Evaluating Industry Skill Panels: A Model Framework

June 2008
Prepared for and funded by the State of Washington’s Workforce Training and Education Coordinating Board

The contents of this report and the opinions and recommendations herein are those of the Corporation for a Skilled Workforce and PAROS Group, and the respective authors.

Scott Cheney, Principal, PAROS Group
Stacey Wagner, Principal, JarrettWagner Group
Lindsey Woolsey, Senior Policy Associate, Corporation for a Skilled Workforce

Copyright 2008.
CONTENTS

Executive Summary ....................................................................................................... 1

Introduction ................................................................................................................... 4
Purpose and Goals ......................................................................................................... 4
Methodology .................................................................................................................. 4
What is the Skill Panel Model? ................................................................................. 5
The Need for a New Evaluation Framework ............................................................... 6

Evaluation Recommendations ....................................................................................... 7
Dashboard of Evaluation Measures ............................................................................. 8
Metric: Evidence of Progress ....................................................................................... 9
Metric: Products and Services .................................................................................... 11
Metric: Impacts and Outcomes ................................................................................... 13

Technical Assistance Recommendations ........................................................................ 15
Implementing This Framework ..................................................................................... 15
Data Collection Mechanisms and Methods ................................................................. 15

Appendices

Appendix 1: Draft Evaluation Dashboard ................................................................. 17
Appendix 2: Evaluation Templates ............................................................................. 18
Appendix 3: Cost of Turnover Worksheet ................................................................. 28
Appendix 4: List of Interviews and Meetings ............................................................. 30
Executive Summary

Industry skill panels are regional public-private partnerships of business, labor and education that work together to improve the workforce skills and talent pipeline of key Washington industries.

Since their introduction in 2000, Washington’s skill panels have expanded across the state, serving a growing number of employers, employees, and potential employees. Skill panels help Washington’s businesses grow and prosper by catalyzing investments and expanding collaborations that increase the quantity and quality of the state’s skilled workforce.

Because skill panels are regional industry strategies, they should be evaluated for the distinct and unique value they create in their regions as well as the state. For this project, the State of Washington created an evaluation process from an existing framework developed jointly with ten other states to understand the ability to collect and aggregate data across key indicators. This new framework captures not only specific quantitative impacts and outcomes, but also the products and services produced and the overall evidence of progress.

This report offers a Dashboard of Indicators against which future skills panels can describe their achievements. The tremendous value of the skills panels to the state’s economy are apparent in the examples provided here.

IMPACTS AND OUTCOMES

Skills panels’ impacts and outcomes are as impressive as they are diverse. For example, the panels have proven very adept at leveraging funding received through the Workforce Training and Education Coordinating Board into additional funds. The four skill panels reviewed for this study leveraged well over $18,000,000 in hard dollars on approximately $620,000 of state grant funding over the course of their work — more than 30 times the amount of state investments in these four skill panels.

Skill panels have also been effective at addressing specific workforce gaps. Invasive Cardiovascular Technicians have long been a difficult position to fill — and especially so for hospitals in Western Washington this decade. In fact, two Health Council member hospitals (Good Samaritan and Multicare) had vacancy rates exceeding 50% in 2003. In response, the Health Council developed a two-year training program, which dropped the vacancy rate for invasive cardiovascular technicians to 0%. A conservative estimate of the cost savings to Multicare Health Systems is $300,000 annually, and a pipeline (Continued on next page.)

---

of trained and certified technicians has been created for other hospitals across Western Washington.

Employees as well as employers are benefiting from skill panels’ successes. For example, students from Centralia College’s training programs use the industry skill standards the skill panel developed for plant operators and plant mechanics. Typically, new hires must complete a 6,000 hour or three year apprenticeship to become a certified journeyman. But through an agreement between Grand Coulee and IBEW 77, three recent Centralia graduates hired at Grand Coulee Dam were awarded credit for completing one-half of the apprenticeship program (3000 hours). These students were then able to enter employment at a higher pay rate than other new employees; one became a journeyman operator in May 2008 and two will start with Grand Coulee in August 2008. Concomitantly, Grand Coulee benefits from hiring more highly trained employees than would otherwise be the case.

**PRODUCTS AND SERVICES**

Skill Panels have developed numerous products and services to address critical skill gaps:

The **Centralia Power Generation Skill Panel** developed skill standards for plant operators and plant mechanics, and has just completed a workforce survey of employers in the electric sector. In addition, the panel, as part of the Pacific Mountain WIRED Initiative, is looking into creating an energy industry-training center at the Satsop facilities.

Spokane’s **Career Awareness Campaigns** have reached over 5,000 students and 200 educators through career fairs, “teach-the-teachers” programs, and the use of social networking technologies.

**Westport Yachts** conducts a youth summer camp as part of its Marine Manufacturing Skill Panel. Called **Float Your Boat**, this one-week camp has been held each of the past two summers, and educated 27 students about the marine industry. The approach worked – the company already hired three of the first camp’s 15 students.
EVIDENCE OF PROGRESS

Employers, workers, and training partners have to spend their time and resources efficiently and effectively. Partnerships that do not yield value will not long survive. Skill panels have proven to have consistent and dedicated memberships, sustainability, and continued utility.

Perhaps most telling is that industry partners are actively discussing a new, self-funded, skill panel for wind farm technicians. This discussion is based on a high-degree of satisfaction with the existing power-generation skill panel and its work on essential skill standards.

“The Power Generation Skill Panel has effectively met the needs of employers, workers, and the training system through collaboration and focused work on critical issues. By meeting demand driven skills of industry we are all more competitive.”

—Bob Guenther, IBEW Local 77

“The value of the [Manufacturing] Roundtable to me is that they don’t whine and they do stuff. The mission of the Roundtable is to help improve competitiveness of local business and increase the number and/or wages of employees. I see results from the Roundtable—we’re making progress.”

—John Crow, CEO, Lloyd Industries

“We leapt into (developing) skills standards for certain occupations where we were all feeling some challenges. This led to training and was part of a new arrangement for an apprenticeship program that directly feeds our need for skills at the Dam. Part of the key to success was having labor endorse the skills standards, in addition to us as employers. Why do we continue? It’s our only prayer. We’re going to lose half our workforce to retirements in 5 years.”

