



FEDERAL RESERVE BANK OF ST. LOUIS • P. O. BOX 442 • ST. LOUIS 66, MO.

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The number of farms and the farm labor force declined substantially from 1935 to 1959, with the highest rate of decline occurring in recent years. Since 1935, the average size of farm almost doubled. Developments in Eighth District states generally followed national trends. The changes are traced to technological advances which have come into play on a wider scale and with a greater impact in the 1950's.

DISTRICT DATA

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## BUSINESS AND FINANCIAL DEVELOPMENTS

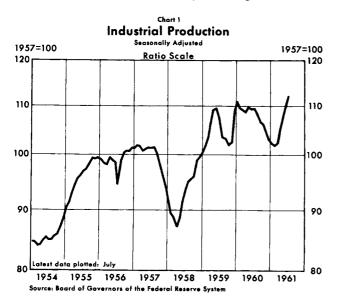
## Business Expansion Continues

THE UNITED STATES ECONOMY continued its fifth post-war expansion through July and August. The vigor of the recovery has been comparable to the recovery of 1958 and somewhat greater than that of 1954. Major indicators of business activity show continued vigorous expansion in the most recent periods for which data are available. While the gains have been on a wide scale, unemployment has continued at a high rate, remaining near its recession peak.

### **Production**

Industrial output reached new high ground as gains continued widespread among major areas of the economy (Chart 1). Both durable and nondurable goods output has risen at a brisk rate. Gains have been especially sharp among producers of basic metals, including iron and steel, and among producers of construction materials.

The rise in production probably continued through August. New orders received by durable goods manufacturers in July were 2 per cent above the June level. The rise was especially strong in aircraft and electronics, involving in large part increased defense procurement. Steel output in August was up somewhat more than seasonally from July. Though automobile



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assemblies were curtailed markedly in early August, much of the decline was attributable to model changeovers.

## Construction

Construction expenditures, seasonally adjusted, increased slightly from June to July and rose further in August (Chart 2). Increased expenditures on public



projects accounted for a major part of the expansion, though expenditures on private residential construction rose also. Expenditures on public highways and roads showed an 8 per cent increase from June to August; public expenditures on residential construction increased modestly over the period.

#### Personal Income

Reflecting increases in productive activity and special dividend payments on GI insurance, personal income rose to a new record level in July. Seasonally adjusted personal income in July was 5 per cent higher than during the prerecession peak month. On the basis of continued improvements in production and employment, wages and salaries probably rose further in August.

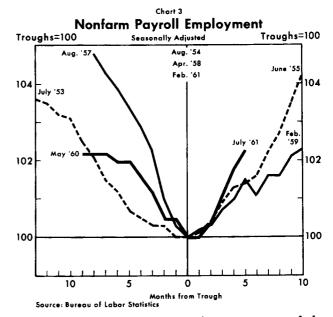
#### Sales

Retail sales have not expanded in pace with improvements in income. Personal income rose 4 per cent from February to July while retail sales expanded only 2 per cent during the period. In July, sales at retail outlets declined 1 per cent from the June level, reflecting a slowdown in sales of automobile dealers. Sales at weekly reporting department stores through the four-week period ending August 26 were somewhat stronger than during the corresponding period in 1960.

## Employment and Unemployment

There has been a great deal of concern over the fact that the unemployment rate, the proportion of unemployed in the civilian labor force, has failed to respond to improvements in general business. The unemployment rate remained near 7 per cent from mid-December of 1960 to mid-August 1961, though business activity began to improve in February of this year. The "stickiness" of the unemployment rate does not mean that the recovery and expansion have not had an impact on the labor market. From mid-February to mid-July nonfarm employment (seasonally adjusted) as measured by the Bureau of the Census' monthly household survey increased slightly. An even more dramatic rise in employment is reflected in pay-

roll data from the monthly survey of employers (see Chart 3). The rise in nonfarm payroll employment

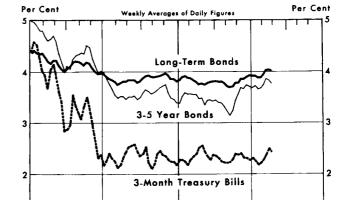


from the trough (February 1961) was more rapid than from the troughs of the 1957-1958 and 1953-1954 recessions. By July 1961 gains in nonfarm payroll employment had more than offset the peak-to-trough decline, while by the fifth month of the two previous recoveries employment had not regained prerecession levels.

