BEYOND THE NUMBERS

BLS

November 2020 | Vol. 9 / No. 16

EMPLOYMENT AND UNEMPLOYMENT

errata

Forty years of falling manufacturing employment

Forty years of falling manufacturing employment

By Katelynn Harris

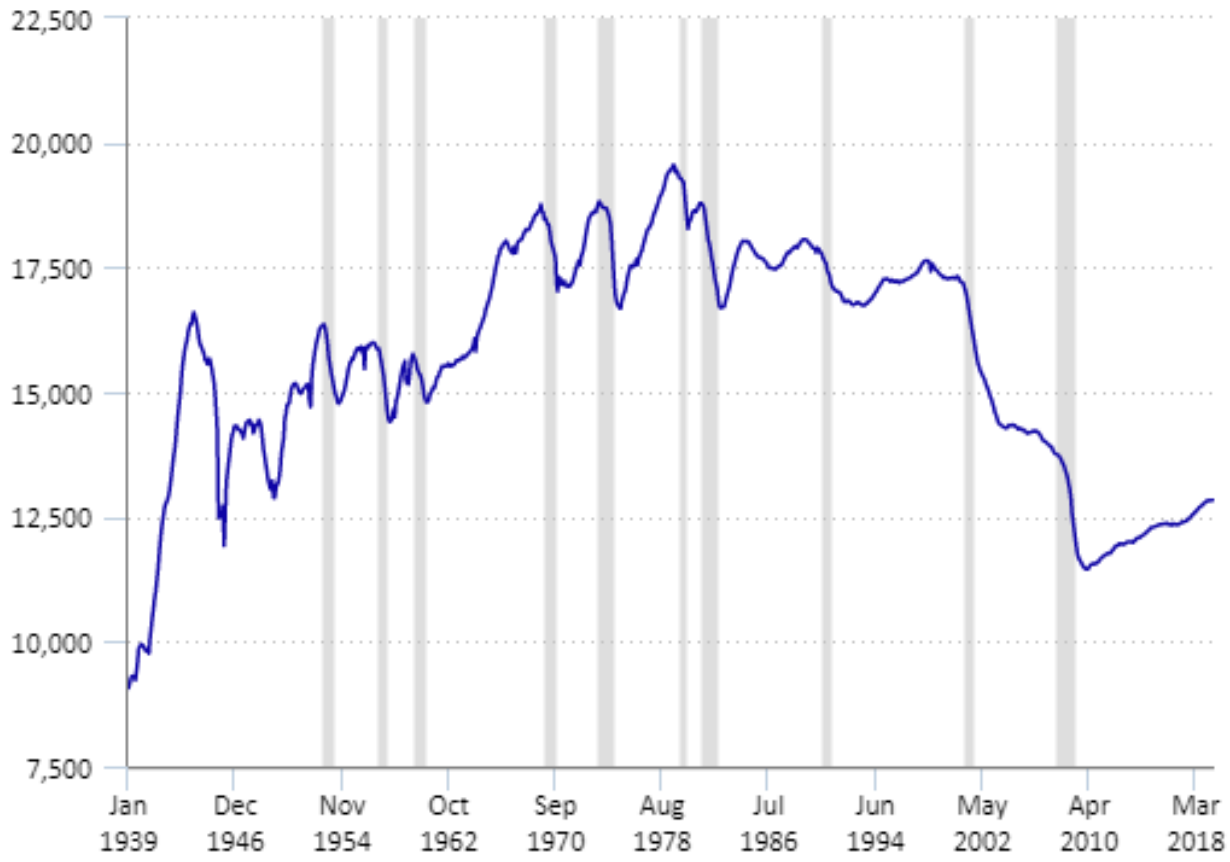
Despite being a leading driver of employment growth for decades, manufacturing has shed employment over the past 40 years as the U.S. economy has shifted to service-providing industries. In June 1979, manufacturing employment reached an all-time peak of 19.6 million. In June 2019, employment was at 12.8 million, down 6.7 million or 35 percent from the all-time peak.[1] Since 1979, employment fell during each of five recessions, and in

each case, employment never fully recovered to prerecession levels.[2] This **Beyond the Numbers** article looks at the broad employment trends in manufacturing over the past 40 years, as well as the trends in specific industries that have been most affected, such as fabricated metals and machinery, and computer and electrical products, and apparel and textile industries. Data are from the U.S. Bureau of Labor Statistics Current Employment Statistics (CES) program.

