

MONTHLY

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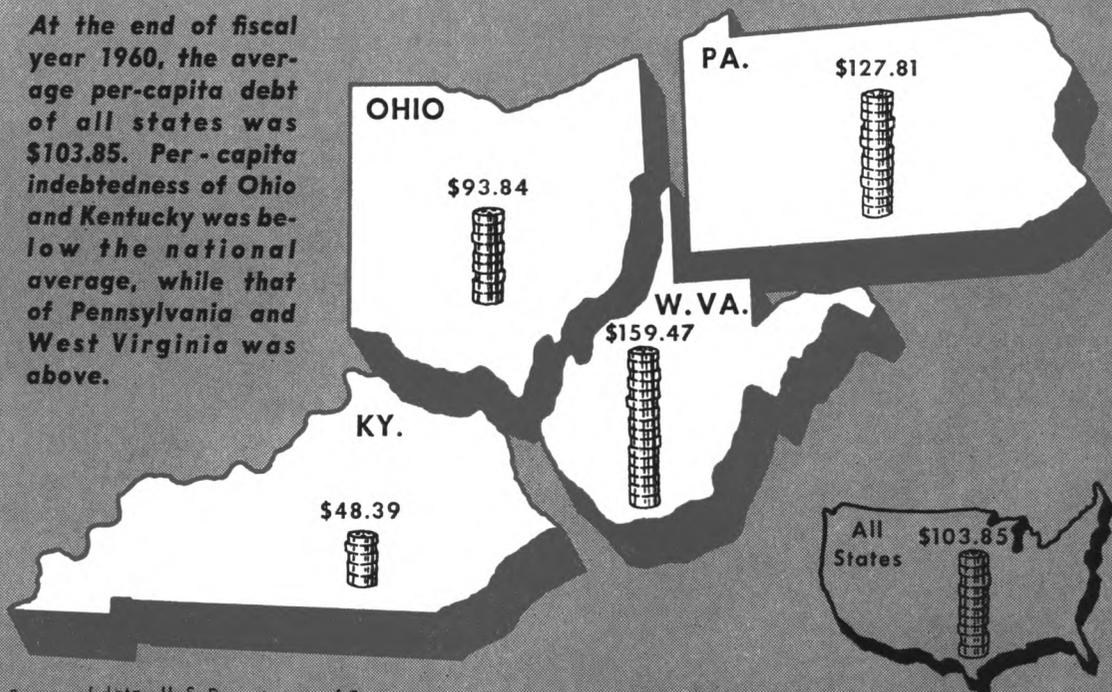
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## STATE PER CAPITA DEBT

end of fiscal year 1960

At the end of fiscal year 1960, the average per-capita debt of all states was \$103.85. Per-capita indebtedness of Ohio and Kentucky was below the national average, while that of Pennsylvania and West Virginia was above.



Source of data: U. S. Department of Commerce.

# Indebtedness of States in the Fourth District

IT SHOULD not be surprising that, in the face of increasing public demands for services, the indebtedness of the four states—Ohio, Pennsylvania, Kentucky, and West Virginia—which lie wholly or partially within the Fourth Federal Reserve District has continued to mount during the postwar period. The most recent data available show that the combined gross debt outstanding of these four states reached an all-time high of \$2.8 billion at the end of fiscal year 1960.<sup>(1)</sup> In short, this means that such debt more than doubled between the ends of fiscal years 1951 and 1960—a span of some ten years.

However, as shown in the accompanying chart, the rate of increase in the total indebtedness of states in the District between fiscal years 1951 and 1960 was somewhat smaller than the growth of the combined indebtedness of all states in the United States. The total gross debt<sup>(2)</sup> of all states nearly tripled in the period under review, climbing to over \$18.5 billion by the end of fiscal year 1960.

The statistics of state debt also show that the indebtedness of Fourth District states, combined, at the end of fiscal year 1960 amounted on a average per capita basis to \$107.37, which was slightly above the average per capita debt of all states, or \$103.85. Within the District, as shown on the cover chart, per capita indebtedness in Ohio and Kentucky was below the national average, while in Pennsylvania and West Virginia per capita indebtedness was above the national average.

(1) In Ohio, Kentucky, and West Virginia the fiscal year ends on June 30, while in Pennsylvania it ends on May 31.

(2) All reference to debt is considered gross debt, except where otherwise specified.

Increased indebtedness of the individual states is for the most part a phenomenon of the postwar period, and can be associated to a large extent with the enlarged expenditures for construction and equipment which are usually debt-financed. During World War II such expenditures were sharply curtailed, so that, in fact, most states were able to reduce their debt considerably while some even emerged from the period carrying surpluses on their books.

During the postwar period, however, especially in the 1950's, states have found themselves confronted with the need to build additional highways, schools, and hospitals, not only to meet population expansion but also to satisfy an apparently growing desire for more and better services. Greater expenditures on these large, nonrecurring undertakings coupled with the generally rising costs of operations, soon outran tax revenues available to states. And this has been so, even though tax receipts have increased greatly and additional sources of tax revenues have been tapped. State governments, in short, have been forced to rely more heavily on the use of borrowed funds (as well as Federal grants).

Borrowing by state units is not a new phenomenon in the United States. One of the largest problems faced by the Founding Fathers was that concerned with the handling of the debt incurred by the individual states during the Revolutionary War. However, there is no question but that substantial changes have taken place regarding such debt. In addition to the growth in the amount

of indebtedness, different forms of debt have evolved as well as new methods of retiring and refunding debt.

In the pages which follow, state debt is defined as the total amount of all long-term credit obligations of both the state and its agencies plus the total amount of interest-bearing, short-term credit obligations. Such debt includes long-term debt backed by the unconditional guarantee of the state, as well as nonguaranteed debt.<sup>(3)</sup> Long-term debt refers to obligations which are due more than one year after the date of original issue; short-term obligations are those payable within one year from the date of issue.

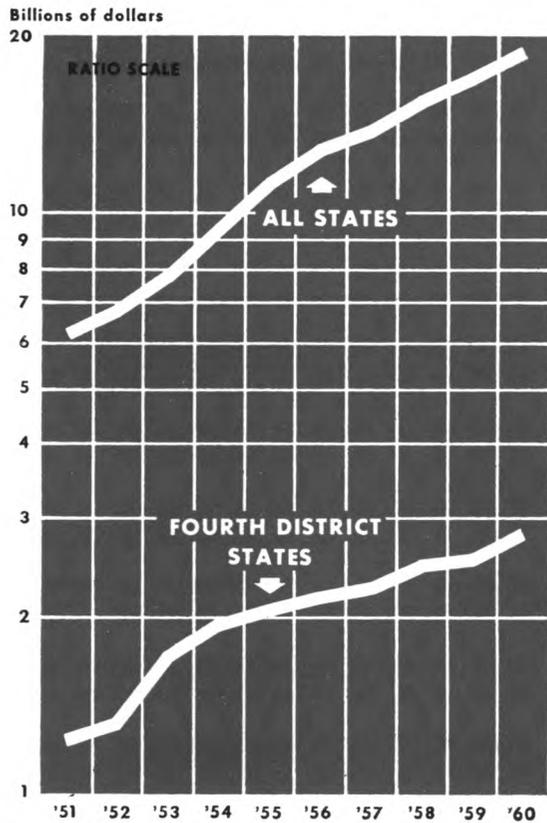
### Debt by Character

**Maturity.** Long-term debt usually makes up the largest share of total state debt. In Fourth District states, all of the debt outstanding of both West Virginia and Kentucky at the end of fiscal year 1960 was long-term; in Pennsylvania nearly 97 percent was long-term, and in Ohio more than 99 percent. Short-term borrowing is usually done during the fiscal year by means of tax anticipation or bond anticipation notes, and often will not be on the books at the end of a fiscal year. The revenues of tax collections or long-term bond sales are used to redeem the notes. Short-term borrowing also includes bank loans, and may include obligations which have no fixed maturity if they are payable from a tax levied for collection in the year of their issuance.

