

## Replacing Workers: What Lies Ahead?

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Oregon gained back the jobs it lost during the 2001-2003 recession, and then some. New jobs have been created, and more are expected. Fluctuations in employment levels are often the topic of news media reports, which note how fast (or slow) the economy is growing based on employment level changes. Employment growth, of course, equates to an increased demand for workers.

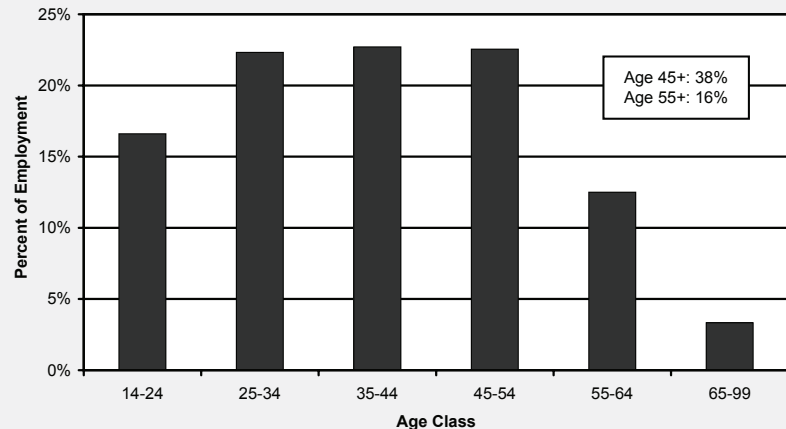
Demand caused by growth, however, is only one part of the story; the other relates to demand created by the need to replace workers who leave their jobs to enter other occupations, retire, or leave the labor force for other reasons. It is important to keep in mind both of these sources of job openings – growth and replacement – because, taken together, they are the best representation of the number of job openings for new labor force entrants in each occupation.

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Graph 1

Forty Percent of Oregon Workers are Age 45 or Older  
(Beginning of Fourth Quarter, 2005)



Source: U.S. Census Bureau, Local Employment Dynamics program

The state's employment is forecast to grow by a healthy 15 percent between 2004 and 2014, with an additional 245,000 jobs. Over this same period, projected replacement needs are expected to exceed growth-related job openings in most occupations. In fact, for every one job opening expected due to economic growth, two job openings are expected due to replacement needs.

Employers are seeing their workforces age, and some are starting to wonder how they will attract workers to replace retirees. Forty percent of Oregon workers are 45 or older (Graph 1). Some employers are taking a close look at their workforces, and considering how to deal with an impending exodus of older workers.

This is not just an Oregon phenomenon. According to Maryann Billington's *The Emerging Workforce*, 50 percent of

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American companies will lose 50 percent of their current senior management by 2010. Baby boomers approaching retirement age is a key factor.

When any employee – management or not – leaves a job, not only do they leave behind a vacant position, but they also take a few things with them – and it's not their favorite company stapler or a box of pens. They take knowledge and experience. With so many baby boomers who have been in the workforce, and maybe even the same industry, company, or position, for years, there is a large body of knowledge and experience nearly ready to retire as well. Companies that do not plan ahead could spend extra resources to bring their new workers up to speed, and still lose valuable knowledge along the way. It is difficult if not impossible to replace experience with anything but experience.

Table 1

**Replacement Job Openings Represent Nine out of 10 Openings in Oregon's Manufacturing Industry From 2004 to 2014**

	<b>Replacement Openings as a Share of Total*</b>
All Industries	63%
Manufacturing	89%
Utilities	83%
Agriculture, Forestry, Fishing, and Hunting	77%
Real Estate and Rental and Leasing	72%
Public Administration	71%
Retail Trade	69%
Other Services (except Public Administration)	68%
Mining	67%
Educational Services	66%
Management of Companies and Enterprises	65%

\*Based on occupational employment by industry

### Replacements by Industry

Over the 10-year period from 2004 to 2014, manufacturing industries are facing a significant number of job openings due to replacement needs, at nearly 90 percent

(Table 1). Other industries are also expected to have far more openings due to replacement than due to growth.

In two of Oregon's broad industries – mining and utilities – over half of the workforce is 45 and older. Oregon's mining industry is quite small, with about 2,000 workers. The state's utilities industry is somewhat bigger, with 5,000 employees. At least 40 percent of employment in nine other broad industries is 45 and older. They are:

- Agriculture, forestry, fishing, and hunting
- Wholesale trade
- Manufacturing
- Real estate and rental and leasing
- Other services (except public administration)
- Educational services
- Health care and social assistance
- Transportation and warehousing

With large numbers of older workers in these sectors, it leads one to ponder the question: Who is going to replace

## **A**n adequate supply of appropriately educated workers is key to avoiding severe shortages.

employees, an adequate supply of appropriately educated workers is key to avoiding severe shortages. As baby boomers retire, even other industries that do not widely require postsecondary education are faced with attracting an applicant pool to fill a larger number of job openings than they have previously experienced.

Wood products manufacturing is not a growing industry (with employment projected to decline by 5.6% from 2004 to 2014), but that does not mean there are no job openings. There is still a need to replace workers – both those who leave for other occupations, and those who leave the labor force due to retirement or other reasons. The majority of SierraPine Ltd.'s Springfield Division has been with the company for 30 or more years. With an average worker age of 53, the company will face significant retirements in coming years and, therefore, job openings will occur due to replacement needs. Tammy Rowd, controller for the Springfield Divi-

sion, estimated half of the division's workforce will retire within the next 10 years.

"SierraPine faces (periodic) layoffs, and the most recent hires are laid off first due to hierarchy," Rowd said. This makes it difficult for new employees to gain the experience needed to eventually move into positions now held by older workers.

### Replacements by Occupation

Turning from an industry view to an occupational view, health care occupations rank low in terms of projected job openings due to replacing workers (Graph 2). This is not because the need to replace workers is low, but rather the projected growth in health care occupations is quite high. Other sectors are expected to grow as well, but health care is the only one (other than nonclassifiable occupations which includes leased and sheltered workshop workers) that is projected to see more job openings in the next 10 years due to expansion than replacement needs.

Sales workers such as retail salespersons (20,011 replacement openings between 2004 and 2014, or 70% of total openings) and cashiers (14,687; 75%) have particularly high replacement needs because large numbers of workers are continually entering and leaving these jobs. The same is true for services occupations such as waiters and waitresses (13,988; 70%), and food preparation and serving workers (10,457; 71%). These large occupations have significant projected replacement needs. Many vacancies occur when workers move out of these occupations to others, as opposed leaving the labor force.

Cabinetmakers, transportation inspectors, and power plant operators are smaller occupations and have far fewer expected job openings than those listed above. For these occupations, the share of openings due to replacement needs is very high at more than 90 percent. The openings are weighted more by the share of workers nearing retirement than workers frequently entering and leaving these occupations.

Because of replacement needs, even occupations projected to decline in terms of total employment between 2004 and 2014 – for example, several logging and railroad occupations, travel agents, and electrical and electronic equipment assemblers – provide some job opportunities. A total of 46 out of the 716 occupational titles used in the Oregon Employment Department (OED) occupational employment database are projected to have negative growth, thus total employment of these 46 occupations will be lower in 2014 than in 2004. However, replacement job openings outweigh growth among 44 of these occupations, and they are expected to have a net positive number of job openings between 2004 and 2014.

**Educational Requirements for Replacement Job Openings**

Thirty percent of Oregon’s jobs in 2004 had a minimum requirement of some postsecondary training after high school from a career school, community college, or university. Although further education may help job seekers be more competitive in the labor market, this minimum requirement is the most common education/training level Oregon employers seek when hiring workers. The other 70 percent of jobs either require related work experience or can be learned on the job.

A slightly smaller share – 25 percent – of replacement job openings require some level of postsecondary training. This small shift reflects the large number of projected replacement openings that have lower educational and training requirements. Many are lower-paying occupations. This story is repeated with competitive educational requirements – the level of education or training that makes a job seeker more competitive in the labor market – with 53 percent jobs in 2004 and 47 percent of replacement job openings in 2004 requiring at least some level of postsecondary education.

**Skill Requirement for Replacement Job Openings**

Based on OED occupational skill sets, the most common skills needed

for today’s jobs are the same as those needed for replacement job openings between 2004 and 2014. The top-five skills for jobs in 2004 and for replacement job openings are: 1) apply basic mathematics such as arithmetic and ratios; 2) process records and maintain forms and files; 3) provide customer service; 4) work as a team member; and 5) follow safety procedures.

