



HIGH SKILLS, HIGH WAGES 2008-2018



Washington's Strategic Plan for Workforce Development



Workforce Training and Education Coordinating Board

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WORKFORCE TRAINING AND EDUCATION COORDINATING BOARD

Our Vision

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

Our Mission

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

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

- ④ Advise the Governor and Legislature on workforce development policy.
- ④ Promote a system of workforce development that responds to the lifelong learning needs of the current and future workforce.
- ④ Advocate for the nonbaccalaureate training and education needs of workers and employers.
- ④ Facilitate innovations in workforce development policy and practices.
- ④ Ensure system quality and accountability by evaluating results and supporting high standards and continuous improvement.

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Introduction to High Skills, High Wages

In our pursuit of making Washington state a great place to learn, work and live, we track the many programs and activities that fall under the umbrella of “workforce development” that are vital to our workforce, and our economy.

Our job at the Workforce Training and Education Coordinating Board is to help you better understand the interplay of these programs and activities. We plan, monitor and evaluate these activities, while advocating for those exceptional policies that will benefit our workforce and meet the needs of Washington’s business and industry.

High Skills, High Wages 2008-2018 provides a detailed plan for Washington’s workforce, from preparing workers with the education and training needed to land family-wage jobs to supplying industry with a skilled, flexible workforce to move Washington’s economy ahead.

We plan along a 10-year horizon, to give us time to make our vision of a stronger economy a reality. To get there, we coordinate and implement key strategies to boost the state’s workforce system, which spans seven state agencies, 18 programs and nearly \$900 million in state and federal funds.

This plan offers a clear and comprehensive look at our state’s workforce challenges, and opportunities, with a focus on three key groups: youth, adults, and industry. All play a vital role in our economy. Each merits greater attention, especially during an economic downturn.

Here's a brief look at some of the immediate Strategic Opportunities in this plan:

1. Increase high school graduation rates with programs such as *Navigation 101* that provide students with supportive career guidance and planning.
2. Expand career and technical education programs that give students a real-world context for what they learn.
3. Increase the skilled workers Washington businesses need by boosting capacity at community and technical colleges, private career schools, and apprenticeship programs.
4. Expand financial aid to help more low-income Washingtonians reach a "13th year" of education that leads to living wage jobs.
5. Boost the employability of workers through programs that roll basic skills, English language instruction and job skills into one complete package.
6. Focus on industry clusters that drive regional economies so that Washington communities build on their strengths and grow even stronger.
7. Expand workplace based learning, online courses and other flexible education options to help workers move ahead and expand their careers.
8. Continue to identify and remove barriers to employment, education and training so that workers have a clear path to reach their career goals.

To make the most of these strategic opportunities, we need to work even harder to ensure our workforce development system functions as a highly effective, collaborative team. *High Skills, High Wages 2008-2018* provides well-defined goals, and a roadmap to reach them.

Whether it's a struggling student on the brink of dropping out, a laid off worker searching for a job, or a low-income family barely making ends meet, these are among the many Washingtonians we hope to help. In the end, a better educated, better trained, better paid workforce helps us all.

We look forward to working with you to build a world class Washington workforce that gives our residents, our businesses, and our state, an economic edge.

Sincerely,

Eleni Papadakis
Executive Director
Workforce Board

David Harrison
Chair
Workforce Board

December 2008

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Tomorrow's Workforce

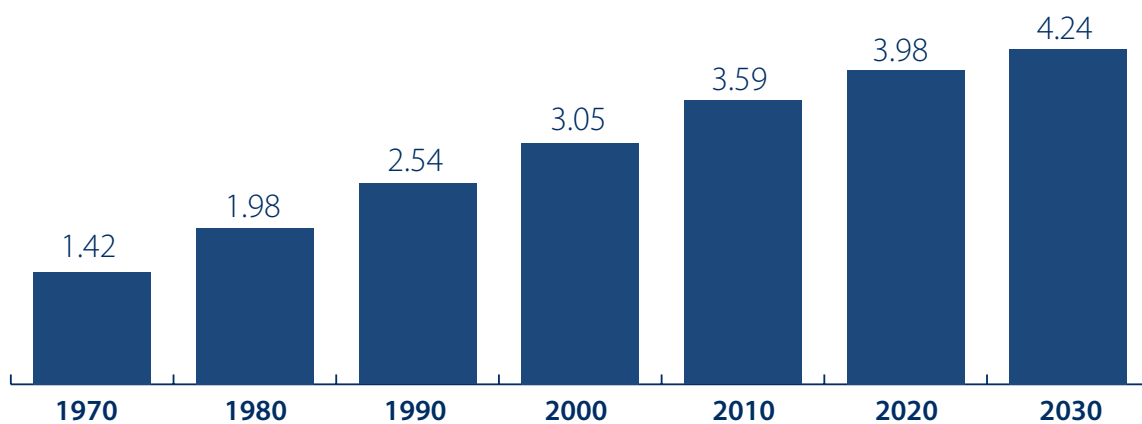
Challenges and Opportunities

Compared to Washington's labor force¹ of today, tomorrow's labor force will be older, more racially and ethnically diverse, and will grow at a slower rate. This changing workforce and the changing needs of a knowledge-based economy pose new challenges for Washington's workforce development system. As our population growth slows and an increasing number of jobs call for higher skill levels, we need to provide new arrivals and historically underutilized populations with the education and training to participate more successfully in tomorrow's economy.

Workforce Growth Slows

While Washington's workforce has grown over the years, more than doubling from 1.4 million workers in 1970 to about 3.6 million today, the faster growth rate of the previous century has slowed, and will get slower still. The state's workforce is projected to grow by about 1.18 million workers to 4.24 million in 2030, but this incremental growth barely tops half of 1 percent per year as we approach 2020. Compared to the 1980s, when Washington's labor force regularly expanded by 2.5 percent each year, our economy in the coming years won't be able to rely on a rapid injection of workers to fill jobs. Put another way, the rate of growth during the next three decades will be just one third as fast when compared to the previous 30 years.

Figure 1 Washington's Labor Force (in millions)



Source: Washington State Office of Financial Management & Employment Security Department. *The 2007 Long-Term Economic and Labor Force Forecast for Washington*, May 2007, Figure 2-4

¹ In this report, the term "labor force" is used synonymously with the term "workforce" and refers to the civilian labor force, which is composed of individuals age 16 or over who are currently employed (either part-time or full-time) or who are actively seeking employment. Individuals who are in nursing homes, prison, or the military are not considered to be either in the civilian labor force or part of the base population from which the labor force is drawn. Other individuals who are not in the civilian labor force are those who are not employed and not seeking employment. Common reasons for not being in the labor force include retirement, ill health or injury, attending school, or doing housework at home.

The Migration Factor in Population and Labor Force Growth

Washington's labor force growth rate, while slowing, is higher than labor force growth rates expected for the United States as a whole. Some of the growth in Washington's population and labor force results from in-migration from other states and from overseas. According to the 2000 U.S. Census, 47 percent of Washington residents were born here (well below the 60 percent average for the nation). Between 1990 and 2000, some 63 percent of Washington state's population growth came from net in-migration², the amount by which the number of people entering the state exceeded the number who left.³

In the past, in-migration has increased or decreased depending on how well Washington's economy is doing relative to the rest of the country, and especially neighboring states, such as Oregon and California. Net in-migration ranged from 70,000 to 80,000 per year in the early 1990s, dropped below 30,000 per year in 2000, and again in 2003 during the Boeing and dot.com downturn, and rebounded to over 70,000 per year since 2005. The state's Office of Financial Management's long-term projections anticipate net in-migration of 48,100 new residents per year beyond 2015—far higher than the state's natural increase of 37,000 workers⁴.

New residents moving here from other states (most frequently California and Oregon) often have high levels of education and contribute directly to our prosperity. Of the new residents over the age of 25 arriving in 2006, 41 percent had a bachelor's degree or professional degree, compared with just 31 percent of Washington's population.⁵

Much of that net in-migration is centered on the Seattle and Portland metropolitan areas. The U.S. Census Bureau tracks net migration for the young, single, and college educated by region, state, and metropolitan area. Between 1995 and 2000, Oregon and Washington were 5th and 6th out of the 50 states in attracting this group, drawing twice as many young, single and college-educated residents as left for other states. The Portland metropolitan area, which includes Vancouver, Wash., was 5th and the central Puget Sound area was 12th out of 276 metropolitan areas in net in-migration rates nationwide. However, the state's other metropolitan areas, including Bellingham, Spokane, Tri-Cities, and Yakima, were net exporters of young, single, college educated people.⁶

Between 1995 and 2000, 890,000 new residents arrived from out of state and 590,000 left Washington. Net in-migration rates were highest among young adults and their children. Among those age 20 to 30 in 1995, 17 percent left the state, but were more than replaced by new arrivals who produced a net increase of roughly 10 percent. The net increase from migration for younger school-aged populations was around 5 percent. For residents over 35 years of age, the net increase averaged 3 percent.⁷

About 78 percent of the in-migrants were from other states, and 22 percent were from other countries. As discussed later, the education levels of international arrivals differ considerably from the education levels of domestic in-migrants.

2 Migration is movement that crosses jurisdictional boundaries, according to the U.S. Census. In-migration is movement into an area, such as the State of Washington, during a given period. Out-migration is movement out of an area during a specific period. Net in-migration occurs when there is more in-migration than out-migration during a specific period. We have hyphenated in-migration and out-migration to conform to usage by OFM.

3 OFM, Forecast of the State Population by Age and Sex: 1990 to 2030, November 2007. Data from Table 1.

4 Natural increase refers to the number of live births versus deaths each year.

5 American Community Survey for 2006, Table S0701 Geographic Mobility by Selected Characteristics.

6 US Census 2000 PHC-T-34, Migration for the Young, Single, and College Educated in the United States, Regions, States, and Metropolitan Areas: 2000, Table 2. <http://www.census.gov/population/www/cen2000/phc-t34.html>.

7 Calculations, including percent of migrants from overseas are calculated from OFM, Migration between 1995 and 2000 for the State and Counties by Residence in 1995. These figures understate total migration because they do not include Washington residents who left the country. Figures for in-migrants are based on the 2000 Census. See: http://www.ofm.wa.gov/pop/migration/95to2000_%20cntyocnty_mig.xls.

Population and Labor Force Growth from Natural Sources

The state's labor force also grows because of natural increase – the number of native Washington residents who enter the work force each year, minus the residents who retire. Some 40 to 45 percent of labor force growth through 2030 will come from natural increase. However, this source of labor force growth is slowing due to the aging of the baby-boom generation and the lower birth rates of subsequent generations.⁸ Women in Washington state have an average of 1.9 to 2 children over their lifetimes,⁹ a rate that would, over the long run, produce zero population growth. In the short run, annual births are expected to increase as the third wave of the baby boom appears—the grandchildren of the baby boomers. That is part of the reason why labor force growth is projected to be higher in the next decade than in the decades to follow.¹⁰

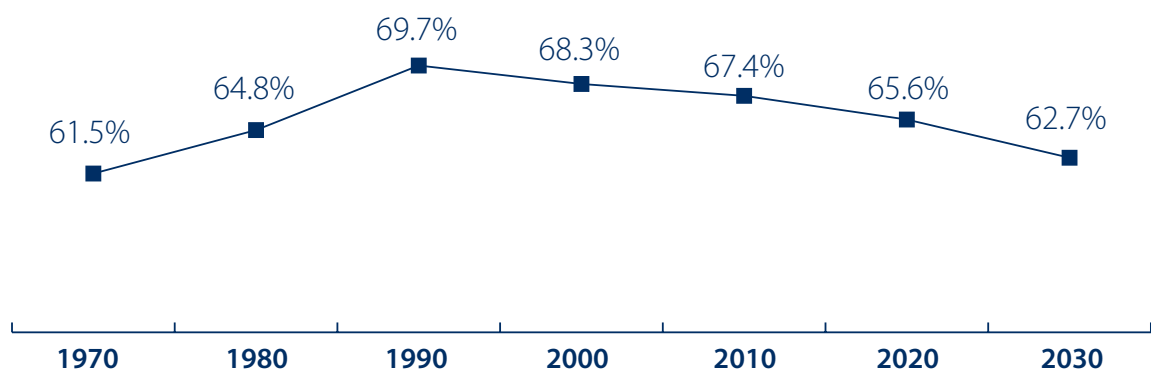
An aging baby boom population will boost retirement and other exits from the labor force over the next decade. Because of lower birth rates, the most active labor force participants, aged 25-54, will increase by an average of only 19,400 persons per year between 2005 and 2030. That's less than half the rate between 1970 and 2004, when workers aged 25-54 increased by 44,300.

These factors affect all industrialized nations, most of which have lower fertility rates and less in-migration than the United States. Western Europe, for example, should see its population increase by only 2 percent in total (one-tenth of one percent per year) between 2005 and 2030 and see its working age population (ages 15-64) decline by 7 percent over that time period. In only three Western European countries are working age populations expected to be as large in 2030 as they are today: France, Ireland, and Norway.¹¹

Population growth is slowing, and so is the labor force participation rate—the percentage of the working age population that is either working or looking for work. Washington's labor force participation rate peaked in 1990 with a projected decrease by 7 percentage points through 2030.

The labor force projections shown in Figure 2 are based on the expected labor force participation rates of Washington residents and expected in-migrants, based on their ages and past behavior.

Figure 2 Washington's Labor Force Participation Rate: Ages 16 and Over



Source: Washington State Office of Financial Management & Employment Security Department. *The 2007 Long-Term Economic and Labor Force Forecast for Washington*, May 2007, Figure 2-4

8 The baby-boom years are between 1946 and 1964, with the peak birth year being 1957. Mitra Toossi, "A century of change: the U.S. labor force, 1950-2050," *Monthly Labor Review*, May 2002.

9 OFM, *Forecast of the State Population by Age and Sex: 1990 to 2030*, November 2007.

10 The other factor reducing population growth over time is OFM's expectation of reduced in-migration from Asia in future decades, as economic opportunities for Asian residents increase at home.

11 US Census Bureau International Data Base, updated July, 26, 2007, extracted March 2008.

Factors that affect labor force participation are described below. They include changes in the age profile of the population, changes in rates of disability and rates of labor force participation by people with disabilities, and the increase in the labor force participation rates of women between 1970 and 1990.

The Aging Population

The state's percentage of older adults age 55 and over is expected to increase from 12 percent of the labor force in 2000 and 16 percent in 2005 to 22 percent of the labor force in 2030.¹² That means in the next 20 years, slightly more than one in five Washington workers will be over age 55.

Historically, labor force participation rates drop significantly at ages 62 and 65. The earliest age that one can retire and receive Social Security benefits is 62. Prior to 2000, the normal retirement age for receiving full Social Security benefits was 65. In 2000, Congress raised the age of full retirement benefits by two months for those born in 1938, four months for those born in 1939, and six months for those born in 1940, and so on until 1943. The normal retirement age for those born between 1943 and 1954 is 66, incrementing by two months for those born in 1955 until 1960. The full retirement benefit for those born in 1960 and later is 67.¹³

There are, however, those who will decide to continue working despite their eligibility to retire and many who will continue to work out of economic necessity. As individuals live longer and healthier lives, they may choose to remain in the workforce longer to stay engaged in activities that enhance their lives. The Senior Citizen Freedom to Work Act of 2000 eliminated a disincentive for those age 65 to 70 to continue working. Prior to 2000, many of those aged 65 to 70 who wanted to continue working were discouraged from doing so because Social Security reduced their benefits if they continued earning wages.¹⁴

Others might stay in the workforce to assure their economic security and to maintain health care benefits.¹⁵ The rising cost of retiree health care benefits has already prompted many employers to reduce or eliminate these benefits for future retirees. This, in turn, has forced many older workers to continue working to maintain reasonable health care coverage.

As a result of these factors, workers over the age of 65 are expected to be the fastest growing age group of the labor force between 2005 and 2030. This group will increase from 3 percent of the labor force in 2005 to almost 8 percent in 2030, growing in number from 103,400 to 325,400.

Older workers can offer employers valuable experience and knowledge. On the other hand, some older workers will need to upgrade their skills, while others will need substantial retraining to meet changing job requirements.

¹² Data provided by OFM, September 2005.

¹³ Social Security Online, <http://www.ssa.gov/retirechartred.htm> (September 13, 2005).

¹⁴ Mitra Toossi, "Labor force projections to 2012: the graying of the U.S. workforce," *Monthly Labor Review*, February 2004.

¹⁵ Stephen J. Rose and Heidi I. Hartman, *Still a Man's Labor Market: The Long-Term Earnings Gap*, (Washington, D.C.: Institute for Women's Policy Research, 2004).

Andrew D. Eschtruth and Jonathan Gemus, "Are Older Workers Responding to the Bear Market?" *Just the Facts On Retirement Issues*, September 2002, Number 5, http://www.bc.edu/centers/crr/facts/jtf_5.pdf (September 12, 2005).

Kelly Greene, "Many Older Professionals Delay Their Retirement," *The Wall Street Journal Online. CareerJournal.com*, <http://www.careerjournal.com/myc/retirement/20031002-greene.html> (September 12, 2005). "Retirement Plans Retreat in Recession," *Silicon Valley/San Jose Business Journal*, March 5, 2003, <http://sanjose.bizjournals.com/sanjose/stories/2003/03/03/daily34.html> (September 12, 2005).

Young Adults in the Workforce

At the other end of the age spectrum are young adults, 16-24, part of the baby boom echo (born between 1982 and 1995). Although this is a large potential workforce, this age group tends to have low labor force participation. In 2006, the labor force participation rate of 16-24 year olds was 63.4 percent. For 25-54 year olds it was 81.8 percent, and for 55-64 year olds it was 63.2 percent.¹⁶ A large number of 16- to 24-year-olds are still in school—either high school or postsecondary education. Too many others are no longer in school, including many who dropped out of high school. The Washington State Report Card issued by the Office of Superintendent of Public Instruction indicates that just 72 percent of the class of 2007 graduated on-time after four years of high school and only 77 percent of that year's class is expected to graduate by age 21.¹⁷ In 2006, 61,579 Washington teenagers between the ages of 15 and 19 were not enrolled in school and just over 20,000 were neither enrolled in school or in the labor force.¹⁸

Almost 19 percent, or about one in five, of Washington's 18-24 year olds did not have a high school diploma or GED.¹⁹ Although some of them will eventually earn their high school diploma or an equivalent (such as the GED) and go on to participate in higher education, many more will continue to be challenged in the workplace because of their inadequate levels of education.

The Washington Assessment of Student Learning (WASL) is another gauge of how well Washington's youth are prepared for both school, and careers. Students are tested each spring in grades 3-8 and 10 in reading and math. Students also are tested in writing in grades 4, 7 and 10 and science in grades 5, 8 and 10. Currently only about half of 10th graders meet the math standards and 40 percent meet the science standards considered essential to future success.

Figure 3 Percent Meeting Standards on 10th Grade WASL



Source: Washington State Office of Superintendent of Public Instruction: <http://reportcard.ospi.k12.wa.us/>

Academic preparation alone, however, is not sufficient to prepare young people for their future. After graduating high school, 79 percent of students go to work. Of that number, 34 percent do not get further education and training. That means about one in three of Washington's high school graduates rely on their high school diploma as their only credential, gaining entry into mostly low-wage, low-

¹⁶ America's Community Survey for 2006, Table S2301, Employment Status.

¹⁷ Washington State Report Card for 2007-08: <http://reportcard.ospi.k12.wa.us/summary.aspx?year=2007-08>.

Data may be subject to upward revisions. The 77 percent graduation rate is an extended graduation rate based on the on-time graduation rate plus an estimate of the number in that class who will graduate through age 21 based on the profile of late graduations that occurred during the 2006-07 school year.

¹⁸ America's Community Survey for 2006, Table S0902, Teenagers' Characteristics.

¹⁹ America's Community Survey for 2006, Table S1501, Educational Attainment.

skill jobs.²⁰ Employers who hire these young people report that too many lack basic workplace or employability skills, and the specific job skills that employers are looking for.²¹

But reaching out to youth, and providing them with additional education and training options, can be difficult. Youth are the most mobile of Washington’s population groups. Almost 10 percent of 18-24 year olds living in Washington in 2006 had been living in another state or outside the United States a year earlier. Another 10 percent had been living in a different county in Washington state a year earlier. Another 22 percent changed residence within the counties they had lived in a year earlier. This mobility complicates efforts to serve them.

