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RETAIL DISTRIBUTION

(TRADE SERIES)

AUTOMOBILE TRADES

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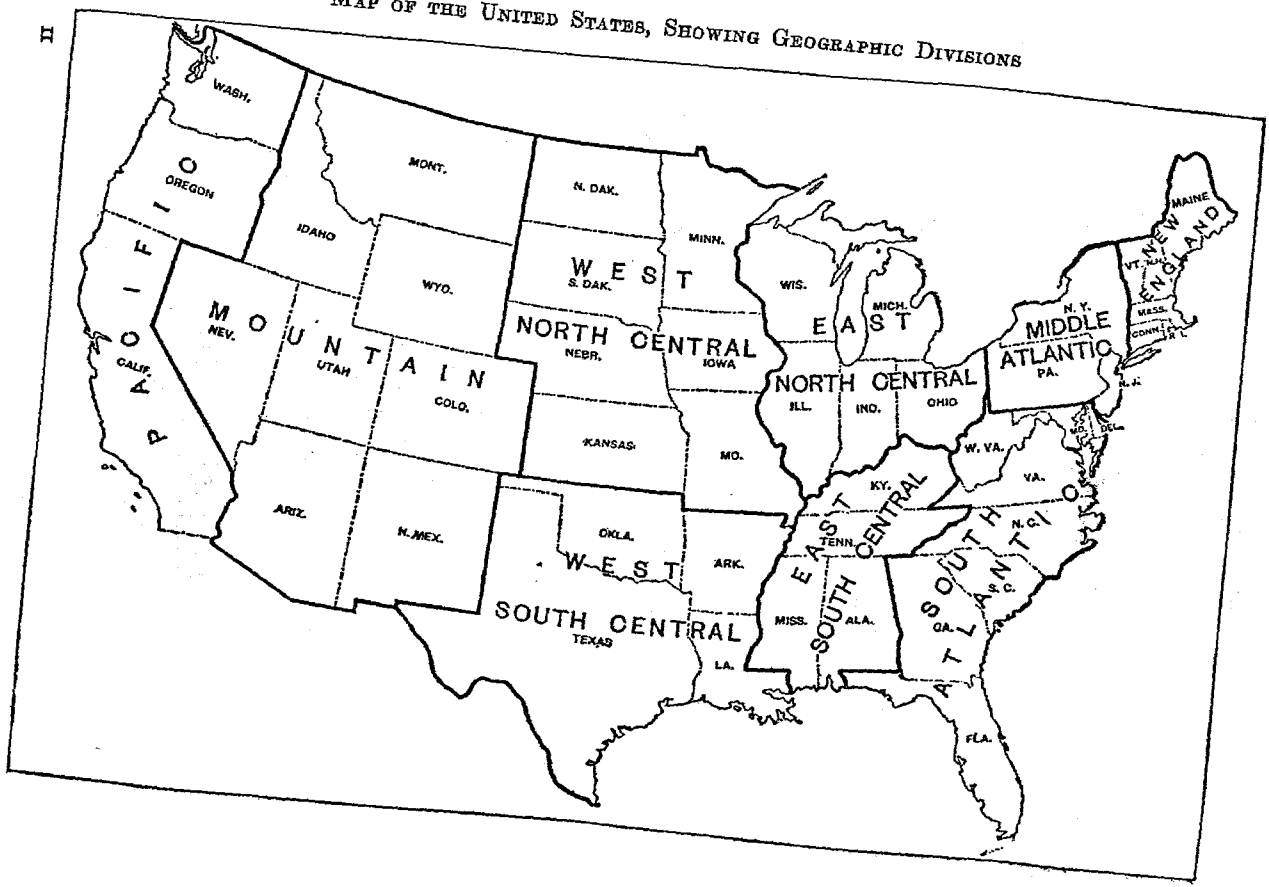
MAP OF THE UNITED STATES, SHOWING GEOGRAPHIC DIVISIONS



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AUTOMOBILE TRADES

By Charles F. Beach

INTRODUCTION

The term "Automobile Trades" is used to describe the various kinds of establishments engaged in supplying the motoring public with automobiles and other motor vehicles; with replacement parts and accessories; with satisfactory facilities for repairs and other service; and with necessary fuel and lubrication.

The agencies which perform these various functions can be segregated roughly into three separate major groups. The first is composed of the motor-vehicle dealers; the second, dealers in accessories, tires, and batteries, including repairs and service; and the third, filling stations. Each of these three groups performs some of the functions of the others. Motor-vehicle dealers sell parts and accessories and also provide repairs and service. Most of them provide complete lubrication facilities and many sell gasoline. The accessory, tire, and battery shops furnish minor repairs and make installations in addition to selling merchandise, and frequently handle gasoline and oil. Many filling stations sell tires, batteries, and other parts and accessories for automobiles as well as minor services such as tire repairs, etc., and some garages sell new and used cars.

Scope of this report.—This presentation includes much of the operating and expense data reported by each of the three groups engaged in supplying the needs of the motoring public. Because of the overlapping of their activities no one of these groups can be omitted. Consequently separate chapters will be devoted to each.

The tables are, for the most part, limited to United States totals and averages, supplemented by necessary State compilations, so essential for purposes of comparison. Discussions, also, are limited to broad general conclusions based upon these national and State figures. Similar data may be compiled, for any desired area, from the various State reports,[1] and such State and city compilations should be used whenever possible.

National averages have a value as general business barometers even though they may not apply as local barometers. They should not be applied to individual communities without first being checked against the figures for the area or areas under consideration.

Except when otherwise indicated, all data cover store operations for the calendar year 1929, the last nearly normal business year. It is particularly fortunate that complete operating and expense data are available for 1929 because it provides a basis for expense comparisons between that year and later years which have brought general reductions in dollar volume and expenses resulting from unemployment, reduced prices, and from greatly reduced buying activities of the public.

Chapter I contains a brief outline of our national distribution system as applied to the automotive industry and a series of definitions describing how the establishments were classified. Chapter II contains an analysis of the activities of motor-car dealers. It includes, among other data, complete expense information as well as much of the available data on credits. It also includes a discussion of establishments and sales by size of city and by size of business. Motor-vehicle chains are also discussed.

Because of the marked similarity, both in kinds of merchandise sold, the services performed, and the methods of operation between motor-vehicle *dealers* (retailers) and those *distributors* (wholesalers) engaged in selling at retail as well as at wholesale, this chapter also includes comparable data for these wholesalers which perform both functions. These wholesaler-retailers of automobiles are discussed in some detail in connection with the motor-vehicle dealers operating on a retail basis only.

Chapter III deals primarily with the retail stores and shops selling accessories, tires, and batteries. It also includes the garages and repair shops. Data similar to those described for chapter II are included for these dealers in parts and

[1] Copies of these retail and wholesale State reports may be secured from the Superintendent of Documents, Government Printing Office, Washington, D.C. A nominal charge, ranging from 5 cents to 35 cents, is made for each copy, the price depending upon the size of the report.

accessories. This chapter also contains a brief analysis of expense information in connection with other nonautomotive kinds of stores which are successfully competing with these accessory stores, and tire and battery shops for the sale of this merchandise.

Chapter IV is confined to an explanation of filling stations and other retailers selling gasoline and oil. Chapter V is devoted to a detailed discussion of the commodities sold by each of the three major groups of automotive establishments. It includes commodity data furnished by the wholesaler-retailer automobile dealers as well as for retailers only.

This report, which is prepared from data secured in the first Nation-wide census of distribution is the sixth of a series of special retail-trade studies. It was prepared under the general supervision of Robert J. McFall, chief statistician for distribution, and John Guernsey, in charge of retail distribution.

CHAPTER I.—AUTOMOTIVE PRODUCTS—BY WHOM SOLD

The term "Automotive Group" which, in all Census of Distribution reports, has been employed to describe the extensive and rather complicated structure developed for the purpose of disposing of the products of the automobile manufacturers and for the purpose of supplying the subsequent needs of the motoring public, is the second largest of the nations several distributing groups (the largest, both in number of stores and annual sales, being the food group). The following brief outline, covering the 10 trade groups into which all retail establishments were classified, provides the basis for a comparison of the relative importance of each.

ESTABLISHMENTS AND SALES BY KIND-OF-BUSINESS GROUPS

GROUP CLASSIFICATION	Establishments	Sales
United States total	1,543,158	$49,114,653,269
Food group	481,891	10,837,421,585
General stores	104,089	2,570,744,006
General merchandise group	54,636	6,444,100,907
Automotive group	257,685	9,615,810,098
Apparel group	114,296	4,240,892,577
Furniture and household group	58,941	2,754,720,507
Restaurants and eating places	134,203	2,124,890,455
Lumber and building group	52,814	2,621,036,720
Other retail stores	269,448	7,756,941,273
Second hand stores	15,065	148,068,141

The automotive group includes many different kinds of establishments and their functions vary. Some, like many of the filling stations, perform only the one function, that of supplying gasoline and complete lubrication, while others like the motor-car dealers sell automobiles, parts, and accessories, and in addition provide complete facilities for repairs and service. The battery and ignition shops limit their activities almost exclusively to the sale and repair of electrical equipment for automobiles while the garages and repair shops make both mechanical and electrical repairs, supply necessary replacement parts, and make other installations. These functional limitations, together with location of establishments and the speed with which the sale or service is performed have had a tendency to develop in motorists the habit of patronizing different kinds of establishments for different kinds of merchandise and service.

