



# Workforce Training and Education Coordinating Board

## 2017 Workforce Training Results

### Apprenticeship

#### Program Details

Apprenticeship combines classroom studies with extensive on-the-job training under the supervision of a journey-level craft person or trade professional.

Apprentices receive progressively increasing wages and may receive health, pension, and other benefits while learning occupational skills. This “earn while you learn” model has proven successful across a range of occupations—from child care site coordinators to sheet metal workers. Apprenticeships require applicants be at least 16 years old (18 for construction trades), and most require at least a high school diploma or GED for entrance. Registered apprenticeship in Washington is governed by the Washington State Apprenticeship and Training Council and administered by the state’s Department of Labor and Industries.<sup>1</sup>

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.

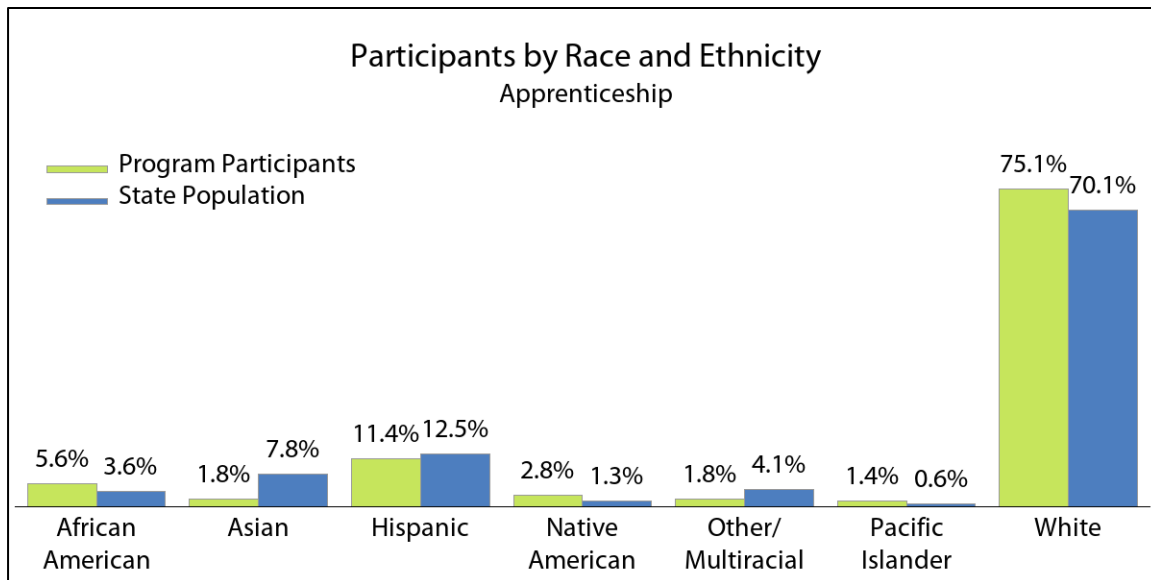
#### Participant Profile

During the 2014-2015 program year, 3,144 participants exited apprenticeship programs.<sup>2</sup> For the most part these exiters reflect the state’s ethnic and racial diversity. Compared to the population as a whole, this apprenticeship workforce is relatively more white (75.1 compared to 70.1 percent of the overall population) and African American (5.6 compared to 3.6 percent), and less Asian (1.8 compared to 7.8 percent) and Multiracial (1.8 compared to 4.1 percent).

<sup>1</sup> This report focuses solely on Washington apprenticeships. More information at the federal level is available at [www.doleta.gov/oa/](http://www.doleta.gov/oa/).

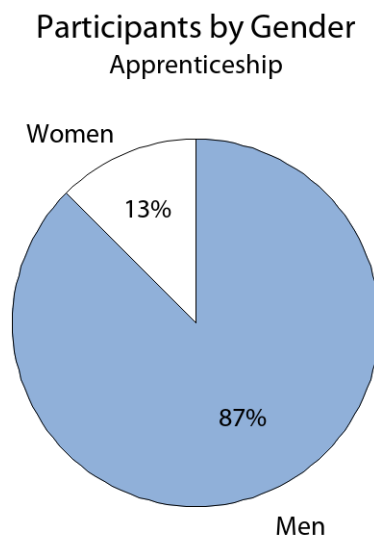
<sup>2</sup> Program years run from July 1 through June 30.





Source: Apprenticeship Administrative Data, Department of Labor and Industries, Washington State Office of Financial Management.

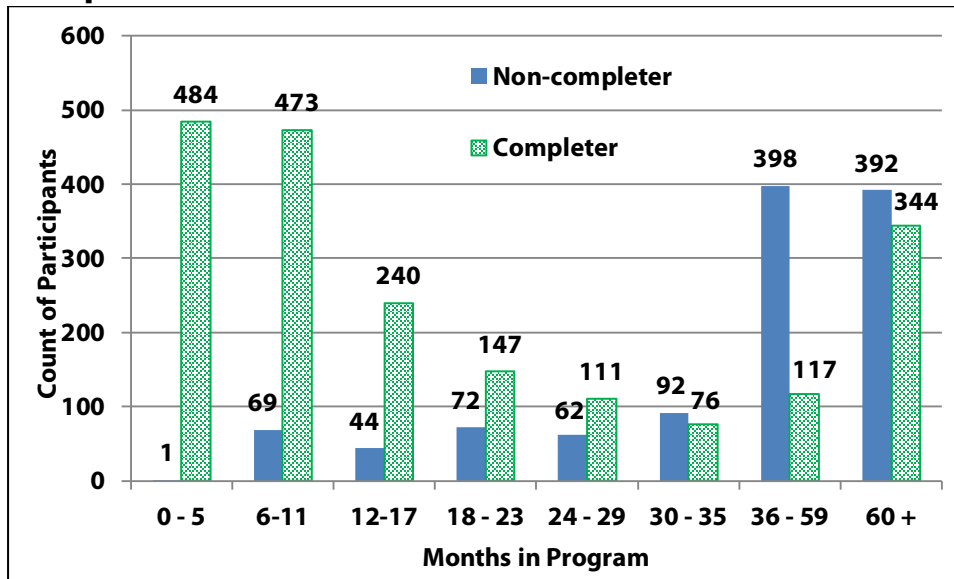
The percentages of men and women exiting apprenticeships differed greatly by gender. Men accounted for 87 percent of apprenticeship exiters, but make up about half the population of working age people aged 20-64. While the percentage of women apprenticeship exiters (13 percent) was low compared to the population, it was an improvement over last year's evaluation, when women made up just 9 percent of apprenticeship exiters.



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



## Completion Rates



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

Though 484 program completers finished the program within a five-month period, this was by no means the predominant experience among apprenticeship participants. A number of completers (344) as well as non-completers (392) spent five or more years, or 60 months, in training. This should not come as a surprise, as many apprenticeship programs require a multi-year commitment to complete. The majority of programs require a minimum of 2,000 hours to complete, but some such as HVAC Refrigeration Mechanic may require 10,000 hours.

## 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 four core questions:

- Did participants get the skills they needed?
- Did participants get a job and how much were they paid?
- 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 and the Net Impact Report

The 2017 Workforce Training Results includes information obtained from Employment Security Department wage files in Washington and Oregon, and federal employment records for 2014-2015.



## Net Impact Study Adds More Insight into Program Performance

In addition, this report includes a comprehensive Net Impact Study. Conducted every four years, the study provides a head-to-head comparison of participants vs. non-participants with similar demographic characteristics 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?

Hourly Wages of Apprentices (Quartiles)	
Quartile	Hourly Wage
Highest	\$73.40
Third	\$43.14
Second	\$28.19
Lowest	\$14.92

Source: Department of Labor and Industries, Employment Security Department

Third quarter after exit, this table excludes those enrolled in higher education. Includes all other participants.

## Employment and Earnings of Apprenticeship Participants

Not surprisingly, program completers had a higher employment rate than all participants (both completers and non-completers)—94 percent compared to 76 percent. They were also more likely to work full-time (74 percent compared to 53 percent) and had much higher median earnings (\$74,785 versus \$48,785). Overall, 36 percent of apprenticeship exiters completed the full program.<sup>3</sup> Apprentices are employed from the time they enter a program and are considered to have completed their education and training, typically, when they have successfully completed and attained a journey-level credential.

<sup>3</sup> 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. The most recent quarter was used for these calculations, which could have been as early as second quarter 2015 and late as first quarter 2016. All wages and earnings are stated in first quarter 2016 dollars.



## 2016 Employment and Earnings

Performance Measures	All Participants	Completers
Employed Or In Further Education	77%	94%
Employment	76%	94%
Employees In Full-Time Job	69%	79%
In Further Education	5%	2%
Median Annualized Earnings	\$48,785	\$74,785
Median Hourly Wage	\$26.96	\$39.49
Median Quarterly Hours	485	504

Source: Department of Labor and Industries, Employment Security Department

All outcomes apply to third quarter after exit. Medians apply to participants not enrolled in further education and are calculated on values greater than zero. Thirty hours or more per week is considered full-time. Dollars are adjusted to first quarter of 2016.

## Trends in Employment and Earnings

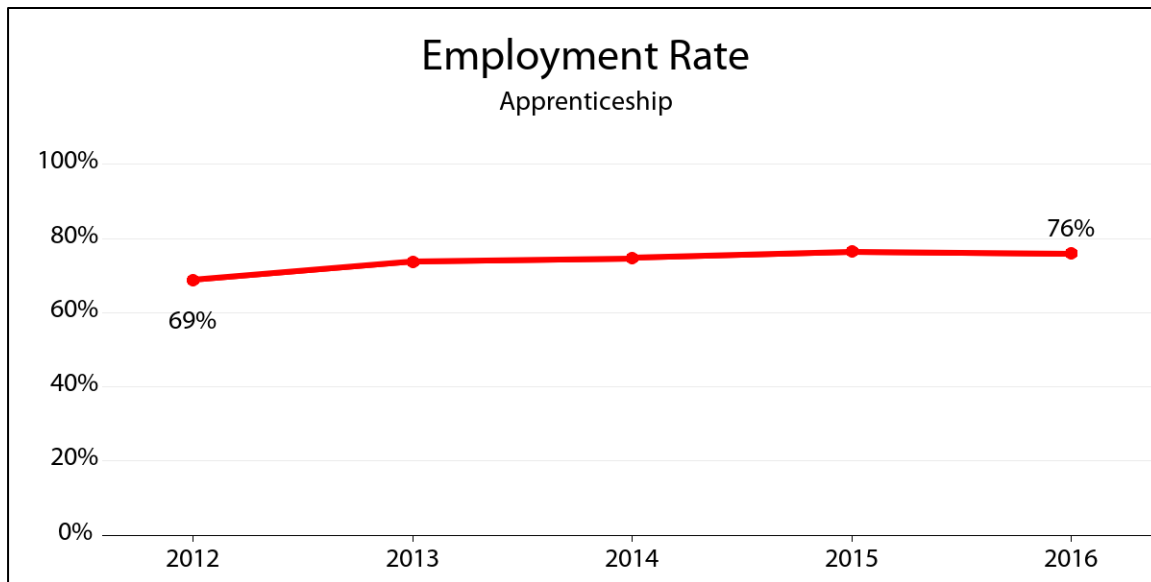
This difference between completers and all participants bears out in the trend data – especially for annual earnings. Completers saw an annual earnings increase of 21 percent between 2011 and 2016 to reach \$74,785. This compares favorably to the 2.7 percent earnings drop over the same period seen by all participants. Employment rates for both groups rose slowly, but steadily.

Performance Measure	2012	2013	2014	2015	2016
<b>All Participants</b>					
Employment	69%	74%	75%	76%	76%
Employees In Full-Time Job	65%	62%	71%	70%	69%
Median Annualized Earnings	\$48,467	\$45,320	\$52,362	\$52,398	\$48,785
Median Hourly Wage	\$35.21	\$33.28	\$30.98	\$30.16	\$26.96
Median Quarterly Hours	472	460	481	488	485
<b>Completers</b>					
Employment	83%	84%	86%	91%	94%
Employees In Full-Time Job	69%	68%	75%	78%	79%
Median Annualized Earnings	\$64,952	\$64,932	\$68,676	\$74,265	\$74,785
Median Hourly Wage	\$42.63	\$42.41	\$37.74	\$39.34	\$39.49
Median Quarterly Hours	482	478	487	497	504

Source: Department of Labor and Industries, Employment Security Department

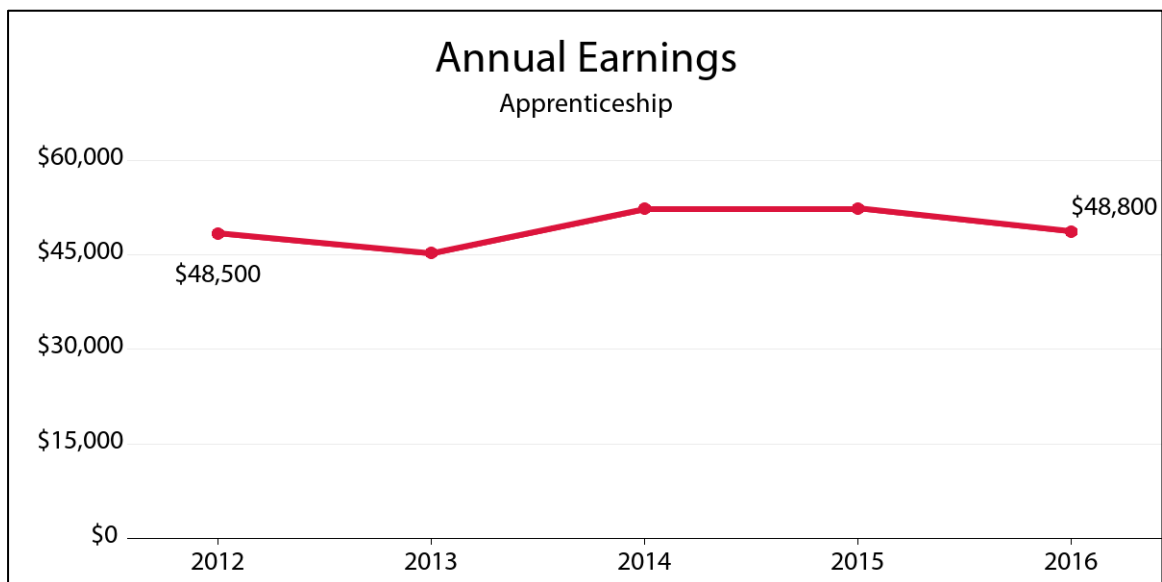
All outcomes apply to third quarter after exit. Medians apply to participants not enrolled in further education and are calculated on values greater than zero. Thirty hours or more per week is considered full time. Dollars are adjusted to first quarter of 2016.





Source: Department of Labor and Industries, Employment Security Department

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



Source: Department of Labor and Industries, Employment Security Department

All Participants. Participants not enrolled in further education. Median annualized earnings in 2016 dollars.



## Where Are Participants Employed?

Although the trend is shifting, among apprenticeship program participants who are working, construction is still the most dominant sector (43 percent in 2016), but apprenticeship exiters are heading into other more diverse fields. In 2014 over half (52 percent) of employed apprenticeship exiters were in construction. Within construction, most exiters found work in the specialty trade contractors sub-sector. Manufacturing was the second biggest sector, accounting for 11 percent of employment, and up from 8.5 percent in 2014. Public administration and *Administrative and Support and Waste Management and Remediation Services* were also likely places to find former apprentices.

<b>Apprenticeship - Employment by Industry 2016</b>	<b>% of Total</b>
<b>Construction</b>	<b>43%</b>
- Specialty Trade Contractors	32%
-- Building Equipment Contractors (electrical, plumbing, and heating contractors)	20%
-- Foundation, Structure, and Building Exterior Contractors	5%
-- Building Finishing Contractors <sup>4</sup>	4%
- Heavy and Civil Engineering Construction	6%
- Construction of Buildings	5%
<b>Manufacturing</b>	<b>11%</b>
- Transportation Equipment Manufacturing (aerospace and shipbuilding)	4%
<b>Public Administration</b>	<b>9%</b>
- Executive, Legislative, and Other General Government Support	4%
<b>Administrative and Support and Waste Management and Remediation Services</b>	<b>8%</b>
- Administrative and Support Services	7%
<b>Educational Services</b>	<b>5%</b>
- Educational Services	5%
-- Elementary and Secondary Schools	5%
<b>Retail Trade</b>	<b>4%</b>
<b>Wholesale Trade</b>	<b>3%</b>
<b>Transportation and Warehousing</b>	<b>3%</b>
<b>Health Care and Social Assistance</b>	<b>2%</b>
<b>Remaining Sectors (Each less than two percent share)</b>	<b>11%</b>

Source: Department of Labor and Industries, Employment Security Department  
 North American Industry Classification System (NAICS) Sector, -Subsector, --Industry group, ---Industry. All  
 Participants, Third Quarter after Exit.  
 Table sorted by NAICS sector with highest percent of employment.

<sup>4</sup> This includes contractors that do things like paint and install drywall and flooring.

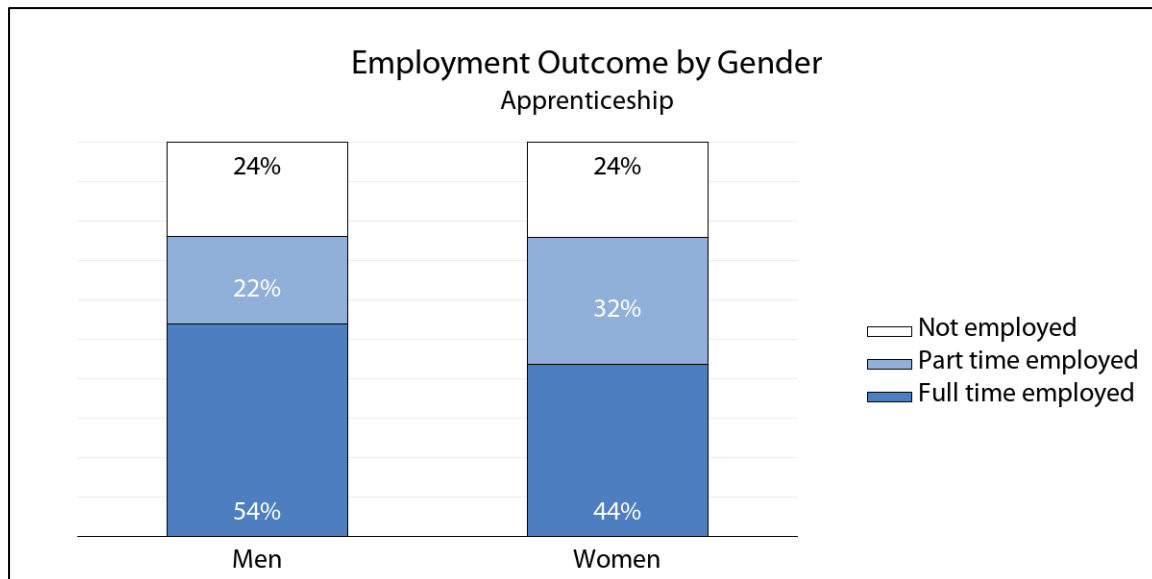


## Non-Traditional Apprenticeships

Over the past three years, Washington has seen a growing interest among industry sectors not historically involved in apprenticeship. Most significantly, Washington's IT and health sectors have each been working under federal grants to create apprenticeship pathways into growth occupations. Additionally, spearheaded by Governor Inslee, a growing group of stakeholders from industry, education, and workforce development are exploring the scaling of youth apprenticeship and pre-apprenticeship programs across the state.

## Different Populations, Different Outcomes

As mentioned previously, 87 percent of those exiting apprenticeship programs were men. Their employment outcomes mirrored female exiters. In both cases 24 percent were unable to find work, but men were more likely to work full-time (54 percent of exiters) compared to women (44 percent of exiters).

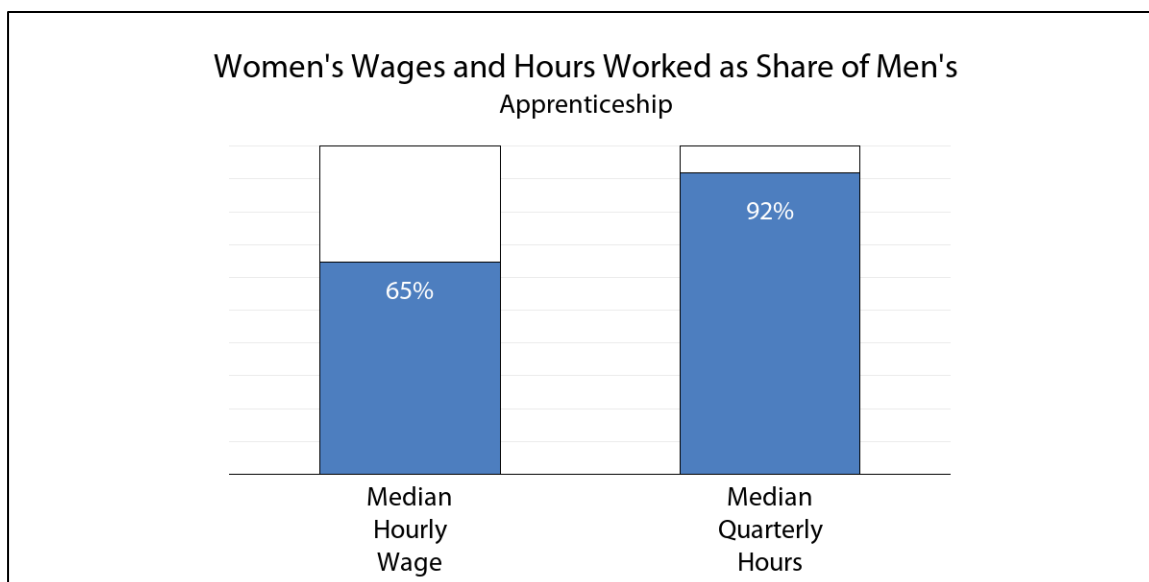


Source: Department of Labor and Industries, Employment Security Department  
All Participants, Third Quarter after Exit.

However, earnings and hours painted a different picture. Women's median hourly wages of \$18.66 amounted to only 65 percent of men's hourly wage (\$28.92) and women's median annual earnings of \$31,529 compared to 61 percent of the male earnings (\$51,451). Median quarterly hours worked by women were closer to men's—448 hours compared to 488 hours (92 percent).



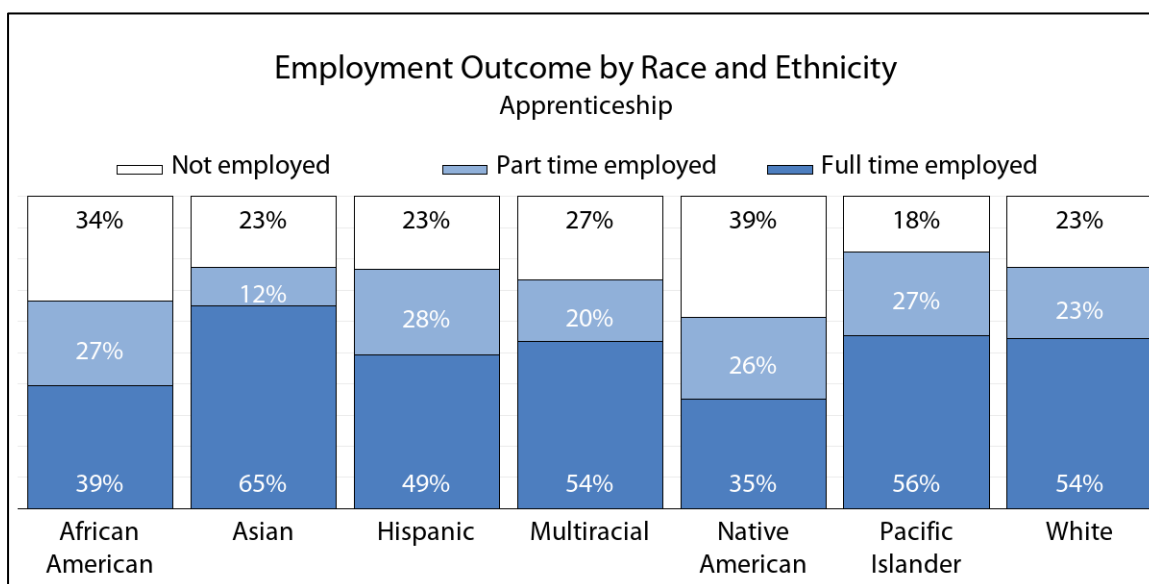




Source: Department of Labor and Industries, Employment Security Department  
All Participants, Third Quarter after Exit.

## Race and Ethnicity Plays Role

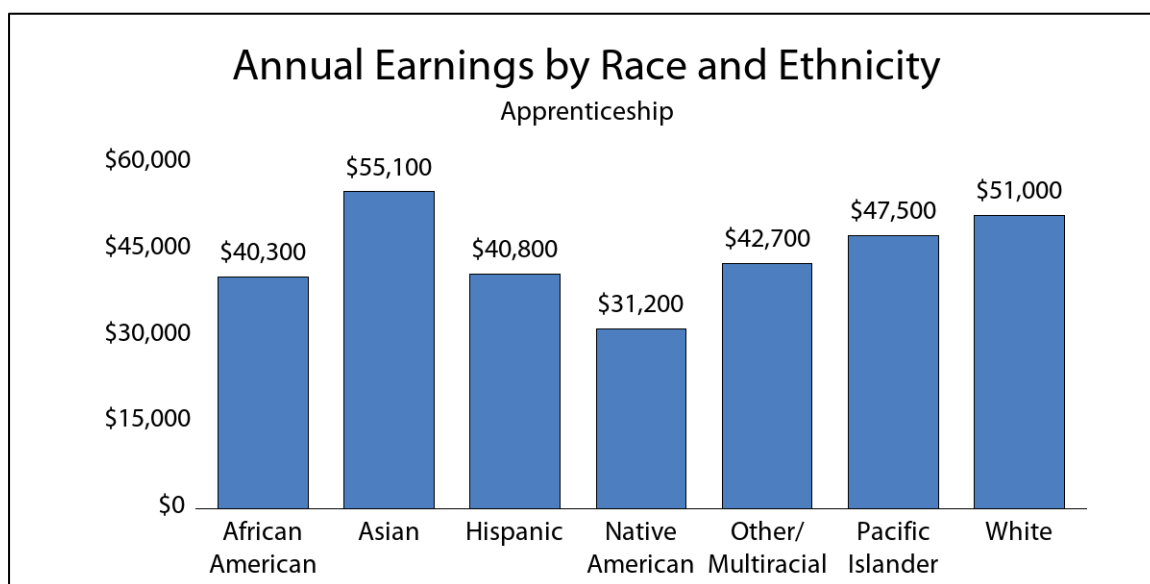
Three-fourths of apprenticeship exiters were white. By percentage of population share, whites were surpassed in full-time employment by Asians (65 percent) and Pacific Islander (56 percent) and matched by multi racial individuals. Native Americans had the most difficulty in finding work (39 percent not employed) followed by African Americans (34 percent) and Multiracial (27 percent). Hispanics were most likely to be working part time (28 percent), followed by African Americans and Pacific Islanders (both 27 percent).



Source: Department of Labor and Industries, Employment Security Department  
All Participants, Third Quarter after Exit



Whites had the highest hourly wage among apprenticeship exiters (\$28.62) and the second highest annual wage (\$50,988). Asians had the highest annual earnings (\$55,136), but only the fourth highest hourly wage (\$22.49), working more hours to make up the difference. Asians worked the most quarterly hours at 502, followed by Hispanics with 493 hours. Pacific Islanders had the second highest hourly wages (\$24.79) and Multiracial had third highest (\$24.17). African Americans had the lowest hourly wage among racial groups at \$21.42. Native Americans had the lowest annual earnings at \$31,212.



Source: Department of Labor and Industries, Employment Security Department  
All Participants, Third Quarter after Exit

## Net Impact—Did Program Make a Difference in Participant Success

Every four years the Workforce Board conducts net impact and cost-benefit analyses of Washington's workforce development programs. This detailed study compares participants and non-participants. The net impact part of this study attempts to measure whether the workforce 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 employment and earnings 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 at WorkSource for labor exchange (job openings) only.



The most recent net impact analyses, published in December 2016, examined experiences of participants who left the Apprenticeship program through 2013. The short-term impact was from the Program Year 2012-13; the long-term impact was from the Program Year 2010-11.

### Impact on Employment and Earnings: Participants vs. Control Group

Apprenticeship	All Participants
Net Employment Impact*	Not significant
Net Hourly Wage Impact**	\$7.44
Net Hours Employed per Quarter Impact	Not significant
Average Annual Earnings Impact**	\$13,934

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

*\*\*Wages and earnings, expressed in first quarter 2016 dollars represent the average difference between Apprenticeship participants who got jobs and those in the control group who were employed.*

As can be seen in the above table, those who participated in an Apprenticeship Program had an employment rate that was not significantly higher than the control group. This is an anomaly for this high-performing workforce program, which typically shows strong employment outcomes. In this case, it's due to the years evaluated in this edition of the Net Impact Study. The study's timeframe included years strongly affected by the Great Recession. Most jobs in apprenticeship are in the highly paid construction trades, which was particularly hard hit during the economic downturn. Also, Apprenticeship participants worked about the same number of hours as those who did not participate in this program. Again, this is most likely due to the downturn in the construction industry. Even so, participants earned over \$7 more per hour in wages and almost \$14,000 more per year than those with similar demographic characteristics.

### Costs and Benefits

This cost-benefit analysis estimates the net impact—or how much of a difference a workforce program made—on how much participants earn, employee benefits, such as health insurance, (typically valued at a quarter of overall earnings), Unemployment Insurance benefits, and certain taxes.

Program costs include direct costs, as well as the indirect cost to taxpayers, who fund the program. Also, the analysis estimates how much participants would have earned—but didn't—because they chose to participate in the workforce program instead of working. It also accounts for how much tuition a participant paid, if any, to participate in a program.

Benefits and costs are calculated for a period of time out to age 65, based upon a statistical model.



## Participant and Public Benefits and Costs per Participant

Benefit/Cost	First 2.5 years		Lifetime (until 65)	
	Participant	Public	Participant	Public
<b><u>Benefit</u></b>				
Earnings	\$34,932	\$0	\$261,411	\$0
Fringe Benefits	\$13,973	\$0	\$104,564	\$0
Taxes	-\$8,733	\$9,091	-\$65,353	\$106,843
<b><u>Transfers</u></b>				
UI	-\$3,650	\$3,790	-\$10,061	\$11,512
<b><u>Costs</u></b>				
Forgone compensation	\$56,317	\$12,243	\$56,317	\$12,243
Program costs	-\$4,739	-\$3,243	-\$4,739	-\$3,243
Benefits	\$36,521	\$12,881	\$290,561	\$118,355
Costs	\$51,579	\$9,000	\$51,579	\$9,000
<b>Total (Net)</b>	<b>\$88,100</b>	<b>\$21,881</b>	<b>\$342,140</b>	<b>\$127,356</b>

*Note: Benefits and costs are expressed in 2016 first quarter dollars. Upjohn estimated the impact of the net change in earnings of Social Security, Medicare, federal income, and state sales taxes.*

*\*Different formulas were used to calculate public return on investment and the return on investment to participants. This accounts for the small difference in benefits, sometimes adding up to a few dollars or as much as several hundred dollars.*

For each apprentice in training, the public (taxpayer) cost is \$3,243 over the length of their enrollment, and the participant cost is \$4,739 in tuition. By definition, apprentices work during their program participation, and their net earnings during training was \$56,317 higher than those who were not in training. During the course of working life to age 65, the average apprentice will gain about \$317,729 in net earnings (net impact earnings plus earnings while in apprenticeship training) and about \$104,564 in employee benefits. 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 \$342,140.

Projected participant net benefits to age 65 far outweigh public investment in apprenticeship training by a ratio of \$106 to 1, or \$342,140 to \$3,243.

From the time of leaving training to age 65, the public is expected to gain about \$106,843 per apprentice in net additional Social Security, Medicare, federal income, and state sales taxes. The estimated lifetime net benefit to taxpayers is \$127,356 per participant.

Projected taxpayer benefits to age 65 outweigh public costs invested in apprenticeship training by a ratio of \$36 to 1 or \$118,355 to \$3,243.



In general, individuals participating in workforce programs benefit from increased earnings minus the additional taxes they pay. They also receive more in Unemployment Insurance benefits.

At the same time, the public benefits from receiving the additional taxes paid by participants with higher paying jobs.

### **Summary, Areas for Improvement, and Further Research**

The Apprenticeship program in Washington continues to be one of the most successful in helping people prepare for work in well-paid jobs. The return to the state on the investment is significant as the Net Impact Study shows, with public benefits outweighing public costs by a factor of 36 to 1.

Where apprenticeship programs could improve is in diversifying participants, and the types of available apprenticeships. Despite improvement in recent years, those exiting recent programs have been 87 percent male, and 75 percent white. In addition, apprenticeship is still concentrated in the construction industry. Growth in apprenticeships in other sectors, such as IT and healthcare, should facilitate movement toward demographic diversity. This also identifies an area of further research. Why have programs continued to attract the same types of people for the same industries? Also, what needs to be done to ensure a more diverse mix of participants in this highly successful training program?





# Workforce Training and Education Coordinating Board

## 2017 Workforce Training Results

### Basic Education for Adults

#### Program Details

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

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Basic Education provides instruction in reading, writing, speaking, listening, employability skills, digital literacy and mathematics for adults whose skills are at or below the eighth grade level; High School Completion instruction for adults who want to earn an adult high school diploma; GED Test Preparation for participants whose goal is to pass the high school equivalency examination; and academic skills development for transition into postsecondary education and career programming.

Some Basic Education students participate in Integrated Basic Education and Skills Training (I-BEST), which is briefly discussed in the net benefit section of this report, and more extensively analyzed as part of the student population studied in the report on Professional-Technical Education offered at community and technical colleges.<sup>2</sup>

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

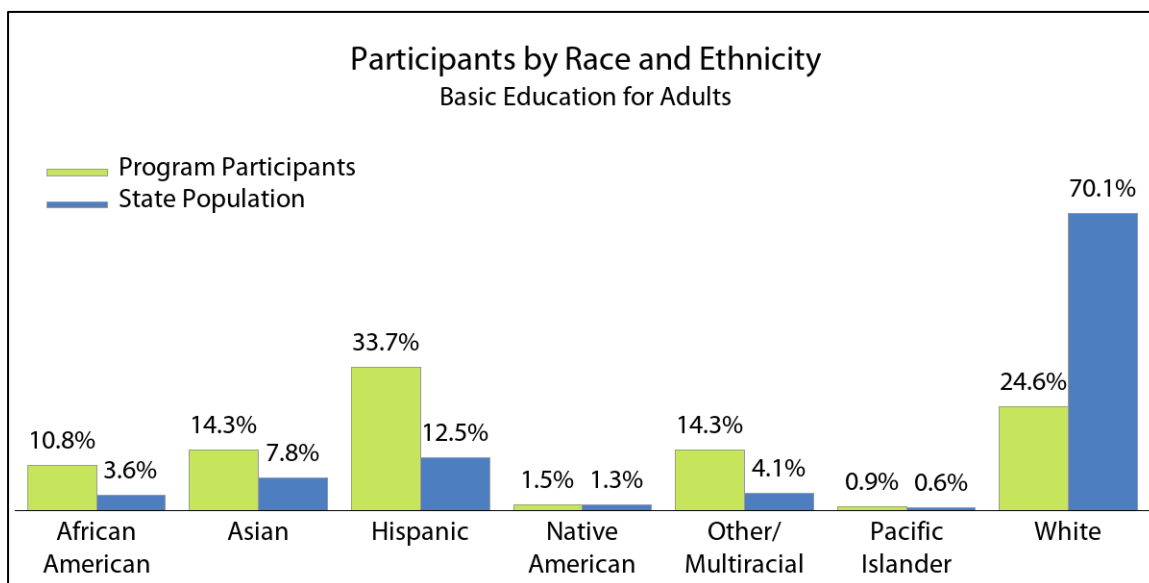
<sup>2</sup> I-BEST teaches students literacy, work, and college-readiness skills so they can move through school and into living wages more quickly. It uses a team teaching approach. Students work with two teachers in one classroom, with one providing job-training and the other teaching basic skills in reading, math, or English language.



Many Basic Education participants are English Language Learners (ELL) and unable to communicate fluently or learn effectively in English. English Language Acquisition (ELA) programming provides basic skills instruction in reading, writing, speaking, listening, employability skills, digital literacy and mathematics for adults whose skills are at or below the eighth grade level.

## Participant Profile

For this report, researchers studied the results of 29,455 Basic Education participants who completed or otherwise left a Basic Education program during the most recent reporting year.<sup>3</sup> The median length of enrollment for these participants was eight months.



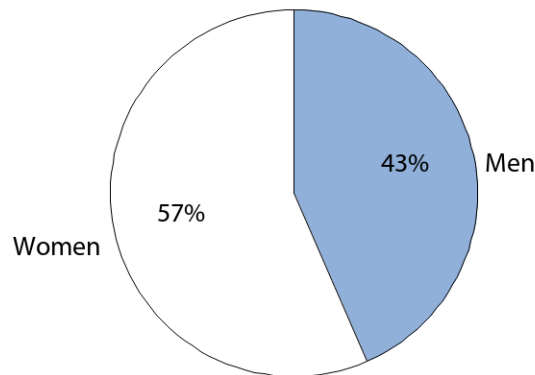
Source: Basic Education for Adults Administrative Data, State Board for Community and Technical Colleges, Washington State Office of Financial Management.

Basic Education participants are far more racially diverse than the state's general population, with significantly more African American, Asian, and Hispanic adults participating in the program, and far fewer whites, than their share of Washington's population. Hispanics, in particular, accounted for a large number of Basic Education participants. Hispanic students who participated in the Basic Education program accounted for one in three participants but constituted just 12.5 percent of the state's overall population.

<sup>3</sup> The 2017 Workforce Training Results reports are based on data observed as recently as 2014-15.



Participants by Gender  
Basic Education for Adults



*Source: Basic Education for Adults Administrative Data, State Board for Community and Technical Colleges.*

More women than men participated in the Basic Education for Adults program in the most recent reporting year. Women made up slightly less than half of the working age population (aged 20-64), but 57 percent of Basic Education participants.

### Tracking Basic Education for Adults Progress

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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 into 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 Oregon.<sup>4</sup>

According to record matches, 57 percent of Basic Education participants were employed during the third quarter after they left the program—slightly higher than the percentage of employed participants observed in the previous report (51 percent). Median hourly and annual wages as well as hours worked were also higher than reported in the prior report.

### **Earnings of Basic Education for Adults Participants**

The next table shows employment and earnings for Basic Education participants in 2016.<sup>5</sup> Seven out of 10 program exiters were either employed or continued their education. Of those that had a job, just over half were working full time. This is reflected in the relatively low hourly (\$12.38) and annual wage (\$20,051).

### **2016 Employment and Earnings**

<b>Performance Measure</b>	<b>All Participants</b>
Employed Or In Further Education	70%
Employment	57%
<i>Employees In Full-Time Job</i>	51%
In Further Education	26%
Median Annualized Earnings	\$20,051
Median Hourly Wage	\$12.38
Median Quarterly Hours	413

*Source: State Board for Community and Technical Colleges, Employment Security Department*  
All outcomes apply to third quarter after exit. Medians apply to participants not enrolled in further education and are calculated on values greater than zero. Thirty hours or more per week is considered full-time. Dollars are adjusted to first quarter of 2016.

*\*Note that for this program there is no distinction between completers and non-completers, meaning that only participants are listed.*

<sup>4</sup> 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).

<sup>5</sup> 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. The most recent quarter was used for these calculations, which could have been as early as 2<sup>nd</sup> quarter 2015 and recent as 1st quarter 2016. All wages and earnings are stated in first quarter 2016 dollars.



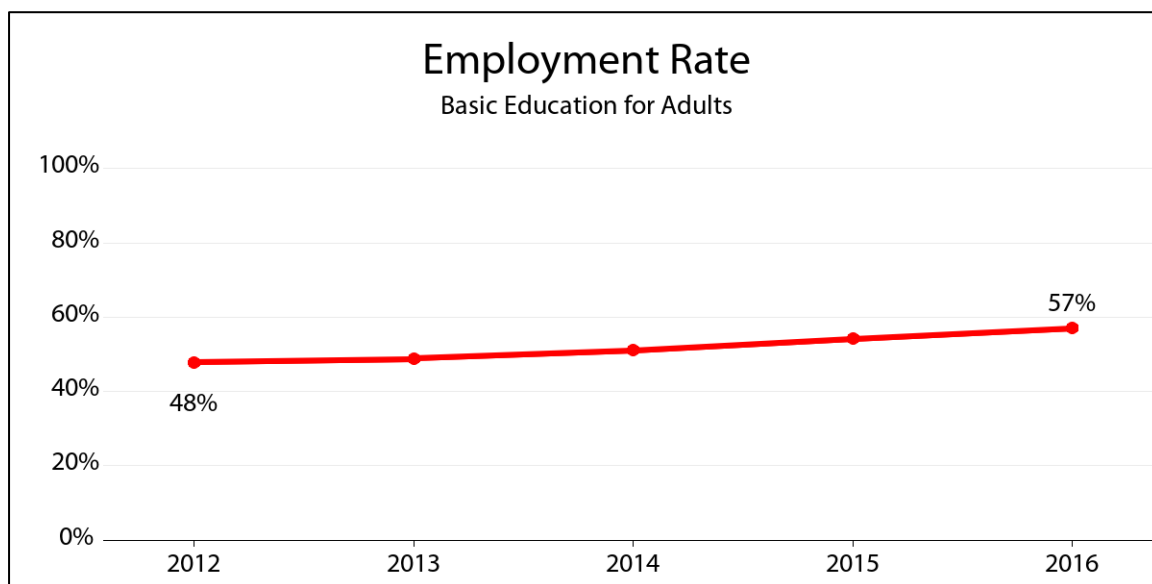
## Trends in Employment and Earnings

Over the past five years, participants in the Basic Education for Adults program have shown consistent, if gradual improvement in employment rates, earnings, and hours worked. One area that has yet to show significant improvement is the percent of working Basic Education participants with full-time jobs. Over the five-year period, the percentage with full-time employment barely budged, moving from 50 percent to 51 percent (between 2012 and 2016), even as the number of hours worked rose.

