

Criterion 6. Maintenance and Enhancement of Long-Term Multiple Socioeconomic Benefits To Meet the Needs of Societies

National Report on Sustainable Forests—2010

Indicator 6.36.

Employment in Forest Products Sector

What is the indicator and why is it important?

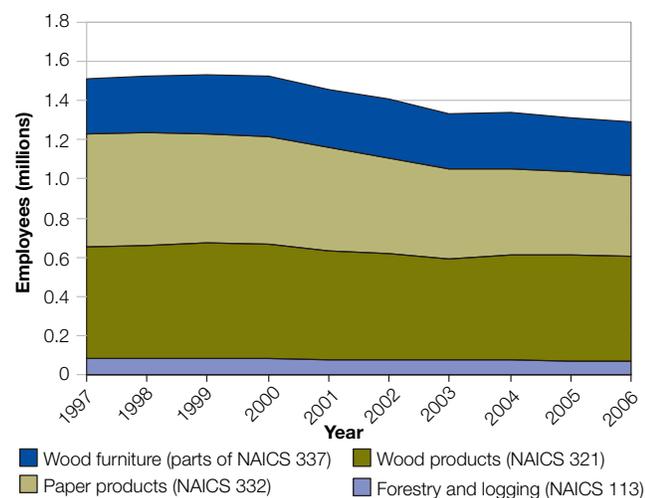
Employment attributable to forests is one measure of the social and economic importance of forests. It includes employment that is both forest-based and forest-related. Employment is a tangible and widely understood measure of economic and social well being.

What does the indicator show?

Jobs in the forest products industries decreased by about 15 percent between 1997 and 2006, falling from 1.51 to 1.29 million jobs. Job declines included 21 percent for forestry and logging, 6 percent for solidwood products, 28 percent for pulp and paper, and 3 percent for wood furniture (fig. 36-1). Within the furniture category nonupholstered wood furniture decreased 44 percent from 127,703 to 71,544 jobs and architectural woodwork and millwork increased 31 percent from 24,390 to 32,033 jobs. Forestry and logging jobs had been relatively constant between 1986 and 1996.

In 2006, 74 percent of forest industry jobs noted above were in the wood products and paper products industries (536,094 and 414,049 jobs, respectively). Combined, they were 1.1 percent

Figure 36-1. Number of employees in forest products industries, 1997–2006.



NAICS = National American Industry Classification System.

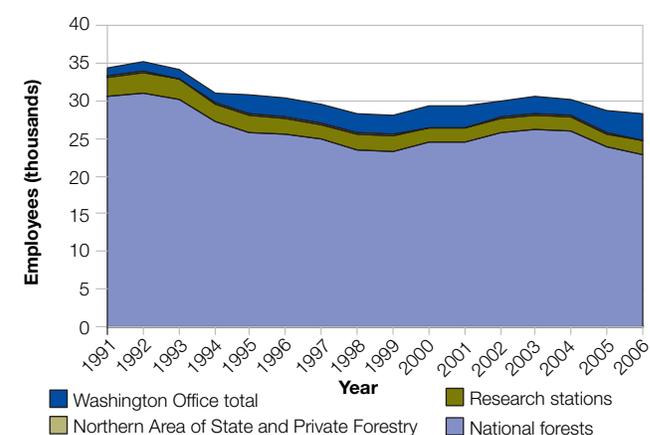
Source: U.S. Department of Commerce, Bureau of Census

of all U.S. jobs and 7.1 percent of manufacturing jobs. This number of jobs is down from 824,000 and 485,000 jobs in 1950 when combined they were 2.5 percent of all jobs and 8.6 percent of manufacturing jobs.

Jobs in forest management and protection include:

- Permanent Forest Service, National Forest System jobs, which have declined from 30,632 jobs in 1991, to 24,605 jobs in 2000, and 22,867 jobs in 2006 (fig. 36-2);
- Permanent employees in State forestry agencies—which has been about constant between 1998 (15,836) and 2004 (15,455) (fig. 36-3);
- Total State agency employees which have increased by about 2000 after including temporary employees—22,269 in 1998 to 24,507 in 2004;
- Employees in Department of Interior agencies that manage forests was about the same level in 2007 (43,085) as in 1998 (44,003); and
- An undetermined number in county and municipal governments, private land management organizations, private consultants, and private forest-resource related organizations.

Figure 36-2. USDA Forest Service permanent employees by branch, 1992–2006.



Source: USDA Forest Service

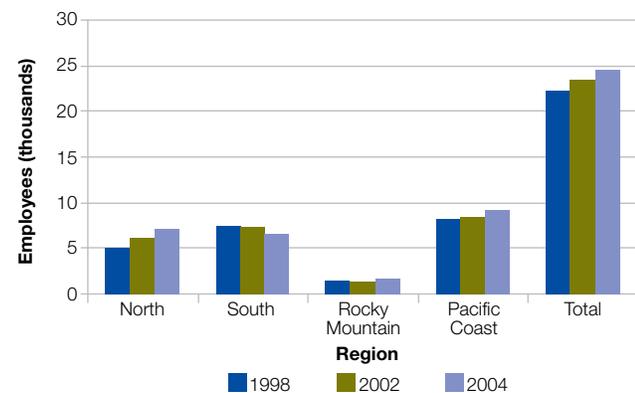
Nationwide, firefighting and support jobs during fire season have ranged between 12,000 to 15,000 jobs in recent years. Many such jobs are temporary and excluded from the number of permanent employees in figures 36-2 and 36-3.