A special "automobile business" schedule was used for securing the operating and expense information and the commodity sales data of dealers in automotive products in the cities of more than 10,000 population. This schedule, which was planned in collaboration with officials of the National Automobile Chamber of Commerce and other interested groups, was designed to produce the maximum amount of pertinent data consistent with the necessity for limiting inquiries to essential basic information. This automobile schedule, which was used in the cities of more than 10,000 population whenever possible and occasionally for certain large establishments located in smaller places, was used for both wholesalers and retailers.

Following is an abbreviated facsimile of this "automobile business" schedule. Only that portion of the inquiry which deals with the identifying information, and is the same on all schedules, has been omitted.

FORM 22.—AUTOMOBILE BUSINESS—CENSUS OF DISTRIBUTION

4. Number of Paid Employees for Specified Months, and Total Salaries and Wages Paid:
(Report number of paid employees as of the fifteenth day, or nearest pay-roll date, for each month. Do not include proprietors and firm members or their salaries)

	April	July	October	December	Present time *Males*	Present time *Females*
a. Total number of employees						
b. Total salaries and wages paid to all employees for the year					$	

	April	July	October	December	Present time *Males*	Present time *Females*
c. Number of part-time employees* (included above)						

d. Salaries and wages paid (included above) to part-time employees for the year* $

*NOTE.—Employees who work only part of the normal working day, and those who work only part of the normal working week, should be considered part-time employees.

5. Rent, if any, paid for premises during the year $

6. Interest, if any, paid during the year for money borrowed for this business $

7. All other expenses paid during the year, not including wages, salaries, commissions, rent, and interest. (*Do not include cost of goods purchased for resale*) $

8. Stocks on hand for sale:
Value of merchandise at cost or replacement value on hand Dec. 31, 1929, or nearest inventory date $

9. Receipts *from* sales and service (Receipts from repair and service operations should be reported under no. 12, and should also be included in this inquiry):
a. Gross receipts (include receipts from storage) $
b. Returns, repossessions, and allowances $
c. Total net receipts (difference between *a* and *b*) $

10. Sales (net) by commodities:

Commodities	Sales to ultimate consumers: Number	Sales to ultimate consumers: Sales	Sales to other dealers: Number	Sales to other dealers: Sales
1. Automobiles, trucks, buses, tractors, and accessories:				
a. Passenger automobiles, new		$		$
b. Passenger automobiles, used		$		$
c. Buses		$		$
d. Commercial cars and trucks, new		$		$
e. Commercial cars and trucks, used		$		$
f. Tractors, farm and other		$		$
g. Special-purpose vehicles: (Fire apparatus, ambulances, taxicabs, etc.)		$		$
h. Automotive parts and accessories (except tires, tubes, and storage batteries)	x x x x	$	x x x x	$
i. Tires and tubes	x x x x	$	x x x x	$

	Total net sales	
2. Batteries, storage		$
3. Gasoline, lubricating oils, and greases, total (sum of *a* and *b*)		$
a. Gasoline	$	
b. Lubricating oils and greases	$	

	Total net sales	
4. Radios and radio equipment, total (sum of *a* and *b*) (Report storage batteries under no. 2, and not here.)		$
a. Radio sets	$	
b. Radio parts, accessories, and equipment	$	
5. Miscellaneous merchandise items (including confectionery, soft drinks, cigars, etc.)		$
6. Total sales, all commodities		$

11. Credit sales (include sales value also in no. 10):

	Number	Total sales value including down payments
1. Passenger cars sold on installments:		
a. Carried on your own books		$
b. Not carried on your own books		$
2. Other auto vehicles sold on installments:		
a. Carried on your own books		$
b. Not carried on your own books		$
3. Credit sales not on installment plan (cars and other merchandise)	x x x x x x x	$

12. Repair and service operations (Include receipts from all classes of repair work, and other service operations. Do not include receipts from storage):
a. Gross receipts from repairs and services for automobiles and accessories, including batteries, tires, tops, etc. Do not include value of parts and accessories installed. (Include also in no. 9) $
b. Number of employees at the present time (including foreman) engaged chiefly in the repair and servicing of automobiles and accessories. (Include also in no. 4) $

Form 14, which was used for all establishments (both wholesale and retail) located in places of less than 10,000 population does not contain the commodity sales breakdown. Nor does it include as elaborate a credit breakdown. An abbreviated facisimile of the form 14 is also included.

FORM 14

5. Number of paid employees for specified months, and total salaries and wages paid:
(Report number of paid employees as of the fifteenth day, or nearest pay-roll date, for each month. Do not include proprietors and firm members or their salaries)

	April	July	October	December	Present time *Males*	Present time *Females*
a. Total number of employees						
b. Total salaries and wages paid to all employees for the year					$	

	April	July	October	December	Present time *Males*	Present time *Females*
c. Number of part-time employees* (include above)						
d. Salaries and wages paid (included above) to part-time employees for the year*					$	

* NOTE.—Employees who work only part of the normal working day, and those who work only part of the normal working week, should be considered part-time employees.

6. Rent, if any, paid for premises during the year ..... $.....

7. Interest, if any paid during the year for money borrowed for this business ..... $.....

8. All other expenses paid during the year, not including wages, salaries, commissions, rent, and interest. (Do not include cost of goods purchased for resale) ..... $.....

9. Stocks on hand for sale:
   a. Value of merchandise at cost or replacement value on hand Dec. 31, 1929, or nearest inventory date ..... $.....

10. Sales of merchandise and products, and receipts from service operations:
(Gross sales less returned goods and allowances. Purchases of members through cooperatives should be included. Receipts from meals served by restaurants should be reported under no. 14, receipts from repair and service operations under no. 11, and receipts from sale of farm products where called for under no. 12 should also be included in this inquiry.)
   a. Net cash sales ..... $.....
   b. Net credit sales ..... $.....
   c. Total net sales (sum of *a* and *b*) ..... $.....
   d. If any of this merchandise was manufactured in this establishment, give selling value, f.o.b. plant, which should also be included in 10 *a*, *b*, and *c*, above ..... $.....
   e. Sales made by retailers to other retailers (to be also included above) ..... $.....

11. Repair and service operations. (Include receipts from all classes of repair work, and also revenues from barber shops, beauty parlors, and other service operations.)
   a. Gross receipts from repairs and services for automobiles and accessories, including batteries, tires, tops, etc. (Do not include value of parts and accessories installed. Include in no. 10) ..... $.....
   b. Gross receipts from other repair and service operations. (Include in no. 10) ..... $.....
   c. Number of employees (including foreman) engaged chiefly in the repair and servicing of automobiles and accessories. (Include in no. 5) .....

12. Farm products bought or taken in from farmers: (To be included in no. 10.)
   a. Total purchase value of farm products bought for others on salary or commission basis ..... $.....
   b. Sales to wholesalers, retailers, and manufacturers, and consignments to commission merchants. Total sales value ..... $.....
   c. Name principal commodities thus handled, in relative order of importance, using the following classification (milk and cream, butter, eggs, poultry, cattle, swine, sheep, etc., wheat, corn, etc., hay, cotton, tobacco, hides, wool, potatoes, beans, fruits, and vegetables, furs—other products, indicate which).

(1) ..... (3) ..... (5) .....
(2) ..... (4) ..... (6) .....

13. Number of meat animals slaughtered during the year:
(*Do not include any farm slaughter*)
   a. Slaughtering done on the premises of this concern, whether retailer, wholesaler, custom, or public slaughterhouse, or abattoir. (Include slaughtering done on other than main premises of this concern, e.g., on outskirts of town. Retailers and wholesalers should report slaughtering done on other than their own premises in item 13-*b* and not here.)
      1. Calves ..... 2. Other cattle ..... 3. Sheep and lambs .....
      4. Goats and kids ..... 5. Hogs and pigs ..... 6. Total .....
   b. Slaughtering done by or for this concern in slaughterhouses which are not their own premises.
      1. Calves ..... 2. Other cattle ..... 3. Sheep and lambs .....
      4. Goats and kids ..... 5. Hogs and pigs ..... 6. Total .....

14. Restaurant operations. (To be answered only by public restaurants. Not to be answered by boarding houses; not by clubs; school, store, or factory lunch rooms for pupils and employees; nor by dining cars, or dining rooms on boats; nor by soda fountains or refreshment stands; nor by hotels covering dining rooms operated by them.)
   a. Normal seating capacity—number of persons .....
   b. Receipts from sale of meals ..... $.....
(Report sales of confectionery, cigars, etc., in no. 10, and not here.)

Classifying schedules as wholesaler and retailer.—The census of distribution divides all dealers in automotive products and equipment into two groups; namely, wholesale and retail. This segregation was made by the Census Bureau strictly in accordance with the information reported by the establishments.

Three classes of schedules were obtained. First, there were concerns reporting that they sold exclusively at wholesale. These were classified in the wholesale census without question. Second were the concerns which reported selling only at retail. Such schedules were of course classified in the retail census. The third class consisted of concerns which reported sales at both wholesale and retail. The schedule, as planned, provided for a segregation of sales to indicate sales to ultimate consumers and sales to other dealers. This segregation provided the basis for classifying this third class of establishments. Reports showing that more than 50 percent of the sales were made to other dealers were classified as wholesale, and those showing more than 50 percent of the sales made to ultimate consumers were classified as retail.

