

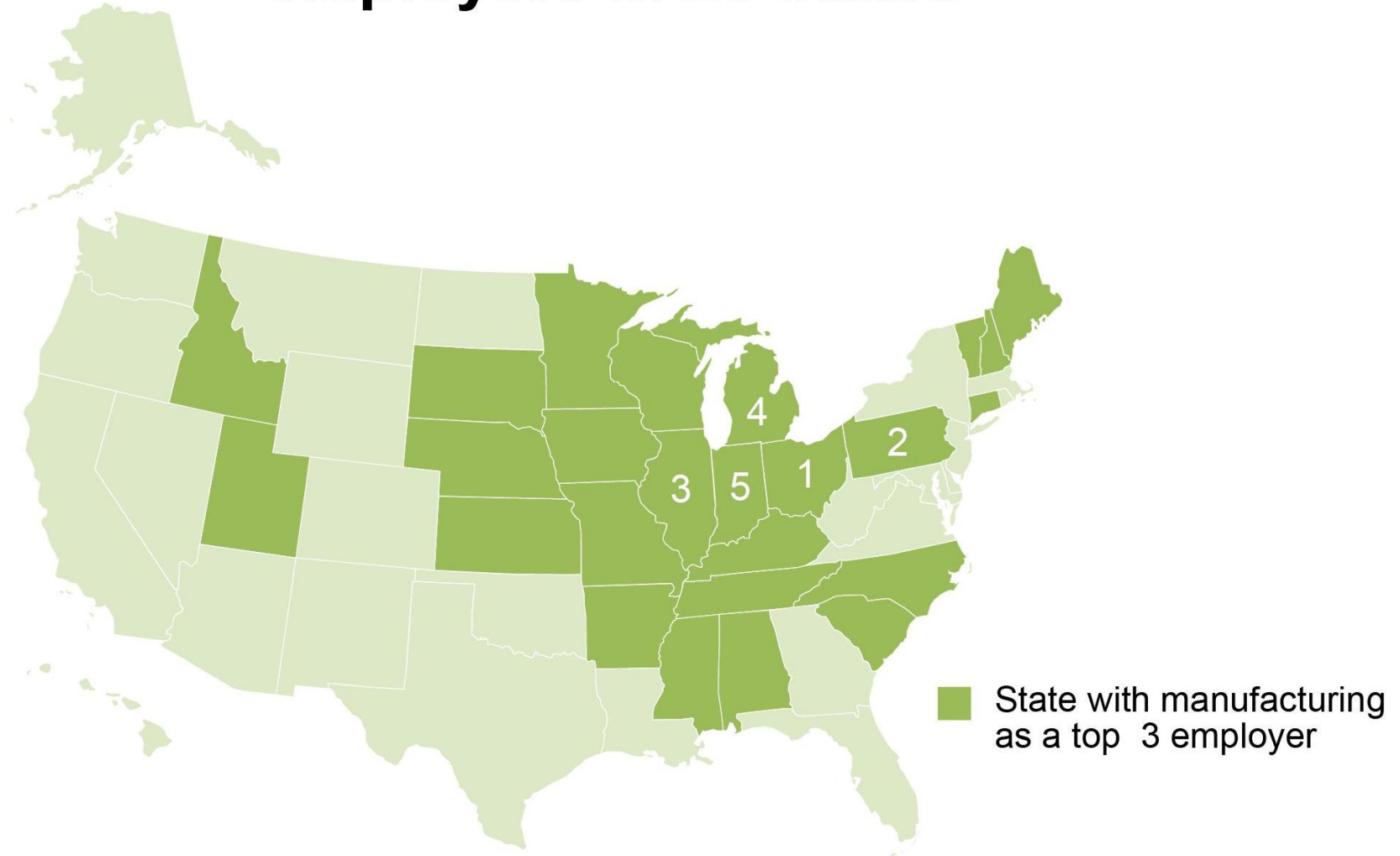
What is Manufacturing?

Manufacturing – Mechanical, physical, or chemical transformation of materials, substances or components into new products.

Importance of Manufacturing

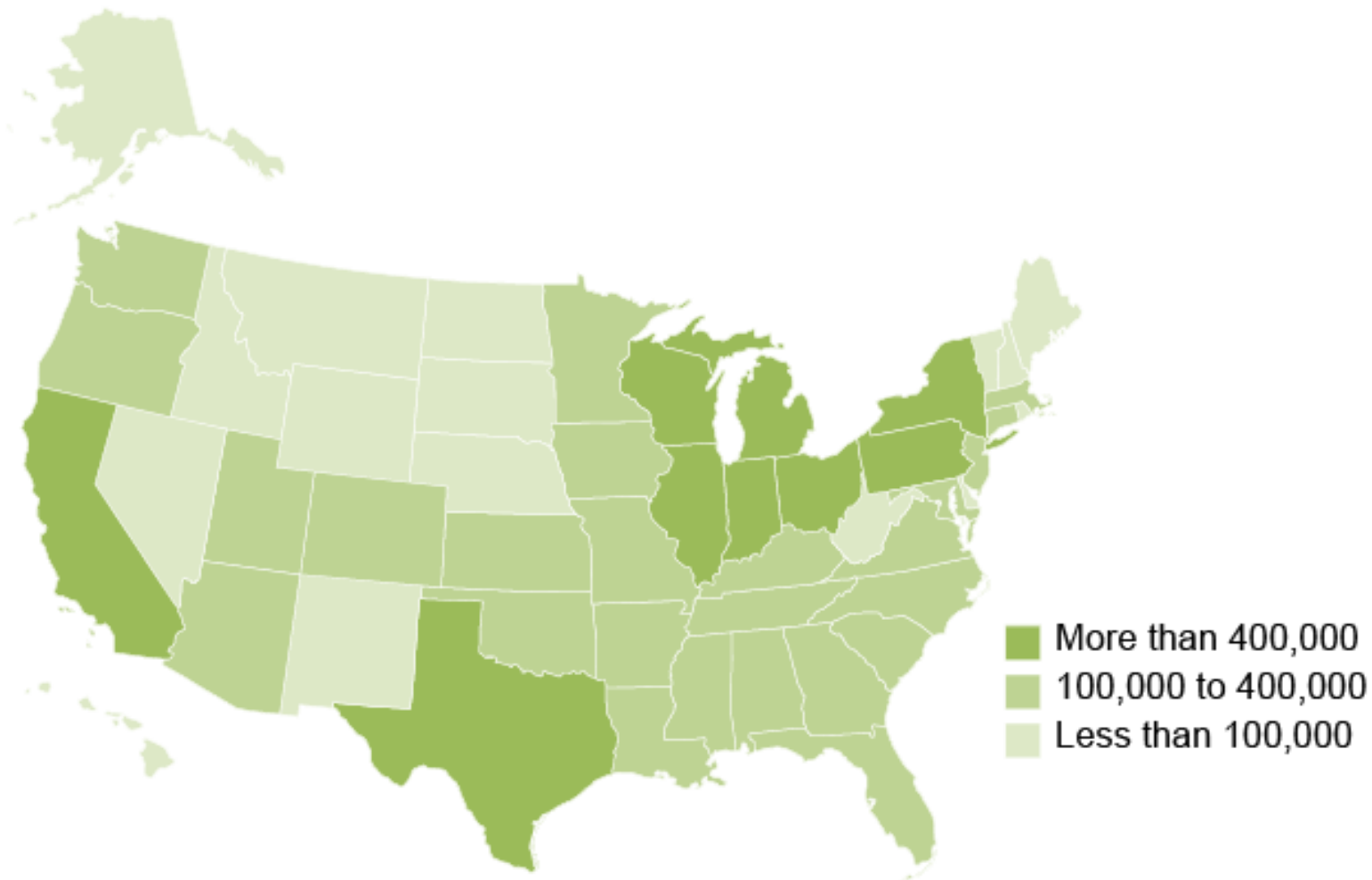
- U. S. is the world's largest manufacturing country, producing approximately **21 %** of the world's manufactured goods. **Source: United Nations, 2009.**
- Manufacturing comprises **11.7 %** of GDP. **Source: US Bureau of Economic Analysis.**
- Manufacturing comprises **9.0 %** of total U.S. employment, directly employing **10.9 million** workers. **Source: US Census Bureau**
- **70 %** of all business Research & Development in the U.S. is done by manufacturing companies. **Source: National Science Foundation**