# Rate of Monetary Expansion Declines

#### Interest Rates

INTEREST RATES have worked up moderately in recent weeks. Yields on three-month Treasury bills, which had fluctuated around 2.30 per cent from mid-1960 through early August, averaged 2.43 per cent in the week ended August 25 (Chart 1). In this same week rates on long-term Government bonds, which generally had fluctuated within the 3.80 per cent to 3.90 per cent range, averaged 4.01 per cent. Yields on AAA corporate bonds have moved up less rapidly, however, while rates on state and local bonds have remained about unchanged on balance. With the rise in rates, long-term Government bonds were earning a higher yield than at any other time in the past ten years with the exception of the period from roughly mid-1959 to mid-1960. Rates on Treasury bills, however, remained far below the 3.58 per cent peak of



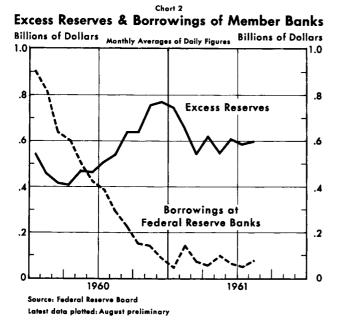
Yields on U.S. Government Securities

October 1957 and the 4.49 per cent peak reached in November 1959.

#### Bank Reserves

Total reserves of member banks, adjusted for seasonal variation, rose in August after declining slightly in July. Reserves available to support an expansion in private deposits showed little net change during July and August, while that portion of total reserves supporting U. S. Government deposits rose. Since late 1960, reserves have fluctuated around \$19.0 billion.

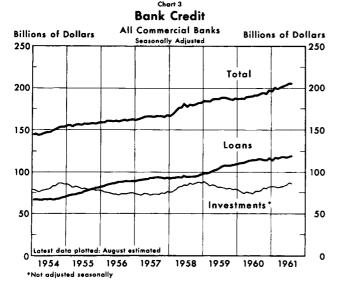
Excess reserves decreased slightly in July to \$584 million and remained near this level during August (Chart 2). Member bank borrowing from the Fed-



eral Reserve declined to an average of only \$51 million in July, but increased to roughly \$70 million in August.

#### Bank Credit

Total loans and investments of commercial banks, seasonally adjusted, were about unchanged in August



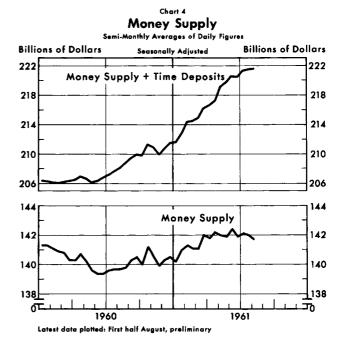
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after expanding at an annual rate of roughly 12 percent in July (Chart 3). The July increase in bank credit was largely in investments, reflecting primarily the Treasury's financing operation at the end of July. Investments were down slightly in August. Total bank loans were up only fractionally in both July and August.

Bank loans have increased at an estimated annual rate of about 1 per cent thus far in the recovery, February through August. This compares with an increase of almost 3 per cent in the first six months of the 1958-59 recovery. Bank loans began to expand sharply after the eighth month of recovery in the 1958-59 upturn. Following the August 1954 trough, bank loans rose sharply throughout the recovery period.

## Money Supply

Active money supply (demand deposits adjusted plus currency outside banks) declined at an annual rate of 1.1 per cent during July and the first half of August (Chart 4). From the second half of March



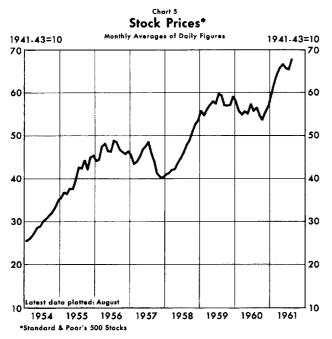
through the first half of August there was virtually no change in the active money supply. In the four preceding months (second half of November 1960-second half March 1961) active money expanded at an annual rate of 4.5 per cent.

Time deposits of commercial banks, which have been expanding at an annual rate of over 15 per cent since late 1960, continued to increase at about this rate during July and the first half of August. Reflecting the rapid growth in time deposits, the total money supply, active money plus time deposits, expanded at an annual rate of 4.0 per cent in July and the first half of August. From the second half of

March to the first half of August the total money supply increased at an annual rate of 5.4 per cent. It expanded at an annual rate of 9.1 per cent in the preceding four months, however.