No doubt, skills are important. However, a worker’s experience levels with these skills should not be overlooked. It is one thing to know how to follow safety procedures. It is another thing to have followed specific safety procedures daily for 20 years or more. The knowledge and experience that goes away when any worker leaves an occupation – whether for retirement or otherwise – must be considered in coming years, not just how to replace bodies walking out the door, but how to replace the knowledge and experience they are taking with them.

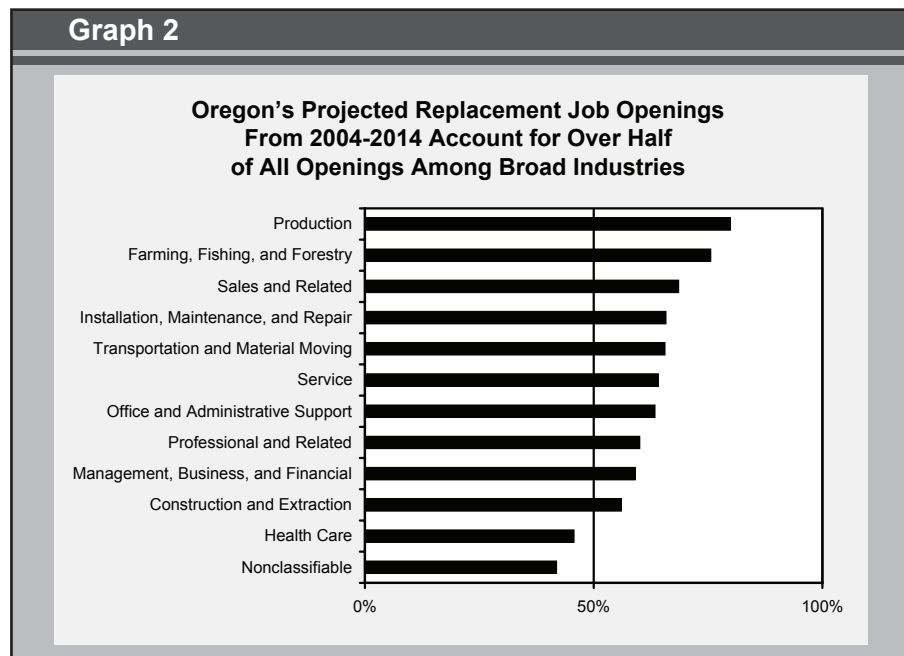
**Employers Reacting**

It is inevitable. The large number of replacement openings in this state, fueled by baby boomers reaching retirement age, will affect Oregon’s employers, some more than others. How are employers reacting to the baby-boom bubble slowly moving toward the door?

Some are putting an emphasis on increasing the number of students entering training programs – expecting these students will feed their labor pool. Others are looking at ways to keep retirees on the job longer. Job sharing is one option that allows workers to stay on part time. Another is project-based work that allows for long “vacation” breaks in between projects, giving retirees extended time off but not losing them permanently.

Employers who are accommodating, who look at their human resource policies with open eyes, and give potential retirees a reason to stay can work to keep employees on longer. Of course, retirees who have not planned well for retirement may be forced to stay in the work place longer, though not necessarily in their current occupations.

Organizations such as the Manufacturing 21 Coalition are looking forward and reacting to what they foresee. According to Eileen Drake, industry chair of the coalition’s Workforce Taskforce, Manufacturing 21 will co-host a presummit meeting focused on workforce strategies, such as recruiting retired workers and parents of young children and developing leadership among workers with limited English proficiency. In addition, Drake notes the Manufacturing 21 Coalition works with high



school administrators, counselors, faculty, students, and parents “to get the message out that manufacturing is alive and well, with good family wage jobs from production to professional management jobs.” It also is working with Regional Workforce Investment Boards, community colleges, and some four-year colleges to “create a connection between business and education” in an effort to attract more workers into manufacturing.

**Is it Really All that Bad?**

Oregon’s population is increasing. And more than half of the people moving here are in the age group of “younger workers” (15-40). These younger workers are more apt to

change jobs and careers more often than prior generations, but young workers are eager learners, adaptable, creative, collaborative, confident, and tech-savvy. This compares to mid-career workers who are ambitious, flexible, productive, and people oriented, and late-career workers who are more focused on project work and mentoring.

Older workers may work longer than we currently expect them to, either due to poor planning, personal choices, boredom of retirement, and a number of other reasons. They may choose to stay on the job longer.

Let’s not forget labor market forces that will have an impact, with increased wages used to attract workers and businesses paying for training of low-skilled workers to replace those who leave.

**Replacing workers who leave the labor force is unavoidable.**

Replacing workers who leave the labor force is unavoidable. It happens all the time, but it will happen more and more as baby boomers move closer to the ends of their working lives. Replacing them with eager, knowledgeable, and appropriately trained workers will soften the blow to companies and industries facing increasing shares of replacement openings. ■

**‘What If?’ It’s a Question Many Industries, Employers are Asking**

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Every organization has likely had the discussion in one form or another. In our office, we asked each other, “What if George gets hit by a bus?” George, of course, was a key employee with many years of experience running a critical program. Nobody else in the organization had anywhere near the knowledge or skills required to keep the program afloat if he were to meet his maker unexpectedly. Fortunately, most employees – key or otherwise – are not hit by buses. They do, however, retire. And as more key workers approach retirement, employers statewide may face a similar situation of replacing longtime employees who will take invaluable skills and experience away into retirement.

Which employers are most likely to face losing key older workers? Is this an issue only for firms that have large numbers of older workers? Will this issue affect only certain regions of the state, such as metropolitan or rural? What are Oregon employers doing to prepare for the departure of older employees who hold crucial positions?

**The Aging Workforce**

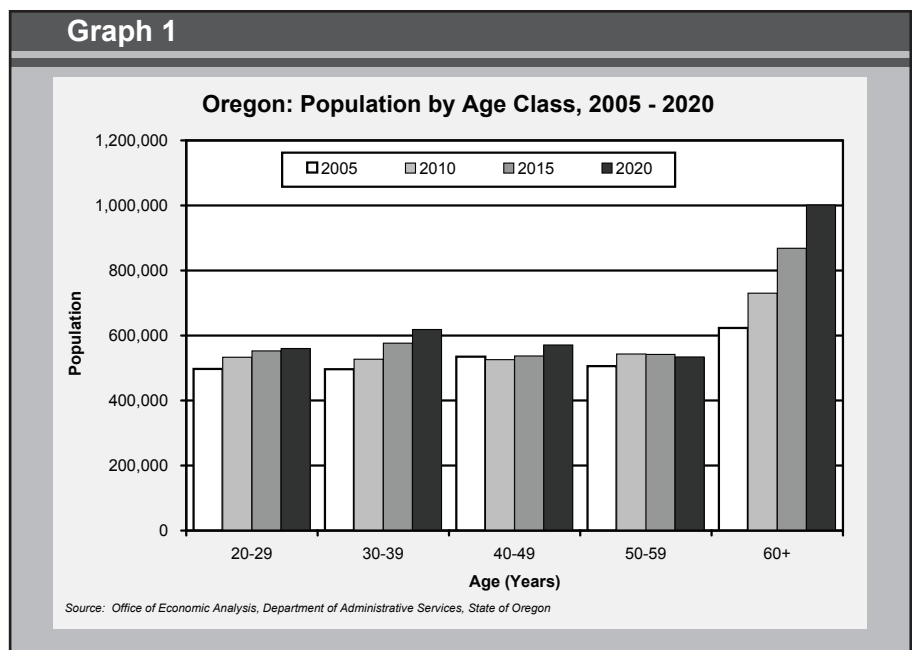
The front edge of the baby-boom generation – those born between 1946 and

1964 – began to turn 60 this year. As more baby boomers approach retirement, their departures will have profound effects on the nation’s economy and labor market.

In Oregon, the baby boom is apparent in population forecasts (Graph 1). According to population figures compiled by the Department of Administrative Services, Office of Economic Analysis, there were more than 623,000 Oregon residents in 2005 who were 60 and older – 17 percent of the state’s total

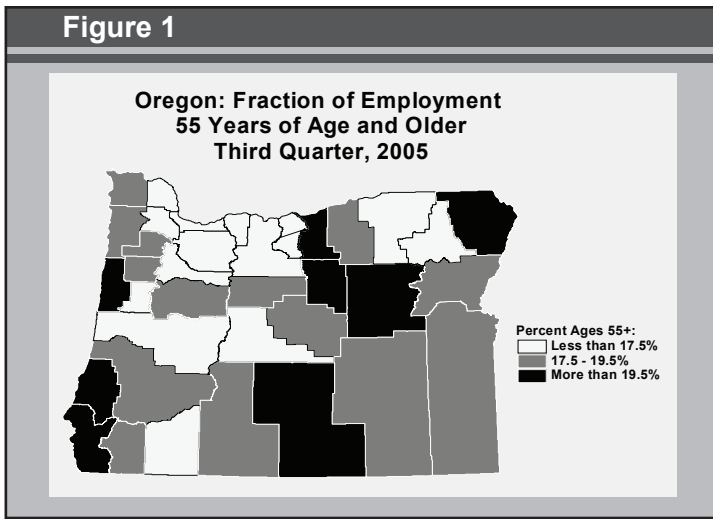
population. By 2020, when most baby boomers will have reached traditional retirement age, there are expected to be more than 1 million Oregon residents ages 60 and older – an increase of more than 60 percent compared with 2005.

