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Technical information: (202) 691-5606 • mfpweb@bls.gov • www.bls.gov/mfp

Media contact: (202) 691-5902 • PressOffice@bls.gov

(Note: This release was reissued February 16, 2016 due to an error in the labor composition estimates for manufacturing. All references to labor composition have been excluded for this re-issue of the release. In addition, measures for manufacturing sector, nondurable manufacturing sector, and industry multifactor productivity and manufacturing sector combined units of all inputs were affected by this error.)

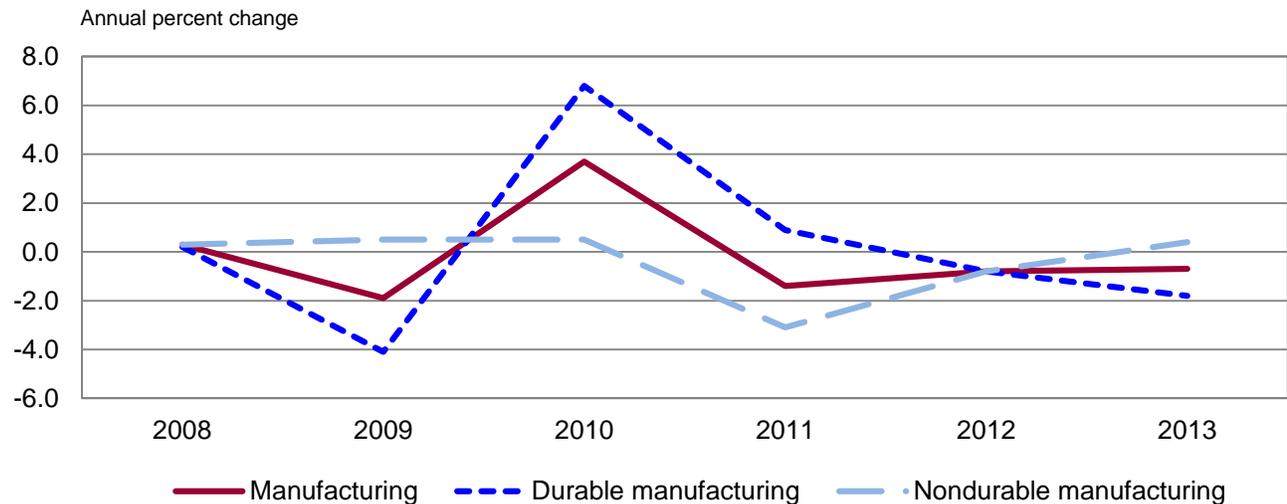
MULTIFACTOR PRODUCTIVITY TRENDS IN MANUFACTURING - 2013

Manufacturing sector multifactor productivity decreased at a 0.7 percent annual rate in 2013, the U.S. Bureau of Labor Statistics reported today. It was the third consecutive decline in this measure. The 2013 decline reflected a 1.5-percent increase in output and a 2.1-percent increase in combined inputs. (See table A and table 1.)

Multifactor productivity measures the change in output relative to the change in capital, labor, and intermediate inputs (energy, materials, purchased business services) used to produce that output. It is designed to measure the joint influences of technological change, efficiency improvements, returns to scale, reallocation of resources, and other factors of economic growth, allowing for the effects of capital, labor, and intermediate inputs. Multifactor productivity annual measures differ from BLS quarterly labor productivity or output per hour measures because the former also include information on capital services and intermediate inputs. Additionally, much of the source data needed to construct multifactor productivity measures are not available on a quarterly basis.

Durable manufacturing sector multifactor productivity decreased 1.8 percent in 2013, following a 0.8-percent decrease in 2012. **Nondurable manufacturing sector** multifactor productivity increased 0.4 percent in 2013, following a 0.8-percent decrease in 2012. (See table C and table 3.)

