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Trends in Farm Income

THE LEVEL of farm income directly affects the one-third of the people in the District who live on farms. The income of these farm citizens, in turn, is used to buy a large portion of the goods and services provided by the residents of the cities and towns. Although the economic life of any region is so complex that no particular segment, such as agriculture, is more important than any other, agriculture is especially important in the Sixth District because it uses a larger proportion of total resources and contributes a larger share of total income there than it does in the nation as a whole. For this reason farm income in the District has always been one of the principal indicators of economic well-being. The purpose here is to examine the concept of farm income, to trace some of the long-run forces affecting its size and composition, to indicate its probable importance in the future, and to show its geographical distribution by areas smaller than states.

DEFINITION. Farm income is a component of the national income series prepared by the Department of Commerce. Since the concept of national income, that is, the aggregate earnings of labor and property which arise from current production of goods, is well understood, the definition of farm income used in the national series provides a convenient basis for discussion. By this definition, farm income consists of two parts—the net returns to farm operators and wage payments to hired workers. Net returns to farm operators are obtained by subtracting production expenses from gross income. Gross farm income includes receipts from all farm products sold, the annual rental value of farm residences, and the value of farm products consumed as food and fuel by the family and laborers on the farm. Production expenses consist of the value of the goods and services bought or hired for production, maintenance costs on buildings and machinery, taxes, rent, and interest payments to nonfarmers.

In 1948 the national farm income as computed by this method amounted to 22 billion dollars, 3 billion of which consisted of wages to hired workers; the remaining 19 billion was the net income of farm proprietors. The one-fifth of the nation's people who lived on farms received 10.7 percent of the national income originating in private industry, trade, and agriculture. Since 14.4 percent of the 1948 nongovernmental income in the District came from agriculture, the long-run forces that are affecting agriculture's place in the whole economy are of particular importance.

NATIONAL TREND. The farmer's share of the national income has followed a downward trend for at least a century. In 1799, agriculture received 39.5 percent of the national income; manufacturing, 4.8 percent; and other activities, 55.7 percent. By 1899, agriculture's share had declined to 21.2 percent, manufacturing's share had increased to 19.6 percent, and the share of other activities had increased to 59.2 percent. In 1948, agriculture's share was only 9.7 percent of the total, manufacturing's share was 30.2 percent, and the share of other activities was 60.1 percent. A decline in the relative importance of agriculture has characterized the industrialization of nearly all western countries.

Technological change accounts for much of the decline. Many functions once performed by farmers—the manufacturing of butter and the slaughtering of meat animals, for example—have been transferred to nonagricultural establishments. In 1948, the income of industries producing food and kindred products amounted to 6.9 billion dollars, or about one-third as much as the income from agriculture. The substitution of mechanical for animal power is another example of the transfer of production from agriculture to industry. When farmers used animal power exclusively, they raised their own work animals and the feed. Today they buy the tractor, the fuel, and most of the maintenance services from nonagricultural sources. The effect has been a decrease in the number of farm workers necessary to produce a unit of output.

Another factor that has tended to decrease the farmers' share of the national income is that the demand for food and fiber does not increase as fast as the real incomes of consumers. Once per capita consumption of food and fiber nears its physical maximum, most of the increases in the nation's capacity to produce goods and services are used for nonagricultural production. In the United States this stage apparently has already been reached except for the low income groups.

One of the most promising possibilities for arresting the long-run decline in the proportion of total resources used in agriculture, and therefore in the share of total income, is a shift to more expensive foodstuffs that require larger quantities of farm resources per pound of production. Most of the foods that are richest in vitamins and minerals and those of superior flavor and palatability require a larger expenditure of resources per pound of nutrient than do the traditional staple crops such as wheat. Much greater inputs of land, labor, and operating capital, for example, are nec-

essary to produce 100 pounds of food nutrients in the form of beef than in the form of wheat.

Although it is certain that a large shift in consumption toward the more expensive forms of food, such as meat and milk, would slow down the rate of decline in the relative importance of agriculture, the long-run trend probably will continue downward. Because they are rapidly adopting improved practices, farmers are increasing their efficiency in producing animal products. If all farmers were to use the practices that have already proved profitable, the production of beef, pork, milk, and other animal products could be increased substantially with very small increases in inputs of land, labor, and capital.

