

17. Employment and wages in forest-related sectors

17.1 Wood-related products and manufacturing employees, payroll, and wages

Measuring the employment of wood products manufacturers is important in tracking the industry's socioeconomic benefit to state and local communities. Based on 2007 data, the forest products industry contributes about \$3.1 billion per year in wages to the Wisconsin economy – about 13% of all manufacturing wages in the state. The forest products sector employed 68,846 people in 2007, and their average personal income was \$44,438. That is 22.5% higher than the Wisconsin average per capita personal income of \$36,272 in 2007. (Bureau of Labor Statistics & Census Bureau, 2009) (FRED®, 2009)

Forest products related employment adds significantly to Wisconsin's economic and social well-being, a fact state policy makers recognize and attempt to address. Unfortunately, market factors outside their control are at play. While the most recent data demonstrates the sector still holds a prominent position, it is in decline as indicated in Figure 17.a. The total forest products industry payroll has dropped 31.6% after adjustment for inflation since its peak in 1996. Figure 17.b shows that employment dropped by about the same amount (30.51%).

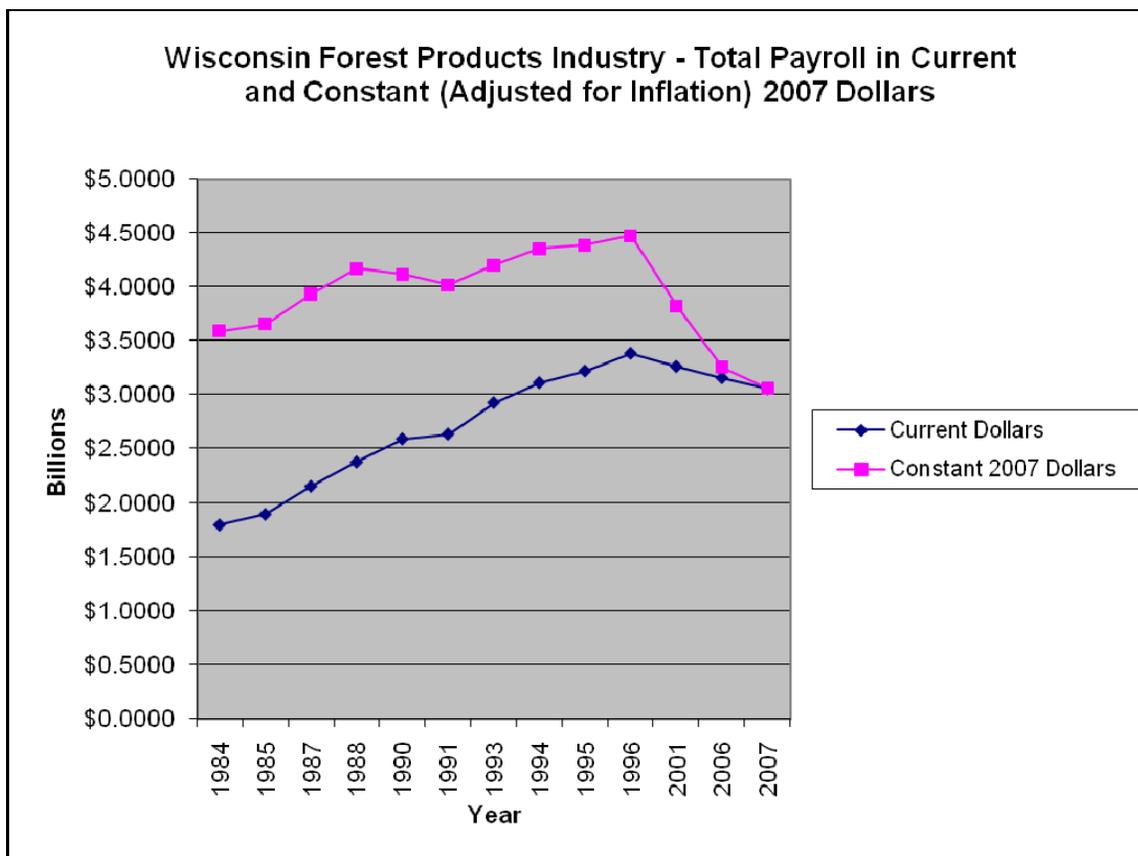


Figure 17.a: Wisconsin forest products industry – total payroll in current and constant (adjusted for inflation) 2007 dollars

