1987

STEVEN'S POINT-PLOVER AREA
WAUSAU AREA
AND MARSHFIELD AREA
ECONOMIC INDICATORS

4th Quarter 1987

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Special Report: The Central Wisconsin Forest Products Industry: Impact and Outlook
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TABLE OF CONTENTS

Overview
  Table 1

Central Wisconsin
  Tables 2-6

Stevens Point – Plover Area
  Table 7-14

Wausau Area
  Table 7-13

Marshfield Area
  Table 7-16

Outlook

Special Report
  The Central Wisconsin Forest Products Industry: Impact and Outlook

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Overview

Last year the real GNP grew by 3.8%, a stronger showing than was predicted by many analysts (Table 1). Thus even with the dampening effect of the stock market crash, the national economy continued its record-long peacetime expansion. The Federal Reserve reported that the nation's factories were operating at 82% of capacity. Not since the early 1980s has the rate been so high. Although interest rates declined sharply after the crash of October 19th. Overall, three month Treasury Bill rates have risen by nearly .5%, from 5.82% to 6.32%, over the course of 1987. Inflation, as measured by the CPI, for the period came in at 4.4%. This is much above last year's figure of 1.1%. However, last year's rate was influenced by the precipitous decline in energy prices, oil prices decreased almost 20% in 1986. The outlook for the national economy calls for continued expansion but at a somewhat sluggish rate.

The unemployment data for the region suggest that fourth quarter 1987 was one of improvement. Except for Wood County, the region saw a substantial decline in unemployment. Drops in regional unemployment rates were accompanied by increased employment in all three counties. In other words, 7200 more people are employed in Central Wisconsin than a year ago. Also, the state and nation performed well in job generation.

Employment statistics by major sector indicate that manufacturing, especially durable goods, was the major source of new jobs in Central Wisconsin. The data show that 31% of the increase in nonfarm total employment originated in durable goods manufacturing. The service, trade, construction, and government sectors expanded at respectable rates during the fourth quarter.

Key Central Wisconsin industries saw their payrolls expand by 1,500 positions. Lumber and wood products employment made the largest stride forward by adding 700 people. Overall a 5.7% increase was registered for the Key Industry group. Thus, much vigor was seen in the region's basic industries. Business leaders expressed serious concern over recent national events. However, as a group they remained quite optimistic about conditions in their industries. This is welcome news for the people of Central Wisconsin. Furthermore, regional executives feel that local and national conditions will improve in the near future.

The Stevens Point-Portage County economy continued its expansion. However, there were signs that the rate of growth has slowed when compared to the early part of 1987. Evidence of growth is apparent in the following areas. The unemployment rate has decreased, total employment is 2.4% higher than last year, and bank lending was heavy during fourth quarter 1987. The local economy has many positive factors working for it as 1988 unfolds. Some examples are the moderate rate of inflation, the lower
dollar and viability in key regional industries.

However, the national economy appears to be slowing. It is expected to register very little growth during 1988 and will have a difficult time staying out of a recessionary mode. This of course will have a major influence on regional economic behavior.

### TABLE 1: NATIONAL ECONOMIC STATISTICS

<table>
<thead>
<tr>
<th></th>
<th>1986 Fourth Quarter</th>
<th>1987 Fourth Quarter</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Gross Domestic Product (Billions)</td>
<td>$4,288.1</td>
<td>$4,598.0</td>
<td>+7.2</td>
</tr>
<tr>
<td>Real Gross Domestic Product (Billions of 1982$)</td>
<td>$3,731.5</td>
<td>$3,875.1</td>
<td>+3.8</td>
</tr>
<tr>
<td>Industrial Production (1977=100)</td>
<td>126.8</td>
<td>133.3</td>
<td>+5.1</td>
</tr>
<tr>
<td>Three Month U.S. Treasury Bill Rate</td>
<td>5.86%</td>
<td>6.32%</td>
<td>+8.2</td>
</tr>
<tr>
<td>Consumer Price Index (1982-84 = 100)</td>
<td>331.1</td>
<td>345.7</td>
<td>+4.4</td>
</tr>
</tbody>
</table>
Central Wisconsin

The regional economy continued to expand during fourth quarter 1987. Overall, 1987 was a very good year for the three county area. Table 2 shows that the unemployment rate in Portage and Marathon counties dipped substantially below last year’s levels. An increase in Wood County’s unemployment rate can be traced to plant closings by Preway and Sterling Engineered Products in Wisconsin Rapids. For the region, the unemployment rate decreased to 7.0%. However, the unemployment rate for the region and state were above the national mark for the first time in two quarters. This is due to the seasonal nature of the state’s job market, i.e. winter conditions.

Table 3 lists total employment figures. Job creation in Portage County was modest while Marathon and Wood counties registered identical percentage gains of 7.5%. Overall, the region saw 7,200 more people employed, a 6.3% rise. Based on percentage growth, the region expanded at a faster rate than the nation and state during the last part of 1987.

Table 4 divides employment change into the major nonfarm classifications. Manufacturing, spurred on by the lower valued dollar, paced the overall expansion. Employment in manufacturing jumped by 1700 positions. Services, trade, and construction all registered solid gains. Government increased by 3.1% from last year, the smallest rise of any sector. In summary, total nonfarm employment grew by 4800 positions or 4.7% from fourth quarter 1986. Thus, a very respectable performance was recorded for the region. Table 5 contains key Central Wisconsin industry employment data. The industries represented in this table are vital to the health and well being of the region’s economy. Paper products, a capital intensive industry, gained 100 positions from last year and the lumber and wood products industry added 700 people to its payrolls. Food processing and finance, insurance, and real estate also demonstrated strength by posting gains of 8.3% and 5.3% respectively. To summarize, key industry employment grew by 1500 jobs or by 5.7%. As mentioned in the third quarter report, if the region is to prosper then these basic industries must lead the way. Forecasts predict that this group should continue to perform well during 1988.