The number of jobs associated with forest-based recreation is uncertain. For 2006, we estimate about 551,000 forest-based recreation jobs. An increase may be inferred by the increase in participation in U.S. forest recreation. To underscore the uncertainty of this estimate, we note that the estimate for the 2003 report made using different methods was 1.1 million direct forest-based recreation jobs. For 2005, direct jobs associated with recreation on national forests are estimated to be 97,600 jobs.

Jobs in producing nonwood forest products, including medicinals, food and forage species, floral and horticultural species, resins and oils, arts and crafts, and game animals and furbearers probably number in the tens of thousands. Many, if not most jobs, are in informal businesses whose characteristics are not recorded in Bureau of Census surveys. Two exceptions. The sector Forest Nurseries and gathering of forest products included 231 businesses in 2006 with 2,098 employees. The sector hunting and trapping included 348 establishments with 1,875 employees in 2006. These jobs have decreased from 2,702 in 2002.

Jobs in forest related education and research include those at colleges and universities and research jobs include those in the Forest Service. For the 2003 report, we estimated 1,361 jobs in forest related education and research for 2001. Jobs at Forest Service research stations have decreased from 2,469 in 1991, to a low of 1,708 in 2000, and were 1,760 in 2006. For the 2003 report, we estimated 124 industry research jobs for 2001. In addition there are an undetermined number of forest resource education jobs within private associations and organizations.

Figure 36-3. Permanent and temporary State forestry agency employees, by region, 1998, 2002, and 2004 (State data missing: 2002—PA and NV; 2004—OH, ME, IL, and AR).



Source: National Association of State Foresters

Total forest-related direct jobs are estimated to be close to 3 million or about 2 percent of all U.S. employment. This number does not include indirect jobs generated by expenditures of government agencies, businesses, or others.

What has changed since 2003?

Jobs in forest products industries have declined considerably—by 167,995 or 12 percent between 2001 and 2006.

Are there important regional differences?

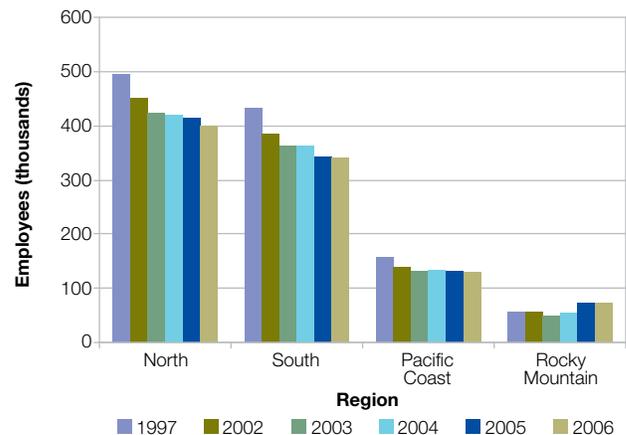
In 2006, forest products industry employment (number of jobs excluding wood furniture) was highest in the North (400,000), followed by the South (341,000), Pacific Coast (130,000), and Rocky Mountains (73,000) (fig. 36-4). Between 2001 and 2006 these jobs decreased in the North, South, and Pacific Coast but increased in the Rocky Mountain Region. Forestry and logging jobs in 2006 were highest in the South (36,013), followed by the Pacific Coast (14,538), North (11,839) and Rocky Mountains (3,914).

In 2004, total employment in State forestry agencies was highest in the Pacific Coast (6121 permanent and 3109 temporary) followed by the North (2,791 permanent and 4,320 temporary), the South (5492 permanent and 1,043 temporary), and Rocky Mountains (1,051 permanent and 581 temporary). Between 1998 and 2004 State forestry agency seasonal and temporary jobs increased for the North (more than doubled), and for the Pacific Coast and Rocky Mountains, but declined for the South.

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

Little data are available on jobs in producing nonwood forest products because many businesses are very small and part of the informal economy, which has casual hiring practices and nonreported income.

Figure 36-4. Employees in wood and paper products industries (NAICS [North American Industry Classification System] 321, 322) by region, 1997, 2002–2006.



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

Data are not available on jobs related specifically to the provision of environmental services such as carbon storage, biodiversity, or water supply. Updated data are likewise not available on forest-related education and research jobs at colleges and universities nor for forest related jobs in county and municipal governments, private land management organizations, private consultants, and private forest-resource related organizations.

Relation to other indicators

The levels of employment are a factor in the resilience of forest-based communities (Indicator 38) and in the importance of forests to people (Indicator 44). Employment levels are influenced by capital investment (Indicator 34) and education and research (Indicator 35). Employment levels in forest products industries are also influenced by competition from imported forest products, as indicated by trends in imports as a proportion of U.S. consumption (Indicator 32).