Source: Wisconsin Occupational Employment Statistics (OES) Survey, 2009

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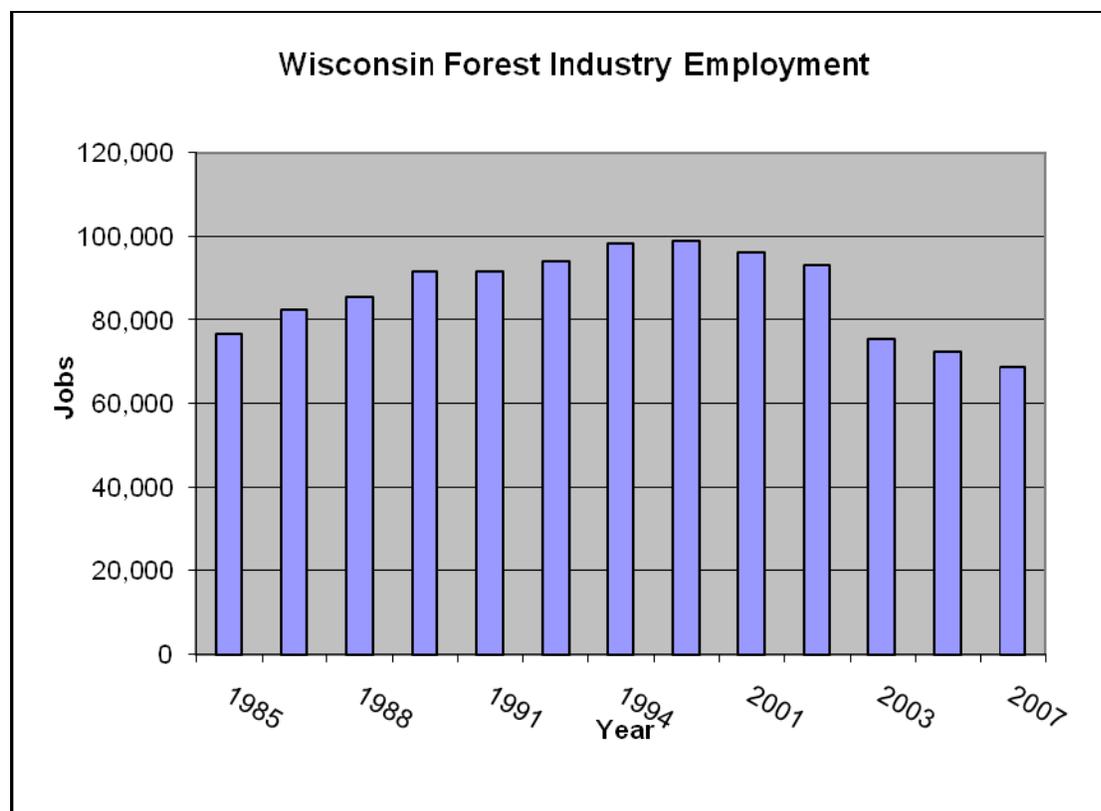


Figure 17.b: Wisconsin forest industry employment

Source: Wisconsin Occupational Employment Statistics (OES) Survey, 2009

The decline in Wisconsin manufacturing employment is not restricted, however, to the forest products sector. Data in Figure 17.c indicates that the wood product and paper industries are following a trend line similar to manufacturing in general. In 2003, the Wisconsin Paper Council observed the following factors driving changes in paper industry, but most also apply to other forest products manufacturers:

- The U.S. and global economies have been experiencing a slowdown that started in 2000.
- There has been a global supply-demand imbalance for paper since the mid-1990s. A shift to electronic media was a significant cause, and many local and regional newspapers have gone out of business.
- Foreign competition and outsourcing production to other countries is growing.
- U.S. manufacturers have been forced into consolidations (mergers and acquisitions), closure of less efficient mills and the implementation of new technology in an effort to trim costs, resulting in the loss of jobs.
- Market adjustments have restricted investment in new forest products manufacturing capacity.

The data presented in the preceding figures do not reflect additional cutbacks that occurred during the 2008-2009 recession. For example, paper manufacturers NewPage, Domtar and Wausau Papers announced mill closures in Kimberly, Wisconsin Rapids, Port Edwards and Appleton that will result in the loss of about 1,400 jobs in 2008-2009. Combined with the impact of a depressed housing market, many others in the forest products industry are affected as well.

