

economic review

JANUARY 1966

IN THIS ISSUE

An Economic Profile
of Columbus, Ohio . . . 3

Survey of High School
Seniors in Cuyahoga
County—Some
Additional Findings . . . 19

Capital Spending Plans
in Cleveland and
Cincinnati 27

Annual Index to
Economic Review . . . 35

FEDERAL RESERVE BANK OF CLEVELAND

Additional copies of the ECONOMIC REVIEW
may be obtained from the Research Department,
Federal Reserve Bank of Cleveland, Cleveland,
Ohio 44101.

AN ECONOMIC PROFILE OF COLUMBUS, OHIO

Columbus is one of the largest and fastest growing cities in the Fourth Federal Reserve District. It also is the capital of Ohio and the county seat of Franklin County.

Columbus is identified as a "growth" area, primarily because of the enormous expansion of its industrial dimension since World War II. While the community had done well earlier, the favorable economic climate in Columbus prior to the war and postwar industrial surge, was based on the white-collar lines of activity that still play an important role in the area's business life. The transformation to a greater industrial orientation has brought Columbus' identity somewhat closer to that of other industrial centers in the Fourth District as well as in the nation.

BACKGROUND

The borough of Columbus was incorporated 150 years ago on February 10, 1816; but four years earlier, in 1812, the Columbus site had already been selected from among several competing areas to be the State capital. Aside from its relatively central geographic position in Ohio, there seems to have been no compelling reason for the choice. According to one historical source,¹ the Columbus site was "an unbroken forest" at the time of its designation; but once the choice was made, advantages began to accrue. The same source states that after laying out the town, "the

primeval wilderness and native untrodden soil awoke to its initial real estate boom . . . after the platting of the town and its establishment as the capital, improvements and growth advanced rapidly; immigrants came and business began to bustle." Business apparently continued to bustle for, by 1850, Franklin County, with Columbus as its county seat, had become the fourth most populous county in Ohio. By 1880, the County had climbed into third place, the position it holds today, but with an even stronger grip.

As shown in Chart 1, population expansion in Franklin County has been dramatic in the present 20th century; the 88-percent gain from 1930 to 1960 was virtually twice as large a rate of increase as the concurrent 45-percent increase in Ohio as a whole. Today, growth still continues apace. Population estimates for July 1964 show a further gain of 12 percent in Franklin County during the first four years of the current decade, which is well above the statewide increase.

| | Population July 1964* | % Change since 1960 Census |
|---|--------------------------|-------------------------------|
| Columbus (city only) | 516,483 | + 9% |
| Franklin County (incl. Columbus) | 764,923 | +12% |
| Pickaway County | 39,278 | + 9% |
| Delaware County | 38,643 | + 7% |
| Total, Columbus Standard Metro- politan Statistical Area, 1963 definition | 842,844 | +11% |
| Ohio | 10,425,175 | + 7% |

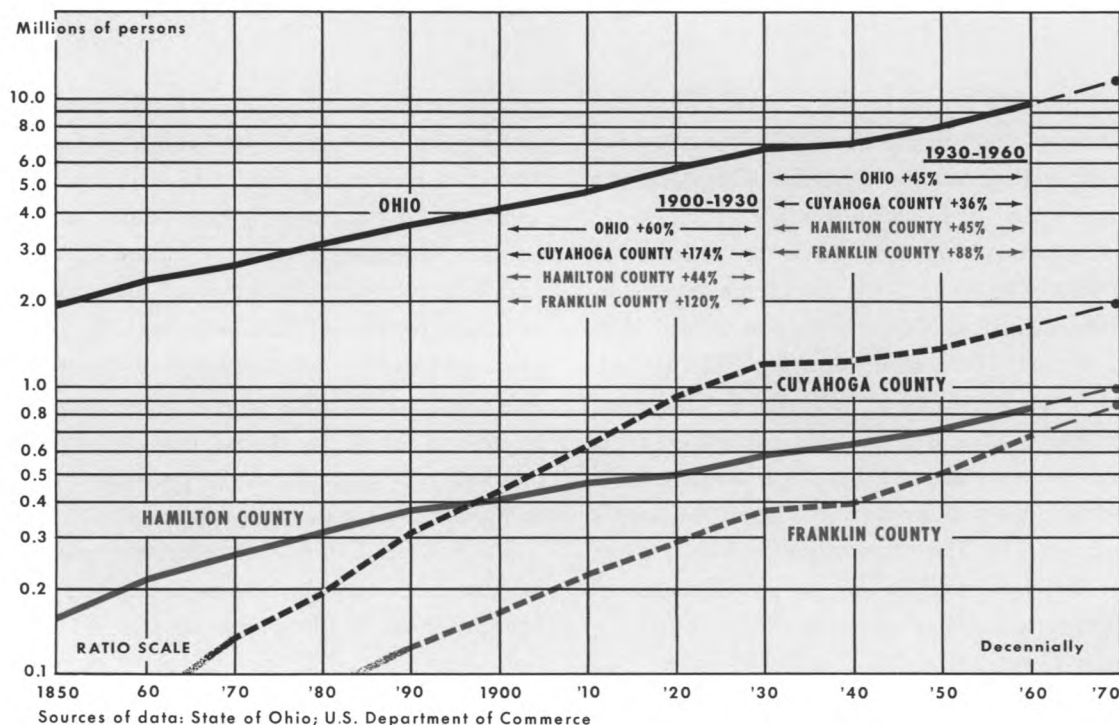
¹ See Henry Howe, *Historical Collections of Ohio*, Vol. 1, 1907.

* Estimated by Development Department, Economic Research Division, State of Ohio.

ECONOMIC REVIEW

1.

POPULATION GROWTH - 1850-1960, Projected to 1970



Indications of the present-day character of the city were manifest from the start, although initially on a modest scale. When the first census was taken in Columbus in 1815, the community of only 700 persons already boasted four lawyers and six stores, or more than might have been found in many another pioneer community of similar size. Today, employment in Columbus continues to be biased toward such fields as government, finance, services, and trade.

Table I shows the average distribution of nonagricultural employment in the Columbus

Standard Metropolitan Statistical Area during 1964, as compared with the Ohio average and with seven other large metropolitan areas in the State. Columbus not only ranked above the Ohio average in the proportion employed in the fields of government, services, finance, construction, and trade; but in all of these categories except trade, the proportion in Columbus was higher than in any of the seven other large cities. Conversely, Columbus had a relatively light concentration of employment in manufacturing, and was slightly below the State average in employment in transportation.

TABLE I

Distribution of Total Nonagricultural Employment

Among Seven Major Employment Categories, 1964 Annual Average
Eight Large SMSA's and Ohio Total

| Percent in Government | | Percent in Services | | Percent in Finance | | Percent in Construction | |
|--------------------------|-------|------------------------|-------|-----------------------|------|----------------------------|------|
| Columbus | 19.2% | Columbus | 14.7% | Columbus | 6.3% | Columbus | 4.9% |
| Dayton | 18.2 | Cleveland | 13.8 | Cincinnati | 5.6 | Cincinnati | 4.4 |
| | | Toledo | 13.8 | Cleveland | 4.8 | Cleveland | 4.3 |
| Ohio Avg. | 13.7 | Cincinnati | 13.6 | | | | |
| | | Youngstown- Warren | 12.9 | Ohio Avg. | 4.0 | Ohio Avg. | 4.2 |
| Cincinnati | 12.3 | Dayton | 12.8 | | | | |
| Toledo | 12.0 | | | Canton | 3.4 | Youngstown- Warren | 4.0 |
| Cleveland | 11.9 | Ohio Avg. | 12.7 | Toledo | 3.4 | Dayton | 3.9 |
| Akron | 11.5 | | | Akron | 2.9 | Toledo | 3.8 |
| Youngstown- Warren | 9.8 | Akron | 12.2 | Dayton | 2.8 | Akron | 3.3 |
| Canton | 8.9 | Canton | 11.8 | Youngstown- Warren | 2.7 | Canton | 3.2 |

| Percent in Trade | | Percent in Transportation | | Percent in Manufacturing | |
|-----------------------|-------|------------------------------|------|-----------------------------|-------|
| Toledo | 21.4% | Cincinnati | 7.5% | Canton | 48.8% |
| Cincinnati | 21.2 | Toledo | 7.2 | Youngstown- Warren | 47.0 |
| Columbus | 21.1 | Akron | 6.6 | Akron | 44.5 |
| Cleveland | 20.6 | Cleveland | 6.2 | Dayton | 40.6 |
| Ohio Avg. | 19.6 | Ohio Avg. | 6.2 | Ohio Avg. | 39.0 |
| | | | | | |
| Akron | 19.0 | Columbus | 6.1 | Cleveland | 38.3 |
| Canton | 18.4 | Youngstown- Warren | 5.4 | Toledo | 38.3 |
| Youngstown- Warren | 18.0 | Canton | 5.3 | Cincinnati | 35.3 |
| Dayton | 17.8 | Dayton | 3.8 | Columbus | 26.1 |

Source: Ohio Bureau of Unemployment Compensation
Division of Research & Statistics

GOVERNMENT

The large proportion of government employment in Columbus—nearly one of five employed persons—is self-explanatory. As the capital city of Ohio, Columbus not only has the various office buildings associated with State of Ohio executive, legislative, and judicial functions, but also numerous State institutions and asylums. More than 27,000 persons in Franklin County were employed during 1964 by the State government. That was 10 percent of total employment in the

County, or five times the statewide proportion of 2 percent. About 11,000 employees are associated with The Ohio State University alone, according to figures for recent years. The Federal Government had approximately 12,000 employees in Franklin County in 1964; that was 4 percent of total employment, or a little over the statewide proportion of 3 percent. Local government (including the local public school system) accounted for 18,000. That amounted to 6.4 percent of total

ECONOMIC REVIEW

employment, or somewhat less than the statewide proportion of 8.5 percent.

It is clear from Table I that the distribution of employment in Columbus is atypical, with a strong tendency to come out at either the top or the bottom of the list of other cities in the State. It may occur to some that this tendency is the result of an unusually large number of government employees superimposed, as it were, on a community whose makeup might otherwise resemble the average large Ohio city more closely. This is not the case, however, as may be seen from Table I-a, which shows the distribution of employment in the "private" sector (all government employment excluded). Just as in Table I, Columbus exhibits a strong tendency to rank first or last in relation to the seven other cities, and does so in five of the six nongovernment categories of employment. Moreover, in those same five categories, Columbus deviates from the Ohio average to a greater extent than any of the seven other cities (see comparisons in last three lines of each subdivision of Table I-a). For example, the 32.7 percent of all nongovernment employment in Columbus that is engaged in manufacturing is not only a lower proportion than in any other city, but it deviates from the Ohio average by -12.5 percentage points. Canton, at the other extremity, deviates from the Ohio average by only +8.3 points.

SERVICES

While it is possible to construct statistically an employment picture of Columbus that excludes government workers, as was done in Table I-a, it is not possible to exclude the pervasive effects of the large volume of government activity on the composition of employment in the nongovernment sector. The high

proportion of employment in service industries in Columbus (15 percent of the total, or 18 percent of the private sector in 1964) stems beyond doubt from the role of government in the city's economic life. This has led to an above-average demand for attorneys, for example, to a need for abundant hotel and restaurant accommodations, and to demand for many other business and personal services required directly or indirectly by business and political visitors. The influx of thousands of students at The Ohio State University further augments the above-average demand for services.

FINANCE

The principal factor in the relatively heavy concentration of financial employment in Columbus as compared with other metropolitan areas in Ohio is the city's position as an insurance center. In Columbus, half of the persons engaged in financial work are employed by insurance carriers, and these account for nearly one-fourth of the State total. Thus, despite its smaller population, Columbus (Franklin County) had 9,100 persons employed by insurance carriers in 1963 as compared with 9,400 in Cleveland (Cuyahoga and Lake counties combined) and 8,900 in Cincinnati (Hamilton County).

