2005

Industry PANELS

Industry skill panels are public-private partnerships of business, labor, and education working together to improve the skills of workers in industries vital to Washington. Industries see the skill panels approach as a successful model, providing leadership, innovation, and solutions to grow and keep a competitive workforce.

During the last two decades, Washington has seen dramatic growth in knowledge-based industries. Nearly all industries must invest in new technologies to stay competitive. In state and national surveys, employers say they continue to face shortages of skilled workers. Even more troubling, employers say that limited access to a skilled workforce is by far the largest barrier to expansion. Business, labor, and education have crucial roles in ensuring that workers have the skills necessary to keep Washington State competitive. Their active participation in industry skill panels ensures that Washington's workers get the knowledge they need and Washington's businesses get the employees they need.

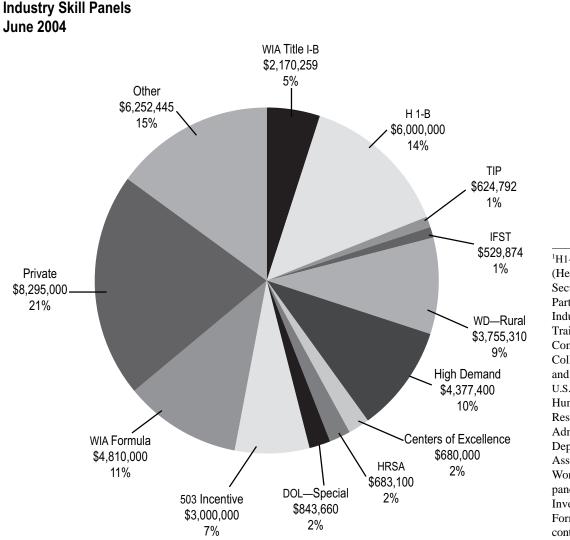
How Industry Skill Panels Work

Industry skill panels continuously examine the workforce needs of the industries they serve and create plans to meet those needs. Panels push for change. They recommend new training programs where none existed before. They demand more training capacity when there are not enough graduates to go around. They press for modernized training for the industry's current workforce. They demand that public training budgets are strategically used. They support economic development initiatives aimed at building industry competitiveness.

Industry skill panels are increasingly influencing Washington's workforce development system. Effective industry skill panels allow private enterprise to contribute intellectual and financial resources to ensure both workers and employers stay competitive. Their work has mobilized the workforce development system to action. Community colleges are responding to employer needs with more flexible, higher quality training. They are expanding and creating more modular courseware options, providing additional weekend and evening classes, offering greater numbers of distance learning opportunities, and improving their systems in countless other ways. As a result, today's workforce development system participants are leaving their training programs better prepared for tomorrow's jobs.

WASHINGTON STATE Workforce Training and Education Coordinating Board Industry skill panels are not only improving Washington's workforce development system; they are bringing in additional funding. Increased financial resources are coming to local communities from a variety of sources, including the federal government, private businesses, and foundations.

Our limited investment in industry skill panels has produced a sizable return. As of June 2004, 19 industry skill panels enabled communities to benefit from over \$40 million in additional funding from state and federal resources.¹





¹H1-B; 503 Incentive Award (Health Care); Employment Security's Targeted Industry Partnerships (TIP) and Industries for Future Skills Training (IFST); State Board for Community and Technical College's High-Demand Grants and Centers of Excellence; the U.S. Department of Health and Human Services-Health Resources and Services Administration (HRSA); the U.S. Department of Labor-Technical Assistance Grants to connect WorkSource to industry skill panels; federal Workforce Investment Act Incentive and Formula funds; private contributions; and others.

41 Industry Skill Panels Strong—and Still Growing

The following pages briefly describe the 41 industry skill panels working with 16 key industries in Washington State. The panels are listed according to their respective local Workforce Development Area. (See Map page 7). As you read the descriptions, you will see that each panel is unique. Some industry skill panels include several regions, while others have a statewide reach. Some focus on one industry sector, while others focus on two or more. Most were funded by the Workforce Training and Education Coordinating Board (Workforce Board), but others had initial funding from other sources.

As industry skill panels continue to gain recognition, the Workforce Board and its partners will develop strategies to expand the initiative to meet the growing demand for this targeted approach to workforce development.

Here is a short list of skill panel results. These and other skill panel accomplishments are supporting a workforce system as it takes on the challenges of Washington's 21st century economy.

Food Processing

- Community and technical colleges created 26 customized courses offering certification and opportunities for career advancement. Nearly 800 incumbent workers received training in 32 companies. Several of these earned an additional \$300 to \$600 in the four-month period after training.
- Training costs averaged \$450 to \$500 per individual, per session—saving money for employers who previously sent incumbent workers out of state for training at 4 to 6 times the cost.

Health Care

- Washington State University (WSU) Tri-Cities began a Registered Nurse (RN) baccalaureate program in 2004, enrolling 20 students immediately.
- Skagit Valley Community College added 36 slots for students in its RN program.
- A Bilingual Licensed Practical Nurse (LPN) program at Skagit Valley and WorkSource will graduate 13 students in June 2005.

- WorkSource and Bellingham Technical College partnered to add an additional LPN class—18 students graduated in February 2004. A new class will be added each quarter for an additional gain of 20 LPNs per year.
- A "bridge program" was created in northwest Washington by a community and technical college in collaboration with the local WorkSource center to offer health care foundation skills to English as a Second Language (ESL) students. The new program reached 45 ESL students.
- South Puget Sound Community College doubled the capacity of its Medical Assisting program to 40 and expanded its part-time evening nursing program as well. In addition, it developed an online prerequisite course for Dental Assisting, expanding access to future students.
- Centralia College doubled capacity in its two-year nursing program to 48.
- Grays Harbor College expanded its nursing program from 50 to 70, added new sections for pre-nursing classes, and updated training aids and equipment for its science labs.
- The Shelton branch of Olympic College developed a new LPN program. The initial class of 10 will grow to 20 by 2006.
- Clark College was funded to graduate an additional 24 RNs each year.
- Lower Columbia College developed an online distance learning "LPN to RN bridge program."
- WSU received funding to add 10 new students each term, beginning fall 2004.

