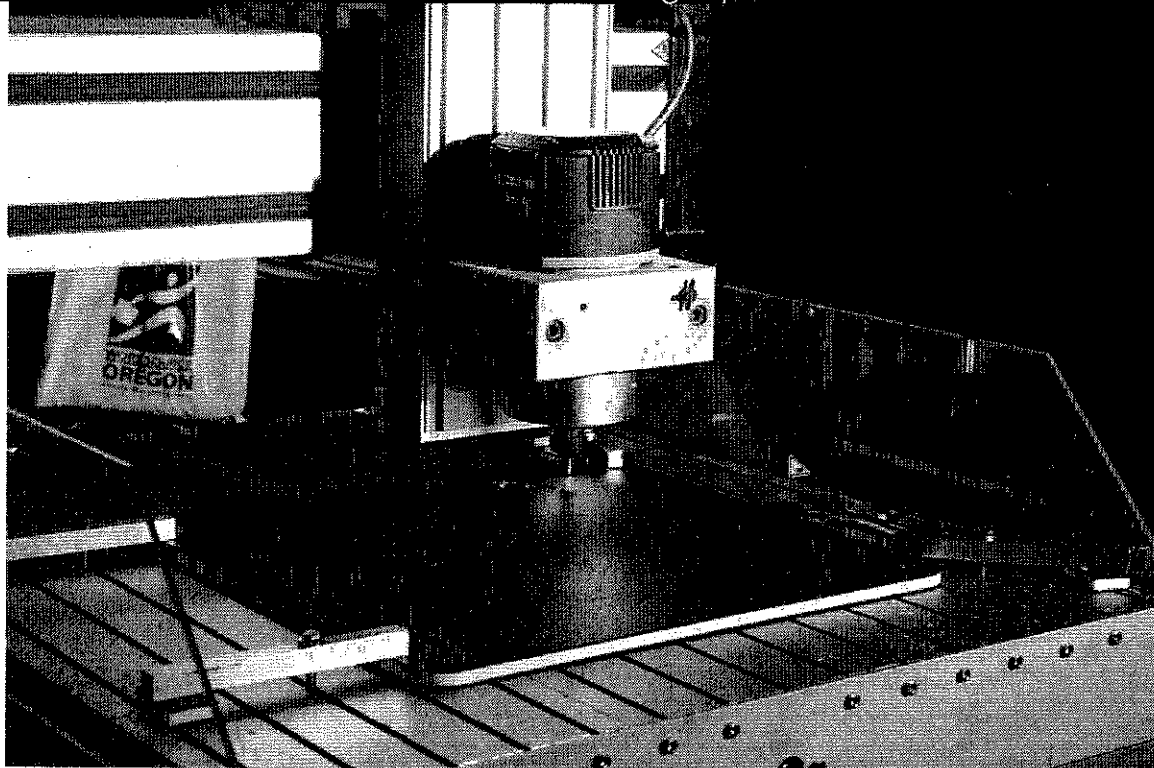




The Regional Metals Team Presents
"Metals and Manufacturing Day"

A Career Awareness Program

*Meeting the Oregon graduation requirements for
Career Related Learning Experiences*



**Colton High School
November 24, 2009**

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Team Members

About the Regional Metals Team



Clackamas Community College
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Gunderson
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Accessing to Portland's Future



Portland Development Commission
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WorkSource Portland Metro
Ronald Freeman
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Barbee Williams
Michael Watson
Alan Woolley



Worksystems, Inc.
Jesse Aronson

The regional metals team is a proven broad-based workforce development partnership that offers worker recruitment services, customized skills training and business expansion funding that can result in a long-term benefit to our customers.

The team's mission is to support business by proactively addressing workforce needs and promote employment with our regional partners to provide a skilled workforce to the metals industry.

Menu of Services

- Workforce Solution Proposal is an assessment of your workforce needs followed by a customized and comprehensive solution package.
- Flexible delivery of incumbent worker training.
- Customized recruitment events for your company.
- A personal recruiter to source qualified workers from the largest database of workers in Oregon.
- Industry awareness and career exploration activities for K-12 students, teachers, counselors and administrators.
- Metals Industry-specific short-term basic skills training.
- Machine Tool and Welding certificate and degree programs.
- Business recruitment and expansion incentives.