The degree to which given industries and firms will be affected by the baby boom will depend, in part, on the number and fraction of employees approaching retirement. The baby-boom retirement wave will likely affect nearly





**Figure 1**



all industries and employers across the state. How each employer responds will affect not only its bottom line but the broader economy as well. Of course, forward-looking firms and industries have already considered the impact of pending retirements and devised strategies for handling the transition.

Which counties and industries in Oregon have the largest number and share of older workers? The U.S. Census Bureau's Local Employment Dynamics program (<http://lehd.dsd.census.gov/led/>) provides estimates of employment by age class for Oregon that sheds considerable light on these questions.

**Which Counties Have the Highest Fraction of Older Workers?**

Figure 1 suggests that, in general, metro area counties have a smaller fraction of older workers than rural counties. Metro area counties range from a low of 13.8 percent of all workers being age 55 and older in Washington County to a high of 17.8 percent in Yamhill County. For rural counties, the share of workers 55 and older ranges from 17.5 percent in Crook County to a high of nearly 30 percent in Wheeler County.

industry. As a result, counties that rely on industries employing a large share of older workers, such as government, are likely to have a higher fraction of older workers overall than those counties with a relatively large share of employment in the construction industry. Since government, with its relatively large share of older workers, is a key employer in many rural Oregon counties, rural counties often have a higher fraction of older workers overall.

**Which Broad Industries Have the Highest Fraction of Older Workers?**

What do the breakouts by industry show? Table 1 provides estimates of

The industry mix of each county no doubt plays a role in these figures. In Oregon, nearly 22 percent of workers in state and local government are 55 and older compared with just 13 percent in the construction

employment for workers 55 and older at the broad industry level of detail. State and local government tops the list with nearly 47,000 workers ages 55 and older. Health care and social assistance and manufacturing each employ more than 30,000 older workers while retail trade employs just over 28,000. Although Oregon's arts, entertainment, and recreation industry employs the smallest number of older workers, there are more than 3,000 workers 55 and older working in this industry.

**Education**

In percentage terms, more than one in five workers in state and local government (which includes public education) and in private educational services are 55 and older (Graph 2). A survey by the National Center for Educational Information (see Profile of Teachers in the U.S., 2005, at (<http://www.ncei.com/publications.html>)) found the proportion of U.S. primary and secondary school teachers who are 50 and older rose from one in four (24%) in 1996 to 42 percent in 2005. The study also found that 40 percent of the current public school teaching force expects not to be teaching five years from August 2005.

Given that teachers account for a relatively large share of employment

**Table 1**

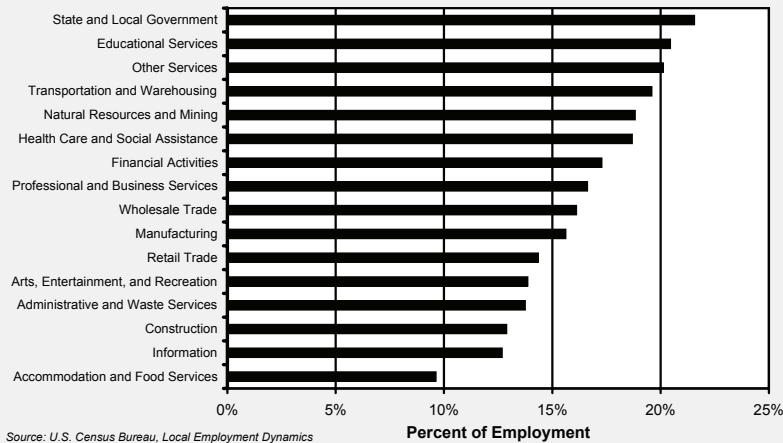
**Oregon: Employment, Ages 55 and Older, Third Quarter 2005**

Industry Sector	Ages 55 and Older		All Ages
	Number	Percent of All Ages	
State and Local Government	46,869	21.6%	217,278
Health Care and Social Assistance	32,746	18.7%	175,164
Manufacturing	32,268	15.6%	206,476
Retail Trade	28,031	14.4%	195,258
Professional and Business Services	15,798	16.6%	94,997
Financial Activities	15,478	17.3%	89,511
Accommodation and Food Services	13,654	9.6%	141,762
Administrative and Waste Services	13,421	13.8%	97,584
Wholesale Trade	12,849	16.1%	79,704
Other Services	12,173	20.1%	60,459
Construction	11,108	12.9%	86,114
Transportation and Warehousing	10,696	19.6%	54,570
Natural Resources and Mining	10,421	18.8%	55,345
Information	4,306	12.7%	33,942
Educational Services	4,176	20.5%	20,412
Arts, Entertainment, and Recreation	3,048	13.9%	21,972
<b>Total</b>	<b>267,042</b>	<b>16.4%</b>	<b>1,630,548</b>

*Source: U.S. Census Bureau, Local Employment Dynamics Program*

**Graph 2**

**Oregon: Fraction of Employment Workers 55 Years of Age and Older, Third Quarter, 2005**



in private, state, and local education services, it is likely that Oregon's schools will soon face a wave of teacher retirements. How are Oregon schools preparing for the pending retirements of experienced teachers? Some are taking advantage of public gifts. University of Oregon, for example, is putting \$10 million to use – specifically to help the school replace its top retiring professors.

**D**uring the next decade, more than 50 percent of our faculty will reach retirement age.

*- Linda Brady*  
**- UO Senior Vice President**

UO President Dave Frohnmayer said several donations that add up to \$10 million will help the university in its efforts to replace the wave of top professors expected to retire over the next 10 years.

“During the next decade, more than 50 percent of our faculty will reach retirement age,” Linda Brady, UO senior vice president and provost, told Salem-News.com. “This is a national trend that will create fierce competition among research universities for the next generation of faculty. Faculty support gifts will enhance our success in the recruitment and retention of the very best faculty in an increasingly competitive marketplace.”

**The Public Sector**

The state's public sector has a much older workforce than the private sector (Graph 3). As such, baby boom retirements will undoubtedly extend beyond the education segment of the public sector with many state and local

entities losing key managers and professional employees with years of knowledge and experience. What steps are being taken to mitigate the

brain drain that is soon to impact Oregon's state and local government workforce?

State government, for one, attempts to ease workers in and out of jobs by allowing eligible employees to return to their jobs – often part time, according to David Crosley, information officer for the Public Employee Retirement System (PERS).

“Almost 50,000 (PERS) members are eligible to retire,” Crosley said, noting active membership as of this summer was 187,000.

“That's a pretty startling statistic,” Crosley said. “One in four workers – or 25 percent – are going to walk out the door.”

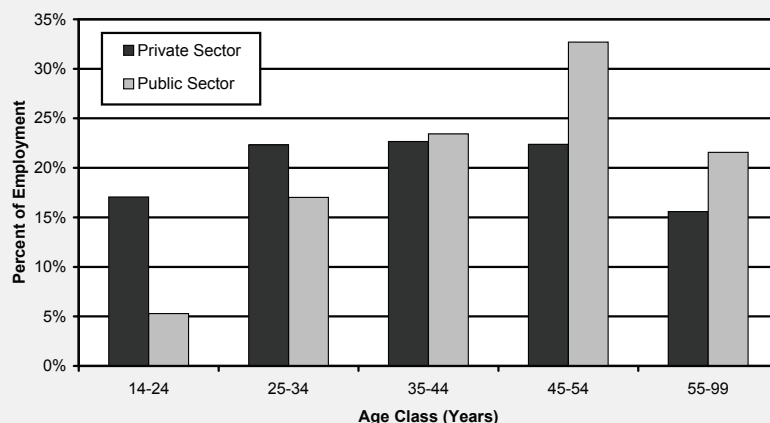
**Transportation**

Which private-sector industries have the largest share of older workers? Transportation is among the state's private-sector industries most likely to be affected by baby boom retirements (Graph 4). In Oregon, more than one-third of all jobs in transit and ground passenger transportation are held by workers 55 and older, while just more than one in five workers in truck transportation are 55 and older.