Game Software Development

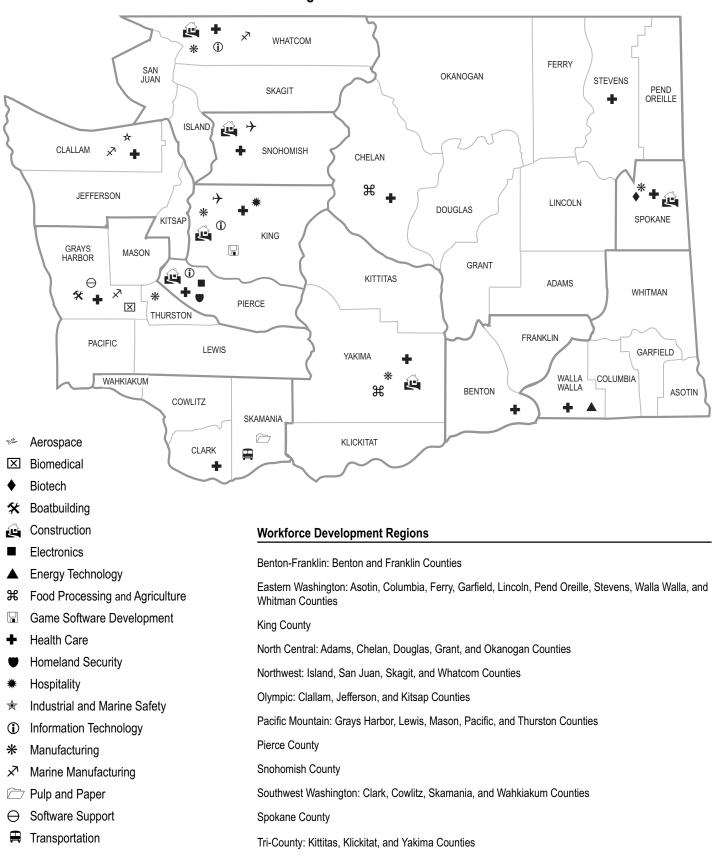
- One hundred Zombie, Cranky Pants Games, and Greenhouse Media employees were trained using curricula identified and developed by the industry skill panel.
- Forty industry leaders provided training in Lake Washington Technical College's 3D animation classes using curriculum developed by the industry skill panel.

Information Technology

- Eighteen students from two colleges and four high schools won prizes in Networking, A+, and web design at the Pierce County 2004 Technology Competition.
- Skill panel members representing businesses donated and distributed equipment to Pierce County area high schools and community colleges.
- In partnership with Edmonds, Bellevue, and Pierce Community Colleges, the Regional Advanced Technology Education Consortium developed a Prior Learning Assessment Portfolio for Information Technology that allows community and technical college students to be granted credit based on assessment of their knowledge and previous work experience.
- Eleven Information Technology (IT) agreements were established, enabling students to transfer IT credits from high school to college.
- A "Technology Tour for Educators" was conducted by a Pierce County skill panel to familiarize educators and workforce development professionals with local high-tech companies.

Other Industry Examples

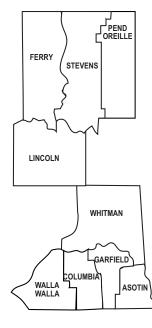
- An energy skill panel developed Energy Systems Technology Skill Standards, curricula, and assessment tools for a course now offered by Centralia College and Walla Walla Community College.
- A manufacturing industry skill panel developed modular manufacturing curriculum based on skill standards.
- The industrial and marine safety skill panel created and revised safety training curricula for Peninsula College. Businesses now contract with the college to deliver the curriculum and implement safety training programs.
- Biotechnology curriculum is now available for two short courses—Introduction to IT in Health Care and Lab Books and Legal Issues.



Washington State's Skill Panels



Benton-Franklin Workforce Development Region



Eastern Washington Workforce Development Region

Health Care. Like the rest of the state, Benton and Franklin Counties are experiencing critical health care worker shortages. The Benton-Franklin Community Health Alliance Skill Panel was formed to analyze labor market information specific to the bi-county area, identify skill gaps and labor shortages, and recommend strategies to solve the problem. Working from an ambitious action plan, the alliance promoted nursing and imaging technology training programs, expanded the region's training capacity for nurses, improved training facilities, and secured additional clinical training sites. In 2004, 230 high school students participated in a Math, Engineering, and Science Achievement program to increase math and science skills for minorities and females in middle and high school. The alliance worked closely with Columbia Basin College to develop a federally-funded summer camp offering interactive learning experiences, job shadows, and career decision-making. Federal funds also enabled the college to purchase software that tracks students in K-12 and college programs, promotes enrollment in diverse health science offerings, and improves communication throughout the health care community. The alliance is currently concentrating efforts on recruiting youth and adults into the industry.

Health Care. With the current national shortages of health care workers, rural areas simply cannot compete with the larger salaries offered by urban areas. Many rural hospitals are having trouble keeping their doors open. Shortages exist in traditional occupations, such as registered nurses, and in specialty occupations, such as radiology technologists. Given these shortages, local hospitals and clinics are not able to offer a full range of services. This has a negative impact on the area's physical and economic health. Two skill panels, one in the north and one in the south, are addressing the health care workforce shortages in this huge area in rural eastern Washington. The panels consist of staff from hospitals, clinics, long-term care facilities, community colleges, economic development, labor, the workforce development council, and secondary schools. Both panels are currently analyzing labor market information, prioritizing occupations with the greatest shortages, and developing recommendations. One recommendation recently embraced by the Community Colleges of Spokane is that training is now offered in rural centers. For example, Spokane Falls Community College is offering anatomy and physiology classes and will soon be adding Licensed Practical Nurse training in the Colville Center. The two panels are currently exploring distance learning opportunities and supporting grant applications to expand technology to increase training options for rural residents.

