

Employment Transitions in Oregon's Wood Products Sector

During the 1990s

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ABSTRACT

New data indicate that only 51 percent of workers displaced from the Oregon wood products sector during the 1990s remained in Oregon covered employment by 1998. Of these, 45 percent found employment in the service and wholesale-retail trade sectors. The median wage of separated workers in 1998 was below their wage when employed in the wood products sector and below the median wage of all Oregon workers. At least 30 percent of those separated from the wood products sector in the less populous southwestern and eastern portions of the state found new employment in the more urban northwestern region at wages 29 percent higher than their counterparts who did not move.

Keywords: economics; harvesting; industry

During the early 1990s, recession in the US economy, decline in the Asian export log

market, and falling harvest from public timberlands combined to produce a major reduction in employment in Oregon's wood products sector (Standard Industrial Classification [SIC] 24). Despite the subsequent economic recovery in the United States and historically high levels of national demand for wood products, Oregon's harvest and employment in wood products continued to decline through the 1990s (*fig. 1*). At the same time, other sectors, particularly the "high-tech" segment associated with an array of computer and information technology industries, were propelling Oregon's economy toward record levels of income and total employment.

But what happened to the workers who lost their jobs in the wood products sector during the 1990s? Did they find jobs in other sectors? Were they forced to move from rural areas to find jobs? Did their earnings decline? Analysis of these questions during the period was caught up in the rancorous debate over the wisdom of reductions in federal timber harvest (see Stevens

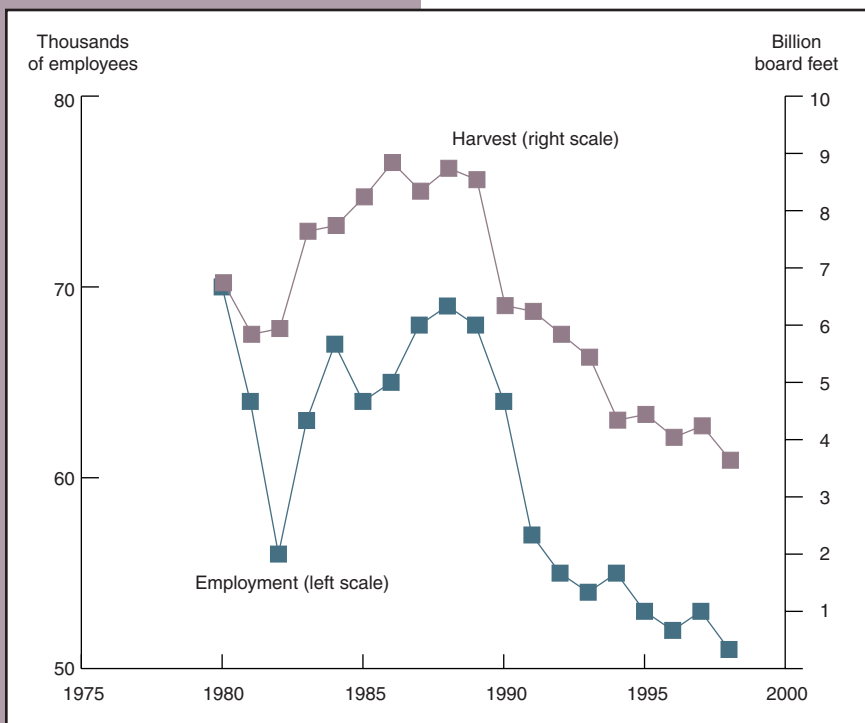


Figure 1. Oregon timber harvest and employment in the wood products sector (SIC 24), 1980–98.

[1978] for a study of wood products worker adaptations to job loss in an earlier period). Some analysts (Freudenburg et al. 1998; Niemi et al. 1999) argued that many of these jobs would have been lost in any event due to labor-saving technical improvements and that those who lost jobs were likely to have been quickly absorbed in the growing state economy. Others were concerned about the inability of workers to find jobs at comparable wages despite the economy's growth and about the possible emergence of pockets of chronic underemployment in rural areas previously dependent on the forest sector (Carroll et al. 1999). To date, however, there has been little firm evidence to document the disposition of these displaced workers.