Steve Strain
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Metals and Manufacturing Day

November 24, 2009
8:30 am to 12:00 pm
Colton High School

1. Welcome & Introductions
2. Overview of the Day
3. Pre-test
4. Measurement Activity: Tape Measure
5. Why Manufacturing Matters
6. Reality Check (Oregon CIS)
7. "Work With Metals" video (Mid-Willamette Metals Consortium)
8. Measuring Activity: Calipers

Break – Visit the CNC Router

9. School Sign Design Process

Break

10. Lunch (Courtesy of our sponsor)
 - Company presentation (to include a graduate from the host high when possible)
 - What I look for in job candidates (soft & tech skills)
 - What you can do now to prepare for the future
 - Questions and Answers
11. Community College Presentations (Panel)
 - Clackamas Community College
 - Portland Community College
 - Mt. Hood Community College
12. Questions and Answers/Post-Test
13. Adjourn/View final sign product



Pre-and Post-Event Knowledge Assessment

Name: _____

I know what the initials CAD and CAM stand for.

- PRE-TEST [] Strongly Disagree [] Disagree [] Agree [] Strongly Agree
POST-TEST [] Strongly Disagree [] Disagree [] Agree [] Strongly Agree

I know three tasks a machinist does in their job.

- PRE-TEST [] Strongly Disagree [] Disagree [] Agree [] Strongly Agree
POST-TEST [] Strongly Disagree [] Disagree [] Agree [] Strongly Agree

I know what training it takes to become a welder.

- PRE-TEST [] Strongly Disagree [] Disagree [] Agree [] Strongly Agree
POST-TEST [] Strongly Disagree [] Disagree [] Agree [] Strongly Agree

I am confident in my ability to read a measuring tape.

- PRE-TEST [] Strongly Disagree [] Disagree [] Agree [] Strongly Agree
POST-TEST [] Strongly Disagree [] Disagree [] Agree [] Strongly Agree

I have my own measuring tape.

- PRE-TEST [] Strongly Disagree [] Disagree [] Agree [] Strongly Agree
POST-TEST [] Strongly Disagree [] Disagree [] Agree [] Strongly Agree

I can identify calipers if I saw them.

- PRE-TEST [] Strongly Disagree [] Disagree [] Agree [] Strongly Agree
POST-TEST [] Strongly Disagree [] Disagree [] Agree [] Strongly Agree

I can explain what a router does.

- PRE-TEST [] Strongly Disagree [] Disagree [] Agree [] Strongly Agree
POST-TEST [] Strongly Disagree [] Disagree [] Agree [] Strongly Agree

I know how to use two pieces of PPE.

- PRE-TEST [] Strongly Disagree [] Disagree [] Agree [] Strongly Agree
POST-TEST [] Strongly Disagree [] Disagree [] Agree [] Strongly Agree

I know how to find wage information for manufacturing jobs.

- PRE-TEST [] Strongly Disagree [] Disagree [] Agree [] Strongly Agree
POST-TEST [] Strongly Disagree [] Disagree [] Agree [] Strongly Agree

I understand what classes I need to take to get into machining classes in college.

- PRE-TEST [] Strongly Disagree [] Disagree [] Agree [] Strongly Agree
POST-TEST [] Strongly Disagree [] Disagree [] Agree [] Strongly Agree

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My Glossary of Technical Terminology

Annual Wage	
Basic Apartment	
CAM	
CNC	
Cartesian Coordinates	
Cutting tool	
Decimal inch	
Depth of cut	
Endmills	
Fraction inch	
G-code	
Incremental	
Machine Tool	

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Micrometer	
Occupational Summary	
Router	
Soft Skills	
Speed feed	
Spindle	
Surfaces	
Work Ethic	
New terms:	
New terms:	
New terms:	
New terms:	
New terms:	

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Occupational Reports from QualityInfo.org

On the following pages three reports are included for the job categories:

- Computer Controlled Machine Tool Operators
- Machinists
- Welders

How are these jobs different? (Read the "Occupational Description" at the top of the report).