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Josie Darst Eastern Washington Partnership Workforce Development Council 509-685-6128 jdarst@ruralresources.org www.ewpartnership.org/ *Energy*. Washington's ability to compete in the global economy of the 21st century depends on carrying out an energy strategy that will ensure relatively low-cost and reliable electricity. Walla Walla is home to several energyrelated organizations, including the Army Corps of Engineers, the Bonneville Power Administration, and the Florida Power and Light Company, which produces wind turbine energy. The Walla Walla Energy Skill Panel, in partnership with Walla Walla Community College (WWCC), is increasing the availability of skilled technicians for the energy industry in southeastern Washington by conducting continuous market analyses of current and future technical workforce needs, identifying critical skill gaps, and offering appropriate and timely training. The panel developed Energy Systems Technology Skill Standards, assessment tools, and curricula. It also commissioned electrician and mechanical technical instructional programs for industry by integrating with an existing refrigeration and air-conditioning program at WWCC. New instructional strands in power generation and distribution, generators, alternators and transformers, hydraulics, pneumatics, and industrial safety have become part of a one-year certificate and a two-year associate degree program at the college. In December 2004, the State Board for Community and Technical Colleges granted approval to the new Energy Systems Technology program at WWCC. Currently, the panel is piloting and refining its energy curriculum and developing an apprenticeship articulation agreement with area apprenticeship providers.



North Central Workforce Development Region

Food Processing and Agriculture. This was one of first industry skill panels funded by the 2000 Legislature. That year, both the Grant and Adams County Economic Development Councils had just completed a study of the food processing industry. The study found that basic skills of food processing workers needed to be improved. Since food processing is key to the economy of the Columbia Basin area, the North Central Workforce Development Council (WDC) formed a stakeholder advisory committee to recommend strategies to solve the problem. Several employer focus groups reviewed the industry's basic skill requirements and recommended curricula. Training modules were designed to help incumbent and future workers meet the skill requirements of the Food Processing Workforce Skill Standards for several food processing occupations. A skill panel then identified strategies and tactics to increase or improve the availability of industry-specific ESL instructional materials and to create an entry-level course entitled "Introduction to Food Processing" for new and prospective

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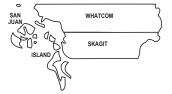
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Alex Kosmides Northwest Workforce Development Council 360-676-3206 akosmides@nwpic.bellingham.wa.us www.nwboard.org employees. The work of this panel was integrated with the Eastern Washington Agriculture and Food Processing Partnership now centered at the Tri-County WDC.

Health Care. Several health care facilities in this five-county region are struggling with financial and workforce issues. This is a problem because health care facilities do not just contribute to the well-being of this large rural community, they also contribute to its economy. The region has recruitment problems in virtually every heath care discipline. The North Central Health Care Skills Panel was formed to address these workforce shortages. In its second year, the panel can claim several successes. It is helping to leverage \$2 million raised by Wenatchee Valley College and the community for the Nurses for Tomorrow campaign. Last spring, the Nurses for Tomorrow program enabled 36 nursing students to come off a waiting list. The panel supported a second initiative—the E3 program. E3 (employers, employees, and education) is a school-at-work education program designed to train and retain incumbent health care workers. Eleven clinics and hospitals spread across fourteen thousand square miles in North Central Washington and the Columbia Basin are participating in E3, which is allowing health care classes to reach new labor pools. A quarter of a million dollars, matched dollar for dollar by the health care industry, was invested in E3, enabling the WDC to quadruple its original goal of upskilling 50 workers. Finally, the panel is collaborating with Big Bend Community College, Wenatchee Valley College, and local high schools to improve health care career pathways for youth. Tech-prep partners are teaming up with Washington Business Week to develop Destination Heath Care. In March and April of 2005, 300-400 ninth graders in 3 sites across the region will embark on a learning adventure with volunteer health care professionals from the panel, using Business Week's program.

Health Care. When information from the Employment Security Department's Labor Market and Economic Analysis unit revealed a growing and increasingly urgent need for trained health and allied services workers in the Northwest Workforce Development Area, the WDC formed the Northwest Alliance Health Care Skill Panel. The panel was convened to "provide industry-driven guidance for strategically addressing workforce needs in health care occupations." During its initial phase, this partnership of industry, labor, education, and employment training representatives from 21 organizations in the 4-county area identified the region's highest priority health care workforce skill gaps and implemented a plan to fill them. The panel is



Northwest Workforce Development Region

currently marketing health occupations to middle and high school students, expanding local training capacity for preparing registered nurses, encouraging limited-English proficiency individuals to enter the health care field, building the <www.heathcarework.inf> website (links job seekers to health care employers), surveying employers to identify new industry skill gaps, and forming public-private partnerships to leverage resources for workforce training.

Construction, Information Technology, and

Manufacturing. The Northwest Workforce Development Area is characterized as an economy of very small businesses. Over 80 percent of the region's businesses employ between 1 and 19 employees. Although the area has over 2,000 construction-related firms and 900 manufacturing firms, the majority of these have less than 4 employees with annual sales of less than \$500,000. The panel analyzed workforce skill gaps in the construction, manufacturing, and information technology sectors. It determined that although manufacturing, construction, and information technology labor needs are currently being met, recruitment and training for skilled employees in the next 5-10 years is a concern in both construction and manufacturing. The project then developed and implemented a set of recommendations to strengthen the entry-level workforce in both industries.

Marine Manufacturing and Technology. A recent survey indicates that boat manufacturers in the Northwest area expect to hire over 300 new workers between 2005 and 2007. Westport Shipyards is building a plant in Port Angeles that will employ another 200 workers. In the Pacific Mountain area, boat building is the fastest growing industry in Grays Harbor County and its economic impact is felt throughout the region. The Northwest WDC is coordinating with the Olympic WDC, the Pacific Mountain WDC, four economic development councils, four community and technical colleges, K-12 tech-prep program partners, labor representatives, and industry leaders to establish the Marine Service and Technology Skill Panel. The panel will develop a strategic plan to address skill shortages in boat building and related marine industries in 11 coastal counties. They will identify skill standards, promote work-based learning opportunities, develop recommendations for customized training, promote careers in marine manufacturing to youth, and coordinate the formation of public-private partnerships to leverage resources for workforce training in the marine trades. The panel will play a key role in supporting and guiding the development of the Marine Manufacturing Center of Excellence at Skagit Valley College.