Manufacturing is one of the top 3 employers in 25 states



Source: 2010 County Business Patterns

Manufacturing Employees by State



Source: 2010 County Business Patterns

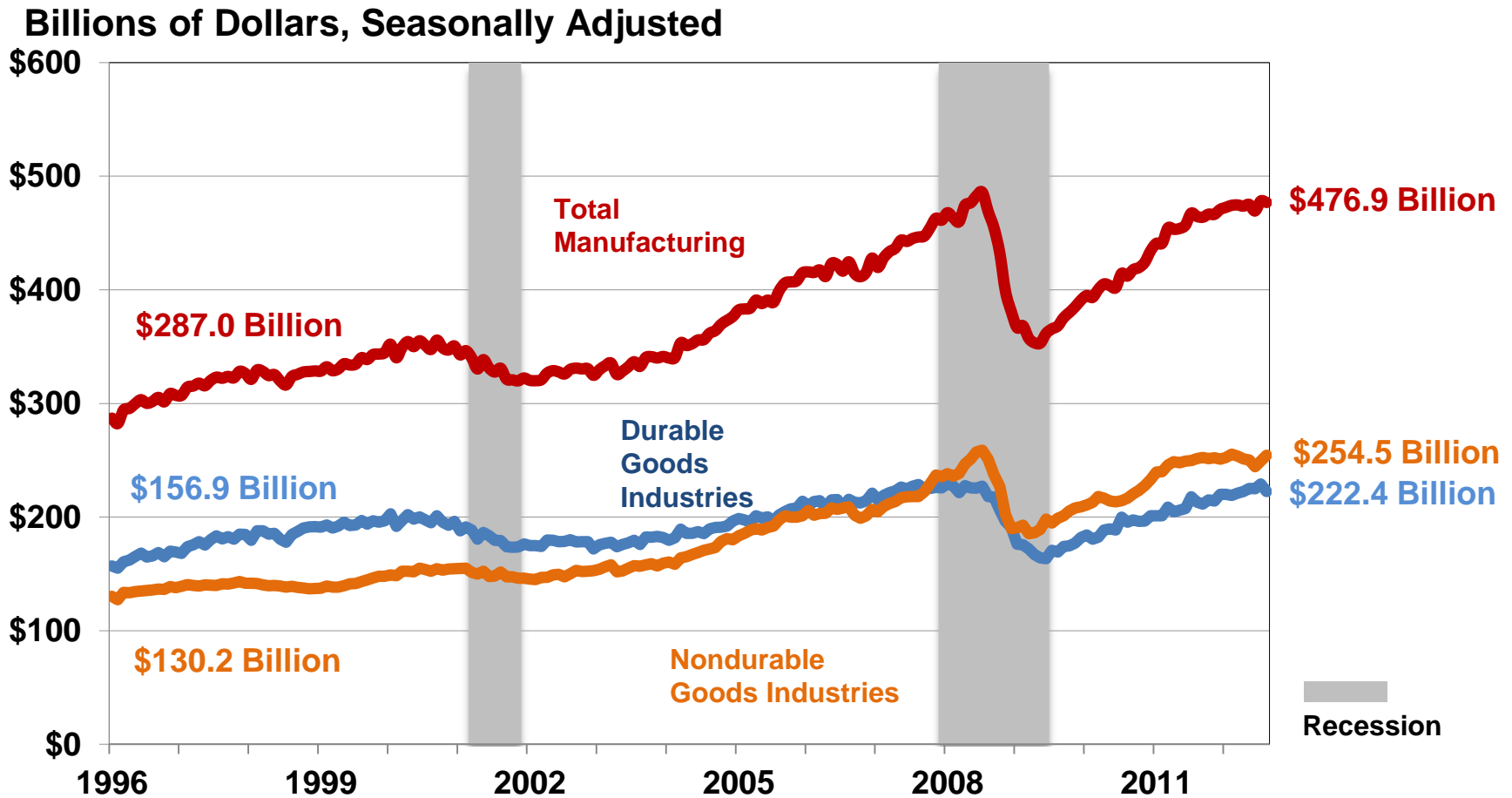
Types of Manufacturing

- **15% Transportation Equipment**
 - Automobile manufacturers
 - Aircraft manufacturers
- **7% Machinery**
 - Construction Machinery
 - Farm Machinery
- **13% Food Products**
 - Grain Milling
 - Meat, poultry and seafood production
- **14% Petroleum and Coal Products**
 - Petroleum Refineries
 - Asphalt Plants

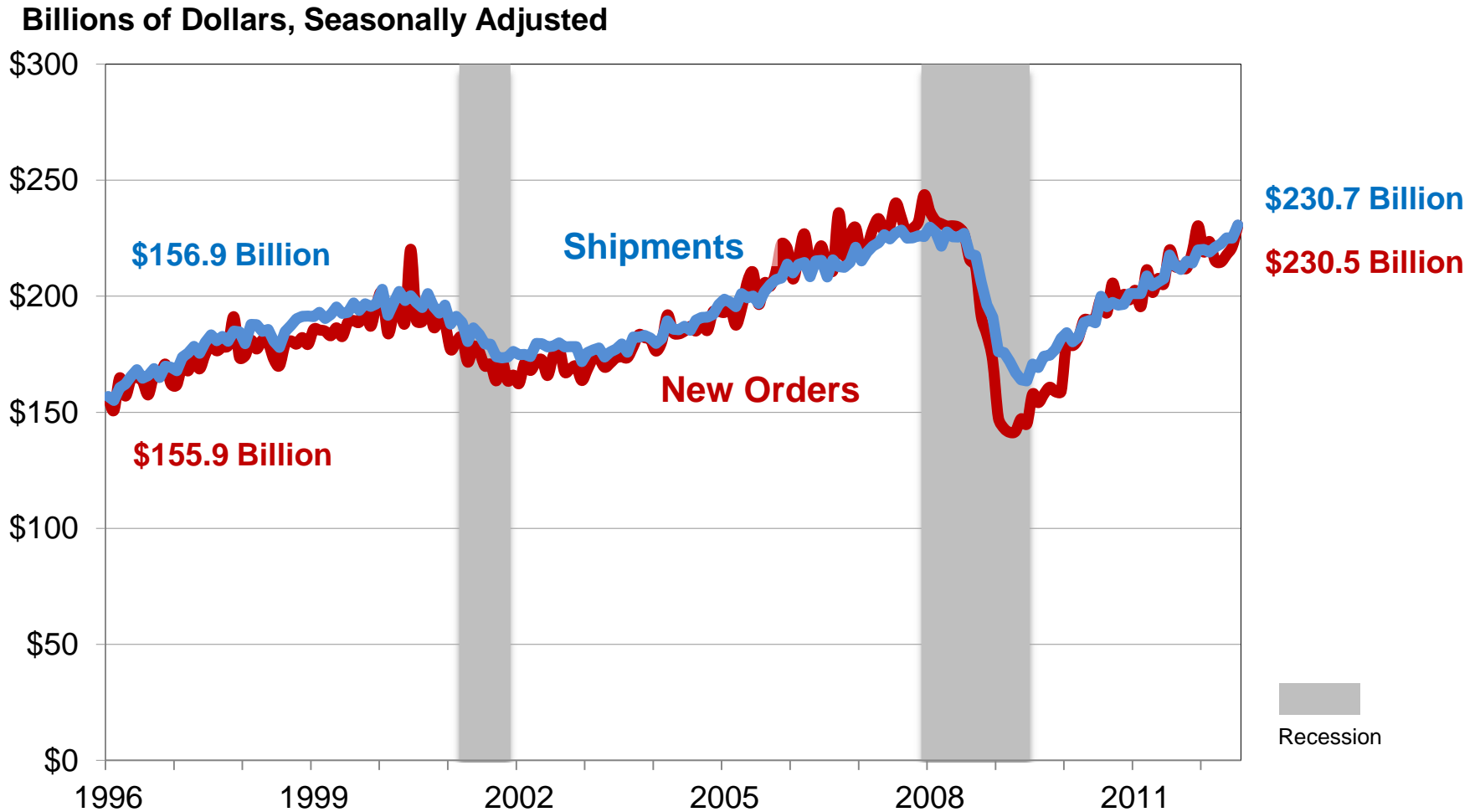
Types of Manufactured Goods

- **Durable Goods – Hard Goods:** Goods that generally last 3 years or longer.
 - Examples: **Automobiles, jewelry, tractors**
- **Non-Durable Goods – Soft Goods or consumables:** Goods that are used immediately or consumed in less than 3 years.
 - Examples: **Gasoline, food, beverages.**

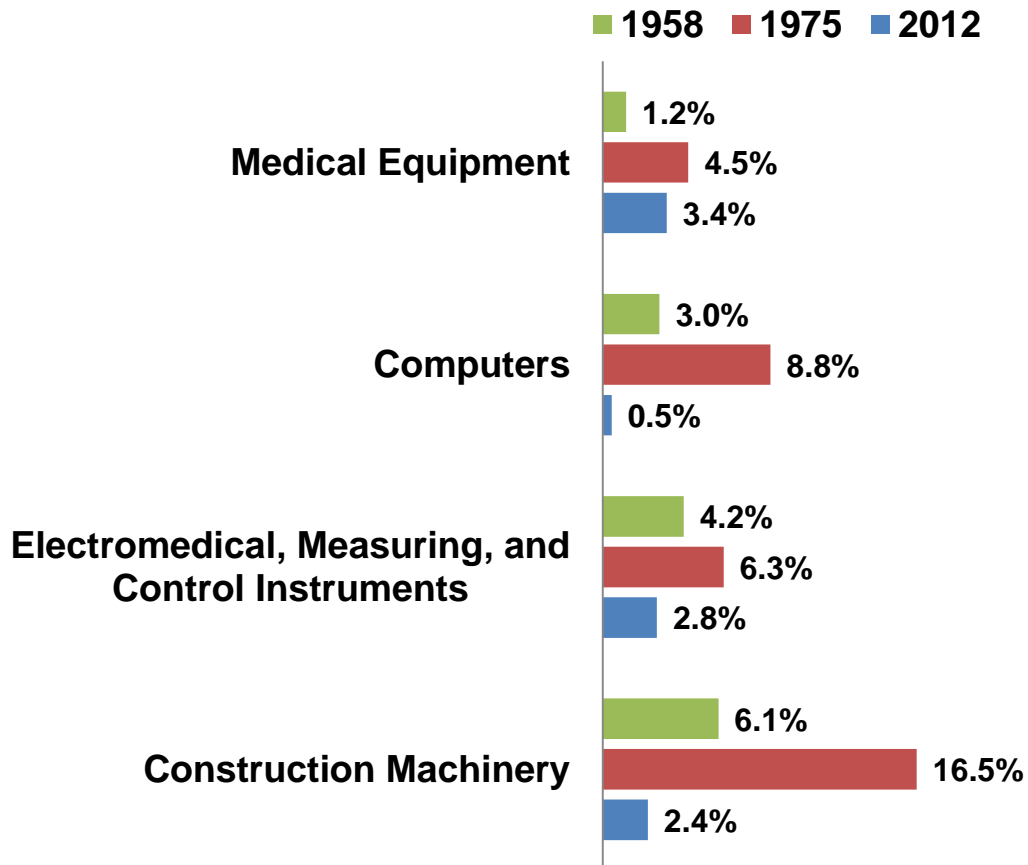
Value of Shipments of Manufacturing Industries: January 1996 - August 2012



