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UNITED STATES DEPARTMENT OF AGRICULTURE
BULLETIN No. 387

Contribution from Office of Public Roads and Rural Engineering
LOGAN WALLER PAGE, Director

Washington, D. C.

February 20, 1917

PUBLIC ROAD MILEAGE AND REVENUES IN
THE SOUTHERN STATES, 1914

A COMPILATION SHOWING MILEAGE OF IMPROVED AND
UNIMPROVED ROADS, SOURCES AND AMOUNTS OF ROAD
REVENUES, BONDS ISSUED AND OUTSTANDING, AND A
DESCRIPTION OF THE SYSTEMS OF ROAD ADMINISTRA-
TION, FISCAL MANAGEMENT AND OTHER FACTORS AF-
FECTING ROAD IMPROVEMENT IN EACH STATE

Prepared Jointly by the
Division of Road Economics of the Office of Public Roads
and Rural Engineering, and State Collaborators

CONTENTS

	Page		Page
Introductory:		Georgia	18
Working Plan and Sources of Infor-		Kentucky	20
mation	2	Louisiana	23
Road Administration in the Southern		Maryland	26
States	3	Mississippi	29
Public Road Revenues	3	North Carolina	32
County and District Road and Bridge		Oklahoma	35
Bond Issues	5	South Carolina	37
Road Mileage	5	Tennessee	40
Types of Surfaced Roads	7	Texas	43
Alabama	8	Virginia	45
Arkansas	11	West Virginia	49
Delaware	15	Appendix.	
Florida	16

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CONTENTS.

	Page.		Page.
Introductory:		Georgia.....	18
Working plan and sources of information.	2	Kentucky.....	20
Road administration in the Southern States.....	3	Louisiana.....	23
Public road revenues.....	3	Maryland.....	26
County and district road and bridge bond issues.....	5	Mississippi.....	29
Road mileage.....	5	North Carolina.....	32
Types of surfaced roads.....	7	Oklahoma.....	35
Alabama.....	8	South Carolina.....	37
Arkansas.....	11	Tennessee.....	40
Delaware.....	15	Texas.....	43
Florida.....	16	Virginia.....	45
		West Virginia.....	49
		Appendix.....	I-LXXI

INTRODUCTORY.

In 1904 the Office of Public Roads adopted the policy of conducting an investigation every five years to determine the mileage of improved and unimproved roads, the revenues for road purposes, and other related data. In accordance with this policy Public Roads Bulletin No. 32 was issued, giving such information as was obtainable for the calendar year 1904, then Public Roads Bulletin No. 41, giving such information as was available for the calendar year 1909. The investigation made for the year 1914 followed somewhat different lines, as a

closer cooperation was maintained with State highway departments, and wherever practicable the information was collected directly by collaborators named by the respective State highway departments and acting under specific instructions from this office. This policy was not practicable in connection with earlier bulletins owing to the fact that many of the States then had no organized highway departments.

For convenient reference and to avoid delay in publication, the information obtained from the Southern States is published in this bulletin. Bulletins on this subject covering the Middle Atlantic States and the New England States have been issued, and the Middle Western and Western States will be dealt with in a subsequent publication.

WORKING PLAN AND SOURCES OF INFORMATION.

The method of procedure followed in obtaining the information contained in this bulletin was as follows:

A series of card inquiry forms, designated A, B, C, and D, covering, respectively, mileage, taxation and revenues, administrative organization, and bond issues, was prepared and submitted to the various State highway departments for suggestion and approval. After changes were made to meet conditions peculiar to individual States, supplies of the card forms, with necessary stationery, were sent to each State collaborator, and correspondence then was conducted by the collaborators under Government frank with the respective county and township officials.

In many instances it was impossible for the collaborators to obtain replies from all local officials, and accordingly letters and forms were sent directly from this office to such local officials. In the course of the investigation it was found necessary to enlist the aid of local and State road associations, chambers of commerce, automobile clubs, postmasters, and private individuals in order to obtain adequate information. On account of the absence of detailed records in many of the towns and counties utmost accuracy is impossible, and because of the large amount of correspondence necessary to conduct the investigation, considerable delay in the issuance of the bulletins has been unavoidable. The data on mileage and revenues should, therefore, be considered as approximate only.

A summary sheet for each of the forms A, B, C, and D was prepared for each State at the outset of the investigation, and as the card forms were received from local officials or from the State collaborators the information was entered on the summary sheets under appropriate headings. These summaries, when completed, were forwarded to the respective State collaborators or to the heads of the State highway departments, who thereupon prepared a text explanatory of the statistical tables and of the administrative system in effect

in their respective States, or approved a text prepared in this Office. The bulletin is issued, therefore, in the form of a series of chapters, each under the authorship or approval of the State official who has cooperated with this Office in assembling the data.

ROAD ADMINISTRATION IN THE SOUTHERN STATES.

In 1914 four of the Southern States, namely, Alabama, Louisiana, Maryland, and Virginia, maintained State highway departments and applied State funds to road improvement. Delaware provided a State highway commissioner for New Castle County and appropriated \$10,000 to each county as State aid. Maryland has developed a rather highly centralized highway department, and not only aids the counties in road construction but also has spent considerable money in the construction of State roads, for which State bonds have been issued. In five of the Southern States, namely, Arkansas, Kentucky, North Carolina, Oklahoma, and West Virginia, State highway departments were in operation, but the work of the State highway departments related entirely to educational, advisory, and engineering assistance, except in the State of Arkansas, where \$75,000 was provided by the State for the purchase of a crushing plant to be operated by State prisoners. In North Carolina the educational and advisory work was carried on under the direction of the North Carolina Geological and Economic Survey. Georgia had no State highway department, but furnished State convicts for the purpose of building county roads. In five of the Southern States, namely, Florida, Mississippi, South Carolina, Tennessee, and Texas, no State highway departments had been organized and no contributions were made by the States toward local roads.

Since 1914, however, Florida, Mississippi, and Tennessee have established highway departments and Kentucky and Oklahoma have enlarged their highway departments and made provision for granting State aid to the counties. The legislature of Virginia in the early part of 1916 provided for the maintenance of all State roads under the direction of the State highway department. In most of the Southern States the great bulk of road work still is done under the direction of county authorities.

Detailed information as to the administration of public roads in each of the Southern States is given in the chapters which relate respectively to each State.

PUBLIC ROAD REVENUES.

The total revenues applied to roads and bridges in the Southern States in 1914 amounted to \$52,516,559.73, including State appropriations, amounts derived from local taxation, and expenditures from bond issues, both State and local. In 1904 the total revenues applied to this purpose amounted to \$21,590,682.29, thus showing

that during the 10-year period 1905 to 1914, inclusive, the revenues increased \$30,925,877.44 or 143.2 per cent. Table 1 presents in condensed form the information assembled concerning revenues for the Southern States for the year 1914, with comparative information for the year 1904.

TABLE 1.—*Revenues applied to roads and bridges, 1914.*

States.	Total revenues applied to roads and bridges.		Increase in revenues over 1904.	
	1914	1904	Total.	Percent- age.
Alabama.....	\$3,949,019.00	\$1,576,434.27	\$2,372,584.73	150.5
Arkansas.....	1,522,696.20	1,395,342.80	127,353.40	9.1
Delaware.....	511,628.00	90,802.88	420,825.12	463.4
Florida.....	2,280,255.09	577,577.10	1,702,677.99	294.7
Georgia.....	3,688,172.25	2,080,872.33	1,607,299.92	77.2
Kentucky.....	2,474,621.00	2,148,689.03	325,931.97	15.1
Louisiana.....	1,777,572.12	951,872.86	\$25,699.26	86.7
Maryland.....	6,000,652.03	873,470.50	5,127,181.53	586.9
Mississippi.....	3,960,377.00	1,075,485.45	2,284,891.55	136.3
North Carolina.....	5,215,490.78	1,358,687.00	3,856,803.78	283.8
Oklahoma.....	2,112,680.80	774,775.59	1,337,905.21	172.6
South Carolina.....	1,024,480.37	745,701.50	278,778.87	37.4
Tennessee.....	2,370,560.16	1,621,777.15	748,783.01	46.1
Texas.....	9,920,079.11	4,138,157.49	5,781,921.62	139.7
Virginia.....	3,224,528.82	687,751.06	2,536,777.76	368.8
West Virginia.....	2,483,747.00	893,285.28	1,590,461.72	178.0
Total.....	52,516,559.73	21,590,682.29	30,925,877.44	143.2

An interesting comparison showing the average revenues for roads and bridges in the Southern States per mile of road, per square mile of area, per 1,000 of rural population, and per \$100 of assessed valuation for the years 1904 and 1914 is presented in Table 2. This average does not indicate, however, the distribution of expenditures, as between construction and maintenance.

TABLE 2.—*Relation of public road and bridge revenues to mileage, area, population, and assessed valuation, 1904 and 1914.*

States.	Revenues.							
	Per mile of road.		Per square mile of area.		Per capita.		Per \$100 of assessed valuation.	
	1904	1914	1904	1914	1904 ¹	1914 ²	1904 ³	1914 ⁴
Alabama.....	\$31.47	\$71.22	\$30.74	\$77.01	\$0.86	\$1.84	\$0.53	\$0.69
Arkansas.....	38.28	30.00	26.56	28.99	1.06	.96	.62	.36
Delaware.....	30.26	139.25	46.21	260.37	.49	2.52	.13	.545
Florida.....	33.24	126.71	10.52	41.56	1.09	3.02	.56	1.07
Georgia.....	36.37	45.72	35.43	62.80	.93	1.41	.44	.437
Kentucky.....	37.60	42.52	53.47	61.58	1.00	1.08	.30	.239
Louisiana.....	38.23	72.37	20.96	39.10	.68	1.073	.30	.322
Maryland.....	52.07	364.60	87.86	603.62	.73	4.63	.12	.485
Mississippi.....	43.29	86.51	36.13	85.42	1.08	2.20	.77	.962
North Carolina.....	27.30	102.75	27.87	107.00	.71	2.36	.39	.697
Oklahoma.....	17.79	19.57	11.16	30.45	1.94	1.274	.87	1.769
South Carolina.....	17.82	24.26	24.45	33.59	.55	.67	.38	.351
Tennessee.....	33.10	51.48	38.90	56.86	.80	1.08	.39	.378
Texas.....	34.08	76.92	15.77	37.80	1.35	2.54	.40	.391
Virginia.....	13.27	60.39	17.08	80.08	.37	1.56	.14	.372
West Virginia.....	34.12	77.55	37.18	103.39	.93	2.03	.35	.212
Weighted averages.....	31.51	64.47	24.58	59.79	.89	1.81	.36	.41

¹ Based on the 1900 United States Census.² Based on the 1910 United States Census.³ Based on the 1902 United States Census.⁴ Based on the 1912 United States Census.

COUNTY AND DISTRICT ROAD AND BRIDGE BOND ISSUES.

The total county and district road and bridge bonds outstanding on January 1, 1915, in the Southern States amounted to \$64,639,060.83. In the year 1914 there was expended from local bond issues \$13,206,275.71; there was retired, \$1,017,164.34; there was voted \$14,165,201.60, and there was sold \$12,738,016.60. In addition to the county and district bonds the State of Maryland had outstanding on January 1, 1915, \$12,410,000 of road and bridge bonds. These bonds were issued for the purpose of building a system of State roads. This makes a total of road and bridge bonds outstanding on January 1, 1915, State and local, of \$77,049,060.83.

Information in regard to bond issues by States is presented in Table 3, and detailed information, showing bond issues by counties, is shown in the State chapters.

TABLE 3.—County and district road and bridge bond issues.

States.	Total outstanding Jan. 1, 1915.	Expended from bond issues during 1914.	Retired during 1914.	Voted during 1914.	Sold during 1914.
Alabama.....	\$5,418,000.00	\$1,013,210.00			
Arkansas.....	1,467,066.00			\$1,191,426.00	\$1,191,426.00
Delaware.....	1,280,000.00	362,000.00		150,000.00	150,000.00
Florida.....	5,959,199.22	765,051.77	\$18,500.00	800,000.00	1,505,000.00
Georgia.....	127,500.00		2,050.00	60,000.00	
Kentucky.....	705,000.00	19,000.00		150,000.00	125,000.00
Louisiana.....	1,588,835.26	486,388.69	24,500.00	1,732,000.00	1,161,000.00
Maryland.....	443,700.00	114,542.36	26,500.00	26,000.00	26,000.00
Mississippi.....	8,327,172.00	2,051,452.71	40,000.00	1,225,500.00	1,778,500.00
North Carolina.....	8,955,300.00	2,430,000.00		1,119,500.00	2,709,000.00
Oklahoma.....	1,440,000.00				
South Carolina.....	460,000.00	34,000.00		75,000.00	75,000.00
Tennessee.....	6,898,276.89	778,306.52	128,421.11	486,500.00	445,000.00
Texas.....	14,615,016.53	4,152,456.72	266,255.00	6,783,275.60	3,119,990.60
Virginia.....	5,650,994.93	999,866.94	510,938.23	366,000.00	452,100.00
West Virginia.....	¹ 1,303,000.00	(²)	(²)	(²)	(²)
Total.....	64,639,060.83	13,206,275.71	1,017,164.34	14,165,201.60	12,738,016.60

¹ July 1, 1915.² Unable to ascertain amounts.

ROAD MILEAGE.

The total road mileage in the Southern States as of January 1, 1915, was 814,565, of which 73,594.78 miles, or 9.03 per cent, were surfaced. This does not include streets in incorporated cities and towns. By comparing these figures with former investigations in the same States it appears that between December 31, 1909, and December 31, 1914, 30,018.60 miles were surfaced. The total road mileage and the mileage surfaced as of 1914, and comparative mileage for 1909, are shown for the Southern States in Table 4. Detailed information on this subject is presented by counties in the State chapters.

TABLE 4.—Road mileage.

States.	Total road mileage close of 1914.	Miles surfaced close of 1914.	Miles surfaced 1910 to 1914, inclusive.	Percentage surfaced.	
				1909	1914
Alabama.....	55,446	4,988.5	1,724.57	6.58	8.99
Arkansas.....	50,743	1,097.5	11.75	2.97	2.16
Delaware.....	3,674	243.5	57.10	6.22	6.62
Florida.....	17,995	2,830.47	1,078.12	9.97	15.72
Georgia.....	80,669	12,342.12	6,364.12	7.27	15.30
Kentucky.....	57,916	12,403.28	2,288.33	18.82	21.40
Louisiana.....	24,563	2,067.62	1,796.12	1.32	8.42
Maryland.....	16,458	2,489.26	346.96	12.77	15.15
Mississippi.....	45,779	2,133.35	1,791.10	.86	4.66
North Carolina.....	50,758	6,003.75	3,690.75	4.79	11.82
Oklahoma.....	107,916	121.6	¹ 239.40	.50	.11
South Carolina.....	42,226	3,270.5	¹ 264.25	11.02	7.74
Tennessee.....	46,050	8,102.0	2,748.50	11.66	17.59
Texas.....	128,960	10,526.79	5,640.79	3.80	8.16
Virginia.....	53,388	3,909.57	2,006.82	4.38	7.32
West Virginia.....	32,024	1,064.97	473.57	1.84	3.32
Total and average.....	814,565	73,594.78	30,018.60	6.08	9.03

¹ Decrease.

The relation of total mileage and surfaced mileage to area and rural population in the Southern States for the years 1904, 1909, and 1914 is presented in Table 5.

TABLE 5.—Relation of total mileage and surfaced mileage to area and rural population.

States.	Total mileage.						Surfaced mileage.					
	Per square mile of area.			Per 1,000 rural population.			Per square mile of area.			Per 1,000 rural population.		
	1904	1909	1914	1904 ¹	1909 ²	1914 ²	1904	1909	1914	1904 ¹	1909 ²	1914
Alabama.....	0.97	0.96	1.08	31.5	28.0	31.3	0.033	0.063	0.097	1.06	1.84	2.82
Arkansas.....	.67	.69	.96	30.3	26.5	36.9	.004	.02	.02	.196	.79	.80
Delaware.....	1.53	1.53	1.86	30.3	28.5	34.9	.03	.095	1.24	.667	1.77	2.32
Florida.....	.31	.32	.33	41.2	32.9	33.6	.016	.032	.052	2.09	3.28	5.29
Georgia.....	.96	1.40	1.37	30.5	39.7	38.9	.028	.101	.210	.873	2.88	5.96
Kentucky.....	1.42	1.33	1.44	34.0	30.9	33.4	.236	.251	.308	5.64	5.83	7.15
Louisiana.....	.54	.55	.54	24.5	21.5	21.1	.0007	.007	.05	.0334	.0284	1.78
Maryland.....	1.68	1.68	1.65	28.1	26.3	25.8	.15	.22	.25	2.63	3.36	3.90
Mississippi.....	.83	.85	.99	27.0	24.9	28.8	.003	.007	.046	.104	.215	1.34
North Carolina.....	1.00	.99	1.04	29.1	25.5	26.8	.025	.047	.123	.087	1.22	3.18
Oklahoma.....	1.10	1.02	1.55	59.5	53.3	80.7	.000	.0052	.0017	.000	.27	.0912
South Carolina.....	1.30	1.05	1.38	35.7	24.8	32.7	.061	.115	.107	1.60	2.74	2.53
Tennessee.....	1.17	1.10	1.10	28.9	26.3	26.4	.102	.128	.194	2.52	3.07	4.64
Texas.....	.46	.49	.49	48.0	43.6	43.6	.081	.186	.401	.841	1.65	3.56
Virginia.....	1.29	1.07	1.32	34.2	27.3	33.7	.039	.047	.097	1.05	1.20	2.46
West Virginia.....	1.06	1.33	1.33	31.4	32.3	32.3	.001	.002	.044	.31	.595	1.07
Average.....	.78	.83	.92	34.0	31.9	35.7	.031	.050	.083	1.35	1.93	3.23

¹ Based on the United States census for 1900.² Based on the United States census for 1910.

A diagram, Fig. 1, shows the percentage of surfaced roads for the Southern States at the close of the years 1904, 1909, and 1914.

FIG. 1.—Percentage of surfaced roads in Southern States 1904, 1909, and 1914.

This diagram also shows in a striking manner the strides which have been made in road improvement in the South during the past 10 years.

TYPES OF SURFACED ROADS.

Of the 73,594.78 miles of surfaced roads in the Southern States at the close of 1914, 29,287.88 miles, or 39.80 per cent, were sand clay; 21,377.37 miles, or 29.05 per cent, were macadam; 17,440.02 miles, or 23.7 per cent, were gravel; 1,994.36 miles, or 2.71 per cent, were bituminous macadam; 1,924.68 miles, or 2.61 per cent, were shell; 379.81 miles, or 0.51 per cent, were brick; 273.24 miles, or 0.37 per cent, were concrete; and 917.42 miles, or 1.25 per cent, were surfaced with other materials. The distribution of types of surfaced roads as of January 1, 1915, is shown by States in Table 6.

TABLE 6.—*Distribution of types of surfaced roads, 1914.*

States.	Types.								Total.
	Macadam.	Bituminous macadam.	Gravel.	Sand clay.	Shell.	Brick.	Concrete.	Miscellaneous.	
Alabama.....	431.00	31.00	2,589.50	1,916.00	20.00	.....	1.00	.....	4,988.50
Arkansas.....	362.50	4.00	535.00	175.00	.....	.....	21.00	.....	1,097.50
Delaware.....	161.50	35.50	21.00	.....	25.50	.....	.....	.....	243.50
Florida.....	829.16	42.80	42.50	1,163.00	362.77	256.24	12.00	¹ 122.00	2,830.47
Georgia.....	234.00	87.00	1,073.00	10,778.00	45.00	1.72	.40	123.00	12,342.12
Kentucky.....	10,628.00	59.03	1,713.50	.....	.....	.25	2.50	.....	12,403.28
Louisiana.....	.....	.....	430.00	1,448.00	107.50	.....	.....	82.12	2,067.62
Maryland.....	488.70	1,042.31	243.95	69.00	455.96	.....	189.34	.....	2,489.26
Mississippi.....	86.00	29.50	1,281.10	604.25	114.00	.....	14.00	4.50	2,133.35
North Carolina.....	1,111.00	9.00	529.00	4,313.50	.....	.....	1.25	40.00	6,003.75
Oklahoma.....	6.70	3.00	6.90	105.00	.....	.....	.....	.....	121.60
South Carolina.....	27.50	3.50	85.00	3,101.00	53.50	.....	.....	.....	3,270.50
Tennessee.....	4,550.50	148.00	2,788.00	613.00	.....	.50	2.00	.....	8,102.00
Texas.....	511.00	181.00	5,258.98	3,490.48	740.45	.....	11.25	² 333.63	10,526.79
Virginia.....	1,177.89	255.77	822.09	1,511.65	.....	.....	.....	² 142.17	3,909.57
West Virginia.....	771.92	62.95	20.50	.....	.....	121.10	18.50	³ 70.00	1,064.97
Total.....	21,377.37	1,994.36	17,440.02	29,287.88	1,924.68	379.81	273.24	917.42	73,594.78
Per cent of total surfaced.....	29.05	2.71	23.70	39.80	2.61	.51	.37	1.25	100.00

¹ Principally sand asphalt.² Principally shell.³ Shale.

Detailed information regarding sources and amounts of revenues, bonds issued and outstanding, total mileage of roads, mileage surfaced, systems of administration, and other factors affecting road improvement is presented in the following chapters for the Southern States.

ALABAMA.

Alabama has a land area of 51,279 square miles, a total road mileage of 55,446, and a population, according to the 1910 Census, of 2,138,093. The State has a population of 41.7 per square mile of area and 38.56 per mile of road, with 1.08 miles of road per square mile of area. Of the population in 1910, 82.7 per cent, or 1,767,662, was rural, thus indicating a rural population of 31.9 per mile of road.

In 1911 the legislature enacted a law creating a State highway department, which is composed of a State highway commission and a State highway engineer. The State highway commission consists of a professor of civil engineering from the Alabama Polytechnic Institute, the State geologist, and three other members appointed by the governor.

The State highway engineer is elected by the State highway commission and holds office subject to the pleasure of the commission. The State highway engineer, with the consent and advice of the State highway commission, may employ such assistant engineers and clerical help as may be necessary. He is vested with authority to determine the character and have general supervision of the construction and repair of all State-aid roads, and may be consulted by

local road authorities concerning any question that involves highways and bridges under their control. He may in like manner call on such local authorities for any information or assistance they may be able to render with reference to the highways under their control.

The act creating the State highway department required the State highway engineer to prepare a map of such of the main highways of the State as in his judgment were of sufficient importance to be designated as a system of trunk or State roads, to be improved by the State and counties jointly, and to report same to the State highway commission for submission to the legislature. Such report was submitted to the legislature and, by an act approved September 10, 1915, a system of State trunk roads was designated for improvement and maintenance in accordance with standards established by the State highway department. It was made unlawful to spend any money appropriated by the State on any other roads than those comprised in said designated system until after their improvement. The State will pay one-half the cost of constructing the trunk line roads. An annual appropriation of \$154,000 is made from the net revenue derived from the convict fund for the support of the State highway department and for State aid in road work.

It is the duty of the State highway commission to prescribe rules and regulations under which the State highway engineer shall require roads constructed or improved in any county with State aid to be kept in proper repair, and should any county fail or refuse to carry out any reasonable recommendations of the State highway engineer relating to the repair of such roads, the work may be done by the State and the expense therefor shall be paid by the county or may be paid out of any money that may be due or that may become due such county from the State-aid appropriation.

The courts of county commissioners, boards of revenue, or other like governing bodies in the several counties, are vested with the general supervision of the public roads, bridges, and ferries in their respective counties. They may establish, promulgate, and enforce rules and regulations and make and enter into such contracts as they may deem necessary for the construction and maintenance of a good system of public roads, bridges and ferries, and regulate the use thereof.

All able-bodied males between 18 and 45 years of age are liable to work on the roads in their respective counties not more than 10 days each year or to pay such amount in lieu thereof, not exceeding \$5, as may be determined by the court of county commissioners, board of revenue, or other like governing body. The amount of money paid in lieu of said road work shall go into the county road fund. No person shall be liable to road duty in any county having an assessed property valuation of \$100,000,000.

The courts of county commissioners, boards of revenue, or other like governing bodies, may, for the purpose of maintaining roads, bridges or ferries, impose upon the owners of vehicles used upon the public roads of the county such license taxes as they may deem advisable. On vote of a majority of the qualified electors of a county voting at an election held for that purpose, bonds may be issued for public improvements or to pay debts created for such improvements, including the building of roads and bridges, but the aggregate amount of indebtedness that may thus be created shall not exceed 3 per cent of the assessed value of the property in such county. Said courts, or boards, may levy and collect such special taxes as they may deem necessary, not to exceed one-fourth of 1 per cent of the assessed value of property in the county, for the purpose of paying any debt or liability created, or that may be created, for erecting public buildings or constructing roads and bridges.

Convicts of a county may be worked on its roads, bridges or ferries, or in the preparation of road materials, or said convicts may be hired to or from another county or from the State.

REVENUES APPLIED TO ROADS AND BRIDGES IN 1914.

It was impossible to secure complete information on taxation and revenues from every county in the State, but from the reports received it appears that \$2,488,805.51 was received from taxation and applied to roads in 1914. Of this amount \$612,095.02 was obtained from the regular levy, \$103,822 from statute labor tax paid in cash, \$91,237.59 from general funds and applied to interest and principal on road bonds, and \$1,681,650.90 from general and special funds.

Fifteen out of the 67 counties in the State report that they are still making use of the statute labor tax. A total of 47,600 men is reported as having worked the roads from $3\frac{1}{2}$ to 10 days each. The cash value of this labor at the prevailing rate of wages amounted to \$302,025.

By adding \$302,025, the cash value of the labor tax, and \$1,013,210, the amount obtained from bond issues and expended on roads in 1914, and \$144,978, the State-aid appropriation for 1914, to the totals above, it appears that the aggregate expenditure for roads in 1914 amounted to \$3,949,019. This includes \$91,237.59 paid out by counties for interest and principal on road bonds. It was impracticable to separate this item from the total. In 1904 the total property and labor tax amounted to \$1,576,434.27, thus showing that during the past 10 years the road revenues increased \$2,372,584.73, or 150.5 per cent.

The use of the statute labor tax appears to have declined steadily since 1904, for during that year 153,419 men were reported as having

worked the roads, and the value of such labor amounted to \$1,198,394. The principal increases in revenues are, therefore, property taxes paid in cash, which accounts for the steady increase in the surfaced road mileage of the State.

The county tax rates for roads, the total receipts from taxation and the statute labor road tax are shown by counties in Table 7.¹

ROAD AND BRIDGE BONDS.

On January 1, 1915, a total of \$5,418,000 of county road and bridge bonds was outstanding. This includes \$372,000 of road warrants. During the year 1914, \$1,013,210 was expended from road bonds. The total bonds and warrants outstanding and the amounts expended from bond issues in 1914 are shown by counties in Table No. 23.

ROAD MILEAGE.

In 1904 Alabama reported 50,089 miles of public roads, in 1909, 49,639 miles, and in 1914, 55,446 miles. The surfaced roads of the State reported were 1,720 miles for 1904, 3,263.93 miles in 1909, and 4,988.5 miles in 1914. The percentage of all roads surfaced was therefore 3.43 per cent in 1904, 6.58 per cent in 1909, and 8.99 per cent in 1914. Of the latter 431 miles were macadam, 2,589.5 gravel, 1,916 sand clay, 31 bituminous macadam, 20 shell, and 1 concrete. In addition to the surfaced roads, 2,023.5 miles were reported as graded and drained earth roads. While some of the counties reported a smaller mileage of surfaced roads in 1914 than in 1909, it appears that if the State is taken as a whole a total of 1,724.57 miles of roads were surfaced during the five-year period, January 1, 1910, to December 31, 1914.

The total mileage of roads, the miles surfaced, the percentage surfaced, and the mileage of graded and drained earth roads are shown by counties in Table 37.

ARKANSAS.

Arkansas has a land area of 52,525 square miles, a total road mileage of 50,743, and a population, according to the 1910 census, of 1,574,449. The State, therefore, has a population of 29.97 per square mile of area and 31.02 per mile of road, with 0.96 mile of road per square mile of area. Of the population in 1910, 87.1 per cent, or 1,371,768, was rural, thus indicating a rural population of 27.03 per mile of road.

In the legislative session of 1913 there was established the department of State lands, highways and improvements, the executive head of which is the Commissioner of State lands, highways and improvements. There also was created a State highway commission

¹ All tables referred to in the text under the respective States will be found in the appendix.

to consist, ex officio, of the commissioner of State lands, highways and improvements, as chairman, and two other members to be appointed by the governor to serve for terms of two years each. Subject to the approval of the State highway commission, the commissioner of State lands, highways and improvements appoints a State highway engineer. The head professor of civil engineering in the State university is ex officio consulting engineer of the department of State lands, highways and improvements. There is a highway improvement fund which consists of all fees accruing in the office of State lands, highways and improvements, and the proceeds from the registration and licensing of motor vehicles. The work of the State highway department embraces the educational, advisory, and constructive phases of road work as follows:

- (1) The holding of road institutes in each county every year and the issuance of bulletins pertaining to road work.

- (2) Consultation relative to and investigation of all road and bridge matters upon request.

- (3) Making preliminary surveys, plans, estimates, and specifications of all road work contemplated under the general road district law and the working of all available State convicts on the public roads or in the preparation of road materials.

The constitution gives the county courts exclusive original jurisdiction over all matters relating to roads, bridges and ferries. The county courts, with approval of the quorum court, may appoint a commissioner of roads, highways and bridges for their respective counties, to have charge of the building and repairing of roads and bridges under the direction of the county judge. Said court shall divide the county into convenient road districts and appoint an overseer for each such district. In six counties a county highway engineer may be appointed by the county courts for a term of one year. Where a county highway engineer is appointed he shall have supervision over all road work and shall direct the overseers in the performance of their duties. In counties having the county engineer system, all work may be done by contract, the county engineer to prepare plans, estimates and specifications and let the work to the lowest responsible bidder, the funds for paying same to be derived from the general $2\frac{1}{2}$ or 3 mill road tax. An optional system for working roads is provided, subject to adoption by the county court, whereby each political township is made a road district and a township road overseer is to be elected at each general election.

Road improvement districts may be created by the county court when petitioned for by a majority in land value, acreage, or number of land owners within the proposed district and after the required public notice and hearing.

An appeal from the order of the county court creating a road district may be taken at any time within 30 days. The county court at the same time that it orders the creation of a road improvement district shall appoint three owners of real estate in the district to act as the board of commissioners for such district. The board of commissioners may appoint an engineer or have the work done under direct supervision of the State highway department. The cost of the proposed improvement shall be paid by a tax levy on real property in proportion to the benefits that will accrue thereto and the amount of such benefits shall be determined by a board of assessors to be appointed for that purpose, but not more than 20 per cent of such tax may be required to be paid in any one year.

Numerous special laws have been enacted under which road and bridge work in many of the counties is done. These special laws vary the system of administration slightly from that provided by the general law and in many of the counties create road officials under designations or titles different from those authorized by the general law.

The county court, with approval of the quorum court, may levy annually for road purposes not less than $2\frac{1}{2}$ mills nor more than 3 mills on each \$1 of taxable property in the county. Various provisions exist whereby road bonds may be issued and limiting the amount of such bonds that may be issued, the maximum limit being prescribed for road improvement districts which are authorized to issue bonds in such amounts, exclusive of interest, as will not exceed 30 per cent of the total assessed value of the real property located within the district.

Male persons between the ages of 18 and 45, not exempt by law, may be required to work not exceeding 10 days annually on the public highways, or to pay in lieu thereof the sum of \$1 for each day of work so required. However, most counties require only four days. Provision is made for the working of county convicts on the public highways.

REVENUE APPLIED TO ROADS AND BRIDGES DURING 1914.

In 1914 the total receipts from taxation applied to roads and bridges amounted to \$1,522,696.20, of which \$1,259,242.20 was obtained from general county taxes, \$103,454 was the cash value of the statute labor tax, \$45,000 was obtained from bond issues, and \$115,000 appropriated by the State, of which \$25,000 was for engineering and inspection, \$15,000 for administration of the State highway department and \$75,000 for the purchase of a crushing plant to be used by State prisoners..

In 1904 the total expenditures for public roads in Arkansas amounted to \$1,395,342.80, of which \$681,933.80 was obtained from

property taxes paid in cash, while \$713,409 represented the cash value of the statute labor tax. It thus appears that the total receipts from taxation, including the State appropriation, applied to roads increased during the 10-year period \$127,353.40, or 9.1 per cent. The receipts from the property tax alone during this period increased 84.6 per cent, while the receipts from the statute labor tax were nearly seven times as great in 1904 as in 1914. It is quite likely, however, that complete information on the statute labor tax was not obtained for the year 1914.

The information showing the revenue applied to roads and bridges for the year 1914 is contained in Table 8.

ROAD AND BRIDGE BONDS AND SCRIP.

The total road and bridge bonds and scrip outstanding on January 1, 1915, amounted to \$1,467,066, comprising \$1,249,926 in bonds and \$217,140 in scrip. The scrip consisted of noninterest-bearing short-time loans or warrants issued to meet current expenses. During the year 1914 a total of \$1,191,426 road and bridge bonds were voted and sold. These bonds run from 12 to 20 years and bear 6 per cent interest. They were sold at from 98 to 101 cents on the dollar.

Detailed information showing bonds and scrip by counties is contained in Table 24.

ROAD MILEAGE.

At the close of 1914, Arkansas reported 50,743 miles of public road, of which 1,097 miles, or 2.16 per cent, were surfaced. Of the surfaced roads 362.5 miles were plain macadam, 535 miles gravel, 175 sand clay, 21 concrete, and 4 miles bituminous macadam. There were also 16,305 miles of earth road reported as graded and drained. Pulaski County reported 198.5 miles, or 39 per cent, of surfaced roads. This is the only county in the State that reported more than 100 miles of surfaced road. There are 39 counties in the State which reported no surfaced roads. Quite a number of counties reported a smaller mileage of surfaced roads than was reported for 1909. Several counties also reported large increases in total road mileage, with the result that the total mileage of all roads reported increased from 36,445 miles in 1909 to 50,743 miles in 1914, and that the percentage of surfaced roads shows a decrease on this account from 2.97 in 1909 to 2.16 in 1914. In other words, if the figures reported are correct, Arkansas only had 11.75 more miles of improved roads in 1914 than in 1909. Mileage of surfaced roads outside of incorporated cities is shown in Table 38.

DELAWARE.

Delaware has an area of 1,965 square miles. It has only three counties, of which Sussex is the largest, having an area of 913 square miles, and New Castle is the smallest, having an area of 435 square miles. In 1910 the State had a total population of 202,322, of which 87,411 were in the city of Wilmington.

Each county in Delaware conducts its highway work as a distinct unit. In New Castle County there is a State highway commissioner appointed by the governor for the one county, and a county road engineer appointed by the levy court, but the same man may hold both offices. In the other counties the levy court is the governing body, and a county engineer is appointed by the court. The legislature each year appropriates \$30,000 for highway purposes, each county receiving \$10,000 as its share.

REVENUES APPLIED TO ROADS AND BRIDGES.

In 1914 a total of \$511,628 was applied to road and bridge work in Delaware. Of this amount, \$118,628 was derived from county taxation, \$31,000 from State-aid appropriations and \$362,000 from bond issues. In 1904 the total revenues applied to roads and bridges amounted to \$90,803, thus showing that during the 10-year period, 1904 to 1914, the expenditures increased \$420,825, or 463 per cent. Table 9 shows the rates of taxation, the amounts derived from taxation and the amounts received from the State and applied to roads in 1914.

ROAD AND BRIDGE BONDS.

On January 1, 1915, the total road and bridge bonds outstanding amounted to \$1,280,000 for Kent and New Castle Counties only. In 1914 New Castle voted and sold \$150,000 of bridge bonds. During 1914, \$362,000 were expended by the counties from road and bridge bonds issued that year and previously. The total bonds outstanding on January 1, 1915, the bonds issued in 1914, and the expenditures from bond funds in 1914 are shown by counties in Table 25.

ROAD MILEAGE.

At the close of 1914 Delaware had 3,674 miles of public road, of which 243.5 miles, or 6.62 per cent, were surfaced. Of the surfaced roads 161.5 miles were macadam, 35.5 bituminous macadam, 21 gravel, and 25.5 shell. In addition to the surfaced roads, 270 miles were graded and drained earth roads. The mileage figures for Delaware are shown in Table 39.

Comparing the mileage figures of 1914 with similar data collected for 1909 shows that the mileage of surfaced roads increased 57.1 miles in the five-year period. The percentage of roads surfaced in 1909 was 6.22.

FLORIDA.

By J. P. CLARKSON, *Collaborator United States Office of Public Roads and Rural Engineering.*

Florida has a land area of 54,861 square miles, a total road mileage of 17,995, and a population, according to the 1910 Census, of 752,619. The State, therefore, has a population of 13.71 per square mile of area and 41.82 per mile of road, with 0.33 mile of road per square mile of area. Of the population in 1910, 70.9 per cent, or 533,539, was rural, a rural population of 29.65 per mile of road.

A State road department to consist of five persons, one from each congressional district, appointed by the governor, subject to confirmation by the State senate, was created in 1915. The members of the department elect annually from their membership a chairman and a secretary. The department is required to employ some person well versed in road building to be State road commissioner, and may employ also necessary clerical and engineering assistants. Fifteen per cent of all county motor vehicle licenses is paid into the State treasury for the maintenance of the State road department. The work of the department is mostly of an advisory nature.

General jurisdiction over roads and bridges in the several counties vests in the boards of county commissioners, composed of one commissioner elected from each of the five districts into which each county is divided. Each county commissioner's district constitutes a road district, and it is the duty of the county board of commissioners at its January meeting each year to appoint three commissioners for roads and bridges in each district. The road commissioners lay off the roads in their respective districts into subdivisions of convenient length and appoint an overseer for each subdivision. Each board of commissioners is authorized to employ a county engineer, who, subject to the orders of said board, has general supervision and control of all road and bridge work of the county. On petition of 25 per cent of the duly registered voters who are freeholders residing within territory which it is desired to have constituted a "special road and bridge district," the board of county commissioners shall call an election to determine whether such district shall be created and whether funds for improving the roads therein shall be raised by a special tax or by a bond issue. All work in "special road and bridge districts" is under the supervision and control of the board of county commissioners. Special tax road districts are created by a majority vote at an election called for that purpose on petition of one-fourth of the qualified electors who pay taxes on real and personal property and reside in the district. In addition, a number of special road laws have been enacted and are in force in many counties.

Boards of county commissioners are authorized to levy a general road tax of not to exceed 8 mills on each \$1 of real and personal prop-

erty in their respective counties. Said boards also may levy a special road and bridge tax of not to exceed 5 mills on the \$1 of all real and personal property in the county, one-half of the amount derived therefrom in incorporated cities to be turned over to the municipal authorities thereof for use on roads and streets. There may be levied in "special tax road districts" not to exceed 5 mills on the \$1. The boards of county commissioners are authorized to levy annually on all taxable property in "special road and bridge districts" a tax of not exceeding 10 mills on the \$1 for the repair and maintenance of the roads and bridges therein and not exceeding 20 mills on the \$1 to pay for the improvements voted at the special election at which such "special road and bridge district" was created. Road bonds may be issued when authorized by a majority vote of the registered voters in the respective counties.

Every able-bodied male person, not exempt by law, over 21 and under 45 years of age, is liable to not more than 6 days' labor on the roads and bridges or to pay \$3 in lieu thereof.

The working of both State and county convicts on the public roads is authorized by law.

REVENUES APPLIED TO ROADS AND BRIDGES IN 1914.

The total revenues applied to roads and bridges in 1914 amounted to \$2,280,255.09 and comprised the following items: Receipts from general county taxes, \$969,825.36; receipts from auto licenses, convicts hired out, special taxes, labor taxes, and other sources, \$545,377.96; and expenditures from bond issues, \$765,051.77.

In 1904 the total expenditures for this purpose amounted to \$577,577.10, showing an increase in the 10-year period of \$1,702,677.99, or 294.7 per cent. The cash value of the statute labor tax amounted to \$140,393 in 1904, but in 1914 this amounted to only \$18,069.09, which shows that the statute labor tax has almost disappeared in Florida.

The receipts from taxation and the tax rates for general county road purposes are shown by counties in Table 10.

ROAD AND BRIDGE BONDS.

The total amount of road and bridge bonds outstanding on January 1, 1915, amounted to \$5,959,199.22. This included \$48,000 of road warrants. The total expenditure from bonds during the year 1914 amounted to \$765,051.77, a total of \$800,000 of bonds was voted, \$1,505,000 sold and \$18,500 retired.

Detailed information regarding the Florida road bonds is given by counties in Table 26.

ROAD MILEAGE.

The total mileage of public roads at the close of the year 1914 amounted to 17,995, of which 2,830.47 miles, or 15.73 per cent, were surfaced. Of the surfaced roads 829.16 miles were plain macadam, 42.80 bituminous macadam, 362.77 shell, 1,163 sand-clay, 256.24 brick, 42.5 gravel, 12 concrete, and 122 other materials, principally sand-asphalt. The State has 3,686 miles of graded and drained earth roads.

In mileage of surfaced roads, Marion County stands first, with 200 miles, or 22.22 per cent; Gadsden County second, with 185 miles, or 46.25 per cent; Palm Beach County third, with 160 miles, or 44.44 per cent; Orange County fourth, with 157 miles, or 48.3 per cent; Lake County fifth, with 150 miles, or 46.15 per cent; and Duval County sixth, with 144 miles, or 56.47 per cent. Six other counties have more than 100 miles surfaced and 10 counties report none.