This article reports a new analysis of an overlooked employment database that sheds some light on these important issues. By tracking the employment and wage history of individual workers over the 1990–98 period, we have been able to establish a somewhat clearer picture of the employment and wage transitions of workers separated from the wood products sector during the early 1990s. The analysis also allows some inferences on the geographic movements of workers as they changed jobs.

Data and Analysis

Data from the Oregon Employment Department, Quarterly Wage Files, are collected as part of the worker unemployment insurance program. These data provide information on the wages, hours worked, and industry for every worker covered by Oregon unemployment insurance. As the name indicates, these files are updated every three months and include every “covered” employee–employer relationship during that three-month period. That is, there is a record for every covered employer for which an individual worked during the quarter. Although the wage file is a remarkably detailed database, it provides information only for those individuals covered by unemployment insurance. It excludes the wages of the self-employed, of family members working in a family business,

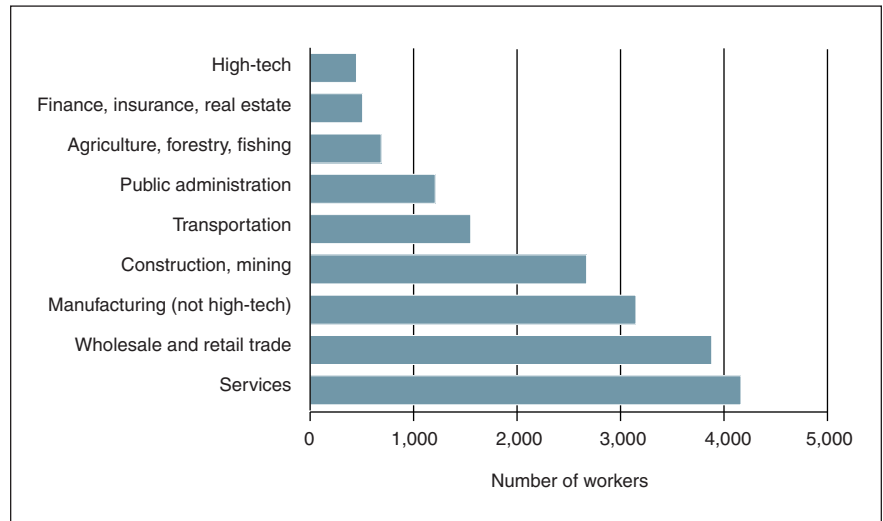


Figure 2. Employment by industry in 1998 of workers who left SIC 24 after 89:IV–91:III but remained in covered employment.

and of selected other groups that are not required to be covered by unemployment insurance. Still, the vast majority of workers in Oregon are covered by unemployment insurance. According to Oregon Employment Department data, 88 percent of Oregon workers were covered by unemployment insurance in 1990. By 1998 that number had grown to 93 percent.

The purpose of the Quarterly Wage Files is purely administrative, and normally files 10 or more quarters old would have been destroyed. We were fortunate, however, that the Research Group at the Oregon Employment Department began archiving these files in the early 1990s for potential future research use.

Because workers may hold multiple jobs and shift in and out of employment in various industry sectors over time, a critical initial step in our analysis was to define the population of workers that would be considered “employed” in the wood products industry. To the best of our knowledge, however, there is no standard definition of industry attachment. For our analysis, workers were considered employed in the wood products sector (SIC 24) if they worked at least half-time in and earned at least half of their total wage income from SIC 24.

During our base period—the eight quarters from 89:IV to 91:III—

roughly 102,000 people worked at least one quarter in a covered position in SIC 24. Of these, some 60,000 met our definition for employment in the sector. We tracked these 60,000 workers over the period 89:IV–91:III to 98:IV, tallying any changes in sector of employment, earnings, and location of employment.