What is the need for workers in these jobs?

Which occupation has the highest median hourly wage?

What are the educational requirements for these jobs?

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Occupational Summary for Machinists (51-4041) in the Clackamas region

Description: Set up and operate a variety of machine tools to produce precision parts and instruments. Include precision instrument makers who fabricate, modify, or repair mechanical instruments. May also fabricate and modify parts to make or repair machine tools or maintain industrial machines, applying knowledge of mechanics, shop mathematics, metal properties, layout, and machining procedures.

Employment Projections

Employment Projected Annual Openings

Region	2006	2016	Growth	Replacement	Total
Oregon					
Statewide	3,470	3,775	31	84	115
Clackamas	403	452	5	10	15

Current Job Openings

Job Title	Location	Order Number	Wage Offered
Cnc Machinist	Wilsonville	648909	\$16.00/hr to \$18.00/hr DOE
Cnc Machinist/Swiss Screw	Oregon City	648636	\$18.00/hr to \$28.00/hr DOE
Cnc Machinist	Portland	648415	\$15.00/hr to \$18.00/hr DOE
Sr. Machinist	Milwaukie	646701	\$16.71/hr to \$23.13/hr DOE
Cnc Machinist/Mills	Oregon City	646114	\$20.00/hr to \$28.00/hr DOE
Cnc Machinist	Wilsonville	645517	\$18.00/hr to \$20.00/hr DOE
Rollform Setup	The Dalles	649970	\$10.25/hr DOE
Moriseki Cnc Lathe Machinist	Hillsboro	646743	\$18.00/hr to \$20.00/hr DOE
Wire Edm Specialist	Portland	642628	\$18.00/hr to \$27.00/hr DOE
Manual Machinist - Journeyman Level	North Portland	641098	\$18.00/hr to \$25.00/hr DOE

Wages

----- 2009 Wages -----

Region	Median Hourly	Avg Annual	Middle Range
Oregon			
Statewide	\$19.63	\$41,821	\$15.52 - 23.75
Clackamas	21.72	45,199	18.20 - 25.20

Industries of Employment private sector only

Industry	2006 Employment
Total, All Industries	403
Manufacturing	316
Administrative and Support and Waste Management and Remediation Services	58
Other Services (except Public Administration)	16

Occupations with Similar Skills

Occupation	Skill Overlap
Tool And Die Makers	66%
Computer-Controlled Machine Tool Operators, Metal And Plastic	64%
Multiple Machine Tool Setters, Operators, And Tenders, Metal And Plastic	62%
Grinding, Lapping, Polishing, And Buffing Machine Tool Setters, Operators, And T	60%
Milling And Planing Machine Setters, Operators, And Tenders, Metal And Plastic	60%

Statewide Employment Analysis

2006 employment is estimated to be larger than the statewide average. This occupation is expected to grow at a somewhat slower rate than the statewide average. Total job openings are projected to be somewhat higher than the statewide average.

Occupational Summary for Computer-Controlled Machine Tool Operators, Metal And Plastic (51-4011) in the Clackamas region

Description: Operate computer-controlled machines or robots to perform one or more machine functions on metal or plastic work pieces.

Employment Projections				
Region	Employment Projected Annual Openings			
	2006	2016	Growth	Replacement Total
Oregon				
Statewide	2,156	2,320	16	37 53
Clackamas	324	348	2	6 8

Wages			
----- 2009 Wages -----			
Region	Median	Avg	Middle
	Hourly	Annual	Range
Oregon			
Statewide	\$18.10	\$40,540	\$14.55 - 22.52
Clackamas	16.95	36,251	14.14 - 20.36

Current Job Openings			
Job Title	Location	Order Number	Wage Offered
Cnc Machinist	Clackamas	646715	\$17.00/hr to \$23.00/hr
Cnc Machine Operator	Canby	644730	\$15.50/hr
Cnc Machine Operator	Milwaukie	644723	\$15.00/hr to \$16.00/hr DOE
Cnc Machine Operator	Milwaukie	640120	\$15.00/hr to \$16.00/hr DOE
Machinist	Tualatin	646126	\$12.00/hr to \$16.00/hr DOE
Cnc Setup / Operator	Hillsboro	645394	
Cnc Router Operator	Portland	642151	\$14.00/hr to \$16.00/hr DOE
Cnc Machinist	North Plains	637568	\$15.00/hr to \$25.00/hr DOE
Cnc Laser Operator	Hillsboro	635496	