Steady, cyclical growth, 1939–79

During the 40-year buildup to the June 1979 peak, manufacturing employment experienced steady but cyclical growth. (See chart 1.) Omitting the industrialization that occurred during World War II, we find that manufacturing's share of total nonfarm employment peaked in May 1953 at 32 percent. After World War II, employment declined with each recession, but then rebounded during each recovery. In the 1960s, manufacturing employment growth accelerated. From February 1961 to August 1969, manufacturing added 4 million jobs, a 27-percent increase. Two recessions during the early 1970s saw manufacturing lose 1.5 million and 2 million jobs, respectively, with a recovery period in between. During the period of expansion from July 1975 through June 1979, manufacturing added 3 million jobs, and employment in the industry stood at 19.6 million.

Chart 1. Employment in manufacturing, January 1939–June 2019, seasonally adjusted



Hover over chart to view data.
Shaded areas represent recessions as determined by the National Bureau of Economic Research.
Source: U.S. Bureau of Labor Statistics.

Declines after 1979

At its peak in June 1979, manufacturing employment represented 22 percent of total nonfarm employment, but that share had fallen to 9 percent by June 2019. Manufacturing's falling share of employment coincided with job growth in service-providing industries, including professional and business services, education and health services, and leisure and hospitality. (See table 1.)

Table 1. Employment in manufacturing and selected industries, 1979–2019, seasonally adjusted, in thousands

Industry	June 1979		June 2019		Change in Employment	Change in percentage of total nonfarm employment
	Employment	Percentage of total nonfarm Employment	Employment	Percentage of total nonfarm Employment		
Total nonfarm	90,108	…	150,759	…	60,651	…

See footnotes at end of table.

Table 1. Employment in manufacturing and selected industries, 1979–2019, seasonally adjusted, in thousands

Industry	June 1979		June 2019		Change in Employment	Change in percentage of total nonfarm employment
	Employment	Percentage of total nonfarm Employment	Employment	Percentage of total nonfarm Employment		
Manufacturing	19,553	22	12,838	9	-6,715	-13
Durable goods	12,320	14	8,064	5	-4,256	-8
Nondurable goods	7,233	8	4,774	3	-2,459	-5
Mining and logging	1,004	1	741	0	-263	-1
Construction	4,604	5	7,497	5	2,893	0
Trade, transportation, and utilities	18,294	20	27,686	18	9,392	-2
Information	2,391	3	2,865	2	474	-1
Financial services	4,840	5	8,732	6	3,892	0
Professional and business services	7,346	8	21,294	14	13,948	6
Education and health services	6,770	8	24,131	16	17,361	8
Leisure and hospitality	6,623	7	16,526	11	9,903	4
Other services	2,638	3	5,896	4	3,258	1
Government	16,045	18	22,553	15	6,508	-3