## Stock Prices, Corporate Earnings and Dividends

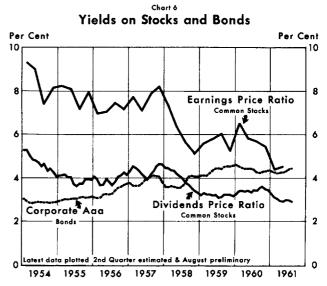
Corporate stock prices, which have been rising for over a decade, increased at an accelerated rate in recent months. Standard and Poor's 500 composite stock index (1941-43=10) reached 68 in August, up 21 per cent over the last twelve months. During the past three years the average annual rate of increase in stock prices has been 14 per cent, and since 1948 the average annual rate of increase has been 12 per cent (Chart 5).



The upward movement in stock prices has been much more rapid than the increase in corporate earnings or dividends. At August market prices and dividend rates, the average dividend-price ratio on common stocks was less than 3 per cent. At the same time, yields on best quality corporate bonds were about 4.45 per cent (Chart 6). By contrast, in the late forties stock yields were about 6 per cent, and average interest rates on highest-grade corporate bonds were roughly 2.75 per cent. During the first half of 1929 the dividend-price ratio on common stock averaged 3.36 per cent.

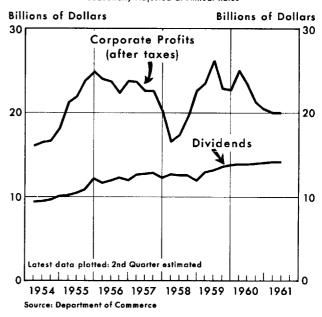
In August this year, the rate of corporate earnings was estimated to be 4.50 per cent of common stock prices. During the mid-fifties, corporate earnings averaged about 8 per cent of stock prices, and in the late forties they averaged 14 per cent. The average earnings-price ratio in the first six months of 1929 was

about 5.50 per cent. The ratio probably decreased to less than 5 per cent in September of that year, the month when stock prices reached their peak.



The rise in stock prices has continued even though corporate profits have not shown a vigorous upward trend in recent years (Chart 7). In 1948 corpo-

# Corporate Profits and Dividends Seasonally Adjusted at Annual Rates



rate profits after taxes amounted to \$20.7 billion, in the 1954-56 period they averaged \$21.1 billion, and at the present time they are running at an estimated \$21.3 billion rate. As a per cent of the total value of goods and services produced in the economy, profits of corporations, after taxes, decreased from 8 per cent in 1948 and 1949 to roughly 4 per cent in the first eight months of 1961.

# Changes in the Structure of Agriculture

CHANGES IN THE STRUCTURE of agriculture in the United States have continued at an accelerated rate in recent years. In some cases these changes began a century or more ago. This article considers particularly changes in number and size of farms and quantity of farm labor.

In 1959 there were only 3.7 million farms in the nation, 23 per cent less than in 1954 and the smallest number for any census year since 1870.

The proportion of the nation's labor force engaged in agriculture has declined in each decade since 1820, dropping from 72 per cent of the total in that year to about 8 per cent in 1959.

The declining use of labor in agriculture has been achieved through technological changes which have occurred at varying rates throughout the history of the nation and have been very rapid in recent years.

## Number of Farms

The number of farms in the nation declined 23 per cent, from 4.8 million in 1954 to 3.7 million in 1959. Although 232 thousand of the 1.1 million drop can be attributed to a change in definition of a farm, even under the old definition the number was down 18 per cent, a greater decline than had occurred in any previous 5-year period recorded by the census.

The number of farms in the nation rose from 1.4 million to 5.7 million during the last half of the 19th century and reached a plateau in excess of 6 million in the early 1900's. The total held near this level until the 1930's, when a "back-to-the-farm" movement in the early depression years pushed the total up to a peak of 6.8 million in 1935. A decline has occurred during each interim census period since that time, with a greater rate of decline in the fifties than in earlier years. By 1959 the total was about one-half the level of a quarter century earlier (Chart 1).

On the basis of tenure the greatest decline in number of farms since 1935 has been in the tenant-operated group. The number of tenant-operated farms declined from 2.9 million in 1935 to 0.8 million in 1959, a decline of about 74 per cent. Tenant-operated farms declined from 42 per cent of total farms in 1935 to 20 per cent in 1959 (Table I).

Owner-operated farms declined in number from 3.2 million in 1935 to 2.1 million in 1959, but rose from 47 per cent of total farms in 1935 to 57 per cent in 1959. Farms which were part owned and part rented increased in absolute number from 689 thousand in 1935 to 810 thousand in 1959, and as a proportion rose from 10 per cent to 22 per cent.

