

THE FEDERAL-AID HIGHWAY PROGRAM

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The Federal-Aid Highway Act of 1944 may be considered the third major milestone in Federal highway legislation. The first was the Federal-Aid Road Act of July 11, 1916, which launched the Federal Government on a nation-wide cooperative plan of highway improvement. A vital feature of this first act was that the Federal Government was "-- authorized to cooperate with the States through their respective State highway departments --." Another wise provision was "that all roads constructed under the provisions of this act shall be free from tolls of all kinds."

The second important milestone was the Federal Highway Act of 1921. This act was passed after hearings at which two schools of thought were ably represented. One school advocated construction and maintenance at Federal expense of a limited system of national highways. The other advocated a continuation of the cooperative Federal-aid plan with initiative in the selection of projects resting with the State highway departments. The cooperative plan prevailed and has not since been seriously questioned. A notable feature of this 1921 act was provision for selection by the State highway departments with approval by the Federal Bureau of a Federal-aid highway system, frequently referred to in the ensuing years as the "7 percent system" because of an initial limitation of the mileage to 7 percent of the total highway mileage within each State.

In the years between 1921 and 1944, there were a number of perfecting amendments which strengthened the legislation and facilitated the highway program. One of these changes removed the limitation on the amount of Federal participation per mile which the original act had placed at \$10,000. This, with the more recent provision for participation in the cost of surveys and plans and rights-of-way, now permits full financial partnership. Another amendment removed the restriction on the use of Federal-aid funds within municipalities of over 2,500 population. Another - the so-called anti-diversion provision - expressed the policy that all road-user revenues should be used for highway purposes. Still another, recognizing the hazards to life and impediments to highway traffic existing at railway grade crossings, authorized the use of Federal-aid funds to the extent of 100 percent of the construction costs for the elimination or protection of such crossings. By far the most important change, however, was the provision first carried in Section 11 of the Act of June 18, 1934, authorizing the use of 1½ percent of the Federal-aid apportionment to any State for engineering and economic studies for advance planning. The fact-finding studies which were inaugurated under this provision came to be known as "State-wide Highway Planning Surveys." The wisdom of this provision has been amply demonstrated, and the "planning surveys" are continuing to pro-

vide the information so vital and essential to the sound planning of our annual and long-range highway programs.

These "surveys" provided the fundamental information of our highway needs which, when presented to the road committees of the Congress by representatives of all the States in the hearings initiated in the winter of 1943, resulted in the enactment of the Federal-Aid Highway Act of 1944.

This act is the third major milestone in Federal highway legislation. For the first time it provides for cooperation with the States in a completely integrated program of highway improvement involving urban as well as primary and secondary rural highways. Under its provisions, the following activities have been initiated:

1. The selection of a system of principal secondary and feeder roads by the State highway departments in cooperation with local authorities. The proper selection of the secondary system has necessitated a review and some revision of the Federal-aid primary system.

2. The delineation by the State highway departments of urban areas "including and adjacent to a municipality or other urban place of 5,000 or more population" and the selection of an urban highway system on which the urban funds provided by the act are to be expended.

3. The selection of a national system of interstate highways not exceeding 40,000 mi. to connect the principal metropolitan areas, cities, and industrial centers, to serve the national defence and to connect at suitable border points with routes of continental importance in the Dominion of Canada and the Republic of Mexico.

4. The programming and construction of the three categories of projects by the State highway departments, utilizing funds authorized by the act.

It is the principal purpose of this paper to discuss the progress that has been made in carrying forward these several programs. The Federal-Aid Highway Act of 1944 was approved December 20, 1944. It authorized $1\frac{1}{2}$ billion to be appropriated to become available at the rate of 500 million a year for each of three successive postwar fiscal years. The 500 million authorized for each fiscal year was divided as follows:

\$225,000,000 a year for projects on the Federal-aid highway system to be apportioned in accordance with Section 21 of the Federal Highway Act of 1921 as follows:

One-third in the ratio which the area of each State bears to the total area of all States; 1/3 in the ratio which the population of each State bears to the total population of all the States as shown by the latest available Federal Census; 1/3 in the ratio which the mileage of rural delivery routes and star routes in each State bears to the total mileage of rural delivery and star routes in all the States.