Performance Measure	2012	2013	2014	2015	2016
Employment	48%	49%	51%	54%	57%
Employees In Full-Time Job	50%	49%	49%	50%	51%
Median Annualized Earnings	\$17,485	\$17,554	\$18,059	\$19,152	\$20,051
Median Hourly Wage	\$11.48	\$11.48	\$11.73	\$11.91	\$12.38
Median Quarterly Hours	386	384	388	410	413

Source: State Board for Community and Technical Colleges, Employment Security Department

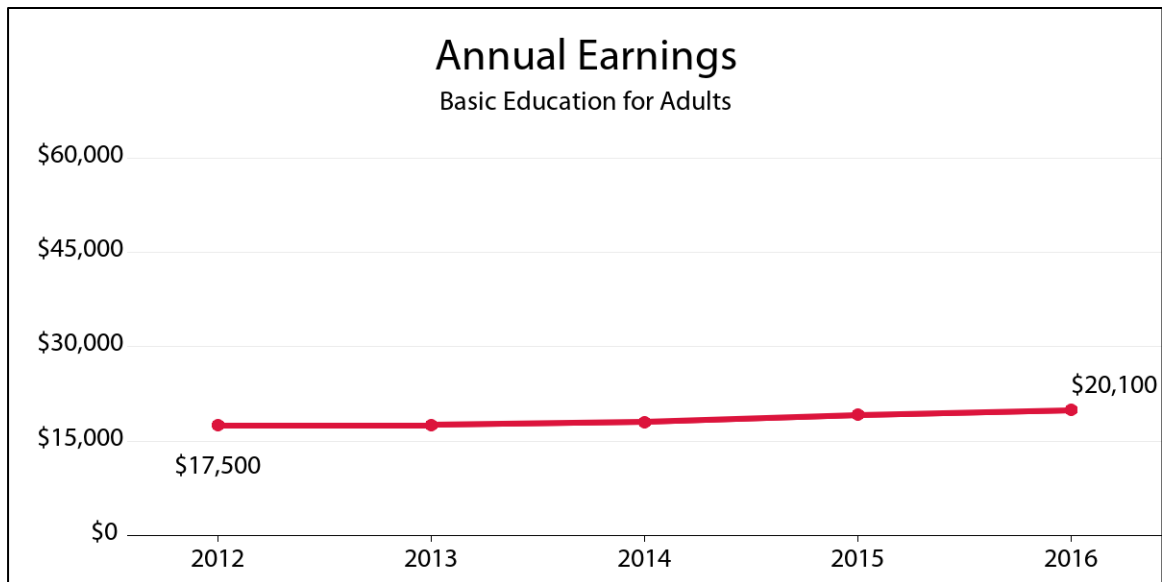
All outcomes apply to third quarter after exit. Medians apply to participants not enrolled in further education and are calculated on values greater than zero. Thirty hours or more per week is considered full-time. Dollars are adjusted to first quarter of 2016.



Source: State Board for Community and Technical Colleges, Employment Security Department

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





Source: State Board for Community and Technical Colleges, Employment Security Department  
All Participants not enrolled in further education. Median annualized earnings in 2016 dollars.

### Where Are Participants Working?

One out of every five employed Basic Education participants found work in the accommodation and food services sector, primarily in the food services industry. This sector was followed by healthcare and social assistance (18 percent of employed) and retail trade (14 percent). This pattern is consistent when compared to the previous report—the same percentage of individuals worked in accommodation and food service, retail trade and, manufacturing. The percent of Basic Education participants working in healthcare and social services dipped moderately to 18 percent, a 2 percentage point drop from the previous report.



<b>Basic Education for Adults - Employment by Industry 2016</b>	<b>%</b>
<b>Accommodation and Food Services</b>	<b>20%</b>
- Food Services and Drinking Places	16%
-- Restaurants and Other Eating Places	15%
<b>Health Care and Social Assistance</b>	<b>18%</b>
- Social Assistance	9%
-- Individual and Family Services	5%
--- Services for the Elderly and Persons with Disabilities	4%
- Nursing and Residential Care Facilities	6%
<b>Retail Trade</b>	<b>14%</b>
<b>Administrative and Support and Waste Management and Remediation Services</b>	<b>11%</b>
- Administrative and Support Services	11%
-- Employment Services	6%
--- Temporary Help Services	5%
<b>Manufacturing</b>	<b>10%</b>
<b>Agriculture, Forestry, Fishing and Hunting</b>	<b>4%</b>
<b>Construction</b>	<b>4%</b>
<b>Other Services (except Public Administration)</b>	<b>4%</b>
<b>Wholesale Trade</b>	<b>3%</b>
<b>Transportation and Warehousing</b>	<b>3%</b>
<b>Educational Services</b>	<b>2%</b>
<b>Remaining Sectors (Each less than two percent share)</b>	<b>7%</b>

Source: State Board for Community and Technical Colleges, Employment Security Department  
North American Industry Classification System (NAICS): Sector, -Subsector, --Industry group, ---Industry. All  
Participants, Third Quarter after Exit.  
Table sorted by NAICS sector with highest percent of employment.

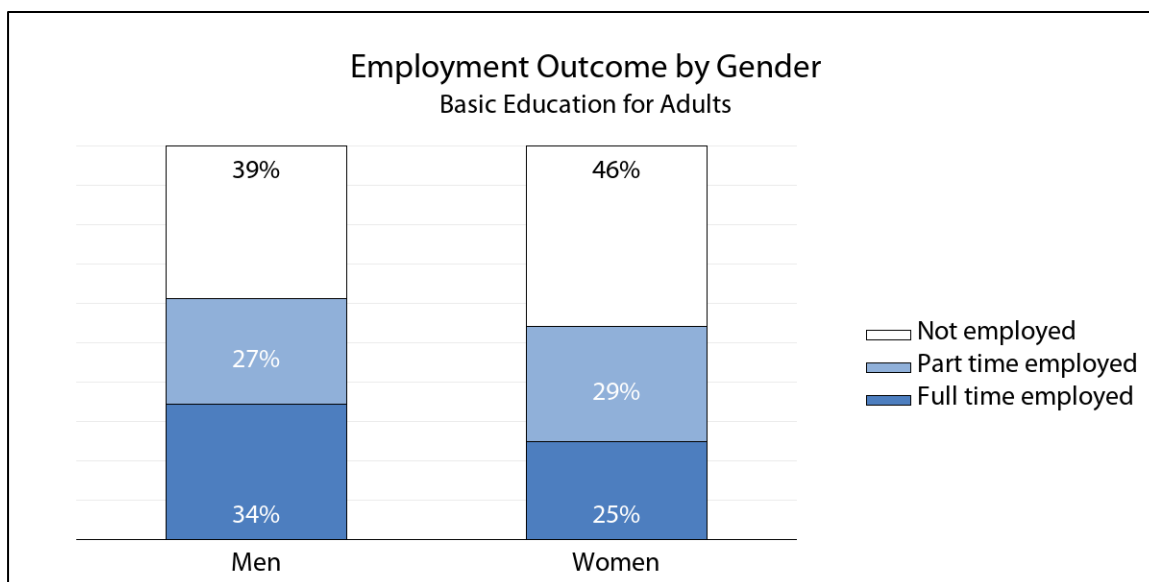
## Different Populations, Different Outcomes

<b>Gender Differences in Labor Market Outcomes for Participants of Basic Education for Adults</b>			
	<b>Women</b>	<b>Men</b>	<b>Ratio</b>
Employment Reported to ESD	54%	61%	88%
Median Quarterly Hours Worked	371	438	85%
Median Hourly Wage	\$12.00	\$13.07	92%
Median Annual Earnings*	\$17,496	\$22,367	78%

Source: State Board for Community and Technical Colleges, Employment Security Department  
Earnings/wages expressed in first quarter 2016 dollars to account for inflation. Third quarter after exit.

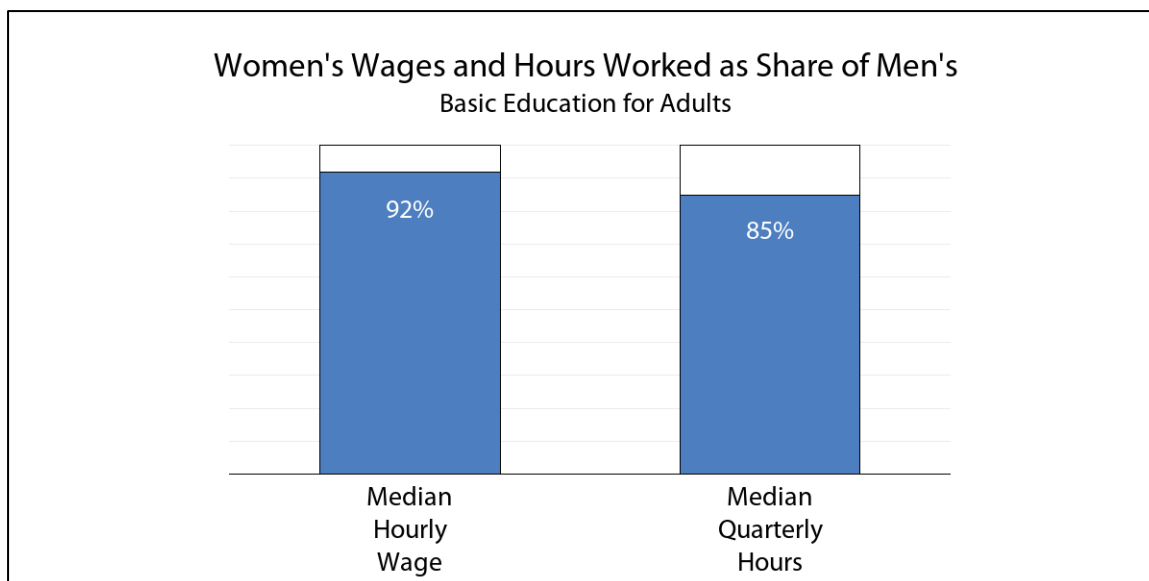
More women participated in Basic Education for Adults than men (57 percent to 43 percent). However, women were less likely to have a job than men—just over half of Basic Education female participants (53 percent) were employed compared to 61 percent of men.





Source: State Board for Community and Technical Colleges, Employment Security Department  
All Participants, Third Quarter after Exit.

Women were slightly more likely to work part time, 29 percent of female participants compared to 27 percent of men. Women exiting Basic Education, on average, earned about 78 percent of male exiters (\$17,496 vs. \$22,367) in annual earnings. Women's median hourly wages were \$12, or 92 percent of men's hourly wages (\$13.07).

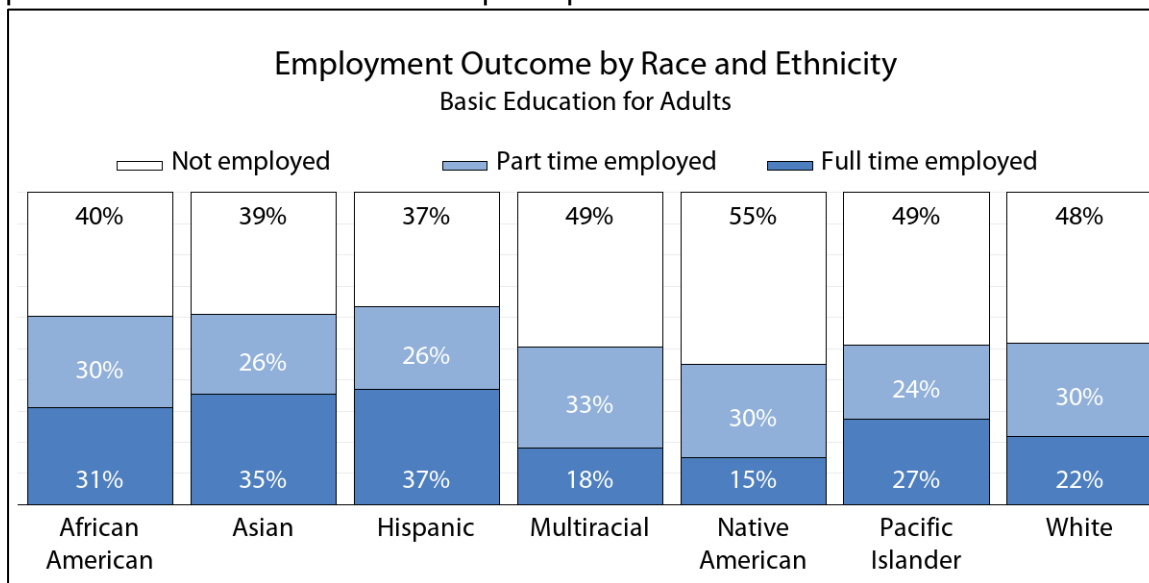


Source: State Board for Community and Technical Colleges, Employment Security Department  
All Participants, Third Quarter after Exit.



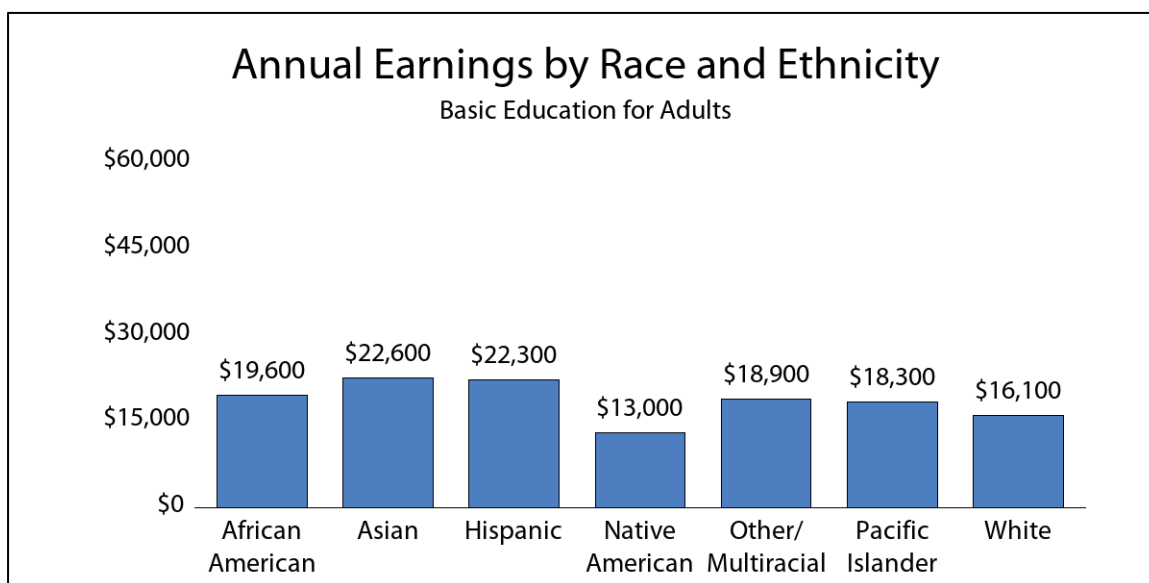
## Race/Ethnicity Plays Role

Basic Education program graduates had varying degrees of success in obtaining a job. Hispanic participants were most likely to be employed (63 percent) followed by Asians and African Americans (both 61 percent). Native American Basic Education participants had the lowest employment rate at 45 percent. Those of more than one race were most likely to work part-time—one third of multi-racial participants.



Source: State Board for Community and Technical Colleges, Employment Security Department  
All Participants, Third Quarter after Exit

Asians earned the highest annual wage (\$22,600), while Native Americans earned the lowest annual wage (\$13,000).

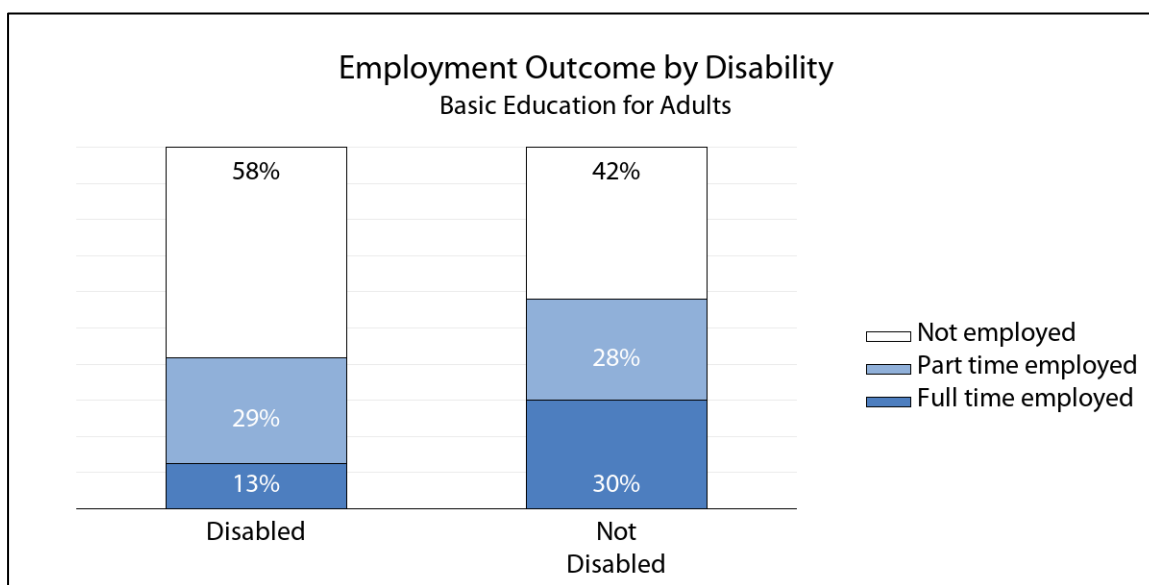


Source: State Board for Community and Technical Colleges, Employment Security Department  
All Participants, Third Quarter after Exit.



## Disability Impacts Employment, Earnings

More than half of Basic Education participants with disabilities (58 percent) were unable to find work. When compared with non-disabled participants, the high unemployment rate among those with disabilities was still steep. The rate for non-disabled participants sat at 42 percent—a 16 percentage point difference. Part-time employment among those with jobs was distributed more evenly between Basic Education participants with disabilities and non-disabled participants (29 percent and 28 percent).



Source: State Board for Community and Technical Colleges, Employment Security Department  
All Participants, Third Quarter after Exit

## 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 nonparticipants. 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 Basic Education for Adults 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, the state's one-stop career center system.

The most recent net impact analyses examined experiences of participants who left the Basic Education program through 2013. The short-term impact was 2012-2013 Program Year cohort and the long-term impact was from the 2010-2011 Program Year cohort.



## Impact on Employment and Earnings: Participants vs. Control Group

Basic Education for Adults	All Participants
Net Employment Impact*	2.9%
Net Hourly Wage Impact**	Not significant
Net Hours Employed per Quarter Impact	Not significant
Average Annual Earnings Impact**	Not significant

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

\*\*Wages and earnings, expressed in first quarter 2016 dollars; represent the average difference between Basic Education participants who got jobs and those in the control group who were employed.

As can be seen in the previous table, those who participated in the Basic Education for Adults Program had an employment rate that was nearly 3 percent higher than a control group. However, participants' hourly and annual earnings were not significantly higher than those with similar demographic characteristics. Also, Basic Education participants did not work significantly more hours than those who did not participate in this program.

## Costs and Benefits

The cost-benefit analysis estimates the net impact—or how much of a difference a workforce program made—on how much participants earn, employee benefits, such as health insurance (typically valued at a quarter of overall earnings), Unemployment Insurance benefits, and certain taxes.

Program costs include direct costs, as well as the indirect cost to taxpayers, who fund the program. Also, the analysis estimates how much participants would have earned—but didn't—because they chose to invest their time in a workforce program instead of working. It also accounts for how much tuition a participant paid, if any, to participate in a program.

Benefits and costs are calculated for a period of time out to age 65, based upon a statistical model.

For each student in Basic Education, the public (taxpayer) cost is about \$5,166 over the length of their enrollment, and the student cost is \$296 in foregone earnings while in school. The average Basic Education student had \$582 earnings during the first two and a half years after leaving college and \$371 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

Benefit/Cost	First 2.5 years		Lifetime (until 65)	
	Participant	Public	Participant	Public
<b><u>Benefit</u></b>				
Earnings	\$582	\$0	\$371	\$0
Fringe Benefits	\$232	\$0	\$149	\$0
Taxes	\$-98	\$118	\$-62	\$22
<b><u>Transfers</u></b>				
Unemployment Insurance	\$-741	\$766	\$-940	\$1,004
<b><u>Costs</u></b>				
Forgone compensation	\$-296	\$40	\$-296	\$40
Program costs	\$0	\$-5,166	\$0	\$-5,166
Benefits	\$-24	\$884	\$-482	\$1,026
Costs	\$-296	\$-5,126	\$-296	\$-5,126
<b>Total (Net)</b>	<b>\$-320</b>	<b>\$-4,241</b>	<b>\$-778</b>	<b>\$-4,100</b>

Note: Benefits and costs are expressed in 2016 first quarter dollars. Upjohn estimated the impact of the net change in earnings of Social Security, Medicare, federal income, and state sales taxes.

\*Different formulas were used to calculate public return on investment and the return on investment to participants. This accounts for the small difference in benefits, sometimes adding up to a few dollars or as much as several hundred dollars.

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

### Positive Impact of I-BEST

The I-BEST program was found to have strong significant and positive net impacts upon employment and hours worked. It was also shown to have significant and positive impact on earnings, but not as strong as for employment and hours worked.



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

I-BEST	All Participants
Net Employment Impact*	12.3%
Net Hourly Wage Impact**	\$1.63
Net Hours Employed per Quarter Impact	65.4
Average Annual Earnings Impact**	\$3,945

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

\*\*Wages and earnings, expressed in first quarter 2016 dollars; represent the average difference between I-BEST participants who got jobs and those in the control group who were employed.

## Costs and Benefits

### Participant and Public Benefits and Costs per Participant in I-BEST

Benefit/Cost	First 2.5 years		Lifetime (until 65)	
	Participant	Public	Participant	Public
<b><u>Benefit</u></b>				
Earnings	8,412	0	82,644	0
Fringe Benefits	3,364	0	33,057	0
Taxes	-1,409	1,755	-13,843	25,821
<b><u>Transfers</u></b>				
UI	-1,742	1,797	-1,385	1,362
<b><u>Costs</u></b>				
Forgone compensation	-78	11	-78	11
Program costs	0	-5,166	0	-5,166
Benefits	8,625	3,552	100,472	27,183
Costs	-78	-5,155	-78	-5,155
<b>Total (Net)</b>	<b>8,547</b>	<b>-1,603</b>	<b>100,395</b>	<b>22,029</b>

Note: Benefits and costs are expressed in 2016 first quarter dollars. Upjohn estimated the impact of the net change in earnings of Social Security, Medicare, federal income, and state sales taxes.

\*Different formulas were used to calculate public return on investment and the return on investment to participants. This accounts for the small difference in benefits, sometimes adding up to a few dollars or as much as several hundred dollars.

For each program participant, the public (taxpayer) cost is about \$5,166 over the length of their enrollment, and the student costs are about \$78 in foregone earnings while training. During the course of working life to age 65, the average trainee will gain about \$82,566 in net earnings (earnings minus foregone earnings) and \$33,057 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 \$100,395. Projected participant net benefits to age 65 outweigh public costs invested in college training by a ratio of \$19 to 1, or \$100,395 to \$5,155.

From the time of leaving training to age 65, the public is forecasted to gain \$25,821 in net additional Social Security, Medicare, federal income, and state sales taxes. The estimated lifetime net benefit to taxpayers is \$22,029 per participant. Projected taxpayer total benefits to age 65 outweigh public costs invested in college training by a ratio of \$5 to 1 or \$27,183 to \$5,166.

In general, individuals participating in workforce programs benefit from increased earnings minus the additional taxes they pay. They also receive more in Unemployment Insurance benefits.

At the same time, the public benefits from receiving the additional taxes paid by participants with higher paying jobs.

### **Summary, Areas for Improvement, and Further Research**

Basic Education participants evaluated in the current report have higher employment rates, work more hours, and earn more than participants from the previous year and have trended in that direction over the past few years. However, despite these improvements Basic Education participants continue to struggle with high unemployment and low wages, compared with the general population. They fare only marginally better when compared with those with the same demographic characteristics, who *do not* participate in Basic Education, as can be seen in the most recent Net Impact Study.

These results reflect the fact that Basic Education addresses individuals with significant employment challenges, low education levels, and low incomes, who are often basic-skills deficient. In many cases, participants speak a language other than English and face substantial language barriers as well. A disproportionately high number of participants are Hispanic, with one out of three Basic Education participants in that demographic category. Basic Education participants are also more likely to be women.

It's only when Basic Education is paired with job skills training through programs such as I-BEST, that participants have seen real boosts in employment and earnings, both short-term and long-term, as the Net Impact Study shows. The program pairs two instructors in the classroom—one to teach professional-technical content and the other to teach basic skills in reading, math, writing speaking, listening, employability skills and digital literacy for both Basic Education and English Language Learner populations. This combination of basic education and job skills training allows students to move through school and into employment faster. The results for I-BEST are strong evidence of the importance of investing resources in this model, which originated in Washington and has since been replicated in several other states.



The Workforce Innovation and Opportunity Act (WIOA), which passed in 2014, is in the process of being implemented, but the data for this report does not yet reflect changes made under this new federal act. The hope is that these changes will have positive impacts on Basic Education participants in coming years, leading to higher wages and lower unemployment.





# Workforce Training and Education Coordinating Board

## 2017 Workforce Training Results

### Community and Technical College 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 College 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.<sup>1</sup>

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 2017 report, researchers examined 30,825 Community and Technical College Professional-Technical participants who completed or left the state's community and technical college system.<sup>2</sup> These participants comprise the Professional-Technical cohort included in this study. One area of concern: Many participants appear to be leaving college early. Over one third of program participants left within five months.

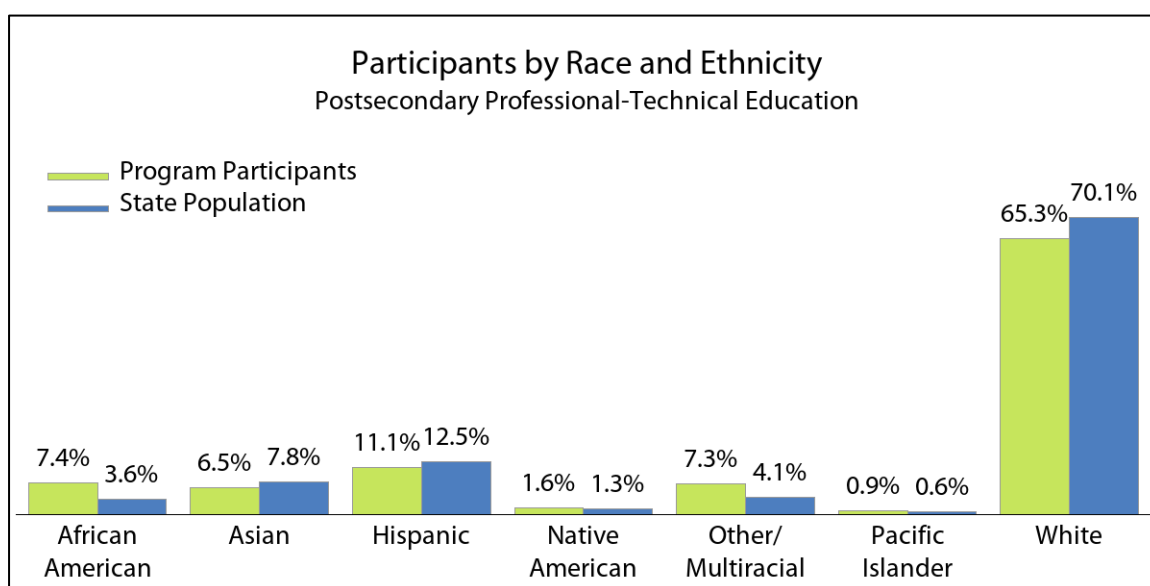
<sup>1</sup> While the Worker Retraining program at Washington's community and technical colleges also provides occupational training, the results for participants who participated in this program are evaluated separately.

<sup>2</sup> Community and Technical College 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.



Participants from racial and ethnic minority backgrounds continue to be well represented among Community and Technical College Professional-Technical participants, especially African Americans, whose participation rate was double their representation in the state population (7.4 compared to 3.6 percent). Native Americans are also slightly overrepresented in comparison to their share of the state population, while whites, Hispanics and Asians were relatively under-represented.

Asian participants had the highest program completion rate at 75 percent, followed by whites (69 percent), Hispanics (62 percent), and Multiracial (62 percent). African American participants had the lowest completion rate (57 percent) with Native American participants doing only slightly better (59 percent).

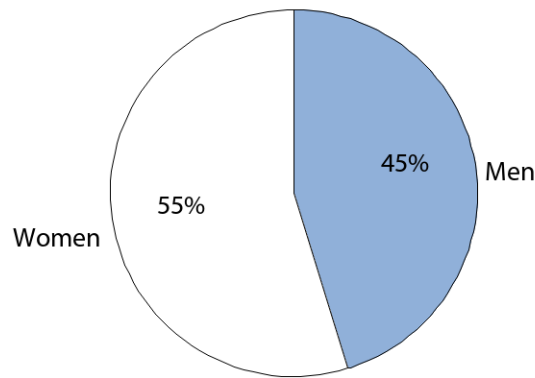


*Source: Professional and Technical Education Administrative Data, State Board for Community and Technical Colleges, Washington State Office of Financial Management.*

Women participated at a higher rate than men in the Community and Technical College Professional-Technical Education program. While women made up slightly less than half of the working age population (aged 20-64) in Washington in 2015, they accounted for 55 percent of Community and Technical College Professional-Technical participants. Women completed the program at a higher rate than men—69 percent compared to 66 percent.



Participants by Gender  
Postsecondary Professional-Technical Education



Source: Professional-Technical Education Administrative Data, State Board for Community and Technical Colleges.

The median age at program entrance was 26.5 years old. One quarter of participants were under 22 years old at the time they entered the program, while one quarter were 36 or older. Just under half (47 percent) of participants at program entry had attained a high school diploma or equivalent. A little over one-third had some education beyond high school, but less than a bachelor's degree, and 10 percent had a four-year degree or higher.

## Tracking Community and Technical College 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 four core questions:

- Did participants get the skills they needed?
- Did participants get a job and how much were they paid?
- 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 2017 Workforce Training Results report includes information obtained from Employment Security Department wage files in Washington and Oregon, and federal employment records for 2014-2015.



## **Net Impact Study Adds More Insight into Program Performance**

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

- 26 percent received an associate's degree.
- 22 percent received a vocational certificate.
- 14 percent were considered completers because they completed 45 or more credits or a unique (non-degree) program.

Taken together, 62 percent of participants earned a credential.

## **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 Oregon.<sup>3</sup> The study looks at employment and earnings three calendar quarters (seven to nine months) after the participant left the Community and Technical College Professional-Technical program.

Employment and earnings of participants who exited the program during the prior year are displayed in the following table. Among all Community and Technical College Professional-Technical participants, 69 percent were employed. Of those who were working, 60 percent were employed full time. Some 27 percent of former participants neither worked nor were enrolled in further education. The median hourly wage was \$16.03; this is \$0.23 per hour more than the similar group earned in the 2015 study on an inflation adjusted basis. However, there is considerable variation in wages. While one quarter earned \$22.60 or more an hour, another quarter had jobs that paid \$12.40 or less per hour. Median annualized earnings are \$29,775, up a bit over the 2015 report as well.

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<sup>3</sup> 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). Self-employment, active duty military, and those working for religious nonprofit organizations are the major groups of employers not included.





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

The next table shows employment and earnings for Community and Technical College Professional-Technical Education participants in 2016.<sup>4</sup> Nearly 75 percent of all program participants were either employed or went on to further education. Of those who had a job, 60 percent were working full time. Working participants earned an average of nearly \$30,000 per year, or just over \$16 an hour.

### 2016 Employment and Earnings

Performance Measure	All Participants	Completers
Employed Or In Further Education	73%	77%
Employment	69%	73%
<i>Employees In Full-Time Job</i>	60%	64%
In Further Education	10%	11%
Median Annualized Earnings	\$29,775	\$31,228
Median Hourly Wage	\$16.03	\$16.82
Median Quarterly Hours	455	468

Source: State Board for Community and Technical Colleges, Employment Security Department

All outcomes apply to third quarter after exit. Medians apply to participants not enrolled in further education and are calculated on values greater than zero. Thirty hours or more per week is considered full-time. Dollars are adjusted to first quarter of 2016.

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<sup>4</sup> 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. The most recent quarter was used for these calculations, which could have been as early as 2<sup>nd</sup> quarter 2015 and late as 1<sup>st</sup> quarter 2016. All wages and earnings are stated in first quarter 2016 dollars.



## Trends in Employment and Earnings

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

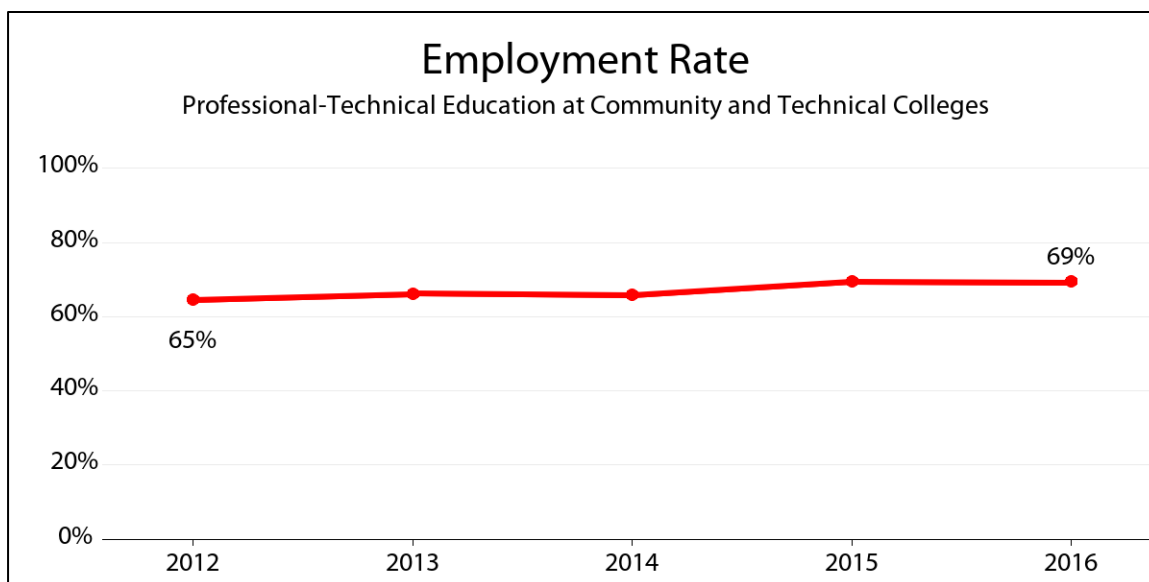
Performance Measure	2012	2013	2014	2015	2016
<b>All Participants</b>					
Employment	65%	66%	66%	70%	69%
<i>Employees In Full-Time Job</i>	62%	60%	61%	58%	60%
Median Annualized Earnings	\$27,191	\$27,101	\$27,673	\$27,584	\$29,775
Median Hourly Wage	\$15.66	\$16.11	\$16.07	\$15.65	\$16.03
Median Quarterly Hours	429	416	442	442	455
<b>Completers</b>					
Employment	70%	70%	71%	74%	73%
<i>Employees In Full-Time Job</i>	64%	66%	69%	60%	64%
Median Annualized Earnings	\$30,040	\$29,622	\$30,313	\$30,121	\$31,228
Median Hourly Wage	\$16.57	\$16.91	\$16.87	\$16.51	\$16.82
Median Quarterly Hours	442	442	442	455	468

Source: State Board for Community and Technical Colleges, Employment Security Department

All outcomes apply to third quarter after exit. Medians apply to participants not enrolled in further education and are calculated on values greater than zero. Thirty hours or more per week is considered full-time. Dollars are adjusted to first quarter of 2016.

Since the recession which saw the employment rate fall from 71 percent in 2009 to 61 percent in 2010, employment has been trending upward. At 69 percent, the rate is still below the 2009 level, but it is getting close.

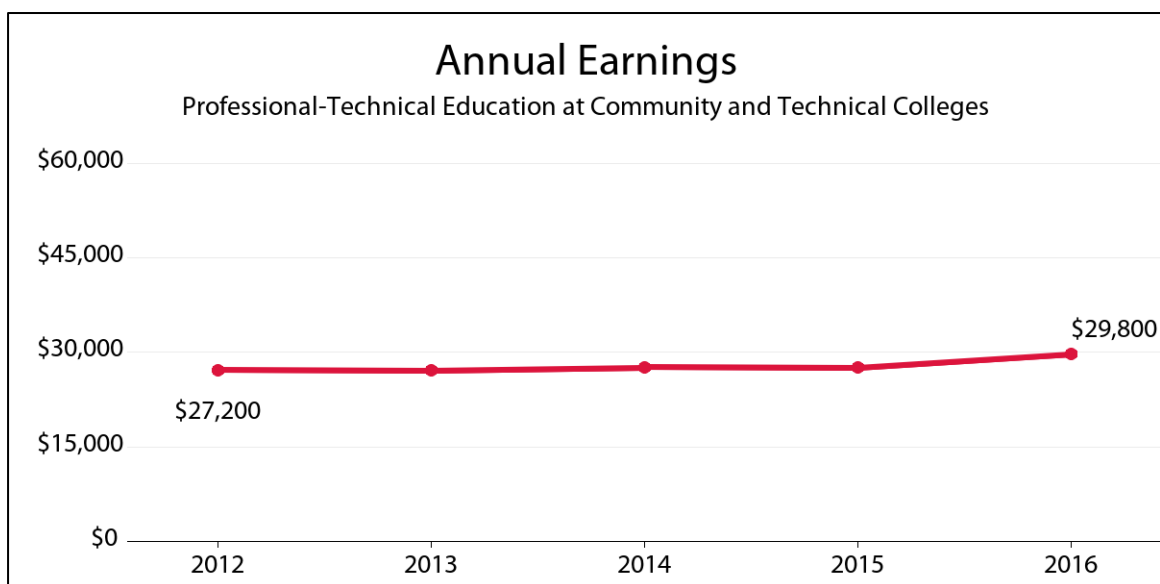




Source: State Board for Community and Technical Colleges, Employment Security Department

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

Annual earnings have shown a similar if less drastic trend as the employment rate: while still below the 2009 rate, earnings at \$29,775 were the highest since that year. One of the causes of the higher annual earnings is more hours worked—median quarterly hours (455) were the highest they have been in seven years.



Source: State Board for Community and Technical Colleges, Employment Security Department

All Participants, Third Quarter after Exit. Median annualized earnings in 2016 dollars.



## 2017 Workforce Training Results

Community and Technical Colleges Professional-Technical Education

## Where Do Participants Work?

The greatest number of participants (26 percent) found employment in the health care and social assistance industry. This sector was followed by retail trade (12 percent) and public administration (9 percent). This trend is similar to the previous report, where the highest number of participants were employed in health care (21.6 percent) followed by retail trade (11.6 percent).

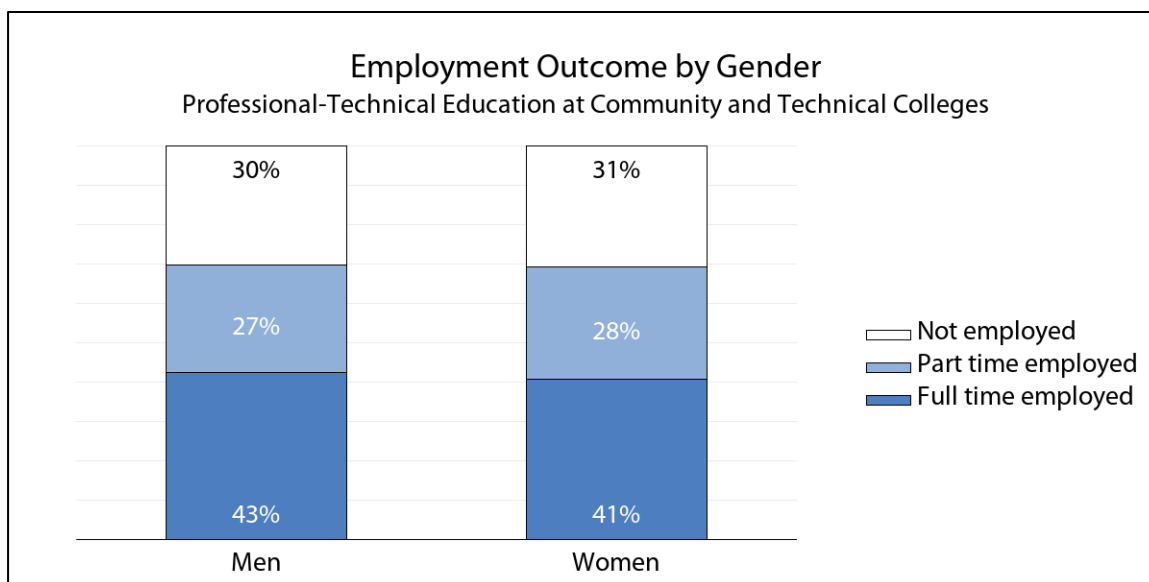
<b>Postsecondary Professional Technical Education Employment by Industry 2016</b>	<b>% of Total</b>
<b>Health Care and Social Assistance</b>	<b>26%</b>
- Ambulatory Health Care Services	9%
- Hospitals	7%
- Nursing and Residential Care Facilities	5%
- Social Assistance	5%
<b>Retail Trade</b>	<b>12%</b>
<b>Public Administration</b>	<b>9%</b>
- Executive, Legislative, and Other General Government Support	7%
<b>Administrative and Support and Waste Management and Remediation Services</b>	<b>8%</b>
<b>Accommodation and Food Services</b>	<b>8%</b>
<b>Manufacturing</b>	<b>7%</b>
<b>Remaining Sectors (Less than two percent share)</b>	<b>7%</b>
<b>Educational Services</b>	<b>5%</b>
<b>Construction</b>	<b>4%</b>
<b>Professional, Scientific, and Technical Services</b>	<b>4%</b>
<b>Wholesale Trade</b>	<b>3%</b>
<b>Transportation and Warehousing</b>	<b>3%</b>
<b>Other Services (except Public Administration)</b>	<b>3%</b>
<b>Unknown Sector</b>	<b>2%</b>

Source: State Board for Community and Technical Colleges, Employment Security Department  
 North American Industry Classification System (NAICS): Sector, -Subsector, --Industry group, ---Industry. All  
 Participants, Third Quarter after Exit.  
 Table sorted by NAICS sector with highest percent of total employment.

## Different Populations, Different Outcomes

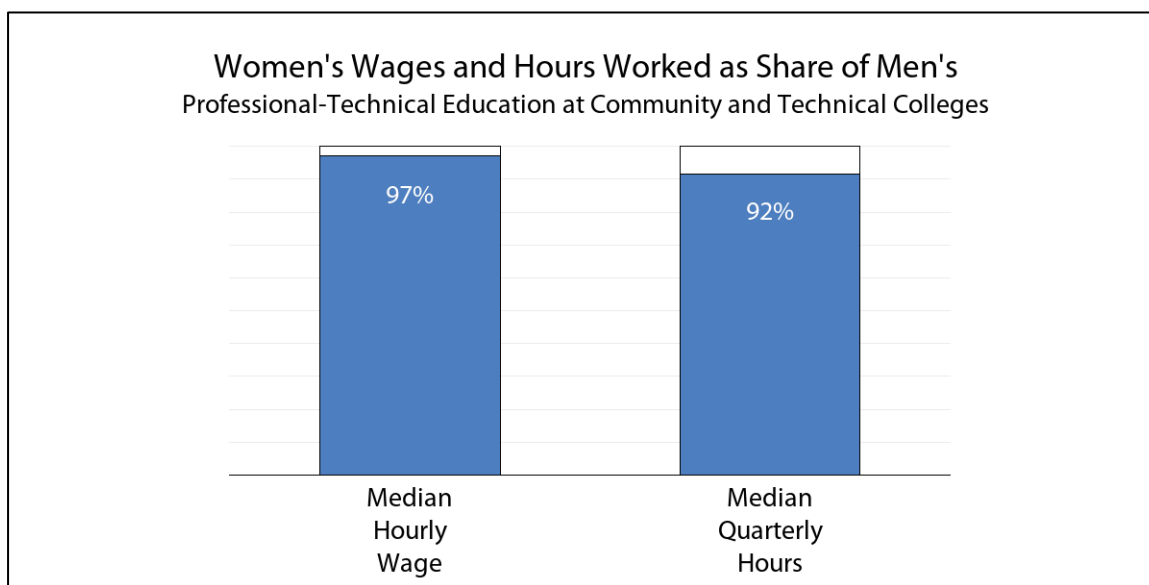
Both men and women participants had similar employment outcomes. Men were slightly more likely to be employed (70 percent working either full- or part-time vs. 69 percent for women), as well as more likely to be working full-time (43 percent compared to 41 percent for women).





