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PRODUCTIVITY AND COSTS BY INDUSTRY MANUFACTURING, 2004

Labor productivity—defined as output per hour—rose in 2004 in most of the manufacturing industries studied by the Bureau of Labor Statistics, U.S. Department of Labor. In 2004, the most recent year for which underlying data are available, labor productivity increased in 67 percent of the manufacturing industries. Output, the production of manufactured goods, rose in 63 percent of these industries while hours declined in 60 percent of these industries. Unit labor costs declined in 57 percent of manufacturing industries, and in almost three quarters of the industries that registered productivity growth.

The share of industries with productivity increases over a longer period was even greater. From 1987 to 2004, labor productivity increased in all but one manufacturing industry. Output rose in 80 percent of the industries, and hours declined in 81 percent of them. Unit labor costs declined in 17 percent of manufacturing industries between 1987 and 2004.

The attached tables present data for all manufacturing industries at the 3- and 4-digit levels of detail as classified in the North American Industry Classification System (NAICS).

2003-2004 change

In 2004, labor productivity rose in 58 of the 86 manufacturing industries. (See table 1.) One half of the industries posted productivity gains of at least 2.0 percent, and more than a quarter had growth of over 5.0 percent. Labor productivity rose more than 20.0 percent in three industries. Productivity increased 42.3 percent per year, on average, in audio and video equipment manufacturing (NAICS 3343), 27.3 percent per year in other leather products manufacturing (NAICS 3169), and 21.1 percent per year in iron and steel mills and ferroalloy production (NAICS 3311). Among the 33 percent of industries with declining labor productivity, the turbine and power transmission equipment industry (NAICS 3336) had the largest productivity drop of 13.3 percent, followed by a 12.9 percent decline in apparel knitting mills (NAICS 3151).

Labor productivity rose in 2004 in each of the four largest manufacturing industries, those with more than 500,000 employees. The largest, motor vehicle parts manufacturing (NAICS 3363), recorded a productivity gain of 1.1 percent. The next largest industry, printing and related support activities (NAICS 323), had a 2.5 percent increase in output per hour. The two other industries, plastics product manufacturing (NAICS 3261) and animal slaughtering and processing (NAICS 3116), recorded hourly productivity increases of 0.9 and 2.0 percent, respectively. Among these four largest industries, two increased output slightly and all four industries posted slight to moderate declines in hours.

Unit labor costs, which reflect the total labor costs required to produce a unit of output, fell in 49 of the 86 manufacturing industries in 2004. (See table 2.) Industries in the computer and electronic product subsector (NAICS 334), which recorded large productivity increases, accounted for the three largest declines in unit labor costs. Unit labor costs fell 27.6 percent in audio and video equipment manufacturing (NAICS 3343), 25.9 percent in computer and peripheral equipment manufacturing (NAICS 3341), and 12.0 percent in semiconductor and electronic component manufacturing (NAICS 3344).

Long-term trends

From 1987 to 2004, 85 of the 86 manufacturing industries registered productivity gains. (See table 1.) Output increased in 69 of the industries, and hours declined in 70 of them. Productivity advanced at least 5.0 percent per year in six industries. Computer and peripheral equipment manufacturing (NAICS 3341) posted the largest average annual gain, 24.1 percent per year, on average. The semiconductor and electronic component manufacturing industry (NAICS 3344) was second with an average rise of 19.7 percent per year. These industries recorded the fastest growth in output, 19.2 and 17.9 percent per year, respectively, and posted average annual declines in hours of 3.9 and 1.5 percent, respectively. Accessories and other apparel manufacturing (NAICS 3159) was the only manufacturing industry that experienced a decline in labor productivity (1.7 percent) from 1987 to 2004. Both output and hours decreased in this industry.

