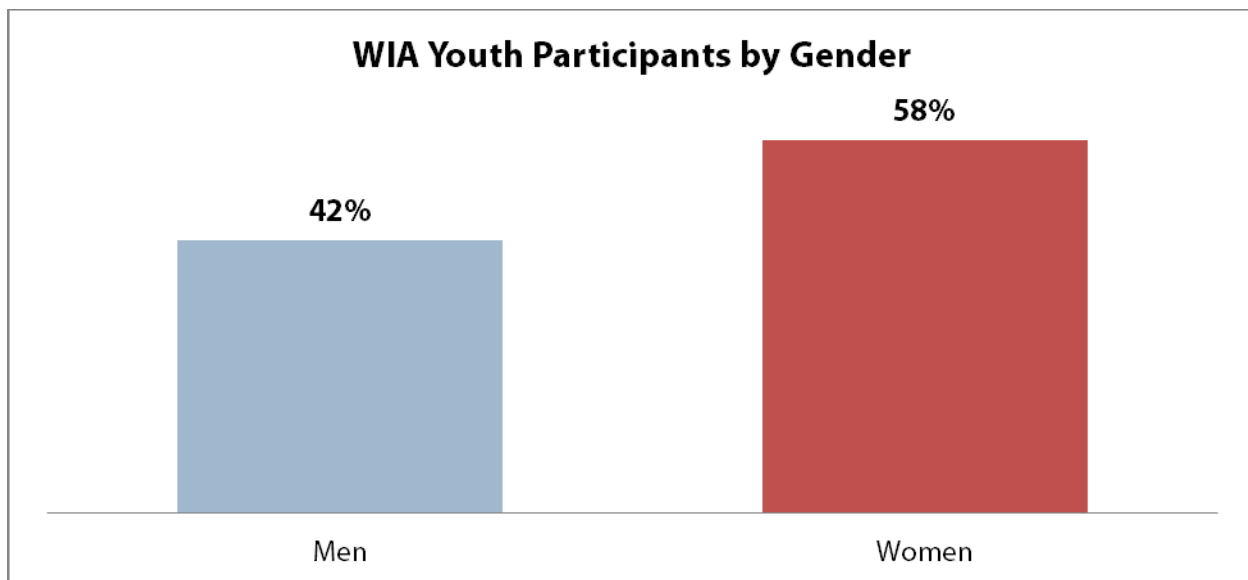


Source: WIA Standardized Record Data (WIASRD) and 2010 U.S. Census Data from the American Community Survey.

Among those leaving the program, 58 percent were female—the same as last year.

¹ The 2012 Workforce Training Results reports are based on data observed in 2010-11 for individuals exiting programs during 2009-10.

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/Pacific Islanders (also referred to as Asians/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 2010 U.S. Census Bureau estimates for Washington from the American Community Survey, 73 percent are white; 3 percent are African American; 1 percent are Native American; 8 percent are Asians/Pacific Islander; 4 percent are multiracial; and 11 percent are Hispanic.



Source: WIA Standardized Record Data (WIASRD).

Many WIA Youth participants faced substantial barriers to success in school and the labor market.

- 39 percent were high school dropouts when they entered the program.³
- 18 percent had records of arrest or conviction.
- 16 percent reported a disability.
- 35 percent lived in households that were receiving public assistance.⁴

State Core Measures: 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?

³ These are defined as youth who had no high school degree and who were not enrolled in school at registration.

⁴ Those on public assistance includes 35 percent who received cash assistance from state or local General Assistance, Refugee Cash Assistance, or Supplemental Security Income; 6 percent who received Temporary Assistance to Needy Families (TANF); and 3 percent who received both.

Data Comes From State Wage Files, Employer Survey

The 2012 Workforce Training Results includes information obtained from Employment Security Department wage files in Washington, Idaho, and Oregon, and federal employment records for 2010-11. 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, this year's report includes a comprehensive Net Impact Study. To assess both short- and long-term employment and earnings trends, data on participant experiences through 2009 is used in the 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 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 19 for the Net Impact Study. Conducted every four years, this in-depth report adds extra value to 2012 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?

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 substantially more youth were still enrolled in high school than in the 2011 report—which had the lowest enrollment since 2004. There were also fewer participants who were not in school and who did not have a diploma or GED.

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.

⁶ These records are collected through the Service, Knowledge, and Information Exchange System (SKIES) maintained by ESD.

⁷ These youth were ages 14 to 18 when registering in WIA.

Educational Status of WIA Youth Upon Leaving the Program

	2004	2006	2008	2010	2011	2012
Obtained a High School Diploma	23%	38%	31%	31%	28%	30%
Obtained a GED	13%	4%	10%	21%	28%	25%
Still Enrolled in High School at Exit	25%	33%	24%	12%	6%	12%
Not in School, no Diploma or GED	39%	26%	35%	35%	38%	33%
Note: the "Not in School, no Diploma, or GED" data was missing for 2008. The percent that was missing was equivalent to the Drop-out percent obtained from another data element and was assumed to be valid for this category.						

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 45 percent of all participants were employed. The employment rate remains the same when the 12 percent of the WIA Youth participants still enrolled in high school upon exiting the program were removed from consideration. Of those employed, 25 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 chart below, 56 percent of WIA Youth were either employed or enrolled in higher education.⁹

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.

Employment and Earnings for WIA Youth Participants, 2012

Performance Measure	Results
Employment or Higher Education*	56%
Full Time Employed**	25%
Median Hours Worked Quarterly	306 hours
Median Hourly Wage***	\$9.95
Median Annualized Earnings***	\$11,784

* 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 2011 dollars in order to account for inflation.

Earnings of WIA Youth Participants

To better gauge the financial effectiveness of Washington's workforce programs, it helps to frame income levels. One common yardstick is the federal poverty level. In 2011, the federal poverty level for one person was \$10,890 per year.¹⁰

In 2012, WIA Youth participants were able to support a median of one person at poverty level—meaning they could support themselves. They did not have enough earnings to support themselves, let alone others, at 200 percent of the poverty level (.5 people).

Number of People Supported at Poverty Level by Participant Income

Performance Measure	2004	2006	2008	2010	2011	2012
Number of people supported at poverty level	0.8 people	0.9 people	0.9 people	1.0 people	1.0 people	1.0 people
Number of people supported at 200 percent poverty	0.4 people	0.5 people	0.5 people	0.5 people	0.5 people	0.5 people

¹⁰ Poverty levels from 2011 were used in this edition of Workforce Training Results to measure the results of workforce programs on participants observed in 2010-11. The federal poverty level is determined by the Department of Health and Human Services. The level varies according to family size. The number is adjusted for inflation and reported annually in the form of poverty guidelines. Public assistance programs typically define eligibility income limits as some percentage of the federal poverty level.

The next table shows employment and earnings over the course of six study periods.

