The State of Manufacturing in Tennessee

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The University of Tennessee
Strengths of Tennessee’s Manufacturing Sector

- A key foundation of the state's economic base and exports; competitiveness
- Supports state and local tax bases
- One of six dollars of state GSP from mfg
- Higher likelihood of workers receiving health insurance than in other sectors
- Workers receive an above-average wage
- Civic involvement of firms and workers
- New jobs are still being created!
## Average Annual Wage by Industry (2000 $)

<table>
<thead>
<tr>
<th>Industry</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mining</td>
<td>15000</td>
<td>20000</td>
<td>25000</td>
<td>30000</td>
</tr>
<tr>
<td>Construction</td>
<td>20000</td>
<td>25000</td>
<td>30000</td>
<td>35000</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>30000</td>
<td>35000</td>
<td>40000</td>
<td>45000</td>
</tr>
<tr>
<td>Trade, Trans, Utilities</td>
<td>35000</td>
<td>40000</td>
<td>45000</td>
<td>50000</td>
</tr>
<tr>
<td>Information</td>
<td>30000</td>
<td>35000</td>
<td>40000</td>
<td>45000</td>
</tr>
<tr>
<td>Financial Activities</td>
<td>35000</td>
<td>40000</td>
<td>45000</td>
<td>50000</td>
</tr>
<tr>
<td>Professional &amp; Business Services</td>
<td>40000</td>
<td>45000</td>
<td>50000</td>
<td>55000</td>
</tr>
<tr>
<td>Education &amp; Health</td>
<td>45000</td>
<td>50000</td>
<td>55000</td>
<td>60000</td>
</tr>
<tr>
<td>Leisure &amp; Hospitality</td>
<td>50000</td>
<td>55000</td>
<td>60000</td>
<td>65000</td>
</tr>
<tr>
<td>Other Services</td>
<td>55000</td>
<td>60000</td>
<td>65000</td>
<td>70000</td>
</tr>
<tr>
<td>Government</td>
<td>60000</td>
<td>65000</td>
<td>70000</td>
<td>75000</td>
</tr>
</tbody>
</table>
Nonfarm Job Growth, Tennessee and U.S.
Mfg Job Growth, Tennessee and U.S.

Percentage change, same quarter, last year

U.S.
Tennessee

91 92 93 94 95 96 97 98 99 00 01 02 03 04 05 06 07
Services Job Growth, Tennessee and U.S.

Percentage change, same quarter, last year

Tennessee
U.S.
Distribution of Nonfarm Jobs: 1990

United States

- Financial, Info, Prof & Bus Servs: 18.4%
- Mfg: 16.2%
- Const, Mining: 5.5%
- Other Services: 3.9%
- Leisure & Hospitality: 8.5%
- Educ & Health: 10.0%
- Trade, Trans, Util: 20.7%

Tennessee

- Mfg: 22.5%
- Financial, Info, Prof & Bus Servs: 14.7%
- Const, Mining: 4.6%
- Other Services: 2.6%
- Leisure & Hospitality: 8.2%
- Educ & Health: 9.5%
- Govt: 16.0%
- Trade, Trans, Util: 21.9%
Distribution of Nonfarm Jobs: 2005

United States
- Govt 16.3%
- Mfg 10.8%
- Const, Mining 5.8%
- Educ & Health 13.0%
- Financial, Info, Prof & Bus Servs 21.1%
- Trade, Trans, Util 19.3%
- Leisure & Hospitality 9.5%
- Other Services 4.1%

Tennessee
- Govt 15.1%
- Mfg 15.2%
- Const, Mining 4.6%
- Financial, Info, Prof & Bus Servs 18.3%
- Trade, Trans, Util 21.8%
- Educ & Health 11.9%
- Leisure & Hospitality 9.4%
- Other Services 3.8%
- Other Services 4.1%
Mfg Employment as a Percentage of Total Nonfarm Employment

1990

2004

Tennessee Manufacturing Jobs: 2005

Durables
- Wood
- Nonmetallic Minerals
- Primary Metals
- Fabricated Metals
- Machinery
- Computer & Electronics
- Electrical Equipment
- Transportation Equipment
- Furniture
- Miscellaneous durables

