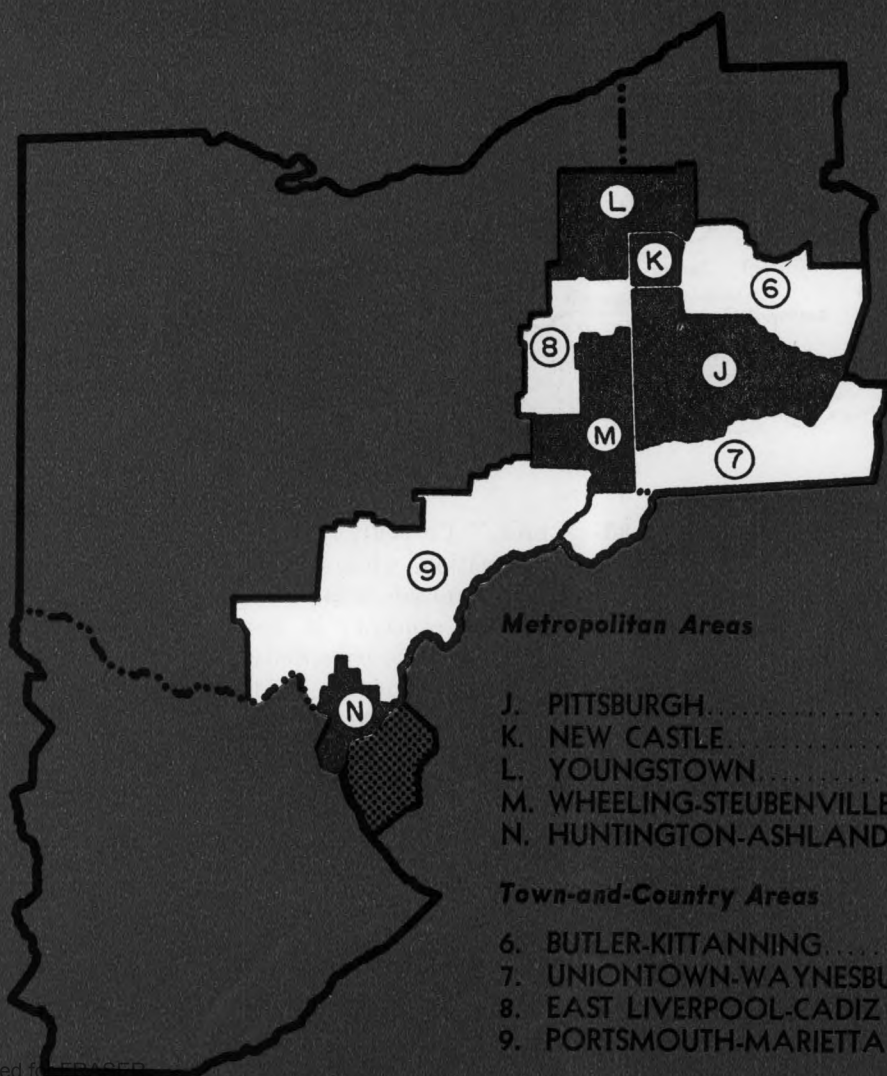# MONTHLY
Business Review

FEDERAL RESERVE BANK of CLEVELAND —————— *May 1957*

CROSS SECTIONS of the Fourth Federal Reserve District

III. PITTSBURGH, YOUNGSTOWN AND THE UPPER OHIO VALLEY NINE ECONOMIC AREAS
Including 41 counties

Metropolitan Areas

PITTSBURGH Metropolitan Area
4 counties
(Area J.)

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Pittsburgh shares with Cleveland the leading positions as population centers of the Fourth Federal Reserve District; both rank well up among the largest metropolitan areas of the United States. The precise ranks of these cities vary according to whether measurement is taken of the population within the corporate city limits, or within the "urbanized area," or within the "Standard Metropolitan Area."

Thus, Pittsburgh is the 12th largest city of the United States, and Cleveland is the 7th largest, in terms of the population of corporate cities. However, in terms of "urbanized area," Pittsburgh is the 8th largest city of the nation, while Cleveland is 10th largest. ("Urbanized area" is a relatively recent Census concept; it applies to contiguous, built-up area, irrespective of corporate limits or county lines.) In terms of "Standard Metropolitan Area," which includes one or more entire counties closely related to the central city, Pittsburgh also ranks 8th among the cities of the United States and Cleveland is in 10th place.

All three of the rankings just cited are based on the count of the most recent Census

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of Population, as of 1950.[1] Between 1950 and the present, the Standard Metropolitan Area of Pittsburgh registered a population increase amounting to an estimated 7 percent.

The Standard Metropolitan Area of Pittsburgh is made up of four counties: Allegheny, Beaver, Westmoreland and Washington. Within *Allegheny* County, the corporate city of Pittsburgh has a population of about 682,000, according to estimates made for early 1956. Other sizeable cities of the county include McKeesport, with about 55,000 and Wilkinsburg and Braddock, each with more than 30,000. But also in Allegheny County there are more than a dozen additional cities or boroughs with a population in excess of 10,000. In approximate order of size, these are: Mt. Lebanon, Clairton, Duquesne, West Mifflin, McKees Rocks, Swissvale, Munhall,

Brentwood, Dormont, Carnegie, Bellevue, Turtle Creek, Bethel, Coraopolis, and Homestead.

Within *Beaver* County, which is also part of the metropolitan area of Pittsburgh, is Aliquippa with about 27,000 as well as Beaver Falls, Ambridge, and New Brighton; the last three named range in population from about 18,000 down to 10,000.

In *Westmoreland* County, the largest city is New Kensington, with about 25,000. There are also a half dozen cities or boroughs ranging from about 18,000 down to 10,000, namely: Monessen, Greensburg, Jeannette, Latrobe, Arnold, and Vandergrift.

In *Washington* County, there is the city of Washington with about 26,000, and also Donora, Canonsburg, and Charleroi, each with 10,000 or somewhat more.

A Center of Heavy Industry

About 400 manufacturing establishments in the greater Pittsburgh area have 100 or more employees, and many plants, particularly in the dominant steel industry, have workforces numbering in the thousands.

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(1) Of the three alternative measurements, the "Standard Metropolitan Area" is the one which is used most in this cross-sections survey. It has a breadth of coverage which reflects suburban growth; also it has the practical advantage of permitting the use of county-wide data.

The "urbanized area" concept is the most refined of the three measurements and for some purposes is most scientifically defensible. Such data, however, are not available for as many dates as the other measures; also public understanding of the "urbanized area" concept is less fully developed.

(For a table showing the 1950 population of the 12 largest cities of the United States, ranked in accordance with each of the three types of measurement, see "Cleveland and Eastern Lake Erie," March issue of this *Review*, p. 3.)

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The Pittsburgh area ranks first among the 19 metropolitan areas of the District with respect to average monthly payrolls in insured employment, as of the first quarter of 1956. It also ranks first in total value added by manufacture; during the Census year 1954, the latter amounted to $2,489 million. However, Pittsburgh ranks only 12th (out of 19) in manufacturing employment per 1,000 population, as of the first quarter of 1956. In value added per employee in manufacturing in 1956, the four-county area ranked 9th among the 19 metropolitan areas, although net output per employee, at $8,161, was well above the average for the Fourth District or for the nation. (See Table 1, pages 12 and 13.)

Between 1947 and 1954 the value added by manufacture in the Pittsburgh area increased 32 percent, about the same as the District average, but below the rate of gain experienced by numerous other areas of the District, including Cleveland, and below the national average. Pittsburgh's rank in that respect was 16th among the 19 metropolitan areas of the District.

In contrast to the gain in "value added," manufacturing employment in the Pittsburgh area declined 10 percent between 1947 and 1954; concurrently, the District and the nation posted gains in manufacturing employment for the same period.[2]

Steel and Machinery

The production of *primary metals*, chiefly steel, is most important in the Pittsburgh area; in 1954 this group of industries employed 129,000 persons, or 42 percent of total manufacturing employment in the area. Value added by manufacture in the primary metals group in 1954 amounted to close to $1 billion, or about 40 percent of total value added by manufacture in the four counties.

[2] Part of the decline in Pittsburgh's manufacturing employment over the indicated interval was due to the effect of the 1954 recession and other temporary factors which resulted in a larger drop in business activity and employment in Pittsburgh than in many other parts of the District or the nation. In addition to such short-term influences, a growth trend in labor productivity was operating to reduce industry's manpower requirements between 1947 and 1954; that was particularly true of the heavy industries which dominate in Pittsburgh. Also, a change from relatively lower to higher-priced steel products may have contributed to the divergent trends in manufacturing employment and "value added" in Pittsburgh.

Blast furnaces account for about 17½ percent of national pig iron capacity; steel furnaces in the area represent about 15 percent of the nation's basic steel capacity. Steel rolling mills in the Pittsburgh area turn out every line of steel products, ranging from heavy structural components to fine wire. Some steel is also made into forgings and castings. Other products of the industry are coal chemicals, ferro-alloys, and titanium products.