The business confidence index appears in Table 6. Interviews conducted by the CWERB indicate concern on the part of regional business executives. This concern focuses on the deterioration of national economic conditions. This group also perceives local conditions to be unimproved. This can be viewed positively since the-local economy has been expanding all year. Finally, this group believes that economic conditions in the nation, the region, and especially their industries will improve in the near term.
### TABLE 2: UNEMPLOYMENT IN CENTRAL WISCONSIN

<table>
<thead>
<tr>
<th>Location</th>
<th>Unemployment Rate December 1986</th>
<th>Unemployment Rate December 1987</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portage</td>
<td>7.9%</td>
<td>6.7%</td>
<td>-15.2</td>
</tr>
<tr>
<td>Marathon</td>
<td>7.5%</td>
<td>6.4%</td>
<td>-14.7</td>
</tr>
<tr>
<td>Wood</td>
<td>7.6%</td>
<td>7.8%</td>
<td>+2.6</td>
</tr>
<tr>
<td>Central Wisconsin</td>
<td>7.6%</td>
<td>7.0%</td>
<td>-7.9</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>7.1%</td>
<td>6.2%</td>
<td>-12.7</td>
</tr>
<tr>
<td>United States</td>
<td>6.3%</td>
<td>5.4%</td>
<td>-14.3</td>
</tr>
</tbody>
</table>

### TABLE 3: EMPLOYMENT IN CENTRAL WISCONSIN

<table>
<thead>
<tr>
<th>Location</th>
<th>Total Employment December 1986 (Thousands)</th>
<th>Total Employment December 1987 (Thousands)</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portage</td>
<td>28.8</td>
<td>29.5</td>
<td>+2.4</td>
</tr>
<tr>
<td>Marathon</td>
<td>53.2</td>
<td>57.2</td>
<td>+7.5</td>
</tr>
<tr>
<td>Wood</td>
<td>33.2</td>
<td>35.7</td>
<td>+7.5</td>
</tr>
<tr>
<td>Central Wisconsin</td>
<td>115.2</td>
<td>122.4</td>
<td>+6.3</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>2,251.7</td>
<td>2,348.8</td>
<td>+4.3</td>
</tr>
<tr>
<td>United States</td>
<td>110,588.0</td>
<td>113,679.0</td>
<td>+2.8</td>
</tr>
</tbody>
</table>
### TABLE 4: 
CENTRAL WISCONSIN EMPLOYMENT CHANGE BY SECTOR

<table>
<thead>
<tr>
<th>Industry</th>
<th>Employment December 1986 (Thousands)</th>
<th>Employment December 1987 (Thousands)</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>26.4</td>
<td>28.1</td>
<td>+6.4</td>
</tr>
<tr>
<td>Durable goods</td>
<td>11.4</td>
<td>12.9</td>
<td>+13.2</td>
</tr>
<tr>
<td>Nondurable goods</td>
<td>15.0</td>
<td>15.4</td>
<td>+2.7</td>
</tr>
<tr>
<td>Services</td>
<td>32.2</td>
<td>33.7</td>
<td>+4.7</td>
</tr>
<tr>
<td>Trade</td>
<td>25.7</td>
<td>26.6</td>
<td>+3.5</td>
</tr>
<tr>
<td>Construction</td>
<td>2.7</td>
<td>2.9</td>
<td>+7.4</td>
</tr>
<tr>
<td>Government</td>
<td>16.0</td>
<td>16.5</td>
<td>+3.1</td>
</tr>
</tbody>
</table>

### TABLE 5: 
EMPLOYMENT IN KEY CENTRAL WISCONSIN INDUSTRIES

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper Products</td>
<td>9.2</td>
<td>9.3</td>
<td>+1.1</td>
</tr>
<tr>
<td>Lumber and Wood Products</td>
<td>4.5</td>
<td>5.2</td>
<td>+15.6</td>
</tr>
<tr>
<td>Food Processing</td>
<td>3.6</td>
<td>3.9</td>
<td>+8.3</td>
</tr>
<tr>
<td>Finance, Insurance, and Real Estate</td>
<td>7.5</td>
<td>7.9</td>
<td>+5.3</td>
</tr>
</tbody>
</table>
TABLE 6: BUSINESS CONFIDENCE IN CENTRAL WISCONSIN

<table>
<thead>
<tr>
<th></th>
<th>Index Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>September 1987</td>
</tr>
<tr>
<td>Recent Change in National Economic Conditions</td>
<td>59</td>
</tr>
<tr>
<td>Recent Change in Local Economic Conditions</td>
<td>56</td>
</tr>
<tr>
<td>Expected Change in National Economic Conditions</td>
<td>49</td>
</tr>
<tr>
<td>Expected Change in Local Economic Conditions</td>
<td>48</td>
</tr>
<tr>
<td>Expected Change in Industry Conditions</td>
<td>62</td>
</tr>
</tbody>
</table>

100 = Substantially Better  50 = Same  0 = Substantially Worse
The Greater Stevens Point – Plover Area

The Stevens Point area economy experienced a continuation of the expansion started earlier this year. However, the rate of growth was slower than the rate in previous quarters of 1987. The prognosis for the local scene remains positive, but the full effects of the stock market crash and the direction of the national economy will not be known for several quarters.

The fact that the local area expanded albeit at a more modest rate than in previous quarters, can be supported by the following data. First, the unemployment rate is much below last year's level. Second, total employment is up by a modest 2.4%. Third, although the growth in nonfarm employment was flat, it was at least positive in nature. Fourth, retail sales were modestly better than a year ago. Fifth, public assistance and unemployment data show signs of improvement. Lastly, financial statistics conveyed the message that activity has expanded.

Positive signs for the future come from the following local factors. Key local firms, such as Kimberly-Clark in Whiting and Sentry Insurance have announced changes that will add to their payrolls. Furthermore, the COPPS Corporation, and University of Wisconsin are adding to their physical facilities. Regional business leaders are more confident than last quarter about their industries. Retailers are optimistic. Finally, help wanted advertising remains essentially strong. This should translate into more jobs.

Table 7 gives the results for fourth quarter 1987 employment in Portage County. Manufacturing continued to lead all sectors posting an increase of 400 jobs. Employment growth in all other nonfarm employment categories was either unchanged or slightly lower than last year. Overall, nonfarm payrolls were up by 150 positions or 0.6%. Thus, the data in Table 7 suggest a slowing of local economic growth during fourth quarter. This is consistent with national trends. The retailer confidence survey is presented in Table 8. Retailers indicated that store sales are slightly better than last year. However, it appears that sales in September were marginally better than in December. In contrast, the volume of store traffic in December was improved over September survey results. When asked about future sales and store traffic this group was just as optimistic as last quarter. In sum, fourth quarter 1987 retail activity, while improved over last year, was less than had been predicted by the retailers in the prestock market crash period of September.
An indicator of labor demand for the Stevens Point area is given in Table 9. Conditions have improved over last year. In December 1987, 15.3% more jobs were being advertised than a year ago. As a matter of record, the 151 index level is the highest ever recorded for the fourth quarter time frame. However, the 15.3% increase over the past year falls short of the 54.4% rise between December 1985 and 1986. Therefore, even though labor demand is substantially higher, the area has seen more impressive gains. This suggests that while the economy is poised to move forward the rate of increase will be somewhat slower in the quarters ahead.

Good news comes from Table 10 and Table 11. While the number of new applications for public assistance remained virtually unchanged, the total caseload decreased by approximately 7.3%. Moreover, total unemployment claims have contracted by 29.2%. These lower measures of local financial distress are encouraging. However, the numbers also indicate that there are still individuals and families in our community who, for a variety of reasons, have not been able to participate in local economic prosperity.