**Form.** Long-term debt has two general forms, full-faith and credit bonds and nonguaranteed bonds. Full-faith and credit refers to the fact that the full taxing power of a state stands unconditionally behind the bonds. Full-faith and credit bonds may also include those which are payable initially from specific tax or nontax sources, but which the state pledges to pay if the primary source fails to provide enough revenue. The credit

(3) This definition follows that used by the U. S. Bureau of the Census, which also is the source of the data used herein.

## TOTAL STATE DEBT OUTSTANDING end of fiscal years



Source of data: U. S. Department of Commerce.

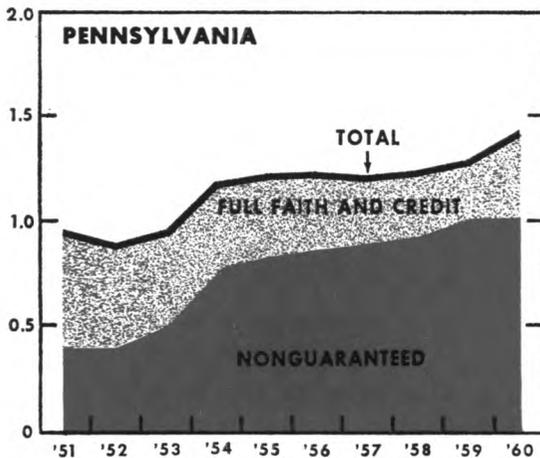
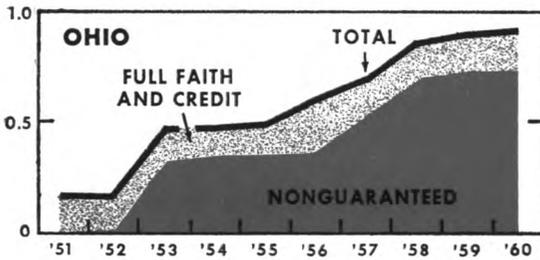
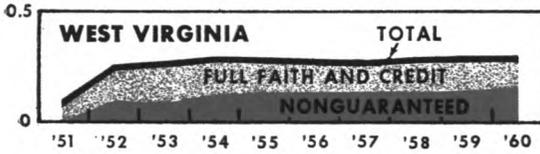
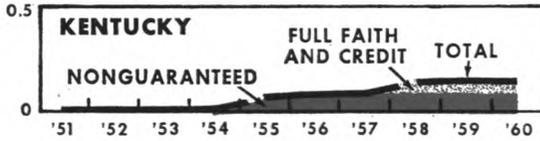
rating of a state depends primarily upon how well the full-faith and credit obligations are handled.

The other main type of long-term obligation is the nonguaranteed bond. Such debt is payable completely from specific revenues. The most common types of nonguaranteed bonds are those against which the tolls of highways and bridges, or the fees of university dormitories, or the revenues from various utilities, are specifically pledged.

The nonguaranteed bond seems to have gained increased popularity recently. This is explained in part by the fact that the use of a nonguaranteed bond issue often permits

## LONG-TERM DEBT OUTSTANDING by Character end of fiscal years

Billions of dollars



Source of data: U. S. Department of Commerce.

the avoidance of a constitutional prohibition or limitation on the borrowing activity of an individual state. Generally speaking, the purposes for which states may borrow are limited in most states, and bond issues in excess of a relatively small minimum amount require the endorsement of the public. By using nonguaranteed revenue bonds, capital projects may be started without submission of the issue to the electorate. Moreover, this debt form does not affect the credit standing of the general obligations of the state.

Increased use of nonguaranteed bonds in recent years is illustrated quite clearly within the Fourth District, as shown in the accompanying chart. For example, in *Pennsylvania*, at the end of fiscal year 1960, nonguaranteed issues represented nearly three-fourths of total long-term state debt outstanding; full-faith and credit obligations thus accounted for roughly one-fourth of such debt. In contrast, at the end of fiscal year 1951, the latter represented nearly three-fifths of total long-term obligations outstanding.

A similar situation has developed in *Ohio*, but even more obviously. By the end of fiscal year 1960, about four-fifths of total long-term debt outstanding was in nonguaranteed obligations while full-faith and credit obligations correspondingly amounted to less than one-fifth of the total. Such a situation is highlighted by the fact that at the end of fiscal year 1951 virtually all of the long-term debt of Ohio was of the full-faith and credit type.

In *West Virginia*, the story is also similar. At the end of fiscal year 1951, nonguaranteed debt made up only about one-tenth of total long-term debt outstanding. By the end of fiscal year 1960 this type of debt had reached more than one-half of the total.

Only in *Kentucky* within the Fourth District has a somewhat different situation developed. At the end of fiscal year 1951, all long-term debt outstanding was nonguaranteed. The proportion remained at this level until fiscal year 1958, when total long-term

debt was evenly divided between the two types of debt (nonguaranteed and full-faith and credit) with the issuance of some general obligation bonds. At the end of fiscal year 1960, full-faith and credit obligations represented nearly 45 percent of total long-term debt with nonguaranteed bonds accounting for the remainder.

The increased use of nonguaranteed obligations in the states of the Fourth District parallels the national trend. At the end of fiscal year 1951, nonguaranteed obligations accounted for slightly more than one-fifth of the combined long-term debt of all the states. By the end of fiscal year 1960, this proportion had increased to the extent that nonguaranteed debt was slightly more than one-half of the combined total long-term debt of all the states.

*Permanent Debt.* State debt is usually assumed to be of a temporary nature, i.e., it is expected eventually to be redeemed. But this is not necessarily always the case, as evidenced by the fact that in both Ohio and Kentucky part of the debt of each state carries a label of permanence; it is either irredeemable or irreducible debt.

In *Ohio*, irreducible debt is not in bond form, but, instead, consists of funds used by the state, which were derived from the sale of lands devoted to educational and religious purposes. On these funds, which technically represent borrowing, the state pays an interest rate of 6 percent per annum to certain eleemosynary institutions which are entitled to the revenue. At the end of fiscal year 1960, the irreducible debt of Ohio stood at over \$9 million, or approximately 10 percent of total long-term debt.

In *Kentucky*, the state treasurer holds some irredeemable educational bonds. The interest on these bonds, which varies with the particular series, is paid out of the general fund of the state to certain educational institutions. Interest is also paid by the state treasurer in a similar manner on irredeemable bonds of the Board of Health. At the end of fiscal year 1960, the irredeemable debt of Kentucky

amounted to close to \$2.5 million, or slightly less than 2 percent of total long-term debt.

*Net Long-Term Debt.* Thus far, long-term debt has been considered in a "gross" sense. However, a look at "net" long-term debt may shed some additional light on the debt structures of the respective states. Net long-term debt is gross long-term debt minus the assets of sinking funds and other reserve funds held specifically for the redemption of long-term debt. Such reserves may include bond reserve funds, deposits with fiscal agents for the redemption of uncanceled debt, and balances in refunding bond accounts held pending completion of refunding transactions. These funds represent, in essence, the assets which the state currently holds against the day when bonds fall due.

The most recent figures available reveal that such funds represent only a small proportion of gross long-term debt outstanding. At the end of fiscal year 1961, in Kentucky and Pennsylvania, reserves held against debt, or "offsets", represented approximately five percent of gross long-term debt; in Ohio and West Virginia such offsets amounted to 6 and 7 percent, respectively, of gross long-term debt. In all instances, the proportions have remained virtually unchanged in the last 10 years.

The offsets to long-term debt are made up largely of the assets of sinking funds. Sinking funds legally are separate accounts set up by governmental units to accumulate resources needed to retire bonds at their maturity. A sinking fund bond becomes due in a lump sum at the end of the term of the loan. The full obligation can be met by annual payments from general revenues to the fund. These payments, when invested at compound interest, are expected to produce the principal due at the time of maturity of the bond. It is perhaps significant that, in recent years, the serial bond has replaced the sinking fund bond as the most common form of state debt. In contrast to sinking fund bonds, serial bonds are retired by annual instalments directly from general revenue appropriations. Thus, each year after the original issuing

year a certain amount of the bonds falls due and is repaid.