WIA Youth Participants Receiving Benefits from Employers

Performance Measure	2004	2006	2008	2010*	2011	2012*
Self-Reported Medical Benefits from Employer	38%	33%	40%	N/A	42%	N/A
Self-Reported Retirement Benefits from Employer	17%	15%	19%	N/A	21%	N/A

* Due to budget limitations, the Workforce Board's Participant Survey was not conducted in 2010 or 2012.

Employment and Earnings Trends for WIA Youth Participants

Performance Measure	2004	2006	2008	2010	2011	2012
Employment or Higher Education*	67%	56%	63%	59%	58%	56%
Employment Rate (Self-Reported)	66%	67%	66%	N/A	63%	N/A
Percentage Employed Full Time**	27%	29%	31%	28%	28%	25%
Median Quarterly Hours	253	281	281	270	281	306
Median Hourly Wage***	\$9.20	\$9.33	\$9.44	\$9.98	\$10.10	\$9.95
Median Annualized Earnings ***	\$9,862	\$11,277	\$11,393	\$11,353	\$10,801	\$11,784

*These figures apply to those with employment reported to ESD 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.

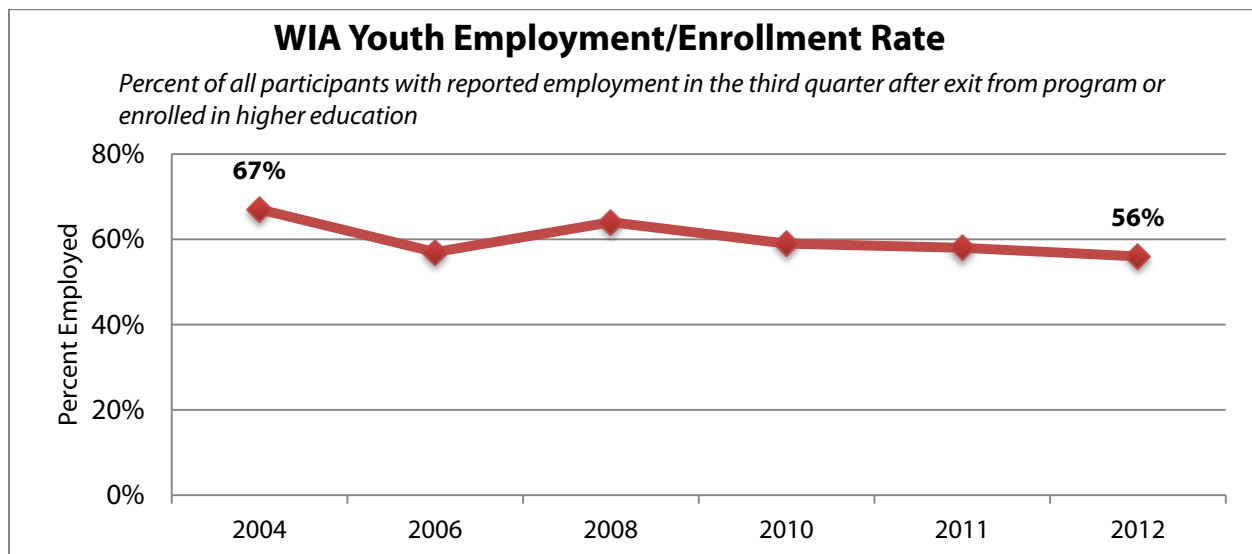
**Full-time employment averages 30 or more hours per week for those not enrolled in high school or higher education.

***Earnings/wages are for those not enrolled in high school or higher education and are expressed in first quarter 2011 dollars in order to account for inflation.

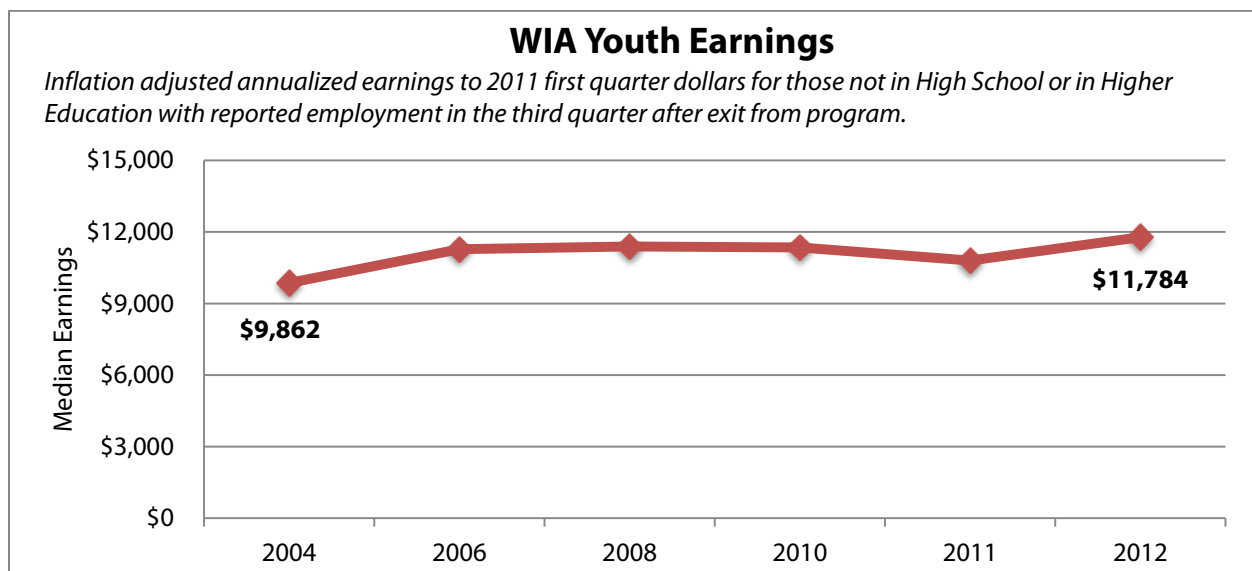
Since 2008, the percentage of participants who were employed or in higher education has decreased. Median hourly wages, however, increased every year from 2004 to 2011, before

declining to \$9.95 in 2012. Median annualized earnings increased to \$11,784 in 2012 from \$10,801 in 2011.

Among those not enrolled in high school or higher education, the median hourly wage was \$9.85, and median annualized earnings were \$10,569.¹¹ 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.



Source: Workforce Training Results 2004-12.



Source: Workforce Training Results 2004-12.

¹¹ 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 2011 dollars.

Distribution of Hourly Wages of WIA Youth in the Third Quarter After Leaving Program	
Quartile	Hourly Wage
Highest	Above \$11.11
Third	\$9.88 – \$11.10
Second	\$9.13 - \$9.87
Lowest	Below \$9.12

Wage rates among WIA Youth participants reflected less variation than programs serving adults. One-quarter of participations had median hourly wages above \$11.11, while another quarter had wages below \$9.12—slightly above the 2010 state minimum wage of \$8.55.

WIA Youth Participant Employment by Industry

Employment among WIA Youth continues to be heavily concentrated in services and retail trade.