Shipments and New Orders of Durable Goods: January 1996 - July 2012

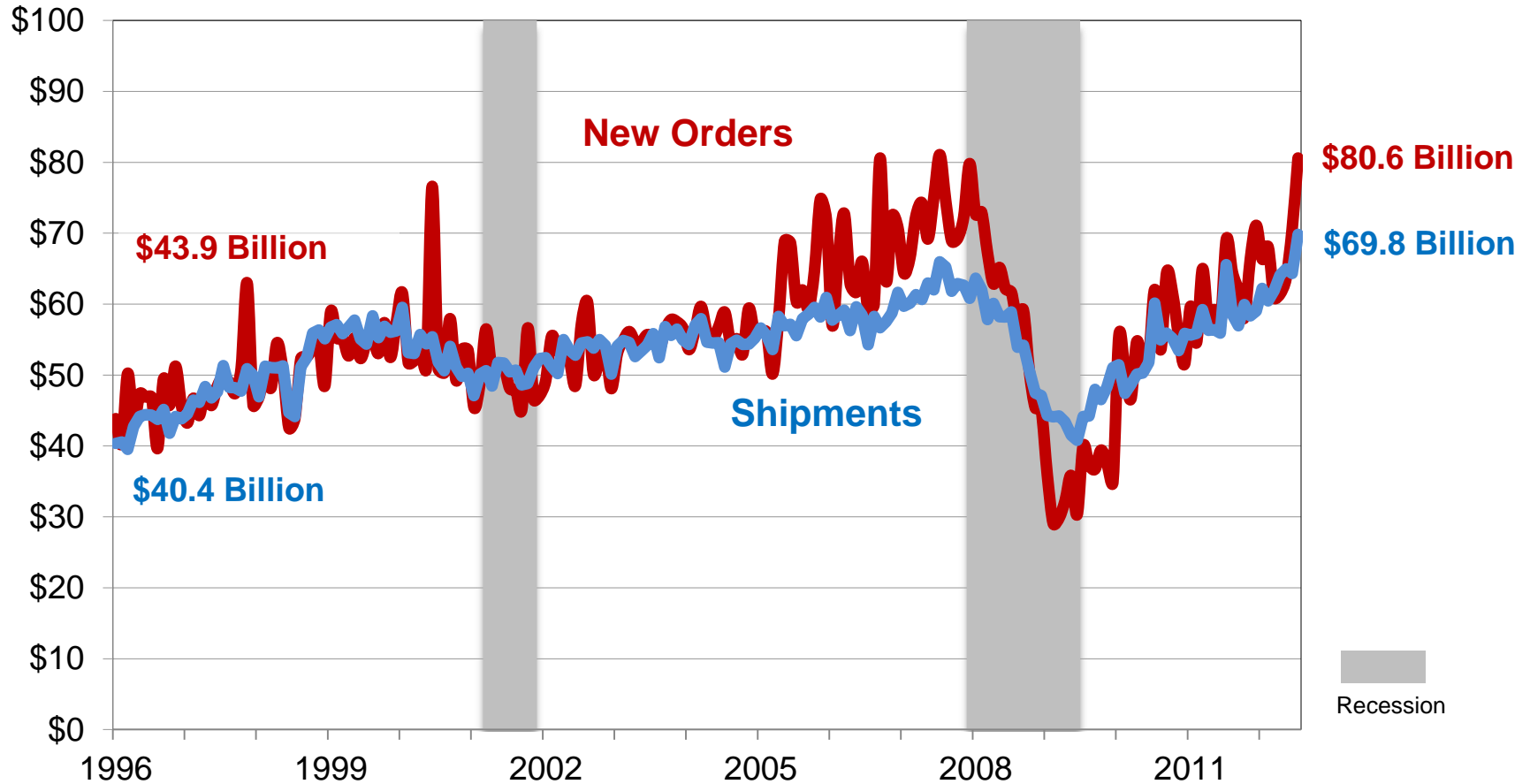


Historical Percentage of Shipments of Select Durable Goods: July 2012

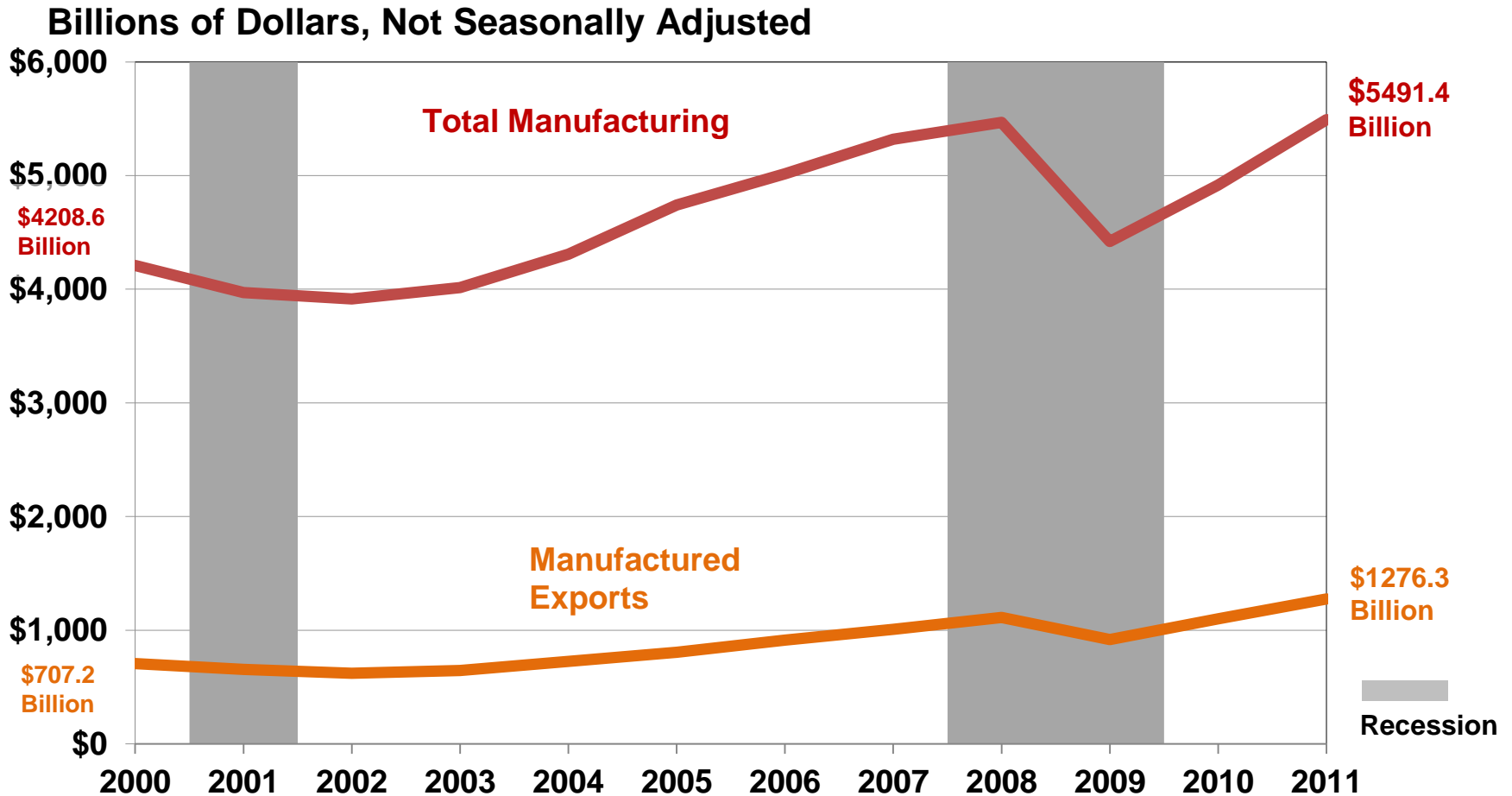


Shipments and New Orders of Transportation Equipment: January 1996 – July 2012

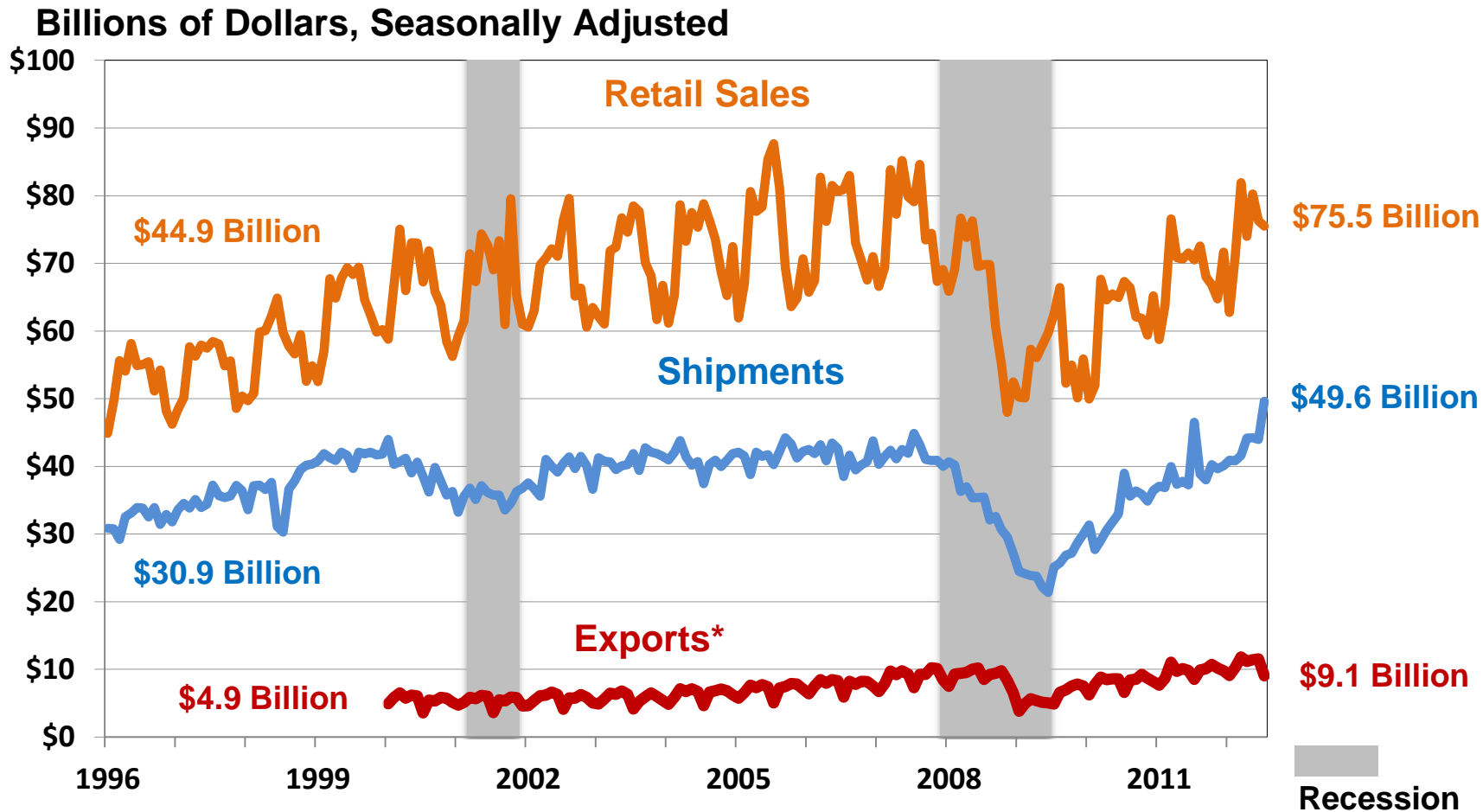
Billions of Dollars, Seasonally Adjusted



Shipments and Exports, U.S. Manufacturing: 2000 – 2011



Sales, Shipments, and Exports of Motor Vehicle and Parts: January 1996 - July 2012



Source: U.S. Census Bureau, Manufacturers' Shipments, Inventories, and Orders Survey, 1996-2012
 U.S. Census Bureau, Monthly Retail Trade Survey, 1996 -2012
 *U.S. Census Bureau, Foreign Trade Division, U.S. Trade 2000 – 2012. Export data not seasonally adjusted.