In 1909 the surfaced roads amounted to 1,752 miles, or 9.97 per cent, of the total, thus showing that during the 5-year period 1,078 miles were surfaced.

The mileage statistics for the various counties are shown in Table 40.

GEORGIA.¹

By S. W. McCALLIE, *State Geologist*.

Georgia has a land area of 58,725 square miles, a total road mileage of 80,669, and a population, according to the 1910 census, of 2,609,121. The State therefore has a population of 44.42 per square mile of area and 32.34 per mile of road, with 1.37 miles of road per square mile of area. Of the population in 1910, 79.4 per cent, or 2,070,471, was rural, thus indicating a rural population of 25.66 per mile of road.

The surface configurations of Georgia vary from a low, level, almost featureless plain only a few feet above sea level to high rugged mountains attaining an altitude of more than 4,000 feet. The State is naturally divided into five physiographic divisions: The Coastal Plain, the Piedmont Plateau, the Appalachian Mountains, the Appalachian Valley and the Cumberland Plateau.

The board of county commissioners, in counties where such boards have been created, or the commissioners of roads and revenues, or the ordinary of each county, has jurisdiction over the roads therein. These officials, in many cases, appoint three district road commissioners for each road district in the county and the district road commissioners appoint one or more road overseers for their respec-

¹ The information contained in the tables [see Appendix] concerning the public roads of Georgia was collected by the State geological survey, in cooperation with the United States Office of Public Roads and Rural Engineering, largely by correspondence, but in some instances personal visits were necessary. The work was begun about the 1st of March, 1915, and completed in December, 1915.

tive districts, the latter having immediate charge of road work. The commissioners of roads and revenues, the ordinary, or such other officers as have charge of county matters in any county, may appoint a "superintendent of public roads." In counties of more than 15,000 and not more than 85,000 population the commissioners of roads and revenues, upon the recommendation of the grand jury, may employ one or more persons as "inspector of roads and bridges."

The commissioners of roads and revenues are authorized to levy a tax of not more than four-tenths of 1 per cent on all taxable property for a "public road fund." They are also authorized to levy a general road tax of from 1 to 2½ mills on the dollar. In addition to the general road taxes authorized by law many counties operate under special laws and are authorized to make special levies in excess of or in lieu of the general levy. Any county or subdivision thereof may issue road bonds in an amount not exceeding 7 per cent of the assessed value of all taxable property therein, when authorized by a two-third vote of the qualified voters of the county. Bonds may be issued without being submitted to a vote of the people in an amount not exceeding one-fifth of 1 per cent of the assessed value of all taxable property in the county.

All male persons between the ages of 21 and 50 years, not exempt by law, are liable to work not exceeding 10 days each year on the roads or commute for same by paying from \$2 to \$5 in cash, the requirements varying in the different counties. State and county convicts may be worked on the roads.

REVENUES APPLIED TO ROADS AND BRIDGES IN 1914.

The total revenues applied to roads and bridges in 1914 amounted to \$3,688,172.25 and comprised the following items: County road and bridge tax, \$2,827,352; amount obtained from automobile licenses, \$92,739; amount obtained from commutation tax, \$708,285; and cash value of statute labor tax, \$59,796.25.

In 1904 the total revenues applied to roads and bridges amounted to \$2,080,872.33. In the 10-year period revenues for this purpose increased \$1,607,299.92, or 77.2 per cent.

Information in regard to the tax rates and the receipts from taxation of the various counties is shown in Table 11.

ROAD AND BRIDGE BONDS.

According to the reports received, \$127,500 of road and bridge bonds were outstanding on January 1, 1915, as follows: Ben Hill County, \$8,000; Bleckley County, \$8,000; Clarke County, \$76,500; and Hancock County, \$35,000. In 1914 Dade County voted \$60,000 of 5 per cent 20-year road and bridge bonds, which were sold during

1915 at 98½ cents on the dollar. Road bonds were retired as follows: Ben Hill County, \$350; Towns County, \$700 and Turner County, \$1,000.

ROAD MILEAGE.

At the close of the year 1914, according to reports received, Georgia had 80,669 miles of public road, of which 12,342.12, or 15.3 per cent, were surfaced. Of the surfaced roads, 10,778 miles were sand clay, 1,073 miles gravel, 234 miles macadam, 87 miles bituminous macadam, 45 miles shell, 1.7 miles brick, 0.4 mile concrete, and 123 miles not classified as to type.

In mileage of surfaced roads, Emanuel County stands first with 500 miles, or 68.8 per cent; Decatur County, second, with 500 miles, or 67 per cent; Richmond County, third, with 405 miles, or 81 per cent; Bulloch County, fourth, with 400 miles, or 53.4 per cent. There are 6 counties having between 300 and 400 miles surfaced, 14 counties having between 200 and 300, 29 counties having between 100 and 200, and 52 counties that reported no surfaced roads. There are 30,554 miles of roads reported as graded and drained earth.

In 1909 there were 5,978 miles, or 7.27 per cent, reported as surfaced, thus indicating that during the 5-year period 6,364 miles were surfaced. Information showing the total mileage of all roads and the miles surfaced in the various counties is contained in Table 41.

KENTUCKY.

By R. C. TERRELL, *State Commissioner of Public Roads and Collaborator United States Office of Public Roads and Rural Engineering.*

Kentucky has an area of 40,181 square miles, a total road mileage of 57,916, and a population, according to the 1910 census, of 2,289,905. The State, therefore, has a population of 56.9 per square mile of area and 39.5 per mile of road, with 1.44 miles of road per square mile of area. Of the population in 1910, 75.7 per cent, or 1,734,463 was rural, making a rural population of 29.94 per mile of road.

In 1912 the legislature enacted a law creating a department of public roads, the chief officer of which is the commissioner of public roads, who is appointed by the governor for a term of four years and is required to be a graduate of civil engineering from some reputable university or technical school.

The commissioner of public roads had no authority over county roads, other than in an advisory capacity, and the expenditures of the department of public roads were not to exceed \$25,000 annually, to be paid from the State road fund which was composed of the proceeds of the license tax on motor vehicles. In 1914 a new law was enacted enlarging the powers of the State commissioner of public roads and levying a State tax of 5 cents on each \$100 valu-

ation of all property not exempt from taxation, the proceeds to be credited to the State road fund and apportioned among the several counties of the State in proportion to the road taxes collected therein, no county to receive in any one year more than 2 per cent of the amount collected for the State road fund. Under this new law, a system of public State highways was created to consist of roads connecting the county seats of the various counties of the State, which roads are to be the first to receive State aid.

The commissioner of public roads has general supervision over all public roads and bridges being constructed, improved or maintained in whole or in part by the aid of State money, and he prescribes rules and regulations fixing the duties of county road engineers and their employees in respect to the roads and bridges composing the system of public State highways and determines the method of construction. One-half of the cost of State-aid road work is to be paid by the State and the counties, respectively. The fiscal court has the plans, specifications, and estimates prepared and submits them to the commissioner of public roads for his approval. After such approval the fiscal court may let the work to contract, after due advertisement, the contract to be approved by the commissioner. After the contract is awarded, the commissioner of public roads appoints an inspector to inspect the work required to be done thereunder. The salary of the inspector is paid out of the sum apportioned to the county from the State road fund.

The fiscal or county courts are vested with the general charge and supervision of the public roads and bridges in their respective counties. The county judge, by and with the consent and approval of the fiscal court, is authorized to appoint a county road engineer who shall be either a reputable civil engineer or have had two years practical experience as a road builder and shall have passed a creditable examination by the State commissioner of public roads. The judge of each county court may divide the county into road precincts and appoint an overseer for each precinct.

The taxes for ordinary road and bridge purposes are imposed by the fiscal courts of the counties under a constitutional limit of 50 cents on the \$100 for all purposes other than schools. All able-bodied male citizens over 18 and under 50 years of age, not exempt by law, may be required to work on the public roads, either in person or by able-bodied substitute, not exceeding six days each year. An annual poll tax of \$1.50 may be levied and the proceeds applied to the maintenance of the public roads of the respective counties. Bonds may be issued for road and bridge purposes by the fiscal court when so authorized by a majority vote at an election called for that purpose by the county court upon petition of 150 legal voters who are freeholders of the county. The amount of such

bonds that may be issued shall not exceed 5 per cent of the value of the taxable property therein or shall not require a tax levy for interest and sinking fund in excess of 20 cents on the \$100 of assessed valuation of the county. County prisoners may be worked on the public highways and bridges.

REVENUES APPLIED TO ROADS AND BRIDGES IN 1914.

The total revenue applied to roads during 1914 amounted to \$2,474,621, of which \$2,180,997 was derived from property taxes, \$201,027 representing the cash value of the statute labor tax, \$55,597 poll taxes and donations, \$19,000 expenditures from bond issues, and \$18,000 expended from automobile licenses for the maintenance of the State highway department. A property tax, paid in cash, was levied in 101 of the 120 counties. The rate varied from a minimum of 5 cents to a maximum of 40 cents, and averaged for the State 23.1 cents on the \$100. In 1904 the total revenue applied to roads, including cash value of statute labor taxes, amounted to \$2,148,689.03 thus showing that during the 10-year period expenditures increased \$325,931.97, or 15.1 per cent. The use of the statute labor tax has declined steadily during the past 10 years. In 1904 there were 93 counties in which the statute labor tax was in use and the cash value of the labor performed amounted to over \$1,000,000, but in 1914 there were only 29 counties using this form of taxation and the cash value of the labor performed amounted to only \$201,027.

Information regarding taxation and revenues as applied to roads is shown by counties in Table 12.

ROAD AND BRIDGE BONDS.

The total bonds outstanding on January 1, 1915, according to the reports received, amounted to \$705,000. Lewis County voted \$150,000, in 1914, of which \$125,000 was sold and \$19,000 expended. The Lewis County bonds run for 30 years and bear 5 per cent interest. The bonds outstanding on January 1, 1915, are shown by counties in Table 27.

ROAD MILEAGE.

At the close of the year 1914 Kentucky had 57,916 miles of public road, of which 12,403.28 miles, or 21.4 per cent, were reported as surfaced. Of the surfaced roads, 10,628 miles were macadam, 59.03 bituminous macadam, 1,713.5 gravel, 2.5 concrete, and 0.25 brick.

In surfaced road mileage, Jefferson County stood first, with 779.75 miles, or 85.89 per cent; Grant County second, with 490 miles, or 90.74 per cent; Shelby County third, with 402 miles, or 57.26 per cent; Owen County fourth, with 400 miles, or 66.66 per cent; Warren County also has 400 miles, or 40 per cent, surfaced. Ten counties reported between 300 and 400 miles surfaced; 16 coun-

ties reported between 200 and 300 miles; 14 counties reported from 100 to 200 miles; while 40 counties reported no surfaced roads. Twenty-six counties reported a smaller mileage of surfaced roads for 1914 than was reported by them in 1909. In spite of this decrease, however, the complete returns show that during the 5-year period 1909-1914, 2,288.33 miles of road were surfaced and that the percentage of surfaced roads increased from 18.82 in 1909 to 21.4 in 1914. Mileage statistics for the various counties for the year 1914 are shown in Table 42.

LOUISIANA.

Louisiana has a land area of 45,409 square miles, a total road mileage of 24,563, and a population, according to the 1910 census, of 1,656,388. The State, therefore, has a population of 36.47 per square mile of area and 67.43 per mile of road, with 0.54 mile of road per square mile of area. Of the population in 1910, 70 per cent, or 1,159,872 was rural, thus indicating a rural population of 47.22 per mile of road.

The State board of engineers is required to appoint a State highway engineer and such assistant engineers and other help as may be necessary to the proper conduct of the work of establishing, constructing, maintaining and repairing public highways with bridges, culverts, drains, and other appurtenances and accessories incident thereto. When requested so to do by the police jury of a parish or the municipal authorities of any city, town or village, the State board of engineers is required to furnish such parish, city, town or village with plans and specifications and with such advice and assistance as will tend to create a uniform system of public roads throughout the State.

The State highway engineer, subject to the approval of the State board of engineers, is given authority to determine the character, select the materials and have general supervision of the construction and repair of all highways in the improvement of which State aid may be given. Written application for State aid must be made to the State highway engineer by the police juries of parishes and by the mayors or other governing authorities of cities, towns or villages. Upon receipt of such application the State highway engineer is required to send to such authorities blank forms eliciting such information as he may desire concerning the proposed improvement, and he may, subject to the approval of the State board of engineers, approve the same and have plans, specifications and estimates of cost therefor prepared.

Where the cost of the improvement will exceed \$2,000, it shall be done by contract, but where such cost will be less than \$2,000 it shall be discretionary with the State highway engineer, subject to the approval of the State board of engineers, to let the work to contract

or to have it done by free labor. Of the total cost of all State-aid road work, the State pays one-half, if the funds available are sufficient, and the parish, city, town or village wherein such work of improvement is located is required to pay the remaining portion. The State highway engineer is required to maintain all roads improved with the aid of the State, and the cost of such maintenance is borne one-half by the State and one-half by the parish, city, town or village in which such road may be located. A State highway fund is created to consist of the State road tax levy of one-fourth mill on each \$1 of the assessed value of all property assessed for State taxation.

Jurisdiction over all road matters in the various parishes of the State is vested in the police juries, which are authorized to pass all such ordinances as they may deem necessary relative to roads, bridges and ditches, and to impose fines and penalties for failure to observe their orders. They are required to divide parishes into as many districts as they may think proper for the appointment of overseers of roads and shall appoint one overseer for each such district.

The police juries are authorized to have the work of opening and repairing roads and building and repairing bridges done by contract. They may, and on petition of not less than 25 per cent of the property owners, resident and nonresident, shall divide their parishes into one or more road districts. When petitioned by 50 per cent of the land owners, resident and nonresident, they may divide road districts into subroad districts. On request of 50 per cent or more of the property owners, resident and nonresident, in a road district, the police jury is required to appoint for such district a supervising board of five property owners, to have charge and supervision over the road improvement work to be undertaken therein. Otherwise, the police jury is the board of administration or the governing body for the road districts and subroad districts in their respective parishes. Whenever any road construction exceeds \$2,000, the plans and specifications shall be prepared and submitted for approval to the State board of engineers.

Of the tax levy of 10 mills on the \$1 authorized by the constitution for all county purposes, the police juries may set aside at least 1 mill per annum for the purpose of constructing, maintaining, and repairing the public roads and bridges of their respective parishes. For a like purpose they may impose a per capita tax of \$1 upon each able-bodied male between 18 and 55 years of age, and may levy an annual graduated license tax of not less than 25 cents nor more than \$1 upon each vehicle, including bicycles, kept within the parish or municipality thereof and used on the public roads.

Parishes and road districts, through the police juries, may issue road bonds not to exceed in the aggregate 10 per cent of the assessed property valuation of the parish or road district, when authorized by

a majority vote of the qualified electors voting at an election held for that purpose provided that the annual tax required to meet the bond issue, added to all other special taxes imposed to extinguish bonds issued for similar purposes, shall not exceed 10 mills on the \$1. A special tax for road purposes may be voted in similar manner, if such special tax added to the taxes otherwise levied will not exceed the constitutional limit of 10 mills.

All male persons between 18 and 50 years of age, not exempt by law, may be required to work on the public roads not exceeding 12 days each year or to pay in lieu thereof \$1 for each day. Provision also is made for the working of both State and parish convicts on the public roads.

REVENUES APPLIED TO ROADS AND BRIDGES.

The total revenues applied to roads in 1914 amounted to \$1,777,572.12, as follows: general road tax, \$533,294.10; capitation, vehicle, and special taxes, \$250,648.60; cash value of statute labor tax, \$45,735; expended by State on State highways, \$461,505.73; and expenditures from bond issues, \$486,388.69.

The total expenditures in 1904 amounted to \$951,872.86, thus showing that during the 10-year period expenditures increased \$825,699.26, or 86.7 per cent. The cash value of the statute labor tax decreased from \$606,421 in 1904 to \$45,735 in 1914.

Information regarding taxation and revenues for 1914 is shown by parishes in Table 13.

ROAD AND BRIDGE BONDS.

On January 1, 1915, according to the reports received from the various parishes, the total road and bridge bonds outstanding amounted to \$1,588,835.26. During the year 1914 there was expended from bond issues \$486,388.69; there was voted \$1,732,000; there was retired \$24,500, and there was sold \$1,161,000 of road and bridge bonds. Detailed information in regard to bond issues in the various parishes is presented in Table 28.

ROAD MILEAGE.

At the close of the year 1914, Louisiana had 24,563 miles of public road, of which 2,067.6 miles, or 8.42 per cent, were surfaced. Of the surfaced roads 430 miles were gravel, 1,448 sand clay, 107.5 shell, and 82.1 miles of other materials. There were also 7,453 miles of graded and drained earth roads.

In mileage of surfaced road, Rapides Parish stood first with 709 miles, or 54.16 per cent; Ouachita, second with 308 miles, or 50.65 per cent; Washington, third with 183 miles, or 33.27 per cent; Bossier, fourth with 170 miles, or 40.86 per cent; and De Soto fifth with 100 miles, or 25 per cent. There were 38 parishes which reported no surfaced roads. During the five-year period, from the

close of 1909 to the close of 1914, 1,796.1 miles were surfaced. The per cent of surfaced roads increased, therefore, from 1.32 in 1909 to 8.42 in 1914. Detailed information in regard to Louisiana road mileage is shown in Table 43.

MARYLAND.

By H. C. McAVOY, *United States Collaborator.*

Maryland has a land area of 9,941 square miles, a total road mileage of 16,458, and a population, according to the 1910 census, of 1,295,346. The State, therefore, has a population of 130.3 per square mile of area and 78.7 per mile of road, with 1.65 miles of road per square mile of area. Of the population in 1910, 49.2 per cent, or 637,154, was rural, thus indicating a rural population of 38.71 per mile of road.

By an act of the legislature of 1908, as amended, the State roads commission was created and consists of the governor, ex officio, and five members appointed by the governor. The chairman is designated by the governor. The commission elects a secretary and employs a chief engineer, assistant engineers, and other necessary help. The commission must select, construct, improve, and maintain a general system of State roads in and through all of the counties of the State. It is authorized, in carrying out its duties, to take over, by purchase or condemnation, turnpikes forming a section of a main road to be improved by it. The construction and improvement of all State roads or parts thereof are required to be done under the supervision and subject to the approval of the commission, and in accordance with plans and specifications prepared by the chief engineer and approved by the commission. Where the cost of any work on a State road will exceed \$500, it shall be let under contract by the commission.

The commission is authorized to contract with the board of commissioners of any county to grade, maintain, and repair, and to more fully construct, the State roads within the borders of such county. The commission is authorized to establish stone-crushing plants, located at such points as to secure most economical water or other transportation, and to work State convicts in operating the same. The use of State convicts in road and bridge construction and maintenance work is also authorized. The commission is empowered to make such regulations and orders as it may deem necessary for the preservation of State roads and to regulate the use of same by traction engines and such other vehicles or conveyances as produce more than ordinary wear thereon.

The State road system, which includes State roads paid for entirely by the State, State-aid roads paid for by the State and counties jointly, and turnpikes purchased by the State, comprises 1,178.22

miles. All funds for the building of State roads are provided by State bond issues. The State roads commission is required to maintain all State roads and is authorized to adopt such method therefor as it may deem best, and to employ necessary engineers, assistants, and other employees. A State tax of 1 cent on each \$100 of taxable property is levied to provide a fund for the maintenance and repair of State roads. This fund is supplemented by 80 per cent of the net revenues derived from the registration and licensing of motor vehicles.

Provision is made for the granting of State aid to counties. Application for State aid in the improvement of any roads in a county shall be made by the county board of commissioners to the State roads commission. The commission shall cause necessary surveys, plans, and specifications to be made when such State aid work is approved and undertaken. The work is done by contract let by the county board of commissioners after due advertisement, subject to the approval of the State roads commission. The commission has immediate supervision of work done under contracts. Roads so improved are thereafter county roads and the county is required to maintain them to the satisfaction of the State roads commission, and any county failing to so maintain such roads shall not thereafter receive any State aid. In case of neglect on the part of the county to so maintain such roads, five taxpayers may apply to the circuit court for a writ of mandamus to compel the county commissioners to maintain the road.

Where State-aid work is undertaken, one-half of the cost thereof is to be paid by the State and one-half by the county, but no county shall receive in any year a larger proportion of the total amount appropriated for State aid that year than the proportion which the then existing miles of public roads in said county bears to the then existing total mileage of public roads in all counties of the State applying for State aid, unless an unallotted balance remains, in which event, said balance shall be apportioned in the same manner as the original appropriation among the counties which have not received the full amount of State aid for which application has been made. State-aid funds are provided by direct appropriations from the State treasury.

Jurisdiction over all county road and bridge matters is vested in the respective boards of county commissioners, who appoint road supervisors in those counties having road supervisors and may, when they shall deem it to the public interest, appoint an engineer to supervise and direct all road and bridge construction and repair work. All applications for opening, altering, or closing public roads are required to be by petition to the county board of commissioners.

No general road or bridge tax levy is provided in any of the counties, the levy varying in each county as determined by the county board

of commissioners and as fixed by the legislature at each session. There is no general road-bonding law in Maryland, road bonds issued in the several counties being under special authorization of the legislature and generally after an election thereon. Most of the counties work their convicts on the public roads.

REVENUES APPLIED TO ROADS AND BRIDGES.

In 1914 the total revenues applied to roads and bridges amounted to \$6,000,652.03, comprising the following items: general county road tax, \$1,047,043.99; miscellaneous revenues, \$816,282.68; expenditures from State appropriations and State bond issues applied to State roads, \$3,713,279; contributions by counties spent under State supervision on State-aid roads, \$309,504; expenditures from county bond issues, \$114,542.36.

In 1904 the total revenues applied to roads amounted to \$873,470.50, thus showing that in the 10-year period revenues for this purpose increased \$5,127,181.53, or 586.9 per cent. This is the largest increase in revenue reported for any Southern State. Detailed information showing tax rates and receipts from taxation for the various counties is shown in Table 14.

BOND ISSUES.

On January 1, 1915, the total county bonds outstanding amounted to \$443,700. During the year 1914, \$114,542.36 was expended from bond funds and \$26,500 of road bonds were retired. Information showing bond issues by counties is presented in Table 29.

On January 1, 1915, State bond issues amounting to \$12,410,000 were outstanding. These bonds were issued for the purpose of building a system of State roads. The amount of State bonds outstanding, the interest rate on each group of bonds issued, the date of maturity, and the character of the bonds is presented in Table 29a.

ROAD MILEAGE.

At the close of the year 1914 there were 16,458 miles of public road in the State, of which 2,489.26 miles, or 15.1 per cent, were surfaced. Of the surfaced roads, 488.70 were macadam, 1,042.31 bituminous macadam, 189.34 concrete, 243.95 gravel, 455.96 shell, and 69 sand clay.

In mileage of surfaced roads, Baltimore County stands first with 574 miles, or 47 per cent; Dorchester County second, with 215.43 miles, or 30.4 per cent; Montgomery County third, with 197.04 miles, or 23.8 per cent; Anne Arundel County fourth, with 181 miles, or 33.2 per cent; and Washington County fifth, with 152 miles, or 21.5 per cent. Every county in the State reported some surfaced roads.

At the close of 1909 Maryland had 2,142.30 miles, or 12.77 per cent, of surfaced roads, thus indicating that in the 5-year period 346.96 miles were surfaced. Information showing the total mileage and the mileage of surfaced roads in the various counties is contained in Table 44.

MISSISSIPPI.

Mississippi has a land area of 46,362 square miles, a total road mileage of 45,779, and a population, according to the 1910 census, of 1,797,114. The State, therefore, has a population of 38.76 per square mile of area and 39.25 per mile of road, with 0.99 miles of road per square mile of area. Of the population in 1910, 88.5 per cent, or 1,589,803, was rural, thus indicating a rural population of 34.72 per mile of road.

In 1916 a State highway commission was created to consist of three members, one from each supreme court district, appointed by the Governor with the advice and consent of the State senate. Each member of the commission is to serve for a term of six years. The State highway commission elects a State highway engineer, who is required to be a competent civil engineer, experienced and skilled in highway construction and maintenance. The State highway engineer is authorized to appoint, subject to the approval of the commission, necessary clerical and engineering assistants. The work of the commission is mostly of an educational and advisory nature.

The board of supervisors in each county has jurisdiction over the roads, bridges, and ferries therein. It is required to divide the public roads into convenient links and annually appoint one overseer for each link. It is the duty of the overseer to keep in good repair the roads under his charge and to erect such necessary bridges thereon as may be built and kept in repair conveniently by the labor of the hands assigned to him. The supervisor of each district in the several counties has, and is required to exercise, general supervision over the public roads of his district. The board of supervisors in each county may employ a competent person to serve as road and bridge commissioner.

Various provisions of law exist authorizing the building and maintaining of roads by contract to be let by the board of supervisors. Special road districts may be created by the boards of supervisors on petition of a majority of the property owners, or the owners of a majority of the property, in the territory to be embraced therein, and an engineer appointed to have charge of the road improvements therein, the cost of which improvements shall be met by benefit assessments on all real property in the district. Various other methods exist under the law for creating road districts, for raising

road funds therein, either by a tax levy or a bond issue, and for appointing officials, under different designations or titles, to have charge of road improvements to be made therein. The boards of supervisors may require adjoining road districts to connect their improved roads, one with the other, and may apportion the cost equitably between the districts. If a road district shall have improved its roads it may turn such improved roads over to the county and they shall be maintained thereafter by the board of supervisors.

The authorities of any city, town, or village may, if they deem it necessary or to the interest of such city, town or village, extend aid in the improvement of any road leading thereto and as far therefrom as may be deemed proper. A bridge over a stream which divides one county from another shall be constructed jointly by the boards of supervisors of such counties, and any municipality which will be benefited by the building of such bridge may join the counties in its construction.

The board of supervisors may levy an annual road tax of not exceeding 1 mill on all taxable property in the county, but the taxes so levied and collected in any municipality which maintains its own streets shall be divided equally between the county road fund and the municipal street fund. Where the roads of a county, or any portion thereof, are worked under contract, an ad valorem tax of not to exceed 3 mills on \$1 may be levied on all taxable property in the county or such portion thereof. The board of supervisors may impose a tax on property contiguous to a shell, macadam, or gravel road, in addition to the other road taxes, for the purpose of constructing or maintaining such roads, when such property will be materially enhanced in value by such improvement.

Where county bonds are issued for the purpose of building a system of intercounty highways, the board of supervisors shall appoint a "county highway commissioner," who shall, subject to the approval of the board, employ a civil engineer and lay out, let to contract, and supervise the construction and maintenance of the roads to be improved with the proceeds of such bond issue. A number of provisions are made for the appointment of special commissioners, highway commissioners, or officers under other designations or titles where road bonds are issued or funds are provided otherwise for road improvements.

Road bonds may be issued by any county in an amount which will not make its indebtedness exceed 10 per cent of the assessed value of taxable property therein. Before bonds are issued, however, the board of supervisors shall give three weeks' notice of intention to issue such bonds and that a meeting will be held for that purpose, and if on or before such meeting there should be filed with the clerk of such board a petition signed by 20 per cent of the qualified electors

of the county against the issuance of said bonds, the proposition shall then be submitted to an election, and a majority vote of those voting shall be necessary to authorize such bond issue. Bonds of any road district may be issued in the same manner.

Where county or district road bonds are issued, it is required that a tax shall be levied adequate for the purpose of maintaining the roads constructed with the proceeds of the bonds issued.

All male persons between 18 and 50 years of age, not exempt by law, are liable to work on the roads not exceeding eight days, or to pay in lieu thereof the sum of \$3. The working of county convicts on public highways is authorized by law. Also, to a limited extent, State convicts may be so worked.

REVENUES APPLIED TO ROADS AND BRIDGES.

There are 18 counties in Mississippi from which it was impossible to obtain information on the subject of road taxation and revenues. The total receipts in the 62 counties furnishing complete information amounted to \$1,479,417.01, of which \$1,086,564.10 was obtained from general taxation in counties, beats and districts, \$31,405.55 from automobile registration fees, \$321,947.36 from per capita taxation, while \$39,500 represented the cash value of the statute labor tax.

Based on reports received, the total receipts from taxation for the whole State should be approximately \$1,908,925. The expenditures from bond issues during 1914 amounted to \$2,051,452.71, which makes a grand total received from taxation and bond issues and applied to roads during the year of approximately, \$3,960,377.

In 1904 the total expenditures for this purpose amounted to \$1,675,485.45, thus showing an increase during the 10-year period of \$2,284,891.55, or 136.3 per cent. Information showing receipts from taxation for counties which furnished reports is contained in Table 15.

ROAD AND BRIDGE BONDS.

The total road and bridge bonds issued by counties, beats and districts, outstanding on January 1, 1915, amounted to \$8,327,172, the expenditures from bond funds during 1914 amounting to \$2,051,452.71. In 1914 a total of \$40,000 of bonds previously issued were retired, \$1,225,500 were voted, and \$1,778,500 were sold. The bonds sold during 1914 bear from 5 to 6 per cent interest and run from 10 to 30 years. Detailed information in regard to bond issues by counties, districts and beats is contained in Table 30.

ROAD MILEAGE.

At the close of the year 1914, Mississippi had 45,779 miles of public roads, of which 2,133.35 miles, or 4.66 per cent, were surfaced. Of the surfaced roads, 1,281.10 miles were surfaced with gravel, 604.25 with sand-clay, 114 with shell, 86 with macadam, 29.5 with bituminous macadam, 14 with concrete, 4 with slag, and 0.5 with burnt clay.

In mileage of surfaced roads Lowndes County stood first, with 223 miles, or 54.65 per cent; Lee County, second, with 157 miles, or 50.32 per cent; Monroe County, third, with 150 miles, or 23.07 per cent; Lauderdale County, fourth, with 146.75 miles, or 18.37 per cent; and Hinds County, fifth, with 110 miles, or 12.79 per cent. Noxubee County had 103 miles and Copiah County 100 miles of surfaced roads, while 38 counties reported no surfaced roads. The surfaced and drained earth roads amounted to 13,686 miles.

In 1909 Mississippi reported 39,619 miles of public roads, of which 342.25, or 0.86 per cent, were surfaced. It thus appears that in the 5-year period 1,791.1 miles of road have been surfaced. Detailed information in regard to road mileage in the various counties is contained in Table 45.

NORTH CAROLINA.

By JOSEPH HYDE PRATT, *State Geologist and Secretary North Carolina Highway Commission, and Collaborator United States Office of Public Roads and Rural Engineering.*

North Carolina has a land area of 48,740 square miles, a population, according to the 1910 Census, of 2,206,287, and a total road mileage of 50,758. The State, therefore, has a population of 45.3 per square mile of area and 43.5 per mile of road, with 1.04 miles of road per square mile of area. Of the population in 1910, 85.6 per cent, or 1,887,813, was rural, thus indicating a rural population of 37.19 per mile of road.

From the coast lowlands westward to the mountains for a distance of over 500 miles there is great variation in topography. The conditions make for complex problems, so that each section has its own, especially with regard to location and surfacing materials. Thus it is found advisable to use macadam, gravel, sand-clay, or topsoil. Material for making sand-clay¹ road is abundant, and such roads meet the traffic requirements over a large portion of the State.

All the road work in North Carolina is directed by county or township officials. Until recent years all road-tax levies were made by the county commissioners and the funds were spent under their direction. Within the past three years, however, especially where road bonds have been issued, special road commissions have been

¹ Sand-clay includes gravel and topsoil.

appointed. During 1914 the road funds of the State were accordingly administered by the county commissioners, county road commissioners, township road commissioners or trustees, or other local officials.

No work has been done directly under the State, except such educational work and engineering assistance as could be rendered by the small annual appropriation of \$5,000 allotted for that purpose to the highway department of the North Carolina Geological and Economic Survey. The supervision of the construction of the Hickory Nut Gap Road and of a section of the Central Highway in Madison County was assigned to this department by the legislature of 1913. The use of State convicts for road work also was authorized by act of October 13, 1913.

A State highway commission was created by act of March 5, 1915, to consist of three citizens of the State to be appointed by the governor, the State geologist, and a professor of civil engineering each from the University of North Carolina and from the North Carolina Agricultural and Mechanical College. The commission is required to appoint a State highway engineer. An annual appropriation of \$10,000 is made to enable the commission to give engineering advice and assistance to the various counties.

The Mecklenburg law of 1879, which was repealed in 1881, has been reenacted and can be adopted now as the road law of any county by a vote of the county commissioners, on petition signed by a number of the freeholders in the county. It provides for working the public roads partly by the old labor system and partly by taxation. Counties may also work their convicts on their public roads. Prior to the passage of that law all road work was done by the free-labor system, which is still in vogue in a number of counties.

The general assembly of 1913 passed many acts relating to the issuing of road bonds by counties and townships. There was a wide variation in the methods authorized for issuing bonds. It can be done by election on a set date, by election on petition to the county commissioners, or directly by the county commissioners without vote or petition. One general law authorizes any township, except in certain counties, upon petition of one-fourth of the qualified voters of the township, to vote road bonds not exceeding \$50,000.

REVENUES APPLIED TO ROADS AND BRIDGES IN 1914.

The total revenues applied to roads and bridges during the calendar year 1914 amounted to \$5,215,490.78 and comprised the following items: receipts from regular county and township taxes, \$1,808,679.85; automobile and dog taxes and private subscriptions, \$272,155.43; bridge tax, \$89,525.50; cash value of statute labor tax, \$610,130; appropriation by the legislature for road investigations

and educational work by the geological and economic survey, \$5,000; and estimated expenditure of \$2,430,000¹ from county and township road and bridge bonds issued and sold during the years 1913 and 1914.

The total expenditure for public roads and bridges from taxation and bond issues during the year 1904 amounted to \$1,358,687, thus showing that expenditures increased \$3,856,803.78, or 283.8 per cent, in the 10-year period.

The total receipts from taxation applied to roads and bridges are shown by counties and townships in Table 16.

ROAD AND BRIDGE BONDS.

The total county and township road and bridge bonds outstanding on January 1, 1915, amounted to \$8,955,300. In 1914 a total of \$1,119,500 bonds were voted and \$2,709,000 sold.

No exact information is available to show how much was expended from bond issues in 1914, but the North Carolina Geological and Economic Survey estimates that this amounted to \$2,430,000. This expenditure was from bonds authorized and sold during the years 1913 and 1914.

The total amounts of road and bridge bonds outstanding on January 1, 1915, and the amounts voted and sold during 1914 are shown in Table 31.

ROAD MILEAGE.

At the close of 1914 North Carolina had 50,758 miles of public roads of which 6,003.75 miles, or 11.82 per cent, were surfaced. Of the surfaced roads 1,111 miles were macadam, 529 gravel, 4,313.5 sand-clay, 9 bituminous macadam, 1.25 concrete, and 40 miles not classified.

In mileage of surfaced roads Mecklenburg County stood first with 385 miles, or 38.5 per cent; Iredell second, with 265 miles, or 37.85 per cent; Richmond third, with 250 miles, or 41.66 per cent; Moore fourth, with 230 miles, or 38.33 per cent; Guilford fifth, with 220 miles, or 22 per cent; Franklin County has 210 miles, or 42 per cent; Wake County had 202.25 miles, or 16.85 per cent, and Wayne County has 210 miles, or 21 per cent. Twenty counties reported no surfaced roads. The total of graded and drained earth roads reported amounted to 4,181 miles. In 1909, 2,313 miles, or 4.79 per cent, were surfaced. In the 5-year period, 1909-1914, 3,690.75 miles were surfaced.

The mileage figures for the various counties are presented in Table 46.

¹ Information as to expenditure from bond issues was taken from Circular No. 105, issued July 5, 1915, by the North Carolina Geological and Economic Survey.

OKLAHOMA.

Oklahoma has a land area of 69,414 square miles, a total road mileage of 107,916 miles, and a population, according to the 1910 Census, of 1,657,155. The State, therefore, has a population of 23.87 per square mile of area and 15.36 per mile of road, with 1.55 miles of road per square mile of area. Of the population in 1910, 80.7 per cent, or 1,337,000, was rural, thus indicating a rural population of 12.38 per mile of road.

In 1911, the legislature passed an act creating a State highway department and provided for its maintenance by a registration fee of \$1 imposed upon each automobile in the State. A law was enacted in 1915 which created a new department of highways with enlarged powers and more adequate funds. This new law became effective July 1, 1915.

Owing to the reorganization of the State highway department, it was not practicable to obtain road mileage and revenue statistics for the year 1914. It, therefore, was found necessary to wait until the new department was organized and could undertake the work of gathering the necessary information. For that reason the data contained in this bulletin relating to Oklahoma are for the year 1915, and were collected by W. P. Danford, assistant State engineer and collaborator for this office.

One commissioner, appointed by the governor, by and with the advice and consent of the senate, and known as the commissioner of highways, is in charge of the department of highways. The commissioner of highways is vested with the power of general supervision over all matters relating to State highways, including the preparation of plans, specifications, and estimates, establishing standards for the construction of roads and bridges, giving engineering advice to local road officials, and collecting and compiling statistics relative to the roads and bridges throughout the State. He is authorized, with the consent of the governor, to appoint a State engineer, who is required to be a civil engineer of established reputation and qualified in road and bridge construction. The commissioner may also appoint, with the consent of the governor, necessary assistant engineers and clerical help.

The law provides for the appointment of a county engineer by the board of commissioners of each county. Such engineer is required to pass an examination held by the department of highways. He is required to report to the State engineer upon all matters relating to highways and bridges in his county. His salary is paid from the State road construction fund and the road and bridge fund.

Where township organization is retained, the township board of each township is required to select, annually, the roads to be dragged,

known as draggable roads. Each township shall employ a superintendent of its road system. He has general supervision of all dragging and repair work. A drag tax of not more than 2 mills is authorized, and dragging may be let to contract.

It is required by law that not less than 10 per cent nor more than 15 per cent of the total mileage of main traveled roads in the State shall be designated by the boards of county commissioners, subject to approval by the department of highways, as a State road system. The board of county commissioners and the county engineer are charged with the duty of repairing and dragging the State road system.

An ad valorem tax of one-fourth of 1 mill is collected in the State and credited to the State highway construction fund. Each county retains its own share in this fund. Counties which make the required levy and otherwise comply with the law by having the plans and specifications approved by the department of highways, shall be entitled to receive all moneys to their credit in the State highway construction fund. The county excise board in each county is empowered to levy a tax of one-fourth of 1 mill on all property subject to an ad valorem tax in the county, the proceeds of which constitutes the county road construction fund, which is used in the construction and maintenance of county highways.

The fees required for the registration and licensing of motor vehicles are collected by the department of highways. Ten per cent of the proceeds of such fees is paid into the general fund of the State and 90 per cent is paid to the treasurers of the respective counties on the basis of the amounts collected therein. The county treasurer is required to pay to the treasurer of any city of the first class or operating under a charter form of government in such county 25 per cent of all fees originally paid by residents of any such city. The residue shall be placed to the credit of the county road maintenance fund.

All able-bodied males between the ages of 21 and 50 years are required to work four days on the roads annually or to pay \$5. The law also provides for the working of State and county convicts on the public roads.

The various townships are authorized to issue highway and bridge bonds, provided that the aggregate amount of indebtedness thus created shall not exceed 5 per cent of the taxable property in the township. Counties are also authorized to issue bridge bonds.

REVENUES APPLIED TO ROADS AND BRIDGES.

The total revenues applied to roads and bridges during the calendar year 1915 amounted to \$2,112,680.80. These revenues included the following items: general county and township tax, \$1,859,572.09;

cash value of statute labor tax, \$95,288; other revenues applied to roads, \$147,820.71; funds derived from automobile-registration fees, \$1 per car, and used for the support of the State highway department, \$10,000. It was impossible to secure complete information from the various counties in regard to the statute labor tax, and the amount given under that heading probably is much less than actually was realized.

In 1904 the total revenues applied to roads amounted to \$774,775.59 which comprised \$447,319.59 derived from property taxes and saloon licenses, and \$327,456 from statute labor tax. It will thus be seen that the revenues for roads increased during the 11-year period \$1,337,905.21, or 172.6 per cent.

The receipts from taxation for road and bridge purposes are shown in Table 17.

BOND ISSUES.

It was not practicable to obtain statistics regarding bond issues for the year 1914. At the close of the calendar year 1913 there was a total outstanding road and bridge bond indebtedness amounting to \$1,440,000.

ROAD MILEAGE.

The total of all public roads in Oklahoma at the close of 1915 amounted to 107,916 miles, of which 121.6 miles, or 0.11 per cent, were surfaced. Of the surfaced roads, 6.7 miles were macadam, 3 miles bituminous macadam, 6.9 miles gravel, and 105 miles sand clay. Most of the counties reported a smaller mileage of surfaced roads for 1915 than for 1909, the total decrease for the State for the 6-year period being 239.4 miles. This is due to the fact that a number of the counties reported surfaced roads in 1909 which were not actually surfaced.

The mileage statistics are shown by counties in Table 47.

SOUTH CAROLINA.

South Carolina has a land area of 30,495 square miles, a total road mileage of 42,226, and a population according to the 1910 census of 1,515,400. The State has a population of 49.7 per square mile of area and 35.9 per mile of road, with 1.38 miles of road per square mile of area. Of the population in 1910, 85.2 per cent, or 1,290,568, was rural, thus indicating a rural population of 30.6 per mile of road.

The collection of road statistics was begun early in 1915 by the commissioner of agriculture, commerce, and industries, who acted as collaborator for this office. The data was reported to him by the county officials and checked and then rechecked in this Office, so as to secure as high a degree of accuracy as possible.