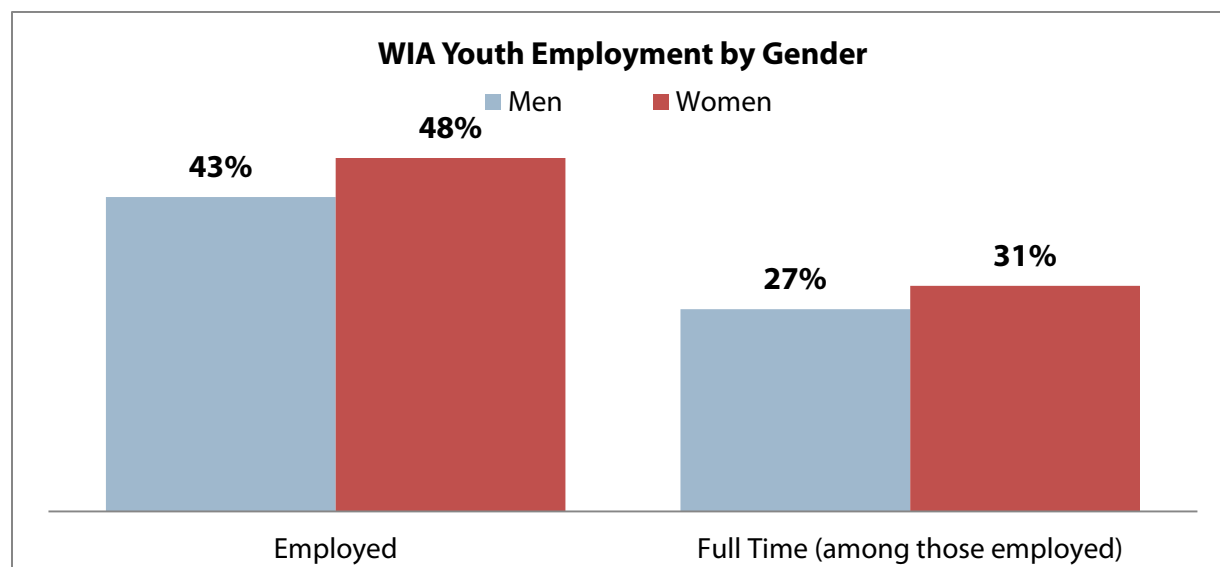
Industry Group	
52.8%	Services
24.1%	Retail Trade
4.7%	Manufacturing
3.6%	Natural Resources and Mining
3.2%	Construction
3.0%	Public Administration
2.9%	Financial Activities
2.3%	Wholesale Trade
2.3%	Transportation and Warehousing and Utilities
1.1%	Information
Breakout of the Services Industry	
28.2%	All Other Services
13.7%	Health Care
7.2%	Social Assistance
3.7%	Accommodation and Food Services
Breakout of the Retail Trade Industry	
15.7%	All Other Retail Trade
4.8%	Food & Beverage Stores
3.6%	Department Stores

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 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.¹²

Women were slightly more likely than men to be employed in the third quarter after program exit (48 percent compared to 43 percent), and also more likely to be employed full-time (31 percent versus 27 percent). Of those employed, women had median hourly wages (\$10.01) that were 102 percent of men's wages (\$9.84), and median annualized earnings that were 111 percent of males (\$12,213 compared to \$11,096).



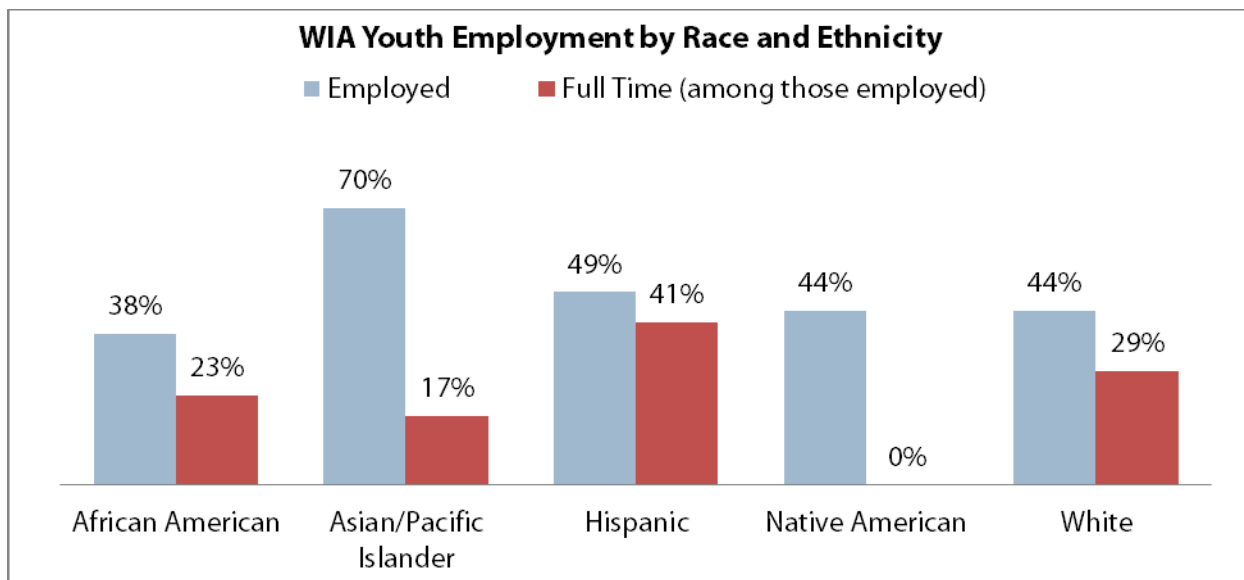
Source: Matches with Employment Security Department data and WIASRD.

Race and Ethnicity Plays a Role

Asian/Pacific Islanders had the highest employment rate (70 percent) among different race/ethnic groups. Hispanics followed with an employment rate of 49 percent. Whites and Native Americans had employment rates of 44 percent. African Americans had the lowest employment rate of 38 percent. Among those working, Hispanics had the highest rate of full-time employment (41 percent), followed by whites (29 percent), African Americans (23 percent) and Asian/Pacific Islanders (17 percent).

Hispanics had the highest median hourly wage at \$10.29, followed closely by Native Americans at \$10.08, whites at \$9.98, and Asian/Pacific Islanders at \$9.75. African Americans had the lowest median hourly wage at \$9.63. There was more variation in the median annual earnings than there was with hourly wages. Hispanics earned the most, with median annual earnings of \$13,900, followed by Asian/Pacific Islanders (\$12,590), whites (\$11,904), Native Americans (\$11,840), and African Americans (\$10,392).