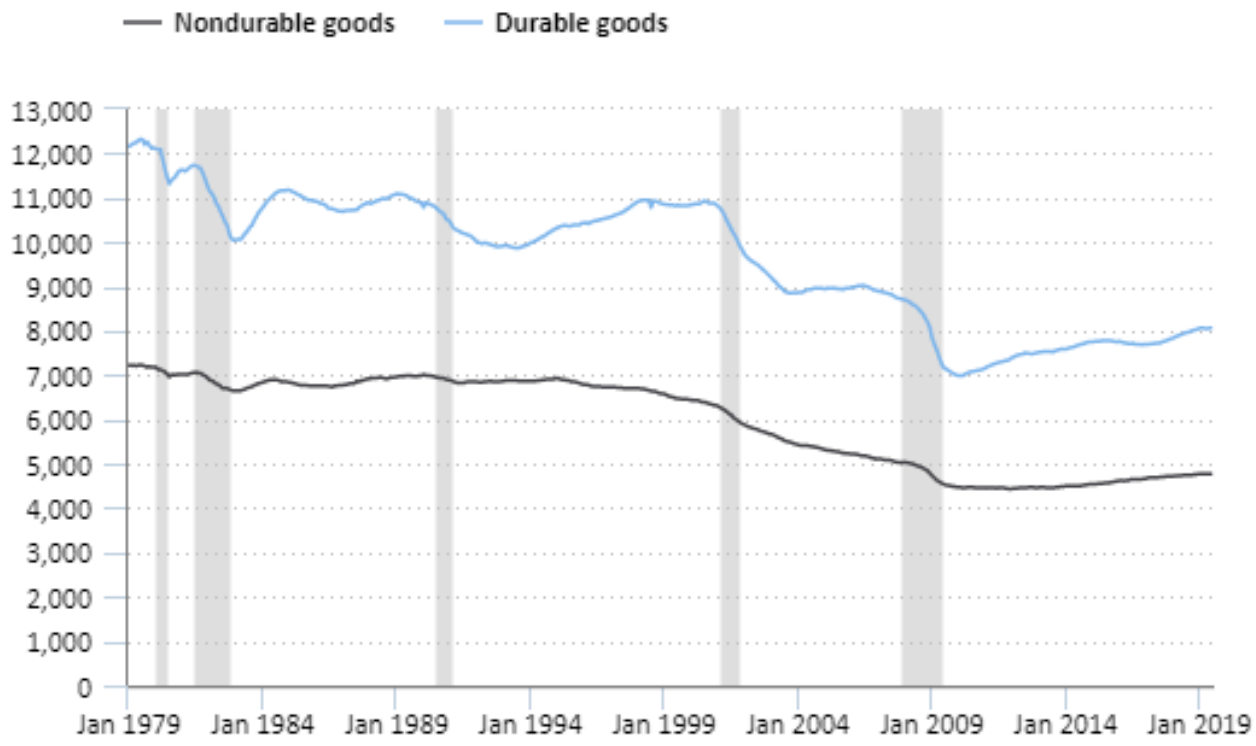
Note: Ellipsis indicates data are not computable.
Source: U.S. Bureau of Labor Statistics.

Durable and nondurable goods

By June 2019, manufacturers of both durable goods and nondurable goods lost more than one-third of jobs held in June 1979.[3] Employment in durable goods fell by 4.3 million, while nondurable goods lost 2.5 million jobs over the 40-year span.

Employment in durable goods has been more sensitive to recessions than in nondurable goods. (See chart 2.) Durable goods industries lost, on average, 10 percent of jobs throughout each recession.

Chart 2. Employment in durable goods and nondurable goods, 1979–2019, seasonally adjusted, in thousands



Click legend items to change data display. Hover over chart to view data.
Shaded areas represent recessions as determined by the National Bureau of Economic Research.
Source: U.S. Bureau of Labor Statistics.

Durable goods industries also served as a good indicator that a recession was looming. With the exception of the recession in the early 1980s, durable goods employment reached a peak at least 6 months before the beginning of a recession. After each recession, durable goods employment never quite recovered before turning down again. After both recessions in the 1980s, only about half of the lost jobs returned. During the recession of 1990, durable goods experienced a long downturn; employment reached a peak 19 months before the recession began and did not turn up again until 28 months after the recession ended. Durable goods lost 2 million jobs in both the 2001 and 2007 recessions. However, since February 2010, durable goods has experienced consistent growth and had recovered 1 million jobs as of June 2019.[4]

Employment in nondurable goods has been much less cyclical and has experienced a general long-term downward trend that started in the mid-1990s and continued until reaching a trough in December 2011. On average, nondurable goods lost around 5 percent of employment during each recession. By June 2019, nondurable goods had recovered 340,000 jobs since its most recent employment trough.

Combining industries for analysis

Most CES employment series for manufacturing industries do not extend back to 1979 using the current industry coding structure. From 1979-90, CES classified data using the Standard Industrial Classification (SIC)-based system. Since 1990, CES has classified data using the North American Industrial Classification System (NAICS).[5]

To best represent 40 years of history by industry, employment for one or more industries was summed or subtracted to create the employment series analyzed in this article.[6] Exhibit 1 shows durable goods industries developed for the 40-year analysis. To create the series for wood products and furniture for 1979-90, sum employment for lumber and wood products (SIC 24) and furniture and fixtures (SIC 25), then subtract employment for logging (NAICS 1133), which was removed from manufacturing with the conversion to NAICS. To represent the series from 1990-2019, sum employment for wood products (NAICS 321) and furniture and related products (NAICS 337). In some instances, the development of a 40-year history uses employment from one SIC series and from one NAICS Series, because limited industry reclassification occurred. For example, nonmetallic mineral products is composed of stone, clay and glass products (SIC 32) for 1979-90 and nonmetallic mineral products (NAICS 327) for 1990-2019. Exhibit 2 shows how nondurable goods manufacturing industries were developed to cover the 40-year span.