South Carolina has no State-highway department. The department of agriculture, commerce, and industries, however, has from

time to time collected information relating to the public roads of the State and has issued road maps, route books and charts, and has had signposts erected along some of the main traveled roads.

The control of the public roads, bridges, and ferries of the several counties is vested by general law in a county supervisor and a county board of commissioners. The county supervisors are elected for four years with a few exceptions where a shorter term is provided by special law. The county board of commissioners consists of the county supervisor, as chairman, and two commissioners, appointed by the governor upon the recommendation of the county delegation to the general assembly. In a few counties exceptions to the general law provide for more than two commissioners.

A number of counties operate under special laws. For instance, Aiken County is administered by a chief commissioner and advisory board, known as the county board of commissioners and composed of one district commissioner from each of four districts into which the county is divided. The chief commissioner is required to inspect the public roads of the county and consult and advise with each district commissioner as to their improvement and maintenance. The chief commissioner and advisory board apportion the county road fund among the various townships of the county in proportion to the number of miles of public road in each township, the amount so apportioned to be expended by the district commissioners, respectively. A number of counties have their roads and bridges under the jurisdiction and management of a highway commission, and a few counties are authorized to employ a county road engineer.

County boards of commissioners are authorized to adopt the contract system of working roads and to let contracts to the lowest responsible bidders. If the county board of commissioners conclude to work the roads by the labor of those liable to road duty, they appoint overseers in each township. In counties where township board of commissioners exist overseers are appointed by the township board. In counties where the public roads are worked by those liable to road duty, or in which the roads in any highway district are so worked, the county supervisor and the board of county commissioners divide the highways into suitable sections of not less than 2 nor more than 5 miles each, and where not worked by contract appoint an overseer for each section. In counties where township board of commissioners exist they shall, subject to the approval of the county board of commissioners or the county supervisor, divide their respective townships into suitable districts and elect, at their annual meeting, from the qualified electors of the township one overseer for each district. District overseers, when required by the county board of commissioners, call out the hands assigned to their respective sections for the purpose of working the roads and bridges,

and they may require each hand to bring with him necessary implements for doing such work.

All male persons are required to perform work on the roads each year or pay a commutation tax in lieu thereof. The age limit within which persons are liable to this road duty in the different counties varies from between 18 and 21 to 50 and 55 years and the number of days work required each year varies from 2 to 12. The rate of commutation varies from \$1 to \$3 per day. Where road work is let to contract and persons liable to road duty are assigned by the county supervisor or the county board of commissioners to work under such contract, the contractor shall receive such persons and utilize their labor and allow to the county board of commissioners such per diem therefor as may be agreed upon. The per diem so allowed shall be credited on the amount due such contractor by the county.

The county board of commissioners is authorized to levy annually not to exceed 1 mill on all taxable property of the county to constitute a part of the county road fund. The county boards also are authorized, when so requested by written petition of two-thirds of the freeholders of a township, to levy not to exceed 1 mill on all taxable property in the township for road purposes. It also is provided by law that the board of county commissioners, when petitioned in writing by one-fourth of the resident electors of a township and a like proportion of the resident freeholders thereof over 21 years of age, may order the township board of assessors to hold an election at which only such electors as return real and personal property for taxation may vote, to determine whether or not an additional levy of not to exceed 2 mills may be made in such township. A majority vote of those voting is necessary to authorize such additional levy, and when so authorized the said board of county commissioners shall levy same for 2 years, and the proceeds thereof shall be used for road purposes.

It is also provided that any person, firm or corporation cutting or severing from the soil standing timber, for sale or manufacture within or without the State, shall return the value of all such timber cut during any calendar year for taxation during the succeeding year as other personal property, and one-half the revenue derived therefrom shall go to the public road fund.

There is no general law authorizing the issuance of road and bridge bonds. Such bonds when authorized are by special acts of the legislature.

REVENUES APPLIED TO ROADS AND BRIDGES.

The total revenue applied to roads and bridges for the year 1914 amounted to \$1,024,480.37 and comprised the following items: general county road and bridge tax, \$717,843.07; commutation

tax and miscellaneous revenues, \$214,512.30; cash value of statute labor tax, \$58,125; expended from bond issues, \$34,000.

The total expenditures for roads and bridges for the year 1904 amounted to \$745,701.50, thus showing that during this 10-year period the revenues increased \$278,778.87, or 37.4 per cent. Information showing tax rates and receipts from taxation for the various counties is contained in Table 18.

ROAD AND BRIDGE BONDS.

The total road and bridge bonds outstanding on January 1, 1915, amounted to \$460,000, of which \$75,000 were voted and sold during the year 1914. The expenditures from bond issues during the year 1914 amounted to \$34,000. Information regarding the South Carolina bond issues is presented by counties and townships in Table 32.

ROAD MILEAGE.

According to the reports received, South Carolina had, at the close of 1914, 42,226 miles of public road of which 3,270.5 miles, or 7.74 per cent, were surfaced. Of the surfaced roads, 3,101 miles were sand-clay, 85 miles gravel, 53.5 miles shell, 27.5 miles macadam, and 3.5 miles bituminous macadam.

In mileage of surfaced roads the reports indicate that Anderson County stands first, with 500 miles, or 41.39 per cent; Aiken County second, with 350 miles, or 27.40 per cent; Florence County third, with 225 miles, or 19.56 per cent; Richland County fourth, with 202 miles, or 26.86 per cent; and Darlington County fifth, with 200 miles, or 20 per cent. Eight other counties reported 100 miles or over of surfaced road and 7 counties reported no surfaced roads.

In 1909 South Carolina reported 32,075 miles of public road of which 3,534.75 miles, or 11.02 per cent, were reported as having been surfaced. The 1914 figures were secured and checked by the Commissioner of Agriculture of South Carolina, and it is believed that they are as accurate as it is possible to obtain at present. Information showing the total mileage and mileage surfaced in the various counties is contained in Table 48.

TENNESSEE.

Tennessee has a land area of 41,687 square miles, a total road mileage of 46,050, and a population, according to the 1910 census, of 2,184,789. The State, therefore, has a population of 52.4 per square mile of area and 47.44 per mile of road, with 1.10 miles of road per square mile of area. Of the population in 1910, 79.8 per cent, or 1,743,744, was rural, thus indicating a rural population of 37.86 per mile of road.

A State highway commission and a State highway department were created by the legislature in 1915. The State highway commission consists of six members, three of whom are appointed by the governor, and the other three are ex officio members—the State geologist, the dean of engineering of the University of Tennessee, and the governor. The State highway commission is required to elect one of its members chairman and appoint a secretary who must be experienced in road building and maintenance. The State highway department is required to designate a system of roads connecting the county seats of the several counties in the State and expend the State-aid fund, but otherwise its work is of an educational and advisory nature. Ten per cent of the net revenues from the registration and licensing of motor vehicles is applied to the maintenance of the State highway department; the remaining 90 per cent is used by the department in maintaining State highways.

The county courts of the several counties have jurisdiction over all matters pertaining to roads and bridges. The constitution provides that the different counties shall be laid off, as the general assembly may direct, into districts of convenient size so that the whole number in each county shall not be more than 25, or 4 for each 100 square miles of area. Two justices of the peace are elected in each district by the qualified electors. The county court is composed of the justices of the peace and the county judge as chairman. The county court is divided into a quarterly and a monthly court.

The county court, at its January term every odd year, is required to divide the county into one or more road districts and elect a road commissioner for each district. Each road commissioner has control of the highways and bridges and of the overseers or contractors in his district, and directs all road work done therein. The road commissioners appoint the road overseers. Each overseer has charge of not less than one nor more than 5 miles of road. Any county court, a majority of the justices of the peace assenting, may appoint three commissioners authorized to employ engineers and other necessary help to survey, inspect, classify, lay off for improvement, and prepare plans, specifications and estimates for such roads in the county as it is desired to have improved, and report thereon with recommendations to the county court. The quarterly court of any county may employ a competent person to superintend the construction and repair of county buildings, bridges, levees, etc. The quarterly court also is authorized to let any road or section of road to contract, in which event the laws applicable to overseers in working the hands assigned to such roads shall apply to the contractors.

County and municipal corporations may unite in the building and regulation of bridges over any stream running by or through such municipality. The county courts are required at their January term

each year to appoint three superintendents of turnpikes whose duty shall be to inspect turnpikes and toll bridges and see that they are kept in repair. The county judge also is made *ex officio* superintendent of turnpikes.

Under the general law authorizing counties to issue road bonds the county court may divide the county into not less than three nor more than eight road districts and appoint one road commissioner for each district; but the county court may appoint instead three road commissioners from the county at large. In either event the road commissioners so appointed shall be the road commissioners of the county and shall have supervision of the construction of the roads provided for by the county court, with authority to employ a competent highway engineer and, if necessary, an assistant engineer. Numerous special road laws have been enacted and are in force in many counties. These special laws vary the method of road administration somewhat from that provided by the general law.

The county courts are authorized to impose a highway tax of not less than 5 nor more than 25 cents on each \$100 of assessed valuation of the county and on privileges not more than one-fourth of the assessment for county purposes. Two-thirds of the property tax may be worked out if the county court shall so decide. County courts of the various counties may issue road bonds in an amount with existing indebtedness not to exceed 10 per cent of the taxable valuation of the county when authorized by a majority vote, and in an amount, with existing indebtedness, not to exceed 15 per cent of the taxable valuation of the county when authorized by a two-thirds vote of those voting at an election held thereon. When bonds are voted, a tax necessary for interest and for retiring the bonds at maturity shall be levied and also a tax to create an annual maintenance and repair fund equal to 2 per cent of the amount of the bonds issued.

The county courts shall impose a highway labor tax of not less than four nor more than eight days each year on all males between 18 and 45 years of age not exempt by law. The highway labor tax so imposed may be commuted by paying 75 cents for each day of work so required. There is provision of law for the working of county and State convicts upon the public roads.

REVENUES APPLIED TO ROADS AND BRIDGES.

In 1914 the total receipts from taxation and bond issues applied to roads and bridges amounted to \$2,370,560.16, comprising the following items: general county tax, \$977,564.09; labor tax paid in money, \$18,133.63; cash value of statute labor tax, \$350,960; bridge tax and other revenues, \$245,595.92; and expenditures from bond issues, \$778,306.52. The total expenditures for these purposes in 1904

amounted to \$1,621,777.15, showing that in the 10-year period expenditures increased \$748,783.01, or 46.1 per cent.

Information showing receipts from taxation by counties for the year 1914 is contained in Table 19.

ROAD AND BRIDGE BONDS.

The total road and bridge bonds outstanding on January 1, 1915, amounted to \$6,898,276.89. In 1914 there was expended from bond issues \$778,306.52, retired \$128,421.11, voted \$486,500, and sold \$445,000 of road bonds.

Detailed information showing the bond issues by counties is contained in Table 33.

ROAD MILEAGE.

According to the reports received, Tennessee had at the close of 1914, 46,050 miles of public roads of which 8,102 miles, or 17.59 per cent, were surfaced as follows: 4,550.5 miles macadam, 2,788 gravel, 613 sand-clay, 148 miles bituminous macadam and bituminous-treated gravel, 2 miles concrete, and one-half mile brick.

In mileage of surfaced roads Shelby County stands first with 752 miles, or 55.62 per cent; Rutherford County, second, with 700 miles, or 63.63 per cent; Maury County, third, with 625 miles, or 55.55 per cent; Smith County, fourth, with 410 miles, or 91.11 per cent; Davidson County, fifth, with 375 miles, or 62.5 per cent; and Knox County, sixth, with 375 miles, or 37.5 per cent. There are 15 other counties which reported more than 100 miles of surfaced roads and there are 27 counties that reported no surfaced roads.

In 1909 Tennessee reported 5,353.5 miles, or 11.66 per cent of surfaced roads. A comparison of these figures will show that in the 5-year period, 1910-1914, inclusive, 2,748.5 miles were surfaced. Information showing the total mileage and mileage of surfaced roads by counties is contained in Table 49.

TEXAS.¹

Texas has a land area of 262,398 square miles, a total road mileage of 128,960 and a population, according to the 1910 census, of 3,896,542. The State has a population of 14.8 per square mile of area and 30.21 per mile of road, with 0.49 mile of road per square mile of area. Of the population in 1910, 75.9 per cent, or 2,958,438, was rural, thus indicating a rural population of 22.94 per mile of road.

¹ The collection of road statistics was begun early in 1915 by Dr. William B. Phillips, collaborator for this Office, and director of the bureau of economic geology and technology of the University of Texas. Subsequently, however, Dr. Phillips resigned his position at the university to take up work in another State. Mr. J. A. Udden, of the university, was then appointed collaborator, and the work was continued by him. A cooperative arrangement was also made whereby the assistance of Prof. R. L. Morrison, of the Agricultural and Mechanical College of Texas, was secured. In addition, extensive correspondence was conducted directly with various county officials, commercial organizations, and good-roads associations. Valuable assistance was rendered by Mr. D. E. Colp, secretary of the Texas Good Roads Association.

Texas has no State highway organization. Each county is divided into four precincts from each of which a commissioner is elected, with a term of two years, which commissioners, with the county judge, constitute the commissioners' court. The commissioners' court has general control and supervision over all roads, bridges and ferries in the county, and is authorized to appoint one road superintendent for the county or one for each commissioners' precinct, as it may determine. The road superintendent so appointed, subject to the direction of the court, shall have general supervision over all road and bridge work in the county or precinct, as the case may be. The commissioners' court of the several counties is required to divide the county into convenient road precincts and appoint a road overseer and apportion the road hands for each precinct. Each road overseer is required to work the roads in his precinct twice each year. The court also may employ not exceeding four road commissioners and define and fix the districts which each shall control. Each road commissioner, when employed, shall have control over all the overseers, road machinery, tools, implements and labor in his district.

The commissioners' court is authorized to levy annually a road and bridge tax of 15 cents on each \$100 of assessed property valuation. An additional levy of 15 cents on each \$100 may be made by the court when authorized by vote of a majority of the qualified property taxpaying voters of the county. Road and bridge bonds may be issued by any county or political subdivision or defined district thereof in an amount not to exceed one-fourth of the assessed value of the real property therein, when authorized by the vote of a two-thirds majority of the resident property taxpayers voting at an election called for that purpose.

All male persons between 21 and 45 years of age may be required to work on the roads not exceeding five days each year or to pay \$1 for each day of such work required of them. The law also authorizes the working of county convicts on the roads.

REVENUES AND BOND ISSUES.

In 1914 the total revenue and bond issue money applied to roads and bridges amounted to \$9,920,079.11, comprising the following items: county road and bridge tax, \$4,064,165.98; special taxes and miscellaneous revenues, \$678,582.38; cash value of statute labor tax, \$321,771.50; cash in lieu of labor, \$36,724; estimated expenditures for 29 counties not reporting, \$666,378.53; expenditures from bond issues, \$4,152,456.72.

The total revenue devoted to roads and bridges in 1904 amounted to \$4,138,157.49. Thus it appears that in the 10-year period the

revenues for these purposes increased \$5,781,921.62, or 139.7 per cent.

The revenues and tax rates for 1914 are shown by counties in Table 20.

ROAD AND BRIDGE BONDS.

On January 1, 1915, the total road and bridge bonds outstanding for various counties in Texas amounted to \$14,615,016.53. In 1914 there was expended on roads and bridges from bond issues \$4,152,-456.72, there was retired \$266,255, voted \$6,783,275.60, and sold \$3,119,990.60. Many of the bonds sold in 1914 bear 5 per cent interest, run for 40 years, and brought par or par and accrued interest. Detailed information showing the bond issues by counties is contained in Table 34.

ROAD MILEAGE.

At the close of 1914, according to the reports received, Texas had 128,960 miles of public roads, of which 10,526.79 miles, or 8.16 per cent, were surfaced. Of the surfaced roads, 511 miles were macadam, 5,258.98 miles were gravel, 3,490.48 sand-clay, and 1,265.33 miles were surfaced with other materials, including shell, bituminous macadam, concrete, and hard roads not classified as to type. This latter figure includes 181 miles of bituminous macadam, 740.45 miles of shell, and 11.25 miles concrete.

In the mileage of surfaced roads, Tarrant County stands first with 586.5 miles, or 53.98 per cent; Dallas County, second, with 522 miles, or 40.15 per cent; Bexar County, third, with 414.26 miles, or 40.15 per cent; Archer County, fourth, with 400 miles, or 26.66 per cent; and Ellis County, fifth, with 400 miles, or 20 per cent. There are 28 other counties having more than 100 miles of surfaced roads, and there are 129 counties which reported no surfaced roads.

At the close of 1909 Texas had 4,896 miles, or 3.80 per cent, of surfaced roads, which indicates that in the 5-year period, 1910-1914, inclusive, 5,640.79 miles were surfaced.

Information showing total mileage and mileage of surfaced roads in the various counties is contained in Table 50.

VIRGINIA.

By G. P. COLEMAN, *State Highway Commissioner.*

Virginia has a land area of 40,262 square miles, a total road mileage of 53,388 and a population, according to the 1910 census, of 2,061,612. The State has a population of 51.2 per square mile of area and 38.6 per mile of road, with 1.32 miles of road per square mile of area; of the 1910 population 1,585,083, or 76.8 per cent, was rural, thus indicating a rural population of 29.7 per mile of road. The eastern half of the State is broken up by the Chesapeake Bay and

its large tributary tidewater rivers and bays. Three large mountain ranges traverse the western section of the State from northeast to southwest. These natural subdivisions have presented many varying problems in road construction and maintenance.

In the extreme eastern sections sand and clay are the only local materials available for construction. In the middle eastern section there are large deposits of gravel and some small ledges of suitable stone. However, when it is necessary to build stone roads in either of these sections it is found advisable to ship in stone from Maryland, New York or the western sections of Virginia. In the middle sections—that is, east of the Blue Ridge Mountains—there are large gravel and soil deposits and varying quantities of suitable stone for macadam, concrete and bituminous roads. From the Blue Ridge west the majority of the roads constructed have, up to the present time, been water-bound macadam with some surface treatment.

HIGHWAY DEPARTMENT.

In 1906 the State highway department and State convict road force were established. Under this law the convicts and jail prisoners are furnished to the counties free of cost; that is, the State feeds, clothes and otherwise takes care of the men. They are placed on the road each day, and the county furnishes the necessary tools, teams and free labor to carry on the work systematically and economically. This divides the cost of construction about equally between the State and the county. At the present time there are 34 camps established in the State, employing from 1,800 to 1,900 men.

In addition to this, the State has appropriated from year to year about \$200,000 to be expended in counties in which convict labor is not being used. This fund is distributed to the counties according to the taxes paid into the State treasury and the counties have to meet it with an equal amount.

Under these two laws the State has assisted the counties in constructing approximately 3,600 miles of road in the past nine years, and between 300 and 400 bridges of varying length have been built. These roads, after construction, have been turned over to the counties and the districts of the counties for maintenance and in many instances they have been neglected entirely. All State money aid and convict labor work is done under the supervision and according to the specifications of the State highway department.

The legislature, at its last session, set aside the licenses received from automobiles for the maintenance of the roads which have been constructed with State aid, convict labor or county bond issues. This fund is to be met by a like amount to be appropriated from the county funds. Heretofore these funds have been used by the State in construction work.

COUNTY AND DISTRICT ORGANIZATIONS.

In the majority of the counties of the State the road work is done directly under the board of supervisors, elected by the people, one from each district. The number of districts in a county vary from three to nine. The supervisor of a district generally looks after the road and bridge work of his particular district. In some instances, however, the counties have special laws creating county road boards. These boards take over the road authority which the general law vests in the board of supervisors, and appoint either a county road superintendent or district road superintendent to supervise the construction of the roads and the bridges of the county as a whole, or of the individual district.

Another plan followed in some of the counties under special law is the formation of district road boards. These have control of the construction and maintenance of the roads in the several districts of the counties. These boards usually are composed of three citizens, as follows: A duly elected member of the board of supervisors, who acts as chairman; a road commissioner, and a clerk. The road commissioner takes the place of the district superintendent and has actual charge of the road force.

The board of supervisors of the county lays all levies for road and bridge purposes for both the county and the districts. These amounts, as collected by the treasurer, are credited either to the general county road or bridge fund, or to the district road or the district bridge fund, and can be expended only for purposes for which they were collected. From these funds the county takes the money with which to meet the State money aid or to supply the teams, tools, etc., to be used in connection with the convict labor.

In addition to the regular levy, the counties or districts are allowed to vote bonds for road and bridge improvement. These funds must be expended under the supervision of an engineer designated by the State highway department. The funds derived from general county or district levies remaining in the county or the district road and bridge fund, after setting aside the amount to meet the State money or convict aid, are used for the maintenance and upkeep of the road.

The information contained in these reports has been obtained by letters to the various county clerks and treasurers, supplemented by visits of the men connected with the State highway department to these counties, who got the information from members of the boards of supervisors, members of the county road boards and district road boards. The tables are checked finally by members of the department with reports of the county treasurers to the auditor of public accounts of the State. Much difficulty has been experienced, however, in getting accurate information as to the amount of money derived from road and bridge taxes on account of the change in the

State system of taxation which was put into effect in the early part of 1914. This has brought about a great deal of confusion and the figures given are not as satisfactory as it was hoped to have them.

The road mileage has been taken from the records in the county clerk's offices and obtained from road superintendents, commissioners, and members of the boards of supervisors. Figures relative to permanent work have been taken largely from reports of the highway department. A better and more satisfactory return as to the amount of finances possibly could be obtained from the reports of 1915 to the State auditor.

FUNDS FOR STATE ROAD PURPOSES.

There is no special State tax for road purposes. For the calendar year 1914 the State money aid, amounting to \$185,000, was appropriated from the general funds of the State to meet a like amount appropriated from the county revenues. The appropriation of \$160,000 for the maintenance of the State convict road forces was taken from the same source. This, together with the fees taken from the general fund for the maintenance of jail prisoners, amounting to \$49,066.83, makes a total of \$209,066.83 for this purpose. The automobile fund, which goes into the State-aid fund, amounted to \$116,188.65. These funds, together with an appropriation of \$26,500 for the maintenance of this department, make up the total appropriations for road purposes made by the State, amounting to \$536,755.88. In addition to this there was expended under the supervision of this department in road and bridge work, derived from county sources, \$1,404,349.81, thus making a total from all sources expended under the State highway department of \$1,941,105.69.

REVENUES APPLIED TO ROADS AND BRIDGES.

The total revenue available for expenditure in 1914 amounted to \$3,224,528.82, of which \$1,687,906 was derived from general county and district road taxes, \$999,866.94 from county and district bond issues, and \$536,755.88 from State appropriations.

The total expenditures for road and bridge purposes in 1904 amounted to \$687,751.06, thus showing in the 10-year period that expenditures increased \$2,536,777.76, or 368.8 per cent.

The tax rates for county and district roads and the amounts derived therefrom during 1914 are shown in Table 21.

ROAD AND BRIDGE BONDS.

The total road and bridge bonds outstanding on January 1, 1915, amounted to \$5,650,994.93. In the year 1914 a total of \$999,866.94 was expended from bond issues, and \$510,938.23 previously issued were retired. In the same year a total of \$366,000 new bonds was

authorized and \$452,100 were sold. Detailed information showing total bonds outstanding, expenditures from bond funds during 1914, bonds voted and sold in 1914, interest rate, term, and purchase price is shown by counties and districts in Table 35.

ROAD MILEAGE.

The total mileage of public roads in Virginia at the close of 1914 was 53,388, of which 3,909.57 miles, or 7.32 per cent of the total, were surfaced. Of the surfaced roads 1,177.89 miles were macadam, 255.77 bituminous macadam, 822.09 gravel, 1,511.65 sand-clay and topsoil, and 142.17 miles were surfaced with other materials, principally shell.

In mileage of surfaced roads Mecklenburg County stands first, with 315 miles, or 39.52 per cent; Chesterfield County second, with 202.5 miles, or 33.75 per cent; Rockingham County third, with 137 miles, or 8.32 per cent; Dinwiddie County fourth, with 124 miles, or 20.66 per cent; and Henrico County fifth, with 120.45 miles, or 13.38 per cent. Charlotte County has 106 miles, or 11.77 per cent, surfaced, and Greenville 100 miles, or 58.82 per cent. There are 21 counties in the State having not less than 50 nor more than 99 miles of surfaced road. Sixteen counties report no surfaced roads, but in 1904 there were 70 counties which reported no surfaced roads.

Fifteen counties reported a smaller mileage of surfaced roads for 1914 than for 1909. In spite of this decrease the reports show that in the 5-year period 2,006.82 miles of road have been surfaced. In 1909 the mileage surfaced amounted to 1,902.75, which represented 4.38 per cent of the total, thus indicating that the surfaced road mileage more than doubled in the 5-year period, 1909 to 1914.

Details showing the total mileage of all roads, the mileage surfaced, the per cent of the total surfaced, the increase in surfaced mileage over 1909, and the mileage of graded and drained earth roads in the various counties are presented in Table 51.

WEST VIRGINIA.

By A. DENNIS WILLIAMS, *Chief Engineer State Road Bureau and Collaborator United States Office of Public Roads and Rural Engineering.*

West Virginia has a land area of 24,022 square miles, a total road mileage of 32,024 and a population, according to the 1910 Census, of 1,221,119. The State, therefore, has a population of 50.8 per square mile of area and 38.1 per mile of road, with 1.33 miles of road per square mile of area. Of the population in 1910 81.3 per cent, or 992,877, was rural, thus indicating a rural population of 31 per mile of road.

The first road laws of the State were enacted in 1872 and revised in 1881. The legislature of 1907 provided for the office of State

highway inspector, whose duty it was to study the road conditions of the State and report to the governor. Prior to the meeting of the legislature in 1909 the governor appointed a commission to rewrite the road laws, and at the legislative session of that year an act was passed establishing a department of the State government to be known as the office of public roads, and creating the office of State commissioner of public roads, all of which, however, was abolished in 1911.

In the legislative session of 1913 a law was enacted establishing the State road bureau, which consists of the professor in charge of the railroad and highway department of the State university, who is the chief road engineer and the chairman, the director of the experiment station at the State university, and two additional members appointed by the governor. The chief road engineer, with the approval of the State road bureau, is authorized to select such clerical and engineering help as may be necessary. Salaries and expenses in connection with the State road bureau are paid from the university funds, and from appropriations by the legislature.

The State road bureau has general supervision of the location, construction, and maintenance of all public roads in the State so far as may be consistent with the authority over said roads otherwise conferred by the constitution or statutes. It prescribes rules and regulations not inconsistent with law concerning the duties of road engineers and their employees, and aids county road engineers and their employees by giving advice and preparing plans and specifications for road and bridge work. A school of instruction for county road engineers is required to be held for at least 10 days each year by the State road bureau, and the county road engineers are required to attend and are authorized to receive from their respective counties the actual expenses incurred thereby.

The State road bureau is authorized to establish and maintain stone quarries, crushers, and brick kilns, and may employ the State convict road force in the preparation of road materials. The State convict road force also may be worked on the public roads.

County courts have jurisdiction over all matters pertaining to the public roads and bridges in their respective counties. The county court of each county may appoint some practical road builder or civil engineer as county road engineer. In the event the county court shall not appoint a county road engineer, it may appoint a competent man as road supervisor for each magisterial district. Upon petition of 50 legal voters of the county who are freeholders, the county court shall cause a vote to be taken upon the question as to whether there shall be appointed a county road engineer or one road supervisor for each magisterial district of the county. Each magisterial district is divided by the county

court into two or more road precincts, and the county road engineer, by and with the advice and consent of the county court, shall employ such agent or agents in these precincts as may be deemed necessary.

It shall be the duty of the county road engineer to divide, or cause to be divided, all of the county roads in the respective road precincts into sections not exceeding 2 miles in length, and let the same to contract. Each road supervisor shall divide his district into convenient road precincts, not exceeding 10 miles in length, and, after two weeks' advertisement, let the construction and repair of said roads by contract to the lowest responsible bidder for such time as the county court may direct.

The present law permits a maximum levy of 30 cents on the \$100 for county and district road purposes. A special bridge tax of 20 cents on the \$100 may be levied in counties that do not have a bonded indebtedness. In addition, there may be levied 5 cents on the \$100 of all taxable property in the county, or in lieu thereof 10 cents on each \$100 of taxable property in any magisterial district. Any county or magisterial district may issue bonds for road purposes when authorized by a three-fifths vote of those voting at an election called for that purpose, but the bonded indebtedness that may be created by any county or magisterial district shall not exceed 5 per cent on the value of the taxable property therein. The county court also may levy, for road purposes, a poll tax of \$1 on every male citizen over 21 and under 50 years of age. The working of county convicts on the public roads also is authorized.

REVENUES APPLIED TO ROADS AND BRIDGES.

The total revenues applied to roads and bridges in the fiscal year ended July 1, 1915, amounted to \$2,483,747, and comprised the following items: permanent road tax, \$656,594; bridge tax, \$463,487; general road tax, \$1,249,505; capitation tax, \$110,395; and appropriation for the maintenance of the State road bureau, \$3,766.

The total expenditures for the year 1904 amounted to \$893,285, thus showing that expenditures in a little over 10 years increased \$1,590,462, or 178 per cent.

In 1904 the statute labor tax still was in use, and of the total expenditure for that year for all road and bridge purposes, \$305,415 represented the cash value of this tax. In 1909 this tax was abolished. The receipts from taxation and the tax rates for permanent roads and general road purposes are shown by counties in Table 22.

ROAD AND BRIDGE BONDS.

It was impossible to secure information in regard to bonds outstanding January 1, 1915, or bond funds expended in 1914. From reports received it appears that the various counties and districts voted \$5,354,000 road and bridge bonds up to July 1, 1915. The bonds outstanding on that date, so far as could be ascertained, amounted to \$1,303,000.

The amount of bonds outstanding and the amount voted in each county up to July 1, 1915, are shown in Table 36.

ROAD MILEAGE.

At the close of the fiscal year 1914-15, West Virginia had 32,024 miles of public roads, of which 1,064.97 miles, or 3.3 per cent, were surfaced. Of the surfaced roads, 771.92 miles were macadam, 62.95 miles bituminous macadam, 121.1 miles brick, 18.5 miles concrete, 20.5 miles gravel, and 70 miles shale.

In surfaced road mileage Jefferson County stands first, with 280 miles, or 82.4 per cent; Ohio County second, with 204 miles, or 80 per cent; Berkeley County third, with 145 miles, or 31.8 per cent; Brooke County fourth, with 52 miles, or 29.2 per cent; and Mercer County fifth, with 42 miles, or 10.4 per cent. Twenty-eight counties had less than 10 per cent of the roads surfaced, and 22 counties had no surfaced roads. In 1904 there were 44 counties that reported no surfaced roads.

In 1909, 591.4, or 1.84 per cent, of the total were surfaced. It would seem therefore that in the period 1909 to 1914-15 a total of 473.6 miles were surfaced. The 1914-15 mileage statistics for the various counties are presented in Table 52.

APPENDIX.

TABLES SHOWING ROAD REVENUES AND EXPENDITURES.

Following are the tabular arrangements of the revenues applied to roads and bridges referred to in the foregoing text:

ALABAMA.

TABLE 7.—County revenue applied to roads and bridges in 1914.

County.	Taxation and revenues, 1914.		Statute labor road tax, 1914.			
	County road tax rate in cents per \$100.	Total revenue applied to roads and bridges.	Number of men who worked.	Average number of days worked.	Average daily wage of hired help.	Cash value of labor tax.
Autauga.....	\$0.25	\$11,600.00	1,200	10	\$1.00	\$12,000
Baldwin.....	.25	18,000.00				
Barbour.....		39,279.00				
Bibb.....		18,000.00				
Blount.....		97,000.00				
Bullock.....		23,000.00	300	10	.75	2,250
Butler.....		42,500.00				
Calhoun.....	.25	61,102.41				
Chambers.....	.25	18,340.00				
Cherokee.....		9,905.25				
Chilton.....	.25	12,000.00				
Choctaw.....	.25	9,500.00				
Clarke.....		8,200.00				
Clay.....		9,700.00	1,800	10	1.00	18,000
Cleburne.....	.15	3,524.94				
Coffee.....		20,000.00	1,250	10	1.00	12,500
Colbert.....		15,000.00				
Conecuh.....		18,100.00				
Coosa.....	.25	11,000.00				
Covington.....	.25	21,000.00				
Crenshaw.....	.25	9,500.00				
Cullman.....		93,710.00				
Dale.....	.25	12,568.27				
Dallas.....	.25	35,212.50	3,000	10	.75	22,750
Dekalb.....		28,000.00				
Elmore.....		17,822.00				
Escambia.....	.25	18,856.00	2,600	3½	1.25	11,375
Etowah.....		25,400.00				
Fayette.....		23,900.00	100	10	1.00	1,000
Franklin.....	.25	17,000.00				
Geneva.....		10,000.00				
Greene.....		8,000.00				
Hale.....		8,000.00				
Henry.....		12,000.00				
Houston.....	.25	24,500.00				
Jackson.....		6,200.00				
Jefferson.....		360,020.00				
Lamar.....		8,328.15				
Lauderdale.....	.10	6,600.00				
Lawrence.....	.25	15,976.00				
Lee.....	.25	65,100.00	350	6	1.00	2,100
Limestone.....	.25	13,248.04				
Lowndes.....	1.50	24,286.02				
Macon.....		24,000.00				
Madison.....		112,600.00	12,000	6	1.00	72,000
Marengo.....	.25	24,000.00				
Marion.....	.10	9,800.00				
Marshall.....		65,000.00				
Mobile.....	.20	90,000.00				
Monroe.....		10,000.00	2,300	3½	1.00	8,050
Montgomery.....		253,410.00	10,000	7	1.00	70,000
Morgan.....		15,150.00				
Perry.....		33,755.00	8,000	5	1.00	40,000
Pickens.....		9,812.82				
Pike.....	.25	31,650.55				
Randolph.....		6,083.30				
Russell.....	.25	20,596.02				
St. Clair.....		23,000.00				
Shelby.....	.25	22,400.00	3,000	5	1.00	15,000
Sumter.....	.20	15,740.00				
Talladega.....		44,829.24				
Tallapoosa.....	.15	28,000.00				
Tuscaloosa.....		144,000.00				
Walker.....		125,000.00	500	4	1.50	3,000
Washington.....	.25	16,000.00	1,200	10	1.00	12,000
Wilcox.....		23,000.00			1.00	
Winston.....		30,000.00				
Total.....		2,488,805.51	47,600			302,025

¹ Includes 25 cents for road and bridge bonds.

ARKANSAS.

TABLE 8.—County revenue applied to roads and bridges, 1914.

County.	Total revenue applied to roads and bridges.	Amount obtained from general county tax of 3 mills per \$1.	Statute labor tax.			
			Number of men who worked roads.	Average number of days worked.	Average wage for hired help.	Cash value labor tax.
Arkansas.....	\$25,249.00	\$25,249.00				
Ashley.....	17,000.00	17,000.00				
Baxter.....	6,000.00	6,000.00				
Benton.....	21,000.00	21,000.00				
Boone.....	11,309.00	11,309.00				
Bradley.....	12,600.00	12,600.00				
Calhoun.....	9,000.00	9,000.00				
Carroll.....	11,233.00	11,233.00				
Chicot.....	16,092.00	16,092.00				
Clark.....	28,871.00	28,871.00				
Clay.....	19,000.00	19,000.00				
Cleburne.....	7,640.00	7,640.00				
Cleveland.....	7,999.00	7,999.00				
Columbia.....	13,100.00	13,100.00				
Conway.....	12,000.00	12,000.00				
Craighead.....	28,000.00	28,000.00				
Crawford.....	18,000.00	18,000.00				
Crittenden.....	36,000.00	30,000.00	1,000	3	\$2.00	\$6,000
Cross.....	24,000.00	19,000.00	1,000	4	1.25	5,000
Dallas.....	11,899.90	11,899.90				
Desha.....	14,040.91	14,040.91				
Drew.....	12,000.00	12,000.00				
Faulkner.....	19,000.00	11,000.00	2,000	4	1.00	8,000
Franklin.....	14,000.00	14,000.00				
Fulton.....	6,360.99	6,360.99			1.00	
Garland.....	29,000.00	29,000.00				
Grant.....	7,000.00	7,000.00				
Greene.....	19,948.68	19,948.68				
Hempstead.....	20,000.00	20,000.00				
Hot Spring.....	12,000.00	12,000.00				
Howard.....	4,946.00	4,946.00				
Independence.....	11,812.00	11,812.00				
Izard.....	7,086.00	7,086.00				
Jackson.....	21,500.00	21,500.00				
Jefferson.....	68,900.00	68,900.00				
Johnson.....	10,000.00	10,000.00				
Lafayette.....	10,000.00	10,000.00				
Lawrence.....	16,000.00	16,000.00				
Lee.....	34,750.00	16,000.00	2,500	7½	1.00	18,750
Lincoln.....	8,514.00	8,514.00				
Little River.....	14,000.00	14,000.00				
Logan.....	22,966.99	15,758.99	1,802	4	1.00	7,208
Lonoke.....	5,000.00	5,000.00				
Madison.....	9,000.00	9,000.00				
Marion.....	8,000.00	8,000.00				
Miller.....	14,011.00	12,011.00	1,000	2	1.00	2,000
Mississippi.....	24,000.00	24,000.00				
Monroe.....	5,822.00	5,822.00				
Montgomery.....	5,707.00	5,707.00				
Nevada.....	10,605.00	10,605.00				
Newton.....	4,431.87	3,984.45				
Ouachita.....	3,000.00	447.42				
Perry.....	9,000.00	3,000.00				
Phillips.....	28,000.00	9,000.00				
Pike.....	8,925.00	28,000.00				
Poinsett.....	19,813.00	8,925.00				
Polk.....	16,903.86	19,813.00	874	4	1.00	3,496
Pope.....	12,000.00	13,407.86				
Prairie.....	15,000.00	12,000.00				
Pulaski.....	207,000.00	15,000.00	7,500	4	1.50	45,000
Randolph.....	19,000.00	10,500.00	2,000	4	1.00	8,000
St. Francis.....	10,500.00	11,000.00				
Saline.....	13,000.00	10,500.00				
Scott.....	6,731.00	13,000.00				
Searcy.....	9,500.00	6,731.00				
Sebastian.....	51,000.00	9,500.00				
Sevier.....	12,900.00	51,000.00				
Sharp.....	7,000.00	12,900.00				
Stone.....	3,874.00	7,000.00				
Union.....	14,493.00	3,874.00				
Van Buren.....	26,152.38	14,493.00				
Washington.....	16,674.00	26,152.38				
White.....	16,084.62	16,674.00				
Woodruff.....	14,000.00	16,084.62				
Yell.....	15,750.00	14,000.00				
Total.....	1,362,696.20	1,259,242.20				103,454

¹ Includes \$4,000 per capita tax.³ Is commutation tax.² Includes \$20,000, county general fund.⁴ Includes \$7,000, auto tax; and \$20,000, general fund.

DELAWARE.

TABLE 9.—County revenue applied to roads and bridges in 1914.

County.	Total.	County tax rate.	Amount obtained.	Stateaid.
Kent.....	\$20,000	<i>Mills.</i> 0.17	\$10,000	\$10,000
New Castle.....	103,000	(1)	92,000	11,000
Sussex.....	26,628	1.5	16,628	10,000
Total.....	149,628	.....	118,628	31,000

¹ Appropriation.

In addition to the above a 2-mill tax was levied in Sussex County for road and bridge bonds, from which \$27,713.73 was derived.

FLORIDA.

TABLE 10.—County revenue applied to roads and bridges in 1914.

County.	Total revenue applied to roads and bridges.	General county tax.		Receipts from other sources.			
		Rate, mills per \$1.	Receipts.	Source.	Rate.	Receipts.	Total receipts.
Alachua.....	\$33,093.02	3	\$23,275.56	{ Auto licenses.....	<i>Mills.</i>	\$2,000.00	\$9,817.46
Baker.....	7,488.39	5	7,488.39	{ Special, district.....		7,817.46	
Bay.....	4,998.86	2	4,998.86	.....			
Bradford.....	13,316.58	3½	9,983.26	.....			3,333.32
Brevard.....	47,029.73	6	25,839.03	{ Special, district 1.....		10,957.34	21,190.70
Calhoun.....	13,650.00	3½	6,650.00	{ Special, district 4.....		9,329.86	
Citrus.....	26,698.71	5½	12,555.66	{ Auto tax.....		903.50	7,000.00
Clay.....	15,858.24	4½	10,031.94	{ Labor tax.....		4,000.00	
Columbia.....	13,826.71	4	12,130.35	{ Convicts.....		3,000.00	
Dade.....	68,500.00	7½	68,500.00	{ Special, districts 1-5.....			14,143.05
De Soto.....	59,847.22	5½	47,047.22	{ Special, district.....	5		5,826.30
Duval.....	150,000.00			{ Statute labor tax.....			1,696.36
Escambia.....	18,438.60	1½	18,438.60	{ Special, district 5.....			12,800.00
Franklin.....	4,476.08	2½	2,728.60	{ General fund.....			150,000.00
Gadsden.....	17,646.44	5	11,646.44	{ Fines.....			1,747.48
Hamilton.....	9,339.66	2	4,937.58	{ Statute labor tax.....			6,000.00
Hernando.....	6,400.00	2½	3,851.90	{ Other revenues.....		2,288.10	4,402.08
Hillsboro.....	9,392.27	2	4,173.89	{ Auto tax.....		260.00	2,548.10
Holmes.....	6,995.06	4	6,755.06	{ Special road tax.....	2½		5,217.38
Jackson.....	5,984.55	1½	5,984.55	{ Auto license.....			240.00
Jefferson.....	12,774.75	3	7,302.63	{ Other sources.....			5,472.07
Lafayette.....	11,568.75	4	11,568.75	{ Convict labor.....			2,500.00
Lake.....	21,430.85	4	18,930.85	{ Road district No. 1.....			3,000.00
Lee.....	45,867.68	6	42,867.68	{ Auto license.....		371.00	1,482.92
Leon.....	22,899.92	7	21,418.00	{ Special tax.....		64.00	
Levy.....	11,618.29	1	3,246.60	{ Sale of tolls.....		309.00	8,371.69
Liberty.....	3,383.36	2½	3,383.36	{ Road districts 1-5.....			
Madison.....	15,311.40	4	15,311.40	{ Auto license.....			2,025.00
Manatee.....	28,950.25	5	26,925.25	{ Convict labor.....		1,636.14	9,599.87
Marion.....	36,553.49	4½	26,953.62	{ Labor tax.....		6,372.73	
Monroe.....	634.00	5½	634.00	{ Auto license.....		1,591.00	
Nassau.....	10,070.49	1	3,270.49	{ Convict labor.....			6,800.00
Orange.....	34,786.32	5	32,700.00	{ Other sources.....			2,086.32
Osceola.....	26,304.55	5	26,304.55	{ Special road district.....	2		99,579.40
Palm Beach.....	165,446.65	1	65,867.25	{ Convict labor.....		1,700.00	25,100.00
Pasco.....	33,900.00	3	8,800.00	{ Road districts 1, 2, 3.....		23,200.00	
				{ Auto receipts.....		200.00	

¹ Includes \$737.92 received from hire of convicts.