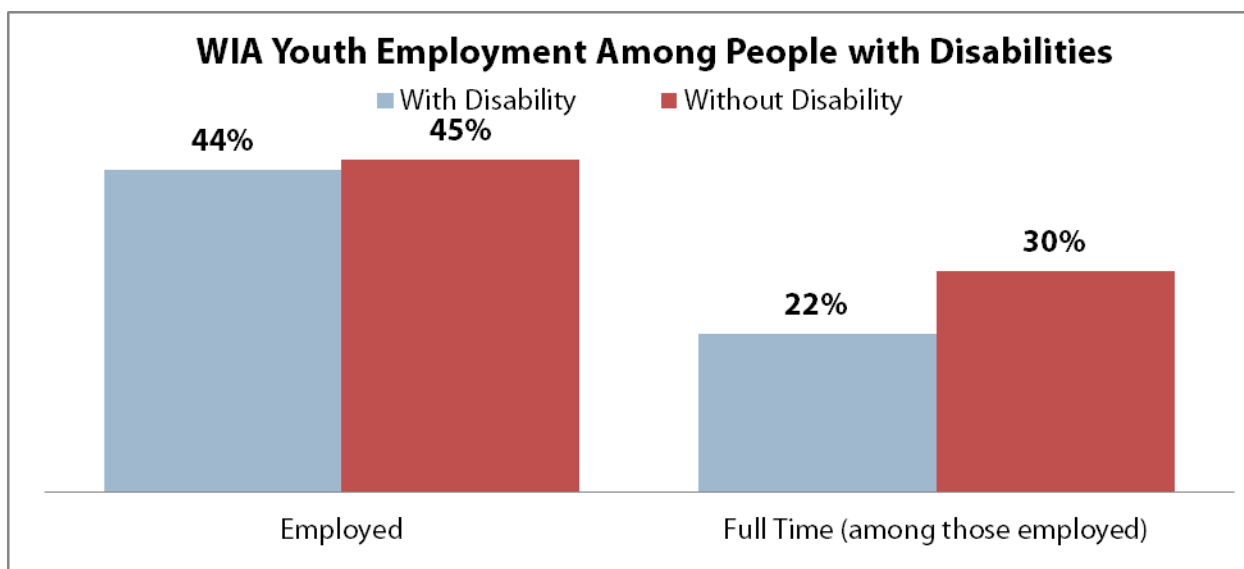
¹² These employment and earnings group comparisons were based on data from youth who were not in high school at exit.



Source: Matches with Employment Security Department data and WIASRD.

Disability Impacts Employment and Earnings

Youth with disabilities had similar rates of employment than those without disabilities (44 percent versus 45 percent). However, youth with disabilities had lower rates of full-time employment than those without disabilities (22 percent versus 30 percent). Disabled youth had median hourly wages 98 percent of those without a disability (\$9.74 versus \$9.99) and median annual earnings that were 77 percent of youth without disabilities (\$9,453 versus \$12,213).



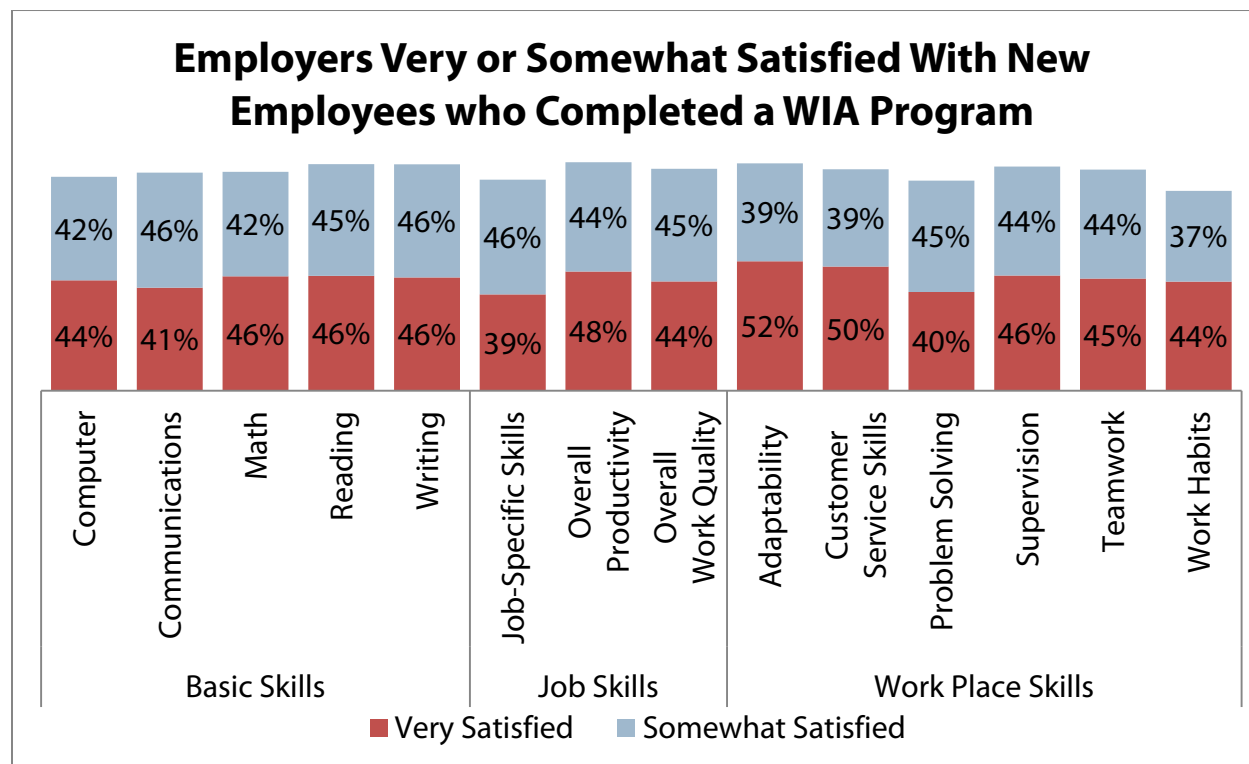
Source: Matches with Employment Security Department data and WIASRD.

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.

