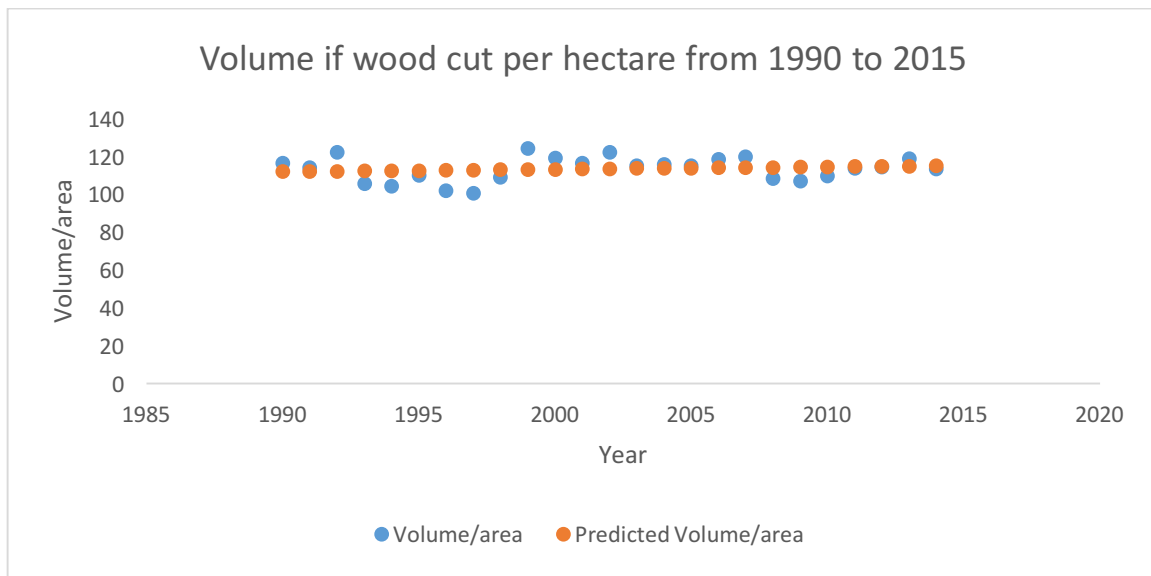


## Analysis of the change in labour force adjusted for volume and area harvested within the forestry sector in Nova Scotia from 1990 to 2015.

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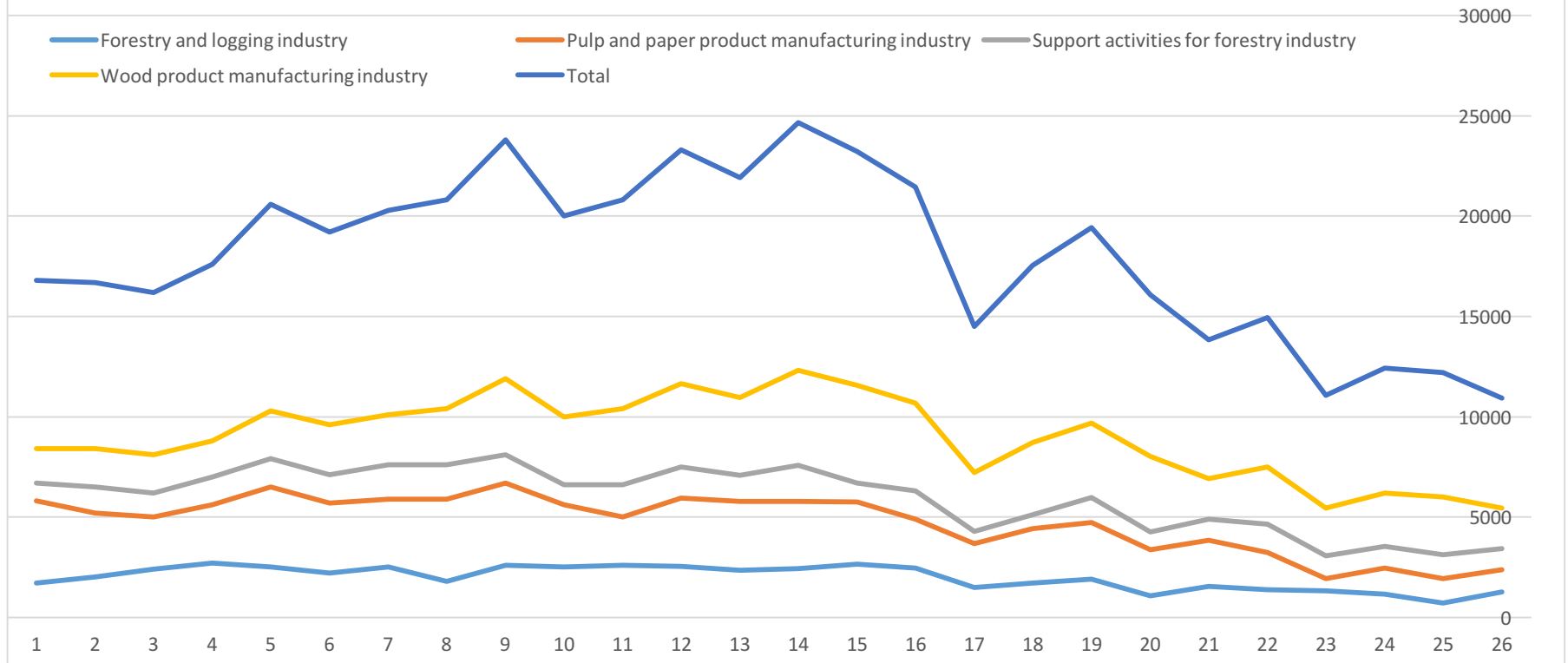
Nova Scotia covers an area of approximately 5.53 million hectares not including the Bras D'or Lakes with forests covering approximately 4.3 million hectares or 77% (State of the Forest, Report 1995-2005. Nova Scotia Forest in Transition. Prepared by Nova Scotia Department of Natural Resources). In 2005, 50% of the forest was classified as softwood, 24% as mixed wood, 12% as hardwood and 13% as cutover.