### Debt by Function

Proceeds of bond issues usually have been used to finance capital projects rather than operating deficits. Thus, over the years, such projects as highways, schools, and hospitals have been financed chiefly through borrowing. However, in addition to these projects borrowing during the early postwar years to finance bonuses for veterans became particularly heavy; in fact, such debt still continues to account for a sizable part of the total debt of many states.

The total long-term debt of *Pennsylvania* and its agencies stood at close to \$1,419 million outstanding at the end of fiscal year 1960. This amount was about four times larger than the average long-term debt of all states in the United States, which amounted to more than \$360 million at the end of the same period. By far the largest portion of the debt outstanding of Pennsylvania was incurred to finance the construction of highways. In fact, borrowing for all types of highways in Pennsylvania accounted for nearly one-third of the total long-term debt, with bonds issued for state toll facilities alone representing nearly 28 percent of the total.

The largest portion of the highway debt is comprised of the obligations of various agencies in the state, such as the Pennsylvania State Highway and Bridge Authority, the Pennsylvania Turnpike Commission, and the Delaware River Port Authority. These agencies are public corporations and governmental instrumentalities authorized by legislative acts to perform certain functions, including the construction of highways. The legislature also permits these agencies to issue bonds up to a given limit to finance the desired projects.

The second largest share of the debt of Pennsylvania is that incurred to pay bonuses for veterans. These obligations, which are the general obligations of the state, represented over 22 percent of total debt outstanding at

the end of fiscal year 1960. (The state issued first, in 1950, the Veterans' Company World War II bonds, and then, in 1959, the Korean Bonus Bonds.) Veterans' bonus debt as a part of total long-term debt outstanding has declined steadily since fiscal year 1951 when such debt was over 47 percent of the total.

The third largest portion of the debt of Pennsylvania was that issued for educational purposes. It accounted for nearly one-fifth of the total as of the end of fiscal year 1960. Debt for educational purposes is the only type of state debt in Pennsylvania which increased in size during the decade between fiscal years 1951 and 1960. In that period such debt outstanding increased more than 9 times. Much of this debt was incurred by the Pennsylvania State Public School Building Authority.

At the end of fiscal year 1960 the total long-term indebtedness of *Ohio* amounted to more than \$900 million. Like Pennsylvania, the debt of Ohio was well above average state debt in the United States (\$360 million). The greatest part of the debt incurred by the State and its agencies was for highway construction, with such debt accounting for nearly three-fourths of total long-term debt outstanding at the end of fiscal year 1960. Of this amount, nearly one-half was utilized for toll facilities, while the remainder was borrowed for general thoroughfare construction. The major portion of the nontoll borrowing was authorized in a 1953 statute which allowed issuance of \$500,000 of revenue bonds over a 9-year period to "provide adequate highways in Ohio." Nearly all of the bonds issued for toll facilities were issued by the Ohio Turnpike Commission in connection with construction of the Ohio Turnpike.<sup>(4)</sup>

In Ohio there is also state indebtedness incurred to pay bonuses for veterans. This debt, which accounted for slightly over one-tenth of total long-term debt outstanding at the end of fiscal year 1960, consisted originally of \$275 million in World War II Com-

<sup>(4)</sup> For a discussion of the financing of the Ohio Turnpike, as well as other turnpikes in the Fourth District, see this review, "Fortunes of Four Turnpikes," July 1960.

pensation bonds issued in 1947 and \$60 million in Korean War Compensation bonds issued in 1957. Debt for educational purposes plays a relatively small part in the debt picture of Ohio, amounting to only 5 percent of total long-term debt outstanding. All of this debt was used to finance institutions of higher learning, being issued by the various state-supported universities or colleges, usually for dormitory construction.

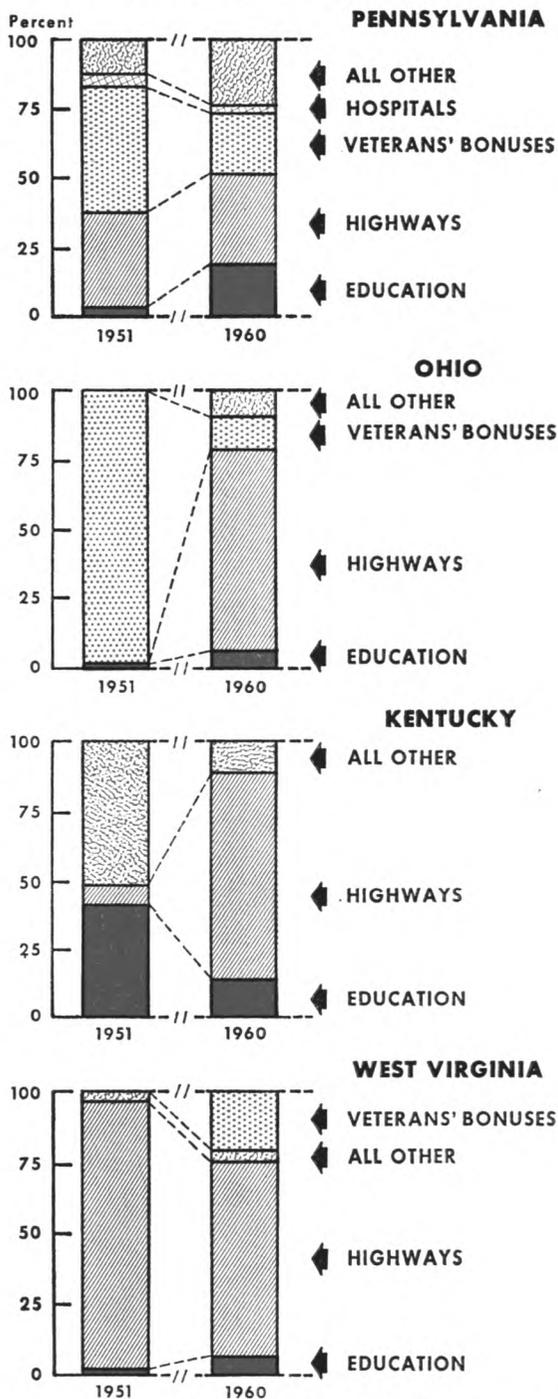
The debt of the state of *Kentucky* stood at nearly \$150 million at the end of fiscal year 1960, an amount considerably lower than the average debt of all states combined (\$360 million). As in Pennsylvania and Ohio, the main purpose for which debt was incurred in Kentucky was to construct highways with such debt accounting for more than three-fourths of debt outstanding. Debt for highways is issued by the state and by its agency, the Kentucky Department of Highways.

At the end of fiscal year 1960, borrowing for educational purposes was the second largest part of debt in Kentucky, accounting for nearly 14 percent of total long-term debt outstanding. All of this portion was issued by the various state colleges and universities to help finance higher education. By the end of fiscal year 1960, Kentucky had issued no bonds for bonuses for veterans. (Since that time, Kentucky has sold bonus bonds.)

In *West Virginia* an outstanding long-term debt of approximately \$300 million at the end of fiscal year 1960 was below the average debt of all states (\$360 million). The main purpose for which debt was incurred in West Virginia was for highway construction. Nearly 70 percent of outstanding long-term debt at the end of fiscal year 1960 had been devoted to highway purposes. Bonds for toll facilities represented over 45 percent of the long-term debt outstanding, and were issued mainly by the West Virginia Turnpike Commission. Other highway bonds were issued by the State of West Virginia and the State Road Commission.

Bonuses for veterans also figured importantly in the debt structure of West Virginia,

### LONG-TERM DEBT OUTSTANDING by Function end of fiscal years 1951 and 1960



Source of data: U. S. Department of Commerce.

accounting for over one-fifth of the total long-term debt outstanding as of the end of fiscal year 1960.

The State issued both World War II and Korean War Bonus Bonds, which totaled originally over \$90 million. Educational borrowing (entirely for higher education) represented only a small percentage of the total long-term debt of West Virginia at the end of fiscal year 1960.