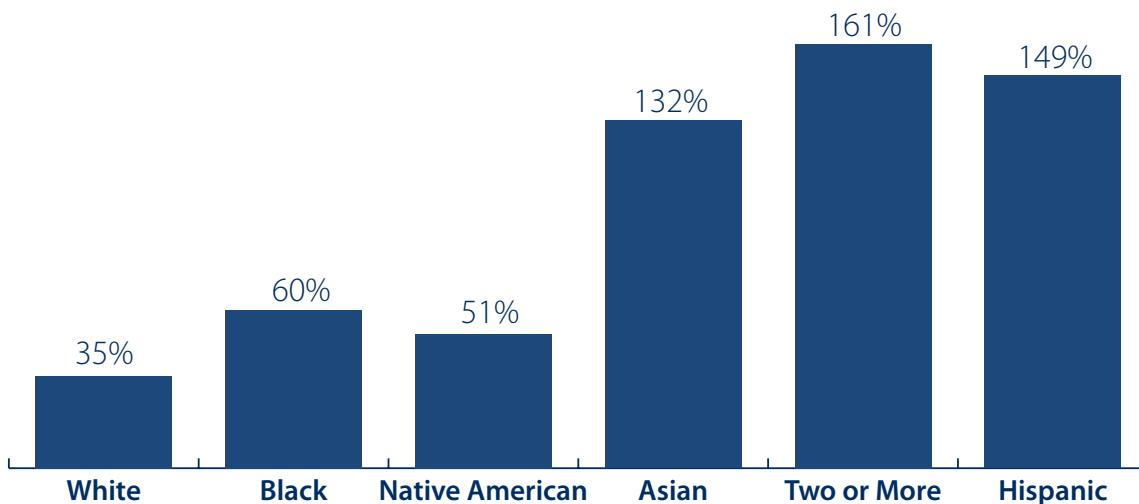
Racial and Ethnic Diversity in the Workforce

In future years, Washington’s population is expected to become more racially and ethnically diverse. Between 2000 and 2030, all non-white groups are expected to grow faster than whites.²²

Consistent with the earlier description of workforce growth, a considerable amount of this increased diversity is the result of in-migration from outside the state and from overseas. This is important to remember as we discuss the challenges faced as diverse new populations are assimilated into our labor force. We do not provide a primary or secondary education to many of these new arrivals and those who enter as children or teenagers may need assistance in making use of the educational opportunities available here.

The Hispanic and Asian and Pacific Islander populations are the fastest growing among all racial and ethnic groups other than multi-racial individuals. The Hispanic population is projected to grow from 441,500 in 2000 to about 1,199,500 in 2030, an increase of 149 percent. The Asian and Pacific Islander population is expected to grow from 355,800 to 825,200 (132 percent) over the same period.²³

Figure 4 Percentage Growth in Population by Racial Group and Hispanic Origin:



Source: Washington State Office of Financial Management. Projections of the State Population by Age, Gender and Race/Ethnicity 2000-2-3-, March 2006. Overall population will grow by 45 percent over time period.

20 OSPI, Washington State Graduate Follow-up Study: Class of 2005 All Graduates First Year after Graduation, <http://survey.sesrc.wsu.edu/gfs/pdfpapers/class2005Y1AllGrads.pdf> (2007).

21 Workforce Training and Education Coordinating Board, Secondary Career and Technical Education Works, (nd).

22 OFM reported on five major race groups: White only, Black only, American Indian/Alaskan Native only, Asian/Pacific Islander only, and Two or More (i.e., multi-racial). Unless otherwise indicated people from the different racial groups can be either from Hispanic or non-Hispanic origin. Further, people of Hispanic origin can be of any race.

23 OFM. Projections of the State Population by Age, Gender and Race/Ethnicity: 2000-2030, March 2006. Percents shown here are from tables contained in that report. Percents reported in the text differ from percents calculated from population counts shown in the text, presumably due to rounding.

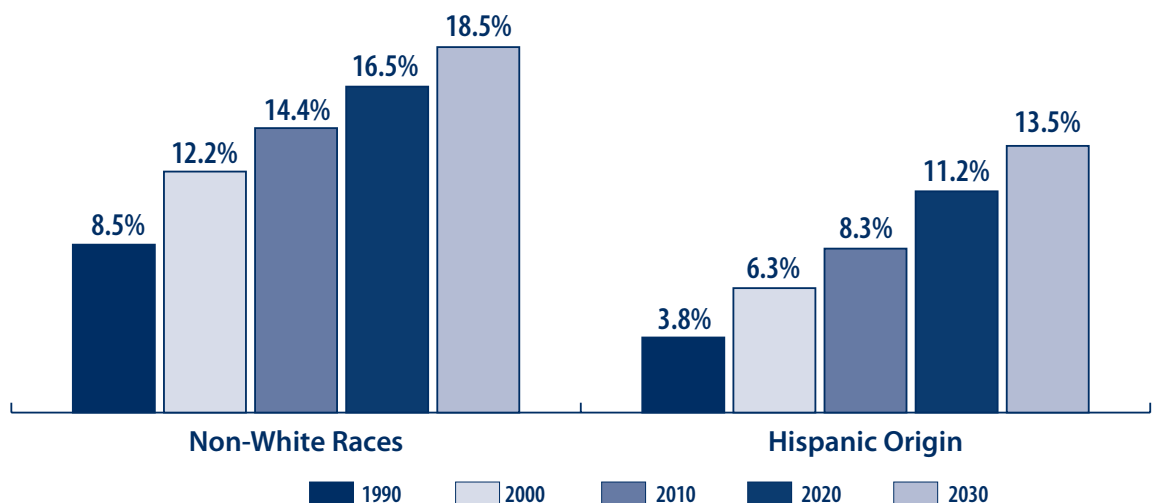
High immigration rates are a major factor in the growth of Hispanic and Asian and Pacific Islander populations, and also in the growth of all other demographic categories. One-eighth of Washington state’s population in 2006 was foreign born (793,800 out of 6.4 million). Some 257,700 of these new residents entered the United States during the 1990s and 213,000 entered between 2000 and 2006. During the most recent period, 36 percent of in-migrants were from Latin America, 35 percent from Asia, 17 percent from Europe, 7 percent from Africa, and the remainder from Canada and the Pacific Islands.

In 2006, 44 percent of foreign-born residents were between 25 and 44 years of age. But many were younger—almost 42 percent were under the age of 25 and nearly one in four were under the age of 18. In 2006, 77,700 foreign-born students attended elementary, middle and high schools in Washington state and another 58,400 attended college or graduate school.²⁴

International arrivals are not the only source of Washington state’s increased diversity. Some will come from natural increase as immigrants have children. Much of the remaining increase in Washington’s diversity comes from other states. New residents who arrive from other states make up the bulk of in-migrating non-white and Hispanic residents. In 2006, 60 percent of new Asian residents, 70 percent of new Hispanic residents, and 80 percent of new Native American residents arrived from other states as opposed to other countries. An estimated 87 percent of new white residents came from other states. In-migrants from other states made up 5.4 percent of Washington’s black population in 2006, 4.9 percent of the Asian population, and 4.5 percent of the Hispanic population, but only 3.3 percent of the white population and 2.8 percent of Native Americans.²⁵

These demographic trends are shown below in Figure 5. The percent of Washington’s labor force from non-white backgrounds will more than double between 1990 and 2030. The percentage with Hispanic background will have tripled.

Figure 5 Labor Force Composition by Race and Ethnicity



Source: Washington State Office of Financial Management & Employment Security Department 2007 Forecast, May 2007. Table 2-5

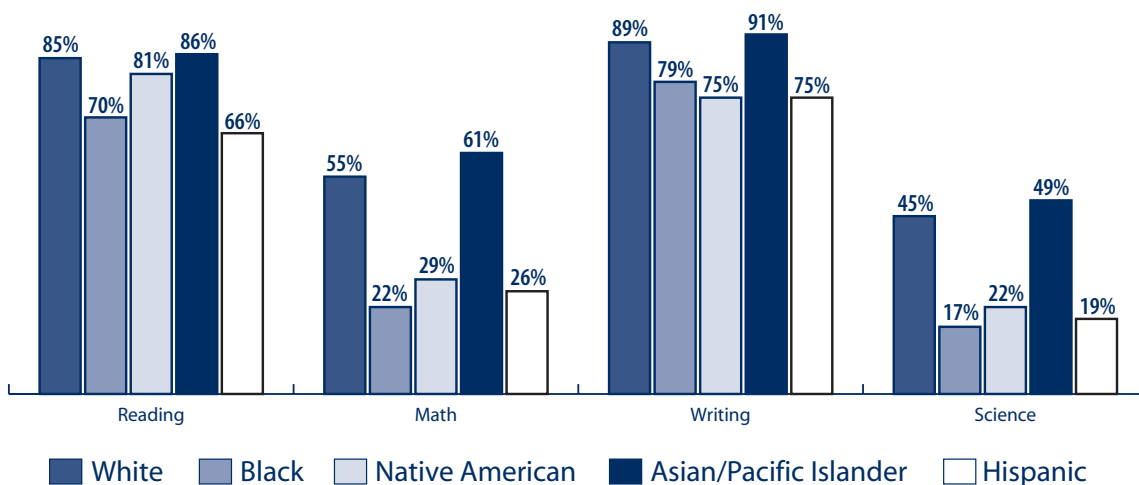
24 American Community Survey for 2006, Table S0503 Selected Characteristics of the Foreign Born Population by Period of Entry.

25 American Community Survey for 2006. Table S0201 Selected Population Profile in the United States (selected for specific racial and ethnic population groups).

The growing racial and ethnic diversity of the workforce makes boosting the education levels of all our population groups increasingly pressing. In 2006, while 92 percent of non-Hispanic whites 25 years or older had completed high school or its equivalency, only 78 percent of persons from non-white racial backgrounds and 56 percent of Hispanics had done so.²⁶

Without intervention, these trends are likely to continue. Some 79 percent of high school seniors in the class of 2005 graduated from high school (74 percent of them on-time). The graduation rate for white students and Asian/Pacific islanders were 82 percent and 85 percent respectively. These groups made up 82 percent of high school students in 2005 (84 percent of seniors). Graduation rates for Hispanics, blacks, and Native Americans were 66 percent, 62 percent, and 59 percent respectively. The four percent of high school students with limited English skills had a 66 percent graduation rate.

Figure 6 Percent of 10th Graders Meeting WASL Standards (2007-08)



Source: Washington State Office of Superintendent of Public Instruction: <http://reportcard.ospi.k12.wa.us/>

This pattern can be seen in the Washington Assessment of Student Learning (WASL) scores, which reflect both academic skills and skills needed in the workplace. This mandatory test will directly affect graduation rates in the future. All students are expected to pass the high school WASL or a state-approved alternative option in reading, writing and math to receive a diploma. There are a few exceptions to this requirement, but when fully implemented in 2013, if the learning needs of minority populations are not met, the WASL requirement could reduce the number of students who graduate from high school.

For example, while 85 percent of white and Asian students met the reading standards on the 10th grade WASL, about 65 percent of black, American Indian, and Hispanic students did.

²⁶ American Community Survey for 2006, Table S0201 Selected Population Profile.

Lower levels of education and skills, in addition to racial and ethnic discrimination, have negatively affected the labor market experiences of large percentages of individuals from racial and ethnic minority backgrounds. They tend to earn less and are underrepresented in high-level positions. Although research has shown that policies such as affirmative action have mitigated some of its effects, racial and ethnic discrimination continues to exist.²⁷ While the education system cannot completely eliminate the problems of racism, it can offer those from racial and ethnic minority backgrounds an opportunity to obtain the human capital needed to counteract some of its impact.²⁸

People with Disabilities

Nationally, the number of people who report having a disability appears to have increased, and labor force participation among this population to have declined, since the passage of the Americans with Disabilities Act in the early 1990s. The reasons for this change are unclear, and even the facts are in dispute due to changes in definitions and surveys.²⁹ Survey questions used in the American Community Survey were changed as recently as 2003, making recent trends difficult to measure.³⁰

Low labor-force participation and employment rates may be at least partially the result of expansion of Supplemental Security Income benefits, which can be received by disabled people who are unable to work. However, discrimination may also play a role. Society stigmatizes people with disabilities by treating them as deficient. Accommodations such as wheelchair ramps and sign-language interpreters are perceived as acts of generosity rather than public investments or basic civil rights.³¹

In 2006, 13.5 percent of Washington residents aged 16 to 64 reported having one or more disabilities on the American Community Survey.³² Out of 576,000 residents with disabilities, an estimated 261,000 did not report that their disabilities made it difficult to work at a job or business; two-thirds of this group was employed. The other 315,000 Washington residents between the ages of 16 and 64 were estimated to have disabilities that make it difficult to work at a job or business; only 19 percent of this group reported working and almost 32 percent had incomes below the poverty level. This employment-disability population included 7.4 percent of all Washington residents age 16 to 46. Again, because of inconsistent data collection over the past few years, we cannot determine if the size of this group is increasing or decreasing.

People with disabilities tend to have less education than those without disabilities. Washington residents 18 to 34 years of age with disabilities were somewhat less likely to be in school than those without disabilities (24 percent compared with 26 percent). Among those who were not in school, 26 percent of people with disabilities had less than a high school diploma compared to 14 percent

27 Francine D. Blau and Anne E. Winkler, "Does Affirmative Action Work?" Federal Reserve Bank of Boston Regional Review, Q1 2005, pp. 38-40, <http://www/bos.frb.org/economic/nerr/rr2005/q1/section3b.pdf> (9/26/2005). "Texaco: Case Study of Corporate Racism," Revolutionary Worker, #833, November 24, 1996, <http://rwor.org/a/firstvol/883/texaco.htm> (9/14/2005). Scott Sleek, "Three Decades after King, a report card," APA (American Psychological Association) Monitor Online, Volume 30, Number 1, January 1999, <http://www.apa.org/monitor/jan99/racism.html> (9/14/2005). "Racism in the Workplace," Business Week Online, July 30, 2001, http://www.businessweek.com/print/magazine/content/31_31/b3743084.htm?chan=mz (9/14/2005).

28 Harry Holzer, "Expanding the African American Middle Class: Improving Labor Market Outcomes," July 15, 2005, http://www.urban.org/UploadedPDF/90828_holzer_072905.pdf (10/18/2005). Rakesh Kochlar, "Latino Labor Report, 2004: More Jobs for New Immigrants but at Lower Wages," May 2, 2005, <http://pewhispanic.org/files/reports/45.pdf> (9/13/2005).

29 David C. Stapleton and Richard Burkhauser, Editors, *The Decline in Employment of People with Disabilities: A Policy Puzzle*, W.E. Upjohn Institute for Employment Research, Kalamazoo, Michigan, 2003.

30 Sharon Stern and Matthew Brault, *Disability Data from the American Community Survey: A Brief Examination of the effects of a Question Redesign in 2003*, US Census Bureau, January 28, 2005.

31 Sleek, "Three Decades," p. 3.

32 Categories of disability include sensory disability, physical disability, mental disability, self-care disability, go-outside-the-home disability, and employment disability. The latter is based on a question which asks "Because of a physical, mental, or emotional condition lasting 6 months or more, does this person have difficulty . . . working at a job or business?"

of those without disabilities. Moreover, while 63 percent of those without disabilities had some postsecondary education, only 43 percent of those with disabilities did.³³

A survey of Washington's 2005 special education high school graduates³⁴ showed that 37 percent were attending postsecondary education and/or training programs in the sixth month after graduation, while 66 percent had identified postsecondary education on their Individual Education Plans (IEPs) as a goal after high school.³⁵

Women in the Workforce

For women, the largest gains in labor force participation rates have already occurred. In 1980, Washington women's share of the labor force stood at 41.7 percent. Women's labor force participation rates in Washington reached 46.3 percent in 2006.³⁶ However, by 2030, women's share in the workforce is projected to increase only slightly to 46.7 percent.

Women's increased labor force participation rates have been associated with many factors, including:

- Higher education levels that lead to better, more diverse career opportunities.
- More women remaining single, or marrying later in life and delaying child bearing.
- A cultural shift in economic and career expectations.
- A decline in real wages that makes a second income necessary to offset the loss in real earnings of traditional male breadwinners.

Despite changing social expectations about parenting roles and responsibilities between men and women, children continue to have a significant impact on women's labor market outcomes. Some 93,000 women between the ages of 15 and 50 years of age gave birth to a child within 12 months of responding to the American Community Survey, just under six percent of all women in that age range. Only 54 percent of women age 16 to 50 who gave birth to a child in the prior 12 months were in the labor force in 2006, as opposed to 73 percent of those who had not.³⁷

Research shows that, to a large extent, the labor market disparities between women and men result from traditional gender roles and the career choices of women.³⁸ Women bear a disproportionate share of childrearing and housework responsibilities and, consequently, they experience more frequent and longer spells away from work than men. Additionally, large percentages of women choose industries and occupations, such as education and social services, that allow for more time with the family and appear to be more open to women. Also, women continue to enroll in fields of study that tend to pay less (such as office support occupations) than fields that tend to be dominated by men (such as information technology). These constraints on employment tend to diminish promotional opportunities.

33 American Community Survey for 2006, Table B18010 Disability Status by School Enrollment and Educational Attainment.

34 Special Education is defined as having an Individual Education Plan (IEP) and graduation is defined as leaving high school with a diploma or aging out of special education services at age 21.

35 Some of the 37 percent who were attending did not have postsecondary education as their IEP goal. About 39 percent of those who did have postsecondary attendance as their goal were attending. OSPI, Post-School Status Report 2005 Special Education Graduates, July 2006. Prepared for OSPI by the Center for Change in Transition Services, Seattle University.

36 OFM & ESD, 2005 Forecast. Tables updated in 2007.

37 American Community Survey for 2006, Table S1301 Fertility.

38 Lisa Belkin, "The Opt-Out Revolution," *The New York Times*, October 26, 2003. Carrie Conaway, "Paying the Price," *Federal Reserve Bank of Boston Regional Review*, Q1 2005, http://www.bas.frb.org/economic/nerr/r2005/q1/section_2c.pdf (9/14/2005). Diane Furchtgott-Roth, "The Statistically Misleading 74 Cent Wage Gap," *Testimony before the Equal Employment Opportunity Commission*, Philadelphia, PA, April 12, 1999, http://www.aei.org/publications/pubID.17864.filter.all/pub_detail.asp (9/14/2005). Cathy Young, "Opting Out," *Reason Online*, June 2004, <http://www.reason.com/0406/co.cy.opting.shtml> (9/14/2005).

This is evidenced by women's continued lower levels of compensation and hours of work compared to men, despite similar levels of education. Women earned just 75 percent of what men earned, on average, for working full-time. Median earnings for women who worked full-time for the full year were \$36,158. For full-time, full-year male workers, median earnings were \$48,331.³⁹

Summary

Compared to the workforce of decades ago, Washington's labor force today is older, more racially and ethnically diverse, and has a higher proportion of women. In short, our workforce reflects the changing composition of the population. However, the aging of the workforce and lower birthrates of the post-baby boom years suggest a potential labor force shortage in the future. Our ability to compete will require us to tap the full talents of all of our workforce. To do that, we must ensure our residents obtain the job skills and education required by our increasingly technology-driven, knowledge-based economy.

If we do nothing, we may find tomorrow's workforce unprepared and our economy wanting. If we act now, we can create new opportunities for previously underutilized populations, helping all Washingtonians and our economy grow.

39 American Community Survey for 2006, Table B20017 Median Earnings by Sex by Work Experience in the Past 12 Months.

Tomorrow's Economy⁴⁰

High Wages for the Highly Skilled

Washington's economy, like that of the U.S. economy as a whole, is continuing its transition from one based mainly on the production of goods to one based more on knowledge and information. This emerging knowledge-based economy has increased demand for workers with more advanced skills and higher levels of education than in the past. The upside of these changes is that many of these jobs are not only the fastest growing, but also the best paying

Technological advances and globalization have fostered significant changes in workplace technology and how workplaces are organized. Employers have invested heavily in technology, especially information technology (IT) and have instituted high-performance workplace practices such as teaming and quality improvement. However, these changes flourish only where there are workers with the requisite skills.

Global competition is intensifying, and the offshore outsourcing of knowledge work overseas has raised concerns about our future. New challenges include increased energy costs, the declining dollar, declining home prices, and reduced credit available to households and businesses.

Even during the recession of 2001-2003, employers reported a shortage of job applicants with the skills required for the contemporary workplace. In the stronger labor market that followed, these skill shortages became more severe. Though the economy is slowing again, the state's workforce training and education system continues to face the challenge of preparing enough workers with the kinds of skills employers are looking for.

Education and training are key ingredients to economic growth and competitiveness. Our willingness to invest in educating and training our people will largely determine the long-term rate of growth for Washington's economy. These investments will also help to narrow the wide gap in earnings that have arisen among workers with different skill levels. Economists believe our economy will continue to generate good jobs, but to adapt to challenges and take advantage of new opportunities, Americans must achieve higher levels of education and training.

The Economic Recovery Slows

In late 2002, the nation began to recover from the 2001 recession. Early on, the recovery was fueled by increases in productivity (i.e., output per worker) resulting in more goods and services. There was, however, little creation of new jobs. It was not until late 2004 that the recovery was coupled with large increases in jobs.