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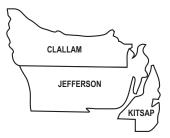
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Bob Lawrence Peninsula Community College 360-417-6344 bobl@pcadmin.ctc.edu www.clallam.org/industryclusters/index.html *Health Care*. One of the original industry skill panels, Olympic was ahead of the curve in focusing on health care because of a continued and growing need for trained health services workers in Clallam, Kitsap, and Jefferson Counties. The Olympic Health Care Alliance first surveyed the local labor market and developed a list of goals and objectives for K-12 education, basic skills training for certified nurse assistants, radiological technician training, didactic training for registered nurses, legislative action, and public awareness. A local scholarship program for radiological technician training was set up through Peninsula College with funding from health care providers and the Olympic WDC. A feasibility study was conducted for a coordinated program between Olympic College and Harrison Hospital. Registered nurses received training in gerontology, perioperative, and critical care. The <PracticeInParadise.org> website was developed to enhance visibility and recruitment. The alliance then conducted teacher and counselor education workshops in Central Kitsap, Port Townsend, Port Angeles, and Forks, and a Health Care Career Fair for students and parents. In addition, the alliance conducted training classes for health care professionals in such subjects as management training, stress-reduction, conflict resolution, and ServSafe certification. It also sponsored a six-day summer camp for ninth and tenth graders. Future projects include national certificate preparation for pharmacy technologists and Wound Management Specialist Certification for nurses and physical therapists. The alliance is currently revising its strategic plan to identify solutions to overcome workforce barriers and to oversee its medical occupations scholarship program, a basic medical terminology training project, and a Nursing Assistant Certified Mentor Training feasibility study.

Industrial and Marine Safety. This skill panel was formed to determine the most pressing safety training needs in the industrial and marine industries in the Olympic Peninsula. These industries include ship repair, fueling, transportation, fire protection, and others with safety training needs. After surveying several businesses, the panel created a strategic plan with recommendations to the college on how to develop and maintain an industrial and marine safety training institute. The panel broadened its focus, ultimately surveying nearly 80 businesses in several other industries including corrections, construction, national parks, and manufacturing in Clallam and Jefferson Counties. It became apparent that many businesses were deficient in providing safety training. By showing the urgency to correct safety measures, Peninsula College workforce education staff were able to assess needs and customize safety training across a broader



Olympic Workforce Development Region

industry scope than first planned. The panel created or revised safety training curricula, offered on-site safety training, and developed educational materials. This panel is now part of Clallum netWorks, an economic development cluster strategy.

Marine Manufacturing and Technology. A recent survey indicates that boat manufacturers in the Northwest area expect to hire over 300 new workers between 2005 and 2007. Westport Shipyards is building a plant in Port Angeles that will employ another 200 workers. In the Pacific Mountain area, boat building is the fastest growing industry in Grays Harbor County and its economic impact is felt throughout the region. The Northwest WDC is coordinating with the Olympic WDC, the Pacific Mountain WDC, four economic development councils, four community and technical colleges, K-12 techprep program partners, labor representatives, and industry leaders to establish the Marine Service and Technology Skill Panel. The panel will develop a strategic plan to address skill shortages in the boat building and related marine industries in 11 coastal counties. They will identify skill standards, promote work-based learning opportunities, develop recommendations for customized training, promote careers in marine manufacturing to youth, and coordinate the formation of public-private partnerships to leverage resources for workforce training in the marine trades. The panel will play a key role in supporting and guiding the development of the Marine Manufacturing Center of Excellence at Skagit Valley College.



Pacific Mountain Workforce Development Region

Health Care. A 2001 Skill Gap Survey conducted by the Pacific Mountain WDC shows that medical workers in this five-county area are in high demand. Nurses are in the greatest demand, especially those with specialty training in critical care, emergency room, and family care. The WDC formed a panel of key leaders from business, education, economic development, and organized labor to identify skill gaps, barriers, and solutions. The panel leveraged training resources and developed a strategic plan to resolve shortterm and long-term labor shortages. In 2002, the Pacific Mountain WDC received additional funding to support health care providers and community colleges in the area by developing regional training programs. The skill panel is currently overseeing incumbent worker training for highdemand health professions. Panel members, including major employers and colleges in the region, will assess resources needed to maintain college training capacity and expand programs to meet industry need.

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John Loyle Pacific Mountain Workforce Development Council 360-754-4113 loylej@co.thurston.wa.us *Manufacturing*. Manufacturing is a vital and historic component of Washington's economy, accounting for 13 percent of all state employment and representing over 300,000 workers and 16 percent total wages in the state. The Association of Washington Business' nonprofit arm, the Institute for Workforce Development and Sustainability, convened a panel of representatives of key industry sectors to analyze the condition of manufacturing in Washington State. The panel oversaw a comprehensive review of manufacturing across 11 subsectors, analyzed trends in small-, mid-sized, and large businesses, and reviewed rural and urban-based manufacturing. The resulting report, Manufacturing in Washington State: 1990-2002: Trends and Implications for the Industry and State, contains several recommendations for boosting workforce skills and the overall competitiveness of the manufacturing industry. The report continues to be used to influence policy in all 12 WDCs.

Marine Manufacturing. A recent survey indicates that boat manufacturers in the Northwest area expect to hire over 300 new workers between 2005 and 2007. Westport Shipyards is building a plant in Port Angeles that will employ another 200 workers. In the Pacific Mountain area, boat building is the fastest growing industry in Grays Harbor County and its economic impact is felt throughout the region. The Northwest WDC is coordinating with the Olympic WDC, the Pacific Mountain WDC, four economic development councils, four community and technical colleges, K-12 tech-prep program partners, labor representatives, and industry leaders to establish the Marine Service and Technology Skill Panel. The panel will develop a strategic plan to address skill shortages in the boat building and related marine industries in 11 coastal counties. They will identify skill standards, promote work-based learning opportunities, develop recommendations for customized training, promote careers in marine manufacturing to youth, and coordinate the formation of public-private partnerships to leverage resources for workforce training in the marine trades. The panel will play a key role in supporting and guiding the development of the Marine Manufacturing Center of Excellence at Skagit Valley College.