PERCENT DISTRIBUTION OF TOTAL INCOME PAYMENTS TO INDIVIDUALS
Excluding Government Payments

Place	Agriculture	Manufacturing	Trade and Service	Other	Total
		1939			
Alabama	18.1	20.4	26.8	34.7	100.0
Florida	10.5	6.9	37.2	45.4	100.0
Georgia	17.3	18.9	32.4	31.4	100.0
Louisiana*	13.2	12.4	31.4	43.0	100.0
Mississippi*	26.0	14.5	26.6	32.9	100.0
Tennessee*	14.5	22.2	29.3	34.0	100.0
District	15.4	15.8	31.5	37.3	100.0
United States	9.3	28.0	31.6	31.1	100.0
		1948			
Alabama	17.4	22.8	26.6	33.2	100.0
Florida	8.9	9.6	36.1	45.4	100.0
Georgia	15.1	21.6	30.5	32.8	100.0
Louisiana*	11.5	15.3	40.0	33.2	100.0
Mississippi*	24.7	16.5	30.0	28.8	100.0
Tennessee*	14.9	26.7	26.9	31.5	100.0
District	14.4	18.9	30.5	36.2	100.0
United States	10.7	33.1	31.6	24.6	100.0

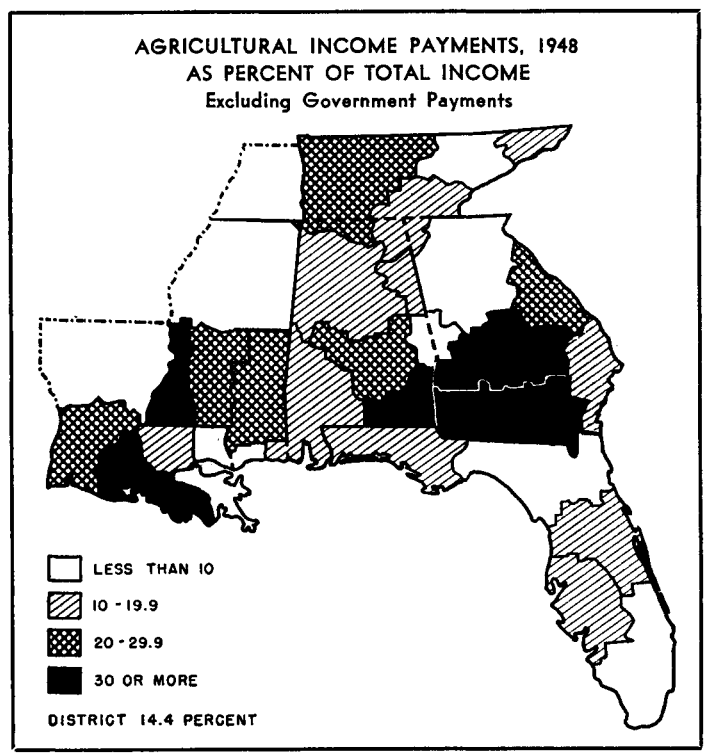
* Portion of state in Sixth District.

An expansion in the industrial demand for agricultural raw materials could also help check the decline in the relative importance of agriculture. New uses for farm products are being developed almost constantly and, in some industries, such as those using starches and oils, consumption of farm-produced raw materials has increased markedly. In appraising the future industrial demand for farm products, however, it should be noted that most industries use agricultural raw materials only if they have some inherent qualities that make them superior to products of nonfarm origin, or if they are cheaper. Attempts to make paper from cornstalks, for example, have failed commercially because cheaper materials can be obtained from other sources. Some industrial developments actually reduce the demand for farm products. The expansion of rayon production, for example, has undoubtedly lessened the demand for cotton. On balance, it seems unlikely that the industrial demand for farm-produced raw materials will increase enough to offset the other forces that are tending to decrease agriculture's share of total income.

During the past fifteen or twenty years one of the central aims of Government farm policies has been to maintain or increase the portion of the national income received by farmers. The effect of these policies apparently has been to raise farm income significantly above the level it would otherwise have reached. Although they had little effect upon the total supply of farm products, they did increase demand in that consumption by low income groups and farm product exports were subsidized. Even the measures to increase the demand for farm products, however, are likely to have only a temporary effect in maintaining farmers' share of the national income at a constant level. Programs to increase consumption by low income groups become ineffective as soon as consumption reaches the physical maximum. The subsidizing of exports, or "export dumping," also is likely to prove a temporary expedient.