In banking activity, however, Columbus is not so outstanding, though it is certainly holding its own. Less than 10 percent of total bank employment in Ohio is to be found in Columbus. Moreover, total deposits of Columbus banks—amounting to \$1,026 million at yearend 1964—represented 7 percent of total deposits at all banks in Ohio, a proportion that is about in line with its share of the State's population.

TABLE 1-a
Distribution of Nonagricultural Employment
Exclusive of Government Employment
 Among Six Major Employment Categories, 1964 Annual Average
 Eight Large SMSA's and Ohio Total

| Percent in Services | | Percent in Finance | | Percent in Construction | |
|------------------------------|--------------|------------------------------|--------------|-----------------------------|--------------|
| Columbus | 18.4% | Columbus | 7.9% | Columbus | 6.2% |
| Toledo | 15.7 | Cincinnati | 6.3 | Cincinnati | 5.0 |
| Dayton | 15.6 | Cleveland | 5.4 | Cleveland | 4.9 |
| Cleveland | 15.6 | | | Dayton | 4.8 |
| Cincinnati | 15.5 | Ohio Avg. | 4.7 | Ohio Avg. | 4.8 |
| Ohio Avg. | 14.7 | Toledo | 3.8 | Youngstown- Warren | 4.5 |
| Youngstown- Warren | 14.3 | Canton | 3.7 | Toledo | 4.3 |
| Akron | 13.8 | Dayton | 3.4 | Akron | 3.8 |
| Canton | 12.8 | Akron | 3.2 | Canton | 3.5 |
| | | Youngstown- Warren | 3.0 | | |
| Deviation from Ohio Average: | | | | | |
| Columbus | + 3.7 points | | + 3.2 points | | + 1.4 points |
| Highest other city | + 1.0 points | | + 1.6 points | | + 0.2 points |
| Lowest other city | — 1.9 points | | — 1.7 points | | — 1.3 points |
| Percent in Trade | | Percent in Transportation | | Percent in Manufacturing | |
| Columbus | 26.5% | Cincinnati | 8.6% | Canton | 53.5% |
| Toledo | 24.3 | Toledo | 8.2 | Youngstown- Warren | 52.0 |
| Cincinnati | 24.2 | Columbus | 7.7 | Akron | 50.2 |
| Cleveland | 23.3 | Akron | 7.4 | Dayton | 49.6 |
| Ohio Avg. | 22.7 | Ohio Avg. | 7.1 | Ohio Avg. | 45.2 |
| Dayton | 21.8 | Cleveland | 7.1 | Toledo | 43.5 |
| Akron | 21.4 | Youngstown- Warren | 6.0 | Cleveland | 43.5 |
| Canton | 20.2 | Canton | 5.9 | Cincinnati | 40.2 |
| Youngstown- Warren | 19.9 | Dayton | 4.7 | Columbus | 32.7 |
| Deviation from Ohio Average: | | | | | |
| Columbus | + 3.8 points | | + 0.6 points | | —12.5 points |
| Highest other city | + 1.6 points | | + 1.5 points | | + 8.3 points |
| Lowest other city | — 2.8 points | | — 2.4 points | | — 5.0 points |

Source: Ohio Bureau of Unemployment Compensation
 Division of Research and Statistics

ECONOMIC REVIEW

TRADE

As the major city in an extensive rural region and with good transportation, Columbus is a leading mercantile center. Thus, the Columbus market is larger and wider than would be expected from its own population, allowing for a certain amount of casual sales to visitors, with trade volume inflated by substantial sales to persons other than permanent residents. (These others would include not only transient residents, such as thousands of university students, but the inhabitants of several nearby counties.)

Retail sales of more than \$1.1 billion in Columbus during 1963 amounted to \$1,392 per capita, the highest average among the eight largest Standard Metropolitan Statistical Areas in Ohio.² This leading position, however, does not appear to flow from local affluence, for, according to available data, incomes of Columbus residents are not so high that they would support the top-level spending rate indicated by the retail sales figures. Thus, in the following list of the effective buying incomes (per capita, 1963) estimated by *Sales Management*, Franklin County (Columbus) fell in fifth place among major Ohio centers:³

| County | | |
|------------|--------------|---------|
| Cuyahoga | (Cleveland) | \$2,547 |
| Hamilton | (Cincinnati) | 2,434 |
| Lucas | (Toledo) | 2,332 |
| Montgomery | (Dayton) | 2,320 |
| Franklin | (Columbus) | 2,297 |
| Summit | (Akron) | 2,278 |
| Stark | (Canton) | 2,070 |
| Trumbull | (Warren) | 2,050 |
| Mahoning | (Youngstown) | 1,996 |

² The remaining seven ranged from \$1,341 down to \$1,157; the Ohio average was \$1,261.

³ Copyright 1965, Sales Management Survey of Buying Power; further reproduction is forbidden.

And a less inclusive indicator—average weekly earnings of production workers—places the Columbus average of \$115.81 in June 1965 in eighth place in a list of the eight largest Ohio cities, and appreciably below the Ohio average of \$128.28.

MANUFACTURING

Although Columbus has a substantially smaller proportion of employment in manufacturing (26 percent) than any other large Ohio city (next smallest is 35 percent), manufacturing activity is nevertheless the city's largest single source of employment. Moreover, manufacturing in the area has been growing by leaps and bounds. As shown in Table II, value added by manufacture during 1963⁴ amounted to nearly \$900 million in Franklin County (\$984 million in the entire Columbus SMSA as recently revised to include Delaware and Pickaway counties). Year-to-year gains in value added by manufacture in Franklin County were scored in six of the

TABLE II
Value Added By Manufacture, 1956-63

| | Columbus* | | Ohio | |
|--------------------|----------------------------|-----------------------------|----------------------------|-----------------------------|
| | Current Dollars (millions) | % Change from Previous Year | Current Dollars (millions) | % Change from Previous Year |
| 1956 | \$573 | | \$12,928 | |
| 1957 | 582 | + 1% | 12,757 | — 1% |
| 1958 | 623 | + 7 | 11,473 | —10 |
| 1959 | 728 | +17 | 13,857 | +21 |
| 1960 | 754 | + 4 | 13,830 | — 0.2 |
| 1961 | 730 | — 3 | 13,320 | — 4 |
| 1962 | 796 | + 9 | 14,578 | +10 |
| 1963p | 898 | +13 | 15,443 | + 6 |
| Net Change 1956-63 | | +57% | | +19% |

* Franklin County.

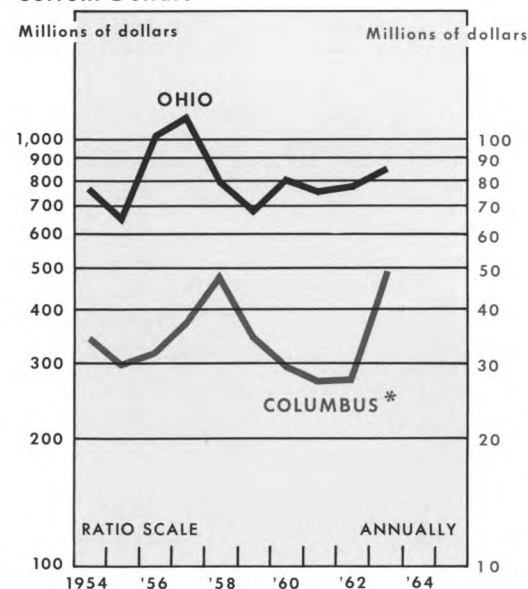
p Preliminary.

Source: U. S. Department of Commerce

⁴ Preliminary figures.

2.

CAPITAL SPENDING Manufacturing Firms Current Dollars



*Franklin County

Source of data: U.S. Department of Commerce

seven years in the 1956-1963 period as compared with statewide gains in only three of the same seven years. The net change over the entire seven years was a thumping 57 percent expansion in Franklin County as against a more modest 19 percent increase for all of Ohio. In addition to the rapid increase in manufacturing activity in Columbus, the year-to-year changes in value added indicate that the area is less sensitive to fluctuations in general business activity than is the State of Ohio as a whole.⁵

⁵ Other evidence of the rapid pace of manufacturing activity in Columbus was reported in the October 1965 issue of the *Economic Review*, in the article, "Manufacturing Activity in Metropolitan Areas." In that article, analysis of data on industrial consumption of electric power showed that the Columbus area has expanded at a pace above the average for the Fourth District, and that its manufacturing activity has tended to be relatively

stable

In the main, capital spending by Columbus business firms (Franklin County) took the same general direction for the 1954-1963 decade as did the Ohio total (see Chart 2). There were variations in direction, however, in two years, 1958 and 1960, and in 1963 there was a particularly sharp increase in Columbus while the Ohio total rose only moderately.

The character and status of Columbus manufacturing activity have undergone a major change since the 1930's. At that time, the industrial lineup in Columbus bore little resemblance to that of the State as a whole. According to the Census of Manufacturers for 1937, Ohio's leading manufacturing industries (ranked by value added in manufacture) were steel works and rolling mills, machinery, auto bodies and parts, rubber tires, and so on. In 1937, however, the major products in Columbus were boots and shoes (10 percent of the all-industry total) followed by printed matter (mostly local newspapers), bread and other baked goods, and meat products. With the exception of printing, much of the manufacturing activity consisted of the processing of agricultural raw materials.

The revolutionary change that has taken place since then is evident from the list of leading manufacturing industries developed from the latest Census data and shown in Table III. Metal-using industries now predominate in Columbus, just as they do in Ohio. Except for primary metals output, which ranks third in Ohio but of which Columbus has only a nominal amount, the leading manufacturing industries in Columbus and Ohio fall mostly within the same general categories.

ECONOMIC REVIEW

TABLE III

Three Measures of Activity in Leading Manufacturing Industries, 1962 and 1963

| | Columbus SMSA* | | Ohio | |
|---|----------------|-------|------|-------|
| | 1962 | 1963p | 1962 | 1963p |
| Share of Value Added by All Mfg. Industries | | | | |
| provided by: | | | | |
| Transportation equipment | 18% | 18% | 15% | 16% |
| Electrical machinery | 15 | 16 | 10 | 10 |
| Fabricated metals | 14 | 12 | 9 | 9 |
| Nonelectrical machinery | 12 | 10 | 13 | 12 |
| Food and kindred products | 11 | 10 | 7 | 7 |
| Five-Industry Total | 70% | 67% | 54% | 54% |
| Share of Capital Spending by All Mfg. Industries | | | | |
| provided by: | | | | |
| Transportation equipment | 8% | 13% | 10% | 11% |
| Electrical machinery | 16 | 12 | 6 | 6 |
| Fabricated metals | 19 | 11 | 9 | 7 |
| Nonelectrical machinery | 9 | 6 | 10 | 10 |
| Food and kindred products | 13 | 11 | 6 | 6 |
| Five-Industry Total | 65% | 52% | 40% | 40% |
| Share of Total Employment in All Mfg. Industries | | | | |
| provided by: | | | | |
| Transportation equipment | 17% | 18% | 13% | 13% |
| Electrical machinery | 14 | 14 | 9 | 9 |
| Fabricated metals | 11 | 10 | 9 | 9 |
| Nonelectrical machinery | 12 | 11 | 13 | 13 |
| Food and kindred products | 10 | 10 | 7 | 6 |
| Five-Industry Total | 64% | 64% | 52% | 51% |

* The Columbus SMSA consisted of Franklin County in 1962 and was expanded to include Delaware and Pickaway counties in 1963.

p Preliminary.

Source: U. S. Department of Commerce

Transportation Equipment. Measured either by value added in manufacture or by employment, the production of transportation equipment is the chief industry in both Columbus and Ohio. In Columbus, however, output consists principally of aircraft and parts while in Ohio as a whole, motor vehicles and equipment are substantially more important. Presumably because "transportation equipment" is represented by different subdivisions of the industry in Columbus than elsewhere in Ohio, there has been some difference in

the long-term trend of employment in the industry for Columbus as compared with the State (see Chart 3, top panel). Employment declined in each area in 1964, but apparently for different reasons. The auto-dominated Ohio figure was reduced by auto strikes late in the year whereas in Columbus, there was a fairly prolonged series of layoffs at aircraft plants.