Industries of Employment private sector only	
Industry	2006 Employment
Total, All Industries	324
Manufacturing	320

Occupations with Similar Skills	
Occupation	Skill Overlap
Numerical Tool And Process Control Programmers	68%
Multiple Machine Tool Setters, Operators, And Tenders, Metal And Plastic	67%
Machinists	64%
Lathe And Turning Machine Tool Setters, Operators, And Tenders, Metal And Plasti	60%
Milling And Planing Machine Setters, Operators, And Tenders, Metal And Plastic	59%

Statewide Employment Analysis

2006 employment is estimated to be larger than the statewide average This occupation is expected to grow at a somewhat slower rate than the statewide average. Total job openings are projected to be at about the statewide average.

Reasonable employment opportunities exist.

Regional Employment Analysis

2006 employment is estimated to be larger than the regional average. This occupation is expected to grow at a somewhat slower rate than the regional average. Total job openings are projected to be somewhat higher than the regional average.

Educational Requirements

Workers must have long-term on-the-job training to gain the necessary skills for this occupation. However, those

Occupational Summary for Welders, Cutters, Solderers, And Brazers (51-4121) in the Clackamas region

Description: Use hand-welding, flame-cutting, hand soldering, or brazing equipment to weld or join metal components or to fill holes, indentations, or seams of fabricated metal products.

Employment Projections

Region	Employment		Projected Annual Openings	Replacement	Total
	2006	2016			
Oregon					
Statewide	5,580	6,043	46	164	210
Clackamas	492	534	4	15	19

Current Job Openings

Job Title	Location	Order Number	Wage Offered
Mig Welder/Fabricator	Wilsonville	650880	\$15.00/hr to \$19.00/hr DOE
Welder	Estacada	644242	\$15.00/hr to \$20.00/hr DOE
Plastic Welder	Tigard	649980	
Welder/Fabricator	Monmouth	649868	\$11.00/hr to \$13.00/hr DOE
Welder	Lebanon	649512	\$10.00/hr DOE
Welder	Bend	649123	DOE
Certified Welder (Steel)	Reedsport	647796	DOE
Millwright Techs - Certified Stick Welders	Troutdale	645809	
Welder / Fabricator	Medford	645568	\$14.00/hr to \$22.00/hr DOE
Welder/Fabricator	Woodburn	644083	\$10.00/hr to \$15.00/hr DOE

Wages

Region	----- 2009 Wages -----		
	Median Hourly	Avg Annual	Middle Range
Oregon			
Statewide	\$16.70	\$35,732	\$13.80 - 20.27
Clackamas	16.47	35,906	14.06 - 20.77

Industries of Employment private sector only

Industry	2006 Employment
Total, All Industries	492
Manufacturing	424
Construction	21
Wholesale Trade	19
Other Services (except Public Administration)	16

Occupations with Similar Skills

Occupation	Skill Overlap
Welding, Soldering, And Brazing Machine Setters, Operators, And Tenders	66%
Sheet Metal Workers	41%
Metal Workers And Plastic Workers, All Other	40%
Lay-Out Workers, Metal And Plastic	40%
Structural Iron And Steel Workers	39%

Statewide Employment Analysis

2006 employment is estimated to be much larger than the statewide average. This occupation is expected to grow at a somewhat slower rate than the statewide average. Total job openings are projected to be somewhat higher than the statewide average.

Reasonable employment opportunities exist largely due to the need to fill replacement job openings.

Regional Employment Analysis

2006 employment is estimated to be larger than the regional average. This occupation is expected to grow at a somewhat slower rate than the regional average. Total job openings are projected to be much higher than the regional average.

Educational Requirements



Where Can 14-17 Year Olds Work?

Offices: Filing, copying, answering phones, or sorting and delivering mail in bank, insurance, legal, and other offices.