Average Annual Payroll per Employee by sector, 2010 (dollars)



Total employment by sector, 2010 (in millions)

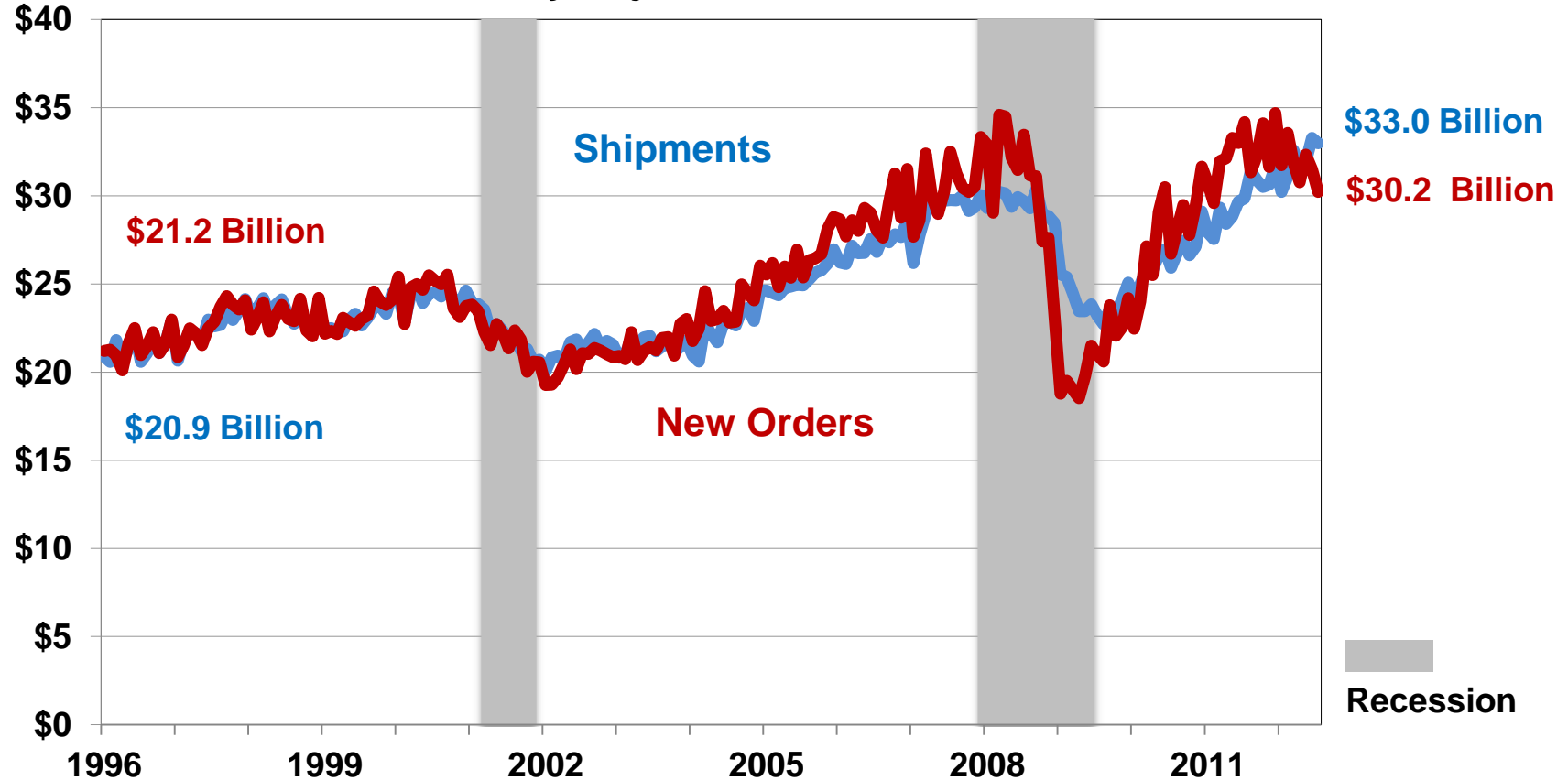


Examples of Machinery

- **Construction equipment:** Bulldozers, Backhoes, Road Graders
- **Industrial Machinery:** Used to produce products such as, textiles, semiconductors, plastics, rubber and food processing.
- **Material Handling equipment:** Elevators, Moving stairways, Conveyors, Stacker Machinery
- **Farm Machinery:** Tractors, Combines, Plows

Shipments and New Orders of Machinery: January 1996 – July 2012

Billions of Dollars, Seasonally Adjusted



Shipments and Exports of Machinery: January 1996 – July 2012

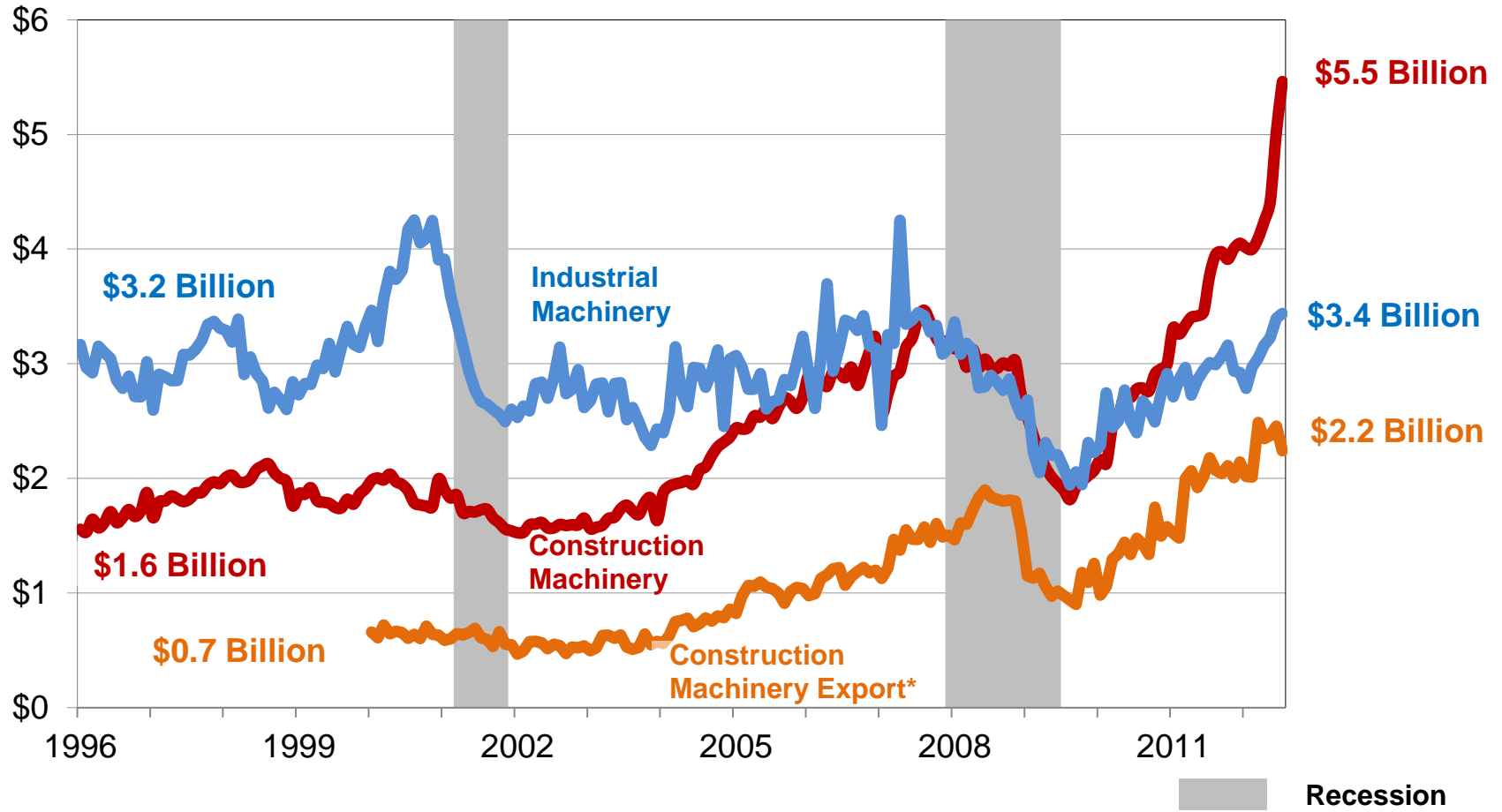
Billions of Dollars, Seasonally Adjusted



Source: U.S. Census Bureau, Manufacturers' Shipments, Inventories, and Orders Survey, 1996-2012
 U.S. Census Bureau, Monthly Retail Trade Survey, 1996 -2012
 *U.S. Census Bureau, Foreign Trade Division, U.S. Trade 2000 – 2012. Export data not seasonally adjusted.