Productivity grew in each of the four largest manufacturing industries from 1987 to 2004. In these industries, productivity grew most rapidly in motor vehicle parts manufacturing (NAICS 3363) (3.4 percent per year) and in plastics product manufacturing (NAICS 3261) (2.7 percent), and more slowly in printing and related support activities (NAICS 323) (0.9 percent) and animal slaughtering and processing (NAICS 3116) (0.7 percent). All four of these industries registered increases in output, while three of the four posted slight increases in hours.

Unit labor costs fell in 15 of the 86 manufacturing industries from 1987 to 2004. Four industries in the computer and electronic product manufacturing subsector (NAICS 334) recorded the largest declines in unit labor costs. Of these four industries, the largest decreases occurred in computer and peripheral equipment (NAICS 3341) (17.5 percent)

and semiconductor and electronic component manufacturing (NAICS 3344) (13.6 percent), the two industries where productivity rose most rapidly.

The index numbers and rates of change reported by BLS in this news release are rounded to one decimal place. Effective with the release of today's data, all percent changes in this release and on the BLS web site are calculated using index numbers to three decimal places. These index numbers are available at the BLS web site, <http://www.bls.gov/lpc/home.htm>, or by contacting the BLS Division of Industry Productivity Studies. (Telephone 201-691-5618 or email DIPSWEB@BLS.GOV)

Previously, the percent changes were calculated using the data underlying the index numbers rather than the index numbers themselves. The change in calculation method may cause published productivity growth rates to change slightly, likely by no more than a tenth, from the rates that were calculated using the earlier method. The convention of publishing the news release index values rounded to one decimal place will continue.

Technical Note

Output

Industry output is measured as sectoral output, the total value of goods and services leaving the industry. Wherever possible, the indexes of industry output are calculated with a Törnqvist formula. This 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.

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.

Labor Hours

The industry labor input measures represent the hours paid of all workers in the industry. The primary source of data on employment and hours is the BLS Current Employment Statistics (CES) survey, which provides monthly survey data on the number of jobs held by wage and salary workers in nonfarm establishments. The CES survey also provides data on the average weekly hours of production and nonsupervisory workers in these establishments. The Office of Productivity and Technology estimates the average weekly hours of supervisory and nonproduction workers by industry, using information from the Current Population Survey (CPS) together with the CES data. For the industries covered in this release, the hours of production and nonproduction workers are treated as homogeneous and are directly aggregated.

Unit Labor Costs

The unit labor cost series represents the cost of labor input required to produce one unit of output. The indexes of unit labor costs for each industry are computed by dividing an index of industry labor compensation by an index of industry output. Compensation, defined as payroll plus supplemental payments, is a measure of the cost to the employer of securing the services of labor. Payroll includes salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, and compensation in kind. Supplemental payments include legally required expenditures and payments for voluntary programs. The legally required portion consists primarily of Federal old age and survivors' insurance, unemployment compensation, and workers' compensation. Payments for voluntary programs include all programs not specifically required by legislation, such as the employer portion of private health insurance and pension plans.

Labor Productivity

The industry labor productivity measures describe the relationship between output and the labor time involved in its production. They show the changes from period to

period in the amount of goods and services produced per hour. Industry output per hour indexes are prepared from data published by various public and private agencies, using the greatest level of industry detail available.

Although the labor productivity measures relate output to hours of employees or all persons engaged in an industry, they do not measure the specific contribution of labor, capital, or any other factor of production. Rather, they reflect the joint effects of many influences, including changes in technology; capital investment; level of output; utilization of capacity, energy, and materials; the organization of production; managerial skill; and the characteristics and effort of the workforce.

Year-to-year movements in productivity measures for some industries might be erratic, particularly in the smaller industries. The annual changes in an industry's output and use of labor may reflect cyclical changes in the economy rather than long-term trends. Also, annual productivity indexes are based on sample data, which are likely to differ from data generated by a census of establishments in the industry. As a result, long-term trends tend to be more reliable indicators of the performance of an industry than are the year-to-year changes.

Notes

The measures in this news release reflect revisions to the manufacturing series as published in table 51 of the Monthly Labor Review and in the news release Productivity and Costs by Industry, 2003 (released August 26, 2005). All of the measures for 2004 in this release are preliminary and subject to revision.