Source: State Board for Community and Technical Colleges, Employment Security Department  
 All Participants, Third Quarter after Exit.

Among employed participants, women's median annual earnings were \$27,414, or 84 percent of men's (\$32,584). Women's median hourly wages were \$15.97, or 97 percent of men's hourly wages (\$16.43).

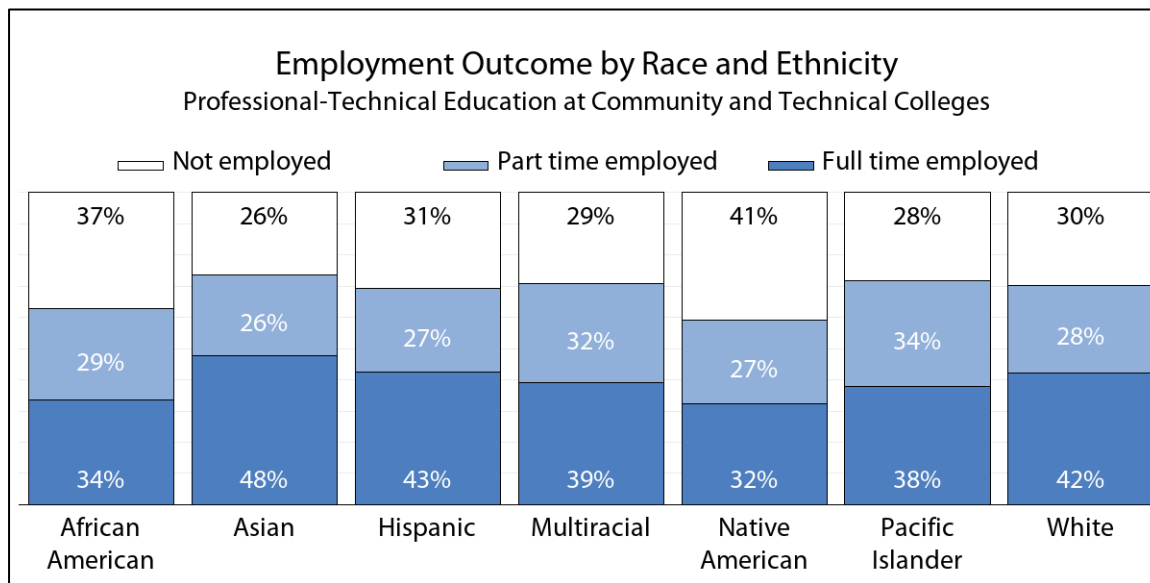


Source: State Board for Community and Technical College, Employment Security Department  
 All Participants, Third Quarter after Exit.



## Race and Ethnicity Play Roles

Employment rates among Asian participants (74 percent), Pacific Islander participants (72 percent), and Multiracial participants (71 percent) were highest (part-and full-time combined) among various racial and ethnic groups. Whites had a 70 percent employment rate. Native Americans had the lowest employment rate (59 percent), with African Americans faring slightly better at 63 percent employment. Those two groups also had the smallest percentage of participants working full time (32 and 34 percent respectively).

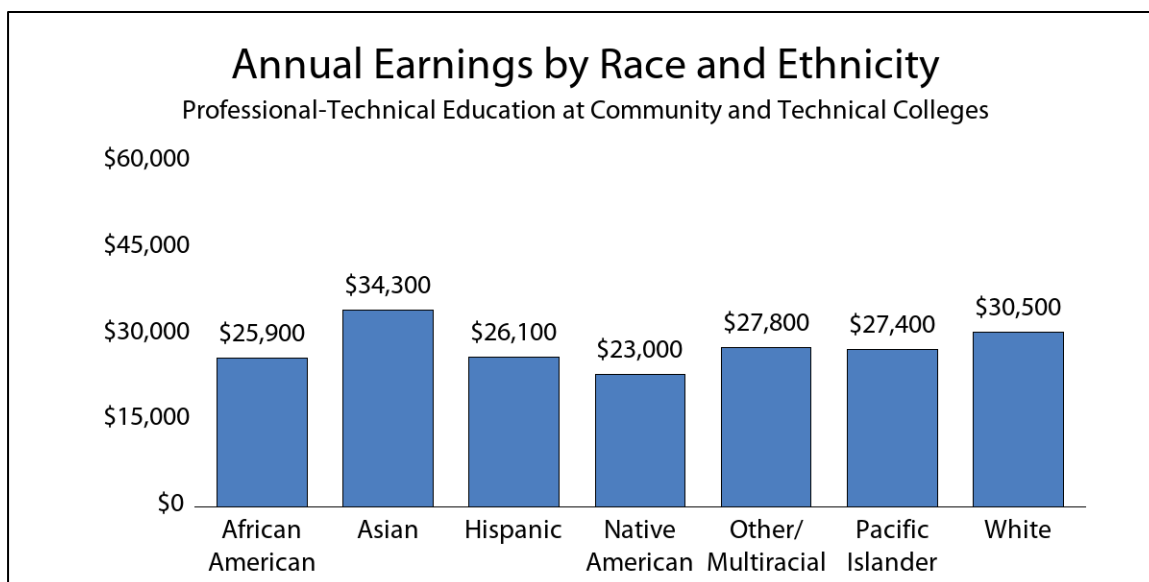


Source: State Board for Community and Technical Colleges, Employment Security Department  
All Participants, Third Quarter after Exit.

Of those employed, the median hourly wages were highest for Asian participants at \$17.56, followed by Whites (\$16.43), Multiracial (\$15.35), Hispanics (\$14.84), African Americans (\$14.83), Native Americans (\$14.51), and Pacific Islanders (\$14.12).

Asian participants had the highest median annual earnings (\$34,297), followed by Whites (\$30,462) and Pacific Islanders (\$27,357). Hispanics (\$26,138), African Americans (\$25,915), and Native Americans (\$23,043), all had lower median annual earnings.

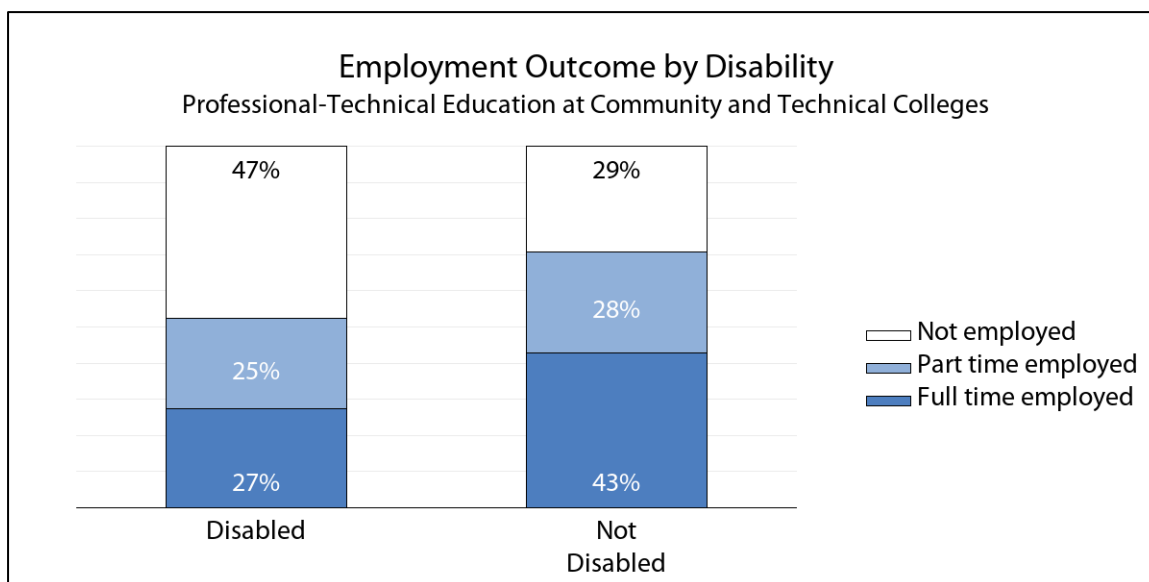




Source: State Board for Community and Technical Colleges, Employment Security Department  
All Participants, Third Quarter after Exit.

## Disability Impacts Employment and Earnings

Of those who exited a Professional Technical program, 2,405 had a disability. Of those with disabilities, about half were unemployed three quarters after exit. By comparison only 29 percent of those without disabilities were unemployed after exiting the program. In addition, those *with* disabilities who were employed made significantly less than those *without* disabilities—\$13.66 per hour compared to \$16 per hour.



Source: State Board for Community and Technical Colleges, Employment Security Department  
All Participants, Third Quarter after Exit.



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

The most recent net impact analyses, published in December 2016, examined experiences of participants who left the Community and Technical Colleges Professional-Technical Education program through 2013. The short-term impact was from the Program Year 2012-13 and the long-term impact was from the Program Year 2010-11.





## Impact on Employment and Earnings: Participants vs. Control Group

Community and Technical College Professional-Technical	All Participants
Net Employment Impact*	2.8%
Net Hourly Wage Impact**	\$2.91
Net Hours Employed per Quarter Impact	40.6
Average Annual Earnings Impact**	\$6,148

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

*\*\*Wages and earnings, expressed in first quarter 2016 dollars, represent the average difference between Community and Technical College Professional-Technical Education participants who got jobs and those in the control group who were employed.*

As can be seen in the previous table, those who participated in the Professional-Technical Education Program had an employment rate that was nearly 3 percent higher than the control group. Participants also earned nearly \$3 more per hour in wages and over \$6,000 more per year than those with similar demographic characteristics. Participants also worked an additional 40-plus hours during a three-month period, compared to those who did not participate in this program.

### Costs and Benefits

This cost-benefit analysis estimates the net impact—or how much of a difference a workforce program made—on how much participants earn, employee benefits, such as health insurance (typically valued at a quarter of overall earnings), Unemployment Insurance benefits, and certain taxes.

Program costs include direct costs, as well as the indirect cost to taxpayers, who fund the program. Also, the analysis estimates how much participants would have earned—but didn't—because they chose to participate in the workforce program instead of working. It also accounts for how much tuition a participant paid, if any, to participate in a program.

Benefits and costs are calculated for a period of time out to age 65, based upon a statistical model.



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

Benefit/Cost	First 2.5 years		Lifetime (until 65)	
	Participant	Public	Participant	Public
<b><u>Benefit</u></b>				
Earnings	\$13,854	\$0	\$115,793	\$0
Fringe Benefits	\$5,541	\$0	\$46,318	\$0
Taxes	\$-2,320	\$2,415	\$-19,395	\$30,417
<b><u>Transfers</u></b>				
Unemployment Insurance	\$-1,538	\$1,587	\$-1,456	\$1,485
<b><u>Costs</u></b>				
Forgone compensation	\$-2,267	\$308	\$-2,267	\$308
Program costs	\$-4,482	\$-8,809	\$-4,482	\$-8,809
Benefits	\$15,537	\$4,002	\$141,259	\$31,902
Costs	\$-6,749	\$-8,501	\$-6,749	\$-8,501
<b>Total (Net)</b>	<b>\$8,788</b>	<b>\$-4,499</b>	<b>\$134,511</b>	<b>\$23,401</b>

*Note: Benefits and costs are expressed in 2016 first quarter dollars. Upjohn estimated the impact of the net change in earnings of Social Security, Medicare, federal income, and state sales taxes.*

*\*Different formulas were used to calculate public return on investment and the return on investment to participants. This accounts for the small difference in benefits, sometimes adding up to a few dollars or as much as several hundred dollars.*

For each student in a Community or Technical College Professional-Technical Education program, the public (taxpayer) cost is about \$8,809 over the length of their enrollment, and the student costs are about \$4,482 in tuition and \$2,267 in foregone earnings while training. During the course of working life to age 65, the average trainee will gain about \$141,259 in net earnings (earnings minus taxes) and \$46,318 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 \$134,511.

Projected participant net benefits to age 65 outweigh public costs invested in college training by a ratio of \$15 to 1, or \$134,511 to \$8,809.

From the time of leaving training to age 65, the public is forecasted to gain \$30,417 per participant in net additional Social Security, Medicare, federal income, and state sales taxes. The estimated lifetime net benefit to taxpayers is \$23,401 per participant.



Projected taxpayer benefits to age 65 outweigh public costs invested in college training by a ratio of \$4 to 1 or \$31,902 to \$8,809.

In general, individuals participating in workforce programs benefit from increased earnings minus the additional taxes they pay. They also receive more in Unemployment Insurance benefits.

At the same time, the public benefits from receiving the additional taxes paid by participants with higher paying jobs.

### **Summary, Areas for Improvement, and Further Research**

Community and Technical College Professional-Technical participants were diverse with relatively high representation by women, African Americans and those who are multi-racial. Wages for those leaving the program were fairly low, but it must be understood that these were likely entry-level jobs for those with educational attainment of two years of college or less.

Once the economy began to recover from the Great Recession of 2008, employment rates of participants rose to respectable levels—nearly 70 percent in 2016. This may be in part because more participants found work in the relatively high paying healthcare sector—26 percent of Professional-Technical Education participants overall. Retail trade was the second most common industry for participants to find work in, followed by the public sector.

The most recent Net Impact Study found that participation in the Community and Technical College Professional-Technical program had a significantly positive impact on participants' employment and earnings, increasing their likelihood of finding work, earning higher wages, and working more hours. In comparison to individuals with similar demographics who did not go through training, participants are expected to earn an additional \$134,511 over their working lifetime.

One area of concern: Many participants appear to be leaving college early, with one third of program participants exiting within five months. Finding new ways to encourage and support students while they are in training could help them complete a credential that leads to higher wages and better employment opportunities.





# Workforce Training and Education Coordinating Board

## 2017 Workforce Training Results

### Worker Retraining Program

#### Program Details

The Legislature enacted the Workforce Employment and Training Act in 1993 in response to dramatic changes in the structure of Washington's economy, which caused large-scale layoffs and the long-term need for worker retraining programs. This law significantly expanded the training available to the thousands of jobless workers who need to change careers to successfully re-enter the workforce.

The Worker Retraining program offers support to unemployed and dislocated workers, as well as transitioning military members and veterans, displaced homemakers, those formerly self-employed, and a small number of workers vulnerable to layoffs, providing them 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. Qualified participants may receive financial assistance to help with tuition; receive help with the cost of attendance, including books and supplies; and in some instances receive assistance with support services, such as childcare and transportation.

The primary intention of the Worker Retraining program is to provide short-term "bridge funding," which allows unemployed or dislocated workers to get connected to training right away, while other funding and support services are sought to help them pay their bills and continue their education and training. Even so, the median length of enrollment for participants is nearly a year and half, with many participants continuing to receive some level of support services, such as books, or reimbursement for childcare costs, for example.

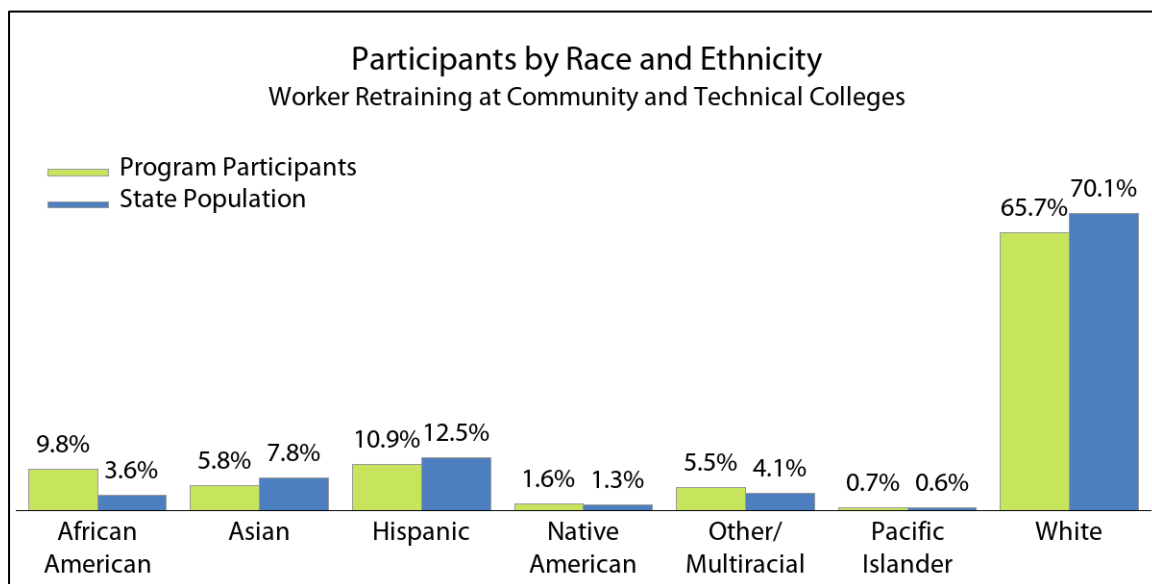
Every year, the Workforce Board measures the performance of key workforce programs. In this report, you'll find out more about the program and who is served, the metrics used to measure performance and how the program performed.



## Participant Profile

For this report, researchers studied the results of 4,806 Worker Retraining participants who completed or otherwise left a community or technical college program during the most recent reporting year.<sup>1</sup> The median length of enrollment for these participants was 17 months.

The racial and ethnic composition of Worker Retraining participants roughly reflects Washington's general population. The only outlier was African Americans who represented nearly one in 10 participants but account for just 3.6 percent of Washington's population. Whites participated at a lower percentage than their overall population share (65.7 percent of participants vs. just over 70 percent of the population).<sup>2</sup>



Source: Worker Retraining Administrative Data, State Board for Community and Technical Colleges, Washington State Office of Financial Management.

In terms of program completion by racial and ethnic groups, Asians and whites (63 percent) had the highest completion rate followed by Hispanics (61 percent) and Pacific Islanders (60 percent). Less than half of Native American participants completed the program (46 percent). More than half of multiracial participants completed the program (53 percent), as did African Americans (56 percent).

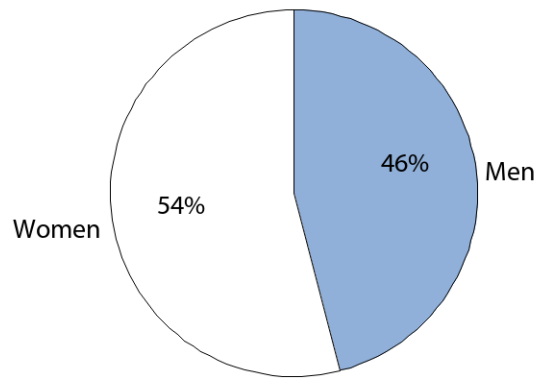
<sup>1</sup> The 2017 Workforce Training Results reports are based on data observed as recently as 2014-15.

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



### Participants by Gender

Worker Retraining at Community and Technical Colleges



*Source: Worker Retraining Administrative Data, State Board for Community and Technical Colleges.*

Among Worker Retraining participants, 54 percent were women, and 46 percent were men. This means that women had a slightly higher representation in the program than their share of Washington's working age population (49 percent). Women completed the program at a 62 percent rate while men completed the program 59 percent of the time.

At the time of enrollment, 44 percent of participants had not previously attended college, 35 percent had attended college without receiving a credential, 8 percent had received a certificate or associate's degree, and 13 percent had received a baccalaureate or higher degree.<sup>3</sup> The median age at the start of the last quarter of the program was 39 years. One in four participants was under age 29, while another one in four participants was over 51.

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<sup>3</sup> Percent of those who provided information on their education level when starting the program.



## **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 four core questions:

- Did participants get the skills they needed?
- Did participants get a job and how much were they paid?
- 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 2017 Workforce Training Results includes information obtained from Employment Security Department wage files in Washington, Oregon, and federal employment records for 2014-15.

## **Net Impact Study Adds More Insight into Program Performance**

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

## **Did Participants Get the Skills They Needed?**

As a measure of whether participants got the skills they needed, this study tracks the credentials and degrees earned by participants. Among those leaving a Worker Retraining program in 2014-15:

- 25 percent received an associate's degree.
- 17 percent received a certificate.
- 17 percent were defined as completers because they completed 45 or more credits or a unique (non-degree) program.



Altogether, 58 percent of participants completed their program. This completion rate is down by a small amount from the 2015 report, when 61 percent completed the program. In that report, 26 percent received an associate's degree, 16 percent received a certificate, and another 18 percent were defined as completers because they completed 45 or more credits or a unique (non-degree) program. The declining completion rate isn't necessarily a negative. As the economy and labor markets improved, many of these participants may have left the program because they landed a job.

## 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 Oregon.<sup>4</sup> The study looks at employment and earnings three calendar quarters after the participant exited a Worker Retraining program. Record matches found that 71 percent of the participants were employed during the third quarter after they left their program, a full 5 percentage points higher than the last report.

## Earnings of Worker Retraining Participants

The median hourly wage for Worker Retraining participants was \$17.16. Their median annualized earnings reached \$30,455.<sup>5</sup> Program completers were slightly more likely to be working full time than participants as a whole (48 percent vs. 45 percent) and had slightly higher annual earnings (\$30,935 compared to \$30,455).

## 2016 Employment and Earnings

Performance Measure	All Participants	Completers
Employed Or In Further Education	73%	76%
Employment	71%	74%
<i>Employees In Full-Time Job</i>	64%	65%
In Further Education	6%	7%
Median Annualized Earnings	\$30,455	\$30,935
Median Hourly Wage	\$17.16	\$17.29
Median Quarterly Hours	455	468

*Source: State Board for Community and Technical Colleges, Employment Security Department*  
*All outcomes apply to third quarter after exit. Dollars are adjusted to first quarter of 2016. Medians apply to participants not enrolled in further education and are calculated on values greater than zero. Thirty hours or more per week is considered full-time.*

<sup>4</sup> 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).

<sup>5</sup> 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 2016 dollars.





## Trends in Employment and Earnings

The following table shows employment and earnings information over five study periods, starting with 2011. Wage levels continue to be widely distributed among Worker Retraining participants. Although the median hourly wage was \$17.16, one quarter earned more than \$24 an hour, while another quarter had jobs that paid less than \$13.30 an hour. This wide distribution of wages is reflected in the dispersion of employment across higher and lower-wage industries. Worker Retraining participants have access to career counseling but it's clear that more may need to be done to help direct some participants toward higher-wage occupations.

Performance Measure	2012	2013	2014	2015	2016
<b>All participants</b>					
Employment	66%	68%	66%	70%	71%
Employees In Full-Time Job	64%	61%	67%	63%	64%
Median Annualized Earnings	\$31,553	\$29,588	\$31,811	\$30,064	\$30,455
Median Hourly Wage	\$17.96	\$16.76	\$17.19	\$17.03	\$17.16
Median Quarterly Hours	468	455	468	468	455
<b>Completers</b>					
Employment	70%	71%	69%	72%	74%
Employees In Full-Time Job	67%	64%	69%	65%	65%
Median Annualized Earnings	\$32,613	\$31,208	\$33,093	\$31,456	\$30,935
Median Hourly Wage	\$18.03	\$16.83	\$17.34	\$17.44	\$17.29
Median Quarterly Hours	481	455	481	468	468

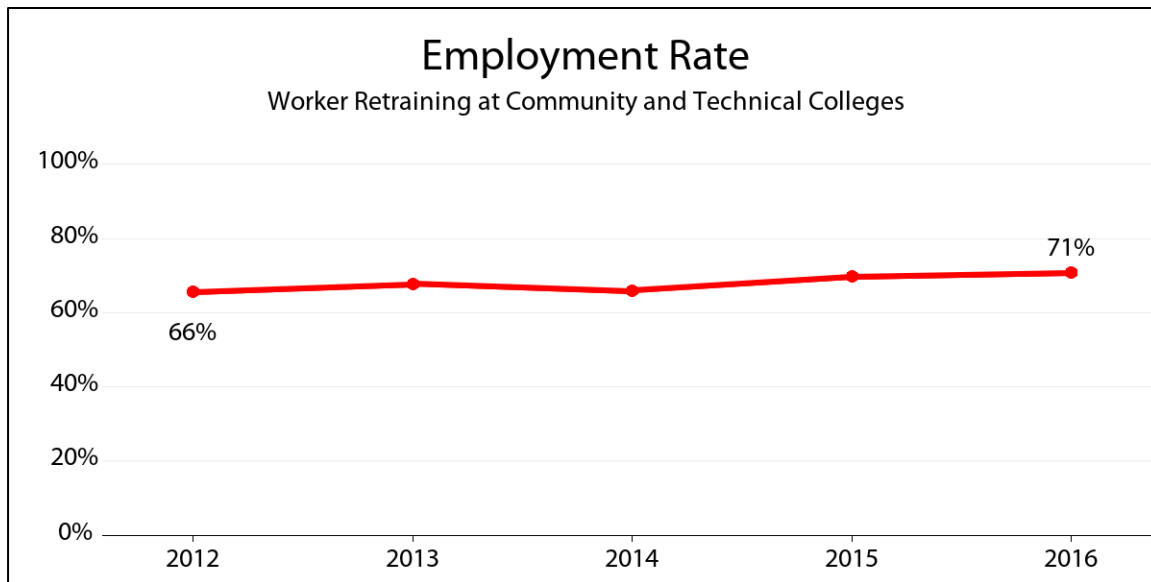
Source: State Board for Community and Technical Colleges, Employment Security Department

All outcomes apply to third quarter after exit. Dollars are adjusted to first quarter of 2016. Medians apply to participants not enrolled in further education and are calculated on values greater than zero. Thirty hours or more per week is considered full-time.

Source: State Board for Community and Technical Colleges, Employment Security Department

The employment rate among all Worker Retraining participants declined during the Great Recession, which began roughly in 2008. Since then, the employment rate has increased from a low of 58 percent in 2010, to 71 percent in 2016. The employment rate among Worker Retraining program completers was three percentage points higher than for all participants. This is close to the historical norm.

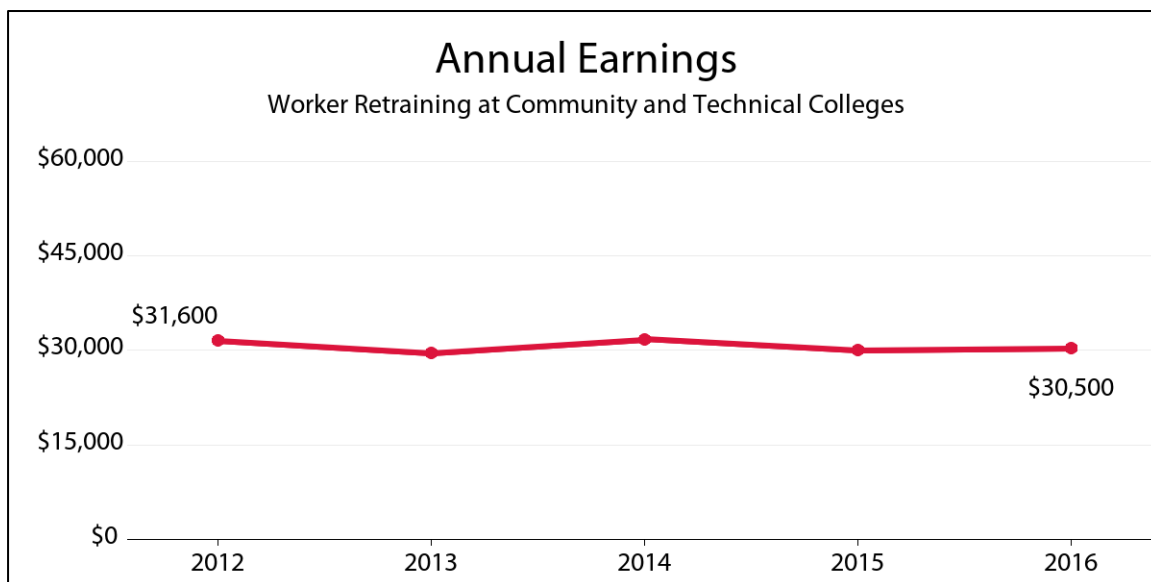




Source: State Board for Community and Technical Colleges, Employment Security Department

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

Earnings among Worker Retraining participants were nearly flat on an inflation adjusted basis in 2016—rising from \$30,064 in 2015 to \$30,455. However, these wages remained below the peak reached in 2014 at \$31,811. Hourly wages (also inflation adjusted) followed a similar pattern. Overall, hours worked have trended down as well (from 468 in 2014 to 455 in 2016).



Source: State Board for Community and Technical Colleges, Employment Security Department

All participants, Third Quarter after Exit. Median annualized earnings in 2016 dollars.



## Where Are Participants Employed?

Among Worker Retraining exiters who found work, more than one in five did so in the Health Care and Social Assistance industry, most commonly in the Ambulatory Health Care services sub-industry. One in eight found work in the Administrative and Support and Waste Management and Remediation Services industry and a further one in ten in manufacturing.

<b>Worker Retraining at Community and Technical Colleges Employment by Industry 2016</b>	<b>% of Total</b>
<b>Health Care and Social Assistance</b>	<b>22%</b>
- Ambulatory Health Care Services	8%
- Hospitals	5%
- Social Assistance	5%
<b>Administrative and Support and Waste Management and Remediation Services</b>	<b>12%</b>
-- Employment Services	7%
<b>Manufacturing</b>	<b>10%</b>
<b>Retail Trade</b>	<b>9%</b>
<b>Construction</b>	<b>8%</b>
- Specialty Trade Contractors	5%
<b>Professional, Scientific, and Technical Services</b>	<b>6%</b>
<b>Educational Services</b>	<b>6%</b>
<b>Accommodation and Food Services</b>	<b>5%</b>
<b>Public Administration</b>	<b>5%</b>
<b>Wholesale Trade</b>	<b>3%</b>
<b>Transportation and Warehousing</b>	<b>3%</b>
<b>Other Services (except Public Administration)</b>	<b>3%</b>
<b>Finance and Insurance</b>	<b>2%</b>
<b>Unknown Sector</b>	<b>2%</b>
<b>Remaining Sectors (Less than two percent share)</b>	<b>6%</b>

North American Industry Classification System (NAICS): Sector, -Subsector, --Industry group, ---Industry. All Participants, Third Quarter after Exit.

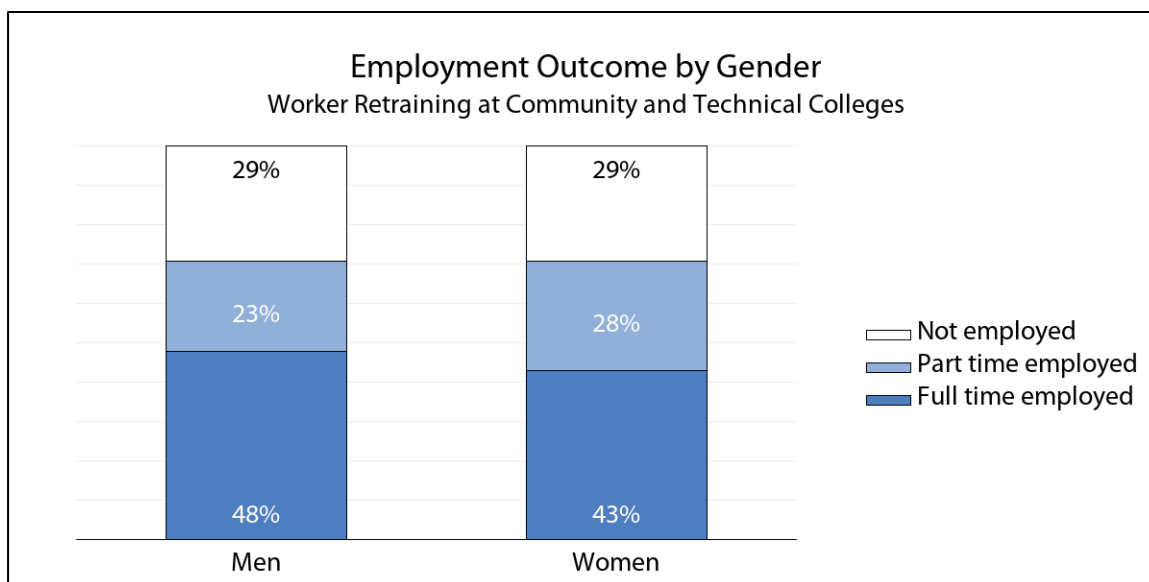
Table sorted by NAICS sector with highest percent of total employment.

Source: State Board for Community and Technical Colleges, Employment Security Department

## Different Populations, Different Outcomes

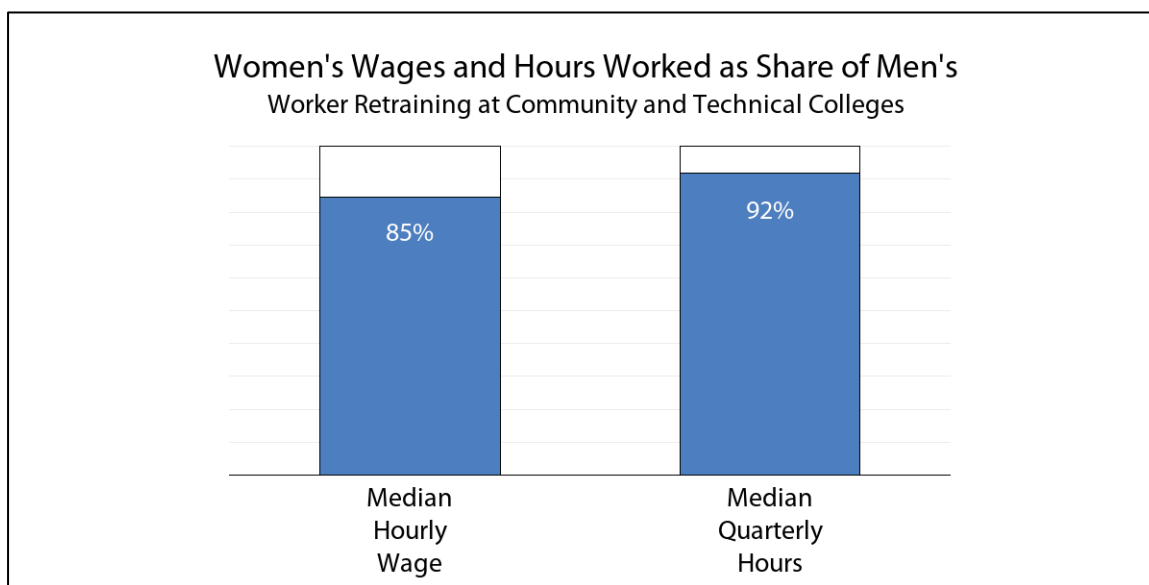
Employment and earnings vary by gender, race and ethnicity, and disability status. Forty-eight percent of men were employed full time, and 23 percent part time for an overall rate of 71 percent. Women's overall employment rate was the same—71 percent, but women had a lower full time employment rate of 43 percent.





Source: State Board for Community and Technical Colleges, Employment Security Department  
 All Participants, Third Quarter after Exit.

There was a significant wage gap between men and women in the Worker Retraining program. Women's hourly wages were 85 percent of men's (\$16.10 vs. \$19.05) and their annual earnings were 80 percent of men's (\$27,849 vs. \$34,734).

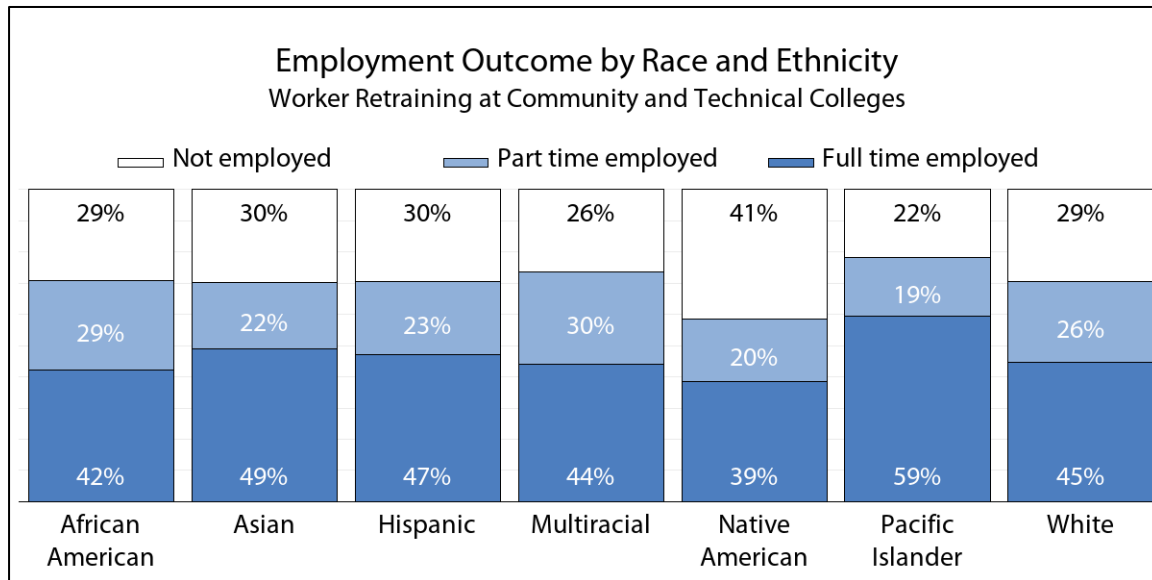


Source: State Board for Community and Technical Colleges, Employment Security Department  
 All Participants, Third Quarter after Exit.



## Race and Ethnicity Plays Role

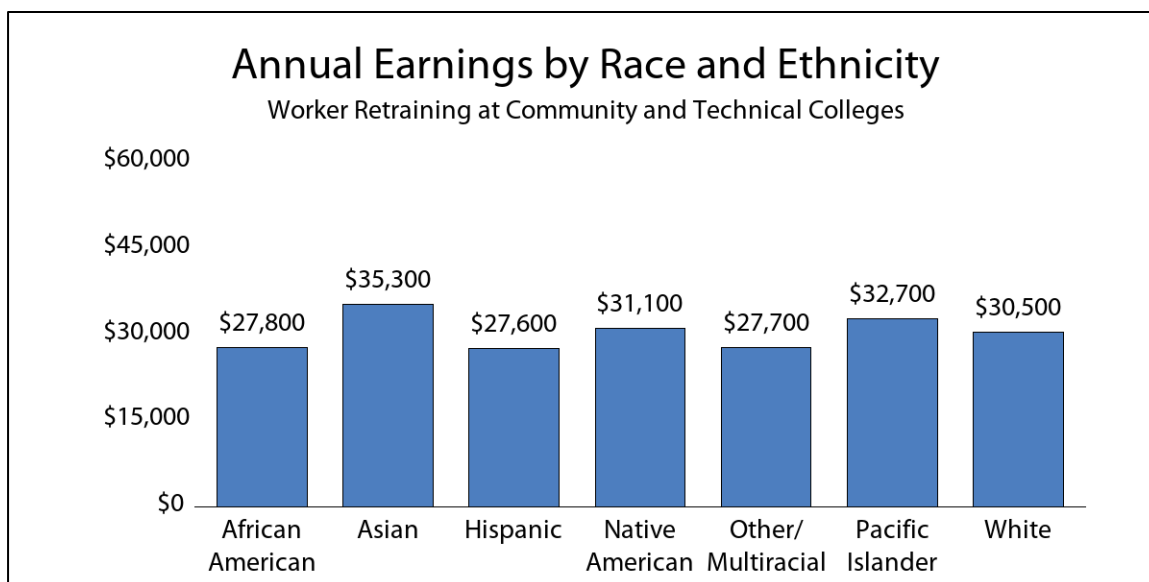
Employment rates among those exiting the Worker Retraining program varied among racial and ethnic groups. For example, African Americans, Asians, Hispanics, and whites had almost identical rates of employment (around 70 percent had jobs). Native Americans were the least likely to have jobs (59 percent employment), while Pacific Islanders had the highest employment rate (78 percent). Pacific Islanders were also the most likely to work full time (59 percent) followed by Asians and Hispanics. Native Americans also had the lowest full time employment rate (39 percent).



Source: State Board for Community and Technical Colleges, Employment Security Department  
All Participants, Third Quarter after Exit

Among former participants, Asians had the highest median hourly wage at \$18.43, followed by whites (\$17.28), Native Americans (\$17.15), and African Americans (\$16.63). At \$15.36 per hour Hispanics had the lowest median wage followed by multiracial participants at \$15.90.





*Source: State Board for Community and Technical Colleges, Employment Security Department  
All Participants, Third Quarter after Exit*

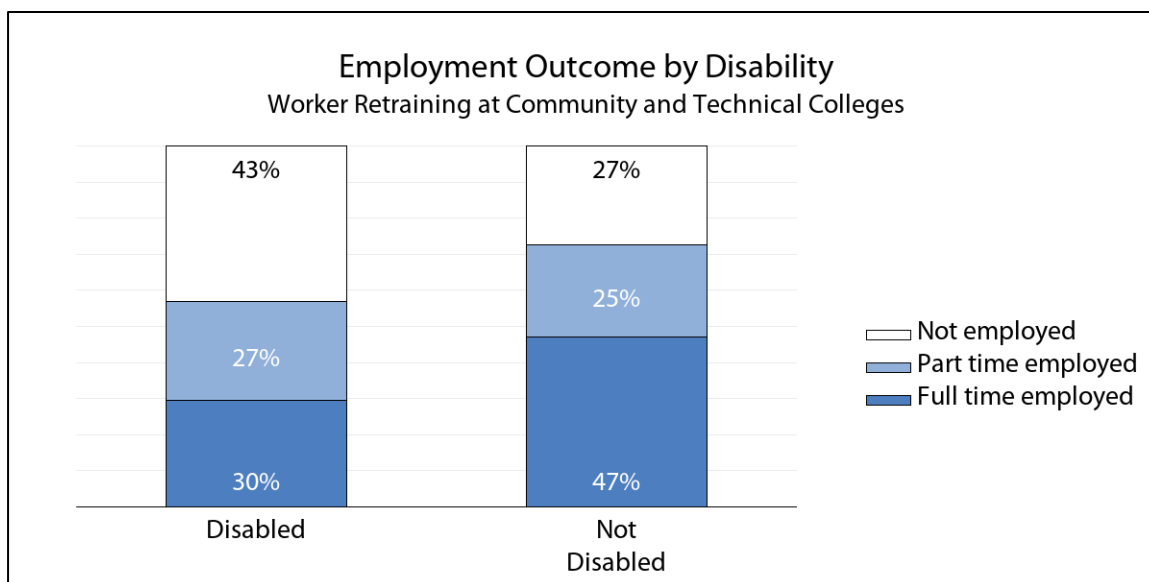
Upon entering employment, Pacific Islanders typically worked the most hours (median quarterly hours of 520). They were followed by Asians (481 hours), Native Americans (462 hours), and whites (455 hours). Multiracial participants worked the fewest hours in a three-month period—429.

### Disability Impacts Employment, Earnings

Jobseekers with a disability leaving the Worker Retraining program failed to find work 43 percent of the time (of the 517 participants with disabilities). This is a much higher unemployment rate than for the non-disabled (27 percent). The hourly rate for participants with disabilities was \$15.76, compared to \$17.05 for the non-disabled.<sup>6</sup>

<sup>6</sup> This does not include those who have gone on to further education.





*Source: State Board for Community and Technical Colleges, Employment Security Department  
All Participants, Third Quarter after Exit*

### **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 most recent net impact analyses, published in December 2016, examined experiences of participants who left the Apprenticeship training program through 2013. The short-term impact was from the Program Year 2012-13 and the long-term impact was from the Program Year 2010-11.



