



Indicator 6.36

Employment in the forest products sector, 2020

Guy C. Robertson and Jamine St. Hilaire

What is this indicator and why is it important?

Employment attributable to forests (including both forest-based and forest-related employment) is one measure of the social and economic importance of forests. Employment is a tangible and widely understood measure of economic activity and related social well-being.

This indicator reports employment levels for the forest products sector, represented by activity in forestry and logging, and the wood products and paper products sectors, as supplied by the U.S. Bureau of Labor Statistics (2021).

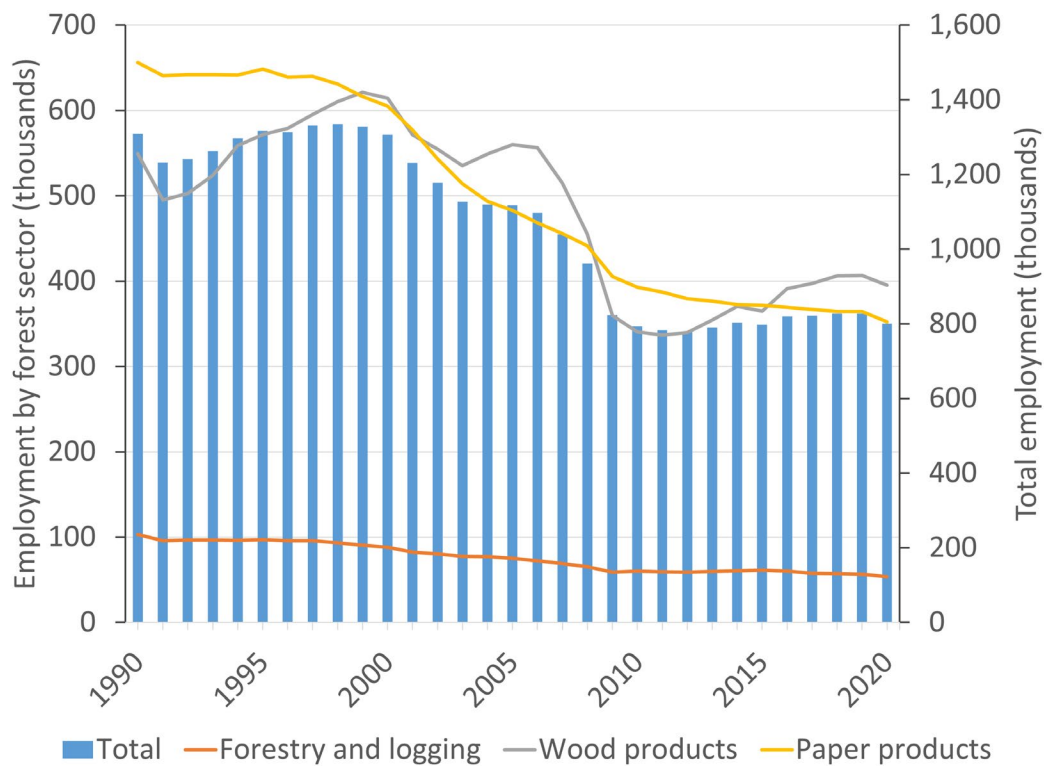
The report's focus on the forest products sector is determined by the availability of nationally consistent statistics for these categories. It is essential to remember that these statistics do not encompass the total of employment associated with forests. Numerous and substantial forest-related employment categories are not covered by the statistics presented here; these categories are briefly discussed in the "Why can't the entire indicator be reported at this time?" section at the end of this indicator report. Nonetheless, employment in the forest products sector, as defined by reporting agencies, is a long-standing and important measure of the economic contribution of forests, particularly in rural areas.

What does the indicator show?

Figure 36-1 shows employment levels in the forestry and logging, wood products, and paper products sectors since 1990 (numerical data is supplied in table 36-1). These data show a long-term declining trend in overall employment that is complicated by cyclical fluctuations, particularly in the wood products sector—a sector that is strongly linked to homebuilding and other construction and is subject to relatively large swings in activity.

Technology development and resulting gains in labor productivity (i.e., the amount of output that can be produced by a given worker) are important factors underlying the long-term employment declines. Although the total volume of industrial roundwood production and production of wood and paper products have also declined over the same period (see Indicator 6.25), those declines were only one-third to half the decline observed in employment, which supports this conclusion regarding the effect of labor productivity. Productivity gains are generally seen as positive developments because they provide greater contributions to economic well-being throughout the economy, but they can also result in concentrated economic distress, particularly in rural areas with high dependence on production activities affected by consolidation and declining local employment opportunities.

Figure 36-1—Average annual full- and part-time employment in the forestry and logging, wood products, and paper products sectors, 1990–2020. Source: U.S. Bureau of Labor Statistics 2021.



What has changed since 2010?