A very important leading economic indicator is residential construction. The data are presented in Table 12. The residential construction activity was significantly below last year's very robust performance. As a matter of fact, fourth quarter 1987 activity was at approximately the same level as fourth quarter 1985. Undoubtedly, the harsher weather of 1987, and uncertainty concerning the economy played a role in diminishing the results. At the national level, home construction and sales are also down from earlier levels.

Nonresidential construction in Table 13 shows a number of new additions to the local capital stock. The large jump in the estimated value of business alterations is partially derived from large remodeling projects undertaken by the Road Star Inn, M&I First National Bank and COPPS. It should be noted that the singular nature of business construction causes wide fluctuations in the reported statistics.

Financial statistics for Portage County are listed in Table 14. Bank deposits were up by approximately 2070 in fourth quarter reversing the situation of third quarter. Deposits, totaling $274.6 million, are at the highest level recorded regardless of quarter. Lending activity in the area rose by a healthy 10.0% to $171.9 million and stands at a near record level. The data indicate that fourth quarter economic expansion was respectable if not as spectacular as during the second and third quarters of this year.

**TABLE 7: PORTAGE COUNTY EMPLOYMENT CHANGE BY SECTOR**

<p>| Employment | Employment | Percent |
| December 1986 | December 1987 | Change |</p>
<table>
<thead>
<tr>
<th>Sector</th>
<th>September 1987</th>
<th>December 1987</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>4,000</td>
<td>4,400</td>
<td>+10.0</td>
</tr>
<tr>
<td>Services</td>
<td>7,270</td>
<td>7,350</td>
<td>+1.1</td>
</tr>
<tr>
<td>Trade</td>
<td>5,900</td>
<td>5,700</td>
<td>-3.4</td>
</tr>
<tr>
<td>Construction</td>
<td>600</td>
<td>570</td>
<td>-5.0</td>
</tr>
<tr>
<td>Government</td>
<td>6,100</td>
<td>6,000</td>
<td>-1.6</td>
</tr>
</tbody>
</table>

**TABLE 8:**
RETAILER CONFIDENCE IN STEVENS POINT-PLOVER AREA

<table>
<thead>
<tr>
<th></th>
<th>Index Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>September 1987</td>
</tr>
<tr>
<td>Total Sales Compared to Previous Year</td>
<td>61</td>
</tr>
<tr>
<td>Store Traffic Compared to Previous Year</td>
<td>54</td>
</tr>
<tr>
<td>Expected Sales Three Months From Now</td>
<td>70</td>
</tr>
<tr>
<td>Expected Store Traffic Three Months From Now</td>
<td>64</td>
</tr>
</tbody>
</table>

100 = Substantially Better   50 = Same   0 = Substantially Worse

**TABLE 9:**
HELP WANTED ADVERTISING IN PORTAGE COUNTY

<table>
<thead>
<tr>
<th></th>
<th>Index Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1986</td>
</tr>
<tr>
<td>Stevens Point (December) (1980 = 100)</td>
<td>131</td>
</tr>
<tr>
<td>U.S. (November) (1967 = 100)</td>
<td>147</td>
</tr>
</tbody>
</table>

**TABLE 10:**
PUBLIC ASSISTANCE CLAIMS IN PORTAGE COUNTY

<table>
<thead>
<tr>
<th></th>
<th>1986 Fourth Quarter (Monthly Avg.)</th>
<th>1987 Fourth Quarter (Monthly Avg.)</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Applications</td>
<td>140</td>
<td>142</td>
<td>+1.4</td>
</tr>
<tr>
<td>Total Caseload</td>
<td>975</td>
<td>904</td>
<td>-7.3</td>
</tr>
<tr>
<td>---------------</td>
<td>-----</td>
<td>-----</td>
<td>------</td>
</tr>
</tbody>
</table>

* As of First Quarter 1986 Public Assistance Claims are being compiled on a county-wide basis

**TABLE 11:**
**UNEMPLOYMENT CLAIMS IN PORTAGE COUNTY**

<table>
<thead>
<tr>
<th></th>
<th>1986 Fourth Quarter</th>
<th>1987 Fourth Quarter</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Claims</td>
<td>*</td>
<td>773</td>
<td>*</td>
</tr>
<tr>
<td>Total Claims</td>
<td>2,595</td>
<td>1,837</td>
<td>-29.2</td>
</tr>
</tbody>
</table>

**TABLE 12:**
**RESIDENTIAL CONSTRUCTION IN STEVENS POINT-PLOVER AREA***

<table>
<thead>
<tr>
<th></th>
<th>1986 Fourth Quarter</th>
<th>1987 Fourth Quarter</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential Permits Issued</td>
<td>65</td>
<td>39</td>
<td>-40.0</td>
</tr>
<tr>
<td>Estimated Value of New Homes</td>
<td>$4,218.8 (thousands)</td>
<td>$3,050.1 (thousands)</td>
<td>-27.7</td>
</tr>
<tr>
<td>Number of Housing Units</td>
<td>77</td>
<td>56</td>
<td>-27.3</td>
</tr>
<tr>
<td>Residential Alteration Permits Issued</td>
<td>193</td>
<td>135</td>
<td>-30.1</td>
</tr>
<tr>
<td>Estimated Value of Alterations</td>
<td>$663.6 (thousands)</td>
<td>$482.8 (thousands)</td>
<td>-23.8</td>
</tr>
</tbody>
</table>

*Includes Stevens Point, Village of Plover, and the Towns of Hull, Stockton, Sharon, and Plover.

**TABLE 13:**
**NONRESIDENTIAL CONSTRUCTION IN STEVENS POINT-PLOVER AREA***

<table>
<thead>
<tr>
<th></th>
<th>1986 Fourth Quarter</th>
<th>1987 Fourth Quarter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Permits Issued</td>
<td>9</td>
<td>11</td>
</tr>
<tr>
<td>Estimated Value of New Structures</td>
<td>$1,975.5 (thousands)</td>
<td>$687.3 (thousands)</td>
</tr>
<tr>
<td>Number of Business Alteration Permits</td>
<td>47</td>
<td>33</td>
</tr>
<tr>
<td>Estimated Value</td>
<td>$599.3</td>
<td>$2,803.4</td>
</tr>
</tbody>
</table>
TABLE 14:  
FINANCIAL STATISTICS FOR PORTAGE COUNTY

<table>
<thead>
<tr>
<th></th>
<th>1986 Fourth Quarter ( Millions )</th>
<th>1987 Fourth Quarter ( Millions )</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank Deposits</td>
<td>$269.6</td>
<td>$274.6</td>
<td>+1.9</td>
</tr>
<tr>
<td>Bank Loans</td>
<td>$156.3</td>
<td>$171.9</td>
<td>+10.0</td>
</tr>
</tbody>
</table>

Wausau

The Wausau area economy registered impressive gains in a number of categories during the fourth quarter of 1987. An example is the substantial rise in the number of employed. However, local and national economic indicators are signalling that growth during 1988 may be slower and more difficult to achieve.