### **Interest — The Cost of Debt**

During fiscal year 1960, the states of the Fourth Federal Reserve District paid out nearly \$81 million in interest on all types of obligations. This amount represented a nearly three-fold increase over a ten-year period, and reflected not only a growth in the amount of debt outstanding but also a rise in interest rates in general. Taken individually, interest payments in fiscal 1960 by the states of the District varied widely about the national average of almost \$11 million. Ohio paid out

\$28 million in interest in fiscal 1960; Pennsylvania paid out \$35 million; Kentucky and West Virginia each paid less interest than the national average.

Holders of state debt tend to lump state debt with local obligations, referring to such securities generally as "municipals". Municipals have a feature which often helps to make them attractive investments for individuals or institutions which are subject to high federal income taxation. Specifically, the feature is that the interest on municipal securities is exempt from income taxation by the federal government, and is usually exempt from the taxation of the state of issue.

The four states in the Fourth District hold a considerable volume of municipals, including both their own obligations as well as those of other state and local governments. At the end of fiscal year 1960, Fourth District states held nearly \$458 million in state and local securities, of which better than one-third were their own securities.

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## **NOTES ON FEDERAL RESERVE PUBLICATIONS**

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

"Federal Receipts and Expenditures — Alternative Measures", Federal Reserve Bank of Kansas City, August 1961.

"Money to Spare: Excess Reserves", Federal Reserve Bank of Minneapolis, August 1961.

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

# Downturn in Farm Production

CURRENT expectations indicate that total farm output will be less in 1961 than in 1960. Consequently, total farm output will register a year-to-year decline for the first time in twelve years. The expected decline in output is due this year, as it was in 1949, to a substantial drop in the prospective volume of crops. The indicated outturn of crops will be down more than 6 percent from that of last year, chiefly because of a sharp shrinkage in the expected quantity of feed grains.

A 5-percent increase in the volume of livestock and products is anticipated in 1961, but such a gain from the moderately depressed levels of last year will not be sufficient to compensate fully for the shortfall in the volume of crops. As a consequence, total farm output will be down for the first time since 1949, with the decline from the record level of 1960 expected to amount to 2 or 3 percent, as shown in the chart.

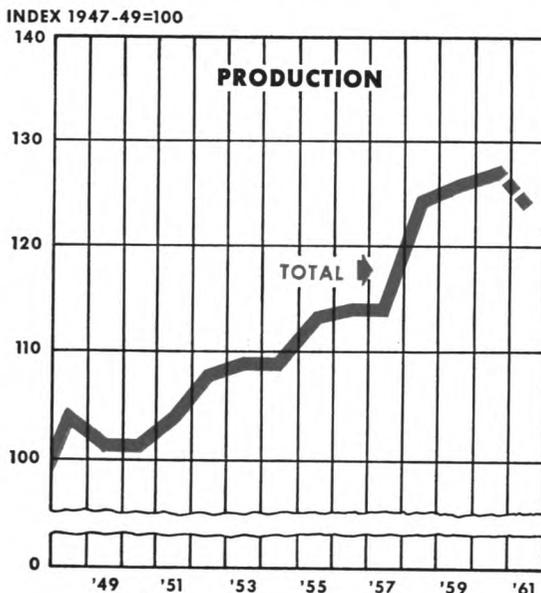
## Smaller Plantings Cut Crop Volume

Much of the decline in crop production in 1961 can be attributed to a reduction in planted acreage, as the composite yield per acre of the 28 leading crops will apparently be within 2 percent of the near-record level of last year. The total planted acreage of 306 million acres in 1961 was 17 million acres, or 5.6 percent, less than in 1960. By way of illustration, the reduction in acreage planted is equivalent to about one and a half times the area of cropland in Ohio. This reduction in acreage reflects the curtailment of plantings of corn and sorghum grains by participants in the Feed Grain Program as well as by continued participation in the Conservation

Reserve. Shortages of irrigation water in the West, and flooded lowlands in the Mississippi and Ohio River valleys have also contributed to the reduction in plantings that account for the smaller output of crops shown in the chart.

The prospect of record yields per acre for corn, rice, and soybeans, together with comparatively high yields for winter wheat, sorghum grains, and several of the other leading crops, will tend to moderate the impact of the reduction in plantings. But sharply reduced yields for spring wheat, barley, rye, and flaxseed, because of drought in the Northern Plain States, is expected to curtail output of those crops sufficiently to

*A downturn in total farm production is indicated for 1961, the first year-to-year decline since 1949.*



have an adverse influence on the total crop volume. The combined effect of plantings and yields on the output of the 14 principal field crops is summarized in the following table, which shows the percent change in acres for harvest and in estimated production between 1960 and 1961. Altogether, these fourteen crops account for more than 95 percent of the total harvested acreage.

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**Estimated Acres for Harvest and  
Production of Principal Field Crops<sup>(1)</sup>  
August 1, 1961**

	Percent change from 1960	
	Acres for Harvest	Production
Flaxseed	-18%	-36%
Sorghum Grain	-26	-25
Rye	- 7	-20
Oats	- 8	-15
Barley	- 4	-14
Corn	-18	-14
All Wheat	- 1	-11
Hay	- 1	- 7
Cotton	+ 2	- 2
Tobacco	+ 2	+ 2
Rice	-0-	+ 3
Potatoes	+ 6	+ 7
Sugar Beets	+14	+14
Soybeans	+15	+22

(1) Source of basic data: U. S. Department of Agriculture.

The reduced output of flaxseed, rye, oats, barley, wheat, hay and cotton will be due primarily to lower yields per acre. As the table shows, the acreage declines for those crops is not as great as the anticipated drop in productions. In the case of wheat, for example, acreage was down only 1 percent but prospective yields have been greatly reduced because of drought damage to spring wheat in the Northern Plains. Damage to spring wheat and other crops was most severe in North Dakota and South Dakota, but it also extended into northern Minnesota and eastern Montana.

The anticipated production of two major field crops—soybeans and sugar beets—is up sharply from the previous year. A marked expansion in plantings, in response to both an advance in market and support prices and broader demand, accounts for the gain in acres for harvest of soybeans. Sugar beet plantings rose sharply as producers strove to fill the void caused by a cessation of imports of sugar from Cuba. Tobacco, rice, and potatoes are the other principal field crops whose production is anticipated to increase. Larger plantings, together with a record rate of production for rice and near-record yields for tobacco and potatoes, account for the larger outturns expected.

**Above Average Volume of Fruits  
and Vegetables**

Fruit and vegetable production in 1961, although above average in total volume, will fall short of last year for some of the major groups of crops. For example, citrus tonnage is expected to be down 5 percent from last year. The total output of non-citrus fruits, however, may exceed the 1960 volume by 6 percent; moreover, it may be well above the annual average of the past ten years. Larger crops than those of last year are indicated for all of the principal non-citrus fruits with the exception of apricots.

Vegetables for fresh market give promise of an above average outturn; yet, it is expected to be 8 percent short of the crop harvested last year. On the other hand, the outturn of vegetables for processing may be larger than it was last year, as the acreage of the nine principal vegetables grown for processing was up 10 percent from 1960.

**Record Grain Holdings  
Supplement Harvest**

Storage holdings of most grains on July 1, 1961, were substantially larger than a year earlier as shown in the following tabulation of storage stocks in all positions. Holdings were of record proportions for corn, sorghum

grains, and wheat, and were well above average for all grains except flaxseed. Stocks of the latter, although up sharply from last year's record low, were less than one-half of the average holdings for the preceding ten years. Stocks of soybeans, one of the principal oil seeds, were at the lowest level on July 1 since July 1957.

### Stocks of Grain — July 1 —

	1961 Million Bushels	Percent change from 1960
Flaxseed	5	+80%
Rye	14	+34
Oats	324	+21
Sorghum Grain	751	+18
Corn	2,809	+11
Wheat	1,407	+ 7
Barley	152	- 9
Soybeans	94	-31

Substantial quantities of several of the grains in storage on July 1 were being held in inventory by the Commodity Credit Corporation, or subject to price-support loan or purchase agreements. For example, about nine-tenths of the wheat and sorghum grains, over two-thirds of the corn, and about one-half of the barley in storage on that date was held subject to such agreements.

