

TAX PAYMENTS BY THE MOTOR VEHICLE

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Introduction

Motor vehicle owners in the United States paid more than one billion dollars in 1932 for the right to operate on the public highways. <sup>in 1932</sup>  
<sup>taxes on</sup>

This sum comes directly from the pockets of motor vehicle owners in the form of registration fees, <sup>Federal, State, and Local</sup> gasoline taxes, ton-mile taxes, personal property taxes, special fees imposed by counties and municipalities and other lesser units of government, <sup>Federal, State, and Local</sup> and many other direct imposts.

In an endeavor to determine for the first time the number and amount of all the various kinds of taxes and fees, and how they are imposed upon the numerous different types of vehicles, a special inquiry was undertaken by the U. S. Bureau of Public Roads during the summer of this year, covering all of the 48 states and the District of Columbia. The present paper is a preliminary report upon the results of this investigation, the full details of which will be made available later.

Organization of the statistical personnel which handled the large mass of figures involved in the survey was directed from headquarters at Washington. One or more special statisticians were employed in each

state, all of them being persons familiar with the administrative control of motor vehicles and many of them being present or former employes of state departments. These statisticians, often with the assistance of extra helpers, worked in the offices of the motor vehicle administrators and others, handling the original records and transcribing from them the desired data. In this way, elaborate data on all state fees and taxes were obtained. In addition, the local tax situation -- county and municipal fees, and personal property taxation -- was covered by means of questionnaires to the proper authorities.

All reports were sent to Washington for analysis and compilation, and subjected to careful checking.

The inquiry was confined solely to the calendar or fiscal year 1932, and the following comments accordingly apply to that period only.

#### Diversified Methods of Taxation

Preliminary analysis of the reports which were submitted further emphasized a fact already known -- that there is a great diversity in the methods used by the States in taxing motor vehicles. A few examples will illustrate the complexity of the situation.

Of the 49 jurisdictions concerned, 33 States and the District of Columbia registered trucks and trailers and semi-trailers according to manufacturers rated capacity, or on a similar basis, such as pay load or declared capacity. In the majority of these States the basis of taxation is also rated capacity, the rate increasing with the tonnage. In a few States, however, there are exceptions. Thus, in Massachusetts, North

Carolina and Florida, although the trucks and trailers are registered by rated capacity, they are taxed on the basis of gross weight. In Massachusetts the rate for trucks is \$1.50 per 1000 pounds; on trailers it is 50 cents per 1000 pounds. In North Carolina the rate on both trucks and trailers varies from 55 cents to two dollars per hundred-weight, with higher rates on contract and common carriers. In Maryland motor vehicles are taxed on the basis of engine horsepower.

In six states -- Arizona, California, Michigan, New York, Ohio, and Oregon -- the basis of registration and taxation is the net or unladen weight of the vehicle. In 8 states -- Delaware, Illinois, New Hampshire, New Jersey, Pennsylvania, Rhode Island, Vermont and Wisconsin -- the gross or loaded weight of the vehicle is the basis used. South Dakota taxes vehicles on the basis of the chassis weight.

It will be observed that, although the great majority of the states classify trucks and trailers by capacity, the most populous states, with a large percentage of the total vehicles, use either the net or the gross weight classification.

Furthermore, in nearly all states some distinction is recognized between privately owned and operated vehicles and vehicles used for hire and as common or public carriers, and the latter class is assessed in excess of the private vehicle. This distinction is usually made between private and school busses and public carrier busses and in about half the states between private trucks and trucks operating for hire. In a smaller number of cases for hire trucks were separated into contract and common carrier trucks, common carriers paying more than contract. The additional fees assessed were in the form of excess registration fees; percent of receipts taxes; ton-mile, capacity-mile or passenger-mile taxes;

or franchise fees.

In many states, distinction is made between pneumatic-tired and solid-tired vehicles, the latter paying higher fees.

### Establishing Statistical Bases for Comparison

In order to present a clear picture of the amounts of motor vehicle taxes contributed by vehicles of various sizes, it was necessary to adopt a common basis of classification. In the case of trucks, tractor trucks, and trailers it was decided to convert all reported figures given in terms of net, gross, or chassis weight into equivalent rated capacity. From a study of published lists giving these weight relations for specific makes and models of vehicles, and also of data furnished by representatives of the motor vehicle industry, conversion tables were prepared which give approximate or average values of rated capacity corresponding to given values of net, gross, or chassis weight. With the aid of these tables the desired conversions were made.