At the national level leading economic indicators have been down three consecutive months. While this does not necessarily mean that a recession will occur, it should at least give rise to serious concern about the health and direction of the national economy. Locally there is some evidence that 1988 will not be a repeat of 1987, which was characterized by rather impressive gains in employment.

An analysis of leading economic indicators for the area, reveals the following information. First, regional business executives are very positive about their industries. Second, retailers are indicating that they are less optimistic than in the past. Third, help wanted advertising remains strong, but the rate of increase has declined. Fourth, after analyzing the data, residential construction activity was actually down from last year. Fifth, nonresidential construction activity has remained at approximately the same level for the past three years. Finally, financial statistics indicate that activity during fourth quarter 1987 was down when compared to the previous year.

Table 7 gives Marathon County employment by sector. All classifications recorded impressive gains in employment except for government. Manufacturing displayed the largest amount of growth with 1100 new positions. The lower dollar has stimulated manufacturing at the national level and also appears to be having a positive impact locally. Manufacturing is at a record high level for the fourth quarter time period. Services and trade employment have had an impressive year. These sectors posted higher levels of employment than in any other quarter since the CWERB began tracking the situation. Overall, total sector employment exploded upward by nearly 60/0 or 2700
Retailer confidence for Wausau is displayed in Table 8. The response level for total sales compared to previous years is the second lowest ever recorded over the past 15 quarters. Thus retailers have indicated that while sales were better than last year, the rate of increase was minimal. Store traffic was lower than in September. These results suggest that the fourth quarter 1987 fell short of retailers’ expectations and could signal a further 'slow down. Supporting this are the response levels of retailers for expected sales and store traffic three months from now. The levels are significantly below last quarter’s and show that retailer confidence has been shaken. As a matter of record, these levels are the least optimistic of any period recorded by the CWERB.

The help wanted advertising index is a measure of local labor demand (Table 9). The index for December 1987 stood at 224. This is the highest level ever recorded for December and it represents a 16% increase over last year. However, it should be noted that it was the lowest yearly increase in the past three years. This data can be interpreted to mean that while demand remained high, the rate of growth has slowed. Furthermore, it is not likely that county payrolls will expand as rapidly in early 1988 as they did in the first part of 1987.

Table 10 and Table 11 present data on local family financial distress. The fourth quarter saw dramatic improvements in the total caseload and the number of new applications for public assistance. Unemployment claims, both initial and total, were down sharply from a year ago. This indicates that local conditions have improved over the year. However, the numbers also show that there are still individuals and families in our community who, for a variety of reasons, have not been able to participate in local economic prosperity.

Residential construction activity is highlighted in Table 12. The data in this table indicate a dramatic increase in the estimated value of new homes and in the number of housing units. One large project for elderly citizens accounted for over 70070 of the estimated value of new homes and 82% of the number of units. Thus, the rise in residential construction is qualified by this event. Moreover, residential permits were down by 7 from December 1986. On the positive side, residential alteration permits and the estimated value of residential alterations were substantially above the previous year. In summary, if the large housing project is excluded from the numbers, it can be seen that new residential construction was down from a year ago. This corresponds to what was taking place in housing at the national level during fourth quarter 1987.

Nonresidential construction continued to add to the local capital stock. Table 13 shows that the activity level of fourth quarter 1987 was generally at the same level as in fourth quarter 1986. Furthermore, the 1987 results are not dramatically different from 1985.

Financial statistics for the Wausau area are listed in Table 14. Bank deposits are
virtually unchanged from last year, whereas bank loan activity was down by nearly $17 million. This data may reflect a slow down in economic activity. Furthermore, the decrease during this quarter will have a dampening effect on future quarters. Specifically, the local economy could be entering a period of slow growth.

TABLE 7: MARATHON COUNTY EMPLOYMENT CHANGE BY SECTOR

<table>
<thead>
<tr>
<th>Sector</th>
<th>Employment December 1986 (Thousands)</th>
<th>Employment December 1987 (Thousands)</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>12.2</td>
<td>13.3</td>
<td>+9.0</td>
</tr>
<tr>
<td>Services</td>
<td>14.0</td>
<td>14.6</td>
<td>+4.3</td>
</tr>
<tr>
<td>Trade</td>
<td>11.7</td>
<td>12.5</td>
<td>+6.8</td>
</tr>
<tr>
<td>Construction</td>
<td>1.3</td>
<td>1.6</td>
<td>+23.1</td>
</tr>
<tr>
<td>Government</td>
<td>6.1</td>
<td>6.0</td>
<td>-1.6</td>
</tr>
</tbody>
</table>

TABLE 8 RETAILER CONFIDENCE IN WAUSAU

<table>
<thead>
<tr>
<th></th>
<th>September 1987</th>
<th>December 1987</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Sales Compared to Previous Year</td>
<td>65</td>
<td>60</td>
</tr>
<tr>
<td>Store Traffic Compared to Previous Year</td>
<td>65</td>
<td>62</td>
</tr>
<tr>
<td>Expected Sales Three Months From Now</td>
<td>65</td>
<td>60</td>
</tr>
<tr>
<td>Expected Store Traffic Three Months From Now</td>
<td>64</td>
<td>58</td>
</tr>
</tbody>
</table>

100 = Substantially Better  50 = Same  0 = Substantially Worse

TABLE 9 HELP WANTED ADVERTISING IN WAUSAU

<table>
<thead>
<tr>
<th></th>
<th>Index Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1986</td>
</tr>
<tr>
<td>Wausau (December) (1980 = 100)</td>
<td>193</td>
</tr>
<tr>
<td>U.S. (November) (1967 = 100)</td>
<td>147</td>
</tr>
</tbody>
</table>
### TABLE 10
PUBLIC ASSISTANT CLAIMS IN MARATHON COUNTY

<table>
<thead>
<tr>
<th></th>
<th>1987 Fourth Quarter (Monthly Avg.)</th>
<th>1988 Fourth Quarter (Monthly Avg.)</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Applications</td>
<td>53</td>
<td>44</td>
<td>-17.0</td>
</tr>
<tr>
<td>Total Caseload</td>
<td>259</td>
<td>210</td>
<td>-18.9</td>
</tr>
</tbody>
</table>

* As of First Quarter 1986 Public Assistance Claims are being compiled on a county-wide basis

### TABLE 11
UNEMPLOYMENT CLAIMS IN WAUSAU

<table>
<thead>
<tr>
<th></th>
<th>1986 Fourth Quarter</th>
<th>1987 Fourth Quarter</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Claims</td>
<td>5,040</td>
<td>4,251</td>
<td>-15.7</td>
</tr>
<tr>
<td>Total Claims</td>
<td>24,012</td>
<td>18,019</td>
<td>-25.0</td>
</tr>
</tbody>
</table>

