

Oregon Workforce Investment Board (OWIB) Manufacturing Workforce Committee Implementation Plan 2010-2011

Background

Why Manufacturing Matters: Manufacturing continues to be a critical driver of the Oregon economy. In March 2010, 162,400 workers were employed in manufacturing jobs, representing a .7 growth from February and a positive change across both durable and non-durable goods –despite the recession. Manufacturing continues to comprise over 10 percent of jobs and approximately 14 percent of payroll, and most of those jobs are at higher average wages and offer higher benefits when compared to all other industries. Manufacturing has good jobs!

Oregon’s manufacturing base represents a broad cross-section of industries, including metals, machinery, electrical equipment, transportation equipment, food, beverage and tobacco products, paper and others, with computer/electronic products and wood products continuing to dominate. While more than half of all manufacturing jobs are at employers with 100+ workers, the vast majority of establishments are very small, with fewer than 20 workers in over 6,000 establishments.

At the same time, skill requirements in those establishments are changing rapidly. Both new and current workers lack critical foundation skills, and despite the fact that many dislocated workers are in search of work, some firms in Oregon can’t find workers with the level of technical skills they need. The baseline skills for production workers continue to rise with increased automation, advancing technology and the commitment of more firms to adopt lean manufacturing process improvements. Moreover, tens of thousands of production workers are expected to retire in the next decade while the pipeline of those interested in manufacturing careers is relatively empty.

OWIB Manufacturing Workforce Committee: In recognition of manufacturing as one of the state’s critical economic development priorities and the myriad of workforce challenges companies are facing, the Oregon Workforce Investment Board (OWIB) established a Manufacturing Workforce Committee (MWC) in the fall of 2009. This critical decision is intended to leverage strategic state and federal investments in manufacturing workforce development over the past three years and to “plug into the power grid” a focused agenda for continuing the critical work of building the skilled workforce needed by Oregon manufacturers. In support of those efforts, the focus and activities of the MWC will:

- identify and implement several key action strategies that will be translated into “strategic doing” at both the state and regional levels;
- facilitate manufacturers across the state to be more engaged in innovative partnership with regional educational providers;
- work to ensure educational programs are more aligned with the workplace requirements of regional manufacturers;
- facilitate the identification , sharing and replication of effective models of manufacturing workforce development (including outreach, career awareness, training, etc) ; and
- encourage both public and private investments in manufacturing workforce development to increase and be more effectively leveraged for the common/shared good.

Mark Lewis, President of Woodfold Mfg., Inc. and a member of the OWIB, has been appointed Chair of the Manufacturing Committee. Mark’s intention is to build a business dominated committee representing a cross-section of sizes, industries and geographic locations, populated with members who are willing to look at statewide and crosscutting manufacturing issues and who have connections beneficial to Committee work and a large network of contacts through which ideas can be generated and tested. Members recruited to date include:

- Agnes Balassa, OREGON WORKFORCE PARTNERSHIP
- Al Dorgan, UNITED STEEL WORKERS 7150
- Jill Eiland, Corporate Affairs, INTEL CORPORATION
- Steve Emery, President, EARTH2O
- Al Gosiak, President, SUMMIT MANAGEMENT CONSULTANTS
- Charlie Lake, President, WARNE SCOPE MOUNTS
- Rene Leger, E3: EMPLOYERS FOR EDUCATIONAL EXCELLENCE
- Mark Lewis, President, WOODFOLD MFG., INC.
- Patrick Murphy, Executive Director, OREGON MANUFACTURING EXTENSION PARTNERSHIP
- Artha Nafie, Quality Leader, CARESTREAM HEALTH INC.
- Drew Park, President, COLUMBIA WIRE AND IRON, INC.

Additional private sector members and appropriate public sector members will be recruited based on the focus of the Strategic Action Plan.

Planning Process

Statewide Planning Event: On December 3, 2009, over seventy participants attended the OWIB Manufacturing Workforce Committee’s first strategic planning session. Attendees included a very broad spectrum of representatives, including manufacturers, trade associations, labor, workforce investment board staff, education providers, apprenticeship, economic development, elected officials, community leaders and others. The purpose of the event was to provide a forum for collecting input from this statewide group regarding their priorities and recommendations of key workforce strategies to be included in the Committee’s Action Plan.

A power point presentation outlined some critical facts about the Oregon manufacturing economy and a summary of what we already know about manufacturing-related workforce issues in Oregon. (www.oregonmanufacturing.org/node/718). Workgroups discussed priority issues, and each committee member facilitated two round table discussions on specific challenges, the strategies currently being employed to overcome the challenges, and possible new strategies that could be implemented.