Adjusted for inflation, the nation's Gross Domestic Product grew by 3.6 percent in 2004, 3.1 percent in 2005, and 2.9 percent in 2006. The nation's Gross Domestic Product slowed to 2.2 percent in 2007 due to a combination of the credit crisis and an increase in price levels that became pronounced during the summer of 2007. Preliminary figures for the first quarter of 2008 show real GDP expanding

⁴⁰ This chapter was written during the early summer of 2008 and does not capture the latest economic changes associated with the financial crisis.

at a rate of only 0.9 percent annually.⁴¹ Growth in personal consumption expenditures slowed in the first quarter of 2008, and private domestic investment declined. The decline was most pronounced in residential fixed investments. After factoring in increased oil costs, the nation's economy is expected to grow at a rate of only 1.4 percent in 2008 and 1.3 percent in 2009.⁴² Some economists believe a recession is likely to occur in 2009 and that it could be long-lasting, though probably shallow.⁴³

Until January 2008, employment had been rising.⁴⁴ National non-farm payroll employment⁴⁵ rose 1.1 percent in 2004, 1.7 percent in 2005, 1.8 percent in 2006, and 1.1 percent in 2007, but is expected to rise by only 0.1 percent in 2008 and remain unchanged in 2009.⁴⁶ The unemployment rate for 2008 is expected to be 5.2 percent, increasing to 5.9 percent in 2009, up from 4.6 percent in 2006 and 2007.⁴⁷

Washington's Economy

Washington state's economy was hit especially hard by the last recession, but has outperformed the national economy since that time. Job growth began in earnest in 2004. Between 2004 and 2007, Washington's non-farm payroll employment increased by almost 231,000, at an average rate of 2.8 percent per year. In contrast to the employment stagnation predicted at the national level, employment in Washington state is forecast to increase by 1.3 percent in 2008 and 1.0 percent in 2009.⁴⁸

Services, manufacturing, and construction were important contributors to employment growth between 2004 and 2007. Construction employment is expected to decline in 2008 and 2009. Manufacturing employment will also decline in 2009. Renewed growth is expected with the economic recovery projected for 2010.

Washington added 38,200 jobs during the 12 months ending in May 2008, an increase of 1.3 percent. Education and Health Services added 9,600 jobs, mostly in health care (9,000). Professional and Business Services added 8,000 jobs. The leisure and hospitality industries added 7,100 jobs, with 5,100 in accommodation and food services. Manufacturing employment increased by 5,900 jobs, with aerospace growth (6,500) offsetting a decline in wood product manufacturing. The retail and wholesale trade sectors added 1,900 jobs, more or less evenly split between retail (1,000) and wholesale trade (900). Information, a category that includes software and publishing, grew by 2,300 jobs.

Employment declined in three sectors, mainly as a result of the slump in the housing market. Construction employment declined by 2,100 jobs. The loss of 2,300 jobs in residential housing construction was offset somewhat by gains in other construction sectors. Some 2,600 jobs were lost in Financial Activities, including credit intermediation and related activities and real estate sales. Some 400 jobs were lost in Natural Resources and Mining, a sector that includes logging. Despite the drop

41 Survey of Current Business, "GDP and the Economy: Preliminary Estimates for the First Quarter of 2008," Bureau of Economic Analysis, June 2008 (pg. 1-10).

42 Economic and Revenue Forecast Council (ERFC), Preliminary June 2008 Economic Forecast, Revised June 10, 2008.

43 "The Long Hangover: America's Economy is in Recession. Don't Expect a Quick Recovery," *The Economist*, April 10, 2008.

44 "Current Employment Statistics Highlights, May 2008," Bureau of Labor Statistics, June 6, 2008.

45 Non-farm, also known as non-agriculture, employment includes private and government industries. Private industries include goods-producing and service-providing industries. The major sectors in goods-producing industries include natural resources and mining, construction, and manufacturing. The major sectors in service-providing industries include trade, transportation, utilities, information, financial activities, professional and business services, education and health services, leisure and hospitality, and other services.

46 ERFC, June 2008.

47 ERFC, June 2008.

48 ERFC, June 2008.

shown in Figure 1, construction employment remains considerably stronger in Washington than in the rest of the United States.

Figure 1 Over-the-Year Non-Farm Wage and Salary Employment Gains by Industry Sector: May 2007 to May 2008

Industry Sector	Seasonally Adjusted Gains in Thousands
Total Non-Farm	38.2
Education and Health Services	9.6
Professional and Business Services	8.0
Leisure and Hospitality	7.1
Government	6.1
Manufacturing	5.9
Aerospace Products and Parts Manufacturing	6.5
Information	2.3
Transportation, Warehousing, and Utilities	2.3
Other Services	2.0
Retail Trade	1.0
Wholesale Trade	0.9
Natural Resources and Mining	-0.4
Construction	-2.1
Financial Activities	-2.6

Source: Employment Security Department LMEA, "Washington State Employment Situation Report for May," June 17, 2008.

Washington's unemployment rate rose over the past 12 months, from 4.5 percent in May 2007 to 5.3 percent in May 2008. The estimated number of unemployed workers, seasonally adjusted, rose from 154,100 in May 2007 to 184,700 in May 2008. Washington's economy added 53,500 workers to the labor force during this period.⁴⁹

Long-Run Trends Increase Skill Requirements

There are two major economic trends that have affected and will continue to affect our future workforce—technological advances and globalization. These trends will continue to increase the demand for more highly and differently skilled labor. Keeping up with this demand will pose stiff challenges for both our economic competitiveness and social cohesion.

Technological Advances

Over the years, new technologies have generated new products and industries, and have changed the way firms are organized and how workers are utilized.⁵⁰ Future technological advances are expected to continue to impact the nature of work and the workplace. With new technologies come changing job skill requirements. Although some technologies have created demand for unskilled workers, more have boosted demand for higher skilled workers.

⁴⁹ "Washington State Employment Situation Report for May" Employment Security Department (ESD) LMEA, June 17, 2008.

⁵⁰ Lynn A. Karoly and Constantijn W.A. Panis, *The 21st Century at Work: Forces Shaping the Future Workforce and Workplace in the United States* (Santa Monica, CA: RAND Corporation, 2004). Paul Sommers, *Drivers For A Successful Technology-based Economy: Benchmarking Washington's Performance* (Seattle, WA: Technology Alliance, May 2003).

In 1999, the U.S. Department of Labor (DOL) examined the extent of skill upgrading in the U.S. economy.⁵¹ Average skill levels were found to have increased significantly during the 1990s, and occupational upgrading within industries was the primary source of skill change. There were substantial skill shifts both among broad occupational groups (e.g., technical workers have replaced laborers) and shifts within broad occupational groups (e.g., secretaries have become administrative assistants who perform more complex word processing and database management instead of typing and filing).

Workers in nearly every field have had to learn new skills as they have incorporated computers into their jobs. Machine tool operators make parts using computer-controlled machines. Forklift operators in factories use computerized inventory locating devices. Cars, traffic lights, heating and cooling systems, hospitals, machine shops—all have become computerized. Not only have employees needed to learn to use new, highly sophisticated machines, they have also had to learn, and often design, whole new organizational processes associated with those machines. Many U.S. manufacturers have reduced the number of supervisors in their factories and given workers greater responsibility for ensuring quality, redesigning manufacturing processes and improving products. Companies are adopting participatory, “high-performance” work systems that place more authority and problem-solving responsibilities with front-line workers. Jobs are more broadly defined, employees work in collaborative teams where success demands effective communication, and outcomes are focused on timeliness, quality, and customer service.⁵²

Globalization

Washington, more than any other state, relies on foreign trade. Estimates indicate that in 2005, one in three jobs in Washington were directly or indirectly supported by international trade.⁵³ Washington's industry leaders in aerospace, forest products, software, financial and legal services, and agriculture derive a significant portion of their revenues through foreign exports. In 2004, Washington state exports equaled \$33.8 billion.⁵⁴ By 2007, Washington state exports were nearly double that number, totaling over \$66 billion.⁵⁵

At least until recently, the consensus among economists was that globalization, at the aggregate level, had and would continue to have a favorable effect on income, prices, consumer choice, competition, and innovation in the U.S.⁵⁶ The effects of globalization, however, accrue unevenly across industries and individuals. Workers displaced by competition will generally be able to find jobs; loss in earnings, however, may be significant for some.

Some portion of this displacement comes from outsourcing of jobs offshore. No one knows for certain the extent to which firms currently send work offshore, and it's difficult to know how widespread it

51 U.S. DOL, “The Many Facets of Skills,” Chapter 2 of the Report on the American Workforce, 1999

52 Karoly & Panis, 2004, (p. xxv).

53 Washington State Department of Community, Trade, and Economic Development (CTED), Why Trade is Important, http://www.cted.wa.gov/_portal/alias_cted/lang_en/tabID_159/DesktopDefault.aspx (11/28/2005).

54 CTED, 2004 Top 50 Washington State Origination Export Totals by Commodity (HS Code), http://qa.cted.wa.gov/_cted/documents/ID_276_Publications.pdf (11/28/2005).

55 CTED, International Trade and Economic Development. <http://www.cted.wa.gov/site/1010/default.aspx> (6/18/2008).

56 Martin N. Baily and Diana Farrell, “Exploding Myths About Offshoring,” (McKinsey Global Institute, April 2004), http://www.mckinsey.com/mgi/reports/pdf/exploding_myths/explodingoffshoringmyths.pdf (November 28, 2005). L. Josh Bivens, “Truth and Consequences of Offshoring,” Economic Policy Institute Briefing Paper, <http://www.epi.org/content.cfm/bp155> (10/28/2005). Lael Brainard and Robert E. Litan, “Offshoring Service Jobs: Bane or Boon—and What to Do?,” The Brookings Institute Policy Brief #132, April 2004, <http://www.brook.edu/comm/policybriefs/pd132.pdf> (12/01/2005). Global Insight (USA), Inc., “Executive Summary: The Comprehensive Impact of Offshore Software and IT Services Outsourcing on the U.S. Economy and the IT Industry,” (Arlington, VA: Information Technology Association of America, October 2005), <http://www.globalinsight.com/publicDownload/genericContent/103105execsum.pdf> (11/09/2005). U.S. Government Accountability Office (GAO), “Offshoring of Services: An Overview of the Issues,” November 2005, <http://gao.gov/cpi-bin/getrpt?GAO-06-05> (12/01/2005).

will become. The government does not track offshoring, and firms are naturally reluctant to disclose information about it. Still, the practice appears to be on the rise. Forrester Research expects the number of U.S. jobs outsourced will grow from about 400,000 in 2004 to 3.3 million by 2015, or about 250,000 per year.⁵⁷ Estimates suggest that up to 14 million Americans now work in occupations—including financial analysts, medical technicians, paralegals, and computer and math professionals—that could reasonably be considered at risk.⁵⁸

Recent increases in energy and commodity prices, combined with the increasing strength of Asian and European currencies may change this picture, but the long term effects of these changes will become apparent only over time. Increased energy prices and competition for shipping space will make international trade more expensive, but the declining dollar will reduce the cost of our goods to overseas customers.

Will there still be good jobs left in the United States? Most economists think so. First, many jobs are not at risk of being outsourced. The most vulnerable jobs and occupations are ones with the following attributes or features:⁵⁹

- No face-to-face customer servicing requirements.
- Work process is telecommutable and Internet enabled.
- High wage differential with similar occupation in destination country.
- Low setup barriers.
- Low social networking requirement.

Cost differentials, the availability of highly educated graduates, the widespread acceptance of English as the language of business and communication, and other institutional and cultural compatibilities are factors that facilitate the offshoring of U.S. jobs to certain foreign countries. Nevertheless, the three major emerging market economies—China, India, and Russia—with their sizeable higher education sectors, have barriers that could constrain future growth.⁶⁰ India has not been able to provide basic school education on the wide-scale level that would ensure future growth in highly trained graduates; Russia is experiencing institutional underdevelopment, erratic reforms, and a gradual deterioration of its higher education system; and China still faces language, institutional, and cultural barriers.

Potential quality control problems and concerns over intellectual property theft also may limit outsourcing overseas. The total growth of high-tech jobs may outpace the increasing supply of knowledgeable workers in the emerging economy. As Robert Reich, a professor of public policy and former Labor Secretary, notes “Even as the supply of workers around the world capable of high-tech innovation increases, the demand for innovative people is increasing at an even faster pace”⁶¹

The most positive jobs scenario is one in which the U.S. keeps the “cream” of new development at home, while the more routine activities are outsourced.⁶² Under this scenario, innovation would lead to a continuing stream of new service and manufacturing activities, and hence, new jobs and occupations. At the same time, the need for lower-cost supply would force more mature service operations overseas. Depending on their education and skills, individual workers might still find it

57 Cited in Brainard and Litan, April 2004.

58 Ibid., (p. 6).

59 Ashok D. Bardhan and Cynthia Kroll, “The New Wave of Outsourcing,” (Berkeley, CA: Fisher Center for Real Estate and Urban Economics, University of California, Berkeley, Paper #1103, 2003), <http://repositories.cdlib.org/iber/fcreue/reports/1103> (12/05/2005).

60 Bardhan and Kroll, (p. 5).

61 Robert Reich, “High-Tech Jobs Are Going Abroad! But That’s Okay,” Washington Post Company, 2003.

62 Bardhan and Kroll, 2003, (p. 12).

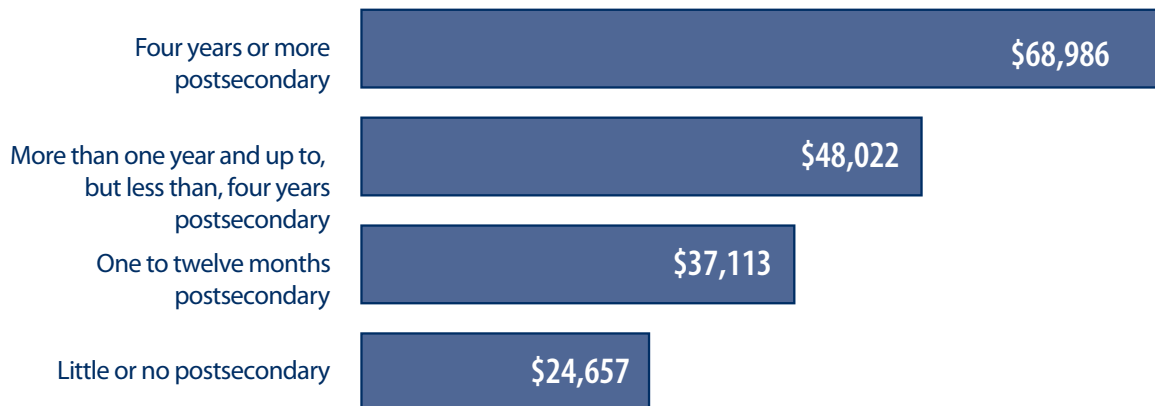
difficult to secure replacement employment at similar wages. Overall, the jobs lost to outsourcing would be replaced by higher-wage jobs in new subsectors brought about by innovation."⁶³ Reich has similarly argued that there will be plenty of good jobs in the future, but too few Americans are being prepared for them.

Increasing Gap Between the Haves and the Have-Nots

Starting in the mid-1970s, income inequality in America has worsened, and studies suggest that pervasive technological change is the culprit. Globalization also has been linked to the decline in earnings particularly among less-skilled workers over the last few decades. The demand for highly skilled workers in all sectors of the economy has increased rapidly. Supply has not kept up with demand and the earning gap between more-educated and less-educated workers has widened⁶⁴

Data from the Bureau of Labor Statistics show a positive relationship between training levels and 2006 annual average wage estimates of workers in Washington (Figure 2).⁶⁵ That is, jobs that require one to twelve months of postsecondary preparation paid 50 percent more than jobs that required little or no postsecondary training. Jobs that required more than one year but less than four years of postsecondary training paid 25 percent more than jobs that required one to twelve months of postsecondary preparation.

Figure 2 Washington State 2006 Average Annual Wage Estimates by Training Level



Source: Employment Security Department, *Washington State Occupation Outlook 2004-2014*.

Between 1990 and 2002, hourly wages in Washington state increased in real terms.⁶⁶ Although real hourly wages have not increased since 2002, the average annual wage in Washington reached an all-time high in 2006 due to an increase in work hours. There is also evidence that the gap between the top and bottom wage earners has stopped growing and begun to recede. In 1990, the ratio of the average wage of the top 10 percent of jobs to the bottom 10 percent of jobs was 7.6. The ratio peaked at 12.4 in 2000, before decreasing to 9.5 in 2006.⁶⁷

63 Ibid.

64 Karoly & Panis, 2004, (p. xxiii).

65 ESD, *Washington State Occupational Outlook 2002-2012*, https://www.workforceexplorer.com/admin/uploadedPublications/5421_WashWEX.pdf (11/28/2005).

66 Scott Bailey, *Washington Wage Report 1990-2006*, ESD, February 2008.

67 Bailey, 2008, (p. 3).

Multiple Job Holding

Workers can increase their incomes by holding more than one job. According to the Bureau of Labor Statistics, 5.2 percent of workers age 16 and over held more than one job in 2006 and 2007. The most recent Bureau of Labor Statistics data for individual states shows Washington's rate of multiple job holding is 5.7 percent.⁶⁸ Multiple job-holders are those who report that they hold two or more jobs during the same week in response to the Current Population Survey.

The majority of multiple job holders (55 percent) hold one full-time and one part-time job. Less common patterns include two part-time jobs (23 percent), variable hours on one or both jobs (18 percent) and two full-time jobs (4 percent).⁶⁹ When asked in 2000, multiple job holders indicated they worked second jobs to meet household expenses (31 percent), for enjoyment (16 percent), to pay off debts (11 percent) and for a variety of other reasons, including savings, to buy a special something, to gain experience or build a business, and to help out a friend or relative.⁷⁰ These figures are for the United States as a whole. This breakdown is not available at the state level.

Self-Employment in Washington

Not all employment requires an employer. According to the 2006 American Community Survey, 11.4 percent of Washington state's employed population age 16 and over was self-employed: 4.0 percent in an incorporated business they owned and 7.4 percent in non-incorporated businesses. The national rate of self-employment was 10.6 percent. See Figure 3.

Figure 3 Percent of Workers Self-Employed, by Industry of Employment: 2006

Industry Sector	Percent of Workers Self-Employed
Other Services, except Public Administration	26.1%
Construction	22.5
Agriculture, Forestry, Fishing, Hunting and Mining	21.0
Professional and Business Services	20.7
Financial Activities	16.1
Wholesale Trade	10.2
Leisure and Hospitality	9.6
Retail Trade	9.4
Transportation, Warehousing, and Utilities	8.1
Education and Health Services	6.0
Information	5.1
Manufacturing	4.5
Public Administration	0.0
All Industries Combined	11.4

Source: 2006 American Community Survey, S2407 Industry by Class of Worker for Civilian Employed Population 16 Years and Over, U.S. Census Bureau

68 Jim Campbell, "Multiple Job Holding in States in 2006," Monthly Labor Review, Bureau of Labor Statistics, September 2007.

69 <ftp://ftp.bls.gov/pub/special.requests/lf/aat36.txt>, 2/11/2008.

70 "Reasons for Working Multiple Jobs," Monthly Labor Review, Bureau of Labor Statistics, October 2000.

Self-employed workers make up a substantial portion of economic activity in Washington state. These workers need to keep their skills up-to-date to stay competitive, and stay employed. Earnings from self-employment (excluding dividends, rent, interest, and transfer payments) made up almost 9 percent of U.S. personal income in 2007.⁷¹ With Washington’s above average rates of self-employment, our economy would be measurably smaller without the contributions of self-employed workers.

Increasing Number of Part-time Workers Desire Full-time Employment

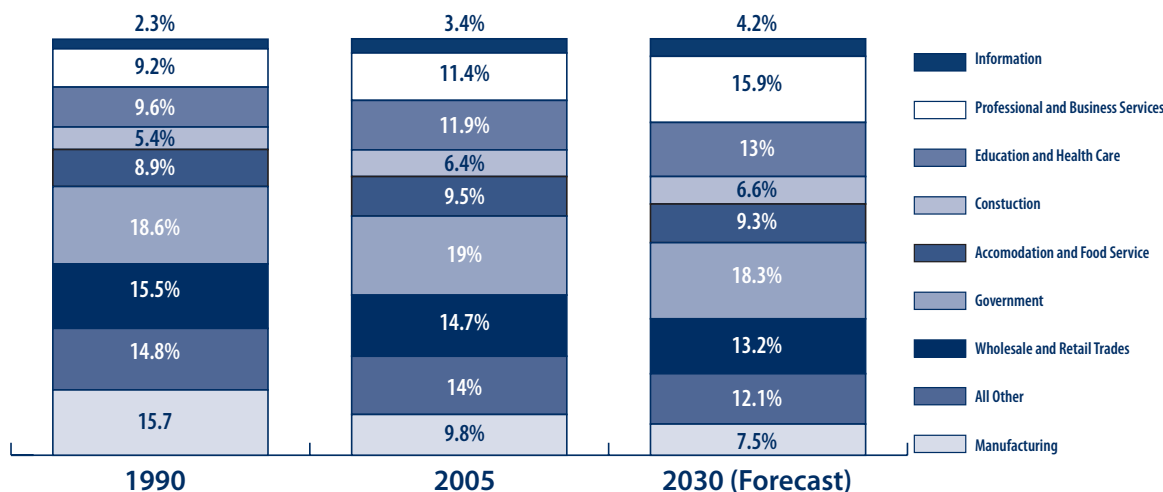
Most Washington residents work full time. According to a 2006 State Population Survey,⁷² about 80 percent of working Washingtonians aged 20 to 64 reported holding full-time jobs. Nearly one in five reported working part-time—fewer than 35 hours per week. Most Washington residents who work part-time do so because they prefer part-time employment, however a substantial and growing portion of people who work part-time would prefer to work full-time. The Washington State Population Survey asks part-time workers whether they would rather work full-time. The percentage responding yes has increased steadily this decade from 24 percent in 2000 to 29 percent in 2008.