The short form schedule which was used by the establishments located in places of less than 10,000 population contained one inquiry calling for information on the sales made to other retailers from which the 50 percent segregation could be consistently maintained.

On the basis of such a segregation the retail census reported a total of 257,685 dealers in automotive products with annual sales aggregating $9,615,810,098 in 1929. The wholesale census reported a total of 4,600 concerns handling automotive products with total annual sales of $2,255,524,716, exclusive of dealers in petroleum products. These 4,600 establishments included all types of wholesalers and obviously involves considerable duplication, which will be discussed more in detail in chapter II.

The two tables shown below, the first referring to wholesale trade and the second to retail dealers, present an outline of the two automotive groups by major kinds of business. These two business groups as shown agree with the definitions of kinds of business included also in this chapter.

WHOLESALE TRADE—NUMBER OF ESTABLISHMENTS AND SALES

[Shown by kinds of business for the automotive group]

KIND OF BUSINESS	Number of establishments	Total sales [1]
Automotive group total	4,600	$2,255,524,716
Automobiles and other motor vehicles	743	1,226,346,751
Automotive equipment	2,153	489,797,309
Automobile parts (new and used)	1,049	152,777,249
Tires and tubes	655	386,603,407

[1] This table does not include the wholesaling of petroleum products which are included in the wholesale census under the group classification of "Petroleum and Petroleum Products." For detailed data on petroleum see the United States Summary of Wholesale Distribution and the various wholesale State reports. Copies may be secured from the Superintendent of Documents, Government Printing Office, Washington, D.C., at prices ranging from 5 to 25 cents each.

RETAIL DISTRIBUTION—NUMBER OF ESTABLISHMENTS AND SALES

[Shown by kinds of business for the automotive group] [1]

KIND OF BUSINESS	Number of establishments	Total sales
Automotive group total	257,685	$9,615,810,098
Motor-vehicle dealers (new and used)	43,894	6,294,148,693
Automobile dealers with farm implements and machinery	1,407	113,363,249
Accessory, tire, and battery dealers	22,313	599,295,161
Filling stations	121,513	1,787,423,097
Garages and repair shops	66,793	785,009,636
Motorcycles, bicycles, and supplies	1,432	20,244,450
Other automotive establishments	333	10,334,812

[1] This table does not include automobile junk yards, which are included in the wholesale census, nor dealers in second-hand tires, parts, and accessories, which are included in the retail census under the second-hand stores group.

Kinds of business defined.—The automotive group of the wholesale census contains 10 separate kind-of-business classifications. These different classifications are adequately described by name and need no more specific explanation of what is included in each, than is contained in the following brief outline.

AUTOMOTIVE GROUP—WHOLESALE TRADE

1. *Automobiles and other motor vehicles:*
   (*a*) Automobiles and other motor vehicles (general line)
   (*b*) Automobiles (new and used)
   (*c*) Automobiles (used)
   (*d*) Trucks and tractors
2. *Automotive equipment:*
   (*a*) Automobile accessories
   (*b*) Automotive equipment (general line)
   (*c*) Automotive equipment (specialty lines)
3. *Automobile parts (new and used):*
   (*a*) Automobile parts (new) such as pistons, pumps, gears, shafts, axles, springs, etc.
   (*b*) Automobile parts (used)
4. *Tires and tubes*

No attempt has been made to segregate from the petroleum and petroleum products group, the bulk tank stations, tank wagons, and other wholesale distributors of gasoline, lubricating oils, and greases.

There are 18 different kind-of-business classifications in the automotive group of retail establishments, in each of which, the primary object is the sale of some automotive product or the performance of some service incidental thereto. To insure a complete understanding of the establishments included in this group and to provide for uniform use, definitions, outlining the kinds included in each classification, have been prepared. In all reports, individual classifications have been used wherever possible. However, in many instances it has been found necessary to combine a number of separate kinds of business to avoid disclosure of individual operations. It was therefore necessary, in order to insure the presentation of comparable statistics, to adopt a standard basis for making combinations. Definitions have been prepared in a manner which describes, first, the standard or condensed classifications, followed by a brief description of each of the different kinds of establishments included under the general heading. For purpose of clarity those definitions which apply to the retail establishments are included in this report, as follows:

AUTOMOTIVE GROUP—RETAIL

Automobile salesrooms (*New and trade in, but not used-car establishments*).—This classification describes retail dealers of new automobiles and commercial vehicles, and such used cars and trucks as have been traded in on new-car purchases. Stocks of replacement parts and accessories are carried and repair departments are maintained to take care of free new-car service, as well as subsequent repairs from which income is derived. Limited quantities of tires and batteries are carried, the sale of which is included. Large establishments often add to their income by utilizing unused floor space for storage. These sources of additional income are negligible in their effect on the total sales volume in this classification, which is predominantly the sale of new motor vehicles.

Used-car dealers.—This classification, when necessary to avoid disclosure, is sometimes included with *motor-vehicle dealers* (*new and trade in*). When this combination is made, the combined classification is referred to as *motor-vehicle dealers* (*new and used*). The *used-car dealer* classification is used only where the establishments sell used cars and trucks primarily. As a rule no stock of parts is carried, for the reason that a variety of makes of automobiles is handled. Frequently a limited stock of new tires, tubes, and batteries of the cheaper varieties is carried. A repair department is usually maintained to place the used cars in salable condition, and to service and repair the cars after sale. The receipts of the repair department have little effect on the total sales, which are primarily of used cars.

Automobile dealers with farm implements and machinery.—These establishments usually are found only in the smaller cities and towns and in rural communities. Large stocks are not maintained normally, most of the business being done on the agency basis. These establishments usually represent the manufacturer of some automobile truck or tractor, as well as the manufacturer of some pleasure car and may represent one or more manufacturers of farm implements and machinery. A limited stock of parts is uaually carried, as are tires and batteries. A department for repairing automobiles, farm implements, and machinery is maintained.

Accessory stores, tire and battery shops.—Three kinds of stores or shops are included under this classification. First there are the stores handling all kinds *of automobile accessories, tires, and batteries.* Usually no service department is maintained and only incidental installations are made. The articles purchased are normally installed by or at the expense of the purchaser. Secondly, there are the *battery shops* selling batteries as well as auto electrical parts and appliances and frequently tires and tubes. These shops maintain a service for repairing and rebuilding batteries and other electrical goods and also for charging batteries. The third class in this group is the *tire shops,* selling new and used tires and tubes and maintaining vulcanizing facilities for tire repairs. Tire shops are also rapidly becoming important distributors of batteries. It is not unusual to find any one of these three kinds of stores selling gasoline and lubricating oils and greases. Tire shops are often manufacturer-controlled, specializing in the products of one manufacturer.

Filling stations.—There are three kinds of filling stations. First, there is the station which sells gasoline and oil, maintaining grease pits or racks but selling no accessories or other merchandise. Second, there is the station which performs all of the functions of the first and, in addition, sells tires and accessories, often with emergency tire-repair service. The third variety of filling station performs all the functions of the first, may or may not sell tires and accessories and perform minor repairs, and, in addition, sells other merchandise, such as lunches and refreshments, candy, tobacco, or groceries. This classification also includes the superservice station, combining in one establishment a number of services to motorists.

Garages and repair shops (*repairs, gas and oil, etc.*).—First under this classification are *body, fender, and paint shops* engaged in the repair of automobile and truck bodies and fenders, and auto paint shops. These shops usually confine their services to body and fender work and the installation of new body parts where necessary and do not engage in the repair of mechanical parts of the vehicle. Occasionally some radiator repair work is engaged in. Paint shops usually confine themselves to the actual painting job. Next are the *repair garages,* incidentally selling gas, oil, and accessories in addition to making mechanical repairs and body repairs. Receipts from storage sometimes add to the income of these garages. Washing and lubrication service is frequently provided, but most of the income is from repairs, new parts, and fuel. The third kind of establishment is the *parking garage* and *parking lot.* In the case of parking garages, additional services such a washing, lubrication, and minor adjustments are often provided. Gas and oil are frequently sold. Parking lots generally confine themselves to parking with occasional sales of gas and oil. Because the lots are not under roof, washing and repairs are not practical in most instances and are not usually available. Parking garages and lots which sell nothing but service are not included in this census. *Radiator shops,* which sell radiators, winter fronts, and other radiator accessories, derive much of their income from radiator repairs. These shops frequently make repairs to damaged metal bodies and fenders as well as to radiators. They constitute the fourth kind of business included in this four-part classification.

Motorcycles, bicycles, and supplies.—Three kinds of shops are included under this classification. First, are the shops selling *motorcycles,* both new and trade in, and incidental parts and accessories. Second, are the shops selling *motorcycles and bicycles,* and their supplies. Parts and accessories are carried, and usually receipts from repairs represent a substantial part of the total income. The third kind of business and this general classification is the *bicycle shop,* handling bicycles and parts and accessories therefore. Repairs constitute a part of the business of bicycle shops. Occasionally some parts for motorcycles, such as lamps, tires, etc., are sold by these bicycles shops.

Other automotive establishments.—Under this heading are two kinds of business; those selling *aircraft* and accessories, and those selling *boats* (motor boats, yachts, canoes, etc.). These shops also sell supplies and equipment, and repairs.