Stats Canada reports (<https://cfs.nrcan.gc.ca/statsprofile/economicimpact/ns>) that during 1990 to 2015 an average of 43,244 ha have been harvested annually (1% of total forested area) for a total area harvested of 648,664 ha (15%) for that period. The volume of fiber removed averaged 4,968,866 m<sup>2</sup> totaling 74,533,000 m<sup>2</sup>. The volume (m<sup>2</sup>) harvested per hectare has remained relatively constant between 1990 and 2015.



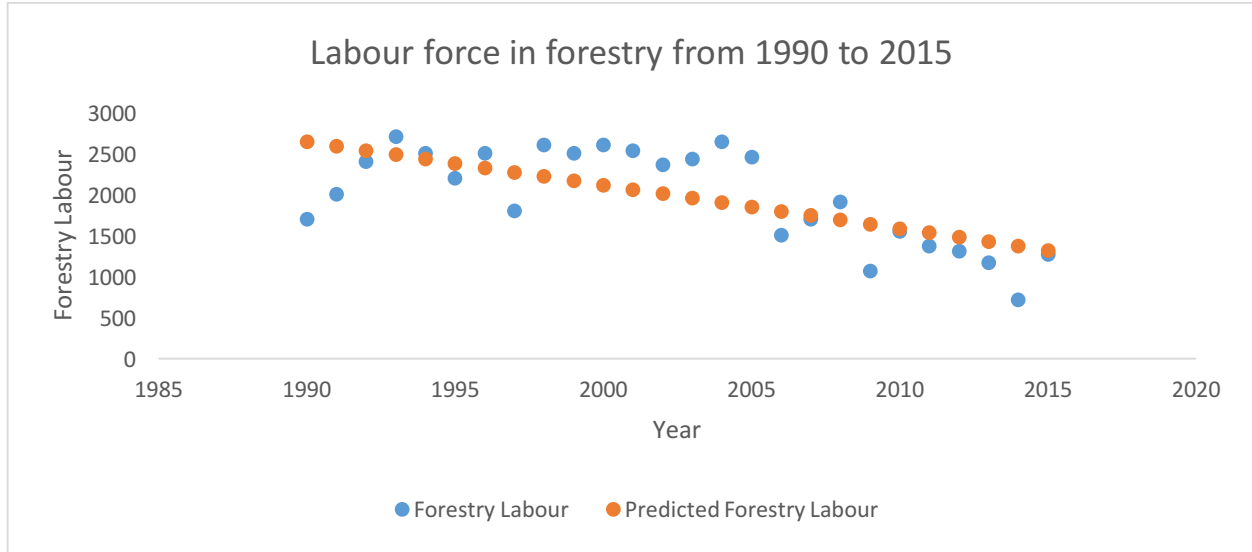
The labour force involved in forestry and forest products generally increased from 1990 to 2003 and then experienced a steady decrease within all sectors (see plot Labour force 1990 to 2015).

