Iron & Steel in Ohio

Ohio's Standing

- 13.1 percent of the value added by the U.S. iron and steel industry originated in Ohio. That makes the state the 3rd largest overall source for iron and steel products at $7.16 billion according to the Census Bureau.

- Every part of the iron and steel industry is concentrated in Ohio. Ohio ranks 1st with 59.4 percent of national ferroalloy production. (Ferroalloys are elements mixed with molten iron or added by electrolytic deposition.) It also ranks 1st in products made from purchased steel such as pipes, tubes, rolled steel shapes as well as the output of steel investment foundries (i.e., those using the lost wax technique); the corresponding percentages of national output ranged from 19.4 to 25.7.

- Ohio ranked 2nd in manufacturing iron and steel mill products with 11.9 percent of national output. The $4.33 billion of value added included finished and semi-finished products made at the same mills where the raw iron and steel was produced. Ohio ranked 4th in other steel and iron foundry output – each at 8.3 percent – and 4th in steel wire drawing at 5.1 percent.

The Variety of Production in Ohio

- 60.5 percent of iron and steel production in Ohio came from iron and steel mills, with an additional 4.8 percent from electrometallurgical and ferroalloy preparation.

- 17.8 percent of steel products manufactured in Ohio were made from purchased steel (i.e., not at a mill producing raw iron or steel); 12.1 percent were pipes and tubes, and 5.7 percent were drawn wire and various rolled shapes.

- 16.8 percent of iron and steel output in Ohio came from foundries: 6.9 percent from iron foundries, 9.9 percent from steel foundries. (Foundry products are more intricate: iron products have a carbon content of less than 5 percent; steel products have a carbon content less than 1.7 percent.)

- Iron and steel products eventually become part of other goods from tin cans to boilers, nuts and bolts, bridges, buildings, hand tools, machinery, electrical and transportation equipment, pipelines, furniture, etc. – much of which also is concentrated in Ohio.

Raw Steel Production

- 9.54 million tons for raw steel – the core of industry production – were poured in Ohio in 2010. This was 10.7 percent of U.S. output and a substantial recovery from the recession low in 2009.

- Normal annual output in recent years has been around 14 million tons, about one-seventh of the national total.
Employment

Employment by Group

- 23,394 people were employed in Ohio’s iron and steel industry during 2010. 9,567 worked in iron and steel and ferroalloy production, with 9,007 – 38.5 percent – in iron and steel mills.

- 7,445 were manufacturing steel products from purchased steel. 2,962 – 12.7 percent – were making pipes and tubes, while 3,949 – 16.9 percent – were rolling steel shapes.

- 6,382 worked in foundries; 4,267 – 19.1 percent – worked with iron, while the remaining 1,915 (8.2 percent) worked with steel.

Employment Trends

- Employment in the iron and steel industry plunged from 44,400 to 23,400 in the last decade. The loss of 21,000 jobs is a decline of 47.3 percent.

- Jobs losses occurred in all three groups: iron, steel and ferroalloy production (3311) – 8,900 jobs, -48.3 percent; steel products from purchased steel (3312) – 4,800 jobs, -39.0 percent; ferrous foundries (33151) – 7,400 jobs, -53.5 percent.

- The loss of jobs was not constant, but appears to have been episodic. After falling by 11,300 early in the decade, employment from 2004 through 2007 was little changed. This is true of each industry group. Industry employment overall fell by 8,900 with the recession of 2008-2009, again with jobs losses occurring in each group (as happened in 2001 to 2004).

- The addition of about 800 jobs in the iron and steel and steel products groups (3311 and 3312) during 2010 was offset by the loss of approximately 900 foundry jobs.

The Current Employment Situation

- Iron, steel and ferroalloy (3311) employment has risen from 7,900 at the depth of the recession in the 3rd quarter of 2009 to 9,900 one year later, an increase of 2,000 jobs. Employment in subsequent quarters has held steady at 9,400.

Source: U.S. BLS-QCEW, 2011

Source: U.S. BLS-QCEW; P – Preliminary.

Source: U.S. BLS-CES, 2011
Companies and Investments

Companies

- Some of the largest iron and steel industry companies operating in Ohio include AK Steel, ArcelorMittal, Charter Manufacturing, Columbus Steel Castings, General Motors’ Defiance Foundry, McWane, Nucor Steel, the Renco Group, Republic Engineered Products, Thomas Strip Steel, Timken, U.S. Steel, and V&M Star. Many of these companies have multiple locations around the state.

Capital Expenditures

- Annual investment in Ohio’s iron, steel, ferroalloys and steel products groups combined (3311 plus 3312) ranged from $166 million to $468 million for land, buildings and/or equipment during the 2001-2009 period; this ranged from 4.8 to 20.9 percent of the corresponding national total. In highly cyclical industries like these, capital expenditures tend to be largest late in the expansion and least in recession or just afterwards.

- On average, a little more than $3 went to the iron-steel-ferroalloys group for every $1 that to the steel-products-from-purchased steel group.

- Ohio’s portion of such capital expenditures, which averaged 12.1 percent for 2001-2009, is a little less than the corresponding 13.1 percent of value added in the state during the same time.

- The latest economic census data recorded $119 million in capital expenditures for ferrous foundries here – 11.5 percent of the national total; this is nearly proportional with Ohio’s 11.4 percent of value added.

Major Projects

- 10 companies announced major investments* for iron, steel and related foundry production in Ohio during the last two years. The companies intended to invest $826.8 million and create 593 new jobs.

- Five projects valued at $799.3 million targeted iron and steel mill production and anticipated adding 430 jobs; three projects worth $23.8 million focused on pipes, tubes and wire, and planned adding 148 jobs; the two foundry projects intended 15 new jobs with $3.7 million.

- V&M Star Steel’s 2009 announcement of a $650 million investment in Youngstown was the largest of the last two years (and the last decade), and anticipated adding 350 new jobs when completed. It was followed by U.S. Steel’s $93.6 million at its Lorain tube facility, which intended adding 80 new jobs. Timken planned a $50 million investment at its Gambrinus plant in Canton.

The Six Investments Announced in 2010

<table>
<thead>
<tr>
<th>Company</th>
<th>Dollars (millions)</th>
<th>Anticipated Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. Steel (Lorain)</td>
<td>$93.6</td>
<td>80</td>
</tr>
<tr>
<td>Timken (Gambrinus)</td>
<td>$50.0</td>
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<tr>
<td>JMC Steel (Wheatland)</td>
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<tr>
<td>Ultra Premium Oilfield Srvcs.</td>
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<td>N. Star Blue Scope Steel</td>
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<tr>
<td>Spectrum Machine</td>
<td>$1.2</td>
<td>15</td>
</tr>
</tbody>
</table>

n.a. – not available

Source: Ohio Dept. of Development

* - A major investment involves at least $1 million, 50 new jobs, or an addition of 20,000 square feet. Such projects often are phased-in over several years, and are not comparable with annual capital expenditures.
Ohio Steel Industry
Large Establishments and Employment by County*
Ohio Total: 25,183

*County figures are estimates and will not sum to the Ohio total

Sources: 2009 County Business Patterns, U.S. Census Bureau and Hoover’s online subscription
Prepared by: Policy Research and Strategic Planning, Ohio Department of Development (September 2011)