—Dale Singer, Grand Coulee Dam
Introduction

Purpose and Goals. The assessment and collection techniques created under this scope of work for Washington’s skill panels will provide a mechanism for the state and its regions to demonstrate positive movement toward the state’s economic development goals. These techniques can also be used to strengthen the state’s potential investment in industry sector or cluster strategies. Washington State is an apt proving ground for testing industry partnerships through the metrics and templates devised for this report, that capture the impact of this work on employers, workers, effectiveness of partnerships, and sustainability.

METHODOLOGY

In validating measures that best capture and convey the value skill panels bring to employers, workers, public systems and funders, CSW/PAROS Group assessed a representative sample of skill panels across Washington State. Four skill panels were assessed, selected on the following criteria. They are 1) recipients of skill panel funding, 2) considered “mature” skill panel partnerships (i.e. beyond the planning phase and into the implementation phase), 3) representative of the diverse industries important to state economic growth, and 4) able to demonstrate success in ongoing engagement of employers and public partners, development of products directly related to industry’s workforce needs, and demonstrate early signs of impact. The four skill panels in the study were:

1. Manufacturing Roundtable in the Spokane region, convened by Greater Spokane, Inc.;
2. Power Generation Skill Panel, convened by Centralia Community College Center of Excellence;
3. Tacoma/Pierce County Healthcare Career Services Council, convened by the Pierce County Workforce Development Council; and

The project team conducted interviews with skill panel coordinators, industry members, public sector partners, and others involved in state-level thinking about workforce development. (For a list of all interviewees, please see Appendix 5.)

All interviews, data collection and analysis of information were conducted for the following objectives:

1. To identify Critical Indicators of Success of a Model Skill Panel, with particular attention paid to capturing the value of a skill panel to employer members;
2. To document Promising Data and Information Collection Practices that can be used by existing and new skill panels and by the Washington State Workforce Board, with an emphasis on methods that articulate the impact on employers and industry;
3. To collect some Actual Data and Information that is useful to skill panels and the Washington State Workforce Board;
4. To create Products Immediately Useful to Skill Panels: a dashboard template of critical indicators of success and data collection methods and mechanisms; and
5. To offer Recommendations to the Washington State Workforce Board for state-level activities related to delivering data collection/evaluation technical assistance to skill panels, collecting and organizing data that aggregates impact on critical state industries and worker populations, and crafting messaging streams to other key agencies, state legislators, the Governors office, and other state-level stakeholders.

All work conducted by CSW/PAROS Group was guided by the following principles:
• Always ask: How will this measure be used? Answering this question requires prioritizing measures based on the value of evaluation to stakeholders and funders, thereby minimizing tendencies to over-collect.

• Consider the behavior sought by the Washington State Workforce Board via its skill panel model, knowing that recommended or required performance measures drive behavior.

• Minimize the burden of data collection on employers and public systems. Identify the value of a skill panel to employers, and methods to measure and articulate that value from existing sources of data and information.

WHAT IS THE SKILL PANEL MODEL?
As a baseline for our assessment of the four skill panels in this study, we asked public and private members for their definition of a skill panel, or for a characterization of the partnership designated as a skill panel. Their responses converged into the following description:

Skill panel members also identified a set of characteristics important to the success of a skill panel. They included: a neutral, knowledgeable convener, a set of involved employers within the same industry, a diverse mix of public and private stakeholders that can listen to the needs of employers, and the willingness and ability of the partnership to leverage resources at the local level alongside state resources to continue their work.

Skill panels rely on a widely respected and trusted convener that brings employers in the industry together to discuss common workforce and skills challenges, and that brings public system partners to the table to listen to employers and to jointly design feasible and effective solutions.

A convener may be a Workforce Development Council, a Chamber of Commerce, a Center of Excellence, an economic development entity, or an alternative organization that demonstrates the strongest capacity in the region to:

• Understand the industry and its needs;

• Convene the employers and public partners together to discuss industry challenges related to a skilled workforce;

• Facilitate the partnership’s activities without prescribing its course or forcing solutions;

• Conduct strategic planning toward appropriate solutions; and

• Align resources, strategies, and programs to create tailored solutions to the workforce challenges facing the industry.

A unique characteristic of a skill panel is a multi-firm approach where a cadre of employers is encouraged to take “ownership” of the identification of challenges and solutions across firms. Skill panels operate on the premise that when employers in the same industry work together (and with labor, educators, and other key stakeholders) on labor market challenges that impact their competitiveness, a set of common challenges and their underlying causes will emerge. In this study, employers consistently reported that the chance
to talk face-to-face with other employers about common workforce challenges was a key value of the skill panel. They also implied that this would not happen naturally, nor was it the same as being a member of an Industry Association or other employer group. Skill panels are more specifically focused on workforce challenges and solutions.

It is clear that skill panels serve a specific role in the state’s human capital and economic development strategies. Two key points emerged: 1) Skill panels do not replace the work of existing agencies or entities in the community that focus on workforce and/or economic development, but instead offer a complementary vehicle for skills-based economic growth; 2) Skill panels are one of many critical investments across the state that make up the complete picture of how Washington State can remain globally competitive.

THE NEED FOR A NEW EVALUATION FRAMEWORK
Skill panels have been highly successful at adapting to specific regional and industrial conditions to meet the needs of their members. And while that has resulted in a plethora of strong and vibrant partnerships, exceptional products and services, and impressive impacts and outcomes, the high degree of regional customization makes it difficult to aggregate, at the state-level, data that will easily and consistently demonstrate the value of skill panels. Thus, a new evaluation framework is required that is both flexible enough to reflect the diversity and benefits of existing skill panels as they have evolved and new skill panels as they will emerge, and to meet the need of sharing insightful aggregate data across all the skill panels with Washington State.
Evaluation Recommendations

CSW/PAROS Group recommends that the ideal indicators of skill panel success be a mix of qualitative and quantitative metrics. This standard encompasses some of the metrics developed for An Evaluation Framework for State Sector Strategies but also includes others that were crafted based on the research for this project.