Chart 1. Multifactor productivity for the manufacturing, durable manufacturing, and nondurable manufacturing sectors, 2008-2013



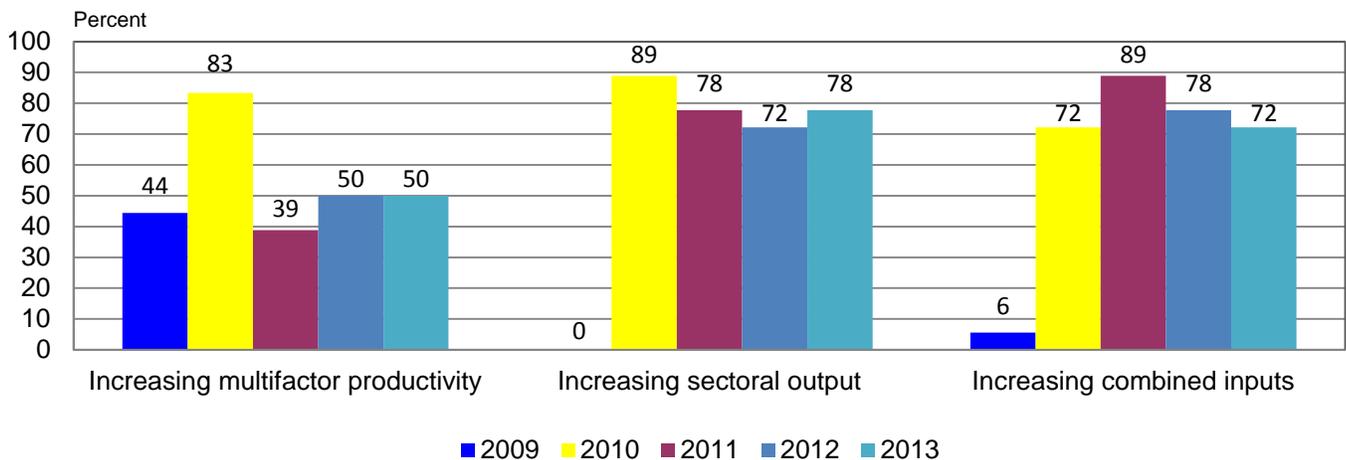
Historical trends in manufacturing

Multifactor productivity in manufacturing grew 1.2 percent annually from 1987 to 2013 with sectoral output increasing at an annual rate of 2.2 percent, faster than the 1.0-percent annual increase in combined inputs. During the same period, labor productivity increased 3.5 percent annually. (See table A.) Of the 3.5-percent growth rate in labor productivity, multifactor productivity contributed 1.2 percent, capital intensity contributed 0.8 percent, materials intensity added 1.0 percent, and purchased business services intensity added 0.5 percent. The contributions of energy intensity were unchanged. (See table B.)

For the 2007-2013 period, multifactor productivity declined at a 0.2 percent annual rate compared to a 1.9-percent annual increase in the 2000-2007 period. (See table A.) Sectoral output increased 0.1 percent and combined inputs rose 0.3 percent over the 2007-2013 period.

In 2013, the number of NAICS three-digit manufacturing industries exhibiting an increase in multifactor productivity growth remained steady compared to 2012. In 2013, more manufacturing industries exhibited an increase in sectoral output growth compared to 2012. Fewer manufacturing industries had an increase in combined inputs compared to 2012. Nine out of 18 manufacturing industries exhibited an increase in multifactor productivity. Fourteen industries showed increasing sectoral output. Thirteen industries showed an increase in combined inputs. (See chart 2, table 3.)

Chart 2. Percent of manufacturing industries with increases in multifactor productivity, sectoral output, and combined inputs, 2009-2013



Revised measures

Previous and revised productivity measures and related data for 2011 and 2012 for the manufacturing, durable manufacturing, and nondurable manufacturing sectors are displayed in table C. In 2012, multifactor productivity in the manufacturing sector decreased 0.8 percent compared to the previously reported 0.6-percent increase. Multifactor productivity in the durable manufacturing sector decreased 0.8 percent compared to the previously reported 1.4-percent increase. In the nondurable manufacturing sector, multifactor productivity decreased 0.8 percent. Previously, multifactor productivity was reported as unchanged. In 2011, multifactor productivity measures in the manufacturing, durable manufacturing, and nondurable manufacturing sectors were also revised. The revisions in both years were due to the annual revision of the National Income and Product Accounts (NIPA) released on January 30, 2015.