The 15-percent reduction indicated in the production of feed grains this year will make a dent in total supply, despite unprecedented holdings of corn and sorghum grains. The total supply of feed grains for the feeding season starting October 1 is expected to be about 20 million tons, or 9 percent, less than the record supply of last year. If total utilization exceeds the 1961 crop, as is now anticipated, a reduction in carryover from the record level of this year would occur. This would represent the first decline in feed grain stocks since 1951-52.

Food grain supplies also will apparently register a modest decline from the high of last year. Despite a record carryover of 1.4

billion bushels, total supplies of wheat (the principal food grain) for the year that began July 1 are expected to be down somewhat from 1960. The 11-percent reduction in wheat output indicated for this year is due to smaller winter wheat and spring crops, with declines amounting to 4 percent and 40 percent, respectively, from last year. The reduction in total supplies of wheat in 1961 will mark the first time since 1957 that supplies have been smaller than in the previous year.

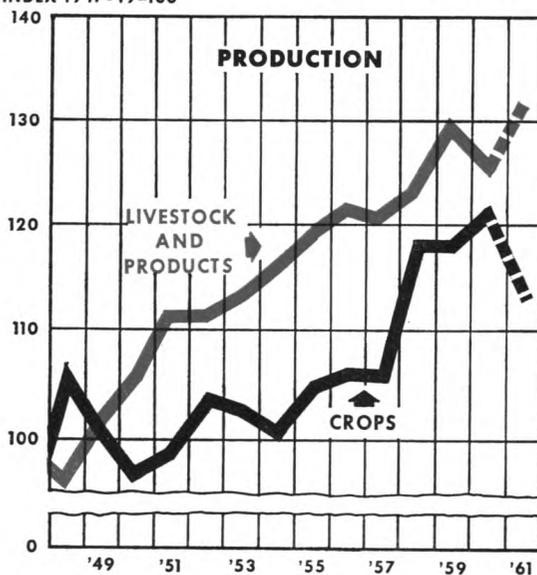
The expected 20-percent reduction in the output of rye will more than offset a 2-percent rise in the rice crop and thus contribute further to the over-all reduction in food grain supplies.

### Output of Livestock Expands

The total output of livestock and related products in 1961 is expected to be up about 5 percent from the reduced levels of last year. The expected increase will bring the total output of livestock and products to a new high, as indicated in the accompanying chart.

*The prospective 1961 gain in output of livestock and products will be less than the expected decline in volume of crops.*

INDEX 1947-49=100



The expansion thus far this year has been centered chiefly in dairy products, beef, and poultry meat. The production of milk has been running about 1 percent above a year ago. Supplies of beef during the first half of the year are reported to have totaled about 5 percent more than they did a year earlier. Poultry meat supplies have averaged nearly 20 percent larger than a year earlier.

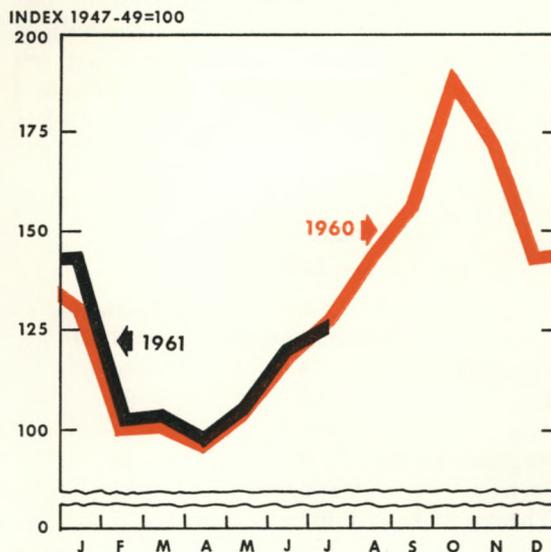
The output of pork and eggs fell short of year-earlier levels during the first six months of 1961. However, pork supplies are expected to expand during the fall and exceed year-ago supplies as a 7-percent larger spring pig crop starts to market. Moreover, egg supplies are expected to be at record levels during the second half, although egg production during the remainder of the year will be seasonally smaller than in the first half of the year.

The anticipated increase in the total output of livestock and products will not be sufficient, however, to compensate fully for the shrinkage expected in the volume of crops. As suggested earlier, total farm output in 1961 may therefore be down 2 or 3 percent from the record volume of 1960. This reduction in output will probably be reflected in some reduction in marketings during the final six months of the year.

### Marketings Off From Advanced Levels

Marketings of farm products, which were running above year-ago levels earlier this year, have been about on a par with year-ago volume since May, as shown in the chart. Moreover, because of the reduction in output that is now in prospect, it seems probable that marketings later this year will fall below 1960 levels. Any shrinkage in the volume

## VOLUME OF FARM MARKETINGS All Commodities



*Farm marketings have been above year-ago levels so far in 1961, but in coming months may drop below 1960 levels due to the reduction anticipated in farm output.*

of marketings from year-earlier levels will almost certainly be accompanied by some strengthening in the prices received for farm products, as both domestic and foreign demand appear likely to be sustained.

The recent upturn in economic activity will tend to support consumer demand in the domestic markets. Foreign takings of agricultural products have been running at record levels during the first half of this year, and trade analysts anticipate continued strength in the demand from foreign markets for farm products.

# Progress of the Highway Program

**W**HEN the Bureau of Public Roads took inventory on June 30, it found that motor vehicles were able to travel on 27 percent of the 41,000-mile National System of Interstate and Defense Highways. In addition to the sections already opened to traffic, work was reported under way on another 37 percent of the highway network. Thus, by midyear 1961, work was either completed or in progress on nearly two-thirds of the largest single construction program ever launched by a nation during peacetime. The table on page 16 shows the financial and work status of the Interstate System as of June 30, 1961.

Although the Interstate System will account for only a small share (1.2 percent) of total road, street, and highway mileage in the United States, it is expected to carry 20 percent of the nation's vehicular traffic in 1975. The Interstate System will link the largest metropolitan areas and industrial centers (connecting 90 percent of all cities with populations of 50,000 or more persons); it will connect with routes of continental importance in Canada and Mexico; and it will join 42 state capital cities. Design features of the highway network include limited access from intersecting routes as well as freedom from intersections, traffic lights, stop signs, steep grades, and sharp curves.

When completed, approximately 30,000 miles of the highway network will have been built on new locations, with the remaining 11,000 miles located on existing highway routes, including 2,270 miles of toll facilities. Well over one-half of the mileage will be 4-lane, limited-access expressways. Much of the remaining mileage will have 6 or 8 lanes, while approximately 5 percent of the total completed network will have 2 lanes (in less traveled areas).

Nearly \$11.2 billion has been spent or committed to be spent for construction under the expanded Interstate Program<sup>(1)</sup> established in 1956 (about \$9.6 billion from the Federal Highway Trust Fund and the remainder from state and local sources. However, only 58 percent (6,278 miles) of the 10,825 miles open to traffic on June 30 had been constructed under the Interstate program, most of it under the Federal-state cost sharing program (90 percent and 10 percent, respectively) launched in 1956. An additional 2,287 miles had been constructed and financed by the states and local governments, under other programs and mostly before 1956, although in many cases with some type of Federal assistance. The remaining 2,270 miles of the Interstate System open to traffic are state toll facilities incorporated into the national system. The toll roads were constructed independently of the Federal program, mostly before 1956, and were not eligible for Federal assistance.