Retail Stores: Marking prices, assembling or packing orders, cashiering, bagging orders in grocery stores, and clean-up work

Restaurants or Hotels: Food service, bussing tables, cooking, cafeteria help, and kitchen work
Car Washes: Car washing, cleaning, and polishing

Service Stations: Pumping gas, cleaning windows, and cashiering

Theaters or Amusement Parks: Ushering, sales or services in theaters, recreation areas or establishments, but not operating rides

Parks or Yards: Outdoor maintenance work such as brush clearing, removing litter, groundskeeping, but not using power-driven mowers or cutters

Nursing Homes or Hospitals: Assisting in patient care in hospitals or nursing homes by delivering packages, collecting meal trays, or assisting with recreational activities

Kennels: Pet grooming, feeding, walking, and cleaning kennels.

Entertainment Productions: Acting or performing in a film or entertainment production

Source: Oregon Employment Department

Hour Restrictions for Working 14-17 Year Olds

Hours of work for 14 and 15 year olds:

When school is in session:

- Not during school hours
- Three hours per day on school days
- Eight hours on non-school days
- 18 hours maximum per week 8 May work between 7 a.m. and 7 p.m.

When school is not in session (from June 1 through Labor Day):

- Eight hours per day
- 40 hours per week maximum
- May work from 7a.m. to 9 p.m.

Hours of work for 16 and 17 year olds, any time of the year:

- Any hour of the day
- 44 hours maximum per week

Source: Oregon Bureau of Labor and Industries

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And Now, A Word From Our Sponsor

Company Name: WorkSource Portland Metro (www.worksourceportlandmetro.org)

Company Representative: _____

What did you learn about this company?

What does this company look for when hiring new employees?

What type of occupations work at this company?





Community Colleges for Metals Careers

Clackamas Community College (www.clackamas.cc.or.us)

Mt. Hood Community College (www.mhcc.edu)

Portland Community College (www.pcc.edu)

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Menu of Products and Services

Employment Services

When you become a member of WorkSource Portland Metro, you'll have access to multiple job finding tools, online job search tools, job readiness workshops, short-term skill upgrades, occupational skills training, on-the-job training, basic computer classes, and a full-service career center.

We'll assess your basic skills and provide you with a variety of career building experiences to help you return to work. Come see us today at five convenient locations in the Portland metro area.

Training

Short-Term Skill Upgrade

Upgrade your skills to increase your employment opportunities.

Occupational Skills Training

Classroom based training to teach you occupational skills required for a specific job or occupation.

On-the-Job Training

Paid occupational skill training provided by an employer at an actual worksite.

G.E.D., E.S.L., Adult Basic Education

Increase your math, reading and writing skills.

Basic Computer Skills

Learn basic computer skills that will help you in your job search and on the job.

Career Center Resources

Our Career Centers provide a professional environment to access resources and conduct your job search. You'll find, Internet access for job search, E-Learning Tools, Self-Service Fax, Phones, Copier, MS Word, Winway Resume, WIN Skills Review, iMatchSkills®, and a Resource Library.

Workshops

Resume Development

Learn about the types of resumes that are right for you.

Interview Preparation

Learn about the types of interviews you are likely to encounter and how to be successful in them.

Job Search Strategies

Learn strategies to increase the effectiveness of your job search, including using iMatchSkills®.

Job Clubs

Network with other job seekers, share job leads.

(Check with your WorkSource Center staff about pre-requisites for these workshops.)

6 Locations To Serve You

Monday - Friday
8:00 am - 5:00 pm

WorkSource Portland Metro East

19421 SE Stark St., Portland 97233
(503) 669-7112

WorkSource Portland Metro Central

30 N. Webster St., Suite E., Portland 97217
(503) 280-6046

WorkSource Portland Metro Southeast

6927 SE Foster Road, Portland 97206
(503) 772-2300

WorkSource Portland Metro Tualatin

7995 SW Mohawk Street, Tualatin 97062
(503) 612-4200

WorkSource Portland Metro Hillsboro

265 SE Oak Street, Hillsboro 97123
(503) 681-0219

WorkSource Clackamas

506 High Street, Oregon City 97015
(971) 673-6400

www.WorkSourcePortlandMetro.org