The American Trucking Association has estimated the heavy-duty truck transportation industry in the United

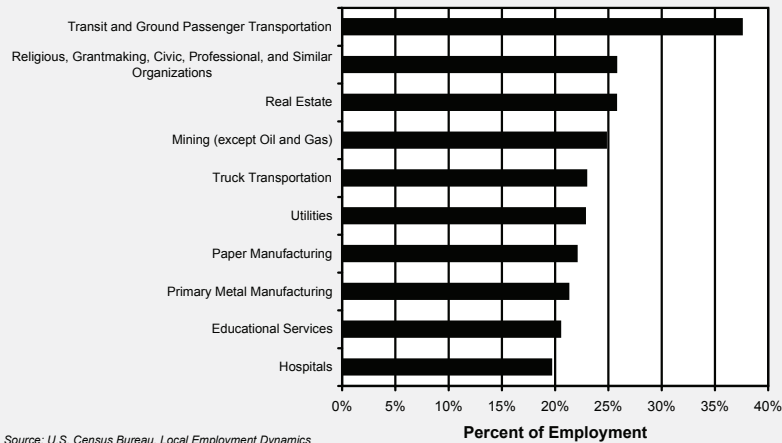
**Graph 3**

**Oregon: Public Sector Has Older Workforce, Employment by Age Class, Third Quarter, 2005**



Graph 4

**Oregon: Industries With Largest Fraction of Older Workers,  
Percent of Industry Workers Ages 55 and Older,  
Third Quarter, 2005**



States is experiencing a national shortage of 20,000 drivers. If current demographic trends continue, the ATA suggests the shortage of long-haul truck drivers could increase to 111,000 by 2014.

### Manufacturing

About 15 percent of workers in the state's manufacturing industry is 55 or older. How is that industry dealing with the pending worker shortage?

A recent article in the *Portland Business Journal* pointed to the industry's plight.

"It's a big, ugly issue," Norm Eder, executive director of the Manufacturing 21 Coalition, told the *Business Journal*. "Every [manufacturing] CEO today is concerned about worker shortages. They don't know where their employees are going to come from."

Eder's group – Manufacturing 21 Coalition – plans to ask the state Legislature next year for \$2 million to develop workforce training programs.

And Oregon isn't the only state scrambling to find manufacturing workers. The National Association of Manufacturers and Deloitte Consulting LLP called the issue "the nation's most critical business issue."

The state's Metals Industry Consortium (MIC) is another group working to beef up the industry's labor force. In a January 2006 *Oregon Labor Trends* article, Eileen Drake, co-chair of the MIC and PCC Structural Inc. vice president of administrative and legal affairs, said a decline in high school programs that encourage students to seek manufacturing jobs has meant fewer young recruits to the industry.

As the metals industry's workforce ages, the MIC is working to send its own message to youngsters: "If you're not interested in a two- or four-year degree, there are jobs you can have that will provide good living wages and benefits where you can put your skills and talents to use," Drake said. "Everything from production positions to high-level management positions will be needed and available in the future."

### Health Care

Health care is a growing industry in Oregon, with a wide range of occupations with associated training needs. Since 1990, the state's health care and social services industry has added nearly 60,000 jobs, growing from 113,800 jobs in 1990 to 171,500 jobs in 2005, an increase of 50 percent.

The industry also has a relatively older workforce with nearly one in five workers 55 or older in hospitals, ambulatory health care services (e.g., offices of physicians, dentists, and therapists; outpatient care centers; medical laboratories; home care services; and ambulance services), nursing and residential care services, and social assistance.

The industry's demand for workers is driven in part by an aging patient population, by aging healthcare workers who must be replaced as they retire, by technological changes in the workplace, and by a growing emphasis on disease management. What is the state's health care industry doing to ensure these high-skill positions will be filled as the current crop of workers walks out the door?

The Oregon Consortium of Nursing Education provides an innovative program that offers students the ability to remain in their home communities while completing their bachelor of science degrees in nursing. The curriculum is essentially the same on each of the consortium campuses for the first three years, while the final four terms of the program are entirely OHSU coursework which students can complete on their home campuses.

Another innovative program is aimed at training physicians in order to combat an expected doctor shortage. The OHSU School of Medicine is forging community partnerships to create a regional campus, first with the University of Oregon and PeaceHealth in Eugene.

### Will Retirements Affect Industries With a Small Fraction of Older Workers?

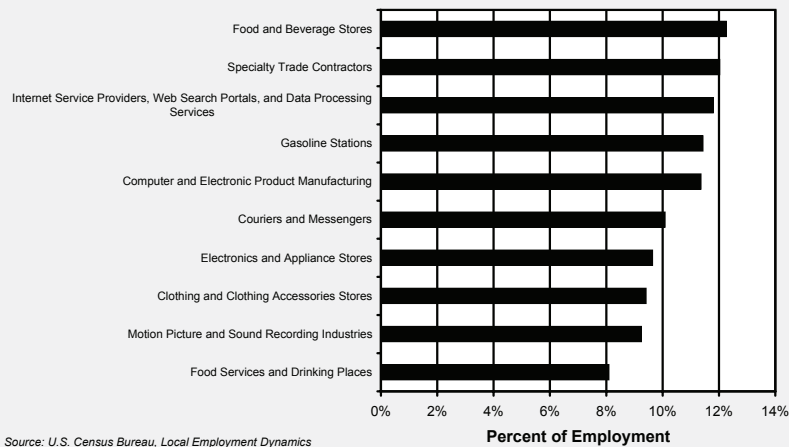
Many industries in Oregon have a relatively small fraction of older workers. Does this mean they need not worry about the pending retirements (Graph 5)?

The short answer is no; losing even one highly valued employee can affect

**Since 1990, the state's health care and social services industry has added nearly 60,000 jobs.**

Graph 5

**Oregon: Private Industries With Smallest Fraction of Older Workers, Percent of Industry Workers Ages 55 and Older, Third Quarter, 2005**



a company's bottom line. If a position requires considerable knowledge and training, it may be difficult to replace the departing employee.

Consulting firms provide an example where there may be few retirements, but key consultants are difficult, if not impossible, to replace. Independent Actuaries Inc. (IAI) is a pension consulting firm in Beaverton. Consultants often work with their clients for many years and gain detailed knowledge of the complexities of a client's pension plan. When a consultant retires or leaves for some other reason, it is not an easy task to pass along information about and intricacies of a company's retirement plan. What has IAI done to prepare for such a transition?

Libby Moore, co-owner of IAI, says the firm has taken a two-pronged approach to dealing with the issue. "First, we have worked with staff to view each client as a team effort, and consultants share their knowledge and insights with each other," Moore said. "Second, IAI provides a flexible work environment that allows consultants to reduce work hours and phase into retirement. That way they don't have to leave work entirely to enjoy the benefits of retirement."

Construction is another industry with a relatively young workforce. Despite the

relatively small fraction of older workers, the older construction workers provide invaluable knowledge. What is the construction industry doing to pass this knowledge on to the next generation of workers?

According to Craig Honeyman, executive director of Associated General Contractors – Columbia Chapter in Wilsonville, it's using succession planning to ensure those moving up will be ready to pick up where their more-seasoned counterparts left off. "Many of our members have taken steps to groom underlings to take over their businesses."

Honeyman, who noted the construction industry's worker shortage is just as evident at its management levels as it is at the craft levels, said a hot construction market and demographics of an aging workforce are helping to create the industry's projected worker shortage.

"There is a looming shortage," Honeyman said. "In fact, we're seeing the leading edge and initial impacts of it even as we speak."

He said the issue "has this industry's attention."

It's working to promote school programs, and asking the governor to

increase the state's commitment to vocational education, according to Honeyman, who noted fallout from retirements will reshape the industry's workforce.

Honeyman said in the coming years, the workforce will shift to include many more minorities and women in an industry that has historically been male-dominated.

The latest data from the U.S. Census Bureau's Local Employment Dynamics program suggest that around 84 percent of all jobs in Oregon's construction industry were held by males compared with roughly 54 percent for all private employers. Obviously, women are one potential source of skilled workers for the construction industry.

One group that has been working to tap this underutilized source of construction workers is Oregon Tradeswomen, Inc. (<http://www.tradeswomen.net/>) which works to promote the success of women in the trades through education, leadership and mentorship. The organization has several programs to help attract more women into the construction trades. The organization's To Go program reaches out to young women and provides information about opportunities in the trades. Pathways to Success offers classes that help adult women enter a trades career.