Software Support and Boat Manufacturing. This project formed two panels to address skill gaps in the software support and boat building industries—the fastest growing business sectors in Grays Harbor County. The project identified skill shortages in the two industries, including the barriers to meeting them, and recommended K-20 curriculum changes. These recommendations resulted in additional training programs and new courses for incumbent workers. Elements of this work moved to the Marine Manufacturing and Technology Skill Panel.

Construction. Studies conducted by the office of PortJobs, the Northwest Policy Center, and the King County Labor Council's Worker Center project huge skill shortages in the construction industry. These studies catalyzed the creation of a 22-member, industry-led panel. Focusing on trades with the greatest shortages, the panel provided a venue for representatives from education, labor, government, and business to address labor force needs, identify barriers to recruiting trades applicants, develop a marketing and outreach plan to increase the number of women, minorities, and low-wage workers who pursue careers in the building trades and expanded preapprenticeship programs in Snohomish County. The recommendations from this panel are being shared with other construction initiatives throughout the state.

Game Software Development. Washington's game software development industry has grown at a steady pace over the last two decades. Game development is a relatively new field with very demanding and specific job skill requirements. Game development firms employ large numbers of specialized workers divided into three major categoriesengineers, programmers, and production workers. Engineers and programmers create the hardware and software engines that drive the games, while artists and art production technicians create the game content. Game technology is continuously fed by vastly more powerful game consoles. As games get bigger, more production workers are required to build them. To respond to this demand, Lake Washington Technical College established a skill panel comprised of game developers, several software corporations, colleges and other educators, and the Seattle-King County WDC. The panel developed internship programs and skill standards for Electronic Game Content Production. It partnered with Mesmer Animation Labs to develop and distribute a textbook written expressly for game artists, featuring six complete courseware modules (available at <www.wa-skills.com>). The panel is currently revising its strategic plan, planning a June 2005 Game Software Development Conference, developing career ladders and other wage progression strategies, and identifying performance measurements linked to industry-approved skill standards.

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Joy Howland RATEC 425-564-2192 jhowland@bcc.ctc.edu www.rateconline.org *Health Care*. The skill gap issues facing the health care industry in King County are so severe that experts are beginning to frame them as a looming public health crisis. As the health care center for Alaska, Idaho, Montana, and Washington, the King County area offers a comprehensive selection of health care facilities, services, and personnel. The Puget Sound region has 45 general acute hospitals with 9,400 beds and over 38,000 employees. Over 15,000 medical personnel staff these facilities. The Seattle-King County WDC launched an industry-led panel with three primary goals: expand the capacity of the health care education system, encourage health care career progression, and increase outreach and awareness. The panel produced a report, In Critical Condition, outlining the challenges and recommending solutions to the current regional health care staffing shortage. In 2002, the WDC received additional funding to implement several of these solutions. Based on panel input, the WDC developed and implemented a career pathways program providing opportunity for incumbent workers to access career counseling and training referral services. It developed partnerships with numerous education institutions to expand capacity in high-demand training areas. It also provided tuition scholarships to incumbent and new health care workers and developed opportunities for youth to explore and begin working toward health careers. Working with several hospitals, the panel is currently expanding its Career Pathways program and advising Nursing Pathways for Youth, a new training program coordinated by the WDC, Renton School District, Renton Technical College, and the Washington Hospital Association's Health Workforce Institute.

Information Technology. RATEC (formerly the Regional Advanced Technology Education Consortium) was founded to meet the continuous need to evaluate the demands for skilled IT professionals and facilitate solutions to support a technologically advanced and economically competitive region. In partnership with the Seattle Chapter of the Society for Information Management, RATEC established a skill panel to investigate the fundamental shift in IT skill demands and provide unbiased feedback to our state's decision makers. To prepare for this work, RATEC conducted two major research efforts: "Reconceptualizing an IT Workforce: Challenges and Opportunities for Education" and "Industry and Global IT Sourcing: Trends and Implications for Washington State." RATEC also developed tools for educators and students, including the Prior Learning Assessment (PLA)—a model portfolio process enabling students to be granted college credit based on their knowledge and previous work experience. The PLA is now used at Edmonds Community College and at Pierce College. RATEC also developed tools to assess common or "overlapping" skills between IT skill clusters and non-IT career clusters and created a database of academic literature, surveys, government initiatives, and other research related to competency-based education and training.

Manufacturing. Shoreline Community College's (SCC) Manufacturing Skill Panel was formed to engage industry with education and to focus on the importance of manufacturing to the economic vitality of Washington State. Historically, community and technical college programs have focused on the skills needed for the aerospace industry. Recognizing that manufacturing now encompasses a much wider range of companies-"from aircraft to coffee beans," SCC brought together a diverse group of leaders from manufacturing companies, business associations, government, labor, and education. The panel became a forum for manufacturing companies to identify workforce skill gap issues and advise on, or create, new education and skill standard initiatives. The panel also advises the Center for Manufacturing Excellence. It developed eight learning outcomes that establish foundational skills and knowledge for every manufacturing student/professional. It developed guidelines for assessing prior learning and experience in manufacturing, established a Certificate of Basic Manufacturing, an 18-credit, modularized program, and advised SCC on 3 new quality control courses. The panel is currently developing promotion and marketing plans to attract new workers into the manufacturing professions.

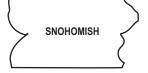
Hospitality. Employing nearly 120,000 people in the greater Puget Sound region, hospitality jobs provide opportunities for immigrants, refugees, welfare recipients, and others to find entry-level jobs. They also provide opportunities for advancement and wage progression. The Department of Labor funded the Consortium for Retention and Advancement (CORA) in 2001 to examine the needs of the industry and to develop and implement a plan to meet those needs. CORA sought advice from employers, the Hotel Employees Restaurant Local 8, community-based organizations, and WDCs. It built industry collaboration; conducted strategic research on economic and labor market trends; reviewed and analyzed existing research, literature, CONTACT Mark Hankins Shoreline Community College 206-546-4758 mhankins@shoreline.edu www.cme-scc.com

CONTACT Rich Feldman Worker Center 206-441-4968 rfeldman@wc-kclc.org and best practices; and designed geographically-based strategies addressing entry-level employee issues. It then implemented the strategies. Two products, an employee survey and a comprehensive training manual for banquet servers, were especially well received.