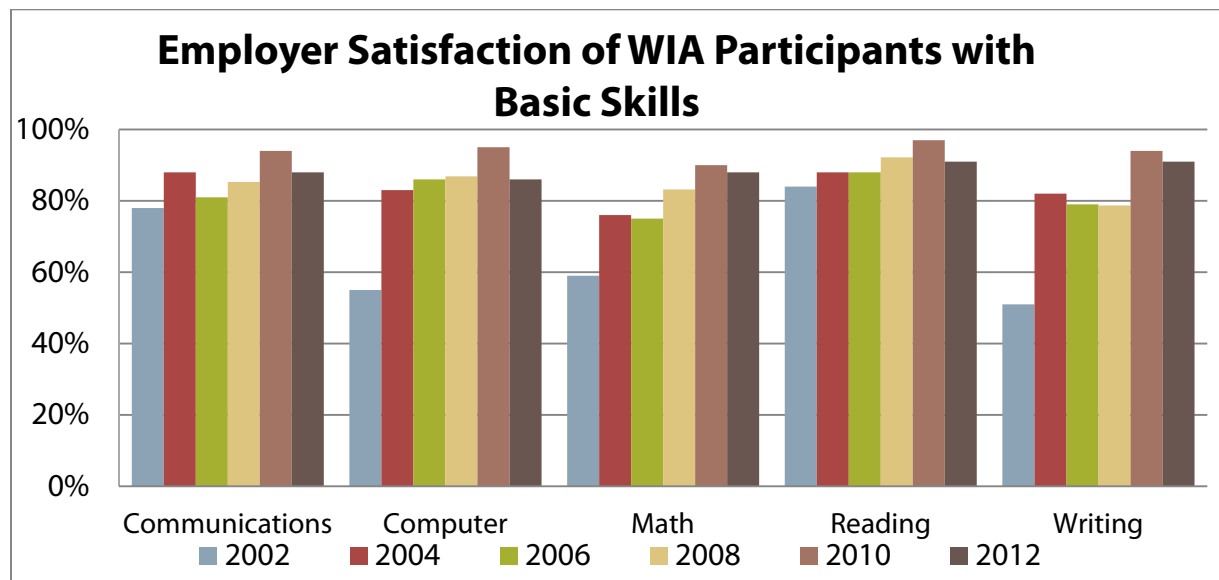
Employer satisfaction is broken down into three categories: Basic Skills, Job Skills and Work Place Skills. Basic skills refer to reading, writing, math, communication and computer skills. Job skills refer to skills specific to the job, as well as overall work quality and productivity. Work place skills 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 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 participant's adaptability.

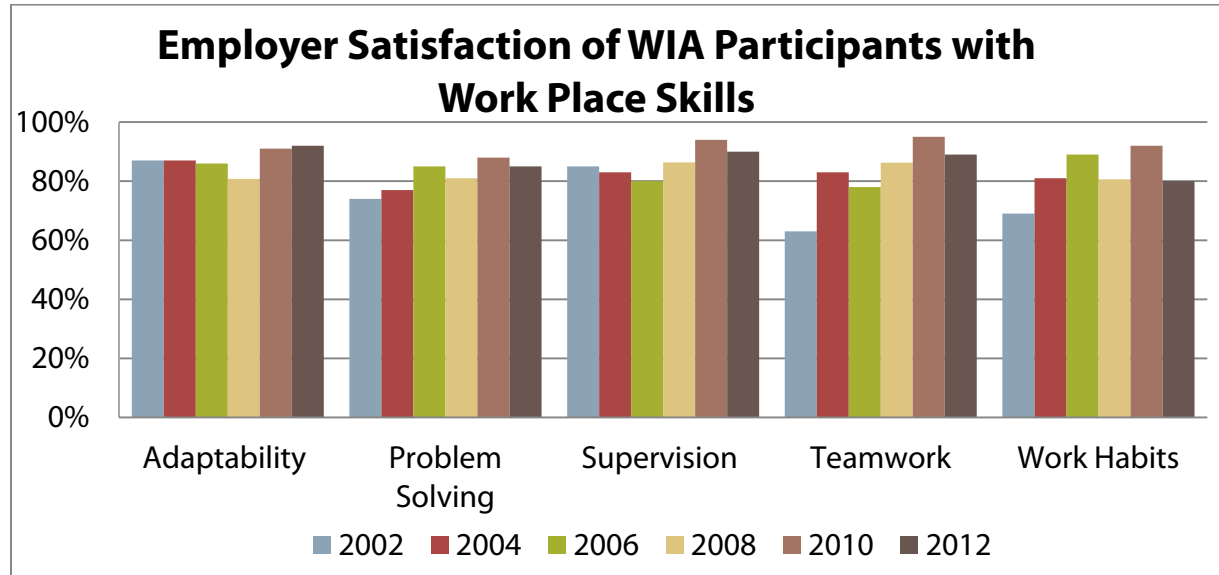


Source: Workforce Board Employer Survey conducted in 2012.

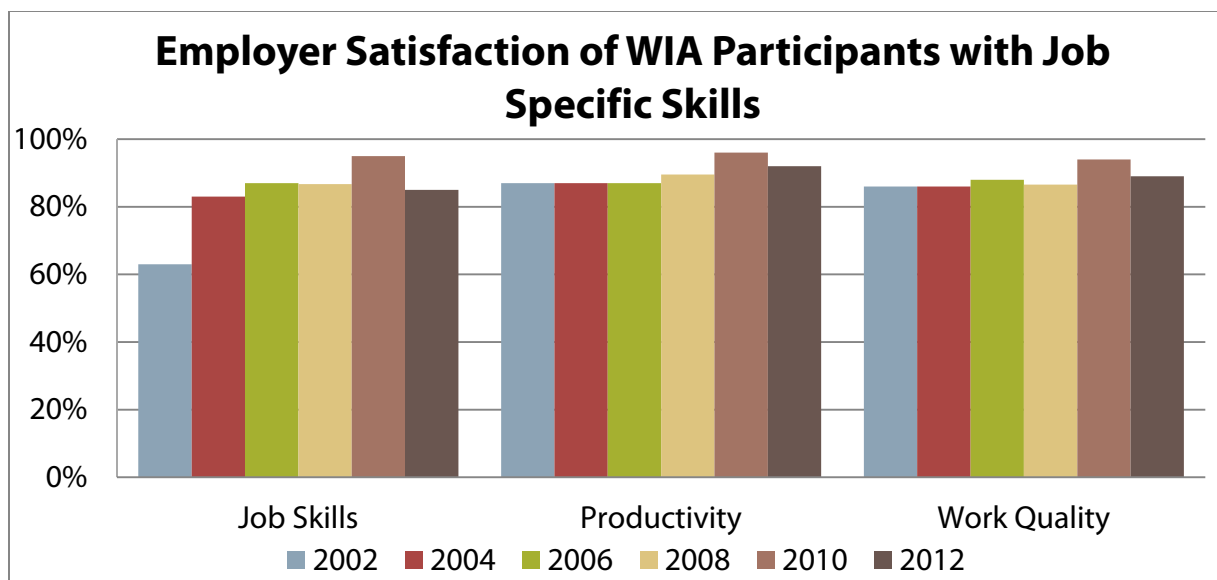
Overall, the levels of employer satisfaction reported in the Workforce Board's 2012 Employer Survey are lower than on the previous survey, conducted in 2010. The following three charts show the overall satisfaction of employers with new employees who recently completed WIA program.