Published productivity and unit labor cost indexes for selected NAICS industries, including the industries covered in this report, can be accessed electronically by visiting the Labor Productivity and Costs Web site: <http://www.bls.gov/lpc/home.htm>. Measures for additional detailed manufacturing and trade industries are available upon request by calling the Division of Industry Productivity Studies (202-691-5618) or by sending a request by e-mail: dipsweb@bls.gov. Data on industry employment, annual hours, the net value of production, and the implicit price deflator for output also are available upon request.

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Table 1. Annual percent change in output per hour and related series, 1987-2004 and 2003-2004

NAICS code	Industry	2004 Employment (thousands)	Annual percent change, 1987-2004			Annual percent change, 2003-2004		
			Output per hour	Output	Hours	Output per hour	Output	Hours
Manufacturing								
311	Food	1495	1.3	1.6	0.3	1.5	-0.1	-1.5
3111	Animal food	50	3.5	2.1	-1.3	9.0	3.9	-4.6
3112	Grain and oilseed milling	60	2.8	1.5	-1.2	4.8	-1.2	-5.8
3113	Sugar and confectionery products	84	1.7	1.1	-0.5	3.4	0.7	-2.6
3114	Fruit and vegetable preserving and specialty	181	1.8	1.7	-0.2	2.7	-0.7	-3.4
3115	Dairy products	131	1.5	0.7	-0.8	-3.4	-3.3	0.1
3116	Animal slaughtering and processing	505	0.7	2.2	1.6	2.0	-1.2	-3.2
3117	Seafood product preparation and packaging	42	1.5	0.7	-0.8	-8.4	0.6	9.9
3118	Bakeries and tortilla manufacturing	285	0.7	0.7	0.0	2.9	4.1	1.2
3119	Other food products	156	1.2	2.2	1.0	-0.2	1.0	1.1
312	Beverages and tobacco products	195	1.1	-0.1	-1.1	2.8	1.5	-1.3
3121	Beverages	166	2.2	1.5	-0.7	3.4	2.8	-0.6
3122	Tobacco and tobacco products	29	0.8	-2.4	-3.2	4.7	-0.7	-5.2
313	Textile mills	237	3.7	-1.2	-4.7	0.0	-7.7	-7.7
3131	Fiber, yarn, and thread mills	54	4.9	0.2	-4.5	1.4	0.1	-1.3
3132	Fabric mills	115	4.3	-1.4	-5.5	1.7	-9.7	-11.2
3133	Textile and fabric finishing mills	68	1.7	-1.8	-3.4	-3.4	-9.3	-6.2
314	Textile product mills	176	1.6	0.7	-0.9	7.6	3.6	-3.7