Most of the steel mills are in Allegheny County; several of them employ more than 5,000 people. Smaller plants in the primary metals group, employing from 500 to 1,000, produce zinc, sheet copper, brass, bronze, and aluminum basic shapes.

Second in importance in the area, when measured by value added by manufacture (in 1954) is production of *machinery* (except electrical). This group of industries added in manufacture $265 million, or 10 percent of total value added in the area. (In terms of employment this group ranks 3rd, with a work force of 26,000.) Plants producing machinery and employing more than 1,000 each are in the following machinery and equipment lines: steel mill machinery, railroad brakes and couplers, steam turbines, cutting tools and dies, and mine equipment. Other plants, with employment between 500 and 1,000, produce foundry and steel mill machinery, steam generating equipment, and printing machinery.

Electrical machinery is the next most important group in terms of "value added" and employment, according to the 1954 Census of Manufacturers. The electrical machinery group accounted for $235 million in value added, and 23,000 employees. Included in this group is the largest single plant in the greater Pittsburgh area, which produces switchgear, generators, and other electrical equipment for industrial use. Other plants employing more than 1,000 people produce transformers, electric cables and wire, radios and record-players, and electric control devices. Switchgear, pole line hardware and electrical insulation are manufactured at two somewhat smaller plants.

Other Leading Industries

Firms in the *fabricated metal products* group employed about 30,000 people in 1954. Value added in these metalworking plants amounted to $228 million, about 9 percent of the four-county total. There are several plants in this group with more than 2,500 employees; they manufacture structural steel products, miscellaneous aluminum products, and automobile stampings and blankings. Also, plants employing more than 1,000 persons each produce plumbers' supplies and steam fittings, enamelware, structural steel products, metal cans and containers, and industrial fasteners. Firms with workforces from 500 to 1,000 manufacture structural steel products, builders' hardware, and sheet metal products.

The *stone, clay and glass products* group, with a labor force of 20,000 in 1954, reported "value added" amounting to $146 million, about 6 percent of the total value added by manufacture in greater Pittsburgh. Glass products represent most of the output.

Additional industrial groups accounting for sizeable numbers of employed are *transportation equipment* (11,000), *petroleum and coal* products (6,600), and *chemicals* (6,300). In these lines there are plants with workforces of more than 1,000 which produce bumper brackets, auto and truck wheels, river barges and tugs, and coal tar chemicals.

In terms of value added by manufacture and number of persons employed, consumer goods industries are small in the Pittsburgh area as compared with the metals and machinery industries. Several large plants, however, with workforces of more than 500, produce food and beverages. The largest plant of this kind, which processes a variety of food products, employs more than 2,000.

Other plants in the four-county area which do not fall into any of the above categories, but which employ more than 500 people, produce thermostatic controls, cork products, plastic materials and rubber sports goods, hand stamps and stencils, meters, and paper and cardboard containers.

Transportation, Coal and Gas

Railroads are an important factor in the economy of the Pittsburgh area because of heavy shipments of such bulky commodities as iron ore and coal into the region. Several important East-West railroad lines converge here and together, the railroads furnish employment to more than 2,000 people in the four-county area.

River freight transportation is also important as a carrier of bulk commodities, largely produced and consumed within the area. Much of the coal and coke consumed by local blast furnaces is shipped by river barge. The Monongahela River carries more tonnage per mile than any other inland waterway, and most of it is coal. Pittsburgh and Aliquippa are major ports on the Ohio River; here also coal accounts for most of the tonnage shipped.

In 1954, about 23 million tons of bituminous coal were mined in the four-county area; this was almost one-third of all the soft coal produced in Pennsylvania. Washington County, the largest coal-producing county in Pennsylvania, accounted for more than half of this total. Wells in the area produced 27.5 billion cubic feet of natural gas in 1954, nearly half of it in Beaver County. Clay and shale for brick and tile manufacture are obtained in Allegheny County.

Important Banking Center

In total dollars of demand deposits at commercial banks, Pittsburgh ranks highest among the 19 metropolitan areas of the Fourth District. A representative figure is the $2,181 million of demand deposits as of December 31, 1955. On a per capita basis, the Pittsburgh area is second in amount of demand deposits at commercial banks.

Pittsburgh's position with respect to per capita savings accounts, as indicated by time deposits at commercial banks and mutual savings banks plus withdrawable shares of savings and loan associations, was 14th out

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of 19.[3] In growth of demand deposits as well as of savings accounts between 1950 and 1955, Pittsburgh ranks 18th out of 19.

Retail Trade

Retail sales per capita in the four-county area in 1954 were $983, below the averages for either the Fourth District or the United States as a whole. Such a figure, however, should not be taken as generally representative of Pittsburgh's retail standing, because the Census of retail trade happened to be taken in a year during which Pittsburgh's

[3] This should not be confused with a measure of *total* personal savings, since it fails to include many important forms of personal savings such as securities, insurance policies and pension equities. The item is used here as a partial indicator of savings trends; it was selected because of the availability of consistent data on a county-wide basis.

trade was adversely affected by a long strike of merchandising employees.

Urban Redevelopment

Although the subject of urban redevelopment is not a part of this general survey, the experience in Pittsburgh should not go without mention. Altogether, a $2.5-billion program (much of it already spent) has been undertaken to revitalize the Pittsburgh area. Included are the Point Park development at the junction of the Allegheny and Monongahela Rivers, the Gateway Center adjoining the park, another park in the heart of the Golden Triangle, numerous new office buildings, garages, expressways and a new airport.

NEW CASTLE Metropolitan Area
Lawrence County
(Area K.)

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New Castle and Lawrence County, Pennsylvania, as of press time, had not yet been included in the official Census list of Standard Metropolitan Areas of the United States. Nevertheless, the area is treated as "metropolitan" in this survey since the most recent estimates of population make it appear appropriate to do so.

The city of New Castle, as of early 1956, had a population of about 50,000 and the entire county may be estimated at 115,000; the latter includes Ellwood City with about 13,000.

The area ranks 15th among the 19 metropolitan areas of the Fourth Federal Reserve District in rate of population growth between 1950 and 1956.

Manufacture of Heavy Goods Predominates

Industry in the New Castle area is primarily of the durable goods variety, and output of metals and metal products predominates. Principal products are steel pipe and tubing, steel mill equipment, pottery and chinaware, bearings and bushings, and truck axles. These accounted for more than half of total manufacturing employment in Lawrence County in 1956.

In other leading industries, plants employing more than 100 workers, arranged in approximate order of number of employees, produce the following: cement, elevators, space heating equipment, automotive leaf springs, luggage, plumbing fixtures, engine crankshafts, explosives, brick, refractories and insulators, disposal units, knitwear, and fasteners.

Between 1947 and 1954, while value added by manufacture was increasing, employment in manufacturing in the New Castle area dropped 16 percent.[4]

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Extractive Industries

Bituminous coal output in Lawrence County in 1954 was 653,000 tons, almost all strip-mined. Other minerals produced are clay, used by local manufacturers of refractories and industrial clay products, and limestone.

For data on the area's trade and finance, see Table 1, pages 12 and 13.

(4) Factors which underlie the decline in manufacturing employment between the two Census years may be similar to those already indicated for the Pittsburgh area. See page 4, footnote 2.

Also, it should be noted that one large government-owned foundry in the New Castle area was closed down in early 1954, but was later reopened by a private machinery-producing company.

YOUNGSTOWN Metropolitan Area
3 counties
(Area L.)

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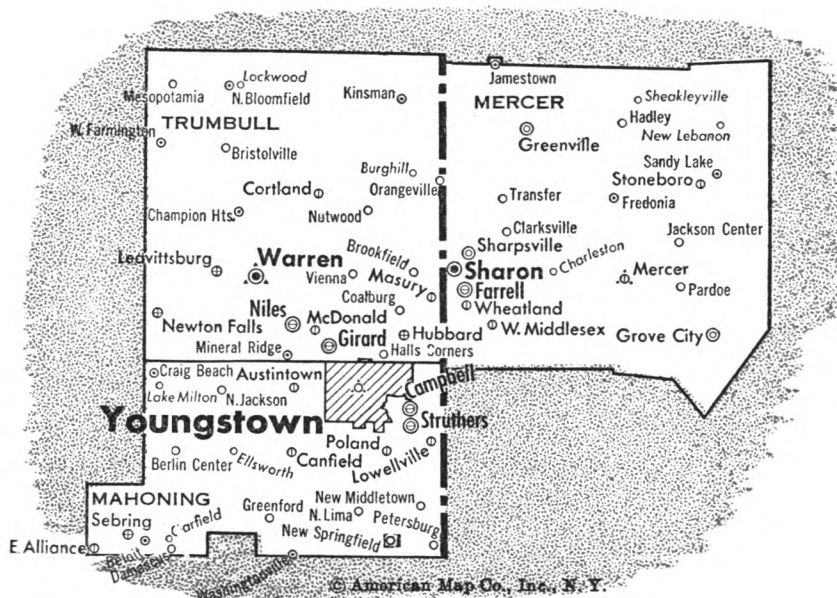
This important metropolitan area, composed of two Ohio counties and one Pennsylvania county, lies geographically between Pittsburgh and Cleveland. Industrially and commercially, it is linked with both Cleveland and Pittsburgh.