Farmers' share of the national income could be maintained at any level, of course, by programs that transfer income directly to farmers from the rest of the population. A given income standard could be maintained, for example, by paying farmers directly out of Government revenues the difference between free-market prices and the prices required to achieve the income standard. As the long-run forces are tending to reduce farmers' share of the total income, however, such programs would become increasingly costly. Because the cost is large and would increase rather steadily, Government programs of this nature are not likely to be pursued vigorously enough to accomplish the purpose.

RELATIVE IMPORTANCE IN DISTRICT. Measured by its share of total income payments, farming has also been declining in importance in the Sixth District. If industry and trade continue to expand as rapidly in the District as in the entire country, the proportion of total income from agriculture will continue to decline. This does not mean that particular farm enterprises will not expand at the expense of similar enterprises in other regions. The District livestock industry, for example, may grow until it captures some of the market now held by producers in other regions, but this growth will



probably be accompanied by a lower production of cash crops, such as cotton. Total output will then remain fairly constant.

From 1939 to 1948, District agriculture lost ground to other income-producing activities more rapidly than did agriculture in the entire nation. Because of the high post-war demand for farm products and the rapid increase in output, the nation's farmers increased their share of national income, exclusive of Government payments, from 9.3 percent in 1939 to 10.7 percent in 1948. During this same period farm income declined from 15.4 percent of the District total to 14.4 percent. This decline, accompanied by an increase in the share of manufacturing income, occurred despite favorable support prices for the District's important cash crops and no Government restriction on production except for peanuts.

In view of this decline in the relative importance of agriculture, over-all figures on farm income will become less valuable as an indicator of the well-being of the economy as a whole. Figures for a region or a state, however, conceal some significant facts about the relative importance of agriculture in smaller areas. The map presented here shows the ratio of farm income to total income, exclusive of Government payments, by what are termed trade areas. This map does not indicate the size of the farming business in any particular area nor does it provide any measure of farm prosperity for any area. It merely shows the importance of agriculture, measured by income, in relation to all other economic activities.

A relatively large change in farm income in North Georgia, for example, would have a relatively small effect upon the economy of the area. On the other hand, a relatively small change in farm income in South Georgia would have a relatively large effect upon the area's economy.

Composition

Since cash receipts from farm marketings are the only figures on farm income that are available on a monthly basis, they are the most popular indicator of changes in farmers' economic position. If current figures on cash receipts are to be used to the greatest advantage, however, some understanding of the composition of farm income is required. The Bureau of Agricultural Economics' estimates of that composition, though they differ in some minor respects from those of the Department of Commerce, most clearly show the relationship between the various components. In 1948, cash receipts from marketings accounted for 86 percent of farm operators' gross income. Production expenses amounted to about one-half of gross income and farm wage payments were about 11 percent of net farm income.

CASH RECEIPTS LOW. The composition of farm income in the District differs from that in the nation in two main respects: in the District cash receipts from marketings are a smaller proportion of gross income; and a smaller percentage of either gross income or cash receipts is paid out for production expenses. Compared to the national average, District farms are relatively small, with the result that production in excess of family needs is a smaller proportion of total output. According to the most recent census, 57 percent of the District farms produced too few products to be classified as commercial farms. Because noncash income, in the form of home consumption of farm-produced food and rental value of the dwelling, is the main component of income on most of these small farms, cash receipts from marketings account for only three-fourths of gross farm income for the entire District. For any one year in a given area, cash receipts may be a less reliable measure of gross income than this over-all average would indicate. In 1939, for example, cash receipts were only 56 percent of Alabama farmers' gross income. In the same year cash receipts were only 64 percent of Tennessee farmers' gross income.