## Impact on Employment and Earnings: Participants vs. Control Group

CTC PT	All Participants
Net Employment Impact*	2.8%
Net Hourly Wage Impact**	\$ 2.91
Net Hours Employed per Quarter Impact	40.6
Average Annual Earnings Impact**	\$ 6,148

Community and Technical Colleges Worker Retraining	All Participants
Net Employment Impact*	1.1%
Net Hourly Wage Impact**	\$2.29
Net Hours Employed per Quarter Impact	27.9
Average Annual Earnings Impact**	\$5,546

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

\*\*Wages and earnings, expressed in first quarter 2016 dollars represent the average difference between Worker Retraining participants who got jobs and those in the control group who were employed.

As can be seen in the above table, those who participated in the Worker Retraining Program had an employment rate that was just over 1 percent higher than a control group. This isn't a big difference. However, Worker Retraining participants also earned over \$2 more per hour and about \$5,500 more per year than those with similar demographic characteristics. Participants also worked an additional 28 hours during a three-month period, compared to those who did not participate in this program.

## Costs and Benefits

This cost-benefit analysis estimates the net impact—or how much of a difference a workforce program made—on how much participants earn, employee benefits, such as health insurance (typically valued at a quarter of overall earnings), Unemployment Insurance benefits, and certain taxes.

Program costs include direct costs, as well as the indirect cost to taxpayers, who fund the program. Also, the analysis estimates how much participants would have earned—but didn't—because they chose to participate in the workforce program instead of working. It also accounts for how much tuition a participant paid, if any, to participate in a program.

Benefits and costs are calculated for a period of time out to age 65, based upon a statistical model.





## Participant and Public Benefits and Costs per Participant

Benefit/Cost	First 2.5 years		Lifetime (until 65)	
	Participant	Public	Participant	Public
<b><u>Benefit</u></b>				
Earnings	\$8,616	\$0	\$69,847	\$0
Fringe Benefits	\$3,447	\$0	\$27,938	\$0
Taxes	\$-2,155	\$2,251	\$-17,462	\$25,249
<b><u>Transfers</u></b>				
Unemployment Insurance	\$-1,543	\$1,587	\$127	\$-123
<b><u>Costs</u></b>				
Forgone compensation	\$-5,643	\$-1,227	\$-5,643	\$-1,227
Program costs	\$-3,069	\$-4,755	\$-3,069	\$-4,755
Benefits	\$8,366	\$3,837	\$80,451	\$25,126
Costs	\$-8,712	\$-5,982	\$-8,712	\$-5,982
<b>Total (Net)</b>	<b>\$-347</b>	<b>\$-2,144</b>	<b>\$71,739</b>	<b>\$19,144</b>

*Note: Benefits and costs are expressed in 2016 first quarter dollars.*

*\*Different formulas were used to calculate public return on investment and the return on investment to participants. This accounts for the small difference in benefits, sometimes adding up to a few dollars or as much as several hundred dollars.*

For each student in a community or technical college Worker Retraining program, the public (taxpayer) cost is about \$4,755 over the length of their enrollment, and the student costs are about \$3,069 in tuition and \$5,643 in foregone earnings while training. During the course of working life to age 65, the average trainee will gain about \$80,451 in net earnings (earnings minus taxes) and \$27,938 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 \$71,739.

Projected participant net benefits to age 65 outweigh public costs invested in college training by a ratio of \$15 to 1, or \$71,739 to \$4,755.

From the time of leaving training to age 65, the public is forecasted to gain \$25,249 in net additional Social Security, Medicare, federal income, and state sales taxes. The estimated lifetime net benefit to taxpayers is \$19,144 per participant.

Projected taxpayer benefits to age 65 outweigh public costs invested in college training by a ratio of \$5 to 1 or \$25,126 to \$4,755.



In general, individuals participating in workforce programs benefit from increased earnings minus the additional taxes they pay. They also receive more in Unemployment Insurance benefits.

At the same time, the public benefits from receiving the additional taxes paid by participants with higher paying jobs.

### **Summary, Areas for Improvement, and Further Research**

The Worker Retraining program provides financial support to unemployed and dislocated workers. Worker Retraining also supports transitioning military members and veterans and a small number of workers vulnerable to layoffs. The profile of participants in comparison with the general population is moderately female and non-white.

The Worker Retraining program has strong net impacts on participant's long-term employment and earnings, and provides a positive return to taxpayers of five to one. Many Worker Retraining participants find work in the healthcare field—a growing sector with many well-paying jobs. Employment has been trending up to reach a post-recession high in 2016. Earnings, however, have been flat as of late.

In 2016, the community and technical colleges embarked on a guided pathways initiative. This is a research-based approach that simplifies choices for students. Courses are grouped together to form specific career paths that lead to jobs after graduation. Students get intensive, targeted advising in those career paths.

There are areas the program could improve upon, including helping participants focus their training on occupations with rising earnings. Among those who left the program, women were more likely to work part-time than men and earned just 80 percent of what men earned. Native Americans were less likely to get jobs compared with other ethnic groups, while Hispanics and multiracial participants had relatively low hourly earnings. Participants with disabilities had lower employment rates and lower hourly earnings compared to those without a disability.





# Workforce Training and Education Coordinating Board

## 2017 Workforce Training Results

### Department of Services for the Blind

#### Program Details

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

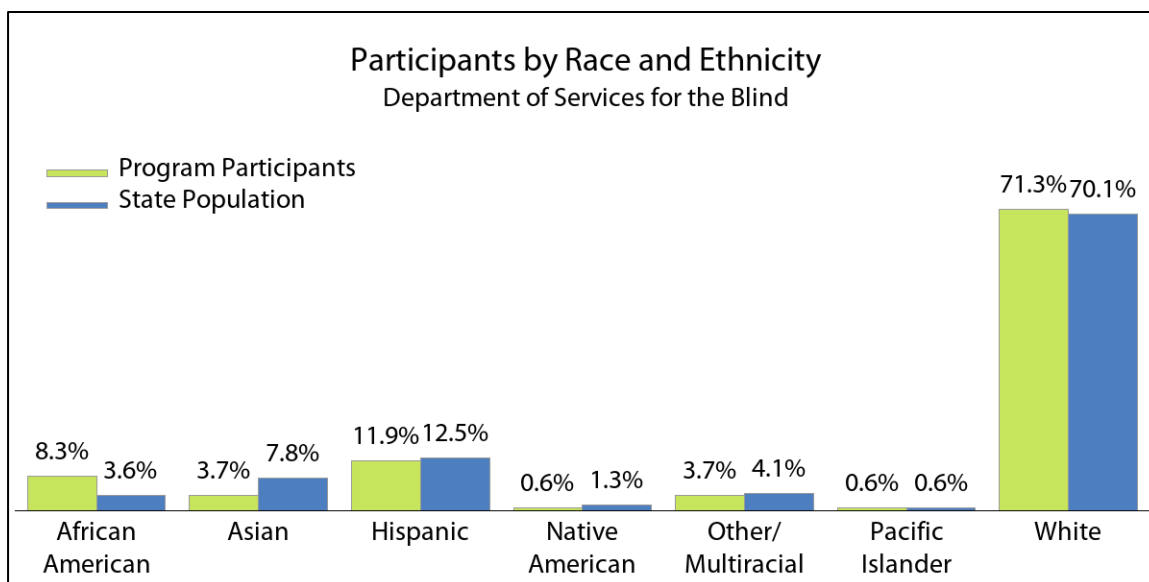
Every year, the Workforce Board measures the performance of key workforce programs. In this report, you'll find out more about the program and who is served, the metrics used to measure performance, and how the program performed.

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

#### Participant Profile

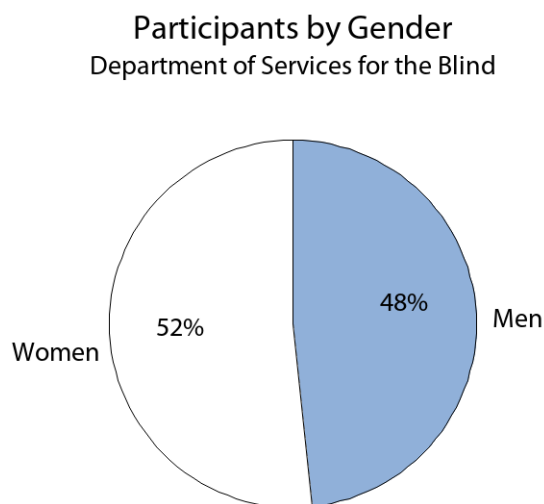
Overall the DSB participant population closely resembles the overall Washington population. The biggest divergence occurs among African Americans (relatively high participation in the program) and Asian Americans (relatively low participation in the program).





Source: 2014-15 Department of Services for the Blind Administrative Data, Department of Services for the Blind, Washington State Office of Financial Management.

The gender balance among DSB participants is also fairly close to the overall population, but slightly more female. In 2015, males made up 50.6 percent of Washington’s working age population (20-64 year olds), slightly higher than the 48 percent male share of DSB participants (in program year 2014-15).



Source: 2014-15 Department of Services for the Blind Administrative Data, Department of Services for the Blind

When they applied for the program, 38 percent of DSB participants had not previously attended college or received other postsecondary education, 24 percent had some postsecondary education but no degree or certificate, 11 percent had an associate’s degree or a vocational certificate, and 27 percent had a bachelor’s degree or higher. The median age for program entrants was 29, with one quarter under age 23 and another quarter over age 39.



## **Tracking Department of Services for the Blind Progress**

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

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

- Did participants get the skills they needed?
- Did participants get a job and how much were they paid?
- 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 2017 Workforce Training Results includes information obtained from Employment Security Department wage files in Washington and Oregon, and federal employment records for 2014-15.

## **Did Participants Get the Skills They Needed?**

Some 56 percent of DSB clients were classified as rehabilitated upon leaving the program (that is, they were working for at least 90 days prior to completing the program), 2 percentage points higher than the last report.

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

To find out whether participants had jobs and how much they earned, participant records were matched with Employment Security Department wage files from Washington and neighboring states.<sup>1</sup> Record matches found 48 percent of DSB clients had reported employment three quarters after program exit. Among those who were working, (that is, those who had been working for 90 days prior to exit), 69 percent had reported employment in the third quarter after exit, about 4 percentage points less than for the last cohort of participants. Among all participants who were working during the third quarter after leaving the program, the median hourly wage was \$17 and the median annualized earnings were \$27,779. Rehabilitated participants had slightly better employment outcomes than all participants combined, and higher earnings (\$17.77 median hourly wage; \$28,763 median annualized earnings).

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<sup>1</sup> These files contain quarterly earnings and hours-worked information on those individuals with employment reported for UI benefits purposes (approximately 90 percent of in-state employment, with self-employment, active duty military, and those working for religious nonprofit organizations being the major groups of employers not included).



## 2016 Outcomes—Department of Services for the Blind

Performance Measure	All Participants	Rehabilitated
Employed Or In Further Education	48%	69%
Employment	45%	67%
<i>Employees In Full-Time Job</i>	55%	57%
In Further Education	6%	4%
Median Annualized Earnings	\$27,779	\$28,763
Median Hourly Wage	\$17.00	\$17.77
Median Quarterly Hours	426	422

Source: Department of Services for the Blind, Employment Security Department

All outcomes apply to third quarter after exit. Medians apply to participants not enrolled in further education and are calculated on values greater than zero. Thirty hours or more per week is considered full-time. Dollars are adjusted to first quarter of 2016.

## Trends in Outcomes - Department of Services for the Blind

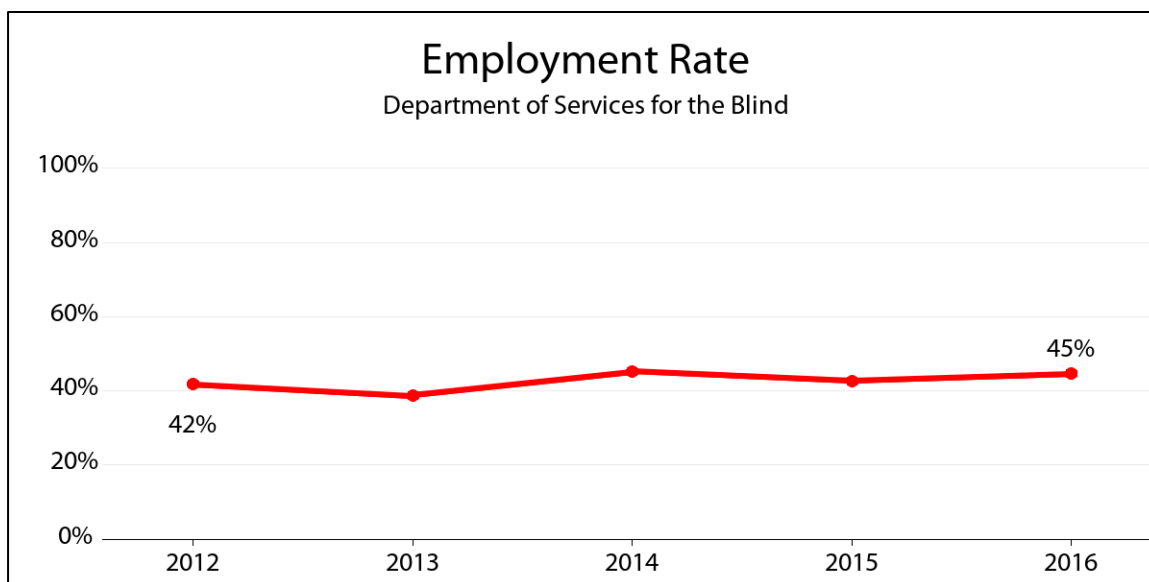
Since 2012, when looking at all DSB participants, employment rates, the percentage working full-time, earnings, and hours worked have all climbed upwards. However, outcomes for those considered rehabilitated were better than for all participants. Even so, the employment rate (67 percent) for rehabilitated participants in 2016 was 5 percentage points below the 2014 peak (73 percent).

Performance Measure	2012	2013	2014	2015	2016
<b>All Participants</b>					
Employment	42%	39%	45%	43%	45%
<i>Employees In Full-Time Job</i>	48%	50%	53%	51%	55%
Median Annualized Earnings	\$23,720	\$24,372	\$24,767	\$22,338	\$27,779
Median Hourly Wage	\$15.41	\$14.55	\$15.72	\$14.75	\$17.00
Median Quarterly Hours	370	398	411	400	426
<b>Rehabilitated</b>					
Employment	57%	66%	73%	64%	67%
<i>Employees In Full-Time Job</i>	49%	51%	55%	56%	57%
Median Annualized Earnings	\$24,970	\$25,412	\$25,416	\$24,190	\$28,763
Median Hourly Wage	\$15.81	\$14.78	\$16.24	\$15.15	\$17.77
Median Quarterly Hours	374	402	414	439	422

Source: Department of Services for the Blind, Employment Security Department

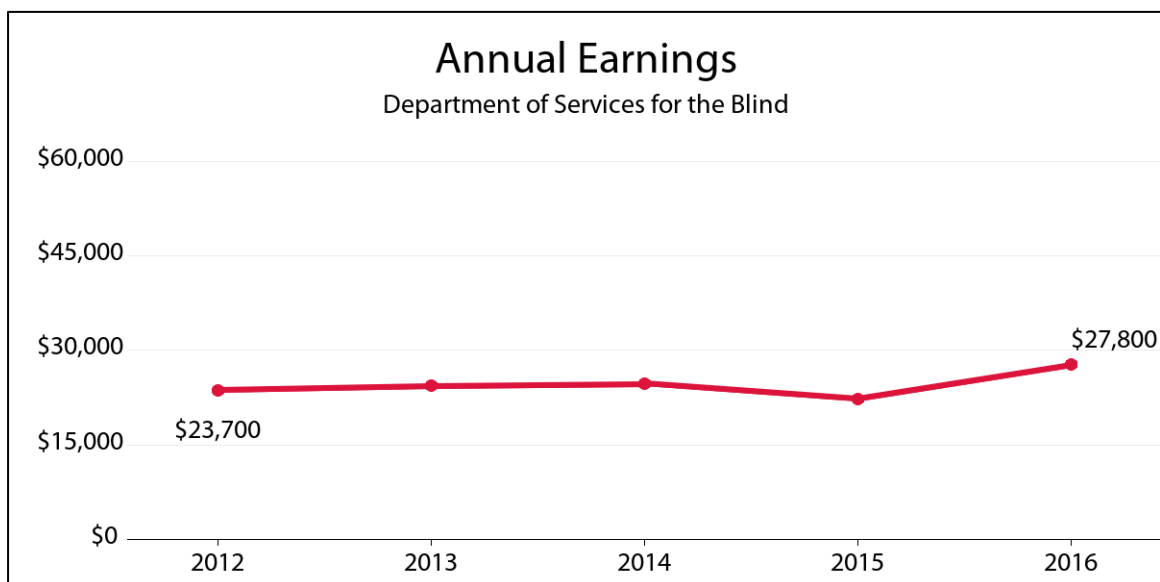
All outcomes apply to third quarter after exit. Medians apply to participants not enrolled in further education and are calculated on values greater than zero. Thirty hours or more per week is considered full-time. Dollars are adjusted to first quarter of 2016.





Source: Department of Services for the Blind, Employment Security Department

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



Source: Department of Services for the Blind, Employment Security Department

All participants, Third Quarter after Exit. Median annualized earnings in 2016 dollars.

## Where Are Participants Employed

Healthcare was the most common sector for DSB program exiters to find employment in—one in five. This remained steady from two years ago. Manufacturing was the second largest employing sector, making up 18 percent of exiters that found employment. Retail trade and public administration both accounted for 11 percent of employed program exiters.



<b>Department of Services for the Blind Employment by Industry 2016</b>	<b>% of Total</b>
<b>Health Care and Social Assistance</b>	<b>20%</b>
- Social Assistance	11%
-- Individual and Family Services	7%
--- Services for the Elderly and Persons with Disabilities	6%
- Hospitals	5%
-- General Medical and Surgical Hospitals	4%
<b>Manufacturing</b>	<b>18%</b>
- Transportation Equipment Manufacturing	16%
-- Aerospace Product and Parts Manufacturing	16%
<b>Retail Trade</b>	<b>11%</b>
- General Merchandise Stores	4%
<b>Public Administration</b>	<b>11%</b>
- Administration of Human Resource Programs	6%
<b>Educational Services</b>	<b>10%</b>
- Educational Services	10%
-- Elementary and Secondary Schools	8%
<b>Administrative and Support and Waste Management and Remediation Services</b>	<b>8%</b>
- Administrative and Support Services	8%
<b>Professional, Scientific, and Technical Services</b>	<b>5%</b>
- Professional, Scientific, and Technical Services	5%
<b>Construction</b>	<b>4%</b>
<b>Accommodation and Food Services</b>	<b>4%</b>
<b>Other Services (except Public Administration)</b>	<b>4%</b>
<b>Information</b>	<b>3%</b>
<b>Wholesale Trade</b>	<b>2%</b>
<b>Remaining Sectors (Each less than two percent share)</b>	<b>1%</b>

North American Industry Classification System (NAICS): Sector, -Subsector, --Industry group, ---Industry. All Participants, Third Quarter after Exit.

Table sorted by NAICS sector with highest percent of total employment.

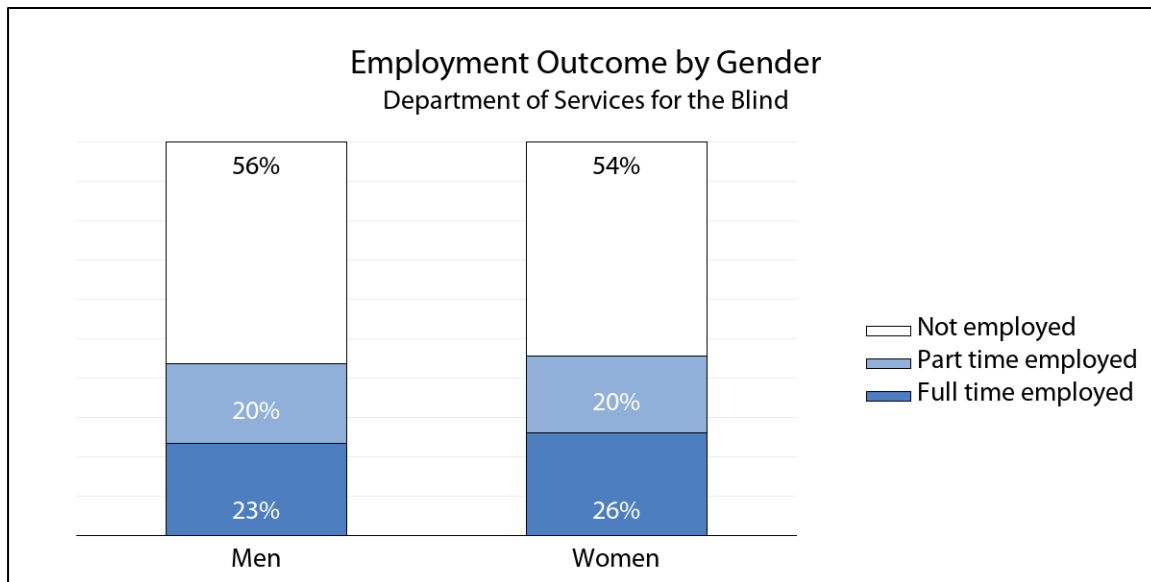
Source: Department of Services for the Blind, Employment Security Department

## Different Populations, Different Outcomes

After leaving the program, women were slightly more likely to be employed than men (46 percent compared to 44 percent). They were also more likely to be working full-time (26 percent versus 23 percent for men).





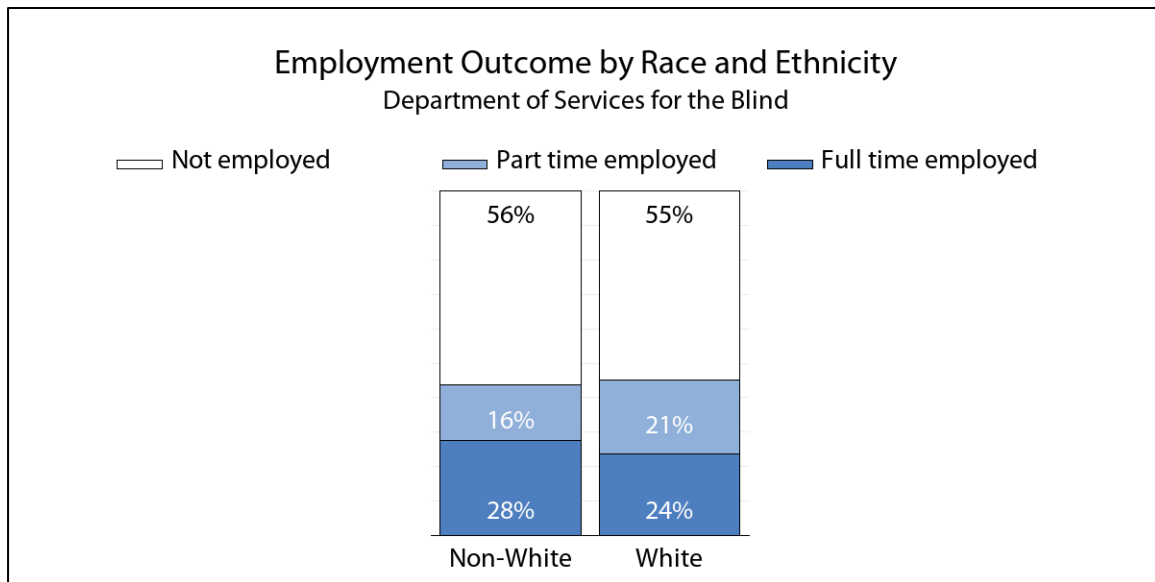


Source: Department of Services for the Blind, Employment Security Department

In addition, working women had annual earnings 20 percent above that of men (\$28,819 versus \$23,966). This is not a one-time phenomenon as women out-earned men in the program by 38 percent in the 2015 report. However, it's worth noting that the program has a small number of participants and is subject to more variation than programs with more participants.

Because of DSB's small number of participants (327 participants in the most recent reporting year, a breakout showing various racial/ethnic groups is more misleading than helpful. Alternatively, there is a breakout (below) showing employment outcomes for whites versus non-whites. The outcomes are similar showing nearly identical employment rates, but with non-whites being more likely to work full-time than whites.

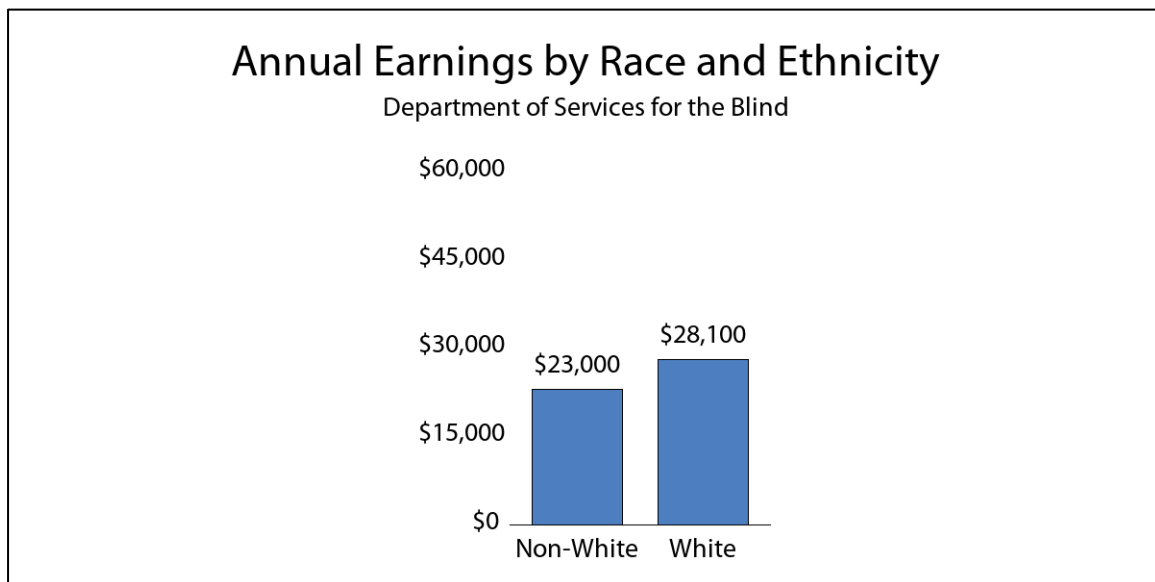




Source:

Department of Services for the Blind, Employment Security Department

Whites earned the highest annual wage (\$28,100), while Non-Whites earned the lowest annual wage (\$23,000).



Department of Services for the Blind, Employment Security Department



## **Summary, Areas for Improvement, and Further Research**

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

Except for African Americans (relatively high representation) and Asians (relatively low representation), the DSB participant population closely matches the population as a whole. Women had a higher representation in the program than in the working age population and the median age at program entrance was 29 years old. This is right about the mid-range for program participants in all programs analyzed in the 2017 Workforce Training Results report.

Average annual earnings for those that left the program were not high, but have been rising—up by over \$3,000 since 2012. Employment rates for all program exiters have been consistent, in the 42 to 45 percent range over the last five years. While low, those considered to be rehabilitated reached 67 percent employment.

Program exiters found jobs in healthcare more often than any other sector. This bodes well as it is a sector with high wages and good potential for growth.





# Workforce Training and Education Coordinating Board

## 2017 Workforce Training Results

### Division of Vocational Rehabilitation

#### Program Details

The Division of Vocational Rehabilitation (DVR) within the state's Department of Social and Health Services offers services to help individuals with disabilities become employed. Depending on the individual and his or her 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:

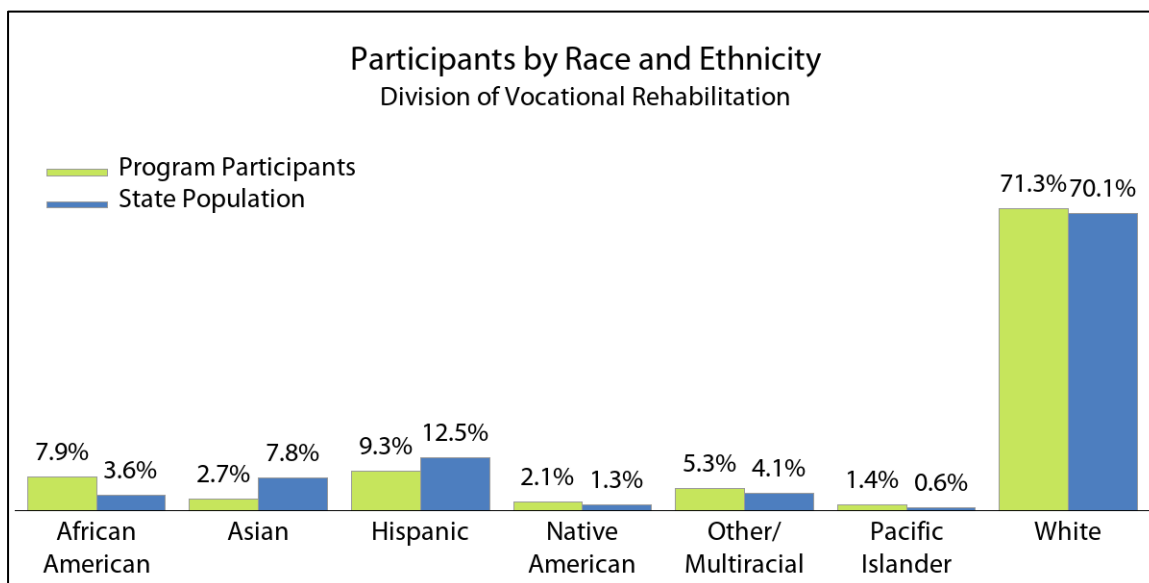
- Has a physical, mental, or sensory impairment that constitutes or results in a substantial impediment to employment.
- Requires vocational rehabilitation services to prepare for, enter into, engage in, or retain employment.
- Can benefit from vocational rehabilitation services in obtaining a job.

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



## Participant Profile

For this report, researchers studied the results of 5,000 Division of Vocational Rehabilitation participants who completed or otherwise left a Division of Vocational Rehabilitation program during the most recent reporting year.<sup>1</sup> The median length of enrollment for these participants was 11 months.



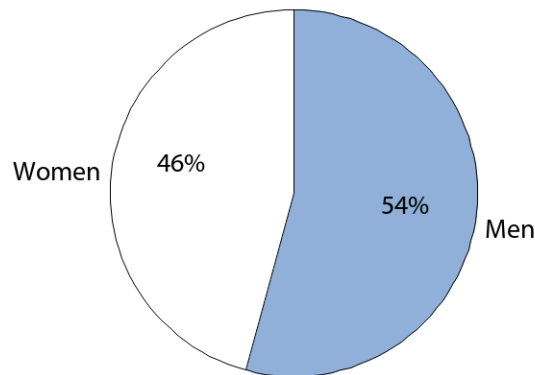
*Source: 2014-15 DVR Administrative Data, Division of Vocational Rehabilitation, Washington State Office of Financial Management.*

Overall, the DVR participant population is similar to the state's general population. The biggest divergence occurs among African Americans (relatively high participation in the program at 7.9 percent) and Asian Americans (relatively low participation at 2.7 percent). Hispanic participants are also underrepresented; they comprise 9.3 percent of DVR participants but make up 12.5 percent of the state's overall population.

<sup>1</sup> The 2017 Workforce Training Results reports are based on data observed as recently as 2014-15.



Participants by Gender  
Division of Vocational Rehabilitation



*Source: 2014-15 DVR Administrative Data, Department of Vocational Rehabilitation.*

The DVR participant population is mildly weighted toward men—54 percent of program participants compared to 50.6 percent of the total population.

## Tracking Division of Vocational Rehabilitation 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 four core questions:

- Did participants get the skills they needed?
- Did participants get a job and how much were they paid?
- 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 2017 Workforce Training Results includes information obtained from Employment Security Department wage files in Washington, Oregon, and federal employment records for 2014-15.



## Net Impact Study Adds More Insight into Program Performance

In addition, the report includes a comprehensive Net Impact Study. Conducted every four years, this version was finished in 2016. 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.

## Employment and Earnings for the Division of Vocational Rehabilitation

Overall, 58 percent of DVR participants were employed three quarters after exit. That percentage rises to 60 percent, among those who were either employed *or* in higher education. Of those who had jobs, 37 percent were working full-time.

Perhaps because of the large number of DVR participants working part-time, annual earnings were low for program exiters—\$14,087. By comparison, the average annual wage in 2015 for all workers in Washington was \$56,642.<sup>2</sup>

Hourly wages for DVR participants stood at \$11.72, a slight increase (around 50 cents more) from two years ago. Median hours worked declined slightly from 302 hours in 2014, to 292.

Program completers were significantly more likely to be employed than those who exited early (78 percent vs. 58 percent for all participants). Earnings were up only slightly among both completers and all participants (just over \$14,000 per year), and have yet to return to 2012 levels (\$15,150).

## 2016 Employment and Earnings

Performance Measure	All Participants	Completers
Employed or In Further Education	60%	79%
Employment	58%	78%
<i>Employees In Full-Time Job</i>	37%	38%
In Further Education	5%	4%
Median Annualized Earnings	\$14,087	\$14,458
Median Hourly Wage	\$11.72	\$11.68
Median Quarterly Hours	292	302

Source: Division of Vocational Rehabilitation, Employment Security Department

<sup>2</sup> This is the average annual wage for 2015 derived from the Bureau of Labor Statistics Quarterly Census of Employment and Wages. It is in nominal dollars (not adjusted for inflation). It's worth noting that those with disabilities typically earn less than those without disabilities and the DVR program reflects this wage gap. Median earnings for individuals with disabilities in Washington were \$22,445, according to 2015 census data, vs. \$36,217 for Washingtonians without disabilities.

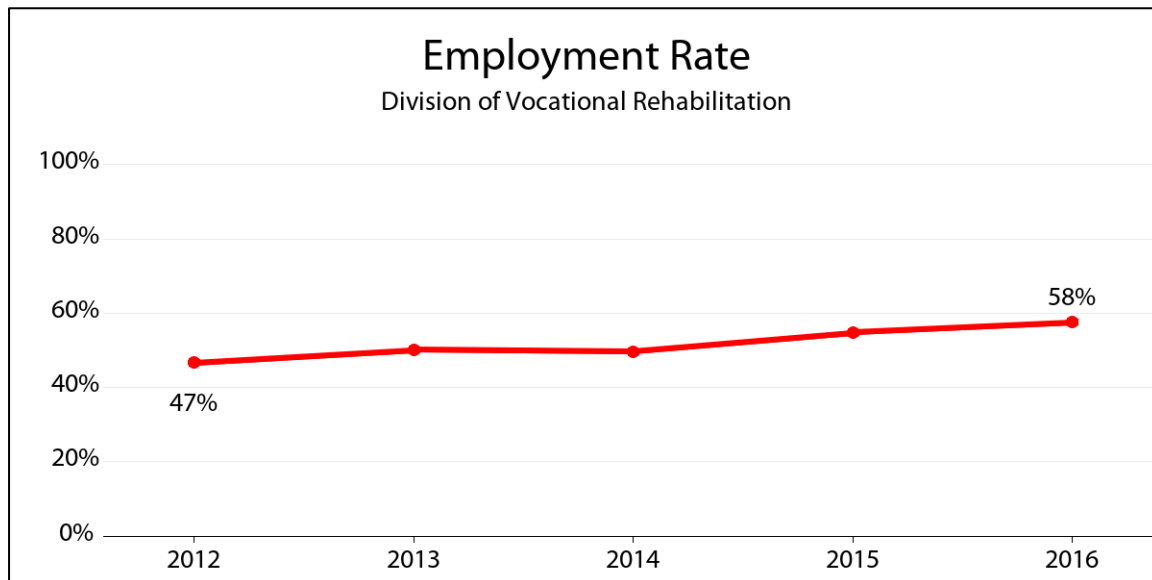


## Trends in Employment and Earnings

Employment and earnings trends for DVR participants from 2012 through 2016 are mixed. On one hand, employment rates have steadily improved over the five-year period. However, hours worked and earnings (on an inflation-adjusted basis) have fallen.

Performance Measure	2012	2013	2014	2015	2016
<b>All Participants</b>					
Employment	47%	50%	50%	55%	58%
<i>Employees In Full-Time Job</i>	40%	38%	38%	36%	37%
Median Annualized Earnings	\$15,105	\$14,038	\$13,946	\$13,336	\$14,087
Median Hourly Wage	\$12.12	\$11.78	\$11.48	\$11.27	\$11.72
Median Quarterly Hours	307	297	302	296	292
<b>Completers</b>					
Employment	74%	76%	74%	78%	78%
<i>Employees In Full-Time Job</i>	42%	41%	40%	37%	38%
Median Annualized Earnings	\$16,261	\$15,104	\$14,759	\$13,726	\$14,458
Median Hourly Wage	\$12.35	\$11.98	\$11.50	\$11.21	\$11.68
Median Quarterly Hours	320	314	315	305	302

Source: Division of Vocational Rehabilitation, Employment Security Department

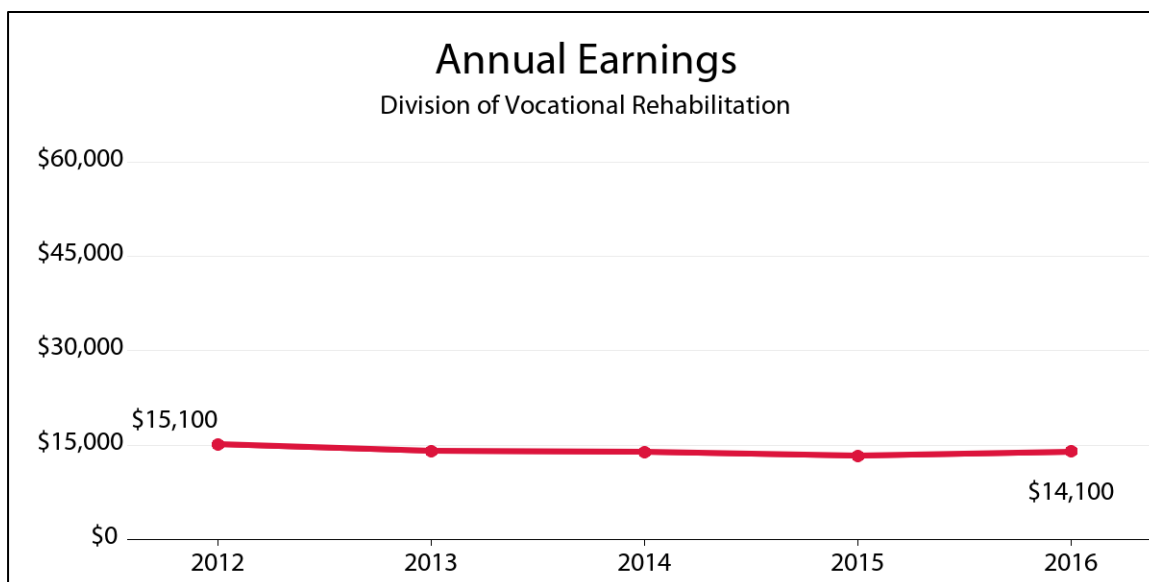


Source: Division of Vocational Rehabilitation, Employment Security Department

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







Source: Division of Vocational Rehabilitation, Employment Security Department. Median annualized earnings in 2016 dollars.

### Where Are Participants Employed?

DVR participants were most likely to be employed in retail trade (22 percent). That was closely followed by the healthcare and social assistance sectors (20 percent). Accommodation and food services employed 13 percent of DVR participants. Within retail trade, a top sub-industry was general merchandise stores.



<b>Division of Vocational Rehabilitation Employment by Industry 2016</b>	<b>% of Total</b>
<b>Retail Trade</b>	<b>22%</b>
- General Merchandise Stores	7%
- Food and Beverage Stores	5%
<b>Health Care and Social Assistance</b>	<b>20%</b>
- Social Assistance	12%
-- Individual and Family Services	5%
-- Vocational Rehabilitation Services	5%
- Nursing and Residential Care Facilities	4%
<b>Accommodation and Food Services</b>	<b>13%</b>
- Food Services and Drinking Places	11%
-- Restaurants and Other Eating Places	9%
<b>Administrative and Support and Waste Management and Remediation Services</b>	<b>10%</b>
- Administrative and Support Services	10%
-- Employment Services	4%
<b>Manufacturing</b>	<b>6%</b>
<b>Educational Services</b>	<b>5%</b>
- Educational Services	5%
<b>Transportation and Warehousing</b>	<b>4%</b>
<b>Wholesale Trade</b>	<b>3%</b>
<b>Other Services (except Public Administration)</b>	<b>3%</b>
<b>Construction</b>	<b>2%</b>
<b>Professional, Scientific, and Technical Services</b>	<b>2%</b>
<b>Arts, Entertainment, and Recreation</b>	<b>2%</b>
<b>Public Administration</b>	<b>2%</b>
<b>Remaining Sectors (Each less than two percent share)</b>	<b>5%</b>

Source: Division of Vocational Rehabilitation, Employment Security Department

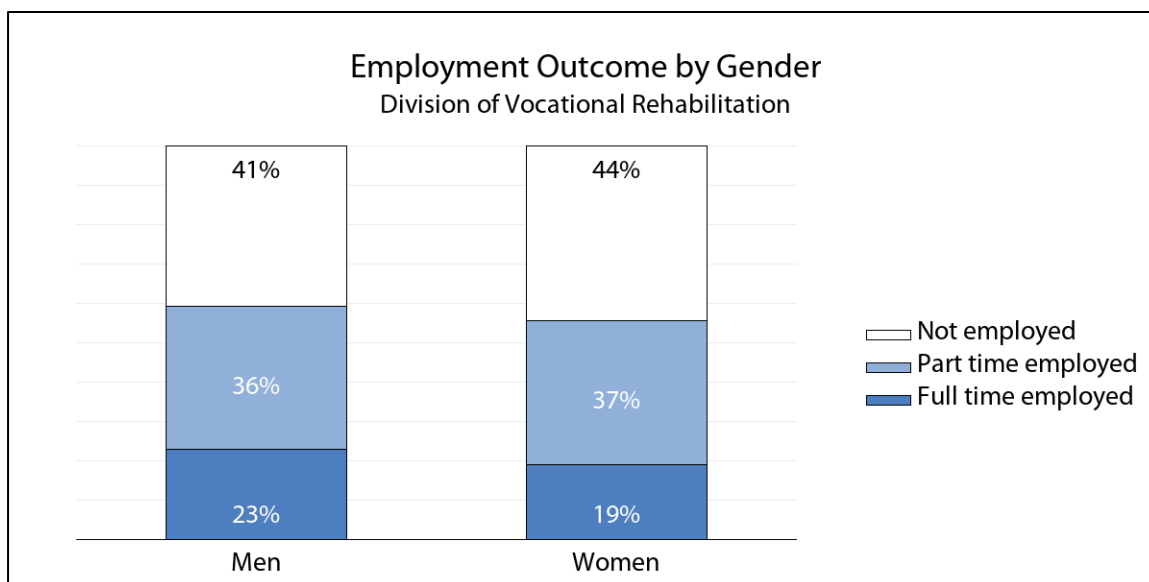
North American Industry Classification System (NAICS): Sector, -Subsector, --Industry group, ---Industry. All Participants, Third Quarter after Exit.

Table sorted by NAICS sector with highest percent of total employment.