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Wisconsin Manufacturing and Wood Related Employment 1990-2008

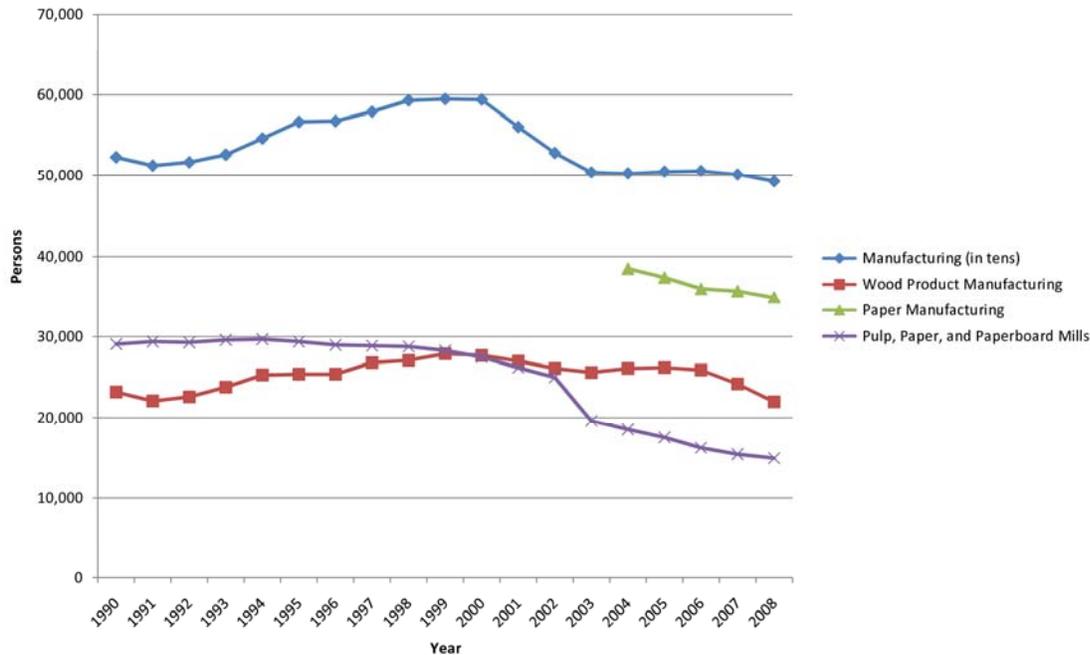


Figure 17.c: Wisconsin manufacturing and wood related employment 1990-2008

(Source: [WORKnet](#) – Wisconsin Dept. of Workforce Development, 2009)

Most financial analysts expect the economy to rebound by mid-2010. That will help some sectors of the forest products industry. Other long-term dynamics such as globalization and a transition to digital media, however, will continue to influence change. Several variables that could influence future trends are: regulatory issues, incentives to manufacturing, development of new forest products, and competition from emerging bio-fuels markets and other ideas to assure a healthy forest industry that provides good jobs and a place to sell timber from well-managed forests.

17.2 Forestry employment and salaries

Loggers, foresters, forestry instructors, researchers and other land management specialists perform essential functions to plan, implement and evaluate responsible forestry. Data for public employers measures government's commitment to public land management, forest health, forest protection and private forestry assistance management. Private sector forester and logging employment are related to Wisconsin's ability to supply commercial raw materials and to protect and improve resources for non-commodity values. A look at academic positions helps measure our ability to train land managers, conduct research and to educate landowners.

Public Employment (National, State, County)

The DNR is the largest public agency providing services for management of the state's forest lands. In 1999, the agency employed 2,910 full-time employees, increasing to 2,975 in 2003.

Specialists from across DNR give guidance pertinent to the management of forests, but the Division of Forestry has the most direct role. Unlike the rest of the agency, the number of

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budgeted full-time permanent positions within the Division of Forestry has been steadier with a loss of six in 2007 and then a slight rebound shown in Figure 17.d. There will be an additional two position reductions in the Division of Forestry for the 2009-2011 biennium. Of the 467 authorized permanent Forestry positions available in 2008-2009, about 20% were devoted to fire protection services and 80% to forest management. The authorized Full Time Equivalent (FTE) labor expense for the Division of Forestry was \$23,104,141 annually in 2008 and 2009. The adjusted average annual salary was \$48,115 at \$23.13 per hour.