Washington’s Industry Outlook

For years, Washington’s resource-based economy was able to provide high-paying jobs with benefits to workers with only a high school education. Our forests and factories provided a living wage to loggers and production workers. Now these traditional sources of high-wage work are either shrinking or have limited prospects for growth.⁷³ Some sectors that had been experiencing job losses early in this decade, such as aerospace manufacturing and computer related industries, have turned around. Others, such as wood products manufacturing, pulp and paper, and primary metals, continue to decline.

Projections to 2030 show changes by industry in the distribution of Washington state’s non-farm employment (see Figure 4).⁷⁴ Service industries are among the fastest growing, driven by increases in software publishing and professional and business services (e.g., accounting, engineering, computer systems and programming), education and health care.

Figure 4 Distribution of Washington Employment by Industry, Past and Projected



Source: Washington State Office of Financial Management & Employment Security Department, 2008 Long-Term Economic and Labor Force Forecast, April 2008.

71 ERFC, Table A3.1 U.S. Personal Income by Components, June 10, 2008.

72 The state’s Office of Financial Management conducts a population survey every two years.

73 Dave Wallace, “Getting Paid to Make Paper,” Washington Labor Market Quarterly Review, Volume 29, Number 3, July-September 2005.

74 Washington State Office of Financial Management (OFM) and ESD, 2008 Long-Term Economic and Labor Force Forecast for Washington, April 2008.

Almost one third of the state's employment is expected to come from these three industries in 2030, up from 21 percent in 1990. Construction, accommodation and food services, and government are expected to hold onto their shares of employment through 2030. Government will continue to supply about 18 percent of employment. Trade and manufacturing industries will lose their employment share through 2030. Manufacturing employment is expected to increase slightly between 2005 and 2030, but is not expected to return to levels seen in the 1990s. Aerospace, wood, paper, and primary metal manufacturing provided almost 8 percent of Washington state employment in 1990; by 2030 they will provide less than 3 percent. The manufacturing industries' share of employment is expected to decrease to 7.5 percent of non-farm employment by 2030, less than half of its 15.7 percent share in 1990.

What Jobs Will be Available?

Many of the new family-wage job opportunities will be in occupations that require postsecondary education but not necessarily a four-year degree. Figure 5 includes the top 15 occupations requiring more than one year and up to, but less than four years of postsecondary training that are expected to be in demand between 2004 and 2014.⁷⁵

Figure 5 Number of Annual Openings in Occupations Requiring More Than One Year and up to, but Less Than, Four Years of Postsecondary Education (2004-2014)

Occupation	Estimated Employment 2004	Average Annual Openings 2004-2014	Estimated Average Wage June 2006
Registered Nurses	48,077	2,006	\$62,217
Carpenters *	42,277	1,550	\$44,303
Nursing Aides, Orderlies, and Attendants	23,639	745	\$23,863
Supervisors/Managers of Construction Trades and Extraction Workers *	19,957	705	\$63,983
Electricians*	15,997	615	\$51,817
Computer Support Specialists	14,615	611	\$48,629
Medical Secretaries	13,740	575	\$31,783
Licensed Practical and Licensed Vocational Nurses	9,861	407	\$39,881
Gaming Dealers	5,274	332	\$19,974
Aircraft Structure, Surfaces, Rigging and Systems Assemblers	5,222	301	\$53,370
Cost Estimators	5,365	239	\$60,199
Aircraft Mechanics and Service Technicians	4,795	237	\$53,587
Computer Specialists, All Other	5,353	217	\$69,015
Preschool Teachers, Except Special Education	6,209	204	\$25,102
Travel Agents	3,532	191	\$35,102

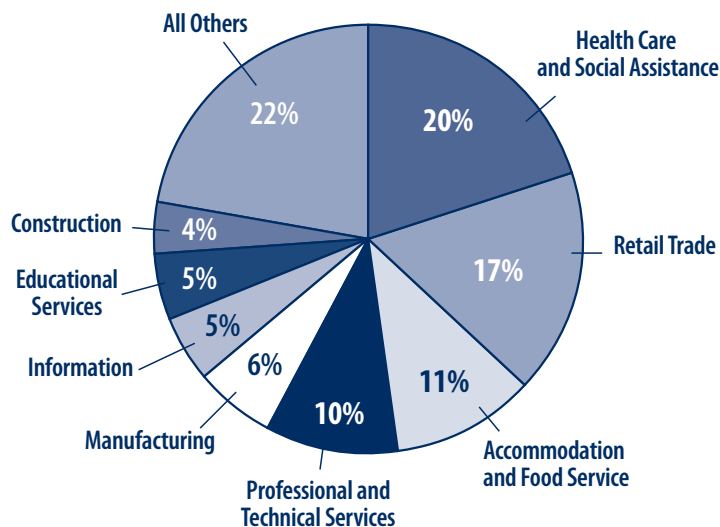
Source: Employment Security Department, Occupational Outlook 2004-2014. * As of January 2007. Trends may have changed.

⁷⁵ Occupational Outlook 2004-2014, ESD/ LMEA, 1/25/2007. ESD determined the top 15 occupations using a ranking based on the average of three criteria: average annual growth rate, number of job openings due to growth, and total number of job openings due to growth and replacement.

Washington employers in a recent survey regarding their job vacancies in October 2007 reported an estimated 73,180 job openings.⁷⁶ Health care and social assistance industry employers reported the largest number of openings: 14,479 (See Figure 6). This industry's openings had the third highest percentage requiring certification or licensing (67 percent), and offered the fourth highest median wage (\$13.07). Sixty-three percent of these job offerings were full-time and 94 percent were permanent positions. Two thirds of these positions required education beyond a high school diploma or GED.

The construction industry offered the highest median wages (\$16), followed by finance, insurance, and educational services; (\$14.42 and \$14, respectively). Retail Trade and Accommodation and Food Services had the second and third highest number of vacancies; (12,230 and 7,605) but offered the lowest median wage (\$8). Only 40 percent of the openings in these two low-wage industries were for full-time work.

Figure 6 Percent of Job Vacancies by Industry Group: October 2007



Source: Washington State Fall 2007 Job Vacancy Survey Report, Washington State Employment Security Department, January 2008

The Job Vacancy Survey confirms the link between educational preparation and earnings described earlier. The median hourly wage rate offered for jobs with no educational requirement was \$8, only slightly above the \$7.93 minimum wage in effect in 2007 and below this year's minimum wage of \$8.07 per hour. Only 43 percent of jobs offered without educational requirements were full-time and only 75 percent were permanent jobs.

Jobs requiring a high school diploma or equivalent offered a median wage of \$10 per hour. Seventy percent of these jobs were full-time and 87 percent permanent. Wages, work hours, and permanence continued to increase with further education. Jobs requiring some college, but no degree offered \$14.24 per hour (77 percent full-time, 82 percent permanent). Jobs requiring an associate's or vocational degree offered \$18.85 (76 percent full-time, 93 percent permanent). Jobs requiring a bachelor's degree or graduate degree offered \$24.05 and \$25 per hour respectively and were even more likely to involve full-time, permanent employment.

Employers Report a Shortage of Skilled Workers

The transition to a more knowledge-based economy has called for some changes in the types of skills employers are requiring now, or will be requiring in the near future.⁷⁷ Advanced technologies clearly require

⁷⁶ ESD, Washington State Fall 2007 Job Vacancy Survey Report, January 2008.

⁷⁷ Karoly & Panis, 2004.

workers with the knowledge and skills to use them effectively, efficiently, and creatively. Rapid technological changes and increased global competition have led to a growing importance of strong non-routine cognitive skills, such as abstract reasoning, problem-solving, communication, and collaboration. Employers continue to report a shortage of workers with either basic workplace or job-specific skills, or both.

Roughly 2,100 firms responded to the Workforce Board's *Washington State Employers' Workforce Needs and Practices Survey*, conducted during the summer and fall of 2007.⁷⁸ More firms reported hiring new employees as compared to previous surveys: 80 percent in 2007 compared with 55 percent in 2003. Due to the improved economy since that time, skill shortages intensified. Among firms attempting to hire, 60 percent reported difficulty finding qualified job applicants, compared with 45 percent in 2003. The difficulty in finding qualified job applicants was most severe in the trade (75 percent), construction (69 percent) and manufacturing industries (67 percent). Extrapolating from the survey results, an estimated 104,100 Washington firms—about one-half—had difficulty finding qualified job applicants during the fall of 2007.

Employers had the most difficulty finding applicants with job-specific skills (82 percent). For example, they wanted to hire a registered nurse but had trouble finding one; however, large percentages also reported difficulty finding applicants with problem-solving or critical thinking skills (79 percent), positive work habits and attitudes (69 percent), communication skills (65 percent), and ability to adapt to changes in duties and responsibilities (64 percent).

Employers attempting to hire were asked about the level of difficulty they encountered in finding qualified applicants with specific education levels. They reported the greatest shortage of applicants for jobs requiring postsecondary education, especially for vocationally trained workers from our community colleges, apprenticeship programs, and private career schools. Among employers attempting to hire workers with a postsecondary vocational certificate, 70 percent reported difficulty finding qualified applicants. In contrast, among employers attempting to hire workers with only a high school diploma, 32 percent reported difficulty. (See Figure 7).

Figure 7 Employer Difficulty Finding Applicants by Educational Level (Percentage and Estimated Number of Firms With Difficulty)

Educational Level	Among Employers Attempting to Hire at That Level	Estimated Number of Firms
Neither a high school diploma or GED	33%	15,000
High school diploma or GED	32%	25,600
Some college course work	67%	43,400
Vocational certificate	70%	36,000
Vocational associate's degree	64%	27,700
Academic associate's degree	48%	19,900
Baccalaureate degree	61%	24,900
Master's degree	54%	15,000
PhD or Professional degree	66%	10,700

Source: Workforce Board, 2008.

The problem will likely grow worse. Skills required in the workplace continue to increase, and, as a result, about one third of all firms reported that their need for workers with postsecondary training would increase over the next five years. (See Figure 8).

⁷⁸ Workforce Board, *Washington State Employers' Workforce Training Needs and Practices*, 2007. Forthcoming.

Figure 8 Educational Level (Among all Employers the Percentage Expecting a Change in Demand)

Educational Level	Increase	Decrease
Neither a high school diploma or GED	12%	4%
High school diploma or GED	18	2
Some college course work	27	1
Vocational certificate	22	1
Vocational associate's degree	17	1
Academic associate's degree	10	5
Baccalaureate degree	18	1
Master's degree	7	5

Source: Workforce Board, 2008.

Gaps Between Supply and Demand

In many fields, the current supply of workers prepared by Washington's education and training programs is insufficient to meet employer demands. As evidenced by the Workforce Board's 2008 Employer Survey, the gap is largest at the mid-level of postsecondary education and training (at least one year of postsecondary education but not a bachelor's degree or beyond).

The Workforce Board regularly analyzes supply and demand at the mid-level using labor market data and student records. In 2006, the new supply of workers trained by our community and technical colleges, private career colleges, and apprenticeship programs was sufficient to fill only 91 percent of the job openings that employers are expected to have annually by 2012. The mid-level occupations that we expect will experience the biggest gaps between supply and demand can be found at <http://www.wtb.wa.gov/HighDemandFields.asp>. (This list of high employer demand programs of study at the mid-level is updated annually).

Summary and Implications

Washington's economy was hit especially hard by the recession in 2002-2003. Since early 2003, however, our job growth has been better than the nation. Employment gains were strong throughout 2007 and recent gains were widespread across all industries. Construction, professional, and business services have experienced especially notable gains. As the economy begins to soften in 2008, Washington's economy continues to outperform the national economy.

Long-term economic trends—pervasive technological change and increasing globalization—will continue to skew labor demand toward the more highly skilled. Keeping up with this demand will pose stiff challenges for both social cohesion and economic competitiveness. The jobs being created demand higher skills. A world-class workforce is vital for global competitiveness, and the bar for competitiveness is rising.

Employers report a shortage of job applicants with the skills required for the contemporary workplace. The state's workforce training and education system must prepare more workers with the kinds of skills employers are looking for. The training system must also assist in the continual retraining and upgrading of incumbent workers so their skills stay current. Given the dramatic technological and structural changes buffeting our economy, we must do more to enable workers to make smooth employment transitions.

High Skills, High Wages: 2008-2018

Washington's Strategic Workforce Development Plan

Our Plan to Meet the Needs of a Highly Skilled, Diverse Workforce

As Washington's workforce ages and grows increasingly diverse, tapping the full potential of our workers has never been more important—or more challenging. Our supply of young workers is shrinking relative to the general population, while our older workers are working longer and will need education and training to stay on top of new skills and changing technology. At the same time, workers from minority groups account for a greater slice of Washington's labor force, with projections for that percentage to rise even faster and farther in the years to come. Education levels, wages and employment rates among minority workers continue to lag behind whites—troubling problems that have far-reaching implications for our economy as a whole.

At the Workforce Board, we view these demographic shifts both as an opportunity, and an economic imperative. For Washington business and industry to remain competitive in a global economy, where technology is constantly in flux and skill needs are quickly upgraded, we must provide our workers with the tools they need to thrive. To do that we need to start with our public schools, helping students create meaningful educational pathways that keep them from dropping out and instead lead to a high school diploma and beyond. We need to reach out to unemployed adult workers and those stuck in low-skilled, low-wage jobs, connecting them with education and training that leads to a living wage. We need to reach out to Washington's businesses to see what job skills they require, and how we can help workers obtain them, giving our workforce, and our state, a competitive edge.

Our imperative is clear: we need to work even harder to reach all segments of our population so that everyone has the skills and education needed to reach their career goals. For Washington's economy to prosper, we cannot afford to leave anyone behind. *High Skills, High Wages* our state's 10-year strategic plan for workforce development provides our blueprint.

Leaders from across the state created this plan. Contributors included employers, labor, education, nonprofit and community-based organizations, state, local and tribal government, rural and urban areas, communities of color, and individuals with disabilities. We will achieve our three goals for youth, adults and industry by implementing selected strategies, sticking to our vision for 2018, and tracking our progress.

Persistent Skill Gaps Impact Washington Workers and Businesses

After several years of growth, Washington's economy, like the nation's, shows signs of slowing, with unemployment rates beginning to climb in January 2008. Since then, the downturn has become more severe. But it would be a mistake to pin all of our problems on a flagging economy. Even in periods of economic decline our employers report difficulty recruiting skilled workers, particularly those with mid-level education and training. The 2008 Workforce Board Employer Survey estimated that we are only meeting 77 percent of the demand for skilled workers. Put another way, nearly one out of four skilled jobs in Washington is either going unfilled or to a less qualified worker. These vital

and well-paying positions include everything from dental hygienists to electricians to bookkeepers. This has serious consequences, and not just to Washington workers who could benefit from higher-paying, family-wage jobs. Employers report that a lack of skilled workers directly impacts their ability to expand, their profitability, and influences whether they decide to stay in the state. In particular, we need to focus on industry clusters—strong, economic drivers that influence a range of interrelated businesses concentrated in regions across Washington. Whether it's aerospace in King County or wine in Walla Walla, we need to help ensure a steady supply of skilled workers to keep those industries profitable, productive, and on the cutting edge.

As Washington's workforce ages and begins to retire in greater numbers, our workforce is growing more slowly than in the past. In-migration from other states and abroad will contribute more than half of our future growth in the coming years. It's against this backdrop that we need to create a culture of lifelong learning for all of our citizens, to implement strategies that enhance the job skills of adults who move to Washington with a variety of educational backgrounds, ensure more youth graduate from high school and are on track to complete at least one year of postsecondary education, and reduce unemployment and under-employment. Removing barriers in our workforce development system will help ensure expanded access and success.

Past Planning Moves Washington's Workers Forward

Previous plans have helped Washington's workforce make great strides, including:

- Improving access to career and technical education in high schools.
- Developing the *Building Bridges* initiative to reduce middle and high school dropouts.
- Providing High Demand Funds to programs that prepare students for sought-after jobs.
- Increasing access to postsecondary education with programs like Opportunity Grants that pay for tuition and supplies for low-income students studying in-demand careers.
- Expanding apprenticeships in fields like construction that provide family-wage jobs.

Industry Skill Panels have also helped forge closer ties between the business community, education providers, and public and nonprofit entities around the state, bringing them together to pinpoint worker skill gaps and create education and training programs to fill them. Some local initiatives have become prominent best practice examples, for both our state and the nation. However, while we are making progress, skill gaps persist. The Workforce Board's 2008 Employer Survey reported six out of 10 employers had difficulty hiring qualified employees the previous year, and one out of three employers said overall productivity suffered as a result.

Also troubling is the potential development of an "hourglass economy," where there is a widening gulf between high-paying, high-skill jobs and low-wage, low-skill ones. Without additional education and training, many Washington workers risk being left behind, instead of progressing up the career ladder and into family-wage jobs.

Building a Blueprint for Workforce Development Through 2018

In developing our *High Skills, High Wages* plan, we asked our stakeholders to first identify issues for three key groups: youth, adults and industry. All play a vital role in our economy. Each merits greater attention, especially during an economic downturn. By addressing each group individually, we were able to create a plan that takes us all the way through 2018—an expanded time frame that not only lets us design and implement programs but, ultimately, measure results.

In each section of this plan, we provide an overarching goal, several specific objectives and multiple strategies to get us there. Below are three broad goals we hope to achieve for youth, adults and industry over the next 10 years.

OUR GOALS

- 1. YOUTH:** Ensure all youth receive the education, training, and support they need for success in postsecondary education and/or work.
- 2. ADULTS:** Provide Washington adults (including those with barriers to education and employment) with access to lifelong education, training, and employment services.
- 3. INDUSTRY:** Meet the workforce needs of industry by preparing students, current workers, and dislocated workers with the skills employers need.

Investing in a Stronger Washington

At the heart of *High Skills, High Wages* are strategies to help Washington's workers become better educated, better skilled and better paid. The benefit of achieving these goals goes beyond the workers themselves; it makes for a more competitive business climate and a stronger Washington economy for all of us. To implement every strategy to its full extent calls for a significant investment, but one that can and should be shared as our stakeholders work together to optimize public and private partnerships.

In fact, those partnerships are a fundamental part of our plan. A lead agency is designated as responsible for carrying out each strategy, along with supporting partners. Each year the Workforce Board delivers a progress report to the Legislature.⁷⁹ We also evaluate every major workforce program, measure specific performance targets, and determine whether we are keeping pace with employers' demands for skilled workers through our biennial employer survey and gap analysis.⁸⁰ We recognize, however, that state budgets must be lean, and with this in mind we offer some strategic opportunities to focus on over the next two to four years.

Strategic Opportunities for 2008 to 2012

While all the objectives and strategies in this plan need to be carried out over a 10-year time span, the Workforce Board has identified key strategic opportunities that should be addressed within the next two to four years.

1. Increase high school graduation rates and ensure youth are prepared for further education and/or work by:
 - a. Expanding the community partnership model, *Building Bridges*, that implements effective dropout and retrieval programs.
 - b. Holding schools accountable for engaging and retaining students through graduation.
 - c. Demonstrating the relevance of education through strong programs of career and technical education.
 - d. Ensuring all youth, their parents and caregivers, their teachers and counselors, and the broader community are aware of the full range of career options.
 - e. Expanding the best practice career and guidance counseling model *Navigation 101* to all middle schools and high schools.
 - f. Reaching out to business and labor to provide career information, mentors, and work-based learning opportunities and experiences.

⁷⁹ See our progress reports to the Governor and Legislature on our publications pages: www.wtb.wa.gov

⁸⁰ See our evaluations of workforce programs (Workforce Training Results), our reports on federal targets, and our gap analyses on our web site: www.wtb.wa.gov

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2. Expand the availability of career pathways that move students from middle and high school through education and training at the postsecondary level. Career pathways offer students career and technical education in a career cluster, incorporate rigorous academic as well as technical content, span secondary and postsecondary education and training, and lead to an industry-recognized credential. These pathways lead students from high school to postsecondary education and training into family-wage careers.
 3. Increase capacity at community and technical colleges, private career schools, and other postsecondary institutions to help shrink the gap between the number of skilled workers Washington businesses need and the number of workers who have those skills. Apprenticeships and high-employer demand programs of study also must be expanded.
 4. Increase financial aid and other services for workforce education students so they are able to afford additional education and have coordinated support in completing their education and training. Research shows one year of education beyond high school, paired with a credential, is the “tipping point” that provides the greatest chance to achieve family-wage employment. Financial barriers are the number one reason Washington residents do not obtain education and training beyond high school. Support services, such as child care, should be provided to help more Washingtonians achieve higher education levels. These services also help ensure students who start such programs are able to finish them.
 5. Increase programs that pair adult basic skills and English language instruction with occupational skills training. Such programs help a broad cross section of people, including those with low literacy, immigrants, low-income workers, and the unemployed, gain job skills at the same time they learn basic skills, such as reading and writing. Integrated instruction is more likely to lead to wage gains for participants than basic skill programs that do not include an occupational component.
 6. Improve coordination between workforce and economic development in strategic industry clusters through initiatives such as Industry Skill Panels and Centers of Excellence. An economic cluster is a sector of the economy in which a region has demonstrated it has a competitive advantage by a high geographic concentration of firms and employment. Clusters provide an organizing principle around which the state and local areas can successfully coordinate workforce and economic development efforts to the advantage of Washington employers and workers.
 7. Meet employee education and training needs by:
 - a. Expanding and improving customized training.
 - b. Developing more workplace based learning and flexible methods of education delivery, such as online courses.
 - c. Developing new ways of funding employee training programs, such as Lifelong Learning Accounts (LiLAs), which give Washington employers the chance to provide their employees with a financial match and continue developing their skills.
 8. Identify system barriers for improving and expanding employment, education and training services and remove those barriers.