## Total labour force 1990 to 2015

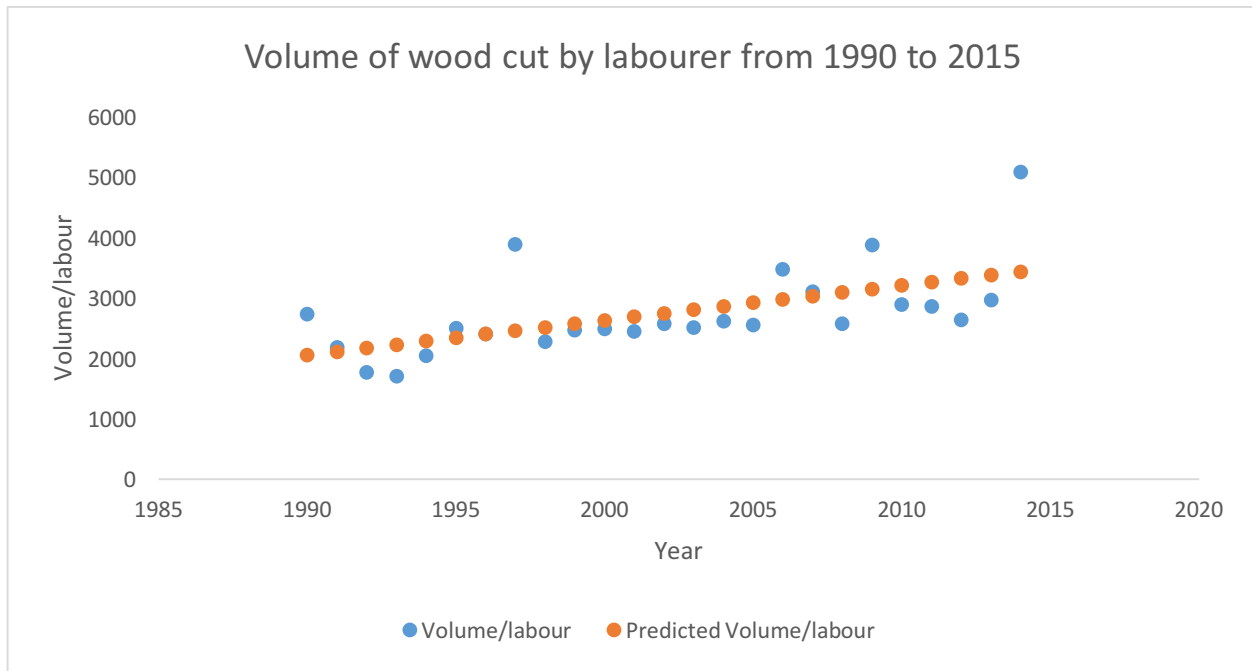


X axis- 1=1990, 26= 2015

The forestry and logging labour force, the fellows working in the bush, saw relatively steady employment from 1990 to 2005 but have then seen a steady decrease since to 2015.



However, the volume cut per labourer in the woods has seen a steady increase since 1990. This probably reflects an increase in mechanization over this period.



At the current rate of cutting assuming that 1% of the total forested area is cut annually the rotation is 100 years but if we assume conservatively that only softwood areas are cut 2 % is cut annually giving a 50 year rotation. The short of it is that on harvested land forests will never get older than 100 years and that is a liberal estimate.

Volume cut annually is not decreasing but over time this is not likely to be the case as all stands become less than 100 years.

The labour force in the woods is decreasing and will probably continue to decrease with increased mechanization. Arguing that the forestry industry provides jobs is of course correct since if there was not forestry industry at all there would be no jobs, however, the proportion of people working in the woods in relation to volume cut is decreasing.

The total labour force employed due to the forestry industry including forestry and logging, pulp and paper manufacturing, supply activity, and wood products manufacturing is decreasing.

It is reasonable to assume that if more effort was put into supporting value-added wood products manufacturing/industries in Nova Scotia more people could be employed relying on less wood harvested.

