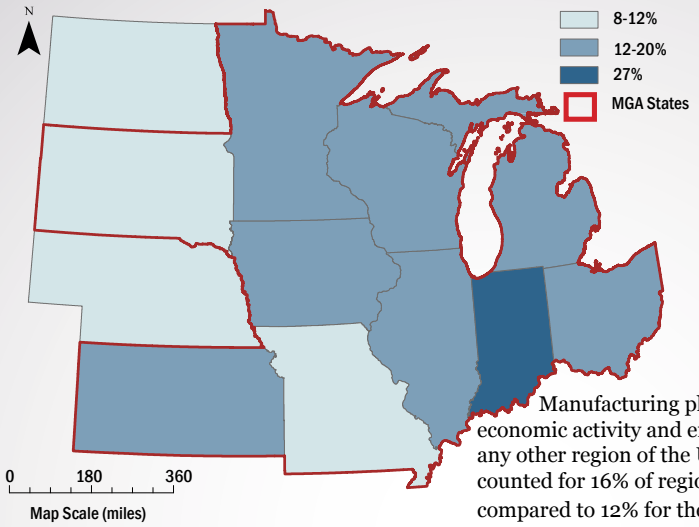
MIDWEST REGION
Manufacturing Summary

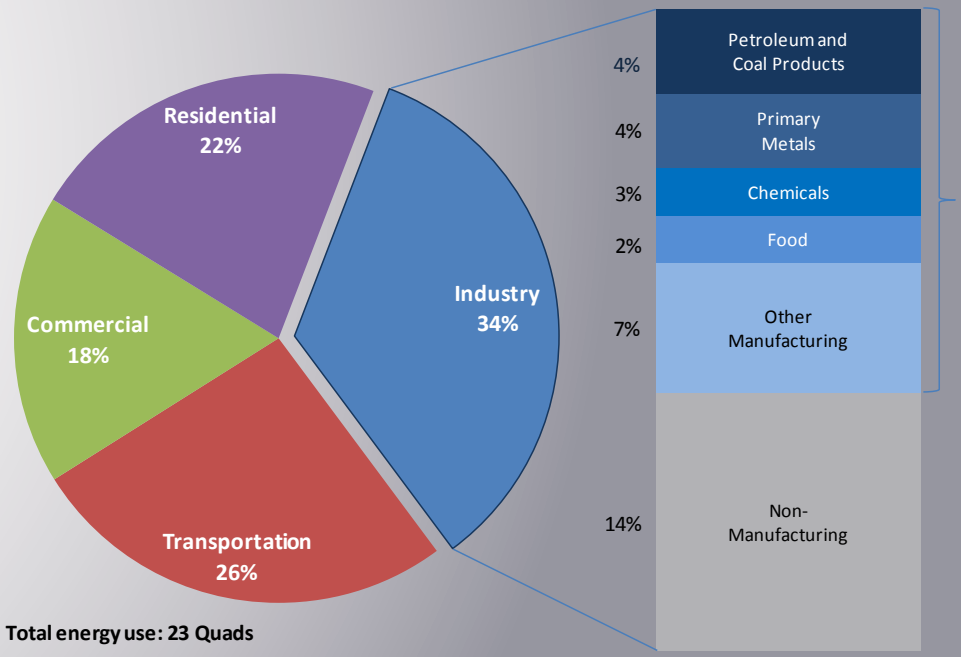
MANUFACTURING SHARE OF STATE GDP, 2010



Manufacturing plays a larger role in the economic activity and employment of the Midwest than any other region of the U.S. Midwest manufacturing accounted for 16% of regional GDP in 2010, compared to 12% for the U.S. overall.

Manufacturing plays a central role in the economy and energy system of the U.S. Midwest. Declining jobs and volatile energy expenditures have spurred discussions on the future of Midwest manufacturing and the role of public policy in facilitating renewed investment and economic development. This handout summarizes state and regional data on the status of Midwest manufacturing to help inform policy makers, practitioners, and industry stakeholders. This fact sheet is an initial product in the World Resources Institute's ongoing investigation of industry energy efficiency opportunities in the Midwest.