Comparison of Shipments and Exports of Construction Machinery to Shipments of Industrial Machinery: January 1996 – July 2012

Billions of Dollars, Seasonally Adjusted



Source: U.S. Census Bureau, Manufacturers' Shipments, Inventories, and Orders Survey, 1996-2012
 U.S. Census Bureau, Monthly Retail Trade Survey, 1996 -2012
 *U.S. Census Bureau, Foreign Trade Division, U.S. Trade 2000 – 2012. Export data not seasonally adjusted.

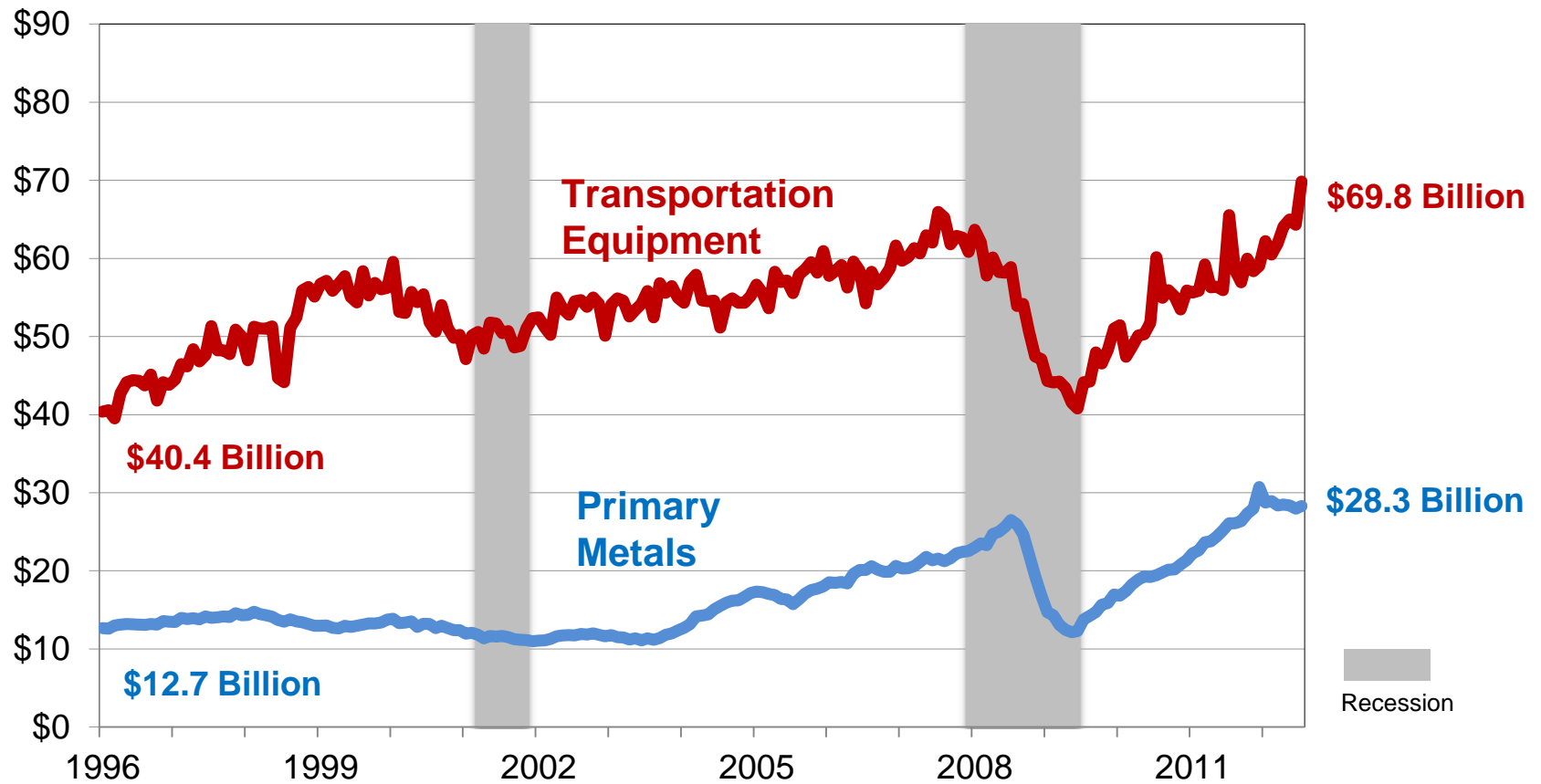
Why are Primary Metals Important to the Economy?

- Base manufacturing industry
- Feeds into other sectors of the economy, from the manufacturing of automobiles to fabricated structural steel for construction projects like bridges or new office buildings.

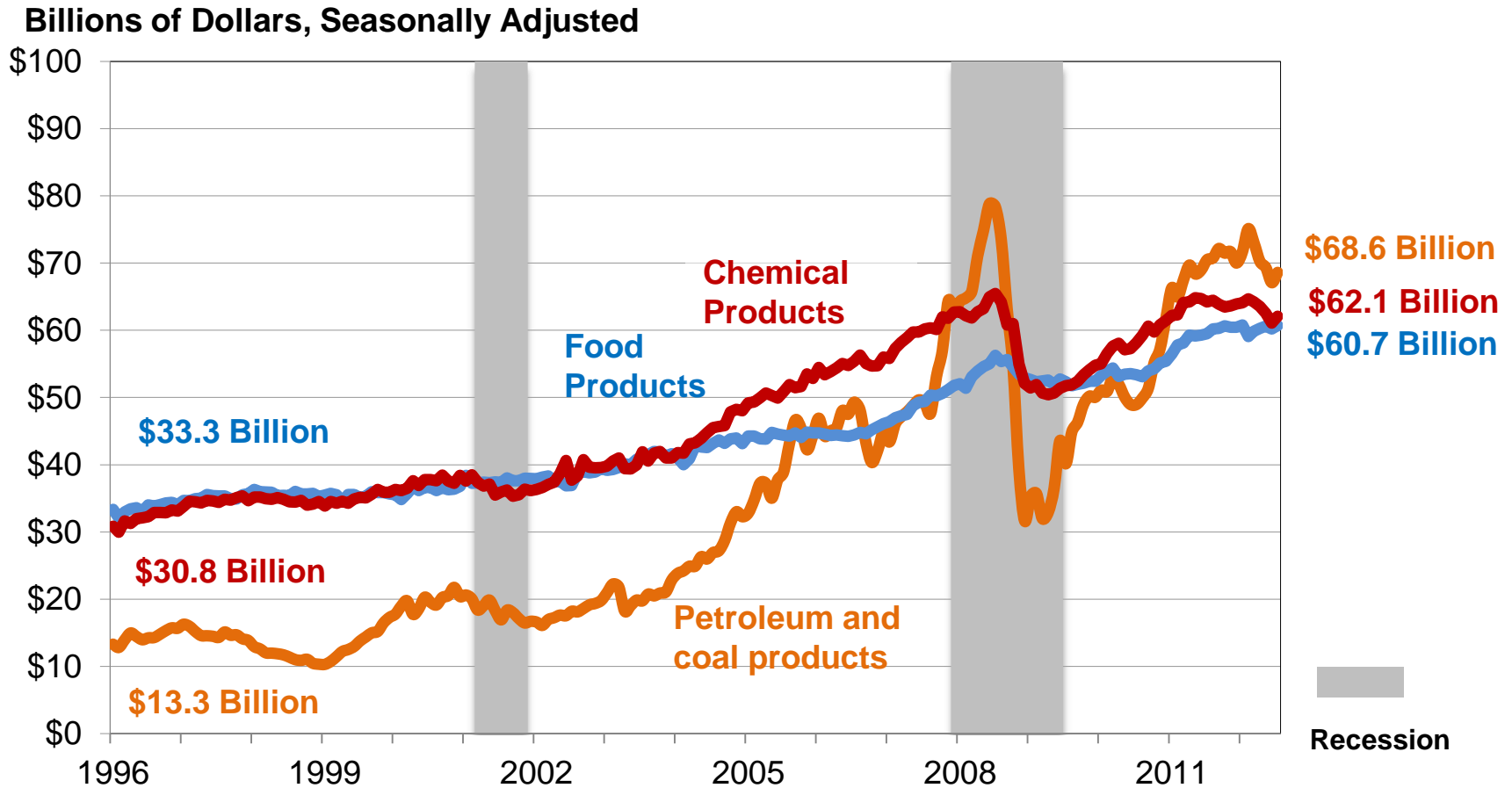
Source: U.S. Census Bureau, Manufacturers' Shipments, Inventories, and Orders Survey, 1996-2012

Shipments of Primary Metals and Transportation Equipment: January 1996 – July 2012