\$150,000,000 a year for projects on the secondary and feeder road system to be apportioned in the following manner:

One-third in the ratio which the area of each State bears to the total area of all the States; 1/3 in the ratio which the rural population of each State bears to the total rural population of all the States, as shown by the Federal census of 1940; and 1/3 in the ratio which the mileage of rural delivery and star routes in each State bears to the total mileage of rural delivery and star routes in all the States.

\$125,000,000 a year for urban highway projects to be apportioned

among the States in the ratio which the population in municipalities and other urban places, of 5,000 or more, in each State bears to the total population in municipalities and other urban places, of 5,000 or more, in all the States as shown by the latest available Federal Census.

The act provided that "the first post-war fiscal year shall be that fiscal year which ends on June 30 following the date proclaimed by the President as the termination of the existing war emergency, or following the date specified in a concurrent resolution of the two Houses of Congress as the date of such termination, or following the date on which the Congress by a concurrent resolution of the two Houses finds as a fact that the war emergency hereinbefore referred to has been relieved to an extent that will justify proceeding with the highway construction program provided for by this Act, whichever is the earliest."

It further provided that the authorization for the first postwar fiscal year should be apportioned among the States within 30 days of the passage of the act. The actual apportionment was made on January 6, 1945. On October 2, 1945, the Congress by a concurrent resolution found that the war emergency had been relieved to an extent which justified proceeding with the postwar highway construction program authorized in the act, and actual construction with postwar funds was thus authorized. The authorization for the second postwar fiscal year was apportioned among the States on May 13, 1946, and the authorization for the third postwar fiscal year was apportioned on May 12, 1947.

SELECTION OF SECONDARY SYSTEM

The regulations covering the selection of the secondary system

as provided in Section 3 of the act were developed by the Public Roads Administration in cooperation with the State highway departments. The two principal requirements were, first, that the principal secondary roads selected shall constitute, with the primary roads of the State, an integrated system; and second, that the extent of the system shall be consistent with the anticipated finances available for its improvement. No specific mileage limitation was imposed on the extent of the system. In conformity with the provisions of the act, emphasis has been given to the fact that the system should consist of the principal secondary and feeder roads. This means that the system is being selected to extend out from market areas in order to provide the maximum of farm-to-market service per mile. Cooperation of the State highway departments with local officials as required by the act has been very satisfactory.

In the selection of the secondary system, a number of States have made a review of their Federal-aid highway system with the result that some mileage has been shifted to the secondary system and other more important mileage added to the Federal-aid system. The Federal-aid highway system now comprises 232,297 miles.

On October 1, 1947, secondary system routes totaling 358,993 mi. in the 48 States, the District of Columbia, Hawaii, and Puerto Rico had been approved and an additional 5,675 mi. were under review by the Public Roads Administration preliminary to approval. In selecting a secondary system, most of the States developed over-all formulas covering the geographical distribution of the mileage. Various factors were used in 42 States out of 46 States for which the data have been analyzed. The following factors appear with the indicated frequency: Area (either total or rural), 32;

rural population, 30; vehicle miles of travel on all or part of the rural roads, 24; rural route mileage, 21; vehicle registration, 8; property value, 7; value of farm products, 6; number of farms, 5; other, 4.

URBAN AREAS

The act defined an "urban area" as an area including and adjacent to a municipality or other urban place, of 5,000 or more, the population of such included municipality or other urban place to be determined by the latest available Federal census. It also provided that the boundaries of urban areas would be "fixed by the State highway department of each State subject to the approval of the Public Roads Administration." According to the 1940 Federal census there are 2,070 urban places or municipalities in the United States of more than 5,000 population. As of October 1, 1947, all but 61, or 2,009 of these urban communities, had been included in 1,595 approved urban areas. Each area had to include at least the incorporated area of the municipality but could extend outside the corporate limits to include areas which are urban in character. Satellite communities, such as city suburbs in a metropolitan area, could be included regardless of size. In the Los Angeles urban area 35 places were included, of which 30 are cities of over 5,000 population. Thus, by the establishment of these urban areas, highway planning for the whole community without regard to corporate boundaries and political subdivisions is being facilitated.