As a big industry, the manufacture of aircraft in Columbus dates from 1939, just prior

to World War II. It did not evolve naturally from existing local industry but was a massive transplant from another area during the period of national defense preparations. After thus getting and relishing its first taste of really big-scale heavy industry in the war years, the prospect of a postwar void in Columbus loomed unpleasantly, not only because of the inevitable cutbacks in war orders, but because the original aircraft firm decided to move out again and conduct its peacetime operations elsewhere. Fortunately, another aircraft manufacturer took over much of the existing plant in 1950 and by 1963 (latest available data for individual firms) had become the largest single manufacturer in the area, employing 11,500 persons.

Electrical Machinery. The postwar cutback in aircraft manufacturing nonetheless left a substantial pool of experienced factory labor that proved attractive to other manufacturers. In fact, following the aforementioned aircraft plant, the three largest employers in Columbus in 1963 were divisions or branches of nationally known companies that were established in Columbus since the end of World War II. One came immediately after the war, another came in the early 1950's, and the third in the late 1950's.

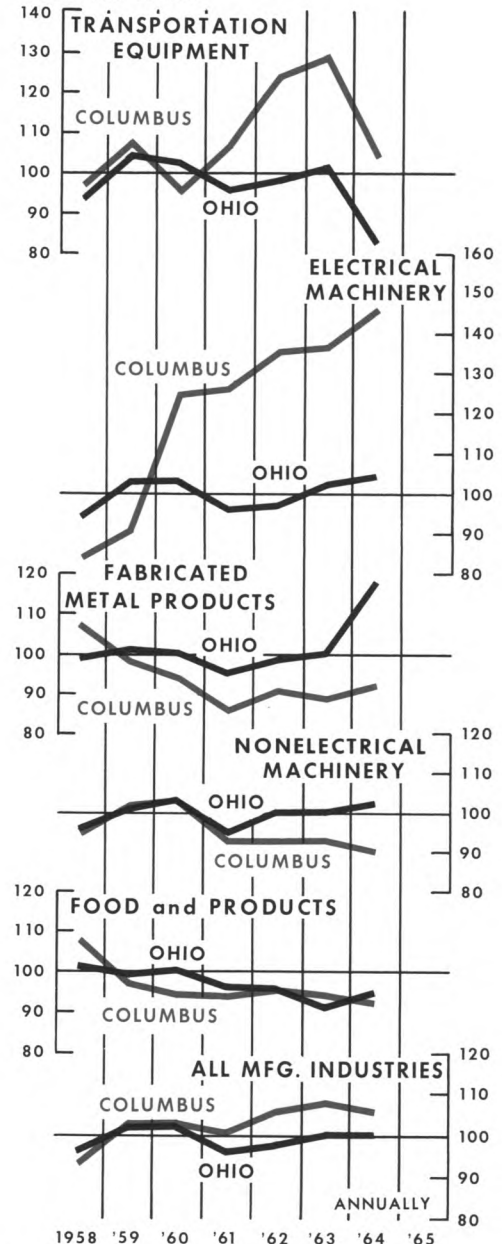
Both of the last two plants referred to are manufacturers of electrical machinery and together account for the fact that output of electrical machinery has in a few years become the second largest manufacturing industry in Columbus. The entire industry employed 11,600 persons in 1964, and about four of every five were at the two new plants mentioned. The second panel of Chart 3,

3.

TOTAL MANUFACTURING EMPLOYMENT

Selected Industries

INDEX 1958-60=100



Source of data: Ohio Bureau of Unemployment Compensation

ECONOMIC REVIEW

covering the years 1958 to 1964, shows the dramatic impact on employment in the electrical machinery industry in Columbus that came when the second plant began operations. Further gains were registered through 1964.

Fabricated Metals. Fabricated metals, one of the five largest manufacturing industries in Columbus, has apparently been losing ground in Columbus in the past several years in comparison with statewide trends. During the period from 1958 to 1964, the trend of employment in the output of fabricated metal products was less favorable in Columbus than in the State as a whole. Ohio employment in the industry had been fairly steady from 1958 to 1963 and then rose sharply in 1964 (see Chart 3). In Columbus, however, employment by fabricated metal industries rose only slightly in 1964 and remained below the 1958-60 level.

There are more Columbus firms (104 in 1963) in the fabricated metals industry than in either transportation equipment (20) or electrical machinery (28), suggesting less dominance by one or two companies. Nevertheless, one firm, the fourth largest manufacturing employer in the community, accounts for more than a third of local employment in the fabricated metals industry. That firm, a division of a giant automotive corporation headquartered elsewhere, first began operation in Columbus after the war and is not an expansion of a previously existing local enterprise.

Nonelectrical Machinery. The nonelectrical machinery production is an important "native" industry in Columbus. Of the 117 establish-

ments operating in 1963, the largest two are local concerns that date back many years prior to World War II. Together they account for close to half of total employment in the city's fifth largest manufacturing industry, based on value added in manufacture, or the third largest, measured by employment. The major products turned out by Columbus firms are coal mining machinery, cement mixers, bearings, and refrigerating equipment. There are numerous small machine shops and tool-making concerns.

Employment in this industry in Columbus during recent years (see Chart 3) has trailed the statewide trend to an increasing extent. Although production of nonelectrical machinery bulks fairly large in a cross section view of all manufacturing activity in Columbus, it does not constitute an outstanding segment of the industry throughout the State, as do the other leading industries (see Chart 4). In 1963, Columbus had only 5.2 percent of total employment in the industry throughout Ohio, although the city accounted for 6.5 percent of statewide employment in all manufacturing industries (see Chart 4) and 8.7 percent of total nonagricultural employment.

Food and Kindred Products. A second large and long-established Columbus industry is food production. In this industry, employment patterns in Columbus and Ohio are similar. The gradual declines shown in Chart 3 apparently reflect increased productivity.

Food and kindred products is the fifth largest manufacturing industry in Columbus, accounting in 1963 for 10 percent of value added by manufacture and 10 percent of all manufacturing employees (see Table III).

Moreover, by providing 10 percent of the Ohio total of value added in food manufacture, Columbus turns out an above-average share of food products, as is evident from Chart 4. In meat packing alone, Columbus plants employed nearly 900 persons in 1963 compared, for example, with only 600 in Cleveland (Cuyahoga County) which has a substantially larger population, but which makes no claim to being a meat-packing center.

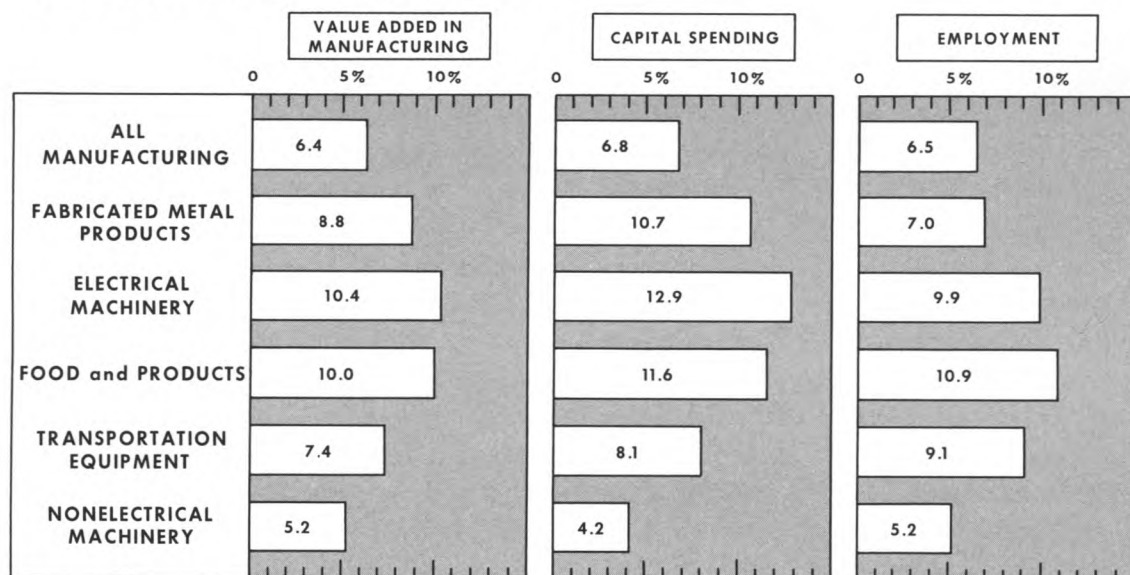
Several geographic factors make Columbus a "natural" for food processing. Surrounded by agricultural land and lying at the eastern edge of the Corn Belt, Columbus has long

had an abundance of raw food materials at hand. Of equal importance, transportation facilities have historically been excellent. The east-west National Road (U.S. Route 40) has served the community since the first half of the 19th century, with many other major highway links having been built since then. In the heyday of canal traffic, a feeder connection with the Ohio canal provided access to the Ohio River and to Lake Erie, a function that was later taken over by the railroads that fan out in all directions. One of the latest major improvements to transportation in and out of Columbus is Interstate Route 71, which, when completed, will bisect the State of Ohio diagonally from northeast to southwest.

4.

SELECTED MEASURES of MANUFACTURING ACTIVITY

Columbus as a Percent of Ohio Total, 1963



Source of data: Annual Census of Manufactures, 1963, U.S. Department of Commerce

RECENT TRENDS AND PROSPECTS

Part of the Columbus growth story is clear from the preceding sections, where the major features of the contemporary economic profile of Columbus are considered. In brief statistical review, the areas in which Columbus has forged ahead in recent years, are as follows, with Ohio comparisons provided as a benchmark.

| Change in: | Columbus | Ohio |
|------------------------------|----------|------|
| Population, 1960-64 | +11% | + 7% |
| Value added in mfr., 1956-63 | +57 | +19 |
| Total employment, 1958-63 | +13 | + 5 |
| Manufacturing, 1958-63 | +10 | + 3 |
| Nonmanufacturing, 1958-63 | +14 | + 5 |

Other statistical evidence reflecting and underscoring the foregoing list of gains is not lacking. Such evidence consists of department store sales, business loans, the rate of unemployment, the help-wanted index, savings flows, and residential construction. At the same time, bank debits show somewhat contrary results. Most of these additional series are shown in the accompanying charts and while the illustrations are largely self-explanatory, some short comments may be helpful.

Unemployment and Help-Wanted. While the rate of unemployment has experienced less improvement during the past several years in Columbus than in either the Fourth District or the U.S., that is because Columbus had a lower unemployment level at the beginning of the period under review. Chart 5 shows this clearly and at the same time indicates how much sooner Columbus approached what appears to be approximately a minimum

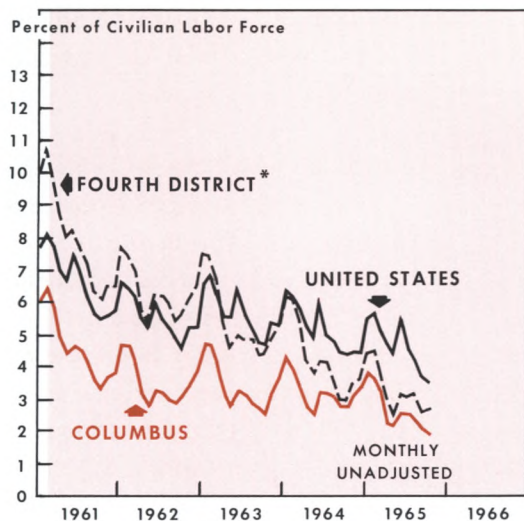
practical rate of unemployment. This interpretation is supported by viewing Chart 5 in conjunction with Chart 6. The latter chart, depicting expansion in help-wanted advertisements in local newspapers, suggests an acute shortage of qualified workers.