We believe that the mix of metrics displayed in our Dashboard and throughout our data-gathering templates provides the most effective combination of measures for valuing commonalities across the panels, as well as the flexibility the individual sites require as a result of their differentiated scopes of work and the economic environments in which they operate. Knowing both the common missions they share and the variations that make them special, we developed an evaluation framework that allows skill panels to report their value through a range of approaches.

We were careful to identify and develop metrics that are both common and meaningfully descriptive across them all without potentially binding them into a model that does not provide enough flexibility for members to demonstrate their achievements. Our metrics capture the value of participation by public and private members; products and services based on actual activities undertaken by the panel; and quantitative measures of impact in the longer term. Thus, we recommend that evaluation data be collected for:

- **Evidence of Progress.** Member, partner, and participant qualitative perspectives on the value of their skill panel.

- **Products and Services.** A narrative delineation of the many products and services provided by the skill panels.

- **Impact and Outcomes.** Quantitative data collection from a select number of metrics that directly measure the value to employers, employees, educators, and the skill panel partnership.

Along with these three categories of data listed above, we recommend the taxonomy of audience/participants listed below. Similar to the categorization developed within the Evaluation Framework, this taxonomy is another important construct for assessing the impact and effectiveness of a skill panel. The Dashboard and the data collection templates are organized by this taxonomy:

1) Employers and the Industry;

2) Current or Prospective Employees;

3) Educators and the Education & Training System; and

4) Effectiveness of the Skill Panel Partnership.

Our recommended approach ensures that a rich and comprehensive picture of skill panels is both encouraged and provided by the regional initiatives and the Workforce Training and Education Coordinating Board.

The Dashboard is presented in the next section, as well as in Appendix 1. The data-collection templates are included in Appendices 2 and 3.

---

INDUSTRY SKILL PANEL: DRAFT EVALUATION DASHBOARD

**EVIDENCE OF PROGRESS**

**Survey**
- Employers/Industry representatives agree that the skill panel is meeting (or will meet) skilled workforce needs.
- Qualitative input, including testimonials, anecdotes, quotes, etc.

- Employees/Students agree that the skill panel is helping (or will help) them compete for and hold high quality jobs.
- Qualitative input, including testimonials, anecdotes, quotes, etc.

- Educators agree that the skill panel is helping (or will help) them meet the needs of employers and current & future workers.
- Qualitative input, including testimonials, anecdotes, quotes, etc.

- The skill panel convenes appropriate partners, focuses on key challenges, and implements effective solutions.
- Qualitative input, including testimonials, anecdotes, quotes, etc.

**PRODUCTS AND SERVICES**

**Narrative**
All skill panels will provide a narrative description of the outputs and products development and produced during the reporting period. Outputs and products may be in the form of reports, skills gap analyses, asset maps, skill standards, newly developed curricula, marketing strategies and related materials, career awareness efforts (job fairs, summer camps, websites, etc.), number of employees / students enrolled in skill-panel related training and education programs, legislative testimony, strategic plans, project plans, and the like.

**IMPACTS AND OUTCOMES**

**Qualitative Data Collection**
- # of quality new hires
- # of promotions
- Reduced vacancy rates
- Reduced rate and cost of turnover
- Employer Satisfaction
- Short-term employment rate
- Long-term employment rate
- Earnings level
- Credential completion rate
- Increased number of enrollments
- # of industry-recognized credentials awarded
- Increase in # of diplomas, degrees and/or colleges credits earned
- Increased revenue
- Amount of new and leveraged funding (required data)
- Member renewal rate
- # of new members

All skill panels will select at least one of the approved set of impact and outcome evaluation measures for each of target audiences (employers, employees, educators, and the Skills Panel partnership) each reporting period that demonstrates the value of a targeted aspect, or all, of its work.
We recommend that this data be collected through a short survey of members at the end of each reporting period. This Evidence of Progress category recognizes that the value of skill panels can often be expressed strongly through survey responses, testimonials, quotes, stories, anecdotes, and similar resources. The voice of the skill panel members—employers, employees, labor unions, educators, and others—is a powerful indicator of value and impact.

We also recommend that the State Workforce Board consider conducting the survey electronically through a single platform for all skill panels, simplifying both the collection process and the ability to aggregate the data into a single statewide report (albeit with separate breakouts for each skill panel). We specify that members be asked only two questions: a question designed specifically for their status as a member—employers, employees, educators—and a question about the overall benefit of the skill panel (with examples).

Our research for this report revealed examples of the type of positive and influential data that can be collected through Evidence of Progress. In the Centralia Power Generation Skill Panel, employer members report that the panel’s work is leading to a larger pool of well-qualified candidates for employment in the industry. The development of skill standards for power plant operators and plant mechanics (and the forthcoming standards for electricians) has allowed the employers to see better-prepared job candidates applying for jobs. Perhaps most telling is that industry partners are actively discussing a new, self-funded, skill panel for wind farm technicians. This discussion is based on a high-degree of satisfaction with the existing power-generation skill panel and its work on essential skill standards.

Similarly, the employer, labor union, and education members of the Tacoma Pierce County Health Council believed that one of the greatest values of the skill panel is the collaboration of most—if not all—the key players in their industry. With-

---

**METRIC: EVIDENCE OF PROGRESS**

### INDUSTRY SKILL PANEL: DRAFT EVALUATION DASHBOARD SUMMARY

<table>
<thead>
<tr>
<th>EMPLOYERS AND INDUSTRY</th>
<th>CURRENT OR PROSPETIVE EMPLOYEES</th>
<th>EDUCATORS AND THE EDUCATION &amp; TRAINING SYSTEM</th>
<th>EFFECTIVENESS OF SKILL PANEL PARTNERSHIPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMPLOYERS/INDUSTRY representatives agree that the skill panel is meeting (or will meet) skilled workforce needs.</td>
<td>Employees/Students agree that the skill panel is helping (or will help) them compete for and hold high quality jobs.</td>
<td>Educators agree that the skill panel is helping (or will help) them meet the needs of employers and current &amp; future workers.</td>
<td>The skill panel convenes appropriate partners, focuses on key challenges, and implements effective solutions.</td>
</tr>
<tr>
<td>Qualitative input, including testimonials, anecdotes, quotes, etc.</td>
<td>Qualitative input, including testimonials, anecdotes, quotes, etc.</td>
<td>Qualitative input, including testimonials, anecdotes, quotes, etc.</td>
<td>Qualitative input, including testimonials, anecdotes, quotes, etc.</td>
</tr>
</tbody>
</table>

We recommend that the data be collected through a short survey of members at the end of each reporting period. This Evidence of Progress category recognizes that the value of skill panels can often be expressed strongly through survey responses, testimonials, quotes, stories, anecdotes, and similar resources. The voice of the skill panel members—employers, employees, labor unions, educators, and others—is a powerful indicator of value and impact.