Other definitions.—Complete definitions for all kinds of retail stores are shown in a special section of the United States Summary of Retail Distribution to which reference is particularly invited. This special section also includes definitions for the various different types of operation as well as an explanation of the various forms of organization under which the stores were operated.

Complete definitions for all kinds of wholesale establishments are contained in the United States Summary of Wholesale Distribution and also in a special report which can be secured upon request from the Bureau of the Census.

CHAPTER II.—AUTOMOBILES AND OTHER MOTOR VEHICLES

This chapter, dealing with two classes of establishments, both of which are primarily engaged in the sale of motor vehicles, is divided into two sections. Section 1 is devoted to a discussion of those concerns which were classified as wholesalers, while section 2 contains an analysis of those classified as retailers. Both classes perform functions which are essential parts of the process of transfering the cars and trucks from the manufacturers into the hands of the ultimate consumers. The functions of these two classes of establishments are so different, the one dealing with the consumers and the other selling primarily to retailers, that no significant comparisons can be made between them. However, both must receive their share of consideration in any study of the automobile business.

Section 1.—Wholesaler—Retailers

The wholesale census has presented data showing that in 1929 there was a total of 743 concerns engaged in wholesaling automobiles and other motor vehicles. From the same source it is ascertained that the aggregate sales of these 743 establishments amounted to $1,226,346,000 in the same year. The following brief table, which has been prepared from data published in the United States Summary of Wholesale Distribution contains, in addition to number of establishments and total sales, such operating data as number of employees, pay roll, total operating costs and stocks, for all automobile concerns classified as being primarily engaged in some form of wholesaling.

MOTOR-VEHICLE DEALERS PRIMARILY ENGAGED IN WHOLESALE TRADE

KINDS OF BUSINESS [1]	Number of establishments	Number of employees	Salaries and wages	Total operating expenses (including salaries and wages)	Sales	Stocks
Automobiles and other motor vehicles, total	743	31,595	$64,457,762	$126,871,687	$1,226,346,751	$87,360,195
Automobiles and other motor vehicles (general line)	134	4,964	11,699,800	22,490,965	159,663,301	13,474,588
Automobiles (new and used)	482	24,332	48,157,437	96,038,625	1,011,047,512	62,579,166
Automobiles (used)	33	104	210,045	512,230	4,561,305	264,819
Trucks and tractors	94	2,195	4,390,480	7,829,867	51,074,633	11,041,622

[1] These classifications do not correspond to the commodities sold. For sales by commodities see chapter V of this report and the United States Summary of Wholesale Distribution.

National totals and averages fail to take into consideration the many variations which are apparent from an examination of the individual State figures. The reasons for these variations, which appear not only in number of establishments and sales but also in operating expenses and stocks, are not easily identified. They apparently do not result from variations in population, from climatic conditions, or from other factors known to have a definite effect on the sales of retailers. The activities of wholesalers are not necessarily confined to one State but depend upon the sales policies of the respective manufacturers of motor vehicles and the sales territories alloted to these distributors. Sales totals are also influenced by the establishment, at strategic points, of manufacturers' sales branches, district and general sales offices, etc., and obviously give to those areas greater sales volume than the actual retail sales of these areas would warrant.

In order to provide for a satisfactory consideration of the total wholesale sales of automobiles in each of the respective States the following State table is included. This table includes all types of wholesale distributors.

WHOLESALE TRADE—AUTOMOBILES AND OTHER MOTOR VEHICLES

DIVISIONS AND STATES	Number of establishments	Net sales 1929	Total operating expenses (includes rent and pay roll)	Stocks, 1929
United States, total	743	$1,226,346,751	$126,871,687	$87,360,195
NEW ENGLAND	49	84,385,387	8,822,065	5,022,455
Maine	7	5,119,086	715,259	362,467
New Hampshire	2	564,261	88,129	59,197
Vermont	3	1,760,171	230,602	239,670
Massachusetts	23	65,619,742	6,211,803	3,242,760
Rhode Island	4	2,794,874	380,647	330,181
Connecticut	10	8,518,753	1,186,625	788,180
MIDDLE ATLANTIC	192	390,988,265	41,094,700	26,658,348
New York	94	233,924,069	24,242,732	16,456,898
New Jersey	19	27,117,770	3,231,983	1,468,775
Pennsylvania	79	129,946,426	13,619,985	8,742,675
EAST NORTH CENTRAL	157	319,188,124	31,059,585	22,921,769
Ohio	48	82,498,701	8,874,980	3,651,675
Indiana	15	22,690,173	2,411,445	1,748,570
Illinois	40	104,105,017	8,622,494	10,016,794
Michigan	30	80,312,981	8,462,726	5,431,421
Wisconsin	24	29,581,252	2,687,940	2,073,309
WEST NORTH CENTRAL	122	175,242,048	20,976,476	12,400,352
Minnesota	23	26,549,547	3,021,942	1,595,181
Iowa	29	23,295,637	2,768,377	2,641,523
Missouri	23	73,187,371	8,714,007	4,866,775
North Dakota	8	16,932,337	860,616	420,114
South Dakota	7	2,275,344	323,896	179,997
Nebraska	22	27,134,815	4,545,469	2,197,006
Kansas	10	5,866,997	742,169	499,756
SOUTH ATLANTIC	60	68,229,438	6,690,692	5,293,377
Delaware	1	324,810	61,188	32,705
Maryland	3	4,049,396	712,201	325,804
District of Columbia	8	27,775,607	1,292,247	942,196
Virginia	6	1,514,981	283,424	104,982
West Virginia	11	6,846,080	859,320	430,771
North Carolina	12	7,796,493	1,121,798	1,211,088
South Carolina	1	145,418	34,122	12,728
Georgia	10	12,261,192	1,217,755	966,837
Florida	8	7,515,461	1,108,637	1,257,266
EAST SOUTH CENTRAL	20	14,014,477	1,559,006	1,280,993
Kentucky	5	481,888	96,643	30,411
Tennessee	10	12,163,388	1,180,450	1,020,232
Alabama	3	872,404	199,258	167,350
Mississippi	2	496,737	82,655	54,000
WEST SOUTH CENTRAL	50	41,133,008	3,576,200	3,850,942
Arkansas	2	127,115	16,536	----------
Louisiana	9	5,336,965	888,371	426,247
Oklahoma	18	11,835,967	750,872	862,422
Texas	21	23,832,961	1,911,421	2,562,273
MOUNTAIN	31	28,332,919	2,700,500	1,972,121
Montana	5	2,313,812	271,652	124,021
Idaho	1	145,521	45,727	30,793
Wyoming	1	260,843	57,190	42,280
Colorado	12	13,158,207	1,552,628	1,157,697
New Mexico	4	799,153	82,488	65,971
Arizona	2	1,491,569	166,923	84,528
Utah	5	10,050,922	510,145	449,271
Nevada	1	112,892	13,747	8,060
PACIFIC	62	104,832,585	10,392,463	7,059,838
Washington	12	13,092,413	1,916,951	1,079,554
Oregon	7	6,410,639	499,068	444,383
California	43	85,329,533	7,976,444	6,435,901

The tables shown above involve some duplication in number of establishments, sales, and expenses, because of the necessity for including all types of distributors regardless of the functions performed or the duplication of activities. Also they include the straight wholesalers, which perform no retail functions, as well as those serving in a dual capacity as both wholesalers and retailers. Time and space do not allow the segregation of these different kinds of wholesale functionaries in a manner which will permit a separate discussion of the operating and expense problems of each. The State reports and the United States summary contain sufficiently detailed analyses to provide much of the necessary data concerning each of these various types of distributors.

This study of wholesale operators will here be confined to those establishments which are engaged in both wholesaling and retailing. For this purpose a special hand tabulation has been made of the data reported by these wholesaler-retailer

concerns, many of which, as explained in chapter I, were classified as wholesalers merely because more than 50 percent of their sales were reported as sales to dealers. They will be referred to either as wholesaler-retailers or as distributor-dealers.

Number of wholesaler-retailer establishments and sales.—There were 500 distributor-dealers in operation in 1929 and their combined annual sales aggregated $857,751,336 which represents about 70 percent of the sales of all types of wholesale distributors of motor vehicles. The majority of these concerns are located in the cities of more than 30,000 population. In fact there are so few in the cities of less than 30,000 population that no separate State data can be shown (as was done in the case of retailers, see table 1A) because to do so would disclose the operations of individual establishments. The number of wholesalers acting in a dual capacity varies materially in different sections of the country and between States, the variation apparently having little connection with the variation in population. There are 5 States in which there are no wholesalers which are also selling at retail. These States are Arkansas, Mississippi, Nevada, South Carolina, and Wyoming. Also, there are 10 other States in each of which there are less than 3 distributor-dealers, necessitating the elimination of separate State figures. These States are Alabama, Arizona, Delaware, Idaho, Kentucky, Maryland, Montana, New Hampshire, Rhode Island, and Vermont. The figures for these States are included in the totals shown in table 5.

Expenses of distributor-dealers.—The average total operating expenses of these distributor-dealers is $11.45 for each $100 of sales. This average is nearly $6 per $100 of sales lower than the average reported by retail dealers which amounts to $17.71 for automobile salesrooms. Of course, this difference in average operating costs does not mean that the expense incurred by these wholesalers in making sales at retail are proportionately lower than that of the retail dealer. The lower costs of making wholesale sales bring about the greatly reduced total operating expense reported.