Farms and Farm Workers

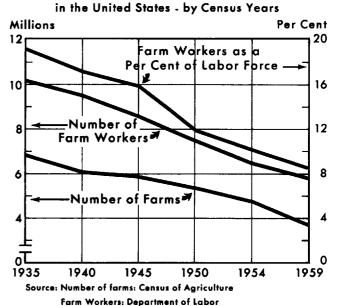


Table 1
Farm Operators, by Tenure
(in thousands)

Year	Total	Full Owners	Part Owners	Tenants	Managers
1959	3,704	2,116	810	758	21
1954	4,782	2,737	857	1,168	21
1950	5,382	3,090	825	1,444	24
1945	5,859	3,301	661	1,858	39
1940	6,097	3,084	615	2,361	36
1935	6,812	3,210	689	2,865	48

Data may not add to totals due to rounding. Source: Census of Agriculture.

## Tenure Groups

Total land in farms rose about 10 per cent in the period 1935 to 1954. Greatest increases occurred in acres operated by part owners and managers. Acreage

operated by full owners increased slightly, while that operated by tenants declined substantially (Table II).

Table II

Land in Farms, by Tenure

(millions of acres)

Year	Total <sup>1</sup>	Full Owners	Part Owners	Tenants	Managers
1959	1,120	n.a.	n.a.	n.a.	n.a.
1954	1,160	3 <b>97</b>	472	190	100
1950	1,159	419	422	212	105
1945	1,142	412	3 <i>7</i> 1	252	106
1940	1,061	382	300	312	67
1935	1,055	391	266	337	61

n.a. Not available.

As a proportion of the total, acreage operated by full owners declined from 37 per cent in 1935 to 34 per cent in 1954. Tenant-operated acreage dropped from 32 to 16 per cent, while acreage operated by part owners rose from 25 to 41 per cent and that farmed by managers rose from 6 to 9 per cent.

Total rented acres declined moderately from 471 million in 1935 to about 395 million in 1954. Rented acres operated by tenants dropped from 337 million to 190 million, a decline of 44 per cent. This major decline was partially offset by the increase in acres rented by part owners, which rose from 134 million to about 205 million. Land operated by owners, including that owned by those who rent additional land, rose from 523 million to about 665 million acres.

## Size of Farms

The average size of farm in the United States almost doubled between 1935 and 1959, increasing from 155 to 302 acres. Size of farms has trended upward since 1880, but the rate of increase has accelerated in recent years. During the entire 55 years from 1880 to 1935 the average size of farm increased 16 per cent, or an average of about 1½ per cent for each 5-year period, while the rate of increase was about 12 per cent for each 5-year period from 1935 through 1954 and 25 per cent in the period 1954 to 1959.

While farms in all tenure groups increased in average size in the 1935-1954 period, those operated by tenants and part owners increased more than owner-operated farms. Tenant farms increased from an average of 118 to 166 acres or 41 per cent, the same rate of increase as that of part-owner farms which rose from an average 386 to 544 acres. Owner-operated farms increased only 19 per cent, from an average of 122 to 145 acres during the period (Table III, next page).

#### **Definitions**

#### Farm

For the 1959 census, places of less than 10 acres were counted as farms if estimated sales of agricultural products for the year amounted to at least \$250. Places of 10 or more acres were counted as farms if the estimated sales of agricultural products for the year amounted to at least \$50. Places having less than the \$50 or \$250 minimum estimated sales were also counted as farms if they could normally be expected to produce agricultural products in sufficient quantity to meet the requirements of the definition. The word "place" was defined to include all land on which agricultural operations were conducted at any time in 1959 under the control or supervision of one person or partnership.

In the 1950 and 1954 censuses, places of 3 or more acres were counted as farms if the annual value of agricultural products, exclusive of home garden products, amounted to \$150 or more. Places of less than 3 acres were counted as farms only if the annual sales of agricultural products amounted to \$150 or more.

For the 1945 and earlier censuses, the definition of a farm was somewhat more inclusive.

#### Farm Operator

A person who operates a farm, either doing the work himself or directly supervising the work, is classified as a farm operator. He may be the owner, a member of the owner's household, a hired manager, or a tenant, renter, or sharecropper. In the case of a partnership, only one partner is counted as an operator. The number of farm operators is considered to be the same as the number of farms.

### Farm Operator Classes

The various classifications of tenure, as used in this article, are:

- a. Full Owners-Operate only land which they own.
- b. Part Owners—operate land which they own and also land rented from others.
- Tenants—do not own any of the land which they operate.
- d. Managers—operate land for others and are paid a wage or salary for their services.

<sup>&</sup>lt;sup>1</sup> Land planted to principal crops declined about 10 per cent from 1935 to 1959.
Source: Census of Agriculture.