3141	Textile furnishings mills	101	1.7	0.7	-0.9	5.5	1.6	-3.7
3149	Other textile product mills	74	1.4	0.6	-0.9	12.7	8.5	-3.7
315	Apparel	286	2.2	-4.9	-7.0	-6.7	-14.4	-8.3
3151	Apparel knitting mills	42	1.2	-4.9	-6.0	-12.9	-17.5	-5.3
3152	Cut and sew apparel	221	2.8	-4.9	-7.5	-5.4	-14.3	-9.3
3159	Accessories and other apparel	23	-1.7	-4.6	-3.0	-7.0	-10.6	-3.8
316	Leather and allied products	42	2.5	-4.6	-6.9	8.9	-0.6	-8.7
3161	Leather and hide tanning and finishing	7	0.3	-3.6	-3.9	3.5	-4.3	-7.5
3162	Footwear	19	1.6	-7.3	-8.8	-2.0	-8.6	-6.8
3169	Other leather products	16	1.5	-3.4	-4.8	27.3	12.7	-11.5
321	Wood products	550	1.1	0.9	-0.2	0.0	1.7	1.7
3211	Sawmills and wood preservation	119	2.5	1.0	-1.5	-3.3	-1.6	1.7
3212	Plywood and engineered wood products	118	0.1	1.1	1.0	-5.1	-1.4	3.9
3219	Other wood products	313	0.9	0.8	-0.1	4.4	5.2	0.8
322	Paper and paper products	496	2.1	0.5	-1.6	2.7	-0.3	-2.9
3221	Pulp, paper, and paperboard mills	146	3.4	0.2	-3.1	2.9	-0.2	-3.0
3222	Converted paper products	350	1.4	0.7	-0.7	2.7	-0.4	-2.9
323	Printing and related support activities *	663	0.9	0.1	-0.8	2.5	0.0	-2.4
324	Petroleum and coal products *	112	3.2	1.3	-1.9	3.3	2.4	-0.9
325	Chemicals	887	2.2	1.7	-0.4	4.7	3.4	-1.2
3251	Basic chemicals	156	2.7	0.3	-2.3	9.2	6.0	-2.9
3252	Resin, rubber, and artificial fibers	110	2.8	1.2	-1.5	0.9	4.4	3.5
3253	Agricultural chemicals	42	2.2	1.0	-1.1	6.8	7.5	0.6
3254	Pharmaceuticals and medicines	290	1.0	4.2	3.1	3.6	1.0	-2.5
3255	Paints, coatings, and adhesives	68	1.7	0.6	-1.1	3.5	5.3	1.7
3256	Soaps, cleaning compounds, and toiletries	115	2.5	2.1	-0.4	8.3	5.6	-2.4
3259	Other chemical products and preparations	107	2.7	0.6	-2.1	-3.5	-4.5	-1.1
326	Plastics and rubber products	806	2.7	2.8	0.1	0.9	0.1	-0.8
3261	Plastics products	634	2.7	3.2	0.5	0.9	0.1	-0.8
3262	Rubber products	173	2.3	1.3	-1.1	1.0	0.1	-0.9
327	Nonmetallic mineral products	506	1.2	1.2	-0.1	-2.9	1.5	4.5
3271	Clay products and refractories	65	1.4	-0.3	-1.7	5.6	1.1	-4.3
3272	Glass and glass products	113	1.9	0.8	-1.1	-1.0	0.9	2.0
3273	Cement and concrete products	235	0.5	1.8	1.2	-5.8	0.6	6.8

