

## Indicator 6.37.

### Average Wage Rates, Annual Average Income, and Annual Injury Rates in Major Forest Employment Categories

#### What is the indicator and why is it important?

Wages, income and injury rates are measures of the quality of employment. Wages and income are indicators of the economic returns to workers in forest-based and forest-related enterprises. Decreasing injury rates may reflect improved occupational health and safety and employment quality, which provide both personal and community social benefits.

#### What does the indicator show?

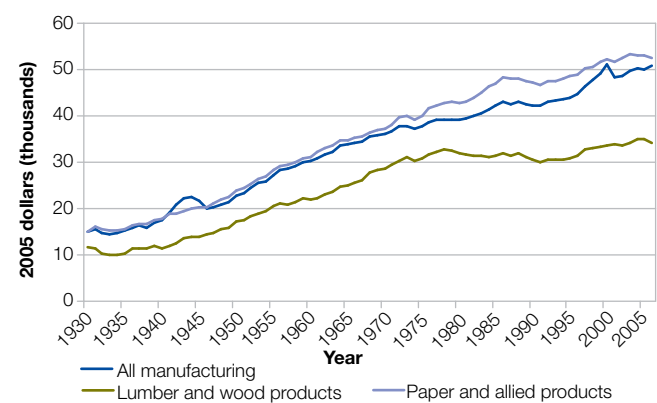
Average annual incomes related to forest management and protection employment includes the salaries of full time permanent employees of the Forest Service which have increased from a median of \$41,300 in 1992 to \$48,200 in 2000, and to \$50,500 in 2006 (all figures are adjusted for inflation and expressed in 2005 dollars).

Salaries of full-time permanent employees in State forestry agencies in 1998, for entry-level foresters, ranged from a high of \$48,000 for the Pacific Coast, \$39,000 in the North, \$35,000 for the Rocky Mountains and \$28,000 for the South. Values for district foresters for the same regions were \$62,000, \$63,000, \$43,000, and \$50,000, respectively. Salary data are not available for more recent years.

In the forest products industries annual income per full-time equivalent employee is higher and has increased more for workers in the paper products industries than those in the wood products industries. For paper products, annual income increased from \$39,954 to \$52,572 between 1975 and 2006 and wood products annual income increased from \$30,866 to \$34,239 (fig. 37-1). Annual income for paper products continues to be above the average for all manufacturing and below the average wood products. Production worker wages for forestry and logging, including timber tract operations, nurseries, and logging, ranged from \$33,000 to \$34,620 in 2008.

Average annual income for persons working in the forest recreation and tourism sector during 2006 was estimated to be \$22,782, which is only a slight increase from the \$21,939 figure estimated for 2003. This amount is about 37 percent less than

**Figure 37-1.** Wage and salary accruals per full-time equivalent employee for all manufacturing, lumber, and wood products industries and paper and allied product industries, 1930–2006 (thousands of 2005 dollars).



Source: U.S. Department of Commerce, Bureau of Economic Analysis

the 2006 national average per capita annual income of \$36,276. One likely reason for the lower income is that jobs offered in this sector tend to be lower wage and seasonal jobs.

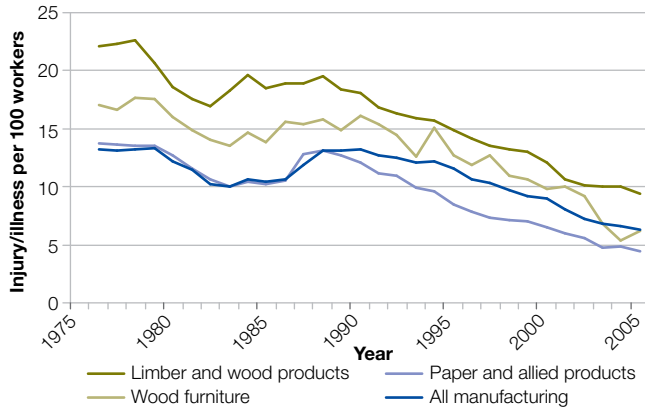
Injury and illness rates for forest products industries have steadily declined since the early 1990s with rates for wood products and furniture industries being somewhat higher than for all manufacturing, and paper products industries being somewhat lower (fig. 37-2). In 2006 injury and illness cases per 100 employees were 5.3 for forestry and logging, 8.5 for wood products, 7.1 for wood furniture, 4.3 for paper products, and 6.0 for all manufacturing.

#### Are there important regional differences?

Hourly wages for wood products industries production workers are slightly higher than the national average for the Pacific Coast and slightly lower for the South (fig. 37-3). Wages for paper products industries are slightly higher in the South, Pacific Coast and North than in the Rocky Mountains.

Average income in forest-based recreation and tourism in 2006 was highest for the Pacific Southwest and Pacific, \$24,566 and lowest for the Rocky Mountains, \$17,620 (both in 2005 dollars) (fig. 37-4). Although these differences could be a function

**Figure 37-2.** Rate of injury and illness cases per 100 full-time workers for lumber and wood products, paper and allied products, and all manufacturing industries, 1976–2006.