### Summary

Firms across the state and industry spectrum will soon lose key employees as baby boomers reach retirement. While different firms and industries each have unique challenges, many have begun to prepare for the inevitable. Some industries have formal programs while others are working informally to ensure they are able to replace key employees. Regardless of the means of dealing with the pending retirements, it goes without saying that all key employees – or all employees period – should look both ways before crossing the street. ■



*Local Highlights*

# What's Happening in Central Oregon Outside of Bend?

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Much of the focus in Central Oregon is placed on the 800-pound gorilla, Deschutes County. And rightfully so. The county has 143,490 residents – roughly 78 percent of the Central Oregon population – and is the hub of the region's business and cultural activities. The county has about 83 percent of the region's employment with some 5.1 percent of its workforce commuting to jobs from other Central Oregon communities. But outside of Deschutes County, other Central Oregon communities are thriving and have exciting futures in store.

Prineville and Crook County are highlighted here. The county recorded the second-fastest employment growth in the state the past two years and grew by 4.9 percent in 2005. Along with fast employment growth, the county's population also grew the fastest in Oregon in 2005 by adding 2,125 residents. This brought the county's population to nearly 23,000 for the year. In 2006, the county has seen continued job growth with year-over-year employment expanding by as much as 4.3 percent in May.

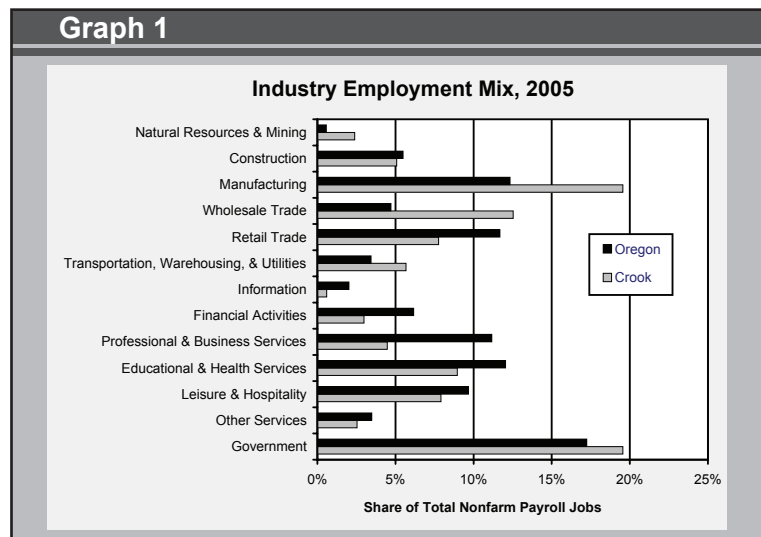
While the increasing employment and population numbers are impressive, the county has also seen its unemployment rate drop in 2006 to levels not seen since the early 1970s. Its rate dropped below 5.0 percent in September – the first time it's been below 5.0 percent since August 1973. The low unemployment rate has been a blessing and a curse. Workers and job seekers are encouraged by numerous opportunities as the labor market tightens. Employers struggle, however, to find the skilled employees they need as the number of available workers dries up.

Crook County's employment base is heavily concentrated in manufacturing; wholesale trade; transportation, warehousing, and utilities; and government (Graph 1). And these industries pay near or above the county's

2005 average annual wage (\$31,664). The county has the highest average wage in Central Oregon. This is primarily due to the county's high concentration in these well-paying industries. Within the county's manufacturing sector, roughly 88 percent of employment is concentrated in wood products. This industry grew aggressively between 2003 and 2005, and added about 140 jobs. Other industries that have shown strength include construction and leisure and hospitality.

Relatively low land costs for residential and industrial development have made Crook County an attractive alternative to Bend and Deschutes County. The city of Prineville will undergo intense development in the next few years as Brooks Resources develops the residential community of IronHorse on the east side of town and commercial redevelopment occurs at the former Ochoco Lumber mill site. Outside of the city, the community of Powell Butte on the western edge of the county is expected to see some aggressive destination resort development at a number of proposed resorts, with home sites and golf courses near completion at Brasada Ranch.

For more information on specific regions, visit [www.QualityInfo.org](http://www.QualityInfo.org), select "Regions" from the list on the screen's left, then choose an area on the map or from the drop-down menu under the map.



## Update on Oregon's Unemployment Rate

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If you're a regular reader of Oregon Labor Trends, you already know Oregon's unemployment rate declined from a recessionary peak of 8.5 percent in the middle of 2003 to a level of about 5.5 percent in 2006. Despite the decline, Oregon's rate remains one of the 10 highest in the country and the second-highest among the 11 western states. Among these states, only Alaska had a higher rate, on average, for the first nine months of 2006 (Table 1).

### Oregon is Not Alone

The state's relatively high rate is not a new phenomenon. Indeed, Oregon's unemployment rate has exceeded the nation's for much of the past three decades. In 21 of the 28 years from 1978 to 2005, Oregon's annual average unemployment rate exceeded the comparable national rate. In 15 of the past 28 years, it was among the top 10 state unemployment rates.

Do any other states have a track record similar to Oregon's? Yes. For example, our neighbors to the north and south both spent a similar number of years on the above-U.S. and top-10 lists (Table 2). With an even worse record, Alaska has topped both lists. Some non-western states have spent substantially more years than Oregon on the high-unemployment-rate lists. Nevertheless, Oregon's presence among these states with persistently high unemployment rates invites an inquiry into the causes of the high rate.

Past articles on this topic have mentioned some of the main sources of Oregon's seasonal, cyclical, and structural unemployment. For example, our state has a somewhat more *seasonal employment pattern* than is typical of the nation and neighboring states. Our *concentration in cyclical durable goods industries* leaves us with lots of unemployment during recessions. Finally, we've weathered *substantial structural changes* in both our wood products and high technology industries.

While these factors may help explain a large part of Oregon's persistently high unemployment rate, there may be other factors as well. For example, states with relatively mild winter and summer weather tend to have somewhat higher unemployment rates than states with more severe climates. Also, compared to California and Washington, Oregon has comparatively little of its total labor force living in very large urban areas; large urban areas tend to have below-average unemployment rates in our two large neighboring states.

### Mild Climate and Unemployment Rates

With the notable exception of Alaska and Hawaii, states with milder climates tend to have higher unemployment rates. The severity of climates is indicated by data on heating and cooling degree days from the National Oceanic and Atmospheric Administration (NOAA). The degree days measure is a

gauge of the amount of heating in the winter and cooling in the summer that is necessary to maintain a comfortable home temperature. The data represent the climate during the 1971-2000 period.

Graph 1 shows the relationship between the 48 contiguous states' climates and their average unemployment rates for the 1990-2005 period. States with mild climates such as California tended to have higher

Table 1

#### Annual Average Unemployment Rates (%) U.S. and 11 Western States

	2003	2004	2005	2006 YTD*
United States	6.0	5.5	5.1	4.7
Alaska	7.7	7.4	6.8	6.8
<b>Oregon</b>	<b>8.1</b>	<b>7.3</b>	<b>6.1</b>	<b>5.5</b>
Washington	7.4	6.3	5.5	5.0
California	6.8	6.2	5.4	4.9
Arizona	5.7	5.0	4.7	4.2
Nevada	5.3	4.6	4.1	4.0
Montana	4.4	4.3	4.0	3.6
Utah	5.6	5.0	4.3	3.4
Idaho	5.3	4.7	3.8	3.4
Wyoming	4.4	3.9	3.6	3.3
Hawaii	3.9	3.3	2.8	2.7
Oregon Rank**	1	2	2	2

\* Average of January-September rates.

\*\* Rank among 11 listed states.