“We the value of the [Manufacturing] Roundtable to me is that they don’t whine and they do stuff. The mission of the Roundtable is to help improve competitiveness of local business and increase the number and/or wages of employees. I see results from the Roundtable—we’re making progress.”

—John Crow, CEO, Lloyd Pans
out the skill panel, they would not have come together as a whole, and would not have been able to identify common issues of importance, collective approaches to solving these issues, and to leverage the necessary resources to meet their goals.

Nordic Tug and All American Marine, members of the Northwest Marine Panel, state that their collaboration, fostered through the panel, broke down competitive behaviors and has enabled the marine industry to more effectively solve their industry challenges.

And in Spokane, members of the Manufacturing Roundtable believe their skill panel has galvanized the manufacturers to collaborate on common needs and goals. The professional, third-party facilitation of the chamber of commerce provided an environment in which that could happen. In addition, Mike Nepean of the Spokane Public Schools, points out that “Individual needs of employers and public systems is one thing. But when employers come together, and can identify their common needs, the needs become more powerful as they converge with each other. That opportunity is not offered in another forum other than this Roundtable.”

“We leapt into (developing) skills standards for certain occupations where we were all feeling some challenges. This led to training and was part of a new arrangement for an apprenticeship program that directly feeds our need for skills at the Dam. Part of the key to success was having labor endorse the skills standards, in addition to us as employers. Why do we continue? It’s our only prayer. We’re going to lose half our workforce to retirements in 5 years.”

—Dale Singer, Grand Coulee Dam

“Employees felt valued and employers saw the value of their workers. This all came out during the process of identifying and developing the Skills Standards. It’s powerful.”

—Bob Guenther, IBEW Local 77
In Spokane, the collaboration, including but not limited to: and services from the four skill panels reviewed for this report are numerous examples of exactly these types of products and services for students, teacher externships, and legislative testimony. There are numerous examples of exactly these types of products and services from the four skill panels reviewed for this report, including but not limited to:

- In Spokane, the collaboration created a road map document which was combined with their skills gap document to give direction to their findings. The panel also created a DVD for a teach-the-teachers course, created career awareness marketing materials and got involved in an IBest program.

Examples may include industry strategic plans, skills gap reports, skill standards, asset maps, career ladder marketing tools, job and career fairs, summer orientation camps for students, teacher externships, and legislative testimony. There are numerous examples of exactly these types of products and services from the four skill panels reviewed for this report, including but not limited to:

- The Centralia Power Generation Skill Panel developed skill standards for plant operators and plant mechanics, and has just completed a workforce survey of employers in the electric sector. In addition, the panel, as part of the Pacific Mountain WIRED Initiative, is looking into creating an energy industry-training center at the Satsop facilities.

- The Northwest Marine Manufacturing Skill Panel is finalizing a set of Manufacturing Competency Guidelines for distribution to and use by employers and educators to better prepare current and future employees for success in the industry. The Marine Skill Panel has also assisted many of its employers in identifying appropriate training curricula for their employees. One such training for marine electricians leads to an industry-recognized certification (by the American Boat and Yacht Council). Started in September of 2007, it is currently serving 13 incumbent workers and is conducted in collaboration with the Northwest Center of Excellence for Marine Manufacturing and the Skagit Valley College’s Marine Technology Center.

- The Tacoma Pierce County Health Council has run a series of career days for students interested in healthcare, drawing more than 600 students in 2007 alone. They have
also helped over 4,000 incumbent workers in the industry identify ways to improve their own skills and rise up through the industry’s careers.

Another example of a hands-on summer training and learning experience for students is the *Float Your Boat* summer camp held as part of the Marine Manufacturing Skill Panel, and hosted by the Westport Shipyards. This one-week camp has been held each of the past two summers, and has included 27 students. The camp is designed to not only provide another means for the fast-growing shipyard to market itself to students and prospective employees, but to give students an opportunity to experience the work environment and career opportunities at Westport. It also provides Westport a chance to assess the students’ skills and attitudes. The approach has worked – the company has already hired three employees from the first camp’s 15 students.

The *Float Your Boat* design and experience has been successful enough that it has convinced the skill panel to launch a number of other hands-on, practical summer learning experiences.
The third approach to measuring the value of skill panels is to collect quantitative data on metrics that show the impact on employers, employees, educators, and the quality and effectiveness of the skill panel. Given that the skill panels may each be working on different initiatives and goals at any given time, it is our recommendation that there be a range of metrics for each beneficiary (employers, employees, etc.), from which each skill panel must select at least one for each reporting period.

We recommend, however, that the tracking and reporting of money leveraged against State skill panel funds be required. Each skill panel should be expected to collect and report the amount of leveraged funds in each reporting period.  

Skill panels have proven adept at leveraging the funding received through the Workforce Training and Education Coordinating Board into additional funding. For example, the four skill panels reviewed for this study have been able to leverage well over $18,000,000 in hard dollars on approximately $620,000 of state grant funding over the course of their work—or more than 30 times the amount of state investments in these four skill panels.

In addition, a range of specific examples of value and impact were observed as a part of this initiative. Invasive Cardiovascular Technicians have long been a difficult position to fill—especially for hospitals in Western Washington this decade. In two Health Council member hospitals the vacancy rate exceeded 50% in 2003. The Health Council partnered with Spokane Community College to have its training programs for these occupations delivered via video-conference in space donated by Tacoma General Hospital. MultiCare Health System and Good Samaritan Hospital both paid for the Lab Instructor and Program Instructor to manage the

---

3 Note that the metrics in the Current or Prospective Employees category are intended to align with the State of Washington's IPI measures.
Spokane Community College satellite program. Since the start of this two-year training, the vacancy rate for invasive cardiovascular technicians has not only dropped to 0% for Good Samaritan and MultiCare—a conservative estimate for the cost savings at Multicare Health Systems alone is $300,000 annually—but a pipeline of trained and certified technicians has been created for other hospitals across Western Washington.