Department Store Sales. Since 1958 the growth of department store sales in Columbus has exceeded that of the Fourth District as a whole, as shown in Chart 7, and has exceeded that of all SMSA's in the District except Cincinnati. For several years prior to the period covered in the chart, the trend of department store sales in Columbus had not been exceptional, but merely kept pace with the District. In both areas, indexes for sales were at the 83 level (1957-59 = 100) in 1954 and at the 98 level in 1958. It is clear from Chart 7 that the Columbus index pulled sharply away from that of the Fourth District in 1962. The resulting gap has been maintained with little change except for a temporary widening in late 1964 and early 1965. The growth of department store sales volume in Columbus during recent years is certainly associated to a great extent with the rapid rate of population increase in Columbus and its importance as a trade center referred to earlier in this article.

Business Loans. Since bank credit is commonly employed in the conduct of business, the trend of business loans is a clue to the trend of general business activity. As shown in index form in Chart 8, the volume of business loans outstanding has expanded at an appreciably faster pace in Columbus than in the Fourth District as a whole during the

5.

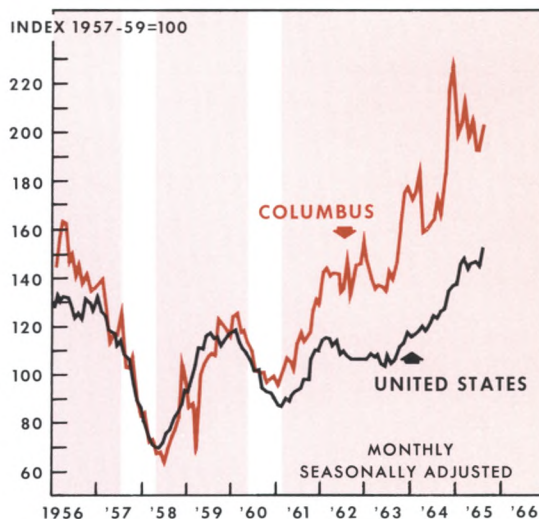
UNEMPLOYMENT RATE



*Fourth District Unemployment Rate is based on data covering all of Ohio, and the Pittsburgh and Erie Metropolitan Areas.
Sources of data: Ohio Bureau of Unemployment Compensation; Pennsylvania Employment Service; U.S. Department of Labor

6.

HELP-WANTED INDEX



Source of data: National Industrial Conference Board

1960's to date. The bulk of the difference in trend of the respective indexes materialized in 1961, but there has been some further separation of Columbus and regional trends since then.

Table IV, which refers to the volume of business loans outstanding at weekly reporting member banks on selected dates, shows the proportion of the total that had been made to various groups of borrowers. Heading the list in Columbus are businesses classified as "All other, mainly services" and "Trade," each of which accounted in all years for much larger shares of the Columbus total than of the Ohio total. Conversely, borrowing by manufacturers, whether of durable or non-

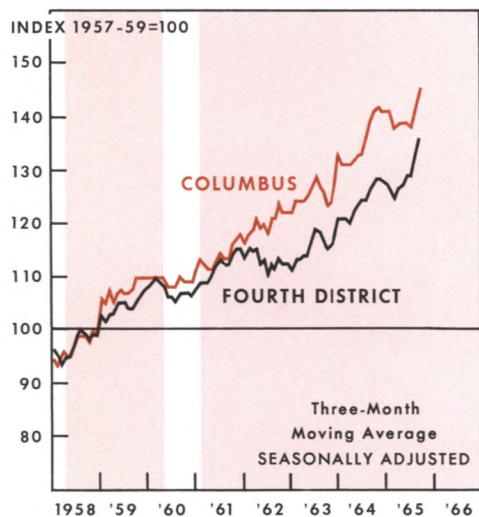
durable goods, accounted for larger shares of the Ohio total than of the Columbus total. The distribution of loan volume by business of borrower is broadly in accord with the distribution of employment (see Table I). It may be noted, moreover, that certain variations between Columbus and the State became more pronounced over the period. Thus, service industries obtained an increasingly large proportion of loans in Columbus while durable goods manufacturers accounted for an increasingly large share of loans in Ohio as a whole.

Personal Savings. The trend of personal savings in Columbus in recent years reflects

ECONOMIC REVIEW

OTHER INDICATORS of ECONOMIC ACTIVITY

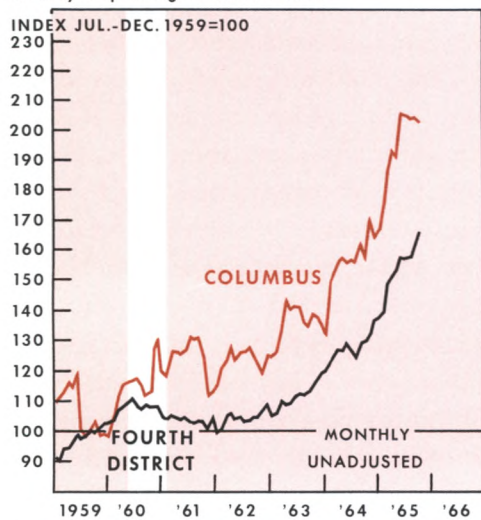
7. DEPARTMENT STORE SALES



Source of data: Federal Reserve Bank of Cleveland

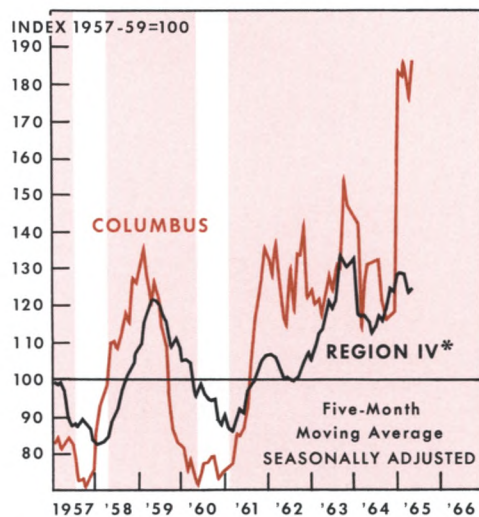
8. BUSINESS LOANS

Weekly Reporting Member Banks



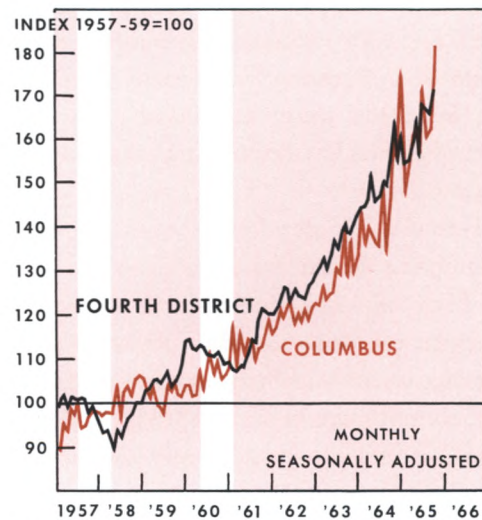
Source of data: Federal Reserve Bank of Cleveland

9. RESIDENTIAL CONSTRUCTION CONTRACTS



Sources of data: F. W. Dodge Corporation;

10. BANK DEBITS



Source of data: Federal Reserve Bank of Cleveland

* Region IV includes all of Ohio, Kentucky, West Virginia, and Western Pennsylvania.

Region IV is considered a reasonable approximation of the Fourth Federal Reserve District.

TABLE IV
Commercial and Industrial Loans Outstanding
At Weekly Reporting Member Banks, By Industry
Selected Dates, 1961-1965

| | Percent of Total Outstanding on | | | | |
|---|---------------------------------|-------------------|-------------------|-------------------|-------------------|
| | Nov. 15, 1961 | Sept. 26, 1962 | Sept. 25, 1963 | Sept. 30, 1964 | Sept. 29, 1965 |
| In Columbus: | | | | | |
| All other, mainly services | 25% | 28% | 28% | 34% | 36% |
| Trade | 26 | 27 | 27 | 26 | 26 |
| Durable goods manufacturing | 13 | 15 | 16 | 14 | 12 |
| Transportation, communication and other public utilities | 12 | 7 | 9 | 10 | 10 |
| Construction | 17 | 18 | 12 | 11 | 10 |
| Nondurable goods manufacturing | 6 | 5 | 6 | 4 | 5 |
| Mining | 1 | 1 | 1 | 1 | 1 |
| In Ohio: | | | | | |
| Durable goods manufacturing | 25 | 25 | 26 | 26 | 29 |
| Nondurable goods manufacturing | 15 | 16 | 18 | 18 | 16 |
| Trade | 17 | 17 | 17 | 17 | 16 |
| All other, mainly services | 16 | 16 | 15 | 15 | 14 |
| Transportation, communication and other public utilities | 17 | 16 | 13 | 13 | 12 |
| Construction | 7 | 8 | 7 | 8 | 7 |
| Mining | 3 | 3 | 4 | 3 | 4 |

Source: Federal Reserve Bank of Cleveland

the generally favorable economic climate of the community. In Columbus, year-to-year expansion in savings exceeded comparable statewide increases in all years since 1959 except 1960, when the Columbus gain was slightly less than the statewide gain. (See Table V.) Data through September 1965 indicate a 12.1 percent increase in personal savings in Columbus in the first nine months of 1965, almost twice the corresponding 6.3 percent increase for Ohio. The exceptionally rapid growth of savings in Columbus during 1965, particularly at commercial banks, presumably reflects the increase in interest rates paid on savings deposits, from 3 percent to 4 percent, that took place late in 1964.

Residential Construction. As Chart 9 shows,

residential construction contracts moved up sharply in Columbus during 1961 and maintained the increased pace in succeeding years. The marked population increase in recent years has apparently been accompanied by strong demands for more housing. The sharp spurt in early 1965, however, reflected an expansion of institutional dormitory facilities rather than a generalized advance.

Bank Debits. Most economic transactions require money payments, and most money payments are made by check. Bank debits—the dollar volume of checks charged to local checking accounts—are thus an indicator of the total dollar volume of all kinds of transactions that take place in an area. In Columbus, expansion in bank debits during the

ECONOMIC REVIEW

TABLE V
Personal Savings*

| | Columbus | | Ohio | |
|--------------|-----------------------------|----------------------------------|-----------------------------|----------------------------------|
| | At Yearend (Millions) | % Change from Year Earlier | At Yearend (Millions) | % Change from Year Earlier |
| 1959 | \$510.9 | | \$ 6,666.7 | |
| 1960 | 544.0 | + 6.5% | 7,111.0 | + 6.7% |
| 1961 | 501.6 | +10.6 | 7,773.4 | + 9.3 |
| 1962 | 675.8 | +12.3 | 8,548.5 | +10.4 |
| 1963 | 767.2 | +13.5 | 9,467.6 | +10.3 |
| 1964 | 856.7 | +11.7 | 10,328.1 | + 9.1 |
| 1965 (Sept.) | 960.5 | +12.1 | 10,981.6 | + 6.3 |
| Net Increase | | | | |
| 1959-65 | | +88% | | +65% |

* Includes the total of savings deposits of individuals at commercial banks and total assets of insured savings and loan associations. Not adjusted for change in number of reporting institutions.

Sources: Federal Reserve Bank of Cleveland;
Federal Home Loan Bank of Cincinnati

current cyclical upswing (since early 1961) has tended to lag slightly behind that of the Fourth District, as shown in Chart 10. It is

interesting to note the wider swings in the debits series for Columbus as compared with the Fourth District as a whole. Part of this reflects the movements of State funds associated with the location of the State capitol in Columbus.

CONCLUDING COMMENTS

Columbus is currently one of the fastest growing areas in Ohio and the Fourth District, as indicated by the various statistical measures of economic activity referred to in this article. At the same time, it is an area that has demonstrated more stability than have a number of other major centers. This suggests that the Columbus area has not been radically transformed by its increased attachment to heavy industry, and has thus been able to retain the benefits of its substantial group of stable economic activities and still enjoy the rewards of industrial expansion.