Source: U.S. Bureau of Labor Statistics

Table 2

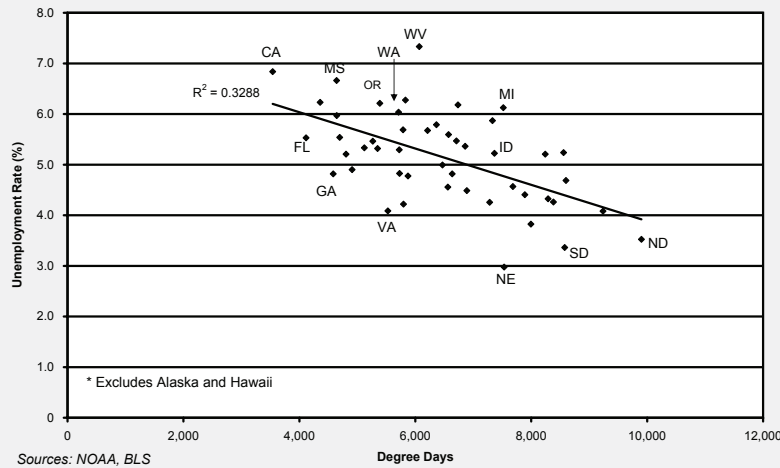
#### States with Persistently High Unemployment Rates Based on Annual Average Rates, 1978-2005

Years Above U.S. Rate			Years in Top 10		
Rank	State	Years	Rank	State	Years
1	Alaska	28	1	Alaska	26
2	Louisiana	27	2	Mississippi	23
3	Mississippi	27	3	West Virginia	22
4	Dist. of Columbia	25	4	Michigan	20
5	Washington	24	5	Dist. of Columbia	18
6	West Virginia	24	6	Louisiana	16
7	Michigan	22	7	California	15
8	New Mexico	22	<b>7</b>	<b>Oregon</b>	<b>15</b>
9	California	21	9	New Mexico	13
9	<b>Oregon</b>	<b>21</b>	10	Washington	13
12	Kentucky	20	11	New York	12
13	Texas	20	12	Illinois	11
			13	Alabama	10

Source: U.S. Bureau of Labor Statistics

**Graph 1**

**Heating and Cooling Degree Days vs. 1990-2005 Avg. Unemployment Rates, States\***



unemployment rates. States with more severe climates such as North Dakota tended to have lower unemployment rates. Obviously, some states with similar levels of degree days had very different average unemployment rates. The climate helps explain only a portion of the variation in unemployment rate from state to state.

**Big City, Low Unemployment Rate**

Oregon's most populous county – Multnomah – had a labor force of about 367,000 workers in 2005. This may seem large for Oregon, but our neighbors to the north and south have much more populous counties. In Washington, King County had about 1 million workers. In California, Los Angeles County had 4.8 million workers. Two other California counties had about 1.5 million workers, and nine other counties had between 400,000 and 900,000 workers. On average, these larger urban centers had lower unemployment rates.

Washington's King County had an annual average unemployment rate of 4.8 percent in 2005. Counties with 100,000 to 400,000 workers had an aggregate rate of 5.7 percent. Counties with fewer than 100,000 workers had an aggregate rate of 6.3 percent.

A similar upward progression in unemployment rates with decreasing county workforce size is seen in

California. The three largest counties had a combined unemployment rate of 4.8 percent in 2005, the next nine largest had a rate of 5.3 percent, and the remainder of the state had a rate of 6.5 percent.

Indeed, this progression of unemployment rates is seen even in Oregon. The five counties with more than 100,000 workers had a combined unemployment rate of 5.8 percent in 2005, while the remainder of the state had an unemployment rate of 6.6 percent.

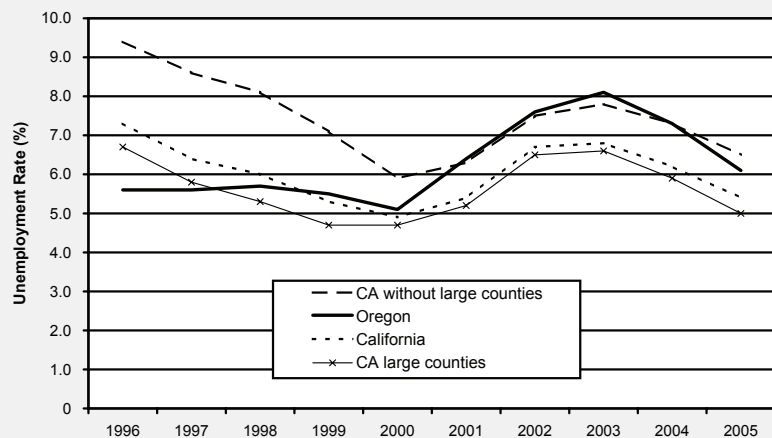
We can easily calculate unemployment rates for the combined counties in California and in Washington that have workforces no larger than the largest Oregon county. In California, those counties had an aggregate unemployment rate of 6.5 percent in 2005. In Washington, those counties had a rate of 5.8 percent. Oregon's rate was 6.1 percent. These three rates are very similar.

The similarity is not just a fluke that occurred in 2005. When we calculate unemployment rates for these Oregon-sized counties in California and Washington for years from 1996 to 2004, we see that the rates in Washington were very similar to Oregon's in all years since at least 1996. The rates in California were almost identical to Oregon's since 2001 but were substantially higher in prior years (Graph 2).

While the small size of most of Oregon's counties helps explain why the state's unemployment rate tends to be higher than that of California and Washington, it doesn't help explain why Oregon's rate tends to be higher than states with even smaller workforces, such as Idaho. More research on this topic is in order, although differences in climate may be part of the explanation. ■

**Graph 2**

**Unemployment Rates - Oregon and California Annual Averages, Statewide and Selected Areas**



Source: U.S. Bureau of Labor Statistics

# Dry October May Have Helped Drive Down Unemployment

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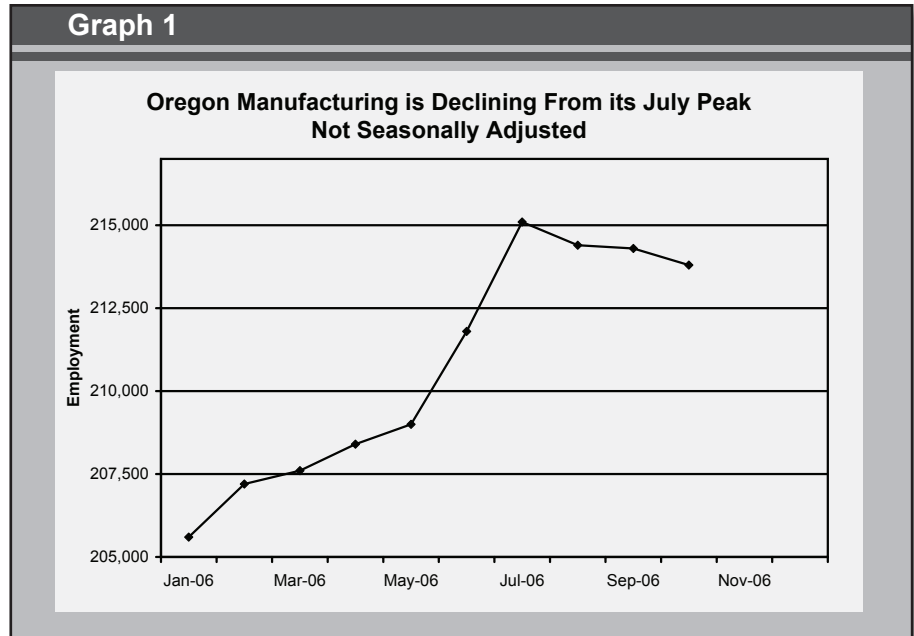
Oregon's seasonally adjusted unemployment rate in October was 5.1 percent, down from 5.4 percent in September. This was the lowest state unemployment rate in five years. November's rate will be closely watched to see if a trend will emerge.

A dry October, with only 51 percent of normal precipitation in Portland, according to the National Weather Service, helped stretch outdoor activities and extend Oregon's outdoor working season. That benefited the construction industry and may have influenced the unemployment rate.

The state's unemployment rate in 2006 ranged from a previous low of 5.3 percent in January to a high of 5.6 percent in February, May, and July. The year-ago figure, for October 2005, was 5.9 percent. In October, 85,902 Oregonians were unemployed, compared with 98,348 in October 2005.

While the unemployment rate improved, Oregon's seasonally adjusted nonfarm payroll employment dropped by 2,700 in October, the first decline in five months. However, the September figure was revised to show a gain of 6,900.

Several sectors – including trade, government, and business services – pulled back following solid gains in previous months. Meanwhile, construction, information, educational



and health services, and other services all added seasonally adjusted employment in October. Three major industries – trade, transportation, and utilities; professional and business services; and government – each had seasonally adjusted job losses of close to 2,000 following solid gains in previous months. Partially counterbalancing these setbacks were four major industries – construction (+1,500), information (+1,000), educational and health services (+1,000), and other services (+900) – that posted substantial gains.

## First the Bad News

Trade, transportation, and utilities pulled back by 400 jobs in October after strong gains in the prior two

months. Retail trade kicked off the holiday hiring season on a weak note with a gain of only 1,000. Typically, retail would add substantially more jobs than that in October. General merchandise stores employed 37,900 in October, a level that was 900 lower than one year earlier. Wholesale trade cut 800 jobs from the September level, a bit more than usual for October. Meanwhile, transportation and warehousing shed 500 jobs during the month.

Professional and business services cut 2,300 jobs in October, but was up 5,600 jobs, or about 3 percent over the past year. Employment services, which includes firms supplying temporary help and employee leasing firms, cut 1,600 jobs in October and was down 1,200 over the past 12 months. Management of companies and enterprises was down 400 jobs in October.

