

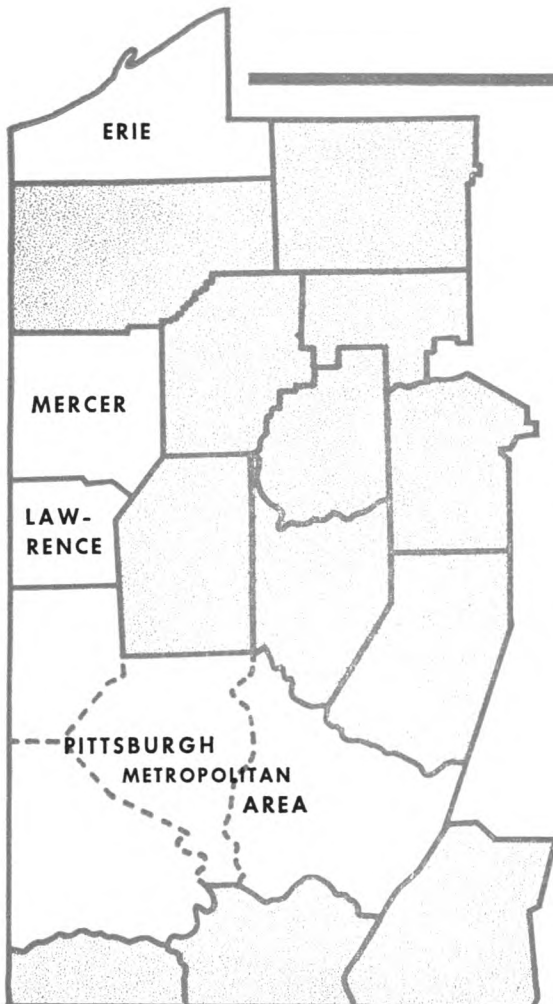
MONTHLY *Business Review*

FEDERAL RESERVE BANK of CLEVELAND

March, 1959

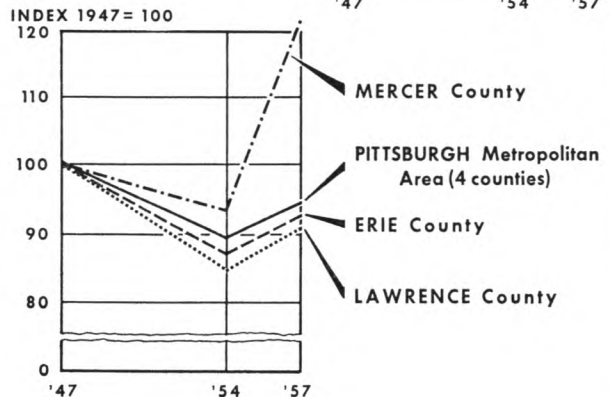
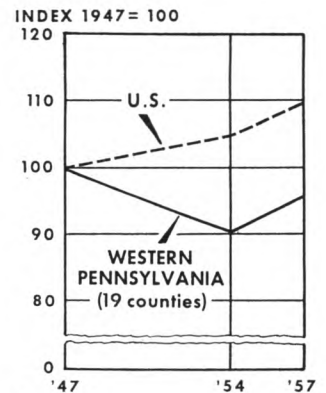
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Trends In Manufacturing Employment

Employment in factories in western Pennsylvania was about 4 percent lower in 1957 than in 1947, even after a substantial rebound from the effects of the 1954 recession.



A Decade of Manufacturing in Western Pennsylvania

THE RECENTLY published results of the 1957 Industrial Census of Pennsylvania make it possible to trace trends in manufacturing industry in western Pennsylvania over the ten-year span from 1947 to 1957. For purposes of this article, western Pennsylvania is defined as the 19 counties in Pennsylvania which are included in the Fourth Federal Reserve District.

A ten-year comparison gives a more balanced picture of postwar trends than that produced by a comparison of the results of the 1947 and 1954 United States Censuses of Manufactures, which have been the principal source of detailed information such as that presented, for example, in the series of articles entitled "Cross Sections of the Fourth Federal Reserve District," published in this Review.⁽¹⁾

The findings of the 1954 Census of Manufactures were much affected by the business recession of that year. Census data for that year, unless carefully interpreted, can lead to an underestimate of postwar industrial growth in western Pennsylvania, because of the latter's concentration of heavy industries; these industries were particularly hard hit by the recession.⁽²⁾

The year 1957, while not the peak year of the recent boom, provides a much better basis for comparison with 1947 than does 1954, if general postwar trends are sought. The busi-

ness recession of 1957-1958 got under way late in 1957, so that the year was less affected by recessionary influences than was 1954, when recovery from recession did not come until the end of the year.