Table 1. Annual percent change in output per hour and related series, 1987-2004 and 2003-2004--Continued

NAICS code	Industry	2004 Employment (thousands)	Annual percent change, 1987-2004			Annual percent change, 2003-2004		
			Output per hour	Output	Hours	Output per hour	Output	Hours
3274	Lime and gypsum products	20	0.9	0.3	-0.6	-3.1	3.3	6.5
3279	Other nonmetallic mineral products	75	1.5	1.1	-0.4	-4.3	4.1	8.8
331	Primary metals	467	2.8	0.7	-2.1	10.1	9.6	-0.4
3311	Iron and steel mills and ferroalloy production	95	5.4	1.8	-3.4	21.1	18.3	-2.3
3312	Steel products from purchased steel	61	1.0	0.2	-0.8	0.1	1.8	1.7
3313	Alumina and aluminum production	74	2.5	0.1	-2.3	8.0	6.7	-1.3
3314	Other nonferrous metal production	72	1.3	-1.0	-2.3	0.5	-0.2	-0.7
3315	Foundries	165	2.5	1.1	-1.3	6.4	6.8	0.4
332	Fabricated metal products	1497	1.5	1.3	-0.3	-1.8	0.0	1.9
3321	Forging and stamping	110	2.9	1.7	-1.2	5.2	5.8	0.6
3322	Cutlery and hand tools	59	1.5	0.0	-1.5	-1.4	-2.6	-1.3
3323	Architectural and structural metals	389	0.9	1.4	0.5	-4.9	-3.9	1.1
3324	Boilers, tanks, and shipping containers	92	0.9	-0.2	-1.0	-8.0	-4.2	4.1
3325	Hardware	38	2.0	-1.0	-2.9	-1.4	-4.4	-3.1
3326	Spring and wire products	62	2.9	1.6	-1.3	-3.6	-6.2	-2.7
3327	Machine shops and threaded products	327	2.3	3.1	0.8	-2.5	4.2	6.9
3328	Coating, engraving, and heat treating metals	144	3.0	3.3	0.3	5.9	7.6	1.6
3329	Other fabricated metal products	278	1.2	0.2	-1.0	-0.1	-0.3	-0.2
333	Machinery	1143	2.5	1.5	-1.0	0.5	3.3	2.8
3331	Agriculture, construction, and mining machinery	195	3.2	2.7	-0.4	9.1	15.2	5.6
3332	Industrial machinery	121	3.0	2.1	-0.9	6.9	8.6	1.6
3333	Commercial and service industry machinery	115	1.2	-0.4	-1.6	1.5	1.5	0.0
3334	HVAC and commercial refrigeration equipment	153	2.6	2.1	-0.5	0.3	1.4	1.1
3335	Metalworking machinery	201	1.9	0.4	-1.5	1.4	2.4	1.0
3336	Turbine and power transmission equipment	93	2.6	1.6	-1.0	-13.3	-11.4	2.1