MIDWEST TOTAL ENERGY USE, 2006

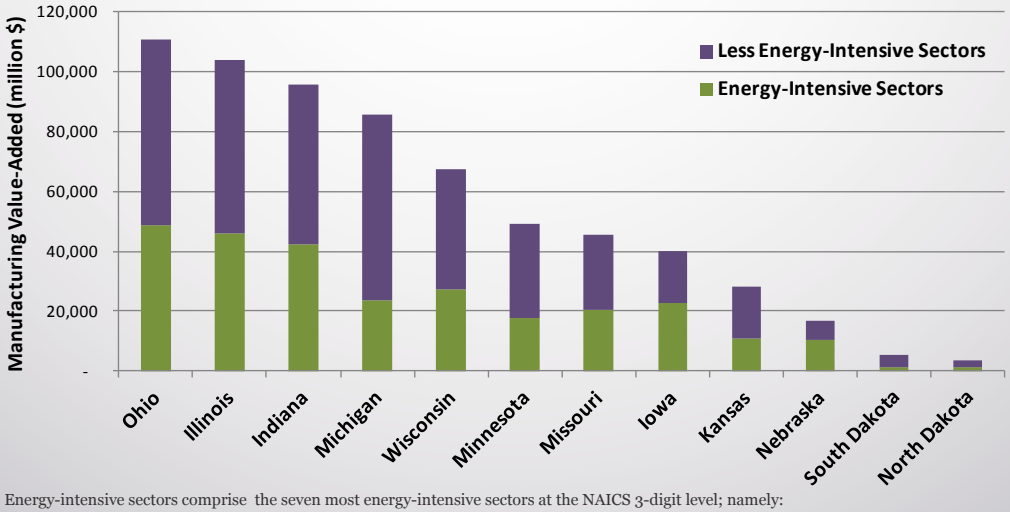


Total energy use: 23 Quads

Industry is the largest energy-using sector in the Midwest, followed by the transportation, residential, and commercial sectors. Manufacturing accounted for 60% of 2006 industrial sector fuel and feedstock energy use in the Midwest. The four manufacturing sectors that consumed the most energy were petroleum and coal products, primary metals, chemicals, and food processing.

MIDWEST VALUE-ADDED OF MANUFACTURING, 2010

Value added is a measure of economic activity. The Midwest census region accounted for 30% of U.S. manufacturing value-added in 2010, compared to 22% of total population. Within the region, Ohio had the highest level of manufacturing activity in 2010. Energy-intensive sectors are of varying importance among Midwestern states, as illustrated by the varying green portions in the bar chart below.



Energy-intensive sectors comprise the seven most energy-intensive sectors at the NAICS 3-digit level; namely: primary metals, petroleum & coal products, chemicals, food, non-metallic minerals, paper, and wood products.

Sources: Regional map data are from the U.S. Bureau of Economic Analysis; value-added data are from the U.S. Census Bureau Annual Survey of Manufacturers (ASM); energy use data are from the EIA State Energy Data System, the ASM, and the Manufacturing Energy Consumption Survey.

For more information on manufacturing energy use, contact James Bradbury (jbradbury@wri.org) or Nate Aden (naden@wri.org).

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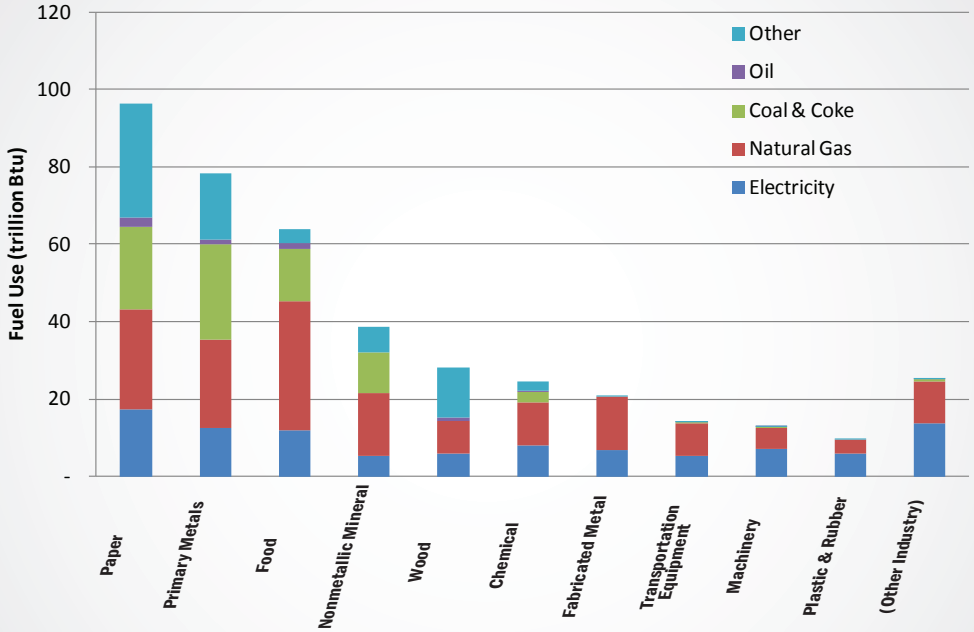
Manufacturing Summary
WISCONSIN