### TABLE 12
NONRESIDENTIAL CONSTRUCTION IN WAUSAU AREA

<table>
<thead>
<tr>
<th></th>
<th>1986 Fourth Quarter</th>
<th>1987 Fourth Quarter</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential Permits Issued</td>
<td>30</td>
<td>23</td>
<td>-23.3</td>
</tr>
<tr>
<td>Estimated Value of New Homes</td>
<td>$2,498.0 (thousands)</td>
<td>$6,381.0 (thousands)</td>
<td>+155.4</td>
</tr>
<tr>
<td>Number of Housing Units</td>
<td>37</td>
<td>147</td>
<td>+297.3</td>
</tr>
<tr>
<td>Residential Alteration Permits Issued</td>
<td>81</td>
<td>128</td>
<td>+58.0</td>
</tr>
<tr>
<td>Estimated Value of Alterations</td>
<td>$282.2 (thousands)</td>
<td>$403.5 (thousands)</td>
<td>+43.0</td>
</tr>
</tbody>
</table>

### TABLE 13:
NONRESIDENTIAL CONSTRUCTION IN WAUSAU

<table>
<thead>
<tr>
<th></th>
<th>1986 Fourth Quarter</th>
<th>1987 Fourth Quarter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Permits Issued</td>
<td>13</td>
<td>12</td>
</tr>
<tr>
<td>Estimated Value of New Structures</td>
<td>$483.2 (thousands)</td>
<td>$540.9 (thousands)</td>
</tr>
<tr>
<td>Number of Business Alteration Permits</td>
<td>23</td>
<td>20</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td>Estimated Value of Business Alterations</td>
<td>$191.0 (thousands)</td>
<td>$773.7 (thousands)</td>
</tr>
</tbody>
</table>

**TABLE 14: FINANCIAL STATISTICS FOR MARATHON COUNTY**

<table>
<thead>
<tr>
<th></th>
<th>1987 Fourth Quarter (Millions)</th>
<th>1988 Fourth Quarter (Millions)</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank Deposits</td>
<td>$588.6</td>
<td>$587.5</td>
<td>-0.2</td>
</tr>
<tr>
<td>Bank Loans</td>
<td>$414.6</td>
<td>$397.8</td>
<td>-4.1</td>
</tr>
</tbody>
</table>

Marshfield Area

Both Marshfield and Wood County experienced vigorous growth during 1987. The number of people employed in the county jumped by 2,400 and total nonfarm employment rose by nearly 6%. From the retail sector comes news that sales were modestly better than during 1986. Moreover, local financial distress was lower than a year ago, and bank loan activity was brisk.

The prognosis for the Marshfield area is positive, albeit with some degree of reservation. Local leading economic variables suggest that growth should continue, but at a slower rate than in 1987. Also the direction and condition of the U. S. economy must be taken into account when forecasting for the area. Regional business leaders and merchants expressed optimism about their prospects. Forecasting agencies have suggested that key central Wisconsin industries are likely to remain profitable in 1988. Help wanted advertising is higher than last year and this should mean larger local payrolls. However, slow growth in bank deposits, and a downturn in residential construction hint at a lower rate of expansion during 1988.

Table 7 gives Wood County employment by sector. The period from December 1986 to December 1987 can be characterized as being very robust. Employment change over this time period was substantial in almost all categories. For example, manufacturing employment increased by 200 positions. Services led the expansion with a gain of 70/0 or 760 jobs. Trade, construction and government employment all benefited from the surge in activity. Thus, Wood County payrolls grew by nearly 5.9% or 1,980 positions.
The Marshfield Employment Index indicates that industrial employment in the local area has rocketed upwards by approximately 5%. This is good news for the local community. Furthermore, employment levels for fourth quarter stand at decade highs for the county.

The Central Wisconsin Economic Research Bureau’s retailer confidence survey is presented in Table 8. According to retailers, sales and store traffic were marginally better than a year ago. Furthermore, sales and store traffic are expected to continue to be somewhat improved over last year. It does appear, though, that the slowing of the nation’s economy has had some impact at the local level. Evidence suggests that the rate of growth in both sales and store traffic was stronger during 1985-86 than during 1986-87. The help-wanted advertising index is given in Table 9. The index now stands 23% higher than a year ago. Moreover, in December 1987 there were 1.7 jobs being advertised for every 1 job advertised in 1980. When seasonality is filtered out of the data, we see that the help-wanted advertising index has been steadily increasing throughout 1987. The prognosis is for continued expansion of payrolls into the early part of 1988.

Further evidence of local economic performance is displayed in Table 10 and Table 11. Public assistance numbers show that the economy has improved since 1986. In addition, unemployment claims data clearly indicate that there has been a reduction in local financial distress. New claims are down by 15.9% and total claims have contracted by approximately 20%. However, the numbers also support the view that there are still individuals and families in our community who, for a variety of reasons, have not been able to participate in local economic prosperity.

Residential construction is a leading economic indicator. In Table 12 data are presented for the Marshfield area. Generally speaking, housing activity declined from the pace established in 1986. Moreover, residential construction growth rates remained flat throughout the year. The fourth quarter numbers suggest that matters slowed considerably. Only one category displayed improvement, that being the number of housing units. The downturn in residential construction may foretell a slowing in the Marshfield economy.

Nonresidential construction was generally higher during the latter part of 1987 (Table 13.) However, data for the early part of the year indicated that nonresidential activity overall was less in 1987 than in 1986. It should be noted that due to the singular nature of this type of construction, wide fluctuations in activity are frequently observed. The major project during fourth quarter contributing to the estimated value of new structures was the door core building by Weyerhauser, which accounted for 90% of the value of new nonresidential construction. The nonresidential alterations category was also dominated by a single project. Ninety-two percent of the total was associated with housing for the magnetic resonator at the Marshfield Clinic.

Financial statistics in Table 14 show that nominal bank deposits were almost unchanged from last year. Thus the overall liquidity of the private sector is not substantially higher than a year ago. This may translate into less growth in the early part...
of 1988. Ban~ lending was significantly higher than in 1986 suggesting that economic conditions were fairly strong during the past year.