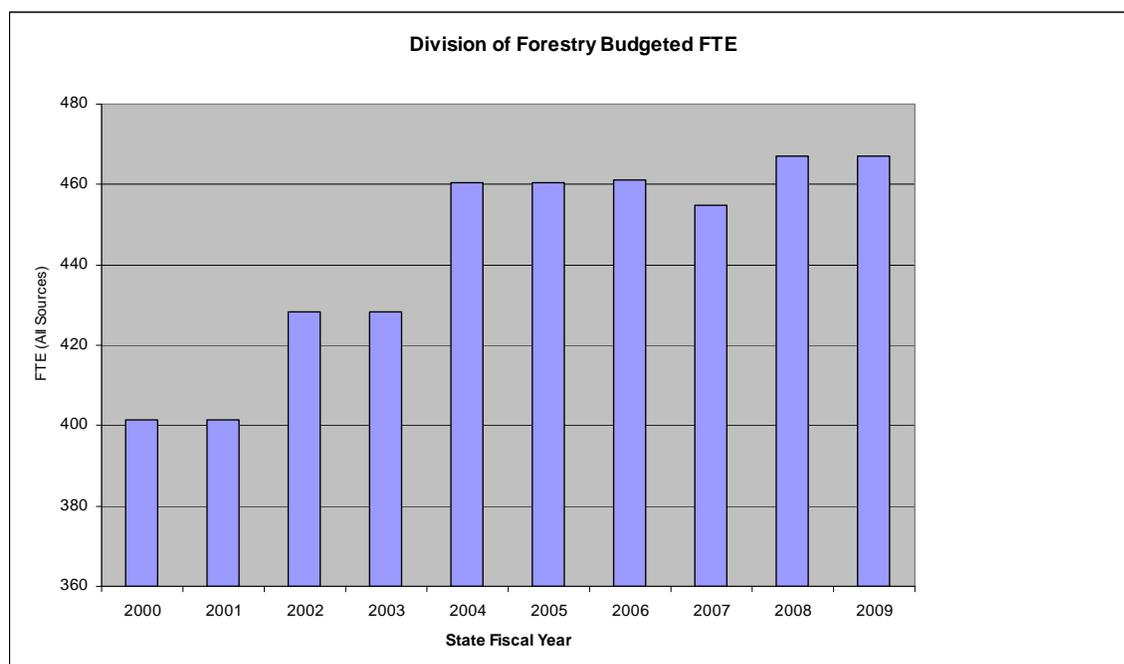


Figure 17.d: Division of Forestry budgeted FTE

Source: Wisconsin DNR Division of Forestry

Private Employment

Cooperating Foresters complement forest management guidance provided by DNR. Cooperators include private consulting foresters and industrial foresters who sign an annual agreement with the state. The agreement establishes silvicultural standards, continuing education requirements and reporting policies. In return, DNR refers private landowners to Cooperators for assistance.

The number of Cooperating Forester firms grew from 73 in 1999 to 127 in 2009, about a 74% increase. The number of foresters available in those firms rose about 83.5% over the same ten-year period. The increases reflect the impact of DNR policy decisions. Following the 1999 DNR Private Forestry Study, the Division of Forestry concluded that DNR staff should step away from setting up timber harvests on private land and encourage landowners to hire Cooperators. Landowners are able to pay Cooperating Foresters from timber sale proceeds. In 2005 the State Legislature changed the Managed Forest Law (MFL), ending free management plan writing services by DNR foresters in lieu of landowners hiring Cooperators for that work. About 20 full-time equivalent forester positions within DNR were shifted from private forestry to public land management duties. Although the decline in free management planning assistance was a difficult adjustment for some private landowners, the Legislature reasoned that landowners would be able

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to pay Cooperating Foresters from property tax savings afforded by MFL. The changes freed up time for DNR foresters to attend the needs of new forest land owners not in MFL, better administer MFL and to focus more time on public land management activities. The net result has been more private and public land management accomplished.