The total population of the three counties is about 591,000, according to estimates as of early 1956. The area's 12-percent growth in population between 1950 and 1956 is somewhat less than the Ohio average, but larger than the average growth of the Fourth District or of the United States in total. (See last two columns of Table 1, pages 12 and 13.)

Youngstown proper has a population of about 181,000, as estimated for early 1956. Adjoining Youngstown, in Mahoning County (Ohio) are Campbell and Struthers, each with about 14,000. In the southwest corner of the same county is Sebring with about 5,000.

The city of *Warren*, which is in Trumbull County (Ohio), has a population of about 58,000 and is second in importance to Youngstown as part of the Mahoning Valley industrial complex. Between the two major centers are Niles and Girard with 19,000 and 12,000, respectively. Also in Trumbull County are Hubbard with 6,000, and Newton Falls with 5,000.

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In the eastern part of the area represented by Mercer County (Pennsylvania) are *Sharon* and *Farrell*, with populations of about 29,000 and 15,000, respectively. Also in Mercer County, with populations ranging from 10,000 down to about 5,000, are Greenville, Grove City and Sharpsville.

Steel Producer Extraordinary

The Youngstown metropolitan area is even more specialized in steel production than Pittsburgh. The *primary metals* group, which consists very largely of iron and steel producers, accounted for 51 percent of those employed in manufacturing industry, and 46 percent of total value added in manufacture in 1954, according to the 1954 Census of Manufactures. About 9 percent of the nation's pig iron and steel capacity is located here. Finished steel is largely of the flat-rolled variety used in automobiles and appliances, but some heavier items, also, are rolled in Youngstown mills.

Included in the group of primary metals manufacturers is the largest single employer in the three-county area, located in Youngstown proper, and, in addition, several other mills with workforces of more than 1,000 each. In Youngstown and its environs, steel works and rolling mills manufacture pipe and and tubing, sheets, strip, rods and wire products, and plates and shapes. Ingot molds are produced at Hubbard. Mills in Warren and Niles produce flat-rolled steel and pipe. Furnaces and steel mills in and near Sharon produce pig iron, steel sheets, strip, pipe, and tubing; foundries in Sharon and elsewhere in Mercer county turn out ingot molds and miscellaneous castings.

Important industrial groups other than primary metals, and their share of total value added by manufacture in the area in 1954, are as follows: electrical machinery, 16 percent; fabricated metal products, 12 percent; nonelectrical machinery and transportation equipment, 6 percent each.

Cities, Plants, and Products

In *Youngstown*, in addition to steel mills, there are plants, each employing more than 1,000 persons, which manufacture the following: metal office furniture, steel building products, industrial rubber goods, and steel mill machinery. Establishments employing between 500 and 1,000 workers in Youngstown and its environs manufacture railroad equipment, lamps, tank and boiler components, automobile stampings, and auto oil filters and mufflers. Other plants in Youngstown, with from 100 to 500 workers on their payrolls, produce the following: ice cream and dairy products, steel mill equipment, carbide metal products, plastic airplane parts, concrete piling forms, steel tanks, aluminum moldings and storm sash, men's and boys' clothing, sprinkler systems, and a diversity of metal items. In *Sebring,* a group of plants, together employing more than 1,000, produce earthenware table and kitchen articles, and clay refractories.

Warren, in Trumbull County, is the site of a plant which employs more than 5,000 workers and produces cables and wiring for automobiles and trucks. Plants in Warren employing more than 500 persons produce high wattage lamps, kitchen sinks and cabinets, aircraft parts, fire protection systems, and welding machinery. Smaller establishments manufacture motors and generators, electric welding apparatus, steel forms and platework, metal shipping barrels and drums, steel mill machinery, metal lath, and power and distribution transformers.

Niles, a few miles south of Warren, has plants producing titanium mill products, trailers and chassis, lamp bulbs, metal windows, and metal closures. At *Newton Falls,* southwest of Warren, there is a large manufacturer of automobile bumpers and a smaller plant producing welded tubing. Tires and tubes are turned out at Leavittsburg, close to Warren. A plant producing railroad tank cars at *Masury,* in the southeast corner of the county, employs more than 1,000 persons. At *Hubbard,* close to Youngstown, are plants producing ingot molds and stamped metal products. At Girard, are a leather tanning and finishing plant, and several producers of metal storm sash and doors.

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In Mercer County (Pennsylvania) *Sharon* has a very large plant producing electric transformers, as well as the steel mills and foundries already mentioned. Also, plants at *Greenville* produce structural iron and steel, freight cars and parts, and furniture; a large railroad repair shop is also located there. Stoves are manufactured at *Mercer,* and athletic goods at *Jamestown.*

In common with some other steel-producing areas in the District, manufacturing employment in the Youngstown area was lower in 1954 than in 1947; the decline amounted to 4 percent.[5] The largest reduction was in the electrical machinery group, but other major groups also registered substantial declines; in contrast, employment in the transportation equipment group increased. (Total

(5) See page 4, footnote 2.

employment, as distinct from manufacturing employment, rose between 1947 and 1954.)

Mineral Industries

The Youngstown area has a substantial production of minerals, in addition to manufactures. In 1953 more than 1 million tons of soft coal were produced in Mahoning and Mercer counties. Almost all coal in Mahoning is obtained by strip mining, whereas deep mines predominate in Mercer. Large quantities of clay are obtained for refractory producers in Mahoning County, and nearly 1 million tons of limestone were quarried in the county in 1955. Mercer County produced 6.6 billion cubic feet of natural gas in 1954.

(For data on finance and trade in the Youngstown area, see Table 1, pages 12 and 13.)

WHEELING-STEUBENVILLE Metropolitan Area
6 counties
(Area M.)

This metropolitan area, which is located along the upper Ohio River, a short distance west and south of Pittsburgh, is made up of two Ohio counties and four West Virginia counties.

The three major centers of population and industry in the area are Wheeling (West Virginia) with about 60,000 population, Steubenville (Ohio) with about 39,000, and Weirton (West Virginia) with about 24,000.

Along the Ohio side of the river, in addition to Steubenville, are the following towns ranging in population from about 13,000 down to 5,000: Martins Ferry, Bellaire, Toronto, Mingo Junction, and Shadyside. Also, Barnesville, located about 25 miles west of the river, has about 5,000.

On the West Virginia side, in addition to Wheeling and Weirton, are Moundsville, with about 15,000 and Wellsburg with about 6,000.

The total population of the six-county area, as of early 1956, is estimated at about

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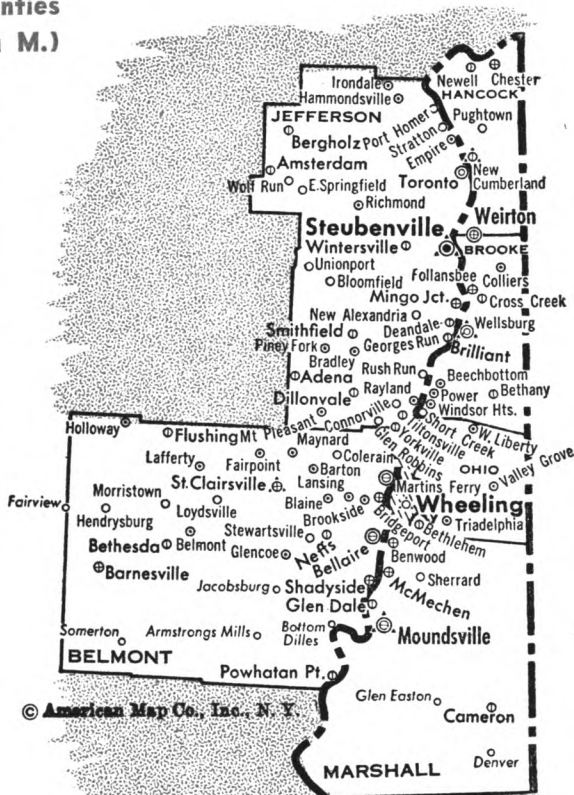
363,000, or 9th among the 19 metropolitan areas of the Fourth Reserve District. With an average population of 237 per square mile, the area is 16th in average density among the 19 metropolitan areas.

The area, in general, has not gained significantly in population in recent years and some parts have actually been losing population. Over the six-year period, 1950-56, the area in the aggregate appears to have gained only about 3 percent in population, a rate considerably less than the average for Ohio or for the Fourth District or for the United States. (See final columns of Table 1, pages 12 and 13.)

Steel Dominates Manufacturing

In 1954 there were 70 establishments in the Wheeling-Steubenville area with 100 or more employees each, according to the Census of Manufactures taken that year. Fourteen of those plants were in the *primary metals group*; together they accounted for 46 percent of total manufacturing employment and 55 percent of value added in the area. Most of those plants are steel producers. Riverside location makes possible the use of low-cost barge transportation on the Ohio River for the industry's bulky raw materials, most of which come from outside the area, as well as for its heavy finished products. The river also furnishes water for industrial processing and cooling.