Decline in Employment from 1947 to 1957

One important difference between trends in manufacturing industry in western Pennsylvania in the 1947-54 and 1947-1957 periods is in employment. Factory workforces in the area fell about 9 percent from 1947 to 1954, while the decline over the whole ten-year period was only 4 percent. (See the cover chart.) The sharper drop in the earlier period was apparently due primarily to the effects of the recession on employment in 1954, while the revival of business activity from 1954 to 1957 produced a 6 percent increase in factory workforces.

This experience differs somewhat from that of the state of Pennsylvania as well as from national trends. Manufacturing employment in Pennsylvania was 2 percent greater in 1957 than in 1947, while nationally it increased 10 percent over the ten-year period.

Manufacturing employment in the Pittsburgh (four-county) area accounted for more than two-thirds of all factory employment in western Pennsylvania in 1957, and the employment picture in Pittsburgh in the postwar period, as the cover chart shows, has therefore been very similar to that in western Pennsylvania as a whole. Manufacturing employment in two of the other large industrial areas shown on the cover chart, the Erie Metropolitan Area (identical with Erie

(1) See *Monthly Business Review*, issues of March 1957 and May 1957.

(2) This suggests that the results of the 1958 United States Census of Manufactures, when they become available, should be interpreted in their "growth" aspects with fully as much, or even more, caution than is merited for the 1954 Census data. The durable goods industries were even more depressed during the 1957-58 recession than during the 1953-54 slump.

County) and Lawrence County, in which New Castle is the largest city, was also smaller in 1957 than in 1947.

Not all of western Pennsylvania followed the same pattern, however. There were about one-fifth more factory employees in Mercer County (part of the Youngstown Metropolitan Area) in 1957 than in 1947. Several of the other twelve counties, whose boundaries are shown on the cover chart, also registered sharp gains in factory employment in the period from 1947 to 1957.

The twelve counties which are not named on the cover chart include such industrial centers as Butler, Warren, Franklin, Meadville, Oil City, Indiana, and Uniontown. As a group, the twelve counties accounted for about 20 percent of factory employment in western Pennsylvania in 1957.

Steel Industry Dominates Capital Investment

The 1957 Pennsylvania Industrial Census also includes data on new capital expenditures by manufacturing industry. On a per-worker basis, the average for western Pennsylvania for the year was more than one-third above the state-wide average of \$644. Among

Table 1
New Capital Expenditures
in Western Pennsylvania — 1957

Industry	Amount Million \$	Percent Share
Primary Metals	\$268,573	66%
Stone, Clay, Glass Products	29,248	7
Nonelectrical Machinery	20,213	5
Electrical Machinery	16,366	4
Fabricated Metal Products	17,777	4
Food and Similar Products	14,259	4
Chemicals and Products	10,306	3
Paper, Pulp and Products	8,056	2
Transportation Equipment	6,821	1
Other Industries	15,436	4
All Industries	\$407,055	100%

the metropolitan areas and counties in western Pennsylvania, Butler County ranked highest in this comparison, with a per-worker figure of \$1,558. Capital expenditures, it should be remembered, show considerable year-to-year fluctuation; in Butler County such outlays in 1957 were six times the 1954 total. No other county showed as large a proportionate increase. Butler County's steel industry accounted for about 75 percent of all capital expenditures in 1957.

The accompanying Table 1 shows the distribution of 1957 capital expenditures in western Pennsylvania by industry. The predominant role of the iron and steel industry in capital spending is shown by the proportion of capital investment accounted for by the primary metals group, in which the steel industry is the largest single subgroup.

Rapid Growth in Value Added After 1954

Another important measure of change which is included in both the Pennsylvania and United States censuses is "value added by manufacture." Value added is defined, briefly, as the difference between the value of manufactured products and the cost of raw materials. It reflects the effects of price changes as well as changes in physical volume.

Value added by manufacture in western Pennsylvania in 1957 was about \$4.6 billion. This was \$2.1 billion, or 87 percent, more than the 1947 total, and also represented a gain of \$1.1 billion over the 1954 figure. The increase in the value of industrial output in western Pennsylvania was, therefore, slightly larger in the 1954-57 interval than in the seven-year span from 1947 to 1954, again reflecting the influence of the 1954 recession. Prices of the products of western Pennsylvania's manufacturing industries rose substantially in the postwar period, so that the gain in real output was perhaps about one-quarter of the increase in value added.⁽³⁾

(3) This estimate was made by deflating the data on "value added" by an index of average prices of the output of manufacturing industry in western Pennsylvania, using components of the U. S. Bureau of Labor Statistics Wholesale Price Index, weighted by the relative importance of these industries, as measured by the value added by each in 1957. This method gives greater weight to those industries whose products have shown the largest price increases than would be yielded by a method based on 1947 weights.