Throughout the following comparisons the group labeled “all Oregonians” comprises just those covered employees who were in the Oregon labor force during the base period and were still in covered employment in 1998. We are comparing, in effect, the same worker cohort through time. Over the decade of the 1990s, much of the growth in high-wage, high-tech employment occurred through in-migration of workers from other states. Inclusion of these workers in the comparator base would have markedly increased the level of wages for the “all Oregonian” group in 1998.

Despite the detail of our database, we cannot differentiate between those who lost or left jobs in the industry because of changes in federal timberland management policy and associated harvest reductions, labor-saving technical change, the domestic recession or depressed export log markets of the early 1990s, personal choice, or any other reason. Thus we cannot answer some of the most contentious and stylized

Table 1. Median annual wage and changes for all Oregon workers and workers employed in SIC 24 in the base period and in 1998, by disposition of group in 1998.

Group disposition in 1998	Median annual wage		Percent change
	Base period (89:IV-91:III)	1998	
Remained in SIC 24	\$30,280	\$32,120	+6.1%
Left SIC 24, remained in covered employment	21,450	21,260	-0.9
Left SIC 24, left covered employment	28,160	NA	NA
All Oregonians	19,830	24,450	+23.3

NA = data not available.

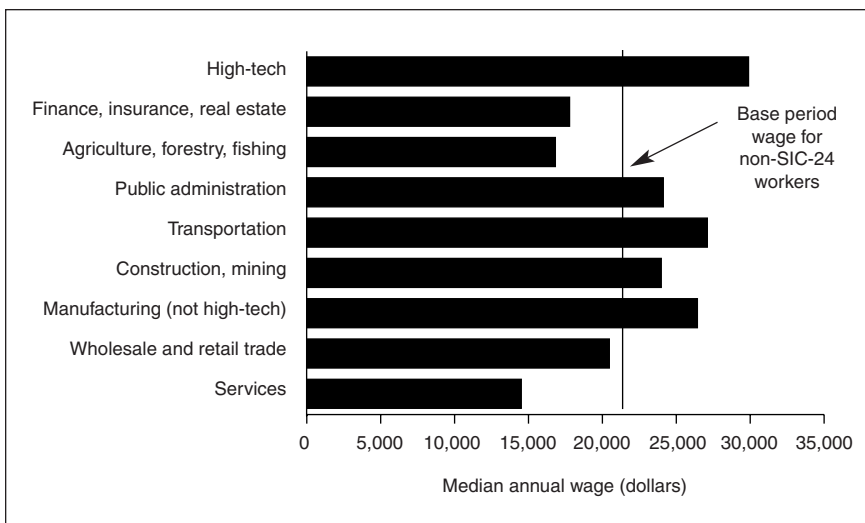


Figure 3. Median 1998 annual wage of workers who moved to non-SIC-24 industries and their median wage in the base period (89:IV-91:III).

questions such as, What happened to workers who lost their jobs because of the spotted owl? This is a limitation, but from a broader policy perspective we are concerned about the disposition of any worker separated from his or her primary employment in the wood products sector for whatever reason.

Results

In what industries did they work in 1998? Of the 60,000 workers employed in SIC 24 in the base period, some 25,000 (42 percent) were still employed in SIC 24 in 1998, 18,000 (30 percent) were employed in some other “covered” Oregon industry, and 17,000 (28 percent) were not found in the Quarterly Wage File. As illustrated in figure 2, those who found employment in other covered industries were heavily concentrated in the service and

wholesale-retail trade sectors (roughly 45 percent), other manufacturing industries and construction (nearly 33 percent), and transportation (9 percent).