Table A. Compound annual growth rates for productivity, sectoral output, and inputs in the manufacturing sector for selected periods, 1987-2013

Percent

	1987-2013	1987-1990	1990-1995	1995-2000	2000-2007	2007-2013	2012-2013
<u>Productivity</u>							
Multifactor Productivity ¹	1.2	0.4	1.3	2.1	1.9	-0.2	-0.7
Labor Productivity ²	3.5	1.9	3.2	4.9	4.6	2.3	0.7
Output per unit of capital services	-0.1	-0.9	0.5	0.5	0.2	-1.2	0.5
<u>Sectoral Output</u>							
	2.2	1.8	3.2	4.7	1.5	0.1	1.5
<u>Inputs</u>							
Combined Inputs ³	1.0	1.4	1.9	2.6	-0.5	0.3	2.1
Hours ⁴	-1.3	0.0	0.0	-0.2	-3.0	-2.1	0.8
Capital services	2.3	2.7	2.7	4.2	1.2	1.4	1.0
Energy	-0.4	1.9	1.6	6.6	-3.9	-4.6	-0.1
Materials	2.2	0.1	3.1	5.2	1.0	1.4	2.5
Purchased business services	1.4	5.4	3.2	1.4	-0.6	0.5	5.3

1 Output per combined units of hours, capital services, energy, materials, and purchased business services.

2 Output per hour worked.

3 The growth rate of each input is weighted by its share of current dollar costs.

4 Hours at work.

Table B. Compound annual growth rates in labor productivity and the contributions of capital intensity, intermediate inputs intensity, and multifactor productivity in the manufacturing sector for selected periods, 1987-2013

Percent

	1987-2013	1987-1990	1990-1995	1995-2000	2000-2007	2007-2013	2012-2013
<u>Manufacturing</u>							
Labor Productivity ¹	3.5	1.9	3.2	4.9	4.6	2.3	0.7
Contribution of capital intensity ²	0.8	0.6	0.6	1.0	1.0	0.8	0.0
Information processing equipment intensity ³	0.1	0.1	0.1	0.2	0.1	0.0	0.0
Research and Development intensity ⁴	0.3	0.2	0.1	0.2	0.4	0.4	0.1
All other intellectual property products intensity ⁵	0.1	0.1	0.1	0.2	0.0	0.0	0.0
All other capital services intensity	0.3	0.2	0.2	0.3	0.5	0.4	-0.1
Contribution of intermediate inputs intensity ⁶	1.5	0.8	1.4	1.8	1.6	1.6	1.3
Energy intensity ⁷	0.0	0.1	0.0	0.2	0.0	-0.1	0.0
Materials intensity ⁸	1.0	0.0	0.8	1.3	1.2	1.3	0.7
Purchased business services intensity ⁹	0.5	0.8	0.5	0.3	0.4	0.4	0.6
Multifactor productivity ¹⁰	1.2	0.4	1.3	2.1	1.9	-0.2	-0.7

1 Output per hour worked.

2 Capital services per hour multiplied by capital's share of current dollar costs.

3 Information processing equipment per hour multiplied by its share of current dollar costs.

4 Research and development per hour multiplied by its share of current dollar costs.

5 Software and artistic originals per hour multiplied by their share of current dollar costs.

6 Intermediate inputs per hour multiplied by intermediate inputs' share of current dollar costs.

7 Energy per hour multiplied by energy's share of current dollar costs.

8 Materials per hour multiplied by materials' share of current dollar costs.

9 Purchased business services per hour multiplied by purchased business services' share of current dollar costs.

10 Output per combined units of labor, capital services, energy, materials, and purchased business services.

Table C. Previous and revised multifactor productivity and related measures for the 2011-2012 and 2010-2011 periods

Sector	Multifactor productivity ¹	Sectoral output	Inputs					Purchased business services
			Combined inputs ²	Hours ³	Capital services	Energy	Materials	
Annual percent change, 2011-2012								
<u>Manufacturing</u>								
Previous	0.6	3.3	2.7	2.3	1.2	6.3	1.6	7.7
Revised	-0.8	3.0	3.9	2.3	1.1	-0.4	5.8	6.3
<u>Durable manufacturing</u>								
Previous	1.4	6.0	4.6	2.9	1.0	14.2	5.5	10.7
Revised	-0.8	5.9	6.8	3.1	1.0	4.5	12.2	9.6
<u>Nondurable manufacturing</u>								
Previous	0.0	1.3	1.2	1.3	1.4	2.0	0.3	4.3
Revised	-0.8	0.7	1.5	0.9	1.2	-3.1	1.7	2.6
Annual percent change, 2010-2011								
<u>Manufacturing</u>								
Previous	-0.5	2.9	3.4	2.1	1.0	6.5	7.0	1.1
Revised	-1.4	7.8	9.3	2.2	1.1	8.6	23.5	1.4
<u>Durable manufacturing</u>								
Previous	1.9	6.2	4.2	3.8	0.4	-4.9	13.3	1.3
Revised	0.9	8.9	7.9	3.9	0.5	-2.8	21.8	0.5
<u>Nondurable manufacturing</u>								
Previous	-2.3	0.3	2.7	-0.6	1.4	14.0	4.3	0.8
Revised	-3.1	3.4	6.7	-0.4	1.5	16.3	11.9	2.4