In addition, the Health Council also designed a program to improve the retention of nursing students in the Associates Degree of Nursing program at Tacoma Community College, which reduced the attrition rate from 53% to 5% in the first year alone.

As for the value to employees, one example is the benefit to students from Centralia College's training programs using the industry skill standards developed for plant operators and plant mechanics. Typically new hires must complete a 6,000-hour or three-year apprenticeship program to become a certified journeyman. But through an agreement between Grand Coulee and IBEW 77, three recent Centralia graduates hired at Grand Coulee Dam have been credited for completing one-half of the apprenticeship program (3000 hours) as a result of their graduation from this skill standards-based training. These students have been able to enter employment at a higher pay rate than other new employees; one became a journeyman operator in May 2008 and two will start with Grand Coulee in August 2008. Concomitantly, Grand Coulee benefits from hiring more highly trained employees than would otherwise be the case. 4

4 While not all fellow graduates have benefited from this same arrangement, more than 30 graduates of the Centralia training programs have been hired by energy companies in the State in just three years. And although not all employers have adopted this practice yet, the labor unions have given their approval.
Technical Assistance Recommendations

The CSW/PAROS Group team offers technical assistance recommendations for activities related to skill panels’ data collection mechanisms and methods, and how to craft and deliver messages that explain the state’s expectations for data collection, the value of skill panels’ work, and the importance of participation.

The mechanisms and vehicles for both data collection and messaging are intended to help the skill panels leverage additional resources toward long-term sustainability; communicate how the skill panels positively impact workers, job seekers, and employers; and express to local public officials, state legislators, and agency administrators the value of the skill panel model in positively affecting economic and workforce growth at regional and state-wide levels.

That much-used saying of “what gets measured is what matters” is, here, only partly true. All of this work matters. Of greater relevance is to determine the ultimate methods for capturing and conveying information, and how to customize messages for a variety of stakeholders so that they resonate effectively.

IMPLEMENTING THIS FRAMEWORK
Panels must understand from their earliest conception their role in data collection (what data is required, who will collect it, where it will be found, how it will be collected, etc.), how it describes progress toward goals, how it is to be delivered to various stakeholders (including the State Board, skill panel members, and other funding entities), and how the information will be used. These expectations should be consistently communicated as early and clearly as possible in the new collection start-up process, and repeated periodically as this process matures.

The taxonomy and metrics in the Dashboard and the data-gathering templates are our recommendations based on a review of four skill panels. We believe that these metrics should be considered as starting points to finalizing a list of jointly approved metrics by representatives from the State Workforce Board, local skill panel host organizations, community college centers of excellence, and other selected experts. We are confident that the framework we have provided here is valid, reliable and useful; however, we also believe that acceptance of, use by, and value to the skill panels, the State Board, and others will be more likely if the final set of metrics included in the framework are jointly adopted and continually reviewed and refined through a collaborative process.

Thus, we recommend a roll-out process across the state as a means for skill panels to review the new Dashboard and templates. We recommend that this report be shared with existing skill panels, workforce development council, Centers of Excellence, chambers of commerce, economic development organizations, and other potential conveners of skill panels during the summer of 2008. A facilitated discussion session should then be scheduled at the 2008 Governor’s Workforce Development Conference to gather input about the dashboard and its metrics.

Following the initial acceptance and adoption of the Dashboard, it is important to ensure that a process exists to maintain the integrity and value of the Dashboard over time. To this end, we recommend that an evaluation advisory council be convened with the purpose of reviewing existing metrics as well as proposed metrics to be included in the framework. This council should include a mix of representatives from the State Board, staff and members of skill panels, and a small number of representatives from other key entities such as the State Board for Community and Technical Colleges and CTED.

DATA COLLECTION MECHANISMS AND METHODS
During the recently conducted interview and data collection process, the CSW/PAROS Group team understood from skill
panel members that while data was considered by all panel members to be important for documenting what works and for amassing verifiable outcomes, there was considerable variation in the measures and collection procedures across the panels. This often depended upon the lead partner or intermediary and the stage of maturity at which the panel operated.

To create standardization in data collection, we recommend that the Dashboard template be included in all panel documentation, including requests for proposals and quarterly, semi-annual and annual report forms. We also recommend that a process be instituted between the State and each panel site for choosing and agreeing on the most appropriate Impact and Outcome metrics for each individual panel.

As can be seen from the Dashboard, all skill panels will be required to collect data across the first two evaluation categories as described in the template. With regard to Impact and Outcome metrics, each skill panel will choose among the approved metrics within each beneficiary group (i.e. employers, employees, educators, and the skill panel) that best describe the value of their work unique to their goals for the specified reporting period.

- The Evidence of Progress measures will be collected through a survey conducted at the end of the reporting period.
- Products and Services will be reported through a narrative report submitted at the end of the reporting period.
- Impacts and Outcomes will be collected by:
  - Identifying the appropriate metric(s) prior to the start of the reporting period,
  - Establishing goals for the reporting period at the beginning of the reporting period,
  - Establishing baseline data for those goals at the beginning of the reporting period,
  - Collecting final actual data at the end of the reporting period, and
  - Calculating the difference between the final results, the baseline, and the goals.
# Evaluating Industry Skill Panels: A Model Framework

## Appendix 1: Industry Skill Panel: Draft Evaluation Dashboard

### Evidence of Progress

#### Employers and Industry

Employers/Industry representatives agree that the skill panel is meeting (or will meet) skilled workforce needs.

Qualitative input, including testimonials, anecdotes, quotes, etc.

#### Current or Prospective Employees

Employees/Students agree that the skill panel is helping (or will help) them compete for and hold high-quality jobs.

Qualitative input, including testimonials, anecdotes, quotes, etc.

#### Educators and the Education & Training System

Educators agree that the skill panel is helping (or will help) them meet the needs of employers and current & future workers.