Table III

Average Size of Farm, by Tenure
(acres)

<u>Year</u>	Total	Full Owners	Part Owners	Tenants	Managers		
1959	302	n.a.	n.a,	n.a.	n.a.		
1954	242	145	544	166	4,786		
1950	215	136	512	147	4,473		
1945	195	125	562	135	2,736		
1940	174	124	488	132	1,830		
1935	155	122	386	118	1,261		

n.a.-Not available

Source: Census of Agriculture.

#### Farm Labor

In 1959 there were less than 6 million agricultural workers, or 10 per cent less than in 1954. From a peak of more than 11 million workers in 1910, the number gradually declined to about 10 million in 1935, after which the rate of decline increased (Chart 1).

While the number of farm workers declined 42 per cent from 1935 to 1959, the total civilian labor force increased 31 per cent. In 1935 almost 20 per cent of the labor force was engaged in agriculture. In 1959 about 8 per cent was similarly employed.

In addition to the substantial decline in the number of farm workers, relatively more farmers work off their farms than formerly. While some of this employment is work on other farms, it is believed that the greater part is nonfarm work. More than 30 per cent of all farm operators worked off their farms 100 days or more in 1959. In comparison, 28 per cent worked off their farms a similar number of days in 1954 and only 23 per cent in 1949 (Table IV).

Table IV

Farm Operators Working Off Their Farms
100 days or more

Year	Per Cent of Total Farm Operators
1959	 30%
1954	 28
1949	 23
1944	 18
1939	 . 15
1934	 11

Source: 1959 Census of Agriculture-Preliminary.

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## Number and Size of Farms in Eighth District States

Changes in agricultural structure in the district states have paralleled the trends in the nation. The number of farms in the combined seven states in the Eighth Federal Reserve District<sup>1</sup> declined 23 per cent from 1954 to 1959, the same percentage as in the nation. Over a longer period, the downtrend in these states and the nation was also similar. Number of farms declined 13 per cent in the district states from 1950 to 1954, compared to 11 per cent in the nation and declines of 5 per cent and 8 per cent, respectively, occurred in the district states and the nation during the 1945-50 period (Table V).

Table V Number of Farms 1935 to 1959

Per	Cent	Change	From
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	54 to 959*	1950 to 1954	1945 to 1950	1940 to 1945	1935 to 1940
Arkansas —	-35%	<b>—20%</b>	8%	8%	—14%
Illinois —	-12	<b>—10</b>	<b>— 4</b>	<b>— 4</b>	<b>—</b> 8
Indiana —	-1 <i>7</i>	<b>— 8</b>	_ 5	_ 5	8
Kentucky —	-22	—11	8	<b>—</b> 6	<b>— 9</b>
Mississippi —	-36	<u>14</u>	<b>— 5</b>	<b>— 9</b>	_ 7
Missouri	-16	<u>—12</u>	5	<b>— 5</b>	<b>— 8</b>
Tennessee —	-22	<u>—12</u>	_ 1	_ 5	—10
Eighth District States —	-23	—13	<b>—</b> 5	6	<b>— 9</b>
United States —	-23	—11	<b>— 8</b>	- 4	11

Computed from Census of Agriculture data.

The trend in number of farms was not uniform in the several Eighth District states in the 1954-59 period. The number of farm units declined less rapidly in Missouri, Illinois, and Indiana than in other district states. The decreases in Illinois, Indiana, and Missouri were 12, 17, and 16 per cent respectively.

Substantially greater declines occurred in the four southern states where farming operations differ greatly from those in the major grain and livestock area to the north. Kentucky and Tennessee each had a decrease of 22 per cent, while in Arkansas and Mississippi the declines were about 35 per cent. The high rate of change in the southern states can probably

<sup>\*</sup> Changes from 1954 to 1959 using 1954 definition: Arkansas—28%, Illinois—10%, Indiana—13%, Kentucky—16%, Mississippi—31%, Missouri—12%, Tennessee—17%, Eighth District states—18%, and United States—18%.

<sup>&</sup>lt;sup>1</sup> Arkansas, Illinois, Indiana, Kentucky, Mississippi, Missouri, and Tennessee. Only portions of each of these states, with the exception of Arkansas, are included in the Eighth Federal Reserve District.

be explained by the wide disparity between farm and nonfarm income in the area plus the rapid transition from the old technology and the small cropper system farms to highly mechanized, consolidated operations.

## Tenure Groups in the District States

In the seven district states, as in the nation, the trend in farm tenure has been away from tenancy to part owners or full owners. Part owners increased both in absolute numbers and in proportion to the total from 1935 to 1959. Full owners were a substantially larger portion of the total in 1959 than in 1935 but have declined in absolute numbers each census year since 1945.