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



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



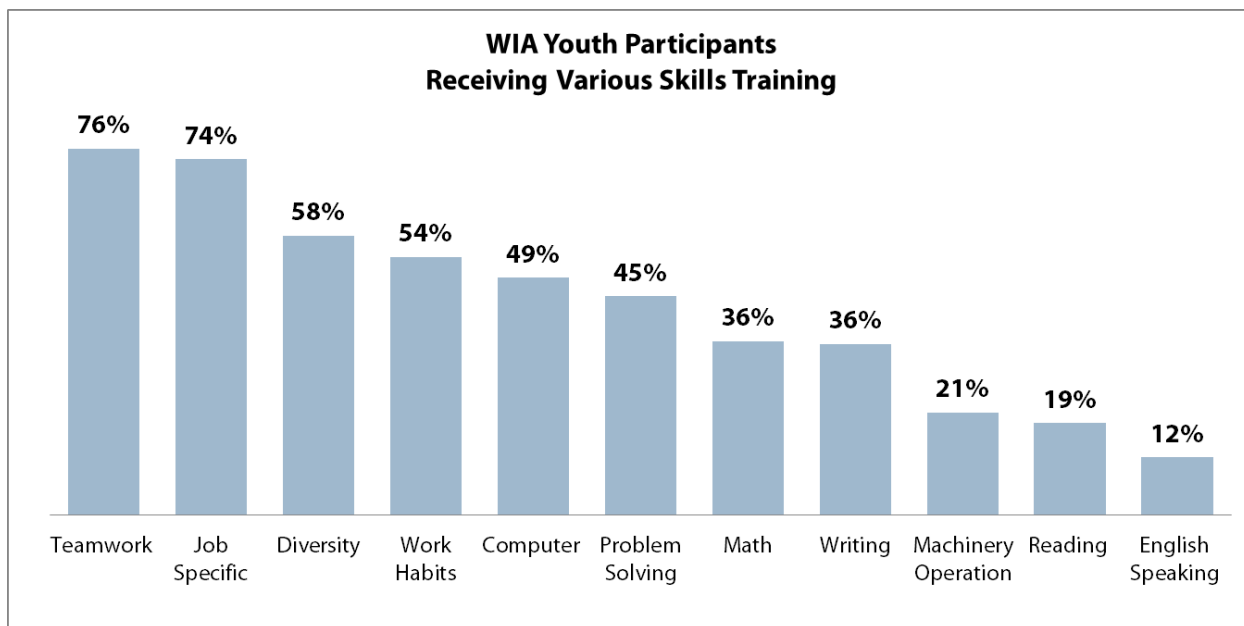
Source: Workforce Board's biennial Employer Surveys from 2002 through 2012.

Participant Survey

In 2011, the Workforce Board surveyed WIA Youth participants who had left their program in 2009-10. 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 309 participants.

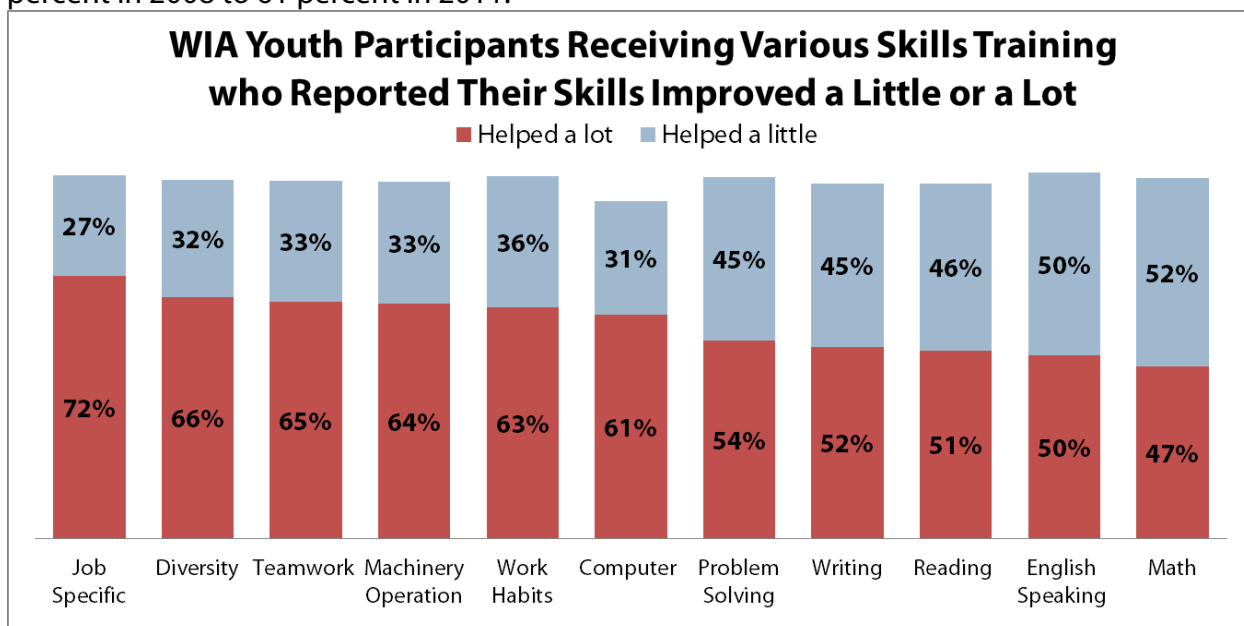
Based on survey results, most WIA Youth participants entered the program for employment-related reasons: 85 percent enrolled to get work experience and 84 percent to learn skills for a new job. Some 82 percent also enrolled for personal improvement.

The majority of WIA Youth participants reported they received some type of training (60 percent). As in the previous study, the two most common types of training received were teamwork (76 percent among those who received training) and job-specific skills (74 percent among those who received training). This is an increase from the previous Participant Survey, when only 50 percent received teamwork training, and only 45 percent in job specific skills. Similar to the previous survey, fewer participants received training in basic skills like reading and English speaking.



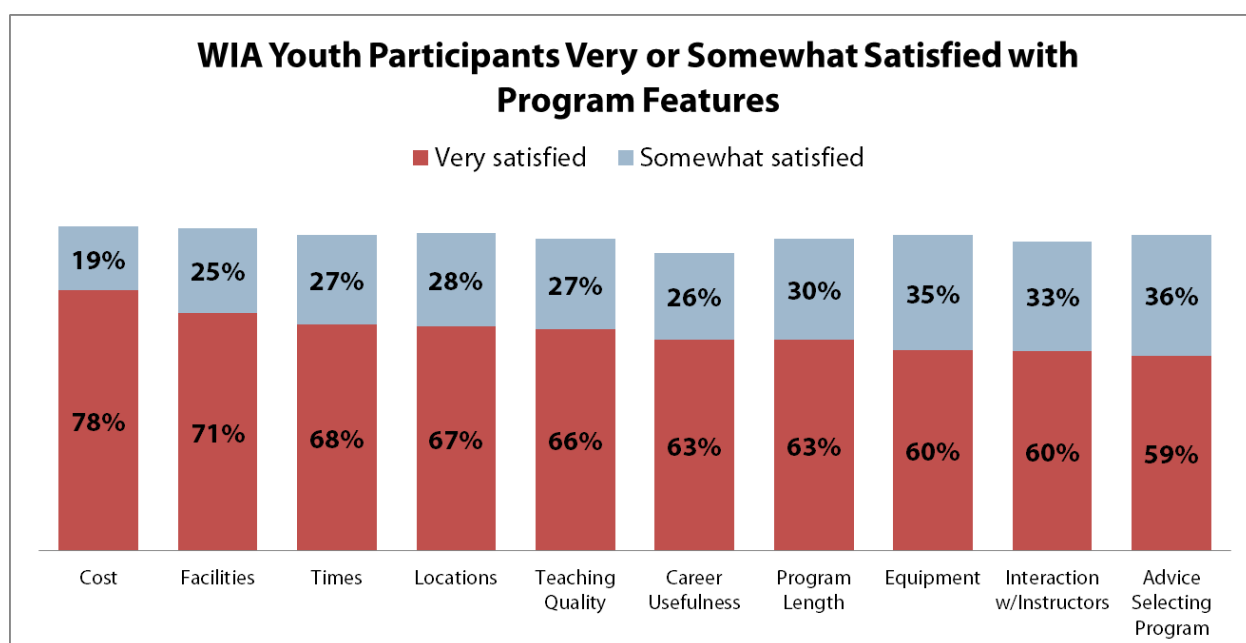
Source: Workforce Board's Participant Satisfaction Survey 2011.