Cash Receipts from Marketings as Percentage of Farm Operators' Gross Income

	1929	1939	1944
Alabama	69	56	71
Florida	86	89	94
Georgia	75	64	77
Louisiana	79	75	82
Mississippi	76	70	78
Tennessee	67	64	74
United States	82	81	88

Production expenses per dollar of cash receipts are lower in most of the District than in the nation, mainly because District farms are less completely mechanized. A large portion of total production input is the labor of the farmer and his family, which does not appear as a cost item. In 1944 production expenses per dollar of cash receipts ranged from 38 cents in Mississippi to 52 cents in Louisiana, whereas the nation's farmers spent 55 cents for each dollar of cash receipts. Most of the year-to-year changes in production expense per unit of output are caused by changes in crop yields. Over longer periods, of course, changes in technology and in the organization of the farm business affect the expense per unit of output. Changes in expense per dollar of cash receipts are caused primarily by changes in prices.

Changes in cash receipts are not an accurate measure of changes in farm income. For example, the prices of farm products change more rapidly than the cost of items used in production, and net income therefore rises more rapidly than cash receipts. In some parts of the District, where most of the income is obtained from crops that have sold at or near support prices for several years, cash receipts do provide a fairly accurate guide to changes in net income.

Production Expenses as Percentage of Farm Operators' Cash Receipts from Marketings

	1929	1939	1944	1948
Alabama	54	86	49	45
Florida	74	67	49	75
Georgia	59	75	46	51
Louisiana	53	66	52	50
Mississippi	50	62	41	38
Tennessee	60	77	49	45
United States	67	75	55	61

Many of the changes that have occurred and that are still in progress in the composition of farmers' production expense will affect the relationship between changes in cash receipts and net income. Most important of these changes is the increasing proportion of cash costs to total costs. More and more equipment and materials will have to be purchased. Although the use of hired labor may decrease as mechanization increases, expenditures for hired labor will continue to be an important farm production expense and will stimulate further mechanization. The growing dependence of farmers upon cash production items means that fluctuations in cash

receipts will have an even greater effect upon the economic well-being of farmers than in the past.

CASH COSTS HIGH. The ratio of current operating expenses to total expenses is one measure of the importance of cash costs to total costs. From 1940 to 1948 this ratio increased from 66 percent to 70 percent for the nation. Similar increases occurred in the District states, with the greatest increases taking place in areas where mechanization has been very rapid. In Mississippi, for example, the cost of operating motor vehicles including tractors was about three-and-a-half times as large in 1948 as in 1939, but the depreciation charge on farm buildings was only about twice as large.

It has often been said that farmers are the only large group of producers who can lose money year after year and still stay in business. A relatively large proportion of total farm costs are noncash. When cash receipts are extremely low, therefore, farmers can evade or postpone their noncash costs by mining the soil of its fertility and by allowing buildings and equipment to deteriorate.

Since less of the total cost today can be deferred from one year to the next, farmers are much more vulnerable to reductions in cash receipts than formerly. As District farmers become more dependent upon cash production items, and there is every indication that they will, future changes in cash receipts may have a greater effect upon people's willingness to move in and out of farming. One reason for the continued existence of a large low income group in District agriculture is that cash costs have been relatively low. As they rise in relation to total costs, however, any reduction in cash receipts will be felt more severely.

How useful cash receipts are as a measure of changes in farm income depends also upon how the total is divided between income of farm operators and wage payments to hired workers. Farm production is rather stable from year to year so that the amount of hired labor does not vary greatly. Farm wage rates are closely related to wage rates and to job opportunities in other industries and do not necessarily change in the same direction as farm income or in the same proportion.

The decline in farm income in Florida from 1946 to 1947 can be used to illustrate the effect that a decline in cash receipts has upon farm income in an area where wage payments constitute a relatively large percentage of total farm income. Cash receipts declined 18 percent, farm operators' income declined 38 percent, farm wage income increased 9 percent. Thus total farm income declined 29 percent. Had farm labor been a relatively small component of total farm income as it is in Alabama, the 18-percent decline in cash receipts would have indicated a decline in farm income of about 38 percent instead of the 29-percent decline that actually occurred.

WAGE COSTS IMPORTANT. For the United States, wage payments have been declining in relation to income of farm operators. During the past decade the decline has been rapid because farm operators' income increased sharply and the shortages and high cost of labor caused many farmers to replace hired workers with machines. Wage payments usually are less than 10 percent of total farm income in Alabama, Mississippi, and Tennessee, but are nearly one-fifth of the total in Georgia and Louisiana and about one-third of Florida farm income. In all the District states except Florida and Tennessee, wage payments in 1948 were about as large in proportion to farm income as they were in 1929.