Source: U.S. Bureau of Labor Statistics

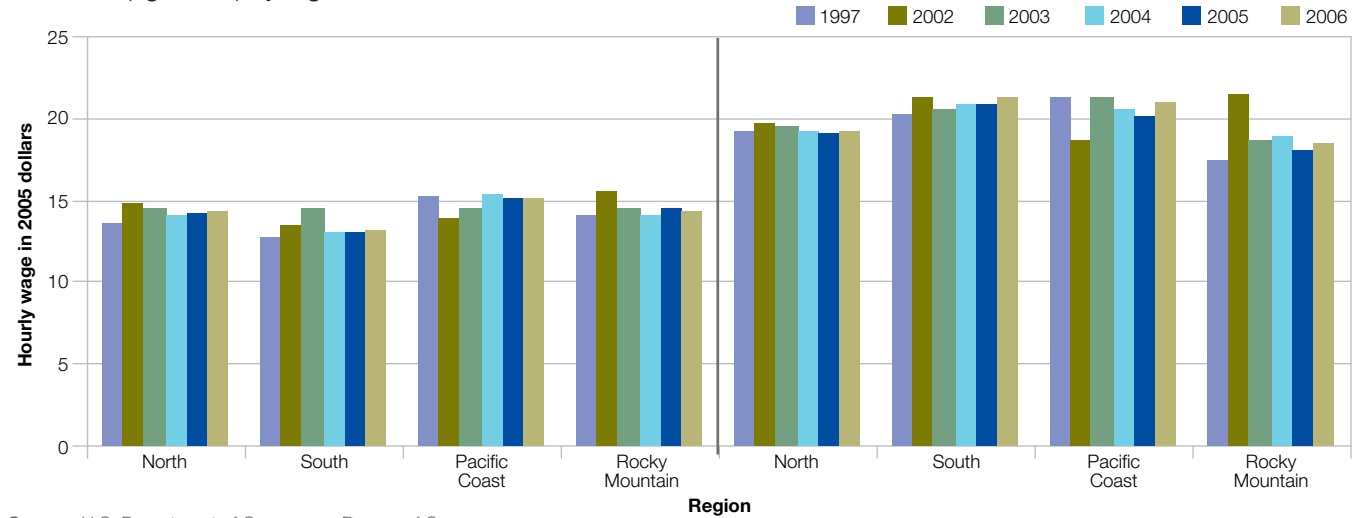
of forest-based recreation and tourism demand driving labor markets, fluctuations in regional economies are likely to be the major drivers of these rankings.

**Why can't the entire indicator be reported at this time?**

Wage and annual income estimates are not available for State forestry agencies, nonwood products industries, forestry schools in colleges and universities or for local governments and NGOs that contribute to forestry. Special surveys would be required to collect this information.

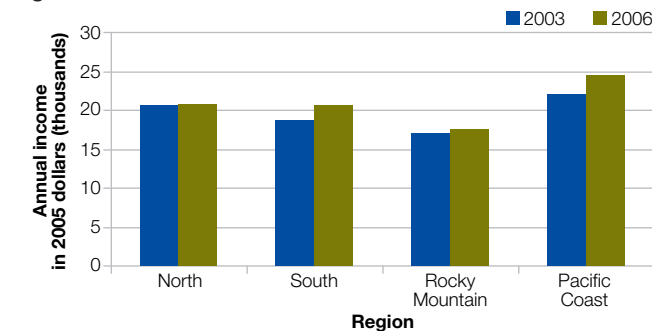
Injury rate information is not available for most forest management jobs nor are they available for the nonwood forest products sector or jobs in forest recreation and tourism jobs. Injuries for some forest management jobs are included in wood and paper industry data. Although nonwood forest

**Figure 37-3.** Wage per hour for production workers in wood products industries (left side) and paper products industries (right side) by region, 1997, 2002–2006.



Source: U.S. Department of Commerce, Bureau of Census

**Figure 37-4.** Annual average income for persons employed in the forest recreation and tourism sector by region, 2003 and 2006.



Sources: USDA Forest Service analysis, multiple data sources

products workers operate in the informal economy (not covered by traditional surveys), gathering products in the forest can be dangerous, and there are reports in the media of people becoming lost or injured every year.

**Relation to other indicators**

The level of wages and income and level of injuries are a factor in the resilience of forest-based communities (Indicator 6.38) and a factor in the importance of forests to people (Indicator 6.44). The level of wages is influenced by the levels of capital investment (Indicator 6.34) and by the levels of education and research (Indicator 6.35). The level of wages in forest products industries may also be influenced by competition with other countries to provide products for the United States as indicated by trends in imports as a proportion of U.S. consumption (Indicator 6.32).