Exhibit 1. Select durable goods industries classified using the Standard Industry Classification system and North American Industry Classification System industries, 1979–2019

Durable goods	Data classified using the Standard Industrial Classification (SIC) system, 1979–90	Data classified using the North American Industrial Classification System (NAICS), 1990–2019
Wood products and furniture	Lumber and wood products (SIC 24) + Furniture and fixtures (SIC 25) - Logging (NAICS 1133)	Wood products (NAICS 321) + Furniture and related products (NAICS 337)
Nonmetallic mineral products	Stone, clay and glass products (SIC 32)	Nonmetallic mineral products (NAICS 327)
Fabricated metal products and machinery	Fabricated metal products (SIC 34) + Industrial machinery and equipment (SIC 35)	Fabricated metal products (NAICS 332) + Machinery (NAICS 333)
Computer and electrical products	Electronic and other electrical equipment (SIC 36) + Instruments and related products (SIC 38)	Computer and electronic products (NAICS 334) + Electrical equipment and appliances (NAICS 335)
Transportation equipment	Transportation equipment (SIC 37)	Transportation equipment (NAICS 336)

Exhibit 2. Select nondurable goods industries classified using the Standard Industry Classification system and North American Industry Classification System industries, 1979–2019

Nondurable goods	Data classified using the Standard Industrial Classification (SIC) system, 1979–90	Data classified using the North American Industrial Classification System (NAICS), 1990–2019
Food manufacturing	Food and kindred products (SIC 20) - beverages (SIC 208)	Food manufacturing (NAICS 311)
Apparel and textile industries	Textile mill products (SIC 22) + Apparel and other textile products (SIC 23)	Textile mills (NAICS 313) + Textile product mills (NAICS 314) + Apparel (NAICS 315)
Paper and paper products	Paper and allied products (SIC 26)	Paper and paper products (NAICS 322)
Printing and publishing	Printing and publishing (SIC 27)	Printing and related support activities (NAICS 323) + Publishing industries, except internet (NAICS 511)
Petroleum	Petroleum and coal products (SIC 29)	Petroleum and coal products (NAICS 324)
Chemicals	Chemicals and allied products (SIC 28)	Chemicals (NAICS 325)
Plastics and rubber	Rubber and miscellaneous plastics products (SIC 30)	Plastics and rubber products (NAICS 326)

Using the series as defined in exhibits 1 and 2, we created new employment data series. For the 1979–1990 period, the employment series are constructed on data that were collected under the SIC-industry structure. For the 1990–2009 period, the series are constructed on a NAICS-industry structure. Because there is not perfect

comparability between these two industry structures, we note the series breaks between the periods as the difference between the January 1990 levels for SIC-based and NAICS-based industries. In order to examine employment trends across the entire 40-year period without influence from classification structure changes, we subtract this break from the employment change over the 40 year period. (See exhibit 1.) To help show the long-term trend without series breaks, we index these data to January 1990 levels (as seen in charts 3 and 4).

Manufacturing component industries experienced widespread job losses over the past 40 years. Between June 1979 and January 1990, fabricated metals and machinery lost the largest number of jobs. The industry continued to shed jobs through the early 1990s until the mid-1990s, when hiring picked up pace again. Employment in the industry failed to fully recover with subsequent cyclical swings.

Wood products and furniture experienced cyclical job gains and losses from June 1979 until April 2000, when it reached an employment peak. Since then, the industry has lost half a million jobs, or 60 percent of the April 2000 peak.

Beginning in 2001 through the end of the Great Recession, computer and electrical products suffered steep jobs losses.[7] Since then, however, employment has been flat. In total, computer and electrical products lost over 1.1 million jobs from January 1990 to June 2019, more than double the jobs losses of fabricated metals and machinery combined. (See table 2.)