Aerospace. Since aerospace is a key sector within manufacturing and an integral part of the Snohomish County economy, the Snohomish County WDC recently allocated funding to create an Aerospace Skill Panel. The panel will be a forum for aerospace and related manufacturing companies to discuss changes affecting the local labor market. The panel will develop strategies to address hiring needs, upgrade current workforce skills, identify skills gaps, and otherwise link education and industry. Panel members will include representatives from major aerospace businesses in Snohomish County, local community colleges, the Economic Development Council of Snohomish County, government, and labor. The panel will develop a complete picture of the industry in Snohomish County and create programs and services to address both the short- and long-term workforce development needs of local employers. It will also develop career ladders and mapping systems to encourage students to explore and pursue career options in this important industry.

Construction. "The Snohomish County Construction Labor Market Survey 2004" characterizes construction as "a mature industry in the county with the employment expectations of an emerging industry cluster." One of its principal findings shows that construction industry employers are "having difficulty finding qualified candidates." In response, the Snohomish County WDC allocated funding to create a Construction Skill Panel. Panel members represent county construction contractors, trade associations, labor unions, and the academic community. The principal goals of this new panel are to identify current and future industry-specific employment and skill training needs, as well as create or expand the options for job growth and training in the county to meet these needs.

Health Care. Demand for health care services is rapidly rising in Snohomish County due to an aging population and an influx of retirees. In fact, by 2020, the county's population of people over 65 will increase by 93 percent. At the same time, the county's workforce is aging, there are not enough people choosing health care occupations, high job vacancy rates are occurring in critical positions, and there is limited training capacity. To address these problems, the Snohomish



Snohomish County Workforce Development Region

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Kristen Gillissee Howe Snohomish County Workforce Development Council 425-921-3498 kgillissee@snocowdc.org www.worksourceonline.com/b/ hscp.html County WDC created the Health Services Careers Partnership. The partnership is increasing the training capacity in high-demand health occupations, attracting new people into health occupations, sharing recruitment and retention strategies within the health care services industry, and developing health career planning materials. Partnership members secured federal funds for tuition assistance for radiologic technologists, registered nurses, licensed practical nurses, and clinical site coordinators. The group is currently planning a Nursing Retention conference for nurses statewide. The conference is designed for active nurses seeking tools to manage the everyday challenges of being a nurse. The panel's 2005 focus is on increasing training capacity, retention, and educating the community regarding career opportunities in the target occupations of nursing, radiology, physical therapy, and occupational therapy.



Southwest Washington Workforce Development Region *Health Care*. Southwest Washington is focusing on the critical health care worker shortage in its four-county area. The project has formed a skill panel comprised of health care professionals, labor, Clark and Lower Columbia colleges, the Southwest WDC, and economic development policymakers. The panel began by developing a tool kit and training program for school counselors and WorkSource Center staff to recruit people into health care careers. The panel is currently assessing skill gaps and labor shortages in the region's health care industry, identifying solutions, and developing an implementation plan, including funding options.

Pulp and Paper. The worldwide trend of the pulp and paper industry is to automate and use technology to produce a greater number of products with fewer, but more highly skilled workers. To keep the industry viable in southwest Washington and in the nation, the National Science Foundation (NSF) recently named Lower Columbia College (LCC) to be a part of a broader National Pulp and Paper Technology Center. The WDC, in partnership with LCC, recently launched the Pulp and Paper Skill Panel to leverage the expertise of the NSF to gather input and involvement from experts in the field, not only in southwest Washington, but also across the western United States. Panel members will include representatives from education, labor, supplier businesses, and pulp and paper companies in both Washington and Oregon. The panel will initially undertake a needs assessment to determine the most pressing issues to help guide the NSF project.

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John Baumhofer Spokane Area Workforce Development Council 509-625-6210 jbaumhofer@wdcspokane.com Transportation. The Southwest WDC, Columbia River Economic Development Council, Clark College, industry leaders, local ports, and other area partners are creating a new skill panel focusing on transportation technologies that move commercial products in and around the trade-centered Vancouver region. The Transportation Skill Panel will gather information on air, rail, truck, and supply chain workforce capacities to enhance the cargo handling for the huge volume of exports traveling through the Ports of Vancouver and Portland. The panel is analyzing labor market information, identifying skill gaps, and developing a strategic plan to address the industry's workforce needs. Panel members will create occupational profiles and related assessments to improve applicant placement and retention rates. The panel will also determine the need for workplace literacy for incumbent workers, explore apprenticeship training opportunities, and recommend new training programs.

Biomedical. Inland Northwest encompasses 4 states, 2 provinces, and over 900,000 people. The region has significant higher education assets, including two research universities, multiple private training institutes, a regional university, and a number of excellent community colleges. It is also home to a federal laboratory, which conducts over \$700 million dollars in research annually. In late 2000, the Spokane WDC contracted with the Inland Northwest Technology Education Center (INTEC) to form a Biomedical Skill Panel supporting an economic development strategy linking regional health care delivery to an emerging biotechnology and biosciences cluster. The interface of bioscience and health care is projected to be an important economic driver in Inland Northwest.

The biomedical skill panel was one of the first strategies used by INTEC to integrate workforce and economic development. Since then, INTEC has developed career ladders and skill standards in biotechnology, medical infomatics, and medical technology. The skill panel supported the development of two short courses, Introduction to Information Technology in Health Care and Lab Books and Legal Issues. INTEC partnered with others to secure federal grants for a biopharmaceutical manufacturing education demonstration project and a biotechnology academy. INTEC is currently partnering with WSU to identify the workforce development needs of the medical research industry cluster. It is also partnering with WSU and Spokane Community College to develop a certificate program for Clinical Research Coordinator .