Government added less than the normal amount in October as the school year reached full fall employment. This followed unusually strong gains during the prior three months. Federal government followed its normal autumn trend by cutting 600 jobs. State government closely tracked its normal pattern by adding 5,100 at the state universities. Local education surpassed normal trends for September, and employment stood at 103,500 in

According to the U.S. Bureau of Labor Statistics, nonfarm payroll employment in the U.S. grew by 92,000 in October following gains of 148,000 in September and 230,000 in August. National job growth in October continued in several service providing industries, while employment declined in manufacturing and construction.

As in Oregon, the nation's unemployment situation improved over the year. Nationally, the number of unemployed persons, according to the Household Survey, was 6.7 million in October. The unemployment rate declined to 4.4 percent, its lowest point in five years. One year earlier, in October 2005, the number of unemployed persons nationally was 7.4 million, with a jobless rate of 4.9 percent.



October, which was 5,200 jobs above its year-ago figure.

**Manufacturing Showed Weakness Into the Fall**

According to Art Ayre, state employment economist at the Oregon Employment Department, "Manufacturing was down 300 jobs in October, but was up 6,300 from October 2005. This 3 percent growth was unusual, because the U.S. as a whole had almost no change in manufacturing employment. Oregon's gains were noticeable in primary metals, high tech, food products, plastics, and printing." (Graph 1)

Computer and electronic product manufacturing added 300 jobs and semiconductor and electronic component manufacturing added 300 in October.

**Construction Added Jobs**

Construction employment continues to expand in Oregon, despite indications of a downturn in residential construction at the national level. The pace of job growth doesn't seem to be waning as 9,500 jobs were added in the past 12 months, a growth rate of nearly 10 percent.

In October, employment rose by 800 (Graph 2) during a month that typically loses 700. Heavy and civil engineering construction added 500 jobs, while building foundation and exterior contractors added 700.

"Oregon's construction industry is on schedule to average more than 100,000 jobs in 2006 - that peak coming on the heels of a record 91,000 in 2005. Put into perspective, employment in Oregon's construction industry fell within a narrow range of 77,000 to 83,000 jobs over the 1996-2004 period," said employment economist Dallas Fridley from the Oregon Employment Department.

The J.F. Shea Company is one example of Oregon's continued growth in the construction sector. The firm which helped to build the Golden Gate Bridge and Hoover Dam will invest \$10 million on operations in Jackson County next year. Initially employing 10 to 20 people, J.F. Shea hopes to expand to as many as 200 workers with successful bids on a large number of highway construction projects in Southern Oregon.

In the Portland area, TriMet began construction of a 14.7-mile passenger rail line between Beaverton and Wilsonville estimated to cost \$117.3 million. Work on track rehabilitation began in October, and the entire project is expected to be complete by September 2008.

**Other Gains**

Another bright spot was information, which added 1,000 jobs in October. Over the longer term, the industry has been steady at close to 33,000 jobs for the past three years.

Educational and health services was noteworthy because of a large upward revision to the September job totals. Following the revision, this major industry showed a seasonally adjusted gain of 400 jobs in September and a gain of 1,000 jobs in October. The industry added 9,000 jobs in the 12 months ending in October – a 4.5 percent gain. The monthly business survey indicates very rapid growth in private-sector educational services over the past year, with employment up 2,400 jobs in that time. About a third of total employment in private education is in elementary and secondary schools, while another third is in private colleges. ■

**September Unemployment Rates**

*(Preliminary; not seasonally adjusted)*

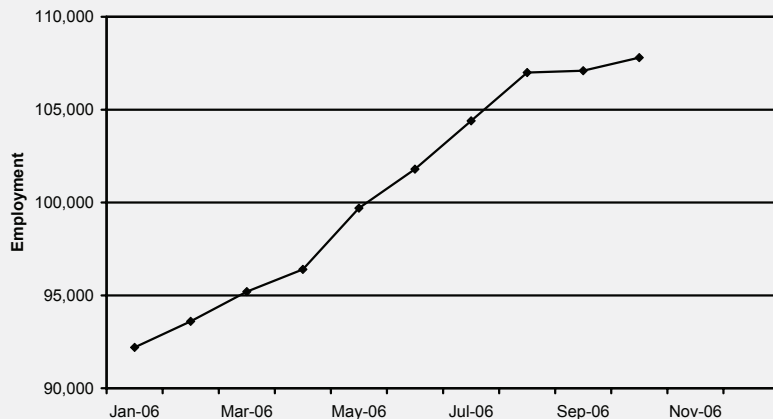
United States	4.1
Oregon	4.5

**Counties**

Harney	7.7
Douglas	6.4
Grant	5.7
Josephine	5.5
Lake	5.5
Linn	5.5
Coos	5.4
Baker	5.1
Columbia	5.1
Curry	5.1
Klamath	5.1
Lincoln	5.0
Umatilla	4.9
Wasco	4.9
Morrow	4.8
Sherman	4.8
Union	4.8
Crook	4.7
Lane	4.7
Marion	4.7
Multnomah	4.6
Malheur	4.5
Tillamook	4.5
Jackson	4.4
Jefferson	4.4
Wallowa	4.4
Yamhill	4.4
Clackamas	4.1
Polk	4.1
Wheeler	4.1
Gilliam	4.0
Clatsop	3.9
Washington	3.9
Benton	3.8
Hood River	3.8
Deschutes	3.5

**Graph 2**

**Oregon Construction is Slowing From its Torrid Summer Pace Not Seasonally Adjusted**



## Labor Force Data Point to Fewer Working Teens

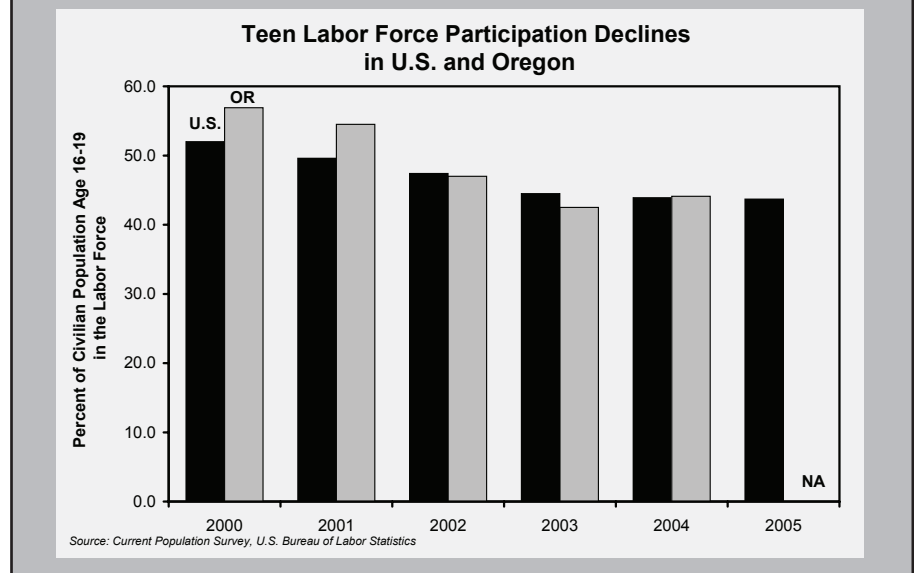
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When college enrollment rates reached an all-time high last fall, 68.6 percent of the high school class of 2005 was enrolled. Not all college students are teens, but higher enrollment could be one factor contributing to a steady drop in teen labor force participation. Nationwide, about 44 percent of 16- to 19-year-olds were in the labor force in 2005 – in 1979, there were 58 percent. Summertime is peak season for teen jobs, so the drop in July participation is even more striking. Fifty-three percent of 16- to 19-year-olds were in the labor force last July. In 1978, 72 percent were.

Oregon has seen a similar downward trend, but participation rates for the state's teens have exceeded the national average in recent years – at least until the most recent recession. In national data for 2005, the teen participation rate appears to be flattening. However, the lower level of labor force participation could point to some new paradigms in teen employment:

- College Preparation. Higher enrollment rates could mean even younger teens spend more time studying and attending precollege or remedial classes.

Graph 1



- Competition. Immigrants, dislocated workers, and older adults may be increasingly available and competitive candidates for jobs traditionally held by teens.
- Higher Minimum Qualifications. Because college graduates represent a larger share of the population, employers today may expect more of job candidates, even for entry-level positions.