Youth Goal and Objectives

Youth Goal: Ensure all youth receive the education, training, and support they need for success in postsecondary education and/or work.

Objective 1

A K-12 Guidance and Counseling System provides students and their parents with a curriculum to individually plan their pathways and prepare for future education and/or work after high school.

No later than 2018:

- All middle and high schools in the state have in place all five elements of the *K-12 Guidance and Counseling System* that includes community, business and labor collaboration.

Objective 2

All students leave high school prepared for success in further education and/or work.

No later than 2018:

- All high school students across Washington have the option to complete a career and technical education sequence that matches their career interests, articulates with postsecondary education and results in industry certification where applicable.

Objective 3

All students graduate from high school.

No later than 2018:

- Every local community in the state will have an effective school/community partnership that provides a comprehensive dropout prevention, intervention and re-engagement system for ALL youth, including those who have dropped out or who are at risk of dropping out.

Objective 4

Reduce unemployment rates among older youth, and improve their career prospects.

No later than 2018:

- There is a comprehensive state strategy to help unemployed older youth reconnect with work and/or further education opportunities.

Youth Objective 1: A K-12 Guidance and Counseling System provides students and their parents with a curriculum to individually plan their pathways and prepare for future education and/or work after high school.

No later than 2018:

- All middle and high schools in the state have implemented all five elements of the *K-12 Guidance and Counseling System* that includes community, business and labor collaboration.

The Need to Guide Youth

All K-12 students need information and guidance to help them make decisions about their learning and understand how these decisions have a direct impact on their ability to move forward with their education after high school or enter a particular career. If students do not understand the relevance of what they learn, they may be at risk of dropping out.⁸¹ But even for students who earn a high school diploma, a lack of direction can push them into low-wage, low-skill jobs. Their risk for dropping out of college, becoming unemployed, and, in worst cases, engaging in criminal activity goes up. At the same time, what experts refer to as a “10-year drift,” means these young people too often take an unnecessarily long and hard road to postsecondary education and, in many cases, must take remedial college classes to get back on track.

What are Our Options for Guiding Youth?

The State Board of Education has been exploring how to change high school graduation requirements to provide a stronger connection to career guidance. The board took a significant step in that direction when it implemented the 13th Year Plan, requiring all high school students to create an academic plan that starts in high school and reaches beyond. In the Federal Way School District, for example, students begin planning in eighth grade, exploring different careers and current interests, and building the foundation for a college and job portfolio. The district also asks students and parents to discuss and choose one of three general graduation plans to help guide their class choices. The 13th Year Plan requirement could be strengthened statewide by connecting it to other career and guidance activities, including work-based learning, conferences with parents, and mentorships.

Best Practice Guidance Model

The Office of Superintendent of Public Instruction (OSPI) has been advocating that school districts institute a comprehensive *K-12 Guidance and Counseling System*. The best practice model, *Navigation 101*, launched in the Franklin-Pierce School District in the Tacoma area, combines five major elements of personalizing, planning, demonstrating, empowering and evaluating that lead to better student outcomes and success in further education and/or work. *Navigation 101*:

- Teaches students the skills they need to chart their own courses through middle school, high school, postsecondary education and adulthood.
- Provides students with an ongoing personal relationship with an adult that lasts throughout their middle and high school experiences.

81 John M. Bridgeland, John J. Dilulio, Jr., Karen Burke Morison, *The Silent Epidemic: Perspectives of High School Dropouts*, Civic Enterprises in association with Peter D. Hart Research Associates for the Bill & Melinda Gates Foundation, March 2006.

- Provides a meaningful way to keep parents involved in the decisions their teens are making.
- Requires commitment from the school and faculty to make changes such as adjusting schedules and classes to meet students' goals.

In 2006-2007, OSPI allocated \$6,440,000 appropriated by the Legislature to increase the use of *Navigation 101* in school districts across the state. The *Navigation 101* curriculum is being implemented at 221 schools across 103 school districts, including:

- @ 100 high schools
- @ 15 seventh-through-12th grade programs
- @ 18 Alternative Learning Experiences, which can include certain online learning and parent partnership programs
- @ 77 middle schools
- @ 11 elementary schools

Schools that implement *Navigation 101* have improved their students' on-time graduation rates by about two percentage points, according to a preliminary evaluation. Other indicators of success show more students taking challenging math and science courses and more parents participating in student-led conferences.⁸²

Steps To Get Us There

1. Expand implementation of the best practice guidance system, *Navigation 101* across the K-12 system including establishing goals for expansion each year. This would ultimately result in full funding of *Navigation 101* as a basic program of education. Leads: OSPI with partners. Requires the support of the Governor and Legislature and General Fund – state appropriations.
2. Integrate the Individual Education Plan with the 13th Year Plan required for graduation. Leads: OSPI with partners.
3. Work with the State Board of Education to create policy links to comprehensive career guidance. Leads: OSPI, Workforce Board, with other partners.
4. Support the College Bound Scholarship Program that provides an incentive for low-income students to complete high school. Leads: OSPI, with other partners. Requires the support of the Governor and Legislature and General Fund – state appropriations.

⁸² Conversation with Kyra Kester, Social and Economic Science Research Center, Washington State University, March 2008.

Youth Objective 2: All students leave high school prepared for success in further education and/or work.

No later than 2018:

- All high school students across Washington have the option to complete a career and technical education sequence that matches their career interests, articulates with postsecondary education and results in industry certification where applicable.

Relevant Learning Through Career and Technical Education

Career and technical education (CTE) connects students in a hands-on way to what they are learning, whether it's witnessing the complex chemistry behind the internal combustion engine in an auto repair class or writing a detailed quarterly report in a business class. At its best, CTE is both rigorous and relevant, blending academics with job skills that reflect the work world, and a student's place in it. For many students, CTE is a solid stepping stone for additional education after high school. Dual credit programs, such as Tech Prep, allow students to gain both high school and college-level credits at the same time. For other students, CTE provides specific skills, knowledge and training that make a high school diploma a more valuable credential that can lead to better paying jobs.

CTE Enrollments Decline Despite Lasting Educational and Financial Benefits

Although some worry that career and technical education could take students off the college track, this hasn't proved true. In fact, not only have students become more engaged in careers through CTE, they've become engaged in education overall. Washington State University's graduate follow-up study shows that students who complete CTE sequences continue on to postsecondary education at about the same rate as do other students.⁸³ The Workforce Board's evaluations of CTE programs find that students who complete a CTE sequence have better employment and higher earnings than students with similar demographic characteristics who do not complete a CTE sequence.⁸⁴ Despite these successes, student enrollment in CTE has been flat since 2000—the first time there has not been an increase since the data has been tracked.⁸⁵ Moreover, 57 school districts in Washington offer no career and technical education courses. Rural and remote districts offer limited choices, if any.

Which Students Benefit Most From Career and Technical Education?

Every student benefits. CTE provides opportunities for students to apply their learning in relevant, real world situations and helps them see the connections to their own futures. Through internships and other cooperative work experiences, they get a head start on a career. Student career organizations in every subject area also help students acquire the employment and leadership skills that will enable them to succeed in the workplace. And Tech Prep programs link high school and community college curricula to help students make a smooth transition to postsecondary education and careers.

83 See the Graduate Follow Up Study at http://www.sesrc.wsu.edu/gfs/GFS_Reports/gfs_reports_page.asp

84 Workforce Board, Workforce Training Results, 2008.

85 Office of Financial Management, Washington State, 2007 Data Book, "Enrollment Trends in Workforce Education Programs" <http://www.ofm.wa.gov/databook/education/et26.asp>

Strengthening Career and Technical Education

Since many more students could benefit from CTE, we should develop policies that strengthen it. We need to enhance capacity for students to take CTE through developing and expanding programs at middle schools, high schools, and Skills Centers.

We need to strengthen transitions to postsecondary learning for CTE students by ensuring more students receive academic credit through CTE coursework and by developing stronger articulation and transfer of credits. OSPI and the Workforce Board have developed a toolkit for school districts that serves as a guide for granting academic credit for CTE coursework. OSPI is offering workshops to assist school districts in this process.

In 2007, the Workforce Board convened a stakeholder work group to develop a five-year plan to implement the reauthorized Carl Perkins Act, a federal program that helps pay for and promote career and technical education in high schools and community colleges. The five-year plan focuses on strengthening career and technical education at the secondary and postsecondary levels with a key emphasis on developing stronger articulation and transfer, so that students have a more seamless transition between high school and college.

In 2008, the Legislature passed comprehensive legislation to strengthen CTE (SB 6337). The bill established state accountability for local CTE programs, including the requirement to meet specific targets for program improvement. The bill also provided funds for the expansion of CTE programs in high demand fields and the development of model CTE programs of study that will provide a clear pathway to postsecondary educational opportunities. (See Figure 1.)

Figure 1 2008 state legislation (2SSB6377, consistent with the federal Carl Perkins Act) defines programs of study as those that:

- a. Incorporate secondary and postsecondary education elements.
- b. Include coherent and rigorous academic content aligned with state learning standards and relevant career and technical content in a coordinated, non-duplicative progression of courses that are aligned with postsecondary education in a related field.
- c. Include opportunities for students to earn dual high school and college credit.
- d. Lead to an industry-recognized credential or certificate at the postsecondary level, or an associate or baccalaureate degree.

Serving Immigrant Students

As Washington state's population becomes more diverse, and more immigrants are projected to settle here, we need to develop better ways of assisting students who have a wide range of academic skill levels and varying degrees of English language proficiency. Integrating English language learning with career and technical education programs is one way of accelerating English acquisition, job skills and academic skills all at once.

Steps To Get Us There

1. Increase the number of students who complete a CTE sequence and/or course requirements for admission to a four-year college or university or enrollment in college-level classes at a community or technical college by:
 - a. Identifying targets for increases. Leads: OSPI working with Workforce Board, with other partners.
 - b. Conducting an ongoing campaign to increase awareness of teachers, counselors, students, parents, and the general public of the opportunities of rigorous CTE programs, using multiple strategies. Leads: Workforce Board working with OSPI, with other partners.
 - c. Establishing criteria for setting academic course equivalencies. Leads: OSPI working with the Workforce Board, with other partners.
 - d. Increasing the number of CTE courses that provide credit for math or science. Leads: OSPI working with school districts, with other partners. Requires the support of Governor and Legislature and General Fund – state appropriations.
 - e. Providing new opportunities for students in rural areas to complete a CTE sequence. Leads: OSPI working with Skills Centers, school districts, with other partners.
 - f. Expanding CTE offerings offered via distance learning options. Leads: OSPI working with school districts, with other partners.
 - g. Identifying high employer demand programs and expanding these offerings in secondary CTE sequences. Leads: OSPI working with Workforce Board, with other partners. Requires the support of Governor and Legislature and General Fund – state appropriations.
 - h. Expanding Grades 7-12 CTE sequences for students. Leads: OSPI working with school districts, with other partners. Requires the support of Governor and Legislature and General Fund – state appropriations.
 - i. Developing model statewide CTE articulation agreements that provide a program of sequenced courses and ensure all students have access to dual enrollment options. Leads: OSPI working with school districts, SBCTC, Workforce Board, with other partners.
 - j. Working with the State Board of Education to ensure high school graduation requirements contain a viable option for students to pursue a CTE sequence. Leads: OSPI working with Workforce Board, with other partners.

Teaching the Teachers: A Governor's Best Practice

In 2007, Greater Spokane Incorporated gathered 75 teachers and counselors from all Spokane County school districts to discuss the role of business in education. Educators identified a lack of knowledge about careers and training programs in the region, noting this as a critical barrier for advising students on career and postsecondary paths. This prompted the creation of the Teach the Teachers program. Teach the Teacher workshops provide an opportunity for educators to learn more thoroughly about the careers available in targeted, high-demand industries and how their curriculum directly correlates to these jobs. These workshops provide practical experience that can be applied to 7th through 12th grade course work. In addition, workshop participants receive a variety of resources to share with their students. Another significant benefit is greater participation by businesses in the public school system.

2. Expand pre-apprenticeship and apprenticeship opportunities for youth. Leads: OSPI working with Department of Labor and Industries – Apprenticeship and Training Council, with other partners. Requires the support of Governor and Legislature and General Fund – state appropriations.
3. Provide opportunities for all youth to connect to the workplace, including mentorships, job shadows, internships and a variety of other strategies including:
 - a. Building upon the mentorship component of the In-Demand Scholars program. Leads: OSPI, Association of Washington Business, labor organizations, Workforce Development Councils, Workforce Board, with other partners. Requires the support of Governor and Legislature and General Fund – state appropriations.
4. Develop and implement best practice models to help basic skills deficient immigrant youth succeed in high school, including:
 - a. Developing I-BEST programs for use in middle schools and high schools (basic skills and English language programs that are integrated with occupational skills training). Leads: OSPI working with Skills Centers, SBCTC, with other partners.
5. Help all students achieve the rigorous, high standards required for further education and/or work. Leads: OSPI with other partners.

Youth Objective 3: All students graduate from high school.

No later than 2018:

- Every community in the state will have an effective school/community partnership that provides a comprehensive dropout prevention, intervention and re-engagement system for ALL youth, including those who have dropped out or who are at risk of dropping out.

High Dropout Rates

A high school diploma or its equivalent is a vital step to successfully entering postsecondary education and training, and, often a prerequisite for many types of entry-level work. Even so, only 70 percent of Washington students graduated on time (within four years of starting grade 9) in 2005-2006.⁸⁶ Even when considering students that graduate after the expected year of graduation, the graduation rate for all students rose to only 75 percent. Graduation rates for students with disabilities and from most racial and ethnic minorities are lower than for the general population. (See Figure 2).

Figure 2 On-Time Graduation Rates for Class of 2005-2006⁸⁷

All Students	70.4%
American Indian or Alaska Native (Non-Hispanic)	48.0
Asian Pacific Islander	76.5
Black / African-American	53.6
White	74.1
Hispanic (may be of any race)	57.5
Special education	54.3
Limited English	55.5
Low income	58.0
Female	73.9
Male	67.1

Source: Office of Superintendent of Public Instruction, www.k12.wa.us/DataAdmin/default.aspx (2001-2002 through 2004-2005) and reportcard.ospi.k12.wa.us (2005-2006)

⁸⁶ Office of Superintendent of Public Instruction, www.k12.wa.us/DataAdmin/default.aspx reportcard.ospi.k12.wa.us (2005-2006)

⁸⁷ Class of 2006 are the most recent on-time graduation rates available from Office of Superintendent of Public Instruction at the time of printing this report.

Damaging Effects of Dropping Out

Dropping out of high school seriously diminishes a person's earning and employment potential. According to a seminal national report on dropping out, *The Silent Epidemic*,⁸⁸ high school dropouts:

- Earn \$9,200 less per year than high school graduates, and about \$1 million less over a lifetime than college graduates on average.
- Are often unable to support themselves.
- Are three times more likely than college graduates to be unemployed.
- Are twice as likely as high school graduates to slip into poverty from one year to the next.

Initiatives Focus on Partnerships, Prevention, and Reengagement

The Office of Superintendent of Public Instruction implemented the *Building Bridges* Prevention and Retrieval Program supported by a \$5 million Legislative appropriation in 2007. In 2007, the Workforce Board recommended and the Governor directed an additional \$550,000 of state's discretionary dollars received from the federal Workforce Investment Act (10 Percent Fund) to support dropout prevention and retrieval.

The strength of this initiative lies in the partnerships between the various entities that serve young people including schools, community-based organizations, Workforce Development Councils, and social service organizations. These efforts need to be expanded to serve more youth: those at risk as well as those who have already dropped out.

We would like to see more students graduate even if it takes additional time. For those students who are not likely to graduate with a high school diploma, we must re-engage them in education and training so they have the skills they need to be "college and work ready." Through the *Building Bridges* program we can build a system in communities throughout the state that provides support for students at risk of dropping out and those who have dropped out.

⁸⁸ John M. Bridgeland, John J. Dilulio, Jr., Karen Burke Morison, *The Silent Epidemic: Perspectives of High School Dropouts*, Civic Enterprises in association with Peter D. Hart Research Associates for the Bill & Melinda Gates Foundation, March 2006.

Steps To Get Us There

1. Expand the *Building Bridges* Grant Program to build more school/community partnerships that support youth at risk of dropping out and re-engage youth who have dropped out of school. Leads: OSPI, Workforce Board, with other partners. Requires the support of the Governor and Legislature and General Fund – state appropriations.
2. Collaborate with education and social service partners to develop state-level performance measures and targets for reducing the dropout rate, increasing the on-time graduation rate and increasing successful re-entry and achievement for students who have dropped out. Leads: OSPI with other partners.
3. Establish a process for identification, development and replication of best practices statewide. Leads: OSPI, Workforce Board, with other partners.
4. Explore changes in educational policy and school funding that will provide incentives to serve at-risk youth. Leads: OSPI, Workforce Board, with other partners. Requires the support of Governor and Legislature.
5. Identify and make recommendations to reduce the fiscal, legal and regulatory barriers that prevent coordination of program resources across agencies and community-based organizations to support the development of sustainable dropout prevention, intervention and retrieval partnerships. Leads: OSPI, Workforce Board, WDCs, SBCTC, with other partners. Requires the support of Governor and Legislature.
6. Create stronger program links between Job Corps and Skills Centers to ensure more Job Corps students receive a high school diploma. Leads: OSPI, with other partners.
7. Identify support services for at-risk youth and their parents, and implement action steps. Leads: OSPI, ESD, WDCs, with other partners. Requires the support of Governor and Legislature and General Fund – state appropriations.

***Building Bridges* Spurs a Whole Community to Support High School Graduation**

Mayra Rivera thought about dropping out of high school. The 17-year-old has faced “a lot of obstacles” in getting her education, including having a baby four months ago. But she stuck with school and now wants to help other teens make the same choice. That’s why Rivera and some classmates at New Horizons High School in Pasco have created posters, TV and radio spots and T-shirts aimed at curbing dropout rates and reaching students with the message that their destination should be graduation. The students became involved after the Pasco School District received a \$270,000 state grant earlier this year to improve on-time graduation rates and work on dropout prevention with Columbia Basin College, the Boys & Girls Clubs of Benton and Franklin Counties and other community partners. The goals of the grant include lowering dropout rates among students who are particularly at-risk – such as freshmen and those in special education, juvenile justice and foster care – and bringing dropouts back to school.

Tri-City Herald, May 28, 2008

Youth Objective 4: Reduce unemployment rates among older youth, and improve their career prospects.

No later than 2018:

- There is a comprehensive state system to help unemployed older youth reconnect with work and/or further education opportunities.

Washington Youth Experience High Unemployment Rates

Youth in Washington have significantly higher unemployment rates than the general population.⁸⁹ Youth from low-income families and from racial and ethnic minorities are the most likely to be unemployed. This is a cause of great concern because of the long-term impacts on these individuals' lives:

- Experiencing unemployment early in life is more likely to lead to long-term withdrawal from the labor force.⁹⁰
- Getting a job is harder without an established employment history.
- Unemployed youth have fewer opportunities for on-the-job training.
- Evidence shows that not working during secondary school is associated with lower high school graduation rates and with lower employment rates and earning levels after secondary school.⁹¹

In Washington state, the unemployment rate for 20-24 year olds was 10.6 percent in 2006—significantly higher than the 6.4 percent unemployment rate of the general population.⁹² In this regard, Washington is like most other states and other developed nations.⁹³

One might think that due to economic need, youth from lower income families would be more likely to work than youth from middle or upper income families. But the opposite is true, and is compounded by racial disparities. For example, nationwide “only 19 percent of low income black teens worked during 2007 versus nearly one half of their more affluent white counterparts living in families with incomes above \$60,000.”⁹⁴

Why are so Many Youth Unemployed?

The high rates of job turnover naturally associated with new market entrants could be one factor contributing to high unemployment rates. But the majority of youth job “separations” are involuntary, and natural turnover does not explain why youth unemployment tends to be concentrated among certain groups.⁹⁵ Another factor could be the lack of desirable job opportunities for youth.⁹⁶ The

⁸⁹ There is no standard definition of “youth” in research on youth unemployment. Generally the term is used to refer to young people approximately 18 to 24 years of age.

⁹⁰ Organization for Economic, Co-operation and Development, OECD Labour Statistics, August 2008. See www.oecd.org

⁹¹ Sum, Khatiwada, McLaughlin, and Tobar, “The Educational Attainment of the Nation’s Young Black Men and their Recent Labor Market Experiences,” February 2007.