A scheme of classification was adopted which divides all trucks, tractor trucks, and semi-trailers into the following capacity groups:

1. --  $1\frac{1}{2}$  tons and less.
2. -- Over  $1\frac{1}{2}$  tons, and less than 3 tons.
3. -- 3 tons and less than 5 tons.
4. -- 5 tons.
5. -- Over 5 tons.

Methods of approximation were devised for making this classification in the case of States for which the data could not be written down

directly in this form.

Busses were classified on the basis of seating capacity; and factors were developed for converting net or gross weight into seating capacity.

In order to determine approximately the amounts contributed in gasoline taxes by the different classes of vehicles, and by the different capacity groups in each class, a calculation was made based on certain assumptions as to annual mileage and rate of gasoline consumption. In the case of passenger cars the assumptions were an average mileage of 7000 miles per year and a consumption rate of 14 miles per gallon. In the case of other vehicles an approximate relation between gross weight and gasoline consumption was used. Privately owned trucks were assumed to travel 10,000 miles per year; and greater mileages were assumed for contract and common carrier trucks, tractor-trucks, taxicabs, and public carrier buses, because of the nature of their operations. In the case of each state the total computed gallonage was adjusted to equal the net gallonage reported by the state for the year 1932.

#### National Totals and Averages

In obtaining totals and averages for the entire country the registration fees and gasoline taxes paid by motorcycles were excluded. So also were the nominal payments made in some states by publicly owned vehicles.

The total amount paid in regular registration fees in 48 states and the District of Columbia was approximately \$295,840,000. The total payments of gasoline taxes were \$512,480,000.

The distribution of the payments of registration fees and gasoline taxes was as follows:

Passenger cars (including taxicabs and other commercially used automobiles), which constituted 85.0 percent of the total vehicles registered, paid 73.7 percent of the registration fees and 74.2 percent of the gasoline taxes.

Trucks and tractor trucks, which included 13.1 percent of the total vehicles, paid 24.0 percent of the registration fees and 24.6 percent of the gasoline taxes.

Trailers and semi-trailers, comprising 1.7 percent of all vehicles, paid 1.2 percent of the registration fees.

Busses, (including privately owned school busses, other private busses, sightseeing and other contract busses, and public carriers) made up 0.2 percent of the total vehicles registered, and paid 1.1 percent of the regular registration fees and 1.2 percent of the gasoline taxes.

The average per-vehicle payments of registration fees were as follows:

By passenger cars - - - - -	\$10.39
By trucks and tractor trucks	\$22.02
By trailers - - - - -	\$ 8.40
By busses - - - - -	\$63.65

The average per vehicle payments of gasoline taxes were as follows:

By passenger cars	\$ 18.10
By trucks and tractor trucks	39.10
By busses	119.79

In many states vehicles used commercially, such as common and contract carrier trucks and contract and public carrier busses, pay special taxes in addition to the regular registration. In some states the surtax takes the form of increased registration fees for these classes of vehicle. Others impose ton-mile, passenger-mile or mileage taxes, gross receipts taxes, or franchise or privilege taxes.

Contract carrier trucks were listed as such separately from other classes of vehicle in 21 states. The total number was 61,281. The regular registration fees paid by these vehicles amounted to \$1,633,000 or \$26.65 per vehicle. In addition there were 1,295 contract carrier trucks in 3 states on which special fees were paid, but whose regular registration fees were not segregated from those of private trucks.

The special fees paid by contract carrier trucks included the following items:

Ton-mile or mileage taxes	\$160,650
Franchise fees or privilege taxes	186,700
Excess registration fees	<u>358,500</u>
Total	\$705,850
Per vehicle	\$ 11.28

4,615 contract carrier trailers listed separately paid in regular registration fees \$151,800 and in special taxes \$95,350.

The total number of common carrier trucks listed separately was 18,812, 27 states being represented. The regular registration fees paid by these trucks were \$826,100 or \$43.90 per vehicle. There were in addition 5,376 trucks in 4 states which paid special fees, but on which the regular registration payments could not be segregated.