3339	Other general purpose machinery	265	2.4	1.3	-1.0	-3.3	1.6	5.1
334	Computer and electronic products	1312	13.5	10.6	-2.6	11.5	7.9	-3.3
3341	Computer and peripheral equipment	210	24.1	19.2	-3.9	15.0	7.0	-7.0
3342	Communications equipment	148	7.8	4.9	-2.7	0.2	-0.5	-0.7
3343	Audio and video equipment	33	8.4	4.5	-3.6	42.3	33.9	-5.9
3344	Semiconductors and electronic components	454	19.7	17.9	-1.5	11.7	9.0	-2.5
3345	Electronic instruments	431	4.2	1.3	-2.8	12.7	9.7	-2.7
3346	Magnetic media manufacturing and reproduction	36	2.9	3.0	0.1	11.2	6.4	-4.4
335	Electrical equipment and appliances	445	2.9	0.5	-2.4	4.5	0.9	-3.4
3351	Electric lighting equipment	65	1.7	0.2	-1.5	7.8	2.4	-5.0
3352	Household appliances	89	4.6	2.1	-2.4	6.9	3.0	-3.6
3353	Electrical equipment	154	2.8	-0.1	-2.9	6.7	2.1	-4.3
3359	Other electrical equipment and components	138	2.3	0.2	-2.1	-0.3	-1.8	-1.5
336	Transportation equipment	1767	2.9	1.8	-1.1	-2.3	-1.5	0.8
3361	Motor vehicles	256	3.8	2.7	-1.0	0.9	-1.9	-2.8
3362	Motor vehicle bodies and trailers	165	1.4	2.6	1.2	-1.5	9.3	10.9
3363	Motor vehicle parts	692	3.4	3.9	0.5	1.1	0.3	-0.8
3364	Aerospace products and parts	442	1.8	-1.9	-3.6	-6.0	-4.8	1.3
3365	Railroad rolling stock	25	4.9	4.6	-0.3	-9.8	2.8	14.0
3366	Ship and boat building	148	2.1	0.9	-1.2	2.2	3.6	1.4
3369	Other transportation equipment	39	5.0	5.3	0.3	3.1	4.3	1.1
337	Furniture and related products	573	2.1	1.8	-0.3	2.8	4.4	1.5
3371	Household and institutional furniture	385	1.9	1.7	-0.2	2.8	6.9	4.0
3372	Office furniture and fixtures	135	2.4	1.5	-0.9	2.3	-0.8	-3.0
3379	Other furniture-related products	53	2.0	2.7	0.6	10.1	5.5	-4.2
339	Miscellaneous manufacturing	658	3.1	3.1	0.1	1.3	0.3	-1.0
3391	Medical equipment and supplies	304	3.8	4.8	1.0	1.6	0.6	-1.0
3399	Other miscellaneous manufacturing	354	2.3	1.7	-0.6	1.0	0.0	-1.0

* 3-digit industry is the same as the 4-digit.