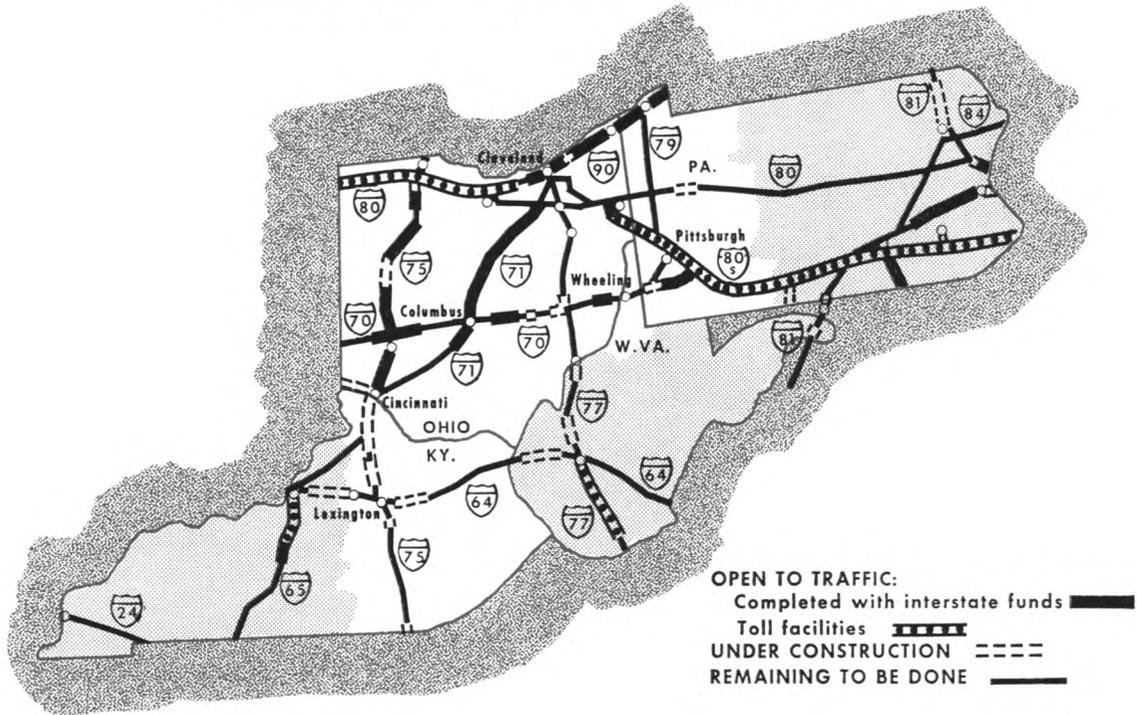
## The Federal Highway Trust Fund and System Financing

Although the National System of Interstate and Defense Highways was created originally in 1944, there was little direct participation in the program by the states prior to new legislation in 1956. As indicated above, virtually all of the Interstate mileage that was in existence before 1956 had been constructed under various state, local or other government-sponsored programs, and was incorporated in the Interstate System later on.

Lack of broad participation in the 1944 Program prompted Congress, in 1956, to launch a vast new program for improving

<sup>(1)</sup> The Interstate System was legislated originally in the Federal-Aid Highway Act of 1944.

## INTERSTATE LINKS WITHIN THE FOURTH DISTRICT



Source of data: U. S. Department of Commerce, Bureau of Public Roads.

and modernizing the entire Interstate System. Thus, the Federal-Aid Highway Act of 1956 established the present long-range construction program for the Interstate System, and, at the same time, authorized funds for the continuation of a long-standing program of Federal aid to primary and secondary highway systems and their urban extensions (the so-called ABC program).

The comprehensive highway program established in 1956 retained the basic concept of the 1944 program but created an entirely new set of financing principles. Among the significant changes from previous legislation was the fact that Congress departed from its traditional practice of making biennial authorizations for Federal aid to highways. Instead, the act granted the expenditure of \$25 billion over a 13-year period, with construction to be completed in all states by

1972. Moreover, in order to encourage early completion of the Program as well as to provide greater incentive to the states to participate fully, Congress increased Federal participation in meeting the costs of construction (including acquisition of right-of-way) from 50 percent to 90 percent.

Still another change was the establishment of a pay-as-you-go financing plan, with revenues to come from a group of excise taxes on highway users. A Federal Highway Trust Fund was created as a depository for earmarked excise tax receipts, with all Federal spending for the Interstate and other highway projects to come from the accumulated revenues of the Fund. Prior to 1956, none of the Federal excise taxes was specifically earmarked for highway construction, being instead commingled with other revenues in the general fund of the Treasury.

## Revenues of the Highway Trust Fund

In line with the thesis that highway users should pay for the cost of highway construction, Trust Fund revenues are derived from user excise taxes levied on motor fuels, motor vehicles, and associated products. Several of the excise taxes were in force as sources of general revenue before the 1956 highway legislation; others were originated with the new program. Highway legislation in 1959 and 1961 adjusted tax rates and diverted additional revenues to the Fund.

The highway user taxes associated with the revenues of the Highway Trust Fund are as follows:

Gasoline and other motor fuel: 2 cents per gallon before the 1956 act; raised to 3 cents in 1956; raised to the present 4 cents per gallon in 1959 (the 1-cent increase in 1959 was scheduled to expire June 30, 1961, however, the 1961 act extended the increase to October, 1972).

Trucks, buses, and trailers: 8 percent of the manufacturer's sales price prior to 1956; raised to 10 percent in 1956 (one-half of the receipts go to the Trust Fund and the balance is deposited in the general fund of the U. S. Treasury).

Tires: 5 cents per pound before 1956; raised to 8 cents per pound in 1961 (tires for highway vehicles only).

Tread rubber: no tax before 1956, 3 cents per pound levied by the 1956 act; raised to 5 cents per pound in 1961 (applies to the type used on highway vehicles).

Innertubes: 9 cents per pound; raised to 10 cents in 1961.

Vehicle use (over 26,000 pounds gross weight): no tax before 1956; annual tax of \$1.50 per 1000 pounds levied in 1956; raised to \$3.00 per 1,000 pounds in 1961.

Automobiles, parts and accessories: Of the 10 percent tax on the manufacturer's wholesale price on automobiles, one-half accrues to the Trust Fund for fiscal years 1962, 1963 and 1964; of the 8 percent tax on the manufacturer's wholesale

price on parts and accessories, five eighths accrues to the Trust Fund for the fiscal years 1962, 1963 and 1964. The revenue from the latter two excises normally accrue to the general fund of the U. S. Treasury.

The excise tax on gasoline and other motor fuels represents by far the most important source of revenue for the Trust Fund, as shown in Table 2.

**Table 2**  
**TAX REVENUES OF THE HIGHWAY TRUST FUND**

Source	Actual Receipts fiscal 1957-60 (in millions of dollars)	% of Total
Motor Fuel	\$6,625	81.6%
Tires	866	10.7
Inner Tubes	51	0.6
Tread Rubber	51	0.6
Trucks, Buses and Trailers	394	4.8
Vehicle Use	131	1.6
<b>Total</b>	<b>\$8,118</b>	<b>100.0%</b>

Source: U. S. Department of Commerce,  
Bureau of Public Roads

It was estimated in 1956 that the various highway user taxes will provide about \$36.7 billion in revenues for fiscal years 1957 through 1973. The Federal Government was scheduled to contribute \$25.1 billion of this amount to the Interstate program, with the balance going to other Federal-aid highway projects. The funds authorized, when combined with state matching funds, were considered to be sufficient to complete the entire network. However, a re-evaluation of Interstate System costs, submitted to the Congress in January, 1958, revised upward the total cost figure to \$41 billion, with the estimated Federal share rising to \$37 billion.<sup>(2)</sup>

There are a number of reasons for the \$12-billion differential between the two sets of estimates (1956 and 1958). For example,

(2) A second re-evaluation of costs submitted to Congress in January 1961 showed no appreciable change from the 1958 cost estimate.