⁹² American Community Survey, 2006, //factfinder.census.gov The unemployment rate may understate the problem since it includes only those actively seeking work, please refer to Clark and Summers, “The Dynamics of Youth Unemployment,” National Bureau of Economic Research, 1982 and the work of Andrew Sum, Director of the Center for Labor Market Studies, Northeastern University.

⁹³ From the Organization for Economic Co-operation and Development that includes developed nations.

⁹⁴ Sum, Khatiwada, and McLaughlin, “The Collapse of the National Teen Job Market and the Case for An Immediate Summer and Year Round Youth Jobs Creation Program,” March 2008.

⁹⁵ Federal Reserve Board of San Francisco Economic Letter, 2005-15; July 15, 2005, Age and Education Effects on the Unemployment Rate and OECD Employment Outlook, 1983, Chapter 6.

⁹⁶ Clark and Summers, “The Dynamics of Youth Unemployment,” National Bureau of Economic Research, 1982

lack of a well-developed system for transitioning youth from school to work contributes to the high unemployment rate for youth.

How We can Reduce Youth Unemployment

Public education and labor policies can reduce unemployment rates among youth. The 1990 report of the Commission on the Skills of the American Workforce, *America's Choice: high skills or low wages!*, helped create public awareness of the youth unemployment issue and spurred the development of a number of school-to-work initiatives. Since then, policy initiatives have included:

- **Youth apprenticeship** pilots have begun in Washington through the creation of pre-apprenticeship programs in secondary schools. In Washington, the average age of an apprentice is approximately 30. To change this we should look to Germany and other nations with strong apprenticeship systems and relatively low youth unemployment.
- **Career academies** are secondary schools programs that link academic and vocational education to an occupational cluster, such as Aviation High School in Des Moines. Career academies have been found to be associated with higher employment and earnings after secondary school.⁹⁷
- **Summer employment programs** of the Job Training Partnership Act (JTPA) used to provide 600,000 to 700,000 jobs for primarily economically disadvantaged teens during the summer months. JTPA, which preceded the Workforce Investment Act (WIA), and earlier federal employment and training acts included a program that provided summer job opportunities to low-income youth. The program was discontinued under WIA in 1998.
- **Workforce Investment Act (WIA) youth program** is based on a holistic youth development theory that emphasizes treating all aspects of the barriers to employment faced by disadvantaged youth. The Workforce Board's net impact evaluation of the state program, conducted by the Upjohn Institute, found that WIA youth participants had 10 percentage point higher employment and \$1,200 more in annual earnings three years after participating in the program than youth from similar backgrounds who did not participate in WIA.⁹⁸ National funding for the WIA youth program, however, has decreased from \$1 billion in 2000 to \$940 million in 2007 in nominal dollars.
- **Career and Technical Education** is the oldest and largest youth program dating back to the early part of the 20th Century and was formerly known as vocational education. The Workforce Board's net impact evaluation, conducted by the Upjohn Institute, found that completers of career and technical education have a 5 percentage point higher employment rate and \$1,600 more in annual earnings three years after graduation than students from similar backgrounds who did not complete career and technical education. Before 2000, the number of students in secondary CTE in Washington rose steadily, in keeping with student population growth. However, after 2000, student enrollment in CTE has remained flat, and in 2006 student enrollment declined. Therefore, since 2000 the number of students enrolling in CTE has been declining on a per capita basis.⁹⁹

97 Kemple, "Career Academies: Impacts on Labor Market Outcomes and Educational Attainment" Manpower Demonstration Research Corporation, 2004.

98 "Workforce Training Results: 2006."

99 Washington State Office of Financial Management, 2007 Data Book, "Enrollment Trends in Workforce Education Programs" <http://www.ofm.wa.gov/databook/education/et26.asp>

Steps To Get Us There

1. Create summer youth employment programs. Leads: WDCs, Workforce Board, OSPI, with other partners.
2. Connect unemployed youth to expert “navigators” who can guide them to postsecondary resources and work experience opportunities. Leads: WDCs, OSPI, SBCTC, with other partners.
3. Seek a WIA I-B Youth waiver or WIA Adult 18-24 waiver for the maximum age eligibility and supplement these resources with state funds. Leads: ESD, Workforce Board, WDCs, with other partners.
4. Develop I-BEST opportunities specifically for older youth. Leads: OSPI working with Skills Centers, SBCTC, Workforce Board and other partners. Requires the support of Governor and Legislature and General Fund – state appropriations.
5. Ensure the Grant programs includes a strong component for re-engaging youth 21 years of age and under to reconnect with education to obtain a high school diploma. Leads: OSPI, Workforce Board, with other partners. Requires the support of Governor and Legislature and General Fund – state appropriations.
6. Connect disadvantaged youth to AmeriCorps and Service Corps opportunities. Leads: ESD, OSPI, WDCs, with other partners.

Adult Goal and Objectives

Adult Goal: Provide Washington adults (including those with barriers to education and employment) with access to lifelong education, training, and employment services.

Objective 1

Increase the number of adults who have at least one year of postsecondary training.

No later than 2018:

- More adults attain at least one year of postsecondary training and a credential.
- Washington state covers the tuition costs for the 13th year for workforce education students.
- More individuals receive the support services they need to enter and complete postsecondary training.
- More students achieve critical milestones at community and technical college programs as evidenced by the Student Achievement Initiative.

Objective 2

Postsecondary education and training provides effective opportunities for going in and out of training over the course of life-long learning.

No later than 2018:

- The majority of working adults engage in training each year, including workplace-based learning.

Objective 3

Adults with barriers to employment and training enter education and career pathways that lead to self-sufficiency.

No later than 2018:

- More adults with barriers to employment and training become employed in middle and higher wage jobs.
- The majority of Adult Basic Education programs at community and technical colleges are integrated with occupational skills training.

Objective 4

The WorkSource system provides integrated and effective customer service without barriers associated with separate, individual programs.

No later than 2018:

- WorkSource is a functionally integrated service delivery system that measurably improves the employability of its customers.

Adult Objective 1: Increase the number of adults who have at least one year of postsecondary training.

No later than 2018:

- More adults attain at least one year of postsecondary training and a credential.
- Washington state covers the tuition costs for the 13th year for workforce education students.
- More individuals receive the support services they need to enter and complete postsecondary training.
- More students achieve critical milestones at community and technical college programs as evidenced by the Student Achievement Initiative.

More Adults Need Postsecondary Education and Training

“For more than 40 years, the conventional wisdom has been that the best antipoverty strategy is to help the unemployed get jobs. And while work is a precondition to escaping poverty, getting a job is not the problem that it once was for most segments of the population, as the unemployment rate has remained historically low for a decade—between 4 percent and 6 percent. Rather, the key problems facing most poor people today are that they are working in jobs that don’t pay enough and that they are not advancing up the career ladder.”¹⁰⁰

The 2005 “Tipping Point” study found that people who complete at least one year of postsecondary education and obtain a certificate or credential have a much better chance of supporting themselves and their families compared to those that do not have this level of education.¹⁰¹ And yet, about 1.6 million adults in Washington have a high school diploma or less as their highest level of educational attainment, and many of these adults have low literacy levels. These individuals have limited career opportunities. At the same time, our statewide employer surveys show that employers have difficulty recruiting enough qualified applicants, particularly those with mid-level education and training credentials.

Increasing Education Attainment has Multiple Benefits

Increased levels of educational attainment lead to increased earnings over a lifetime and increased tax revenues.¹⁰² Workforce Board evaluations of workforce education programs consistently show that students participating in these programs earn more during their lifetimes than individuals from similar backgrounds who do not participate in these programs. Our evaluations also show that the higher taxes generated by those who receive further education and job training outweigh the cost of these programs. Thus, taxpayers receive a significant return on investment.

At the same time, individuals with the lowest educational levels have trouble getting jobs and keeping them, let alone moving up the career ladder. There are other serious consequences related to health, inequality and crime. Adult literacy surveys show that adults with the lowest levels of literacy “work fewer hours, earn lower wages, and are more likely to live in poverty than adults having higher

¹⁰⁰ Betsy L. Tessler and David Seith, “From Getting By to Getting Ahead: Navigating Career Advancement for Low-Wage Workers,” October 2007, page xi.

¹⁰¹ David Prince, “Building Pathways to Success for Low-Skill Adult Students: Lessons for Community College Policy and Practice from a Longitudinal Student Tracking Study (The “Tipping Point” Research)” Research Report No. 06-2 Washington State Board for Community and Technical Colleges, April 2005.

¹⁰² Bureau of Labor Statistics, U.S. Department of Labor, “Education Pays,” April 15, 2008 <http://www.bls.gov/emp/emptab7.htm>

literacy levels.¹⁰³ Education and health are also linked. Studies show that educational background and opportunity is a “social determinant of health.”¹⁰⁴ Since students who do not fare well in our education system are over-represented among racial and ethnic minorities, these racial and ethnic minorities are also at greater risk of poor health outcomes.

The fact is that one out of four working families with children—a total of 42 million people—are low-income. These families pay a higher percentage of their income for housing than those earning more, are far less likely to have health insurance, and often lack the education and skills required to succeed in today's skills-driven economy.¹⁰⁵

Those in our state's prison system tend to have much lower levels of education than the general population. Some 83 percent of women and 71 percent of men that enter Department of Corrections prisons have less than a ninth grade level education.¹⁰⁶ We need to ensure more low-skilled adults attain higher levels of education for their benefit and the well-being and safety of our society.

Serving Older, Career-Focused Students

Many Washington adults realize they need to return to school to increase their earning capacity and better support themselves and their families. The image of college campuses filled with students fresh out of high school does not compare with reality at most of our state's campuses. In 2005, 32 percent of students enrolled in Washington's four-year public universities and colleges were 25 or older, with older students comprising 42 percent of the student body at independent four-year institutions, and 52 percent at community and technical colleges.¹⁰⁷

In 2006–2007 there were more than 450,000 students enrolled at community and technical colleges. Of that number, over 45 percent were enrolled in workforce education to gain skills to land a job or upgrade skills to keep their current one.¹⁰⁸

The term “nontraditional student” is not a precise one, although age and part-time status (which often go together) are common defining characteristics. Students may be considered non-traditional for a variety of reasons, and may possess one of the following characteristics:

- @ Delays enrollment (does not enter postsecondary education in the same calendar year that he or she finished high school).
- @ Attends part-time for at least part of the academic year.
- @ Works full-time (35 hours or more per week) while enrolled.
- @ Is considered financially independent for purposes of determining eligibility for financial aid.
- @ Has dependents other than a spouse (usually children, but sometimes others).
- @ Is a single parent (either not married or married but separated and has dependents).
- @ Does not have a high school diploma (completed high school with a GED or other high school completion certificate or did not finish high school).

According to the National Center for Education Statistics (NCES) almost 75 percent of U.S. undergraduates are in some way “nontraditional.”¹⁰⁹

103 Debra B. Bragg, Christine Bremer, Marisa Castellano, Catherine Kirby, Ann Mavis, Donna Schaad, Judith Sunderman, “A Cross-Case Analysis of Career pathway Programs that Link Low-skilled Adults to Family-Sustaining Wage Careers,” National Research Center for Career and Technical Education, University of Minnesota, St. Paul, May 9, 2007.

104 Dr. Maxine Hayes, M.P.H, PowerPoint presentation “Every Student Successful Summit: Exploring Policies to Examine Health Disparities and the Academic Achievement Gap,” May 18, 2007, found at: <http://www.sboh.wa.gov/ESS/index.htm>

105 Brandon Roberts and Deborah Povich, *Still Working Hard, Still Falling Short: New Findings on the Challenges Confronting American's Working Families*, The Working Poor Families Project funded by the Annie E. Casey Foundation and John Stuart Moss Foundation, see report at www.workingpoorfamilies.org

106 Department of Corrections, GMAP Presentation, November 1, 2006.

107 HECB, Key Facts About Higher Education in Washington, February 2007.

108 SBCTC, Annual Report on Enrollment and Student Demographics for 2006–2007.

109 National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education, “Special Analysis 2002: Nontraditional Undergraduates.”

Even though our education system serves many older and returning students, our colleges and universities have not fully adjusted to meet their needs. For example, many older students hold down full-time jobs and need to take all of their classes in the evening or on the weekends. Others have children or other dependents such as aged parents, or family members with a disability, and need assistance with child care or dependent care. Older students often can only afford to go to school part-time as they continue to work to support themselves and their families. However, federal financial aid programs can be limited to full-time students. Of those adults who do find a way to advance their education, their successful transition to employment might be hindered by insufficient information about job openings for graduates.¹¹⁰

If we are to increase the number of people who reach the “Tipping Point” and transition successfully to work and better-paying careers, we must concentrate efforts in these key areas:

- Communicate the long-term benefits of postsecondary education and training.
- Provide financial aid and support services that overcome barriers to access and retention.
- Develop a variety of educational delivery modes, such as expanding distance (or e-learning) and workplace learning options.
- Expand apprenticeship programs so more students can “earn while they learn.”
- Expand program capacity to meet increased demand.
- Work with targeted populations to overcome specific barriers to accessing and completing education and training.
- Develop mechanisms to ensure the success of adults in completing their education and transitioning to work, or to better work.

Student Achievement Initiative

The State Board for Community and Technical Colleges (SBCTC) has begun a major effort to measure and reward community and technical colleges for student success, the Student Achievement Initiative. The Student Achievement Initiative will measure incremental gains and progress that focus on student achievement. The measures will quantify each college’s annual improvement and help each college to develop and share with other colleges the practices and strategies that are most effective in advancing student achievement.

The Student Achievement Initiative examines six “momentum” points that represent critical steps in student success. Two of the points directly measure first year college-level progress. They are gained for earning the first 15 and the first 30 college-level credits. Another point is earned for the first five college-level credits in a math class that meets the requirement for computation (applied degree) or quantitative reasoning (transfer degree). These points presume levels of college readiness. Since not all students are college-ready, two momentum points are measured for advancing through Adult Basic Education and English as a Second Language and completing pre-college English and math to become college-ready.

Start-up funds will be allocated to the colleges in the first year and incentive funding will be awarded after 2008-2009. SBCTC will conduct an evaluation of the whole program to test its success.

¹¹⁰ Workforce Training and Education Coordinating Board, Workforce Training Results, 2006.

Financial Issues Pose the Greatest Barriers to Access and Completion

A 2006 Workforce Board study found the greatest barrier to access and completion for students in workforce education programs is financial—whether it's paying for tuition, fees and books, or other necessary services such as childcare and transportation. The study also found that when we total the various federal and state financial aid programs, there is still a significant amount of unmet student need. In 2006 unmet need for students in workforce education programs totaled \$97 million. Even when we account for the \$23 million in financial aid provided through the new Opportunity Grant program (below), we still fall far short of meeting students' financial needs.

Washington has a unique Opportunity Grant program that provides low-income students the chance to enter high employer demand programs of study and prepare for high-wage jobs. The program provides financial aid for tuition and support services in emergency circumstances. This program serves a large number of racial and ethnic minorities and students with disabilities. This is not surprising as these populations are over-represented among low-income students. Early results are favorable, showing increased student retention.

Following favorable results of a pilot program, the Legislature provided funds to expand eligibility of the State Need Grant to students who attend less than half time. Many working adults and those with dependents can often only participate in postsecondary education on a part-time basis. The expansion of aid is crucial to these students. The 2007 Legislature capped funding at \$1 million.

Financial costs include everything from tuition to living expenses, childcare, transportation and books. For example, the high price of college text books can be a roadblock. A 2005 study by the Government Accountability Office found that textbook prices over the past two decades grew about twice the rate of inflation, a rate similar to tuition increases. According to the report, in the 2003-2004 academic year, students at public colleges and universities spent an average of \$898—about a quarter of their tuition and fees—on books and supplies. At two-year public colleges, students spent \$886, about 72 percent of their tuition and fees.

Workforce Board evaluations of Adult Basic Education show that employment and earnings outcomes on average do not improve unless basic education is combined with occupational skills training. All community and technical colleges have started delivering I-BEST (Integrated Basic Education and Skills Training). I-BEST combines basic skills with occupational skills and has already shown promising results. However, there are still many Adult Basic Education courses that provide few links and no integration with occupations skills training.

"I wanted to go back to school for my daughter who is four years old, to be a good example for her and to get a better job to better support my family. For the last nine years I have worked two jobs in restaurants to support my family and my parents' family. Without the Opportunity Grant I could not afford to send my daughter to childcare and go back to school. This has given me the opportunity to educate myself so I can get a better job."

Jesus Jasso, Automotive Student at Shoreline Community College¹¹¹

¹¹¹ Testimony provided in support for SB5410 (Opportunity Grants) Senate Higher Education Committee, February 21, 2008.

Integrated English as a Second Language and Apprenticeship Program

Roofers Local 153, Clover Park Technical College and Pierce College worked together to address the needs of non-English speaking workers who were unable to complete apprenticeship instruction. By putting the technical and ESL instructors both in the classroom and on the roof during 14-week instruction periods, the project offered apprentices the opportunity to gain specific work and language skills simultaneously. Workers who began in this integrated adult basic skills and occupational skills program increased their earnings from \$15 per hour to \$25 per hour as journey-level roofers. This program won a Governor's Workforce Best Practice Award in 2008 and the roofing model is being expanded to other locations across Washington.

Washington's Career Bridge

The Workforce Board has created an online information source, Career Bridge (www.CareerBridge.wa.gov), that allows Washington residents to view careers and employment demand by region of the state, learn how much they'll earn, and find education programs needed for a new career. Plus, they're able to discover performance results for each program—from graduation rates to job placement to pay.

Career Bridge.wa.gov provides information on most workforce training programs in Washington, including programs at community and technical colleges, private career colleges, apprenticeship programs, and many four-year colleges and university programs. Information includes cost, length of program, student characteristics, and employment and earnings results. Career Bridge.wa.gov also provides occupational information and links to a variety of other information sources related to education and employment, such as financial aid and employment projections.

This new website is one part of a communication strategy to help explain the benefits of further education to Washington residents and help them be better consumers when choosing their next career step.

Steps To Get Us There

1. Provide more financial aid and support services to enable students to enroll in and complete at least one year of postsecondary training and receive a credential, including:
 - a. Expand the Opportunity Grant program and include support services.
 - b. Provide the first five credits of postsecondary training free for workforce students who earn less than the median family income. Leads: SBCTC working with Workforce Board with other partners. Requires support of the Governor and Legislature and General Fund – State appropriations.
2. Establish more industry-based credentials in occupational and general workplace skills demanded by employers for students that complete one year of training and develop more one-year certificated programs. Leads: SBCTC working with Workforce Board, business and labor organizations, and other partners.
3. Provide more workforce education students with access to work-based learning and career and labor market information. Leads: SBCTC, Workforce Board, business and labor organizations, joint labor-management training partnerships, with other partners. Requires support of the Governor and Legislature and General Fund – State appropriations.
4. Create easy to navigate postsecondary education and training and career websites, including financial aid and support services. Leads: Workforce Board (Career Bridge Website), SBCTC, HECB (Academic GPS) with other partners.
5. Conduct an ongoing marketing campaign to inform the general public about the employment and earnings benefits of postsecondary training, especially in high employer demand programs of study. Leads: Workforce Board, OSPI, SBCTC, ESD, Department of Labor and Industries – Apprenticeship Training Council, HECB, private career schools, business and labor organizations, WDCs, with other partners.

Adult Objective 2: Postsecondary education and training provides effective opportunities for going in and out of training over the course of life-long learning.

No later than 2018:

- The majority of working adults engage in training each year, including in workplace-based learning.

Expanding Options for Lifelong Learning

We need to make it easier to participate in postsecondary education and training programs. Options include distance learning and workplace-based learning. We also need incentives for adults to enter educational programs and for employers to support their employees along their lifelong learning paths.

The Workforce Board's statewide employer survey indicates that 60 percent of employers in Washington provide at least four hours of education and training to one or more employees. While many employers provide training to some employees, they often concentrate on employees in higher positions, and training does not usually lead to a formal credential. A FutureWorks report outlines three facts related to adult education:¹¹²

- The number of working adults pursuing any type of training or education already outnumbers traditional students 6 to 1. (U.S.)
- Much adult education and training is focused on non-degree continuing education or occupational training that does not result in formal credentials.
- Recognized employment credentials are key.

The Council for Adult and Experiential Learning (CAEL) specializes in promoting and developing strategies that enhance education and training options for adult learners. CAEL notes that adult learners have unique requirements, including a need for "institutional flexibility in curricular and support services, academic and motivational advising supportive of their life and career goals, and recognition of experience and work-based learning already obtained."¹¹³

Lifelong Learning Accounts

CAEL selected Washington state to pilot a new system for funding education and training for working adults. Washington State Lifelong Learning Accounts (LiLAs) provide a unique opportunity for employers and employees to work together to finance career-related education and training. LiLAs are employee-owned, employer-matched savings accounts. This type of co-investment makes education more affordable for both parties. The concept is similar to 401(k) retirement accounts in that the employer matches the employee's contributions. However, LiLA funds are used for education and training rather than savings.