The special fees paid by contract carrier trucks included the following items:

Ton-mile or mileage taxes	\$ 371,500
Percent of gross receipts taxes	141,800
Franchise fees or privilege taxes	343,000
Excess registration fees	<u>234,400</u>
Total	\$ 1,090,700
Per vehicle	45.10

3,242 common carrier trailers listed separately paid in regular registration fees \$171,250 and in special taxes \$162,550.

A total of 30,164 public carrier busses in 42 states were listed separately and paid regular registration fees of \$2,520,500, or \$83.60 per vehicle. These busses also paid special fees, as follows:

Mileage or passenger-mile taxes	\$681,400
Percent of receipts taxes	159,850
Franchise fees or privilege taxes	184,750
Miscellaneous fees	<u>165,800</u>
Total	\$ 1,191,800
Per vehicle	39.50

#### Wide Range in Rates of Taxation

All states assessed gasoline taxes uniformly based on a charge per gallon of fuel. However, at the end of 1932 this charge or rate



per gallon varied from two cents in Connecticut, Missouri, Rhode Island and the District of Columbia to seven cents in Florida and Tennessee. Twelve states charged three cents per gallon, 17 states four cents, 8 five cents, and in six states the rate was six cents per gallon.

As for passenger car registration fees, the rates charged varied from a flat fee of \$1.00 per vehicle in the District of Columbia to the complicated and high rate of  $27\frac{1}{2}$  cents per horsepower and 55 cents per hundred pounds gross weight in Arkansas which resulted in an average payment for passenger cars of more than \$18.00. In this state where the gasoline tax rate was six cents per gallon the average yearly payment per passenger car in registration fees and gasoline taxes was approximately \$50. To this high average payment may be compared the average payment per passenger car of \$19 in California, and \$22 in Colorado. As examples of states in which the average payment per passenger car approximated the average for all passenger cars in the United States, there may be cited New York with an average payment of \$29 and Illinois with \$26.

However, there was very little uniformity in the payments on the various sizes of trucks, or in the classification of and the fees assessed upon contract and common carriers. To illustrate the range in tax rates for privately owned and operated trucks, Arkansas assessed a registration fee based on capacity, which varied from \$17.50 for  $1\frac{1}{2}$  ton or less to \$400.00 for capacities of 5 to 6 tons; in New York the rate was a \$12.00 flat fee for trucks up to 1800 pounds net weight, and 80 cents per 100 pounds net weight for trucks weighing 1800 pounds or over; while in Missouri the rate was \$10.50 for trucks of less than  $1\frac{1}{2}$  ton capacity and only \$36.00 for trucks of 7 tons capacity. These rates yielded the

following average registration payments per truck:-

<u>Trucks of:</u>	<u>Arkansas</u>	<u>New York</u>	<u>Missouri</u>
1½ tons or less	\$ 23.11	\$ 21.26	\$ 9.50
Over 1½ to 2½ tons, inclusive	58.59	42.40	16.44
3 to 5 tons	116.99	69.66	17.04
5 tons	300.00	84.52	26.19
Over 5 tons	100.00 <u>1/</u>	106.87	34.73
Average of all trucks	24.45	32.42	10.28

1/ Paid by one truck and undoubtedly only a part-year registration.  
Rate for this capacity \$400.00)

It is interesting to note that in spite of the fact that the average payment in Arkansas was higher than that in New York in every capacity group, the tax in New York yielded a higher average payment for all trucks than that in Arkansas. Only 3% of the trucks in Arkansas are over 1½ tons, and only two trucks out of a total of 21,832 are of 5 tons capacity or more. Ninety-seven percent pay only \$23.11 on the average. In New York only 68.5% are of 1½ ton capacity or less, while 6% are of 5 tons capacity or more. While it is apparent that the comparison is made between a predominantly industrial and a predominantly rural State, nevertheless it would appear that the high tax in Arkansas may be effective to some extent in discouraging the use of the heavier trucks.

As an example of the variation in fees of private, contract and common carrier trucks it is interesting to compare Iowa, North Carolina and Missouri. In Iowa the registration fee is based on capacity for all classes and varies from \$15.00 for 1/2 ton truck to \$450 for a 9 ton truck. Contract carrier trucks are charged an annual franchise fee of \$5.00 in addition, while common carrier trucks pay a ton-mile tax of one-fourth cent per ton-mile.

