

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,

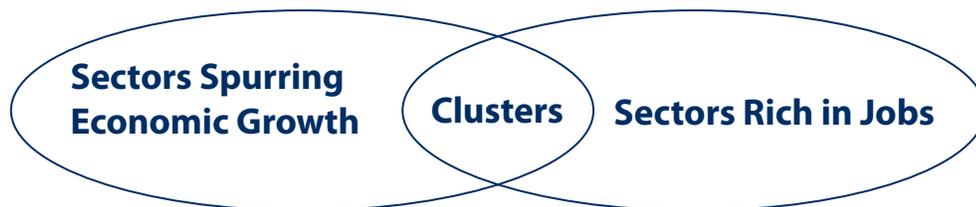
¹²⁸ In 2007, the Governor's Policy Office convened a work group that developed definitions for the terms "cluster," "sector," and related terms. This definition and discussion relies on the work of Michael E. Porter. E.g.; see, *Clusters and Competition: New Agendas for Companies, Governments, and Institutions*,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