The industry composition of value added by manufacture in western Pennsylvania in 1957 is shown in the accompanying Table 2. Durable goods account for about 75 percent of the total.

Of the major counties in western Pennsylvania, Mercer County showed the largest increase in value added during the 1947-57 period, while Erie County registered the smallest gain. (See the accompanying chart.) The increase in factory output in Erie during this interval was achieved despite the virtual closing of the city's largest plant; the gain was centered in the city's electrical machinery and primary metals industries.

PERCENT CHANGE IN VALUE
ADDED BY MANUFACTURE
1947-1957

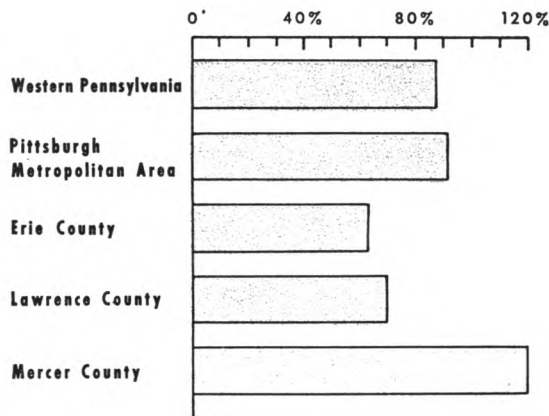


Table 2
Value Added by Manufacture
in Western Pennsylvania — 1957

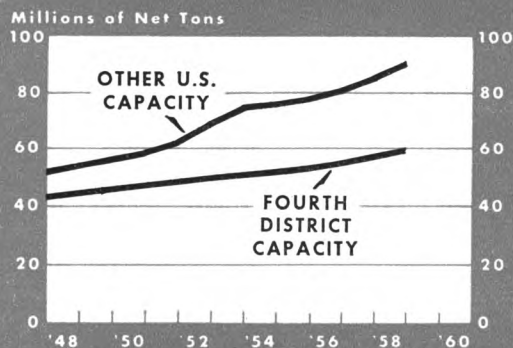
Industry	Amount Million \$	Percent Share
Primary Metals	\$1,859	40%
Electrical Machinery	584	13
Nonelectrical Machinery	429	9
Fabricated Metal Products	366	8
Stone, Clay, Glass Products	349	8
Food and Similar Products	268	6
Transportation Equipment	175	4
Chemicals and Products	127	3
Other Industries	453	9
All Industries	\$4,610	100%

Productivity Gains

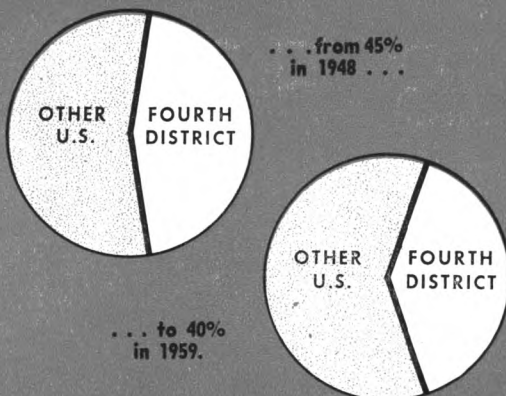
The estimates of value added, deflated for price changes as described in footnote 3, make possible an approximate measure of productivity change in manufacturing industry in western Pennsylvania.

This figure, which can be termed "real value added per employee", showed an increase of about 25 percent in the period from 1947 to 1957. Such a measure cannot be directly compared with the generally used national data on output per manhour, because it ignores the effects of changes in hours worked, and is also subject to other uncertainties not present in the national data. Nevertheless, it indicates a substantial improvement in productivity in western Pennsylvania industry in the postwar period.

Expansion of basic steel-making facilities in recent years has proceeded more rapidly at mills outside of the Fourth District . . .



... reducing the concentration of steel capacity in the District . . .



Within the Fourth District, steel-making furnaces are concentrated in the Cleveland - Youngstown - Pittsburgh industrial complex and along the Ohio River.



Steel Capacity

**Fourth District Mills Have
58½ Million Tons in 1959**

THE NATION'S steelmaking capacity was increased by 6.9 million tons during 1958, boosting total capacity to 147.6 million tons at the beginning of 1959. The 1958 capacity addition, while not a record, was well above the average annual increase of the past decade.

About one-fourth of last year's capacity additions were made at mills located in the Fourth District. These mills enlarged their basic steelmaking capacity by 1.8 million tons, raising their total to 58.5 million tons on January 1, 1959.