FEDERAL-AID URBAN HIGHWAY SYSTEM

Although restriction on the use of Federal-aid funds on extensions of rural Federal-aid routes into or through municipalities was removed

in 1934, the 1944 act carried the first authorization of funds for a Federal-aid highway system in urban areas, restricted to that purpose. This urban Federal-aid system will ultimately consist of the important arterial routes in the urban highway and street network. The ultimate system will be determined by study of the Federal-aid, Federal-aid secondary and State highway system extensions within urban areas, and all other routes of primary arterial significance for the service of traffic within such areas. Important arterials whose early and substantial improvement will be of greatest benefit to the urban area are being selected to form an interim system sufficient in extent to permit reasonable latitude in the programming of available Federal funds for a 6- to 8-year period.

INTERSTATE SYSTEM

Section 7 of the act provided for the designation within the continental United States of a "National System of Interstate Highways not exceeding 40 thousand miles in total extent so located as to connect by routes, as direct as practicable, the principal metropolitan areas, cities, and industrial centers, to serve the national defense, and to connect at suitable border points with routes of continental importance in the Dominion of Canada and the Republic of Mexico." This provision was the outgrowth of the report of the National Interregional Highway Committee which was transmitted to the Congress by the President on January 12, 1944. In the year following passage of the act, all of the States submitted their selection of routes for inclusion in the National Interstate System. Subsequently, conferences between representatives of the State highway departments and Public Roads Administration were held to adjust differences concerning al-

ternate routes and connections at State boundaries. The system as finally agreed upon was approved August 2, 1947. This system, which includes diagonal as well as north-and-south and east-and-west routes, will make it possible to travel from any section of the country to any other section by a direct route. As approved, the system includes 37,681 mi., including 2,882 mi. of urban highways. A reserve of 2,319 mi. is available for the later designation of additional urban circumferential and distributing routes. While the rural sections of the Interstate System comprise only 1.1 percent of all rural routes, it is estimated that they will carry 20 percent of all rural traffic. The system will serve directly 42 State capitals and 182 of the 199 cities in the country having a population of 50,000 or more.

Design standards for the system, which were approved on August 1, 1945, by the American Association of State Highway Officials, provide for 4-lane divided highways for a traffic volume of 800 motor vehicles in peak hours. In rural areas a right-of-way of 250 ft. is advocated. Traffic lanes 12 ft. wide are recommended for all heavily traveled sections, and, where traffic exceeds 3,000 vehicles in peak hours, elimination of all cross traffic at grade is proposed.

No separate funds for the development of this system are provided. It is part of the Federal-aid system and, as such, both the urban and Federal-aid highway system funds are available for its improvement. As of November 1, 1947, over 2,250 mi. of Interstate System improvements financed from postwar Federal-aid highway funds had been programmed for construction at a total cost of \$376,000,000, with Federal funds amounting to \$191,000,000.

FEDERAL-AID FISCAL PROCEDURE

The Federal-aid highway program in each State is made up of a number of individual projects in all stages from the initial programming to completion. On October 1, 1947, there were 12,523 active projects in the several stages. Federal funds are paid to the States covering the Federal pro rata for items of work actually accomplished on individual projects. The successive steps in the fiscal relations between the State and the Public Roads Administration are as follows:

Apportionment The funds authorized for any fiscal year are apportioned among the States in accordance with the prescribed formulas, and the amounts apportioned are set up to the credit of each State.

Programs Following an apportionment, the State highway departments submit programs of projects to be constructed with these funds. These programs are reviewed by Public Roads District Engineers and are forwarded with their recommendations, together with the recommendations of the Division Engineers, to the Washington office for approval. The approval of a program by the Commissioner of Public Roads represents a binding commitment to the State and they may proceed to take the successive steps necessary to place each project under construction. At this stage, funds are reserved on the accounting records of the Public Roads Administration to provide the Federal share of the cost of the project.

Plans Approved When detail plans, specifications, and estimates have been prepared by a State for a project in an approved program, they are submitted to the District En-

gineer of Public Roads for review and approval. Concurrently with approval of plans, specifications, and estimates, the States are authorized to proceed with advertising for bids.

Contracts Awarded After bids are received, the State makes a finding for award or rejection which it submits to the District office of the Public Roads Administration for concurrence. The District Engineer concurs in the award of contracts for Federal-aid projects.

Construction Construction work is supervised by the State highway department and inspected at periodic intervals by field engineers of the Public Roads Administration.

Earned by Work Done Current estimates are maintained of dollar value of work that has been accomplished on all projects placed under construction. The Federal share of the cost of work done is a financial liability payable to the State on demand.