The status of the 17,000 former SIC 24 workers not in the 1998 Wage File presents a significant uncertainty. Workers can drop out of covered employment in Oregon for a number of reasons, including retirement, finding employment in a noncovered business (e.g., self-employment), not seeking or finding employment, or moving to another state (covered and noncovered employment in Oregon is discussed at <http://olmis.emp.state.or.us/olmisj/ArticleReader?itemid=00001367>). Analysis of the entire 1990 Oregon covered workforce revealed that by 1998 (roughly the same interval as our study) nearly 40 percent were no

longer in Oregon covered employment. The pattern of gradual loss of original-year workers over time was the same using 1991 and 1992 as starting years. This suggests that the percentage of a given year’s workers that leaves the workforce over time may be similar regardless of the initial year of analysis (Oregon Employment Department 2002). In our sample from SIC 24 alone, the loss was only 28 percent.

Although some might speculate, it seems unlikely that many of these workers stayed in the wood products industry but in a noncovered position. According to Oregon Employment Department data, noncovered employment in Oregon decreased by 59,000 people (34 percent) between 1990 and 1998. Further, data from the US Bureau of the Census for 1997 (available online at www.census.gov/epcd/non-employer/1997/or/OR000.htm) indicate there were only 703 and 2,543 nonemployer businesses (businesses with no employees other than the owner) in “wood products manufacturing” and “forestry and logging,” respectively.

Although we are confident that no more than a few of the 17,000 “missing” SIC 24 employees stayed in the wood products industry as noncovered workers, we have no way of tracking the actual locations, form of employment, or earnings of these 17,000 workers. Our accounting is, therefore, incomplete.

What did they earn in the base period and 1998? The median annual wages of workers employed in SIC 24 are shown in table 1 by group and for both the base period and 1998. Both groups that left SIC 24 were paid a lower median wage in the base period than those who remained in the industry. Between 1990 and 1998, workers who remained in covered employment but not in SIC 24 realized about a 1 percent loss in nominal earnings, while those who remained in SIC 24 saw a 6 percent earnings gain. In both cases, however, earnings growth lagged behind the all-covered-industry growth of nearly 24 percent.

The 1998 median annual wages of the 18,000 workers who left SIC 24 but remained in Oregon covered em-

ployment are shown in *figure 3* by sector. The median wage of workers who moved to high-tech employment exceeded the median for any of the other sectors. However, this accounted for only 450 workers (2.5 percent of the 18,000 population in 1998). In contrast, the lowest wage was earned in the service sector that accounted for 4,200 workers (23 percent of the original 18,000 population) in 1998. The income differential may be larger for service sector and trade employees than earnings alone suggest, because jobs in these sectors often provide fewer or less generous additional benefits such as health insurance (Employee Benefit Research Institute 1997).

Because averages alone often hide as much as they reveal, we also examined the distribution of average hourly earnings, comparing those who remained in SIC 24 and those who left but were still in covered employment. As illustrated in *figure 4*, the wage distribution of the non-SIC-24 workers was less symmetric about the mean than for SIC 24 workers, with a heavier concentration near \$6 per hour, Oregon's minimum wage in 1998.

Did workers find new employment in a different part of the state? Between 1988 and 1998 the number of lumber and plywood mills operating in Oregon declined by nearly half, from 252 to 127 (Howard and Ward 1991; Ward et al. 2000). Most of this attrition in numbers involved smaller mills, with a greater-than-proportional decline in eastern Oregon. In terms of product output, the largest losses occurred in eastern and southwestern Oregon. By 1998 northwestern Oregon accounted for more than 67 percent of Oregon lumber production (up from 57 percent in 1988), while the southwest share fell from 24 percent to 18 percent between 1988 and 1998 and eastern Oregon dropped from 20 percent to 14 percent. With disproportionate reductions in output and limited non-SIC-24 employment in the southwest and east, it is natural to wonder if workers leaving the wood products sector in these regions were more likely to change locations to find new employment. In our data we can tell only if a person changed employment locations