The 1958 expansion amounted to a capacity boost of about 3 percent for mills in the Fourth District, or just about one-half the rate of expansion at mills in the rest of the country. Consequently, there was a further slight decline in the proportion of the nation's steel capacity located within the District. Since 1948, the District's share of the total has shrunk from 45 percent to slightly under 40 percent.

Over one-half of the 1958 capacity additions in the nation were made by mills located in the Chicago producing area and in the western states. Within the Fourth District, the bulk of the 1958 increase—1.1 million tons, or three-fifths of the net addition in the District—was added in the Pittsburgh area, principally at mills in Braddock, Duquesne, Aliquippa, Munhall and Monessen. The balance of the District additions were made largely at mills in Cleveland, Youngstown, Warren, Lorain, Middletown, and Ashland.

NOTES ON FEDERAL RESERVE PUBLICATIONS

Among the articles recently published in monthly business reviews of other Federal Reserve banks are:

“A Broader Horizon for Field Warehousing”, Federal Reserve Bank of Chicago, February 1959.

“The Prospects for Beryllium Metal”, Federal Reserve Bank of Boston, January 1959.

“Discount Rate and the Discount Policy”, Federal Reserve Bank of Philadelphia, January 1959.

“Magnitude of the Federal Debt”, Federal Reserve Bank of St. Louis, January 1959.

(Copies may be obtained by writing to the Federal Reserve Bank named in each case.)

* * *

Recent statements on Federal Reserve policy and related matters include:

“A Year of Recession and Recovery”, by William McC. Martin, Jr., Chairman, Board of Governors of the Federal Reserve System. (Statement before the Joint Economic Committee, Washington, D. C., February 6, 1959.)

“The Environment of Monetary Policy”, by Karl R. Bopp, President, Federal Reserve Bank of Philadelphia. (Address before the National Credit Conference of the American Bankers Association, Chicago, Illinois, January 23, 1959.)

“Cooperation of Monetary Policy in a Growing Economy”, by Alfred Hayes, President, Federal Reserve Bank of New York. (Remarks before Annual Midwinter Meeting of the New York State Bankers Association, New York City, January 26, 1959.)

“The Public Interest in Agriculture”, by Charles N. Shepardson, Member, Board of Governors of the Federal Reserve System. (Remarks at the Annual Farm and Home Week Program, University of Kentucky, Lexington, Kentucky, January 28, 1959.)

(Copies of these papers are available at the Board of Governors of the Federal Reserve System, Washington 25, D. C.)

Around the Fourth District —

Department Store Sales in January, and Year 1958

	January 1959 % change from year ago	Year 1958 % change from 1957
Lexington	+13%	-0-%
Erie	+ 8	- 5
Springfield	+ 7	- 6
Canton	+ 5	- 6
Wheeling-Steubenville	+ 5	- 3
Cincinnati	+ 2	- 1
Columbus	+ 1	+ 2
Pittsburgh	- 2	+ 2
Cleveland	- 3	- 3
Youngstown	- 7	-10
Portsmouth	-10	- 7
FOURTH DISTRICT TOTAL	- 1	- 2

* * *

During December and January, *bank debits* at reporting banks in 32 Fourth District centers reflected the recovery in business activity. January debits totaling \$13,856 million were seasonally below the record high posted in December, but were about 1 percent above the year-ago month. In Dayton and Akron, which are among the ten largest reporting centers, the January year-to-year increases in bank debits amounted to 6% and 5%, respectively. Among the twenty-two smaller centers, the largest gains, amounting to about 12%, were posted by banks in Lorain and Springfield.

Building permit volume in Cleveland during the first two months of the year approximated \$5.8 million, close to the year-ago figure of \$5.9 million. Residential building has accounted for 35% of 1959 dollar volume thus far, up somewhat from the corresponding 20% a year earlier.

An analysis of *department store credit* at Fourth District department stores shows that instalment sales in January exceeded those of the year-ago month by 2%. The ratio of instalment sales to the month's total also rose during January to an all-time high of 18.9% as against 16.0% in December and 13.8% in January of 1958. Charge-account sales and cash sales were below a year ago by 5% and 1%, respectively. Charge-account sales amounted to 47.1% of the January total while cash sales accounted for 34.0%.

Steel production in the Cleveland-Lorain district hit a long-time high toward the end of February with a weekly output of nearly 135,000 tons. This exceeded the 1958 peak of 121,000 tons as well as the 1957 high of 129,000 tons but failed to match the all-time weekly record of 139,000 tons, which was achieved more than once during the year 1956.

(The above items are based on various series of District or local data, which are assembled by this bank and distributed upon request in the form of mimeographed releases.)



FOURTH FEDERAL RESERVE DISTRICT