Qualitative input, including testimonials, anecdotes, quotes, etc.

#### Effectiveness of Skill Panel Partnerships

The skill panel convenes appropriate partners, focuses on key challenges, and implements effective solutions.

Qualitative input, including testimonials, anecdotes, quotes, etc.

### Products and Services

All skill panels will provide a narrative description of the outputs and products developed and produced during the reporting period. Outputs and products may be in the form of reports, skills gap analyses, asset maps, skill standards, newly developed curricula, marketing strategies and related materials, career awareness efforts (job fairs, summer camps, websites, etc.), number of employees / students enrolled in skill-panel related training and education programs, legislative testimony, strategic plans, project plans, and the like.

### Impacts and Outcomes

#### Qualitative Data Collection

- \# of quality new hires
- \# of promotions
- Reduced vacancy rates
- Reduced rate and cost of turnover
- Employer Satisfaction

- Short-term employment rate
- Long-term employment rate
- Earnings level
- Credential completion rate

- Increased number of enrollments
- \# of industry-recognized credentials awarded
- Increase in \# of diplomas, degrees and/or college credits earned
- Increased revenue

- Amount of new and leveraged funding (required data)
- Member renewal rate
- \# of new members
APPENDIX 2: EVALUATION TEMPLATES

EVIDENCE OF PROGRESS SURVEY TEMPLATES
The following survey templates have been designed to help skill panels capture evidence of their progress, as reported by employer partners, current and prospective employees and students, and educators and the workforce system. It is the first step in understanding how well the skill panel is meeting the needs of its members and constituents.

EVIDENCE OF PROGRESS:
EMPLOYERS AND THE INDUSTRY VERSION

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Not Sure</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The skill panel is serving you and your industry by addressing workforce development challenges and needs. (Examples: bringing the appropriate stakeholders together in collaboration(s), identifying skill standards to improve workforce training, listening to employer needs, etc.)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>The skill panel has created an effective partnership to meet your industry-related workforce needs. (Examples include focusing on key workforce challenges, aligning workforce and economic development, convening appropriate partners, identifying effective solutions, etc.)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Please provide your own examples (qualitative input including testimonials, anecdotes, and quotes):</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
EVIDENCE OF PROGRESS:
CURRENT OR PROSPECTIVE EMPLOYEES VERSION

The skill panel is helping you compete for and hold a high quality job.  
(Examples: providing them with opportunities to learn more about the industry, 
understand skill requirements, and how to get relevant education and training, 
etc.)

Please provide your own examples (qualitative input including testimonials, anecdotes, and quotes):
EVIDENCE OF PROGRESS:
LABOR UNION/EMPLOYEE ASSOCIATION VERSION

The skill panel is helping your members compete for and hold high quality jobs. (Examples: providing them with opportunities to learn more about the industry, understand skill requirements, and how to get relevant education and training, etc.)

The skill panel has created an effective partnership to meet your organization’s industry-related workforce needs. (Examples include focusing on key workforce challenges, aligning workforce and economic development, convening appropriate partners, identifying effective solutions, etc.)

Please provide your own examples (qualitative input including testimonials, anecdotes, and quotes):
EVIDENCE OF PROGRESS:
EDUCATORS AND THE EDUCATION AND TRAINING SYSTEM VERSION

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Not Sure</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The skill panel is helping you better meet the needs of employers, employees and potential employees. *(Examples: providing opportunities for business to influence curricula, developing apprenticeships, identifying ways to make training more accessible, etc.)*

The skill panel has created an effective partnership to meet your industry-related workforce needs. *(Examples include focusing on key workforce challenges, aligning workforce and economic development, convening appropriate partners, identifying effective solutions, etc.)*

Please provide your own examples (qualitative input including testimonials, anecdotes, and quotes):
PRODUCTS AND SERVICES REPORT TEMPLATE

Using the form below, please provide a narrative description of the products and services produced during the reporting period. Products and services may take the form of reports, analyses, asset maps, skill standards, career pathways and ladders, newly developed curricula, marketing strategies and materials, career awareness campaigns and materials, legislative testimony, customized job training, articulation agreements, memoranda of understanding, sustainability plans, etc.

A skill panels’ products and services must reflect their goals, manifest in tangible products and services, and demonstrate concrete progress toward desired outcomes. As skill panels may vary in their approach to closing industry skill gaps, it is expected that their products and services will vary as well. However, please try to the best of your ability to categorize your work to its audiences and output/products. If you cannot categorize it, you will need to list it under the “Other” activity category. However, you should be able to code your “other” activity to one or more of the audiences.

**Reporting Period:**
__________________________________________________________

**Skill Panel Goals:**
__________________________________________________________

**Output and Products:** Report only on the outputs and products your panel is currently working on, and please describe as a narrative. Next to your narrative, please place two codes: one to describe which audience(s) your products have (or will) effect and one to describe the type of output or product. For example, if your skill panel created brochures describing careers, you would code your narrative with a 2-B. You can have multiple audiences.

**Activity Codes:**

1. **Information Outreach/Communication:** This can be skill gap analyses, economic and workforce development reports, testimony, editorials, articles in trade publications or newspapers, radio ads, special meetings, and any other documentation that is created for strategic communication purposes.

2. **Career Awareness Campaign:** This can be job fairs, materials such as brochures or job ladder/pathway descriptions, skill standards descriptions, industry awareness events, and other media or events whose express purpose is to create awareness and understanding of the industry and its careers.

3. **Education:** This can be customized job training, curricula development, literacy training, defining skill standards, creating industry-recognized certifications, aligning educational credentials to career pathway objectives and the like.

(Continued on next page.)
4. **Strategic Planning**: This can be articulation agreements, asset maps, sustainability plans, memoranda of agreement, employer human resource assessments, surveys of constituents, development of skill standards, new labor union agreements, and reports used for planning internal to the Panel.

5. **Other**: This is for other outputs and products your skill panel has created and used that do not fit into the other categories.