Wage payments have not declined in relation to farm operators' income in areas where a large proportion of farm income is from cotton. Mechanization has been less rapid in cotton production than in most crops in that the harvesting of cotton still requires large amounts of hand labor. Another factor that has increased the amount of hired labor used on cotton in some areas is the decline in share cropping. Many farmers who formerly depended upon the share-cropping arrangement to provide the large amounts of hand labor needed in cotton production have found that they could increase their profits by mechanizing most of the preharvest work and by hiring the additional labor required for chopping and picking. If the relationship between cotton prices and production costs remains near the present level, these tenure arrangements will probably continue. As a result wage payments may increase in relation to the income of farm operators.

Farm Wage Payments as Percentage of Total Agricultural Income Payments

	1929	1939	1948
Alabama	8.1	11.6	8.1
Florida	47.5	52.0	32.8
Georgia	14.5	17.6	17.6
Louisiana	18.1	44.6	17.4
Mississippi	5.3	8.7	5.4
Tennessee	9.0	11.4	7.4
United States	19.3	19.2	14.5

SEASONAL DISTRIBUTION OF FARMERS' CASH RECEIPTS

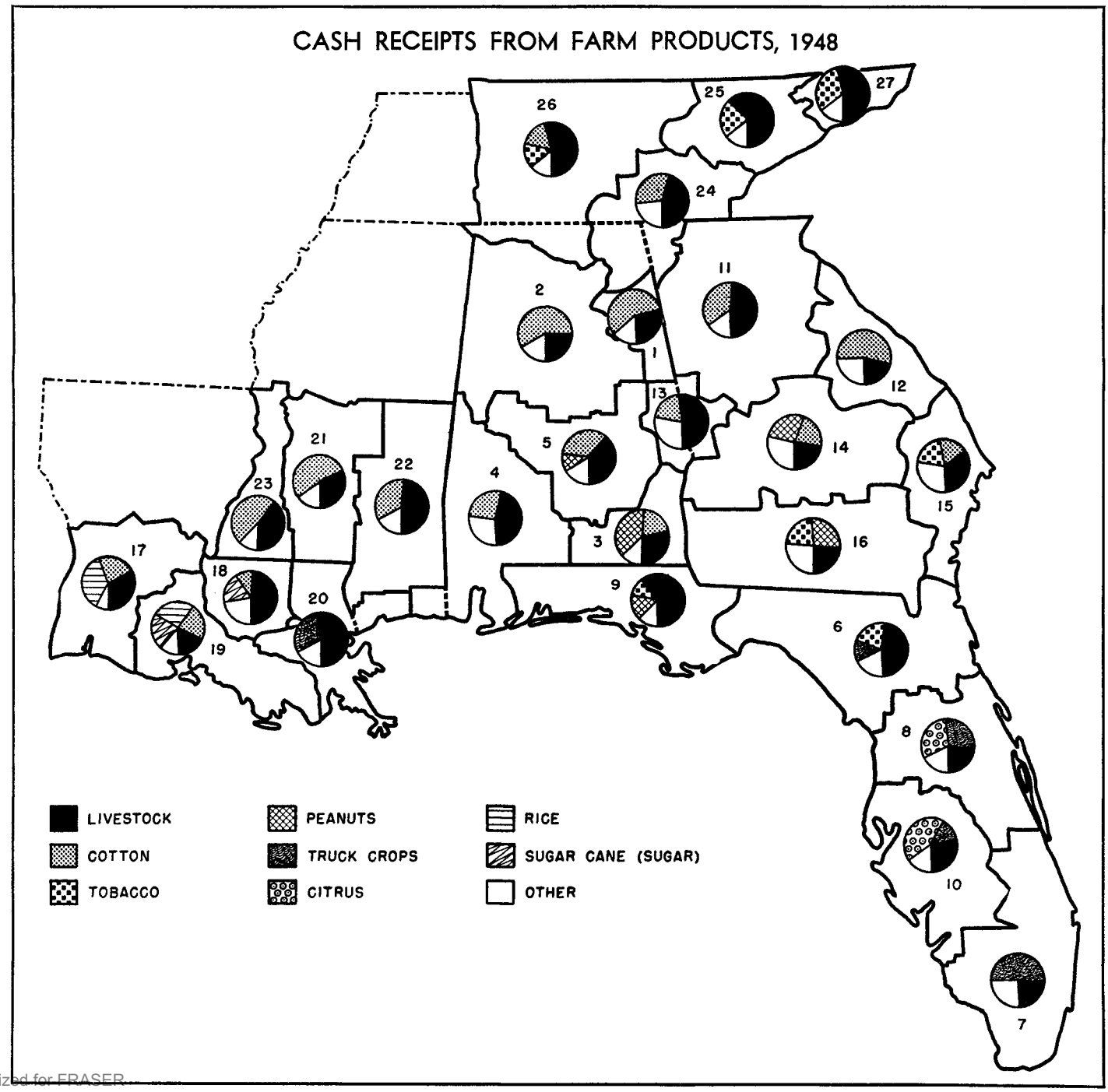
Area*	Percent of Annual Cash Sales Made During			
	Jan.-June	July-Dec.	Jan.-June	July-Dec.
	1939		1948	
1. Anniston-Gadsden	32	68	32	68
2. Birmingham	34	66	32	68
3. Dothan	28	72	24	76
4. Mobile	37	63	36	64
5. Montgomery	31	69	30	70
6. Jacksonville	48	52	44	56
7. Miami	77	23	73	27
8. Orlando	72	28	68	32
9. Pensacola	42	58	41	59
10. Tampa-St. Petersburg	72	28	66	34
11. Atlanta	35	65	39	61
12. Augusta	28	72	29	71
13. Columbus	35	65	34	66
14. Macon	29	71	27	73
15. Savannah	33	67	30	70
16. South Georgia	24	76	23	77
17. Alexandria-Lake Charles	24	76	25	75
18. Baton Rouge	38	62	42	58
19. Lafayette-Iberia	17	83	20	80
20. New Orleans	56	44	53	47
21. Jackson	31	69	32	68
22. Meridian-Hattiesburg-Laurel	33	67	37	63
23. Natchez	29	71	31	69
24. Chattanooga	43	57	42	58
25. Knoxville	53	47	55	45
26. Nashville	50	50	48	52
27. Tri-Cities	55	45	57	43