The group then considered the principal barriers keeping Oregon manufacturing from achieving the results. The report-outs and synthesis of input reflected the depth to which each topic was explored and the common threads that seemed to run through so many of the issues (www.oregonmanufacturing.org/node/789). Those in attendance were asked to commit to being willing to work in support of the final Strategic Actions Plan at the local and regional levels.

Committee Planning Process: Over the past few months, Committee members have been engaged in a series of structured discussions, both as a group and one-on-one interaction with the contractor, Audrey Theis of Key Links, to discuss the synthesized input and progressively winnow down options by focusing on the most effective, cross-cutting strategies that will address prioritized issues. As a result of that process, conducted virtually with Committee members across the state, a framework for the Action Plan was developed and adopted by Committee members, as reflected in the following pages.

Communication and Engagement

The OWIB Manufacturing Committee is committed to doing its work based on partnership with regional manufacturers, workforce boards, education and training providers, economic development entities, elected officials and government agencies. The intent is NOT to create a “top-down” agenda, but rather to work closely with various stakeholders at the regional levels to fashion a shared agenda that will support effective work that is already underway, but may need some additional “horsepower” to get to scale.

The primary communication tool will be the previously established website: www.oregonmanufacturing.org. All Committee products will be posted regularly and an update on progress against measurable objectives will be posted quarterly. All stakeholder groups will be asked to use this portal to post and share information related to their effort to support implementation of the Action Plan.

Oregon Workforce Investment Board (OWIB) Manufacturing Workforce Committee Strategic Action Plan

Vision: A talent pool with the foundation, technical, critical thinking and innovation skills needed to give Oregon manufacturers a competitive advantage in the global marketplace.

Four Priority Challenge Areas: Based on input from a broad cross-section of stakeholders, the following four challenge areas have been identified as areas of critical focus:

- **#1 Lack of Foundation Skills:** Both new entrants and current workers lack the basic foundation skills necessary to add value to operations without additional training.
- **#2 Negative Public Image and Lack of Career Awareness:** These factors have resulted in **too few workers in the pipeline** to fill expected vacancies due to impending retirements.
- **#3 Inadequate STEM Knowledge and Skills:** Workers lack the critical science, technology and math skills needed to foster innovation and promote critical thinking/problem solving.
- **#4 Rapidly Changing Workplace Requirements:** Continuous process improvements, productivity enhancements and technology advances are outpacing the skills of current workers.

Planning Principles: The following principles were adopted by the Committee to guide its work:

- Criteria: doable/achievable, focused, realistic, practical, requires limited resources, measurable outcomes.
- Reflect 3-4 “hot buttons” issues that other manufacturing groups and various stakeholder groups can support. Where can we leverage needed change?
- Implement in partnership with and through regional manufacturers, workforce boards, education and training providers, and economic development entities.
- When possible, join/lend support to existing efforts where there is already momentum around an issue (as opposed to launching new, parallel initiatives)

Major Cross-Cutting Themes: The following themes were consistently identified by all stakeholder groups:

- Increase innovative and sustained industry involvement at a variety of levels.
- Get the word out about existing programs/models that are producing results. Stop funding/doing more pilots and scale up what we already know is working.
- Improve the image of manufacturing and increase information about career opportunities within the sector to students, teachers, guidance counselors, parents and elected officials.

Categories of Activity: The Plan reflects two categories of activity:

- Strategic Initiatives with measurable metrics (What the Committee will do) and
- Areas of Concern (What Committee members will advocate for in various relevant public forums)

Timeframe for Implementation: June 2010 – June 2011

Challenge Area #1	Strategic Action	Tactics	Lead/Timeline
<p>Lack of Foundation Skills</p>	<p>Support statewide implementation of the Career Readiness Certificate (CRC) among Oregon manufacturers. <i>(Metric: Increase # of manufacturers adopting CRC from 4 to 12)</i></p>	<p>-Profile manufacturers currently using the CRC and highlight the business case for using the CRC in their hiring, retention and promotion practices. <i>(Deliverable: 6 profiles)</i></p> <p>- Gain commitment from Committee members to use CRC. Levels of engagement to include: request, recommend, or require. <i>(Deliverable: Commitments from Committee members)</i></p> <p>-Arrange regional informational briefings for manufacturers to learn about the CRC, possibly on agenda of existing consortia or business group. <i>(Deliverable: 4-6 regional meetings held)</i></p> <p>-Identify/recruit 8-12 manufacturers by industry area to serve as “champions” for the adoption of the CRC to their respective trade association or affiliate group <i>(Deliverable: At least 8 champions identified/recruited)</i></p>	<p>-Contractor by 10/2010</p> <p>-Committee by 12/2010</p> <p>-Contractor & Committee by 3/2011</p> <p>-Contractor /Committee by 6/2011</p>

<p>Advocacy Platform to Encourage Systemic Change for Building Foundation Skills</p>
<ul style="list-style-type: none"> ▪ Advocate with the State Board of Education and other key decision making bodies for significant revisions to the Essential Skills component of the high school diploma in terms of skills required, methods of assessments and timeframes for implementation. ▪ Advocate with the legislature and other relevant funding authorities for statewide roll out and full implementation of the Oregon Pathways for Adult Basic Skills Transition to Education and Work (OPABS model), particularly as relates to contextual math in a manufacturing workplace. ▪ Advocate with individuals and with education and training providers for increased student completions of manufacturing-based career pathway (short-term) certificates that build critical foundation skills and stackable credentials, and for the development of visual roadmaps that show individuals the career paths to good, living-wage jobs in manufacturing.