Table 2. Annual percent change in total compensation, output, and unit labor costs, 1987-2004 and 2003-2004

NAICS code	Industry	2004 Employment (thousands)	Annual percent change, 1987-2004			Annual percent change, 2003-2004		
			Total compensation	Output	Unit labor costs	Total compensation	Output	Unit labor costs
Manufacturing								
311	Food	1495	3.2	1.6	1.6	2.2	-0.1	2.3
3111	Animal food	50	3.2	2.1	1.1	-0.1	3.9	-3.8
3112	Grain and oilseed milling	60	2.0	1.5	0.5	3.5	-1.2	4.8
3113	Sugar and confectionery products	84	2.4	1.1	1.2	-3.0	0.7	-3.7
3114	Fruit and vegetable preserving and specialty	181	2.7	1.7	1.0	-2.7	-0.7	-2.0
3115	Dairy products	131	3.0	0.7	2.3	2.0	-3.3	5.5
3116	Animal slaughtering and processing	505	3.8	2.2	1.5	4.1	-1.2	5.4
3117	Seafood product preparation and packaging	42	3.0	0.7	2.2	-4.3	0.6	-4.9
3118	Bakeries and tortilla manufacturing	285	2.8	0.7	2.0	0.9	4.1	-3.0
3119	Other food products	156	4.8	2.2	2.5	9.6	1.0	8.5
312	Beverages and tobacco products	195	1.5	-0.1	1.6	0.7	1.5	-0.8
3121	Beverages	166	1.9	1.5	0.4	2.3	2.8	-0.5
3122	Tobacco and tobacco products	29	0.0	-2.4	2.5	-4.8	-0.7	-4.1
313	Textile mills	237	-1.4	-1.2	-0.1	-7.5	-7.7	0.3
3131	Fiber, yarn, and thread mills	54	-1.0	0.2	-1.2	-6.5	0.1	-6.6
3132	Fabric mills	115	-1.1	-1.4	0.3	-8.7	-9.7	1.2
3133	Textile and fabric finishing mills	68	-2.2	-1.8	-0.4	-5.6	-9.3	4.1
314	Textile product mills	176	1.8	0.7	1.1	1.8	3.6	-1.7
3141	Textile furnishings mills	101	1.0	0.7	0.3	-0.4	1.6	-1.9
3149	Other textile product mills	74	2.8	0.6	2.3	4.5	8.5	-3.7
315	Apparel	286	-4.5	-4.9	0.4	-10.1	-14.4	5.0
3151	Apparel knitting mills	42	-4.4	-4.9	0.5	-15.9	-17.5	2.0
3152	Cut and sew apparel	221	-4.7	-4.9	0.2	-9.0	-14.3	6.2
3159	Accessories and other apparel	23	-2.2	-4.6	2.5	-9.4	-10.6	1.4
316	Leather and allied products	42	-3.2	-4.6	1.4	-0.5	-0.6	0.1
3161	Leather and hide tanning and finishing	7	-1.2	-3.6	2.5	-9.7	-4.3	-5.7
3162	Footwear	19	-4.6	-7.3	2.9	1.3	-8.6	10.9
3169	Other leather products	16	-2.3	-3.4	1.1	4.1	12.7	-7.7
321	Wood products	550	3.4	0.9	2.4	8.2	1.7	6.5
3211	Sawmills and wood preservation	119	2.0	1.0	1.0	5.8	-1.6	7.5
3212	Plywood and engineered wood products	118	3.6	1.1	2.5	5.7	-1.4	7.3
3219	Other wood products	313	3.9	0.8	3.1	10.4	5.2	4.9
322	Paper and paper products	496	1.9	0.5	1.4	-0.6	-0.3	-0.3
3221	Pulp, paper, and paperboard mills	146	0.9	0.2	0.7	-1.8	-0.2	-1.6
3222	Converted paper products	350	2.7	0.7	2.0	0.3	-0.4	0.7
323	Printing and related support activities *	663	1.8	0.1	1.7	-1.3	0.0	-1.3
324	Petroleum and coal products *	112	3.7	1.3	2.4	6.0	2.4	3.5
325	Chemicals	887	3.2	1.7	1.4	-2.2	3.4	-5.5
3251	Basic chemicals	156	2.3	0.3	2.0	-1.2	6.0	-6.8
3252	Resin, rubber, and artificial fibers	110	1.7	1.2	0.5	-5.2	4.4	-9.2
3253	Agricultural chemicals	42	1.9	1.0	0.9	2.5	7.5	-4.6
3254	Pharmaceuticals and medicines	290	6.3	4.2	2.0	0.5	1.0	-0.5
3255	Paints, coatings, and adhesives	68	2.5	0.6	1.8	0.1	5.3	-4.9
3256	Soaps, cleaning compounds, and toiletries	115	2.8	2.1	0.7	-3.5	5.6	-8.6
3259	Other chemical products and preparations	107	1.7	0.6	1.1	-10.0	-4.5	-5.7
326	Plastics and rubber products	806	3.7	2.8	0.9	-1.1	0.1	-1.2
3261	Plastics products	634	4.2	3.2	1.0	-0.9	0.1	-1.0
3262	Rubber products	173	2.2	1.3	0.9	-1.8	0.1	-1.8
327	Nonmetallic mineral products	506	2.6	1.2	1.4	1.7	1.5	0.2
3271	Clay products and refractories	65	0.9	-0.3	1.3	-1.8	1.1	-2.8
3272	Glass and glass products	113	1.4	0.8	0.6	-1.8	0.9	-2.7
3273	Cement and concrete products	235	3.7	1.8	1.9	3.9	0.6	3.3