As in the past, 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 did so in basic skills. The percentage of WIA Youth participants who reported that the diversity training helped “a lot” fell 10 percentage points. However, the percentage that reported it helped “a little” increased 11 percentage points. In a similar fashion, the percentage of participants who said job-specific skills training helped “a lot” increased 7 percentage points, but those reporting it helped “a little” declined by the same percentage. Another increase in training that helped “a lot” was computer skills, which rose 17 percentage points from 44 percent in 2008 to 61 percent in 2011.



Source: Workforce Board's Participant Satisfaction Survey 2011.

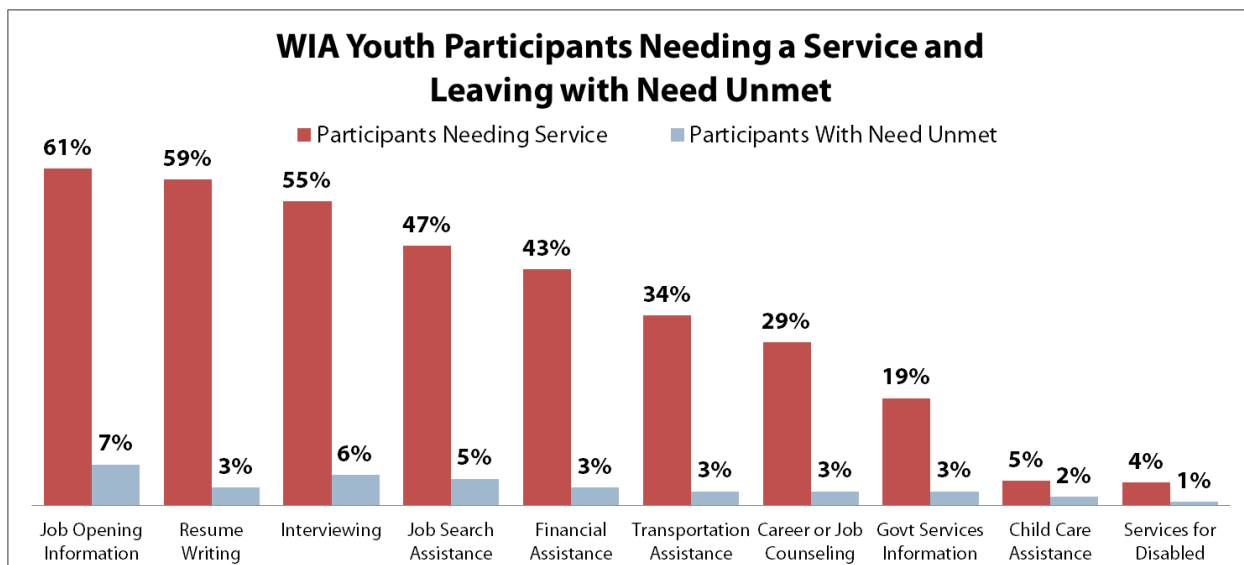
Survey results revealed participants were quite satisfied with the training and support services they received as part of their WIA Youth program. Some 93 percent of the participants surveyed said they had met their educational objectives in the program, about the same as in 2008. Overall satisfaction with the program was also higher than reported in 2008 (96 percent versus 93 percent). When asked about specific program features, satisfaction was highest with program facilities and cost followed by times, locations, equipment and advice selecting the program. Satisfaction was lower this year with career usefulness.



Source: Workforce Board's Participant Satisfaction Survey 2011.

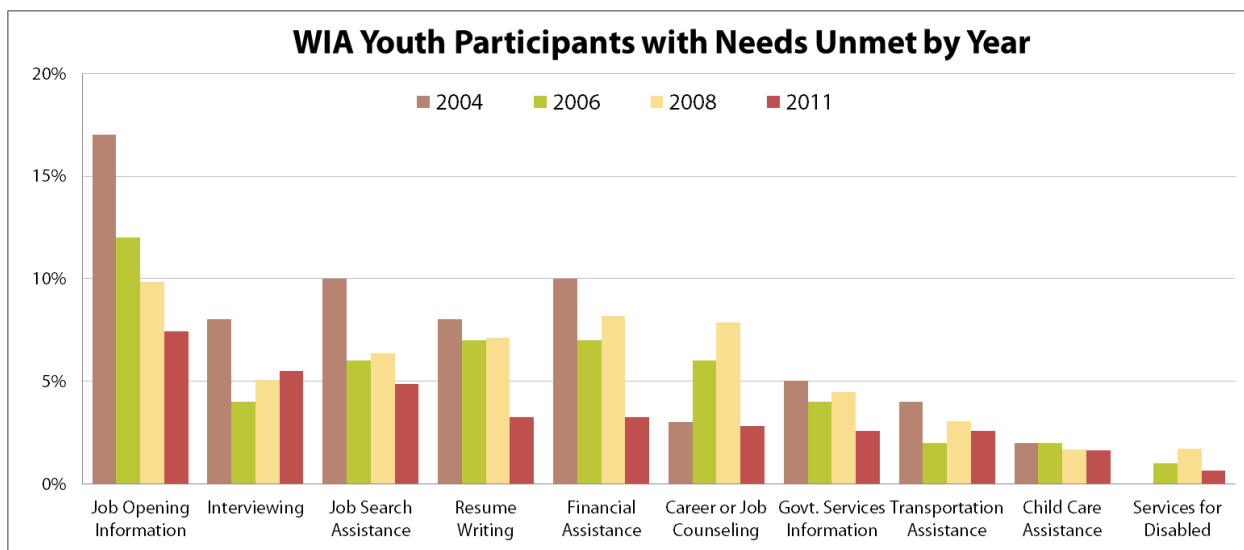
Most of the participants who needed support services while enrolled received them. As in previous studies, participants said the services most frequently needed were information on job openings, assistance with interviewing, and job search assistance. Most youth had their needs met in these areas. The greatest unmet need¹³ remains job opening information (10 percent in 2008 vs. 7 percent in 2011).