Spokane County Workforce Development Region

Construction. Spokane, with its aging construction workforce, anticipates a significant upturn in public construction projects. At the same time, the area is experiencing a marked decrease in the number of young people who are choosing construction as a career path. The skill panel is researching factors that are influencing potential workers' interest in the industry, examining best practices, and defining skills for preapprenticeship training, including "green" or sustainable construction methods. The team will identify and support local recruitment strategies that have special appeal to young people and their parents. Panel members will also develop strategies to engage high school counselors and school administrators.

Health Care. Health care is a significant force in Spokane. Workforce issues, such as shortages of nursing personnel and skill gaps caused by rapidly changing technologies, are an impediment to Spokane's well being and economic growth. This skill panel is creating a seamless system of education, leading to employment in high-demand health care occupations by: (1) identifying employer needs; (2) increasing capacity for health care training through effective use of available resources; (3) increasing work-based and apprenticeship programs leading to employment in the health care industry; (4) promoting greater articulation among educational institutions; (5) allowing workers to progress along identified career ladders; (6) increasing the flow of students entering training programs by enhancing "information and referral"; and (7) identifying and applying for other funding.

Manufacturing. The Spokane Regional Chamber of Commerce is convening this new Advanced Manufacturing Skill Panel with business, labor, and education representation. The Chamber will draw support from its 1,400 members. The effort commits the Chamber's Manufacturing Roundtable and several businesses throughout the region. The panel will survey the region's technology manufacturers to identify skill gaps, inventory existing training programs, clarify employment and training needs, and publish panel findings, priorities, and recommendations. Business, education (including school counselors), labor, and government leaders will be invited to a town hall meeting to bring awareness to the value of manufacturing, promote industry employment opportunities, and highlight critical workforce training needs. Panel members will promote pathways to careers in the industry and advocate for training programs and specialized training equipment.

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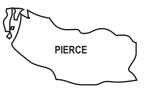
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PC3 253-984-6002 Idrake@pc3connect.org *Information Technology*. Funded by the Legislature in early 2001, INTEC facilitates collaboration between business and education to stimulate workforce and economic development in Spokane's key industrial sectors. In 2002, INTEC created partnerships in cyber-security, energy technologies, wireless technologies, software development, and health care informatics. Examples of INTEC's work include: (1) partnering with Spokane Community College, local school districts, and the region's bioscience employers to develop biotechnology curriculum and the biotechnology academy; (2) creating and delivering a certification program supporting the biopharmaceutical manufacturing industry; and (3) creating a new business accelerator model, Connect Northwest, to support the formation of new technology-based business.

Construction. When the Tacoma-Pierce County WDC identified construction as one of its five high-demand industries, it had substantial information supporting the formation of a Construction Skill Panel. Occupational data revealed that Pierce County accounted for 10 percent of the state's construction-related employment (about 15,000 positions). It also found that more than half of the people working these positions are quickly approaching retirement and not enough young people are choosing construction as a trade. The WDC partnered with the Pierce County Construction Partnership to conduct a construction industry labor market survey, analyze data, disseminate results, and develop a five-year strategic plan. The skill panel developed and implemented a coordinated marketing campaign, developed construction career pathways, orchestrated a successful apprenticeship fair, and developed magnet and summer school programs. It is currently replicating preapprenticeship training programs in various trades; expanding targeted school districts; developing a Construction Management program at Pierce College; and collaborating with the health care skill panel to implement a Youth Workforce Development Initiative.

Electronics. A 2002 study identified 75 high-tech and 140 high-tech related companies in the south Puget Sound area. More than 75 percent of these companies, along with local military bases, depend upon electronics technicians to maintain production processes, facility operations, and equipment service. The Bureau of Labor Statistics projects that industry demand for electronics technicians in Washington State will increase by 25 percent from 4,800 in 1998 to 6,050 in 2008. Electronics training programs at community and technical colleges have not been able to keep



Pierce County Workforce Development Region

up with new technologies and demand for more highly specialized electronics workers. To address these problems, the Pierce County Careers Connection (PC3) and Pierce College created an Electronics Skill Panel. The panel conducted a labor market analysis and needs assessment, evaluated existing electronics training programs, and created electronics articulation agreements with high schools and colleges. It drafted skill standards for two occupational clusters: the Industrial Systems and Electronics Occupational Cluster and Information/Communications Systems Electronics Occupational Cluster. In 2004-2005, the panel will investigate, using research and focus groups, nanotechnology and its effect on the electronics industry and other industries in Washington State. The research will be shared with education partners to explore responses in educational programs to employment needs of the new technology.

Health Care. In 2001, the Tacoma-Pierce County WDC targeted the health care sector because personnel shortages were impacting the county's health and economy. Pierce County's largest private sector employers, MultiCare, Good Samaritan, and Franciscan, partnered with government-based health care providers, long-term care facilities, labor, colleges, and universities. This business-led partnership set goals to increase training capacity, develop a supply of trained health care workers, increase awareness of health care occupations and training opportunities, and increase student and career retention. To meet these goals, the partnership leveraged \$9 million in public funds and \$4.5 million in private and local resources. It expanded capacity in several high-demand health care training programs. It created a satellite Invasive Cardiovascular Technologist program and implemented the first-ever registered Health Unit Coordinator apprenticeship program in Washington. It also developed Magnetic Resonance Imaging and Computed Tomography apprenticeship programs. To increase awareness of health care occupations, the panel developed the <healthjobs4you.com> website and held 17 Health Care Occupations workshops in the last year alone. The panel is currently increasing the number of youth accessing industrysupported training during and after high school by conducting targeted K-12 outreach. This strategy is being accomplished with outreach workshops, nurse and health care camps, volunteer and job shadowing opportunities, and an in-demand scholarship program. Finally, underrepresented populations are recruited with translated workshop materials, comprehensive career coaching, and career fairs.