Table 2. Annual percent change in total compensation, output, and unit labor costs, 1987-2004 and 2003-2004--Continued

NAICS code	Industry	2004 Employment (thousands)	Annual percent change, 1987-2004			Annual percent change, 2003-2004		
			Total compensation	Output	Unit labor costs	Total compensation	Output	Unit labor costs
3274	Lime and gypsum products	20	2.7	0.3	2.4	-2.5	3.3	-5.6
3279	Other nonmetallic mineral products	75	2.8	1.1	1.7	4.6	4.1	0.5
331	Primary metals	467	1.0	0.7	0.3	3.3	9.6	-5.7
3311	Iron and steel mills and ferroalloy production	95	0.1	1.8	-1.7	7.2	18.3	-9.3
3312	Steel products from purchased steel	61	1.6	0.2	1.4	2.6	1.8	0.8
3313	Alumina and aluminum production	74	1.2	0.1	1.1	0.7	6.7	-5.6
3314	Other nonferrous metal production	72	1.5	-1.0	2.5	0.0	-0.2	0.2
3315	Foundries	165	1.7	1.1	0.6	2.2	6.8	-4.3
332	Fabricated metal products	1497	2.6	1.3	1.3	2.7	0.0	2.7
3321	Forging and stamping	110	1.8	1.7	0.1	5.6	5.8	-0.1
3322	Cutlery and hand tools	59	1.8	0.0	1.8	-2.7	-2.6	0.0
3323	Architectural and structural metals	389	3.5	1.4	2.0	1.9	-3.9	6.0
3324	Boilers, tanks, and shipping containers	92	1.1	-0.2	1.3	0.9	-4.2	5.4
3325	Hardware	38	0.0	-1.0	0.9	-4.1	-4.4	0.4
3326	Spring and wire products	62	2.3	1.6	0.7	-3.6	-6.2	2.8
3327	Machine shops and threaded products	327	4.1	3.1	0.9	4.6	4.2	0.4
3328	Coating, engraving, and heat treating metals	144	3.5	3.3	0.2	4.7	7.6	-2.7
3329	Other fabricated metal products	278	1.6	0.2	1.4	3.4	-0.3	3.7
333	Machinery	1143	2.0	1.5	0.4	0.1	3.3	-3.1
3331	Agriculture, construction, and mining machinery	195	2.3	2.7	-0.4	3.2	15.2	-10.4
3332	Industrial machinery	121	2.5	2.1	0.5	-0.7	8.6	-8.5
3333	Commercial and service industry machinery	115	0.2	-0.4	0.6	-2.2	1.5	-3.6
3334	HVAC and commercial refrigeration equipment	153	2.5	2.1	0.3	-1.4	1.4	-2.7
3335	Metalworking machinery	201	1.6	0.4	1.2	0.9	2.4	-1.5
3336	Turbine and power transmission equipment	93	0.9	1.6	-0.7	0.7	-11.4	13.7
3339	Other general purpose machinery	265	2.6	1.3	1.3	-0.8	1.6	-2.3
334	Computer and electronic products	1312	1.0	10.6	-8.7	-3.5	7.9	-10.6
3341	Computer and peripheral equipment	210	-1.6	19.2	-17.5	-20.7	7.0	-25.9
3342	Communications equipment	148	0.6	4.9	-4.1	-9.6	-0.5	-9.1
3343	Audio and video equipment	33	2.4	4.5	-2.0	-3.1	33.9	-27.6
3344	Semiconductors and electronic components	454	1.8	17.9	-13.6	-4.1	9.0	-12.0
3345	Electronic instruments	431	1.4	1.3	0.1	4.6	9.7	-4.6
3346	Magnetic media manufacturing and reproduction	36	2.5	3.0	-0.5	12.8	6.4	6.1
335	Electrical equipment and appliances	445	1.3	0.5	0.8	1.3	0.9	0.4
3351	Electric lighting equipment	65	1.6	0.2	1.4	4.9	2.4	2.4
3352	Household appliances	89	1.4	2.1	-0.7	1.1	3.0	-1.9
3353	Electrical equipment	154	0.9	-0.1	1.0	0.5	2.1	-1.5
3359	Other electrical equipment and components	138	1.4	0.2	1.3	1.0	-1.8	2.8
336	Transportation equipment	1767	1.7	1.8	0.0	2.0	-1.5	3.6
3361	Motor vehicles	256	2.5	2.7	-0.2	5.1	-1.9	7.2
3362	Motor vehicle bodies and trailers	165	4.7	2.6	2.0	9.4	9.3	0.2
3363	Motor vehicle parts	692	3.0	3.9	-0.9	-0.3	0.3	-0.6
3364	Aerospace products and parts	442	-0.5	-1.9	1.4	1.7	-4.8	6.9
3365	Railroad rolling stock	25	2.8	4.6	-1.7	-2.3	2.8	-5.0
3366	Ship and boat building	148	2.1	0.9	1.2	5.6	3.6	1.9
3369	Other transportation equipment	39	3.9	5.3	-1.3	-1.8	4.3	-5.8
337	Furniture and related products	573	3.2	1.8	1.4	3.5	4.4	-0.8
3371	Household and institutional furniture	385	3.2	1.7	1.5	5.3	6.9	-1.5
3372	Office furniture and fixtures	135	2.9	1.5	1.3	-0.9	-0.8	-0.1
3379	Other furniture-related products	53	3.8	2.7	1.1	8.0	5.5	2.3
339	Miscellaneous manufacturing	658	4.7	3.1	1.5	2.2	0.3	2.0
3391	Medical equipment and supplies	304	5.7	4.8	0.9	3.1	0.6	2.5
3399	Other miscellaneous manufacturing	354	3.8	1.7	2.1	1.4	0.0	1.4

* 3-digit industry is the same as the 4-digit.