The trend in total employment in the 2010–2020 period demonstrates a modest increase (1 percent, see table 36-1), but this has resulted mainly from the rebound of the wood products sector, following sharp declines in the late 2000s resulting from the major recession around 2008 and the related collapse in the housing market. Paper production continues to decline, likely the result of the development of digital technology and related decrease in the consumption of office paper. Increased consumption of packaging and shipping papers serve to mitigate declines in the paper sector to some extent, but the underlying effect of productivity gains and the shift away from paper for written communication will persist. The forestry and logging sector has also seen a slowing in the rate of employment loss in the last decade.

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

The aggregate national statistics provided here obscure the fact that relative shifts in employment will be more extreme at the regional and local levels, concentrating impacts both positive and negative. Analysis at smaller spatial scales is beyond the scope of this brief report, but readers should be aware that considering the spatial distribution of employment changes is important, particularly in the instance of job losses in rural areas not associated with robust labor markets.

A more fundamental concern is the fact that the forestry and wood products sectors reported here in no way encompass the total of jobs associated with forests in the United States. Forest-related employment in Federal,

State, local, and Tribal governments is not reported here, nor is employment in academia, forest management, and the forest-related recreation sector—all areas where the delineation of forest-related employment is challenging. Reporting on these and related categories would entail aggregation of many different sources and invariably results in gaps and inconsistencies, especially in time series analysis. These unreported employment types are likely expanding owing to a larger and more diverse engagement of society with forest ecosystems, ranging from back country recreation to urban forestry. A targeted analysis of trends in these areas is warranted.

References

U.S. Bureau of Labor Statistics. 2021. Quarterly Census of Employment and Wages, QCEW data files. <https://www.bls.gov/cew/downloadable-data-files.htm>. [Date accessed: November 16, 2021].

Table 36-1—Average annual full- and part-time employment in the forestry and logging, wood products, and paper products sectors, 1990–2020, and change over the 1990–2020 and 2010–2020 time periods.

| Year | Forestry and logging | Wood products | Paper products | Total |
|-----------|----------------------|---------------|----------------|-----------|
| 1990 | 103,069 | 549,511 | 656,111 | 1,308,691 |
| 1991 | 95,781 | 494,853 | 640,830 | 1,231,464 |
| 1992 | 96,440 | 502,633 | 641,773 | 1,240,846 |
| 1993 | 96,399 | 523,902 | 641,744 | 1,262,045 |
| 1994 | 96,049 | 558,691 | 641,610 | 1,296,350 |
| 1995 | 97,017 | 571,859 | 648,273 | 1,317,149 |
| 1996 | 95,558 | 578,803 | 639,150 | 1,313,511 |
| 1997 | 95,534 | 595,138 | 639,960 | 1,330,632 |
| 1998 | 93,390 | 610,219 | 630,850 | 1,334,459 |
| 1999 | 90,621 | 621,146 | 616,466 | 1,328,233 |
| 2000 | 87,824 | 614,106 | 604,776 | 1,306,706 |
| 2001 | 82,526 | 571,108 | 577,030 | 1,230,664 |
| 2002 | 80,135 | 554,731 | 543,379 | 1,178,245 |
| 2003 | 77,592 | 535,138 | 514,118 | 1,126,848 |
| 2004 | 76,883 | 548,800 | 493,341 | 1,119,024 |
| 2005 | 75,105 | 559,944 | 482,922 | 1,117,971 |
| 2006 | 72,140 | 556,110 | 468,422 | 1,096,672 |
| 2007 | 69,085 | 514,853 | 455,591 | 1,039,529 |
| 2008 | 65,289 | 455,354 | 441,353 | 961,996 |
| 2009 | 58,767 | 359,532 | 405,438 | 823,737 |
| 2010 | 60,065 | 340,248 | 392,853 | 793,166 |
| 2011 | 59,111 | 336,967 | 387,057 | 783,135 |
| 2012 | 58,744 | 339,708 | 379,519 | 777,971 |
| 2013 | 59,704 | 354,323 | 376,519 | 790,546 |
| 2014 | 60,352 | 370,494 | 372,646 | 803,492 |
| 2015 | 61,275 | 364,898 | 371,784 | 797,957 |
| 2016 | 60,196 | 390,938 | 369,078 | 820,212 |
| 2017 | 57,443 | 397,122 | 366,964 | 821,529 |
| 2018 | 57,277 | 406,143 | 364,188 | 827,608 |
| 2019 | 56,452 | 406,379 | 364,546 | 827,377 |
| 2020 | 53,402 | 395,098 | 352,086 | 800,586 |
| 1990–2020 | -48% | -28% | -46% | -39% |
| 2010–2020 | -11% | 16% | -10% | 1% |

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<https://doi.org/10.2737/FS-1217-Indicator-6.36>.

U.S. Forest Sustainability Indicators:
<https://www.fs.usda.gov/research/inventory/sustainability>

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