Steel mills are the largest employers in all of the six counties. Well over 5,000 workers each are employed by mills in *Weirton, Steubenville,* and Benwood, producing structural steel, tinplate, sheets and strip, galvanized sheets, and pipe. Smaller mills, with from 500 to 2,000 employees, manufacture tinplate, galvanized products, and sheet and strip at Yorkville, Martins Ferry, and Steubenville, in Ohio, and at Follansbee and Beech Bottom, in West Virginia.

Other important manufacturing groups are *stone-clay-glass, fabricated metal products,* and *chemicals.*

In terms of manufacturing employment per 1,000 population in 1954, the six-county area ranks 16th among the 19 metropolitan areas in the Fourth District. Value added per manufacturing employee in 1954 was $7,405, for a rank of 14th. Between 1947 and 1954, manufacturing employment in the Wheeling-Steubenville area declined 3 percent while value added by manufacture increased 44 percent.

The steel industry's share of total "value added" and total manufacturing employment in the Wheeling-Steubenville area, however, increased between 1947 and 1954. At the same time the relative importance of the stone-clay-glass and the fabricated metal products groups dropped substantially, while the importance of chemicals increased; the latter group, however, was still relatively small compared to the leading industry groups.

Other Manufacturing Industry

In *Wheeling,* the seat of Ohio County (West Virginia) plants employing more than 500 persons each manufacture steel mill machinery and equipment, glass containers, and collapsible tubes. Somewhat smaller plants in Wheeling manufacture tobacco products, ceramic tile, steel pipe couplings, fluorescent lighting fixtures, and gray iron castings.

Jefferson County (Ohio) is noted for its output of heavy clay products. Structural clay products and refractories are made at *Toronto,* Irondale, and Empire. Other manufactures are ferro-alloys at Brilliant, metal stampings and paperboard at Toronto, paper boxes, paperboard, and dinnerware at Steubenville, and metal washers at Mingo Junction.

The manufacture of pottery and dinnerware predominates in Hancock County (West Virginia). There are plants at Newell and Chester which employ more than 500 persons each in the production of dinnerware. Smaller plants manufacture dinnerware, and

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saggers and refractory shapes. At Chester there is also a plant which produces envelopes and other stationery.

Belmont County (Ohio) has a more diversified industrial structure. Plants at *Bellaire* produce table glassware, as well as enameled and painted metal products and metal stampings. Pipe couplings and toys are manufactured at *Martins Ferry*. Barnesville has two plants producing apparel. Automobile stampings are pressed at Shadyside, and a plant in Bridgeport produces bearings.

Brooke and Marshall counties, in West Virginia (the former upstream from Wheeling, and the latter, downstream) manufacture both consumer goods and industrial semi-finished goods. Plants in and near *Moundsville* produce (in approximate order of number of employees) table glassware, electrical conduit and cable, enameled cooking utensils, and a wide variety of industrial chemicals. Elsewhere in Marshall County, a large factory at Glen Dale manufactures toys, and smaller plants in Benwood and McMechan produce structural steel pipes and railings, and women's apparel, respectively. Pottery is manufactured in Cameron.

Metalworking and the production of paper products predominate among smaller establishments in Brooke County. In *Wellsburg,* there are plants manufacturing shipping sack paper, paper sacks and boxboard, and oil and gasoline containers. Tar products and coal-tar chemicals are produced at Follansbee. Plants at Weirton manufacture metal cans and steel stampings.

Extractive Industries and Power

Bituminous coal is the most important mineral product in the Wheeling-Steubenville area. In 1953 the six counties produced 15 million tons of soft coal, most of it in Belmont and Jefferson counties, Ohio. Deep mines predominate in this area. Refractory clay is also produced in Jefferson County for use by local kilns.

Generation of electric power at the mine-mouth is one of the most important developments of this area. A number of large new generating stations along the Ohio River tie in with the expansion plans of large manufacturing firms.

As an indicator of the importance of power developments along the Ohio River (not limited to the Wheeling-Steubenville area) it may be noted that there are now 21 stations along the river whereas there were only 8 prior to World War II. Furthermore, it has been estimated that the counties along the Ohio River (both sides) at present contain only 3.27 percent of the nation's population but account for 6.78 percent of the new investment in manufacturing and public utilities plants which occurred between 1950 and 1955.

Finance and Trade

With respect to per capita demand deposits, savings accounts, and retail sales, the Wheeling - Steubenville area ranks between 15th and 18th among the 19 metropolitan areas of the Fourth District. (See Table 1, pages 12 and 13.) The 25 percent growth in retail sales from 1947 to 1954 was the same as the District average.

Table 1

PITTSBURGH, YOUNGSTOWN AND THE UPPER OHIO VALLEY: NINE ECONOMIC AREAS

Basic Economic Facts

	METROPOLITAN										TOWN-AND-COUNTRY									OHIO	DISTRICT	U. S.
	Area J Pittsburgh (4 Counties)	RANK	Area K Newcastle (1 County)	RANK	Area L Youngstown (3 Counties)	RANK	Area M Wheeling-Steubenville (6 Counties)	RANK	Area N Huntington-Ashland (4 Counties)	RANK	Area 6 Butler-Kitanning (3 Counties)	RANK	Area 7 Uniontown-Waynesburg (5 Counties)	RANK	Area 8 E. Liverpool-Cadiz (3 Counties)	RANK	Area 9 Portsmouth-Marietta (12 Counties)	RANK			
POPULATION																						
1. Population, Jan. 1, 1956.........thous.	2,367	1	115	16	591	4	363	9	264	11	261	11	340	6	153	15	363	5	9,040	14,306	165,879
2. Population, per sq. mile, Jan. 1, 1956.........	775	6	170	19	344	12	237	16	188	18	114	3	110	4	116	2	65	13	220	194	56
MANUFACTURING																						
3. Monthly payrolls, all insured employment (1956—1st Q.).........mil. dol.	256.7	1	8.7	18	68.2	5	27.1	10	14.9	14	15.7	7	14.1	9	9.1	12	14.5	8	926.7	1,333.2	12,933
4. Manufacturing employment per 1,000 population (1956—1st Q.).	143	12	120	17	193	5	124	16	77	18	78	8	34	12	98	7	71	10	152	134	101
5. Value added by manufactures, 1954.....mil. dol.	2,489	1	105	17	868	4	374	10	206	14	182	7	58	11	96	10	128	9			
6. Value added per manufacturing employee, 1954.........dol.	8,161	9	7,545	13	8,265	6	7,405	14	5,937	19	8,955	1	5,055	13	6,205	10	6,059	11	7,994	7,971	7,189
FINANCE																						
7. Demand deposits, per capita, Dec. 31, 1955...dol.	921	2	390	16	440	13	313	18	380	17	392	6	267	13	346	9	273	12	592	605	657
8. Savings accounts (Commercial banks and savings and loan associations) per capita, Dec. 31, 1955.........dol.	617	14	622	13	650	12	590	15	352	19	401	9	274	12	542	6	330	11	759	660	641
AGRICULTURE																						
9. Farm income, per acre, 1954.........dol.	—	—	—	—	—	—	—	—	—	—	32.08	7	17.57	12	23.62	11	15.89	13	42.20	36.23	21.27
10. Farm income, per farm, 1954.........dol.	—	—	—	—	—	—	—	—	—	—	3,098	8	1,992	12	2,548	11	1,863	13	4,765	3,625	5,126
TRADE																						
11. Retail sales, per capita, 1954.........dol.	983	16	898	18	1,032	15	940	17	896	19	792	11	713	12	883	9	867	10	1,099	1,010	1,053
SOME GROWTH TRENDS																						
12. Growth in population, 1950-56.........	+ 7%	18	+10%	15	+12%	14	+ 3%	19	+ 8%	17	+ 2%	11	— 2%	13	+12%	7	+ 9%	9	+14%	+10%	+10%
13. Change in manufacturing employment, 1947-54..	—10%	15	—16%	19	— 4%	13	— 3%	11	+11%	5	+ 6%	9	—13%	14	+ 4%	12	+ 4%	11	+ 6%	+ 2%	+13%
14. Growth in value added by manufacture, 1947-54..	+32%	16	+36%	14	+53%	9	+44%	11	+71%	6	+51%	11	— 2%	15	+41%	13	+60%	8	+60%	+34%	+56%
15. Growth in demand deposits, 1950-55..	+15%	18	+19%	14	+31%	8	+18%	15	+28%	9	+21%	9	+ 9%	13	+10%	12	+35%	3	+26%	+22%	+20%
16. Growth in savings accounts, 1950-55...........	+32%	18	+51%	10	+46%	12	+33%	17	+89%	1	+32%	14	+50%	4	+33%	11	+33%	12	+46%	+43%	+55%
17. Growth in farm income, 1949-54.............	—	—	—	—	—	—	—	—	—	—	+31%	2	+ 3%	13	+ 3%	12	+ 9%	9	+20%	+13%	+12%
18. Growth in retail sales, 1948-54.........	+14%	19	+14%	18	+27%	11	+25%	12	+28%	10	+13%	12	+ 3%	14	+21%	11	+48%	2	+31%	+25%	+30%

Rank number for a metropolitan area refers to the area's rank among the 19 metropolitan areas of the Fourth Federal Reserve District, 14 of which are covered in other articles of this series.