The per cent of farms operated by tenants in the district states has declined since 1935. Throughout the period, however, the per cent of farms operated by tenants was greater in the seven states than in the nation. Twenty-three per cent of all farms in these states were operated by tenants in 1959 compared to 20 per cent for the nation. In 1935, 48 per cent of farms in the district states were operated by tenants compared to 42 per cent for the nation (Table VI).

Table VI
Per Cent of Farms Operated by Tenure
1959 and 1935

F	Full Owners		Part Owners		Tenants	
1	959	1935	1959	1935	1959	1935
Arkansas5	9%	34%	16%	6%	24%	60%
Illinois4	1	38	25	17	34	44
Indiana5	9	53	23	15	18	32
Kentucky6	5	54	18	9	1 <i>7</i>	37
Mississippi5	4	27	13	3	32	<i>7</i> 0
Missouri	3	47	22	13	15	39
Tennessee6	1	46	18	8	21	46
Eighth District States5	7	42	19	10	23	48
United States5	7	47	22	10	20	42

Computed from Census of Agriculture data.

Tenant-operated farms in the district states in 1935 were concentrated in the cotton belt of Arkansas and Mississippi where 60 and 70 per cent of the farms, respectively, were operated by tenants. Most of the decline in total number of farms in these two states can be accounted for by the decline in tenant-operated farms.

## Off-Farm Work in District States

From 1934 to 1959 the number of farm operators working off their farms 100 days or more per year in the seven district states almost doubled, despite the decline in total number of operators in the area.

Over the years, the proportion of farm operators in the district states working off their farms 100 days or more has been somewhat less than the national average. However, in 1959 such employment equaled the national proportion.

Each of the seven states had a larger number of operators working off their farms 100 days or more in 1959 than in earlier census years. However, during the 1934-59 period, there was considerable variation among the states in the trend of off-farm work performed by operators. For example, in 1934 only 5 per cent of the operators in Mississippi worked off their farms 100 days or more. In 1959, this percentage had increased to 30 (Table VII). Arkansas also had a

Table VII

Per Cent of Farm Operators Working Off Their Farm
100 or More Days

	1959	1934
Arkansas	32%	7%
Illinois	22	8
Indiana	36	14
Kentucky	27	10
Mississippi	30	5
Missouri	30	9
Tennessee	32	11
Eighth District States Total	30	9
United States Total	30	11

Computed from Census of Agriculture data.

major gain in off-farm work by farm operators. The change was less in Illinois and Kentucky.

## The Role of Technological Advances

Changes in the structure of the nation's agriculture have resulted in large measure from technological advances. Major changes in methods of production were introduced throughout the 1800's. Horse-drawn mowing machines replaced the scythe and grain cradle. The fanning mill gave way to the more efficient threshing machine. Near the turn of the century important uses began to develop for steam and gasoline engines.

More recently technological change has come into play on a wider scale and with a greater impact on the industry. The trend toward mechanization has continued at an increasing rate as more labor-saving devices and larger equipment and power units have been introduced. This is a major force working toward fewer farm workers and larger farms. In 1959 one worker, in addition to performing more off-farm work, farmed an average of 192 acres compared to an average of 104 acres per worker in 1935.

This ability to farm more acres has been a force working toward larger farms. Full owners have obtained additional acres either by purchasing or renting. If additional acres were rented by a full owner his status changed to a part owner. Most full owners, in attempting to maximize income by operating larger farms, apparently found it more feasible to gain control of additional acres by renting. Thus, the part-owner group of farmers has not only gained in number relative to tenants and full owners, but the members of this group, with their larger farms, (Table III) are perhaps also the most efficient producers.

A tenant may increase his acreage by purchasing land beyond what he is now leasing or he can lease additional land. If he purchases land and continues to rent land, he enters the part-owner class. In recent years tenants have increased the size of their farms at a greater rate than full owners.

Greater output per acre and per animal unit have also been factors tending to reduce the number of farm workers. Approximately the same amount of labor is required for basic operations in the fields and with livestock on mechanized farms regardless of the level of output per unit. Thus, when production per acre or per animal rises, output per worker increases proportionately.

In recent years crop output per acre has been pushed up substantially. Corn yields averaged 52.5 bushels per acre in the three years 1958-1960 compared with an average of 23.5 bushels in the 1930-39 decade. Total crop production per acre averaged 63 per cent higher in the three years 1958-1960 than in the decade of the thirties. Better seed, increased fertilization, better disease and insect control, and irrigation have been major yield-increasing factors. With the increased yields and government crop control programs, marginal acres have been removed from crop production, further increasing average output per acre and per man.