Billions of Dollars, Seasonally Adjusted

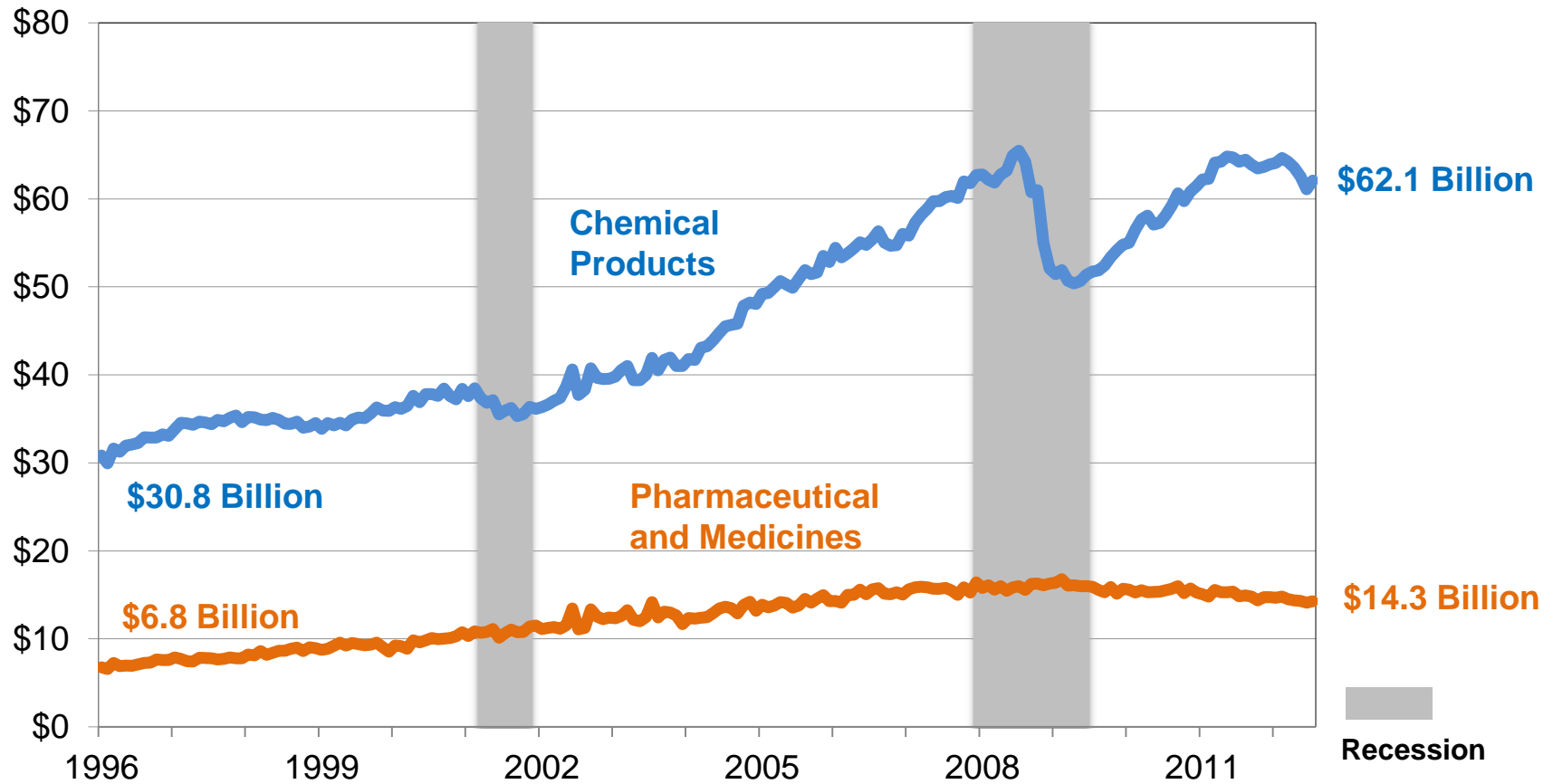


Shipments of Food products, Petroleum and Coal Products, and Chemical Products: January 1996 – July 2012

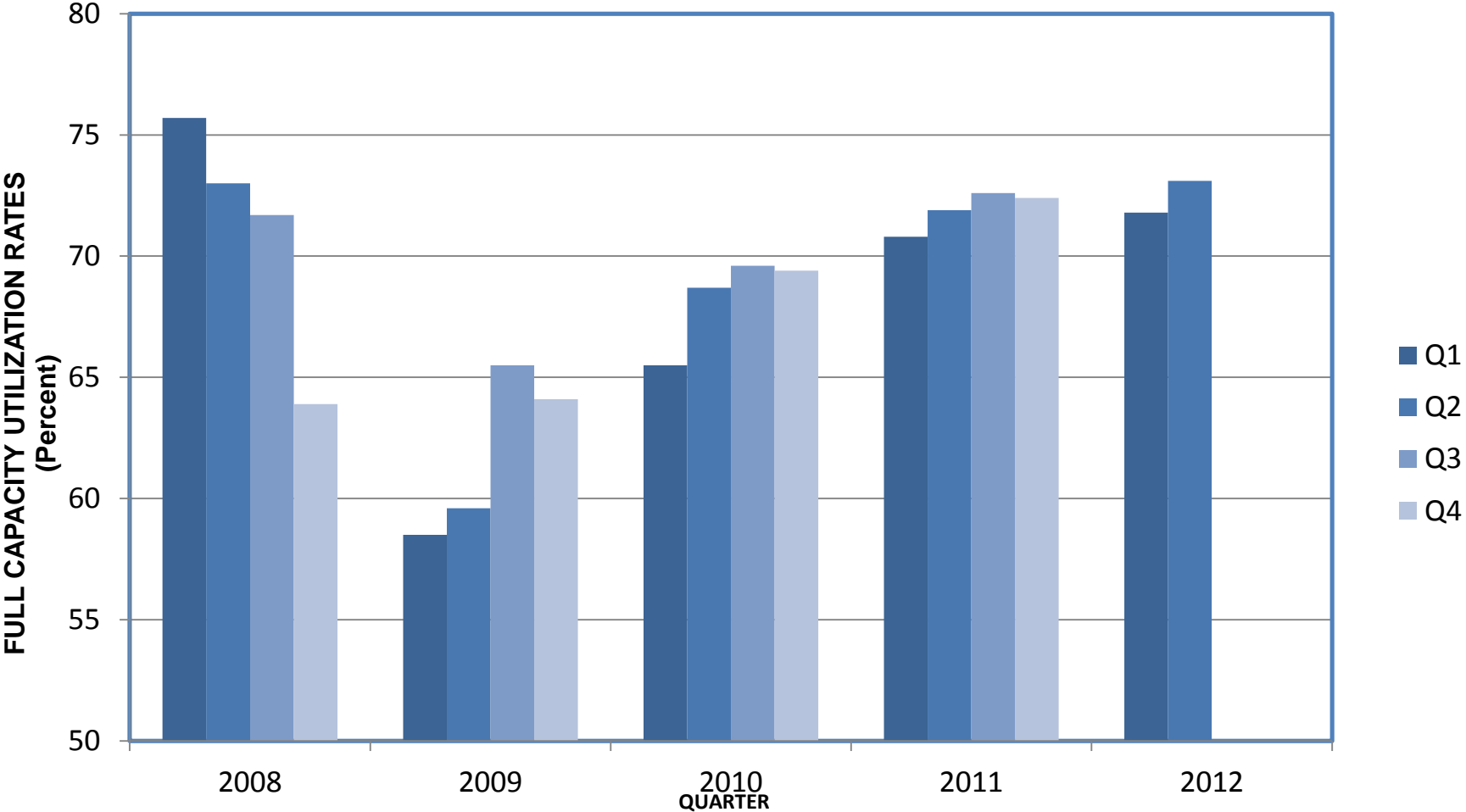


Shipments of Chemical Products and Pharmaceuticals and Medicines: January 1996 – July 2012

Billions of Dollars, Seasonally Adjusted



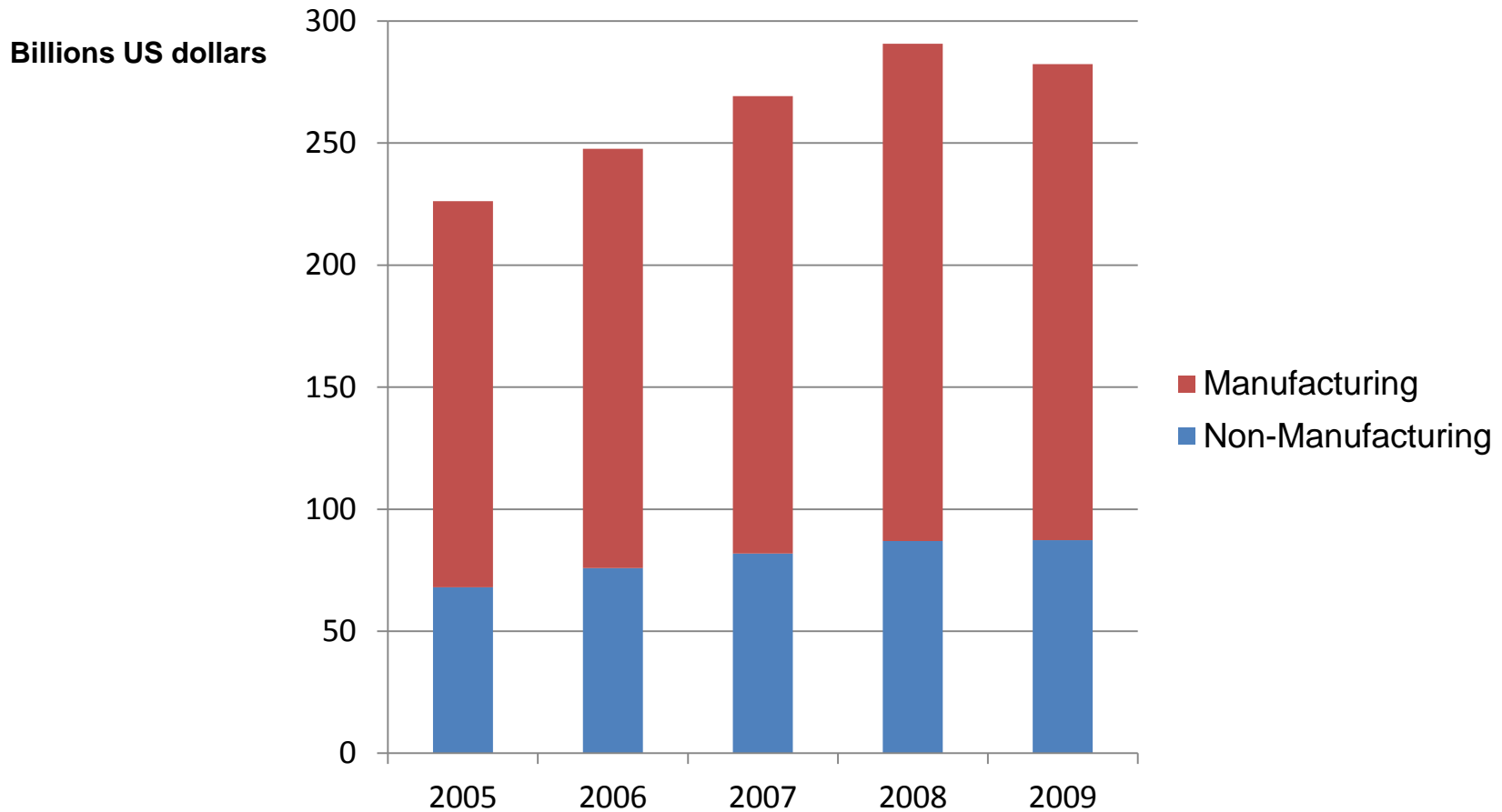
Capacity Utilization Rates of U.S. Manufacturing: 2008-2012



Note: These data are not adjusted for seasonal variation, holidays, or trading-day differences.
Source: U.S. Census Bureau, Quarterly Survey of Plant Capacity Utilization, 2008-2011

