

Energy for Manufacturing Roundtable
International Trade Administration
U.S. Department of Commerce

Energy Consumption in the Manufacturing Sector, a Brief Analysis

Stephanie J. Battles
Office of Energy Markets and End Use
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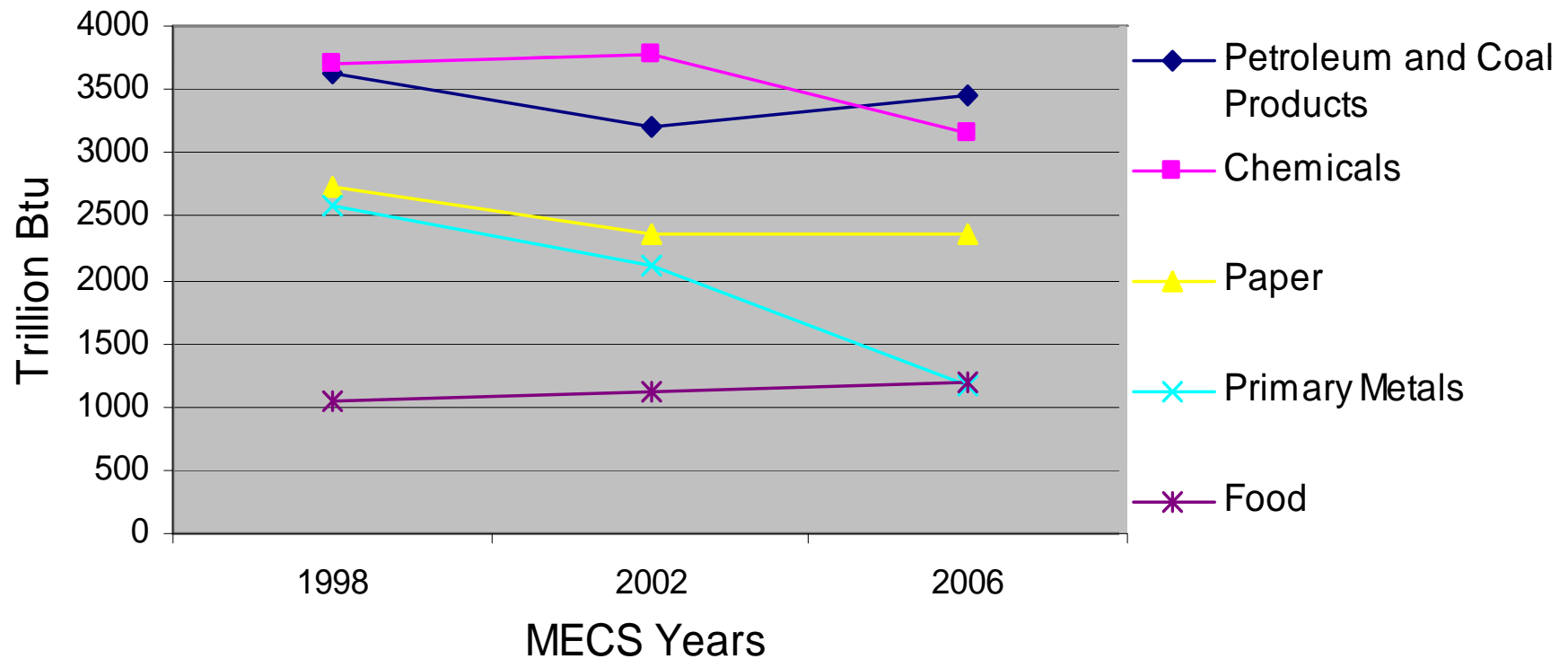
Manufacturing Energy Consumption Survey

- Sample survey fielded every 4 years
- Mandatory by federal law
- Designed and sponsored by EIA; the U.S. Census Bureau conducts the data collection
- By Using Census Bureau, data are confidential by Title 13 of the U.S. Code
- Statistical sample from list frame (15,500 sample cases in 2002 and 2006)