Of comparable importance have been the major innovations in livestock production. Improved technology in animal breeding and feeding has resulted in substantially greater output per animal and per pound of feed. Output of livestock products per breeding animal increased 49 per cent from 1935 to 1959. In the period 1935-58 the amount of broilers produced per hundred pounds of feed increased from

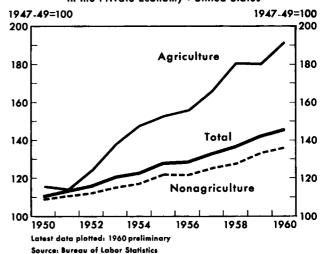
18.9 to 32.5 pounds, a gain of 72 per cent. Shorter feeding periods have also reduced labor requirements per unit of output. Further advances have been made in disease control and mechanization of livestock production contributing to increased labor efficiency and larger operations.

## The Response of Labor

Technological forces have worked toward a downtrend in number of farmers in recent years and a substantial increase in work performed off their farms by the remaining farmers. Also, in an increasing number of cases farm wives or other members of farm families work off the farm either on a part-time or full-time basis.

The decline in the farm labor force has been dictated by technological change, a relatively stable per capita demand for farm commodities, and maintained prices. Most of the technological changes in agriculture have tended to increase both total output and output per worker, reducing the number of workers needed for farm commodity production. With

Chart 2
Real Product per Man-Hour
in the Private Economy - United States



increasing production efficiency and a relatively stable per capita demand for farm commodities, pressure was maintained on farm commodity prices and many prospective farmers have found alternative employment opportunities more attractive than opportunities on the farm. In other cases prospective farm operators and other workers have doubtless been unable to find employment opportunities in agriculture as the optimum size of farms increased. The combination of two farms into one, a common occurrence in recent years, has probably induced many would-be farmers into other occupations. These adjustments generally have a desirable effect on total national output to the

extent that the transfer of workers proceeds from low-paying to higher-paying jobs.

It is generally agreed that returns to labor in agriculture are below those in most other occupations. Farm wage rates are generally well below average wage rates in other industries. Furthermore, most measures of per capita income of farm people show that such income is well below that of the nonfarm population. This disparity of farm and nonfarm incomes has continued and perhaps widened in recent years, despite the substantial decline in the farm labor force. This disparity has been the prime motivating force for the decline in number of farm operators and workers, a decline which has been an integral part of the increasing productivity of the economic system.

The failure of workers to move off the farm rapidly enough to narrow the gap between farm and nonfarm earnings probably results from noneconomic factors. Reasons for the failure of more established farmers to move out of agriculture include uncertainty of steady employment in nonfarm occupations, lack of knowledge of economic opportunities in other occupations, strong community ties and desire for rural appurtenances, and inability because of age to train for new occupations. Some of these reasons also apply to a lesser extent to younger people who are selecting an occupation. The fact that most migrants from the farm apparently moved only short distances to other occupations lends weight to the belief that rural environment inhibits the mobility of farm labor. Professor D. Gale Johnson, of the University of Chicago, found that about 60 per cent of farm-to-urban migrants stayed in the same state and about half of the remaining 40 per cent moved to contiguous states<sup>2</sup>.

The inhibiting effect of age on migration from agriculture is indicated by studies of groupings by age of farm operators. A recent study of this type indicates that only a small proportion of farm operators in the North Central States changed to other occupations after reaching 35 years of age. This same study shows that most of the decline in number of farmers in older age groups can be explained by the reduced number of entrants into agriculture with the groups, plus normal retirements.<sup>3</sup>

Despite the evidence presented in these studies, there are indications that established operators, especially in the tenant group, have been leaving the farm. The rapid decline in tenant operators in Arkansas and Mississippi from 1954 to 1959 points to this conclusion. Also, the fact that nonwhite operators in each of these states declined almost 50 per cent in the same period points to migration from the farm of established operators in this group. Nationally, however, such migrants may not be a significant portion of all farm operators.

The decline in the younger age groupings of farm operators is an indication that labor adjustments in agriculture occur primarily at the point of entry, that is at the time when young men are deciding whether to become farmers or whether to engage in other pursuits. The number of farm operators under 25 years of age was 45 per cent less in 1954 than in 1950. In comparison, the number of operators in the 25-to-34-year age group was down 22 per cent and that in the older age groups was down even less. A small increase occurred in the 65-years-or-over age group (Table VIII). However, this latter group, the only one for which 1959 Census data have been released, shows a 21 per cent decline from 1954.