1 Output per combined units of hours, capital services, energy, materials, and purchased business services.

2 The growth rate of each input is weighted by its share of current dollar costs.

3 Hours at work.

Technical Notes

Capital Services

Capital services are the services derived from the stock of physical assets and intellectual property assets. There are 90 asset types for fixed business equipment, structures, inventories, land, and intellectual property products. The aggregate capital services measures are obtained by Tornqvist aggregation of the capital stocks for each asset type within each of the eighteen manufacturing NAICS industry groupings using estimated rental prices for each asset type. Each rental price reflects the nominal rate of return to all assets within the industry and rates of economic depreciation and revaluation for the specific asset; rental prices are adjusted for the effects of taxes. Data on investment for fixed assets are obtained from BEA. Data on inventories are estimated using data from BEA and additional information from IRS Corporation Income Returns. Data for land in the farm sector are obtained from USDA. Nonfarm industry detail for land is based on IRS book value data. Current-dollar value-added data, obtained from BEA, are used in estimating capital rental prices.

Labor Hours

The construction of the hours measures follows the methodology described in USDL 15-0480, *Multifactor Productivity Trends, 2013*, http://www.bls.gov/news.release/archives/prod3_03262015.pdf. Hours in manufacturing are directly aggregated and do not include the effects of labor composition. Hours data for the manufacturing multifactor productivity measures include hours for all persons working in the manufacturing sector – wage and salary workers, the self-employed and unpaid family workers. The primary source of hours data is the BLS Current Employment Statistics (CES) survey. Hours paid of production workers are also obtained primarily from the CES survey. The hours of these employees are then converted to an at-work basis by using information from the Employment Cost Index (ECI) of the National Compensation Survey (NCS) and the BLS Hours at Work Survey. Hours at work for nonproduction workers are derived using data from the Current Population Survey (CPS), the CES, and the NCS. The hours at work of proprietors are derived from the CPS.

Hours at work data are based on underlying hours data published in the February 5, 2015, USDL-15-0157, *Productivity and Costs*, http://www.bls.gov/news.release/archives/prod2_02052015.pdf. Therefore, the data do not reflect the benchmark revisions to the CES and other revisions to hours released on March 5, 2015.

Intermediate Inputs

In manufacturing, intermediate inputs consist of energy, materials, and purchased business services, and represent a large share of production costs. Research has shown that substitution among inputs, including intermediate inputs, affects productivity change. Therefore, it is important to account for intermediate inputs in productivity measures at the level of manufacturing. In contrast, the more aggregate productivity measures compare "value-added" output with two classes of inputs, capital and labor. Because of these differences in concepts and methodology, productivity change in manufacturing cannot be directly compared with changes in private business or private nonfarm business.

Data on intermediate inputs are obtained from BEA based on BEA annual input-output tables. Tornqvist indexes of each of these three input classes are derived at the three-digit NAICS level and then aggregated to the manufacturing sectors. Materials inputs are adjusted to exclude transactions between establishments within the same sector.

Combined Inputs

The five input indexes (capital services, labor, energy, materials, and purchased business services) are combined using chained superlative Tornqvist aggregation, applying weights that represent each component's share of total costs. Total costs are defined as the current dollar value of manufacturing sectoral output. Most taxes on production and imports, such as excise taxes, are excluded from costs; however, property and motor vehicle taxes remain in total costs.

Capital Intensity

Capital intensity is the ratio of capital services to hours worked in the production process. The higher the capital to hours ratio, the more capital intensive the production process is.

In a production process, profit maximizing/cost-minimizing firms adjust the factor proportions of capital and labor if the price of one factor falls relative to the price of the other factor; there would be a tendency for the firms to substitute the less expensive factor for the more expensive one. In the short run, changes in hours worked are more variable than changes in capital services. Changes in hours worked in business cycles can result in volatility of the capital intensity ratio over short periods of time. In the long run an increase in wages relative to the price of capital will induce the firm to substitute capital for labor, resulting in an increase in capital intensity.