SURVEY OF HIGH SCHOOL SENIORS IN CUYAHOGA COUNTY— SOME ADDITIONAL FINDINGS

An earlier article in the *Economic Review* reported the results of this Bank's May 1965 survey of high school seniors in Cuyahoga County and their plans for further education.¹ That survey was conducted with the cooperation of the Cleveland Commission on Higher Education. This article presents some additional findings obtained from further evaluation and cross-sorting of the basic survey data. It considers student responses to the survey in terms of age, sex, family income, parents' attendance at college, and receipt of scholarship(s), thereby providing additional insights into the profile of 1965 high school seniors in Cuyahoga County.

AGE AND SEX

Of the nearly 18,000 students participating in the survey, almost all (96 percent) were either 17 or 18 years old (see Table I). When sex is related to age, however, it is found that approximately half the girls were 17 or under, while a majority of the boys (60 percent) were 18 or over.

While the girls considerably outnumbered the boys, particularly in the 17-year-old group, the excess was concentrated in two of the three major groupings, the city high schools and the parochial schools—particularly the latter. In the suburban schools, the numbers were more nearly even (see Table I). In the

TABLE I

**Age and Sex of High School Seniors in Cuyahoga County
(May 1965 Survey of High School Seniors in Cuyahoga County)**

| Area | 16 and Under | | | 17 | | | 18 | | | 19 and Over | | | Total | | |
|-----------|--------------|----|-------|-------|-------|-------|-------|-------|-------|-------------|-----|-------|-------|-------|---------|
| | M | F | Total | M | F | Total | M | F | Total | M | F | Total | M | F | Total |
| Cleveland | 4 | 13 | 17 | 684 | 1,074 | 1,758 | 1,010 | 1,078 | 2,088 | 183 | 114 | 297 | 1,881 | 2,279 | 4,160 |
| Suburban | 18 | 18 | 36 | 2,027 | 2,572 | 4,599 | 2,696 | 2,549 | 5,245 | 281 | 94 | 375 | 5,022 | 5,233 | 10,255 |
| Parochial | 8 | 40 | 48 | 382 | 1,030 | 1,412 | 499 | 920 | 1,419 | 14 | 24 | 38 | 903 | 2,014 | 2,917 |
| Total | 30 | 71 | 101 | 3,093 | 4,676 | 7,769 | 4,205 | 4,547 | 8,752 | 478 | 232 | 710 | 7,806 | 9,526 | 17,332* |

* There were 29 no responses when age was tabulated by sex. This accounts for the difference between the total "By Age" in Table II (17,361) and the total in this table of 17,332.

Source: Federal Reserve Bank of Cleveland

¹ See "Survey of High School Seniors in Cuyahoga County," *Economic Review*, Federal Reserve Bank of Cleveland, Cleveland, Ohio, November 1965.

ECONOMIC REVIEW

case of the city schools, the excess of girls is probably explained by the fact that the dropout rate tends to be higher in the city than in the suburbs and, in Cleveland at least, more of the dropouts are boys than girls.² The heavy preponderance of girls in the parochial high schools reflects the fact that few such schools are coeducational, and there are more parochial high schools for girls than for boys.³

What bearing does age or sex, or both, have on a student's plans for further education and the likelihood that they will materialize? While 18-year-olds outnumbered 17-year-olds by approximately 1,000, only 400 more 18-year-olds planned to continue their education. At the same time, the 17-year-olds—as of May 1965—actually had received more acceptances and more scholarships than students a year older (see Table II). With the 19-year-olds and over, the gap between intent and acceptances widened appreciably; only 37 percent of those planning to continue had been accepted at the time of the survey, as compared with 72 percent of the 17-year-olds and 67 percent of those 18.

² The Cleveland City dropout rate^a conforms to the Ohio pattern^b, but differs from the national pattern^c in which dropouts by females exceed those of males.

a. See *Statistical Data*, Superintendent's Annual Report, Cleveland Public Schools, School Year 1963-64, Bureau of Child Accounting, July 1964.

b. See *Ohio Study of High School Dropouts 1962-63*, L. R. Nachman *et al*, State Department of Education, Columbus, Ohio, July 1964 *passim*.

c. See *Out-of-School Youth*, February 1963, V. C. Perrelle & F. A. Bogan, *Monthly Labor Review*, November 1964.

³ This pattern is changing as new coeducational schools are under construction.

Whether an acceptance had been received or not, the college preferences of students showed that, of 173 nineteen-year-olds and over who expressed a preference, 101 chose Cleveland schools (including 58 who indicated Cuyahoga Community College). This pattern is consistent with the stated intent of 207 in the 19-year-and-over age group to work while going to school. More profitable employment opportunities are likely to be had in a student's home community, where he may have obtained a job prior to college enrollment, than in a college town where each fall many students compete for the typical college jobs. Indeed, if the prospective student has established a good record with his employer, the latter may offer financial reimbursement upon successful completion of his college courses (or financial support during the college period).⁴

Apart from the tendency of the older student to continue his education on home grounds, age does not appear to be a decisive factor in determining where a student prefers to go to school. To the extent that a pattern did emerge, however, there was a moderate inverse relationship between age and intended attendance at an out-of-state school (based on the number in each age group planning to go to college outside Ohio against all those in the same age group planning to continue their education). Thus, of those 16 and under, 13.8 percent expected to attend an out-of-state college; of the 17-year-olds, 13.5 per-

⁴ The pattern of combined school and employment is consistent with information provided by Cuyahoga Community College, namely, that of all new students in the fall of 1965, more than half were working a full forty-hour week, and that 17% of them were 19 or 20 years of age.

TABLE II

Age, Sex, and Family Income Compared with
Intent, Acceptance, Receipt of Scholarship, Geographic Pattern and Parents' Education
(May 1965 Survey of High School Seniors in Cuyahoga County)

| | Age* | | | | Sex* | | Family Income | | | | |
|--|---------------|-------|-------|--------------|-------|-------|------------------|---------------------|--------------------|---------|--------------|
| | 16 & under | 17 | 18 | 19 & over | M | F | Under \$5,000 | \$5,000- \$9,999 | \$10,000 & over | Unknown | No Answer |
| Total no. in category | 101 | 7,782 | 8,765 | 713 | 8,215 | 9,696 | 1,103 | 7,469 | 3,525 | 5,501 | 371 |
| Intent | 80 | 6,019 | 6,419 | 395 | 6,695 | 6,669 | 789 | 5,584 | 3,058 | 3,705 | 269 |
| Acceptance | 58 | 4,327 | 4,286 | 145 | 4,461 | 4,659 | 458 | 3,708 | 2,508 | 2,301 | 173 |
| Multiple acceptance | 28 | 1,398 | 1,288 | 26 | 1,492 | 1,357 | 128 | 1,067 | 997 | 609 | 52 |
| Out-of-state acceptance | 15 | 1,025 | 1,020 | 32 | 1,134 | 1,046 | 92 | 665 | 925 | 456 | 49 |
| Receipt of scholarship | | | | | | | | | | | |
| One | 11 | 623 | 542 | 25 | 624 | 628 | 118 | 644 | 234 | 238 | 22 |
| Multiple | 3 | 71 | 61 | — | 74 | 68 | 24 | 85 | 12 | 19 | 2 |
| Geographic Pattern of Preferences | | | | | | | | | | | |
| Cleveland Public | | | | | | | | | | | |
| Cuyahoga Community College | 7 | 540 | 711 | 58 | 753 | 606 | 92 | 674 | 145 | 426 | 27 |
| Cleveland State University | 17 | 374 | 399 | 21 | 547 | 282 | 70 | 471 | 103 | 176 | 10 |
| Cleveland Private | 17 | 401 | 332 | 5 | 394 | 391 | 62 | 388 | 159 | 168 | 11 |
| Other in Cleveland Area | 3 | 398 | 433 | 17 | 171 | 700 | 57 | 372 | 113 | 313 | 20 |
| Total Cleveland Area | 44 | 1,713 | 1,875 | 101 | 1,865 | 1,979 | 281 | 1,905 | 516 | 1,083 | 68 |
| Ohio Private | 5 | 505 | 426 | 9 | 455 | 521 | 41 | 349 | 321 | 249 | 19 |
| Ohio Public | 11 | 1,434 | 1,449 | 37 | 1,454 | 1,592 | 142 | 1,191 | 884 | 794 | 44 |
| Total Ohio ex Cuyahoga County | 16 | 1,939 | 1,875 | 46 | 1,909 | 2,113 | 183 | 1,540 | 1,205 | 1,043 | 63 |
| Total Out-of-state | 11 | 814 | 796 | 26 | 865 | 837 | 68 | 502 | 726 | 379 | 34 |
| Father attended college | 27 | 2,175 | 2,297 | 132 | 2,254 | 2,547 | 165 | 1,309 | 1,845 | 1,404 | 93 |
| Mother attended college | 20 | 1,432 | 1,503 | 84 | 1,481 | 1,657 | 103 | 830 | 1,262 | 903 | 54 |

* There were 608 no responses to the question of age and 58 no responses to the question of sex.
When these figures are included, the totals by both age and sex are 17,969—the total number of respondents.

Source: Federal Reserve Bank of Cleveland

cent; of those 18, 12.4 percent; and of those 19 and over, 6.6 percent.

Another roughly inverse relationship which appeared is that between the student's age at graduation from high school and the parents' having attended college (see Table II). Of the seniors 16 years or younger, 27 percent of the fathers and 20 percent of the mothers attended college. For those 17 years of age the figures are: fathers 28 percent, mothers 20 percent; for those 18 years old, fathers 26 percent and mothers 17 percent; and for the 19-year-olds and over, fathers 20

percent and mothers 14 percent.

Of the students surveyed, 2,186 had families in which both parents attended college and 11,428 had families in which neither parent attended (not shown in table). The age distribution (in percent) of the students in each group at the time of graduation was as follows:

| | 16 and under | 17 | 18 | 19 and over | Total |
|------------------------------------|--------------------|-------|-------|-------------------|--------|
| Both parents attended college | 0.8% | 47.6% | 49.1% | 2.5% | 100.0% |
| Neither parent attended college | 0.6 | 43.8 | 50.9 | 4.7 | 100.0 |

ECONOMIC REVIEW

These figures indicate that seniors with both parents having attended college tended to be younger than other students. While this should not be interpreted as evidence of inherited mental prowess, the figures do indicate, when parents have attended college, a possible environmental influence favorable to scholastic effort. (When the same computation is made for "fathers only attended" and "mothers only attended" a similar pattern appears except for students 16 and under. In the case of the latter, the sample is so small (11 "fathers only" and 3 "mothers only") that it is statistically insignificant.)

When the data on intent of continuing education are examined by sex of student, the familiar pattern of a higher percentage of male than of female high school graduates going on to college is confirmed. Thus, 82 percent of the boys (6,695 of 8,215) as compared with 69 percent of the girls (6,669 of 9,696) indicated an intent to continue their education (see Table II). Interestingly, the picture was altered when the comparison was made on the basis of acceptances. Of the boys who planned to continue their education, 66 percent (4,461 of 6,695) had received acceptances by May 1965 as compared with 70 percent of the girls (4,659 of 6,669). The boys, however, had received more multiple acceptances (1,492 as compared with 1,357). Also, more of the multiple acceptances received by the boys were from out-of-state. The girls received just a shade more single scholarships than the boys, but more boys obtained multiple scholarships (74 boys and 68 girls) and scholarships valued at over \$1,000 a year (192 as compared with 112)—

in the latter case, probably reflecting the influence of athletic scholarships.