Progress Payments Payments to a contractor on monthly estimates are made by the State from State funds. Any State may receive payment of the Federal share of the cost of work actually accomplished by submitting "progress vouchers." These claims are certified by the Federal District Engineers under whose direction the work is inspected, and payments are made promptly.

Completion and Final Payment A project is reported completed when the major elements of construction are done and the road or bridge is open to traffic. To secure final reimbursement the State then submits vouchers to the Public Roads Administration indicating the various construction items and claiming the Federal portion due but not paid on progress vouchers. Final payment

is not made until the project has been finally inspected and a determination made by field engineers of Public Roads that it was constructed in accordance with the approved plans, specifications, and estimates, and a detailed audit made of the claim in the offices of the State highway department.

CONSTRUCTION PROGRAM

There was an almost unanimous prediction that following cessation of hostilities there would be a period of slack employment while industrial conversion from war to a peacetime basis was underway. It was expected that needed public works and the large highway program authorized would serve to cushion unemployment during this period. Instead, during the two years following V-J Day, the number of gainfully employed increased to an all-time high approximating 60,000,000. During the war only the most urgent highway construction, certified as essential to the war effort, was undertaken. The normal program of replacement and modernization was abandoned. Highway contractors transferred to war work and many did not promptly re-enter the highway field. While demobilization of the armed forces was rapid, the very size of the undertaking made rebuilding of the State highway organizations a slow process. Inadequate pay discouraged many from returning to their former positions. The situation in the immediate post-war period made for a relatively slow start on highway work so urgently needed for recovery from wartime wear and neglect. As the program began to get underway, prices began to rise. Shortages of all sorts and uncertainty of delivery tended to push prices up. In the first full year after the war (1946) highway bid prices averaged 166 percent of comparable work in 1940 and reached 180 percent in the last

TABLE 1
ACTIVE FEDERAL-AID HIGHWAY PROGRAM
As of October 1, 1947

Project Status	No. of Projects	Total Cost \$	Federal Funds \$	Miles	No. of Bridges
Programmed only	5,396	700,000,000	367,000,000	17,706	
Authorized:					
Plans approved, not under contract	1,757	212,000,000	102,000,000	3,825	778
Contracts awarded, not under construction	936	108,000,000	56,000,000	3,100	436
Under construction	4,434	776,000,000	407,000,000	15,068	2,723
Total authorized	7,127	1,096,000,000	565,000,000	21,993	3,937
Total programmed and authorized, not com- pleted	12,523	1,796,000,000	932,000,000	39,699	

quarter. To counteract this spiraling tendency, the State highway departments and Public Roads adopted a very conservative policy. Only the more urgent projects were advanced to construction and then only if analysis showed prices to be reasonable. Much bridge work involving structural steel was deferred since this type of work and structural concrete advanced most in cost.

This conservative policy resulted in the rejection during 1946 of bids for work estimated to cost \$141,000,000, which was about 22 percent of all bids taken, and the amount of work actually placed under contract was only about 40 percent of what the program would have been under favorable conditions. During 1947 an attempt was made to hold the price line and highway costs did not advance much beyond the late 1946 level, even though there have been rather general industrial wage increases.

In spite of these obstacles, very substantial progress has been made in advancing the postwar program. During this past construction season there was a larger volume of

Federal-aid work under construction than at any previous time in Federal-aid history. During the late summer and early fall months the total cost of construction put in place averaged about \$80,000,000 monthly.

The status of all active projects on October 1, 1947, is shown in Table 1.

Data relating to approved railway-highway projects financed from postwar funds and from remaining balances of prewar Federal-aid grade crossing funds are included in Table 1 and shown separately in Table 2.

For the most part the present Federal financing on Federal-aid projects is from postwar funds made available under the 1944 act.