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Linda Drake PC3 253-984-6002 Idrake@pc3connect.org *Homeland Security*. Pierce College is building on its Homeland Security Center of Excellence by partnering with the state's Emergency Management Division to form a skill panel. The panel will address the critical need in both the public and private sectors for trained security-related professionals. It will: (1) define education and training opportunities in Homeland Security and related disciplines; (2) conduct a regional, industry cluster, labor market analysis; (3) develop a plan to identify Homeland Security skill sets related to basic requirements across disciplines; and (4) review job skills for occupations in public health, fire suppression, law enforcement, emergency management, hazardous materials, emergency first responders, transportation, port operations, and for the Homeland Security Department. The panel will also play a key role in supporting and guiding the development of the Homeland Security Center of Excellence at Pierce College, identifying skills and training gaps, and producing tools, products, and recommendations.

Information Technology. In 2003, there were 10.3 million IT jobs in the nation. Although software companies hire many IT workers, nine out of ten are employed by banks, insurance companies, manufacturing firms, and other non-IT businesses. With its large government, trade, and manufacturing sectors, Pierce County's economy includes a healthy number of IT producers and workers. Despite the recent downturn in IT employment, employers continue to complain that they cannot find candidates with the skills and experience they need. PC3 and Pierce College created a panel of 10 industry leaders to provide guidance and expertise to Pierce County high school, college, and university IT programs as they increased their capacity to provide high-quality workforce and education training programs. The panel analyzed Pierce County's IT industry, created 11 articulation agreements enabling students to transfer successfully IT credits from high school to community colleges to four-year universities, and promoted IT career and work-based learning opportunities among Pierce County students. In 2005-2006, the panel will continue to encourage and promote IT careers by organizing and supporting the 2005 Pierce County Technology Competition for high school and college students and the 2005 Technology Tour for educators. The panel is embarking on a new initiative of investigating the electronic gaming industry—an industry with growing employment needs.



Tri-County Workforce Development Region

Food Processing. The Eastern Washington Agriculture and Food Processing Partnership was created to meet employer need to upgrade the skills of incumbent workers in two of Washington's largest and most labor-intensive industriesfood processing and farming. This public-private partnership worked together to find solutions to close a widening skill gap problem. Federal and state agencies contributed funds and expertise to the project. Participating employers contributed industry match. The Northwest Food Processors Association and the Washington Growers League guided the partnership by identifying jobs common to both industries and by setting skill standards associated with these jobs. An existing labormanagement committee provided leadership and project oversight. The partnership created and delivered customized training courses for more than 700 workers in 32 companies. Workers receiving training secured wage increases due to increased productivity. Recently, the Tri-County WDC decided to reformat the original skill panel specifically for Kittitas, Yakima, and Klickitat Counties. It earmarked funds to meet industry skill upgrade needs starting in February 2005. Now named the Tri-County Agriculture and Food Processing Skill Panel, the new panel's goals and outcomes will mirror the original Agriculture and Food Processing Skill Panel objectives. The skill panel will continue to identify industry skill gaps, design customized curriculum, and deliver training in a flexible manner to facilitate industry need. It is expected that technical skill upgrades in the following courses of study will continue to assist the industry in remaining competitive in our global economy: hydraulics/ pneumatics, ammonia refrigeration, motor controls, instrumentation, and programmable logic controls.

Health Care. Health service is one of the largest and most important industries in Yakima, Kittitas, and Klickitat Counties. In Yakima alone, the health service industry provides over 8,000 jobs. Unfortunately, the Washington Health Care Personnel Shortage Task Force and a recent local study of health care providers identified critical shortages of health care technicians, therapists, dental occupations, and all levels of nursing. The Tri-County WDC brought together a group of health, education, business, and labor leaders to devise local solutions to the region's shortage of health care personnel. This effort resulted in the development of a Grow Your Own workforce plan for the Tri-County region. The plan increases: (1) awareness of health care occupations; (2) the numbers of people prepared to enter health care fields; (3) access to education and training programs; and, (4) the region's ability to recruit and retain specialty occupations.

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Construction. The purpose of Tri-County WDC's new Construction Skill Panel is to meet industry and employee skill upgrade needs and to secure industry market and employment retention on a broad range of construction occupations where current and future skill shortages have been identified. Panel members include representation from contractors, unions, and educators. The panel has five major goals: (1) develop career ladders; (2) develop and deliver core curricula customized by the building trades (preapprenticeship training); (3) develop and deliver customized training for incumbent workers; (4) identify specific training needed to fill jobs where skill gaps arise; and, (5) conduct ongoing evaluation of the industry and project components. The panel was established in July 2004. Over the past few months, the major result has been the building of new partnerships among employers, labor, the Yakama Nation, and the workforce development system. The panel agreed upon its purpose, responsibilities, and process for making decisions. Training outcomes achieved thus far include: 14 people successfully completed the core training and 24 incumbent workers received industry certificates and/ or credentials.

Manufacturing. Important to central Washington's economic diversity, manufacturing jobs are projected to grow, especially in the wood processing, metal fabrication, and plastics sectors. The skill panel identified the need to address skill gaps in the three sectors through employer focus groups, Employment Security data, and the region's economic development community. The project conducted a labor market and worker skills gap survey, identified skill sets for core and specialized positions, and developed training curricula. The panel is currently advising the Tri-County WDC in a Lean Manufacturing Training Initiative in partnership with local economic development agencies. Over the past two years, 50 manufacturing companies and 250 employees in Kittitas, Yakima, and Klickitat counties have benefited. The Lean Initiative has become a novel tool that stimulates efficiency and output through business innovation. It is in demand among local manufacturers as they strive to find ways to remain competitive in our global economy. Industry investment in the Tri-County region has more than doubled public training resources through matching funds and cost-sharing arrangements.

WASHINGTON STATE 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

We shape strategies to create and sustain a high-skill, high-wage economy.

To fulfill this Mission, the Board will:

- Advise the Governor, Legislature, and other policymakers on workforce development policy and innovative practice.
- Promote a seamless workforce development system that anticipates and meets the lifelong learning and employment needs of our current and future workforce.
- Advocate for the training and education needed for success in the 75–80 percent of jobs that do not require a baccalaureate degree
- Ensure quality and accountability by evaluating results, and supporting high standards and continuous improvement.

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