As Table II shows, a much larger number of girls intended to attend "other" schools in the Cleveland area than was the case for boys. ("Other" refers to the nonaccredited and/or nondegree-granting private schools and colleges that offer a wide variety of programs, ranging in duration from a few months to four years and having a vocational rather than a liberal arts emphasis.) If this tends to minimize the post high school plans of some of the girls by strictly academic standards, a countervailing fact of considerable significance is that more loans to finance post high school education were reported by girls than by boys (221 as compared with 216). Also, more of the loans for over \$1,000 were reported by girls (35 as compared with 30). That girls or their parents value education to the extent of borrowing to achieve it may represent a changing attitude concerning the importance of education for women.

FAMILY INCOME

As indicated in the earlier article, family income and parents' education appeared to be strongly related both to intent of students to continue their education and to first-round acceptances received. While this is not a surprising situation, the interesting aspect is the possibility of at least partially documenting what otherwise could only be an assumption on a *priori* grounds. (Information on other basic factors influencing both intent and acceptance, namely, the student's scholastic record, academic potential, and life goals was not obtained from the questionnaire.)

TABLE III
Family Income Compared with Selected Variables
(May 1965 Survey of High School Seniors in Cuyahoga County)

| | Under \$5,000 | Family Income | | | No Answer |
|--|---------------|-----------------|-----------------|---------|-----------|
| | | \$5,000-\$9,999 | \$10,000 & over | Unknown | |
| Percent of students intending to continue | 71.5% | 74.8% | 86.8% | 67.4% | 72.5% |
| Percent accepted (as of May 1965) | 41.5 | 49.6 | 71.1 | 41.8 | 46.6 |
| Percent of multiple acceptances | 11.6 | 14.3 | 28.3 | 11.1 | 14.0 |
| Percent out-of-state acceptances | 8.3 | 8.9 | 26.2 | 8.3 | 13.2 |
| Percent receiving one or more scholarships | 12.9 | 9.8 | 7.0 | 4.7 | 6.5 |
| Percent of fathers attended college | 14.5 | 17.5 | 52.3 | 25.5 | 25.1 |
| Percent of mothers attended college | 9.3 | 11.1 | 35.8 | 16.4 | 14.6 |
| Number of families | 1,103 | 7,469 | 3,525 | 5,501 | 371 |

Source: Federal Reserve Bank of Cleveland

TABLE IV
Scholarships Awarded by Location, Sex, and Family Income of Recipients
(May 1965 Survey of High School Seniors in Cuyahoga County)

| Sex | One Scholarship | | | | Two Scholarships | | | | Three Scholarships | | | |
|-----------|-----------------|----------|-----------|-------|------------------|----------|-----------|-------|--------------------|----------|-----------|-------|
| | City | Suburban | Parochial | Total | City | Suburban | Parochial | Total | City | Suburban | Parochial | Total |
| Male | 144 | 400 | 80 | 624 | 10 | 42 | 20 | 72 | — | 1 | 1 | 2 |
| Female | 122 | 355 | 151 | 628 | 11 | 35 | 19 | 65 | — | 2 | — | 2 |
| No Answer | — | 4 | — | 4 | — | — | 1 | 1 | — | — | — | — |
| Total | 266 | 759 | 231 | 1,256 | 21 | 77 | 40 | 138 | — | 3 | 1 | 4 |

| Income | | | | | | | | | | | | |
|-----------------|-----|-----|-----|-------|----|----|----|-----|---|---|---|---|
| Under \$5,000 | 39 | 54 | 25 | 118 | 7 | 7 | 9 | 23 | — | 1 | — | 1 |
| \$5,000-\$9,999 | 162 | 360 | 122 | 644 | 13 | 51 | 18 | 82 | — | 2 | 1 | 3 |
| \$10,000 & over | 21 | 187 | 26 | 234 | — | 8 | 4 | 12 | — | — | — | — |
| Unknown | 42 | 143 | 53 | 238 | 1 | 9 | 9 | 19 | — | — | — | — |
| No Answer | 2 | 15 | 5 | 22 | — | 2 | — | 2 | — | — | — | — |
| Total | 266 | 759 | 231 | 1,256 | 21 | 77 | 40 | 138 | — | 3 | 1 | 4 |

Source: Federal Reserve Bank of Cleveland

Table III presents selected data from the section on family income of Table II converted into percentages. (The number of families is the divisor throughout.) All percentages in Table III, except for scholarships received, move in the same direction as family income, with an especially sharp upward movement at the \$10,000 and over income level.

SCHOLARSHIPS

A total of 1,256 students reported receiving

at least one scholarship and 142 students reported two or three scholarships (see Table IV). City students received an approximately proportionate share of single scholarships (based on the number of city students as a percent of all students responding in the survey) but a less than proportionate number of multiple awards. While 762 of the students receiving one scholarship reported family incomes below \$10,000, it is noteworthy that 234 students in the \$10,000 and over family income cate-

gory also reported receiving a scholarship. This perhaps presents somewhat of a deviation from tradition in that scholarships awarded (academic and athletic) have usually been regarded as enabling less affluent students who could not otherwise do so to continue their education beyond high school.

The data presented in Table V reinforce the observation that scholarships and high income levels are not incompatible. Of the 234 students who reported receiving a scholarship and also reported a family income of \$10,000 and over, 200 indicated the value of the scholarship. A number of these scholarships were not of the token type, with 32 amounting to between \$1,000 and \$1,999 and 16 to \$2,000 or more (14.5 percent and 19 percent, respectively, of those reported in the particular scholarship value categories).

While a \$10,000 family income may not be considered as evidence of affluence, especially if more than one member of the family is attending college at the same time, it should be remembered that the category used is "\$10,000 and over" (an open-end classification). This makes it possible for many of the family incomes reported in that range to be well above the minimum. The fact that 48 good-sized scholarships were reported by students from families in the \$10,000 and over income class indicates that a number of awards are based solely on the qualifications of the student—intellectual or athletic—and

that colleges are bidding actively for outstanding candidates.

The receipt of a scholarship apparently has a definite bearing on the pattern of college attendance. Of those scholarship recipients (1,079) who reported the college which they planned to attend, 310 students or 30 percent, indicated that they expected to go to college in the Cleveland area. Of these nearly one-half (148 students) reported one of the private colleges in Cuyahoga County as their expected school. Of the students who indicated a school which they planned to attend but did not report receipt of a scholarship, 41 percent indicated a school in the Cleveland area, but of these only slightly more than one-sixth indicated a private college. Similarly, of the scholarship recipients who planned to attend a college in Ohio but outside the Cleveland area almost half (205 out of 432) indicated a private college. In contrast, only one-fifth of the nonscholarship students who expected to go to a school in the State but outside the Cleveland area indicated one of the private colleges. Finally, of the scholarship recipients, 293 students, or 28 percent, designated a school outside Ohio. Only 18 percent of those not reporting receipt of a scholarship expected to attend school outside of the State. The relationship of receipt of a scholarship and anticipated attendance at a private college in Ohio (including Cleveland) and/or at an out-of-state college is immediately apparent from these data.

TABLE V

Aggregate Value of All Scholarships Received, by Family Income and Location of Recipients
(May 1965 Survey of High School Seniors in Cuyahoga County)

| Aggregate Value | Family Income Under \$5,000 | | | | \$5,000-\$9,999 | | | | \$10,000 and Over | | | | Unknown | | | | No Answer | | | | Total |
|-----------------|-----------------------------|-----------|------------|-------|-----------------|-----------|------------|-------|-------------------|-----------|------------|-------|---------|-----------|------------|-------|-----------|-----------|------------|-------|--------|
| | City | Sub-urban | Para-chial | Total | City | Sub-urban | Para-chial | Total | City | Sub-urban | Para-chial | Total | City | Sub-urban | Para-chial | Total | City | Sub-urban | Para-chial | Total | Total |
| Under \$1,000 | 25 | 36 | 23 | 84 | 99 | 226 | 76 | 401 | 13 | 115 | 24 | 152 | 19 | 74 | 34 | 127 | 1 | 8 | 2 | 11 | 775 |
| \$1,000-\$1,999 | 10 | 13 | 5 | 28 | 32 | 71 | 17 | 120 | 2 | 26 | 4 | 32 | 3 | 23 | 9 | 35 | — | 3 | 2 | 5 | 220 |
| \$2,000 & over | 4 | 3 | 2 | 9 | 8 | 33 | 11 | 52 | 2 | 13 | 1 | 16 | 1 | 3 | 3 | 7 | — | — | — | — | 84 |
| Total | 39 | 52 | 30 | 121 | 139 | 330 | 94 | 573 | 17 | 154 | 29 | 200 | 23 | 100 | 46 | 169 | 1 | 11 | 4 | 16 | 1,079* |

* Total does not agree with the number of recipients (1,256) in Table IV because a number of students who indicated the receipt of a scholarship(s) failed to indicate its (their) value.

Source: Federal Reserve Bank of Cleveland

TABLE VI

Parents Attendance at College Compared with Selected Variables
(May 1965 Survey of High School Seniors in Cuyahoga County)

| Measures | Both Parents Attended | | Neither Parent Attended | |
|---|-----------------------|---------|-------------------------|---------|
| | | Percent | | Percent |
| Students plan to continue | 2,036 | 93.1% | 8,076 | 68.4% |
| Acceptances (May 1965) | 1,761 | 80.6 | 4,965 | 42.4 |
| Multiple acceptances | 733 | 33.5 | 1,332 | 11.3 |
| Where Students Plan to Attend | | | | |
| Cleveland public | 132 | 6.0 | 1,607 | 13.6 |
| Cleveland private | 119 | 5.4 | 472 | 4.0 |
| Other in Cleveland area | 48 | 2.2 | 621 | 5.3 |
| Ohio public ex Cuyahoga County | 522 | 24.0 | 1,700 | 14.4 |
| Ohio private ex Cuyahoga County | 285 | 13.0 | 413 | 3.5 |
| Out-of-state | 589 | 26.9 | 612 | 5.2 |
| Scholarships | | | | |
| One | 231 | 10.6 | 719 | 6.1 |
| More than one | 27 | 1.2 | 85 | 0.7 |
| Those worth \$1,000 or more | 48 | 2.2 | 179 | 1.5 |
| Loans | | | | |
| Number borrowing | 74 | 3.4 | 257 | 2.2 |
| Those borrowing \$1,000 or more | 6 | 0.3 | 44 | 0.4 |
| Family Income | | | | |
| Under \$5,000 | 55 | 2.5 | 876 | 7.4 |
| \$5,000-\$9,999 | 448 | 20.5 | 5,654 | 47.9 |
| \$10,000 and over | 1,036 | 47.4 | 1,371 | 11.6 |
| Unknown | 614 | 28.1 | 3,675 | 31.1 |
| No Answer | 33 | 1.5 | 228 | 1.9 |
| Number of students | 2,186 | 100.0% | 11,804 | 100.0% |

NOTE: All percentages based on total number of students in each category.

Source: Federal Reserve Bank of Cleveland

COLLEGE ATTENDANCE OF PARENTS

A total of 4,816 fathers and of 3,152 mothers were reported to have attended college (totals derived from categories under family income in Table II). In 2,186 instances both parents had attended college, the father only had attended in 2,544 instances, and the mother only in 940.⁵ The college attendance record of parents, by the school groupings of their children, was as follows:

| | Both Parents Attended | Father Only | Mother Only | Neither | Total |
|---------------|-----------------------------|----------------|----------------|---------|--------|
| City | 3.8% | 8.5% | 4.6% | 83.1% | 100.0% |
| Suburban | 17.3 | 16.9 | 5.7 | 60.2 | 100.0 |
| Parochial | 8.1 | 14.9 | 5.5 | 71.5 | 100.0 |
| All groupings | 12.5 | 14.6 | 5.4 | 67.5 | 100.0 |

The significance of college attendance of parents can perhaps best be judged by con-

⁵ The number of "fathers only" plus "both parents" and the number of "mothers only" plus "both parents" fail to add to the total number of fathers who attended and of mothers who attended because there were 86 no answers on the tabulation of "fathers attended, mothers no answer" and 26 no answers on the tabulation of "mothers attended, fathers no answer."

sidering the two extreme cases—where both parents attended and where neither attended. This is done in Table VI, where the two cases are compared with selected variables. In short, the data confirm the widely held view of a high correlation between the nature and characteristics of one generation and the behavior pattern of the succeeding generation. Thus, as the data in Table VI clearly show, there is a close conformity among college attendance of parents, level of family income, and intent of students to continue education (as well as acceptances). Similarly, the influence of background factors also shows up in where the student intends to continue, as well as in the receipt of scholarships. Of perhaps greater importance, however, is the relatively high proportion of students who intended to continue education, where the background factors are not as favorable (parents did not attend college or family incomes are lower). This is not only indicative of the high value being placed on education; but it also augurs well for the next generation and the economy at large.