Energy Used by the 5 Largest Energy-Using Industries

Fuel Consumption in Primary Metals Declines by 33 Percent

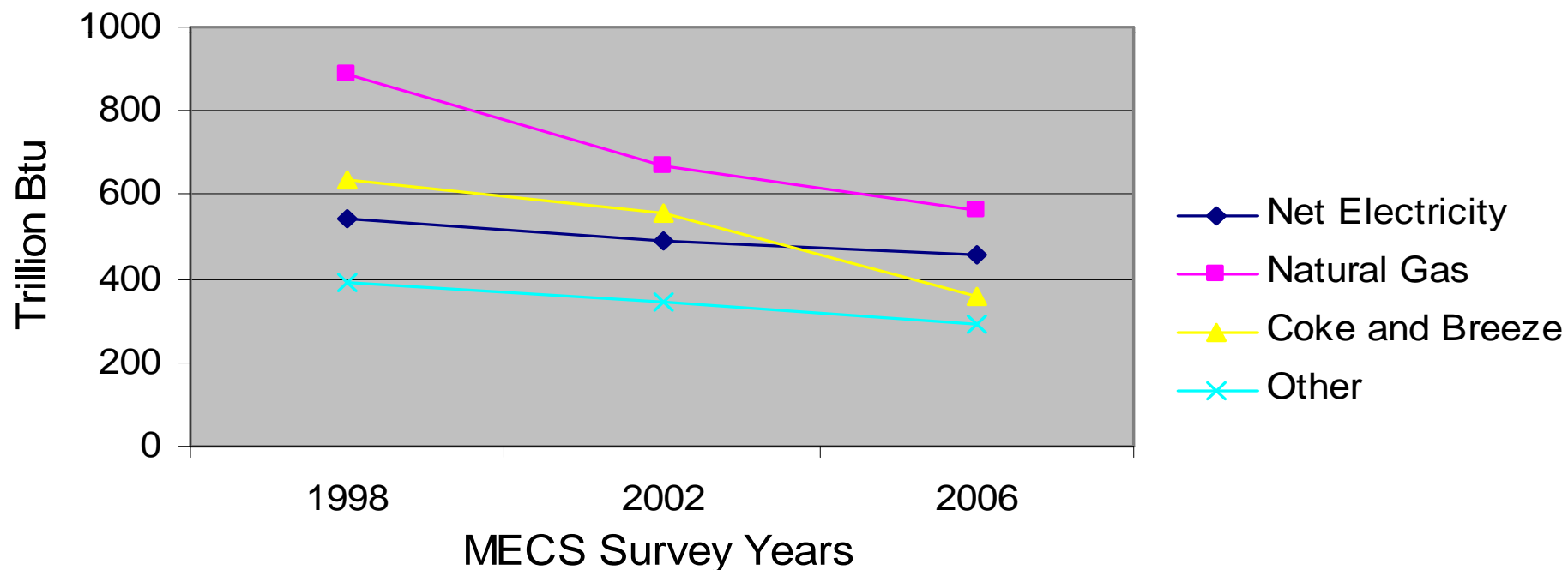


Sources: Energy Information Administration: 1998, 2002, and 2006 Manufacturing Energy Consumption Surveys.



Major Sources of Energy Used by the Primary Metals Industry

More than 50 Percent of Energy Used is Natural Gas and Coke and Breeze



Sources: Energy Information Administration: 1998, 2002, and 2006 Manufacturing Energy Consumption Surveys.



Alumina and Aluminum and the Iron and Steel Industry Accounts for over 80% of the Primary Metals Energy Use

Fuel Use, Trillion Btu

	1998	2002	2006
Alumina and Aluminum	441	351	273
Iron and Steel Mills	1,672	1,455	1,125

Intensity of Fuel Use, Btu per 2000 Dollar Value of Shipment

	1998	2002	2006
Alumina and Aluminum	13,065	11,418	8,342
Iron and Steel Mills	32,177	30,176	18,468

Sources: EIA, Manufacturing Energy Consumption Surveys,

U.S. Department of Commerce, Bureau of Economic Analysis, Value of Shipments and Price Indexes by Detailed Industry



Examples of Factors to Consider in Energy-Efficiency Analysis when the Focus is on Energy Intensities

- Do you use physical or economic demand indicators?
- Do you use units of energy or expenditures?
- What adjustments are needed such as adjustments for inventories or capacity?
- How do you account for structural and behavioral effects such as fuel switching?
- How do you account for changes in product mix?
- How do you account for technology changes?