Nondurables
- Food
- Beverage & Tobacco
- Textile Mills
- Textile Mill Products
- Apparel
- Paper
- Printing
- Chemicals
- Plastics & Rubber
- Miscellaneous nondurables

Durables 62.1%
Nondurables 37.9%
Tennessee Manufacturing Jobs: 2005

**Durables**
- Trans Equip: 24.5%
- Fab Metals: 16.4%
- Wood: 6.9%
- Machinery: 13.4%
- Primary Metals: 4.8%
- Nonmetal Minerals: 6.3%
- Electrical Equip: 9.1%
- Furniture: 7.8%
- Misc.: 6.4%
- Computer, Electronics: 4.3%

**Nondurables**
- Food: 22.5%
- Chemicals: 17.4%
- Apparel: 5.4%
- Plastics, Rubber: 18.4%
- Printing: 12.2%
- Textile Mills: 4.1%
- Paper: 11.8%
- Beverage, Tobacco: 3.8%
- Textile Mill Prods: 2.6%
- Misc.: 1.9%
TN Durables & Nondurables Employment

Source: Bureau of Labor Statistics and CBER.
Mfg Employment as a Percentage of Total Nonfarm Employment: 1960 to 2004

TN Output Shares in Durables, Nondurables, Trade and Services

1997
- Financial, Info, Prof & Bus Servs: 26.5%
- Mfg: 16.2%
- TTU: 21.1%
- Leis & Hosp: 4.1%
- Other Services: 2.8%
- Ag, Const, Mining: 5.3%

2003
- Financial, Info, Prof & Bus Servs: 29.2%
- Mfg: 17.4%
- TTU: 20.7%
- Leis & Hosp: 4.1%
- Other Services: 2.7%
- Ag, Const, Mining: 4.8%

Source: Bureau of Economic Analysis
Mfg Establishments as a Share of Total Establishments

Source: County Business Patterns.
# Manufacturing in the Southeast: 2003

<table>
<thead>
<tr>
<th>State</th>
<th>Manufacturing employees</th>
<th>Establishments</th>
<th>Share of manufacturing establishments</th>
<th>Jobs per manufacturing establishment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
<td>279,074</td>
<td>4,980</td>
<td>5.0 percent</td>
<td>56</td>
</tr>
<tr>
<td>Arkansas</td>
<td>208,843</td>
<td>3,127</td>
<td>4.9 percent</td>
<td>67</td>
</tr>
<tr>
<td>Florida</td>
<td>369,754</td>
<td>14,750</td>
<td>3.2 percent</td>
<td>25</td>
</tr>
<tr>
<td>Georgia</td>
<td>449,486</td>
<td>8,652</td>
<td>4.1 percent</td>
<td>52</td>
</tr>
<tr>
<td>Kentucky</td>
<td>260,951</td>
<td>4,202</td>
<td>4.6 percent</td>
<td>62</td>
</tr>
<tr>
<td>Louisiana</td>
<td>149,603</td>
<td>3,459</td>
<td>3.4 percent</td>
<td>43</td>
</tr>
<tr>
<td>Mississippi</td>
<td>172,618</td>
<td>2,706</td>
<td>4.5 percent</td>
<td>64</td>
</tr>
<tr>
<td>North Carolina</td>
<td>591,566</td>
<td>10,527</td>
<td>5.1 percent</td>
<td>56</td>
</tr>
<tr>
<td>South Carolina</td>
<td>283,244</td>
<td>4,321</td>
<td>4.4 percent</td>
<td>66</td>
</tr>
<tr>
<td>Tennessee</td>
<td>393,832</td>
<td>6,824</td>
<td>5.3 percent</td>
<td>58</td>
</tr>
<tr>
<td>Virginia</td>
<td>308,571</td>
<td>5,841</td>
<td>3.2 percent</td>
<td>53</td>
</tr>
<tr>
<td>West Virginia</td>
<td>69,610</td>
<td>1,442</td>
<td>3.6 percent</td>
<td>48</td>
</tr>
<tr>
<td>United States</td>
<td>14,132,020</td>
<td>341,849</td>
<td>4.7 percent</td>
<td>41</td>
</tr>
</tbody>
</table>
# Mfg Establishments in Tennessee