Challenge Area # 2	Strategic Action	Tactics	Lead/ Timeline
<p>Negative Public Image ----- Lack of Career Awareness ----- Too Few Workers in the Pipeline</p>	<p>Identify, promote and encourage adoption of manufacturing-related programs built on <u>innovative engagement between manufacturers and education/training providers across Oregon.</u> <i>(Metric: At least 75% of attendees at Statewide event report that sharing effective models led to “scaling up” of effective practices in their region and decreased need to reinvent the wheel.)</i></p> <p>Support the efforts of the Oregon Workforce Partnership, Community Colleges, and Office of Apprenticeship to “tell the stories” of their effective partnerships with manufacturers. <i>(Metric: At least fourteen – two per region- good news stories are run on effective models.)</i></p>	<p>- Develop an online template to capture critical categories of information regarding successful program models: who, what, how, what not to do/lessons learned, etc. <i>(Deliverable: Online template)</i></p> <p>-Establish categories for profiles (e.g., small manufacturer working with high school) and collect targeted information on effective models based on those categories and using online template. <i>(Deliverable: At least twenty effective models profiled)</i></p> <p>-Develop communication plan to promote and encourage adoption of effective models <i>(Deliverable: Completed Communications Plan)</i></p> <p>-Solicit regional media to run “success stories” about the effective programs, with a focus on the business-education partnerships, modern technology-based workplaces, and high-skill/high-wage career opportunities. <i>(Deliverable: At least one media partner in each region is recruited to run human interest stories about manufacturing partnerships and career opportunities.)</i></p> <p>-Hold Statewide Manufacturing Event to showcase effective models and secure media coverage. <i>(Deliverable: Event held and attended by at least 100 stakeholders from around the state.)</i></p>	<p>-Contractor by 10/2010</p> <p>-Contractor & Providers 12/2010</p> <p>-Contractor & Providers by 12/2010</p> <p>-Contractor, Committee & Providers by 3/2011</p> <p>-Contractor, Committee & Providers by 6/2011</p>

**Advocacy Platform to Encourage Systemic Change for Negative Public Image/
Lack of Career Awareness/Too Few Workers in the Pipeline**

- Advocate with state, regional and local governmental leaders and elected officials regarding the importance of manufacturing to the economy and the urgency of continued investments in building a skilled manufacturing workforce.
- Advocate with high school leadership for expanded dual enrollment into community college Career Technical Education manufacturing-related programs.
- Advocate with employers for expansion of industrial apprenticeships in high-demand occupations.

Challenge Area # 3	Strategic Action	Tactics	Lead/ Timeline
<p>Inadequate STEM Knowledge and Skills (Science, Technology, Engineering and Math)</p>	<p>Support the Project Lead the Way (PLTW) State Partnership Team to achieve its established goals: -Increase infrastructure necessary to teach the PLTW curriculum -Increase access of Oregon students to the PLTW curriculum -Increase the capacity to implement, sustain and extend the PLTW program into public schools <i>(Metrics: Support achievement of metrics already established by the PLTW Partnership Team)</i></p> <p>Support school systems in adoption/expansion of various public/private models in middle and high schools that build science and math skills through extra-curricular activities, such as Lego robotics and science competitions. <i>(Metric: Increase in STEM-related extra-curricular activities as reported by regional education districts.)</i></p>	<p>Work with the three identified pilot regions:</p> <ul style="list-style-type: none"> ▪ Salem (will begin Fall 2010) ▪ Metro: East/Clackamas and West/Beaverton-Hillsboro ▪ Redmond/Bend/Sister <p>to do the following:</p> <p>-Help build a business case for manufacturer support of PLTW and other STEM related extra-curricular activities. <i>(Deliverable: Statement of business case)</i></p> <p>- Develop a menu of activities that outlines various ways manufacturers can engage with local schools in support of PLTW and other STEM supportive initiatives. <i>(Deliverable: Menu of activities)</i></p> <p>-Help convene regional informational meetings to brief manufacturers and other businesses about PLTW and other STEM related activities. <i>(Deliverable: At least three regional meetings convened.)</i></p> <p>- Identify specific manufacturers in targeted regions that might be “champions” and/or potential supporters and help recruit them as project partners for various STEM-related activities. <i>(Deliverable: Identification of at least three high profile manufacturers)</i></p>	<p>In cooperation with PLTW Partnership Team:</p> <p>-Contractor by 10/2010</p> <p>-Contractor by 12/2010</p> <p>-Contractor & Committee by 3/2011</p> <p>-Contractor & Committee by 6/2011</p>