The following brief table of operating expenses of distributor-dealers supplies national ratios for consideration with the expense ratios of retailers. Table 5 provides the same information by States. This table which appears on page 62 should be used for any given area rather than the national averages.

OPERATING EXPENSE OF WHOLESALER-RETAILERS

CLASSIFICATIONS	Amounts and averages
Number of establishments	500
Net sales	$857,751,336.00
Total operating expenses	98,245,993.00
Total operating expenses per $100 of sales	11.45
Total wage cost	48,676,629.00
Total wage cost per $100 of sales	5.67
Reported pay roll	48,475,725.00
Estimated value of proprietors' services [1]	200,904.00
All other expenses (includes rent)	49,569,364.00
Rental cost per $100 of sales in leased premises [2]	.98

[1] Proprietors compensation is computed at the same rate paid to full-time employees in the same kind of business.

[2] In computing average rental cost, only those establishments operating in wholly leased premises were used.

Number of establishments and sales by size of business.—These motor-vehicle establishments, are for the most part, large-volume businesses. Nearly 46 percent of these concerns had annual sales of more than a million dollars each in 1929. The sales of these 229 large-volume concerns represents more than 86 percent of the total sales of distributor-dealers, and average more than $3,000,000 each. The 111 establishments comprising the group with annual sales ranging from $500,000 to $1,000,000 account for an additional 9 percent of the total sales in 22 percent of the salesrooms. Together these two groups account for 95 percent of the business in 68 percent of the establishments.

In contrast there is only one establishment in the group with sales of less than $5,000 and that is a part-year business. Sales of this concern cannot be shown. A total of 18 establishments reported sales of less than $30,000 annually and only 27 had yearly sales of less than $50,000.

The following table provides a brief analysis of the number of establishments and annual sales for each of 10 size-of-business groups. The figures shown are national totals only. For State totals see table 7 of this report.

NUMBER OF AUTOMOBILE WHOLESALER—RETAILERS AND SALES BY SIZE OF BUSINESS

SIZE-OF-BUSINESS GROUPS	Establishments	Percent	Sales	Percent	Average sales per establishment
Total, all wholesalers-retailers [1]	500	100.00	$857,751,336	100.00	$1,715,500
Establishments with sales of more than $50,000	473	94.60	857,074,017	99.92	1,811,900
Establishments with sales of less than $50,000	27	5.40	677,319	.08	25,000
Establishments with sales of more than $1,000,000	229	45.80	742,755,451	86.59	3,243,500
From $500,000 to $1,000,000	111	22.20	81,227,210	9.47	731,800
From $300,000 to $500,000	48	9.60	18,457,930	2.15	384,500
From $200,000 to $300,000	34	6.80	8,496,511	.99	249,900
From $100,000 to $200,000	30	6.00	4,648,663	.54	155,000
From $50,000 to $100,000	21	4.20	1,488,252	.18	70,900
Establishments with sales of:					
From $30,000 to $50,000	9	1.80	355,292	.04	39,500
From $20,000 to $30,000	10	2.00	244,279	.03	24,400
From $10,000 to $20,000	4	.80	53,234	.01	13,300
Less than $10,000	4	.80	24,514		6,000

[1] It should at all times be borne in mind that the establishments and sales shown apply only to wholesalers who are also retailers and does not include either retail dealers or other types of wholesale distributors.

Credit sales of distributor-dealers.—Credit sales amounting to $215,225,199 were reported by concerns which are primarily wholesalers but also sell at retail. This sum, which represents over 30 percent of the sales of these distributor-dealers, cannot by any means be construed to constitute the total amount of credit extended by all wholesalers-retailers. Out of the total of 500 establishments classified as wholesaler-retailers only 400 reported concerning their credit activities. The remaining 100 either reported that no record had been kept of the amount of credit sales, or ignored the credit inquiry without furnishing an explanation.

The credit question, in its relation to motor vehicle sales, is further complicated by the more or less general confusion existing among the officers of motor-vehicle establishments as to what should be classed as credit. Many looked upon installment transactions in which the customers notes were handled through finance companies as cash sales because they received immediate payment in full for the cars sold. Others properly considered them as credit transactions and so reported. Still others reported the customary initial cash payments as a part of their credit sales. It is not uncommon practice for these concerns to consider open account credit as cash and the schedules furnished suggest that many have failed to report the 30 and 60 day accounts so often carried on sales of parts and accessories, and for service and repairs.

This condition has been found in nearly all parts of the country and in all kinds of motor-vehicle establishments regardless of whether they are wholesaler-retailers or retail dealers. The discussion of credit extended by the retail dealers will be referred to in more detail in section 2 of this chapter.

The following table shows by States the number of establishments which reported on their credit activities, the amount of their credit sales and the proportion of credit to total sales of reporting concerns. The wide variations between States clearly reflect the irregularities in reporting.

Credit Reported by Wholesaler—Retailers

Divisions and states	Number of establishments reporting credit sales	Total sales of establishments reporting credit sales	Credit sales of establishments reporting credit sales	Percent of total
United States	[1] 400	$699,881,477	$215,225,199	30.75
New England	30	44,872,411	10,889,072	24.27
Maine	5	5,005,706	1,427,701	28.52
New Hampshire	2	(x)	(x)	(x)
Vermont	2	(x)	(x)	(x)
Massachusetts	12	29,305,924	6,300,583	21.49
Rhode Island	2	(x)	(x)	(x)
Connecticut	7	6,799,203	2,241,761	32.97
Middle Atlantic	110	231,430,856	62,344,404	26.93
New York	54	127,061,574	38,166,015	30.03
New Jersey	10	17,625,706	3,408,575	19.33
Pennsylvania	46	86,743,576	20,769,904	23.94
East North-Central	94	219,167,253	65,104,197	29.70
Ohio	29	63,275,401	13,430,659	21.24
Indiana	9	14,351,868	5,103,711	35.60
Illinois	21	57,387,297	24,145,248	42.07
Michigan	19	63,761,078	18,875,191	29.60
Wisconsin	16	20,391,609	3,540,388	17.36
West North-Central	70	79,594,084	36,834,089	46.27
Minnesota	10	15,909,407	3,988,078	25.06
Iowa	24	21,640,126	13,392,952	61.88
Missouri	10	14,748,940	7,088,814	48.06
North Dakota	5	2,846,653	2,344,607	82.36
South Dakota	5	1,917,412	448,666	23.39
Nebraska	14	19,539,370	8,980,242	45.95
Kansas	2	2,992,176	590,730	19.74
South Atlantic	33	28,001,456	11,729,845	41.89
Delaware				
Maryland	1	(x)	(x)	(x)
District of Columbia	4	8,214,880	3,317,315	40.38
Virginia	4	1,129,006	622,113	55.10
West Virginia	8	5,304,687	1,146,767	21.61
North Carolina	7	4,580,358	1,201,395	26.22
South Carolina				
Georgia	4	3,781,447	1,808,402	47.69
Florida	5	4,107,299	3,101,853	75.52
East South-Central	7	10,239,352	3,571,349	34.87
Kentucky				
Tennessee	6	9,994,107	3,334,569	33.36
Alabama	1	(x)	(x)	(x)
Mississippi				
West South-Central	15	18,008,040	5,395,161	29.96
Arkansas				
Louisiana	4	4,359,669	1,235,781	28.34
Oklahoma	2	6,435,964	2,449,055	38.05
Texas	9	7,212,407	1,710,325	23.71
Mountain	16	12,339,961	3,719,740	30.14
Montana	2	(x)	(x)	(x)
Idaho	1	(x)	(x)	(x)
Wyoming				
Colorado	8	8,676,831	2,534,692	29.21
New Mexico	3	739,198	253,992	34.36
Arizona	2	(x)	(x)	(x)
Utah				
Nevada				
Pacific	25	56,228,064	15,637,252	27.81
Washington	7	9,807,227	3,051,858	31.11
Oregon	2	1,799,835	365,626	20.31
California	16	44,621,002	12,219,768	27.38

[1] The difference between the number of establishments included in this table and the number shown in table 5 indicates those which failed to furnish credit information. This failure to report does not warrant the conclusion that all transactions were for cash.

Section 2.—Motor-Vehicle Dealers (retailers)

Description.—The motor-vehicle dealers described in this section are those engaged primarily in the sale of automobiles and other motor vehicles at retail. They are, of course, outlets for other kinds of merchandise and in most cases they do sell other commodities and provide facilities for service, but as their principal activity is the sale of motor vehicles they are classified as motor-vehicle dealers.

Number of establishments and sales.—There were 43,894 retail motor-vehicle dealers operating in the United States in 1929. The combined annual sales of these dealers amounted to $6,294,148,693 in the same year. This total is made up of two kinds of establishments, namely, automobile salesrooms and used-car dealers. As more fully explained in the definitions supplied in chapter I, the automobile salesrooms are primarily for the sale of new cars, and incidentally for the sale of used cars traded in on new-car purchases. Used-car dealers are those engaged primarily in the sale of second-hand motor vehicles. There were 40,797 automobile salesrooms with sales aggregating $6,153,217,000 and 3,097 used-car dealers with total sales amounting to $140,932,000.