Rising labor costs are, in fact, an incentive for firms to introduce automated production processes. Industry estimates of capital to hours ratios can be obtained at <http://www.bls.gov/mfp/mprdownload.htm>.

Sectoral Output

The output concept used for multifactor productivity in manufacturing is “sectoral output”. Sectoral output equals gross output (sales, receipts, and other operating income, plus commodity taxes plus changes in inventories), excluding transactions between establishments within the same sector. In contrast, the output concept used for private business and private nonfarm business is “real value-added”. Real value-added output in private business equals gross domestic product less general government, government enterprises, private households (including the rental value of owner-occupied real estate), and non-profit institutions. Real value-added output excludes intermediate transactions between businesses.

The output index for manufacturing is constructed using a chained superlative index (Tornqvist) of three-digit NAICS industry outputs. Industry output is measured as sectoral output, the total value of goods and services leaving the industry. The indexes of industry output are calculated with the Tornqvist index formula. This index formula aggregates the growth rates of the various industry outputs between two periods, using their relative shares in industry value of production averaged over the two periods as weights. BLS industry output measures for manufacturing industries are constructed using data from the economic censuses and annual surveys of the Bureau of the Census, U.S. Department of Commerce, together with information on price changes, primarily from BLS.

Multifactor Productivity

The manufacturing multifactor productivity measures describe the relationship between output in real terms and the inputs involved in its production. Multifactor productivity measures are not intended to measure the specific contributions of labor, capital, or intermediate inputs. Rather, they are designed to measure the joint influences on economic growth of technological change, efficiency improvements, returns to scale, reallocation of resources and other factors of economic growth, allowing for the effects of capital, labor, and intermediate inputs. The multifactor productivity indexes are derived by dividing an output index by an index of the combined inputs of labor, capital services, energy, non-energy materials, and purchased business services.

Other information

Comprehensive tables containing more detailed data than that which is published in this press release are available upon request at 202-691-5606 or at <http://www.bls.gov/mfp/mprdownload.htm>. More detailed information on methods, limitations, and data sources of capital and labor are provided in BLS Bulletin 2178 (September 1983), *Trends in Multifactor Productivity, 1948-81* and on the BLS Multifactor Productivity website under the title “Technical Information About the BLS Multifactor Productivity Measures” for Major Sectors and 18 NAICS 3-digit Manufacturing Industries at <http://www.bls.gov/mfp/mprtech.pdf>. General information is available on the BLS Multifactor Productivity website at <http://www.bls.gov/mfp/mprover.htm>. Additional data not contained in the release can be obtained in print or at <http://www.bls.gov/mfp>. A number of comprehensive tables set up as zip files can be obtained at <http://www.bls.gov/mfp/mprdownload.htm>. Methods for measuring manufacturing multifactor productivity are discussed in the July 1995 issue of the *Monthly Labor Review*, “Measurement of productivity growth in U.S. manufacturing”. See <http://www.bls.gov/mfp/mprgul95.pdf>.

Table 1. Manufacturing sector: productivity and related measures for the 1987-2013 period