Rank number for a town-and-country area refers to the area's rank among the 15 town-and-country areas of the Fourth Federal Reserve District, 11 of which are covered in other articles of this series.

Sources:

1. Estimates based on data from U. S. Bureau of the Census and from various state agencies, 1956.
2. Square miles from Census of Population, 1950.
3, 4. Division of Research and Statistics, Ohio Bureau of Unemployment Compensation, Columbus; similar sources for data for other states, 1956.
5, 6. Census of Manufactures, 1954.
7. Federal Reserve data; refers to demand deposits of individuals, partnerships and corporations.
8. Federal Home Loan Bank of Cincinnati, Federal Home Loan Bank of Pittsburgh; state departments of banking; Federal Reserve data on time deposits. Item refers to time deposits at commercial banks and mutual savings banks *plus* value of withdrawable shares of savings and loan associations (both state and Federal-chartered).

9, 10. Census of Agriculture, 1954.

11. Census of Business, 1954.

12. Census of Population, 1950 and estimates as of item 1

13, 14. Census of Manufactures, 1954.

15, 16. Same as 7 and 8.

17. Census of Agriculture, 1954 and 1947.

18. Census of Business, 1954 and 1948.

HUNTINGTON-ASHLAND Metropolitan Area
4 counties
(Area N.)

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This four-county metropolitan area is located on the Ohio River, at the junction of three states. Huntington (West Virginia), its central city, lies within the Fifth Federal Reserve District. However, Ashland (Kentucky) and Ironton (Ohio) are within the Fourth District.

The area is treated here as a unit, in line with its Census classification as a single metropolitan area, in spite of the fact that the major part of its population happens to be outside the Fourth District. Furthermore, the area is ranked within the array of the various metropolitan areas of the Fourth District. (However, the part of the area which lies outside the Fourth District has been excluded from the Fourth District totals appearing as benchmark figures in the next-to-final column of Table 1, pages 12 and 13.)

Huntington (West Virginia) had an estimated population of 92,000 as of early 1956. Ashland (Kentucky) is estimated at 34,000. Ironton (Ohio) numbered about 17,000 as of early 1956.

Altogether, the population of the four-county area is about 264,000, which would score it 11th among 19, if it is included in its entirety, for comparative purposes, with the other metropolitan areas of the District.

The area's rate of gain in population between 1950 and 1956 is computed at 8 percent, which is somewhat less than the average for the Fourth District or for the United States, and appreciably less than the average gain for Ohio. (See final columns of Table 1, pages 12 and 13.)

Growing Industrialization

The Huntington-Ashland area is not among the most heavily industrialized of the 19 metropolitan areas, although it experienced a fairly rapid growth from 1947 to 1954. Its 77 manufacturing employees per 1,000 population in 1954 ranked it 18th among the 19 metropolitan areas, although in growth of manufacturing employment it ranked 5th out of 19, with a gain of 11 percent, almost twice the rate of gain for the whole District. Value added by manufacture increased 71 percent from 1947 to 1954, more than double the District average; in this characteristic, the four-county area ranked 6th out of 19.

The area has about 45 manufacturing establishments with more than 100 employees. In order of numbers employed, the largest industries are: petroleum refining,

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steel, chemicals, clay and glass products, non-ferrous metals, transportation equipment, and apparel.

In *Huntington* (West Virginia) establishments employing more than 1,000 turn out the following product lines: nickel mill products, glass products, radio tubes, and railroad freight and passenger cars. Plants employing between 500 and 1,000 persons produce auto parts, miscellaneous steel products for railroads and mines, women's dresses, dyestuffs, and tobacco products. Somewhat smaller plants manufacture optical instruments, men's shoes, work clothing, furniture, women's apparel, batteries, lumber products, glass containers, gas heaters, men's and boys' apparel, tobacco products, aircraft equipment and industrial hydraulic equipment. Also, lumber products are produced at Kenova; there is a large coal-washing plant and coal-railroad terminal at Ceredo; glass products are made at both Ceredo and Milton.

Two establishments in *Ashland* (Kentucky)—an oil refinery, and an integrated steel mill—account for more than half of manufacturing employment in Boyd County, in addition to being the largest employers in the four-county area. Sheet steel is the principal product of the steel mill. Smaller plants make coke and coke-oven by-products, fire brick and refractories, structural clay products, children's clothing, and sole leather.

The production of chemicals is the largest single manufacturing industry in and around *Ironton* in Lawrence County, Ohio. One plant in South Point employs more than 1,000 persons in the manufacture of fertilizer and other nitrogen products. Two in *Ironton* produce coke and coke by-products, coal-tar

chemicals, and plastics and resins. Also manufactured in Ironton are castings and forgings, electrical equipment, cement, and sporting and athletic goods. Elsewhere in the county, clay refractories are turned out at Blackfork, cement at Superior, and brick and tile at Coal Grove.

Huntington-Ashland as a Port

Huntington has become the largest port on the Ohio River, with a volume of traffic surpassing even that handled by Pittsburgh. Most of the tonnage consists of outbound shipments of coal destined for Cincinnati and coal-receiving ports in Indiana. Receipts of crude oil for the refinery in Ashland and shipments of its refined petroleum products are also substantial. Despite its prominence as a coal "exporter," the area is not a large producer of coal. In 1953 nearly 10,000,000 tons of coal moved through Huntington, but production in the area amounted to only about 800,000 tons, most of it in Boyd County, Kentucky.

Finance and Trade

The position of the Huntington-Ashland area with respect to the financial and trade characteristics used in this study is similar to its position in manufacturing. In both cases its rank in growth trends is much higher than its current rank in respect to absolute totals. (See Table 1, pages 12 and 13.)

The area ranks 1st among the 19 metropolitan areas in growth of savings accounts from 1950 to 1955. In growth of demand deposits and of retail sales, its position is 9th and 10th, respectively, out of 19.

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This town-and-country area of Pennsylvania includes three counties situated immediately to the north of the Pittsburgh metropolitan area. The city of *Butler* had a population of about 24,000 as of early 1956; Lyndora-Highfield, also in Butler County, accounts for about 6,000. In Armstrong county, the principal centers are Kittanning, with 8,000; Ford City, with 6,000; and Leechburg, with about 4,000. In Indiana County, the city of *Indiana* counts about 11,000, while Blairsville is about 5,000.

Altogether the area accounts for a total population of about 261,000. In absolute numbers, that makes it 11th out of the 15 town-and-country areas of the Fourth Federal Reserve District. However, in terms of average density, the area has a population of 114 per square mile, for a rank of 3rd among the 15 town-and-country areas.

The 2-percent growth in population of the Butler-Kittanning area between 1950 and 1956 ranked Butler-Kittanning 11th among the 15 town-and-country areas of the Fourth District. Nevertheless, its population growth has exceeded that of some neighboring parts of western Pennsylvania.

High Productivity Industries

Although it stands about midway in the array of the 15 town-and-country areas of the Fourth Federal Reserve District in terms of the relative importance of manufacturing (as measured by payrolls, employment and the total value added by manufacture) the Butler-Kittanning area ranks first in value added in manufacturing per employee.

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Its top position in that classification reflects the predominance of industries with labor forces which are small in relation to their output. The largest manufacturing industries, roughly in order of manufacturing value, produce steel and steel products, alcoholic beverages, clay and glass products, chemical products, and machinery.

Manufacturing in Butler County is dominated by a steel mill and a concentration of metal-working activity in Butler. Output of the steel mill is principally in flat-rolled products—sheets and strip. A plant in nearby East Butler produces steel pipe and tubing. In Butler there is also a large plant which manufactures railroad freight cars, as well as a producer of "oil-country" steel goods. Other establishments in the county employing more than 100 workers each produce refractories and electrical ceramics, toilet preparations, electrical machinery, cement, rubber products, chemicals, glass products, and men's clothing.

In Armstrong County the largest single employer produces flat, plate, and auto glass. Other large establishments are a distillery and a plant manufacturing ceramic plumbing fixtures. Plants having a workforce of more than 100 produce glass containerware and bottles, tonnage oxygen, terra-cotta, refractories, and other clay products.

Indiana County's largest establishments, in terms of employment, manufacture chemical products and industrial machinery. Other plants employing more than 100 turn out rubber tires, boots and shoes, men's clothing, and terra-cotta and fire-clay products.

Mineral Industries

In 1954 the three-county area produced 8.5 million tons of bituminous coal, about 12 percent of total output in Pennsylvania. Mines in Indiana County accounted for more than half of the area total. Nearly 14 billion cubic feet of natural gas were produced in the area in 1954, of which 75 percent came from wells in Armstrong County. Large limestone quarries are worked in Armstrong County, and the extensive clay deposits are used by local producers of firebrick and terra cotta.