FLORIDA—Continued.

TABLE 10.—County revenue applied to roads and bridges in 1914—Continued.

County.	Total revenue applied to roads and bridges.	General county tax.		Receipts from other sources.			
		Rate, mills per \$1.	Receipts.	Source.	Rate.	Receipts.	Total receipts.
Pinellas.....	\$44,330.00	5	\$35,830.00	Auto registration..	<i>Mills.</i>		\$8,500.00
Polk.....	93,932.16	6½	93,932.16				
Putnam.....	23,831.70	4½	23,831.70				
St. Johns.....	38,705.22	4	16,020.00				22,685.22
St. Lucie.....	60,354.03	5½	35,325.08	Special road district.			25,028.95
Santa Rosa.....	40,419.26	5	22,300.00	Other sources.....			18,119.26
Seminole.....	47,270.09	7	26,747.00	Special road district.			20,523.09
Sumter.....	10,480.40	5	9,480.40	Convict labor.....			1,000.00
Suwanee.....	23,610.74	3	7,622.67	{Special warrants.....	\$15,673.57		15,988.07
				{Convict labor.....	314.50		
Taylor.....	9,757.06	3	9,757.06				
Volusia.....	65,711.53	6	57,709.53	Auto licenses.....			8,002.00
Wakulla.....	2,855.50	3	2,855.50				
Walton.....	29,484.86	5	21,620.39	{Auto tax.....		500.00	7,864.47
				{Special road district.		7,364.47	
Washington.....	10,449.90	2½	4,762.50	Other sources.....		5,687.40	5,687.40
Total.....	1,515,203.32		969,825.36				545,377.96

GEORGIA.

TABLE 11.—County revenue applied to roads and bridges in 1914.

County.	Total revenue applied to roads and bridges.	County road and bridge tax.		Amounts obtained from automobile licenses.	Amounts obtained from commutation tax.	Statute labor tax.			
		Rate, mills per \$1.	Amount obtained.			Number of men who worked roads.	Number of days worked.	Average wage of hired help.	Cash value of labor performed.
Appling.....	\$12,943.00		\$10,000.00	\$943.00	\$2,000.00				
Baker.....	20,472.00		16,000.00	472.00	4,000.00				
Baldwin.....	15,896.00		10,000.00	396.00	5,500.00				
Banks.....	12,675.00	4	7,000.00	525.00	5,150.00				
Bartow.....	25,823.00		19,000.00	1,123.00	5,700.00				
Ben Hill.....	14,827.00	5	14,478.00		349.00				
Berrien.....	32,804.00	{ 1 1.5 2	10,983.00	1,177.00	6,000.00				
			14,644.00						
Bibb.....	51,871.00	1.56	51,402.00	469.00					
Bleckley.....	7,356.00	3.3	5,000.00	356.00	2,000.00				
Brooks.....	21,373.00	2	13,750.00	887.00	6,736.00				
Bryan.....	11,334.00		8,000.00	334.00	3,000.00				
Bulloch.....	33,210.00	3	24,000.00	1,210.00	8,000.00				
Burke.....	32,932.00		20,000.00	932.00	12,000.00				
Butts.....	12,048.00	4	9,459.00	589.00	2,000.00				
Calhoun.....	31,442.00		23,999.00	443.00	7,000.00				
Camden.....	9,553.00	2.5	6,265.00	196.00	1,997.00				
Campbell.....	22,778.00	5.8	17,400.00	578.00	4,800.00	146	5	\$1.50	\$1,095.00
Candler.....	2,500.00				2,500.00				
Carroll.....	22,959.00	2	14,654.00	1,525.00	6,500.00				
Catoosa.....	9,134.00		5,827.00	307.00		40	7	1.00	280.00
Chatam.....	5,920.00	2	4,000.00	120.00	1,500.00	600	4	1.25	3,000.00
Chatham.....	50,176.00		50,000.00	176.00		100	3	1.00	300.00
Chattahoochee.....	9,498.00		6,000.00	323.00	3,175.00				
Chattooga.....	13,612.00	2	7,000.00	612.00	3,000.00	500	4	1.50	3,000.00
Cherokee.....	24,362.00	4	15,383.00	979.00	8,000.00				
Clarke.....	36,082.00	5	32,764.00	318.00	3,000.00				
Clay.....	11,531.00	4	6,702.00	429.00	4,400.00				
Clayton.....	12,725.00	4	8,712.00	463.00	3,550.00				

¹ Bridges.² Roads.

GEORGIA—Continued.

TABLE 11.—County revenue applied to roads and bridges in 1914—Continued.

County.	Total revenue applied to roads and bridges.	County road and bridge tax.		Amounts obtained from automobile licenses.	Amounts obtained from commutation tax.	Statute labor tax.			
		Rate, mills per \$1.	Amount obtained.			Number of men who worked roads.	Number of days worked.	Average wage of hired help.	Cash value of labor performed.
Clinch.....	\$6,527.00	2.3	\$5,256.00	\$271.00	\$1,000.00	.....	.....	.....	.....
Cobb.....	43,751.00	4	36,018.00	1,483.00	6,250.00	.....	.....	.....	.....
Coffee.....	15,247.00	2	10,340.00	907.00	4,000.00	.....	.....	\$1.00	.....
Colquitt.....	45,467.75	.....	36,838.00	847.00	7,689.00	15	4	1.25	\$93.75
Columbia.....	2,378.00	.....	.....	378.00	2,000.00	.....	.....	1.00	.....
Coweta.....	53,622.00	4	42,697.00	1,179.00	8,996.00	125	8	.75	750.00
Crawford.....	19,476.00	.....	12,500.00	476.00	3,500.00	375	8	1.00	3,000.00
Crisp.....	23,534.00	4	20,000.00	534.00	3,000.00	.....	.....	.....	.....
Dade.....	3,382.00	1.5	3,253.00	129.00	.....	.....	.....	1.00	.....
Dawson.....	13,565.00	2.5	2,374.00	191.00	3,000.00	1,000	8	1.00	8,000.00
Decatur.....	38,654.00	4	30,000.00	954.00	7,500.00	40	5	1.00	200.00
DeKalb.....	45,899.00	4	40,000.00	749.00	5,000.00	30	5	1.00	150.00
Dodge.....	28,905.00	4	23,006.00	899.00	5,000.00	.....	6	.....	.....
Dooley.....	25,066.00	.....	12,170.00	896.00	12,000.00	.....	.....	.....	.....
Dougherty.....	25,485.00	.....	21,147.00	338.00	4,000.00	.....	.....	.....	.....
Douglas.....	13,383.00	3.5	7,700.00	583.00	3,500.00	200	8	1.00	1,600.00
Early.....	35,701.00	5	25,000.00	701.00	10,000.00	.....	.....	.....	.....
Echols.....	933.00	.....	.....	133.00	800.00	.....	.....	.....	.....
Effingham.....	18,739.00	4	15,000.00	489.00	1,000.00	500	5	.90	2,250.00
Elbert.....	7,485.00	.....	.....	985.00	6,500.00	.....	.....	.....	.....
Emanuel.....	23,712.00	.....	13,500.00	1,212.00	9,000.00	.....	.....	.....	.....
Fannin.....	.....	.....	.....	.....	.....	(1)	.....	.....	.....
Fayette.....	11,136.00	4	6,478.00	465.00	4,193.00	.....	.....	1.00	.....
Floyd.....	77,596.00	3.2	65,000.00	996.00	11,600.00	.....	.....	.....	.....
Forsyth.....	9,181.00	.....	8,500.00	681.00	.....	.....	.....	.....	.....
Franklin.....	28,194.00	.....	19,000.00	994.00	7,000.00	300	4	1.00	1,200.00
Fulton.....	424,254.00	3.2	423,800.00	454.00	.....	.....	.....	.....	.....
Gilmer.....	2,174.00	.....	2,000.00	174.00	.....	.....	.....	.....	.....
Glascock.....	4,537.00	4	2,677.00	260.00	1,600.00	.....	8	.....	.....
Glynn.....	10,652.00	1.3	8,753.00	99.00	1,800.00	.....	.....	.....	.....
Gordon.....	16,365.00	2	8,500.00	865.00	7,000.00	.....	.....	.....	.....
Grady.....	24,994.00	4	14,000.00	894.00	10,000.00	10	10	1.00	100.00
Greene.....	30,012.00	.....	23,030.00	758.00	6,224.00	.....	.....	.....	.....
Gwinnett.....	51,375.00	.....	35,000.00	1,375.00	15,000.00	.....	.....	.....	.....
Habersham.....	10,783.00	.....	4,000.00	383.00	6,400.00	.....	.....	.....	.....
Hall.....	64,388.00	.....	29,720.00	968.00	13,700.00	2,500	8	1.00	20,000.00
Hancock.....	13,607.00	.....	7,000.00	607.00	6,000.00	.....	.....	.....	.....
Haralson.....	8,712.00	.....	5,600.00	712.00	2,400.00	.....	.....	.....	.....
Harris.....	21,619.00	2.5	15,500.00	1,119.00	5,000.00	.....	.....	.....	.....
Hart.....	15,059.00	4.5	9,356.00	703.00	5,000.00	.....	.....	.....	.....
Heard.....	7,916.00	.....	1,200.00	716.00	6,000.00	.....	.....	.....	.....
Henry.....	42,929.00	{ 2.3 3.3 }	{ 13,500.00 13,500.00 }	{ 929.00 929.00 }	{ 6,000.00 6,000.00 }	2,000	6	.75	9,000.00
Houston.....	23,321.00	4	18,396.00	925.00	4,000.00	.....	.....	.....	.....
Irwin.....	10,783.00	.....	5,585.00	398.00	4,800.00	.....	.....	.....	.....
Jackson.....	27,283.00	7.5	20,000.00	1,283.00	6,000.00	.....	.....	.....	.....
Jasper.....	24,592.00	4	16,905.00	687.00	7,000.00	.....	.....	.....	.....
Jeff Davis.....	6,030.00	2	4,500.00	280.00	1,250.00	.....	.....	.....	.....
Jefferson.....	17,969.00	2	8,097.00	1,103.00	8,709.00	.....	.....	.....	.....
Jenkins.....	12,913.00	4	8,250.00	463.00	4,200.00	.....	.....	.....	.....
Johnson.....	9,291.00	10	4,725.00	528.00	4,035.00	.....	.....	.....	.....
Jones.....	10,096.00	.....	5,000.00	596.00	4,500.00	.....	.....	.....	.....
Laurens.....	57,832.00	6.9	48,355.00	1,477.00	8,000.00	.....	.....	.....	.....
Lee.....	18,905.00	.....	15,000.00	405.00	3,500.00	.....	.....	.....	.....
Liberty.....	19,217.00	6	17,543.00	474.00	1,200.00	.....	.....	.....	.....
Lincoln.....	10,315.00	4	4,777.00	409.00	5,129.00	.....	.....	.....	.....
Lowndes.....	22,019.00	.....	18,500.00	1,019.00	2,500.00	.....	.....	.....	.....
Lumpkin.....	8,015.00	2.5	3,337.00	278.00	4,400.00	.....	.....	.....	.....
McDuffie.....	10,180.00	4	8,000.00	380.00	1,800.00	.....	.....	.....	.....
McIntosh.....	8,260.00	4	5,560.00	.....	2,700.00	.....	.....	.....	.....
Macon.....	29,612.00	7.6	24,830.00	552.00	4,230.00	.....	.....	.....	.....
Madison.....	13,293.00	.....	3,000.00	863.00	9,430.00	.....	.....	.....	.....
Marion.....	7,227.00	.....	3,000.00	627.00	3,600.00	.....	.....	.....	.....
Meriwether.....	63,763.00	9	55,000.00	1,163.00	7,000.00	100	8	.75	600.00
Miller.....	8,652.00	2	5,200.00	452.00	3,000.00	.....	.....	.....	.....
Milton.....	16,177.00	.....	11,000.00	427.00	4,750.00	.....	.....	.....	.....
Mitchell.....	90,876.00	.....	78,000.00	876.00	12,000.00	.....	.....	.....	.....
Monroe.....	24,680.00	.....	17,719.00	961.00	6,000.00	.....	.....	.....	.....

¹ Men work roads.² Bridges.³ Roads.

GEORGIA—Continued.

TABLE 11.—County revenue applied to roads and bridges in 1914—Continued.

County.	Total revenue applied to roads and bridges.	County road and bridge tax.		Amounts obtained from automobile licenses.	Amounts obtained from commutation tax.	Statute labor tax.			
		Rate, mills per \$1.	Amount obtained.			Number of men who worked roads.	Number of days worked.	Average wage of hired help.	Cash value of labor performed.
Montgomery.....	\$46,313.00	1.65	\$43,514.00	\$549.00	\$2,250.00				
Morgan.....	30,665.00	2.75	20,000.00	665.00	10,000.00				
Murray.....	15,630.00	5	10,148.00	482.00	5,000.00				
Muscogee.....	103,437.00	4	98,994.00	443.00	4,000.00				
Newton.....	23,412.00	¹ 1 ₂ 4	3,149.00 12,596.00	667.00	7,000.00				
Oconee.....	8,922.00	2	3,975.00	447.00	4,500.00				
Oglethorpe.....	23,103.00		15,000.00	903.00	7,200.00				
Paulding.....	19,234.00		13,500.00	734.00	5,000.00				
Pickens.....	11,981.00		5,698.00	432.00	5,851.00				
Pierce.....	14,404.00	3	11,877.00	527.00	2,000.00				
Pike.....	11,783.00		5,000.00	783.00	6,000.00				
Polk.....	32,669.00	3.5	25,000.00	669.00	7,000.00				
Pulaski.....	22,622.00	6.25	20,199.00	423.00	2,000.00				
Putnam.....	16,561.00	3	9,237.00	483.00	6,841.00				
Quitman.....	6,698.00		6,500.00	198.00					
Rabun.....	9,239.00	4	7,077.00	162.00	2,000.00				
Randolph.....	23,873.00	4	15,200.00	923.00	7,750.00				
Richmond.....	64,242.00		63,790.00	452.00					
Rockdale.....	15,778.00		12,000.00	293.00	3,485.00				
Schley.....	12,269.00	8.5	9,000.00	269.00	3,000.00				
Screven.....	13,417.00	2	6,558.00	859.00	6,000.00		10	\$1.00	
Spalding.....	17,003.00	2.1	12,266.00	487.00	4,250.00				
Stephens.....	14,227.00	4	10,000.00	387.00	3,000.00	280	3	1.00	\$840.00
Stewart.....	18,556.00	4	12,000.00	556.00	6,000.00			1.00	
Sumter.....	49,379.00		42,000.00	879.00	6,500.00				
Talbot.....	14,535.00	4	8,613.00	707.00	5,215.00				
Taliaferro.....	6,726.00		4,000.00	280.00	2,446.00				
Tattnall.....	19,817.00	2	10,858.00	959.00	8,000.00				
Taylor.....	33,766.00	4	28,000.00	516.00	5,250.00				
Telfair.....	19,533.00	4	15,517.00	516.00	3,500.00				
Terrell.....	15,296.00		7,000.00	796.00	7,500.00				
Thomas.....	38,933.00	7	27,975.00	1,114.00	9,844.00			1.00	
Tift.....	10,228.50	2	7,539.00	552.00	1,800.00	45	6	1.25	337.50
Toombs.....	26,808.00	¹ 1.5 ₂ 5	5,267.00 17,542.00	499.00	3,500.00		6		
Towns.....	107.00			107.00		(³)			
Troup.....	53,899.00	¹ 2 ₂ 4	15,000.00 32,000.00	899.00	6,000.00				
Turner.....	19,071.00	4	11,000.00	481.00	7,590.00				
Twiggs.....	12,903.00		10,000.00	503.00	2,400.00				
Union.....	200.00			200.00		(³)			
Upson.....	19,655.00		11,500.00	619.00	7,536.00				
Walker.....	19,817.00		12,000.00	917.00	6,900.00				
Walton.....	36,483.00	6.5	30,000.00	983.00	5,500.00				
Ware.....	53,431.00	6.5	50,250.00	554.00	2,627.00				
Warren.....	23,158.00	4.5	18,000.00	449.00	4,709.00				
Washington.....	24,504.00	3	15,000.00	1,204.00	8,300.00				
Wayne.....	18,265.00	3	15,500.00	265.00	2,500.00				
Webster.....	6,553.00	2	2,199.00	354.00	4,000.00				
Wheeler.....	343.00			343.00					(⁴)
White.....	3,638.00		1,300.00	353.00	1,985.00				
Whitfield.....	25,218.00	4	20,000.00	718.00	4,500.00				
Wilcox.....	15,054.00		8,400.00	554.00	2,100.00	500	4	2.00	4,000.00
Wilkes.....	25,627.00		13,000.00	627.00	12,000.00				
Wilkinson.....	15,645.00		10,000.00	645.00	5,000.00				
Worth.....	18,010.00		10,000.00	1,010.00	7,000.00				
Total.....	3,688,172.25		2,827,352.00	92,739.00	708,285.00	9,406			59,796.25

¹ Bridges.² Roads.³ Men work roads.⁴ New law.

KENTUCKY.

TABLE 12.—County revenue applied to roads and bridges, 1914.

County.	Total revenue applied to roads and bridges.	Property tax.		Statute labor tax.				Other revenues applied to roads.
		Rate in cents per \$100.	Receipts from property tax.	Number of men worked out labor, 1914.	Average number of days worked per man.	Average daily wage for hired help.	Cash value of statute labor tax.	
Adair.....	\$23,389	0.20	\$5,389	3,000	6	\$1.00	\$18,000	.....
Allen.....	12,461	.20	12,461	.....	.....	.....	.....	.....
Anderson.....	20,000	.....	20,000	.....	.....	.....	.....	.....
Ballard.....	19,668	.25	19,668	.....	.....	.....	.....	.....
Barren.....	21,093	.10	21,093	.....	.....	.....	.....	.....
Bath.....	13,000	.25	13,000	.....	.....	.....	.....	.....
Bell.....	36,076	.23	22,476	1,600	6	1.00	9,600	¹ \$4,000
Boone.....	35,508	.40	24,858	.....	.....	.....	.....	³ 10,650
Bourbon.....	50,624	.25	44,624	.....	.....	.....	.....	² 6,000
Boyd.....	25,410	.20	25,410	.....	.....	.....	.....	.....
Boyle.....	28,250	.25	27,000	200	5	1.25	1,250	.....
Bracken.....	14,142	.16	14,142	.....	.....	.....	.....	.....
Breathitt.....	400	.....	.....	200	2	1.00	400	.....
Breckinridge.....	23,669	.25	13,669	2,500	4	1.00	10,000	.....
Bullitt.....	11,233	.25	11,233	.....	.....	.....	.....	.....
Butler.....	9,135	.20	5,535	1,200	3	1.00	3,600	.....
Caldwell.....	11,535	.25	11,535	.....	.....	.....	.....	.....
Calloway.....	10,664	.22	10,664	.....	.....	.....	.....	.....
Campbell.....	64,076	.25	64,076	.....	.....	.....	.....	.....
Carlisle.....	7,929	.25	7,929	.....	.....	.....	.....	.....
Carroll.....	11,816	.25	11,816	.....	.....	.....	.....	.....
Carter.....	15,000	.23	10,000	1,000	4	1.25	5,000	.....
Casey.....	8,795	.25	8,795	.....	.....	.....	.....	.....
Christian.....	46,827	.235	37,067	.....	.....	.....	.....	{ ¹ 2,000
Clark.....	38,963	.25	38,963	.....	.....	.....	.....	³ 7,760
Clay.....	.....	.....	.....	.....	.....	.....	.....	.....
Clinton.....	3,520	.25	3,520	.....	.....	.....	.....	.....
Crittenden.....	1,965	.05	1,965	.....	.....	.....	.....	.....
Cumberland.....	94,234	.35	92,134	.....	.....	.....	.....	³ 2,100
Daviess.....	19,740	.10	6,740	1,500	6	1.00	9,000	³ 4,000
Edmonson.....	6,317	.25	2,717	600	6	1.00	3,600	.....
Elliott.....	4,000	.30	4,000	.....	.....	.....	.....	.....
Estill.....	90,205	.20	90,205	.....	.....	.....	.....	.....
Fayette.....	15,769	.25	15,769	.....	.....	.....	.....	.....
Fleming.....	7,000	.30	7,000	.....	.....	.....	.....	.....
Floyd.....	26,000	.25	26,000	.....	.....	.....	.....	.....
Franklin.....	13,474	.25	13,474	.....	.....	.....	.....	.....
Gallatin.....	6,736	.25	6,736	.....	.....	.....	.....	.....
Garrard.....	26,453	.25	26,453	.....	.....	.....	.....	.....
Grant.....	27,613	.25	27,613	.....	.....	.....	.....	.....
Graves.....	42,684	.....	42,684	.....	.....	.....	.....	.....
Grayson.....	9,515	.25	9,515	.....	.....	.....	.....	.....
Green.....	15,600	.15	.....	2,600	6	1.00	15,600	.....
Greenup.....	24,834	.20	24,834	.....	.....	.....	.....	.....
Hancock.....	17,700	.25	6,000	1,560	6	1.25	11,700	.....
Hardin.....	22,000	.25	22,000	.....	.....	.....	.....	.....
Harlan.....	.....	.....	.....	.....	.....	.....	.....	.....
Harrison.....	21,433	.25	21,433	.....	.....	.....	.....	.....
Hart.....	17,336	.25	17,336	.....	.....	.....	.....	.....
Henderson.....	46,000	.25	40,000	.....	.....	.....	.....	⁴ 6,000
Henry.....	17,701	.25	17,701	.....	.....	.....	.....	.....
Hickman.....	7,446	.20	7,446	.....	.....	.....	.....	.....
Hopkins.....	29,273	.25	29,273	.....	.....	.....	.....	.....
Jackson.....	12,800	.05	800	2,000	6	1.00	12,000	.....
Jefferson.....	225,591	.10	225,591	.....	.....	.....	.....	.....
Jessamine.....	24,704	.25	24,704	.....	.....	.....	.....	.....
Johnson.....	4,000	.10	4,000	.....	.....	.....	.....	.....
Kenton.....	62,660	.25	62,660	.....	.....	.....	.....	.....
Knott.....	1,174	.....	1,174	.....	.....	.....	.....	.....
Knox.....	8,000	.20	8,000	.....	.....	.....	.....	.....
Larue.....	9,180	.20	9,180	.....	.....	.....	.....	.....
Laurel.....	8,000	.25	8,000	.....	.....	.....	.....	.....
Lawrence.....	9,122	.38	9,122	.....	.....	.....	.....	.....
Lee.....	5,002	.....	.....	667	6	1.25	5,002	.....
Leslie.....	2,222	.10	2,222	.....	.....	.....	.....	.....
Letcher.....	13,619	.25	13,619	.....	.....	.....	.....	.....
Lewis.....	19,336	.17	9,961	2,500	3	1.25	9,375	.....
Lincoln.....	29,750	.25	23,750	2,000	3	1.00	6,000	.....

¹ Poll tax.² Franchise and poll tax.³ Private subscriptions.⁴ Special tax.

KENTUCKY—Continued.

TABLE 12.—County revenue applied to roads and bridges, 1914—Continued.

County.	Total revenue applied to roads and bridges.	Property tax.		Statute labor tax.				Other revenues applied to roads.
		Rate in cents per \$100.	Receipts from property tax.	Number of men worked out labor, 1914.	Average number of days worked per man.	Average daily wage for hired help.	Cash value of statute labor tax.	
Livingston.....	\$12,100	0.20	\$3,100	1,000	6	\$1.00	\$5,000	.....
Logan.....	28,952	.25	28,952	.....	.....	.....	.....	.....
Lyon.....	7,972	.....	5,972	1,000	2	1.00	2,000	.....
McCracken.....	37,418	.20	37,418	.....	.....	.....	.....	.....
McCreary.....	3,742	.10	3,742	.....	.....	.....	.....	.....
McLean.....	17,054	.225	6,344	2,400	3	1.25	9,000	¹ \$1,710
Madison.....	34,421	.25	34,421	.....	.....	.....	.....	.....
Magoffin.....	15,750	.....	3,750	2,000	6	1.00	12,000	.....
Marion.....	16,000	.25	16,000	.....	.....	.....	.....	.....
Marshall.....	15,000	.25	15,000	.....	.....	.....	.....	.....
Martin.....	7,975	.....	7,775	800	6	1.50	7,200	.....
Mason.....	37,831	.25	37,831	.....	.....	.....	.....	.....
Meade.....	7,769	.25	7,769	.....	.....	.....	.....	.....
Menifee.....	2,725	.20	2,725	.....	.....	.....	.....	.....
Mercer.....	26,511	.25	24,111	1,200	2	1.00	2,400	.....
Metcalfe.....	4,000	.25	4,000	.....	.....	.....	.....	.....
Monroe.....	10,011	.....	8,811	.....	.....	.....	.....	² 1,700
Montgomery.....	25,973	.25	25,973	.....	.....	.....	.....	.....
Morgan.....	.....	.25	.....	.....	.....	.....	.....	.....
Muhlenberg.....	18,708	.25	18,208	.....	.....	.....	500	.....
Nelson.....	41,773	.35	39,773	.....	.....	.....	1,000	² 1,000
Nicholas.....	17,433	.25	14,806	.....	.....	.....	.....	² 2,627
Ohio.....	23,350	.25	23,000	.....	.....	.....	.....	² 350
Oldham.....	16,000	.25	16,000	.....	.....	.....	.....	.....
Owen.....	22,545	.30	13,545	1,000	6	1.50	9,000	.....
Owsley.....	.....	.....	.....	.....	.....	.....	.....	.....
Pendleton.....	14,769	.25	14,769	.....	.....	.....	.....	.....
Perry.....	.....	.....	.....	.....	.....	.....	.....	.....
Pike.....	8,000	.10	8,000	.....	.....	.....	.....	.....
Powell.....	2,500	.15	2,500	.....	.....	.....	.....	.....
Pulaski.....	20,500	.25	20,500	.....	.....	.....	.....	.....
Robertson.....	6,250	.25	6,250	.....	.....	.....	.....	.....
Rockcastle.....	6,283	.35	6,283	.....	.....	.....	.....	.....
Rowan.....	2,000	.....	2,000	.....	.....	.....	.....	.....
Russell.....	4,159	.20	2,959	.....	.....	.....	1,200	.....
Scott.....	24,352	.25	24,352	.....	.....	.....	.....	.....
Shelby.....	38,907	.25	38,907	.....	.....	.....	.....	.....
Simpson.....	22,950	.....	18,000	500	3	1.50	2,250	² 2,700
Spencer.....	4,500	.....	4,500	.....	.....	.....	.....	.....
Taylor.....	6,820	.15	4,720	700	4	.75	2,100	.....
Todd.....	17,893	.30	14,893	.....	.....	.....	.....	² 3,000
Trigg.....	8,204	.....	8,204	.....	.....	.....	.....	.....
Trimble.....	9,750	.35	6,000	500	6	1.25	3,750	.....
Union.....	28,798	.25	28,798	.....	.....	.....	.....	.....
Warren.....	39,462	.25	39,462	.....	.....	.....	.....	.....
Washington.....	12,500	.25	12,500	.....	.....	.....	.....	.....
Wayne.....	28,900	.25	6,400	3,000	6	1.25	22,500	.....
Webster.....	16,585	.22	16,585	.....	.....	.....	.....	.....
Whitley.....	17,654	.25	17,654	.....	.....	.....	.....	.....
Wolfe.....	.....	.....	.....	.....	.....	.....	.....	.....
Woodford.....	35,501	.25	35,501	.....	.....	.....	.....	.....
Total.....	2,437,621	.....	2,180,997	.....	.....	.....	201,027	55,597

¹ Poll tax.² Private subscription.

LOUISIANA.

TABLE 13.—*Revenue applied to roads and bridges in 1914.*

Parish. ¹	Total revenue applied to roads and bridges.	General road tax for fiscal year ended 1914.			Other revenues applied to roads.				Statute labor tax.			
		Rate, mills per \$1.		Amounts obtained.	Source.	Rate.	Amounts obtained.	Total.	Number men who worked out tax.	Number of days worked per man.	Daily wage for hired help.	Cash value of labor tax.
		Parish.	Ward.									
Acadia.....	\$38,000.00			\$38,000.00	Special ward tax.....	3 to 5 mills.	\$5,823.00	\$5,823.00				
Allen.....	5,823.00				Police jury.....	3 mills.....	10,670.59	10,670.59				
Ascension.....	62,000.00			62,000.00	Capitation tax.....	\$1.....	6,500.00	6,500.00				
Assumption.....	10,670.59				Special ward tax.....	5 mills.....	33,009.80	33,009.80				
Avoyelles.....	11,500.00	1		5,000.00	Capitation tax.....							
Beauregard.....	33,009.80				Capitation tax.....	\$1.....	3,800.00	3,800.00				
Bienville ²	7,457.00	1		3,657.00	Vehicle and capitation tax.....		10,470.00	10,470.00				
Bossier.....	10,470.00				Automobile licenses.....		{ 1,200.00	{ 31,200.00				
Caddo.....	31,200.00				Special ward tax.....	3 mills.....	{ 30,000.00	{ 1,040.00	125	5	\$1.00	\$925.00
Calcasieu.....	8,891.31	1.5		7,226.31	Automobile licenses.....		{ 100.00	{ 480.04	150	5	1.50	1,125.00
Caldwell.....	7,269.00			6,144.00	Capitation tax.....				750	2	1.00	1,500.00
Cameron.....	2,672.73		4.5	692.69	Vehicle tax.....		{ 106.41					
Catahoula.....	4,160.00		3	4,160.00	Capitation tax.....		{ 373.63					
Clabornie.....	3,400.00		5		General fund.....		3,000.00	3,000.00	200	2	1.00	400.00
Concordia.....	12,000.00				Special tax.....		12,000.00	12,000.00				
De Soto.....	11,000.00				General fund.....	2 mills.....	11,000.00	11,000.00				
East Baton Rouge.....	9,300.00		2	4,500.00	Automobile licenses.....		300.00	4,800.00				
East Carroll.....	7,205.99				Capitation tax.....		2,500.00					
East Feliciana.....	12,649.00		3	7,205.99	Vehicle tax.....							
Evangeline.....	13,146.18		3	12,649.00								
Franklin.....	30,000.00		2.5	15,146.18	Special ward tax.....		20,000.00	20,000.00				
Grant.....	4,000.00			10,000.00	Police jury.....		4,000.00	4,000.00				
Iberia.....	12,100.00		7	12,100.00								
Iberville.....												

¹ Corresponds with county in other States² No road fund.³ One ward.

	12,000.00	2	2.25	2-5	12,000.00	{Special ward tax. (Capitation tax.	\$1.	{2,200.00 2,500.00	{4,700.00				
St. Tammany.....	12,000.00	2	2.25	2-5	33,341.00	{Special ward tax. (Capitation tax.	\$1.	{2,200.00 2,500.00	{4,700.00				
Tangipahoa.....	38,041.00				3,500.00								
Tensas.....	3,500.00				13,800.00								
Terrebonne.....	13,800.00				7,500.00								
Union.....	13,800.00				20,502.21								
Vermilion.....	7,500.00				8,000.00								
Vernon.....	60,502.21	2				{Vehicle tax. (Capitation tax.	{(3)	{900.00 2,105.00	{3,432.17	200	3	1.25	750.00
Washington.....	8,000.00												40,000.00
Webster.....	16,677.78			3-5	12,495.61								
West Baton Rouge.....	6,000.00				6,000.00								
West Carroll.....	1,700.00				1,700.00								
West Feliciana.....	1,500.00				1,500.00								
Winn.....	13,800.00				13,800.00								
Total.....	829,677.70				533,294.10				250,648.60				45,735.00
Expended by State on highways	461,505.73												
Reported as expended from													
bond issues on county roads													
and bridges.....	486,388.69												
Grand total.....	1,777,572.12												

1 No reports were received from these parishes, but it was found that the average for those parishes reporting is \$13,800.

2 No road fund.

3 All within the city limits of New Orleans.

4 Convicts.

5 Auto fees \$427.17.

MARYLAND.

TABLE 14.—Revenue applied to roads and bridges in 1914.

County.	Total revenue applied to roads and bridges.	General county road tax.		Other revenue applied to roads and bridges.	
		Rate, per \$100.	Amount obtained.	Source.	Amount obtained.
Allegany.....	\$79,833.51			General levy, roads and bridges and State-aid roads.	\$65,000.00
				Special appropriation.....	10,000.00
				Motor license and miscellaneous.	4,833.51
Anne Arundel.....	96,570.90	\$0.35-\$0.79	\$94,631.10	Special district levies.....	1,939.80
Baltimore.....	559,175.38	.40	551,320.80	Donations, auto tax, etc.....	7,854.58
Calvert.....	40,800.00			State-road loan.....	40,800.00
Caroline.....	40,000.00			General levy.....	21,000.00
Carroll.....	205,250.00	.68	158,000.00	Extra levy.....	19,000.00
				County assessment.....	22,500.00
Cecil.....	41,000.00			State-aid road.....	24,750.00
Charles.....	11,000.00			General levy.....	41,000.00
				do.....	11,000.00
Dorchester.....	103,461.80			Hern bond act, special.....	28,097.55
				County levy, roads and bridges	49,892.76
				State-road loan.....	25,471.49
Frederick.....	57,162.99			New roads and bridges levy...	4,437.89
				General levy.....	20,000.00
				Extra, miscellaneous, etc.....	32,725.10
Garrett.....	42,992.09		42,992.09		
Harford.....	38,500.00			General levy.....	38,500.00
Howard.....	22,000.00	1.00	21,000.00	County aid.....	1,000.00
Kent.....	21,600.00	.20	21,600.00		
Montgomery.....	64,480.00			Special tax.....	35,480.00
Prince Georges.....	48,000.00	.22	43,000.00	Special levy, roads and bridges	29,000.00
Queen Annes.....	22,500.00	.20	22,500.00	Portion of liquor license.....	5,000.00
St. Marys.....	5,000.00			General levy.....	5,000.00
Somerset.....	20,000.00	.20	20,000.00		
Talbot.....	22,000.00			General levy.....	22,000.00
Washington.....	56,999.99	.15½	56,000.00		
Wicomico.....	250,000.00			State-road loan.....	100,600.00
Worcester.....	16,000.00	.16	16,000.00	Special appropriation.....	149,400.00
Total.....	1,863,326.67		1,047,043.99		816,282.68
Approximate amount obtained from State appropriations and State bond issues and applied to State and State-aid roads.....	3,713,279.00				
Contributions by counties spent under State supervision.....	309,504.00				
Expended from county-bond issues during 1914.....	114,542.36				
Grand total.....	6,000,652.03				

¹ District.

MISSISSIPPI.

TABLE 15.—County revenue applied to roads and bridges during 1914.

County.	Total revenue applied to roads and bridges.	General county and beat road tax.			Other revenues applied to roads and bridges.		Statute labor tax.			
		County rate, mills per \$1.	Beat rate, mills per \$1.	Amount obtained.	Auto-moblie tax.	Per capita tax.	Number of men who worked.	Number of days worked.	Average daily wage for hired help.	Cash value of labor tax.
Adams.....	\$4,975.44				\$880.27	\$4,095.17				
Alcorn.....	7,950.00	13		\$6,700.00	1,250.00					
Amite.....										
Attala.....	18,573.35	3	4	18,573.35						
Benton.....	5,200.00	2		3,400.00		1,800.00				
Bolivar.....	97,253.00	5		1 63,787.00	2,500.00	30,966.00				
Calhoun.....										
Carroll.....	36,757.30	7		26,195.00	608.30	9,954.00				
Chickasaw.....	14,928.43	1	1	7,162.18	560.32	7,205.93				
Choctaw.....	10,624.09	3		10,624.09						
Claiborne.....	7,000.00	1		4,000.00		3,000.00				
Clay.....	21,810.00	1		21,810.00						
Clarke.....										
Coahoma.....	73,656.22	9		73,656.22						
Copiah.....		3	6							
Covington.....	5,512.57	1		3,015.89	990.06	1,356.62	10	10	\$1.50	\$150.00
De Soto.....	28,537.33	3	1	18,398.92		10,138.41				
Forrest.....	13,083.47		2½	9,213.18	1,232.96	2,637.33				
Franklin.....	9,123.25			2,160.10		6,963.15				
George.....										
Greene.....	11,267.32			2 8,278.75		2,988.57				
Grenada.....	19,579.00	3		12,382.00	900.00	6,297.00				
Hancock.....	18,303.74	4		16,553.74		1,750.00				
Harrison.....	49,000.00	2		30,000.00	1,500.00	10,000.00	1,000	5	1.50	7,500.00
Hinds.....	40,935.00	2½		27,285.00	4,000.00	9,650.00				
Holmes.....	40,813.00	2½	8	22,430.00	2,000.00	16,383.00				
Issaquera.....	3,678.93			3,378.93			150	2	1.00	300.00
Itawamba.....	18,850.00	7		3,800.00			2,150	7	1.00	15,050.00
Jackson.....	2,048.13	3		1,748.13			30	8	1.25	300.00
Jasper.....	1,820.00			1,500.00	320.00					
Jefferson.....	14,712.75	3		9,212.75		5,500.00				
Jefferson Davis.....	14,090.98	2		3 8,207.98		5,883.00				
Jones.....	1,079.55			315.00	764.55					
Kemper.....	20,081.00	2		8,528.00		11,553.00				
Lafayette.....	24,000.00			24,000.00						
Lamar.....	18,000.00	3		18,000.00						
Lauderdale.....	29,299.11	1		20,095.11		9,204.00				
Lawrence.....	10,403.61			6,835.66		3,567.95				
Leake.....										
Lee.....										
Leflore.....	91,359.84			79,149.48		12,210.36				
Lincoln.....	19,008.05	13		11,055.05		7,953.00				
Lowndes.....	10,642.00	3		10,642.00						
Madison.....	10,500.00	3		10,500.00						
Marion.....	13,000.00	1½		13,000.00						
Marshall.....	23,686.00	3		23,686.00						
Monroe.....										
Montgomery.....	20,440.46	3	3	14,309.41	650.00	5,481.00				
Neshoba.....	12,196.00	1½		3,407.00	83.00	8,706.00				
Newton.....	20,033.10	3-2	3-2	11,073.10	350.00	8,610.00				
Noxubee.....	12,721.43		5	4 10,947.05		1,774.38				
Oktibbeha.....										
Panola.....		2½								
Pearl River.....	25,500.00	3		23,000.00		2,500.00				
Perry.....										
Pike.....	18,933.00	2		16,133.00	2,800.00					
Prentiss.....										
Pontotoc.....	18,101.35	5		18,101.35						
Quitman.....										
Rankin.....	21,338.06		2½-3	5 16,488.60	109.03	1,540.43	800	4	1.00	3,200.00
Scott.....										
Sharkey.....	6,440.85	2½		5,440.85			250	4	1.00	1,000.00
Smith.....	11,678.57		5	11,678.57						

¹ Includes \$24,952 property tax.² Includes \$3,145.09 property tax.³ Includes \$72 special tax and \$573 from general funds.⁴ Includes \$4,851.52 special tax.⁵ Includes \$7,772.99 from general funds.

MISSISSIPPI—Continued.

TABLE 15.—County revenue applied to roads and bridges during 1914—Continued.