How the size of city affects sales.—The cities of more than 30,000 population contain only about 25 percent of the motor vehicle establishments of the country but these 10,980 dealers do more than 50 percent of the business. The population of the 30,000 and over cities constitutes about 39 percent of the total population of the United States. The cities with population ranging from 10,000 to 30,000 contain about 15 percent of the motor-vehicle establishments and do 16 percent of the retail automobile business of the country. The 10,000 to 30,000 population group contains 8.77 percent of the total population of the country. More than 60 percent of the motor-vehicle dealers are located in places of less than 10,000 population. These 26,470 dealers account for only 33.53 percent of the business. The residents of this under 10,000 group constitutes 52.48 percent of the country's total poulation. These average ratios vary materially between States, depending upon the number of cities within their boundaries.

Table 1 of this report, showing establishments and annual sales, provides the basis for comparisons between States in each of the threee size-of-city groups.

Geographic distribution of motor-vehicle dealers and sales.—More than 51 percent of the sales of automobile salesrooms (retailers of new cars and trade ins) were made in establishments located in eight States. These States arranged in the order of their sales importance are New York, California, Pennsylvania, Illinois, Ohio, Michigan, Texas, and Massachusetts. In the case of used-car dealers, those located in the same eight States account for more than 68 percent of the sales of all used-car establishments in the country. These States contain 10 of the cities of more than 500,000 population and 44 of the 93 cities of more than 100,000 population. Nearly 48 percent of the entire population of the United States are inhabitants of these same eight States.

The following table, showing separate arrangements of the States in the order of their sales importance, contain some interesting examples of peculiarities in geographic distribution when arrangement is based upon sales alone and other factors and other kinds of business are not taken into consideration. The population ranking column, indicating the relative position of each State, is provided for the purpose of comparison.

Sales of Retail Motor-Vehicle Dealers by States

[Arranged in order of sales importance]

	STATE	Population ranking	Sales of auto salesrooms	Cumulative percent of U.S. total		STATE	Population ranking	Sales of used-car establishments	Cumulative percent of U.S. total
	United States total		$6,153,216,567	100.00		United States total		$140,932,128	100.00
1	New York	1	617,273,867	10.03	1	California	6	28,164,647	19.98
2	California	6	455,504,665	17.43	2	New York	1	16,118,075	31.42
3	Pennsylvania	2	417,775,767	24.22	3	Illinois	3	13,612,490	41.08
4	Illinois	3	391,576,738	30.59	4	Michigan	7	12,454,874	49.92
5	Ohio	4	378,714,075	36.74	5	Ohio	4	10,567,591	57.42
6	Michigan	7	329,048,159	42.09	6	Massachusetts	8	6,185,026	61.80
7	Texas	5	328,029,473	47.42	7	Texas	5	5,980,497	66.05
8	Massachusetts	8	235,352,211	51.25	8	Missouri	10	4,956,155	69.56
9	New Jersey	9	210,703,270	54.67	9	Pennsylvania	2	4,451,462	72.72
10	Indiana	11	175,177,667	57.52	10	Wisconsin	13	3,233,064	75.02
11	Missouri	10	170,140,565	60.28	11	Indiana	11	3,201,929	77.29
12	Wisconsin	13	160,701,663	62.90	12	New Jersey	9	3,200,860	79.56
13	Oklahoma	21	136,522,929	65.11	13	Iowa	19	2,825,394	81.57
14	Iowa	19	135,953,607	67.32	14	Oklahoma	21	2,681,925	83.47
15	Minnesota	18	129,826,244	69.43	15	Connecticut	20	2,425,283	85.19
16	Kansas	24	118,461,489	71.36	16	Florida	31	2,042,786	86.64
17	Washington	30	111,601,599	73.17	17	Washington	30	1,981,846	88.04
18	Connecticut	29	95,585,653	74.72	18	Maryland	28	1,747,958	89.28
19	Tennessee	16	87,885,881	76.15	19	Nebraska	32	1,736,558	90.51
20	North Carolina	12	85,382,725	77.54	20	Rhode Island	37	1,629,588	91.67
21	Nebraska	32	85,325,543	78.92	21	Colorado	33	1,361,475	92.63
22	Georgia	14	84,590,566	80.30	22	Kansas	24	1,335,496	93.58
23	Virginia	20	78,364,754	81.57	23	District of Columbia	41	1,099,152	94.36
24	Kentucky	17	75,142,835	82.79	24	Minnesota	18	890,225	94.99
25	Colorado	33	70,944,502	83.95	25	Oregon	34	812,453	95.57
26	Alabama	15	69,379,064	85.07	26	Maine	35	768,855	96.12
27	Oregon	34	68,392,746	86.19	27	Georgia	14	625,409	96.56
28	Florida	31	65,208,457	87.25	28	Tennessee	16	561,411	96.96
29	Maryland	28	64,595,340	88.30	29	Alabama	15	549,756	97.35
30	Mississippi	23	62,532,454	89.31	30	Kentucky	17	473,254	97.69
31	Louisiana	22	62,349,131	90.33	31	Louisiana	22	428,862	97.99
32	Arkansas	25	59,587,124	91.30	32	West Virginia	27	345,561	98.24
33	West Virginia	27	54,744,397	92.18	33	North Carolina	12	304,380	98.45
34	Maine	35	46,630,954	92.94	34	Utah	40	299,015	98.66
35	South Carolina	26	41,416,509	93.62	35	South Carolina	26	265,384	98.85
36	South Dakota	36	38,810,416	94.24	36	New Hampshire	42	263,323	99.04
37	Montana	39	36,603,784	94.84	37	Arizona	44	250,738	99.21
38	Rhode Island	37	36,305,335	95.43	38	Arkansas	25	226,167	99.37
39	North Dakota	38	36,060,989	96.01	39	Virginia	20	195,653	99.51
40	District of Columbia	41	33,964,050	96.57	40	Montana	39	122,925	99.60
41	Arizona	44	33,448,449	97.13	41	Vermont	46	116,085	99.68
42	Utah	40	32,078,053	97.64	42	Wyoming	48	100,628	99.75
43	Idaho	43	29,514,990	98.12	43	Mississippi	23	81,100	99.81
44	New Hampshire	42	29,171,319	98.59	44	North Dakota	38	69,159	99.86
45	Vermont	46	25,889,017	99.01	45	New Mexico	45	66,702	99.91
46	New Mexico	45	19,448,329	99.33	46	Delaware	47	50,543	99.94
47	Wyoming	48	18,714,682	99.63	47	Idaho	43	34,966	99.97
48	Delaware	47	13,269,335	99.85	48	South Dakota	36	27,993	99.99
49	Nevada	49	9,505,696	100.00	49	Nevada	49	7,448	100.00

This table clearly indicates that each of these two kinds of automobile dealers have a direct relation to the total sales of the other and therefore must be considered together. Then, too, there is another kind of automobile dealer which has an important effect on the sales of the more commonly recognized salesrooms and used car dealers. This third classification is the automobile dealer with farm implements and machinery. More than 37 percent of the total sales of these dealers were in passenger automobiles and trucks. When considered in connection with the other two kinds of automobile establishments this comparatively small group of dealers explain many of the irregularities in the relationship between sales and population. The following table showing the sales of the automobile dealers with farm implements and machinery is shown in order that their sales may be associated with those shown in the preceding table.

SALES OF AUTOMOBILE DEALERS WITH FARM IMPLEMENTS AND MACHINERY, BY STATES

[Arranged in order of sales importance]

	STATES	Population ranking	Sales of auto and farm implement dealers	Cumulative percent of U. S. total		STATES	Population ranking	Sales of auto and farm implement dealers	Cumulative percent of U. S. total
	United States total	------	$113,363,249	100.00	25	Virginia	20	826,199	94.34
					26	Maine	35	702,933	94.96
					27	Vermont	46	665,451	95.55
1	Kansas	24	11,073,186	9.77	28	Alabama	15	585,313	96.06
2	North Dakota	38	9,267,662	17.94	29	Wyoming	48	550,801	96.55
3	Minnesota	18	8,122,920	25.11	30	West Virginia	27	513,417	97.01
4	Wisconsin	13	7,722,665	31.92	31	Oregon	34	476,455	97.43
5	Iowa	19	7,646,599	38.67	32	South Carolina	26	457,788	97.83
6	Illinois	3	7,186,058	45.01	33	Louisiana	22	452,703	98.23
7	South Dakota	36	6,204,277	50.48	34	New Jersey	9	382,807	98.57
8	Montana	39	6,068,991	55.83	35	Florida	31	344,292	98.87
9	Nebraska	32	5,495,956	60.68	36	Arizona	44	322,321	99.16
10	Ohio	4	5,240,953	65.30	37	Delaware	47	202,957	99.33
11	California	6	4,896,519	69.62	38	Kentucky	17	191,500	99.50
12	Texas	5	3,892,158	73.06	39	New Mexico	45	180,953	99.66
13	New York	1	2,941,012	75.65	40	Georgia	14	115,975	99.77
14	Michigan	7	2,504,964	77.86	41	Tennessee	16	96,000	99.85
15	Oklahoma	21	2,308,887	79.90	42	New Hampshire	42	95,201	99.93
16	Missouri	10	2,304,093	81.93	43	Arkansas	25	75,000	100.00
17	Washington	30	2,214,253	83.88	44	Connecticut	29	------	------
18	Pennsylvania	2	1,976,090	85.62	45	District of Columbia	41	------	------
19	Indiana	11	1,958,852	87.35					
20	Mississippi	23	1,841,676	88.98	46	Massachusetts	8	------	------
21	Colorado	33	1,613,395	90.40	47	Nevada	49	------	------
22	Maryland	28	1,365,587	91.60	48	Rhode Island	37	------	------
23	North Carolina	12	1,220,193	92.68	49	Utah	40	------	------
24	Idaho	43	1,058,237	93.61					

Per capita sales of the three kinds of motor-vehicle dealers, taken separately or collectively, do not provide a completely adequate measure of motor-vehicle sales. There are a number of reasons for this, two of which are particularly obvious. One is wide variation in prices, which is an important consideration. In low-income areas the cheaper cars predominate and in the higher income communities higher-priced cars are in more demand. This has an important effect on total sales reported. Another factor affecting per capita sales ratios is the fact that sales reported by these three kinds of automobile dealers do not represent sales of motor cars only, but include, in addition, sales of a variety of other merchandise and service.