Table 2. Manufacturing employment by industry, seasonally adjusted, 1979–2019, in thousands

Industry	SIC-based			January 1990 break[1]	NAICS-based		
	June 1979	January 1990	Change June 1979–January 1990		January 1990	June 2019	Change January 1990–June 2019
Manufacturing[2]	19553	17797	-1756	0	17797	12838	-4,959
Durable goods[2]	12320	10784	-1536	0	10784	8064	-2,720
Wood products and furniture	1,195	1,182	-13	-8	1,174	795	-379
Nonmetallic mineral products	678	568	-110	-28	540	421	-119
Fabricated metal products and machinery	4,253	3,530	-723	-487	3,043	2,622	-421
Computer and electrical products	2,814	2,718	-96	-130	2,588	1,484	-1,105
Transportation equipment	2,083	1,922	-161	144	2,066	1,738	-329
Nondurable goods[2]	7233	7013	-220	0	7013	4774	-2,239
Food manufacturing	1,492	1,478	-14	30	1,508	1,636	127
Apparel and textile industries	2,194	1,771	-423	-86	1,685	334	-1,351
Paper and paper products	700	696	-4	-49	647	365	-282
Printing and publishing	1,235	1,563	328	104	1,667	1,188	-479
Petroleum	209	156	-53	-4	152	115	-37
Chemicals	1,114	1,084	-30	-48	1,036	849	-187
Plastics and rubber	828	886	58	-62	824	737	-87

[1]Break results from significant changes in industry classification structures.

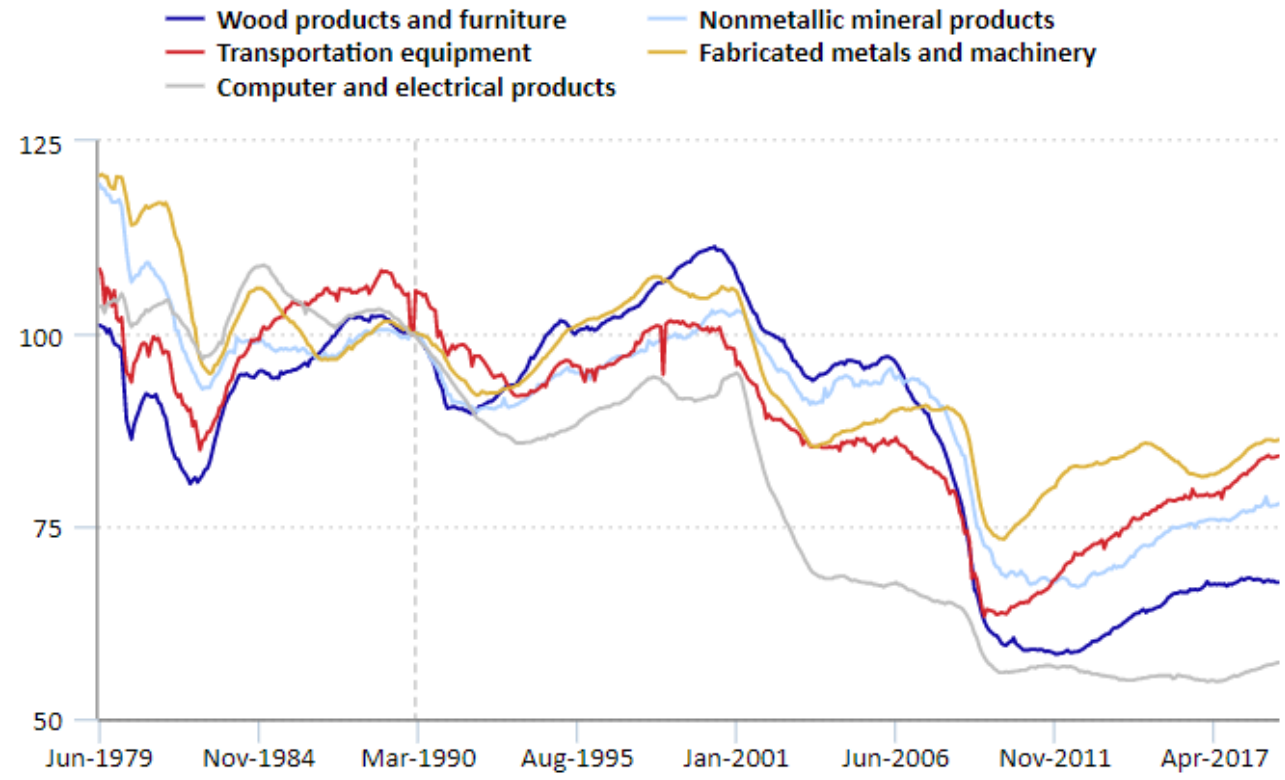
[2]NAICS is used for entire time period. Industry details do not add up to durable, nondurable, and total manufacturing because some series have been excluded.