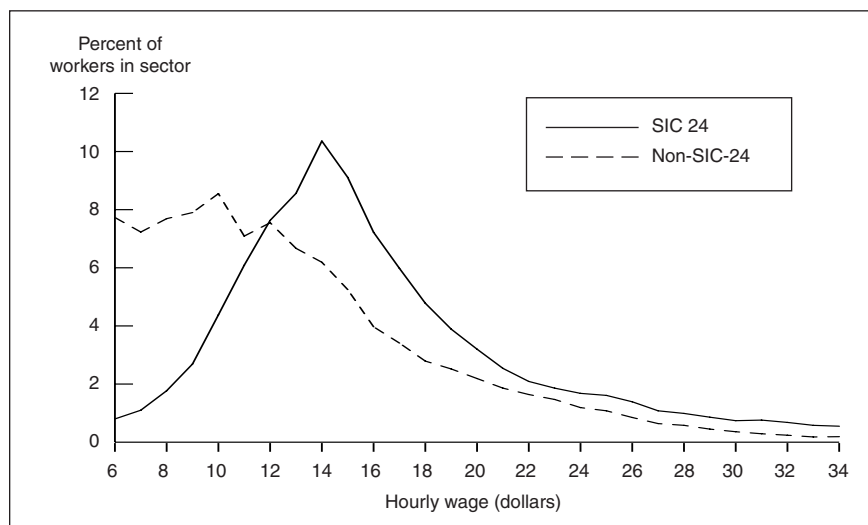


Figure 4. Distribution of earnings by hourly wage class in 1998 of workers who remained in the wood products sector (SIC 24) and workers who shifted to other sectors.

between 89:IV–91:III and 1998. As with the initial cause of separation from SIC 24, we cannot tell if a person moved to find a new job or for some other reason. Nonetheless, change in residence can be costly, both financially and psychologically, whatever the underlying cause.

More than 60 percent of workers who left SIC 24 in the less populous southwestern and eastern regions of Oregon but stayed in covered employment, remained in their home regions. The remainder of these workers did change regions, with at least 30 percent in both cases moving to rapidly urbanizing northwest Oregon. More than 90 percent of those separated from SIC 24 in the northwest, in contrast, remained in that region by 1998. Those who stayed in the southwest or east, however, did not enjoy the same rate of earnings in their new jobs as those who moved. The 1998 median wage of those who stayed in the southwest and east was \$18,967 in nominal dollars compared to \$24,413—29 percent higher—for those who moved. Some of the earnings increment for those who moved may have been offset by higher costs of living in the northwest, particularly for housing. For example, typical cost-of-living calculations suggest that costs are an average of 8 percent higher in Portland than in Coos Bay (in the southwestern region) or Klamath Falls (eastern region), with greater cost differences in housing.

Discussion

In some respects these data confirm some popular suspicions about the nature and disposition of workers separated from the wood products industry during the 1990s. Those who were separated had a lower annual wage in the base period (89:IV–91:II) than those who stayed: Attrition was concentrated in the lower-paid workers (*table 1*). For the group that remained in Oregon covered employment, the largest portion found jobs in the service and trade sectors at earnings well below the median level of workers who remained in wood products and below their own median wage in SIC 24 during the base period (*figures 2 and 3*). The wage distribution of these separated workers was also skewed toward lower hourly rates, near the minimum wage (*figure 4*). Nearly a third of the separated workers in the southwestern and eastern regions moved to new employment in northwest Oregon by 1998, and the average 1998 earnings of those who moved was 29 percent higher than the earnings of those who remained in the southwest and east.

The fate of the 28 percent of our initial sample who disappeared from the covered employment roles in Oregon is uncertain. Although this fraction is lower than statewide experience for all sectors—which may reflect the observation that forest sector workers have a strong “attachment to place” as noted in Carroll et al. (2000)—this

question remains a concern. We are left with a fairly positive prospect if the bulk of this group found covered employment in another state or became self-employed in Oregon at a reasonable wage. On the other hand, this group might also form the basis for a cadre of chronically underemployed rural residents, to the extent that they remained in their original employment locations and adopted a subsistence lifestyle. Tracking these workers, and filling this gap in our knowledge, promises to be a daunting task given the lack of public data on noncovered workers in Oregon and the procedural problems in working with other states to locate the missing workers.

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