County.	Total revenue applied to roads and bridges.	General county and beat road tax.			Other revenues applied to roads and bridges.		Statute labor tax.			
		County rate, mills per \$1.	Beat rate, mills per \$1.	Amount obtained.	Auto-mobile tax.	Per capita tax.	Number of men who worked.	Number of days worked.	Average daily wage for hired help.	Cash value of labor tax.
Simpson.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sunflower.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tallahatchie.....	\$51,779.00	.....	.....	\$24,482.00	\$2,256.00	\$25,041.00	.....	.....	.....	.....
Tate.....	20,500.00	3	.....	12,000.00	.....	8,500.00	.....	.....	.....	.....
Tippah.....	10,137.19	3	.....	10,137.19	.....	.....	.....	.....	.....	.....
Tishomingo.....	20,893.00	1-2	1½-2	7,725.00	131.00	1,037.00	2,000	6	\$1.00	\$12,000.00
Tunica.....	33,613.18	.....	.....	21,394.01	.....	12,219.17	.....	.....	.....	.....
Union.....	13,787.40	.....	.....	5,246.17	.....	8,541.23	.....	.....	.....	.....
Walthall.....	11,000.00	.....	.....	11,000.00	.....	.....	.....	.....	.....	.....
Warren.....	174,442.11	.....	.....	166,102.39	3,201.06	5,138.66	.....	.....	.....	.....
Washington.....	22,797.00	.....	.....	.....	3,000.00	19,797.00	.....	.....	.....	.....
Wayne.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Webster.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wilkinson.....	16,400.26	3	.....	9,728.26	.....	6,672.00	.....	.....	.....	.....
Winston.....	13,000.00	2	.....	6,000.00	.....	7,000.00	.....	.....	.....	.....
Yalobusha.....	22,358.59	.....	.....	22,358.59	.....	.....	.....	.....	.....	.....
Yazoo.....	40,184.00	.....	.....	20,532.00	1,319.00	18,333.00	.....	.....	.....	.....
Total.....	1,479,417.01	.....	.....	1,086,564.10	31,405.55	321,947.36	.....	.....	.....	39,500.00

¹ Appropriated from general funds.

NORTH CAROLINA.

TABLE 16.—County revenue applied to roads and bridges in 1914.

County.	Total revenue applied to roads and bridges.		Property and poll tax.		Special taxes.	Other revenue applied to roads.			Statute labor tax.			Bridge tax.
	County rate, cents per \$100.	Township rate, cents per \$100.	Total receipts.	Source.		Receipts.	Total receipts.	Number of men worked.	Number of days worked.	Cash value at \$1 per day.		
Alamance.....	\$25,033.98	16½	\$17,629.98	{Private subscriptions. Auto tax.	\$400.00 1,004.00	\$1,404.00	2,000	3	\$6,000.00			
Alexander.....	10,131.60	25	1,000.00	{Private subscriptions. Auto tax.	131.60 500.00	131.60	1,500	6	9,000.00			
Alleghany.....	5,401.60			{Private subscriptions. Auto tax.	1.60 1,000.00	501.60	700	7	4,900.00			
Anson.....	35,677.40	25-30	22,183.00	{Private subscriptions. Auto tax. do.	1,000.00 494.40 20.00	1,494.40	2,000	6	12,000.00			
Ashe.....	8,020.00			{Private subscriptions. Auto tax. do.	8.00 856.20 500.00	8.00	1,000	8	8,000.00			
Avery.....	4,508.00	20	4,500.00	{Private subscriptions. Auto tax.	125.60 625.60	751.20	3,000	4	12,000.00			
Beaufort.....	8,256.03	10-20	8,256.03	{Private subscriptions. Auto tax.	100.40 5,000.00	100.40	1,000	6	6,000.00			
Bertie.....	26,580.98	20½	13,724.78	{Private subscriptions. Auto tax. do.	3,495.40 316.20 500.00	3,811.60	2,835	4	11,340.00	\$7,000.00		
Bladen.....	6,625.60	10	5,500.00	{Private subscriptions. Auto tax.	500.00 1,100.60	1,600.60	1,200	6	7,200.00			
Brunswick.....	11,600.40	25	5,000.00	{Private subscriptions. Auto tax.	1,800.00 439.40	2,239.40	3,000	6	18,000.00			
Buncombe.....	79,764.16	20	52,928.76	{Private subscriptions. Auto tax. do.	60.00 127.60 300.00	187.60	1,000	6	6,000.00			
Burke.....	18,575.64	20	11,059.44	{Private subscriptions. Auto tax.	312.80 2,000.00	2,312.80	800	6	4,800.00			
Cabarrus.....	32,080.60	30	30,480.00	{Private subscriptions. Auto tax. do.	1,100.40 1,800.00 60.00	2,900.40	1,500	4	6,000.00			
Caldwell.....	20,639.40		400.00	{Private subscriptions. Auto tax.	284.80 105.60	390.40	3,000	6	18,000.00			
Camden.....	6,060.00			{Private subscriptions. Auto tax.	100.00 431.80	531.80	600	6	3,600.00			
Carters.....	10,587.60	15	5,660.00	{Private subscriptions. Auto tax.	4.00 852.20	856.20	1,400	8	11,200.00			
Caswell.....	11,412.80	10	3,000.00	{Private subscriptions. Auto tax.			300	4	1,200.00			
Catawba.....	27,214.05		24,113.65	{Dug tax, \$1.00. Corporation tax, \$1.103								
Chatham.....	28,124.56	10	6,836.76	{Dug tax, \$1.00. Corporation tax, \$1.103								
Cherokee.....	39,905.60	10 { 21½, 55, 35, 105	25,000.00	{Private subscriptions. Auto tax.	105.60 100.00	205.60	600	6	3,600.00			
Chowan.....	5,831.80		5,300.00	{Private subscriptions. Auto tax.	431.80 4.00	435.80	1,400	8	11,200.00			
Clay.....	2,313.00	10	1,109.00	{Private subscriptions. Auto tax.	852.20	852.20	300	4	1,200.00			
Cleveland.....	23,852.20	25	23,000.00	{Private subscriptions. Auto tax.								

NORTH CAROLINA—Continued.
TABLE 16.—County revenue applied to roads and bridges in 1914—Continued.

County.	Property and poll tax.			Special taxes.		Other revenue applied to roads.			Statute labor tax.			Bridge tax.
	County rate, cents per \$100.	Township rate, per \$100.	Total receipts.			Source.	Receipts.	Total receipts.	Number of men worked.	Number of days worked.	Cash value at \$1 per day.	
Columbus.....	\$54,775.40	10	\$11,266.80	{Special tax, \$603. {Civic week, \$200.		Private subscriptions. Auto tax. {Central highway tax. Auto tax. do. do. do. do. {Federal fund appro- piation.	\$1,200.00 505.60 3,100.00 1,135.00 872.00 143.60 61.60 1,337.00 12,425.00	\$2,508.60	4,000	6	\$24,000.00	\$17,000.00
Craven.....	33,105.40	20, 60	25,344.40					4,235.00				3,526.00
Cumberland.....	38,872.00	25	26,000.00					872.00	1,000	4	4,000.00	12,000.00
Currituck.....	4,143.60							143.60	500	6	3,000.00	
Dare.....	3,061.60							61.60	1,000	6	6,000.00	
Davidson.....	29,217.00	15-20	21,880.00					1,337.00				
Davie.....	50,708.13	20, 60	10,059.33					12,648.80				28,000.00
Duplin.....	23,604.40	20, 60	3,500.00			Private subscriptions. Auto tax.	223.80 1,800.00	2,104.40	3,000	6	18,000.00	
Durham.....	50,123.34	17	47,928.04			do.	304.40					
Edgecombe.....	31,882.13	25	30,201.53	Dog tax, \$572.50.		do.	1,622.80	2,195.30				
Forsyth.....	88,390.69	28	82,728.64	Federal funds, \$1,412.25		do.	1,680.60	1,680.60				
Franklin.....	27,157.20	10	20,382.00			Private subscriptions. Auto tax.	1,550.00 2,693.80	5,662.05				
Gaston.....	48,757.00	25, 75	41,250.00			Private subscriptions. Auto tax.	50.00 725.20	775.20	1,000	6	6,000.00	
Gates.....	1,796.08	20, 60	1,668.88			Private subscriptions.	1,250.00	2,507.00				
Graham.....	7,933.00	25, 72	5,133.00			Auto tax.	1,257.00					
Granville.....	42,214.27	30½	28,405.77			do.	127.20	127.20				
Greene.....	23,105.26	50	10,661.26			{Dog tax. {Auto tax.	984.50 854.00	1,838.50	700	4	2,800.00	
Guilford.....	89,708.00	23½	70,000.00	{Excess fees, county { officers, \$14,000.		do.	444.00	444.00	3,000	4	12,000.00	
Halifax.....	33,924.60	25, 200	32,000.00			Private subscriptions. Auto tax.	1,000.00 4,708.00	19,708.00	2,000	6	12,000.00	
Harnett.....	10,198.40			Dog tax, \$200.		Private subscriptions.	500.00	1,924.60				
Haywood.....	36,374.20	33½	13,731.00			Auto tax.	1,424.60		1,500	6	9,000.00	
Henderson.....	13,584.40	20	9,000.00	Special tax, \$4,000.		Private subscriptions.	300.00	1,198.40	3,000	6	18,000.00	
						Auto tax.	688.40	4,643.20	600	5	3,000.00	
						Private subscriptions.	400.00					
						Auto tax.	243.20					
						Private subscriptions.	1,000.00	1,584.40				
						Auto tax.	584.40					

Hertford.....	28,149.00	.....	5-30	12,703.00	do.....	446.00	446.00	2,500	6	15,000.00
Hoke.....	7,993.20	25,75	.....	7,553.69	do.....	469.20	469.20	500	6	3,000.00
Hyde.....	4,739.29	.....	20,60	1,553.69	do.....	185.60	185.60			
Iredell.....	47,301.01	25,75	.....	36,221.23	{Federal fund.....	3,802.88	5,180.28			5,899.50
Jackson.....	17,134.00	.....	10-55	9,118.00	{Auto tax.....	1,377.40	16.00	2,000	4	8,000.00
Johnston.....	42,149.24	.....	25	28,874.24	{Private subscriptions.....	1,000.00	2,475.00	1,800	6	10,800.00
Jones.....	9,478.79	20,60	.....	6,608.79	{Auto tax.....	1,700.00	870.00	1,000	2	2,000.00
Lee.....	8,951.60	17 $\frac{1}{2}$,60	.....	8,655.00	do.....	206.60	296.60			
Lenoir.....	54,332.12	18	.....	14,287.72	{Private subscriptions.....	1,500.00	40,044.40			
Lincoln.....	12,449.20	20,60	.....	12,000.00	{Auto tax.....	1,044.40	449.20			
McDowell.....	34,680.59	10	25-30	11,763.39	do.....	449.20	449.20			
Macon.....	30,556.08	34	.....	8,200.48	{Private subscriptions.....	62.00	10,167.20	{1,000	6	6,000.00
Madison.....	19,922.70	30	.....	10,916.70	{Auto tax.....	105.20	255.60	1,350	5	6,750.00
Martin.....	20,866.63	.....	16 $\frac{2}{3}$,50	9,619.13	do.....	200.00	6.00	1,500	4	6,000.00
Mecklenburg.....	143,419.40	30	10-12 $\frac{1}{2}$	130,720.00	{Special tax.....	234.90	6.00	1,500	6	9,000.00
Mitchell.....	15,400.00	50	.....	11,000.00	{Auto tax.....	812.60	1,047.50	1,700	6	10,200.00
Montgomery.....	30,609.89	10	30	17,927.89	do.....	4,699.40	4,699.40	2,000	4	8,000.00
Moore.....	22,844.20	.....	25,75	19,000.00	{Private subscriptions.....	4,200.00	4,682.00	2,000	4	8,000.00
Nash.....	41,452.60	.....	30,60	40,000.00	{Auto tax.....	482.00	3,844.20			
New Hanover.....	77,449.60	.....	150	75,000.00	{Private subscriptions.....	2,700.00	1,452.60			
Northampton.....	24,940.80	20	.....	16,308.20	do.....	1,144.20	1,452.60			
Onslow.....	9,350.20	.....	20,60	4,138.20	do.....	2,449.60	2,449.60	2,700	3	8,100.00
Orange.....	20,171.20	35	.....	18,780.00	{Private subscriptions.....	532.60	532.60	1,200	4	4,800.00
Pamlico.....	9,324.00	20	.....	3,629.00	{Auto tax.....	250.00	412.00			
Pasquotank.....	10,420.07	13	.....	9,720.27	{Private subscriptions.....	250.00	1,391.20			
Pender.....	18,582.00	.....	20,60	7,200.00	{Auto tax.....	441.20	255.00	1,360	4	5,410.00
Perquimans.....	13,589.41	35,105	.....	13,351.41	{Special tax.....	175.00	255.00			
Person.....	12,515.40	25	.....	12,013.00	do.....	699.80	699.80	1,400	8	11,200.00
PHt.....	34,533.40	15,45	30	18,500.00	do.....	182.00	182.00			
Polk.....	14,100.00	52	.....	10,010.00	do.....	238.00	238.00			
Randolph.....	77,649.80	8 $\frac{1}{2}$	.....	6,500.00	{Private subscriptions.....	502.40	502.40	2,000	5	10,000.00
Richmond.....	32,002.40	33 $\frac{1}{2}$,100	.....	30,333.00	{Auto tax.....	4,000.00	6,033.40	1,000	4	4,000.00
Robeson.....	52,998.98	21	.....	36,521.18	{Private subscriptions.....	30,000.00	90.00	3,600	4	14,400.00
Rockingham.....	34,973.60	24	.....	28,000.00	{Auto tax.....	743.80	56,749.80			
Rowan.....	54,742.40	35,105	.....	52,736.00	do.....	500.00	1,669.40	3,760	4	15,040.00
					do.....	1,437.80	1,437.80	2,960	2	5,920.00
					do.....	1,053.60	1,053.60			
					do.....	1,986.40	1,986.40			

NORTH CAROLINA—Continued.

TABLE 16.—County revenue applied to roads and bridges in 1914—Continued.

County.	Property and poll tax.		Special taxes.	Other revenue applied to roads.			Statute labor tax.			Bridge tax.
	County rate, cents per \$100.	Township rate, cents per \$100.		Source.	Receipts.	Total receipts.	Number of men worked.	Number of days worked.	Cash value at \$1 per day.	
Rutherford.....	15, 20			{Private subscriptions. Auto tax.	\$200.00 703.20	\$903.20				
Simpson.....	12			{Private subscriptions. Auto tax.	1,500.00 493.60	4,493.60	3,000	6	\$18,000.00	
Scotland.....	20	30-50	Dog tax, \$2.50.	do.	1,100.80	1,100.80	1,060	4	4,240.00	
Stanley.....	10	25, 75		do.	702.60	702.60	2,000	6	12,000.00	
Stokes.....		30-40, 100		{do. R. R. tax	216.80 200.00	416.80	2,000	6	12,000.00	
Surry.....		20, 60		{Private subscriptions. Auto tax.	600.00 526.00	1,126.00	2,000	6	12,000.00	
Swain.....	10			do.	20.00	20.00	1,500	4	6,000.00	
Transylvania.....		15-25, 45		do.	216.60	216.60	1,500	4	6,000.00	
Tyrell.....		15		{Private subscriptions. Auto tax.	17.00 128.40	145.40	1,500	6	9,000.00	
Union.....	25	14, 75		{Private subscriptions. Auto tax.	200.00 612.20	812.20	3,500	6	21,000.00	
Vance.....	17, 51			{Private subscriptions. Auto tax.	600.00 1,044.00	1,644.00				
Wake.....	25	(1)		{Dog tax. Auto tax.	3,643.00 3,519.40	7,162.40				
Warren.....	25	25, 75		do.	619.60	619.60	500	6	3,000.00	
Washington.....	20, 60			do.	398.40	398.40	1,500	4	6,000.00	
Watauga.....	21½			do.	51.60	51.60	2,800	6	16,800.00	
Wayne.....		10, 30		do.	1,542.00	1,542.00	3,000	10	30,000.00	
Wilkes.....	10			{Private subscriptions. Auto tax.	200.00 149.40	349.40				
Wilson.....	25, 75	30, 90		do.	1,590.40	1,590.40	1,500	6	9,000.00	
Yadkin.....	40			do.	107.60	107.60	3,000	6	18,000.00	
Yancey.....	15			do.	8.00	8.00				
Total.....			(2)			272,155.43			610,130.00	\$89,555.50

¹ Five townships, 10 extra.² Amounts included with "other revenue applied to roads."

OKLAHOMA.

TABLE 17.—County revenue applied to roads and bridges in 1915.

County.	Total revenue applied to roads and bridges.	General county and township tax.		Other revenues applied to roads.	Statute labor tax.			
		Rate, mills per \$1. ¹	Receipts.		Number of men worked out labor tax last fiscal year.	Average number of days worked per man.	Average daily wage for hired help.	Cash value of statute labor tax.
Adair.....	\$14,550.62	0.10	\$5,120.79	\$429.83	1,800	4	\$1.25	\$9,000
Alfalfa.....	60,943.00	.76	60,143.00	800.00	.....	.....	.....	.....
Atoka.....	26,923.02	1.50	20,351.37	6,571.65	.....	.....	.....	.....
Beaver.....	19,941.46	.90	16,757.66	3,183.80	.....	.....	.....	.....
Beckham.....	26,482.55	1.38	26,296.46	186.09	.....	.....	.....	.....
Blaine.....	37,725.95	1.25	32,673.16	5,052.79	.....	.....	.....	.....
Bryan.....	29,116.02	.85	26,716.02	2,400.00	.....	.....	.....	.....
Caddo.....	70,897.76	1.28	49,523.50	5,374.26	2,000	4	2.00	16,000
Canadian.....	26,406.89	1.10	24,009.51	2,397.38	.....	.....	.....	.....
Carter.....	19,767.00	.235	13,767.00	6,000.00	.....	.....	.....	.....
Cherokee.....	24,169.83	1.00	14,144.83	25.00	2,000	4	1.25	10,000
Choctaw.....	19,963.17	.96	18,560.67	1,402.50	.....	.....	.....	.....
Cimarron.....	323.19	.....	323.19	.....	.....	.....	.....	.....
Cleveland.....	26,918.77	.....	18,118.77	.....	1,100	4	2.00	8,800
Coal.....	17,802.35	1.20	15,093.75	2,708.60	.....	.....	.....	.....
Comanche.....	28,654.00	.62	28,304.00	350.00	.....	.....	.....	.....
Cotton.....	10,738.21	.63	5,338.21	.....	1,200	3	1.50	5,400
Craig.....	17,570.00	.70	11,770.00	1,800.00	1,000	2	2.00	4,000
Creek.....	101,505.64	1.38	85,755.39	15,750.25	.....	.....	.....	.....
Custer.....	45,690.72	1.37	44,840.72	850.00	.....	.....	.....	.....
Delaware.....	2,372.00	.....	2,000.00	372.00	.....	.....	.....	.....
Dewey.....	42,728.49	.47	42,406.24	322.25	.....	.....	.....	.....
Ellis.....	9,060.81	.....	9,060.81	.....	.....	.....	.....	.....
Garfield.....	55,019.93	.62	54,519.93	500.00	.....	.....	.....	.....
Garvin.....	19,809.93	.87	19,809.93	.....	.....	.....	.....	.....
Grady.....	35,932.54	.82	35,932.54	.....	.....	.....	.....	.....
Grant.....	35,744.54	.....	29,894.54	.....	1,300	3	1.50	5,850
Greer.....	4,486.84	.30	2,530.00	1,956.84	.....	.....	.....	.....
Harmon.....	22,822.97	.75	9,687.97	1,135.00	1,500	4	2.00	12,000
Harper.....	17,660.58	1.37	16,077.79	1,582.79	.....	.....	.....	.....
Haskell.....	15,828.31	.65	15,828.31	.....	.....	.....	.....	.....
Jackson.....	25,406.00	.80	25,050.00	356.00	.....	.....	.....	.....
Jefferson.....	10,627.09	.24	10,427.09	200.00	.....	.....	.....	.....
Johnston.....	28,333.90	.94	17,132.90	.....	2,435	4	1.50	11,201
Kay.....	37,681.04	.....	31,009.54	6,671.50	.....	.....	.....	.....
Kingfisher.....	29,267.75	.64	27,523.05	1,744.70	.....	.....	.....	.....
Kiowa.....	27,917.28	.86	27,917.28	.....	.....	.....	.....	.....
Latimer.....	4,639.00	.20	4,453.00	186.00	.....	.....	.....	.....
Le Flore.....	18,259.20	.04	17,869.20	390.00	.....	.....	.....	.....
Lincoln.....	39,000.00	1.56	33,000.00	6,000.00	.....	.....	.....	.....
Logan.....	43,471.32	.90	41,861.32	1,610.00	.....	.....	.....	.....
Love.....	7,982.00	.51	7,932.00	50.00	.....	.....	.....	.....
McClain.....	5,750.00	.43	2,750.00	.....	1,000	2	1.50	3,000
McCurtain.....	11,290.39	.20	9,886.89	1,403.50	.....	.....	.....	.....
McIntosh.....	7,440.77	.....	4,130.40	3,310.37	.....	.....	.....	.....
Major.....	24,369.16	1.00	24,169.16	200.00	.....	.....	.....	.....
Marshall.....	10,446.78	.40	9,946.78	500.00	.....	.....	.....	.....
Mayes.....	25,372.23	.80	22,125.23	185.00	1,225	2	1.25	3,062
Murray.....	16,312.24	.28	14,121.87	1,065.37	500	1½	1.50	1,125
Muskogee.....	69,660.05	.77	60,255.80	4,154.25	1,750	2	1.50	5,250
Noble.....	33,750.87	.97	29,392.10	4,358.77	.....	.....	.....	.....
Nowata.....	27,059.58	.65	23,395.58	3,664.00	.....	.....	.....	.....
Okfuskee.....	21,875.00	.865	21,875.00	.....	.....	.....	.....	.....
Oklahoma.....	82,699.46	.48	72,929.86	9,769.60	.....	.....	.....	.....
Okmulgee.....	31,040.05	1.45	24,265.05	6,775.00	.....	.....	.....	.....
Ottawa.....	18,734.38	.55	15,174.89	3,559.49	.....	.....	.....	.....
Pawnee.....	25,040.00	1.50	23,540.00	1,500.00	.....	.....	.....	.....
Payne.....	46,882.40	.....	38,047.21	8,835.19	.....	.....	.....	.....
Pittsburg.....	17,187.50	.....	16,087.50	500.00	100	4	1.50	600
Pontotoc.....	17,887.10	.58	17,887.10	.....	.....	.....	.....	.....
Pottawatomie.....	46,894.11	1.02	42,894.11	4,000.00	.....	.....	.....	.....
Roger Mills.....	12,963.03	1.00	12,963.03	.....	.....	.....	.....	.....
Rogers.....	27,521.68	0.56	27,221.68	300.00	.....	.....	.....	.....
Seminole.....	8,960.75	.....	8,960.75	.....	.....	.....	.....	.....
Sequoyah.....	4,876.50	.30	2,876.50	2,000.00	.....	.....	.....	.....
Stephens.....	19,657.54	1.08	19,457.54	200.00	.....	.....	.....	.....

¹ This is the rate for general county road purposes. The township rate varies in different townships, but averages about 1.5 mills per \$1. Where the township rate is not given in the table the receipts derived therefrom are included.

OKLAHOMA—Continued.

TABLE 17.—County revenue applied to roads and bridges in 1915—Continued.

County.	Total revenue applied to roads and bridges.	General county and township tax.		Other revenues applied to roads.	Statute labor tax.			
		Rate, mills per \$1.	Receipts.		Number of men worked out labor tax last fiscal year.	Average number of days worked per man.	Average daily wage for hired help.	Cash value of statute labor tax.
Texas.....	\$18,763.15	0.98	\$18,463.15	\$300.00	.....	.....	.....	.....
Tillman.....	23,475.38	.59	23,475.38	.....	.....	.....	.....	.....
Tulsa.....	107,013.38	.71	98,662.44	8,350.94	.....	.....	.....	.....
Wagoner.....	31,935.18	1.00	30,555.18	1,380.00	.....	.....	.....	.....
Washington.....	78,763.61	1.20	76,447.61	2,316.00	.....	.....	.....	.....
Washita.....	{19,394.89}	1.15	{18,810.89	584.00	.....	.....	.....	.....
	{19,189.94}		{18,939.94	250.00	.....	.....	.....	.....
Woodward.....	18,173.54	.80	18,173.54	.....	.....	.....	.....	.....
Total.....	2,102,680.80	.....	1,859,572.09	147,820.71	18,910	.....	.....	\$95,288

SOUTH CAROLINA.

TABLE 18.—County revenue applied to roads and bridges in 1914.

County.	Total revenue applied to roads and bridges.	County road and bridge tax.		Other revenues.		Statute labor tax.			
		Rate, mills per \$1.	Receipts.	Sources.	Amounts obtained.	Number of men who worked.	Number of days worked.	Average daily wage.	Cash value.
Abbeville.....	\$4,280.00	1	\$3,880.00	Township labor tax.....	\$4,558.00	100	4	\$1.00	\$400.00
Aiken.....	52,158.00		27,000.00	{Borrowed from banks.....	20,000.00	150	4	1.00	600.00
Anderson.....	34,013.41	2	27,013.41	Commutation tax.....	7,000.00				
Bamberg.....	5,000.00	(1)	5,000.00	Commutation tax.....	5,344.50				
Barrow.....	21,344.50		16,000.00	Commutation tax.....					
Beaufort.....	32,000.00	6.50	26,000.00	Chain gang.....	3,500.00	1,000	6	1.00	6,000.00
Berkley.....	11,500.00		8,000.00	Commutation tax.....	5,000.00				
Calhoun.....	7,500.00	1	2,500.00	Commutation tax.....					
Charleston.....	54,000.00	1.75	42,000.00	Commutation tax.....					
Cherokee.....	23,284.68	4	22,609.68	Commutation tax.....		2,000	6	1.00	12,000.00
Chester.....	21,631.13	2	13,361.13	Commutation tax.....	8,270.00	225	3	1.00	675.00
Chesterfield.....	23,574.46		8,574.46	Commutation tax.....		3,000	5	1.00	15,000.00
Clarendon.....	3,000.00		3,000.00	Commutation tax.....					
Colleton.....	20,000.00	3	14,000.00	Commutation tax.....	6,000.00				
Darlington.....	15,350.00	1	10,000.00	do.....	5,200.00	25	6	1.00	150.00
Dillon.....	4,094.00	1	4,094.00	Commutation tax.....					
Dorchester.....	16,350.00	4	12,878.00	Commutation tax.....	3,472.00				
Edgefield.....	25,000.00		18,000.00	Fines.....	6,000.00	800	2	1.00	1,000.00
Fairfield.....	8,500.00		7,000.00	do.....	1,500.00				
Florence.....	21,018.96	2	17,018.96	Commutation tax.....	4,000.00				
Georgetown.....	20,572.00		3,500.00	{Dispensary sales.....	10,000.00				
Greenville.....	2 16,515.50		2 16,515.50	General tax.....	7,072.00				
Greenwood.....	28,000.00		28,000.00	{Convict labor.....	6,570.00				
Hampton.....	28,291.80	5	17,000.00	{Commutation tax.....	4,721.80				
Horry.....	34,950.00	3	9,750.00	{do.....	24,000.00				
Jasper.....	3 7,912.84		3 7,912.84	{Special road tax.....	1,200.00				
Kershaw.....	18,772.52	2.5	11,828.52	Commutation tax.....	6,944.00				
Lancaster.....	17,722.90		17,722.90	Commutation tax.....					
Laurens.....	27,000.00	3	21,500.00	Commutation tax.....	5,500.00				

¹ Appropriation.² Estimated on basis of 1-mill tax.³ Estimated on basis of 3-mill tax.

SOUTH CAROLINA.—Continued.

TABLE 18.—County revenue applied to roads and bridges in 1914—Continued.

County.	Total revenue applied to roads and bridges.	County road and bridge tax.		Other revenues.		Statute labor tax.			
		Rate, mills per \$1.	Receipts.	Sources.	Amounts obtained.	Number of men who worked.	Number of days worked.	Average daily wage.	Cash value.
Ide.....	\$13,260.00	2	\$7,000.00	Commutation tax.....	\$6,250.00	.....	.....	.....	.....
Lexington.....	26,000.00	2	13,000.00	2-mill bridge tax.....	13,000.00	.....	.....	.....	.....
Marion.....	15,000.00	.....	13,500.00	Commutation tax.....	1,500.00	.....	.....	.....	.....
Marlboro.....	28,000.00	5	28,000.00	.....	.....	.....	.....	.....	.....
Newberry.....	15,250.00	1	7,250.00	Commutation tax.....	5,000.00	1,000	4	\$0.75	\$3,000.00
Oconee.....	16,100.00	.....	8,000.00	(Automobile license.....)	1,500.00	.....	.....	.....	.....
Orangeburg.....	59,000.00	.....	50,000.00	Commutation tax.....	5,400.00	300	4	1.00	1,200.00
Pickens.....	15,000.00	.....	15,000.00	do.....	9,000.00	.....	.....	.....	.....
Richland.....	16,142.63	.....	16,142.63	.....	.....	.....	.....	.....	.....
Saluda.....	22,594.73	.....	25,094.73	.....	.....	3,500	5	1.00	17,500.00
Spartanburg.....	70,800.00	.....	70,800.00	Commutation tax.....	8,000.00	.....	.....	.....	.....
Sumter.....	25,000.00	.....	17,000.00	.....	.....	.....	.....	.....	.....
Union.....	15,000.00	.....	15,000.00	Commutation tax.....	9,000.00	.....	.....	.....	.....
Williamsburg.....	19,122.84	2	10,122.84	Bridge tax.....	10,000.00	.....	.....	.....	.....
York.....	28,273.47	2	18,273.47	.....	.....	.....	.....	.....	.....
Total.....	990,480.37	.....	717,843.07	.....	214,512.30	.....	.....	.....	58,125.00

¹ Estimated on basis of one-fourth of total receipts for all purposes.² Estimated on basis of 2-mill tax.

TABLE 19.—County revenue applied to roads and bridges in 1914.¹

County.	Total revenue applied to roads and bridges.	General county tax.			Other revenues applied to roads and bridges.				Statute labor tax.		
		Rate, cents per \$100.	Cash receipts.	Cash from labor tax.	Source.	Rate, cents per \$100.	Amounts obtained.	Number of men who worked.	Average number of days worked.	Average wages for labor hired help.	Cash value of tax. ²
Anderson.....	\$5,537.18	20	\$5,037.18					100	5	\$1.00	\$500.00
Bedford.....	5,640.32	10	5,640.32								
Benton.....	1,476.03	10	1,476.03								
Bledsoe.....	1,394.16	12	1,394.16								
Blount.....	7,578.02	20	7,578.02								
Bradley.....	1,559.17	5	1,559.17								
Campbell.....	13,155.57	15	6,405.57					1,800	3	1.25	6,750.00
Cannon.....	2,069.15	10	2,069.15								
Carroll.....	3,956.00	10	3,956.00								
Carter.....	11,325.00	10	2,730.00		Extra levy	15	\$4,095.00	1,200	5	.75	4,500.00
Cheatham.....	13,601.38	10	1,175.69		Bridge tax	10	1,175.69	1,500	5	1.50	11,250.00
Chester.....	7,027.71	10	2,376.97		do.	20	4,650.74				
Clayborne.....	2,011.50	10	2,011.50								
Clay.....	1,408.52	10	1,408.52		Highway tax	15	6,328.03				
Coke.....	10,546.73	10	2,218.70								
Cofer.....	2,212.43	10	2,212.43								
Cooke.....	4,874.00	20	3,874.00		Railroad and telegraph		1,000.00				
Crockett.....	1,506.95	10	1,506.95								
Cumberland.....	149,074.74	10	100,069.168	10,000.00	Outside first district	10	39,065.58				
Davidson.....	5,482.28	10	1,241.14		Bridge tax	10	1,241.14	600	5	1.00	3,000.00
Decatur.....	4,722.70	20	4,722.70								
DeKalb.....	1,986.65	10	1,986.65								
Dickson.....	13,225.94	20	13,225.94								
Dyer.....	7,583.80	20	7,583.80								
Fayette.....	5,726.95	15	3,226.95	2,500.00	Donations		10,000.00	2,500	5	1.00	12,500.00
Fentress.....	16,712.00	10	4,212.00								
Franklin.....	27,577.24	20	17,577.24								
Gibson.....	10,012.27	15	10,012.27								
Giles.....	9,883.40	12	1,883.40	1,600.00	Levies by general court		2,000.00	1,000	6	.75	4,500.00
Grainger.....	31,596.10	25	5,346.10		General maintenance	25	11,250.00	2,000	5	1.50	15,000.00
Greene.....	3,818.76	10	1,272.92		Bridge tax	20	2,545.84				

¹ This information was obtained partly from the report of the Comptroller of the Treasury and partly from county officers and private citizens.² Blank spaces in column under this head indicate that it was impossible to obtain information. Nearly all of the counties still make use of the statute labor tax, but records on this subject appear to be very incomplete and inaccurate.

[illegible]

[illegible]

Cash value of convict labor applied to roads.

Cash value of free labor applied to roads.

³ No tax for roads 1914.

TEXAS—Continued.
TABLE 20.—County revenue applied to roads and bridges in 1914—Continued.

County.	Total revenue applied to roads and bridges.	County road and bridge tax.		Other revenues.		Statute labor tax.				Cash in lieu of labor.	
		Rate, cents per \$100.	Receipts.	Source.	Amounts obtained.	Number of men who worked.	Number of days worked.	Average daily wage.	Cash value.		
Glasscock.....	\$1,000.00	10	\$1,000.00								
Goliad.....	12,750.00	15	12,750.00								
Gonzales.....	47,000.00	20	47,000.00								
Gray.....	6,000.00	15	6,000.00								
Grayson.....	71,500.00	30	67,000.00	Special tax.	\$1,500.00						
Gregg.....	7,200.00		do.....		7,200.00						
Grimes.....	21,375.00	15	19,500.00			300	5	\$1.25	\$1,875.00		
Guadalupe.....	20,020.74	15	20,020.74								
Hale.....	11,851.71	15	11,851.71								
Hall.....	9,308.66	15	9,308.66								
Hamilton.....	21,139.95	15	14,483.97	Special road fund	9,655.98						
Hansford 1.....	26,425.00	14	11,200.00	Special tax.	9,600.00		750	5	1.50	5,625.00	
Hardeman.....	39,521.00	15	15,164.00	do.....	21,235.00		500	5	1.25	3,125.00	
Hardin.....	251,686.79	20	251,686.79								
Harris.....	30,000.00	15	20,000.00	Special tax, etc...	10,000.00						
Harrison.....	7,200.00	12	7,200.00								
Hartley.....	18,000.00	15	18,000.00								
Haskell.....	18,000.00	15	18,000.00	Convicts, fines, and labor	2,000.00	300	3	1.50	1,350.00		
Hays.....	18,350.00	15	5,600.00			25	5	1.25	156.25		
Hemphill.....	5,756.25	15	5,600.00								
Henderson.....	10,000.00	15	10,000.00								
Henderson.....	10,000.00	15	10,000.00								
Hidalgo.....	19,563.00	15	19,563.00								
Hill.....	45,820.43	13	45,820.43								
Hockley.....											
Hood.....	6,972.00	15	6,972.00								
Hopkins.....	33,090.11	15	33,090.11	Special tax.	(²)						
Houston.....	9,248.00	10	8,000.00	Special tax and fines...	1,200.00	40	8	1.50	48.00		
Howard.....	12,000.00	30	8,000.00			400	5	1.75	3,500.00	\$500.00	
Hunt.....	55,706.47	22½	55,706.47								
Hutchinson.....	330.00		222.00								
Irion.....	4,340.00	15	3,800.00				12	3	3.00	108.00	
Jack.....	28,250.00	30	21,000.00	Donations...	500.00	120	3	1.50	540.00		
Jackson.....	125,000.00	29	125,000.00			1,080	5	1.25	6,750.00		
Jasper.....	21,000.00										
Jeff Davis.....	5,995.96	15	5,995.96			1,000	5	1.50	7,500.00		
Jefferson.....											
Jim Hogg.....	3,000.00	15	3,000.00								

TABLE 20.—*County revenue applied to roads and bridges in 1914—Continued.*

County.	Total revenue applied to roads and bridges.	County road and bridge tax.		Other revenues.		Statute labor tax.				Cash in lieu of labor.
		Rate, cents per \$100.	Receipts.	Source.	Amounts obtained.	Number of men who worked.	Number of days worked.	Average daily wage.	Cash value.	
Moore.....	\$1,000.00	5	\$1,000.00	Special improvement fund.	\$4,000.00	50	4	\$1.25	\$250.00	
Morris.....	12,750.00	30	8,500.00							
Morley.....	3,284.30	7½	3,284.30							
Nacogdoches.....	14,427.12	15	14,427.12							
Navarro.....	39,175.09	15	39,175.09							
Newton.....	16,800.00		13,000.00			600	2	1.50	1,800.00	\$2,000.00
Nolan.....	12,600.00	15	12,600.00							
Nueces.....	22,000.00	15	22,000.00							
Ochiltree.....	2,737.54		1,612.54			130	5	1.50	1,125.00	
Oldham.....	3,585.47	10	3,585.47							
Orange.....	8,000.00	30	8,000.00							
Palo Pinto.....	30,000.00	25	30,000.00							
Panola.....	7,500.00	15	6,000.00							
Parker.....	36,250.00	25	35,000.00			500	2	1.25	1,250.00	1,500.00
Parmer.....	3,125.00		3,125.00							
Pecos.....										
Polk.....										
Potter.....	7,500.00	6	7,500.00							
Presidio.....	8,000.00	15	8,000.00							
Rains.....	4,000.00	15	4,000.00							
Randall.....	2,250.00	10	2,250.00							
Reagan.....										
Real.....	3,952.50	15	1,800.00	Transfer from funds.	20,000.00	287	5	1.50	2,152.50	
Red River.....	68,750.00	15	18,750.00			4,000	5	1.50	30,000.00	
Reeves.....	11,074.29	25	11,074.29							
Refugio.....	8,000.00	15	8,000.00							
Roberts.....	2,500.00	10	2,500.00							
Robertson.....	11,724.54	30	11,724.54							
Rockwall.....	7,463.62	15	7,463.62	Transfer funds	6,000.00					
Romulus.....	18,000.00	15	12,000.00							
Rusk.....	11,000.00	30	11,000.00							
Sabine.....	6,000.00	15	6,000.00							
San Augustine.....	14,000.00	30	14,000.00			500	5	1.25	3,125.00	
San Jacinto.....	6,625.00	15	3,500.00							
San Patricio.....	59,000.00	15	59,000.00							
San Saba.....	23,000.00	15	14,000.00			1,200	5	1.50	9,000.00	
Schleicher.....	6,000.00	15	4,500.00			1,150	5	2.00	1,500.00	
Scurry.....	6,611.92	10	6,611.92							

Shackelford Shelby	17,500.00 45,500.00	15 30	6,500.00 21,000.00	Special tax, 30 cents. Fines and delinquency warrants. Fines and forfeitures	11,000.00 24,500.00	20 150	2 2	2.50 2.00	100.00 1,000.00	
Sherman	140.00	15	15,000.00		40.00					
Smith	15,000.00	15	1,670.00							
Somervell	2,670.00	15	3,159.58							
Starr	7,125.00	15	7,125.00							
Stephens	3,000.00	15	3,000.00							
Sterling	7,200.00	15	6,500.00							
Stonewall	6,650.00	21	6,300.00							
Sutton	12,057.92	15	6,882.92	Special levy, 15 cents	5,000.00	20	5	1.75	175.00	350.00
Swisher	104,245.26	15	114,496.80	Fines, etc	49,748.46	1,000	5	1.50	7,500.00	1,500.00
Tarrant	26,000.00		18,000.00							
Taylor	1,800.00	10	1,800.00							
Torrell	1,000.00		1,000.00							
Terry	12,500.00	30	12,500.00							
Throckmorton	7,541.00	15	7,541.00							
Tilas	18,500.00	15	16,500.00	Fines and interest	2,000.00					
Tom Green	104,250.00	20	82,000.00	Fines and forfeitures	1,000.00	2,500	3	1.50	11,250.00	110,000.00
Travis	13,262.54	15	9,512.54			750	5	1.00	3,750.00	
Trinity	9,000.00	15	9,000.00							
Tyler	13,000.00	30	13,000.00							
Usher	1,251.01	5	896.01	Fines	50.00	20	5	2.00	200.00	105.00
Uvalde	13,000.00	15	13,000.00							
Val Verde	12,500.00	15	12,500.00							
Van Zandt										
Victoria	10,027.38	15	10,027.38							
Walker	5,300.00	15	5,300.00							
Waller	5,818.16	15	5,835.66							
Washington	35,370.00	30	16,785.00	Special road and bridge tax.	16,785.00	85	3	1.50	382.50	
Webb	11,000.00	15	11,000.00							
Wharton	28,000.00	30	28,000.00							
Wheeler	10,800.00	30	10,800.00							
Wichita	32,146.52	15	32,146.52							
Wibarger	18,000.00	14	18,000.00							
Willacy	1,125.00	5	1,125.00							
Williamson	88,446.44		48,420.83	Donations and transfers.	26,537.61	1,000	4	1.50	6,000.00	7,488.00
Wilson	15,000.00	15	15,000.00							
Winkler	40,000.00	30	40,000.00							
Wise	18,500.00	15	15,000.00	Special tax.	3,500.00					
Wood	981.45	8	981.45							
Yoakum	17,000.00		17,000.00							
Young	636.12	12	636.12							
Zapata	1,683.39		1,683.39							
Zavalla										
Total	5,101,243.86		4,061,165.98		678,582.38				321,771.50	36,724.00

1 Cash value of convict labor applied to roads.

VIRGINIA.

TABLE 21.—County revenue applied to roads and bridges during 1914.