Annual percent change from previous year

Year	Productivity			Sectoral Output	Inputs					
	Labor Productivity ¹	Output per unit of capital services	Multifactor Productivity ²		Hours ³	Capital Services	Energy	Materials	Purchased business services	Combined units of all Inputs ⁴
1988	2.0	1.6	2.7	4.0	1.9	2.4	4.2	-4.1	8.7	1.3
1989	-0.3	-1.7	-0.7	1.0	1.3	2.8	-0.4	-0.5	6.0	1.8
1990	3.9	-2.4	-0.6	0.5	-3.3	3.0	1.9	5.2	1.6	1.1
1991	2.2	-4.2	-0.6	-1.7	-3.8	2.6	-0.3	-0.5	-0.7	-1.1
1992	5.9	2.5	-0.6	5.1	-0.8	2.5	-1.0	17.8	7.5	5.7
1993	2.4	1.2	2.8	3.7	1.2	2.4	3.2	-0.9	0.5	0.9
1994	2.9	2.7	2.9	5.3	2.3	2.5	3.6	1.1	3.8	2.3
1995	2.8	0.4	2.0	3.9	1.1	3.5	2.8	-0.7	4.9	1.8
1996	4.9	0.0	0.3	4.2	-0.7	4.2	-2.7	13.3	-0.5	3.9
1997	4.4	1.9	2.7	6.8	2.3	4.8	-1.9	5.8	3.9	4.0
1998	2.6	-1.9	1.6	2.8	0.2	4.8	4.7	-3.6	4.9	1.2
1999	5.4	0.1	2.0	4.1	-1.3	4.0	23.7	3.9	0.7	2.0
2000	7.5	2.4	3.9	5.7	-1.6	3.3	11.5	7.3	-2.1	1.8
2001	0.4	-8.2	-1.5	-6.3	-6.6	2.1	14.5	-16.4	2.7	-4.8
2002	4.7	-3.6	2.8	-2.4	-6.8	1.3	-24.4	-8.5	-1.3	-5.1
2003	6.4	0.7	5.8	1.3	-4.8	0.6	-12.3	-6.4	-5.4	-4.2
2004	5.5	4.7	2.7	4.9	-0.6	0.2	-5.2	16.8	-6.2	2.1
2005	5.9	3.9	0.6	5.0	-0.8	1.0	7.0	11.4	6.8	4.3
2006	3.5	2.6	2.3	4.1	0.5	1.4	-7.6	6.8	-3.0	1.7
2007	6.0	2.2	1.1	4.4	-1.5	2.1	6.5	8.0	2.9	3.3
2008	3.9	-3.2	0.3	-0.3	-4.0	3.0	-1.0	3.2	-8.8	-0.5
2009	-6.5	-19.9	-1.9	-18.9	-13.2	1.2	-27.4	-35.3	-3.1	-17.3
2010	10.1	9.8	3.7	10.6	0.5	0.8	-2.7	21.5	2.9	6.7
2011	5.4	6.6	-1.4	7.8	2.2	1.1	8.6	23.5	1.4	9.3
2012	0.7	1.9	-0.8	3.0	2.3	1.1	-0.4	5.8	6.3	3.9
2013	0.7	0.5	-0.7	1.5	0.8	1.0	-0.1	2.5	5.3	2.1

1 Output per hour worked.

2 Output per combined units of hours, capital services, energy, materials, and purchased business services.

3 Hours at work.

4 Combined units of hours, capital services, energy, materials, and purchased business services, chained superlative index.

Source: The Bureau of Labor Statistics (BLS) develops productivity measures using output data published by the Bureau of the Census, U.S. Department of Commerce, and modified by BLS. Compensation and hours data are from the BLS. Capital measures are based on data supplied by the BEA, U.S. Department of Commerce. See Technical Notes in this release.

Table 2. Manufacturing sector: indexes of productivity and related measures, 1987-2013

Indexes 2009=100

Year	Productivity			Sectoral Output	Inputs					
	Labor Productivity ¹	Output per unit of capital services	Multifactor Productivity ²		Hours ³	Capital Services	Energy	Materials	Purchased business services	Combined units of all Inputs ⁴
1987	47.6	124.0	74.1	71.6	150.5	57.8	116.1	92.4	80.7	96.7
1988	48.6	126.0	76.1	74.5	153.4	59.1	121.1	88.6	87.7	98.0
1989	48.4	123.8	75.5	75.2	155.4	60.8	120.6	88.1	93.0	99.7
1990	50.3	120.8	75.0	75.6	150.3	62.6	122.8	92.7	94.4	100.8
1991	51.4	115.8	74.6	74.3	144.6	64.2	122.5	92.3	93.8	99.7
1992	54.5	118.6	74.1	78.1	143.4	65.8	121.3	108.6	100.8	105.3
1993	55.8	120.1	76.2	81.0	145.2	67.4	125.2	107.6	101.3	106.2
1994	57.4	123.4	78.4	85.3	148.5	69.1	129.7	108.8	105.2	108.7
1995	59.0	123.8	80.0	88.6	150.1	71.5	133.3	108.1	110.4	110.7
1996	61.9	123.8	80.3	92.3	149.1	74.6	129.7	122.5	109.8	115.0
1997	64.6	126.2	82.5	98.6	152.6	78.1	127.1	129.6	114.2	119.6
1998	66.3	123.7	83.8	101.4	152.9	81.9	133.1	124.9	119.7	121.0
1999	69.9	123.8	85.5	105.5	150.9	85.2	164.6	129.8	120.5	123.4
2000	75.1	126.8	88.8	111.5	148.4	87.9	183.6	139.3	118.0	125.6
2001	75.4	116.4	87.5	104.5	138.6	89.8	210.2	116.5	121.3	119.5
2002	79.0	112.1	89.9	102.0	129.1	91.0	158.9	106.6	119.7	113.4
2003	84.0	112.9	95.1	103.3	123.0	91.5	139.3	99.8	113.2	108.7
2004	88.7	118.3	97.7	108.4	122.2	91.7	132.1	116.6	106.2	111.0
2005	93.9	122.9	98.3	113.8	121.2	92.6	141.3	129.9	113.4	115.8
2006	97.2	126.1	100.5	118.4	121.8	93.9	130.5	138.7	110.0	117.8
2007	103.0	128.9	101.6	123.6	120.0	95.9	139.1	149.8	113.2	121.6
2008	107.0	124.8	101.9	123.3	115.2	98.8	137.7	154.6	103.2	121.0
2009	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2010	110.1	109.8	103.7	110.6	100.5	100.8	97.3	121.5	102.9	106.7
2011	116.1	117.0	102.2	119.2	102.7	101.9	105.7	150.1	104.4	116.6
2012	117.0	119.2	101.4	122.8	105.0	103.1	105.2	158.8	111.0	121.2
2013	117.7	119.7	100.7	124.6	105.8	104.1	105.1	162.7	116.8	123.8