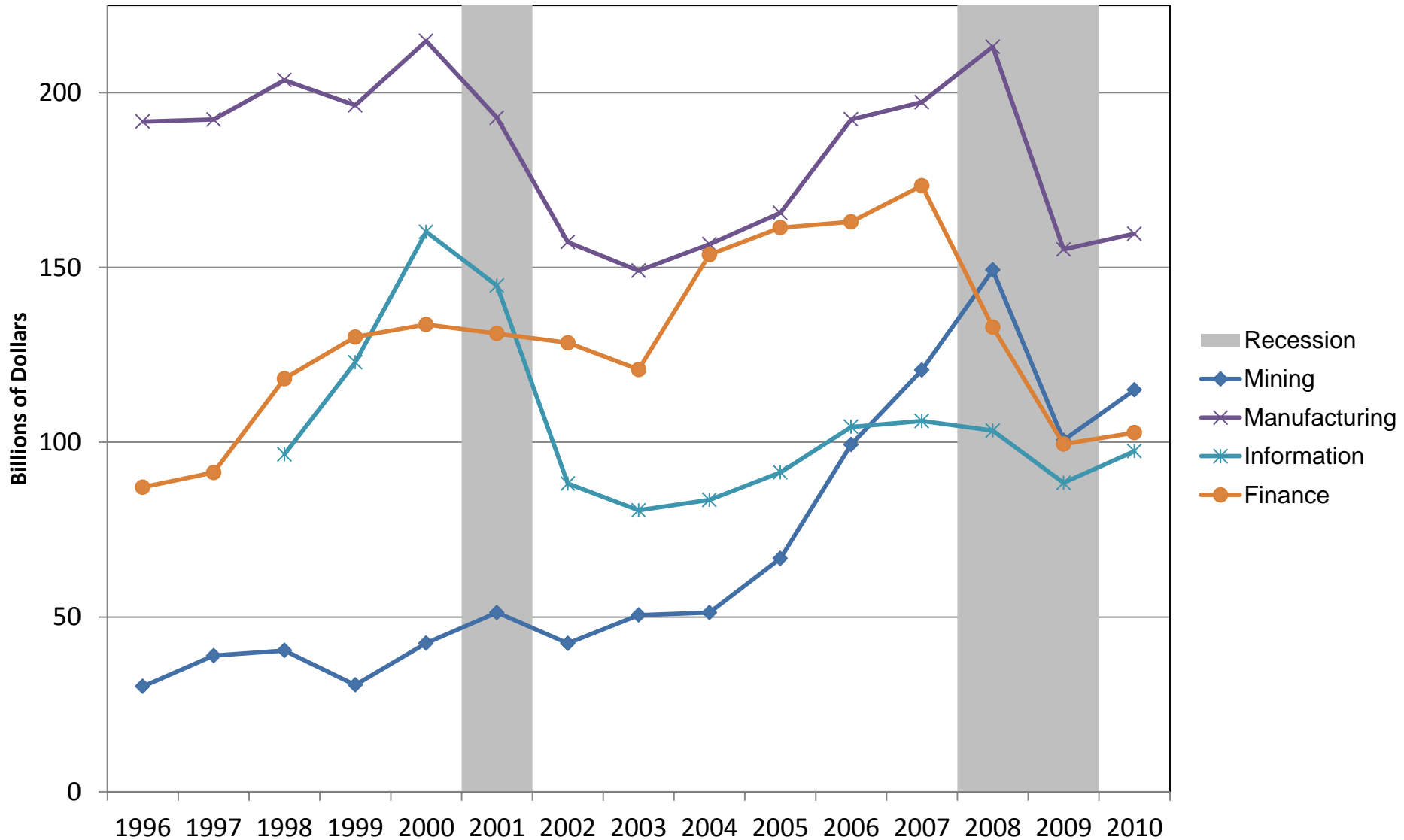
Manufacturing companies account for majority of US R&D performance

Since 2004, Manufacturing companies have accounted for about 70% of total domestic R&D performance annually.

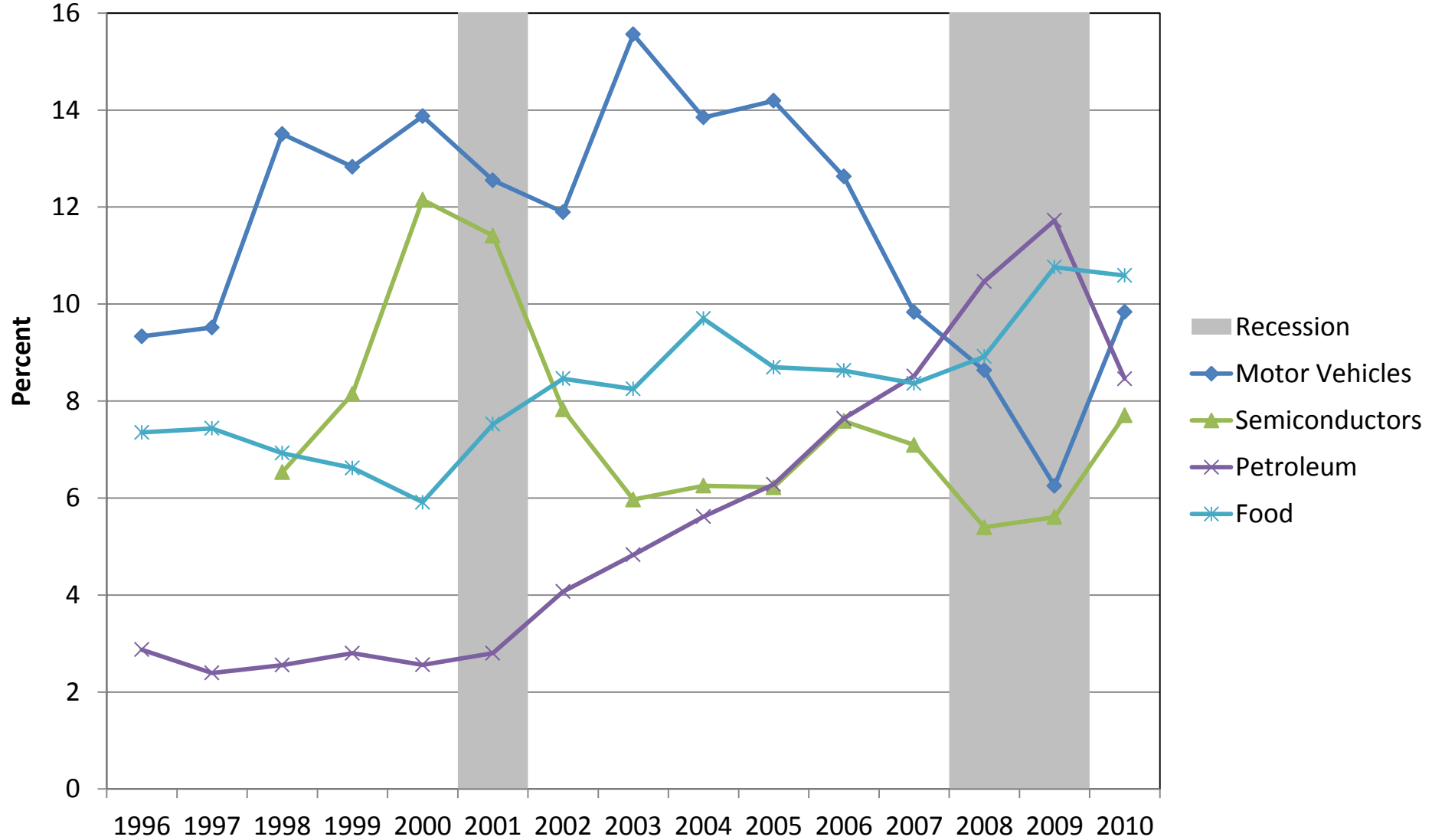


Source: National Science Foundation and U.S. Census Bureau, Survey of Industrial Research and Development 2004 – 2007; Business R&D and Innovation Survey 2008 - 2009

Total Capital Expenditures for Selected U.S. Industry Sectors: 1996 to 2010



Percentage of U.S. Manufacturing Total Capital Expenditures for Selected Subsectors: 1996 to 2010