Population is, however, a reasonably accurate index of the number of motor vehicles in operation. A comparison between population and motor-vehicle registrations shows a remarkably close relationship and better still it eliminates the factor of price, which so influences the dollar sales figures. The following table contains the ranking by States for both population and motor-vehicle registrations. The relationship is shown on the basis of the States' ranking, which provides a simple method of comparison.

COMPARISON OF POPULATION AND MOTOR-VEHICLE REGISTRATIONS, BY STATES

STATES	RANKING		STATES	RANKING	
	Population	Registrations		Population	Registrations
Maine	35	37	West Virginia	27	31
New Hampshire	42	44	North Carolina	12	17
Vermont	46	45	South Carolina	26	34
Massachusetts	8	10	Georgia	14	22
Rhode Island	37	40	Florida	31	23
Connecticut	29	25			
			Kentucky	17	24
New York	1	1	Tennessee	16	21
New Jersey	9	9	Aalabama	15	28
Pennsylvania	2	4	Mississippi	23	32
Ohio	4	3	Arkansas	25	33
Indiana	11	8	Louisiana	22	29
Illinois	3	5	Oklahoma	21	16
Michigan	7	6	Texas	5	7
Wisconsin	13	11			
			Montana	39	39
Minnesota	18	14	Idaho	43	41
Iowa	19	12	Wyoming	48	47
Missouri	10	13	Colorado	33	27
North Dakota	38	36	New Mexico	45	46
South Dakota	36	35	Arizona	44	43
Nebraska	32	19	Utah	40	42
Kansas	24	15	Nevada	49	49
Delaware	47	48	Washington	30	18
Maryland	28	26	Oregon	34	30
District of Columbia	41	38	California	6	2
Virginia	20	20			

Position index of motor-vehicle establishments.—The use of sales as a measure of the relative buying power of a community is particularly valuable when used in relation to the total sales of the State or the United States. This method has been described as the position index. The comparison of the sales ratio for a given State to the United States sales ratio expresses the relative position of that kind of dealer in that State. Similarly, a comparison of a city may be made with the State ratio in the same manner. This method might be defined as an index of the relative importance of the sales of a given kind of business in different areas or communities.

For example, in New York State the sales of motor-vehicle dealers (automobile salesrooms and used-car dealers combined) constitute 8.96 percent of the total retail sales in that State. The sales of similar establishments for the United States as a whole averages 12.82 percent. Thus the position index for motor-vehicle dealers in New York is 70 (that is, 8.96 is 70 percent of 12.82). Table 2 of this report contains the position index of motor-vehicle dealers for each of the 48 States and the District of Columbia. This table also contains similar data for automobile dealers with farm implements and machinery, for accessory, tire and battery dealers, for garages and repair shops, and for filling stations.

Size of establishments.—Retail motor-vehicle establishments are predominately large volume businesses. Only 25 percent had sales of less than $30,000 in 1929 and only 38 percent had annual sales of less than $50,000. Nearly 40 percent had sales in excess of $100,000 in the same year. About half of the total business of the country was done in 11 percent of the establishments. The following table shows comparisons for establishments and sales for motor-vehicle dealers (automobile salesrooms and used-car dealers combined). Table 6 shows separate figures, not only for the two kinds of retail dealers included in this text table but also for automobile dealers with farm implements and machinery. A similar compilation, prepared for wholesale establishments, also engaged in retailing a part of their total output, will be found in the brief text table appearing on page 11 and also in table 7 previously referred to. These various kinds of establishments may not be combined to arrive at a total because of the duplication in sales involved in the wholesale activity. The retail table follows:

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NUMBER OF ESTABLISHMENTS AND SALES BY SIZE OF BUSINESS FOR MOTOR-VEHICLE DEALERS (NEW AND USED)

SIZE-OF-BUSINESS GROUPS	Establishments	Percent	Sales	Percent	Average sales per establishment
Total, all retail motor-vehicle dealers (new and used)[1]	43,894	100.00	$6,294,155,000	100.00	$143,400
Establishments with sales of:					
More than $50,000	26,981	61.48	5,903,656,000	93.80	222,500
Establishments with sales of:					
More than $1,000,000	504	1.15	842,808,000	13.39	1,672,200
From $500,000 to $1,000,000	1,691	3.85	1,156,306,000	18.37	683,800
From $300,000 to $500,000	2,861	6.52	1,088,008,000	17.29	380,300
From $200,000 to $300,000	3,616	8.24	877,540,000	13.94	242,700
From $100,000 to $200,000	8,874	20.22	1,256,065,000	19.96	141,600
From $50,000 to $100,000	9,435	21.50	682,929,000	10.85	72,400
Establishments with sales of:					
Less than $50,000	16,913	38.52	390,499,000	6.20	23,100
Establishments with sales of:					
From $30,000 to $50,000	5,684	12.95	221,429,000	3.52	39,000
From $20,000 to $30,000	3,566	8.11	87,216,000	1.39	24,400
From $10,000 to $20,000	4,086	9.31	59,454,000	0.94	14,500
Under $10,000	3,577	8.15	22,400,000	0.35	6,500

[1] Does not include automobile dealers with farm implements and machinery, nor wholesaler-retailers of automobiles and other motor vehicles. These classifications cannot be combined with the 2 kinds of dealers shown in this table.

Operating expenses of motor-vehicle dealers.—Retail motor-vehicle dealers operate at an average expense rate of $17.80 per $100 of sales.[1] However, this average covers both automobile salesrooms and used-car dealers. The former operate at an average of $17.71 while the latter has an average of $21.76 for each $100 of sales. The operating expenses of automobile dealers with farm implements and machinery is $16.18 per $100 of sales.

The average of $17.80 for motor-vehicle dealers is more than $7 less for each $100 than the average for all retail stores in the United States and over $4 lower than the average of $22.06 for the automotive group as a whole. It is $6 higher for each $100 of sales than the average for wholesaler-retailers, not because it costs these distributors less to retail merchandise but because of the low costs of the wholesale portion of the business. Table 3 of this report shows a comparison for each of the three kinds of retail dealers in motor vehicles and table 5 contains comparative expense figures for the wholesaler-retailers. Similar data for accessory, tire and battery dealers, for garages and repair shops, for filling stations and competitors of these dealers in automotive products are also shown in table 3.

Employees and wages.—Motor-vehicle dealers (new and used) engaged the services of 337,891 full-time employees, 12,161 part-time employees and 41,826 active proprietor-owners, making a total of 391,878 retail workers in 1929. The reported pay roll was more than $10,000,000 a week or a total of $540,793,007 for the year. To this amount must be added the wage value of proprietors' services in order to arrive at a total wage cost. For this purpose proprietors' compensation has been computed at the same rate of wage paid to full-time employees in the same kind of business. This necessary computation adds an additional $65,416,910 to the reported pay roll, making a new total of $606,209,917 representing total wage cost. This amount represents 9.63 percent of the total sales of these establishments. The expense table previously referred to contains additional information on employees and wages. The total of 391,878 retail workers employed in these establishments include 137,475 persons employed in service and repair operations which represents 35 percent of the total personnel. Complete retail employment and wage statistics are now available, for all kinds of business, in the United States Summary of Retail Distribution, in each of the separate State reports, and in the special economic study entitled "Employment and Wages in the Retail Industry." Copies of these reports may be secured

[1] Expense ratios include no return on capital invested in merchandise, fixtures and accounts, and do not of course include the cost of merchandise sold or profit.

from the Superintendent of Documents, Government Printing Office, Washington, D.C.

Expenses by size of city.—Expense varies directly with the size of city, all other factors being equal. It costs more to operate in a large city than in one of moderate size and more in the moderate-sized city than in a small one. This is true because so many of the individual items of expense that enter into the operating costs are more expensive in the larger cities. Rents are higher and wages are higher, in fact, nearly every item of cost increases with the size of city. This principle receives further support from this study of motor-vehicle dealers. Only one exception is noted. The total wage costs for places of less than 10,000 population are larger in relation to sales than in the 10,000 to 30,000 group. This is directly caused by the higher proportion of proprietor-owned and operated establishments in the small cities. When measured in terms of pay-roll costs, rather than in total wage costs, the three size groups follow normal order. Table 3 also contains expense data by size-of-city groups.