Finance and Trade

In demand deposits and savings accounts per capita, the Butler-Kittanning area ranks 6th and 9th, respectively, among the 15 town-and-country areas of the Fourth District. The area's position is lower, however, with respect to growth in those two items, as well as in per capita retail sales and growth in retail sales. (See Table 1, pages 12 and 13.)

Second in Growth of Farm Income

Among the 15 town-and-country areas of the Fourth District, the Butler-Kittanning area ranks 2nd in growth of farm income from 1949 to 1954. (The Fremont-Bryan area of northwestern Ohio was first by a very narrow margin.) With respect to farm income per acre and per farm in 1954, however, Butler-Kittanning is about midway in the ranking. The area is part of the dairy belt of western Pennsylvania and northeastern Ohio, and dairy products account for about one-third of the total value of farm products sold, according to the 1954 Census of Agriculture. Other principal types of products, with their share of gross sales receipts, are: nursery and greenhouse products, 15 percent; poultry and poultry products, and livestock and products, 14 percent each. Butler County leads the area in value of farm products, with gross sales of $11.8 million in 1954.

UNIONTOWN-WAYNESBURG Area

5 counties

(Area 7.)

Note: Because of the large area encompassed, the scale of this map is slightly smaller than most of the other maps depicting individual areas.

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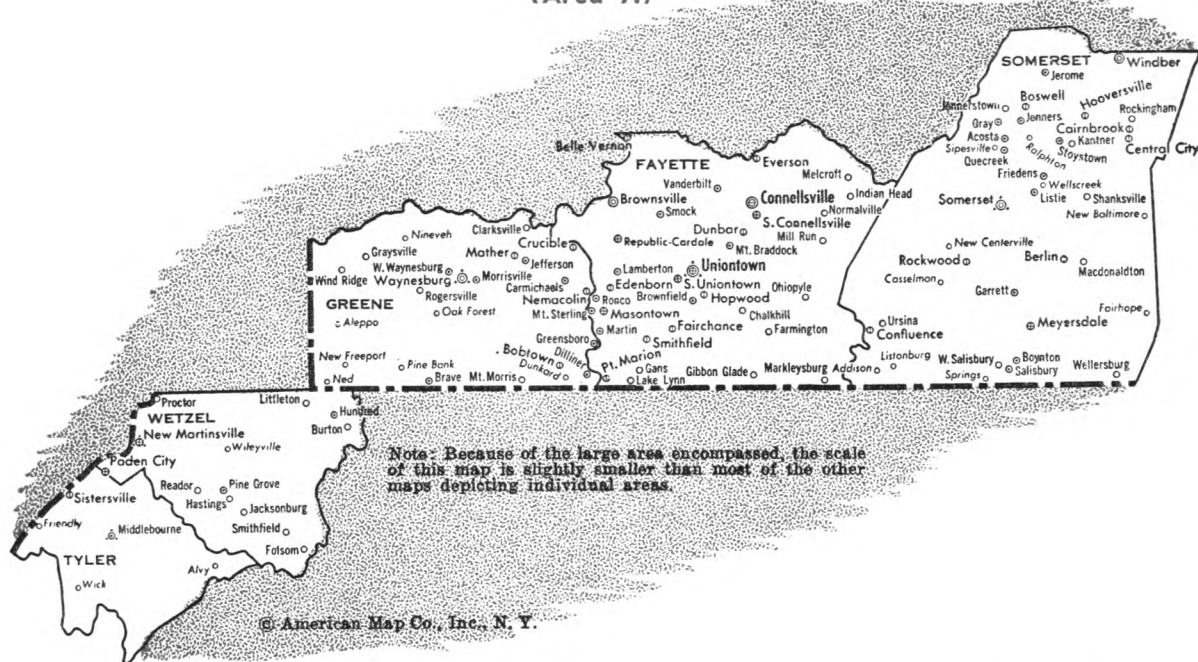
This area includes three counties in the southwestern corner of Pennsylvania as well as two counties in the northern part of West Virginia, bordering the Ohio River. With a total population of about 340,000 as of early 1956, the area is 6th largest of the 15 town-and-country areas measured in this survey of the Fourth Federal Reserve District. In terms of average density, this represents a population of 110 per square mile, or 4th among the 15 town-and-country areas.

Tendencies toward population growth in the area have been in large part offset by declines in numbers associated with long-term downtrends in employment in the coal mining sections which constitute a significant part of the area. The net change in population of the five-county area between 1950 and 1956 appears to have been a gain of one percent.

The most populous county of the area is Fayette County (Pennsylvania). It includes *Uniontown* with population as of early 1956

estimated at 19,000, *Connellsville* with about 13,000, Brownsville and Masontown with 7,000 and 4,000, respectively.

Waynesburg, in Greene County (Pennsylvania) has a population of about 5,000. In Somerset County (Pennsylvania) are Windber with about 7,000, and Somerset with 5,000.

In Wetzel County (West Virginia) New Martinsville numbers about 4,000, while Paden City is about 3,000. No town in Tyler County (West Virginia) numbers more than 3,000.

Manufacturing

In the Uniontown-Waynesburg area, both employment and value added by manufacture fell off by 13 percent and 2 percent, respectively, between 1947 and 1954. The declines, however, were entirely accounted for by two of the five counties in the area—Fayette County (Pennsylvania) and Tyler County (West Virginia). The other counties

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reported increases in "value added" from 1947 to 1954, and two of them recorded increases in manufacturing employment as well. Some of the reduction in manufacturing activity in Fayette and Tyler counties is attributable to the temporary effects of the 1954 business recession.[6]

In terms of employment, the most important manufacturing industries in the area, in order of size of the workforce, are clay and glass products, apparel, chemicals, coke and coke-oven products, and metalworking.

Despite the decline in employment and value added by manufacture in Fayette County from 1947 to 1954, that county had more than half the total number of manufacturing employees in the five-county area, and most of the larger plants. At South Connellsville, 2,400 persons are employed in a plant producing glass containers and closures for such containers. In adjacent Connellsville, there are smaller plants manufacturing men's and boys' trousers and materials-handling equipment, as well as railroad repair shops.

In *Uniontown,* the largest plant, employing more than 500, produces pajamas, and smaller establishments manufacture cast-iron enameled plumbing fixtures and water meters. Colored glass products are manufactured at Point Marion, near the West Virginia border. River barges and other river equipment are built at Brownsville. A chemical works at Newell produces industrial acids. Elsewhere in the county, there is a whiskey distillery at Broad Ford, as well as plants at East Millsboro, Mt. Braddock, and Masontown which manufacture sweaters, explosives, and men's sport shirts, respectively.

Waynesburg, in Greene County, has plants producing ladies' pajamas and boys' polo shirts. In Somerset County, plants in Somerset, Boswell, Salisbury, and Meyersdale manufacture canned foods and various items of apparel.

(6) Since the Census year to which the above figures apply, a number of successful steps have been taken in Fayette County to attract new manufacturing industry. Such steps have been part of a planned campaign to counteract the long-range effects of employment declines in coal mining. For further details, see the article "Changing Fortunes of Bituminous Coal" in the July-August (1956) issue of this *Review.*

In Wetzel County (West Virginia) chemical plants near *New Martinsville* turn out titanium tetrachloride and other chlorine products, ammonia, caustic soda, and chemicals for insulation and adhesives. One chemical plant employs more than 500 persons. Glass tableware is also produced in New Martinsville, and dinnerware at Paden City. A chemical plant near Sistersville in Tyler County (West Virginia) manufactures silicones, used in paints and lubricants.

Area Important in Coal Mining

The most important nonmanufacturing industry in the Uniontown-Waynesburg area is bituminous coal mining. In 1954 the three Pennsylvania counties of the area produced 18 million tons of soft coal, about 26 percent of all soft coal mined in the state. Greene County, which accounted for more than half of that total, is the site of the nation's largest coal mine. In addition, 5.4 billion cubic feet of natural gas were produced in Greene County in 1954, as well as a small quantity of crude oil.

Also, large quantities of clay, limestone, and sandstone are quarried for local use.

Trade, Finance, and Agriculture

The Uniontown-Waynesburg area ranks 4th among the 15 town-and-country areas of the Fourth District in recent growth in savings accounts; there was a 50 percent increase from 1950 to 1955. In the other measures of retail trade, finance and agriculture used in this study, this area was below the District average. (See Table 1, pages 12 and 13.)

Dairy products and livestock are the two principal sources of farm income in the area, accounting for 44 percent and 21 percent, respectively, of cash receipts from sales, according to the 1954 Census of Agriculture. Greene County is the largest sheep producer in Pennsylvania. Nearly 60 percent of the value of farm products sold in the five-county area is accounted for by Somerset County, Pennsylvania.