**Raw forestry data tabulated from Stats Canada**  
<https://cfs.nrcan.gc.ca/statsprofile/economicimpact/ns>

| <b>Statistical data (Stats Canada)</b>  |               |               |               |              |               |              |               |               |               |               |               |               |               |
|---|---------------|---------------|---------------|--------------|---------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <a href="https://cfs.nrcan.gc.ca/statsprofile/economicimpact/ns">https://cfs.nrcan.gc.ca/statsprofile/economicimpact/ns</a> |               |               |               |              |               |              |               |               |               |               |               |               |               |
| <b>Year</b>   | <b>1990</b>   | <b>1991</b>   | <b>1992</b>   | <b>1993</b>  | <b>1994</b>   | <b>1995</b>  | <b>1996</b>   | <b>1997</b>   | <b>1998</b>   | <b>1999</b>   | <b>2000</b>   | <b>2001</b>   | <b>2002</b>   |
| Labour force #  |               |               |               |              |               |              |               |               |               |               |               |               |               |
| Forestry and logging industry   | 1,700         | 2,000         | 2,400         | 2,700        | 2,500         | 2,200        | 2,500         | 1,800         | 2,600         | 2,500         | 2,600         | 2,533         | 2,358         |
| Pulp and paper product manufacturing industry   | 4,100         | 3,200         | 2,600         | 2,900        | 4,000         | 3,500        | 3,400         | 4,100         | 4,100         | 3,100         | 2,400         | 3,408         | 3,433         |
| Support activities for forestry industry  | 900           | 1,300         | 1,200         | 1,400        | 1,400         | 1,400        | 1,700         | 1,700         | 1,400         | 1,000         | 1,600         | 1,542         | 1,292         |
| Wood product manufacturing industry   | 1,700         | 1,900         | 1,900         | 1,800        | 2,400         | 2,500        | 2,500         | 2,800         | 3,800         | 3,400         | 3,800         | 4,158         | 3,875         |
| <b>Total</b>  | <b>8,400</b>  | <b>8,300</b>  | <b>8,100</b>  | <b>8,800</b> | <b>10,300</b> | <b>9,600</b> | <b>10,200</b> | <b>10,400</b> | <b>11,900</b> | <b>10,000</b> | <b>10,400</b> | <b>11,667</b> | <b>10,958</b> |
| Area Harvested (Ha)   | 39,898        | 38,169        | 34,820        | 43,568       | 49,084        | 49,968       | 59,053        | 69,761        | 54,203        | 49,680        | 54,433        | 53,226        | 49,704        |
| Volume harvested (m3) (times 1000)  | 4,639         | 4,348         | 4,248         | 4,585        | 5,106         | 5,483        | 6,012         | 6,989         | 5,903         | 6,164         | 6,470         | 6,182         | 6,066         |
| Volume/area   | 116           | 114           | 122           | 105          | 104           | 110          | 102           | 100           | 109           | 124           | 119           | 116           | 122           |
| Volume/labour (forestry logging)  | 2729          | 2174          | 1770          | 1698         | 2042          | 2492         | 2405          | 3883          | 2270          | 2466          | 2488          | 2441          | 2573          |
|   |               |               |               |              |               |              |               |               |               |               |               |               |               |
| <b>Year</b>   | <b>2003</b>   | <b>2004</b>   | <b>2005</b>   | <b>2006</b>  | <b>2007</b>   | <b>2008</b>  | <b>2009</b>   | <b>2010</b>   | <b>2011</b>   | <b>2012</b>   | <b>2013</b>   | <b>2014</b>   | <b>2015</b>   |
| Labour force #  |               |               |               |              |               |              |               |               |               |               |               |               |               |
| Forestry and logging industry   | 2,433         | 2,642         | 2,450         | 1,500        | 1,700         | 1,908        | 1,067         | 1,550         | 1,367         | 1,308         | 1,167         | 717           | 1,267         |
| Pulp and paper product manufacturing industry   | 3,358         | 3,100         | 2,442         | 2,183        | 2,733         | 2,817        | 2,300         | 2,300         | 1,858         | 633           | 1,300         | 1,217         | 1,100         |
| Support activities for forestry industry  | 1,783         | 958           | 1,417         | 600          | 675           | 1,250        | 875           | 1,033         | 1,417         | 1,125         | 1,067         | 1,175         | 1,067         |
| Wood product manufacturing industry   | 4,750         | 4,875         | 4,367         | 2,925        | 3,600         | 3,717        | 3,783         | 2,025         | 2,842         | 2,392         | 2,658         | 2,900         | 2,008         |
| <b>Total</b>  | <b>12,325</b> | <b>11,658</b> | <b>10,775</b> | <b>7,300</b> | <b>8,833</b>  | <b>9,750</b> | <b>8,058</b>  | <b>6,917</b>  | <b>7,458</b>  | <b>5,600</b>  | <b>6,242</b>  | <b>6,192</b>  | <b>5,492</b>  |
| Area Harvested (Ha)   | 52,939        | 59,550        | 54,395        | 44,010       | 44,041        | 45,328       | 38,685        | 40,990        | 34,369        | 30,230        | 29,112        | 32,187        |               |
| Volume harvested (m3)   | 6,085         | 6,889         | 6,249         | 5,209        | 5,260         | 4,899        | 4,127         | 4,482         | 3,903         | 3,447         | 3,453         | 3,643         |               |
| Volume/area   | 115           | 116           | 115           | 118          | 119           | 108          | 107           | 109           | 114           | 114           | 119           | 113           |               |
| Volume/labour (forestry logging)  | 2501          | 2607          | 2551          | 3473         | 3094          | 2568         | 3868          | 2892          | 2855          | 2635          | 2959          | 5081          |               |