See footnotes at end of table.

Source: U.S. Bureau of Labor Statistics.

Employment in computer and electrical products declined by 43 percent between June 1979 and June 2019, the largest relative loss in durable goods manufacturing.[8] (See chart 3.) Conversely, transportation equipment experienced about half the rate of jobs loss of computer and electrical products over the same period. On average, durable goods industries shed 35 percent of jobs over the 40-year span.

Chart 3. Employment in durable goods manufacturing, June 1979–June 2019, indexed to January 1990, seasonally adjusted, in thousands

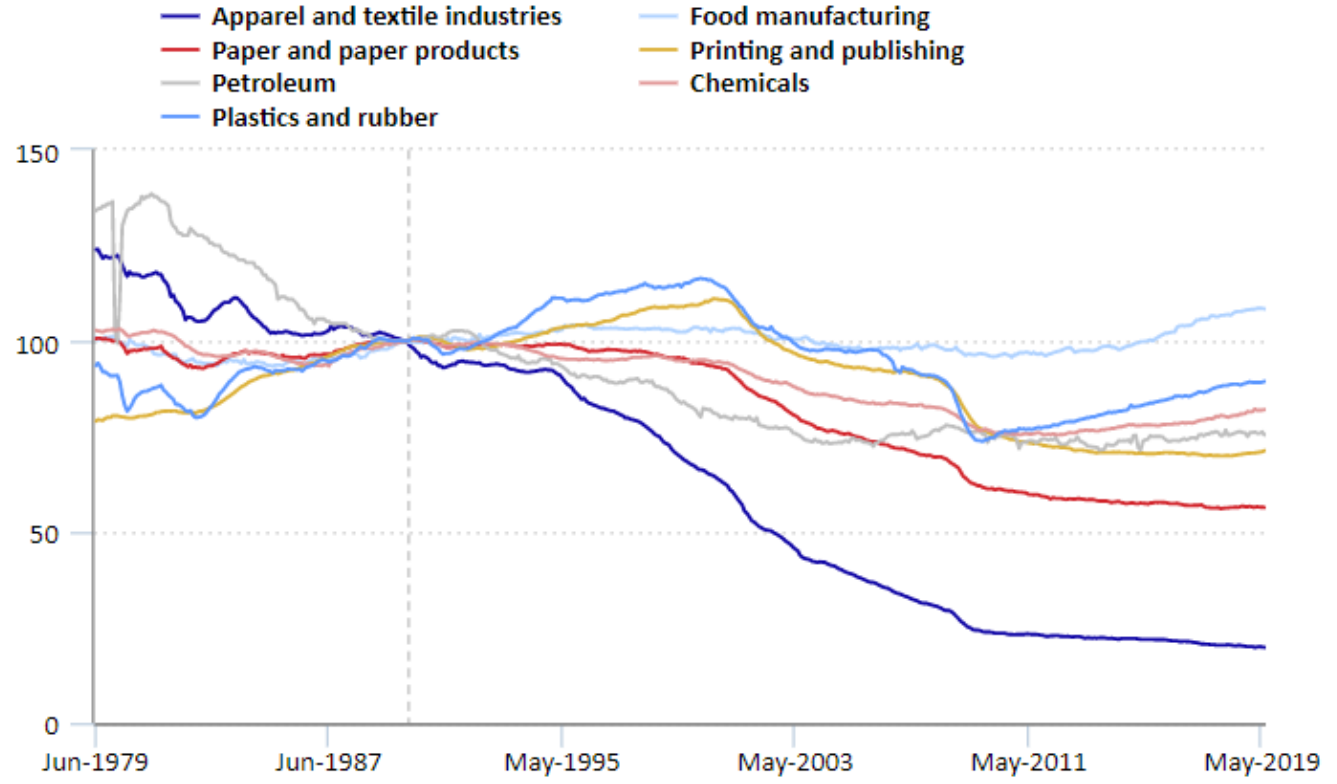


Click legend items to change data display. Hover over chart to view data.
Source: U.S. Bureau of Labor Statistics.