*Areas listed are shown by corresponding numbers in map on opposite page.

Distribution

PER CAPITA. The most significant characteristic of the distribution of Sixth District farm income is the high ratio of farm people to farm income, compared with that for the nation. By almost any measure of income, a relatively large number of the workers in District agriculture receive incomes that are much less than the national average. One consequence of this is that changes in total farm income have less effect upon sales of durable consumer goods than in areas where income per worker is relatively large. The 57 percent of the District farmers who received less than 1,200 dollars in cash in 1945 would have to increase their incomes greatly in order to buy more refrigerators, washing machines, or other durable goods. An income increase to these farmers probably would be used mostly for such necessities as food and clothing.

District farmers also have less opportunity to save part of their income than do farmers elsewhere, which is one of the greatest obstacles to raising the income per worker. Incomes are low primarily because the amount of capital and land per worker is small. Farmers can increase their capital only by saving or by borrowing. In order to use credit successfully, however, they must be able to finance at least a part of new capital investments out of their savings. Credit, therefore, is not a complete substitute for savings.



Although many of the Government farm programs were designed to help the small farmer, there is little or no evidence of any marked change in the distribution of income. Programs to raise the prices on the commodities a farmer sells are of little benefit to the farmer whose basic difficulty is that he has too few products to sell. In many instances the acreage restrictions on cash crops that have been a part of the price-support program have widened the disparity between the low and the high income farmers.

Many farmers do not have enough land to adopt extensive types of farming, such as beef-cattle production. Thus their incomes are reduced by a greater percentage than are those of farmers with large acreages who can use the land released from cash crops to good advantage. Changes in the distribution of income are likely to occur slowly despite Government programs and even if attractive employment opportunities in nonfarm activities appear. Except in isolated instances, low farm incomes do not result in a mass exodus from agriculture.