¹³ 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 2011.

The percentage of WIA Youth participants who left their program with an unmet need has declined since 2004. The largest declines since the 2008 Participant Survey were in financial assistance and career or job counseling. The percentage of participants indicating an unmet need dropped from 8 percent to 3 percent in each of these categories.



Source: Workforce Board's Participant Satisfaction Surveys 2004-11.

Relationship of Training to Employment

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?

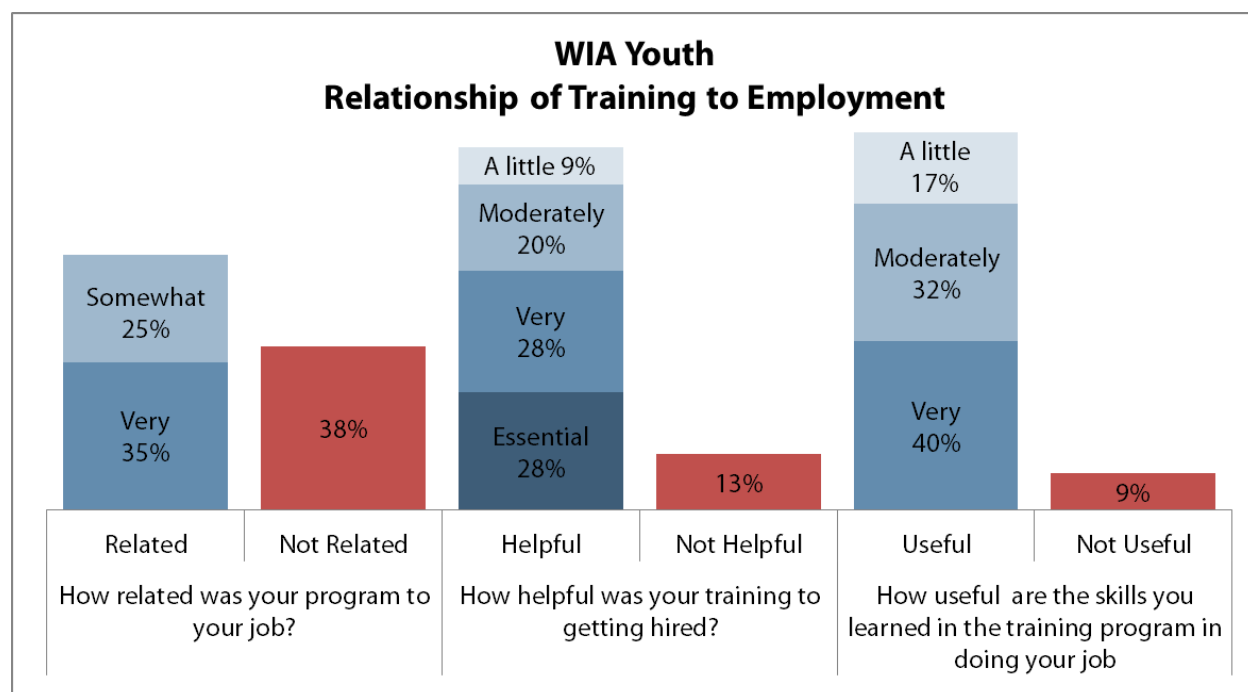
Asking about the relationship between training and employment in different ways can produce more complete information. For example, some participants said their training was not related to their job, but nevertheless found the skills acquired were useful on the job.

Among participants employed seven to nine months after leaving a program, 35 percent said their training was “very related” to their job. A further 25 percent reported the training was “somewhat related” to their job. In 2008, a lower percentage of employed participants reported their training was “very related” to their job (27 percent), while a higher percentage indicated the training was “somewhat related” (35 percent).

Participants interviewed in 2011 also indicated the training was helpful to them in getting their job. Of those participants, 28 percent indicated their training was an “essential requirement,” another 28 percent indicated it was “very important,” and 20 percent reported it was “moderately important.” Nine percent said it was “a little helpful.” Only 13 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 40 percent of participants indicated the skills were “very useful,” 32 percent said “moderately useful,” and 17 percent “a little useful.” Only 9 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 6 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.



Source: Workforce Board’s Participant Satisfaction Survey 2011.

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 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 Adult Basic Education when delivered in combination with career and technical education.

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

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 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	\$1.13
Net Hours Employed per Quarter Impact	46.5	30.8	52.2	50.5
Net Annualized Earnings Impact**	\$1,643	\$1,963	\$3,204	\$4,473

^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 2011 dollars, represent the average difference between WIA Youth participants who got jobs and those in the control group who were employed.

The WIA Youth program serves young people with substantial barriers to success in school and employment. This affects the program's outcomes. After participation, 38 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 \$11,784.

These results may seem mild, but they should be viewed in the context of the population served. Comparing the results to demographically similar individuals who did not participate in a workforce development program, the study found a positive net impact of 4.5 percentage points on their rate of employment and a \$1,963 net impact on annual earnings. Moreover, the net impact on annual earnings for those who received training was \$4,473—a very strong result.

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 2011 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 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	\$4,928	\$0	\$36,472	\$0	
Fringe Benefits	\$1,231	\$0	\$9,119	\$0	
Taxes	-\$641	\$641	-\$4,745	\$4,745	
Transfers					
UI	\$161	-\$161	\$1,529	-\$1,529	
Costs					
Foregone net earnings	-\$1,257	-\$145	-\$1,257	-\$145	
Program costs	\$0	-\$6,836	\$0	-\$6,836	
Benefits	\$5,680	\$480	\$42,375	\$3,216	
Costs	-\$1,257	-\$6,981	-\$1,257	-\$6,981	
Total (Net)	\$4,423	-\$6,501	\$41,119	-\$3,765	\$37,354

Note: Benefits and costs are expressed in 2011 first quarter dollars.

For each WIA Youth, the public (taxpayer) program cost is about \$6,836 over the length of enrollment, and the student cost is \$1,257 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 \$4,928. During the course of working life to age 65, the average youth participant will gain about \$35,216 in net earnings (earnings minus foregone earnings) and about \$9,119 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 \$41,119.

Projected participant benefits to age 65 outweigh public costs for the WIA Youth program by a ratio of \$6 to 1, or \$41,119 to \$6,836.

From the time of leaving the program to age 65, the public is expected to gain about \$4,745 per youth participant in net additional Social Security, Medicare, federal income, and state sales taxes. However, the public is expected to spend about \$1,529 per youth participant in UI benefits. The estimated lifetime net cost to taxpayers is \$3,765 per participant. Projected taxpayer net benefits to age 65 are less than public costs invested in WIA Youth services by a ratio of .47 to 1 or \$3,216 to \$6,836.