**Audience Code:**

(A) Employers and the Industry  
(B) Current and Potential Employees and Students  
(C) Educators and the Workforce Development System  
(D) Skill Panel Partnership

**Activity Code:** _________  
**Audience Code:** _________

**Narrative:**


**IMPACTS AND OUTCOMES REPORT TEMPLATES**

**Protocol For Prioritization:** All skill panels will select at least one of the jointly approved impact and outcome measures in each category for each reporting time period and within the scope of the skill panel’s identified focus and goals.

**Protocol For Collection:**
- Identify the appropriate metric(s) prior to the start of the reporting period
- Establish a baseline of data at the beginning of the reporting period
- Establish goals for the reporting period
- Estimate progress toward the goal at least two-thirds of the way through the reporting period
- Collect final actual data at the end of the reporting period.
- Calculate the difference between the final results, the baseline, and the goals.

**INCOMES AND OUTCOMES REPORT TEMPLATE: EMPLOYERS AND THE INDUSTRY**

*Please choose one or more of the metrics most illustrative of skill panel’s goals and provide data for that metric:*

<table>
<thead>
<tr>
<th>Reporting Period Baseline</th>
<th>Reporting Period Goal</th>
<th>Reporting Period Actual</th>
<th>Reporting Period Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Number of quality new hires</strong> <em>(the number of new employees hired who meet industry standards for job qualification during this reporting period)</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2. Number of promotions</strong> <em>(the number of incumbent employees who received a promotion – a raise is not necessarily included in this – during this reporting period)</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>3. Reduced vacancy rate</strong> <em>(number of unfilled jobs as a percent of the total number of jobs at beginning and end of reporting period)</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>4. Reduced rate and cost of turnover</strong> <em>(the percentage of positions in a targeted occupation category (or categories) that become vacant in the reporting period, and the associated hard and soft cost of that turnover to the employer)</em> <em>(See Appendix 3 for a sample worksheet.)</em></td>
<td>$</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td><strong>5. Employer satisfaction</strong> <em>(the percentage of employers who are served who return to the same program for service within one year)</em></td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
</tbody>
</table>
### INCOMES AND OUTCOMES REPORT TEMPLATE:

**CURRENT OR PROSPECTIVE EMPLOYEES**

*Please choose one or more of the metrics most illustrative of skill panel goals and provide data for that metric:*

<table>
<thead>
<tr>
<th>Reporting Period Baseline</th>
<th>Reporting Period Goal</th>
<th>Reporting Period Actual</th>
<th>Reporting Period Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Short-term employment rate</strong> (the percentage of participants who are employed during the second quarter after exit.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2. Long-term employment rate</strong> (the percentage of participants who are employed during the fourth quarter after exit)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>3. Earning level</strong> (median earnings during the 2nd quarter after exit among all exiters with earnings)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>4. Credential completion rate</strong> (the percentage of exiters who have completed a certificate, degree, diploma, license, or industry-recognized credential during participation or within one year of exit)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Please choose one or more of the metrics most illustrative of skill panel goals and provide data for that metric:

<table>
<thead>
<tr>
<th>Reporting Period Baseline</th>
<th>Reporting Period Goal</th>
<th>Reporting Period Actual</th>
<th>Reporting Period Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Increased number of enrollments in industry-related courses (the number of students – FTE or part-time – who began taking classes in an industry-related course through their employer, college or an entity of the education and training system during this reporting period)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Increased revenue from industry-related activities (the percentage increase recorded by the community colleges, technical schools and public workforce system as a result of providing industry-related coursework, summer camps, publications, customized job training or consulting in the targeted industry)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Increase in the number/percentage of industry-related credentials awarded (the number and percent increase recorded by entities of the education &amp; training system as a result of providing industry-related services and instruction in the targeted industry)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Increase in the number of diplomas, degrees, certificates and college credits earned (the percentage increase recorded by entities of the education &amp; training system as a result of providing industry-related classes and instruction in the targeted industry)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### INCOMES AND OUTCOMES REPORT TEMPLATE:

#### EFFECTIVENESS OF SKILL PANEL PARTNERSHIPS

Please choose one or more of the metrics most illustrative of skill panel goals and provide data for that metric:

<table>
<thead>
<tr>
<th>Reporting Period Baseline</th>
<th>Reporting Period Goal</th>
<th>Reporting Period Actual</th>
<th>Reporting Period Change</th>
</tr>
</thead>
</table>

1. **REQUIRED DATA: Amount of new and leveraged funding** *(the amount of money – in numerical values – that the skill panel was able to garner and use toward the work of the panel – examples include employer match, grants, in-kind, etc)*

2. **Skill panel member renewals** *(the percentage of employers in the skill panel partnership who continue to participate each year)*

3. **Skill panel members – new** *(the percentage of new employers who join or participate in the skill panel each new year)*
**APPENDIX 3: COST OF TURNOVER WORKSHEET**

**TURNOVER: THE SILENT—BUT SUBSTANTIAL—PROFIT KILLER**

Myths about turnover abound; some say it is inevitable and there is little that can be done to stop it. Some argue that turnover is a serious symptom of deeper organizational problems. Still others imply that turnover is good since an organization need to do periodic housecleaning in order to keep things neat and tidy. In fact, turnover can be a strong indication that something is wrong. At a minimum, the organization and the employee have been mismatched and often the only thing the organization has to show for it is another costly statistic.

In this era of continuing—and increasing—skilled labor shortages, organizations cannot afford the tedious and expensive process of recruiting applicants, only to have them leave in discontent.

But just how costly is turnover? PAROS Group has devised this “cost-of-turnover” worksheet to determine how turnover affects an organization's bottom line. You may be surprised.