High college enrollment can be a positive trend. At the same time, though, many employers claim job seekers don't have the right combination of technical abilities and soft skills – problem solving, critical thinking, and work ethic, among others. When today's teens sacrifice basic work experience to pursue education exclusively, they may miss opportunities to supplement classroom learning with other skills employers value. ■

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## Oregon Current Labor Force and Industry Employment

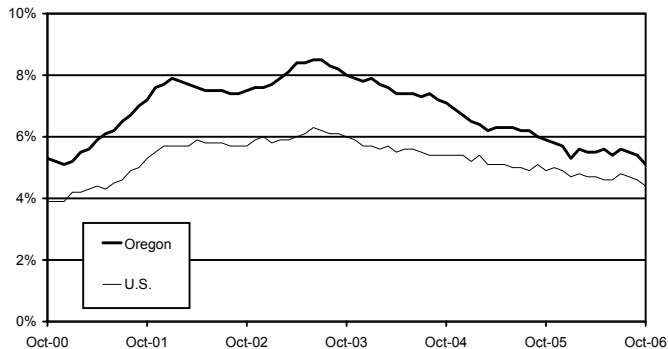
	October 2006	September 2006	October 2005	Change From September 2006	Change From October 2005
<b>Labor Force Status</b>					
Civilian labor force	1,906,983	1,892,789	1,873,525	14,194	33,458
Unemployed	85,902	90,938	98,348	-5,036	-12,446
Unemployment rate	4.5	4.8	5.2	-0.3	-0.7
Unemployment rate, seasonally adjusted	5.1	5.4	5.9	-0.3	-0.8
Employed	1,821,081	1,801,851	1,775,177	19,230	45,904
<b>Nonfarm Payroll Employment</b>					
Total nonfarm payroll employment	1,745,500	1,732,300	1,696,100	13,200	49,400
Total private	1,450,200	1,451,900	1,407,300	-1,700	42,900
Natural resources and mining	9,700	9,700	9,800	0	-100
Construction	107,800	107,000	98,300	800	9,500
Construction of buildings	28,200	28,300	24,500	-100	3,700
Heavy and civil engineering construction	12,100	11,600	12,200	500	-100
Specialty trade contractors	67,500	67,100	61,600	400	5,900
Manufacturing	213,800	214,100	207,500	-300	6,300
Durable goods	156,700	157,500	153,700	-800	3,000
Wood product manufacturing	32,000	32,400	32,200	-400	-200
Primary metal manufacturing	9,600	9,600	8,400	0	1,200
Fabricated metal product manufacturing	15,400	15,600	16,300	-200	-900
Machinery manufacturing	12,000	12,000	11,700	0	300
Computer and electronic product manufacturing	43,300	43,000	41,600	300	1,700
Semiconductor and electronic component mfg.	31,500	31,200	30,500	300	1,000
Transportation equipment manufacturing	18,700	19,100	19,200	-400	-500
Nondurable goods	57,100	56,600	53,800	500	3,300
Food manufacturing	23,700	23,900	22,400	-200	1,300
Trade, transportation, and utilities	343,600	344,000	336,100	-400	7,500
Wholesale trade	79,900	80,700	79,100	-800	800
Merchant wholesalers, durable goods	36,000	36,000	35,500	0	500
Merchant wholesalers, nondurable goods	32,000	32,800	31,600	-800	400
Electronic markets and agents and brokers	11,900	11,900	12,000	0	-100
Retail trade	204,900	203,900	199,000	1,000	5,900
Motor vehicle and parts dealers	28,300	28,100	27,100	200	1,200
Building material and garden supply stores	16,200	16,900	15,400	-700	800
Food and beverage stores	38,600	38,900	37,000	-300	1,600
Gasoline stations	10,900	11,200	11,600	-300	-700
Clothing and clothing accessories stores	17,500	17,300	17,500	200	0
Sporting goods, hobby, book and music stores	10,100	10,400	9,900	-300	200
General merchandise stores	37,900	37,100	38,800	800	-900
Miscellaneous store retailers	12,500	11,200	11,500	1,300	1,000
Nonstore retailers	8,700	8,700	8,300	0	400
Transportation, warehousing, and utilities	58,800	59,400	58,000	-600	800
Utilities	4,800	4,900	4,900	-100	-100
Transportation and warehousing	54,000	54,500	53,100	-500	900
Information	33,000	32,000	34,100	1,000	-1,100
Publishing industries, except internet	14,300	14,300	14,300	0	0
Telecommunications	8,300	8,100	8,800	200	-500
Financial activities	107,700	108,700	104,300	-1,000	3,400
Finance and insurance	66,400	66,800	62,900	-400	3,500
Professional and business services	195,600	197,900	190,000	-2,300	5,600
Professional and technical services	71,900	71,800	66,200	100	5,700
Management of companies and enterprises	26,200	26,600	26,600	-400	-400
Administrative and waste services	97,500	99,500	97,200	-2,000	300
Administrative and support services	90,200	92,200	90,300	-2,000	-100
Employment services	43,300	44,900	44,500	-1,600	-1,200
Educational and health services	213,900	210,500	204,700	3,400	9,200
Educational services	34,400	31,200	32,000	3,200	2,400
Health care and social assistance	179,500	179,300	172,700	200	6,800
Ambulatory health care services	62,400	62,300	60,300	100	2,100
Hospitals	50,500	50,600	49,400	-100	1,100
Nursing and residential care facilities	39,200	39,600	36,700	-400	2,500
Social assistance	27,400	26,800	26,300	600	1,100
Leisure and hospitality	165,300	168,700	164,400	-3,400	900
Arts, entertainment, and recreation	18,500	19,100	19,800	-600	-1,300
Accommodation and food services	146,800	149,600	144,600	-2,800	2,200
Accommodation	22,900	24,800	22,400	-1,900	500
Food services and drinking places	123,900	124,800	122,200	-900	1,700
Other services	59,800	59,300	58,100	500	1,700
Government	295,300	280,400	288,800	14,900	6,500
Federal government	29,500	30,100	29,900	-600	-400
State government	76,300	72,300	76,100	4,000	200
State education	28,600	23,500	27,400	5,100	1,200
Local government	189,500	178,000	182,800	11,500	6,700
Local education	103,500	92,300	98,300	11,200	5,200
Labor-management disputes	0	0	0	0	0

The most recent month is preliminary, the prior month is revised. Prepared in cooperation with the U.S. Department of Labor, Bureau of Labor Statistics.

Labor Force Status: Civilian labor force includes employed and unemployed individuals 16 years and older by place of residence. Employed includes nonfarm payroll employment, self-employed, unpaid family workers, domestics, agriculture, and labor disputants. Unemployment rate is calculated by dividing unemployed by civilian labor force.  
 Nonfarm Payroll Employment: Data are by place of work and cover full- and part-time employees who worked or received pay for the pay period that includes the 12th of the month.  
 The data exclude the self-employed, volunteers, unpaid family workers, and domestics.

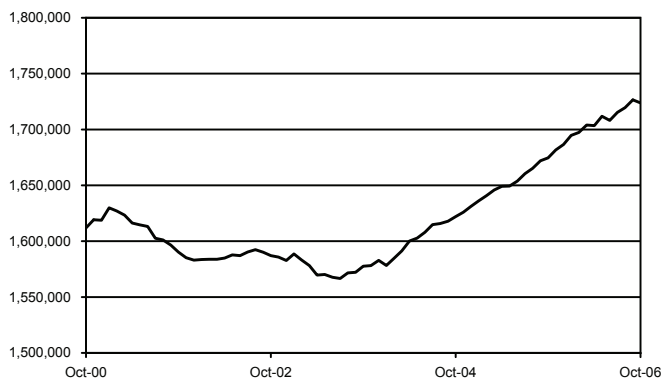
## Unemployment Rates

**Recent Oregon Rates Follow National Trend**  
Unemployment Rates, Seasonally Adjusted



## Total Nonfarm Payroll Employment

**Employment Dips in October**  
Oregon Nonfarm Payroll Employment, Seasonally Adjusted



## Indicators

### Unemployment Rate (Seasonally adjusted)

	Oregon	U.S.
Oct. 2006	5.1	4.4
Sept. 2006	5.4	4.6
Oct. 2005	5.9	4.9

### Seasonally Adjusted Employment (Total Nonfarm Payroll Jobs)

	Oregon	U.S.
Oct. 2006	1,723,800	135,844,000
Sept. 2006	1,726,500	135,752,000
Oct. 2005	1,674,600	133,877,000
Change From Oct. 2005	49,200	1,967,000
% Change	2.9%	1.5%

### Consumer Price Index (CPI)

(All urban consumers, 1982-84=100)

Port.-Sale, OR-WA	Index	Yearly Change
Jan-June 2006	199.8	2.7%
Annual Average 2005	196.0	2.6%
<b>United States</b>		
October 2006	201.8	1.3%
Annual Average 2005	195.3	3.4%



## OREGON LABOR TRENDS

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