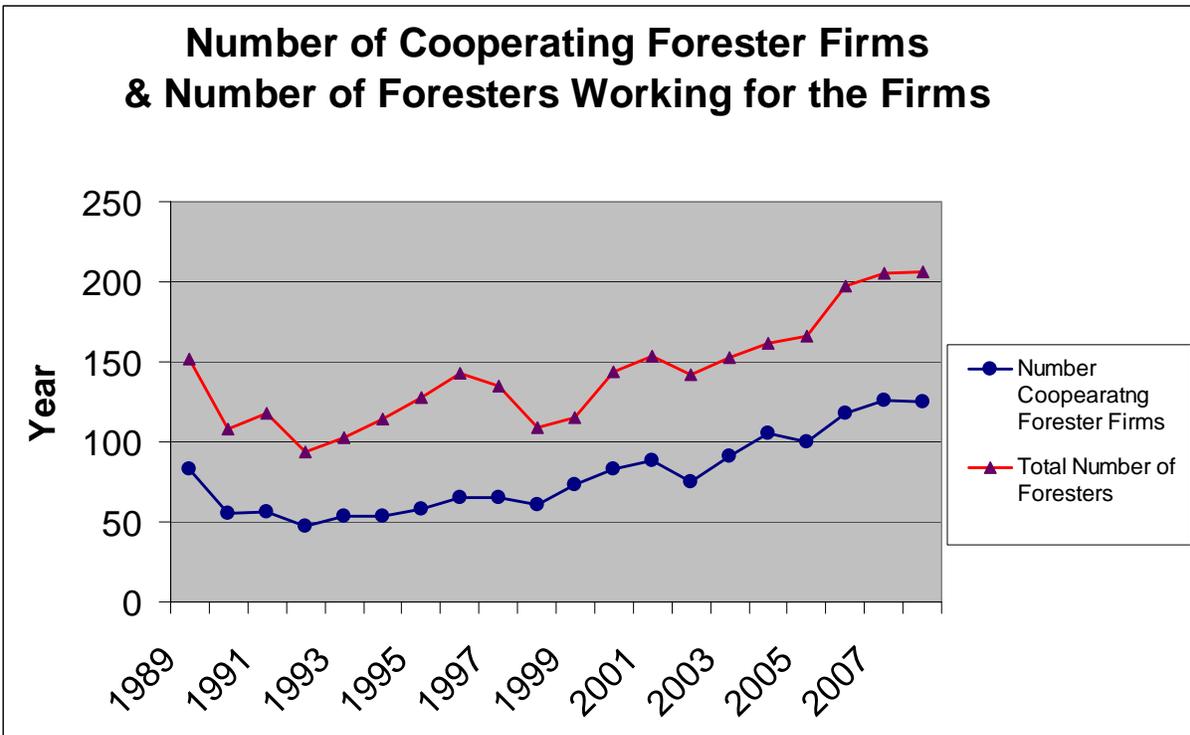


Figure 17.e: Number of cooperating forester firms and number of foresters working for those firms

Source: Wisconsin DNR Division of Forestry, 2009

Statewide forester employment and salary data from the Wisconsin Department of Workforce Development is presented in Figure 17.f. It combines public and private employment (WORKnet, 2009). Between 2000-2007, the number of foresters increased 71.43% and their wages rose an estimated 5.64% after adjustment for inflation. In 2007, the statewide average wage for Wisconsin foresters was \$50,380 a year at \$24.22 an hour.

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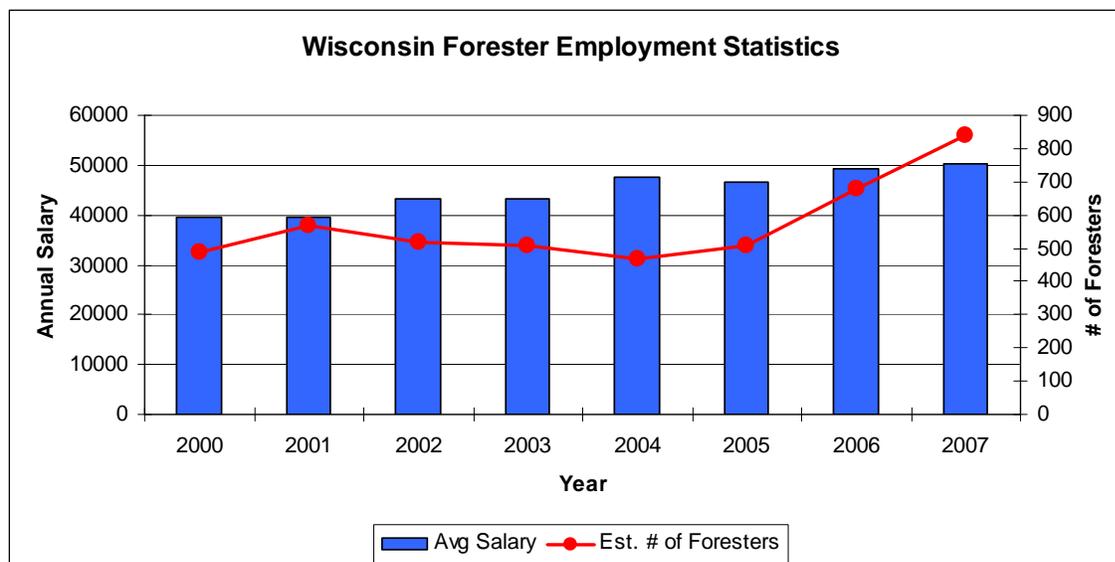


Figure 17.f: Wisconsin forester employment statistics

Source: WORKnet, 2009

While not every landowner will work with a forester, nearly every timber harvest involves a logger. Loggers are key players in the management of Wisconsin's forest resource. They are essential in delivering raw materials to the state's \$20 billion forest products industry. Loggers also shape future forest productivity and provide valuable services to public and private landowners.