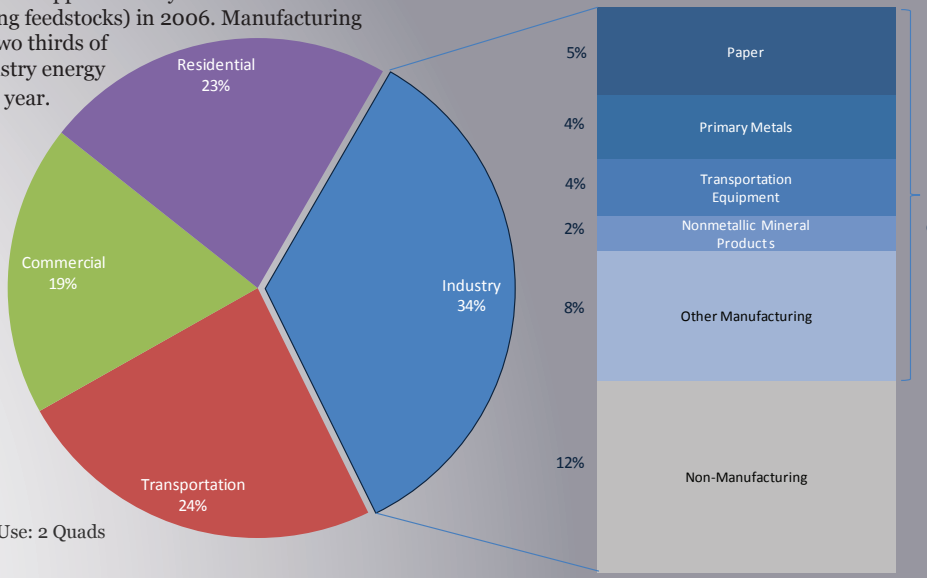
FUEL USE BY WISCONSIN MANUFACTURING, 2006

In 2006 Wisconsin manufacturing consumed 410 trillion Btu of fuel. Natural gas was the most-consumed fuel for manufacturing. Paper and primary metals manufacturing sectors accounted for 42% of Wisconsin manufacturing fuel use in 2006.



WISCONSIN TOTAL ENERGY USE, 2006

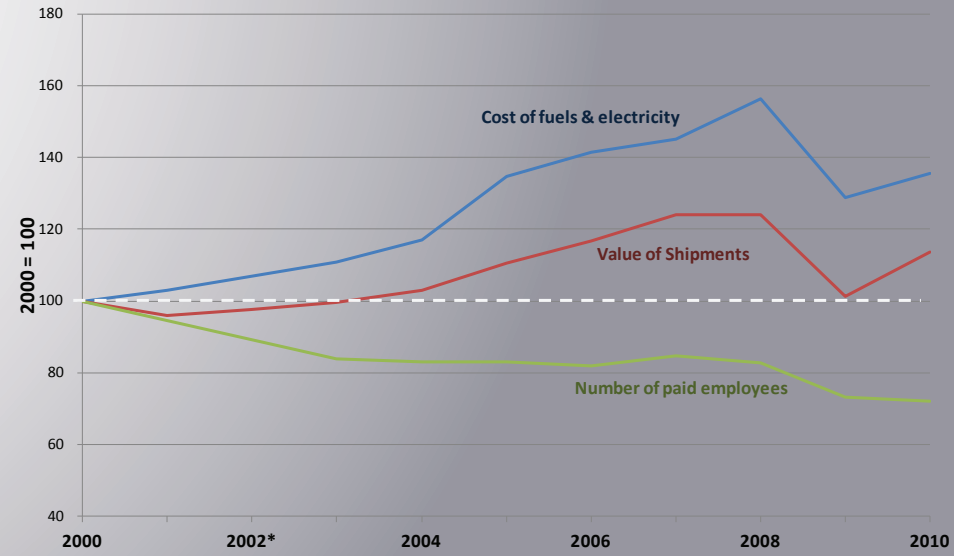
Industry consumed approximately one third of Wisconsin energy (including feedstocks) in 2006. Manufacturing accounted for two thirds of Wisconsin industry energy use in the same year.



Total Energy Use: 2 Quads

INDEX OF MANUFACTURING ENERGY COST, VALUE OF SHIPMENTS, AND EMPLOYMENT (2000-2010)

Manufacturing energy expenditures have followed a national trend of peaking in 2008. Between 2000 and 2010, the cost of fuels and electricity increased 35% while total value of shipments for manufacturing grew 14%. Over the same period, Wisconsin manufacturing employment dropped by 28%--from 570,000 to 410,000.



* 2002 values were linearly interpolated due to a lacuna in the published data.

Note: cost & value data are nominal.

INDUSTRY PURCHASED ENERGY PRICES (2009, 2010)

Energy prices influence demand and end-use efficiency. Energy is relatively expensive in Wisconsin--delivered natural gas and coal prices were 41% and 22% higher than the national average, and electricity was slightly more expensive than the national and regional average. Prices vary by end-user and time of use.

	Electricity (cents/kWh)	Natural Gas ($/ 1,000 ft^3)	Coal ($/short ton)
Wisconsin	6.85	7.61	79.21
Midwest Average	6.19	6.45	57.51
U.S. Average	6.77	5.39	64.87

Sources: Industrial energy price data are from the EIA (2010 data for electricity and natural gas; 2009 data for delivered coal); energy and fuel use data were estimated based on data from the EIA State Energy Data System, the Manufacturing Energy Consumption Survey, and the U.S. Census Bureau Annual Survey of Manufacturers (ASM); index time series data are from the ASM.

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