Progress in advancing projects financed from postwar funds has been more rapid for the highway system and secondary funds than for the urban funds. By October 1, 1947, projects utilizing about 67½ percent of the highway system funds and about 65 percent of the secondary funds apportioned for the three postwar fiscal years had been programmed for construction, whereas

TABLE 2
ACTIVE RAILWAY-HIGHWAY PROJECTS APPROVED
As of October 1, 1947

Type of Protection	No. of Crossings	Total Cost \$	Federal Funds \$
Crossings eliminated by separation	192	42,773,000	31,199,000
Crossings eliminated by relocation of highway	26	3,313,000	2,850,000
Signal devices	350	1,973,000	1,814,000
Separation structures reconstructed	49	9,305,000	8,491,000
Total	617	57,364,000	44,354,000

projects covering only 50 percent of the urban funds had been programmed. On the same date, Federal funds allotted to highway system projects approved for construction amounted to 46 percent of the total apportionment of these funds, allotments of secondary funds totaled about 40 percent of the apportionment, and urban funds allotted totaled only about 24 percent of the apportionment. The slower rate of progress in advancing projects financed with urban funds is attributed to the greater amount of advance planning required in connection with the location and design of such projects, to the difficulties inherent in securing rights-of-way in cities, and in some cases to the necessity for advance arrangements relating to the financing of the work.

Figure 1 shows cumulatively, on a Federal fund basis for postwar Federal-aid highway system, secondary and urban funds combined, the apportionments for the fiscal years 1946, 1947, and 1948, and the progress made in advancing projects to October 1, 1947. On that date projects totaling \$904,000,000 in Federal funds have been programmed for construction, and there was an unprogrammed balance of about 546 million available for additional

projects. The total cost of programmed projects was \$1,793,000,000 for 48,000 mi. of construction.

Postwar projects for which plans were approved on October 1, 1947, amounted to \$561,000,000 in Federal funds and \$1,126,000,000 in total cost. The indicated time lag between program approval and approval of plans is about 11 mo. Contracts were awarded on projects costing \$471,000,000 in Federal funds and \$934,000,000 in total cost, and the time lag from plans approved to contracts awarded was about 3 mo. Work is started on projects about 1½ mo. after the contracts are awarded, the cost of projects placed under construction to October 1 amounting to \$422,000,000 in Federal funds and \$838,000,000 total cost for 24,300 mi. of construction.

The work done to October 1, 1947 on projects financed from postwar funds amounted to \$291,000,000 in Federal funds and nearly \$580,000,000 total cost. The time lag between placed under way and earned by work done is about 4 mo. The total payments of postwar funds to States amounted to \$202,000,000, and the lag between earnings and payments was only about 2-2/3 mo. The time lag from plans approved to paid to States was 13 mo., and the total time from initial programming of