The Workforce Board is leading the pilot with state and local partners. This is a positive recruitment tool for employers, with potential to support the development of a skilled workforce. The program could be strengthened if proposals in Congress to provide a tax credit to participating employers are successful.

112 Brian Bosworth and Sylvia Choitz, "Held Back: How Student Aid Programs Fail Working Adults," FutureWorks, Belmont Massachusetts, April 2002.

113 "Serving Adult Learners in Higher Education: Principles of Effectiveness," Council on Adult and Experiential Learning, 2000.

Creating Links Between Basic Education and Job Preparation

Washington state's 34 community and technical colleges have been part of a national initiative sponsored by the Ford Foundation's Bridges to Opportunity. The initiative tests the theory that although community colleges are well situated to serve low-income students, they could serve them even better with improved links between remedial courses and college-level or job preparatory programs.¹¹⁴

Community and technical colleges offer both remediation and job preparation, and these two types of programs are what many low-income adults need. However, often there is a disconnect between the two areas. Washington's innovative I-BEST program is one way that these two worlds within community and technical colleges have forged connections. At public forums around the state, college educators reported there was a need to create better links for adults to move from Adult Basic Education to college-level classes and job preparation. In addition to financial aid links, education policymakers and providers should seek ways to create coherent pathways that link basic education, career preparation and baccalaureate degrees.

"The I-BEST revolution has initiated enormous transitions across our district and very successfully put low-skilled adults on paths to high demand jobs like never before. I-BEST is truly taking students from where they are to where they want to be."

John Kerr, Director for Integrated Basic Skills, Pierce College

Two-year Paths to Baccalaureate Degrees

Washington's transfer and articulation system compares favorably to most other states. More than 40 percent of students earning bachelor's degrees from four-year public baccalaureate institutions in Washington transferred from a community or technical college.¹¹⁵ However, there is room to improve efficiency by increasing statewide transfer agreements and the number of transferable credits. Students also need assistance in charting an academic path that ensures they earn credits that tie directly to four-year colleges and universities.

Applied Baccalaureate Degrees

Many students and their employers say they need access to further specialization or management skills provided through a four-year degree. Although students who earn an academic associate's degree can transfer their credits relatively easily toward bachelor's degrees, those who earn technical degrees face more limited options in advancing their educations to the next level. Most state universities and colleges won't accept technical credits and apply them toward four-year degrees. Fortunately, this is changing. Central Washington University, Eastern Washington University, and The Evergreen State College, along with some independent four-year schools, accept technical credits in some programs and provide limited baccalaureate options.

114 Gary Bouldard, "Bridges Initiative Fuses Adult Education, Training," Community College research Center Article, March 28, 2008, see <http://www.communitycollegetimes.com/article.cfm?TopicId=6&ArticleId=864>

115 State Board for Community and Technical Colleges, Role of Transfer in the Bachelor's Degree at Washington Public Baccalaureate Institutions, June 2003.

This lack of access to a four-year degree needs to be addressed at other public universities. In response, the state Legislature has funded seven pilots—all of them at community and technical colleges—to create baccalaureate degree options for students with technical degrees. Those under pilot are:

- Bellevue Community College – Bachelor of Applied Science in Radiation and Imaging Sciences
- Columbia Basin College – Bachelor of Applied Science in Applied Management
- Lake Washington Technical College – Bachelor of Technology in Applied Design
- Peninsula College – Bachelor of Applied Science in Applied Management
- Olympic College – Bachelor of Science in Nursing
- Seattle Central Community College – Bachelor of Applied Science in Applied Behavioral Science
- South Seattle Community College – Bachelor of Applied Science in Hospitality Management

These pilots provide a good start in the short-term. In the future, Washington will need to expand these options even further.

Granting Credit for Prior Learning

In addition to developing applied baccalaureate degrees, Washington's four-year institutions should consider expanding the type and quantity of credits they grant for prior learning. The State Board for Community and Technical Colleges proposes expanding prior learning credits to include general education courses and major courses of study up to 22 credits within a 90-credit degree.

Web-based Advising for Potential Transfer Students

The Higher Education Coordinating Board is developing a web-based advising system to help transfer students avoid taking unnecessary classes and stay on track toward a two-year associate's degree that leads them to their next educational step. The *Academic Guidance Planning System* helps students plan their degrees and coursework, and incorporates placement scores, degree audit results, course scheduling information and more.

Other Transfer and Efficiency Issues

There are a variety of ways to enhance a student's postsecondary education experience. Issues that need further exploration include:

- Developing "modularized" curriculum with multiple entry and exit points, and including a career preparation component.
- Developing core curriculum and foundation courses that serve more than one career preparation program at more than one school. Already, Direct Transfer Agreements help students transfer to four-year schools and earn baccalaureate degrees. This concept could be expanded for shorter courses.
- Transferring credits between two-year public and two-year private schools.
- Applying credits from apprenticeship programs toward associate and baccalaureate degrees.
- Applying credits earned by high school students in career and technical education course toward postsecondary degrees.
- Granting more credits for prior learning.

Steps To Get Us There

1. Identify and implement best practice models for working adults to gain further education and training at the workplace, including online learning. Leads: Governor and Legislature. Workforce Board working with SBCTC, business and labor organizations, joint labor-management training partnerships with other partners.
2. Develop public/private financial aid support to assist working adults to gain further education and training credentials including:
 - a. Lifelong Learning Accounts (LiLAs). Leads: Workforce Board, Association of Washington Business, business and labor organizations, HECB, and other partners.
 - b. Increasing the number of part-time, working students who can receive the state-need grant. Leads: HECB, business and labor organizations and other partners.
3. Develop better links between Adult Basic Education, English-as-a-Second Language, job preparation and college-level courses. Lead: SBCTC with other partners.
4. Develop more four-year degree options for students who complete technical associate degrees. Leads: SBCTC, HECB, Joint Access Oversight Group, Workforce Board, business and labor organizations, with other partners.
5. Develop more statewide direct transfer agreements and articulation agreements between two-year and four-year schools, and between private schools and public schools. Leads: SBCTC, HECB, Joint Access Oversight Group, Workforce Board, business and labor organizations, with other partners.
6. Grant more credits at postsecondary institutions for prior learning, including credits for major programs of study. Leads: Governor and Legislature, SBCTC, HECB, Joint Access Oversight Group, Workforce Board, with other partners.

Adult Objective 3: Adults with barriers to employment and training enter education and career pathways that lead to self-sufficiency.

No later than 2018:

- More adults with barriers to employment and training become employed in middle and higher wage jobs.
- The majority of Adult Basic Education programs at community and technical colleges are integrated with occupational skills training.

Overcoming Barriers to Education and Employment for Target Populations

Our workforce development system needs to serve all adults, including adults with barriers to further education and employment. Communities of color, people with disabilities, veterans, older workers, women, and former inmates are over-represented among low-income populations and those with low educational attainment. By customizing our programs and providing the best possible service to every person, we can help tap the talents of our entire workforce.

Recognizing and Developing Skills for Refugees and Immigrants

A study by the Workforce Development Council of Seattle-King County on career advancement for refugees and immigrants found that both language proficiency and an employee's drive and attitude are essential for job retention and promotion.¹¹⁶ Employers also reported other factors for success, such as an employee's sense of security, job skills, and family support system. Within the education and training system, integrating English as a Second Language (ESL) with occupational skills training, is a key strategy to overcome language deficiencies of many refugees and recent immigrants. Workforce programs need to improve soft skill development and forge stronger ties with community-based organizations that can help provide or develop access to support services.

Highline Community College, in partnership with BuRSST for Prosperity, is developing the Gateway Center. This program helps immigrants with prior medical training become recertified for high-demand nursing and healthcare jobs in our state. The center will provide short-term professional and ESL classes, career coaching, and assistance with recertification process. These efforts need to be expanded to help refugees and immigrants create living-wage careers.

Retaining Older Workers

The state's percentage of adults age 55 and over is expected to increase from 16 percent in 2005 to 22 percent of the labor force in 2030. While many older workers may retire, others will stay in the labor force a few more years. While some of these workers will need minor upgrading of skills, others will require substantial retraining to meet changing job requirements. Either way, employers and state and local agencies will need to work together to entice older workers to stay in the workforce and to upgrade their skills.

¹¹⁶ Workforce Development Council of Seattle-King County by contract with the Athena Institute and the Refugee Resettlement Office, Workforce Development Council of Seattle-King County Research Project: Employer Strategies for Retaining and Promoting Refugees and Immigrants," January 2004.

Here are some examples of Washington companies with programs to retain older workers:¹¹⁷

- Weyerhaeuser: Delayed retirement program where employees may work part-time while still accumulating a pension and enjoying company-paid health insurance.
- Group Health: Nurses who are five years from retirement have opportunities to mentor and teach, as well as do part-time work after retirement.
- Boeing: Offers job-sharing, telecommuting and contract work.

The 2008 report of the Taskforce on the Aging of the American Workforce at the U.S. Department of Labor outlines strategies in seven key areas that could form the basis for state and local initiatives to retain older workers:¹¹⁸

- Legal and regulatory issues (such as pension plans, Social Security benefits, tax policy with respect to retirement savings, and unemployment programs).
- Expanding knowledge of older workers.
- Outreach and education efforts.
- Facilitating self-employment for older workers.
- Flexible work arrangements and customized employment for older workers.
- Tools and technical assistance to support older worker employment.
- Retirement and financial literacy education.

Arkansas, Arizona, Florida, and Oregon are tapping their increasingly mature workforces. The Arizona Mature Workforce Initiative,¹¹⁹ with the motto, "Experience is Our Business!" has connected over 500 older workers to employers, and has laid the groundwork for much greater impact, with job fairs, a job bank, a workforce transition center at a local community college and a program that certifies "mature worker friendly" employers.

Three of Washington's community and technical colleges offer a launching point for a state initiative to serve older adults. Clark College, Clover Park Technical College, and the Institute for Extended Learning at the Community Colleges of Spokane Community College were among 15 colleges nationally that received a "Plus 50 Initiative" grant from the American Association of Community Colleges and the Atlantic Philanthropies. These grants create or expand programs to serve individuals who are 50 and over. They aim to engage this population in learning, training/re-training programs, and/or volunteer, civic, service activities.

While our workforce development system does not have a specific state program that targets workers who are 50 and over, many of the workforce development programs serve this population. System partners at the state and local levels need to work together to create connections with mature workers and develop strategies to serve them.

117 Seattle Times article by Marsha King, "Companies Find Ways of Retaining Expertise of Older Workers," April 9, 2008.

118 U. S. Department of Labor, "Report of the Taskforce on Aging of the American Workforce," February 2008 found at: http://www.doleta.gov/reports/FINAL_Taskforce_Report_2-11-08.pdf

119 See the Mature Workers Initiative web site: <http://www.azmatureworkers.com/>

Smoothing Transitions for Veterans

As U.S. military personnel return from Iraq and Afghanistan and other military operations, we will need to improve workforce development services aimed at veterans. Washington state citizens have always answered the call to serve our state and nation as soldiers, sailors, airmen, marine, and coast guardsmen in times of peace and war. With 672,000 veterans in the state, Washington is home to one of the largest populations of veterans in the country. Our veterans offer the civilian workplace a high level of skill, training, and experience. The majority of veterans establish career pathways and successfully transition into civilian employment, but many face challenges in advancing their career due to underemployment and low education. In addition, some exit the military facing physical and mental health disabilities that often go undiagnosed or are disclosed later in life.

Federal and state programs assist in transferring military skills to the civilian workplace. Initiatives in our state include a two-day Transition Assistance Program (TAP) workshop held at Washington's military installations. TAP allows service members transitioning to civilian life the opportunity to learn about benefits and services that include unemployment insurance, WorkSource services and other workforce development programs with education and training assistance. In addition, redeploying National Guard members attend transition briefings to obtain information on employment and training opportunities. For example, programs such as Helmets-to-Hardhats move veterans into approved apprenticeship programs.

Recently, both Congress and the state Legislature passed legislation supporting exiting service members. In 2008, Congress passed the Post-9/11 Veterans Educational Assistance Act which increased the Montgomery GI Bill benefits for post-9/11 veterans. In 2006, Washington state passed legislation that created the Veterans Innovation Program. This program provides emergency funds for veterans returning from Iraq and Afghanistan. Funds may be used to meet financial needs ranging from utility bills to assisting with college tuition.

These programs can help struggling veterans attain high-wage jobs. Unfortunately, many cannot participate because they are the financial providers for their family. As a result, many will choose underemployment rather than further develop their skills. They find themselves five, 10, or 20 years later challenged as a job seeker who is under-educated and under-skilled. For many pre-9/11 GI Bill veterans, their benefits offer less financial support and more strict time usage requirements that often expire.

To improve veterans services we must:

- Develop programs that provide skill development opportunities designed to generate long-term, high wage employment and provide opportunities for those veterans whose GI Bill support has expired.
- Align general education and training with military experience.
- Centralize and streamline pathways to apprenticeships.
- Include training and education opportunities for spouses and dependents.

Our vision for the future must include helping veterans obtain education and training for successful civilian careers. This includes assuring that Montgomery GI Bill benefits are used before they expire and providing other opportunities for education and training for those whose benefits expired.

Reducing Barriers to Employment for People with Disabilities

People with disabilities account for 16 percent of the state's working-age population—or nearly one in five Washington workers. Many want to work. But labor force participation for this population has declined over time. The Department of Social and Health Services, Division of Vocational Rehabilitation (DVR) made great strides in 2007 by eliminating the waiting list of its customers. DVR's five-year plan details strategies for serving customers with disabilities. Some strategies are:

- Reaching out to more people with disabilities, not just the hardest to serve.
- Reassessing when, where, and how customers are served.
- Creating more consistency in services.
- Enhancing partnerships with other state, local and private organizations that deliver services to individuals with disabilities.¹²⁰

Improving Education and Employment for Communities of Color

Between 2000 and 2030, all non-white groups are expected to grow faster than whites.¹²¹ Those from non-white racial backgrounds and Hispanics tend to have lower educational levels than non-Hispanic whites. In 2006, while 92 percent of the non-Hispanic whites 25 years or older had completed high school or its equivalency, only 56 percent of Hispanics and 78 percent of persons from non-white racial backgrounds had done so.¹²²

Lower levels of education and skills combined with racial and ethnic discrimination have negatively affected the labor market experiences of large percentages of individuals from racial and ethnic minority backgrounds. They tend to earn less and are underrepresented in high level positions. These education and employment trends are likely to continue unless we instigate new policies that address issues of access, discrimination, and success in workforce programs.

A key issue for Asian Americans is the disaggregation of data for the "Asian and Pacific Islander" classification. This is necessary to interpret data accurately and develop policy solutions. As with all categories of race and ethnicity, there is great diversity in the Asian and Pacific Islander communities. While the "Asian" group does well in education outcomes according to national and state data, anecdotal information from immigrants of specific Asian countries often tell a different story. National and state policymakers should explore different types of data collection to better serve the needs of the Asian and Pacific Islander communities.

120 Division of Vocational Rehabilitation, "A Strategic Plan for 2009-2013" see <http://www1.dshs.wa.gov/pdf/hrsa/dvr/DVR%20Strategic%20Plan%202009-13.pdf>

121 OFM reported on five major race groups: White only, Black only, American Indian/Alaskan Native only, Asian/Pacific Islander only, and Two or More (i.e., multi-racial).

Unless otherwise indicated people from the different racial groups can be either from Hispanic or non-Hispanic origin. Further, people of Hispanic origin can be of any race.

122 American Community Survey for 2006, Table S0201 Selected Population Profile.

In the coming years, Washington will face an increasing shortage of skilled workers. In the past, people with disabilities have been underutilized human resources, and have been underrepresented in the workforce at large. Part of the solution to future labor shortages should come from preparing people with disabilities for success in the workplace.

Workforce Board, Focus Papers (www.wtb.wa.gov)

Issues for Ex-offenders

According to the Department of Corrections, about 8,500 offenders return to their communities from Washington prisons each year after completing their sentences. A study of the Washington State Institute of Public Policy estimates that more than half of these offenders will commit a new felony within 13 years, imposing huge financial costs. In fiscal year 2007, the average annual cost of incarcerating a Washington inmate stood at over \$31,000, according to the Department of Corrections. More than 18,600 prisoners are housed in Washington state prisons, work release facilities and out-of-state prisons. Many more are behind bars in county and city jails.

Studies show that ex-offenders who are employed are much less likely to re-offend and return to prison or jail. Yet they often cannot find jobs. A report from the MDRC, a nonprofit, nonpartisan social policy research organization, highlights some of the major issues.¹²³

- Employers are reluctant to hire someone with a prison record.
- Former prisoners often have low levels of educational attainment.
- Former prisoners often have a limited work history.
- Former prisoners often have competing demands (drug treatment programs, curfews or other restrictions on mobility).

Ex-offenders are also limited in the jobs that are open to them. For example, those with prison records are prohibited from working in much of the health care industry, where there are ample jobs and career opportunities.

Recognizing the need to increase efforts to help former prisoners successfully re-enter the community, the 2007 Legislature passed ESSB 6157. In addition to requesting the Department of Corrections to create a long-term plan, the bill provided for four pilot programs to be administered by the Department of Community, Trade and Economic Development, and issued funds to counties with the purpose of identifying offenders' needs and connecting them with needed resources and services that support successful transition to the community.

The grant programs will include programs with proven success. Education and training plays a large role. Career and technical education, basic education and correctional industries programs lead to reduced recidivism rates of 9 percent, 7.5 percent and 5.9 percent respectively, and have proven cost benefits to both the individual and the community.¹²⁴

The Employment Security Department (ESD) supports the offender reentry initiative through partnership with the Department of Corrections and community service providers across the state. ESD's Offender Employment Services (OES) delivers reentry and preemployment skills training in 14 correctional institutions and five Community Justice Centers. A model reentry program is being piloted at Stafford Creek Correction Center that provides a community resource database, teaches computerized job search skills, and encourages offenders to participate in their own release planning. OES also provides training to WorkSource and WorkSource partners to help staff work more effectively with those who have prior convictions.

¹²³ Dan Bloom, Cindy Redcross, Janine Zweig (Urban Institute), Gilda Azurdia, "Transitional Jobs for Ex-Prisoners: Early Impacts from a Random Assignment Evaluation of the Center for Employment Opportunities (CEO) Prisoner Reentry Program, MDRC, November 2007.

¹²⁴ Steve Aos, "Evidence-Based Public Policy Options to Reduce Future Prison Construction, Criminal Justice Costs, and Crime Rates, October 2006, page 9.

This inter-agency work should continue to best meet the workforce needs of ex-offenders and their communities.

Online Cost-of-living Calculator Promotes Self-Sufficiency

A new online resource provides a way for low-income customers in the WorkSource system to help themselves. The Washington State Self-Sufficiency calculator links Washingtonians with valuable information regarding work support services, including child care assistance, housing subsidies, and food stamps. Launched in October 2007, the Washington State Self Sufficiency Calculator builds on a previous calculator developed by the Workforce Development Council of Seattle-King County. A \$100,000 grant from the Paul G. Allen Family Foundation, and contributions from a partnership of Workforce Development Councils statewide and the State Board for Community and Technical Colleges provided funds to develop the site. We need to promote wider use of the calculator among job-seekers and case managers to test different strategies for achieving financial, career, and education goals. See: <http://www.thecalculator.org/>.

Working Together to Serve Target Populations

Many of the programs in the workforce development system serve customers and students from target populations. For example, workforce education students at the community and technical colleges are more diverse than the general population.¹²⁵ Because targeted groups are overrepresented in our low-income population, we will likely improve outcomes for targeted populations when we improve outcomes for low-income populations. When we serve low-income populations, policy and frontline staff need to be mindful of the services they are providing, and how they are provided. As we work to serve all adults and adults with barriers to further education and employment we need strategies that are both broad and also target specific need.

Steps To Get Us There

1. Expand the use of the self-sufficiency calculator to all Workforce Development Councils, and provide training for frontline staff. Leads: WDCs, ESD, with other partners.
2. Expand the number of Adult Basic Education programs that integrate occupational skills training through the I-BEST model. Leads: SBCTC with other partners.
3. Expand use of the Food Stamps Education and Training program for customers with the greatest barriers to employment. Leads: SBCTC with other partners.
4. Enhance professional development and provide credentials for career coaching, mentoring, and instruction in life skills and employability skills for WorkSource staff, training institutions, community-based organizations, employers, and others. Leads: ESD, WDCs, working with SBCTC, business and labor organizations, with other partners.
5. Enhance employment and training options for targeted populations (people of color, people with disabilities and women), ex-offenders, and veterans. Leads: ESD, WDC working with SBCTC, business and labor organizations, with other partners.
6. Improve workforce development services for individuals with disabilities by:
 - a. Reaching out to more people with disabilities, and using community-based organizations to assist with this.

¹²⁵ Workforce Training Results 2008, May Board Meeting, PowerPoint presentation, Slide 5.