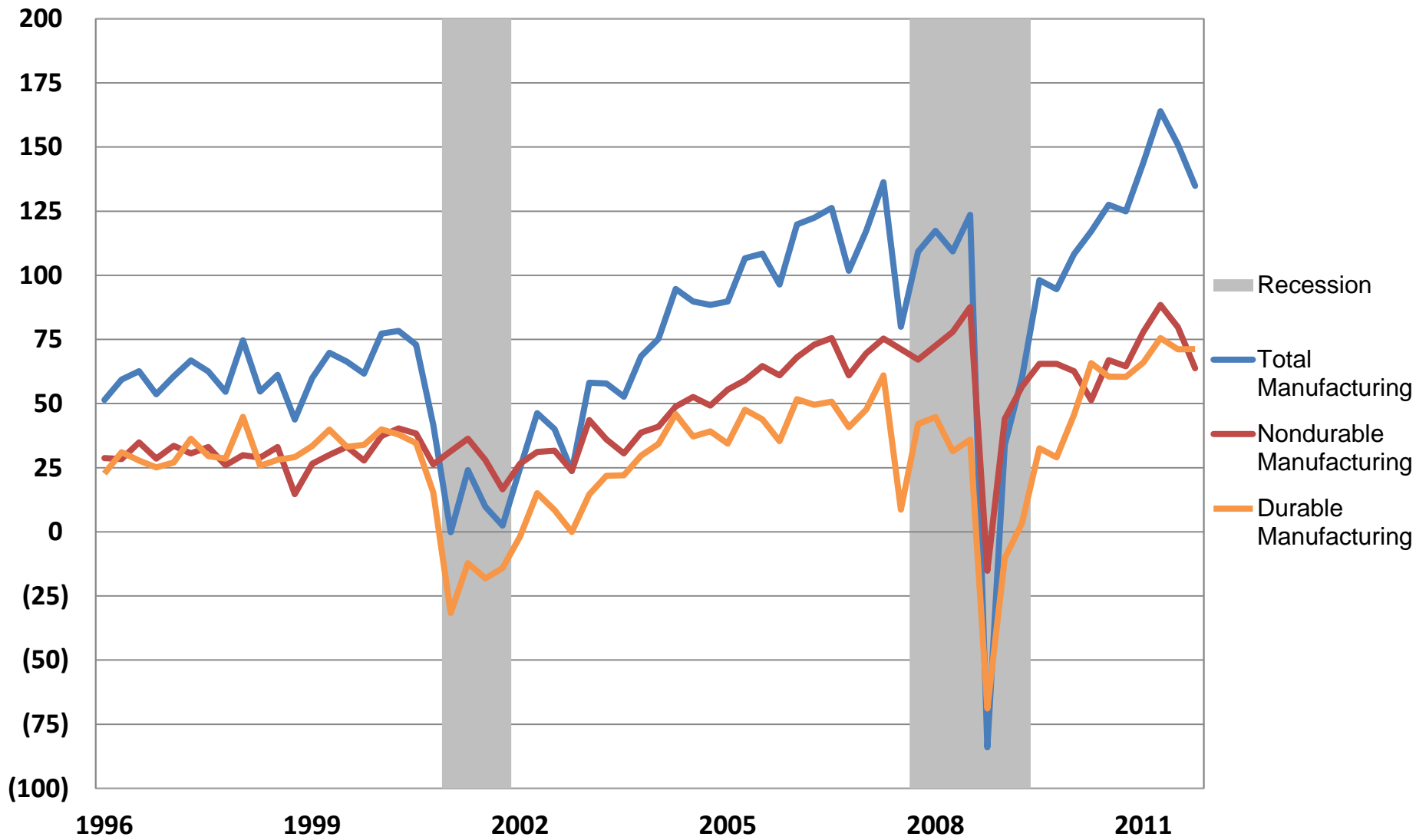


Note: Prior to 1998 data for semiconductors was included in communications equipment and electronic components and equipment manufacturing.

Source: U.S. Census Bureau, Annual Capital Expenditures Survey

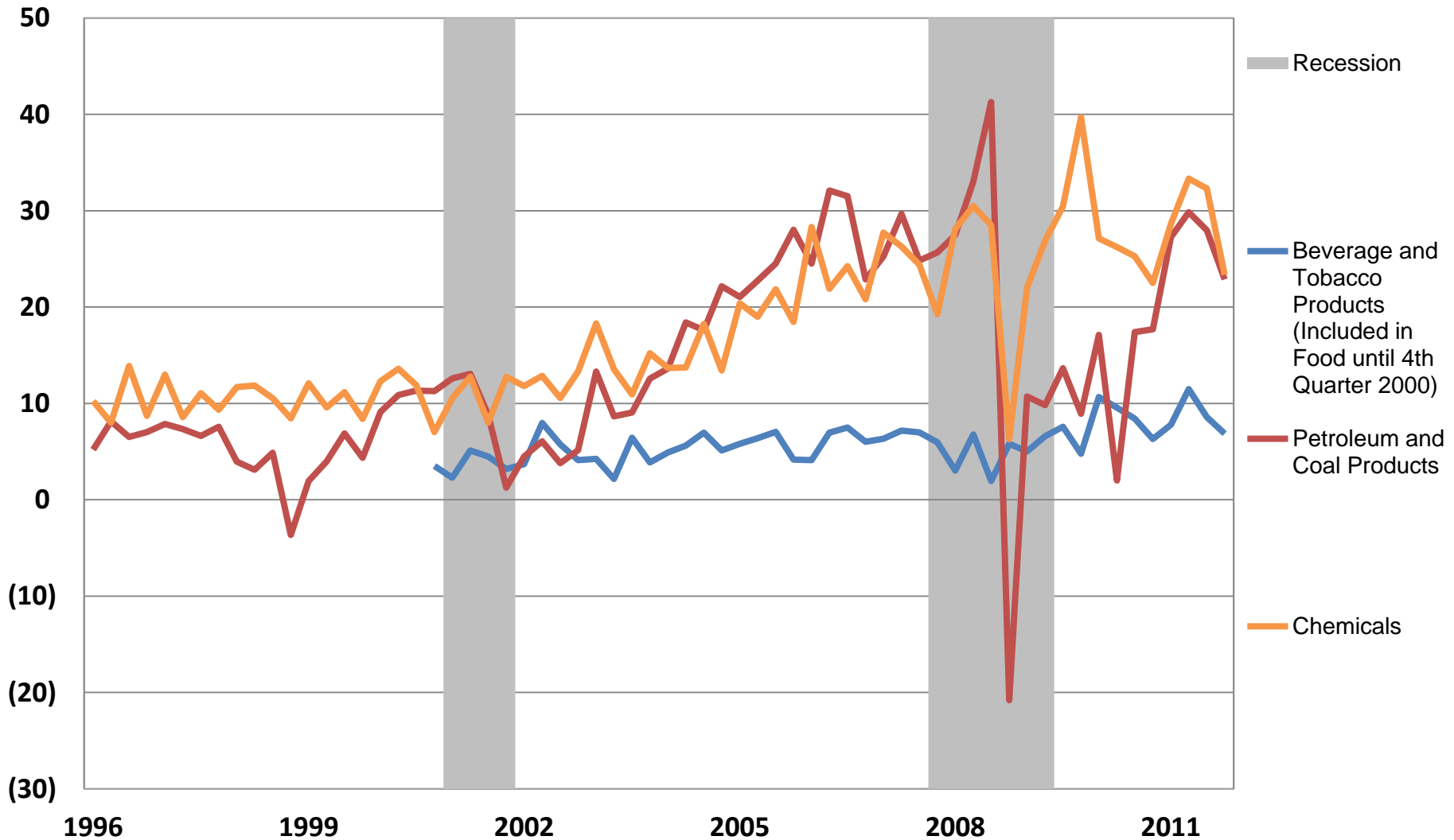
U.S. Manufacturers - Net Income After Tax

Billions of Dollars, Not Seasonally Adjusted*



U.S. Nondurable Manufacturers - Net Income After Tax

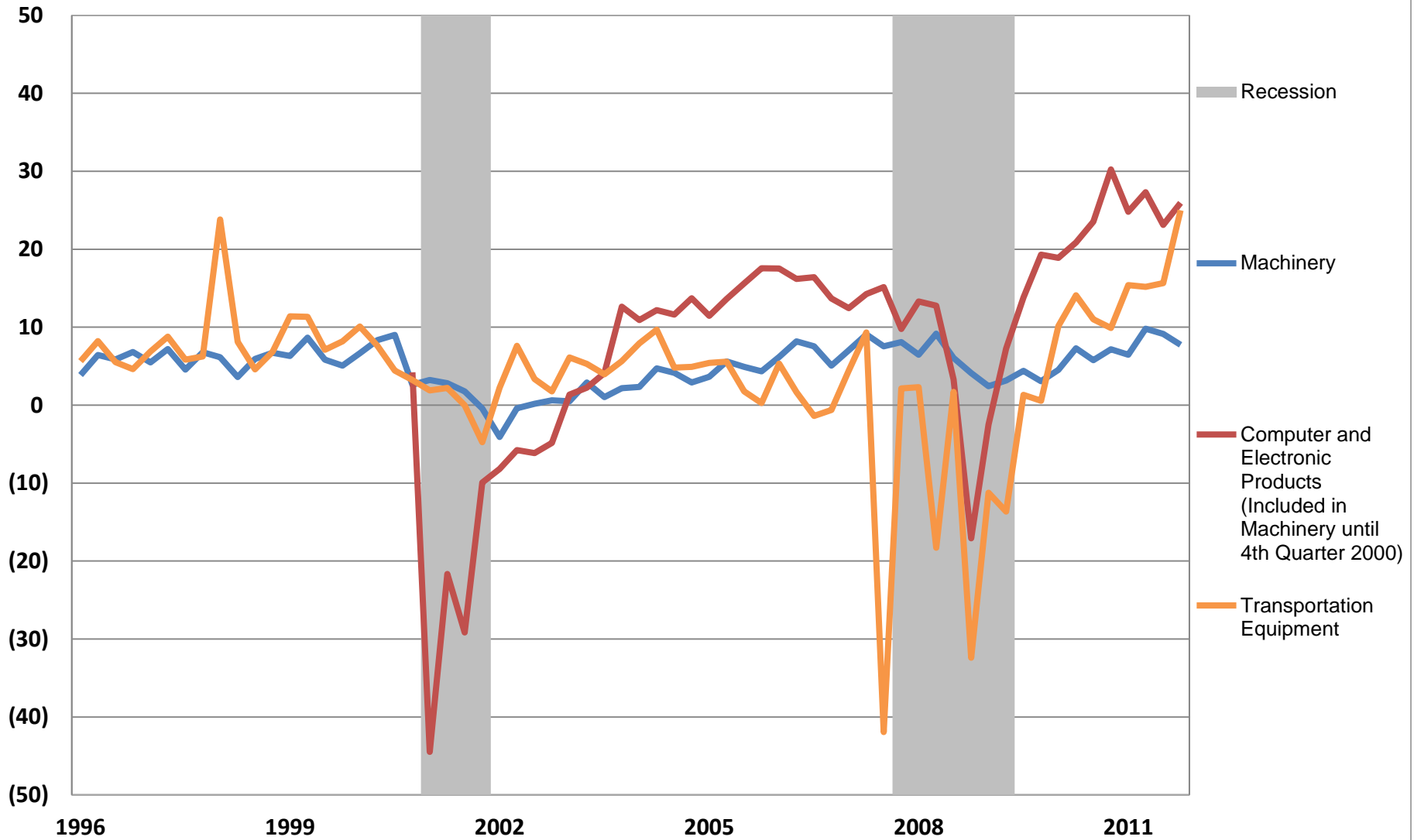
Billions of Dollars, Not Seasonally Adjusted*



*SIC Classification Basis 1996-2000 NAICS Classification Basis 2001 – Present
 Source: U.S. Census Bureau, Quarterly Financial Report, 1996 – 2011

U.S. Durable Manufacturers - Net Income After Tax

Billions of Dollars, Not Seasonally Adjusted*



*SIC Classification Basis 1996-2000 NAICS Classification Basis 2001 – Present
 Source: U.S. Census Bureau, Quarterly Financial Report, 1996 – 2011