### ESSENTIAL DATA

| Occupation classification:   | ______________ |
| Occupation hourly pay rate: | ______________ (may be an average) |
| Relevant supervisor’s pay rate: | ______________ (may be an average) |
| Corporate office (HR) staff pay rate: | ______________ (may be an average) |

### HARD COSTS

<table>
<thead>
<tr>
<th>Pre-Departure</th>
<th>Employee (Hours) x ($ Rate)</th>
<th>Supervisor (Hours) x ($ Rate)</th>
<th>Company/HR (Hours) x ($ Rate)</th>
<th>Other Costs $</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exit Interview</td>
<td>x x x x</td>
<td>x x x</td>
<td>x x x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Separation Processing</td>
<td>x x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>x x x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Vacancy Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temporary Fill-Ins</td>
</tr>
<tr>
<td>Search Firm</td>
</tr>
<tr>
<td>Co-Worker Overtime</td>
</tr>
<tr>
<td>Advertising Job Availability</td>
</tr>
<tr>
<td>Recruitment Administration</td>
</tr>
<tr>
<td>Other</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Selection &amp; Sign-On</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interviewing Candidates</td>
</tr>
<tr>
<td>Testing / Assessments</td>
</tr>
<tr>
<td>Reference Checking</td>
</tr>
<tr>
<td>Informational Literature</td>
</tr>
<tr>
<td>On-boarding / Orientation</td>
</tr>
<tr>
<td>On-the-Job Training</td>
</tr>
<tr>
<td>Other</td>
</tr>
</tbody>
</table>

Total “Hard Costs” of Turnover = $

(Continued on next page.)
### HARD COSTS

#### Pre-Departure

<table>
<thead>
<tr>
<th>Lost Productivity</th>
<th>Old/New Employee (Hours) x ($ Rate)</th>
<th>Co-Workers (Hours) x ($ Rate)</th>
<th>Supervisor (Hours) x ($ Rate)</th>
<th>Other Costs $</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>of Incumbent</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>of Co-Workers</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>of Supervisor</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>

#### During Vacancy

<table>
<thead>
<tr>
<th>Lost Productivity</th>
<th>Old/New Employee (Hours) x ($ Rate)</th>
<th>Co-Workers (Hours) x ($ Rate)</th>
<th>Supervisor (Hours) x ($ Rate)</th>
<th>Other Costs $</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>of Vacant Position</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>of Co-Workers</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>of Supervisor</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>

#### During On-Boarding

<table>
<thead>
<tr>
<th>Lost Productivity</th>
<th>Old/New Employee (Hours) x ($ Rate)</th>
<th>Co-Workers (Hours) x ($ Rate)</th>
<th>Supervisor (Hours) x ($ Rate)</th>
<th>Other Costs $</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>during On-Boarding</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>of Co-Workers</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>of Supervisors</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>

#### Ripple Effects

<table>
<thead>
<tr>
<th>Current Business Lost</th>
<th>Old/New Employee (Hours) x ($ Rate)</th>
<th>Co-Workers (Hours) x ($ Rate)</th>
<th>Supervisor (Hours) x ($ Rate)</th>
<th>Other Costs $</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Business Not Acquired</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Turnover Leading to Turnover</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>

Total “Soft Costs” of Turnover = $ ________

**TOTAL COST OF TURNING OVER ONE EMPLOYEE**

Hard Costs + Soft Costs = $ ________

**COST OF TURNOVER AS A PERCENTAGE OF ANNUAL PAY**

Cost of turnover (hard + soft) / annual pay (hourly pay * 2080 hours) = $ ________

**ANNUAL COST OF TURNOVER FOR OCCUPATION**

Number of exiting employees in occupation ________ x total cost of turnover $ ________ = $ ________
APPENDIX 4: LIST OF INTERVIEWS AND MEETINGS

Workforce Training and Education Coordinating Board

- Eleni Papadakis
- Bryan Wilson
- Mike Brennan

Power Generation Skill Panel (Centralia)

- Arlene Abbott, Wenatchee Valley College & Mid-Columbia Skill Panel Liaison
- Todd Arendt, TransAlta Centralia Generation LLC
- Randy Backtel, New Market Skills Center
- Cheryl Fambles, Pacific Mountain Workforce Consortium-WIRED
- Bob Guenther, IBEW Local 77
- Alan Hardcastle, Washington State University
- Barbara Hins-Turner, Centralia College
- Joe Kinerk, New Market Skills Center
- Pat McCarty, New Market Skills Center
- Troy Nutter, Puget Sound Energy
- Jay Pickett, Puget Sound Energy (retired)
- Kairie Pierce, Washington State Labor Council
- Stan Ratliff, Satsop Development Park
- Dale Singer, Grand Coulee Dam

Northwest Marine Manufacturing Skill Panel (Bellingham)

- Ann Avary, Northwest Center of Excellence for Marine Manufacturing and Technology
- Bob Brown, Westport Shipyard
- Buddy Brown, Nordic Tug
- Gay Dubigk, Northwest Private Industry Council
- Rafeeka Gafoor, Northwest Private Industry Council
- Lynn Green, Aberdeen School District
- Lu Jewell, Pacific Mountain Workforce Consortium
- Mike Kelly, Grays Harbor College
- Alex Kosmides, Northwest Private Industry Council
- Del McAlpine, All American Marine
- Jim McKenna, Employment Security Council, Washington State
Manufacturing Roundtable (Spokane)

- John Crow, Lloyd Pans
- Polly Crowley, West Valley School District
- Craig Dias, Haskins Steel
- Amy Johnson, Greater Spokane Inc.
- Mike Marzetta, Altek
- Mark Mattke, Spokane Area Workforce Development Council
- Paul May, Wagstaff
- Mike Mires, Spokane Community College
- Rory Nay, Proto Technologies
- Mike Nepean, Spokane Public Schools

Tacoma/Pierce County Healthcare Career Services Council

- Shirley Aikin, VA Puget Sound Health Care System
- Jo Ann Baria, Pierce College, Fort Steilacoom
- Jawana Cain, Tacoma-Pierce County Employment & Training Consortium
- Marjorie Dobratz, University of Washington, Tacoma, Nursing Program
- Sharon Fought, University of Washington, Tacoma, Nursing Program
- Darci Gibson, Good Samaritan Community Healthcare
- Kim Giglio, MultiCare Health System, Director of Recruitment
- Dale Harper, Franciscan Health System
- Maryellen Hill, Tacoma-Pierce County Employment & Training Consortium
- Kim Hudson, Tacoma-Pierce County Employment & Training Consortium
- LaRita Mandley, Clover Park Technical College
- Dona Smoot, Western State Hospital

State Board of Community and Technical Colleges

- Jim Crabbe
- Carolyn Cummins

Other State and National Experts

- Linda Fowler, U.S. Department of Labor, WIRED
- Mike Hudson, Association of Washington Business
- John Vicklund, Washington Manufacturing Services (MEP)