## Different Populations, Different Outcomes

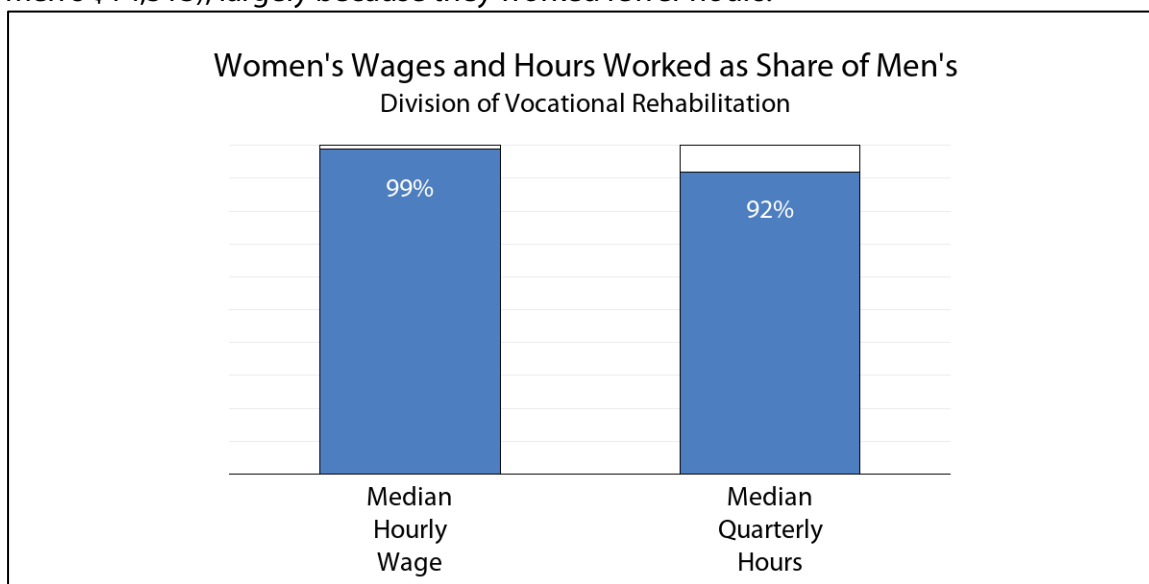
Employment and wage outcomes can vary by gender and ethnicity. This is true for the DVR program. Men exiting the DVR program were more likely than women to be employed (59 percent vs. 56 percent). Women were also less likely to work full time (19 percent vs. 23 percent for men).





Source: Division of Vocational Rehabilitation, Employment Security Department  
 All Participants, Third Quarter after Exit.

Women who participated in DVR earned 92 percent of what men earned, (\$13,284 per year to men's \$14,513), largely because they worked fewer hours.

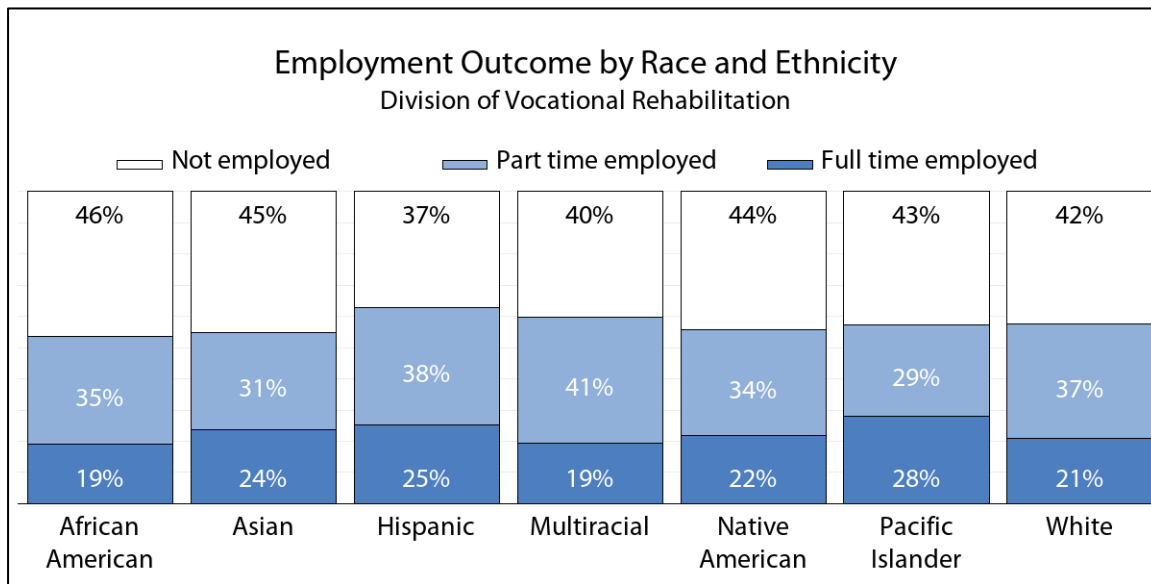


Source: Division of Vocational Rehabilitation, Employment Security Department  
 All Participants, Third Quarter after Exit.

## Race/Ethnicity Plays Role

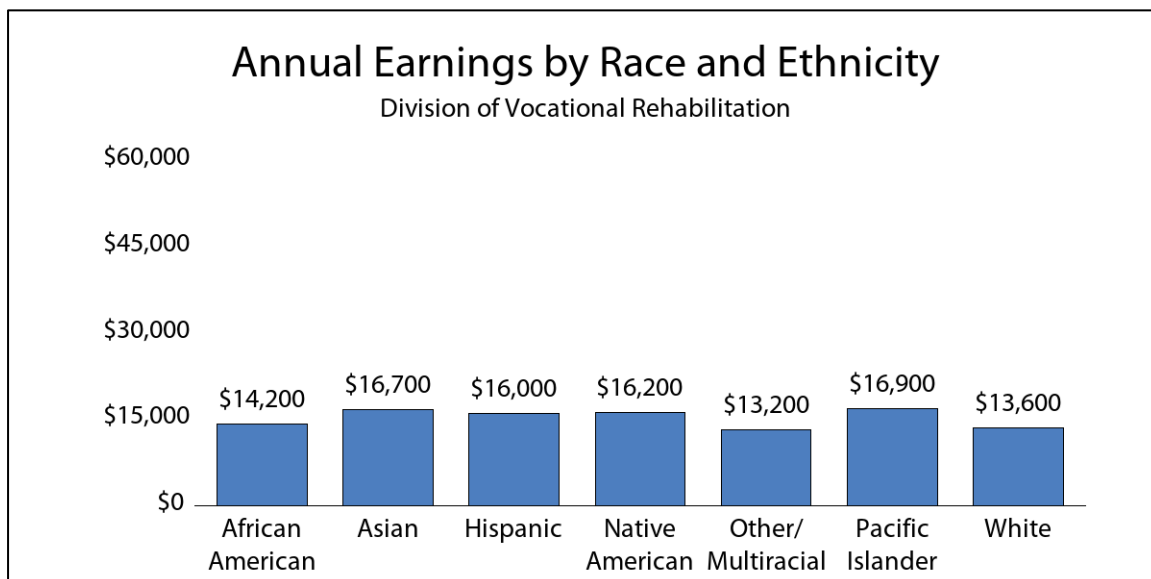
Employment outcomes varied by race and ethnicity among DVR participants. Hispanics had the lowest unemployment rate (37 percent) and the second-highest full-time employment rate. African Americans had the highest unemployment rate (46 percent) and were tied with multiracial DVR participants for the lowest full-time employment rate (19 percent).





Source: Division of Vocational Rehabilitation, Employment Security Department

Pacific Islanders led all other groups for highest median annual wages (\$16,875). This was due, at least in part, to Pacific Islanders working the most hours (399 per quarter). Multiracial DVR program exiters recorded the lowest median annual wage at \$13,200. This group also worked the fewest hours (262 per quarter). Asians (\$16,713) and Native Americans (\$16,168) were the second and third highest paid group. Both Asians and Native Americans had relatively high hours worked (351 and 313 hours per quarter respectively).



Source: Division of Vocational Rehabilitation, Employment Security Department



## 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 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, published in December 2016, examined experiences of participants who left Division of Vocational Rehabilitation programs through 2013. The short-term impact was from the program Year 2012-13) and the long-term was from program year 2010-11.

### Impact on Employment and Earnings: Participants vs. Control Group

Division of Vocational Rehabilitation	All Participants
Net Employment Impact*	2.4%
Net Hourly Wage Impact**	\$0.45
Net Hours Employed per Quarter Impact	10.80
Average Annual Earnings Impact**	\$920

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

*\*\*Wages and earnings, expressed in first quarter 2016 annual 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 in the previous table, those who participated in a Division of Vocational Rehabilitation Program had an employment rate that was over 2 percent higher than the control group. Participants also earned nearly 50 cents more per hour in wages and over \$900 more per year than those with similar demographic characteristics. Participants also worked an additional 11 hours during a three-month period, compared to those who did not participate in this program.



## Costs and Benefits

This cost-benefit analysis estimates the net impact—or how much of a difference a workforce program made—on how much participants earn, employee benefits, such as health insurance (typically valued at a quarter of overall earnings), Unemployment Insurance benefits, and certain taxes.

Program costs include direct costs, as well as the indirect cost to taxpayers, who fund the program. Also, the analysis estimates how much participants would have earned—but didn't—because they chose to participate in the workforce program instead of working. It also accounts for how much tuition a participant paid, if any, to participate in a program.

Benefits and costs are calculated for a period of time out to age 65, based upon a statistical model.

## Participant and Public Benefits and Costs per Participant

Benefit/Cost	First 2.5 years		Lifetime (until 65)	
	Participant	Public	Participant	Public
<b><u>Benefit</u></b>				
Earnings	\$1,623	\$0	\$17,085	\$0
Fringe Benefits	\$650	\$0	\$6,834	\$0
Taxes	\$-272	\$284	\$-2,862	\$4,154
<b><u>Transfers</u></b>				
Unemployment Insurance	\$-98	\$104	\$-828	\$983
<b><u>Costs</u></b>				
Forgone compensation	\$4,683	\$656	\$4,683	\$656
Program costs	\$0	\$-6,707	\$0	\$-6,707
Benefits	\$1,903	\$388	\$20,229	\$5,138
Costs	\$4,683	\$-6,051	\$4,683	\$-6,051
<b>Total (Net)</b>	<b>\$6,586</b>	<b>\$-5,663</b>	<b>\$24,912</b>	<b>\$-914</b>

*Note: Benefits and costs are expressed in 2016 first quarter dollars. Upjohn estimated the impact of the net change in earnings of Social Security, Medicare, federal income, and state sales taxes.*

*\*Different formulas were used to calculate public return on investment and the return on investment to participants. This accounts for the small difference in benefits, sometimes adding up to a few dollars or as much as several hundred dollars.*



For each DVR participant, the public (taxpayer) cost is just over \$6,700 over the length of their enrollment. Typically while participating in employment and training programs, individuals forego a paycheck and see a drop in earnings. For DVR participants this amounted to \$4,683 during program participation. During the first two and one-half years after leaving DVR, the average participant will gain \$1,623 in additional earnings. During the course of working life to age 65, the average participant will gain about \$17,085 in net earnings (net impact earnings plus earnings during participation) and about \$6,834 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 \$24,912.

Projected participant net benefits to age 65 outweigh public costs for the DVR program by a ratio of \$4 to \$1, or \$24,912 to \$6,707.

From the time of leaving the DVR program to age 65, the public is forecast to gain about \$5,138 per participant in net additional Social Security, Medicare, federal income, state sales taxes and UI benefits. But this gain to taxpayers is countered by the program cost of \$6,501, leaving a negative impact of \$914--calculated over the course of the working lives of DVR participants. Thus the public pays nearly \$1,000 more per participant than what is returned in the form of additional taxes or reduced public assistance.

In general, individuals participating in workforce programs benefit from increased earnings minus the additional taxes they pay. They also receive more in Unemployment Insurance benefits.

At the same time, the public benefits from receiving the additional taxes paid by participants with higher paying jobs.

### **Summary, Areas for Improvement, and Further Research**

The Division of Vocational Rehabilitation offers services to help individuals with disabilities become employed. This evaluation reveals some strong results, and some possibilities of how this return could be made stronger.

Individuals with disabilities often face significant challenges to employment, yet the program has shown positive net impacts on employment, earnings and hours worked. The return to participants far exceeds the cost of services--\$4 for every dollar invested by the public, in the short term. However, in the long term, taxpayers pay more per participant over the course of their working lives than what is returned to the public in additional taxes or reduced public assistance costs. This needs to be looked at more closely to see if long-term results can improve for this population.



Retail trade was a common industry for program participants to find work. Wages among all DVR participants barely topped \$14,000 per year. Helping participants find work in a broader array of industries, especially focusing on high-wage sectors, is one strategy for increasing wages and providing additional opportunities for career growth.

One barrier to higher wage work for many individuals with disabilities is the potential loss of other resources tied to low-income thresholds. The disincentive for individuals with disabilities who receive Social Security Disability Income (SSDI) is particularly strong. Those receiving this benefit are limited to earning no more than \$1,170 per month, or they risk losing access to medical care and personal services essential to daily living activities.

Higher earnings not only place participants at risk of losing health care. Additional dollars earned by participants can boost their income beyond eligibility thresholds that allow them to qualify for housing assistance, childcare services, and food assistance. Programs such as Healthcare for Workers with Disabilities provide viable alternatives for some individuals. However, the complex intersection between individual needs and eligibility requirements and policies, prevents many individuals from accessing and benefitting from these programs. In addition, resources to pay for benefits-planning services are underfunded at the state and federal levels.

In demographic terms, African Americans, multiracial participants, and to a lesser extent, whites, were over-represented among DVR program participants compared to their share of the general population. Asians and Hispanics were the most under-represented groups. Race and ethnicity didn't play a huge role in employment rates. However, earnings varied considerably among different racial groups. Multiracial participants, for example, earned just 78 percent of the highest earning racial group, Pacific Islanders. These discrepancies are worth tracking in future reports to see if these patterns persist and require further attention.







# Workforce Training and Education Coordinating Board

## 2017 Workforce Training Results

### Private Career Schools

#### Program Details

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

- Obtain federal grants and loans to pay for educational expenses if their school is 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<sup>1</sup> (WIA) Title I-B.
- Program results in this study were limited to institutions licensed by the Workforce Board.

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

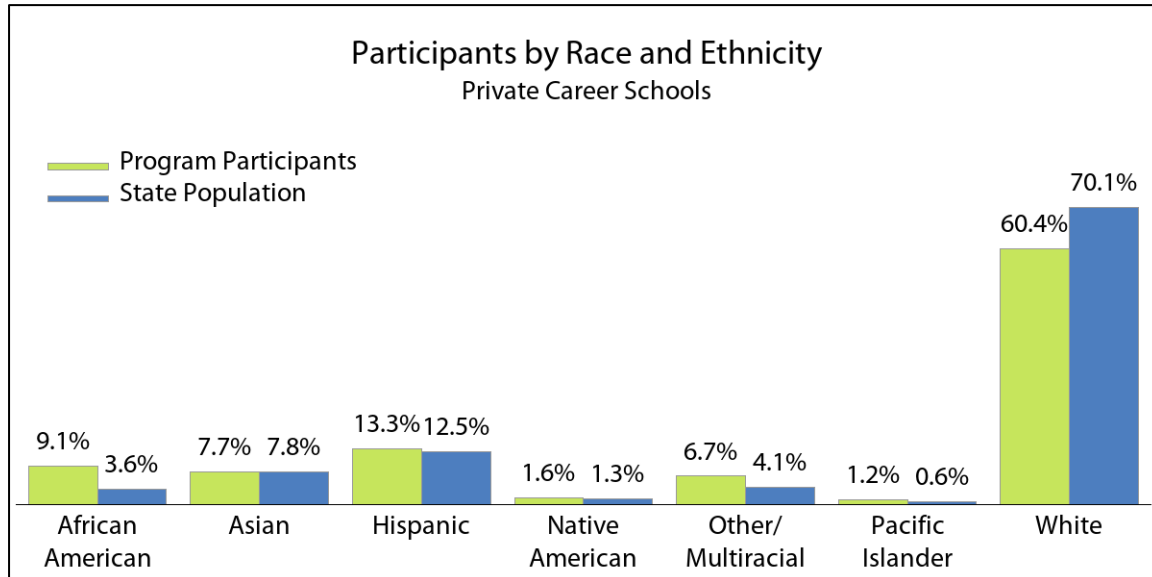
The Workforce Training and Education Coordinating Board (Workforce Board) licenses all certificate-granting private career schools operating in Washington, with the exception of cosmetology schools, which are licensed by the Washington Department of Licensing. Program results are reflective of approximately 300 private career schools reporting to the Workforce Board during the time of this study and nearly 26,000 students were part of the analysis.

<sup>1</sup> Data for this report is still under the Workforce Investment Act and not the Workforce Innovation and Opportunity Act that has since replaced it.



## Participant Profile

For this report, researchers studied the results of 25,938 Private Career School participants who completed or otherwise left a Private Career School program during the most recent reporting year.<sup>2</sup> The median length of enrollment for these participants was three months.

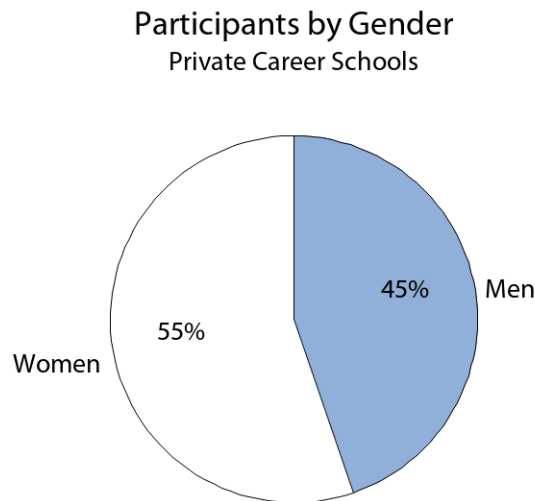


Source: Private Career School administrative records 2014-15 and the state's Office of Financial Management Official Population Estimate.

Program participation by African Americans (9.1 percent) is nearly three times their respective size in the state population (3.6 percent). Multiracial participants and Hispanics are also over-represented in Private Career School programs as compared to their share of the state's population. Whites are the only racial group with participation well below their population share.

<sup>2</sup> The 2017 Workforce Training Results reports are based on data observed as recently as 2014-15.





*Source: 2014-15 Private Career School Administrative Data.*

Women made up 55 percent of those in Private Career School programs, whereas their share of the working age population in Washington is just under half.

### **Education Level**

At the time they enrolled, Private Career School participants had the following education levels:

- 58 percent had not previously attended college.
- 25 percent had attended college without receiving a credential.
- 6 percent had a certificate or associate's degree.
- 10 percent had a bachelor's degree or higher credential.

The typical student, based on the median, was age 36 at registration. One quarter of the participants were under age 22 at enrollment, while another quarter were 50 years old or over.

### **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 four core questions:

- Did participants get the skills they needed?
- Did participants get a job and how much were they paid?
- 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 2017 Workforce Training Results includes information obtained from Employment Security Department wage files in Washington, Oregon, and federal employment records for 2014-15.

## **Net Impact Study Adds More Insight into Program Performance**

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

## **Did Participants Get the Skills They Needed**

As a measure 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, 85 percent had completed their program by receiving a credential. This percentage is up by 6 percentage points from the previous report.

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

To find out whether participants had jobs and how much they earned, participant records were matched with Employment Security Department wage files from Washington and Oregon.<sup>3</sup> The study looks at employment and earnings three calendar quarters after the participant left a Private Career School program.

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<sup>3</sup> 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).



## Earnings of Private Career School Participants

The chart below shows the employment and earnings of participants who left a program during the most recent reporting year. Some 65 percent of participants were employed, with a median hourly wage of \$14.90, and median annualized earnings of \$24,801. Those who completed their programs had a higher employment rate and earnings: 66 percent and \$26,010, respectively.

### 2016 Employment and Earnings

Performance Measure	All Participants	Completers
Employed Or In Further Education	68%	70%
Employment	65%	66%
<i>Employees In Full-Time Job</i>	56%	58%
In Further Education	9%	9%
Median Annualized Earnings	\$24,801	\$26,010
Median Hourly Wage	\$14.90	\$15.25
Median Quarterly Hours	439	448

Source: Workforce Training and Education Coordinating Board, Employment Security Department

All outcomes apply to third quarter after exit. Medians apply to participants not enrolled in further education and are calculated on values greater than zero. Thirty hours or more per week is considered full-time. Dollars are adjusted to first quarter of 2016.

### Trends in Employment and Earnings

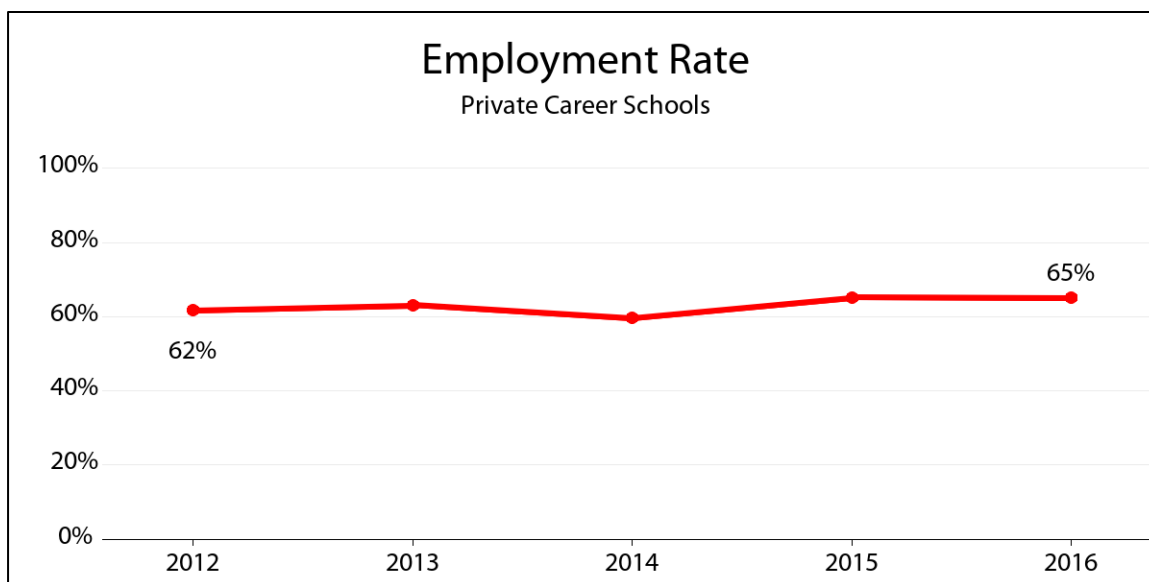
Over the past five years, employment, earnings, and hours worked have risen for Private Career School participants. The earnings data shown in the following table is adjusted for inflation. In actual, non-adjusted dollars the increase would be even larger.

Performance Measure	2012	2013	2014	2015	2016
<b>All Participants</b>					
Employment	62%	63%	60%	65%	65%
<i>Employees In Full-Time Job</i>	53%	53%	54%	55%	56%
Median Annualized Earnings	\$21,650	\$21,218	\$22,393	\$23,418	\$24,801
Median Hourly Wage	\$14.87	\$14.26	\$14.02	\$14.16	\$14.90
Median Quarterly Hours	411	406	412	431	439
<b>Completers</b>					
Employment	65%	65%	62%	67%	66%
<i>Employees In Full-Time Job</i>	55%	54%	56%	57%	58%
Median Annualized Earnings	\$22,777	\$21,884	\$23,792	\$24,494	\$26,010
Median Hourly Wage	\$15.29	\$14.67	\$14.50	\$14.58	\$15.25
Median Quarterly Hours	423	412	423	441	448

All outcomes apply to third quarter after exit. Medians apply to participants not enrolled in further education and are calculated on values greater than zero. Thirty hours or more per week is considered full-time. Dollars are adjusted to first quarter of 2016.

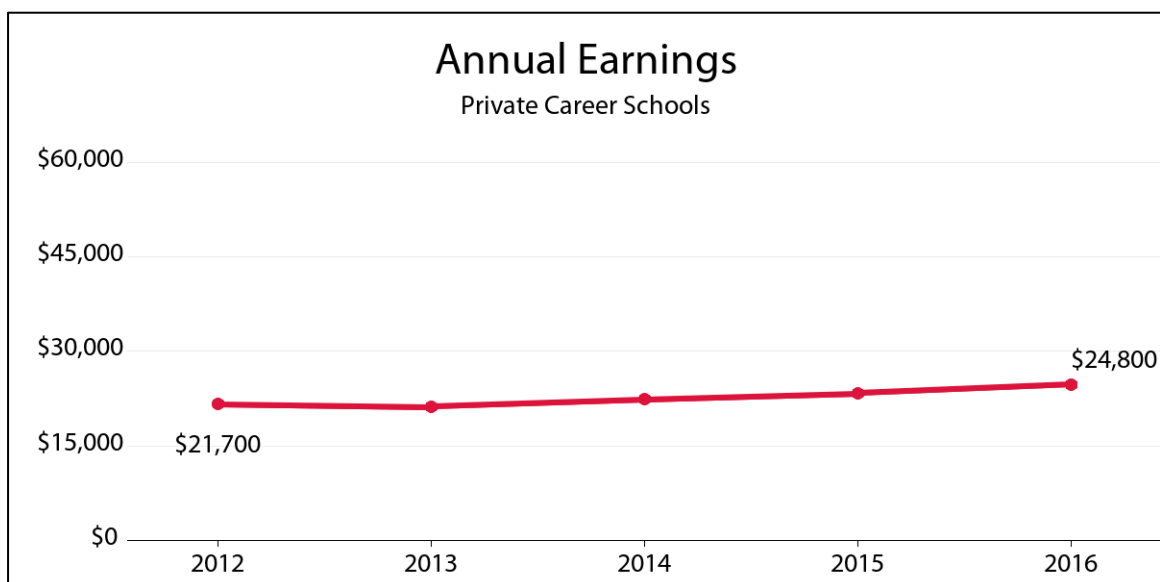
Source: Workforce Training and Education Coordinating Board, Employment Security Department





Source: Workforce Training and Education Coordinating Board, Employment Security Department.

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



Source: Workforce Training and Education Coordinating Board, Employment Security Department

All Participants not enrolled in further education. Median annualized earnings in 2016 dollars.

## Where Are Participants Employed?

More so than any other program analyzed in the Workforce Training Results report, Private Career School program participants found work in the healthcare sector—35 percent overall. To some degree this could explain the rising wages since 2012 shown in the previous table as it is a high paying sector. Retail trade was the next biggest employment sector followed by accommodation and food services. Within healthcare, many found work in the nursing and residential care facilities sub-industry.



<b>Private Career Schools Employment by Industry 2016</b>	<b>% of Total</b>
<b>Health Care and Social Assistance</b>	<b>35%</b>
- Nursing and Residential Care Facilities	13%
- Ambulatory Health Care Services	12%
-- Continuing Care Retirement Comm. and Assisted Living Facilities for the Elderly	8%
-- Nursing Care Facilities (Skilled Nursing Facilities)	4%
- Social Assistance	6%
<b>Retail Trade</b>	<b>10%</b>
<b>Accommodation and Food Services</b>	<b>9%</b>
- Food Services and Drinking Places	8%
<b>Remaining Sectors (Less than two percent share)</b>	<b>9%</b>
<b>Administrative and Support and Waste Management and Remediation Services</b>	<b>8%</b>
<b>Transportation and Warehousing</b>	<b>7%</b>
- Truck Transportation	4%
<b>Manufacturing</b>	<b>5%</b>
<b>Construction</b>	<b>4%</b>
<b>Wholesale Trade</b>	<b>4%</b>
<b>Professional, Scientific, and Technical Services</b>	<b>4%</b>
<b>Other Services (except Public Administration)</b>	<b>4%</b>
<b>Educational Services</b>	<b>3%</b>

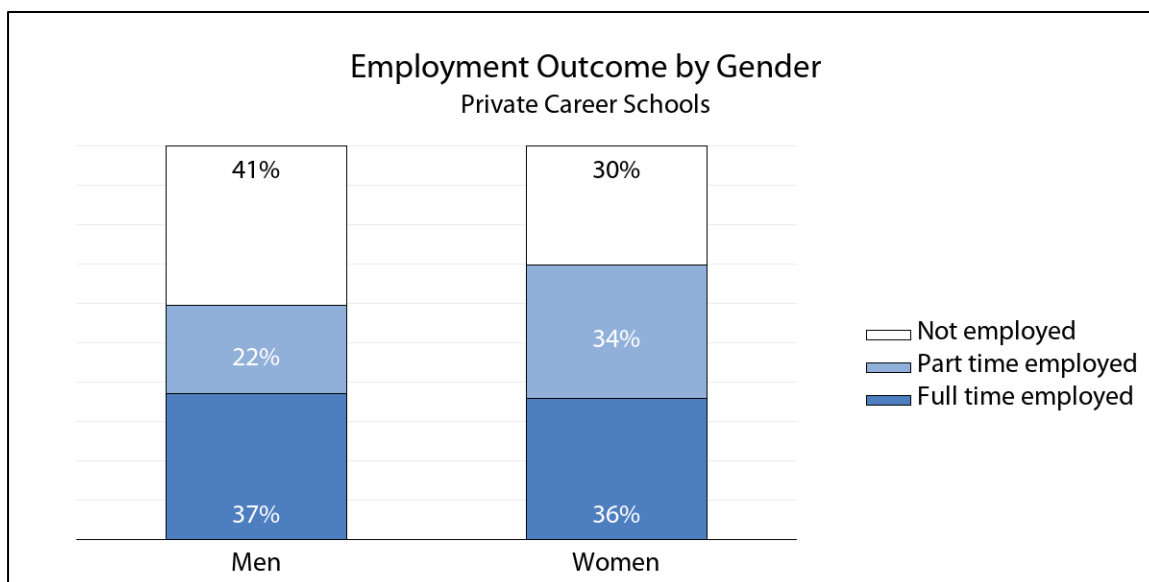
Source: Workforce Training and Education Coordinating Board, Employment Security Department  
North American Industry Classification System (NAICS): Sector, -Subsector, --Industry group, ---Industry. All  
Participants, Third Quarter after Exit.

Table sorted by NAICS sector with highest percent of total employment.

## Different Populations, Different Outcomes

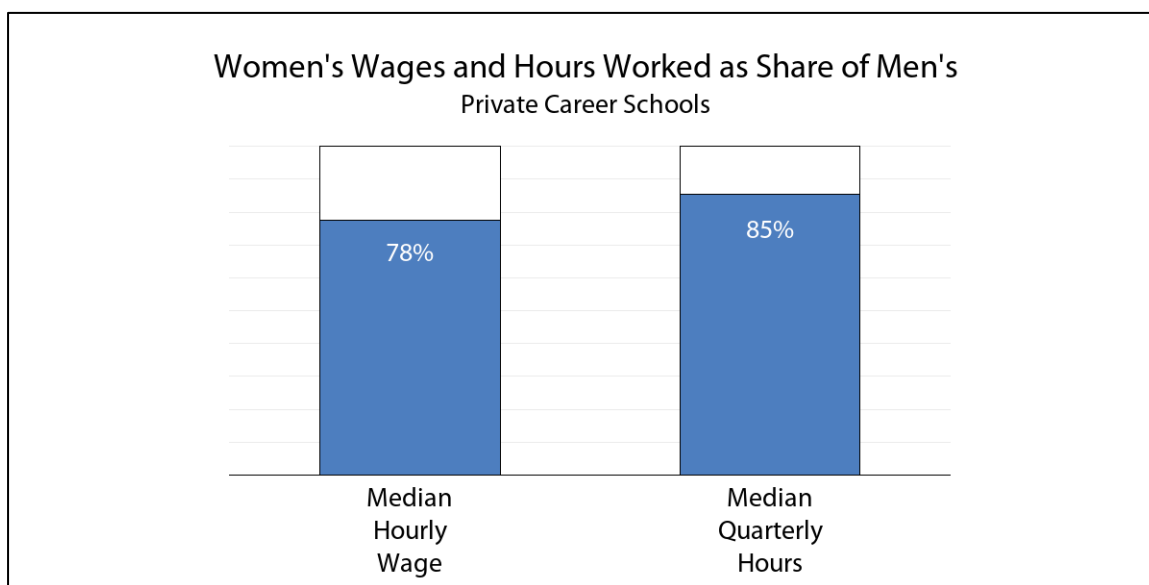
Women moving from Private Career Schools to the labor market had more success in finding work than did men—a 30 percent unemployment rate compared to 41 percent for men. This was largely due to the much higher percent that were working part time (34 percent compared to 22 percent for men). However, men and women Private Career School participants worked full time at nearly the same rate.





Source: Workforce Training and Education Coordinating Board, Employment Security Department  
All Participants, Third Quarter after Exit.

However, women earned only 68 percent of what men earned on an annual basis (\$21,205 median earnings compared to \$31,019). This discrepancy in earnings is only partially explained by hours worked as women worked 85 percent of the hours that men worked.



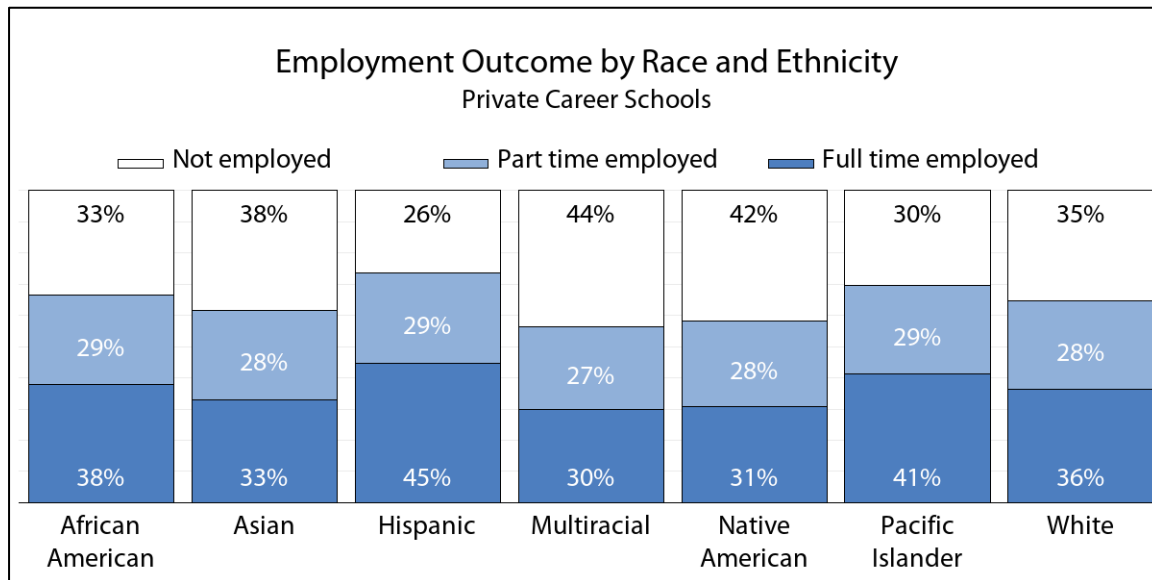
Source: Workforce Training and Education Coordinating Board, Employment Security Department  
All Participants, Third Quarter after Exit.





## Race/Ethnicity Plays Role

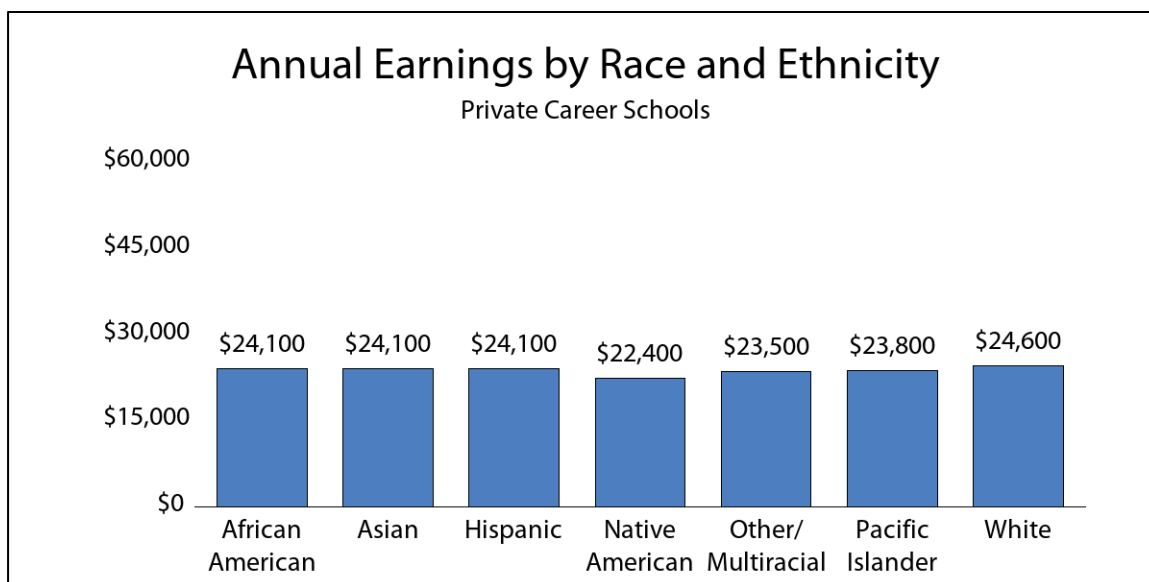
There was also a wide variety of outcomes by race/ethnicity. Hispanics had by far the lowest unemployment rate (26 percent) and also had the highest full-time employment rate (45 percent). Pacific Islanders (30 percent) and whites (35 percent) also had lower unemployment rates whereas multiracial (44 percent) and Native Americans (42 percent) had the highest rates.



Source: Workforce Training and Education Coordinating Board, Employment Security Department  
All Participants, Third Quarter after Exit.

Whites had the highest median annual earnings at \$24,579 followed by Asians with \$24,143. Native Americans were at the other end of the scale at \$22,443, followed by multiracial with \$22,611. Hispanics worked the most median quarterly hours (448 hours), followed by Pacific Islanders (447 hours), while Native Americans worked the fewest (400 hours).

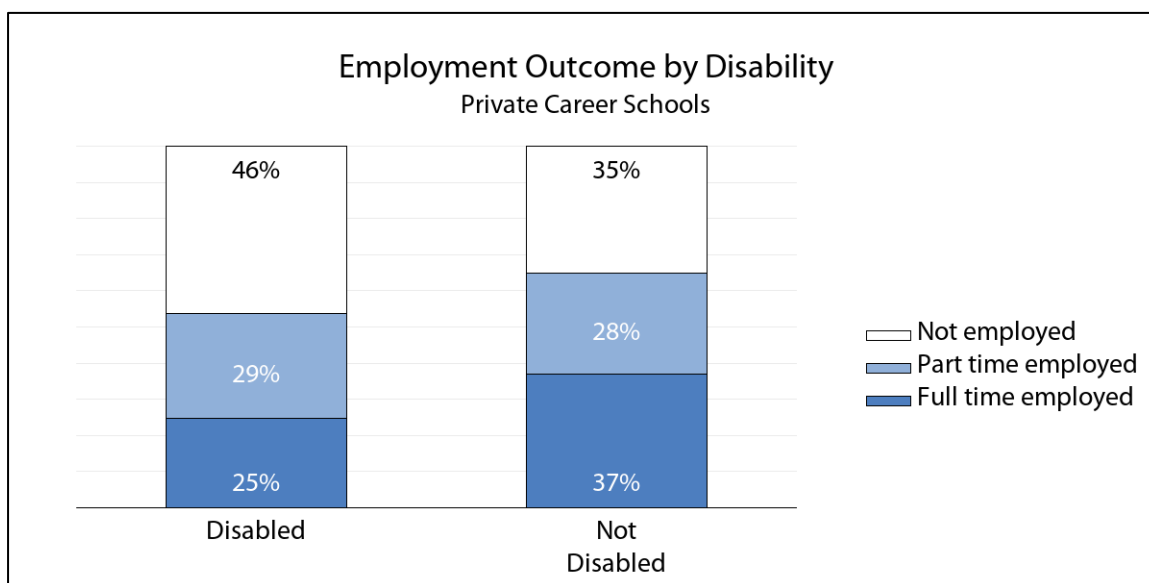




Source: Workforce Training and Education Coordinating Board, Employment Security Department  
All Participants, Third Quarter after Exit

### Disability Impacts Employment, Earnings

As with gender and race, disability status had an impact on employment outcomes. Those with a disability had an unemployment rate of 46 percent compared to 35 percent for those without a disability. Those with a disability were also less likely to be working full time than their non-disabled counterparts (25 percent compared to 37 percent).



Source: Workforce Training and Education Coordinating Board, Employment Security Department  
All Participants, Third Quarter after Exit



## Net Impact—Did the 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 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, published in December 2016, examined experiences of participants who left a Private Career School training program through 2013. The short-term impact was from the Program Year 2012-13 and the long-term impact was from the Program Year 2010-2011.

### Impact on Employment and Earnings: Participants vs. Control Group

Private Career School	All Participants
Net Employment Impact*	not significant
Net Hourly Wage Impact**	\$0.79
Net Hours Employed per Quarter Impact	12
Average Annual Earnings Impact**	\$2,058

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

*\*\*Wages and earnings, expressed in first quarter 2016 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 in the previous table, those who participated in a Private Career School Program had an employment rate that was not significantly higher than the control group. Participants also earned less than \$1 per hour in additional wages. However, over the course of a year, Private Career School participants earned more than \$2,000 per year in additional income than those with similar demographic characteristics. Participants also worked an additional 12 hours during a three-month period, compared to those who did not participate in a Private Career School program.



## Costs and Benefits

This cost-benefit analysis estimates the net impact—or how much of a difference a workforce program made—on how much participants earn, employee benefits, such as health insurance (typically valued at a quarter of overall earnings), Unemployment Insurance benefits, and certain taxes.

Program costs include direct costs, as well as the indirect cost to taxpayers, who fund the program. Also, the analysis estimates how much participants would have earned—but didn't—because they chose to participate in the workforce program instead of working. It also accounts for how much tuition a participant paid, if any, to participate in a program.

Benefits and costs are calculated for a period of time out to age 65, based upon a statistical model.

### Participant and Public Benefits and Costs per Participant

Benefit/Cost	First 2.5 years		Lifetime (until 65)	
	Participant	Public	Participant	Public
<b><u>Benefit</u></b>				
Earnings	6,553	0	51,333	0
Fringe Benefits	2,620	0	20,533	0
Taxes	-1,097	1,141	-8,598	13,597
<b><u>Transfers</u></b>				
UI	-1,049	1,081	-912	914
<b><u>Costs</u></b>				
Forgone compensation	-1,056	-148	-1,056	-148
Program costs	na	na	na	na
Benefits	7,027	2,222	62,357	14,511
Costs	na	na	na	na
<b>Total (Net)</b>	na	na	na	na

*Note: Benefits and costs are expressed in 2016 first quarter dollars. Upjohn estimated the impact of the net change in earnings of Social Security, Medicare, federal income, and state sales taxes.*

*\*Different formulas were used to calculate public return on investment and the return on investment to participants. This accounts for the small difference in benefits, sometimes adding up to a few dollars or as much as several hundred dollars.*



Because of the variation in tuition and fees charged by Private Career Schools, these costs were not included in the analysis. Student costs include an average of \$1,056 in foregone earnings while in training, and the public (taxpayer) costs include \$148 in lost tax revenues from the foregone earnings. During the first two-and-a-half years after leaving a school, the average trainee will gain about \$6,553 in earnings. During the course of working life to age 65, the average trainee will gain about \$50,277 in net earnings (earnings minus foregone earnings) and \$20,533 in employee benefits.

These are net gains compared to the earnings of similar individuals who did not receive training. Total benefit long-term per participant is \$62,357, but as there is no program cost information, a net benefit is unknown.

From the time of leaving training to age 65 the public is expected to gain \$13,597 in net additional Social Security, Medicare, federal income, and state sales taxes and to save \$914 in UI benefits. The estimated lifetime total benefit to taxpayers is \$14,511 per participant.<sup>4</sup>

In general, individuals participating in workforce programs benefit from increased earnings minus the additional taxes they pay. They also receive more in Unemployment Insurance benefits.