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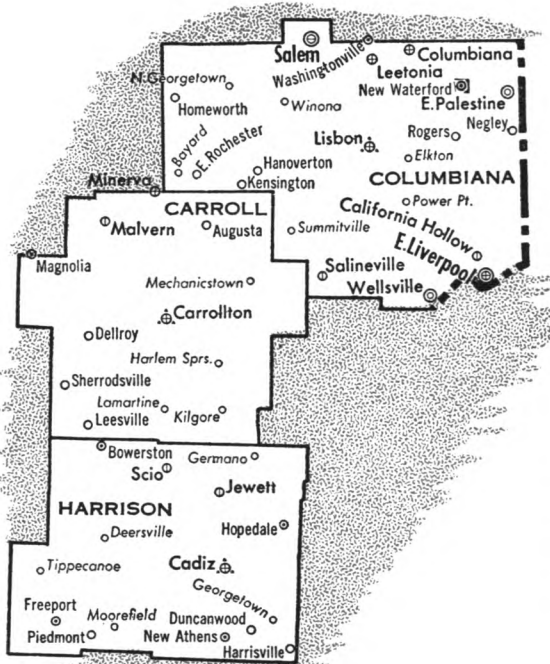
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This area comprises the Ohio counties of Columbiana, Carroll and Harrison. It borders the metropolitan areas of Youngstown, Canton, and Wheeling-Steubenville. A small part of the area, including its largest city, East Liverpool, is on the Ohio River.[7]

The population of East Liverpool is about 26,000, according to estimates made early in 1956. Salem is the second largest city of the area, with about 14,000. Also in Columbiana County are Wellsville and East Palestine, with about 8,000 and 5,000, respectively. Cadiz in Harrison County and Carrollton in Carroll County number about 3,000, each.

Although Harrison and Carroll counties are sparsely populated, the fairly dense pop-

(7) The designation of these three counties as a separate "town-and-country" area represents one of the few departures in classification from the Census list of "state economic areas."

ulation of Columbiana County raises the three-county average to 116 persons per square mile, the 2nd highest density of all 15 town-and-country areas of the Fourth District.

Clay Products are Major Manufacture

About one-third of the three-county area's manufacturing establishments turn out clay products, and the manufacture of dinnerware, firebrick, tile, and electrical porcelain employs between one-fourth and one-third of the labor force in manufacturing. Other important industry groups are nonelectrical machinery and fabricated metal products. Together, these three types of manufactures account for almost two-thirds of manufacturing employment in the area. Most of the area's industrial plants are located in Columbiana County.

Industrial growth in the East-Liverpool-Cadiz area does not rank high in comparison with the other town-and-country areas. (See Table 1, pages 12 and 13.)

Plants and Products

In *Salem,* the major manufacturing center, plants with more than 500 employees make kitchen cabinets and contract stampings, pumps, and enameled plumbing fixtures. Smaller plants, in order of size of employment, are in the following product lines: rolling mill machinery and equipment, dinnerware, industrial heat-treating equipment, sheet-metal stamping dies, and control valves. At Columbiana, there are plants producing rubber and plastic manufacturing equipment, metal screens and storm sash, furniture, and pumps. Establishments in East Palestine manufacture furniture, earthenware, tile and brick, and metal tanks.

East Liverpool is still an important pottery center, although the largest potteries are

now across the Ohio River in West Virginia. Other plants in East Liverpool produce electrical porcelain, machinery for the plastics and pottery industries, and steel bars. Because East Liverpool is at the point of the Ohio River closest to the Great Lakes, plans are under way for a super-highway to connect that city with Ashtabula, a Lake Erie port on the St. Lawrence Seaway.

Plants at *Wellsville* make restaurant ware and firebrick. Electrical porcelain is produced at *Lisbon*.

Cooking utensils and industrial rubber gloves are manufactured at Carrollton. Elsewhere in Carroll County, a plant at Malvern produces tile and brick. At Scio, in Harrison County, a large pottery turns out earthenware table and kitchen articles.

Mineral Industries

The East Liverpool-Cadiz area produced about 10 million tons of soft coal in 1955, a little more than one-fourth of the total output in Ohio. In Harrison County, where coal mining is the major industry, most of the coal is strip mined.[8] Georgetown, in Harrison County, is the southern terminus of the new coal pipeline scheduled to deliver 1,200,000 tons of coal per year to an electric power plant 108 miles to the north on Lake Erie (at Eastlake in Lake county).

About 400,000 tons of clay were dug in Columbiana and Carroll counties in 1955. Most of it was used by local producers of refractories and vitrified products.

Agriculture

The East Liverpool-Cadiz area is located in the "general farming" area of the Fourth District. Most farms are small; average income of $2,548 per farm is hardly more than half the Ohio average. Dairying is the leading source of income, followed by hogs and poultry.

(8) For a discussion of strip mining in Harrison County and its attendant problem of reclamation, see the July-August (1956) issue of this *Review*.

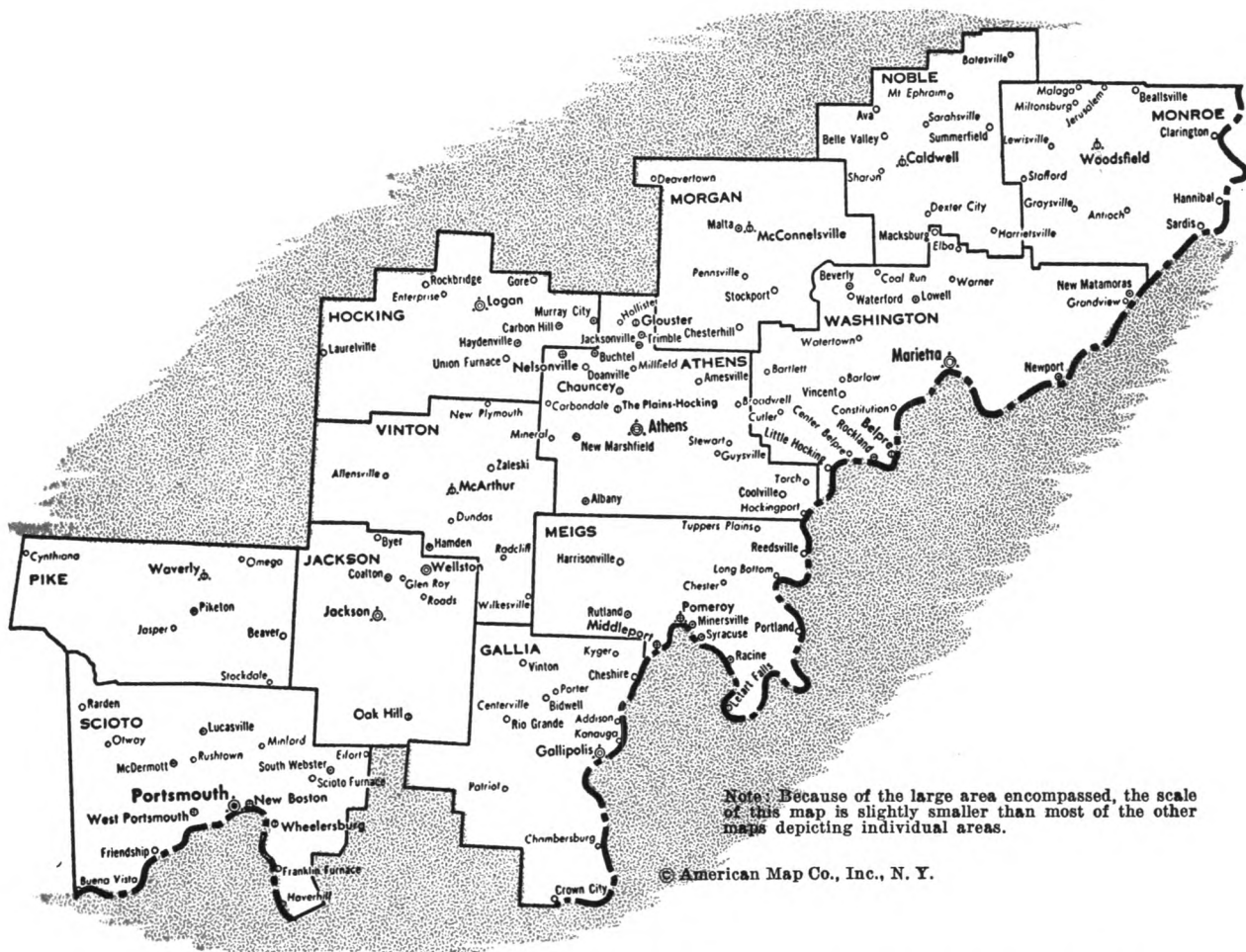## PORTSMOUTH-MARIETTA Area
12 counties
(Area 9.)

This extensive town-and-country area embraces a tier of twelve counties of southeastern Ohio, bordering the Ohio River southwest of Wheeling. The River links this area with both Pittsburgh and Cincinnati; however, many parts of the area, especially its inland sections, have their most important ties with Columbus, Ohio.

Total population as of early 1956, is estimated at 363,000, or 5th largest among the 15 town-and-country areas of the Fourth District. When the geographic extent of the area is taken into account, however, the density of population is seen to be relatively low. With an average of 65 people per square mile, the area is 13th among the 15 town-and-country areas in this respect.