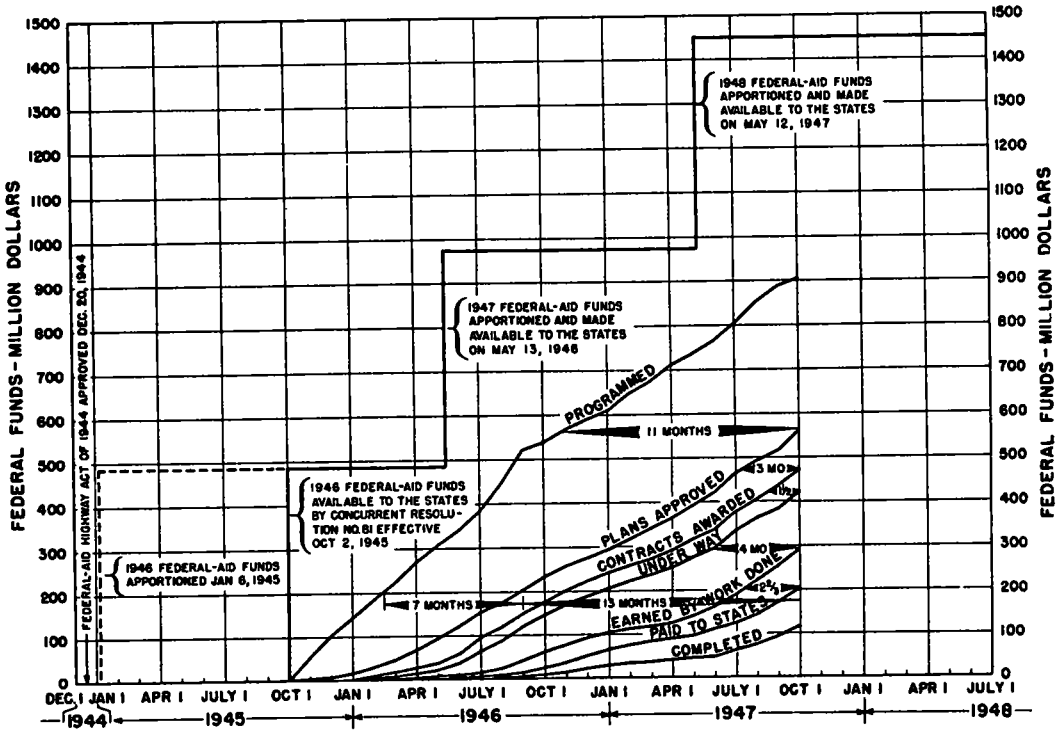


Figure 1. Postwar Federal-Aid Highway Funds

Summary: Federal-Aid Highway System, Secondary and Urban Funds Combined

projects to paid to States for work done was nearly 20 mo.

Postwar projects completed on October 1 involved 10,600 mi. of construction costing \$118,000,000 in Federal funds and \$226,000,000 total cost.

Table 3 provides a summary of the types of improvement approved for construction with postwar funds. Plans were approved by October 1, 1947, for a total of 30,839 mi. of highway improvements. Grading in preparation for future surfacing accounted for 2,985 mi. Surfacing construction, including necessary grading, drainage and other construction items except bridges, provided for 9,764 mi. of soil-surfaced, gravel, or stone road; 14,491 mi. of bituminous surface-treated, mixed bituminous, or bituminous penetration road; and 3,473 mi. of high-type bituminous, portland ce-

ment concrete, brick and block, or combination type road.

Bridge construction totaled 126 mi. and included 4,463 structures. As shown in Table 4, stream crossings accounted for 4,131 of the structures, and there were 97 railway-highway separations, 180 highway-highway separations, and 55 combination structures involving stream crossings, railway-highway separations and highway-highway separations.

Railway-highway improvements approved for construction with postwar Federal-aid funds (Table 5) provide for the elimination of 116 crossings by separation, elimination of 16 crossings by relocation of highway, protection of 112 crossings by flashing lights, short-arm gates, etc., and for the reconstruction of 25 separation structures.

TABLE 3
 TYPE OF IMPROVEMENTS APPROVED FOR CONSTRUCTION
 FINANCED FROM POSTWAR FEDERAL-AID HIGHWAY FUNDS
 As of October 1, 1947

Type	Total Cost \$	Federal Funds \$	Miles
Graded and drained earth	88,272,905	44,029,016	2,985
Soil-surfaced	14,657,251	7,267,752	822
Gravel or stone	117,203,624	59,518,993	8,942
Bituminous surface treated	142,930,531	70,378,021	8,026
Mixed bituminous	125,771,395	68,917,847	5,602
Bituminous penetration	29,492,455	14,616,541	863
Bituminous concrete, sheet and rock asphalt	71,967,152	34,601,753	1,261
Portland cement concrete	243,866,048	118,671,672	2,105
Brick or block	406,297	203,149	2
Combination	7,885,879	3,918,682	105
Bridges	216,017,342	111,078,650	126
Miscellaneous	8,698,915	4,374,475	
Total	1,067,169,794	537,576,551	30,839

SOURCES OF MATCHING FUNDS

The matching provisions of prior Federal-aid legislation were continued in the 1944 act. For all but railway-highway projects, Federal funds used for construction are required to be matched on a 50-50 basis with provision for a higher Federal fund ratio in any State having unappropriated and unreserved public land and nontaxable Indian lands exceeding 5 percent of the total area of the State. In lieu of the separate authorization formerly provided for railroad grade crossing projects which could be financed 100 percent from Federal funds, the 1944 act provides that railway-highway projects in any State may be financed with up to 100 percent Federal funds from not to exceed 10 percent of the State's total apportionment of highway system, secondary, and urban funds. Preliminary engineering and construction engineering costs are eligible for payment from Federal funds in the same manner as construction, whereas costs for rights-

of-way may be paid one-half from Federal funds on railway-highway projects financed under the 10 percent limitation and one-third from Federal funds on regularly financed highway projects.

For all projects financed from postwar Federal-aid funds, the ratio of Federal funds to total cost is almost exactly 50 percent. There is no significant variation in this ratio with respect to projects financed from highway system, secondary, or urban funds. Occasionally there are related costs for preliminary engineering, rights-of-way, or miscellaneous construction that for various reasons are not made a part of the Federal-aid project costs, which if included would result in a Federal fund ratio of about 48 percent for all postwar Federal-aid improvements.