- b. Reassessing the business needs of employers and services to customers with disabilities.
 - c. Building stronger linkages between workforce development services and programs that provide the essential support services needed by many individuals with disabilities to participate in the workforce.
 - d. Enhancing partnerships with state, local, and private organizations that deliver services to individuals with disabilities. Leads: ESD, WDCs, DSHS – DVR, with other partners.
7. Develop a system to provide post-employment services to adults to improve work retention and career advancement. Leads: ESD, WDCs, business and labor organizations, with other partners.
8. Develop a state strategy to serve the “50 Plus” workforce including flexible work schedules, customized training to upgrade skills, and strategies to enable industry to take advantage of the skills and knowledge of retired workers. Leads: Workforce Board working with Governor’s Council on Aging, SBCTC and community and technical college pilot sites, with other partners.

Adult Objective 4: The WorkSource system provides integrated and effective customer service without barriers associated with separate, individual programs.

No later than 2018:

- WorkSource is a functionally integrated service delivery system that measurably improves the employability of customers.

Working Together to Serve Students and Job Seekers

In 2007, the Workforce Board adopted the Washington Workforce Compact. The Compact is candid about the challenges of working together to remove barriers:

The barriers that stand in the way of our customers achieving their goals are often of our own making. Not that they are intentional. But sometimes, individual program objectives bump up against the policies or practices of other programs in ways that are less than optimal for our customers. For example, the administrative rules of one program may make sense in the context of that program, but when put together with the administrative rules of another program, customers may be faced with conflicting sets of procedures.

The partners to this Compact commit to a collective effort to identify and remove government or other barriers that stand in the way of serving our customers. Such barriers may include policies, practices, regulations, or performance measures. What appear as barriers may exist for good reasons. The partners commit to identifying and removing those barriers that don't make sense from the perspectives of the goals we are trying to achieve for our customers.

Through interviews and surveys, the Workforce Board has begun collecting information from state and local agencies and their customers, to identify barriers and develop solutions to eliminate them. The initial barriers to be addressed are:

- The need for streamlined "co-enrollment" processes.
- The need for staff cross-training.
- The value of co-locating staff among workforce partners.
- The need for consistency in performance measures.

Steps To Get Us There

1. Identify barriers to integrated customer service and implement solutions. Leads: All organizations represented on the Workforce Board with other partners.
2. Increase integration of WorkSource partner programs through methods such as co-enrollments and co-locations among WorkSource partner programs. Leads: ESD, WDCs, with other partners.
3. Increase the use of consistent performance measures among WorkSource partner programs. Leads: ESD, Workforce Board, with other partners.
4. Improve the integration of assessments, counseling, employment services, and training in the WorkSource system. Leads: ESD, WDCs working with SBCTC, private career schools with other partners.

5. Improve linkages with community-based organizations, especially those that serve target populations, ex-offenders, and veterans. Leads: ESD, WDCs, Workforce Board with other partners.
6. Identify opportunities for partnership that will provide resources to serve more customers in the workforce development system. Leads: All organizations represented on the Workforce Board.

Industry Goal and Objectives

Industry Goal: Meet the workforce needs of industry by preparing students, current workers, and dislocated workers with the skills employers need.

Objective 1

The workforce development system supplies the number of newly prepared workers needed to meet current and emerging employer needs.

No later than 2018:

- Raise mid-level degrees and certificates to 36,200 annually, an increase of 9,400 degrees and certificates annually.

Objective 2

The workforce development system strengthens Washington's economy, focusing on strategic industry clusters as a central organizing principle.

No later than 2018:

- Washington's workforce and economic development programs have established track records of effective service to the strategic industry clusters in Washington.
- Washington's workforce development system prepares the number of workers needed to fill job openings in strategic industry clusters.

Objective 3

Current and dislocated workers, and job seekers receive education and training that builds competitive skills and businesses.

No later than 2018:

- A majority of mid- and lower-wage employees receive training from either their employers or the workforce development system.
- Dislocated worker programs are easy to navigate and enable good wage replacement results.

Industry Objective 1: The workforce development system supplies the number of newly prepared workers to meet current and emerging employer needs.

No later than 2018:

- Raise mid-level degrees and certificates to 36,200 annually, an increase of 9,400 degrees and certificates annually.

Increasing Capacity in Middle Skill Training is a Must

Meeting the workforce needs of industry requires expanding the number of people who receive education and training of at least one year and up to, but less than, four years of postsecondary training. Consistent with previous surveys, the Workforce Board's latest statewide survey of employers in Washington reports more employers having difficulty recruiting people with middle skill training—specifically those with vocational certificates and degrees—than any other type of education. (See Figure 3.) Our gap analysis estimates we are meeting only 92 percent of employer demand for workers with middle-skill training. To meet our workforce needs we must increase capacity in middle-skill programs, inform potential students, youth and adults of benefits of such training, and encourage more employers to offer education and training to advance their employees.

Figure 3 Number and Percent of Employers with Difficulty Hiring Qualified Workers, Results by Education Level

Education Levels	Estimated Number of Employers With Difficulty Hiring	Percent of Employers With Difficulty Hiring 2007
	Neither a high school diploma or GED	15,000
High school diploma or GED	25,600	13
Some college course work	43,400	22
Vocational certificate	36,000	18
Vocational associate's degree	27,700	14
Academic associate's degree	19,900	10
Bachelor's degree	24,900	13
Master's degree	15,000	8
Doctoral or professional degree	10,700	6

The Washington State Apprenticeship and Training Council and its administrative arm at the Department of Labor and Industries support registered apprenticeship training around the state. Although most of the current apprenticeship programs in the state are in the construction trades, the apprenticeship training model has been successfully used in several other industry sectors, and it could be a useful model of training for a wide variety of occupations.

The Governor and Legislature have recognized the need to expand apprenticeship training in recent years. They provided \$2.835 million for 2007–2009 to expand apprenticeship programs by 300 full-time equivalent students, and \$350,000 for incentive grants to school districts to develop pre-apprenticeship programs. The 2008 Legislature provided \$3 million to expand aerospace

apprenticeship training programs. This is critical for meeting employers’ needs for skilled workers. Apprenticeships also suit many adult workers who would not enter a traditional education environment because of such reasons as the need to keep working to support their family, and negative experiences with traditional education systems.

Steps To Get Us There

1. Increase annual capacity in middle-skill education and training programs (greater than one year but less than four years) by 9,400 degrees and certificates. Leads: SBCTC, and private career schools. Requires support of the Governor and Legislature and General Fund – state appropriations.
2. Expand apprenticeship training opportunities and recruitment of employers who hire apprentices for traditional and non-traditional programs.¹²⁶ Leads: Department of Labor and Industries – Apprenticeship Training Council, Governor and Legislature. Requires General Fund – state appropriations.

“We must be second to no other nation in educational attainment and in discovery and innovation, or economic security and the quality of life in our communities will deteriorate.”¹²⁷

¹²⁶ Apprenticeships in construction are one example of “traditional” apprenticeships, while apprenticeships in health care fields would be considered “non-traditional.”

¹²⁷ White Paper for Presidential Candidates, State Higher Education Executive Officers 2008

Industry Objective 2: The workforce development system strengthens Washington's economy, focusing on strategic industry clusters as a central organizing principle.

No later than 2018:

- Washington's workforce and economic development programs have established track records of effective services to the state's strategic industry clusters.
- Washington's workforce development system prepares the number of workers needed to fill job openings in strategic industry clusters.

Coordinating Workforce and Economic Development

In addition to expanding middle skill training capacity, Governor Gregoire's action plan to grow Washington's jobs and economy, outlined in the *The Next Washington*, called for improved partnerships in workforce and economic development at the state and regional levels. Working to strengthen industry clusters throughout Washington is one strategy that holds vast promise for strengthening our economy and offering our residents excellent job opportunities.

What is an Industry Cluster?

An industry cluster is the term for "a geographic concentration of interdependent competitive firms that do business with each other, including firms that sell inside and outside of the geographic region, as well as support firms that supply new materials, components, and business services, and other institutions including government and education." It includes upstream suppliers of inputs—such as firms that supply materials and equipment, and downstream customers, including other firms. It also includes related entities that shape the environment within which the industry operates—such as government regulatory bodies. The key characteristic is inter-relatedness.¹²⁸

The Workforce Board has identified strategic industry clusters in each of the 12 workforce development areas. (See <http://www.wtb.wa.gov/ClusterAnalysis.asp>). The clusters are identified as strategic based on a number of characteristics, including their location coefficient (a measure of the regional concentration of the industry compared to the national average), size, growth, and wages.

The clusters considered to be strategic by the Workforce Board are not a definitive list of all strategic industry clusters in Washington. Local areas may have data identifying other strategic clusters. Different organizations at the state and local levels decide on other characteristics they believe are indicators of strategic importance. The list, however, does identify clusters that warrant particular attention for workforce development policies and practices.

Location Plays a Role

Local, state, and national economies are characterized by prominent pockets of unusual economic success—entertainment in Los Angeles, shoes in Northern Italy, pharmaceuticals in Philadelphia. We have many such examples in Washington—wine in Walla Walla, software east of Lake Washington,

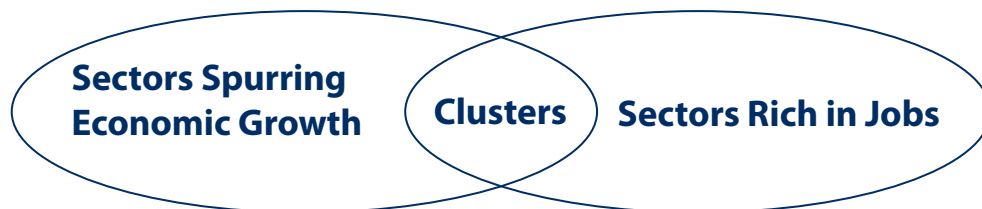
¹²⁸ In 2007, the Governor's Policy Office convened a work group that developed definitions for the terms "cluster," "sector," and related terms. This definition and discussion relies on the work of Michael E. Porter. E.g.; see, *Clusters and Competition: New Agendas for Companies, Governments, and Institutions*, Chapter 7 of *On Competition*, Michael E. Porter, Harvard Business School Press, Cambridge, MA, 1998.

aerospace in Snohomish and King counties. Much of the world's economic success is situated in such localized concentrations of economic star power.

Although we live in an increasingly global economy, location still matters. Different locations have different advantages and disadvantages for particular industries. Locations vary in natural resources, human capital, physical infrastructure, supporting institutions (education and research), and access to suppliers and to markets. Over time, economic concentrations emerge where these factors are particularly favorable for a given industry. Sometimes too, chance plays a role, such as the birthplace of a single visionary entrepreneur.¹²⁹

We should focus on clusters because that is where economic growth is most likely to occur and where innovation is most likely to begin. Focusing on clusters also makes special sense for coordinating workforce and economic development, since clusters are sectors of the economy where workforce and economic development overlap.

Government can assist clusters by helping to provide factors of production and alleviating bottlenecks, such as skill shortages, that impede cluster growth. Government can provide public goods, such as education, roads, and water and sewer systems, that are of value to many firms because their benefits are not limited to the particular firms or individuals that directly pay for the goods or services. By focusing on providing public goods for clusters, rather than on resources for individual firms, government can avoid entering into unfair competition. Government can instead assist all firms that face similar needs.



In targeting clusters, government does not have to guess at which industry sector will emerge to be the next "big thing." Cluster strategy directs government to target industry sectors that the private market has already identified as competitive for that geographic location. This is not to say that a focus on emerging industries or innovation has no place in cluster strategy—far from it. It suggests that a place to focus is on emerging industries and innovations that are inter-connected with a cluster's core industry. An example is building university research capacity in automotive technology in a geographic area with an existing automobile manufacturing cluster. Governments and others would be wise, however, to exercise caution before expending resources to build a cluster where one does not exist, potentially competing with other geographic areas where the market has already demonstrated a competitive advantage.

¹²⁹ For further discussion see paper by Bryan Wilson, "Skills for the Next Washington" White Paper, Workforce Training and Education Coordinating Board, 2008.

Spokane teachers get first-hand look at manufacturing jobs

Through the Greater Spokane Inc Manufacturing Roundtable (an Industry Skill Panel program), Wagstaff, a Spokane manufacturer of sophisticated molds, casting machines, and automated systems, hosted Teaching the Teacher Workshops to acquaint teachers with manufacturing job opportunities. With these workshops and follow-up student tours arranged by the workshop attendees, over 100 teachers and students visited Wagstaff to learn about educational requirements for technical and skilled jobs in manufacturing.

Coordinating Workforce and Economic Development Around Regional Clusters

While some of the ways that government can assist industry clusters exist in Washington, others are missing. Also missing is an agreed upon framework that puts the pieces into place in a coherent manner. For state and local government to effectively coordinate workforce and economic development around clusters in Washington, certain steps should take place:

- Clusters should be identified.
- Cluster partners should be brought together.
- Programs and resources should be available to assist clusters.
- State and regional workforce and economic plans should lay out how government will support clusters.
- State and local government should implement programs and direct resources to assist clusters in a coordinated and strategic manner.

Other Cluster Initiatives

The community and technical colleges have established Centers of Excellence in 11 Washington clusters. These Centers are sources of expertise on how colleges can assist in closing skill gaps in their regional clusters and in core industry sectors throughout the state. The designated colleges develop expertise, curriculum, faculty, and partnerships related to a particular industry cluster. The critical feature is that the center knows and understands its industry cluster and is a lasting resource for the cluster. Working closely with its related Skill Panel, the center provides technical assistance to colleges around the state so that their services are fashioned to meet industry needs.

The community and technical colleges and the four-year institutions receive "high demand funds" from the Legislature to increase student enrollments in fields where employer demand exceeds the number of students coming out of in-state colleges and universities. The institutions can use these funds to address the skill gaps in clusters. High employer demand programs of study are not always the same as clusters, though they often support clusters.

The community and technical colleges also receive Workforce Development Funds. These are fairly flexible funds used to start up, expand, or update workforce education programs. These funds can also be directed toward programs in industry clusters.

Steps To Get Us There

1. Establish Industry Skill Panels that provide information on skill needs in strategic industry clusters in all workforce development areas. Leads: Workforce Board, CTED, WDCs, and other partners.
2. Establish Centers of Excellence that provide best practice support to education providers for all strategic industry clusters in the state. Leads: SBCTC, with other partners.
3. Expand High Employer Demand programs of study at all levels of postsecondary education and target under-represented labor pools to facilitate their entry to high demand occupations. Leads: SBCTC, private career schools, HECB, public baccalaureate and independent colleges. Requires the support of the Governor and Legislature and General Fund – state appropriations.
4. Prepare more individuals to work in industry clusters that provide middle-wage and high-wage job opportunities. Leads: SBCTC, private career schools, Department of Labor and Industries – Apprenticeship Training Council, Workforce Board, WDCs, with other partners.
5. Coordinate workforce development and economic development planning efforts at the state and local levels, including an emphasis on industry clusters. Leads: Workforce Board, EDC, CTED, WDCs, ADOs, with other partners.
6. Provide the best possible services to support strategic industry clusters by:
 - a. Identifying and removing barriers to serving industry clusters.
 - b. Identifying and implementing best practices in industry cluster development.
 - c. Identifying and implementing best practices in unified business services at WorkSource Centers.
 - d. Providing incentives to regions and local areas to convene and support industry clusters through programs and resources. Leads: Workforce Board, ESD, EDC, CTED, with other partners.
7. Establish a state initiative modeled after the WIRED grant program. Leads: Workforce Board, CTED, WDCs and ADOs, with other partners.
8. Convene an annual conference for workforce and economic development. Leads: Workforce Board and CTED, with other partners.

A Strategic Industry Skill Panel Example

The Northwest Workforce Development Council's Industry Skill Panel in Marine Manufacturing & Technology has had an immense positive impact for this industry cluster chiefly through increasing recruitment, developing relevant and up-to-date curricula, and expanded training capacity. The Industry Skill Panel provided a conduit between education providers to implement a variety of programs including the following:

- Marine Carpentry and Marine Electrician Curricula.
- New classes in Marine Carpentry, Marine Electrical and expanded capacity in Yacht Finish, and ABYC National Certification.
- Marine Aluminum Welding Curricula and Marine Aluminum Welding skill standards.
- In-house marine aluminum welding training for new and incumbent workers at All American Marine, Inc. and other work places.
- Developed on-site DVD-based training model to train large crews on production processes.
- Convened stakeholders at meetings, summits, and presented at conferences
- Created high school curriculum for Summer Marine Career Camps ("Float Your Boat" and Marine Manufacturing Summer Career Camps).
- Conducted Marine Manufacturing & Technology Maritime Breakfasts for high school and junior counselors in the area.
- Created Military Skills Crosswalk matching Pacific Marine industry skill requirements to military occupations.

"I would like to recognize the continuing effort that the 11-county Marine Manufacturing and Technology Regional Skill Panel partnership has contributed to the shipyard's workforce needs. The emerging talent pool created over the last three years, through multiple training academies and industry outreach throughout our region, is a direct result of our partnership efforts in building a sustainable pipeline. Incumbent worker training has not only benefited our industry, but produced training models for regional manufacturers seeking on-site specific process training. Outreach to veterans through the development of the Military Crossover has offered solutions and strategies to our staff as we seek to maintain our status in the yacht building industry.

We are not only aware, but very appreciative that this partnership has opened new avenues of education in many areas of our industry, as well as a direct pipeline for our young people that are preparing to enter the workforce. We look forward to the future as this partnership continues to be a valuable learning experience with tangible results. This is the kind of "out-of-the-box" thinking that will aid our industry and many industries in the coming years."

Bob Brown, Manager, Westport Shipyard, WA

Industry Objective 3: Current and dislocated workers, and job seekers receive education and training that builds competitive skills and businesses.

No later than 2018:

- A majority of mid- and lower-wage employees receive training from either their employers or the workforce development system.
- Dislocated worker programs are easy to navigate and provide good wage replacement.

Customized Training

In 2007, 60 percent of employers in Washington reported providing, or paying for, four or more hours of classroom training for their employees. Research indicates that this type of training is usually concentrated on higher level workers in certain industries. This type of training usually does not lead to a credential. We need to communicate a message to employers and employees across Washington: It pays to engage in further education and training. Where possible, we want to see employees raise their level of education at least to one year of postsecondary education and a credential.

Employers report that state-supported customized training is very attractive to them when considering whether to move to Washington or expand here. Washington ranks near the bottom of states in the amount of public support provided for customized job training for current employees. We have increased support for customized training in recent years, though not enough to meet demand. State programs include the Customized Training Program and the Job Skills Program. Customized training can also be funded through the federal Workforce Investment Act.

The Governor and Legislature supported customized training for Washington's high demand health care occupations by allocating \$1.5 million in the 2008 supplemental budget to fund the Health, Employee, Education and Training (HEET) initiative. This provides competitive grants to labor, management, and college partnerships to develop, or expand and evaluate, innovative training programs for hospital workers that lead to careers in nursing and other high-demand health care fields.

By reviewing our suite of customized programs, and assessing needs and incentives, we can expand and improve our services to employers and workers through customized job training.

"Since the start of the Job Skills Program at Intalco, we've been able to not only meet our skilled craft headcount needs; we've also had a high retention rate (over 93%) of participants in the program. In addition, the JSP candidates have progressed significantly in their training, which has both increased their wage rate and allowed us to backfill their former production positions with new employees."

*Jan Furnas, Alcoa
Intalco Workers/
Bellingham Technical
College*

Joint Labor-Management Training Partnerships

Joint labor-management training partnerships aim to meet the skill gap needs of both employers and the workforce. They are primarily funded through collectively-bargained contributions so their funding is dependable. The most common type of labor-management training partnerships in Washington are Joint Apprenticeship and Training Committees (JATCs) that primarily provide apprenticeship programs.¹³⁰ Another example of joint labor-management training partnerships is the SEIU Healthcare NW Training Alliance which is an alliance of the SEIU Healthcare NW Training Partnership, (training for long-term care workers) and SEIU Healthcare 1199NW Multi-employer Training Trust (training and upgrading programs for incumbent hospital workers) which includes apprenticeships and a variety of other programs and supports.

Steps To Get Us There

1. Increase the level of public and private support for customized training for current workers including joint labor-management training partnerships, recruit more workers and employers to participate, and improve program design to best suit their needs. (Also see strategies in the Adult section of this plan.) Leads: SBCTC, Requires the support of the Governor and Legislature and General Fund – state appropriations.
2. Increase the number of working adults gaining further education and training at the workplace through distance learning and other methods including the integration of Adult Basic English/English language and occupational skills. (Also see strategies in the Adult section of this plan.) Leads: Governor and Legislature. Workforce Board working with SBCTC, business and labor organizations, joint labor-management training partnerships with other partners.
3. Expand the availability of Lifelong Learning Accounts to fund worker training. Leads: Workforce Board, HECB, Association of Washington Business, business and labor organizations, with other partners.
4. Align eligibility criteria for dislocated worker programs. (Also see strategies in the Adult section of this plan.) Leads: Workforce Board, ESD, SBCTC, WDCs, with other partners.
5. Establish a toolbox of work-ready assessments and promote their use in a variety of settings. Leads: Association of Washington Business, Workforce Board, ESD, WDCs, WorkSource Center partner agencies.

¹³⁰ See Washington Administrative Code for apprenticeship programs approved by the Washington State Apprenticeship and Training Council. WAC 296-05-309.



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