Portsmouth's population is about 39,000, according to the early 1956 estimates. Marietta, also on the Ohio River, numbers about 17,000. Third in population within the area is Athens, with about 13,000,[9] located a short distance from the river. Other towns of the 12-county area ranging in population from about 8,000 to 4,000, are, in descending order: Gallipolis, Jackson, Logan, Wellston,

(9) Includes several thousand students at Ohio University, the oldest university in the state.

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Note: Because of the large area encompassed, the scale of this map is slightly smaller than most of the other maps depicting individual areas.

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New Boston, Nelsonville, Waverly and Pomeroy.

Manufacturing—Steel, Shoes, and U-235

In terms of employment in 1955, the largest industrial groups in the Portsmouth-Marietta area produce primary metals, shoes, and uranium isotopes for atomic energy purposes. Smaller groups, ranked by numbers employed, are clay and stone products, nonelectrical machinery, fabricated metal products, and chemicals and chemical products.

The 12-county area is one of the less industrialized in the Fourth District. Manufacturing industry employed about 7 percent of the population in 1954, according to the Census of Manufactures taken that year. That was less than half the average ratio in Ohio and ranked the area 10th among the 15 town-and-country areas. In value added by manufacture, the area ranked 9th, and in value added per employee in manufacturing ($6,059) it was 11th out of 15, and considerably below the Ohio and Fourth District averages.

The area's position with respect to growth in manufacturing employment and value added by manufacture was 11th and 8th, respectively, among the 15 town-and-country areas, according to the 1954 Census. Since 1954, however, there has been an accelerated industrial growth, especially in chemicals and electric power generation along the Ohio River.

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Plants and Products

Portsmouth and Marietta, in opposite parts of the 12-county area, are the principal centers of industry. In addition to the Pike County atomic energy plant, other establishments in and near Portsmouth which employ more than 1,000 persons each produce steel sheets and wire products, and shoes. Smaller plants turn out gray iron castings and refractories.

In Marietta one large electrometallurgical plant with nearly 2,000 workers manufactures ferro-alloys. Smaller plants produce plastics, metal office furniture, concrete products, dyestuffs, ventilators and louvers, and paints and varnishes.

Elsewhere in the area, the manufacture of industrial and structural clay products employs the largest number of workers. Plants in Haydenville and Logan (Hocking County) turn out structural clay products, footwear, and furniture. In Jackson and Wellston (Jackson County) plants manufacture men's and boys' trousers, pig iron, gray-iron castings, and office and store fixtures. A group of small firms in Oak Hill (Jackson County) produce refractories.

Mill work and bearings are fabricated at Malta and McConnellsville (Morgan County). There is a large factory in Athens which manufactures business forms and a shoe factory at Nelsonville (Athens County). Gray-iron castings are produced in Pomeroy (Meigs County) brick and hollow tile at McArthur (Vinton County) and bearings at Caldwell (Noble County).

Monroe County, hitherto not industrialized, is the site of an integrated aluminum plant now under construction which will employ more than 2,000 people.

Extractive Industries and Power

Bituminous coal is the principal mineral product of the twelve-county area, and most of it is strip mined. In 1955, the nine coal-producing counties of the area had an output of almost 6 million tons, about one-sixth of Ohio's coal production. Morgan and Noble counties accounted for almost half the area total. In 1955 there were 500,000 tons of clay mined in the area for local producers of structural and industrial clay products. The area also produces some natural gas and oil.

As is the case with the Wheeling-Steubenville area, previously mentioned, the generation of electric power at the mine-mouth is one of the most important developments of the area. New large generating stations along the Ohio River tie in with the expansion plans of large manufacturing firms. These plants are transmitting power all the way to Great Lakes areas. (See over-all data on power plants along the Ohio River, page 11.)

Growth in Trade and Demand Deposits

The Portsmouth-Marietta area ranks 10th in per-capita retail sales, 11th in savings accounts, and 12th in per capita demand deposits at commercial banks. (The comparison is with the other 14 town-and-country areas in the Fourth District.) Portsmouth-Marietta ranks near the top, however, with respect to *growth* in retail sales and demand deposits, substantially exceeding the Fourth District average. (See Table 1, pages 12 and 13.)

Agriculture

The Portsmouth-Marrietta area is not high in farm income, whether measured per acre or per farm. Average income of $1,863 per farm, according to the Census, was about half the District average; income per acre was $15.90, or less than half the District average. Growth in farm income from 1949 to 1954 was likewise below Ohio and Fourth District averages.

Dairying is the chief source of farm income in 10 of the 12 counties, and the second most important source in the remaining 2 counties. Other major sources of farm income in the area are poultry, hogs, beef cattle, and truck farming.

Table 2

LIST OF THE 34 ECONOMIC AREAS OF THE FOURTH DISTRICT

NORTHWESTERN OHIO

A. **Toledo** metropolitan area
Lucas County

B. **Lima** metropolitan area
Allen County

1. **Fremont-Bryan** town-and-country area
Counties included: Defiance, Fulton, Henry, Ottawa, Paulding, Putnam, Sandusky, Van Wert, Williams, Wood.

2. **Marion-Findlay** town-and-country area
Counties included: Auglaize, Crawford, Hancock, Hardin, Logan, Marion, Mercer, Seneca, Union, Wyandot.

CLEVELAND AND EASTERN LAKE ERIE

C. **Cleveland** metropolitan area
Cuyahoga and Lake Counties

D. **Lorain-Elyria** metropolitan area
Lorain County

E. **Mansfield** metropolitan area
Richland County

F. **Akron** metropolitan area
Summit County

G. **Canton** metropolitan area
Stark County

H. **Erie** metropolitan area
Erie County (Pa.)

3. **Sandusky-Ashland** town-and-country area
Counties included: Ashland, Erie, Holmes, Huron, Medina, Wayne.

4. **Ashtabula-Kent** town-and-country area
Counties included: Ashtabula, Geauga, Portage.

5. **Oil City-Meadville** town-and-country area
Counties included: Clarion, Crawford, Forest, Jefferson, Venango, Warren (all in Pa.).

PITTSBURGH, YOUNGSTOWN AND THE UPPER OHIO VALLEY

J. **Pittsburgh** metropolitan area
Counties included: Allegheny, Beaver, Washington, Westmoreland (all in Pa.).

K. **New Castle** metropolitan area
Lawrence County (Pa.).

L. **Youngstown** metropolitan area
Counties included: Mahoning and Trumbull (Ohio) and Mercer (Pa.).

M. **Wheeling-Steubenville** metropolitan area
Counties included: Belmont and Jefferson (Ohio) and Brooke, Hancock, Marshall and Ohio (West Va.).

N. **Huntington-Ashland** Metropolitan area
Counties included: Boyd (Ky.), Cabell and Wayne (W. Va.) and Lawrence (Ohio).

6. **Butler-Kittanning** town-and-country area
Counties included: Armstrong, Butler, Indiana (all in Pa.).

7. **Uniontown-Waynesburg** town-and-country area
Counties included: Fayette, Greene, Somerset (Pa.) and Tyler and Wetzel (West Va.).

8. **East Liverpool-Cadiz** town-and-country area
Counties included: Carroll, Columbiana, Harrison.

9. **Portsmouth-Marietta** town-and-country area
Counties included: Athens, Gallia, Hocking, Jackson, Meigs, Monroe, Morgan, Noble, Pike, Scioto, Vinton, Washington (all in Ohio).

CENTRAL AND SOUTHWESTERN OHIO

O. **Cincinnati** metropolitan area
Counties included: Hamilton (Ohio) and Campbell and Kenton (Ky.).

P. **Hamilton-Middletown** metropolitan area
Butler County.

Q. **Dayton** metropolitan area
Greene and Montgomery Counties.

R. **Springfield** metropolitan area
Clark County

S. **Columbus** metropolitan area
Franklin County.

10. **Zanesville-Newark** town-and-country area
Counties included: Coshocton, Fairfield, Guernsey, Knox, Licking, Morrow, Muskingum, Perry, Tuscarawas (all in Ohio).

11. **Piqua-Delaware** town-and-country area
Counties included: Champaign, Clinton, Darke, Delaware, Fayette, Madison, Miami, Pickaway, Preble, Shelby, Warren.

12. **Chillicothe-Hillsboro** town-and-country area
Counties included: Adams, Brown, Clermont, Highland, Ross.

EASTERN KENTUCKY

T. **Lexington** metropolitan area
Fayette County.

13. **Richmond-Maysville** town-and-country area
Counties included: Bath, Boone, Bourbon, Bracken, Clark, Fleming, Garrard, Grant, Harrison, Jessamine, Madison, Mason, Montgomery, Nicholas, Pendleton, Robertson, Scott, Woodford.

14. **Somerset-Morehead** town-and-country area
Counties included: Carter, Clay, Elliott, Estill, Greenup, Jackson, Laurel, Lawrence, Lee, Lewis, Lincoln, Magoffin, Menifee, Morgan, Owsley, Powell, Pulaski, Rockcastle, Rowan, Wolfe.

15. **Middlesboro-Hazard** town-and-country area
Counties included: Bell, Breathitt, Floyd, Harlan, Johnson, Knott, Knox, Leslie, Letcher, McCreary, Martin, Perry, Pike, Whitley.