TABLE 7
WOOD COUNTY EMPLOYMENT CHANGE BY SECTOR

<table>
<thead>
<tr>
<th>Sector</th>
<th>Employment December 1986</th>
<th>Employment December 1987</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>10,200</td>
<td>10,400</td>
<td>+2.0</td>
</tr>
<tr>
<td>Services</td>
<td>10,930</td>
<td>11,690</td>
<td>+7.0</td>
</tr>
<tr>
<td>Trade</td>
<td>8,100</td>
<td>8,400</td>
<td>+3.7</td>
</tr>
<tr>
<td>Construction</td>
<td>760</td>
<td>780</td>
<td>+2.6</td>
</tr>
<tr>
<td>Government</td>
<td>3,800</td>
<td>4,500</td>
<td>+18.4</td>
</tr>
<tr>
<td>Marshfield Employment Index</td>
<td>117</td>
<td>123</td>
<td>+5.1</td>
</tr>
</tbody>
</table>

TABLE 8
RETAILER CONFIDENCE IN MARSHFIELD*

<table>
<thead>
<tr>
<th>Index</th>
<th>Index Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>September 1987</td>
</tr>
<tr>
<td>Total Sales Compared to Previous Year</td>
<td>65</td>
</tr>
<tr>
<td>Store Traffic Compared to Previous Year</td>
<td>51</td>
</tr>
<tr>
<td>Expected Sales Three Months From Now</td>
<td>61</td>
</tr>
<tr>
<td>Expected Store Traffic Three Months From Now</td>
<td>62</td>
</tr>
</tbody>
</table>

100 = Substantially Better
50 = Same
0 = Substantially Worse
*Data collected by UW Marshfield-Wood County
### TABLE 9
HELP WANTED ADVERTISING IN MARSHFIELD

<table>
<thead>
<tr>
<th></th>
<th>Index Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1986</td>
</tr>
<tr>
<td>Marshfield (December) (1980 = 100)</td>
<td>139</td>
</tr>
<tr>
<td>U.S. (November) (1967 = 100)</td>
<td>147</td>
</tr>
</tbody>
</table>

### TABLE 10
PUBLIC ASSISTANCE CLAIMS IN WOOD COUNTY

<table>
<thead>
<tr>
<th></th>
<th>1986 Fourth Quarter (Monthly Avg.)</th>
<th>1987 Fourth Quarter (Monthly Avg.)</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Applications</td>
<td>33</td>
<td>32</td>
<td>-3.0</td>
</tr>
<tr>
<td>Total Caseload</td>
<td>753</td>
<td>698</td>
<td>-7.3</td>
</tr>
</tbody>
</table>

* As of First Quarter 1986 Public Assistance Claims are being compiled on a county-wide basis

### TABLE 11
UNEMPLOYMENT CLAIMS IN WOOD COUNTY

<table>
<thead>
<tr>
<th></th>
<th>1987 Fourth Quarter</th>
<th>1988 Fourth Quarter</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Claims</td>
<td>3,695</td>
<td>3,107</td>
<td>-15.9</td>
</tr>
<tr>
<td>Total Claims</td>
<td>8,001</td>
<td>6,403</td>
<td>-20.0</td>
</tr>
</tbody>
</table>

### TABLE 12
RESIDENTIAL CONSTRUCTION IN MARSHFIELD AREA*

<table>
<thead>
<tr>
<th></th>
<th>1986 Fourth Quarter</th>
<th>1987 Fourth Quarter</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential Permits Issued</td>
<td>15</td>
<td>8</td>
<td>-46.7</td>
</tr>
<tr>
<td>Estimated Value of New Homes</td>
<td>$1,041.5 (thousands)</td>
<td>$1,042.0 (thousands)</td>
<td>0</td>
</tr>
<tr>
<td>Number of Housing Units</td>
<td>16</td>
<td>25</td>
<td>+56.3</td>
</tr>
<tr>
<td>Residential Alteration Permits Issued</td>
<td>55</td>
<td>22</td>
<td>-60.0</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>----</td>
<td>----</td>
<td>-------</td>
</tr>
<tr>
<td>Estimated Value of Alterations</td>
<td>$165.2 (thousands)</td>
<td>$125.9 (thousands)</td>
<td>-23.8</td>
</tr>
</tbody>
</table>

*Data collected by UW Marshfield-Wood County

**TABLE 13**
**NONRESIDENTIAL CONSTRUCTION IN MARSHFIELD AREA***

<table>
<thead>
<tr>
<th></th>
<th>1986 Fourth Quarter</th>
<th>1987 Fourth Quarter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Permits Issued</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>Estimated Value of New Structures</td>
<td>$100.0 (thousands)</td>
<td>$719.9 (thousands)</td>
</tr>
<tr>
<td>Number of Business Alteration Permits</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>Estimated Value of Business Alterations</td>
<td>$863.0 (thousands)</td>
<td>$1,963.3 (thousands)</td>
</tr>
</tbody>
</table>

*Data collected by UW Marshfield-Wood County

**TABLE 14:**
**FINANCIAL STATISTICS FOR MARSHFIELD***

<table>
<thead>
<tr>
<th></th>
<th>1986 Fourth Quarter (Millions)</th>
<th>1987 Fourth Quarter (Millions)</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank Deposits</td>
<td>$206.4</td>
<td>$208.6</td>
<td>+1.1</td>
</tr>
<tr>
<td>Bank Loans</td>
<td>$118.8</td>
<td>$128.0</td>
<td>+7.7</td>
</tr>
</tbody>
</table>

*Data collected by UW Marshfield-Wood County
Outlook

The full effect of the stock market crash of October 19th on the United States economy is not known at this juncture. Early indications suggest that the economy was not severely damaged by this event. However, the consensus opinion among economists is that the crash will cause a noticeable slowdown in activity. Estimates of real GNP growth have been reduced. Many forecasters expect real GNP to rise by only 1.0070 to 2.0% during 1988.

The most widely held opinion is that if the economy is to continue on its record long expansion, it will be accomplished by a rise in production from industries which will benefit most directly from the lower dollar. Consumer confidence was shaken by the crash. As a result household spending will not be such a powerful influence in 1988. Businesses at the national level have been reluctant to commit funds for investment purposes. National surveys which compile information on capital expenditures indicate that the business sector has cut back on its plans for plant and equipment expenditures. Finally, large increases in government spending designed to stimulate the economy are unlikely given the current budget deficit.

Therefore, it is most likely that 1988 will be a slower year than 1987. The national economy will progress forward, but any significant negative shock could be just enough to push the economy into recession, e.g. sharply rising interest rates. The Central Wisconsin economy is in a better position vis-a-vis other parts of the country, if and when the next recession occurs. This stems from the fact that the area is deeply involved in manufacturing. Given the positive influence of a lower dollar, the effects of a downturn would be moderated. During the recession of the early 1980s, manufacturing was especially hard hit due to the over valued dollar. This condition does not exist in today's economy.
The Central Wisconsin Forest Products Industry: Impact and Outlook

Robert J. Engelhard, PhD.
Professor of Forestry
University of Wisconsin Stevens Point

Introduction

Forest products is Wisconsin's second leading manufacturing industry. It ranks first among Wisconsin manufacturers in investment in machinery; second in employment, payroll, value added, number of production workers, and wages paid; and third in value of shipments. Forest products is the leading manufacturing employer in 28 Wisconsin counties, including Marathon, Portage, and Wood (Figure 1). Wisconsin produces more paper than any state in the nation.

We all remember stories of logging the pine forests a hundred years ago. The motto was "cut out and get out." Forests were cleared to make way for farms and wood was needed to build cities and towns in the growing Midwest. In 1900, Wisconsin led the nation in lumber production.

The lumber boom didn't last, and as it moved west and south it left behind blackened forests, stump pastures, and broken dreams. But the "seed" for the forests of the future remained, along with people and capital to build a new forest products industry for the state.