Employment of logging equipment operators and related log graders is shown in Figures 17.g and 17.h. A 2003 study of the status of the logging sector in Wisconsin and Michigan's Upper Peninsula found that the average logging firm has been in business for over 20 years and the average firm owner is 47 years old (Rickenbach, 2005). Unfortunately, there are relatively few new firms entering the sector. Most logging firms (62%) are organized as one person, owner-operator enterprises with no employees. The balance of firms (38%) employs approximately five full-time equivalent workers on average. Among firms with employees, over 85% reported difficulty finding skilled and reliable workers

Due to the relatively low pay, poor benefits, high capital investments and risk associated with modern logging, many family-owned logging operators are discouraging their children from entering the profession, which could potentially lead to reduced future log supplies. The average wage for loggers in 2007 was less than \$32,000 per year. Since most firms are structured as independent contractors without employees, loggers typically do not have workers compensation insurance. Those with employees report high workers compensation insurance premiums that do not recognize a differential for safer mechanized logging practices in Wisconsin. These factors, along with fluctuating market conditions, may lead to reduced numbers of independent professional loggers in Wisconsin, which is a major concern for the future.

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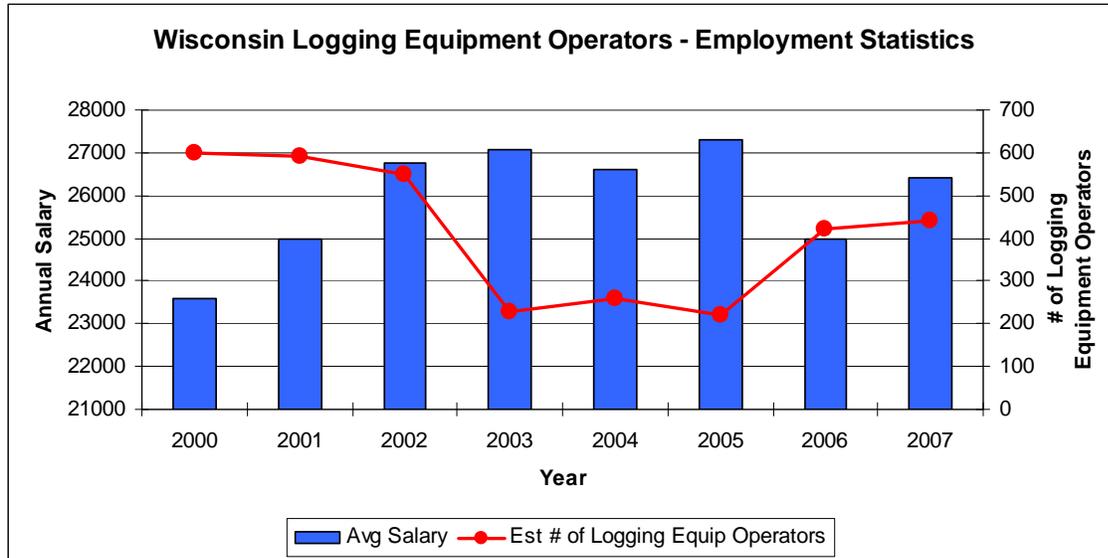


Figure 17.g: Wisconsin logging equipment operators – employment statistics

Source: WORKnet, 2009

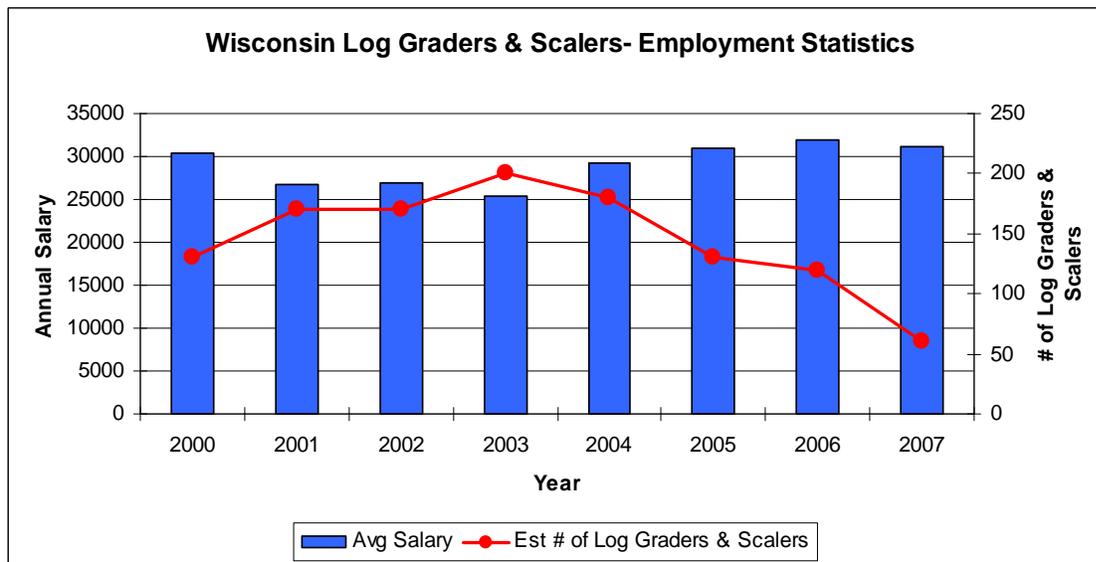


Figure 17.h: Wisconsin log graders and scalers – employment statistics

Source: WORKnet, 2009

Academic and Research Employment

The number of post-secondary forestry and conservation teachers (Figure 17.i) has been variable since 2000 (WORKnet, 2009). There were 150 university and technical school instructors in 2000, dropping to 70 positions in 2007. The average annual Wisconsin forestry educator wage was \$76,430 in 2007.