In North Carolina all trucks were assessed a registration fee based on gross weight. The rate per 100 pounds increased for the heavier trucks and was progressively higher for the contract and common carrier trucks. Common carrier trucks were subject to an additional tax of 6% of gross receipts if and when and in such amounts as this exceeded the original registration payment.

In Missouri contract trucks were assessed the same rates for registration as private trucks, based on carrying capacity, and paid no additional fees. Common carrier trucks, in addition to the capacity registration fee, paid an excess registration fee ranging from \$25 for a truck of  $1\frac{1}{2}$  tons to \$500 for a truck over 9 tons.

The average payment per truck including all fees except gasoline taxes in these three states were as follows:

<u>Class of Truck</u>	<u>Iowa</u>	<u>North Carolina</u>	<u>Missouri</u>
Privately owned and operated	\$ 20.69	\$ 20.25	\$ 10.28
Contract Carrier	58.00	63.65	15.26
Common Carrier	218.79	84.95	61.94

As the numbers of school and private busses and of contract busses form so small a portion of total busses, a discussion of the variation in their rates is hardly significant. For public-carrier busses, however, the tax rates and average payments per bus in Iowa, South Carolina, and New Jersey show interesting variations.

Public carrier busses in Iowa pay a registration fee on the basis of 1% of value plus 40 cents per 100 pounds list weight and in addition a tax of one-fourth cent per ton-mile. The State Motor Vehicle Department annually fixes the value of the various busses and the list weight. The ton-mile tax is based on the passenger capacity multiplied by 150 pounds, plus the weight of the vehicle.

South Carolina assesses no registration fee on public carrier busses but levies a tax of 1/50 cent per passenger-mile for busses of 13,000 pounds or less (including carrying capacity) and of 1/40 cent per passenger-mile for busses over 13,000 pounds.

New Jersey assesses a registration fee of \$10.00 per vehicle plus \$1.00 for each passenger up to thirty and \$2.00 for each passenger over thirty.

These various rates yield average payments as follows:-

<u>Public-carrier busses</u>	<u>Iowa</u>	<u>South Carolina</u>	<u>New Jersey</u>
Up to 7 pass. incl.	\$ 113.69	No segregation	\$17.58
8 to 20	512.86	" "	25.72
Over 20 pass.	1,096.55	" "	61.82
Average	837.33	\$ 272.60	57.80

The average payment for all public carrier busses ranges from \$837 in Iowa, to \$58 in New Jersey. The average payment of \$273 in

South Carolina is representative of that in a number of States.

The variation in the relative distribution of registration fees and gasoline taxes among the several types of vehicles in the different States is illustrated <sup>by the following examples comparing</sup> in the following table which shows the percentage of total vehicles registered in each class and the corresponding percentage of total registration fees and gasoline taxes paid by each class for the States of Missouri, New York, and Arizona:-

<u>Type of Vehicle</u>	<u>Missouri</u>		<u>New York</u>		<u>Arizona</u>	
	<u>% of Total Vehicles</u>	<u>% of Total Taxes</u>	<u>% of Total Vehicles</u>	<u>% of Total Taxes</u>	<u>% of Total Vehicles</u>	<u>% of Total Taxes</u>
Passenger cars & Taxicabs	\$ 84.95	\$ 81.56	\$ 85.61	\$ 72.50	\$ 82.63	\$ 67.05
Trucks	13.64	17.97	13.51	25.78	15.17	30.21
Trailers	1.38	0.18	0.61	0.26	1.92	0.67
Busses	<u>0.03</u>	<u>0.29</u>	<u>0.27</u>	<u>1.46</u>	<u>0.28</u>	<u>2.07</u>
	100.00	100.00	100.00	100.00	100.00	100.00

Missouri shows an unusually even distribution of taxes among the several types of vehicles in proportion of their numbers, while Arizona exemplifies a very uneven distribution. In Missouri, passenger cars and taxicabs representing 85% of the vehicles registered pay 82% of the total registration fees and gasoline taxes, while in Arizona where passenger cars and taxicabs are nearly as large a proportion of vehicles registered as in Missouri (83%) they pay only 67% of the taxes. Trucks in Missouri are about 14% of total vehicles but pay 18% of the taxes, while in Arizona the corresponding percentages are 15% and 30%. New York represents a distribution of vehicles and taxation which is fairly typical.

passenger cars and taxicabs comprising 86% of the vehicles and paying 72% of the taxes, while trucks are 13% of the vehicles and pay 26% of the total registration and gasoline taxes. It will be noted that these comparisons are made for registration fees and gasoline taxes only because these are the only taxes which are paid by all classes of vehicles and thus establish a uniform basis of comparison.