At the same time, the public benefits from receiving the additional taxes paid by participants with higher paying jobs.

### **Summary, Areas for Improvement, and Further Research**

Private Career Schools are independent businesses that provide training in a variety of occupations. The schools reviewed here are licensed by the Workforce Board, offer certificated programs, and had a median attendance of three months. Given the relatively short training period, it is not surprising the completion rate is high (85 percent) while employment and earnings are modest—65 percent reported employment, and median annual earnings were \$24,801.

There was strong participation in Private Career School programs by women and minorities. In addition, age at entrance was diverse with the median age being 36, but one-quarter were 50 or over, while another quarter were under age 22 at the time of enrollment. However, labor market outcomes showed mixed results. Women had lower unemployment rates than male participants, but women were far more likely to hold part-time jobs and notched lower annual earnings. Women earned only 65 percent of what their male counterparts earned. Whites had the highest annual earnings. Hispanics had the lowest proportion of participants who were unemployed and the highest proportion working full time.

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<sup>4</sup> Financial aid is outside the scope of this study and is not included in either the public or participant cost estimates.



The healthcare sector was a top destination, employing over one third of Private Career School participants who found work. Within the healthcare sector the nursing and residential care sub-industry was the biggest employer. Healthcare is a relatively high paying industry, but as noted, wages for the Private Career School participants were not particularly high. This isn't surprising, as many completed short-term training programs aimed at lower-paying, entry-level healthcare occupations. This highlights one area of possible further research: how strong are promotion and career advancement opportunities for Private Career School participants in entry-level healthcare careers.





# Workforce Training and Education Coordinating Board

## 2017 Workforce Training Results

### Secondary Career and Technical Education (CTE)

#### Program Details

Career and Technical Education (CTE) at the secondary, or high school level, is delivered to Washington youth in approximately 235 school districts and 16 Skills Centers throughout the state. CTE offers an experiential, hands-on approach to education that aims to make coursework relevant and engaging for a wide range of students. CTE gives students the chance to explore careers at the introductory level and, when courses are available, the chance to gain progressively more technical skill development within different career areas through a structured series of classes. Often these classes lead directly to further education beyond high school, particularly at community and technical colleges, where established partnerships between local colleges and high schools provide clear pathways for students to gain postsecondary credits and credentials. CTE also supports academic skill development and leadership training, and can provide career-connected learning opportunities such as job shadows and internships.

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.

Instructional programs are organized within the following 16 career clusters:

- Agriculture, Food, and Natural Resources
- Architecture and Construction
- Arts, Audio-Visual 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

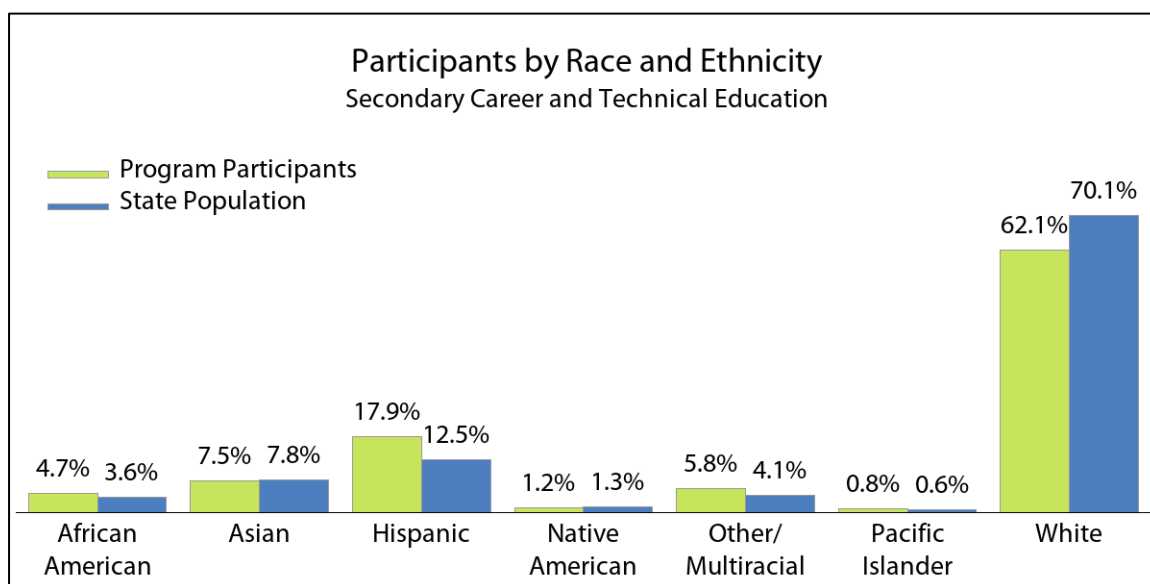


- Manufacturing
- Marketing
- Science, Technology, Engineering, and Mathematics (STEM)
- Transportation, Distribution, and Logistics

This program's evaluation was limited to students identified by their districts as CTE "completers."<sup>1</sup> This study focuses on 22,626 CTE completers who left their senior year during the 2014-15 school year. This study includes information from the Office of Superintendent of Public Instruction's student records and Employment Security Department wage files. Enrollment data from Washington's 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

The CTE participant profile closely mirrors the state population (see below chart) with the exceptions of Hispanic students (17.9 percent vs. 12.5 percent of the general population) having relatively high participation and whites with lower participation than their population share (62.1 percent vs. 70.1 percent of the general population).



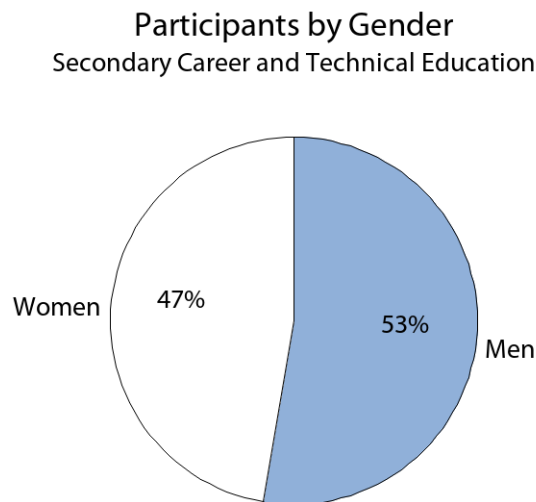
Source: 2014-15 Career and Technical Education Administrative Data, Office of Superintendent of Public Instruction, Washington State Office of Financial Management.

<sup>1</sup> The state defines a student who completes 360 hours of instruction (whether or not they earn a diploma) in a single CTE program area with grades of D or better as a CTE completer. Typically, Washington students take at least one introductory (or exploratory) high school-level CTE course to satisfy high school graduation requirements. Students who go on to take additional CTE courses may fit the definition of completers, as outlined above. In other cases, students take an exploratory CTE course, before enrolling in two or more courses in a single program area. In those cases, students are considered CTE concentrators.





Participants were also slightly more likely to be male than female, where young women made up 47 percent of CTE program participants.



*Source: 2014-15 Career and Technical Education Administrative Data, Office of Superintendent of Public Instruction.*

## Tracking Secondary CTE Progress

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

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

- Did participants get the skills they needed?
- Did participants get a job and how much were they paid?
- 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 2017 Workforce Training Results includes information obtained from Employment Security Department wage files in Washington, Oregon, and federal employment records for 2014-15.

## Net Impact Study adds more insight into program performance

In addition, the report includes a comprehensive Net Impact Study. Conducted every four years, this study provides a head-to-head comparison of participants and non-participants to help answer a central question: How much of a workforce participant's success in obtaining a job, or a higher wage, is due to the workforce program? By comparing program participants with similar individuals who did not participate in a workforce training program, the Net Impact Study indicates whether employment and earnings gains are due to the workforce



program, or if workers could have made this progress on their own. This research also allows for a more detailed analysis as to whether the participant and the public received a return on their investment in the program.

### **Did Participants Get the Skills They Needed?**

As mentioned above, this study is limited to students who completed a sequence of CTE courses. While completion of a CTE sequence at the high school level provides students with critical skills for the labor market, more importantly, it provides a pathway to postsecondary education and training where students can gain additional skills and higher-level education credentials. Most good paying jobs require some form of postsecondary education or training. During the most recent reporting year, 47 percent of CTE completers continued their education, moving from high school to college (or other postsecondary education and training)—the same percent as in the previous report.<sup>2</sup> Counting students who directly entered the labor market along with those pursuing postsecondary education and training, this number reaches 84 percent. The remaining 16 percent of CTE completers were not employed, or enrolled in an education and training program.

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

Youth, both nationally and in Washington state, face serious challenges in the labor market—both in looking for jobs and in obtaining them. Nationally, nearly two thirds of 16- and 19-year-olds were not employed, nor were they looking for a job.<sup>3</sup> That left just over a third of this age group “participating in the labor market,” the definition used by the U.S. of Labor. Also troubling, among those who were actively seeking employment, almost a quarter failed to get a job with unemployment rates running to 25 percent.

Washington’s rates for this same age group were 26 percent unemployed and 36 percent participating in the labor market, respectively.

Among CTE completers who were not enrolled in further education, 70 percent had found work within three quarters (or within nine months) of leaving the program, and 34 percent of those working were doing so full time. Median annual earnings for this group of CTE completers who had just exited high school was \$13,099.

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<sup>2</sup> 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.

<sup>3</sup> U.S. Census Bureau’s American Community Survey 2011-2015



Performance Measure	2010	2011	2012	2013	2014	2015	2016
Employed Or In Further Education	72%	83%	84%	86%	79%	87%	84%
Employment	49%	60%	63%	68%	61%	67%	70%
<i>Employees In Full-Time Job</i>	29%	27%	30%	29%	28%	35%	34%
In Further Education	45%	58%	56%	57%	47%	60%	47%
Median Annualized Earnings	\$11,262	\$11,002	\$11,539	\$12,147	\$11,112	\$13,157	\$13,099
Median Hourly Wage	\$11.02	\$9.82	\$10.12	\$10.31	\$10.14	\$10.41	\$10.76
Median Quarterly Hours	265	265	270	273	272	312	302

## 2016 Employment and Earnings

Performance Measure	Completers
Employed Or In Further Education	84%
Employment*	70%
<i>Employees In Full-Time Job*</i>	34%
In Further Education	47%
Median Annualized Earnings	\$13,099
Median Hourly Wage	\$10.76
Median Quarterly Hours	302

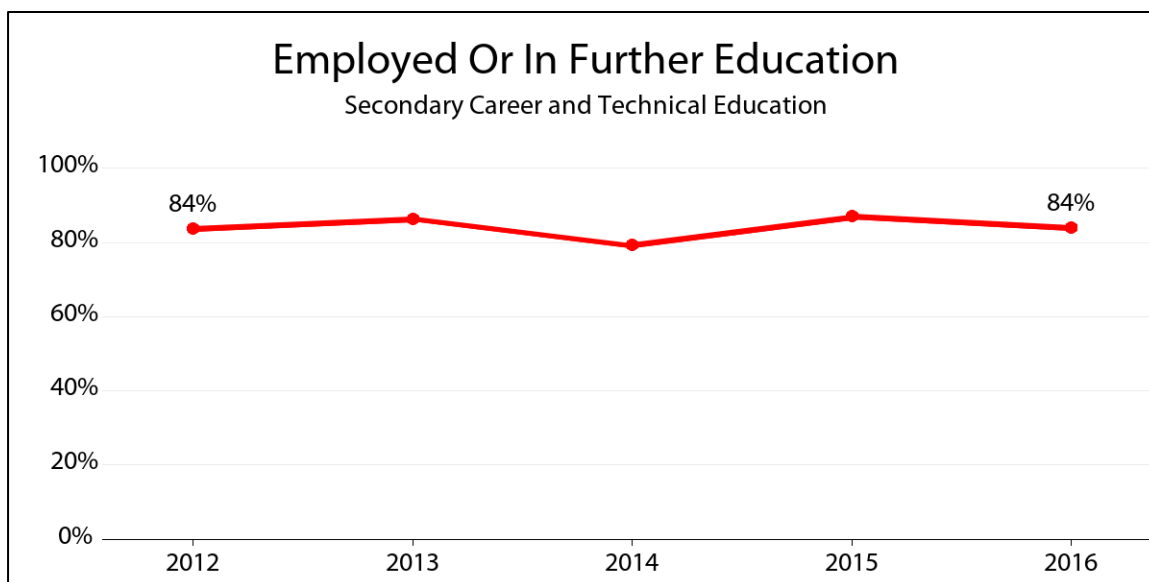
Source: Office of Superintendent of Public Instruction, Education Research and Data Center

All outcomes apply to third quarter after exit. All ratios are computed including those in further education except when noted. Medians apply to participants not enrolled in further education and are calculated on values greater than zero. 30 hours or more per week is considered full-time. Dollars are adjusted to first quarter of 2016.

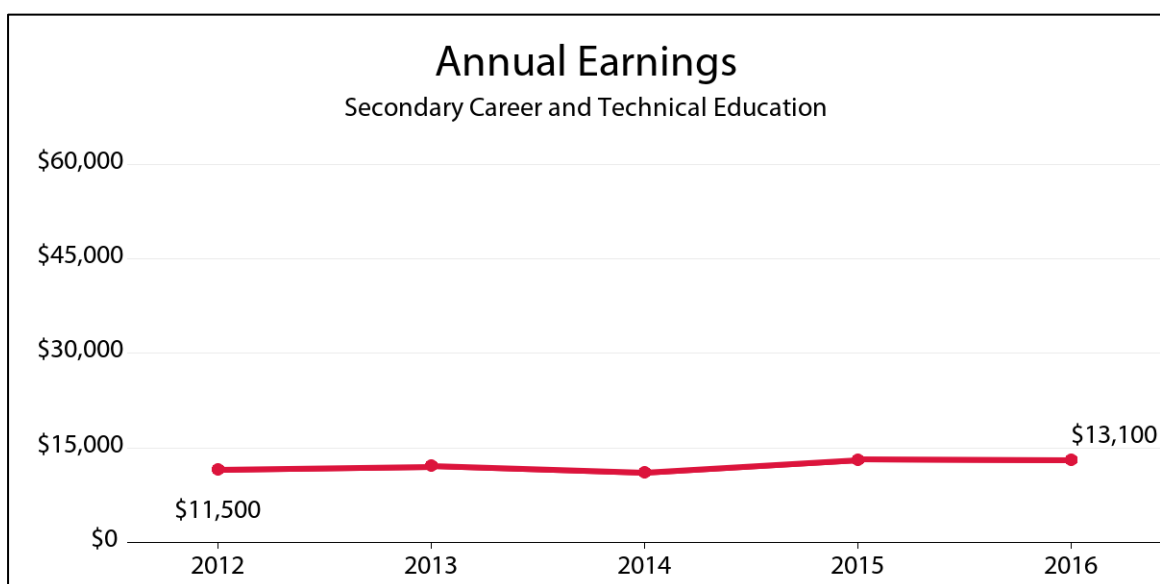
\*Calculations do not include those enrolled in further education.

Labor market trends for CTE completers were mostly positive. Median annual wages rose by 18 percent from 2014 to 2016. Similarly, employment, hourly earnings, and quarterly hours worked are up over the 2012-2016 period. The percent of CTE completers going onto further education is down over the past observed year, but it has moved erratically in recent years.





Source: Office of Superintendent of Public Instruction, Education Research and Data Center  
 Applies to completers only.



Source: Office of Superintendent of Public Instruction, Education Research and Data Center  
 Applies to completers not enrolled in further education with earnings greater than zero. Median annualized earnings in 2016 dollars.

## Where Are Participants Employed?

Not surprisingly given the age and work history of CTE participants, most that found work did so in either the accommodation and food services or retail trade sectors. Combined, the two sectors accounted for 57 percent of all employment. Nearly all those working in the accommodation and food services sector did so in the food services sub-industry. For those in retail, the sub-industry breakout was closely spread among general merchandise, food and beverage, and clothing and accessories stores.



## Different Populations, Different Outcomes

Young men and young women who completed CTE programs had similar unemployment rates, but women were less likely to be working full time. This is reflected in women's lower median annual earnings (\$9,741), which was 85 percent of what men earned (\$11,520).

<b>Secondary Career and Technical Education Employment by Industry 2016</b>	<b>% of Total</b>
<b>Retail Trade</b>	<b>29%</b>
- General Merchandise Stores	8%
- Food and Beverage Stores	6%
- Clothing and Clothing Accessories Stores	5%
<b>Accommodation and Food Services</b>	<b>28%</b>
- Food Services and Drinking Places	27%
<b>Health Care and Social Assistance</b>	<b>8%</b>
<b>Administrative and Support and Waste Management and Remediation Services</b>	<b>6%</b>
- Administrative and Support Services	6%
<b>Construction</b>	<b>4%</b>
<b>Manufacturing</b>	<b>4%</b>
<b>Arts, Entertainment, and Recreation</b>	<b>4%</b>
<b>Other Services (except Public Administration)</b>	<b>4%</b>
<b>Transportation and Warehousing</b>	<b>2%</b>
<b>Educational Services</b>	<b>2%</b>
<b>Remaining Sectors (Each less than two percent share)</b>	<b>9%</b>

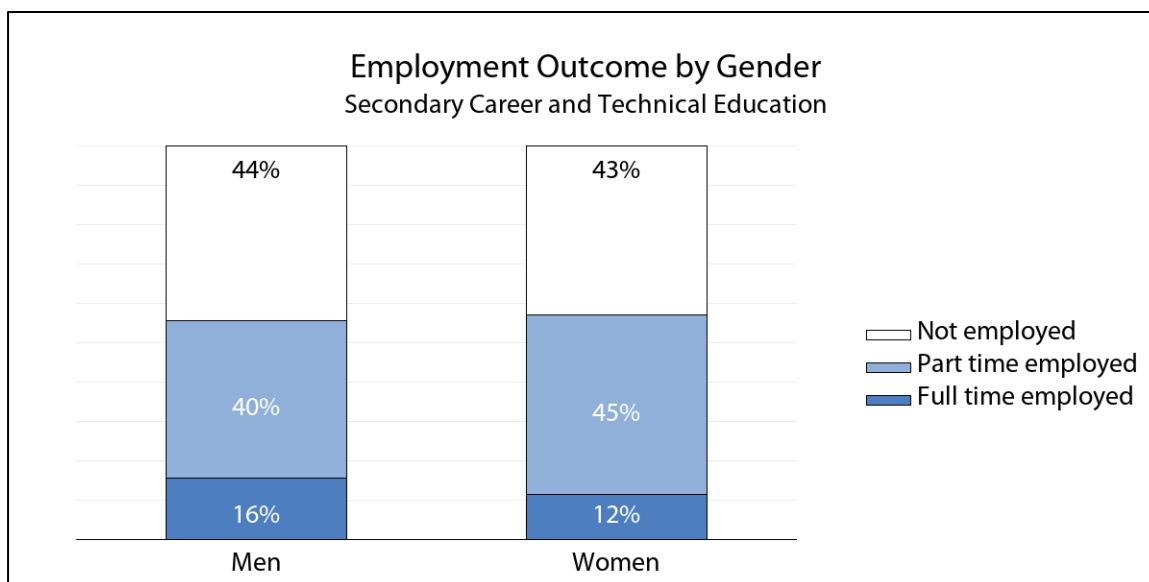
Source: Office of Superintendent of Public Instruction, Education Research and Data Center

Applies to completers only. North American Industry Classification System (NAICS): Sector, -Subsector, --Industry group, ---Industry. All Participants, Third Quarter after Exit.

Table sorted by NAICS sector with highest percent of total employment.

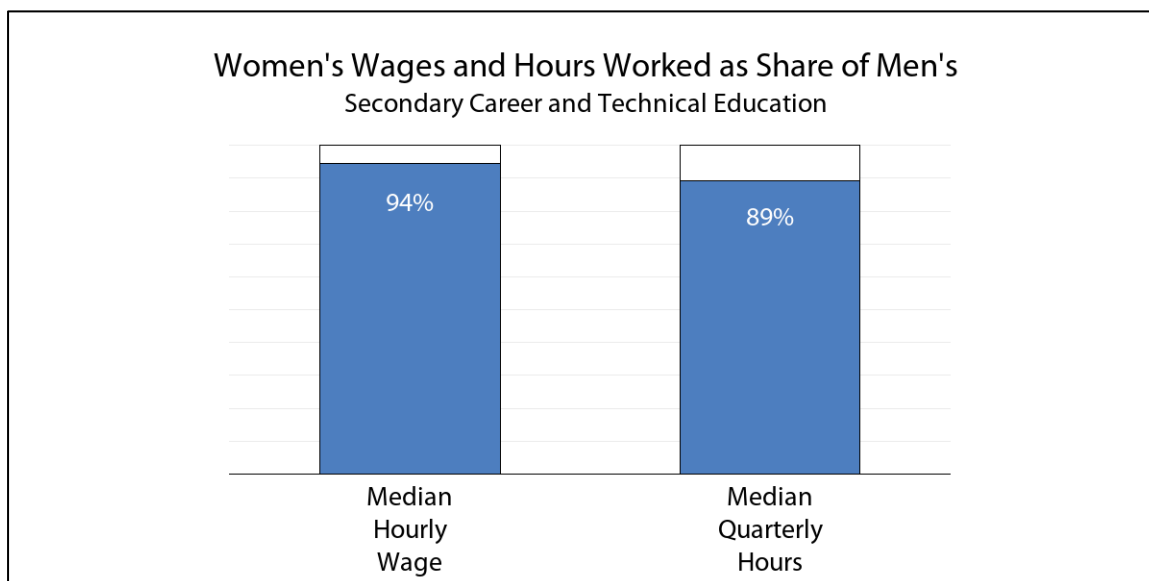
Women CTE participants were employed at nearly identical rates as male CTE participants (43 percent vs. 44 percent). Women were more likely to be employed part-time (45 percent) compared to men (40 percent).





Source: Office of Superintendent of Public Instruction, Education Research and Data Center

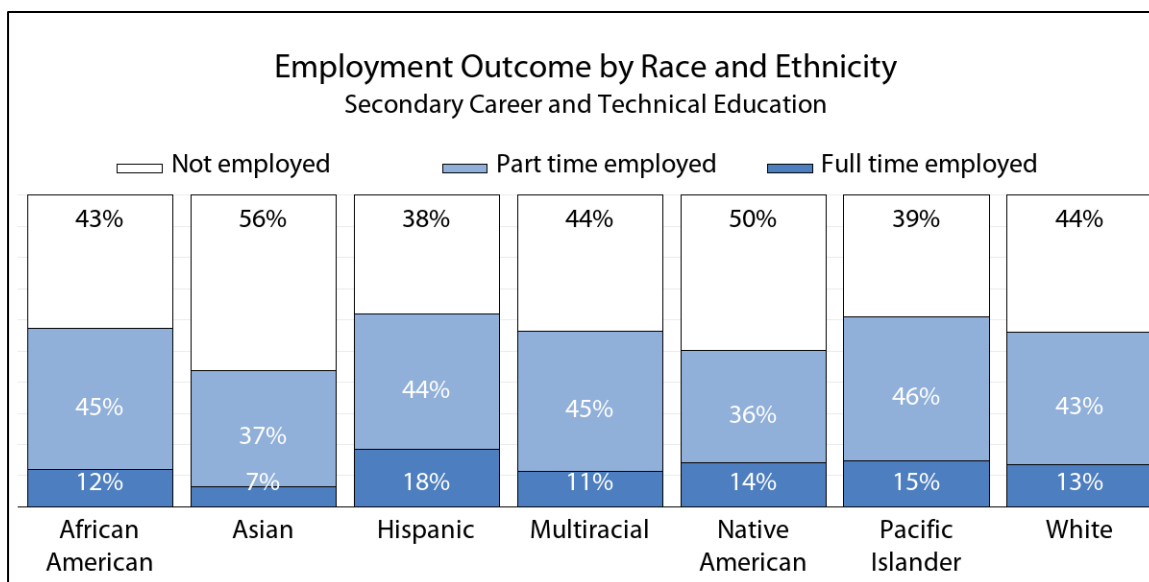
Among employed participants, women’s median annual earnings were \$9,645, or 81 percent of men’s (\$11,926). Women’s median hourly wages were \$10.38, or 94 percent of men’s hourly wages (\$11.02).



Source: Office of Superintendent of Public Instruction, Education Research and Data Center

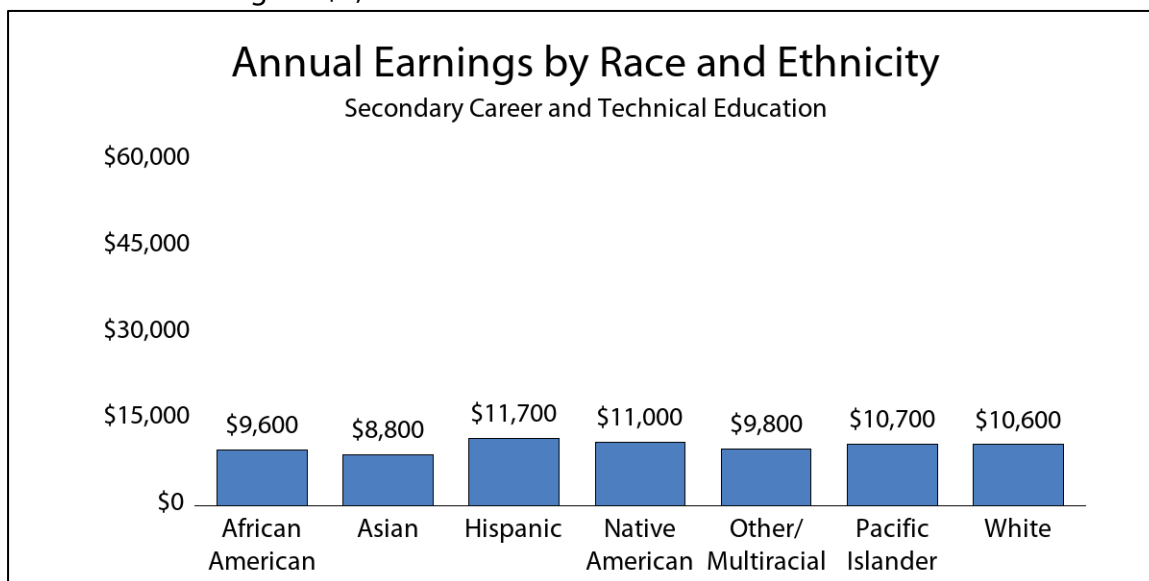
Employment rates varied by race and ethnicity, with Hispanic CTE participants notching a 62 percent employment rate (the highest among those evaluated). Asian CTE participants were the least likely to be employed at 44 percent.





Source: Office of Superintendent of Public Instruction, Education Research and Data Center

Hispanics also had the highest annual wage at \$11,740, followed by Native Americans with \$11,025. In addition to the highest unemployment rate, Asian CTE participants had the lowest median annual wage at \$8,752.



Source: OSPI, Education and Research Data Center, Third Quarter after Exit.

### Net Impact—Did the 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 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 CTE 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, published in December 2016, examined experiences of participants who left the CTE training program through 2013. The short-term impact was from the Program Year 2012-13 and the long-term impact was from the Program Year 2010-2011.

### Impact on Employment and Earnings: Participants vs. Control Group

CTE	Completers
Net Employment Impact*	2.9%
Net Hourly Wage Impact**	\$0.44
Net Hours Employed per Quarter Impact	16.0
Average Annual Earnings Impact**	\$974

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

\*\*Wages and earnings, expressed in first quarter 2016 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 in the previous table, high school CTE completers had an employment rate that was nearly 3 percent higher than a control group. CTE participants also earned nearly 50 cents more per hour in wages and almost \$1,000 more per year than those with similar demographic characteristics who did not complete a CTE program. CTE participants also worked an additional 16 hours during a three-month period, compared to those who did not participate in this program.

### Costs and Benefits

This cost-benefit analysis estimates the net impact—or how much of a difference a workforce program made—on how much participants earn, employee benefits, such as health insurance (typically valued at a quarter of overall earnings), Unemployment Insurance benefits, and certain taxes.

Program costs include direct costs, as well as the indirect cost to taxpayers, who fund the program. Also, the analysis estimates how much participants would have earned—but didn't—because they chose to participate in the workforce program instead of working. It also accounts for how much tuition a participant paid, if any, to participate in a program.

Benefits and costs are calculated for a period of time out to age 65, based upon a statistical model.





These are net gains compared to the earnings of similar individuals who did not complete a CTE program. Including program costs and the net impacts on taxes and unemployment insurance benefits, the total net benefit per participant is \$46,686.

## Participant and Public Benefits and Costs per Participant in Secondary CTE

Benefit/Cost	First 2.5 years		Lifetime (until 65)	
	Participant	Public	Participant	Public
<b><u>Benefit</u></b>				
Earnings	\$1,809	\$0	\$37,756	\$0
Fringe Benefits	\$724	\$0	\$15,103	\$0
Taxes	\$-303	\$318	\$-6,324	\$12,090
<b><u>Transfers</u></b>				
Unemployment Insurance	0	0	0	0
<b><u>Costs</u></b>				
Forgone compensation	\$151	\$21	\$151	\$21
Program costs	\$0	\$-1,763	\$0	\$-1,763
Benefits	\$2,229	\$318	\$46,535	\$12,090
Costs	\$151	\$-1,742	\$151	\$-1,742
<b>Total (Net)</b>	<b>\$2,380</b>	<b>\$-1,424</b>	<b>\$46,686</b>	<b>\$10,347</b>

*Note: Benefits and costs are expressed in 2016 first quarter dollars. Upjohn estimated the impact of the net change in earnings of Social Security, Medicare, federal income, and state sales taxes.*

*\*Different formulas were used to calculate public return on investment and the return on investment to participants. This accounts for the small difference in benefits, sometimes adding up to a few dollars or as much as several hundred dollars.*

For each CTE completer, the public (taxpayer) cost is \$1,763 over the length of their enrollment. Typically, while participating in employment and training programs, individuals forego earnings. For CTE students, all of whom were in high school while participating in the program, this amounted to \$151. During the first two and one-half years after leaving CTE, the average CTE participant will gain \$1,809 in earnings over the comparison group. During the course of working life to age 65, the average participant will gain about \$37,756 in net earnings and about \$15,103 in employee benefits.

Projected participant benefits to age 65 outweigh public costs for the CTE program by a ratio of \$26 to \$1, or \$46,686 to \$1,742.

From the time of leaving the CTE program to age 65, the public is forecast to gain about \$12,090 per participant in all benefits (including additional Social Security, Medicare, federal income, state sales taxes and UI benefits). The estimated lifetime net benefit to taxpayers is \$10,347 per participant.



In general, individuals participating in workforce programs benefit from increased earnings minus the additional taxes they pay. They also receive more in Unemployment Insurance benefits.

At the same time, the public benefits from receiving the additional taxes paid by participants with higher paying jobs.

### **Summary, Areas for Improvement, and Further Research**

CTE completers were more likely to be male and members of a minority group, on average. For those who did *not* go on to further education, 70 percent found work within nine months of leaving the program and their median earnings were \$13,099. Even so, while the wage was low for CTE completers, earnings have improved dramatically, rising 18 percent since 2014. This improvement is likely rooted in a growing economy that requires employers to pay more to hire and keep employees, including low-skilled ones, along with Washington's rising minimum wage.

Of those who landed a job, just over one-third did so full time, with another two-thirds doing part-time work. This high degree of part-time work coupled with work being primarily concentrated in retail and food services helps explain the relatively low wage paid to CTE completers.

Another factor that lowers wages is the age of the participants, who, after all, are recent high school students, with limited work history. If they land a job right after leaving school, they are primarily working in low-skill, low-wage fields. A better measure of success is the percentage of CTE completers who go on to further education, which in today's economy is required to achieve a living-wage job. Whether it's entering an apprenticeship, earning a one-year career-focused certificate, or embarking on a longer education path that leads to two- and four-year degrees, and beyond, CTE completers require additional education and training to be competitive in the labor market.

One area that has room for improvement is the percentage of CTE completers going on to postsecondary education and training. In this reporting period, just 47 percent of CTE completers enrolled in further education after high school. In fact, all other metrics except enrollment in further education have shown improvement in recent years.

The Net Impact Study that is part of this report showed the CTE program to have a significant and positive impact upon participant employment, earnings and hours worked, when compared to a control group. In addition, lifetime participant benefits outweighed the public cost by 26 to one, and the long-term net gain to the state by the investment was \$10,347 per participant.



Going forward, it may be more useful to focus on the long-term trajectory of CTE completers, evaluating their success in not only connecting with further education and training after high school, but checking in to see whether they complete their credentials and achieve living-wage jobs. It would also be interesting to find out how many CTE completers advance their career prospects through additional education and training focused on the same career field they studied in high school.





# Workforce Training and Education Coordinating Board

## 2017 Workforce Training Results

### Workforce Investment Act Title I-B Adult Program

#### Program Details

All customers age 18 and older who walk into a WorkSource comprehensive, affiliate, or connection site are eligible for core or basic services under the federal Workforce Innovation and Opportunity Act (WIOA). WIOA was signed into law in April 2014, but program entrants weren't enrolled in WIOA until June 30, 2016. Therefore, program analysis for this report focuses entirely upon its predecessor, the Workforce Investment Act. This report focuses on the Title I-B Adult portion of this predecessor act.

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.

Like the current federal workforce act, WIOA, the previous act, WIA, provided core services to all WorkSource customers, including skill assessments, job search help, and placement assistance. 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 sites, helping a wide variety of job-seekers find their way back into employment or prepare for their next step up the career ladder.

For some, particularly those unable to land a job through core services, the WIA Adult program provided intensive services (called individualized services under WIOA). These services include:

- More intensive assessments.
- Individual and group counseling.
- Career planning.
- Short-term pre-vocational services.
- Workforce preparation and training.
- Work experience and internships.



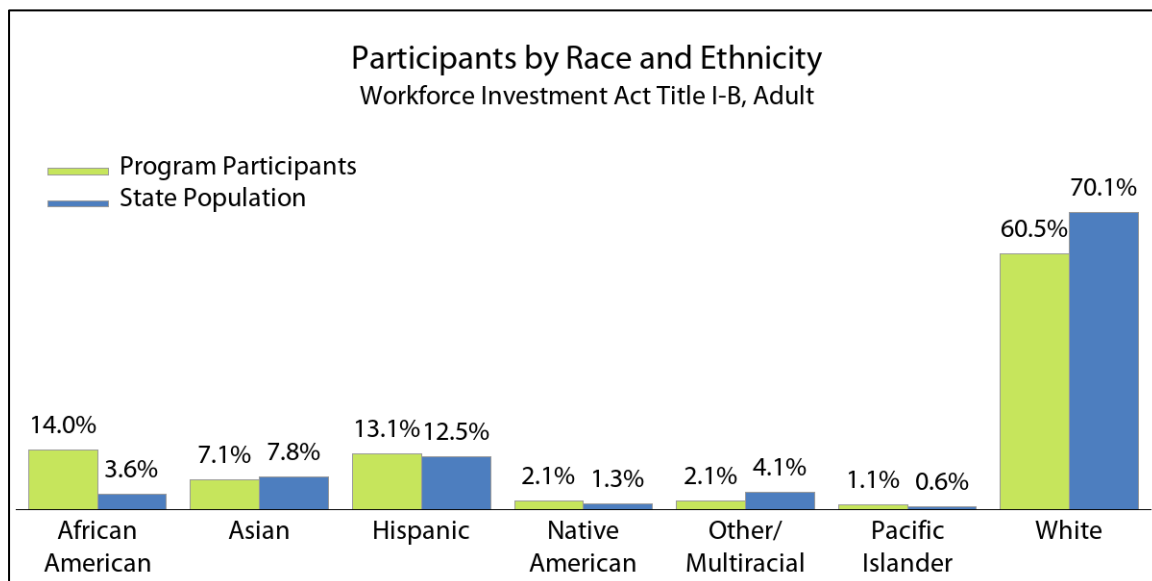
## Workforce Innovation and Opportunity Act replaces WIA

The Workforce Innovation and Opportunity Act (WIOA) passed in the summer of 2014. It was the first federal reform of the workforce system in 15 years. WIOA replaced and modified the Workforce Investment Act (WIA), which started in 1998. WIOA provides a framework for better integration and seamless delivery of services across programs and funding streams, with a focus on improving economic outcomes for jobseekers and filling the skills gap for employers. Since program entrants weren't enrolled in WIOA until June 30, 2016, program analysis for this report focuses entirely upon WIA.

## Participant Profile

During the 2014-15 program year, 2,718 participants completed or otherwise left the WIA Adult program.<sup>1</sup> The median length of enrollment for these participants was 6 months.

African Americans and to lesser degrees, Native Americans and Pacific Islanders had higher WIA Adult program participation relative to their overall population share. African Americans made up 3.6 percent of the overall population, but accounted for 14 percent of program participants. White and multiracial had relatively low program participation, while Asian and Hispanics had participation rates approximately consistent with population shares.



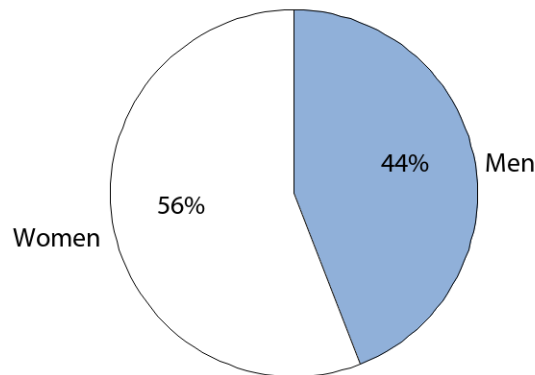
Source: 2014-15 WIA Adult Administrative Data, Employment Security Department, Washington State Office of Financial Management.

Some 56 percent of WIA Adult participants were women, although women made up slightly less than half of the working age population (aged 20-64) when participant data was collected for this study in 2015.

<sup>1</sup> The 2017 Workforce Training Results reports are based on data observed as recently as 2014-15.



Participants by Gender  
Workforce Investment Act Title I-B, Adult



*Source: 2014-15 WIA Adult Administrative Data, Employment Security Department.*

The median age of participants at registration was 41 years old and one-quarter were older than 50. More than half the participants at registration had no more than a high school diploma or equivalent, and about one-third had some kind of postsecondary training but less than a four year degree.

### **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.

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

- Did participants get the skills they needed?
- Did participants get a job and how much were they paid?
- 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 2017 Workforce Training Results includes information obtained from Employment Security Department wage files in Washington, Oregon, and federal employment records for 2014-15.



## **Net Impact Study Adds More Insight into Program Performance**

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

## **Did Participants Get the Skills They Needed?**

The study follows the progress of all WIA Adult participants who left the program during the most recent reporting year. Half of the program participants spent five months or less in training. Some 28 percent were in training from 6-11 months, 12 percent trained for 12-17 months, and 11 percent were in training beyond 17 months.

Just under half of WIA Adult participants (47 percent) received training as part of their program. This works out to 1,172 of WIA program exiters receiving one or more types of training:

- Occupational skills training.
- Programs that combine workplace training with related instruction.
- Skill upgrading and retraining.
- Entrepreneurial training.
- Job readiness training.
- Customized training.
- Apprenticeship training.
- On-the-Job Training.<sup>2</sup>

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:

- Less than 1 percent received a high school diploma/equivalency/GED.
- 7 percent received an associate's degree.
- 10 percent received an occupational skills license.
- 16 percent received an occupational skills certificate/credential.

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

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<sup>2</sup> About 7 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.



Of those that left the WIA Adult program in 2014-2015, 70 percent found employment between seven and nine months after leaving the program. Of those that found work, 58 percent were working full time. Median annual earnings for those working were \$24,891 and median quarterly hours worked were 448. The median hourly rate was \$14.09, with the top 25 percent earning \$19.09 or above and the bottom 25 percent earning \$11.41 or less. Another 9 percent of participants went on to further education.

## 2016 Employment and Earnings

Performance Measure	Results
Employed Or In Further Education	74%
Employment	70%
<i>Employees In Full-Time Job</i>	58%
In Further Education	9%
Median Annualized Earnings	\$24,891
Median Hourly Wage	\$14.09
Median Quarterly Hours	448

Source: Employment Security Department.

All outcomes apply to third quarter after exit. Medians apply to participants not enrolled in further education and are calculated on values greater than zero. Thirty hours or more per week is considered full-time. Dollars are adjusted to first quarter of 2016.

## Trends in Employment and Earnings

The 70 percent employment rate represents a drop-off of two percentage points from the year prior, but overall the employment rate has trended up since 2009. Despite that, inflation-adjusted earnings were down a little, likely in part due to the falling number of hours worked and percent working full time since 2014.

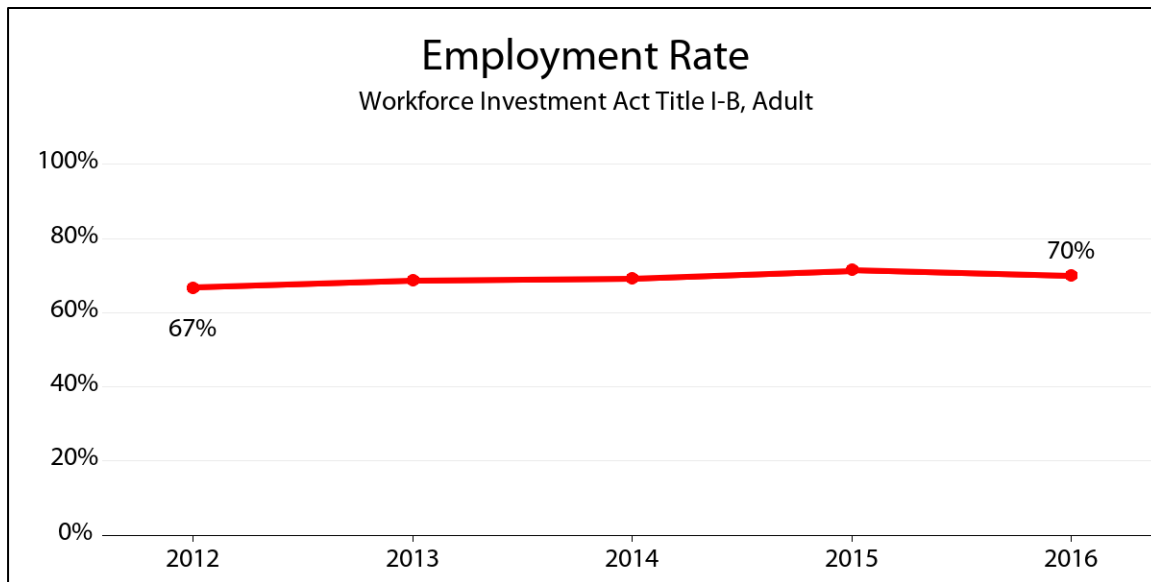
Performance Measure	2012	2013	2014	2015	2016
<b>All participants</b>					
Employment	67%	69%	69%	72%	70%
<i>Employees In Full-Time Job</i>	61%	60%	61%	59%	58%
Median Annualized Earnings	\$22,888	\$24,857	\$25,280	\$24,780	\$24,891
Median Hourly Wage	\$13.87	\$14.56	\$14.58	\$14.05	\$14.09
Median Quarterly Hours	442	443	450	455	448

Source: Employment Security Department.

All outcomes apply to third quarter after exit. Medians apply to participants not enrolled in further education and are calculated on values greater than zero. Thirty hours or more per week is considered full-time. Dollars are adjusted to first quarter of 2016.