In Europe during the middle of the 19th century scientists developed methods for chemically treating wood to remove lignin, making possible the manufacture of quality papers from wood rather than rag. In 1905 the first kraft paper mill in this part of the country was built in Mosinee. It signaled the beginning of a new forest products industry during the era when lumber was still "king."

While the new pulp and paper industry was entering the state, remnants of the lumber industry remained to harvest the valuable hardwoods left behind. Hardwoods are specialty woods. Highly prized value-added industries associated with the use of these woods; furniture, millwork, veneer and other products, continued to profitably employ thousands of workers at hundreds of locations across the state.

Today's Industry

In 1985 the Wisconsin forest products industry employed 72,000 workers with an annual payroll of $1.75 billion. That equates to an average of over $24,000 per employee (Table 1). The paper industry is the largest employer accounting for about 58070 of the industry's employees, 69% of the industry's payroll, and the highest ratio of payroll to employee, $29,146. The furniture industry accounted for the fewest number of
employees, 10,721 or about 15070 of the total for the industry. Lumber and wood products had the lowest ratio of payroll to employee, $17,182.

FIGURE 1
Counties in which Forest Products Industry is the Number 1 Employer
Table 1
Wisconsin Forest Products Industry
Annual Payroll and Number of Employees
1985

<table>
<thead>
<tr>
<th>Number of Employees</th>
<th>Lumber and Wood Products</th>
<th>Furniture and Fixtures</th>
<th>Paper and Allied Products</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>19,757</td>
<td>10,721</td>
<td>41,513</td>
<td>71,991</td>
</tr>
<tr>
<td>Payroll (thousands)</td>
<td>$339,472</td>
<td>$194,281</td>
<td>$1,209,925</td>
<td>$1,743,678</td>
</tr>
<tr>
<td>Payroll per Employee</td>
<td>$17,182</td>
<td>$18,122</td>
<td>$29,146</td>
<td>$24,221</td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau County Business Patterns 1984-1985

While Central Wisconsin residents often think of the forest products industry in terms of the large local paper companies, the industry is in reality largely made up of small businesses. Over half (51.6070) of the 1340 forest products establishments in the state employ fewer than 10 people.

Two-thirds of the business establishments in the forest products industry are lumber and wood products firms. They employ an average of 25 persons per firm. Only three companies employ more than 500, while 90070 of the lumber establishments have fewer than 50 employees, and 62070 employ less than 10 persons (Table 2).

The furniture industry, while also predominantly small business, has an estimated average of 59 employees per firm. Seventy-eight percent of the firms employ less than 50. About one-sixth of the total number of forest products establishments are found in this segment of the industry.

The paper industry has 25 firms employing more than 500. Only 44070 of the industry’s 235 firms employ fewer than 50. Paper and allied products has the highest estimated average number of employees per firm, 151.
Table 2
Wisconsin Forest Products Industry
Number of Establishments by Employment-Size Class
1985

<table>
<thead>
<tr>
<th>Number of Employees</th>
<th>Lumber and Wood Products (Number of Firms)</th>
<th>Furniture and Fixtures</th>
<th>Paper and Allied Products</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-9</td>
<td>548</td>
<td>113</td>
<td>30</td>
<td>691</td>
</tr>
<tr>
<td>10-19</td>
<td>154</td>
<td>26</td>
<td>29</td>
<td>209</td>
</tr>
<tr>
<td>20-49</td>
<td>96</td>
<td>32</td>
<td>44</td>
<td>172</td>
</tr>
<tr>
<td>50-99</td>
<td>44</td>
<td>23</td>
<td>37</td>
<td>104</td>
</tr>
<tr>
<td>100-249</td>
<td>30</td>
<td>14</td>
<td>47</td>
<td>91</td>
</tr>
<tr>
<td>250-499</td>
<td>10</td>
<td>10</td>
<td>23</td>
<td>43</td>
</tr>
<tr>
<td>500-999</td>
<td>3</td>
<td>2</td>
<td>20</td>
<td>25</td>
</tr>
<tr>
<td>1000+</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>885</td>
<td>220'</td>
<td>235</td>
<td>1340</td>
</tr>
</tbody>
</table>

The geographic impact of the forest products industry can be seen in Figure 2. Pulp mills are concentrated along the Fox and Wisconsin rivers. Large saw mills, those having an annual production of five million board feet or more, are concentrated in the northeastern counties. Medium-size sawmills, with a capacity of one to five million board feet per year, are more heavily concentrated in the west and west central part of the state.

There are far too many small sawmills and secondary wood using plants to be able to show all of them on a state map. Figure 3 indicates firms located in Central Wisconsin. Note in particular the concentration of establishments in the cities of Wausau and Marshfield. The forest products industry is not exclusively raw materials oriented. For example, the 1982 Wisconsin Secondary Wood Using Industry Directory lists 70 establishments in Milwaukee County, more firms than any other county in the state. The second largest county in number of establishments is Waukesha with 43, followed by Dane with 40. The secondary directory lists a total of 583 firms. Twenty-six percent are located in these three metropolitan counties. The urban location of some secondary forest products manufacturers is characteristic of both Central Wisconsin and the state.

The forest products industry in Central Wisconsin accounted for 13070 of the regional total employment in 1985. That's down from 17070 ten years ago. As might be expected, the industry accounted for the greatest percent of 1985 employment in Wood County, 18.3%; and least in Portage County, 8%. However, total employment in the forest products industry has remained nearly constant from 1975 to 1985 in the face of increased total regional employment in the dec3.de. Figure 4. Forest products
employment increased only 3% while total employment in the three counties was up 31%.

Figure 3
Central Wisconsin
Secondary and Small Primary Wood Users

If paper makes Wisconsin great, paper also makes Central Wisconsin great. Total pulping capacity in the state, including chemical, mechanical, and secondary fibre pulping is estimated at 6200 tons per day. Central Wisconsin mills produce about 2000 tons per day or nearly 320/0 of the state total. All of the Central Wisconsin capacity is primary fibre recovery. The region produces 39.2070 of the groundwood, 47.4% of the sulfite and 81.7% of the kraft pulp made in Wisconsin.

Wisconsin’s estimated paper production is about 12,000 tons per day. Central Wisconsin mills produce about 4650 tons per day or nearly 39% of all the paper produced.
If Lincoln County is included in Central Wisconsin's figures, the region would account for over half the total pulping capacity and 48.80% of the paper made in "the paper state." The Wisconsin paper industry is definitely not a Fox River Valley phenomenon.

**Outlook**

Demand for forest products is highly cyclical in nature. Much of the demand for both primary and secondary wood products, particularly lumber and furniture, fluctuates with the demand for housing. Individual firms are almost all price takers and concentrations are less than 30% in all segments of the industry, including paper.