SEASONAL. How farm income in a particular area affects nonfarm activities also depends partly upon its seasonal distribution. The seasonal distribution of income, in turn, is determined by the combination of enterprises that constitute the farming economy of the area. On the map on page 77 the percentage of total cash receipts derived from each of the major farm enterprises in 1948 is indicated by trade areas. Those areas in which a large proportion of cash receipts came from livestock usually had the least seasonal variation in cash receipts. No monthly data are available on cash receipts by areas smaller than states, but the proportion of annual cash receipts in the first and second half of each calendar year can be estimated with reasonable accuracy.

The agriculture of the District is so varied that these proportions differ widely from area to area. In the Miami trade area, for example, about 70 percent of the cash sales are made in the first half of the year, whereas only 25 percent of the Dothan area sales are made then. Net income, or farm income as defined by the Department of Commerce, varies even more widely than cash receipts. In the Dothan area, for instance, a large proportion of the annual production expenses are incurred in the first six months with the result that net farm income probably is a minus figure.

In areas where farming constitutes a large share of all economic activities, the seasonal distribution of income has a pronounced effect upon the seasonal movement of bank deposits and upon the amount of farm loans outstanding on any given date. From the standpoint of economic stability, a rather even flow of cash receipts over the entire year is probably most desirable. Where cash receipts are spread uniformly over the year, credit terms can be made more flexible than where cash receipts are concentrated within a few months. If farm income is spread over the entire year, businessmen who depend heavily upon farm customers also feel the effects of changes in income less acutely. In spite of the growing importance of livestock in most areas of the District and the emphasis on diversification of income by state and Federal agricultural agencies, there has been little change in the seasonal distribution of cash receipts since 1939.

GEOGRAPHICAL. The principal change in the geographical distribution of income from 1939 to 1948 was an increase in the proportion of total District farm income in the areas that specialize in cash-crop production. Farm income in these areas, in other words, increased faster than in the areas that depend more heavily upon livestock or that have a more diversified type of farming. These same areas, of course, are most adversely affected by the current production restrictions on cash crops, such as cotton and peanuts.

Prospects

Although the future size, composition, and distribution of farm income in the District will be affected by forces outside of agriculture that cannot be predicted, some of the past trends will probably continue. In the District, as in the nation, agriculture's share of total income payments will continue to decline. Many farmers in large areas are faced with the necessity of substituting new enterprises, such as livestock, for the traditional cash crops. Total farm income is likely to go down as a result of this shift. Per acre income from livestock is usually less than that from intensive cash crops.

Unless hired labor costs go down sharply, mechanization will continue at a rapid rate and cash costs will constitute a larger proportion of farmers' total costs. Farmers will be able to defer a smaller portion of costs from one year to the next and changes in gross income will have a greater immediate effect upon farmers' ability to buy goods and services from the rest of the community.

As livestock replaces cash crops, farm income will become more evenly distributed over the entire year. This not only will fulfill the needs of the farm family better, but it will permit the use of credit terms that are more satisfactory to the farmer as well as to the banker. The monthly repayment loans now being used to finance dairying illustrate the effects of a steady stream of income on farm credit.

Unless workers leave agriculture rather rapidly and low income farmers obtain control over more capital, the substitution of livestock production for the growing of cash crops may create a more unequal distribution of income than now exists. The main advantage of cash crops for the low income farmer is that they provide the maximum employment per dollar of capital invested or per acre of land owned. A mere transfer of capital and land from cotton production to beef-cattle production, for example, does not increase the amount of capital and land available to the farmer. It does, however, reduce the returns to labor and hence the farmer's income.

In order to maintain income or to increase it, the low income farmer needs more capital and land. Larger farm units, of course, can be attained only if many of the low income farmers leave agriculture. Even if the land needed to enlarge their farms becomes available, the low income farmers will still need large amounts of capital in the form of livestock, machinery, and equipment. During the next decade one of the main problems in farm credit will be the selection of farmers who can use credit successfully to increase the size of their farm business.

Even though farm income probably will become less important in relation to income from other activities for the entire District, some areas will continue to rely heavily upon agriculture. In these areas changes in farm income will continue to be reflected in changes in bank deposits, retail sales, and the other indicators of economic activity.

BROWN R. RAWLINGS