The routes of the Federal-aid highway system coincide for the most part with major State highway routes in each State. As would be expected, the matching funds for Fed-

TABLE 4
BRIDGES APPROVED FOR CONSTRUCTION FINANCED
FROM POSTWAR FEDERAL-AID HIGHWAY FUNDS
As of October 1, 1947

Type	Total Cost \$	Federal Funds \$	Number
Stream crossings	142,311,050	70,651,483	4,131
Railroad separations	14,152,790	9,456,883	97
Highway separations	27,345,411	13,340,784	180
Combinations	32,208,091	17,629,500	55
Total	216,071,342	111,078,650	4,463

eral-aid highway system projects are almost entirely State funds. Over 99 percent of the matching funds for highway system improvements are State funds, the remainder consisting of small contributions by counties and cities, or by railroads when railway benefits are involved.

The Federal-aid secondary system, comprising principal secondary and feeder roads, coincides in part with State highway routes, the remainder consisting of farm-to-market roads not located on any State system. About 84 percent of the matching funds for secondary road improvements are State funds, and about 15 percent are county funds. In addition to participating in the financing of some of the construction, the counties frequently fur-

nish rights-of-way for secondary projects, particularly for farm-to-market secondary roads not on the State system. Also, there are at least 900 counties in 24 States that have participated in engineering. Surveys and plans have been made by all of these counties, and 500 counties have prepared specifications and estimates. Some of the matching funds for Federal-aid secondary road improvements are contributed by townships, small municipalities or urban places, railroads, or are from other miscellaneous sources.

Projects financed with Federal-aid urban funds are located within the "urban areas" delimited as previously described. About 6 percent of the matching funds for Federal-aid urban improvements are contri-

TABLE 5
RAILWAY-HIGHWAY IMPROVEMENTS APPROVED FOR
CONSTRUCTION FINANCED FROM POSTWAR FEDERAL-AID HIGHWAY FUNDS
As of October 1, 1947

Crossings	Total Cost \$	Federal Funds \$	Number
Eliminated by separation	29,043,340	18,442,864	116
Eliminated by relocation	2,071,209	1,308,164	16
Protected	615,859	475,794	112
Separation structures reconstructed	4,788,307	4,226,285	25
Total	36,518,715	24,453,107	269

TABLE 6

PERCENTAGE DISTRIBUTION OF MATCHING FUNDS FOR
FEDERAL-AID, HIGHWAY IMPROVEMENTS PROGRAMMED TO JULY 31, 1947

Source of Matching Money	Highway System	Secondary	Urban	Total
State	99.22	84.00	89.40	92.43
County	0.36	15.08	3.84	5.45
City	0.13	0.08 ^a	6.31	1.63
Township		0.13		0.04
Railroad	0.19	0.06	0.40	0.20
Other	0.10	0.65	0.05	0.25
Total	100.00	100.00	100.00	100.00

^a By small municipalities

buted by cities. In a few cases, the counties also are contributing matching funds for improvements within urban areas. In one such case the county contribution amounts to nearly \$6,000,000. In another State the counties have contributed over \$3,000,000 to the cost of improvements in urban areas. State funds account for 89 percent of the matching funds on Federal-aid urban improvements.

Total contributions by counties, cities, local governments, and other local sources, and by railroads, amounted to more than \$74,000,000 for postwar Federal-aid improvements programmed for construction to July 31, 1947.

Summary data relating to the percentage distribution of matching money for each class of Federal-aid funds and for the three classes combined are provided in Table 6. The railroad contributions indicated conform generally to the railroad benefit provisions of the 1944 act. In many cases there have been contributions of preliminary engineer-

ing and rights-of-way, by counties, cities, or other local units, for which monetary values have not been established. Contributions of this nature are not accounted for in the data shown in Table 6.

Contributions toward the financing of Federal-aid secondary projects programmed to July 1, 1947 are anticipated from counties, townships, small municipalities, and from other local sources other than railroads in 28 States. Similarly, contributions are expected toward the financing of Federal-aid urban projects in 29 States. In both cases there may be, in the remaining States, contributions of preliminary engineering or rights-of-way for which cash values were not established and which consequently are excluded from this summary.

The foregoing review would seem to indicate conclusively that the State highway departments, under unprecedented adverse conditions, have done a really remarkable job in advancing the postwar highway program to its present state.