### Local Taxation

Taxation of motor vehicles by local authorities -- counties, municipalities, and lesser jurisdictions -- has been an almost unexplored field. The intricacies in forms and methods of taxation presented by 48 states and the District of Columbia are magnified manyfold when the inquiry is carried down into the subordinate taxing jurisdictions, numbering many thousands. The present investigation, therefore, may be regarded as the first serious attempt to learn something about the local phases of motor vehicle taxation; and its results, while not entirely complete, are indicative of considerable amounts paid into local general tax funds by motor vehicle owners.

The incomplete totals compiled to date, which will doubtless be added to as additional returns from questionnaires come in, are as follows:

County taxes on motor vehicles .....	\$ 2,116,796.
Municipal taxes on motor vehicles .....	13,324,230.
Personal property taxes on motor vehicles (State, County and other)(est.)	<u>35,000,000.</u>
Total.....	\$ 50,441,026.

It would appear that in only eight states do the counties impose taxes (other than personal property taxes) upon motor

vehicles. These states are Alabama, Arizona, Georgia, Louisiana, Mississippi, Nevada, Tennessee, and Wyoming. The greater part of these county taxes is composed of gasoline taxes in the states of Alabama, Georgia, and Louisiana.

Municipal fees and taxes on motor vehicles are much more prevalent than county fees and taxes, being found in 37 states. The chief types are franchise fees on taxis and bus lines, city registration fees or operators licenses, and in a few cases gasoline taxes. It is not yet possible to say what percentage of the probable total of such taxes is represented by the \$13,300,000 thus far compiled, but it is certainly a fraction only.

Personal property taxes are widespread, motor vehicles being assessed for tax purposes in many states. This phase of the problem is greatly complicated by the large numbers of taxing jurisdictions which may place imposts upon personal property. They include the state, the county, the municipality, and the many lesser jurisdictions such as school districts, road districts, sanitary districts, and the like. The difficulty of obtaining complete figures on this subject, in the absence of centralized records in each state, is manifest. On the basis of figures thus far reported an estimate of \$35,000,000 for the entire country seems reasonable."

### Federal Taxation

A new element entered the motor vehicle taxation field in 1932 in the form of the United States Government itself, with manufacturers' excise taxes levied upon gasoline, lubricating oils, tires, and inner tubes, automobiles and motorcycles, auto parts and accessories, and trucks. Administration of these new taxes began in July 1932 and the total collected during the second half of the year was \$84,293,846 - this sum representing actual collections, which were considerably less than the tax-earnings during that period due to lag in collections. The true earnings of these taxes in six months of 1932 were probably in the neighborhood of \$100,000,000. All of them were paid eventually by motor vehicle owners, with the exception of perhaps 5 percent of the gasoline tax and 40 percent of the lubricating oil tax, these margins representing non-motor vehicle uses.

### The Total Bill

This survey has definitely revealed that the total amount paid by motor vehicle users in 1932 in the form of fees and taxes incident to the operation of their vehicles was at least \$990,000,000. It is certain that this figure is conservative and that the true total considerably exceeds one billion dollars. It is to be noted also that this figure omits certain charges often included in governmental receipts from motor vehicles, such as automobile dealers' licenses, traffic court fines and the like.

The following table lists the principal items which made up the total of motor vehicle tax payments in the United States in 1932:



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A State.

Registration Fees	\$ 293,500,000
Special taxes on receipts, mileage, etc.	5,500,000
Motorcycle fees and taxes	350,000
Operators' and chauffeurs' licenses	18,125,000
Certificates of title	4,800,000
Miscellaneous items	<u>4,500,000</u>
Total State fees and special taxes	326,775,000
Total State gasoline taxes	<u>513,000,000</u>
 A. Total all State fees and taxes	 839,775,000
B. Total County fees and taxes (incomplete)	1,850,000
C. Total Municipal fees and taxes (incomplete)	13,325,000
D. Total personal property taxes (estimated)	35,000,000
E. Total federal excise taxes (estimated)	<u>100,000,000</u>
 Grand Total all fees and taxes	 \$ 989,950,000