Employment in nondurable goods manufacturing remained relatively flat from June 1979 to January 1990, largely because of offsetting movements in apparel and textile products and in printing and publishing. (See chart 4.) Apparel and textile products suffered the largest employment loss (about 423,000 jobs) of nondurable goods manufacturing industries, while printing and publishing added the most jobs (about 328,000) during the time period. The job losses in apparel and textile products continued from January 1990 until June 2019, with the industry cutting 1.4 million jobs, or 55 percent of all job losses in nondurable goods. Printing and publishing continued to add jobs until reaching an employment peak of 1.9 million in August 2000. By June 2019, employment in printing and publishing was down 36 percent from the August 2000 peak. Of all the manufacturing component industries, food manufacturing was the only industry to add jobs from January 1990 to June 2019. (See table 2.)

In relative terms, apparel and textile industries lost an astonishing 81 percent of jobs from June 1979 to June 2019.[9] (See chart 4.) In contrast, food manufacturing employment rose by about 8 percent and represented the only manufacturing component industry to add jobs. Both printing and publishing (-12 percent) and plastics and rubber (-4 percent) experienced smaller job losses over the 40-year span.

Chart 4. Employment in nondurable goods manufacturing, June 1979–June 2019, indexed to January 1990, seasonally adjusted, in thousands



Click legend items to change data display. Hover over chart to view data.
Source: U.S. Bureau of Labor Statistics.

Conclusion

In the 40 years since manufacturing employment peaked, the industry has struggled to regain the prominence it once had. Notable job losses occurred within durable goods manufacturing, especially fabricated metals and machinery, and computer and electrical products. Within nondurable goods manufacturing, apparel and textile industries suffered dramatic jobs losses, while food manufacturing was the only component industry to add jobs. Although there were more recessions (seven) during the 40 years prior to peak employment, compared with the number (five) after the peak, manufacturing employment failed to fully recover from any of the cyclical losses after June 1979 and resulted in a 34-percent net loss over the 40 years following the peak.

This **Beyond the Numbers** article was prepared by Katelynn Harris, economist, Office of Employment and Unemployment Statistics, U.S. Bureau of Labor Statistics. Telephone: (202) 691-6219. Email: harris.katelynn@bls.gov

Information in this article will be made available upon request to individuals with sensory impairments. Voice phone: (202) 691-5200. Federal Relay Service: 1-800-877-8339. This article is in the public domain and may be reproduced without permission.

RELATED ARTICLES

Inside the decline of sales occupations

Holiday employment in retail trade

The employment outlook for occupations tasked with building America's infrastructure

NOTES

[1] Employment data are from the Current Employment Statistics program of the Bureau of Labor Statistics. https://www.bls.gov/ces

[2] Recessions are defined by the National Bureau of Economic Research.

[3] Nondurable goods products are able to be used only for a relatively short time (life expectancy of less than 3 years) before deteriorating. Nondurable goods include textiles, food, clothing, petroleum, and chemical products. Durable goods are products with a longer life expectancy. Durable goods include automobiles, home appliances, and furniture.

[4] Durable goods employment trough following the 2007–09 recession.

[5] NAICS and SIC data must be accessed from two separate databases. NAICS can be found here: https://data.bls.gov/cgi-bin/dsrv?ce and SIC here: https://data.bls.gov/cgi-bin/dsrv?ee

[6] Miscellaneous durable goods and miscellaneous nondurable goods have been excluded from analysis because those series could not be reliably reconstructed.

[7] The Great Recession occurred from December 2007 until June 2009 according to the National Bureau of Economic Research.

[8] The relative employment over the entire period excludes effects of the employment breaks that resulted from the SIC to NAICS reclassification where some employment may have been reclassified into or out of the series analyzed.

[9] The relative employment over the entire period excludes effects of the employment breaks that resulted from the SIC to NAICS reclassification where some employment may have been reclassified into or out of the series analyzed.

SUGGESTED CITATION

Katelynn Harris, “Forty years of falling manufacturing employment,” *Beyond the Numbers: Employment and Unemployment*, vol. 9, no. 16 (U.S. Bureau of Labor Statistics, November 2020), https://www.bls.gov/opub/btn/volume-9/forty-years-of-falling-manufacturing-employment.htm