<table>
<thead>
<tr>
<th>Sector</th>
<th>1998</th>
<th>2003</th>
<th>Change</th>
<th>Percent change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>7,376</td>
<td>6,824</td>
<td>-552</td>
<td>-7.5%</td>
</tr>
<tr>
<td>Food</td>
<td>359</td>
<td>364</td>
<td>5</td>
<td>1.4%</td>
</tr>
<tr>
<td>Beverage &amp; Tobacco Products</td>
<td>54</td>
<td>68</td>
<td>14</td>
<td>25.9%</td>
</tr>
<tr>
<td>Textile Mills</td>
<td>98</td>
<td>81</td>
<td>-17</td>
<td>-17.3%</td>
</tr>
<tr>
<td>Textile Product Mills</td>
<td>154</td>
<td>138</td>
<td>-16</td>
<td>-10.4%</td>
</tr>
<tr>
<td>Apparel</td>
<td>330</td>
<td>197</td>
<td>-133</td>
<td>-40.3%</td>
</tr>
<tr>
<td>Leather &amp; Allied Products</td>
<td>40</td>
<td>37</td>
<td>-3</td>
<td>-7.5%</td>
</tr>
<tr>
<td>Wood Products</td>
<td>636</td>
<td>590</td>
<td>-46</td>
<td>-7.2%</td>
</tr>
<tr>
<td>Paper</td>
<td>163</td>
<td>154</td>
<td>-9</td>
<td>-5.5%</td>
</tr>
<tr>
<td>Printing &amp; Related Support Activities</td>
<td>844</td>
<td>762</td>
<td>-82</td>
<td>-9.7%</td>
</tr>
<tr>
<td>Petroleum &amp; Coal Products</td>
<td>53</td>
<td>56</td>
<td>3</td>
<td>5.7%</td>
</tr>
<tr>
<td>Chemical</td>
<td>285</td>
<td>282</td>
<td>-3</td>
<td>-1.1%</td>
</tr>
<tr>
<td>Plastics &amp; Rubber Products</td>
<td>392</td>
<td>345</td>
<td>-47</td>
<td>-12.0%</td>
</tr>
<tr>
<td>Nonmetallic Mineral Products</td>
<td>378</td>
<td>376</td>
<td>-2</td>
<td>-0.5%</td>
</tr>
<tr>
<td>Primary Metals</td>
<td>143</td>
<td>135</td>
<td>-8</td>
<td>-5.6%</td>
</tr>
<tr>
<td>Fabricated Metal Products</td>
<td>1171</td>
<td>1158</td>
<td>-13</td>
<td>-1.1%</td>
</tr>
<tr>
<td>Machinery</td>
<td>558</td>
<td>504</td>
<td>-54</td>
<td>-9.7%</td>
</tr>
<tr>
<td>Computer &amp; Electronic Products</td>
<td>190</td>
<td>143</td>
<td>-47</td>
<td>-24.7%</td>
</tr>
<tr>
<td>Electrical Equipment, Appliance, &amp; Compor</td>
<td>147</td>
<td>140</td>
<td>-7</td>
<td>-4.8%</td>
</tr>
<tr>
<td>Transportation Equipment</td>
<td>316</td>
<td>310</td>
<td>-6</td>
<td>-1.9%</td>
</tr>
<tr>
<td>Furniture &amp; Related Products</td>
<td>552</td>
<td>450</td>
<td>-102</td>
<td>-18.5%</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>513</td>
<td>534</td>
<td>21</td>
<td>4.1%</td>
</tr>
</tbody>
</table>
Manufacturing Establishments per County, 2003

Source: U.S. Census Bureau, County Business Patterns.
Average Employment per Manufacturing Establishment, 2003

Source: U.S. Census Bureau, County Business Patterns.
Manufacturing Employment as a Percentage of Total Private Employment, 2003

State average = 18.6%

- Not disclosed
- Less than or equal to 18.6%
- 18.6% to 40.0%
- Greater than 40.0%
Educational Attainment of Persons 25 Years and Older: Percent with Less than a 9th Grade Education, 2000

TN Average = 9.6%  
U.S. Average = 7.5%

Less than 9.6%  
9.6% to 16%  
Greater than 16%
Projected Growth in TN Mfg Jobs: Nondurables

Source: CBER.
Projected Growth in TN Mfg Jobs: Durables

Source: CBER.
Center for Business and Economic Research

Web address: http://cber.bus.utk.edu