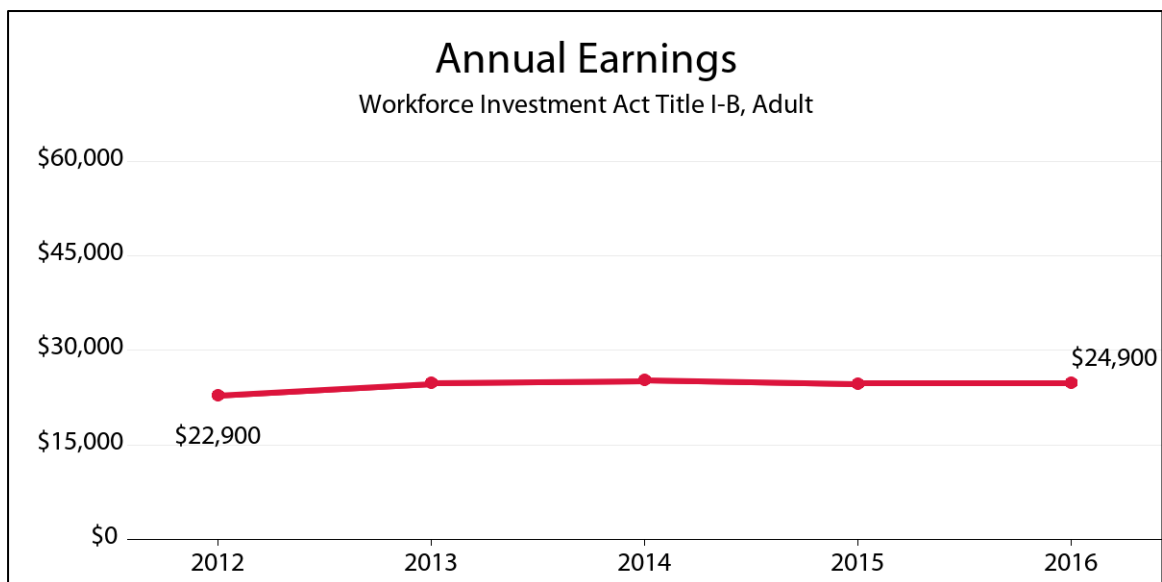






Source: Employment Security Department

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



Source: Employment Security Department. Median annualized earnings in 2016 dollars.

## Employment by Industry

Healthcare was far and away the largest employment sector for WIA Adult participants. About one third of participants found work in this growing sector, dispersed across sub-industries such as nursing and residential care facilities, social assistance, and ambulatory health care services. A distant second place at 12 percent was held by the “administrative and support and waste management and remediation services sector,” a large sector that includes activities such as office administration, hiring and placing personnel, security and surveillance



services, cleaning and waste disposal services, among others. Another 10 percent of WIA Adult participants went to work in manufacturing, and 9 percent found jobs in retail trade.

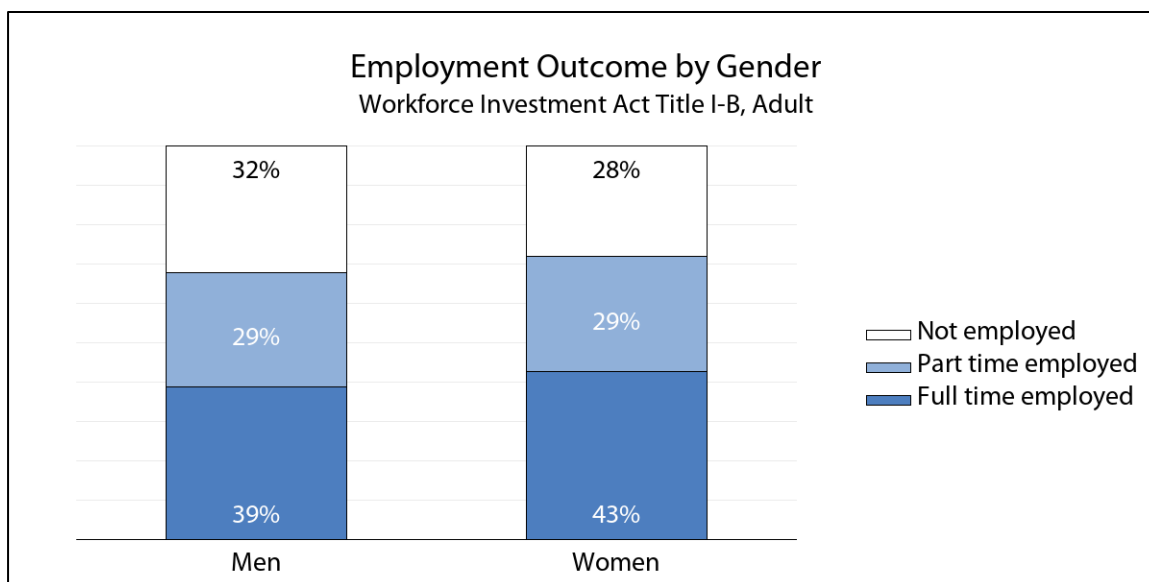
<b>Workforce Investment Act Title I-B, Adult Employment by Industry 2016</b>	<b>% of Total</b>
<b>Health Care and Social Assistance</b>	<b>32%</b>
- Nursing and Residential Care Facilities	10%
- Social Assistance	9%
- Ambulatory Health Care Services	8%
- Hospitals	5%
<b>Administrative and Support and Waste Management and Remediation Services</b>	<b>12%</b>
<b>Manufacturing</b>	<b>10%</b>
<b>Retail Trade</b>	<b>9%</b>
<b>Accommodation and Food Services</b>	<b>7%</b>
- Food Services and Drinking Places	5%
<b>Construction</b>	<b>5%</b>
<b>Transportation and Warehousing</b>	<b>5%</b>
<b>Wholesale Trade</b>	<b>3%</b>
<b>Educational Services</b>	<b>3%</b>
<b>Professional, Scientific, and Technical Services</b>	<b>2%</b>
<b>Other Services (except Public Administration)</b>	<b>2%</b>
<b>Public Administration</b>	<b>2%</b>
<b>Remaining Sectors (Each less than two percent share)</b>	<b>7%</b>

*Source: Matches with Employment Security Department data in third quarter after exiting program. Industry groups based on North American Industry Classification System (NAICS) codes. Table sorted by NAICS sector with highest percent of total employment.*

## Wages and Employment Results Vary by Population

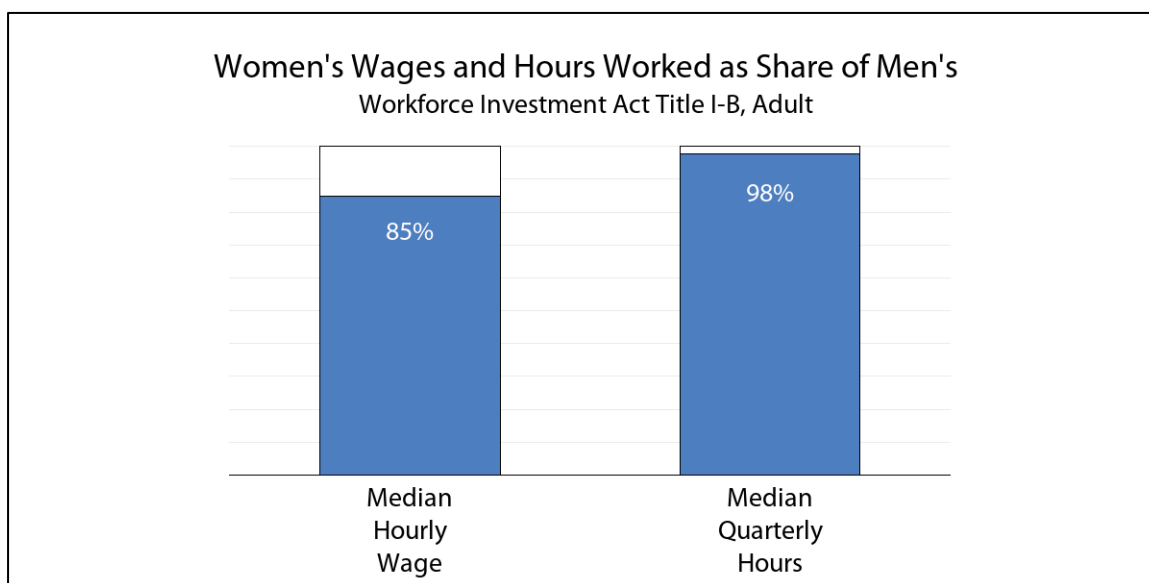
Women were more likely to be employed after participating in the WIA Adult program than men—72 percent of women were employed vs. 68 percent of men. In addition, 43 percent of women found full-time work, while 39 percent of men did so.





Source: Employment Security Department.

Although women were more likely to become employed, men continued to out-earn women. The median annual earnings of women (\$22,792) were 85 percent of men's (\$27,792).

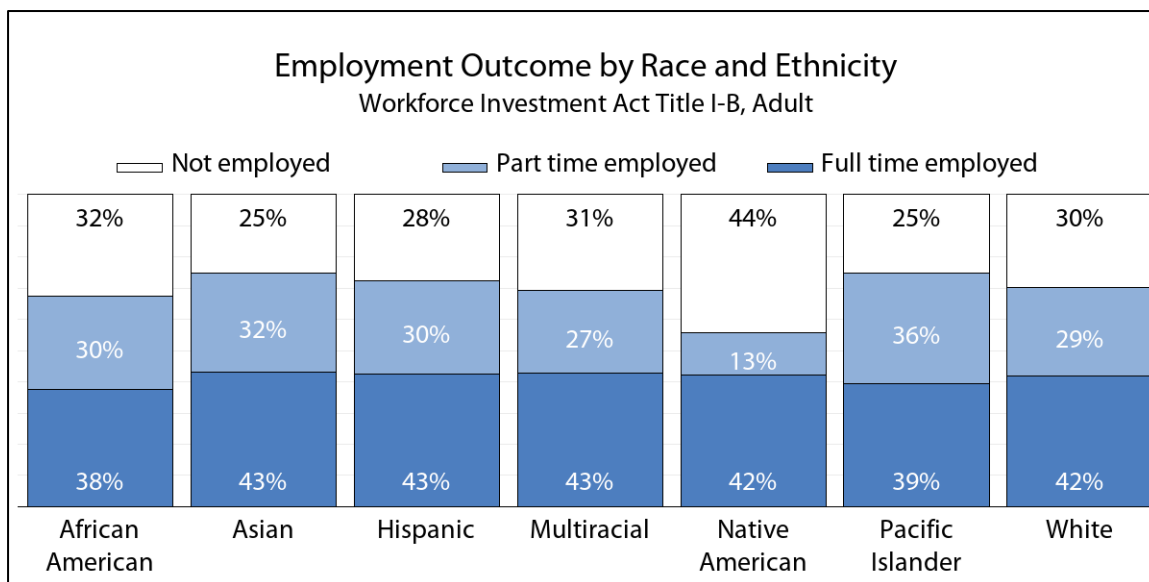


Source: Employment Security Department.



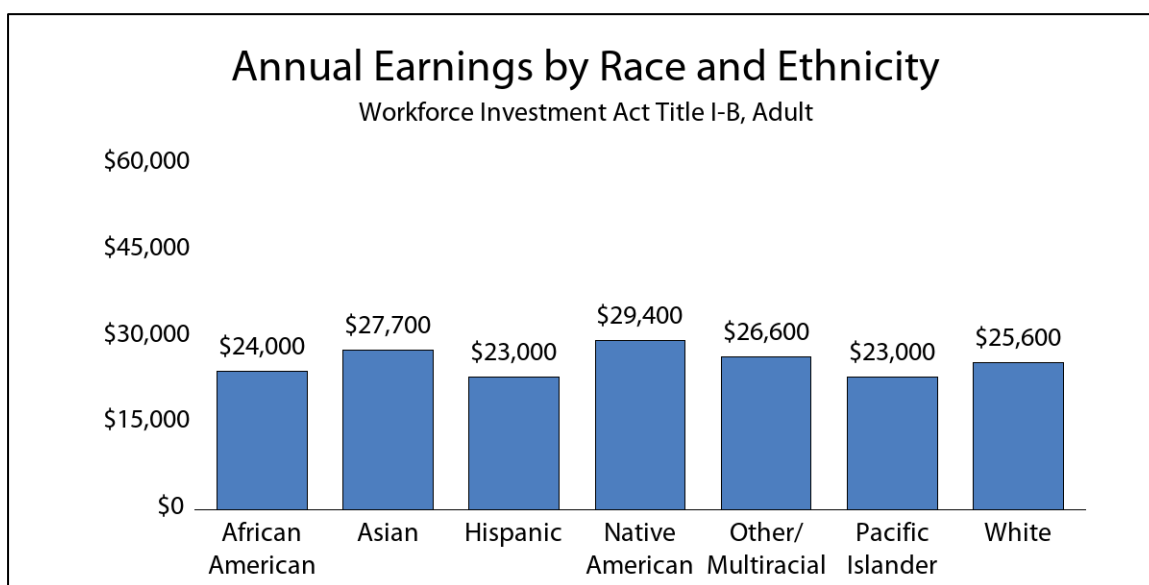
## Race/Ethnicity Plays Role

Native American participants by a substantial margin had the highest unemployment rate (44 percent), while the lowest unemployment rate (25 percent) was shared by Asians and Pacific Islanders.<sup>3</sup> Native Americans were employed full time at largely the same rate as other racial groups. However, their part-time employment rate (13 percent) was at least 10 percentage points lower than other groups.



Source: Employment Security Department.

One bright spot for Native Americans: They had the highest median wage (\$29,357). Hispanics and Pacific Islanders had the lowest median wage at \$23,014 and \$23,026 respectively.



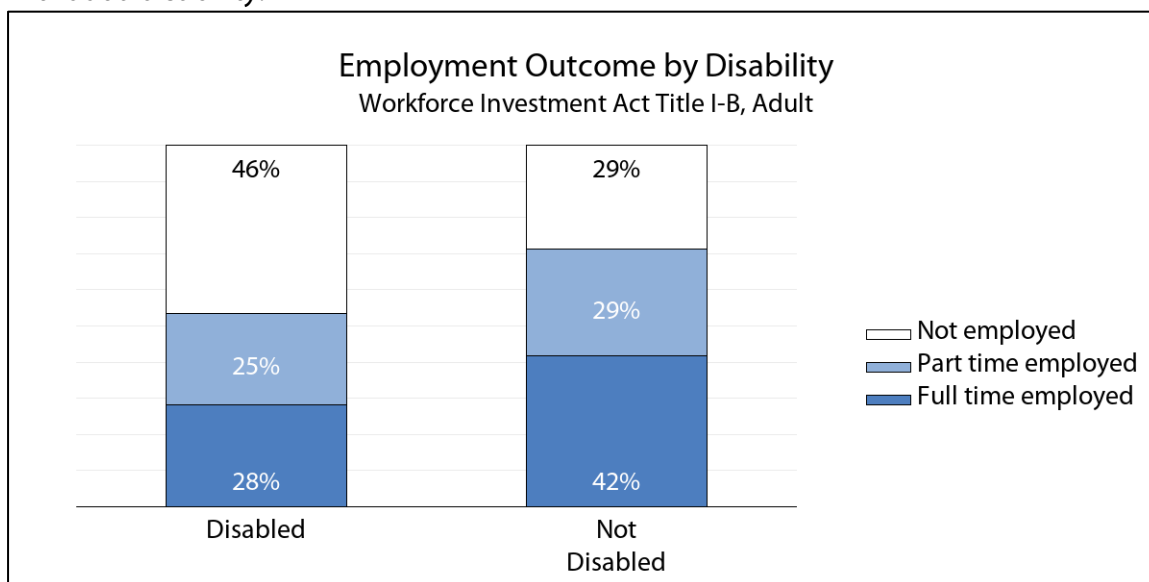
Source: Employment Security Department.

<sup>3</sup> Both Native Americans and Pacific Islanders had low numbers of participants, but sufficient to publish.



## Disability Impacts Employment, Earnings

About 46 percent of WIA Adult participants with a disability were unable to find work within six months of leaving the program. This contrasts sharply with the 29 percent of those without a disability.



Source: Employment Security Department. All Participants, Third Quarter after Exit

## 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 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 the WIA Adult program and received "intensive services" such as career counseling and job preparation and training, 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, published in December 2016, examined experiences of participants who left the WIA Adult training program through 2013. The short-term impact was from Program Year 2012-13 and the long-term impact was from Program Year 2010-11.



## Impact on Employment and Earnings: Participants vs. Control Group

WIA Adult	All Participants
Net Employment Impact*	4.1%
Net Hourly Wage Impact**	\$2.70
Net Hours Employed per Quarter Impact	36.4
Average Annual Earnings Impact**	\$5,332

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

*\*\*Wages and earnings, expressed in first quarter 2016 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 in the above table, those who participated in the WIA Adult Program had an employment rate that was over 4 percent higher than a control group. Participants also earned nearly \$3 more per hour in wages and over \$5,000 more per year than those with similar demographic characteristics. Participants also worked an additional 36-plus hours during a three-month period, compared to those who did not participate in this program.

## Benefits and Costs

This cost-benefit analysis estimates the net impact—or how much of a difference a workforce program made—on how much participants earn, employee benefits, such as health insurance (typically valued at a quarter of overall earnings), Unemployment Insurance benefits, and certain taxes.

Program costs include direct costs, as well as the indirect cost to taxpayers, who fund the program. Also, the analysis estimates how much participants would have earned—but didn't—because they chose to participate in the workforce program instead of working. It also accounts for how much tuition a participant paid, if any, to participate in a program.

Benefits and costs are calculated for a period of time out to age 65, based upon a statistical model.



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

Benefit/Cost	First 2.5 years		Lifetime (until 65)	
	Participant	Public	Participant	Public
<b><u>Benefit</u></b>				
Earnings	\$14,943	\$0	\$97,292	\$0
Fringe Benefits	\$5,978	\$0	\$38,917	\$0
Taxes	\$-2,503	\$2,601	\$-16,297	\$23,617
<b><u>Transfers</u></b>				
Unemployment Insurance	\$-897	\$920	\$651	\$-948
<b><u>Costs</u></b>				
Forgone compensation	\$-3,168	\$-431	\$-3,168	\$-431
Program costs	\$0	\$-2,249	\$0	\$-2,249
Benefits	\$17,520	\$3,521	\$120,564	\$22,669
Costs	\$-3,168	\$-2,679	\$-3,168	\$-2,679
<b>Total (Net)</b>	<b>\$14,352</b>	<b>\$842</b>	<b>\$117,395</b>	<b>\$19,990</b>

*Note: Benefits and costs are expressed in 2016 first quarter dollars. Upjohn estimated the impact of the net change in earnings of Social Security, Medicare, federal income, and state sales taxes.*

*\*Different formulas were used to calculate public return on investment and the return on investment to participants. This accounts for the small difference in benefits, sometimes adding up to a few dollars or as much as several hundred dollars.*

For each client in the WIA Adult program, the public (taxpayer) cost is \$2,249 over the length of their enrollment. Typically while participating in employment and training programs, individuals forego earnings. For WIA Adult clients this amounted to \$3,168 during program participation. During the first two and one-half years after leaving WIA, the average client will gain \$14,943 in earnings. During the course of working life to age 65, the average client will gain about \$97,292 in net earnings and about \$38,917 in employee benefits.

These are net gains compared to the earnings of similar individuals who did not receive WIA Adult services. Including program costs and the net impacts on taxes and unemployment insurance benefits, the total net benefit per participant is \$117,395.

Projected participant benefits to age 65 outweigh public costs for the WIA Adult program by a ratio of \$52 to \$1, or \$117,395 to \$2,249.

From the time of leaving the WIA Adult program to age 65, the public is forecast to gain about \$22,669 per participant in all benefits (including additional Social Security, Medicare, federal income, state sales taxes and UI benefits). The estimated lifetime net benefit to taxpayers is \$19,990 per participant.



In general, individuals participating in workforce programs benefit from increased earnings minus the additional taxes they pay. They also receive more in Unemployment Insurance benefits.

At the same time, the public benefits from receiving the additional taxes paid by participants with higher paying jobs.

### **Summary, Areas for Improvement, and Further Research**

Participation in the WIA Adult program in program year 2014-2015 was higher for African Americans and women, and was low for whites when compared to their overall population share. The group was little older as well, with a median age of 41 at program entrance.

Given the participant profile and that these were often older workers attempting to re-enter the workforce, the employment rate of 70 percent is impressive. Furthermore, it should also be noted that half of the participants were in the program for less than six months and more than half of these employed were working on a full time basis.

On the downside, earnings have remained generally flat, and the median annual earnings, at just under \$25,000, are short of what might be considered a living wage. In addition, women participants earned somewhat less than their male counterparts and there was a wide range of earnings among different racial groups.

The Net Impact Study findings were strong, showing positive and significant impacts due to program participation. Even after costs are accounted for, there was an estimated return to taxpayers of nearly \$20,000 over the course of a participant's working life.

The role the healthcare sector played is important—about one third of participants found employment in this growing sector. Health care is a relatively high paying sector and jobs are expected to be plentiful in the coming years. An area for improvement is the somewhat low overall median wage participants earned. That wage is effectively a starting wage, so further research might shed light on whether WIA Adult participants are able to make career progress, and higher wages, in the longer term.







# Workforce Training and Education Coordinating Board

## 2017 Workforce Training Results

### Workforce Investment Act Title I-B Program for Dislocated Workers

#### Program Details

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

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

- Rapid Response services.
- Skills assessment.
- Labor market information.
- Career planning and guidance.
- Consumer reports on training programs.
- Job search and placement assistance.
- Referrals to additional services.

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

- More intensive assessments.
- Counseling.
- Development of individual employment plans.
- Work experience and internships.
- Workforce preparation.
- Pre-vocational and vocational training.

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.



Employment-related information was obtained through a match with the Employment Security Department wage files from Washington, Oregon, and federal employment records.

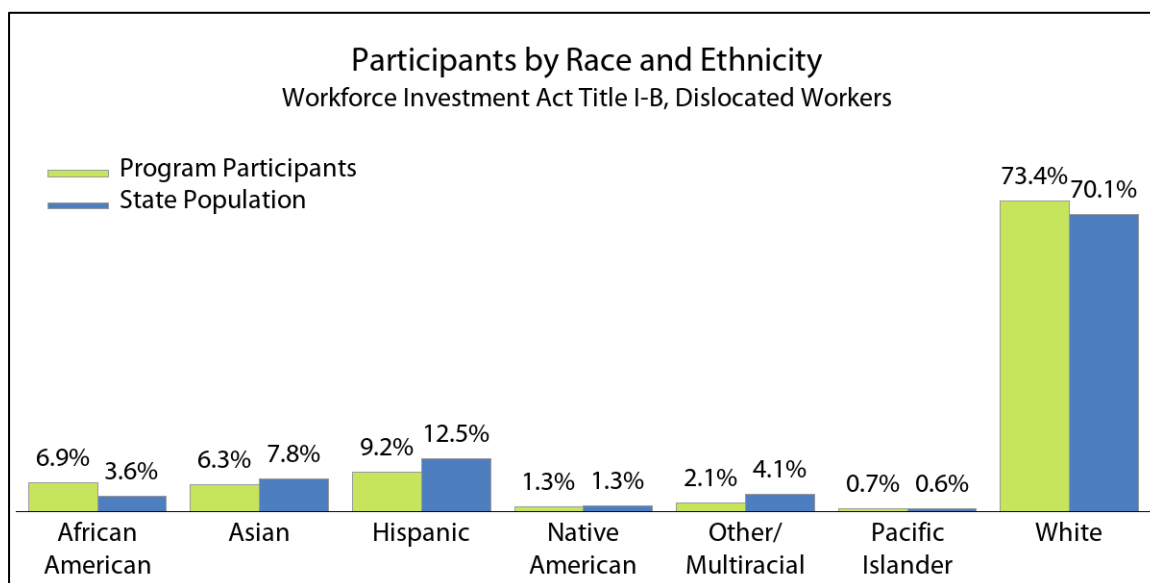
The typical participant was enrolled in the program for 12 months. There was, however, considerable variation in the amount of time participants spent in the program. One quarter of participants were enrolled for six months or less, while another quarter were enrolled for over two years.

## Workforce Innovation and Opportunity Act replaces WIA

The Workforce Innovation and Opportunity Act (WIOA) passed in the summer of 2014. It was the first federal reform of the workforce system in 15 years. WIOA replaced and modified the Workforce Investment Act (WIA), which started in 1998. WIOA provides a framework for better integration and seamless delivery of services across programs and funding streams, with a focus on improving economic outcomes for jobseekers and filling the skills gap for employers. Since program entrants weren't enrolled in WIOA until June 30, 2016, program analysis for this report focuses entirely upon WIA.

## Participant Profile

For this report, researchers studied the results of 3,258 WIA Dislocated Worker participants who completed or otherwise left a WIA Dislocated Worker program during the most recent reporting year.<sup>1</sup> The median length of enrollment for these participants was seven months.



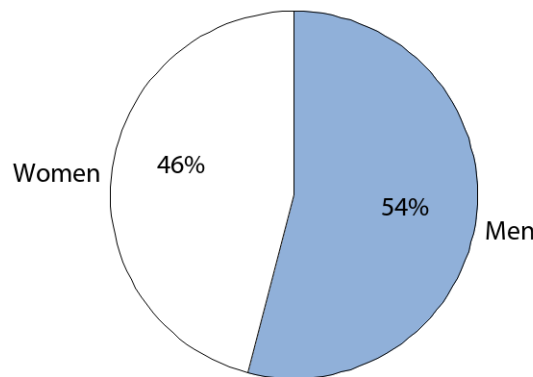
Source: 2014-15 WIA Dislocated Worker Administrative Data, Employment Security Department, Washington State Office of Financial Management.

<sup>1</sup> The 2017 Workforce Training Results reports are based on data observed as recently as 2014-15.



Participants roughly mirrored the state's racial-ethnic population distribution with white and African American participants' representation above the state population representation, whereas multiracial, Hispanic, and Asian participant percentages were lower than their state population distribution.

**Participants by Gender**  
Workforce Investment Act Title I-B, Dislocated Workers



*Source: 2014-15 WIA Dislocated Worker Administrative Data, Employment Security Department.*

Women represented 46 percent of dislocated workers, up five percentage points from the previous program year. Men represented 54 percent of dislocated workers.

The median age at program registration was 35, with one quarter age 47 and older and one quarter under age 27.

At the time participants enrolled:

- 37 percent had not previously attended college.
- 37 percent had some college or an associate's degree.
- 26 percent had a bachelor's degree or higher.

### **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 four core questions:

- Did participants get the skills they needed?
- Did participants get a job and how much were they paid?
- 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 2017 Workforce Training Results includes information obtained from Employment Security Department wage files in Washington and Oregon, and federal employment records for 2014-15.

### **Net Impact Study Adds More Insight into Program Performance**

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

### **Did Participants Get the Skills They Needed?**

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

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

- 11 percent received an associate's degree.
- Less than 1 percent received a bachelor's degree.
- 9 percent received a license.
- 18 percent received a certificate.
- Less than 1 percent received another type of credential.

Taken together, 38 percent of all participants received a diploma, credential or degree, with a certificate being the most common (18 percent of participants). This represents a drop of seven percentage points from the previous report.



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

To find out whether participants had jobs and how much they earned, participant records were matched with Employment Security Department wage files from Washington and neighboring states.<sup>2</sup> The study looks at employment and earnings three calendar quarters (seven to nine months) after the participant left the WIA program.

The chart below shows the employment and earnings of participants who left the program during the 2014-15 program year. Record matches found 76 percent had reported employment or were in further education in the third quarter after leaving the program. Of those participants who were employed and not enrolled in higher education, 52 percent were working full time. The median hourly wage was \$18.96, and median annualized earnings were \$35,756.<sup>3</sup>

### 2016 Employment and Earnings for Dislocated Worker Participants

Performance Measure	All Participants
Employed Or In Further Education	76%
Employment	74%
<i>Employees In Full-Time Job</i>	70%
In Further Education	7%
Median Annualized Earnings	\$35,756
Median Hourly Wage	\$18.96
Median Quarterly Hours	483

Source: Employment Security Department data matches.

All outcomes apply to third quarter after exit. Medians apply to participants not enrolled in further education and are calculated on values greater than zero. Thirty hours or more per week is considered full-time. Dollars are adjusted to first quarter 2016.

The median hourly wage of WIA Dislocated workers is relatively high at \$18.96, but there is considerable variation in wages. While one quarter of dislocated workers had a median hourly wage of over \$26.90 after program exit, another quarter had median hourly wages below \$14.30.

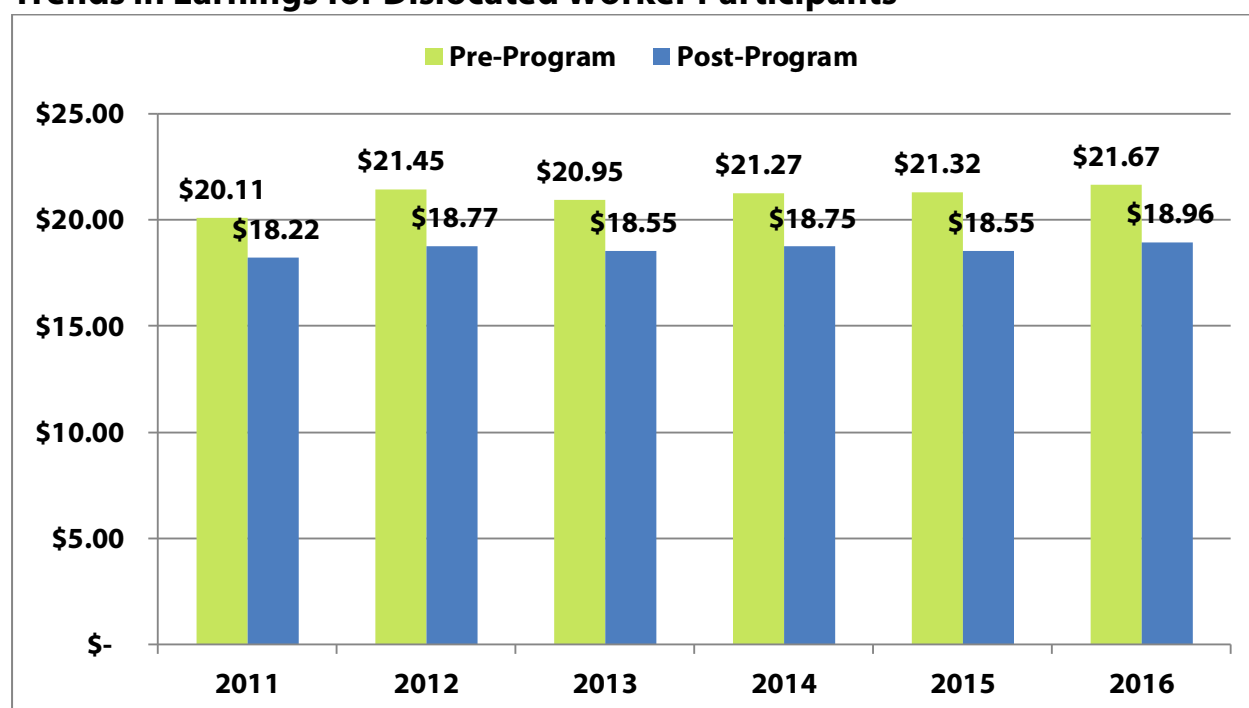
<sup>2</sup> These files contain quarterly earnings and hours worked information on those individuals with employment reported for unemployment insurance (UI) benefits purposes (approximately 90 percent of in-state employment, with self-employment, active duty military, and those working for religious nonprofit organizations being the major groups of employers not included).

<sup>3</sup> 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 2016 dollars.



The Dislocated Worker program is designed to help people who lost their jobs due to changes in technology, plant closures, or other disruptions that make it unlikely they can return to work in the same industries or occupations. One measure of success is how well the program does in helping participants replace their former wages. In the table below you can see that the 2016 cohort had a median wage of \$21.67 per hour, *before* entering the Dislocated Worker program. After the program, this group earned a median wage of \$18.96, or 87 percent of the amount they earned prior to losing their job. The replacement rate has held steady for the past six years, hovering between 86 percent and 87 percent since 2011.

### Trends in Earnings for Dislocated Worker Participants



Source: Matches with Employment Security Department data.  
Dollars are adjusted to first quarter of 2016.

### Trends in Employment and Earnings for WIA Dislocated Workers

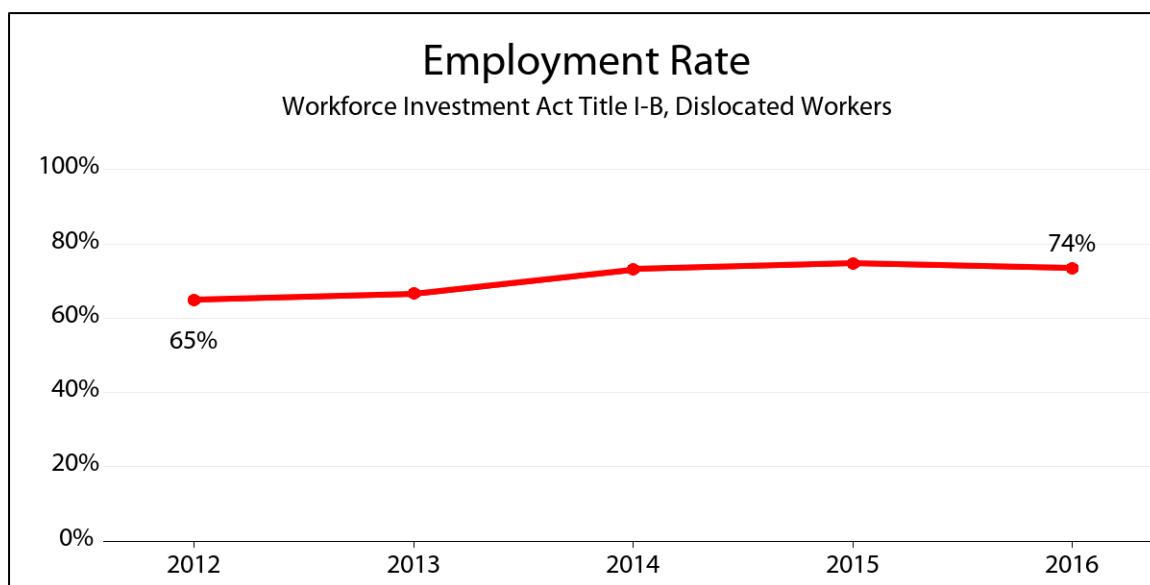
Participants in the WIA Dislocated Worker program have seen strong improvement in the percent finding employment since 2012. This is despite a slight drop-off in 2016 from the year prior. Median annual earnings are also up, reaching a five-year high of \$35,756 in 2016. Conversely, there was a small decline in both quarterly hours worked and the percent working full time.



Performance Measure	2012	2013	2014	2015	2016
<b>All Participants</b>					
Employment	65%	67%	73%	75%	74%
<i>Employees In Full-Time Job</i>	73%	73%	72%	73%	70%
Median Annualized Earnings	\$35,258	\$35,474	\$34,537	\$35,132	\$35,756
Median Hourly Wage	\$18.77	\$18.55	\$18.75	\$18.55	\$18.96
Median Quarterly Hours	488	484	481	484	483

*All outcomes apply to third quarter after exit. Medians apply to participants not enrolled in further education and are calculated on values greater than zero. Thirty hours or more per week is considered full-time. Dollars are adjusted to first quarter of 2016.*

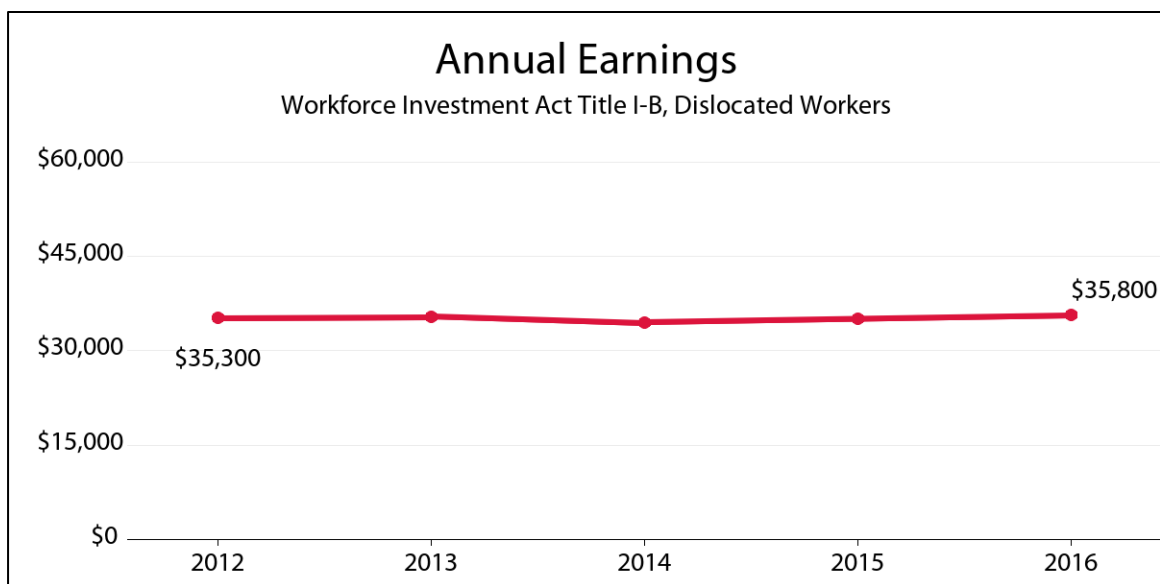
*Source: Employment Security Department.*



*Source: Employment Security Department*

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





Source: Employment Security Department. Median annualized earnings in 2016 dollars.

### Did Employing Industry Change?

For the most recently studied Dislocated Worker cohort (2014-2015 exiters), participants were most likely to have been employed in manufacturing. All told, more than one in five participants worked in manufacturing before their employment ended and they entered the Dislocated Worker program. Healthcare and “Administrative and Support and Waste Management and Remediation Services” were the second most popular sectors; each accounted for 11 percent of prior employment. After exiting the program, participants were most likely to obtain new jobs in health care. It was the largest employing sector (16 percent), while manufacturing fell to second place (14 percent).





## Employment by Industry

Sector/Industry	3 Quarters Prior	3 Quarters After	Change
<b>Health Care and Social Assistance</b>	<b>11%</b>	<b>16%</b>	<b>5%</b>
- Ambulatory Health Care Services	5%	6%	1%
<b>Manufacturing</b>	<b>21%</b>	<b>14%</b>	<b>-7%</b>
- Transportation Equipment Manufacturing	8%	6%	-2%
-- Aerospace Product and Parts Manufacturing	6%	4%	-2%
<b>Administrative and Support and Waste Mgmt. and Remediation Services</b>	<b>11%</b>	<b>12%</b>	<b>1%</b>
- Administrative and Support Services	10%	11%	1%
-- Employment Services	6%	7%	1%
<b>Retail Trade</b>	<b>9%</b>	<b>8%</b>	<b>-1%</b>
<b>Construction</b>	<b>5%</b>	<b>7%</b>	<b>2%</b>
<b>Professional, Scientific, and Technical Services</b>	<b>7%</b>	<b>7%</b>	<b>0%</b>
<b>Transportation and Warehousing</b>	<b>4%</b>	<b>6%</b>	<b>2%</b>
<b>Wholesale Trade</b>	<b>5%</b>	<b>5%</b>	<b>0%</b>
<b>Educational Services</b>	<b>3%</b>	<b>5%</b>	<b>2%</b>
<b>Public Administration</b>	<b>5%</b>	<b>5%</b>	<b>0%</b>
<b>Finance and Insurance</b>	<b>5%</b>	<b>3%</b>	<b>-2%</b>
<b>Accommodation and Food Services</b>	<b>3%</b>	<b>3%</b>	<b>0%</b>
<b>Information</b>	<b>4%</b>	<b>2%</b>	<b>-2%</b>
<b>Other Services (except Public Administration)</b>	<b>2%</b>	<b>2%</b>	<b>0%</b>
<b>Remaining Sectors (Each less than two percent share)</b>	<b>6%</b>	<b>6%</b>	<b>0%</b>

North American Industry Classification System (NAICS): Sector, -Subsector, --Industry group, ---Industry. All Participants, Third Quarter after Exit.

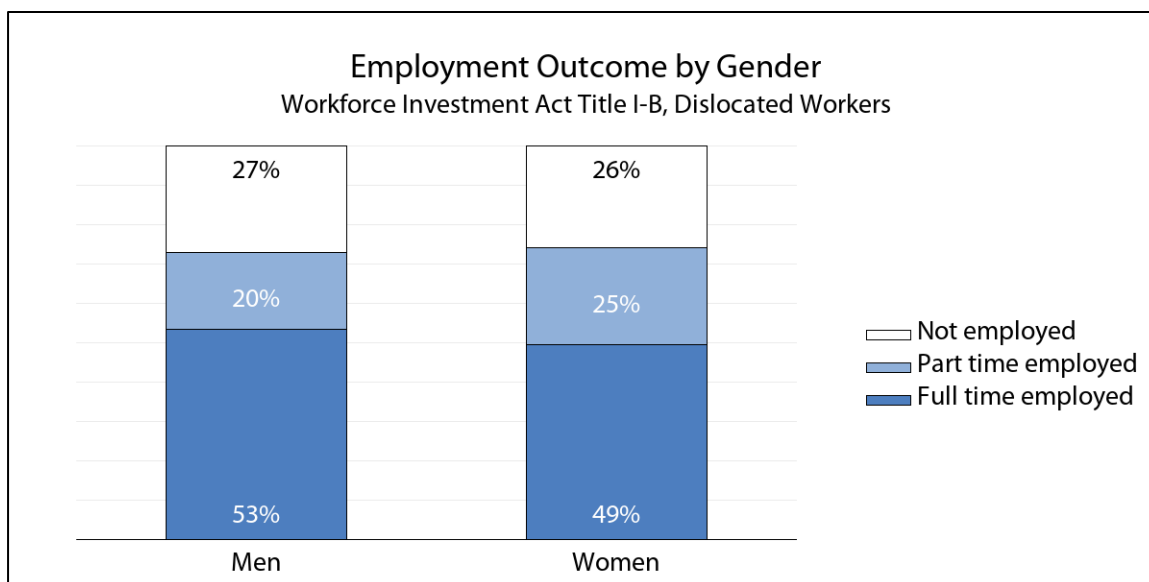
Table sorted by NAICS sector with highest percent of total employment. Matches with data seven to nine months prior to entering and likewise after exiting program.

Source: Employment Security Department.

## Wages and Employment Results Vary by Population

Wages and employment results can vary by gender, race and ethnicity, and disability. During the third quarter after exiting the Dislocated Worker program, 49 percent of female participants worked full time, while 25 percent worked part time to reach an overall employment rate of 74 percent. This was slightly higher than the overall employment rate of men (73 percent). However, men were more likely to be working full time (53 percent versus 49 percent of women). The median annual wage for women was 83 percent of men (\$22,980 compared to \$27,792).