County.	Total revenue applied to roads and bridges.	Tax rate, cents per \$100.		County.	Total revenue applied to roads and bridges.	Tax rate, cents per \$100.	
		County.	Dis-trict.			County.	Dis-trict.
Accomac.....	\$20,671.49	.....	25-35	Lancaster.....	\$8,615.34	45	.....
Albemarle.....	34,021.60	.....	20	Lee.....	23,663.40	10	30-40
Alexandria.....	29,379.81	.....	50	Loudoun.....	30,601.99	12 4	15-20
Alleghany.....	16,054.03	35	.....	Louisiana.....	10,347.09	13	25
Amelia.....	{ 2,490.16	35	10-15	Lunenburg.....	4,200.00	.....	15-20
Amherst.....	13,549.78	10	20-25	Madison.....	5,240.40	20	.....
Appomattox.....	7,242.66	.....	30	Mathews.....	2,237.88	30	.....
Augusta.....	176,713.81	25	20	Mecklenburg.....	17,058.90	25	.....
Bath.....	13,000.00	40	.....	Middlesex.....	3,049.18	45	.....
Bedford.....	30,149.99	15	Varies.	Montgomery.....	12,000.00	.....	25
Bland.....	7,734.76	20	40	Nansemond.....	4,050.32	20	15
Botetourt.....	234,600.00	45	.....	Nelson.....	14 24,876.00	.....	25
Brunswick.....	21,860.14	20	5-20	New Kent.....	3,500.00	10	20,30
Buchanan.....	18,507.08	20	20	Norfolk.....	127,799.59	20	.....
Buckingham.....	6,598.66	25	.....	Northampton.....	10,529.15	.....	15-20
Campbell.....	37,458.23	.....	30-35	Northumberland.....	7,595.12	45	.....
Caroline.....	14,002.20	.....	35	Nottoway.....	11,065.25	.....	20,40
Carroll.....	418,783.68	50	.....	Orange.....	10,549.06	.....	10-25
Charles City.....	3,598.87	15	20	Page.....	11,065.38	20	20,25
Charlotte.....	8,000.00	50	.....	Patrick.....	6,125.00	35	.....
Chesterfield.....	533,000.00	20	.....	Pittsylvania.....	40,112.34	40	.....
Clarke.....	13,592.44	5	30	Powhatan.....	2,800.00	20	.....
Craig.....	5,700.00	10	30	Prince Edward.....	15 16,483.00	20	.....
Culpeper.....	13,065.26	.....	20-40	Prince George.....	16 15,579.02	.....	30,40
Cumberland.....	7,092.61	20	15	Prince William.....	17 25,135.95	7 1/2	30
Dickenson.....	7,683.36	20	20-30	Princess Anne.....	18 10,035.31	.....	20
Dinwiddie.....	13,000.00	20	.....	Pulaski.....	20,219.00	.....	.....
Elizabeth City.....	5,500.00	.....	15	Rappahannock.....	3,766.32	.....	15
Essex.....	3,805.99	21 3/4	.....	Richmond.....	3,278.49	30	.....
Fairfax.....	6 27,174.42	.....	25	Roanoke.....	33,901.07	15	15
Fauquier.....	25,000.00	20	.....	Rockbridge.....	27,037.31	11	25-35
Floyd.....	10,861.13	50	.....	Rockingham.....	52,000.00	14	27 1/2
Fluvanna.....	4,000.00	20	.....	Russell.....	16,312.56	.....	30
Franklin.....	17,106.44	{ 10	25-40	Scott.....	13,344.33	.....	25-40
Frederick.....	15,400.00	28	.....	Shenandoah.....	20,897.73	25	20-25
Giles.....	10,000.00	25	.....	Smyth.....	9,484.19	.....	25,30
Gloucester.....	9,435.99	35	8-10	Southampton.....	30,000.00	45	30
Goochland.....	9,560.00	10	25	Spotsylvania.....	4,745.84	40	15,20
Grayson.....	7 16,933.15	33 3/4	.....	Stafford.....	11,076.54	40	20-35
Greene.....	8 2,428.88	20	.....	Surry.....	7,130.36	35	20
Greensville.....	17,773.89	10	40	Sussex.....	19 7,000.00	.....	20-40
Halifax.....	29,262.35	15	25-30	Tazewell.....	45,279.00	.....	30
Hanover.....	9 32,581.37	15	25-30	Warren.....	7,521.80	30	20
Henrico.....	47,922.69	20	20	Warwick.....	2,879.77	10	10,20
Henry.....	13,000.00	.....	.....	Washington.....	25,000.00	.....	50
Highland.....	4,898.19	15	.....	Westmoreland.....	6,651.74	.....	25-40
Isle of Wight.....	10 10,575.20	.....	15-20	Wise.....	11,880.01	.....	10
James City.....	11 4,832.95	20	.....	Wythe.....	12,199.40	.....	20,25
King and Queen.....	5,500.00	15	25	York.....	5,290.90	5	20,30
King George.....	3,486.87	40	.....				
King William.....	4,039.00	10	15-20	Total.....	1,687,906.00		

¹ Includes \$1,425 private subscriptions.² Includes \$7,500 private subscriptions.³ Includes \$5,000 from general county fund.⁴ Includes \$3,232.06 from general county fund.⁵ Includes \$10,000 from general county fund and \$1,000 private subscription.⁶ Includes \$7,447.83 special tax.⁷ Includes \$10,546 property tax worked out and \$2,387.15 from general county fund.⁸ Includes \$200 property tax worked out.⁹ Includes \$7,392.09 donations.¹⁰ Includes \$1,300 commutation tax and \$2,250 private subscriptions.¹¹ Includes \$1,500 from general county fund.¹² Bridge.¹³ Includes \$441.80 dog tax.¹⁴ Includes \$9,000 from county fund.¹⁵ Includes \$6,483 from dispensary.¹⁶ Includes \$3,981.80 county tax on railroads and steamboats.¹⁷ Includes \$6,000 joint funds.¹⁸ Includes \$1,500 from general county fund.¹⁹ County bridge.

WEST VIRGINIA.

TABLE 22.—County revenue applied to roads and bridges for fiscal year 1914-15.

County.	Total revenue applied to roads and bridges.	Permanent road tax.		Bridge tax.	General road tax.		Capitation tax, rate \$1 per capita.
		Rate, mills per \$1.	Receipts.		Rate, mills per \$1.	Receipts.	
Barbour.....	\$34,886	0.5	\$8,754	\$17,496	0.5	\$7,039	\$1,597
Berkeley.....	18,424	.5	10,803	.....	.5	6,537	1,084
Boone.....	19,931	.....	.....	7,005	1.0	11,054	1,872
Braxton.....	12,296	.3	4,198	.....	.5	5,622	2,476
Brooke.....	38,426	1.0	12,005	8,213	1.8	17,448	760
Cabell.....	31,756	.5	23,346	.....	1.0	7,759	651
Calhoun.....	16,980	.5	2,171	9,417	1.0	4,340	1,052
Clay.....	6,566	1.0	5,514	.....	.1	550	502
Doddridge.....	38,700	.....	.....	4,792	2.0	37,374	1,386
Fayette.....	91,353	2.0	48,912	.....	1.0	33,081	9,360
Gilmer.....	20,088	.....	.....	11,155	1.6	14,122	1,174
Grant.....	20,300	.....	.....	18,967	1.4	8,009	1,136
Greenbrier.....	58,263	1.0	14,748	10,704	1.5	22,121	2,427
Hampshire.....	22,588	.06	446	.....	1.2	10,140	1,298
Hancock.....	31,734	1.3	20,481	.....	1.0	9,376	1,877
Hardy.....	16,637	1.0	5,593	3,916	1.2	4,742	2,386
Harrison.....	235,637	1.0	81,664	25,598	2.2	122,378	5,997
Jackson.....	34,478	.5	5,226	14,630	1.5	13,553	1,069
Jefferson.....	18,313	1.0	11,366	.....	.5	5,684	1,263
Kanawha.....	¹ 149,165	.....	.....	24,027	¹ 1.6	33,886	2,465
Lewis.....	60,378	.....	.....	26,770	1.0	13,045	1,930
Lincoln.....	48,439	.5	6,694	.....	.4	6,599	2,928
Logan.....	11,379	1.0	1,852	.....	1.4	51,954	3,684
Marion.....	117,589	.6	61,951	.....	1.5	35,086	1,259
Marshall.....	39,231	.....	2,886	20,085	1.8	18,166	1,267
Mason.....	46,217	.5	6,699	.....	1.0	16,058	2,194
Mercer.....	61,754	1.2	43,502	12,605	1.5	14,115	923
Mineral.....	35,521	.5	7,878	.....	.2	4,503	2,127
Mingo.....	12,593	.2	5,963	.....	.8	29,244	2,312
Monongalia.....	57,596	.5	26,040	.....	1.1	7,799	1,136
Monroe.....	24,252	.4	3,532	11,785	1.0	9,498	1,496
Morgan.....	18,885	1.0	7,891	.....	.6	24,979	10,591
McDowell.....	77,096	.9	41,526	.....	1.0	11,209	2,105
Nicholas.....	20,558	.5	7,214	.....	² 1.6	6,624	1,180
Ohio.....	² 167,030	.....	.....	3,497	1.5	9,957	322
Pendleton.....	12,703	.5	1,402	.....	1.3	16,838	3,012
Pleasants.....	16,408	.....	6,129	15,120	.8	14,742	2,529
Pocahontas.....	46,005	1.0	11,035	12,275	1.0	8,734	526
Preston.....	38,761	.5	9,215	.....	.7	20,776	5,303
Putnam.....	14,318	.5	5,058	23,828	1.0	15,182	2,751
Raleigh.....	26,079	.....	7,054	19,879	2.0	33,279	1,868
Ritchie.....	48,815	.5	.....	11,809	1.5	25,386	2,154
Roane.....	54,246	.5	14,897	.....	.8	5,316	1,313
Summers.....	13,275	1.0	6,646	.....	1.0	11,333	925
Taylor.....	41,767	.5	9,839	19,670	1.0	9,206	2,415
Tucker.....	26,249	.5	7,314	7,314	1.0	15,606	1,097
Tyler.....	46,047	1.0	15,606	13,828	1.0	11,318	1,297
Upshur.....	13,788	.09	1,173	.....	1.0	15,792	2,310
Wayne.....	65,563	.5	9,769	37,782	1.3	9,967	1,384
Webster.....	19,827	.....	8,476	.....	2.0	58,142	1,749
Wetzel.....	91,735	.4	14,810	17,034	.5	2,113	825
Wirt.....	7,542	1.0	4,604	.....	.7	21,217	1,159
Wood.....	115,751	.9	47,565	45,810	.4	4,802	582
Wyoming.....	10,977	.5	5,593	.....	.....	.....	.....
Total.....	2,479,981	.....	656,594	463,487	.....	1,249,505	110,395

¹ Unable to secure report from Kanawha County for 1914-15. Figures given are for 1913 and comprised the following items: Permanent road tax, \$19,479; appropriation from general county fund, \$125,000; and corporation tax, \$4,686.

² Unable to secure report from Ohio County for 1914-15. Figures given are for year 1913, and money was all appropriated from general county fund.

TABLES SHOWING ROAD AND BRIDGE BOND ISSUES.

The following tabulated arrangement of the road and bridge bond issues is referred to under the text of the respective States:

ALABAMA.

TABLE 23.—Road and bridge bonds and script, 1914.

County.	Amount of bond money expended during 1914 from all issues.	Total of all road and bridge bonds outstanding Jan. 1, 1915.	County.	Amount of bond money expended during 1914 from all issues.	Total of all road and bridge bonds outstanding Jan. 1, 1915.
Autauga.....		\$155,000	Limestone.....		\$135,000
Bibb.....		100,000	Madison.....		250,000
Blount.....	\$52,000	150,000	Marion.....	\$100,000	100,000
Bullock.....		160,000	Marshall.....	40,000	130,000
Coffee.....	3,000	3,000	Mobile.....		500,000
Colbert.....		200,000	Montgomery.....	300,000	825,000
Conecuh.....		125,000	Morgan.....		24,000
Crenshaw.....		75,000	Perry.....		110,000
Cullman.....	78,710	200,000	Pike.....		16,000
Dallas.....		60,000	Russell.....		192,000
Escambia.....		350,000	St. Clair.....		100,000
Etowah.....		38,000	Shelby.....	240,000	85,000
Fayette.....		200,000	Sumter.....		120,000
Hale.....		132,000	Tuscaloosa.....		65,000
Jackson.....		75,000	Walker.....	100,000	130,000
Lamar.....	75,000	250,000			
Lawrence.....	24,500	123,000	Total.....	1,013,210	5,418,000

¹ Warrants.

ARKANSAS.

TABLE 24.—Road and bridge bonds and script, 1914.

County.	Total road and bridge bonds and script outstanding, Jan. 1, 1915.	Bonds voted during 1914.	Bonds sold during 1914. ¹			
			Amount.	Interest rate.	Term.	Purchase price, cents per \$1.
				<i>Per cent.</i>	<i>Years.</i>	
Arkansas.....	\$20,000					
Baxter.....	200					
Carroll.....	700					
Chicot.....	2,500					
Clay.....	4,000					
Cleveland.....	898					
Craighead.....	6,000					
Gariand.....	29,000					
Hot Springs.....	500					
Independence.....	1,500					
Izard.....	672					
Jefferson.....	420,000	\$420,000	\$420,000	6	20	100
Johnson.....	15,000					
Lawrence.....	2,000					
Lee.....	96,000					
Lincoln.....	169,926	169,926	169,926	6	20	101
Lonoke.....	506,500	506,500	506,500	6	20	98
Miller.....	6,692					
Mississippi.....	2,000					
Monroe.....	12,000					
Montgomery.....	1,916					
Ouachita.....	5,000					
Pike.....	7,732					
Prairie.....	52,000	50,000	2 50,000	6	20	99
Pulaski.....	101,500	45,000	45,000	6	12	98
Saline.....	300					
Stone.....	30					
Union.....	500					
Woodruff.....	2,000					
Total.....	1,467,066	1,191,426	1,191,426			

¹ All bonds sold during 1914 were serial in character.² Of this amount \$45,000 was expended during 1914.

DELAWARE.

TABLE 25.—*Road and bridge bonds, 1914.*

County.	Total outstanding Jan. 1, 1915.	Bonds voted during 1914 and sold.		Expended from bond issues during 1914.
		Total.	Interest rate.	
Kent.....	\$30,000			\$22,000
New Castle.....	1,250,000	\$150,000	4½	340,000
Sussex.....				
Total.....	1,280,000	150,000		362,000

FLORIDA.

TABLE 26.—*Road and bridge bonds, 1914.*

County.	Total road and bridge bonds outstanding Jan. 1, 1915.	Total expenditure from bond issues during 1914.	Bonds voted during 1914.	Bonds sold during 1914.				Bonds retired in 1914.
				Amount.	Interest rate.	Term.	Rate of purchase price.	
Alachua.....	\$25,000.00	\$6,500.00			Percent.	Years.		\$6,500
Brevard:								
District 1.....	17,142.69	22,350.93						
District 4.....	28,527.78	39,336.99						
Dade.....	507,001.00	125,000.00	\$125,000	\$125,000	5	20	98	
Duval.....	1,000,000.00							
Franklin.....	20,000.00	9,000.00						9,000
Gadsden.....	350.00	17,963.85						
Hillsboro.....	1,400,000.00							
Holmes.....	33,000.00	33,000.00						
Lee.....	75,000.00							
Manatee.....	250,000.00							
Marion.....	83,177.75							
Nassau.....	180,000.00	90,000.00		180,000	5½	30	98½	
Orange.....	525,000.00			525,000	5			
Palm Beach.....	200,000.00	46,900.00						3,000
Pasco.....	150,000.00	150,000.00						
Pinellas.....	370,000.00							
St. Johns.....	650,000.00		650,000	650,000	5½	30	(1)	
St. Lucie.....	197,000.00							
{ 2 25,000.00 }		25,000.00	25,000	25,000	6	25	97½	
Seminole.....	200,000.00	200,000.00						
Suwanee.....	2 23,000.00							
Total.....	5,959,199.22	765,051.77	800,000	1,505,000				18,500

¹ Par and interest.² Warrants.

KENTUCKY.

TABLE 27.—*Total of all road and bridge bonds outstanding Jan. 1, 1915.*

County.	Amount.	County.	Amount.
Boyd.....	\$15,000	Montgomery.....	\$29,000
Carroll.....	32,000	Nelson.....	34,000
Christian.....	202,000	Nicholas.....	12,000
Garrard.....	17,000	Owen.....	140,000
Kenton.....	167,000		
Lewis.....	25,000	Total.....	705,000
Madison.....	32,000		

LOUISIANA.

TABLE 28.—*Road and bridge bonds, 1914.*

Parish. ¹	Total road and bridge bonds outstanding Jan. 1, 1915.	Amount of bond money expended during 1914.	Bonds retired during 1914.	Bonds voted during 1914.	Bonds sold during 1914.		
					Amount sold.	Term.	Purchase price.
Acadia.....	\$155,000.00			\$170,000.00	\$170,000.00	Years. 1-10	Par.
Allen.....	28,000.00	\$15,000.00		30,000.00			
Ascension.....	58,000.00	62,000.00		35,000.00	35,000.00	20	Par.
Assumption.....	29,000.00	19,000.00		48,000.00	48,000.00		Par.
Bossier.....				175,000.00	175,000.00		
Caddo.....	44,000.00	11,000.00		44,000.00	44,000.00	1-4	Par.
East Baton Rouge..	36,000.00	37,000.00	\$1,000.00	37,000.00	37,000.00	20	Par.
Iberia.....	56,500.00	10,000.00	7,500.00	186,000.00			
Iberville.....	2,385.26	5,388.69					
Jefferson.....	200,000.00	25,000.00					
Lafayette.....		10,000.00		25,000.00			
Lafourche.....				105,000.00			
Rapides.....	128,000.00	30,000.00	16,000.00				
	67,000.00						
Sabine.....	46,000.00			24,000.00	16,000.00	4, 9	Par and interest.
				32,000.00			
St. Charles.....	205,000.00	95,000.00		95,000.00	95,000.00	30	
St. Landry.....	100,000.00			110,000.00		10	
St. Tammany.....	180,000.00			100,000.00	100,000.00	10	
Tangipahoa.....	125,000.00			180,000.00	180,000.00	20	
				50,000.00	50,000.00	10	
Vermilion.....	10,000.00	28,000.00		72,000.00	72,000.00	10	
	6,000.00						
Washington.....	113,000.00	139,000.00		139,000.00	139,000.00	10	
West Baton Rouge..				75,000.00			
Total.....	1,588,835.26	488,388.69	24,500.00	1,732,000.00	2 1,161,000.00		

¹ Corresponds with county in other States. ² All bonds sold during 1914 bear 5 per cent interest.

MARYLAND.

TABLE 29.—*County road and bridge bonds, 1914.*

County.	Total outstanding Jan. 1, 1915.	Expended from bond issues during 1914.	Retired during 1914.
Alleghany.....	\$30,000.00		\$30,000.00
Anne Arundel.....		\$6,000.00	24,000.00
Dorchester.....	35,000.00	9,400.00	67,000.00
Montgomery.....	26,000.00	7,100.00	14,000.00
Queen Annes.....	16,542.36	4,000.00	141,700.00
Worcester.....	7,000.00		46,000.00
			21,000.00
			75,000.00
			25,000.00
Total.....	114,542.36	26,500.00	443,700.00

NOTE.—During the year 1914 Montgomery County voted and sold road bonds amounting to \$26,000. These bonds bear 5 per cent interest and run from 11 to 15 years.

TABLE 29a.—*State road and bridge bonds, 1914.*

Character.	Amounts outstanding Jan. 1, 1915.	Interest rate, per cent.	Maturity.
Sinking fund.....	\$4,990,000	3.5	1923-1928
Do.....	1,000,000	4	1926-1929
Do.....	3,170,000	4	1927-1928
Deferred serial.....	3,250,000	4	1917-1930
Total.....	12,410,000		

MISSISSIPPI.

TABLE 30.—*Road and bridge bonds, 1914.*

County.	Beats and districts.	Total road and bridge bonds outstanding Jan. 1, 1913.	Expended from bond issues during 1914.	Bonds retired during 1914.	Bonds voted during 1914.	Bonds sold during 1914.			
						Amount sold.	Interest rate.	Term.	Purchase price.
							<i>Per cent.</i>	<i>Years.</i>	
Adams.....		\$180,000.00	\$75,657.33	\$5,000.00		\$155,000.00	5	20	Par and above.
Alcorn.....		145,000.00	50,000.00						
Benton.....	District 5.....	6,000.00	1,000.00						
Bolivar.....		275,000.00							
Carroll.....		27,000.00							
Chickasaw.....	Districts 1, 3, 4, and 5.	50,000.00	49,786.86		\$50,000.00	50,000.00	6	25	
Do.....		410,000.00	151,330.00		100,000.00	100,000.00	6	24	
Clay.....		236,000.00			100,000.00	100,000.00	6	20	
Coahoma.....		390,000.00	109,803.47		100,000.00	15,000.00	6	10-25	
Copiah.....	{Beat 1..... {Beats 2 and 5.....	225,000.00			25,000.00	25,000.00	6	30	
Covington.....	Beats 1, 2, and 3.....	130,000.00	7,496.00		50,000.00	50,000.00		Serial.	Par and interest.
De Soto.....	Districts 1, 2, 3, and 5.	250,000.00			150,000.00	150,000.00			
Forest.....	County and beats 1 and 5.	120,000.00	40,000.00						
Franklin.....		28,000.00							
Grenada.....	{30,000.00 {45,000.00	30,000.00	45,000.00						
Greene.....		32,000.00		2,000.00					
Hancock.....		150,000.00							
Hinds.....	Districts 1 and 5.....	500,000.00	300,000.00						
Holmes.....		75,000.00			75,000.00	75,000.00	5	25	Par and interest.
Iassiquena.....	{35,000.00 {25,000.00	35,000.00	12,000.00						
Ivawamba.....		65,000.00	500.00						
Jackson.....		140,000.00	7,000.00	1,000.00					
Jasper.....		25,000.00		4,000.00					
Jefferson Davis.....		20,000.00							
Jones.....	District 2.....	50,000.00	20,000.00		50,000.00	50,000.00	6	10-25	
Kemper.....		75,000.00	35,000.00						
Lafayette.....	Districts 3 and 5.....	218,000.00							
Lamar.....	{11,000.00 {20,000.00	11,000.00							
Lauderdale.....	Beat 1.....	400,000.00	100,000.00		100,000.00	100,000.00	5½	10-24	Par.
Lawrence.....		25,000.00					5	25	
Lee.....	District 3.....	200,000.00	200,000.00		200,000.00	200,000.00			

MISSISSIPPI—Continued.
TABLE 30.—*Road and bridge bonds, 1914—Continued.*

County.	Beats and districts.	Total road and bridge bonds outstanding Jan. 1, 1915.	Expended from bond issues during 1914.	Bonds retired during 1914.	Bonds voted during 1914.	Bonds sold during 1914.		
						Amount sold.	Interest rate.	Term.
							Per cent.	Years.
Leflore.....		{ \$160,000.00 }	\$54,707.00					
Lincoln.....		{ 140,000.00 }						
Lowndes.....		{ 200,000.00 }	1,918.40					
Madison.....	Beat 2.....	100,000.00	50,000.00			\$50,000.00	6	10
Marshall.....	Beat 3.....	215,000.00	30,000.00			60,000.00	6	
Montgomery.....		16,000.00		\$1,000.00				
Neshoba.....	Beat 1.....	40,000.00	5,000.00					
Newton.....		100,000.00	99,000.00					
Noxubee.....		150,000.00	110,000.00					
Okfuskeba.....		416,000.00	138,000.00					
Panola.....		50,000.00						
Pontotoc.....		50,000.00				50,000.00	6	
Pike.....		20,000.00		20,000.00				
Quitman.....	District.....	300,000.00	100,000.00					
Rankin.....	Beat 5.....	25,000.00			\$25,000.00	300,000.00	6	20
Scott.....		30,000.00				25,000.00	6	
Sharkey.....	Beats 1 and 2.....	167,500.00	39,906.00		67,500.00	67,500.00	6	20
Smith.....	{ Beat 1..... }	104,000.00				{ 79,000.00 }		
Sunflower.....	{ Beat 2..... }	165,000.00				28,000.00		
	County and beats 2, 3, 4, and 5.	{ 135,000.00 }			{ 50,000.00 }	50,000.00	6	20
		{ 175,000.00 }			{ 25,000.00 }	25,000.00		
Tallahatchie.....		12,500.00						
Tippecanoe.....		15,900.00	3,887.65					
Tishomingo.....		35,000.00						
Tunica.....		50,000.00				16,000.00	6	20
Union.....		50,000.00						
Warren.....		328,700.00						
Washington.....		100,000.00	160,000.00	7,000.00				
Wayne.....		100,000.00						
Wilkinson.....		1,200.00	40,000.00					
		{ 19,872.00 }						
Yalobusha.....	{ Beat 2..... }	120,000.00				50,000.00		
	{ Beat 4..... }				{ 50,000.00 }	8,000.00	6	
Yazoo.....	Beats 1, 2, and 3.....	77,500.00	14,500.00					
Total.....		8,327,172.00	2,051,452.71	40,000.00	1,225,500.00	1,778,500.00		

NORTH CAROLINA.

TABLE 31.—Road and bridge bonds, 1914.

County.	Township.	Total road and bridge bonds outstanding on Jan. 1, 1915.	Bonds voted during 1914.	Bonds sold during 1914.
Alamance.....		\$200,000		
Alleghany.....	One township.....	50,000		
Anson.....	Wadesboro.....	50,000		
Ashe.....	Horse Creek.....	5,800		
Beaufort.....		50,000		\$50,000
Bertie.....	One township.....	5,000		
Do.....		20,000		
Bladen.....	Carvers Creek.....	10,000		
Do.....	Brown Marsh.....	10,000		
Brunswick.....	Lockwoods Folly.....	10,000		
Do.....	Shallotte.....	10,000		
Do.....	Town Creek.....	15,000		
Do.....	Smithville.....	30,000		
Do.....	Northwest.....	15,000	\$15,000	15,000
Do.....	Town Creek.....	10,000	10,000	10,000
Buncombe.....		275,000		
Do.....		75,000	75,000	75,000
Do.....	Black Mountain.....	20,000		20,000
Do.....		50,000		
Burke.....	Morganton.....	50,000		35,000
Cabarrus.....		105,000		
Do.....		50,000		
Caldwell.....	Lovelady.....		25,000	
Carteret.....	Newport.....	3,000		
Do.....	do.....	5,000	5,000	5,000
Do.....	Morehead.....	10,000		10,000
Catawba.....	Hickory.....	50,000		
Do.....	Newton.....	50,000		
Chatham.....	Matthews and Oakland.....	20,000	20,000	20,000
Cherokee.....	Murphy.....	180,000		30,000
Do.....	Marble District.....	68,000		
Do.....	Valley Town.....	47,000		
Cleveland.....	Nos. 4 and 6.....	175,000		
Do.....	Nos. 3, 7, and 8.....	150,000		
Do.....	Nos. 4, 6, 7, and 8.....	185,000	185,000	185,000
Davidson.....	Lexington.....	100,000		
Davie.....		175,000		
Duplin.....		65,000		
Do.....	Island Creek.....	30,000		
Edgecombe.....	Rocky Mountain.....	200,000		200,000
Do.....	Road district.....	10,000		
Forsyth.....		100,000	100,000	100,000
Franklin.....	Franklinton.....	60,000		
Do.....	Louisburg.....	80,000		
Do.....	do.....	40,000		
Do.....	Youngsville.....	40,000		
Gaston.....		300,000		
Gates.....	Holly Grove.....	6,500	6,500	1,000
Graham.....	Cheoah.....	15,000		
Granville.....		160,000		
Greene.....	Bullhead.....	20,000		20,000
Do.....	Sugg.....	10,000		10,000
Do.....	Jason.....	10,000		10,000
Do.....	Olds.....	20,000		20,000
Do.....	Ormandsville.....	20,000		20,000
Do.....	Shine.....	10,000		10,000
Do.....	Snow Hill.....	20,000		20,000
Guilford.....		300,000		
Halifax.....	Enfield.....	40,000		40,000
Do.....	Halifax.....	60,000	60,000	60,000
Harnett.....	Barbecue.....	10,000	10,000	10,000
Do.....	Black River.....	2,500	2,500	2,500
Do.....	Hectors Creek.....	15,000	15,000	15,000
Do.....	Lillington.....	20,000	20,000	20,000
Do.....	Upper Little River.....	20,000	20,000	20,000
Haywood.....	East Fork.....	100,000	100,000	100,000
Do.....	Waynesville.....	50,000		
Henderson.....		25,000	25,000	25,000
Do.....	Edneyville.....	12,000	12,000	12,000
Do.....	Hendersonville.....	50,000	50,000	50,000
Do.....	Hoopers Creek.....	20,000	20,000	20,000
Hoke.....		50,000		
Iredell.....		400,000		
Jackson.....	Cullowhee.....	30,000		15,000
Do.....	Dillsboro.....	15,000		15,000

NORTH CAROLINA—Continued.

TABLE 31.—Road and bridge bonds, 1914—Continued.

County.	Township.	Total road and bridge bonds outstanding on Jan. 1, 1913.	Bonds voted during 1914.	Bonds sold during 1914.
Jackson.....	Sylva.....	\$30,000		\$30,000
Johnston.....	Beulah.....	40,000	\$40,000	40,000
Do.....	Ingram.....	40,000	40,000	40,000
Do.....	Meadows.....	50,000	50,000	50,000
Lee.....		100,000		
Do.....	Sanford.....	15,000		
Lincoln.....		200,000		
McDowell.....	Marion.....	50,000		
Do.....	Nebo.....	10,000		
Do.....	Old Fort.....	20,000		
Macon.....	Franklin.....	90,000		90,000
Madison.....		300,000		150,000
Do.....	Mars Hill.....	20,000		20,000
Martin.....	Robertsville.....	15,000	15,000	15,000
Do.....	Williamstown.....	40,000	10,000	10,000
Mecklenburg.....		300,000		
Mitchell.....	Grassy Creek.....	30,000	30,000	30,000
Moore.....	Carthage.....	12,000		
Do.....	do.....	20,000		20,000
Do.....	Deep River.....	50,000		
Do.....	Greenwood.....	12,500		
Do.....	Mineral Springs.....	7,000		
Do.....	McNeill.....	10,000		
Do.....	Sand Hill.....	10,000		
Do.....	do.....	10,000		
Nash.....	Rocky Mountain district.....	70,000		70,000
Do.....	North Whitakers.....	50,000		
Do.....	Coopers Creek.....	10,000		
Do.....	Dry Wells.....	20,000		
Do.....	Griffin.....	10,000		
Do.....	Mannings.....	50,000		
Do.....	South Whitakers.....	10,000		
New Hanover.....		200,000		
Do.....		350,000		
Northampton.....	Jackson.....	16,000	16,000	16,000
Do.....	Rich Square.....	30,000		20,000
Onslow.....	Jacksonville.....	7,500	7,500	7,500
Orange.....		230,000		
Do.....	Hillsboro.....	40,000		
Pasquotank.....		10,000		
Pitt.....	Greenville.....	50,000		50,000
Polk.....		100,000		
Do.....	Tryon.....	12,000		
Richmond.....	Beaverdam.....	10,000		
Do.....	Blackjack.....	5,000		
Do.....	Marks Creek.....	15,000		
Do.....	Mineral Springs.....	5,000		
Do.....	Rockingham.....	25,000		
Do.....	Steele.....	15,000		
Do.....	Wolf Pitt.....	25,000		
Rockingham.....		54,000	30,000	30,000
Rutherford.....		250,000		
Sampson.....		80,000	25,000	25,000
Scotland.....	Laurel Hill.....	30,000		
Do.....	Spring Hill.....	20,000		
Do.....	Stewartsville.....	50,000		
Do.....	Williamson.....	30,000		
Stokes.....	Danbury.....	15,000		15,000
Do.....	Meadows.....	40,000		40,000
Do.....	Sauratown.....	50,000		50,000
Surry.....	Mount Airy.....	80,000		80,000
Vance.....		200,000		200,000
Warren.....	Warrenton.....	50,000	50,000	50,000
Wayne.....	Brogden.....	40,000		40,000
Do.....	Goldsboro.....	100,000		100,000
Wilson.....	Mount Olive.....		30,000	
Yancey.....	Wilson.....	100,000		
		150,000		150,000
Total.....		8,955,300	1,119,500	2,709,000

SOUTH CAROLINA.

TABLE 32.—Road and bridge bonds, 1914.

County.	Total road and bridge bonds outstanding Jan. 1, 1915.	Expenditures from bonds issued during 1914.	Bonds voted during 1914.	Bonds sold during 1914.			
				Amount.	Interest rate.	Term.	Purchase price.
Chesterfield:					<i>Per cent.</i>	<i>Years.</i>	
Alligator Township.....	\$35,000		\$35,000	\$35,000	6	40	Par.
Dillon.....	100,000	\$15,000					
Jasper.....	40,000		40,000	40,000		40	Do.
Kershaw.....	140,000						
Laurens.....	150,000						
Richland:							
Columbia Township.....	175,000						
Marion.....	100,000	19,000					
Sumter.....	20,000						
Total.....	460,000	34,000	75,000	75,000			

¹ Bridge bonds only.

TENNESSEE.

TABLE 33.—Road and bridge bonds, 1914.

County.	Total road and bridge bonds outstanding Jan 1, 1915.	Expenditures from bond issues during 1914.	Bonds retired during 1914.	Bonds voted during 1914.	Bonds sold in 1914.		
					Amount sold.	Interest rate.	Term in years.
Anderson.....	\$352,000.00	\$10,000.00	\$25,000.00	\$57,000.00	\$57,000.00	<i>Per ct.</i>	
Bradley.....	226,000.00	10,000.00		50,000.00	50,000.00	5	20-30
Carter.....	60,000.00			50,000.00	50,000.00	5	30
Claiborne.....	70,000.00						
Cocke.....	500,000.00						
Davidson.....	140,000.00		50,000.00				
Grainger.....	100,000.00						
Greene.....	800,000.00	233,000.00					
Hamblen.....	273,000.00				3,000.00		
Hawkins.....	{ 203,000.00 }		5,000.00	24,500.00			63
Hickman.....	{ 31,000.00 }	3,000.00					
Loudon.....	300,000.00	135,011.53		50,000.00	50,000.00	5	30
McMinn.....	{ 300,000.00 }						
Marion.....	25,000.00		15,000.00				
Meigs.....	{ 125,000.00 }						
Monroe.....	{ 1,000.00 }						
Montgomery.....	2,500.00						
Morgan.....	300,000.00	80,000.00		100,000.00	100,000.00	5	30
Perry.....	357,500.00		2,000.00	20,000.00			
Putnam.....	310,000.00						
Roane.....	{ 250,000.00 }						
Robertson.....	{ 457,000.00 }	103,929.48		110,000.00	110,000.00	5	30
Sevier.....	{ 1,776.89 }						
Sullivan.....	423,000.00	68,419.82	14,421.11				
Tipton.....	38,500.00						
Van Buren.....	222,000.00	54,945.69	7,000.00				
Warren.....	{ 9,500.00 }						
White.....	600,000.00	75,000.00		25,000.00	25,000.00	5	25
Total.....	6,898,276.89	778,306.52	128,421.11	486,500.00	445,000.00		

TEXAS.

TABLE 34.—Road and bridge bonds, 1914.

County.	Total outstanding Jan. 1, 1915.	Expendi- tures from bond issues during 1914.	Bonds retired during 1914.	Bonds voted during 1914.	Bonds sold during 1914.			
					Amount sold.	Inter- est rate.	Term	Rate of purchase price.
						P. ct. 5½	Yrs.	
Aransas.....				\$25,000.00				
Austin.....	\$175,000.00	\$24,393.43						
Bastrop.....				80,000.00		5		
Baylor.....	106,503.00	25,671.51						
Bell.....				761,990.00		5		
Bexar.....	1,377,500.00	531,151.82						
Borden.....	7,000.00							
Bosque.....	37,000.00		\$1,000.00					
Brazoria.....	217,955.00			50,000.00		5½		
Brazos.....	14,000.00							
Brooks.....	34,000.00	12,000.00		34,000.00	\$34,000.00	5	40	Cash.
Burnet.....				20,000.00		5		
Caldwell.....	50,000.00	50,000.00						
Calhoun.....				8,900.00		5		
Cameron.....	25,000.00			25,000.00	25,000.00	5	40	Par.
Cass.....	35,000.00	30,000.00						
Chambers.....	149,500.00	44,336.59	8,500.00					
Collin.....		63,975.00		\$65,000.00	\$65,000.00	5	40	Do.
Colorado.....	59,300.00	29,300.00	15,000.00	29,300.00	29,300.00	6	13-15	Do.
Comal.....	124,000.00	70,000.00	1,000.00	17,000.00	17,000.00	5		
Concho.....	11,000.00							
Cooke.....	97,990.00							
Crocket.....	40,000.00	15,000.00		40,000.00	15,000.00	5	40	Do.
Dallas.....				125,000.00		5		
Dimmit.....	40,000.00							
El Paso.....		308,724.35						
Fannin.....	250,000.00			250,000.00	250,000.00	5	40	Par and interest.
Fayette.....				45,500.00		5		
Fisher.....	21,899.00							
Foard.....	13,000.00							
Fort Bend.....	456,000.00	134,955.29	122,000.00					
Freestone.....	50,000.00							
Frio.....	84,000.00							
Garza.....				50,000.00		5		
Gonzales.....		10,182.37						
Gregg.....				50,000.00		5		
Grimes.....				100,000.00		5½		
Hardin.....	290,000.00			125,000.00				
Harris.....	2,508,000.00	842,787.16						
Harrison.....				300,000.00		5		
Hays.....	220,000.00	18,000.00	70,000.00	150,000.00	100,000.00	5	10-40	Par.
Hill.....				250,000.00		5		
Houston.....	178,000.00							
Howard.....	100,000.00							
Irion.....	20,000.00	8,000.00		20,000.00	20,000.00	5	40	Do.
Jeff Davis.....				10,000.00		5		
Johnson.....	56,200.00							
Jones.....	5,500.00							
Kendall.....				4,000.00		5		
Kerr.....				2,000.00		5		
Kimble.....				25,000.00		5		
Kinney.....				80,000.00		5		
Knox.....	13,000.00	6,000.00						
Lamar.....				50,000.00		5		
Lampassas.....	32,500.00			14,000.00	14,000.00	5	40	Do.
La Salle.....				40,000.00		5		
Lavaca.....				6,400.00		5		
Leon.....				40,000.00		5		
Liberty.....	485,100.00			60,100.00	60,100.00		40	Par and interest.
Live Oak.....	15,903.00		1,995.00					
McLennan.....	1,194,000.00	789,581.69		1,075,000.00	1,075,000.00	5	40	Par.
Matagorda.....				495,000.00		5½		
Maverick.....	42,602.00	2,800.00	3,000.00	25,000.00				
Medina.....	73,000.00	11,000.00						
Midland.....	48,000.00							
Milam.....				100,000.00		5½		
Mills.....	4,455.00							
Montgomery.....				200,000.00		5½		

¹ Voted in 1911 and sold in 1914.² Sold early in 1915.

TEXAS—Continued.

TABLE 34.—Road and bridge bonds, 1914—Continued.

County.	Total outstanding Jan. 1, 1915.	Expendi- tures from bond issues during 1914.	Bonds retired during 1914.	Bonds voted during 1914.	Bonds sold during 1914.			
					Amount sold.	Inter- est rate.	Term	Rate of purchase price.
Navarro.....	\$175,000.00	\$300,000.00				<i>P. ct.</i>	<i>Yrs.</i>	Par.
Nolan.....	100,000.00	.....	.....	.....	.....	.....	.....	
Nueces.....	110,590.60	110,590.60	\$2,000.00	\$110,590.60	\$110,590.60	5	40	
Orange.....	226,995.00	170,000.00	.....	.....	.....	.....	.....	
Palo Pinto.....	172,000.00	.....	.....	100,000.00	.....	5½	.....	
Panola.....	2,400.00	.....	.....	.....	.....	.....	.....	
Parker.....	25,000.00	.....	.....	.....	.....	.....	.....	
Pecos.....	.....	.....	.....	85,000.00	.....	6	.....	
Potter.....	27,000.00	14,350.00	.....	.....	.....	.....	.....	
Reeves.....	112,000.00	.....	.....	100,000.00	.....	5	.....	
Refugio.....	80,000.00	40,000.00	.....	.....	.....	.....	.....	
Robertson.....	462,829.93	2,695.30	250.00	100,000.00	.....	.....	.....	
Rockwall.....	.....	.....	.....	2,500.00	.....	5½	.....	
Runnels.....	32,594.00	1,000.00	1,000.00	.....	.....	.....	.....	
San Patricio.....	118,000.00	.....	.....	10,000.00	10,000.00	.....	.....	
Scurry.....	15,000.00	40,000.00		50,000.00	50,000.00	5		Do.
Schackelford.....	8,500.00		2,500.00					Par and in- terest.
Smith.....	290,000.00	150,000.00	10,000.00	25,000.00	25,000.00	5	40	
Stephens.....	20,000.00	.....	1,000.00	.....	.....	.....	.....	
Sterling.....	10,000.00	.....	.....	.....	.....	.....	.....	
Stonewall.....	50,000.00	.....	.....	.....	.....	.....	.....	
Tarrant.....	1,600,000.00	.....	.....	.....	.....	.....	.....	
Taylor.....	143,000.00	.....	7,000.00	.....	.....	.....	.....	
Throckmorton.....	1,000.00	1,000.00	10.00	.....	.....	.....	.....	
Travis.....	350,000.00	.....	.....	.....	.....	.....	.....	
Trinity.....	160,000.00	135,000.00	.....	100,000.00	.....	5	.....	
Upshur.....	40,000.00	.....	3 4,000.00	.....	.....	.....	.....	
Victoria.....	387,200.00	91,916.83	3,000.00	171,995.00	170,000.00	5	40	Do.
Walker.....	150,000.00	44,916.00		150,000.00	150,000.00	5	10-40	Do.
Waller.....	67,000.00	6,500.00		10,000.00		5		Do.
Wharton.....	400,000.00	4,628.78	.....	100,000.00	100,000.00	5½	40	
Wheeler.....	15,000.00	.....	.....	.....	.....	.....	.....	
Williamson.....	287,000.00	.....	13,000.00	.....	.....	.....	.....	
Wood.....	150,000.00	.....	.....	.....	.....	.....	.....	
Zavalla.....	65,000.00	12,000.00	.....	20,000.00	.....	5	.....	
Total.....	14,615,016.53	4,152,456.72	266,255.00	6,783,275.60	3,119,990.60			

¹ Not sold but contracted for.² Sold early in 1915.³ Warrants, not bonds.⁴ Balance sold early in 1915.