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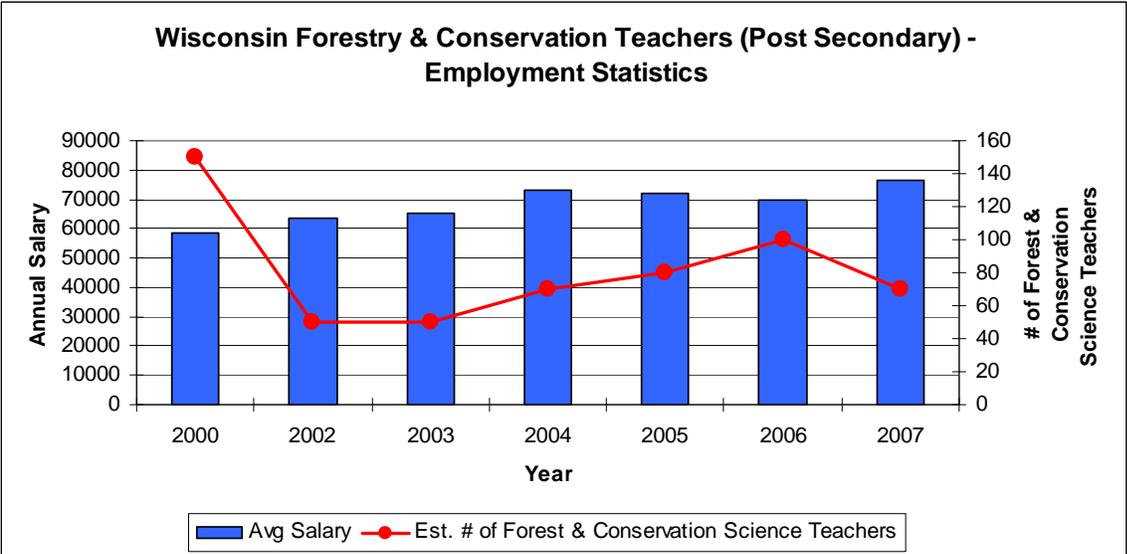


Figure 17.i: Wisconsin forestry and conservation teachers (post secondary) – employment statistics
 Source: WORKnet, 2009

Detailed forestry professor employment and salary data for University of Wisconsin – Stevens Point (UWSP) is presented in Figure 17.j and 17.k. In 2008, UWSP had 10 forestry professors averaging \$62,445.89 annual pay. After adjustment for inflation, the average annual wage for UWSP forestry professors dropped 22.34% between the years 2000 and 2008. This may be due to hiring of new, younger staff and retirements.

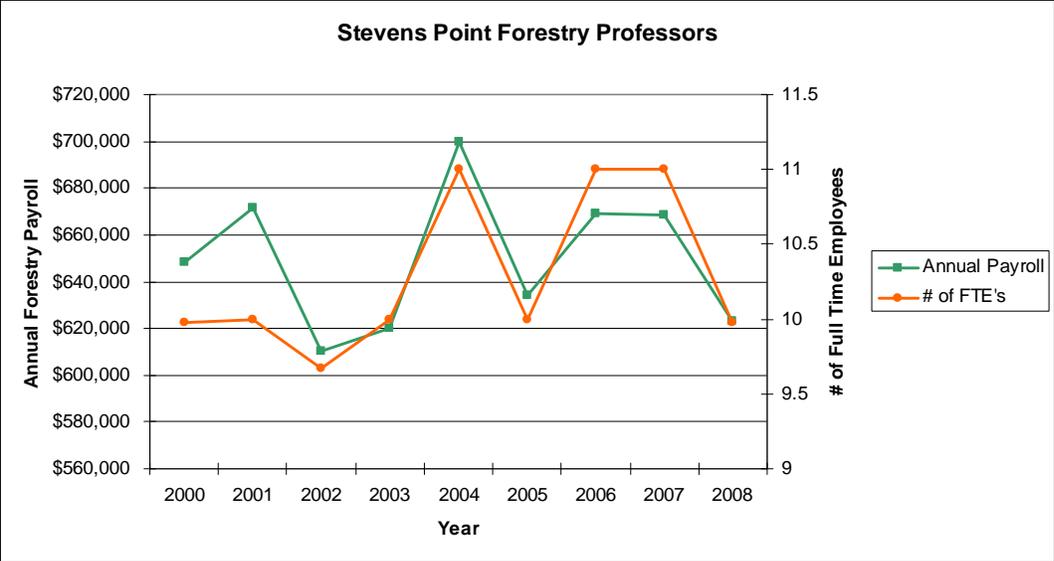


Figure 17.j: University of Wisconsin - Stevens Point forestry professors
 Source: UWSP College of Natural Resources