Advocacy Platform to Encourage Systemic Change for Broader Adoption of STEM
<ul style="list-style-type: none"> ▪ Advocate with the Department of Education for a state STEM strategy. ▪ Advocate for private sector investment to assist schools with start-up costs of equipment and supplies and teacher training

Challenge Area # 4	Strategic Action	Tactics	Lead/ Timeline
<p>Workplace Requirements Outpacing Skills of Current Workers</p>	<p>Promote the “lean/clean/green” business case to Oregon manufacturers and the need for reduction of:</p> <ul style="list-style-type: none"> ▪ Natural resource waste ▪ Process waste and ▪ Energy waste <p>Articulate the implications to new skill requirements for incumbent workers and promote the importance of incumbent worker training in these critical areas.</p> <p><i>(Metric: At least one consortia-based incumbent worker training project in each region funded through the Employer Workforce Training Fund and targeted to a energy-efficiency agenda.)</i></p>	<ul style="list-style-type: none"> ▪ Ensure coordination of efforts with the OWIB Green Jobs Council as relates to manufacturing and green manufacturing initiatives. <i>(Deliverable: Regular communication between Committee Chairs and staff)</i> ▪ Identify and publicize ways manufacturers can tap into new sources of funds and technical assistance available for workforce training related to energy conservation, sustainability, lean-to-green, etc. <i>(Deliverable: Announcement of opportunities through website and manufacturing networks)</i> ▪ Identify and share best practices for how employers and training providers can deploy alternative workplace- and technology-based solutions to enhance incumbent worker skills relative to energy efficiency. <i>(Deliverable: Incorporate this focus as part of the effective models work)</i> 	<p>Contractor & Committee Chair by 6/2011</p> <p>Contractor & Committee by 6/2011</p> <p>Contractor & Providers by 3/2011</p>

Advocacy Platform to Encourage Systemic Change for Increased Incumbent Worker Training
<ul style="list-style-type: none"> ▪ Advocate with the legislature for increased funding to expand incumbent worker training for Advanced Manufacturing, with a focus on energy efficiency and the skills needed by workers to help companies to become “greener.” ▪ Advocate with economic development officials at all levels for this as a business retention agenda and investment strategy.

Multiple Challenge Areas	Longer-Term Multi-Year Strategic Action	Tactics	Lead/ Timeline
<p>Lack of Foundation Skills -----</p> <p>Negative Public Image -----</p> <p>Lack of Career Awareness -----</p> <p>Too Few Workers in the Pipeline -----</p> <p>Inadequate STEM knowledge and skills</p>	<p>Conduct a summer in-service institute for middle and high school teachers and guidance counselors.</p> <p>This initiative will be multi-year effort, with planning in 2010 and implementation the summer of 2011(after this grant period)</p>	<p>-Explore existing models, both in Oregon and nationally, that have similar goals and objectives, such as: <i>Credit Model: The Summer Agriculture Institute sponsored by the Oregon Farm Bureau, which offers a 3-credit, week-long graduate level course for K-12 educators through OSU on how to teach academics using an agriculture context. (www.oregonfb.org/programs/sai.shtml)</i></p> <p><i>Continuing Education Model: The Oregon Building Congress offers week-long in-service training to Portland area teachers with PSU. Topics have included applied math, applied science, design & sustainability. Teachers develop and share lesson plans.</i></p> <p><i>Hands-on Model. The Semi Foundation (SEMI High Tech U) has taken its successful student program and now sponsors workshops to teach educators about high tech/nanotechnology. (www.nysut.org/newyorkteacher_10825.htm)</i></p> <p>-Explore affiliate partnerships with related organizations, such as the Chalkboard Project and Business Education Compact, which focus on teacher effectiveness and business-education partnerships, respectively.</p> <p>-Determine the pros and cons of various models; select one for replication.</p> <p>-Develop/adapt model based on Oregon requirements with input from project partners</p> <p>-Promote opportunity to teachers and guidance counselors</p> <p>-Launch pilot and/or full-blown project (TBD)</p>	<p>-Contractor by 12/2010</p> <p>-Contractor by 12/2010</p> <p>-Contractor & Committee by 12/2010</p> <p>-Contractor & Committee by 12/2010</p> <p>-Project Team by 3/2011</p> <p>-Project Team by 6/2011</p>