CAPITAL SPENDING PLANS IN CLEVELAND AND CINCINNATI

CLEVELAND

Spending for plant and equipment by manufacturing firms and public utilities in the Cleveland metropolitan area during 1966 is not expected to exceed the amount spent in 1965. This is indicated by the results of the third semiannual survey of capital spending plans in Cleveland, which was conducted by the Research Department of this Bank in October 1965. Increased outlays by manufacturing firms—expected to rise by 7 percent above the 1965 level—will be offset by smaller outlays—an expected 14 percent reduction—on the part of utilities in the area. The net result, unlike estimates of capital outlays in the nation for 1966, will be a fractional drop from 1965's capital spending in the Cleveland area.¹

Firms participating in the survey were evenly divided between those indicating increased spending and those expecting re-

duced spending for the year 1966 as compared with 1965.² In contrast, three out of four of the same firms expected their final capital outlays for 1965 to exceed those for 1964.

The data in Table I reveal wide year-to-year variations in capital expenditures among

TABLE I
Year-to-Year Percent Change in
Capital Spending by Cleveland Area Firms,
1965 and 1966

| | 1965 (planned) from 1964 (actual) | 1966 (planned) from 1965 (planned) |
|------------------------------------|---|--|
| MANUFACTURING | +10% | + 7% |
| Durable goods | +15 | + 7 |
| Primary metals | + 3 | + 8 |
| Metal fabrication | -21 | + 31 |
| Machinery | +48 | - 8 |
| Electrical equipment | +25 | +111 |
| Transportation equipment | +32 | - 5 |
| Nondurable goods | -20 | + 6 |
| Textiles; apparel | -65 | + 17 |
| Printing and publishing | -40 | - 12 |
| Chemicals | +50 | + 6 |
| PUBLIC UTILITIES | +24 | - 14 |
| TOTAL | +15% | * |

* -0.3%

Source: Federal Reserve Bank of Cleveland

² The time span covered by the survey has been changed from semiannual to annual data.

¹ Total spending of the surveyed group in 1966 will exceed one-quarter billion dollars. The figure has not been adjusted to allow for restricting the sample only to manufacturing firms above a specified minimum size and to public utilities, nor for less than 100 percent response to the survey.

ECONOMIC REVIEW

the different industries. (See, for example, the year-to-year swings in metal fabrication and textiles.) In some instances, a large increase in spending plans for 1966 is clearly associated with a reduced level of spending in 1965. Conversely, industries reporting reduced spending plans for 1966 show expenditures for 1965 that are substantially above those for 1964. Large year-to-year fluctuations in spending patterns of a single industry—even where the number of reporting firms is fairly large—are often caused by unusually large outlays of an individual firm. The sharp spurt in capital spending in 1966 by the electrical equipment industry and the short-fall shown for the machinery industry, for example, are partly explained by large one-time outlays. Similarly, the substantial rise in spending by utilities (including communications) in 1965 appears to explain in part that group's reduced spending plans for 1966.

As shown in Table II, despite an anticipated curtailment in spending plans for 1966, utilities will again contribute a large proportion of total capital outlays of all surveyed firms. The utilities' share, three out of every ten dollars of total capital spending, represents a much larger proportion than their share of total employment in the Cleveland area.³ Within the manufacturing group, the durable goods sector plans to spend more than nine times as much as the nondurable goods group. This is interesting in that the durable

³ The amount of spending by public utilities is slightly overstated because reported figures in some cases include spending in areas beyond the boundaries of the four-county metropolitan area. It should also be kept in mind that the utilities' share in total spending would be smaller if the figures shown for manufacturing industries represented 100 percent coverage.

TABLE II
Capital Spending Reported by Cleveland Area Firms in October 1965
Percent Distribution of Dollar Total by Industry

| | 1964 (actual) | 1965 (planned) | 1966 (planned) |
|----------------------------------|------------------|-------------------|-------------------|
| MANUFACTURING | 67.6% | 64.9% | 69.9% |
| Durable goods | 58.7 | 58.7 | 63.3 |
| Primary metals . . . | 30.3 | 27.2 | 29.6 |
| Metal fabrication . . | 4.6 | 3.2 | 4.2 |
| Machinery | 5.3 | 6.8 | 6.3 |
| Electrical equipment . | 2.2 | 2.4 | 5.1 |
| Transportation equipment | 14.7 | 16.9 | 16.1 |
| Others* | 1.6 | 2.2 | 2.0 |
| Nondurable goods . . . | 8.9 | 6.2 | 6.6 |
| Textiles; apparel . . | 3.4 | 1.1 | 1.2 |
| Printing and publishing | 2.4 | 1.2 | 1.2 |
| Chemicals | 2.5 | 3.2 | 3.4 |
| Others** | 0.6 | 0.7 | 0.8 |
| PUBLIC UTILITIES | 32.4 | 35.1 | 30.1 |
| TOTAL | 100.0% | 100.0% | 100.0% |

* Includes ordnance, stone-clay-glass, instruments and miscellaneous manufacturing.

** Includes petroleum and rubber industries.

Source: Federal Reserve Bank of Cleveland

goods sector in Cleveland is only three times as large as the nondurable goods group in terms of employment or value added by manufacturing.⁴

The distribution of total capital spending between structures and equipment has remained fairly constant from year to year, as Table III indicates, particularly insofar as major groupings are concerned. Seven dollars out of ten among the utilities and about four dollars out of five in the manufacturing sector are earmarked for equipment, with a slightly higher and more stable percentage in the durable goods portion than in the nondurable goods portion. The latter proportion,

⁴ Part of the disproportion may result from better sample coverage in the durable goods group.

TABLE III
Capital Spending of Cleveland Area Firms,
1964-1966

Percent Distribution Between Structures
 and Equipment*

| | Structures | | | Equipment | | |
|--------------------------|------------|------|------|-----------|------|------|
| | 1964 | 1965 | 1966 | 1964 | 1965 | 1966 |
| MANUFACTURING | 18% | 17% | 19% | 82% | 83% | 81% |
| Durable goods | 14 | 16 | 18 | 86 | 84 | 82 |
| Primary metals | 18 | 12 | 19 | 82 | 88 | 81 |
| Metal fabrication | 14 | 19 | 12 | 86 | 81 | 88 |
| Machinery | 8 | 26 | 16 | 92 | 74 | 84 |
| Electrical equipment | 15 | 18 | 47 | 85 | 82 | 53 |
| Transportation equipment | 8 | 18 | 11 | 92 | 82 | 89 |
| Nondurable goods | 37 | 21 | 27 | 63 | 79 | 73 |
| Textiles; apparel | 23 | 35 | 12 | 77 | 65 | 88 |
| Printing and publishing | 72 | 33 | 54 | 28 | 67 | 46 |
| Chemicals | 30 | 16 | 31 | 70 | 84 | 69 |
| PUBLIC UTILITIES . . | 30 | 29 | 29 | 70 | 71 | 71 |
| TOTAL | 22% | 21% | 22% | 78% | 79% | 78% |

* Based only upon returns in which this breakdown was supplied

Source: Federal Reserve Bank of Cleveland

however, conceals considerable variation among individual industries, where a major construction project by a single firm may substantially alter the "normal" division of expenditures between structures and equipment. For example, the almost even split between structures and equipment in 1966's expected spending by the electrical equipment industry is mainly the result of one manufacturer's multi-million-dollar construction project.

The proportion of total capital outlays to be used for expansion rather than replacement is expected to hold at a relatively high level in 1966, following a substantial increase in

1965 (see Table IV). Only about one out of every four reporting firms in manufacturing did not plan to spend anything at all for expansion in 1966. On the other hand, more than two out of five indicated that at least 50 percent of their total outlays would be for expansion, with the nondurable goods group more dominant in this respect than the durable goods group. As a general matter, these reports and the relatively large amounts of capital spending earmarked for expansion in most of the individual industries appear to point to the need for more capacity in manufacturing to meet final demands.

Unfortunately, there is no clear-cut relationship between the amount of spending

TABLE IV
Capital Spending of Cleveland Area Firms,
1964-1966

Percent Distribution Between Replacement
 and Expansion*

| | Replacement | | | Expansion | | |
|--------------------------|-------------|------|------|-----------|------|------|
| | 1964 | 1965 | 1966 | 1964 | 1965 | 1966 |
| MANUFACTURING | 46% | 36% | 34% | 54% | 64% | 66% |
| Durable goods | 53 | 37 | 35 | 47 | 63 | 65 |
| Primary metals | 49 | 8 | 11 | 51 | 92 | 89 |
| Metal fabrication | 18 | 58 | 40 | 82 | 42 | 60 |
| Machinery | 85 | 49 | 57 | 15 | 51 | 43 |
| Electrical equipment | 37 | 49 | 49 | 63 | 51 | 51 |
| Transportation equipment | 53 | 60 | 45 | 47 | 40 | 55 |
| Nondurable goods | 20 | 33 | 30 | 80 | 67 | 70 |
| Textiles; apparel | 2 | 11 | 7 | 98 | 89 | 93 |
| Printing and publishing | 6 | 12 | 25 | 94 | 88 | 75 |
| Chemicals | 53 | 45 | 32 | 47 | 55 | 68 |
| PUBLIC UTILITIES . . | 28 | 27 | 28 | 72 | 73 | 72 |
| TOTAL | 39% | 32% | 32% | 61% | 68% | 68% |

* Based only upon returns in which this breakdown was supplied.

Source: Federal Reserve Bank of Cleveland

ECONOMIC REVIEW

planned for expansion by an individual firm and that firm's own appraisal of the adequacy of its existing facilities. Over one-half of the reporting manufacturing firms considered their present facilities "about adequate," while only 40 percent reported them as "less than adequate" (30 percent of firms in the durable and 60 percent of firms in the non-durable group). Not all firms with "less than adequate" facilities are planning to spend sizable amounts for expansion in 1966, while substantial outlays for expansion were reported by firms who considered their present facilities "about adequate."

CINCINNATI

Plant and equipment spending by manufacturing firms and public utilities in the Cincinnati metropolitan area during 1966 is expected to surpass the previous year's level by more than 40 percent. This is indicated by the results of the first survey of capital spending in Cincinnati, which was conducted in October 1965 by the Cincinnati Branch of the Federal Reserve Bank of Cleveland with the cooperation of the Greater Cincinnati Chamber of Commerce.⁵

The uncommonly high rate of increase in capital spending for 1966, reported by the

⁵ All manufacturing firms with at least 250 employees and all public utilities (including communications) operating in the seven-county Cincinnati metropolitan area (which includes Clermont, Hamilton, and Warren counties, Ohio; Boone, Campbell, and Kenton counties, Kentucky; and Dearborn county, Indiana) were invited to participate in the survey. The mailing sample represented about two-thirds of total manufacturing employment in the area. At a response rate of 65 percent, usable replies cover about one-half of the area's total manufacturing employment. Capital outlays of the reporting group in 1966 are expected to total \$166 million.

manufacturing group and the utilities alike, is well above the corresponding national rate. In the case of the utilities, the expected rise in spending appears to represent a catching up from a relatively low level of expenditures in 1965, while the high rate of gain for manufacturing as a whole is mainly the result of very large spending plans within one single industry—transportation equipment. Excluding the transportation equipment industry, the rise in capital spending by manufacturing industries in the Cincinnati area in 1966 would exceed the 1965 level by only 4 percent, and total spending by all reporting firms in 1966 would amount to only 21 percent above 1965.