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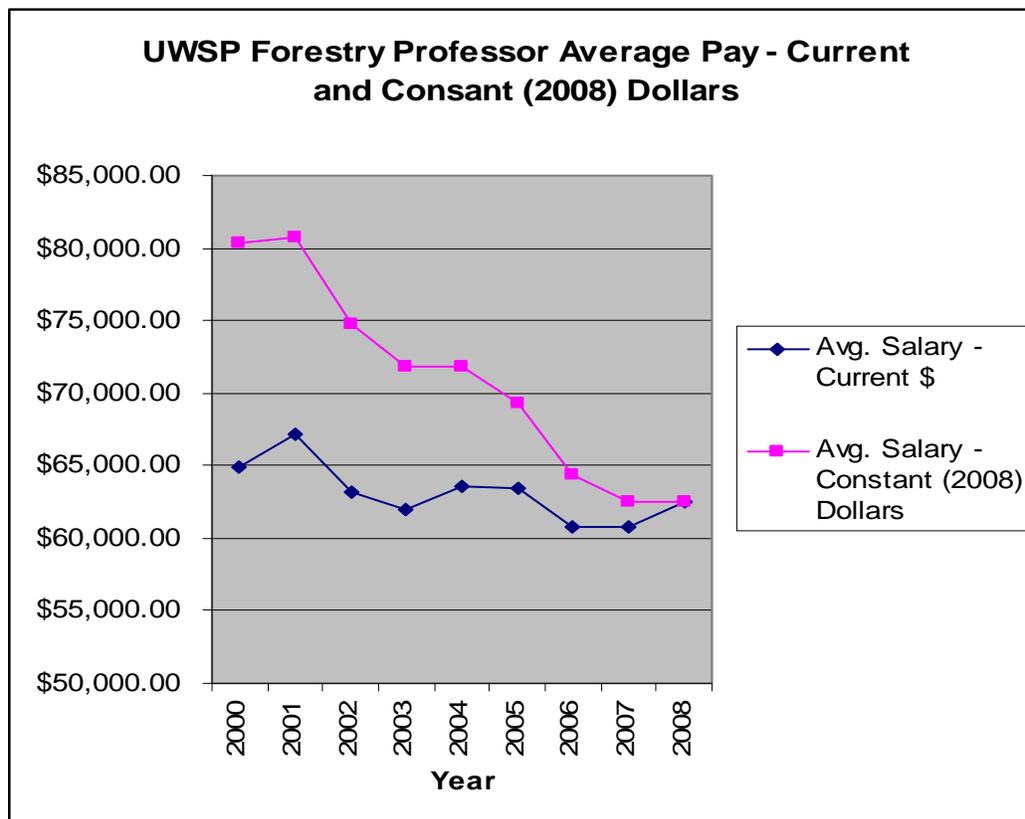


Figure 17.k: UWSP forestry professor average pay – current and constant (2008) dollars
 Source: UWSP College of Natural Resources

Tabular data for UW-Madison in Table 17.a shows that forestry professor pay at that institution held relatively steady between the years 2003-2007. UWSP typically focuses on preparing students for future employment, whereas UW-Madison concentrates more on forestry research.

	2003	2004	2005	2006	2007
Total Payroll	\$999,403	\$1,014,520	\$1,112,737	\$1,157,341	\$1,225,461
Full Time Employees	11	11	12	12	12
Avg. Salary	\$90,855	\$92,229	\$92,728	\$96,445	\$102,122
Avg. Salary Adjusted for Inflation (2008 Dollars)	\$105,277.89	\$104,096.04	\$101,231.53	\$101,950.41	\$104,955.55

Source: UW-Madison Dept. of Forest and Wildlife Ecology

Overall, Wisconsin successfully increased the availability of professional forester assistance in the state. While the number of forestry teachers remained relatively stable at the state’s two largest forestry schools, UW-Madison and UWSP, pay issues may become a factor in retaining or attracting high-quality instructors. Competition for top teachers due to pay issues, however, is a concern across the UW System and not unique to forestry or natural resources. The weakest

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link in the responsible forestry chain is the status of the logging sector. Adjustments to state policy may be necessary to address the decline in the logging sector.