Table VIII

Number of Farm Operators in the United States,
by Age Groups

(In thousands)

Age Groups	1954	1950	1945	1940
Under 25 years of age	91	164	147	233
25 to 34 years of age	620	<b>79</b> 1	854	949
35 to 44 years of age	1,100	1,187	1,324	1,251
45 to 54 years of age	1,154	1,157	1,432	1,428
55 to 64 years of age	951	1,000	1,173	1,147
65 or more years of age	779	745	867	828
Total Operators*	4,695	5,044	<i>5,</i> 797	5,836

<sup>\*</sup> Data not precisely comparable with 1959 census data, used in Table I. Source: Census of Agriculture, 1954.

When one considers the fact that established farmers are loath to leave their occupations until normal retirement age, the remarkable feature of recent developments is that the rate of decline in agricultural workers has been so great. This reduction has been striking even though it has been insufficient to equate earnings of farm workers with earnings of those in other occupations. The farm labor market may be working as well as can be expected despite evidence of excessive amounts of labor in the industry.

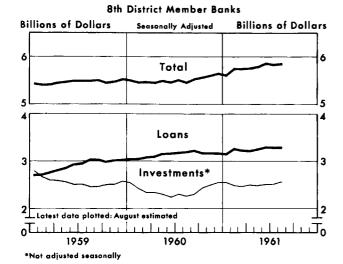
The reduced number of young operators points to a continuing decline in number of farms and in the farm labor force. This trend may continue until the gap between earnings of farm and nonfarm workers has narrowed.

<sup>&</sup>lt;sup>2</sup> Journal of Farm Economics, February 1951, "Functioning of the Labor Market."

<sup>&</sup>lt;sup>3</sup> Kanel, Don, Journal of Farm Economics, May 1961, "Age Components of Decrease in Number of Farmers, North Central States, 1890-1954."

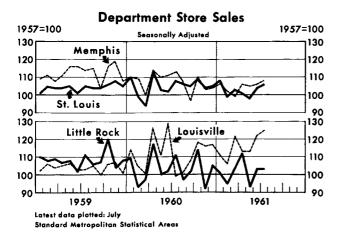
## EIGHTH FEDERAL RESERVE DISTRICT DATA

#### **Bank Credit**



#### Total Loans\*

#### Weekly Reporting Banks-Selected District Cities Ratio Scale Millions of Dollars Millions of Dollars Seasonally Adjusted 1000 1000 St. Louis 500 500 Memphis Louisville 200 200 Little Rock 100 100 50 1959 1960 1961



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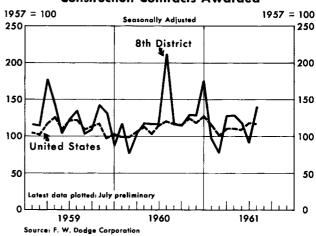
\*Last wednesday of month

#### BANK DEBITS1

	Three Months	Percentage Change from		
	Ending with	Previous	Like Three	
	July 1961)	Three	Months a	
Reporting Centers	(In Millions)	Months <sup>2</sup>	Year Aga	
Arkansas				
El Dorado	\$ 105	+ 3%	+ 8%	
Fort Smith	215	+ 5	+13	
Helena	32	<b>— 9</b>	—10	
Little Rock	808	+ 6	+ 9	
Pine Bluff	156	+ 7	+ 8	
Texarkana	87	+ 1	+ 5	
Illinois				
Alton	148	+ 5	+ 4	
East St. Louis & Nat'l Stock				
Yards	418	<b>— 2</b>	<b>—</b> 6	
Quincy	166	+ 2	+ 4	
Indiana				
Evansville	572	+ 6	+ 3	
Kentucky				
Louisville	2,943	+ 4	+ 6	
Owensboro	1 <i>7</i> 3	+ 3	+ 1	
Paducah	120	-0-	+ 2	
Mississippi				
Greenville	102	+ 2	+ 6	
Missouri				
Cape Girardeau	67	<b>—</b> 1	<b>— 3</b>	
Hannibal	46	+ 5	+ 8	
Jefferson City	519	+30	+27	
Sedalia	61	<b> 2</b>	+ 5	
St. Louis	9,023	+ 4	+ 6	
Springfield	365	+ 2	+ 3	
Tennessee				
Jackson	99	<u> </u>	+ 4	
Memphis	2,992	+ 3	+16	
Total	\$19,21 <i>7</i>	+ 4%	+ 8%	

Debits to demand deposit accounts of individuals, partnerships and corporations and states and political subdivisions.

#### **Construction Contracts Awarded**



<sup>&</sup>lt;sup>2</sup> Adjusted for seasonal influences.