**Table 1**  
**PROGRESS OF THE NATIONAL INTERSTATE AND DEFENSE HIGHWAY SYSTEM**  
**As of June 30, 1961**  
**INTERSTATE SYSTEM FINANCING**  
(in millions of dollars)

	Ohio		Pennsylvania		Kentucky		West Virginia		Total U. S.	
	Total Cost	Federal Funds	Total Cost	Federal Funds	Total Cost	Federal Funds	Total Cost	Federal Funds	Total Cost	Federal Funds
Projects Under Way <sup>1</sup> .....	\$222.5	\$195.0	\$181.9	\$162.9	\$121.2	\$108.1	\$ 73.7	\$ 64.7	\$5,936.4	\$5,113.6
Construction.....	157.9	136.8	126.1	112.8	75.4	67.8	49.3	43.7	3,709.1	3,294.8
Engineering <sup>2</sup> .....	64.6	58.2	55.8	50.1	45.8	40.3	24.4	21.0	2,227.3	1,818.8
Projects Completed.....	500.3	439.7	271.8	234.0	89.7	78.2	36.0	31.7	5,254.8	4,475.5
Construction.....	357.6	311.9	228.3	195.0	75.1	66.3	31.0	27.5	4,203.2	3,611.5
Engineering <sup>2</sup> .....	142.7	127.8	43.5	39.0	14.6	11.9	5.0	4.2	1,051.6	864.0

### INTERSTATE SYSTEM MILEAGE

	Ohio		Pennsylvania		Kentucky		West Virginia		Total U. S.	
	Miles	% of State System Total	Miles	% of State System Total	Miles	% of State System Total	Miles	% of State System Total	Miles	% of Nat'l System Total
Open to Traffic.....	567.3	38.2%	606.0	39.3%	71.0	10.2%	97.0	25.2%	10,825.4	26.7%
Completed.....	355.2	23.9	242.2	15.7	22.9	3.3	0.3	0.1	5,550.1	13.7
Improved <sup>3</sup> .....	37.6	2.5	1.7	0.1	8.5	1.2	10.8	2.8	3,005.4	7.4
Toll Facilities.....	174.5	11.8	362.1	23.5	39.6	5.7	85.9	22.3	2,269.9	5.6
Work in Progress.....	530.3	35.7	461.5	29.9	261.9	37.6	106.9	27.8	14,899.3	36.7
Under Construction...	92.8	6.3	125.2	8.1	124.8	17.9	52.7	13.7	4,846.8	11.9
Engineering <sup>2</sup> .....	437.5	29.4	336.3	21.8	137.1	19.7	54.2	14.1	10,052.5	24.8
Remaining Mileage.....	386.3	26.1	473.8	30.8	363.2	52.2	180.7	47.0	14,884.4	36.6
Total Mileage.....	1,483.9	100.0	1,541.3	100.0	696.1	100.0	384.6	100.0	40,609.1 <sup>4</sup>	100.0

(1) Projects that are already under way or authorized.

(2) Includes acquisition of right-of-way.

(3) Improved to standards adequate for present traffic.

(4) The system is limited to 41,000 miles. The small balance is held in reserve for purposes of adjustment as final locations are selected.

Source: U. S. Department of Commerce, Bureau of Public Roads

highway construction costs were reported to have increased 12 percent following the first estimates. In addition, traffic increased at a greater rate than was forecast in 1955, which required expansion or adjustment of various facilities. Another factor contributing to the greater cost was the addition of 1,000 miles to the system in 1956, which was not included in the first cost estimate. (Under the 1956 act, the system was expanded to 41,000 miles from the 40,000 set in 1944.) Still another source of increased expense arose from the 1956 requirement that local needs should be carefully considered; thus, a larger number of costly grade separations, interchanges, and extended urban facilities were introduced than had been anticipated in 1955.

Revenues provided by the 1959 act alleviated the short-term financing problems previously experienced by the highway program; however, it was not until 1961 that the long-term financing problem was resolved. The revenue measures adopted by Congress in the Federal-Aid Highway Act of 1961, which was signed into law on June 29, provided the Trust Fund with \$11.5 billion in additional road-building funds. The additional revenues will bring total receipts of the Fund for fiscal years 1957 through 1972 to an estimated \$54.8 billion. The Federal contribution will be raised to the \$37 billion suggested by the 1958 and 1961 cost studies as being adequate to meet the Federal share of the 41,000-mile system. Other Federal-aid highway programs are scheduled to receive the balance of the revenues accruing to the Fund.

Approximately three-fourths of the additional revenues needed by the Federal Highway Trust Fund to meet increased costs will come from rate increases in a number of user tax levies and the extension of the one-cent increase in the motor fuel tax levied in 1959.

The remaining one-fourth will come from the general fund of the Treasury, as all of the revenues from the 10-percent manufacturer's excise tax on trucks, buses, and trailers will be channeled to the Federal Highway Trust Fund. One-half of these revenues already are diverted into the highway fund.

## Disbursements<sup>(3)</sup> of the Federal Highway Trust Fund

Revenues apportioned from the Trust Fund are not advanced directly to the states to build Interstate Highway projects; instead, the funds are used to reimburse the states for 90 percent of the cost of an approved project when it has been completed to established standards (the individual states absorb the balance of the cost). Apportionment among the states is made on the basis of the amounts needed to complete the respective shares of the System by 1972. In contrast, funds for other Federal-aid programs are apportioned among the states according to a traditional formula based on population, area, and the mileage of rural-postal routes within the states. The break with tradition in apportioning Federal funds represents an attempt to allow for the great variation in the cost of the Interstate System among the various states, and to help assure simultaneous completion of the program in all states by 1972.

Each state receives an annual apportionment equivalent to its proportion of the total cost estimate, as determined by the Bureau of Public Roads in cooperation with the state highway departments. In the cooperative program, the states have both the initiative and the responsibility for the selection, design, and construction of the particular Interstate projects. Both the design and costing of the projects are based on established criteria, and are subject to review and approval at each stage by the Bureau of Public Roads.

Broadly speaking, differences in climate, topography, and the degree of urbanization among the various states cause substantial variation in the costs of building each mile of the highway network. Furthermore, costs of building even vary greatly within a state; costs tend to be especially high in the heavily

(3) There are a number of stages in the process of disbursing funds for the Interstate Highway Program. First, Congress must authorize the collection of revenues to support the program. Secondly, the revenues must be apportioned, or allocated, among the various states participating in the program. Then, the states are free to commit such funds to various projects. However, the states are not reimbursed for the Federal share of the projects until the project is completed.

urbanized areas, and relatively less expensive in rural areas. For example, in Cuyahoga County in Ohio, the cost of building one mile of the Interstate network ranges from an estimated \$25 million in the urban area — Cleveland—to \$3 million in the suburbs. In the rural areas adjacent to the center the estimated cost per mile drops to \$1.25 million. In rural areas of the state that are not located near a large urban center, the estimated cost per mile is about \$1 million. (Most of the cost differential within the state can be attributed to the differences in the cost of acquiring the right-of-way as well as the number and types of structures required.) It has been estimated that while only 11 percent of the entire highway network is in urban areas, such mileage will require approximately 42 percent of the Interstate funds.

On January 1, 1961, apportionment of the Interstate System's share of Federal-aid funds, under the Federal-Aid Highway Act of 1956 as amended, had totaled \$11.7 billion. (The figure includes apportionments for fiscal years 1957 through 1962.) As of that date, \$4.0 billion of the total had been disbursed to the states for work completed, and an additional \$4.5 billion in Federal-aid funds had been committed to the states for work either programmed or under way. The balance of the apportioned funds (\$3.2 billion) was available, but as yet had not been committed for Interstate projects.

The \$3.2 billion in uncommitted funds represented an amount equal to the total apportionment for fiscal year 1962 plus 63 percent of the 1961 apportionment. Since over one-half of all contracts for highway construction are let in the spring, it appears that, on balance, the states are utilizing Federal-aid highway funds at about the same rate as they are being apportioned. However, the figures on individual states show that eight of the states (California, Connecticut, Florida, Hawaii, Kentucky, Michigan, New York and Ohio) were building their portions of the System ahead of schedule. By January 1, 1961, the eight states had committed all their 1961 funds and some portion of the funds appor-

tioned to them for fiscal 1962. In contrast, 21 states still had in the form of uncommitted funds the equivalent of two or more years' apportionments.