That the reported large increase in spending reflects a special situation is supported by the fact that the number of firms indicating larger expenditures for 1966 is not appreciably greater than the number planning to spend less than in 1965. The same firms are also about evenly divided between larger and smaller capital outlays for 1965 compared with 1964.

The data in Table V not only reveal an extremely wide range of variation in year-to-year changes in spending by individual industries but also indicate an interesting pattern of alternating high and low levels of spending. Unusually large year-to-year swings in an industry's amount of spending generally indicate that sizable expansion or modernization projects by individual firms are either getting under way during the current year—as, for example, in the transportation equipment or printing industries—or have been completed during the preceding year.

TABLE V
Year-to-Year Percent Change in
Capital Spending by Cincinnati Area Firms,
1965 and 1966

| | 1965 (planned) from 1964 (actual) | 1966 (planned) from 1965 (planned) |
|-------------------------------------|---|--|
| MANUFACTURING | + 5% | + 42% |
| Durable goods | + 38 | + 60 |
| Metal fabrication* | - 20 | + 61 |
| Machinery | +110 | - 7 |
| Electrical equipment . . . | +159 | - 22 |
| Transportation equipment . | - 5 | +194 |
| Nondurable goods | - 20 | + 20 |
| Food and kindred products | - 6 | + 28 |
| Textiles; apparel | - 40 | - 20 |
| Paper and allied products | 0 | - 40 |
| Printing and publishing . . | - 41 | +234 |
| Chemicals | - 27 | - 13 |
| PUBLIC UTILITIES | - 13 | + 39 |
| TOTAL | - 4% | + 41% |

* Includes two primary metals firms not listed separately to avoid disclosure.

Source: Federal Reserve Bank of Cleveland

Public utilities, as shown in Table VI, contribute a rather large share to total capital spending in the Cincinnati area, or over four dollars out of every ten in 1966 and nearly five dollars out of ten in 1964.⁶ In addition to the utilities, the distribution of spending by individual industries in 1966 is obviously dominated by large outlays planned by automotive and aircraft engine manufacturers in the transportation equipment industry, which boost that industry's share to one-fourth of

⁶ Total spending reported by public utilities is overstated because in some instances amounts that will be spent outside the seven-county metropolitan area could not be broken out of the total figures reported. It must also be remembered that spending by the utilities would represent a smaller proportion of total spending in the area if the figures shown for manufacturing firms represented 100 percent industry coverage.

TABLE VI
Capital Spending Reported by Cincinnati
Area Firms in October 1965
Percent Distribution of Dollar Total by Industry

| | 1964 (actual) | 1965 (planned) | 1966 (planned) |
|-------------------------------------|------------------|-------------------|-------------------|
| MANUFACTURING | 51.7% | 56.4% | 57.0% |
| Durable goods | 22.0 | 31.6 | 36.0 |
| Metal fabrication* | 4.4 | 3.6 | 4.2 |
| Machinery | 3.2 | 7.0 | 4.6 |
| Electrical equipment . . . | 1.4 | 3.9 | 2.2 |
| Transportation equipment | 11.6 | 11.5 | 24.0 |
| Others | 1.4 | 5.6 | 1.0 |
| Nondurable goods | 29.7 | 24.8 | 21.0 |
| Food and kindred products | 9.2 | 9.0 | 8.2 |
| Textiles; apparel | 0.2 | 0.1 | 0.1 |
| Paper and allied products | 1.6 | 1.7 | 0.7 |
| Printing and publishing | 3.4 | 2.1 | 4.9 |
| Chemicals | 15.0 | 11.5 | 7.0 |
| Others | 0.3 | 0.4 | 0.1 |
| PUBLIC UTILITIES | 48.3 | 43.6 | 43.0 |
| TOTAL | 100.0% | 100.0% | 100.0% |

* Includes two primary metals firms not listed separately to avoid disclosure.

Source: Federal Reserve Bank of Cleveland

total expenditures by all reporting firms. While employment in transportation equipment represents slightly over one-fourth of area employment in durable goods manufacturing, capital outlays in that industry represent two-thirds of all spending reported by durable goods manufacturers for 1966.

Manufacturers in the Cincinnati area, as shown in Table VII, expect to invest four out of every five dollars of total capital outlays for 1966 in new equipment, a noticeably larger proportion than in the preceding two years. Among individual manufacturing industries, the relative amount of spending for equipment (as against structures) varies considerably from year to year. In contrast, the utili-

ECONOMIC REVIEW

TABLE VII

**Capital Spending of Cincinnati Area Firms,
1964-1966**

Percent Distribution Between Structures
and Equipment*

| | Structures | | | Equipment | | |
|-----------------|------------|------|------|-----------|------|------|
| | 1964 | 1965 | 1966 | 1964 | 1965 | 1966 |
| MANUFACTURING | 38% | 29% | 20% | 62% | 71% | 80% |
| Durable goods | 20 | 31 | 16 | 80 | 69 | 84 |
| Metal | | | | | | |
| fabrication** | 19 | 25 | 14 | 81 | 75 | 86 |
| Machinery | 10 | 5 | 15 | 90 | 95 | 85 |
| Electrical | | | | | | |
| equipment | 26 | 19 | 29 | 74 | 81 | 71 |
| Transportation | | | | | | |
| equipment | 24 | 34 | 14 | 76 | 66 | 86 |
| Nondurable | | | | | | |
| goods | 47 | 27 | 27 | 53 | 73 | 73 |
| Food and | | | | | | |
| kindred | | | | | | |
| products | 41 | 25 | 37 | 59 | 75 | 63 |
| Textiles; | | | | | | |
| apparel | 43 | 17 | 19 | 57 | 83 | 81 |
| Paper and | | | | | | |
| allied | | | | | | |
| products | 7 | 7 | 4 | 93 | 93 | 96 |
| Printing and | | | | | | |
| publishing | 28 | 15 | — | 72 | 85 | 100 |
| Chemicals | 59 | 32 | 36 | 41 | 68 | 64 |
| PUBLIC | | | | | | |
| UTILITIES . . . | 35 | 33 | 34 | 65 | 67 | 66 |
| TOTAL | 37% | 30% | 24% | 63% | 70% | 76% |

* Based only upon returns in which this breakdown was supplied.

** Includes two primary metals firms not listed separately to avoid disclosure.

Source: Federal Reserve Bank of Cleveland

ties appear to maintain a more constant ratio in their spending programs—about two dollars for equipment for every one dollar for structures—although a clear-cut distinction between structures and equipment in the case of utilities may be difficult to make. In general, durable goods industries appear to spend proportionately more for equipment than nondurable goods manufacturers.

Table VIII indicates that manufacturing firms have earmarked three dollars out of five in their spending programs for 1966 to

TABLE VIII

**Capital Spending of Cincinnati Area Firms,
1964-1966**

Percent Distribution Between Replacement
and Expansion*

| | Replacement | | | Expansion | | |
|-----------------|-------------|------|------|-----------|------|------|
| | 1964 | 1965 | 1966 | 1964 | 1965 | 1966 |
| MANUFACTURING | 38% | 50% | 38% | 62% | 50% | 62% |
| Durable goods | 56 | 66 | 32 | 44 | 34 | 68 |
| Metal | | | | | | |
| fabrication** | 60 | 83 | 58 | 40 | 17 | 42 |
| Machinery | 49 | 71 | 52 | 51 | 29 | 48 |
| Electrical | | | | | | |
| equipment | 34 | 56 | 29 | 66 | 44 | 71 |
| Transportation | | | | | | |
| equipment | 72 | 46 | 17 | 28 | 54 | 83 |
| Nondurable | | | | | | |
| goods | 30 | 32 | 44 | 70 | 68 | 56 |
| Food and | | | | | | |
| kindred | | | | | | |
| products | 67 | 62 | 46 | 33 | 38 | 54 |
| Textiles; | | | | | | |
| apparel | 33 | 82 | 76 | 67 | 18 | 24 |
| Paper and | | | | | | |
| allied | | | | | | |
| products | 16 | 16 | 52 | 84 | 84 | 48 |
| Printing and | | | | | | |
| publishing | 36 | 27 | 87 | 64 | 73 | 13 |
| Chemicals | 6 | 10 | 12 | 94 | 90 | 88 |
| PUBLIC | | | | | | |
| UTILITIES . . . | 31 | 29 | 23 | 69 | 71 | 77 |
| TOTAL | 36% | 44% | 34% | 64% | 56% | 66% |

* Based only upon returns in which this breakdown was supplied.

** Includes two primary metals firms not listed separately to avoid disclosure.

Source: Federal Reserve Bank of Cleveland

finance expansion, which represents a return to the proportion that had prevailed in 1964. The shift toward larger outlays for expansion is particularly noticeable in the durable goods group where each of the four industries listed in the table plans to increase the share of outlays for expansion in 1966 by a considerable margin. In contrast, in the nondurable goods group more industries plan to reduce than to enlarge the proportion of expenditures committed to expansion of facilities in 1966. The need or desire for more capacity is reflected

in the fact that three-fifths of the reporting manufacturing firms plan to use at least 50 percent of total outlays in 1966 to increase capacity, while only about one-fifth did not plan any spending at all for expansion.

Unfortunately, there is no apparent consistency between the dollars to be spent for expansion and the responding manufacturing firms' own appraisals of the adequacy of existing facilities. While the group planning heavy spending for expansion includes—as expected—virtually all of the firms that considered their existing facilities “less than required,” it also includes more than one-half of the firms with “about adequate” facilities.

CONCLUDING COMMENTS

The dissimilar pictures emerging from the surveys of capital spending plans in two major metropolitan areas of the Fourth District sug-

gest that survey results for subnational areas can easily differ from one another as well as from the more comprehensive national picture. Spending patterns in a given area are influenced by unique local conditions, including the area's industrial composition, as well as by the plans of one or more large firms. For example, the 9:1 split in total expenditures for 1966 between durable and nondurable goods industries in Cleveland, in contrast to the 3:2 division in Cincinnati, reflects the dominant position of heavy industry and the relatively small weight of food and chemicals among the nondurable goods industries in Cleveland as compared with Cincinnati. Such differences between areas, along with variations in the timing of large local spending plans, are often concealed by nationwide figures based upon larger aggregates.



ANNUAL INDEX TO ECONOMIC REVIEW—1965

| <u>MONTH</u> | <u>ARTICLE TITLE</u> |
|------------------|--|
| JANUARY | Some Perspective on Autos Capital Spending in the Cleveland Area |
| FEBRUARY | U. S. Merchandise Trade by Commodity Group, 1950-1964 Some Aspects of Discretionary Income |
| MARCH | Direct Placement of Corporate Debt Input-Output Relations of the Auto Industry |
| APRIL | Bank Management of Cash Assets Major Social Insurance Trust Funds—A Survey |
| MAY | Perspective on Regional Employment Patterns Recent Trends in the Wood-Using Industries |
| JUNE | Input-Output Relations of the Steel Industry Timber Resources and Wood Product Manufacturing in the Fourth District Capital Spending Plans in the Cleveland Area |
| JULY | Management of Cash Assets at Reserve City and Country Member Banks Acceleration in Employment Gains |
| AUGUST | Some Perspective on Steel Electric Power—An Indicator of Manufacturing Activity |
| SEPTEMBER | Debt and the Economy Some Perspective on Foreign Exchange Rates |
| OCTOBER | Manufacturing Activity in Metropolitan Areas Consumption of Coal in Ohio |
| NOVEMBER | Sources of Commercial Bank Funds: An Example of "Creative Response" Survey of High School Seniors in Cuyahoga County Another Look at Municipal Portfolios |
| DECEMBER | A Survey of Changes in Interest Rates on Savings and Time Deposits Sources of Coal Consumed in Ohio Management of Cash Assets at Fourth District Reserve City and Country Member Banks |