VIRGINIA.

TABLE 35.—*Road and bridge bonds, 1914.*

County.	District.	Total road and bridge bonds outstanding Jan. 1, 1915.	Amount of bond money expended during 1914.	Amount of bonds pre- viously is- sued retired in 1914.	Voted or issued during 1914. ¹			
					Amount voted.	Amount sold.	Interest rate.	Term.
							<i>Per cent.</i>	<i>Years.</i>
Accomac.....	Three districts.....	\$58,569.93	\$17,631.28					
Amherst.....	South River.....	250,000.00	100,000.00					
Augusta.....		{ 7,000.00						
Berkeley.....		{ 10,000.00			\$17,000.00		5	25
Brunswick.....	Four districts.....	207,000.00	41,000.00		125,000.00		5	
Buckingham.....		3,000.00						
Charlotte.....		115,000.00						
Clarke.....		40,000.00		\$40,000.00				
Culpeper.....	Salem, Catalpa, Stephen.....	{ 124,500.00	271,057.54		36,000.00		5	2-30
Dickenson.....	Kemady.....	{ 55,000.00	2,696.65					
Dinwiddie.....		32,000.00						
Fairfax.....	Mount Vernon.....	100,500.00	18,098.20			\$50,000.00		
Fauquier.....	Center.....	50,000.00					5	10-33
Greensville.....	Three districts.....	55,000.00	20,000.00					
Lee.....		400,000.00	42,000.00	438,000.00				
Lenoir.....	Renoboth.....							
Do.....	Plymouth.....	40,000.00				20,000.00	5½	30
Do.....	Lewiston.....							
Do.....	Brown Store.....	40,000.00				20,000.00	5½	30
Do.....	Lochleven.....							
Do.....	Eight districts.....							
Mecklenburg.....		332,000.00	64,808.90	7,000.00				
Do.....	Blacksburg.....				100,000.00			
Montgomery.....		35,000.00						
Nelson.....		100,000.00	10,000.00					
Northampton.....		114,325.00	10,534.54	2,938.23				
Orange.....		10,000.00						
Page.....		100,000.00	25,529.51					
Pittsylvania.....		250,000.00	24,702.00					
Pulaski.....		45,000.00	19,847.06					
Rappahannock.....	Plains.....	20,000.00	16,000.00	6,000.00		10,000.00	5	
Rockingham.....		381,000.00	50,001.30	1,000.00				
Russell.....	Castlewood.....	149,000.00	59,758.71					
Do.....	Estillville.....	100,000.00	19,000.00					
Scott.....	Johnson.....	33,300.00	8,000.00					
Do.....		33,800.00						
Do.....	Fulkerson.....							
					100,000.00		5½	Par.
					33,300.00		5½	Do.
					33,800.00		5½	Do.

	St. Clair	5	30	Par and interest.
Smith	75,000.00	15,452.40	45,000.00	30
Do.	100,000.00	60,763.17	90,000.00	30
Do.	100,000.00	16,261.35	50,000.00	30
Rich Valley	123,000.00	4,000.00		
Four districts	100,000.00			
Spotsylvania	100,000.00			
Stafford	604,000.00	67,582.66		
Tazewell	44,000.00			
Warren	14,000.00			
Do.	14,586.45		70,000.00	
Front Royal	190,000.00			
Kinderhook	30,000.00	5,000.00	18,000.00	30
Do.	700,000.00			
Richmond	130,000.00			
Do.	130,000.00			
Do.	130,000.00			
Gladeville	166,544.62			
Total	5,650,994.93	999,866.94	452,100.00	

¹ For all bonds issued or sold during 1914 special or regular levies were made for interest and retirement except in Rockingham County, where tolls were collected for that purpose.

2 Catalpa.

3 Stephen.

⁴ Subject to call after fifth year.

WEST VIRGINIA.

TABLE 36.—*Road and bridge bonds, 1914.*

County.	Bonds out-standing July 1, 1915.	Bonds voted up to July 1, 1915.	County.	Bonds out-standing July 1, 1915.	Bonds voted up to July 1, 1915.
Barbour.....		¹ \$40,000	Preston.....	(?)	\$440,000
Cabell.....	\$280,000	300,000	Pleasants.....	(?)	¹ 60,000
Hancock.....	(?)	¹ 350,000	Summers.....	(?)	230,000
Harrison.....	110,000	110,000	Tyler.....	(?)	¹ 325,000
Kanawha.....	(?)	375,000	Upshur.....	(?)	181,000
Logan.....	(?)	¹ 60,000	Wetzel.....	(?)	150,000
Marion.....	300,000	¹ 700,000	Wood.....	110,000	¹ 180,000
Marshall.....	(?)	¹ 150,000	Wyoming.....	(?)	550,000
Mercer.....	500,000	850,000			
Monongalia.....	(?)	300,000	Total.....	1,303,000	5,354,000
Monroe.....	3,000	3,000			

¹ See Bulletin 136, U. S. Department of Agriculture.² Unable to ascertain date of bond sales in these counties.

MILES OF PUBLIC ROAD, STATE AND LOCAL, OUTSIDE INCORPORATED CITIES.

The following tables, referred to under the respective States, show the miles of public roads, State and local, outside of incorporated cities.

ALABAMA.

TABLE 37.—*Miles of all public roads, State and local, outside of incorporated cities, 1914.*

County.	Total mileage of all roads.	Surfaced roads.					Increase in surfaced road mileage over 1909.	Graded and drained earth.
		Macadam.	Gravel.	Sandclay.	Total surfaced.	Percentage of all roads surfaced.		
Autauga.....	550			100	100	18.1	80	
Baldwin.....	800		1	3	4	.5	— 74	40
Barbour.....	1,200			165	165	13.7	65	
Bibb.....	600	6	3		9	1.8	— 46	7
Blount.....	1,000	5.5	35		40.5	4.0	33.5	40
Bullock.....	1,000		5	150	155	15.5	110	150
Butler.....	450			50	50	11.1	50	
Calhoun.....	1,100	15	5		20	1.8	8	20
Chambers.....	1,000			10	10	.1	10	75
Cherokee.....	700		60		60	8.6	— 290	20
Chilton.....	1,018			18	18	1.7	18	
Choctaw.....	350							
Clarke.....	1,000							20
Clay.....	1,000							2
Cleburne.....	800							5.5
Coffee.....	500			50	50	10.0	50	50
Colbert.....	550	75	55		130	23.6	30	
Conecuh.....	500			180	180	36.0	94	
Coosa.....	200			16	16	8.0	16	
Covington.....	600			125	125	20.8	125	
Crenshaw.....	1,047			97	97	9.2	97	
Cullman.....	1,000		41		41	4.1	41	25
Dale.....	760			20	20	2.6	— 46	60
Dallas.....	1,100		125	12	137	12.4	105	25
Dekalb.....	1,500		25	6	31	2.0	1	
Elmore.....	600		62	30	92	15.3	92	60
Escambia.....	535			22	22	4.1	22	38
Etowah.....	1,100	1	125		126	11.4	— 29	10
Fayette.....	1,100		5		5	.4		20
Franklin.....	400	5.5	17		22.5	5.6	22.5	2
Geneva.....	800			65	65	8.1	65	
Greene.....	400		9	1	10	2.5	— 45	

ALABAMA—Continued.

TABLE 37.—*Miles of all public roads, State and local, outside of incorporated cities, 1914—Continued.*

County.	Total mileage of all roads.	Surfaced roads.						Graded and drained earth.
		Macadam.	Gravel.	Sand clay.	Total surfaced.	Percent- age of all roads surfaced.	Increase in surfaced road mileage over 1909.	
Hale.....	225		5	25	30	13.3	29	50
Henry.....	800			7	7	.8	7	
Houston.....	800			30	30	3.7	25	50
Jackson.....	500	150	20		170	34.0	50	10
Jefferson.....	1,975	¹ 15	385		400	20.3	150	250
Lamar.....	1,500		40		40	2.6	5	45
Lauderdale.....	500		60		60	12.0	20	60
Lawrence.....	800	44			44	5.5	44	40
Lee.....	700			10	10	1.4	10	20
Limestone.....	500		110		110	22.0	50	25
Lowndes.....	400		44		44	11.0	34	30
Macon.....	400		10	25	35	8.7	35	
Madison.....	600	50	300		350	58.3	145	50
Marengo.....	1,100		7		7	.6	7	60
Marion.....	900		28	72	100	11.1	100	
Marshall.....	1,000	8	15		23	2.3	13	45
Mobile.....	2,350	² 37	100	200	337	14.3	67	
Monroe.....	1,600						3	20
Montgomery.....	925		650	50	700	75.6	387.07	25
Morgan.....	600	70			70	11.6	10	12
Perry.....	680		18	22	40	5.8	40	
Pickens.....	800		4	7	11	1.3	11	18
Pike.....	920			228	228	24.7	3	
Randolph.....	860							7
Russell.....	600		2	75	77	12.8	77	
St. Clair.....	800		100		100	12.5	20	100
Shelby.....	851		28	11	39	4.6	39	12
Sumter.....	700		3	20	23	3.3	— 77	20
Talladega.....	825		25		25	3.0	— 25	100
Tallapoosa.....	650							50
Tuscaloosa.....	860		56.5		56.5	6.6	—161.5	45
Walker.....	1,015							110
Washington.....	650							100
Wilcox.....	800	1			1	.1	— 12	
Winston.....	1,000		6	14	20	2.0	20	
Total.....	55,446	483	2,589.5	1,916	4,988.5	8.9	1,724.57	2,023.5

¹ Bituminous macadam.² Comprising 16 miles of bituminous macadam and 1 mile of concrete and 20 miles of shell.

NOTE.—This summary was made up from cards received from county officials, and has been revised and checked by Mr. R. P. Boyd, United States collaborator and assistant State highway engineer of Alabama.

ARKANSAS.

TABLE 38.—Miles of public roads outside of incorporated cities, 1914.

County	Total mileage of all roads.	Surfaced roads.					Increase in surfaced mileage over 1909.	Graded and drained earth roads.
		Macadam.	Gravel.	Sand-clay.	Total surfaced.	Percentage of total surfaced.		
Arkansas ¹	1,300							500
Ashley ¹	800			10	10	1.25	10	500
Baxter ¹	700						— 25	350
Benton.....	803	² 3			3	.37	—122	100
Boone.....	1,000							300
Bradley ¹	400		15	50	65	16.25	65	285
Calhoun ¹	485		10		10	2.06	10	400
Carroll ¹	910							760
Chicot ¹	320			60	60	18.75	60	235
Clark ¹	518		12		12	2.31	— 86	125
Clay ¹	1,200						— 5	600
Cleburne.....	800							300
Cleveland.....	412							200
Columbia.....	800							200
Conway.....	700	3			3	.42	— 6	200
Craighead ¹	506.5		72.5		72.5	14.31	— 7.5	272
Crawford ¹	1,000							500
Crittenden.....	500							200
Cross.....	1,200		4		4	.33	1	500
Dallas.....	600		10		10	1.66	10	90
Desha.....	300							
Drew.....	300		15		15	5.00	— 3	
Faulkner.....	1,200						— 2	200
Franklin ¹	805							805
Fulton.....	350							150
Garland ¹	442		32		32	7.24	22	160
Grant.....	480							250
Greene.....	683		25		25	15.15	7	15
Hempstead.....	1,005			5	5	.49	5	800
Hot Springs ¹	600		10		10	1.66	10	390
Howard.....	600		15		15	2.50	— 10	95
Independence ¹	911						— 27	500
Izard ¹	700							
Jackson.....	650						— 1	90
Jefferson.....	650	³ 36	15		51	7.84	21	249
Johnson.....	650							50
Lafayette ¹	325		35	15	50	15.38	50	200
Lawrence.....	365	10.5	3		13.5	3.69	3.5	151.5
Lee ¹	700							450
Lincoln ¹	350		18		18	5.14	14	82
Little River ¹	270							150
Logan.....	850							50
Lonoke ¹	818	93.5			93.5	11.43	82.5	160
Madison ¹	1,000							50
Marion.....	700						— 20	40
Miller ¹	475	1	22		23	4.84	23	77
Mississippi ¹	600							300
Monroe.....	220							100
Montgomery ¹	666							400
Nevada ¹	400							100
Newton.....	500							
Ouachita.....	550		20	10	30	5.45	27	100
Perry.....	175						— 16	75
Phillips ¹	800							600
Pike ¹	540		10		10	1.85	10	50
Polk.....	315		15		15	4.76	15	200
Polk.....	575							50
Pope ¹	481	1	5		6	1.24	3.75	175
Prairie ¹	1,023	12			12	1.17	12	38
Pulaski.....	508.5	⁴ 135	63.5		198.5	39	—158.5	88.5
Randolph ¹	925		20	5	25	2.70	20	200
St. Francis.....	1,058		8		8	.75	8	300
Saline.....	575		25		25	4.34	— 15	100
Scott ¹	1,046							100
Searcy ¹	300		10	20	30	10	30	150
Sebastian ¹	770	70	10		80	10.38	41	300
Sevier ¹	648						— 52	125

¹ Summary sheet was compiled from report of the Arkansas State Highway Department; otherwise it was prepared from reports secured from county officials.

² Bituminous macadam.

³ Includes 21 miles of concrete.

⁴ Includes 1 mile of bituminous macadam and 35.5 of macadam with Telford base.

ARKANSAS—Continued.

TABLE 38.—Miles of public roads outside of incorporated cities, 1914—Continued.

County.	Total mileage of all roads.	Surfaced roads.						Graded and drained earth roads.
		Macadam.	Gravel.	Sand-clay.	Total surfaced.	Percentage of total surfaced.	Increase in surfaced mileage over 1909.	
Sharp ¹	576	.....	.....	.....	.....	.....	.....	92
Stone ¹	400	.....	.....	.....	.....	.....	.....	50
Union ¹	1,202	.....	.....	.....	.....	.....	.....	200
Van Buren.....	600	.....	.....	.....	.....	.....	.....	.....
Washington.....	1,710	10	.....	.....	10	.58	3	500
White ¹	800	.....	.....	.....	.....	.....	— 8	100
Woodruff.....	800	12	.....	.....	12	1.50	12	30
Yell.....	846	.....	35	.....	35	4.13	.....	.....
Total.....	50,743	387	535	175	1,097	2.16	11.75	16,305

¹ Summary sheet was compiled from report of the Arkansas State Highway Department; otherwise it was prepared from reports secured from county officials.

DELAWARE.

TABLE 39.—Miles of public roads outside of incorporated cities, 1914.

County.	Total mileage, all roads.	Surfaced roads.							Graded and drained earth roads.
		Macadam.	Bituminous macadam.	Gravel.	Shell.	Total surfaced.	Percentage of total surfaced.	Increase in surfaced road mileage over 1909.	
Kent.....	1,600	4.5	3.5	1	10.5	19.5	1.21	19.5	20
New Castle.....	939	157	32	.....	.....	189	20.12	86.6	250
Sussex.....	1,135	.....	.....	20	15	35	3.08	—49.0	.....
Total.....	3,674	161.5	35.5	21	25.5	243.5	6.62	57.1	270

FLORIDA.

TABLE 40.—Miles of public roads outside of incorporated cities, 1914.

County.	Total mile- age of all roads.	Surfaced roads.								Graded and drained earth roads.	
		Macadam.		Shell.	Sand- clay.	Brick.	Other hard sur- faced roads.	Total sur- faced.	Per- cent- age of total sur- faced.		In- crease in sur- faced mileage over 1909.
		Plain.	Bitu- minous.								
Alachua	222	20			100	2		122	54.95	122	
Baker	200										30
Bay	95			8	12			20	21.05	20	75
Bradford	500										
Brevard	280	69		36				105	37.50	75	100
Calhoun	550										
Citrus	205	60						60	29.26	10	
Clay	300			2	2			4	1.33	4	100
Columbia	250				35			35	14	35	100
Dade	380						1 80	80	21.05	100	
De Soto	458						2 8	8	1.74	22	150
Duval	255	16	4.5	40	19.5	64		144	56.47	90.15	60
Escambia	295			40	20			60	20.33	60	85
Franklin	42			12				12	28.57	12	30
Gadsden	400				185			185	46.25	171	185
Hamilton	130				5			5	3.84	3	20
Hernando	470										10
Hillsboro	1,656			85		21.24		106.24	6.41	9.72	550
Holmes	543										43
Jackson	775										525
Jefferson	300										200
Lafayette	240				4			4	1.66	4	20
Lake	325				116		1 34	150	46.15	71.50	
Lee	285			30	30			60	21.05	40	25
Leon	308	5			78			83	26.94	67	100
Levy	450	3		3.50	25			31.5	7	27.50	5
Liberty	140				30			30	21.42	30	25
Madison	450										75
Manatee	575	15.18	17.05	24.02		1		57.25	9.95	57.25	6
Marion	900	200						200	22.22	100	100
Monroe	97	22						22	22.67	22	
Nassau	320			21				21	6.56	21	
Orange	325				100	57		157	48.30	42	150
Osceola	218	15				3		18	8.25	7	100
Palm Beach	360	150		10				160	44.44	160	100
Pasco	228	18	20		65			103	45.08	93	
Pinellas	140	48				25		73	52.14	73	14
Polk	691	8	1.25		67			76.25	11.03	93.75	15
Putnam	350			18	5 66	8		92	16.72	69	55
St. Johns	105			20		65		85	80.95	69	
St. Lucie	458	69.75		13.25	54			137	29.89	92	102
Santa Rosa	500				50			50	10	30	200
Seminole	273				31	22		53	19.41	53	70
Sumter	220				6			6	2.72	34	
Suwanee	426				26			26	6.10	15	200
Taylor	58										24
Volusia	320	105			4			109	34.06	19	90
Wakulla	196	5.23						5.23	2.67	5.23	16
Walton	225				75			75	33.33	72	50
Washington	306									16	56
Total	17,995	829.16	42.80	362.77	1,205.50	268.24		122 2,830.47	15.72	1,078.12	3,686

¹ Sand-asphalt.² Clay soil.³ Includes 12.5 miles of gravel.⁴ Includes 12 miles of concrete.⁵ Includes 30 miles of gravel.

GEORGIA.

TABLE 41.—Miles of public roads outside of incorporated cities, 1914.

County.	Total mileage of all roads. ¹	Surfaced roads.					Graded and drained earth roads.
		Macadam.	Gravel.	Sand-clay.	Total surfaced.	Percentage of total surfaced.	Increase in surfaced mileage over 1909.
Appling.....	800						— 15
Bacon ²	170						75
Baker.....	250						— 35
Baldwin.....	304						— 50
Banks.....	351						— 14
Barrow ²	334						200
Bartow.....	591	2	12	15	29	4.9	29
Ben Hill.....	300			220	220	73.3	170
Berrien.....	603			150	150	24.8	50
Bibb.....	349			115	115	32.9	15
Bleckley.....	781			200	200	25.6	200
Brooks.....	464						200
Bryan.....	340			50	50	14.7	30
Bulloch.....	749			400	400	53.4	350
Burke.....	790			300	300	37.9	150
Butts.....	375						250
Calhoun.....	295			130	130	44.0	130
Camden.....	315	³ 15			15	4.7	— 5
Campbell.....	660						200
Candler.....	250			40	40	16.0	40
Carroll.....	1,223	7		15	22	1.79	4
Catoosa.....	222	3	68		71	31.9	41
Charlton.....	227		25	10	35	15.4	35
Chatham.....	219		100		100	45.6	— 8
Chattahoochee.....	251						15
Chattooga.....	646		100		100	15.4	75
Cherokee.....	1,061						— 13
Clarke.....	152			87	87	57.2	32
Clay.....	226						— 40
Clayton.....	366			70	70	19.1	70
Clinch.....	323						— 10
Cobb.....	908						— 21
Coffee.....	712						— 50
Colquitt.....	750			265	265	35.3	265
Columbia.....	366		15	15	30	8.1	10
Coweta.....	692			100	100	14.4	—140
Crawford.....	650		27	10	37	5.7	37
Crisp.....	500			200	200	40.0	— 50
Dade.....	158						— 25
Dawson.....	293			15	15	5.1	15
Decatur.....	746			500	500	67.0	400
Dekalb.....	1,415	11	5	25	41	2.8	13
Dodge.....	1,423			80	80	5.6	55
Dooley.....	746						—150
Dougherty.....	300			150	150	50.0	— 66
Douglas.....	402		100		100	24.8	100
Early.....	494			125	125	25.3	25
Echols.....	170						92
Effingham.....	335			84	84	25.0	84
Elbert.....	860						78
Emanuel.....	726			500	500	68.8	475
Evans ²	225						100
Fannin.....	325						75
Fayette.....	379						250
Floyd.....	1,100	50	103		153	13.9	8
Forsyth.....	535						182
Franklin.....	532			100	100	18.7	100
Fulton.....	315	⁴ 198.12		2	200.12	63.5	—104.88
Gilmer.....	442						200
Glascocok.....	140						— 35
Glynn.....	162	³ 23		20	43	26.5	—110
Gordon.....	656						200
Grady.....	488			50	50	10.2	50
Greene.....	739	5	6	6	17	2.3	6
Gwinnett.....	779			100	100	12.8	100
Habersham.....	406	⁵ 12			12	2.9	11
Hall.....	1,385	⁶ 77			77	5.5	69
Hancock.....	792			200	200	25.2	185
Haralson.....	1,130						350
Harris.....	689			44	44	6.3	44

¹ Total mileage taken from report of secretary of state and represents 1915 mileage.² New county.³ Shell.⁴ Brick, 0.72 mile; concrete, 0.40 mile; bituminous macadam, 75 miles.⁵ Bituminous macadam.⁶ Seventy-three miles not classified.

GEORGIA—Continued.

TABLE 41.—Miles of public roads outside of incorporated cities, 1914—Continued.

County.	Total mileage of all roads.	Surfaced roads.						Graded and drained earth roads.
		Macadam.	Gravel.	Sand- clay.	Total surfaced.	Percent- age of total surfaced.	Increase in surfaced mileage over 1909.	
Hart.....	516							200
Heard.....	612			10	10	1.6	2	180
Henry.....	1,400			50	50	3.5	50	400
Houston.....	1,248			250	250	20.0	200	500
Irwin.....	401			200	200	49.8	120	100
Jackson.....	576							262
Jasper.....	554			150	150	27.0	150	300
Jeff Davis.....	280			10	10	3.5	10	40
Jefferson.....	525			75	75	14.2	25	40
Jenkins.....	317						— 30	100
Johnson.....	316			150	150	47.4	115	150
Jones.....	427		25	20	45	10.5	—155	20
Laurens.....	1,500			200	200	13.3	135	1,300
Lee.....	550						— 75	550
Liberty.....	564			150	150	26.5	148	50
Lincoln.....	280							100
Lowndes.....	469			150	150	31.9	100	694
Lumpkin.....	350							100
McDuffie.....	310			50	50	16.1	— 50	140
McIntosh.....	190	1		45	52	27.3	47.5	8
Macon.....	523			375	375	71.7	342.5	100
Madison.....	516			50	50	9.6	—150	300
Marion.....	417			95	95	22.7	45	50
Meriwether.....	924							808
Miller.....	285			250	250	87.7	250	
Milton.....	290							
Mitchell.....	589			300	300	50.9	245	150
Monroe.....	821			300	300	36.5	300	
Montgomery.....	355			105	105	29.5	105	250
Morgan.....	450			100	100	22.2	— 25	100
Murray.....	385			20	20	5.1	10	100
Muscogee.....	229		25	75	100	43.6	— 31	100
Newton.....	410		5	28	33	8.0	— 22	200
Oconee.....	227							150
Oglethorpe.....	1,216		200		200	16.4	125	300
Paulding.....	692							25
Pickens.....	362							25
Pierce.....	273						— 2	250
Pike.....	1,000			100	100	10.0	80	500
Polk.....	457						— 65	350
Pulaski.....	288						—100	200
Putnam.....	500						— 15	100
Quitman.....	196			85	85	43.3	85	100
Rabun.....	322							200
Randolph.....	564			300	300	53.1	194	250
Richmond.....	500		124	281	405	81.0	239	
Rockdale.....	240						— 7.5	50
Schley.....	482			121	121	25.1	118	
Screven.....	247			255	55	22.2	5	100
Spalding.....	800	3	1	11	12	1.5	— 18.5	450
Stephens.....	386						— 14	230
Stewart.....	445			82	82	18.4	47	
Sumter.....	1,312			350	350	26.6	280	448
Talbot.....	412		2	10	12	2.9	12	230
Taliaferro.....	243							150
Tattnall.....	405			150	150	37.0	95	200
Taylor.....	381			10	10	2.6	5	25
Telfair.....	595			82	82	13.7	32	300
Terrell.....	410						—125	300
Thomas.....	720			50	50	6.9		350
Tift.....	241			100	100	41.4	11	100
Toombs.....	257			100	100	38.9	100	75
Towns.....	270							
Troup.....	700			200	200	28.5	175	200
Turner.....	800			200	200	25.0	100	205
Twiggs.....	400			100	100	25.0	100	300
Union.....	375							
Upson.....	750							400
Walker.....	600	4	80		160	26.6	— 74	25
Walton.....	606			30	30	4.9	30	170
Ware.....	300		1	25	26	8.6	22	115
Warren.....	208			25	25	8.5	25	164
Washington.....	737			250	250	33.9	50	200

¹ Shell.² Surfaced mileage computed by allowing 10 per cent increase over the 1909 surfaced mileage.³ Brick.⁴ Fifty miles not classified.

GEORGIA—Continued.

TABLE 41.—Miles of public roads outside of incorporated cities, 1914—Continued.

County.	Total mileage of all roads.	Surfaced roads.					Graded and drained earth roads.
		Macadam.	Gravel.	Sand-clay.	Total surfaced.	Percentage of total surfaced.	Increase in surfaced mileage over 1909.
Wayne.....	570	.....	.....	25	25	4.3	17
Webster.....	266	.....	.....	35	35	13.1	30
Wheeler ¹	232	.....	.....	.....	.....	.....	100
White.....	700	.....	.....	.....	.....	.....	.....
Whitfield.....	507	.....	50	.....	50	9.8	45
Wilcox.....	775	.....	.....	50	50	6.4	45
Wilkes.....	453	.....	.....	100	100	22.0	75
Wilkinson.....	1,100	.....	.....	100	100	9.0	100
Worth.....	631	.....	.....	150	150	23.7	150
Total.....	80,669	491.12	1,073	10,778	12,342.12	15.3	6,364.12
							30,554

¹ New county.

KENTUCKY.

TABLE 42.—Miles of public roads outside of incorporated cities, 1914.

County.	Total mileage of all roads.	Surfaced roads.					Graded and drained earth roads.	
		Macadam.		Gravel.	Total surfaced.	Per- centage of total surfaced.		Increase in surfaced mileage over 1909.
		Plain.	Bitumi- nous.					
Adair.....	300	10			10	3.33	— 15	
Allen.....	425			50	50	11.76	43	25
Anderson.....	208						— 200	
Ballard.....	425			24	24	5.64	24	
Barren.....	1,100	60		50	110	10	56	300
Bath.....	450	200		12	212	47.11	47	
Bell.....	150	2.5			2.5	1.66	— 1.5	
Boone.....	375	130		5	135	36	37.25	115
Bourbon.....	320	300			300	93.75	300	
Boyd.....	207	5			6.7	3.24	— 9	50
Boyle.....	250	110		30	140	56	— 135	10
Bracken.....	450	300	1.7		300	66.66	120	
Breathitt.....	100							
Breckinridge.....	1,200	10		4	14	1.16	14	50
Bullitt.....	348	44		13	57	16.09	2	
Butler.....	475	5			5	1.05	5	70
Caldwell.....	430	20		1	21	4.88	1	279
Calloway.....	590			100	100	16.94	55	190
Campbell.....	300	200			203	67.33	128	
Carlisle.....	403			3	3	.74	3	
Carroll.....	300	175	3	25	200	66.66	39	100
Carter.....	400							40
Casey.....	975			75	75	7.77	10	
Christian.....	1,200	250			250	20.83	— 10	600
Clark.....	360	240		10	250	69.44	42	
Clay.....	500							
Clinton.....	200							
Crittenden.....	500	3			3	.60	3	
Cumberland.....	300	3			3	1	3	
Daviess.....	732	46			46	6.28	1	296
Edmonson.....	200	5			5	2.50	— 3	
Elliott.....	264							
Estill.....	336							8
Fayette.....	386	370			382	98.96	22	
Fleming.....	645	235		40	275	42.63	50	
Floyd.....	400		12					
Franklin.....	400	300			300	75	71.50	100
Fulton.....	212							201.5
Gallatin.....	280	130		25	155	55.35	— 16	25
Garrard.....	226	126			126	55.75	— 9	
Grant.....	540	490			490	90.74	140	
Graves.....	1,350			200	200	14.81	188	200
Grayson.....	650	5.5			5.5	.84	2.5	15.5
Green.....	700						— 12	
Greenup.....	500			2	2	.40	.5	
Hancock.....	440							400
Hardin.....	1,070	150		20	170	15.88	— 15	700

KENTUCKY—Continued.

TABLE 42.—Miles of public roads outside of incorporated cities, 1914—Continued.

County.	Total mileage of all roads.	Surfaced roads.						Graded and drained earth roads.
		Macadam.		Gravel.	Total surfaced.	Per- centage of total surfaced.	Increase in surfaced mileage over 1909.	
		Plain.	Bitumi- nous.					
Harlan.....	250							
Harrison.....	500	350			350	70	— 15	
Hart.....	610	90			90	14.75	22	110
Henderson.....	635	50		20	70	11.02	— 36	565
Henry.....	420	270			270	64.23	20	
Hickman.....	600							
Hopkins.....	655							610
Jackson.....	500							
Jefferson.....	908	¹ 754.75	10	15	779.75	85.89	² 527.75	120
Jessamine.....	332	252			252	75.90	49	
Johnson.....	700	.5			.5		— .50	4
Kenton.....	325	² 230	7		237	72.92	18	60
Knott.....	300							
Knox.....	198							48
Larue.....	400	26		10	36	9	1	300
Laurel.....	1,000	10			10	1	6	
Lawrence.....	600							200
Lee.....	200							
Leslie.....	250							
Letcher.....	402							2
Lewis.....	700	15			15	2.14	— 65	
Lincoln.....	646	60		86	146	22.60	—136.5	120
Livingston.....	450							16.5
Logan.....	1,025	200		25	225	21.95	135	
Lyon.....	300	2			2	.66	2	
McCracken.....	540			320	320	59.25	168	170
McCreary.....	400							
McLean.....	500							150
Madison.....	657	209		26	235	35.76	—131	75
Magoffin.....	600							
Marion.....	500	140		25	165	33	15	
Marshall.....	600			150	150	25	90	400
Martin.....	200							1
Mason.....	410	340			340	82.92	— 30	
Meade.....	350	32			32	9.14	22	2
Menifee.....	200							5
Mercer.....	450	300			300	84.44	65	50
Metcalf.....	353							3.5
Monroe.....	553	8		5	13	2.35	13	
Montgomery.....	300	125			125	41.66	15	
Morgan.....	600							
Muhlenberg.....	700							300
Nelson.....	480	220	25	25	270	56.25	— 17	150
Nicholas.....	325	265		4	269	82.76	13	
Ohio.....	850			8.5	8.5	1	.5	600
Oldham.....	275	125			125	45.45	40	150
Owen.....	600	400			400	66.66	85	
Owsley.....	300							
Pendleton.....	500	350			350	70	40	
Perry.....	200							
Pike.....	600							
Powell.....	75							
Pulaski.....	2,030	30			30	1.47	— 5	2,000
Robertson.....	135	75			75	55.55	10	60
Rockcastle.....	400							
Rowan.....	300							
Russell.....	400	5			5	1.25		
Scott.....	400	350			350	87.50	— 13	
Shelby.....	702	402			402	57.26	— 3	
Simpson.....	300	80		60	140	46.66	24	40
Spencer.....	322	22		100	122	37.88	3	
Taylor.....	250	1.5		10	11.5	4.50	— 43.5	30
Todd.....	450	25		5	30	6.66	— 5	100
Trigg.....	500			20	20	4	— 10	5
Trimble.....	300	80			80	26.66	15	30
Union.....	510							380
Warren.....	1,000	300		100	400	40	125	200
Washington.....	535	260		10	270	50.40	21	35
Wayne.....	426	26			26	6.10	1	
Webster.....	500							
Whitley.....	300						— 5	
Wolfe.....	300							
Woodford.....	260	225	0.33		225.33	86.55	23.33	
Total.....	57,916	10,630.75	59.03	1,713.50	12,403.28	21.4	2,288.33	10,867

¹ Includes $\frac{1}{2}$ mile of brick and $\frac{1}{2}$ mile of concrete.² Increase over 1904. No report for 1909.³ Includes 2 miles of concrete.

LOUISIANA.

TABLE 43.—Miles of public roads outside of incorporated cities, 1914.

Parish.	Total mileage of all roads.	Surfaced roads.							Graded and drained earth roads.
		Gravel.	Sand-clay.	Shell.	Other hard surfaced roads.	Total surfaced.	Percentage of total surfaced.	Increase in surfaced mileage over 1909.	
Acadia.....	674	.....	.....	.....	.....	.....	.....	.....	450
Allen.....	150	.....	.....	.....	.....	.....	.....	.....	.....
Ascension.....	241	21	.....	.....	.....	21	8.71	21	220
Assumption.....	130	40	.....	.....	.....	40	30.76	40	90
Avoyelles.....	800	.....	.....	.....	.....	.....	.....	.....	.....
Beauregard.....	150	.....	.....	.....	.....	.....	.....	.....	75
Bienville.....	670	.....	.....	.....	.....	.....	.....	.....	.....
Bossier.....	416	42	100	.....	28 macadam.....	170	40.86	170	60
Caddo.....	505	74.5	.....	.....	4 macadam.....	81	16.03	77	4
					2.5 bituminous macadam.....				
					15 brick.....				
Calcasieu.....	500	40	.....	6.5	.....	61.5	12.30	59.5	200
Caldwell.....	298	3	.....	.....	.....	3	1	3	5
Cameron.....	100	.....	.....	.....	.....	.....	.....	.....	.....
Catahoula.....	300	.....	.....	.....	.....	.....	.....	-15	40
Claiborne.....	750	.....	.....	.....	.....	.....	.....	.....	.....
Concordia.....	300	.....	.....	.....	.....	.....	.....	.....	.....
De Soto.....	400	.....	100	.....	.....	100	25	25	100
East Baton Rouge.....	407	49	.....	.....	0.6 concrete.....	49.6	12.20	33.6	357
East Carroll.....	250	.....	50	.....	.....	50	20	50	35
East Feliciana.....	400	.5	.....	.....	.....	.5	.12	.5	.....
Evangeline.....	600	.....	.....	.....	.....	.....	.....	.....	400
Franklin.....	350	.....	.....	.....	.....	.....	.....	.....	.....
Grant.....	250	4	.....	.....	.....	4	1.60	2	64
Iberia.....	342	.....	.....	.....	12 concrete.....	12	3.50	12	30
Iberville.....	110	60	.....	.....	.....	60	54.54	54.5	40
Jackson.....	375	.....	.....	.....	.....	.....	.....	.....	120
Jefferson.....	126	2	.....	44	10 pyrites.....	56	44.44	51	.....
Jefferson Davis.....	600	.....	.....	.....	.....	.....	.....	.....	250
Lafayette.....	800	.....	.....	.....	.....	.....	.....	.....	800
Lafourche.....	225	.....	.....	.....	.....	.....	.....	.....	75
La Salle.....	350	.....	.....	.....	.....	.....	.....	.....	200
Lincoln.....	650	.....	.....	.....	.....	.....	.....	.....	50
Livingston.....	525	.....	.....	.....	.....	.....	.....	.....	525
Madison.....	200	.....	10	.....	.....	10	5	10	50
Morehouse.....	500	.....	.....	.....	.....	.....	.....	.....	300
Natchitoches.....	800	15	.....	.....	.....	15	1.87	15	.....
Orleans ¹.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ouachita.....	608	8	300	.....	.....	308	50.65	280	200
Plaquemines.....	136	.....	.....	32	.....	32	23.52	32	.....
Poite Coupee.....	325	.....	.....	.....	.....	.....	.....	.....	.....
Rapides.....	1,309	9	700	.....	.....	709	54.16	706	200
Red River.....	275	.....	.....	.....	.....	.....	.....	.....	.....
Richland.....	345	.....	.....	.....	.....	.....	.....	-60	20
Sabine.....	743	.....	.....	.....	.....	.....	.....	.....	43
St. Bernard.....	43	3	5	25	10 cinders.....	43	100	7	.....
St. Charles.....	153	28	.....	.....	.....	28	18.30	28	.....
St. Helena.....	325	.....	.....	.....	.....	.....	.....	.....	.....
St. James.....	106	1	.....	.....	.....	1	.94	1	55
St. John the Baptist.....	72	.....	.....	.....	.....	.....	.....	.....	32
St. Landry.....	824	24	.....	.....	.....	24	2.91	24	700
St. Martin.....	175	.....	.....	.....	.....	.....	.....	.....	.....
St. Mary.....	202	.....	.....	.....	.....	.....	.....	-15	120
St. Tammany.....	300	.....	.....	.....	.....	.....	.....	.....	180
Tangipahoa.....	300	1	.....	.....	.....	1	.33	1	50
Tensas.....	251	.....	.....	.....	.....	.....	.....	.....	.....
Terrebonne.....	220	.....	.....	.....	.....	.....	.....	-5	.....
Union.....	315	.....	.....	.....	.....	.....	.....	.....	.....
Vermillion.....	450	.....	.....	.....	.....	.....	.....	.....	200
Vernon.....	640	.....	.....	.....	.....	.....	.....	.....	40
Washington.....	550	.....	183	.....	.....	183	33.27	183	367
Webster.....	400	5	.....	.....	.....	5	1.25	5	275
West Baton Rouge.....	100	.....	.....	.....	.....	.....	.....	.....	50
West Carroll.....	250	.....	.....	.....	.....	.....	.....	.....	11
West Feliciana.....	275	.....	.....	.....	.....	.....	.....	.....	100
Winn.....	627	.....	.....	.....	.....	.....	.....	.....	270
Total.....	24,563	430	1,448	107.5	82.1	2,067.6	8.42	1,796.1	7,453

¹ All included in city of New Orleans.

MISSISSIPPI—Continued.

TABLE 45.—Miles of public roads outside of incorporated cities, 1914—Continued.

County.	Total mileage of all roads.	Surfaced roads.						Graded and drained earth roads.
		Gravel.	Sand-clay.	Other hard surfaced roads.	Total surfaced.	Percentage of total surfaced.	Increase in surfaced mileage over 1909.	
Hancock.....	235			¹ 16	16	6.80	16	219
Harrison.....	999	10	1.25	¹ 63	74.25	7.43	54.25	725
Hinds.....	860	110			110	12.79	110	750
Holmes.....	921	5	1		6	.65	6	610
Issaquena.....	145							125
Itawamba.....	810	23	12		35	4.32	10	75
Jackson.....	429			$\left\{ \begin{smallmatrix} 2 & 4 \\ 1 & 35 \end{smallmatrix} \right\}$	39	9.09	39	390
Jasper.....	803		3		3	.37	3	175
Jefferson.....	439							
Jefferson Davis.....	365							
Jones.....	747	9.5	13		22.5	3.01	22.5	
Kemper.....	1,110		10		10	.90	10	
Lafayette.....	700						.75	70
Lamar.....	400							400
Lauderdale.....	800	51.75	95		146.75	18.37	143.75	
Lawrence.....	380							
Leake.....	840							50
Lee.....	312	145		³ 12	157	50.32	149	155
Leflore.....	650	23.75			23.75	3.65	23.75	616
Lincoln.....	207	54.6			54.6	26.42	54.60	
Lowndes.....	408	20	203		223	54.65	223	185
Madison.....	500							350
Marion.....	400							300
Marshall.....	750							
Monroe.....	650	75	20	⁴ 55	150	23.07	130	50
Montgomery.....	500							70
Neshoba.....	800	19			19	2.37	19	
Newton.....	599	22			22	3.67	22	
Noxubee.....	1,000	55	48		103	10.30	103	20
Oktibbeha.....	833			$\left\{ \begin{smallmatrix} 4 & 31 \\ 6 & 1.5 \end{smallmatrix} \right\}$	32.5	3.90	32.5	
Panola.....	700							700
Pearl River.....	800							
Perry.....	500							
Pike.....	560	60			60	10.71	60	
Pontotoc.....	900		100		100	11.11	100	
Prentiss.....	455	30	25		55	12.02	45	200
Quitman.....	300							200
Rankin.....	400		1	³ 2	3	.75	3	200
Scott.....	652	40			40	6.13	40	12
Sharkey.....	250							40
Simpson.....	601							601
Smith.....	600							70
Sunflower.....	604	4			4	.66	46	350
Tallahatchie.....	520	10			10	1.92	10	220
Tate.....	450							
Tippah.....	525							100
Tishomingo.....	750							
Tunica.....	287	4	1		5	1.74	5	196
Union.....	512							103
Walthall.....	433							
Warren.....	416	48		⁵ 28	76	18.26	40	300
Washington.....	500			⁶ .5	.5	.09	.5	350
Wayne.....	900							550
Webster.....	500							
Wilkinson.....	450							300
Winston.....	700							
Yalobusha.....	550							400
Yazoo.....	838	10			10	1.19	7	408
Total.....	45,779	1,281.10	604.25	248	2,133.35	4.66	1,791.10	13,686

¹ Shell.² Slag.³ Concrete.⁴ Macadam.⁵ Bituminous macadam.⁶ Burnt clay.