1 Output per hour worked.

2 Output per combined units of hours, capital services, energy, materials, and purchased business services.

3 Hours at work.

4 Combined units of hours, capital services, energy, materials, and purchased business services, chained superlative index.

Source: The Bureau of Labor Statistics (BLS) develops productivity measures using output data published by the Bureau of the Census, U.S. Department of Commerce, and modified by BLS. Compensation and hours data are from the BLS. Capital measures are based on data supplied by the BEA, U.S. Department of Commerce. See Technical Notes in this release.

Table 3. Multifactor productivity measures for manufacturing industries in selected periods, 1987-2013

Compound annual growth rates

	1987-2013	1987-1990	1990-1995	1995-2000	2000-2007	2007-2013	2012-2013
Manufacturing	1.2	0.4	1.3	2.1	1.9	-0.2	-0.7
<u>Nondurable manufacturing</u>	0.2	-0.3	0.6	-0.1	0.7	-0.4	0.4
Food, beverage, and tobacco products	-0.1	-1.5	1.5	-1.7	0.7	-0.4	-0.1
Textile mills and textile product mills	0.8	1.3	0.7	1.5	1.0	-0.3	3.0
Apparel, leather, and allied products	0.0	0.1	3.0	0.8	2.5	-5.6	9.4
Paper products	0.2	-0.3	0.0	0.2	0.6	0.3	2.1
Printing and related support activities	1.2	1.0	-0.2	0.2	2.6	1.5	3.3
Petroleum and coal products	0.8	0.7	0.7	1.6	0.4	0.5	3.0
Chemical products	-0.6	-0.8	-1.0	-0.4	0.9	-1.9	-3.3
Plastics and rubber products	0.7	0.8	0.4	1.5	0.2	0.6	-0.2
<u>Durable manufacturing</u>	1.9	1.0	1.7	3.4	2.7	0.1	-1.8
Wood products	0.1	1.4	-1.5	-0.5	0.9	0.3	-5.0
Nonmetallic mineral products	0.2	0.2	0.8	0.3	0.0	0.0	1.0
Primary metals	0.4	1.3	0.0	1.0	0.6	-0.6	1.7
Fabricated metal products	0.1	0.0	0.9	-0.2	0.6	-1.0	-0.6
Machinery	-0.3	1.2	-2.0	-1.1	1.5	-1.1	-5.9
Computer and electronic products	8.5	5.7	10.2	15.5	7.5	4.1	-1.1
Electrical equipment, appliances, and components	-0.7	-1.7	-2.5	-2.6	1.9	-0.3	-0.8
Transportation equipment	0.2	-1.5	-0.1	0.4	1.9	-0.6	-1.7
Furniture and related products	0.2	-0.4	0.4	0.7	0.4	-0.2	0.7
Miscellaneous manufacturing	0.8	2.7	-0.1	1.2	1.1	-0.1	2.7