The short term outlook for both lumber and paper appears vigorous. The Wisconsin lumber market is upbeat according to University of Wisconsin-Extension Forester Ted Peterson. He reports strong demand for 4/4 and 5/4 red oak, 4/4 ash, basswood, cherry, and hard maple and 4/4 and 8/4 pine. Many lumber mills are having difficulty meeting demand. In addition, sales of most grades of paper have also been vigorous.

The long term prognosis for the industry may depend more on the attitude of state and federal agencies toward the industry than ever before. We have seen that 1975-1985 was a decade of no-growth for the forest products industry both regionally and state-wide. The decade was also marked by an increase in public concern over environmental quality. The paper industry spent much of its capital, previously invested in mill expansion, on pollution abatement facilities. Future concerns of paper industry leaders are not so much with a need to comply with environmental regulations but, rather, with bureaucratic processes associated with regulation compliance. Obtaining necessary permits often requires enormous amounts of management and staff time.

Wisconsin pulp and paper mills are old by industry standards. Compliance with continually increasing state and federal water quality standards could force our sulfite mills, in particular, to cease pulp manufacture in the future. How far in the future will
depend on the rate with which we increase the stringency of our environmental standards. Meanwhile, our pulp mills desperately need scientists to develop an economical method for separating lignin from cellulose which does not result in air or water quality degradation.

Our paper mills benefit from few economies of scale. They have managed to survive because they compete in segments of the industry where quality and responsiveness to changing customer needs are the hallmarks of success. In the spring 1987 mid-year report, *Paper News* quotes five industry leaders regarding their views of the industry and its future. Their comments were:

There aren't great big markets, sitting out there, waiting for us to jump in and displace someone else. The real nature of the game is to learn to 'grow' new markets and 'grow' the products appropriate for them. That's a very, very expensive-and risky process."

Joseph Bergomi, President
Thilmany Pulp and Paper
Kaukauna

"Our product goes to box board plants and their demands for quality have increased through the use of computerized quality controls. Some suppliers have been eliminated from this market in favor of those who can meet these requirements."

William Buedingen, Mill Manager
Nekoosa Packaging
Tomahawk

We'll continue ... putting as much capital into the business as is necessary to maintain our status as a low-cost producer."

Harold Ellsworth, President
Fox River Paper Company
Appleton

"Above all, we have to be efficient; that's all there is to it"

George Mead, Chair
Consolidated Papers, Inc.
Wisconsin Rapids

"We work aggressively, day-after-day, year after-year, to keep our product line up-to-date, and at the same time on cost control and productivity, and where appropriate we keep our equipment up-to-date with capital investments."

George Mueller, President
Wisconsin Tissue Mills, Inc.
Menasha

The Wisconsin paper industry lives in a very competitive environment. No company controls the market in which it competes. All respond to market demands. Finally, the
industry is capital intensive. Demands for capital expenditures not equally required of competing mills in other states can put our companies at a genuine competitive disadvantage. Included in this category are expenditures for state and local taxes, environmental projects, raw materials, and labor, among others. Wisconsin lumber and furniture industries have similar concerns with one additional problem; these segments of the industry are almost exclusively composed of small businesses, independently owned and operated and price takers.

While the paper industry has been able to afford, nationally, to endow the Institute of Paper Chemistry and, locally, to support the undergraduate program in Paper Science at UW-Stevens Point, the solid wood-using industry has nothing similar. The U.S. Forest Products Laboratory does basic utilization research in wood and paper chemistry and physics, but its work is of a national nature and the laboratory lacks funds to provide extensive local technology transfer. The forest products industry itself spends comparatively little on research and development. Tombaugh reported in 1982 that the forest products industry nationally spent the second lowest of all economic sectors when research is compared to percent of sales. Lowest was the stone, clay, glass, and concrete products industry. Ron Giese at UW-Madison will state in one of the spring issues of the Journal of Forestry that expenditures on research and development by the forest products industry are also decreasing at a steady and alarming rate.

Table 3

<table>
<thead>
<tr>
<th>Year</th>
<th>R &amp; D as % of Sales</th>
<th>Expenditures(^a) for R &amp; D (millions)</th>
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</thead>
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<tr>
<td>1977</td>
<td>1.09</td>
<td>159.58</td>
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<tr>
<td>1978</td>
<td>1.01</td>
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<td>1986</td>
<td>.68</td>
<td>97.63</td>
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</tbody>
</table>

His study includes four large firms which have all spent enough money on research and development in each of the last ten years to require them to file a federal tax form 10K. Many forest product companies have 10K on file for some, but not all, of the ten years included in his study.
One can conclude that the forest products industry is investing in the future in the form of improving environmental quality, new machinery and equipment; but that industry is not research and development oriented.

Wisconsin citizens have reason to be concerned about the future of the state's forest products industry. Wisconsin's image as a good place in which to do business and as a national leader in the manufacture of paper and wood products has suffered through the loss of Kimberly-Clark's, and Fort Howard Paper's executive offices to other states, and the recent announcement that the Institute of Paper Chemistry will soon move to Georgia. Since 1975, while employment in our forest industry remained constant, six new board manufacturing mills have located in Minnesota making that state the nation's leading producer of waferboard and oriented strandboard. Champion International's hardwood pulp mill, completed in 1985, is located on the Menominee River in Quinnesec, Michigan. It was built at a cost of 5600 million and employs Michigan citizens almost exclusively. Louisiana-Pacific's new mill in Newberry, Michigan announced expansion plans this year, almost as quickly as construction was completed.

Jack Noblit, Louisiana-Pacific's director of raw materials said his company intends to build more new plants, "but not in Wisconsin." He said that all things being equal, Louisiana-Pacific was going where they are, wanted and appreciated. Dan Dilworth, Louisiana-Pacific's Operations Manager said it has cost his company tens of thousands of dollars each year in legal fees in order to continue to operate at Hayward. State regulation and permitting are the principal reason. Louisiana-Pacific does not have similar costs in Michigan and Minnesota.

Wisconsin has experienced forest products industry managers, vast vigorous forests capable of providing adequate raw materials for present and future industry needs, a work force second to none, and a quality environment. Yet, Michigan and Minnesota have attracted major investment while Wisconsin appears to be losing important industry components.

Recent forest survey data indicate that we are cutting only 58070 of the annual growth on the 14.8 million acres of commercial forest land in the state. Yet, employment in the industry has not grown. Why aren't Wisconsin companies encouraged to grow? Why aren't new companies attracted to our state? The industry needs more public support; a new partnership between university, government, and industry to create more jobs in the forest products industry using improved technology while maintaining the high quality of the state's environment. With that partnership perhaps the next report on this industry will show that employment in our forest products industry has increased faster than the overall state and regional averages.

**Literature Cited**


Total Employment in Central Wisconsin
1987

Employment in thousands

Quarter

1st Qtr. 2nd Qtr. 3rd Qtr. 4th Qtr.

Portage County
Marathon County
Wood County
Clark County