NORTH CAROLINA.

TABLE 46.—Miles of public roads outside of incorporated cities, 1914.

County.	Total mileage of all roads.	Surfaced roads.					Graded and drained earth roads.	
		Macadam.	Gravel.	Sand- clay.	Total surfaced.	Per- centage of total surfaced.		Increase in surfaced mileage over 1909.
Alamance.....	600	50		8	58	9.66	— 7	8
Alexander.....	200							
Alleghany.....	300							20
Anson.....	500	15	66	32	113	22.6	103	13
Ashe.....	500							
Avery.....	300							
Beaufort.....	400			4	4	1	4	
Bertie.....	800			20	20	2.5	— 15	200
Bladen.....	200			6	6	3	6	20
Brunswick.....	400			48	48	12	37	20
Buncombe.....	700	75		48	123	17.57	57	378
Burke.....	300			10	10	3.33	10	25
Cabarrus.....	600	22		45	67	11.16	7	50
Caldwell.....	500	3		6	9	1.8	— 35	35
Camden.....	200							
Carteret.....	200			20	20	10	20	10
Caswell.....	400	1.5			1.5	.37	— 14.5	
Catawba.....	450			100	100	22.22	100	20
Chatham.....	600						— 8	4
Cherokee.....	400	13		32	45	11.25	35	35
Chowan.....	185							
Clay.....	135							
Cleveland.....	800		25	80	105	13.12	100	15
Columbus.....	1,150		2	35	37	2.34	25	250
Craven.....	930			4	4	.43	— 22	35
Cumberland.....	600			105	105	17.5	65	175
Currituck.....	100			3	3	3	3	
Dare.....	70							
Davidson.....	800	3		10	13	1.62	11	10
Davie.....	263			57	57	21.67	57	10
Duplin.....	800			66	66	8.25	66	10
Durham.....	450	97	16	15	118	26.22	16	15
Edgecombe.....	750			20	20	2.66	10	10
Forsyth.....	750	² 74	5	50	129	17.86	83	10
Franklin.....	500	³ 5		205	210	42	130	5
Gaston.....	500	110		40	150	30	82	5
Gates.....	300							20
Graham.....	250			3	3	1.2	3	2
Granville.....	700			135	135	19.28	37	
Greene.....	300			40	40	13.33	40	
Guilford.....	1,000	110	10	100	220	22	104	
Halifax.....	600		20	80	100	16.66	40	10
Harnett.....	500			40	40	8	15	25
Haywood.....	300	20	2	22	22	7.33	— 10	150
Henderson.....	500			60	60	12	60	100
Hertford.....	600						— 15	
Hoke.....	200			75	75	37.5	75	25
Hyde.....	300						— 2.5	100
Iredell.....	700	25		240	265	37.85	239	20
Jackson.....	400							20
Johnston.....	900			200	200	22.22	146	20
Jones.....	225			4	4	1.77	4	15
Lee.....	250		36	32	68	27.2	68	
Lenoir.....	500			65	65	13	65	
Lincoln.....	400			100	100	25	100	20
McDowell.....	350	8		36	44	12.57	18	40
Macon.....	750	4		5	9	1.2	9	20
Madison.....	300			10	10	3.33	10	60
Martin.....	400			65	65	16.25	65	10
Mecklenburg.....	1,000	300	⁴ 55	30	385	38.5	152	20
Mitchell.....	500							3
Montgomery.....	400		30	37	67	19.25	67	50
Moore.....	600			230	230	38.33	205	10
Nash.....	800	1	10	115	126	15.75	92	130
New Hanover.....	125	49		5	54	43.22	4	11
Northampton.....	675		12		12	1.76	— 8	
Onslow.....	300			5	5	1.66	5	
Orange.....	300	8	4	69	81	27	61	12

¹ Classification not given.² Of which 4 miles were treated with bituminous material.³ Bituminous macadam.⁴ Includes 35 miles for which no classification was given.

NORTH CAROLINA—Continued.

TABLE 46.—Miles of public roads outside of incorporated cities, 1914—Continued.

County.	Total mileage of all roads.	Surfaced roads.						Graded and drained earth roads.
		Macadam.	Gravel.	Sand-clay.	Total surfaced.	Percentage of total surfaced.	Increase in surfaced mileage over 1909.	
Pamlico.....	200							5
Pasquotank.....	300							
Pender.....	500			18	18	3.6	18	
Perquimans.....	350			5	5	.62	5	50
Person.....	800			50	50	5	48	
Pitt.....	1,000			10	18.5	6.16	15	65
Polk.....	300	8.5		110	110	12.22	106	10
Randolph.....	900		50	200	250	41.66	129	10
Richmond.....	600			100	100	11.11	50	10
Robeson.....	900			13	13	2.16	4	300
Rockingham.....	600	13		65	140	28	51	20
Rowan.....	500	75		14	14	1.75	14	300
Rutherford.....	800			165	165	13.75	115	
Sampson.....	1,200			175	175	58.33	120	10
Scotland.....	300			5	5	.90	5	12
Stanley.....	550			75	75	18.75	75	10
Stokes.....	400			80	80	22.85	80	15
Surry.....	350			5	5	1.66	5	5
Swain.....	300			5	5	2	5	5
Transylvania.....	250							6
Tyrrell.....	200			4	4	.44	— 36	100
Union.....	900	4		125	125	41.66	80	
Vance.....	300			100	202.25	16.85	22.25	400
Wake.....	1,200	1 2.25	100	15.5	15.5	2.98	— 24.5	
Warren.....	520			28	28	9.33	26	50
Washington.....	300						— 10	10
Watauga.....	300			10	210	21	180	300
Wayne.....	1,000			1	1	.10	1	150
Wilkes.....	1,000	1		35	60	7.50	30	40
Wilson.....	800	24	1					
Yadkin.....	300			3	3	3.75	3	17
Yancey.....	80							
Total.....	50,758	1,121.25	594	4,318.50	6,003.75	11.82	3,690.75	4,181

¹ Includes 1.25 miles of concrete.

OKLAHOMA.

TABLE 47.—Miles of public roads outside of incorporated cities, 1915.

County.	Total mileage of all roads.	Surfaced roads.					Graded and drained earth roads.	
		Macadam.	Gravel.	Sand-clay.	Total surfaced.	Percentage surfaced.		Increase in surfaced mileage over 1909.
Adair.....	475		2		2	0.42	2	3
Alfalfa.....	1,776							6
Atoka.....	1,180							12
Beaver.....	3,604							38
Beckham.....	1,440						— 6	100
Blaine.....	1,872			10	10	.53	— 5.5	46
Bryan.....	1,400		4		4	.28	— 26	100
Caddo.....	2,700							
Canadian.....	1,800						— 3	
Carter.....	1,493							60
Cherokee.....	800							
Choctaw.....	700							
Cimarron.....	1,000							
Cleveland.....	1,050							300
Coal.....	900							5
Comanche.....	1,812						— 4	5
Cotton.....	1,307							100
Craig.....	1,552							
Creek.....	1,400							10
Custer.....	1,520							10
Delaware.....	960							38
Dewey.....	1,500							
Ellis.....	2,525			5	5	.19	5	200
Garfield.....	2,000							109
Garvin.....	1,600							200
Grady.....	2,200							64
Grant.....	2,016						— 10	50
Greer.....	1,000						— 5	4
Harmon.....	800			20	20	2.5	20	80
Harper.....	2,020							
Haskell.....	900							20
Hughes.....	1,375							11
Jackson.....	1,552						— 25	25
Jefferson.....	533							
Johnston.....	700							20
Kay.....	1,654							65
Kingfisher.....	1,845							
Kiowa.....	2,100							500
Latimer.....	295							
Le Flore.....	1,000							
Lincoln.....	2,080			5	5	.24	— 34.50	50
Logan.....	1,512			4	4	.26	4	46
Love.....	600							
McClain.....	(1)						— 2	
McCurtain.....	1,305							
McIntosh.....	1,440							
Major.....	1,942						— 10	6
Marshall.....	510							48
Mayes.....	1,368							22
Murray.....	550							15
Muskogee.....	1,870						— 25	75
Noble.....	1,494							25
Nowata.....	1,130							32
Oklfuskee.....	800							90
Oklahoma.....	1,500			10	10	166	10	20
Oklmulgee.....	1,400							100
Osage.....	2,500							
Ottawa.....	750		0.9		.9	.12	— 3.10	
Pawnee.....	1,160			1	1.0	.08	1	
Payne.....	1,420							60
Pittsburg.....	650						— 123	23
Pontotoc.....	840							20
Pottawatomie.....	1,500							
Pushmataha.....	640						— 50	
Roger Mills.....	615							2
Rogers.....	1,800							40
Seminole.....	800							
Sequoyah.....	637							20
Stephens.....	1,400							
Texas.....	4,046						— 4	38
Tillman.....	1,600							
Tulsa.....	1,400	2 9.70			9.7	.65	4.7	170
Wagoner.....	1,110							

¹ No report.² Includes 3 miles of bituminous macadam.

OKLAHOMA—Continued.

TABLE 47.—Miles of public roads outside of incorporated cities, 1914—Continued.

County.	Total mileage of all roads.	Surfaced roads.					Graded and drained earth roads.
		Macadam.	Gravel.	Sand-clay.	Total surfaced.	Per-centage surfaced.	Increase in surfaced mileage over 1909.
Washington.....	553						23
Washita.....	1,612						
Woods.....	2,500						
Woodward.....	2,526			50	50	1.97	50
Total.....	107,916	9.70	6.9	105	121.6	.11	—239.4

SOUTH CAROLINA.

TABLE 48.—Miles of public roads outside of incorporated cities, 1914.

County.	Total mileage of all roads.	Surfaced roads.					Graded and drained earth roads.
		Sand-clay.	Other hard surfaced roads.	Total surfaced.	Per-centage of total surfaced.	Increase in surfaced mileage over 1909.	
Abbeville.....	1,200	75		75	6.25	—226	500
Aiken.....	1,280	350		350	27.40	100	300
Anderson.....	1,208	500		500	41.39	490	
Bamberg.....	400	125		125	31.25		
Barnwell.....	1,000	150		150	15	—35	350
Beaufort.....	480		2 40	40	8.33	25	
Berkeley.....	1,500					—10	225
Calhoun.....	300	100		100	33.33		
Charleston.....	500	40	{ 3 30 2 8 }	78	15.60	64	122
Cherokee.....	1 422					—3	300
Chester.....	680	50	4 15	65	9.55	45	100
Chesterfield.....	1 200	36		36	3	26	137
Clarendon.....	800	50		50	6.25	50	350
Colleton.....	1,005	66		66	6.56	66	139
Darlington.....	1,000	200		200	20	—150	550
Dillon.....	625	25		25	4	25	100
Dorchester.....	800					—200	300
Edgefield.....	835	15		15	1.79	15	150
Fairfield.....	650	50		50	7.69	50	300
Florence.....	1,150	200	2 25	225	19.56	193	650
Georgetown.....	479	60	2 5.5 4 3 2 1.5 }	65.5	13.68	8.5	150
Greenville.....	2,004		{ 4 3 2 1.5 }	4.5	.22	—2.5	200
Greenwood.....	2,000					—38	
Hampton.....	1,202	2		2	.16	—248	700
Horry.....	2,000	10		10	.50	6	150
Jasper.....	700						50
Kershaw.....	650	137	2 18	155	23.84	32	160
Lancaster.....	600	30		30	5	—5	125
Laurens.....	1,470	20		20	1.36	—69	350
Lee.....	400	100		100	25	69	150
Lexington.....	1,555	105		105	6.75	15	350
Marion.....	480	85		85	17.70	85	35
Marlboro.....	580	30		30	5.17	—32	100
Newberry.....	1,000	36	2 12	48	4.80	27	200
Oconee.....	1,400					—325	550
Orangeburg.....	1,600	50		50	3.12		
Pickens.....	600		4 1	1	.16		
Richland.....	752	200	2 2	202	26.86	—248.5	400
Saluda.....	614	14		14	2.28	4	250
Spartanburg.....	1,700				5.88	—14	1,000
Sumter.....	525	100		100	19.05	25	285
Union.....	565	5	6 8.5	13.5	2.38	5	250
Williamsburg.....	1,455	25		25	1.71	—5	1,086
York.....	860	60		60	6.97	—78.75	500
Total.....	42,226	3,101	169.50	3,270.5	7.74	—264.25	11,614

¹ Scaled from soil survey map.² Shell.³ Gravel.⁴ Macadam.⁵ Bituminous macadam.⁶ Poor macadam.

TENNESSEE.

TABLE 49.—Miles of public roads outside of incorporated cities, 1914.

Counties.	Total mileage of all roads.	Surfaced roads.						Graded and drained earth roads.
		Macadam.	Gravel.	Sand- clay.	Total surfaced.	Percent- age of total surfaced.	Increase in surfaced mileage over 1909.	
Anderson.....	285	75	10		85	29.82	11	
Bedford.....	200						-125	31
Benton.....	¹ 430		150		150	34.88	135	40
Bledsoe.....	350	30	30		60	17.14	50	75
Blount.....	¹ 550	55			55	10	42	
Bradley.....	345		190		190	55.07	10	80
Campbell.....	665	45	20		65	9.77	10	
Cannon.....	500	10	10		20	4	13	
Carroll.....	¹ 250							100
Carter.....	200	20			20	10	20	180
Cheatham.....	500	14	34	50	98	19.60	84	150
Chester.....	260							
Claiborne.....	300	10			10	3.33	5	130
Clay.....	200						- 5	
Cocke.....	400	80			80	20		
Coffee.....	¹ 375							60
Crockett.....	500							300
Cumberland.....	200							20
Davidson.....	600	275	100		375	62.5	133	125
Decatur.....	506		6		6	1.18	- 37.5	
Dekalb.....	500	40			40	8	- 35	
Dickson.....	283	54	4		58	20.49	54	25
Dyer.....	201		11.5		11.5	5.7	- 8.5	100
Fayette.....	900							600
Fentress.....	350							50
Franklin.....	405	5			5	1.23	3	100
Gibson.....	1,000							200
Giles.....	1,000						-175	500
Grainger.....	300	8			8	2.66	3	23
Greene.....	¹ 532	160			160	10.44	159	172
Grundy.....	300							
Hamblen.....	300	100			100	33.33	4	
Hamilton.....	495	² 19.5	200		219.5	44.38	74.5	150
Hancock.....	250							
Hardeman.....	750		3		3	.4		
Hardin.....	410		80		80	19.51	60	80
Hawkins.....	375	14			14	3.73	- 12	90
Haywood.....	800		3.5		3.5	.43	- 3.5	200
Henderson.....	400							
Henry.....	1,000	20	5		25	2.5	21.5	100
Hickman.....	750							
Houston.....	150						- 5	
Humphreys.....	600		125	40	165	27.5	165	40
Jackson.....	325	35	95		130	40	130	
James.....	110		2		2	1.81	- 28	4
Jefferson.....	558	160			160	28.67	57	38
Johnson.....	150							
Knox.....	1,000	³ 375			375	37.5	126	225
Lake.....	115	1			1	.86	1	50
Lauderdale.....	600			100	100	16.66	91	75
Lawrence.....	300		100		100	33.33	60	100
Lewis.....	200		8	25	33	16.5	13	25
Lincoln.....	800		80		80	10	- 73	
Loudon.....	368	21.5	25		46.5	12.63	46.5	61.5
McMinn.....	600	40	5		45	7.5	14.5	150
McNairy.....	300		12		12	4	12	45
Macon.....	348		26		26	7.47	26	10
Madison.....	714		⁴ 131	3	134	18.76	- 58	150
Marion.....	230	75		25	100	43.47	60	30
Marshall.....	556	200	150		350	62.94	205	100
Maury.....	¹ 125	150	225	250	625	55.55	299	250
Meigs.....	200		10		10	5	7	10
Monroe.....	320						- 10	120
Montgomery.....	650	90	60		150	23.07	24	
Moore.....	85		15	10	25	29.41	15	10
Morgan.....	375							300
Obion.....	1,000							
Overton.....	220							

¹ 1909 total.² Includes 5 miles of bituminous macadam, 2 miles of concrete, and $\frac{1}{2}$ mile of brick.³ Includes 75 miles of bituminous macadam.⁴ Includes 66 miles of gravel treated with bituminous material.

TENNESSEE—Continued.

TABLE 49.—Miles of public roads outside of incorporated cities, 1914—Continued.

Counties.	Total mileage of all roads.	Surfaced roads.					Graded and drained earth roads.
		Macadam.	Gravel.	Sand-clay.	Total surfaced.	Percentage of total surfaced.	Increase in surfaced mileage over 1909.
Perry.....	601	.....	50	.....	50	8.31	50
Pickett.....	129	.....	.....	.....	.....	.....	.....
Polk.....	320	20	.....	.....	20	6.25	20
Putnam.....	340	70	10	.....	80	23.52	2
Rhea.....	342	5	11	.....	16	4.67	.....
Roane.....	550	45	8	.....	53	9.63	.....
Robertson.....	630	124	20	.....	144	22.85	144
Rutherford.....	1,100	700	.....	.....	700	63.63	250
Scott.....	100	.....	.....	.....	.....	.....	9
Sequatchie.....	150	.....	.....	.....	.....	.....	12
Sevier.....	600	30	.....	.....	30	5	1
Shelby.....	1,352	¹ 652	100	.....	752	55.62	152
Smith.....	450	15	395	.....	410	91.11	220
Stewart.....	550	2	3	.....	5	.9	21
Sullivan.....	650	125	.....	.....	125	19.23	50
Sumner.....	750	70	50	.....	120	16	230
Tipton.....	750	.....	.....	.....	.....	.....	.....
Trousdale.....	165	30	40	.....	70	42.42	50
Unicoi.....	75	.....	.....	.....	.....	.....	.....
Union.....	235	35	.....	.....	35	14.89	.....
Van Buren.....	250	16	.....	.....	16	6.4	16
Warren.....	385	60	.....	.....	60	15.58	12
Washington.....	500	50	.....	.....	50	10	47
Wayne.....	420	.....	50	10	60	14.28	44
Weakley.....	350	.....	.....	.....	.....	.....	.....
White.....	210	70	.....	.....	70	33.33	50
Williamson.....	630	100	125	100	325	51.58	210
Wilson.....	550	300	.....	.....	300	54.54	160
Total.....	46,050	4,701	2,788	613	8,102	17.59	2,748.5
							8,160.5

¹ Includes 2 miles of bituminous concrete.

NOTE.—The above information was compiled partly from cards received from county road officials and partly from a summary sheet furnished by Mr. J. J. Murray, secretary of the State road commission and United States collaborator.

TEXAS.

TABLE 50.—Miles of public roads outside of incorporated cities, 1914.

Counties.	Total mileage of all roads.	Surfaced roads.						Graded and drained earth roads.	
		Macadam.	Gravel.	Sand- clay.	Other hard surfaced.	Total surfaced.	Percent- age of total surfaced.		Increase in surfaced mileage over 1909.
Anderson.....	652		7	45		52	7.97	32	300
Andrews.....	275								
Angelina.....	200								
Aransas.....	100			45		45	45	35	25
Archer.....	1,500			400		400	26.66	400	100
Armstrong.....	149							— 15	75
Atascosa.....	200			50		50	25	— 10	50
Austin.....	500			100		100	20	95	125
Bailey.....	165								
Bandera.....	200								
Bastrop.....	1,405		80	25		105	7.47	80	1,000
Baylor.....	192			12		12	6.25	11.75	90
Bee.....	500							— 5	173
Bell.....	2,000								
Bexar.....	1,032		357.68	43.58	1 13	414.26	40.15	214.26	
Blanco.....	365								
Borden.....	170								
Bosque.....	800		190	10		200	25	185	400
Bowie.....	1,000		42			42	4.2	2	250
Brazoria.....	600		25		2 20	45	7.5	45	100
Brazos.....	600							— 5	200
Brewster.....	292								142
Briscoe.....	140								40
Brooks.....	160			18		18	11.25	18	
Brown.....	400	75	3			78	19.5	48	
Burleson.....	350			25		25	7.14	15	50
Burnet.....	840								198
Caldwell.....	328		100	3		103	31.4	89	25
Calhoun.....	305		30.5		2 45	75.5	24.71	75.5	105
Callahan.....	600		10	75	3 15	100	16.66	60	400
Cameron.....	650								350
Camp.....	300								
Carson.....	77								25
Cass.....	1,000			15		15	1.5	15	85
Castro.....	170								12
Chambers.....	175			10	2 25	35	20	30	130
Cherokee.....	500							— 70	200
Childress.....	300								
Clay.....	1,000							— 5	500
Cochran.....	150								
Coke.....	300								75
Coleman.....	600								200
Collin.....	678	125			4 3	128	18.87	125.5	550
Collingsworth.....	620		250	35		285	45.96	285	85
Colorado.....	1,170		10	10		20	1.7	20	50
Comal.....	290	20	70			90	31.03	— 10	50
Comanche.....	1,275							—105	575
Concho.....	150								50
Cooke.....	310		25			25	8.06	15	185
Correll.....	925		25			25	2.7	25	400
Cottle.....	300								
Crane.....	100								
Crockett.....	200								30
Crosby.....	415								15
Culberson.....	500								100
Dallam.....	195			20		20	10.25	19	100
Dallas.....	1,300	10	500	2	5 10	522	40.15	304	400
Dawson.....	100								
Deaf Smith.....	200							— 20	100
Delta.....	450								150
Denton.....	1,000	42	3		5 3	48	4.8	33	100
De Witt.....	1,000							— 95	30
Dickens.....	175								60
Dimmit.....	450			50		50	11.11	30	200
Donley.....	275			200		200	72.72	180	25
Duval.....	150								
Eastland.....	200			55		55	27.5	5	40
Ector.....	70								
Edwards.....	425								
Ellis.....	2,000		400			400	20	269.5	

¹ Bituminous gravel.

² Shell.

³ Cinder.

⁴ Concrete.

⁵ Bituminous macadam.

TEXAS—Continued.

TABLE 50.—Miles of public roads outside of incorporated cities, 1914—Continued.

Counties.	Total mileage of all roads.	Surfaced roads.							Graded and drained earth roads.
		Macadam.	Gravel.	Sand-clay.	Other hard surfaced.	Total surfaced.	Percentage of total surfaced.	Increase in surfaced mileage over 1909.	
El Paso.....	310	70	32			102	32.9	43.5	-----
Erath.....	1,200	.50	.50	100	¹ 30	131	10.91	70	100
Falls.....	312		6	6		12	3.84	— 38	200
Fannin.....	1,500								-----
Payette.....	1,050		90	20		110	10.47	10	150
Fisher.....	500								20
Floyd.....	1,150								500
Foard.....	116			1.5		1.5	1.28	1.5	40
Fort Bend.....	500		35		² 17	52	10.4	29	348
Franklin.....	500		35			35	7	35	40
Freestone.....	1,000								-----
Frio.....	250			150		150	60	125	-----
Gaines.....	115							— 1	40
Galveston.....	215				² 124.85	124.85	58.11	113.85	60
Garza.....	455								125
Gillespie.....	550		25	100		125	22.7	108	150
Glasscock.....	100								30
Goliad.....	376		10	12		22	5.8	19	152
Gonzales.....	1,000		43			43	4.3	— 2	300
Gray.....	200								-----
Grayson.....	2,120	40	80			120	5.66	119.75	-----
Gregg.....	231	2	50	50	³ 4	106	45.88	106	50
Grimes.....	245	20	25	50		95	38.77	95	-----
Guadalupe.....	700							—223	-----
Hale.....	516							— 5	212
Hall.....	233			8		8	3.43	8	100
Hamilton.....	350							— 30	50
Hansford.....	50								-----
Hardeman.....	1,000			10		10	1	10	200
Hardin.....	225			5	² 25	30	13.33	20	185
Harris.....	1,311		69.8	40	² 285.6	395.4	30.22	130.4	200
Harrison.....	412	2		60		62	15.04	—101	200
Hartley.....	300								200
Haskell.....	510			10		10	1.96	10	100
Hays.....	500		40			40	8		10
Hemphill.....	160							— 7	75
Henderson.....	1,500								-----
Hidalgo.....	1,045								245
Hill.....	2,000		21	6	³ 5	32	1.6	24	768
Hockley.....	60								-----
Hood.....	150		50			50	33.33	50	50
Hopkins.....	900								100
Houston.....	140			70		70	50	60	20
Howard.....	133		23	110		133	100	123	-----
Hunt.....	1,600								-----
Hutchinson.....	26			2		2	7.69	2	-----
Irion.....	162		5	42		47	29.01	47	35
Jack.....	700	4		15		19	2.71	— 86	200
Jackson.....	500							—120	-----
Jasper.....	260			10		10	3.84	10	120
Jeff Davis.....	250								40
Jefferson.....	513			.50	² 110 ³ 2	112.5	21.95	27.5	300
Jim Hogg.....	40								-----
Jim Wells.....	250								150
Johnson.....	1,400		100	50		150	10.71	115	-----
Jones.....	1,000			41		41	4.10	31	400
Karnes.....	400							— 3	200
Kaufman.....	1,600		65	6	⁴ 2	73	4.56	71	75
Kendall.....	285		2		¹ 5	7	2.46	7	-----
Kent.....	250								100
Kerr.....	400		100			100	25	83	200
Kimble.....	155								25
King.....	80								-----
Kinney.....	197								197
Kleberg.....	211			16		16	7.58	16	120
Knox.....	1,000								-----
La Salle.....	250		1	40		41	16.4	41	159
Lamar.....	1,240		40			40	3.22	36	200
Lamb.....	7								-----

¹ Not classified as to type.² Shell.³ Bituminous macadam.⁴ Concrete.

TEXAS—Continued.

TABLE 50.—Miles of public roads outside of incorporated cities, 1914—Continued.

Counties.	Total mileage of all roads.	Surfaced roads.						Graded and drained earth roads.
		Macadam.	Gravel.	Sand-clay.	Other hard surfaced.	Total surfaced.	Percentage of total surfaced.	Increase in surfaced mileage over 1909.
Lampasas.....	400							— 25
Lavaca.....	800			100		100	12.5	99.5
Lee.....	1,100							
Leon.....	70							15
Liberty.....	326				1 46	46	14.11	—104
Limestone.....	800							— 4
Lipscomb.....	150							
Live Oak.....	355	2		3		5	1.4	5
Llano.....	488							
Loving ²								
Lubbock.....	280							30
Lynn.....	190							
McCulloch.....	350							50
McLennan.....	1,576		200		{ 3 6 4 70 }	276	17.51	191
McMullen.....	123							78
Madison.....	515							22
Marion.....	300			25		25	6.33	25
Martin.....	75			5		5	6.66	5
Mason.....	292							—100
Matagorda.....	255		3	2	1 10	15	4.22	15
Maverick.....	195	25	20			45	23.07	45
Medina.....	780	10	10	20		40	5.12	35
Menard.....	230		10	40	5 100	150	65.21	150
Midland.....	100			50		50	50	50
Milam.....	1,650		62	100		162	9.81	127
Mills.....	500							200
Mitchell.....	275							275
Montague.....	900		20			20	2.22	20
Montgomery.....	900		80	20		100	11.11	—200
Moore.....	50							
Morris.....	360							160
Motley.....	135			5		5	3.7	5
Nacogdoches.....	902			27		27	2.99	15
Navarro.....	2,000		90			90	4.5	90
Newton.....	400							200
Nolan.....	533	6	22	5		33	6.19	33
Nueces.....	590		26.50	6.9	4 1.13	34.53	7.77	14.53
Ochiltree.....	145							35
Oldham.....	200							
Orange.....	200		7		1 18	25	12.5	10
Palo Pinto.....	288	12.5	13		6 3	28.5	9.87	28.5
Panola.....	1,000							125
Parker.....	1,800		300			300	16.66	300
Parmer.....	255							40
Pecos.....	750							— 15
Polk.....	600							
Potter.....	300							100
Presidio.....	215	20		20	5 50	90	41.86	65
Raines.....	285							
Randall.....	450							300
Reagan.....	165							
Real.....	125				5 5	.5	.01	.50
Red River.....	950							200
Reeves.....	190							65
Refugio.....	200							150
Roberts.....	70							10
Robertson.....	450		150	30		180	40	170
Rockwall.....	210							130
Runnels.....	450							
Rusk.....	950							
Sabine.....	350							120
San Augustine.....	550							
San Jacinto.....	330							15
San Patricio.....	136							36
San Saba.....	745		25	20	4 11	56	7.51	56

¹ Shell.² No report for this county in 1904, 1909, or 1914, as it is but sparsely settled.³ Concrete.⁴ Bituminous macadam.⁵ Not classified as to type.⁶ Cinder.

TEXAS—Continued.

TABLE 50.—Miles of public roads outside of incorporated cities, 1914—Continued.

Counties.	Total mileage of all roads.	Surfaced roads.						Graded and drained earth roads.
		Macadam.	Gravel.	Sand-clay.	Other hard surfaced.	Total surfaced.	Percentage of total surfaced.	Increase in surfaced mileage over 1909.
Schleicher.....	230							30
Scurry.....	400							200
Schackelford.....	241							50
Shelby.....	1,000							
Sherman.....	150							
Smith.....	650			200		200	30.76	180
Somervell.....	165		15	40		55	33.15	60
Starr.....	173		2			2	1.15	73
Stephens.....	388			1.5		1.5	.38	.5
Sterling.....	124							63
Stonewall.....	175			15		15	8.57	3
Sutton.....	200							20
Swisher.....	261							61
Tarrant.....	1,086	6.5	500	5	175	586.5	53.98	256.5
Taylor.....	453	8	40	5		53	11.25	43
Terrell.....	150							200
Terry.....	240			20		20	8.33	15
Throckmorton.....	175							
Titus.....	450							10
Tom Green.....	300							50
Travis.....	1,150	4	75	20	{ ² 14 3.25}	113.25	9.84	61.75
Trinity.....	294			34		34	11.56	34
Tyler.....	160							25
Upshur.....	600							3
Upton.....	104							40
Uvalde.....	405		5			5	1.23	5
Val Verde.....	260	2.5	2			4.5	1.73	70.5
Van Zandt.....	1,230		10	45		55	4.46	55
Victoria.....	795		145			145	18.23	128
Walker.....	420			55		55	13.09	44
Waller.....	319		4	35		39	12.22	39
Ward.....	181	4		2		6	3.31	6
Washington.....	600							300
Webb.....	300		50	25		75	25	50
Wharton.....	806		6			6	.74	5
Wheeler.....	175							
Wichita.....	975							3
Wilbarger.....	800			70		70	8.75	66
Willacy.....	72			9.5		9.5	13.28	9.5
Williamson.....	1,505		255			255	16.94	192
Wilson.....	600				100	100	10	100
Winkler.....	125							
Wise.....	1,700		35			35	2.05	15
Wood.....	500			150		150	30	142
Yoakum.....	73				16	16	21.91	16
Young.....	1,015							156
Zapata.....	60							
Zavalla.....	220							1
Total....	128,960	511.00	5,258.98	3,490.48	1,265.33	10,526.79	8.16	5,640.79
								29,866

¹ Bituminous macadam.² Shell.³ Concrete.⁴ Not classified as to type.

VIRGINIA.

TABLE 51.—Miles of all public roads, State and local, outside of incorporated cities, 1914.

County.	Total mileage, all roads.	Surfaced roads.						Total surfaced.	Per cent of total surfaced.	Increase in surfaced mileage over 1909.	Graded and drained earth roads.
		Macadam	Bituminous macadam.	Gravel.	Sand-clay.	Other hard surfaced roads.					
Accomac.....	1,560	4.47			2 79.87	10.28 shell.....		91.62	17.2	89.37	
Albemarle.....	914	8.7	4.7			9 cinders, 0.5 concrete, 1 164-		13.4	1.46	5.15	200
Alexandria.....	101	31	7.4	21.5		gran block.....		73.4	72.52	42.4	21
Alleghany.....	350				2 27	15 slag surfaced.....		15	4.28	27	100
Amelia.....	500				2			27	5.4		
Amherst.....	600	42			9			44	7.33	22	
Appomattox.....	500							9	1.8	6	250
Augusta.....	1,997	30	67					97	4.85	36.5	100
Bath.....	326	10.5						10.5	3.22	3.5	
Bedford.....	775	9			2	10 old railroad ballast.....		21	2.7	14.5	400
Bland.....	525							8	1.33	8	25
Botetourt.....	600	8		20	75			95	13.85	90	10
Brunswick.....	635										6
Buchanan.....	331				2 9			9	1.28	9	200
Buckingham.....	700							9.25	1.61	1.75	110
Campbell.....	562	5.5	3.5	65				65	9.28	50	2
Caroline.....	700										
Carroll.....	1,070										
Charles City.....	210			6.33	5.06			11.39	4.71	10.61	
Charlotte.....	900	6			100			106	11.77	101	
Chesterfield.....	600			200	2.5			202.5	33.75	102.5	50
Clarke.....	312	40.5						40.5	12.98	5	
Craig.....	225										
Culpeper.....	500	40.9						40.9	8.18	27.4	
Cumberland.....	150				13			13	8.66	12.75	37
Dickenson.....	601										41
Dinwiddie.....	600			52	2 72			121	20.66	10	68
Elizabeth City.....	80		3.5		21	.5 brick and 36 shell.....		40	50	6	40
Essex.....	200							26	13	21	
Fairfax.....	620	10.25	2.5	30				42.75	6.89	2.25	
Fauquier.....	879	9	20					29	3.29	18.5	
Floyd.....	800										100
Fluvanna.....	200										
Franklin.....	1,500							10	.66	10	
Fredricksburg.....	700	7	3 46					53	7.57	25	92

400	Giles.....	7	25 shell.	7.25	1.93	7.25	100
375	Gloucester.....	18.36		16.68	4.17	7.25	30
400	Goodland.....	.34				—	13
613	Grayson.....						
225	Greene.....					—	45
170	Greensville.....					58.82	17
907	Hallfax.....					8.57	43
600	Hanover.....					8.22	35
900	Henrico.....	14.06	2.07	41.34	4.01	13.38	300
850	Henry.....	2.25		1	3.5	.79	200
200	Highland.....					—	33
500	Isle of Wight.....			.25		5.05	19.25
335	James City.....	3		25		8.65	17
400	King and Queen.....						
225	King George.....			5		2.76	
270	King William.....					1.02	2.76
175	Lancaster.....					28	41
450	Lee.....	48		49		10.66	43
868	Loudoun.....	45	2	2.76		5.41	29
400	Louis.....			49		5.15	6.61
179	Lunenburg.....			13.24		88.5	38.5
375	Madison.....	3.5		7.37		49.44	3.5
125	Mathews.....					3.5	
797	Mecklenburg.....	12		303		315	25
130	Middlesex.....			29		39.52	234
400	Montgomery.....	37.5		22.3		29	
1,000	Nansemond.....	8		37.5		9.37	10.5
500	Nelson.....	6		8.5		65	3
250	New Kent.....			6		1.2	6
425	Norfolk.....	35		6.6		2.64	6.6
157	Northampton.....	1.37				8.31	24.66
195	Northumberland.....			25.75		18.22	28.62
400	Nottingham.....			42		21.53	42
478	Nottoway.....	35		4.86		22	68
500	Orange.....			5 13		48	30
1,100	Patrick.....					10.4	16
1,250	Pittsylvania.....	30					
1,300	Powhatan.....	10		20		4	40.75
441	Prince Edward.....			2.3		1	2
500	Prince George.....			20		31.39	12.39
1,400	Prince William.....	3		20		9	9
1,017	Princess Anne.....					1.8	18
658	Pulaski.....	50		12		4.5	18
260	Rappahannock.....	14		2		1.67	—
130	Richmond.....					58	8.81
400	Roanoke.....	3		31.5		14	5.38
775	Rockbridge.....	17				20	26
1,627	Rockingham.....	131				31.5	31.5
511	Russell.....	90				5	17
						29	4
						3.74	100
						137	8.32
						93	65
						18.19	53
							10

⁴ Includes 80 miles of top soil road.

²² Top soil which is a natural sand-clay mixture.

3 Includes 20 miles of toll road which is traffic bonded macadam.

⁴ Includes 80 miles of top soil road.

⁵ Includes 3 miles of top soil road.

VIRGINIA—Continued.

TABLE 51.—Miles of all roads, State and local, outside of incorporated cities, 1914—Continued.

County.	Total mileage, all roads.	Surfaced roads.						Total surfaced.	Per cent of total surfaced.	Increase in surfaced road mileage over 1909.	Graded and drained earth roads.
		Macadam	Bituminous macadam.	Gravel.	Sand-clay.	Other hard surfaced roads.					
Scott.....	780							54.5	4.7	11.5	63
Shenandoah.....	1,158	18.5	36					40.55	10.55	10.55	48
Smyth.....	384	40.55						55	8.39	43	
Southampton.....	655				55			61.7	13.65	61.7	
Spotsylvania.....	452	1.7		49	11			36	12.16	33	
Stafford.....	296			36				8	2.66	4	
Surry.....	300				8			5	.41	1	
Sussex.....	1,200				5			89.4	1.73	67.9	73
Tazewell.....	515	88.8	.6					10.5	3.33	2.5	304
Warren.....	315	10.5						15	17.24	9	70
Warwick.....	87			3	3	9 shell.		55	11.57	15	20
Washington.....	475	55						70	3.16	61.25	
Westmoreland.....	221			30	40			73	26.16	59	68
Wise.....	279	35	37		1			62	8.85	8	
Wythe.....	1,700	62			15			15	11.36	15	59
York.....	132										
Total.....	53,388	1,177.89	255.77	822.09	1,511.65			3,909.57	7.32	2,006.82	4,977

¹ From 1909 report; the total mileage figures for 1914 not obtainable.

WEST VIRGINIA.

TABLE 52.—Miles of all public roads, State and local, outside of incorporated cities, 1914.

County.	Total mile- age, all roads.	Surfaced roads.							Graded and drained earth roads.	
		Mac- adam, plain.	Bitu- minous mac- adam.	Brick, paved.	Con- crete.	Gravel.	Total sur- faced.	Per- cent- age of total sur- faced.		In- crease in sur- faced road mileage over 1909.
Barbour.....	624			4			4	.6	4	130
Berkeley.....	456	97				148	145	31.8	80	110
Boone.....	575									45
Braxton.....	780									80
Brooke.....	175	50		2			52	29.2	36	100
Cabell.....	400		1	18			19	4.75	16.5	100
Calhoun.....	500									50
Clay.....	450									
Doddridge.....	800									100
Fayette.....	933	9	6				15	1.6	12.5	53
Gilmer.....	650	.12					.12	.018	13	50
Grant.....	311									50
Greenbrier.....	827	8					8	.96	8	60
Hampshire.....	950									
Hancock.....	184	.80		15			15.8	7.6	15.8	68
Hardy.....	320									
Harrison.....	700	5.50	11.25	4			20.75	2.9	10.75	250
Jackson.....	1,200									450
Jefferson.....	340	280					280	82.4	112	40
Kanawha.....	830			3			3	.36	1	100
Lewis.....	752	1.50		.50			2	.26	2	100
Lincoln.....	665	4					4	.6	4	61
Logan.....	200			4			4	2	4	46
McDowell.....	445	10					10	2.2	3	35
Marion.....	650		9.70	14	5	2	30.7	4.7	28.2	275
Marshall.....	700	40		11		10	61	8.7	12	250
Mason.....	900									100
Mercer.....	402	15	27				42	10.4	39.6	260
Mineral.....	300									50
Mingo.....	200	2		4			6	3	6	42
Monongahela.....	800	1	1	1.10			3.1	.38	36.9	201
Monroe.....	600	8					8	1.3	8	100
Morgan.....	325	1					1	.03	1	
Nicholas.....	516	25					25	4.8	25	
Ohio.....	280	177	7	20			204	80.0	49	76
Pendleton.....	250									
Pleasants.....	290				5.50	.50	6	2.07	6	30
Pocahontas.....	500	14				230	44	8.8	40	95
Preston.....	1,200			2			2	.16	2	400
Putnam.....	570									16
Raleigh.....	616									16
Randolph.....	1,000									150
Ritchie.....	900									75
Roane.....	700			2	2		4	.57	4	76
Summers.....	485									85
Taylor.....	366	8		3			11	.3	8	150
Tucker.....	400									100
Tyler.....	520	5		.25			5.25	1.01	1	100
Upshur.....	800									50
Wayne.....	700			3			3	.42	3	100
Webster.....	338									38
Wetzel.....	630			.25			.25	.03	25.75	300
Wirt.....	490									90
Wood.....	1,029	10		10	6		26	2.5	20	303
Wyoming.....	500									
Total.....	32,024	771.92	62.95	121.10	18.50	90.50	1,064.97	3.3	473.57	5,705

¹ Includes 40 miles of shale.² Shale.

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