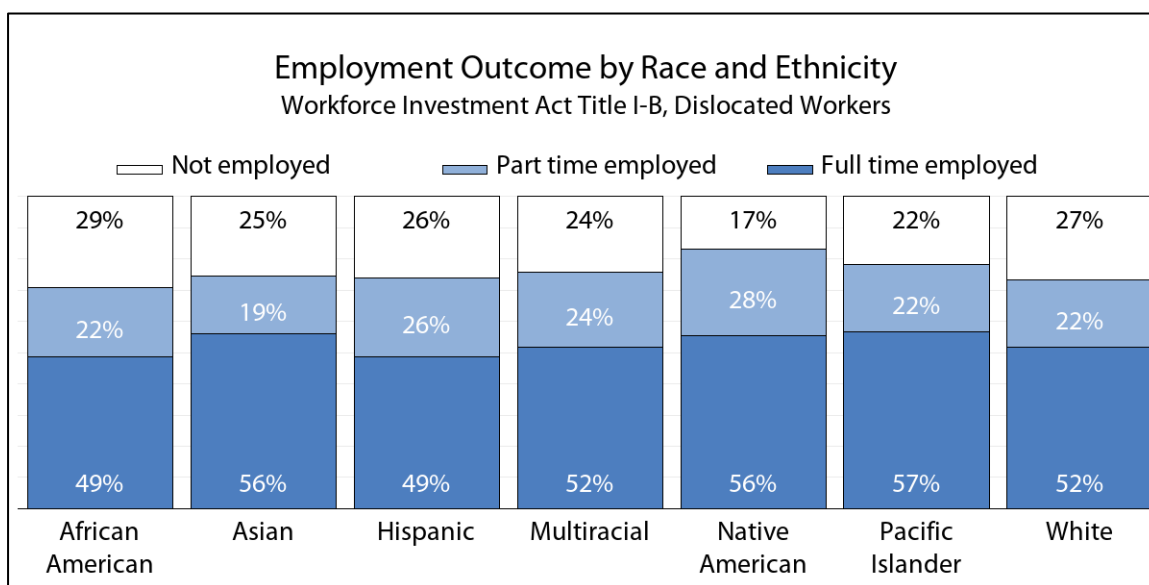




Source: Employment Security Department.

### Race/Ethnicity Plays Role

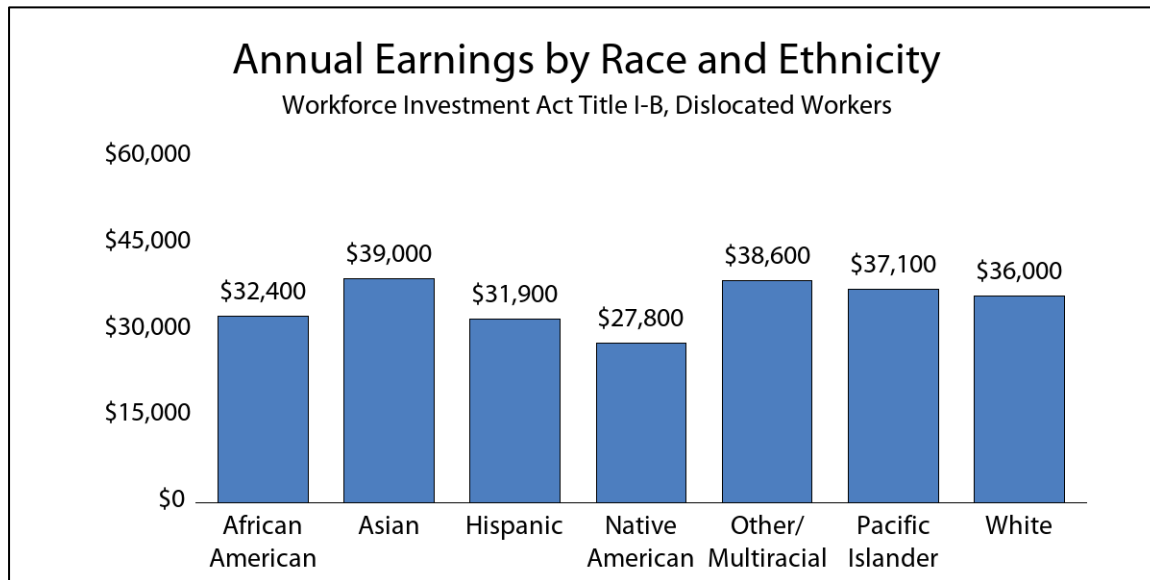
Native Americans had both the lowest unemployment rate (17 percent) and the highest median annual earnings (\$29,357) among program participants. It should be noted though that the number of Native American participants was relatively low. Multiracial participants and Asians had the second (24 percent) and third (25 percent) lowest unemployment rates, respectively, while African Americans had the highest rate (29 percent). The percent working full time was fairly consistent across ethnic/racial groups ranging from a high for Asians and Native Americans (56 percent) to a low for African Americans (49 percent).



Source: Employment Security Department.



Asians earned the highest annual wage (\$39,000), while Native Americans earned the lowest annual wage (\$27,800).



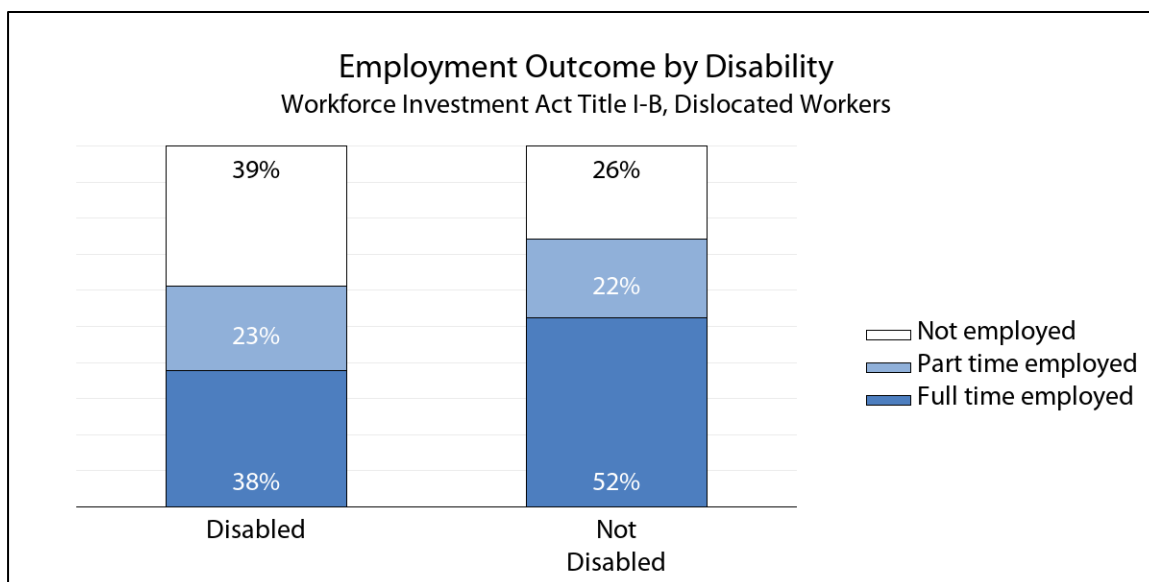
Source: Employment Security Department.

## Disability Impacts Employment

Employment and earnings also varied by disability status. Administrative records suggest 6 percent of the participants included in this study had a disability.<sup>4</sup> Some 38 percent of dislocated workers with disabilities were employed full time and 23 percent part time for an overall rate of 61 percent. They were less likely to be employed than those without a disability (overall employment rate of 74 percent) and less likely to be working full time (38 percent versus 52 percent).

<sup>4</sup> 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.

### 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 the 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 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, published in December 2016, examined experiences of participants who left the WIA Dislocated Worker training program through 2013. The short-term impact was from the Program Year 2012-13 and the long-term impact was from the Program Year 2010-11.



## Impact on Employment and Earnings: Participants vs. Control Group

WIA Dislocated Worker	All Participants
Net Employment Impact*	7.4%
Net Hourly Wage Impact**	\$2.32
Net Hours Employed per Quarter Impact	54.7
Average Annual Earnings Impact**	\$5,882

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

*\*\*Wages and earnings, expressed in first quarter 2016 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 in the above table, those who participated in the WIA Dislocated Worker Program had an employment rate that was over 7 percent higher than a control group. Participants also earned over \$2 more per hour in wages and nearly \$6,000 more per year than those with similar demographic characteristics. Participants also worked an additional 55 hours during a three-month period, compared to those who did not participate in this program.

### Benefits and Costs

This cost-benefit analysis estimates the net impact—or how much of a difference a workforce program made—on how much participants earn, employee benefits, such as health insurance (typically valued at a quarter of overall earnings), Unemployment Insurance benefits, and certain taxes.

Program costs include direct costs, as well as the indirect cost to taxpayers, who fund the program. Also, the analysis estimates how much participants would have earned—but didn't—because they chose to participate in the workforce program instead of working. It also accounts for how much tuition a participant paid, if any, to participate in a program.

Benefits and costs are calculated for a period of time out to age 65, based upon a statistical model.



## Participant and Public Benefits and Costs per Participant in the WIA Dislocated Worker Program

Benefit/Cost	First 2.5 years		Lifetime (until 65)	
	Participant	Public	Participant	Public
<b><u>Benefit</u></b>				
Earnings	\$16,911	\$0	\$68,520	\$0
Fringe Benefits	\$-6,765	\$0	\$27,408	\$0
Taxes	\$-4,228	\$4,393	\$-17,130	\$23,547
<b><u>Transfers</u></b>				
Unemployment Insurance	\$-3,138	\$3,224	\$510	\$-1,181
<b><u>Costs</u></b>				
Forgone compensation	\$6,870	\$-1,493	\$6,870	\$-1,493
Program costs	\$0	\$-2,922	\$0	\$-2,922
Benefits	\$2,780	\$7,617	\$79,308	\$22,366
Costs	\$6,870	\$-4,414	\$6,870	\$-4,414
<b>Total (Net)</b>	<b>\$9,650</b>	<b>\$3,203</b>	<b>\$86,178</b>	<b>\$17,952</b>

Note: Benefits and costs are expressed in 2016 first quarter dollars.

\*Different formulas were used to calculate public return on investment and the return on investment to participants. This accounts for the small difference in benefits, sometimes adding up to a few dollars or as much as several hundred dollars.

For each participant in the program, the public (taxpayer) program cost is \$2,922 over the length of their participation. The participant cost is about \$6,870 in foregone earnings. During the course of working life to age 65, the average participant is expected to gain \$68,520 in earnings and \$27,408 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 \$86,178.

Projected participant benefits to age 65 outweigh public costs invested in the WIA Dislocated Worker program by a ratio of about \$29 to 1, or \$86,178 to \$2,922.

From the time of leaving the program to age 65, the public is forecasted to gain about \$22,366 per participant in net additional Social Security, Medicare, federal income, state sales taxes, minus Unemployment Insurance benefits. The estimated lifetime net benefit to taxpayers is \$17,952 per participant.

Projected taxpayer net benefits to age 65 outweigh public costs invested in WIA Dislocated Worker services by a ratio of \$8 to 1, or \$22,366 to \$2,922.



In general, individuals participating in workforce programs benefit from increased earnings minus the additional taxes they pay. They also receive more in Unemployment Insurance benefits.

At the same time, the public benefits from receiving the additional taxes paid by participants with higher paying jobs.

### **Summary, Areas for Improvement, and Further Research**

The aftershocks of the Great Recession can still be seen in the WIA Dislocated Worker program, particularly in 2012 when the employment rate hit a low of 65 percent. While it had taken some time for the recovery to work its way to all parts of the economy, program participant employment rates and earnings have shown strong improvement.

The median annual wage for the most recent group of participants was \$35,756. In addition, the employment rate has climbed to 74 percent (though a slight decline from 75 percent the previous year) and a high proportion of these jobs were full time.

On a less positive note, the wages amounted to only 87 percent of what the group had earned before entering the program. Also, earnings are not consistent across industries, individuals, gender, and racial groups.

Prior to entering the program, most Dislocated Worker participants worked in the manufacturing sector. But after exiting the program, more of these workers obtained jobs in healthcare. Manufacturing was still a significant sector, but moved to the second place position.

Women, who were slightly underrepresented in the program, had better employment rates than men, but were less likely to work full time and earned only 83 percent of what their male counterparts earned. Whites and African Americans had relatively high program participation rates, but it was Native Americans who had the highest employment rates and earnings.

The Net Impact study findings for the Dislocated Worker program were strong. Those who participated in the Dislocated Worker program benefited from significant and positive impacts upon earnings, employment, and hours worked. The public is projected to have a net gain of \$17,952 for each participant. The state's benefit to cost ratio was \$8 to 1.





# Workforce Training and Education Coordinating Board

## 2017 Workforce Training Results

### Workforce Investment Act Title I-B Program for Youth

#### Program Details

Young people who meet income and other eligibility criteria are served by a variety of workforce services under the federal Workforce Innovation and Opportunity Act (WIOA). WIOA was signed into law in 2014, but program entrants weren't enrolled in WIOA until June 30, 2016. Therefore, program analysis for this report focuses entirely on its predecessor, the Workforce Investment Act. This report focuses on the Title I-B Youth portion of this predecessor act.

Like the current federal workforce act, the previous act, the Workforce Investment Act (WIA), prepared youth for academic and employment success. To receive services, youth had to be between the ages of 14 and 21 years old, low income, and meet other criteria such as needing additional assistance to complete an education program or to secure and hold employment. The age limit has since been raised under WIOA to 24. Under WIA, to be considered low income, participants must have qualified for welfare or food stamps, be homeless, a foster child, or in a family with income below 70 percent of the lower living standard income level.

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

Eligible youth were assessed to determine academic, skill level, and support service needs. Strategies were developed for each person based on the assessment results, and included a menu of potential services:

- Guidance and counseling.
- Tutoring.
- Job training.
- Mentoring.
- Summer employment.
- Work experience.
- Leadership development.
- Supportive services.
- Follow-up services.





Other strategies included summer employment, study skills training, or instruction in obtaining a GED or equivalent. Youth were able access information services through WorkSource, the state's one-stop career center system. Under WIA, youth ages 18 through 21 were able to be co-enrolled in WIA Adult programs. At least 30 percent of the WIA Youth funds were required to be used to provide activities for eligible out-of-school youth.

The Employment Security Department administered the program at the state level. Twelve local Workforce Development Councils, in consultation with chief local elected officials, oversaw WIA activities in local areas. Local youth councils assisted with the WIA program.

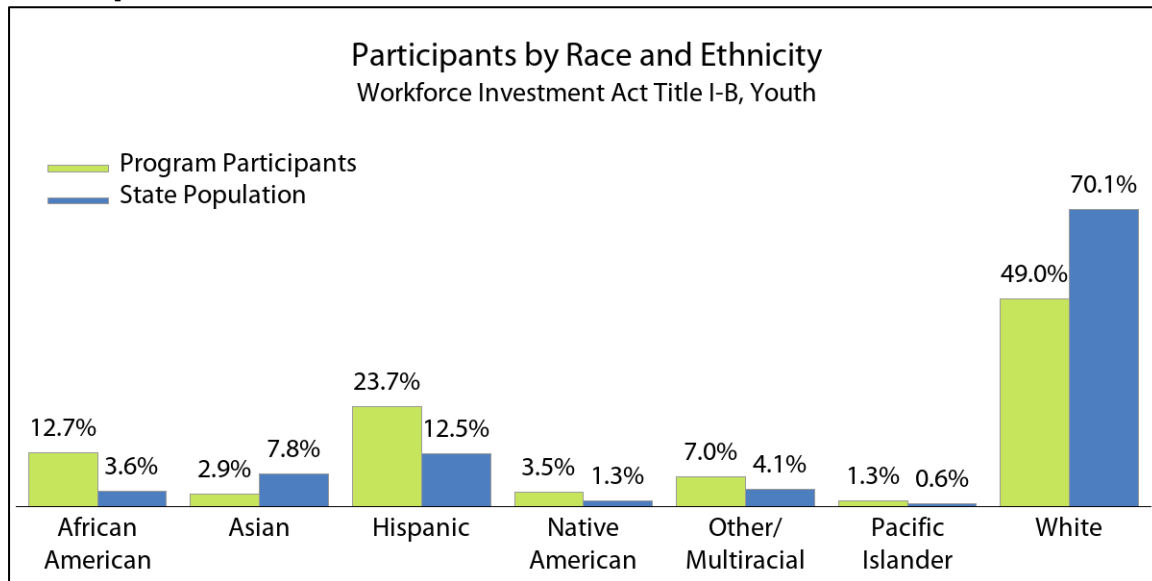
### **Workforce Innovation and Opportunity Act replaces WIA**

The Workforce Innovation and Opportunity Act (WIOA) passed in the summer of 2014 with broad bipartisan support. It was the first federal reform of the workforce system in 15 years. WIOA replaces and modifies WIA, which started in 1998. WIOA provides a framework for better integration and seamless delivery of services across programs and funding streams, with a focus on improving economic outcomes for jobseekers and filling the skills gap for employers. The majority of WIOA provisions become effective on July 1, 2015, with additional requirements effective July 1, 2016. The Workforce Board was designated by Governor Inslee to oversee planning and policy development for Washington's effective implementation of WIOA. Since youth program participants weren't enrolled in WIOA until April 1, 2016, program analysis for this report focuses entirely on WIA, as was mentioned earlier in this report.

It should be noted that several aspects of the youth program changed significantly from WIA to WIOA. Under WIOA, the program focuses on in-school youth and out-of-school youth rather than younger youth and older youth. The upper age limit expanded from 21 to 24 with 14-21 defining in-school youth and 16-24 defining out-of-school youth. Participating youth still need to demonstrate at least some barrier to education or employment. A couple of significant new expenditure requirements include the requirement to expend at least 75 percent of youth funds on out-of-school youth and at least 20 percent of youth funds on work experience. The types of services available to youth remain largely the same, though new options include financial literacy education, entrepreneurial skills training, provision of labor market and employment information, and activities to aid the transition to postsecondary education and training.



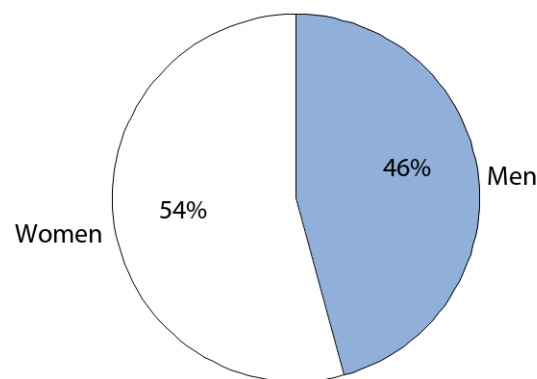
## Participant Profile



Source: 2014-15 WIA Youth Administrative Data, Employment Security Department, Washington State Office of Financial Management.

The race/ethnicity profile of WIA Youth program participants had a much higher representation of African Americans and Hispanics. African Americans had a participation rate more than three times higher than their overall population share. Hispanics participated in WIA at nearly twice their population share. Native Americans and multiracial youth also had a relatively high share of program participants. Asians and whites had relatively low program participation.

**Participants by Gender**  
Workforce Investment Act Title I-B, Youth



Source: 2014-15 WIA Youth Administrative Data, Employment Security Department.

Slightly more females than males participated in the WIA Youth program.



## **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 four core questions:

- Did participants get the skills they needed?
- Did participants get a job and how much were they paid?
- 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 2017 Workforce Training Results includes information obtained from Employment Security Department wage files in Washington and Oregon, and federal employment records for 2014-15.

## **Net Impact Study Adds More Insight into Program Performance**

In addition, this report includes a comprehensive Net Impact Study. Conducted every four years, the 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?**

Overall, just under two-thirds (62 percent) of program participants earned at least a high school diploma or equivalent in the most recent observation. This was down from the year prior when 68 percent of program participants attained at least a high school diploma or equivalent. Twelve percent of participants had earned some kind of postsecondary certificate, a number which has varied little since 2012.



## Educational Outcomes WIA Youth

Attainment	2012	2013	2014	2015
Secondary school (high school) diploma	30%	31%	29%	27%
GED or high school equivalency diploma	26%	25%	27%	23%
Certificate or other postsecondary degree/diploma	11%	11%	12%	12%
No diploma, GED, degree, or certificate	34%	33%	32%	37%

Source: Employment Security Department.

## Were Participants Enrolled in Higher Education?

When it comes to young people, a measure of success isn't only employment, but whether they continued with their education. As can be seen in the following chart, 65 percent of WIA Youth were either employed or enrolled in higher education. Of those participants who were not enrolled in an education program and were employed, 32 percent were working full time. Median annualized earnings for WIA Youth participants who were not in school were \$13,338, on an inflation-adjusted basis.

## Employment and Earnings for WIA Youth Participants

Performance Measure	All Participants
Employed Or In Further Education	65%
Employment	60%
Employees In Full-Time Job	32%
Employment (3)	61%
Employees In Full-Time Job (3)	33%
Full-Time Employed (3)	20%
In Further Education	10%
Median Annualized Earnings	\$13,338
Median Hourly Wage	\$10.98
Median Quarterly Hours	307

All outcomes apply to third quarter after exit. Medians apply to participants not enrolled in further education and are calculated on values greater than zero. Thirty hours or more per week is considered full-time. Dollars are adjusted to first quarter of 2016. All ratios are computed including those in further education except when noted with (3).

Source: Employment Security Department.

The median hourly wage rate for WIA Youth program participants was \$10.98. There was not a wide wage range as the lowest-paid 25 percent earned \$10.02 or less and the highest-paid 25 percent earned \$12.42 or more.



## Earnings of WIA Youth Participants

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

Hourly Wages of Apprentices (Quartiles)	
Quartile	Hourly Wage
75 <sup>th</sup> Percentile	\$12.42
50 <sup>th</sup> Percentile (Median)	\$10.98
25 <sup>th</sup> Percentile	\$10.02

*Third quarter after exit. Includes all participants, except those enrolled in higher education.  
Source: Employment Security Department.*

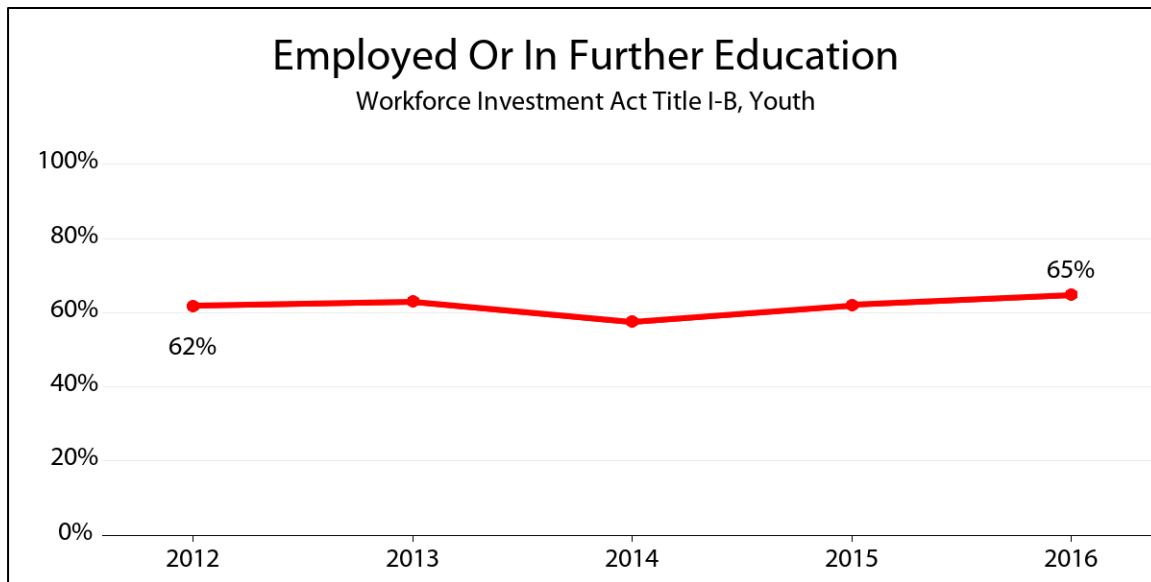
### Trends in Employment and Earnings

Participants in the WIA Youth program have had more success in finding work or enrolling in further education since 2014 when that cohort experienced a 58 percent low in their rate. A clear, positive outcome in employment/enrollment rates was recorded for both the 2015 cohort (62 percent) and 2016 cohort (65 percent). However, a smaller percent of program participants were working full time, falling from 37 percent in 2015 to 33 percent in 2016. Annual earnings have trended upward since reaching a low of \$12,151 in 2014.

Performance Measure	2012	2013	2014	2015	2016
Employed Or In Further Education	62%	63%	58%	62%	65%
Employees In Full-Time Job (3)	36%	35%	32%	37%	33%
Median Annualized Earnings	\$12,646	\$12,457	\$12,151	\$12,652	\$13,338
Median Hourly Wage	\$10.60	\$10.45	\$10.52	\$10.48	\$10.98
Median Quarterly Hours	306	303	296	310	307

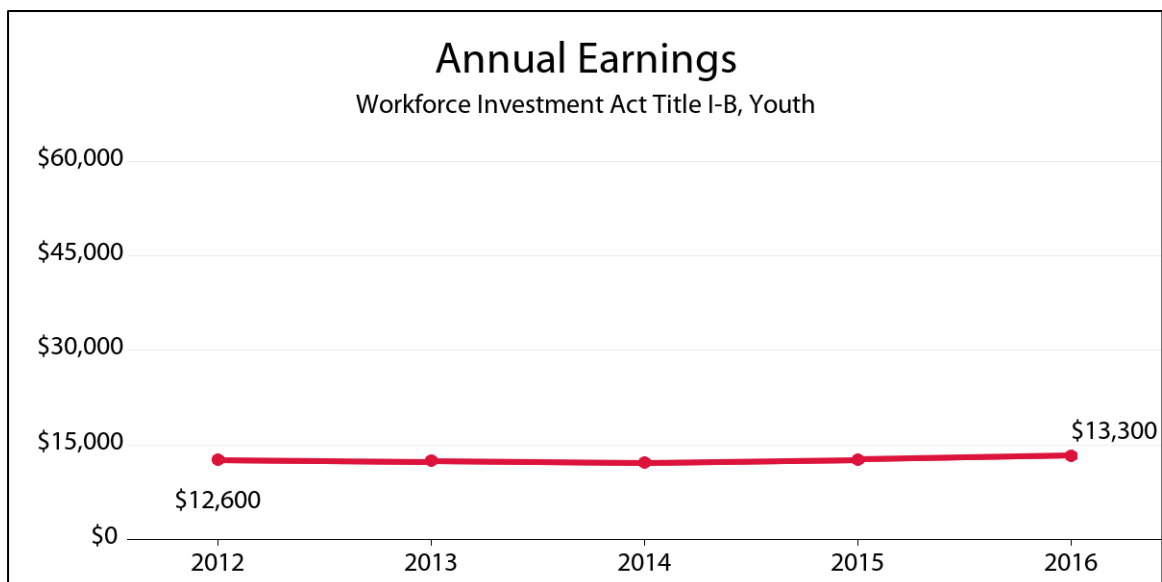
*All outcomes apply to third quarter after exit. Medians apply to participants not enrolled in further education and are calculated on values greater than zero. Thirty hours or more per week is considered full-time. Dollars are adjusted to first quarter of 2016. All ratios are computed including those in further education except when noted with (3).  
Source: Employment Security Department.*





Source: Employment Security Department

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



Source: Employment Security Department. Median annualized earnings in 2016 dollars.

## Where Are Participants Employed

Among WIA Youth program participants who are working, Accommodation and Food Services is the most dominant sector—one quarter of those employed in 2016. It was followed by Retail Trade (20 percent) and Health Care and Social Assistance (19 percent). Nearly all of the Accommodation and Food Service work was found in the food services sub-industry (as opposed to the accommodation side).



<b>Workforce Investment Act Title I-B, Youth Employment by Industry 2016</b>	<b>% of Total</b>
<b>Accommodation and Food Services</b>	<b>25%</b>
- Food Services and Drinking Places	22%
-- Restaurants and Other Eating Places	22%
<b>Retail Trade</b>	<b>20%</b>
- General Merchandise Stores	6%
- Food and Beverage Stores	4%
<b>Health Care and Social Assistance</b>	<b>19%</b>
- Nursing and Residential Care Facilities	9%
- Social Assistance	7%
<b>Administrative and Support and Waste Mgmt. and Remediation Services</b>	<b>10%</b>
- Administrative and Support Services	10%
-- Employment Services	6%
<b>Manufacturing</b>	<b>4%</b>
<b>Agriculture, Forestry, Fishing and Hunting</b>	<b>3%</b>
<b>Construction</b>	<b>3%</b>
<b>Wholesale Trade</b>	<b>3%</b>
<b>Other Services (except Public Administration)</b>	<b>3%</b>
<b>Transportation and Warehousing</b>	<b>2%</b>
<b>Arts, Entertainment, and Recreation</b>	<b>2%</b>
<b>Remaining Sectors (Each less than two percent share)</b>	<b>7%</b>

North American Industry Classification System (NAICS): Sector, -Subsector, --Industry group, ---Industry. All Participants, Third Quarter after Exit.

Table sorted by NAICS sector with highest percent of total employment.

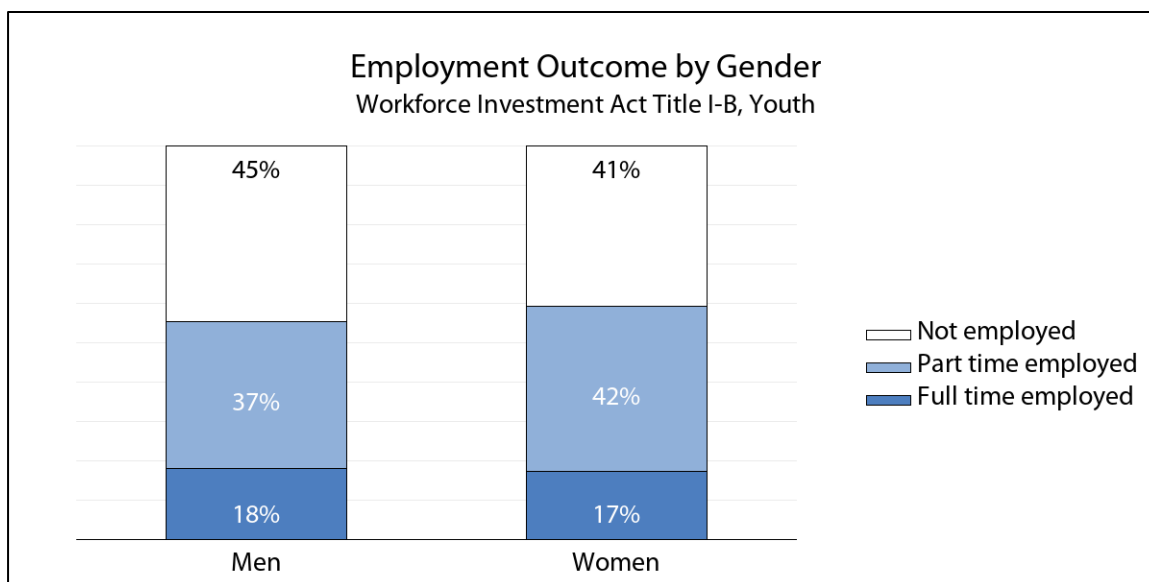
Source: Employment Security Department.

## Different Populations, Different Outcomes

As mentioned earlier, female participants made up 54 percent of those in the WIA Youth program. Female participants were almost as likely to land full-time jobs as males (17 percent vs. 18 percent). However, significantly more female participants were employed part time (about 42 percent) compared to males (about 37 percent). In addition, male participants were more likely to be unemployed (about 45 percent) compared to females (41 percent).

Female participants' median hourly wages of \$10.75 amounted to 97 percent of male participants' hourly wage (\$11.08) and women's median annual earnings of \$12,339 accounted for 95 percent of men's earnings. Female median quarterly hours worked were similar to the number worked by males—280 hours compared to 291 hours (96 percent).

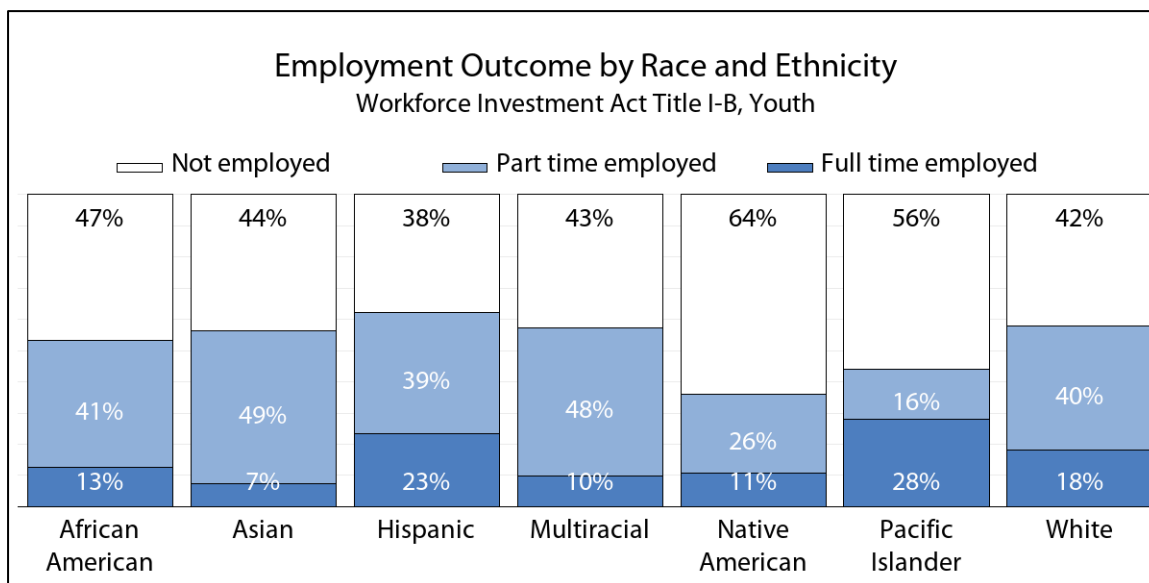




Source: Employment Security Department.

## Race and Ethnicity Play a Role

Native Americans had the most difficulty in finding work (64 percent not employed) followed by Pacific Islanders (56 percent). The lowest unemployment rates were among Hispanics (38 percent) and whites (42 percent). Asian participants (49 percent) and Multiracial participants (48 percent) were the most likely to work part-time.

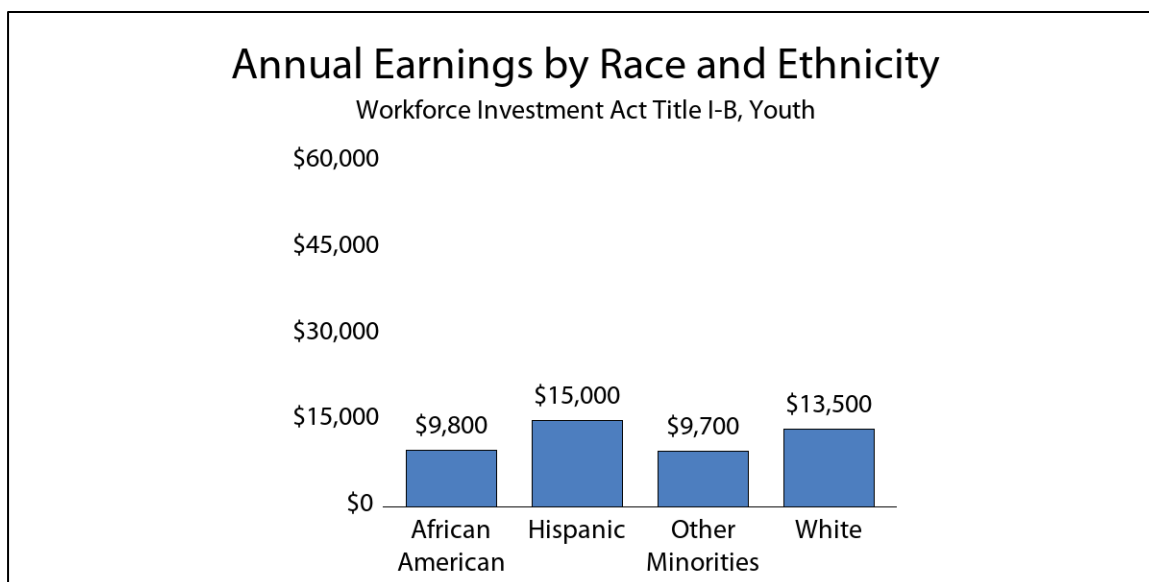


Source: Employment Security Department.

The highest median earnings were held by Hispanics (\$15,000), followed by whites (\$13,520) and African Americans (\$9,800). Other minorities (Asians, Pacific Islanders, and Native Americans) were too few to separately report earnings.



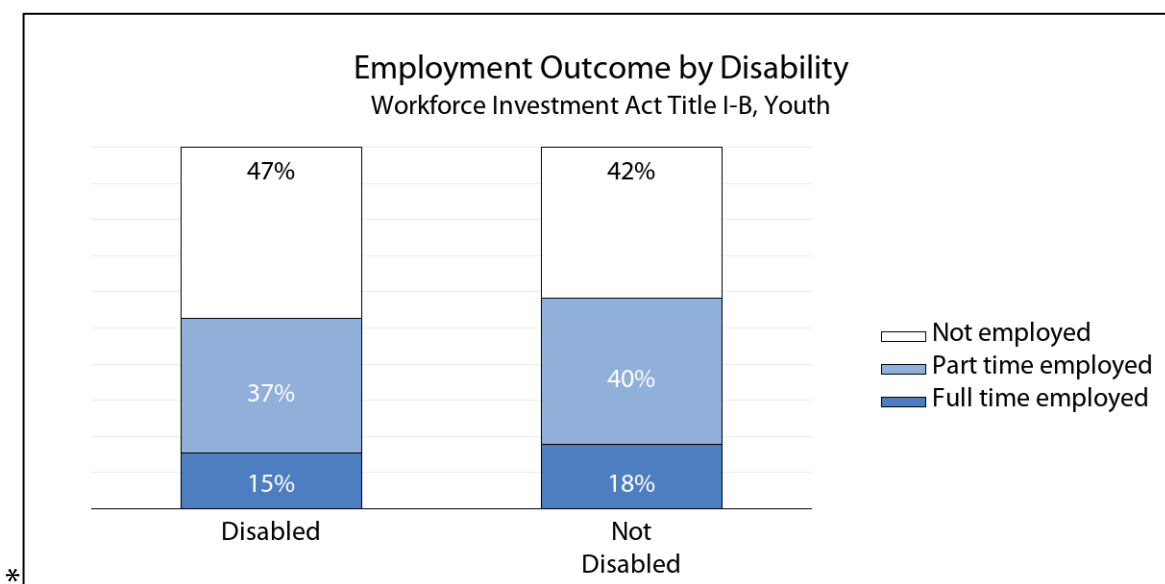




Source: Employment Security Department.

## Disability Impacts Employment

Comparing employment outcomes between participants with and without a disability shows surprisingly little difference. Of those with a disability, 47 percent were not employed within three quarters compared to 42 percent for those without a disability. The percent working full time was also fairly close—15 percent for those with a disability and 18 percent for those without.



Source: Employment Security Department.



## 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 in Washington state. 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 for labor exchange only.

The most recent net impact analyses, published in December 2016, examined experiences of participants who left the WIA Youth training program through 2013. The short-term impact was from the Program Year 2012-13 and the long-term impact was from the Program Year 2010-11.

WIA Youth	All Participants
Net Employment Impact*	6.7%
Net Hourly Wage Impact**	\$0.83
Net Hours Employed per Quarter Impact	not significant
Average Annual Earnings Impact**	not significant

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

*\*\*Wages and earnings, expressed in first quarter 2016 dollars represent the average difference between Apprenticeship participants who got jobs and those in the control group who were employed.*

As can be seen in the above table, those who participated in the WIA Youth Program had an employment rate that was nearly 7 percent higher than a control group. Participants also earned nearly \$1 more per hour in wages but not a significant amount more per year than those with similar demographic characteristics. Participants did not work a significant amount more than those who did not participate in this program.

## Benefits and Costs

This cost-benefit analysis estimates the net impact—or how much of a difference a workforce program made—on how much participants earn, employee benefits, such as health insurance (typically valued at a quarter of overall earnings), Unemployment Insurance benefits, and certain taxes.



Program costs include direct costs, as well as the indirect cost to taxpayers, who fund the program. Also, the analysis estimates how much participants would have earned—but didn't—because they chose to participate in the workforce program instead of working. It also accounts for how much tuition a participant paid, if any, to participate in a program.

Benefits and costs are calculated for a period of time out to age 65, based upon a statistical model.

Benefit/Cost	First 2.5 years		Lifetime (until 65)	
	Participant	Public	Participant	Public
<b><u>Benefit</u></b>				
Earnings	\$3,166	\$0	\$23,915	0
Fringe Benefits	\$1,266	\$0	\$9,566	\$0
Taxes	\$-531	\$551	\$-4,006	\$7,203
<b><u>Transfers</u></b>				
Unemployment Insurance	\$0	\$0	\$0	\$0
<b><u>Costs</u></b>				
Forgone compensation	\$-2,91	\$39	\$-2,91	\$39
Program costs	\$0	\$-3,044	\$0	\$-3,044
Benefits	\$3,902	\$551	\$29,475	\$7,203
Costs	\$-291	\$-3,004	\$-291	\$-3,004
<b>Total (Net)</b>	<b>\$3,611</b>	<b>\$-2,454</b>	<b>\$29,184</b>	<b>\$4,199</b>

*Note: Benefits and costs are expressed in 2016 first quarter dollars.*

*\*Different formulas were used to calculate public return on investment and the return on investment to participants. This accounts for the small difference in benefits, sometimes adding up to a few dollars or as much as several hundred dollars.*

For each youth in training, the public (taxpayer) cost is \$3,044 over the length of their enrollment, and there is no participant tuition cost. During the course of working life to age 65, the average WIA Youth participant will gain about \$23,915 in earnings and about \$9,566 in employee benefits. 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 \$29,184.

Projected participant net benefits to age 65 far outweigh public investment in apprenticeship training by a ratio of \$10 to 1, or \$29,184 to \$3,044.



From the time of leaving training to age 65, the public is expected to gain about \$7,203 per apprentice in net additional Social Security, Medicare, federal income, state sales taxes and UI benefits. The estimated lifetime net benefit to taxpayers is \$4,199 per participant.

Projected taxpayer benefits to age 65 outweigh public costs invested in apprenticeship training by a ratio of \$2 to 1 or \$7,203 to \$3,044.

In general, individuals participating in workforce programs benefit from increased earnings minus the additional taxes they pay. They also receive more in Unemployment Insurance benefits.

At the same time, the public benefits from receiving the additional taxes paid by participants with higher paying jobs.

### **Summary, Areas for Improvement, and Further Research**

The WIA Youth program prepares youth (14-21 years old) with substantial barriers for success in school and employment. These barriers are reflected in the program's outcomes. After participation, 37 percent still did not possess a high school diploma or GED and were not enrolled in school. This implies a graduation rate of 63 percent compared to the State's graduation rate<sup>1</sup> of 78 percent.

The profile of program participants is somewhat different from the state population as a whole. African Americans, Hispanics, and women have very high program representation. Outcomes by gender and race/ethnicity did not vary too much, with the exception being good outcomes for Hispanics. Disability status was also not a big factor in labor market outcomes.

Probably the most important metric in this report is the percent of program participants "engaged" (either working or enrolled in further schooling), and the program is showing improvement here. In 2016 this rate reached 65 percent, up from 58 percent in 2014. On the downside, this means we still have 35 percent left unengaged.

Wages for program participants were fairly low: half of those employed earned between \$10.02 and \$12.42 and median annual earnings was only \$12,338. In addition the percent working full time was low but this may not be all bad and can in part be attributed to the industry most found work in.

Nearly half of employed program participants were working in either the food service or retail industries. While these tend to be relatively low-wage industries, these industries are where many first learn job skills.

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<sup>1</sup> This is the adjusted four year cohort graduation rate for program year 2014-2015. Source: <http://www.k12.wa.us/DataAdmin/Dropout-Grad.aspx>.