### **Status of the Interstate Network in the Fourth District**

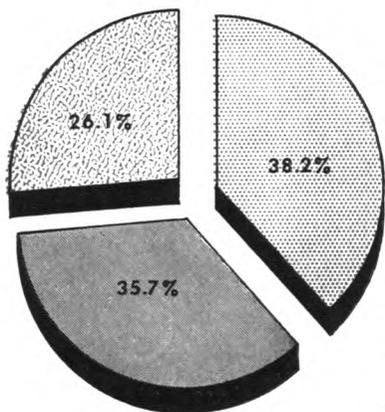
As shown in the accompanying chart, of the four states located wholly or partially within the Fourth District, Ohio has made the most progress toward completing its share of the Interstate System. Ohio either has completed or has in progress 74 percent of its share, which is well above the 63-percent average of all states. Pennsylvania is a close second to Ohio, with work completed or in progress on 69 percent of its segment of the net work. West Virginia and Kentucky are somewhat below the national average, with work completed or in progress on 53 percent and 48 percent, respectively, of their shares of the Interstate System. The accompanying map shows the location of the interstate routes which traverse the four States in the Fourth District.

*Ohio.* On June 30, about 38 percent of the 1,484 miles of designated Interstate mileage within Ohio was open to traffic. Included in the open mileage were 355 miles of travelway completed to 1975 standards (only Texas and Michigan have more miles of completed travelway.) Ohio also has an additional 38 miles of highway improved to standards considered adequate for present traffic conditions. The remaining 175 miles open to traffic are toll facilities which are not eligible for reimbursement by the Trust Fund. In addition to mileage open to traffic, construction and engineering work was in progress on 530 miles of the system. Thus, as of June 30, Ohio had 386 miles, or only 26 percent, of its share of the Interstate System remaining to be started.

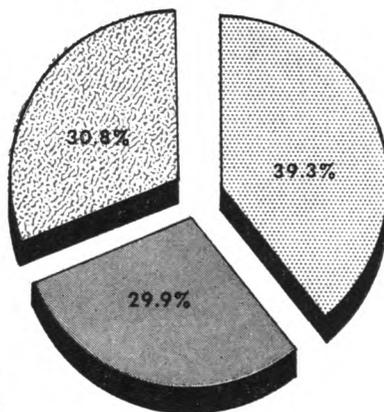
Another indication of the brisk pace of construction in Ohio is provided by the fact that, as of the first of this year (the halfway mark of fiscal 1961) the state had committed

**Within the Fourth District, Ohio and Pennsylvania so far have made the greatest progress toward completing their designated shares of the National Interstate Highway System.**

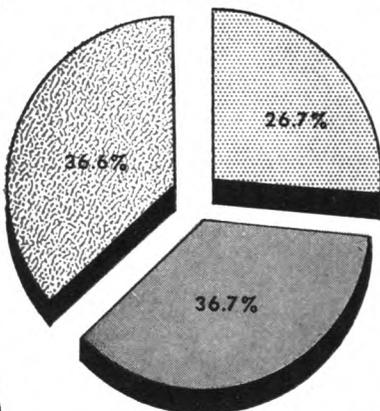
**OHIO**



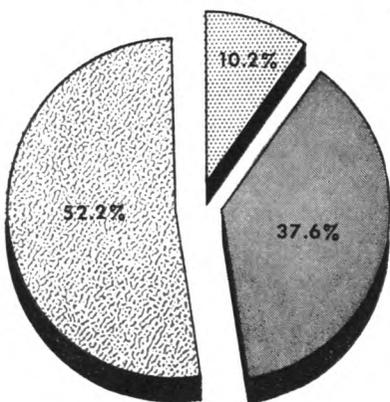
**PENNSYLVANIA**



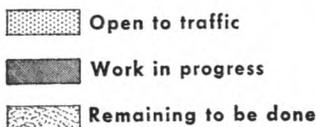
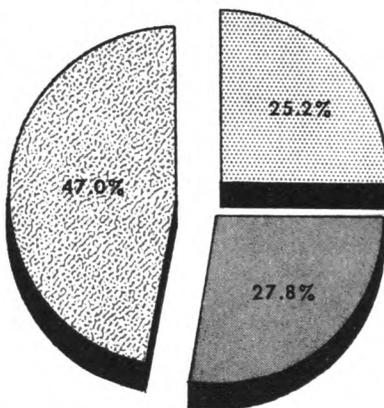
**UNITED STATES**



**KENTUCKY**



**WEST VIRGINIA**



**NOTE:** The respective percentages are based on the number of miles designated in the highway program for the United States and for each state: U. S. 40,609 miles; Pennsylvania, 1,541 miles; Ohio, 1,484 miles; Kentucky, 696 miles; and West Virginia, 385 miles.

Source of data: U. S. Department of Commerce, Bureau of Public Roads.

all of its 1961 Federal-aid allocation and 55 percent of the funds apportioned for fiscal year 1962. The uncommitted balance amounted to only 9.9 percent of the total apportionment to date, as compared to the national average of 27.1 percent. Parenthetically, it may be noted that Kentucky, with a balance

of 10.4 percent in uncommitted funds, came closest among the District states to matching the pace of commitments made by Ohio. In contrast, Pennsylvania had 35.7 percent and West Virginia 40.4 percent of their total authorizations remaining in the form of unobligated balances.

For the period July 1, 1956, through June 30, 1961, Ohio had spent on Interstate projects a total of \$723 million. Construction amounting to \$500 million had been completed by June 30, 1961, with the remaining \$223 million committed to projects either under way or programmed. Federal-aid funds covered about \$635 million of the total cost of construction.

*Pennsylvania.* On June 30, Pennsylvania had 39 percent of its share of the Interstate System open to traffic, as compared with the national average of 27 percent. Of the total mileage (606 miles) completed, 362 miles are toll facilities which were built prior to the 1956 act and incorporated in the network—about twice the amount of mileage of toll facilities included in Ohio, and, on a percentage basis, about four times the national average. Of the other 244 miles opened to traffic, 242 miles had been completed to 1975 standards and 2 miles had been improved sufficiently to accommodate current traffic flow. As of June 30, work was in progress on an additional 462 miles of the network, leaving 474 miles, or 31 percent, of the 1,541 miles of the Interstate System within Pennsylvania remaining to be started. (The Pennsylvania segment of the Interstate Highway System is the fourth largest in the nation, exceeded only by the mileage within Texas, California and Illinois.)

The significance of the extensive mileage of toll facilities incorporated in Pennsylvania's share of the network may be measured by the fact that, while the state had a larger percentage of its work completed or under way than was the case nationally, the state had a larger ratio of uncommitted Interstate funds. The \$194 million in uncommitted funds is in excess of the apportionments to the state for fiscal years 1961 and 1962, combined, and amounts to 36 percent of total apportionments to date. Furthermore, the unused balance is the largest dollar total of available funds held by any state in the nation.

During the period July 1, 1956 through June 30, 1961, Pennsylvania had completed \$272 million in projects under the Interstate program, and had committed an additional \$182 million to projects that were authorized or under way. The Federal Government is obligated to reimburse the state for \$397 million of the \$454 million total cost.

*Kentucky.* While Kentucky has less of its Interstate mileage opened to traffic than do other states in the District, it has started a larger percentage of its share of the highway network. (See chart). On June 30, Kentucky had only 10 percent of the 696 miles of Interstate travelway open to traffic, with 40 miles consisting of toll facilities incorporated in the network.

By January 1, Kentucky had obligated all but 10.4 percent of the Interstate funds it had been apportioned. It was one of only eight states that had committed all of the fiscal 1961 Federal-aid apportionment and a portion of the funds for fiscal year 1962. The relatively large amount of committed funds, coupled with the relatively large amount of work in progress, suggest that Kentucky will soon overcome an apparent slow start toward completing its share of the highway network.

*West Virginia.* As of June 30, about 25 percent of the 385-mile segment of the Interstate System in West Virginia was open to traffic. However, virtually all of the mileage consisted of toll facilities. Less than 11 miles of the 97 miles open to traffic were constructed under the Interstate program, although work is in progress on 107 miles of the travelway. The remaining 118 miles, or 47 percent, of the network had not been started as of June 30.

As of January 1, 1961, West Virginia had more of its apportioned Interstate funds in the form of uncommitted balances than did any of the other states in the Fourth District. At that time, the dollar magnitude was in excess of two years' apportionment, and accounted for two-fifths of the Federal aid apportioned to West Virginia to date.