Rents.—Rents, always an important item of expense are comparatively low, the average for motor-vehicle dealers being only $1.80 for each $100 of sales for the entire United States. More than 64 percent of all motor-vehicle establishments were operated in leased premises and these 28,219 dealers accounted for more than 70 percent of the total sales of all motor-vehicle dealers. The average rental cost in automobile salesrooms was $1.77 per $100 of sales, while the average for used car dealers was nearly twice that amount or $3.28 for each $100 worth of merchandise sold. For complete information on rents paid in leased premises by the different kinds of dealers in automotive products and by competing stores see table 4.

Credit extended by motor-vehicle dealers.—Section 1 of this chapter outlines some of the difficulties encountered by the Census Bureau in attempting to present authentic and accurate credit statistics. Such information as was furnished has been tabulated and presented in State reports and in the United States summary. However, it is recognized that the data are not complete and must be used with care.

This is particularly true in the case of motor-vehicle dealers, where lack of uniformity in reporting credit sales and irregularities resulting from differences of opinion as to what constitutes credit have destroyed the possibility of securing adequate totals of the amount of credit extended.

Only 39,246 of the total of 43,894 motor-vehicle dealers, included in the retail census, reported as to their credit activities. Of these 39,246 establishments, 5,460 reported that they sold only for cash. This obviously is not the actual situation. In all probability, the credit of these dealers was handled entirely by the finance companies, and therefore was not considered as credit by the selling concerns. In addition there were 4,265 dealers reporting only 1 to 10 percent credit, 3,151 reporting from 11 to 20 percent credit and 2,916 reporting from 21 to 30 percent credit. It seems likely that such amounts represent credits carried on their own books rather than the total amount of credit extended. However, in preparing credit ratios and estimating the total amount of credit extended by concerns reporting, it is necessary to include all except those which failed to report and those which reported that all sales were made for cash.

Credit sales as a selling factor.—Credit sales reported by the 33,786 motor-vehicle dealers, reporting that they extended credit in varying proportions, effectively demonstrates the importance of credit as a sales inducement. The total sales of these establishments amounted to $4,986,806,000. It is conservatively estimated that a minimum of $2,660,346,000, which represents more than 53 percent of the total, represented credit extended by these dealers and either carried on their own books or handled through finance companies.

It is doubtful if any other one factor exerts as much influence on the customers final decision to buy as the case with which it is possible to purchase a car or truck with a comparatively small outlay of cash. The following table, which by no means represents the total credit sales, shows the approximate proportions of cash and credit as indicated by the reporting stores. Additional data on credit are contained in table 9 appearing on pages 72 to and including page 75.

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REPORTED CREDIT SALES OF MOTOR-VEHICLE DEALERS

DEGREE OF CREDIT CLASSIFICATIONS	CREDIT REPORTING DEALERS			
	Number of establishments	Total sales cash and credit	Approximate cash proportion	Approximate credit proportion
1 to 10 percent credit	4,265	$394,175,000	$374,466,000	$19,709,000
11 to 20 percent credit	3,151	348,981,000	306,634,000	42,347,000
21 to 30 percent credit	2,916	420,187,000	315,140,000	105,047,000
31 to 40 percent credit	3,229	481,220,000	312,793,000	168,427,000
41 to 50 percent credit	3,850	587,375,000	323,055,000	264,320,000
51 to 60 percent credit	3,123	539,708,000	242,868,000	296,840,000
61 to 70 percent credit	3,553	578,756,000	202,565,000	376,191,000
71 to 80 percent credit	3,465	568,657,000	142,164,000	426,493,000
Over 80 percent credit	6,234	1,067,747,000	106,775,000	960,972,000
Total, cash and credit	33,786	4,986,806,000	2,326,460,000	2,660,346,000
Percent			46.65	53.35
All cash	5,460	528,774,000		
Total reporting as to their credit activities	39,246	5,515,580,000		
Concerns not reporting	4,648	778,569,000		

Motor-vehicle chains.—The retail census shows that in 1929 there was a total of 167 chain organizations operating automobile salesrooms selling new motor vehicles and such used cars as were traded in on new-car purchases. These chains operated 1,290 separate establishments with sales aggregating $616,594,816 which represents approximately 10 percent of the sales of all retail automobile salesrooms in the country. In addition to the new-car salesrooms there were 6 chains operating 33 used-car establishments. The total sales of these used-car establishments amounted to $5,116,484.

More than 63 percent of the automobile salesrooms operated by the chains are located in cities of more than 100,000 population and these 820 establishments accounted for nearly 85 percent of the total sales of all chain salesrooms. About 13 percent of the chain establishments are located in the 30,000 to 100,000 cities, 10 percent are in the 10,000 to 30,000 cities, and 14 percent are located in the places of less than 10,000 population.

The following table provides expense data for these 1,290 chain salesrooms and for the 33 used-car establishments. Complete chain-store data are available in the merchandising series report (distribution No. R-71) entitled "Motor Vehicle Dealer Chains", obtainable from the Superintendent of Documents at a cost of 5 cents each.

Motor Vehicle Dealer Chains

	Number and sales
Net sales (1929)	$616, 594, 816
Number of chains	167
Units operated by local chains	737
Units operated by sectional chains	216
Units operated by national chains	337
Operating expenses, total	$118, 967, 371
Per $100 of sales	$19. 29
Pay roll—total	$64, 005, 720
Per $100 of sales	$10. 38
Other operating expenses, including rent	$54, 961, 651
Per $100 of sales	$8. 91
Rent in 1,009 leased premises, per $100 of sales in such leased premises (included above)	$2. 11
Stocks on hand, end of year at cost	$73, 329, 806
EMPLOYMENT DATA	
Full-time employees, total	30, 978
Men	27, 574
Women	3, 404
Total pay roll	$63, 800, 089
Part-time employees, total	266
Men	236
Women	30
Total pay roll	$205, 631

Used-Car Chains

	Number and sales
Number of chains (all local)	6
Number of units operated	33
Total net sales (1929)	$5, 116, 484
Stocks on hand, end of year, at cost	$1, 045, 225
Expenses:[1]	
Total operating expenses (per $100 of sales)	$20. 74
(Rent in 20 leased premises, included above, amounts to $2.75 per $100 of sales in such leased premises)	
Total number of employees (9 part-timers included)	346
Total pay roll (part-time proportion, $4,805)	$528, 325
Total operating expenses, except pay roll	$532, 619

[1] This computation of expenses includes no return on capital invested in merchandise, fixtures, or accounts. Expenses do not include, of course, the cost of merchandise sold, nor profit.

CHAPTER III.—ACCESSORY, TIRE, AND BATTERY DEALERS—GARAGES AND REPAIR SHOPS

Description of the business.—The accessory, tire, and battery dealers described in this chapter are dealers whose principal activities are the sale of automotive equipment at retail. These dealers may and usually do sell other kinds of merchandise but in comparatively insignificant proportions. Other kinds of establishments also sell the same kinds of merchandise but unless they deal principally in automotive equipment they are not classified as accessory, tire, and battery dealers.

Also included in this chapter are the garages and repair shops. A large part of the income of these establishments is derived from repairs, installations, and other forms of service. However, accessories, tires and tubes, and batteries are also sold in considerable quantities, and, consequently, these concerns which are so largely service organizations must be associated and discussed in this part of the report.

Number of stores and shops.—There are seven kinds of stores, shops, and garages included under this general heading. The largest in number of establishments is the garages, of which there are 60,627. There are 8,142 tire shops, 7,762 accessory stores, and 6,409 battery and ignition shops (including brake repair shops). Garages also report the highest total sales of any of the seven individual classifications in this group. Their sales amount to $693,063,270. Accessory stores are second in volume of sales with $257,742,856, while the tire shops are third with annual sales of $247,314,087.

Other kinds of business in this grouping are shown in the following summary of stores and sales:

ACCESSORY, TIRE, AND BATTERY DEALERS—GARAGES AND REPAIR SHOPS

KIND OF BUSINESS	Number of establishments	Total sales
Total	89,106	$1,384,295,797
Accessories, tires, and batteries	22,313	509,295,161
Accessory stores with tires and batteries	7,762	257,742,856
Battery and ignition shops—brake repair shops	6,409	94,238,218
Tire shops (including tire repairs)	8,142	247,314,087
Garages and repair shops	66,793	785,000,636
Body, fender, and paint shops	3,379	46,106,105
Garages (repair and storage, gas and oil, and accessories)	60,627	693,063,270
Parking stations, parking garages and lots	2,059	39,261,738
Radiator shops (including repairs)	728	6,569,523

In addition to these establishments, the motor-vehicle dealers covered in chapter II, and the filling stations which are separately discussed in chapter IV, there are three other kinds of stores in which the sales of automotive accessories, tires,

OTHER STORES SELLING ACCESSORIES, TIRES, AND BATTERIES [1]

KIND OF BUSINESS	Number of establishments	Total sales [2]	Sales of automotive products
Department stores without food departments	3,730	$2,963,662,603	$68,876,523
Mail-order general merchandise houses	31	447,023,641	24,513,997
General merchandise stores without food departments	9,849	363,887,420	18,445,247

[1] Other stores, such as hardware stores, furniture stores, electrical shops, etc., frequently sell accessories, tires, and batteries. However, their total sales volume in merchandise was relatively unimportant in 1929 and therefore they are not included in this discussion, but their sales of automotive products are separately shown in commodity table 11.

[2] This column represents total sales, not sales of automotive accessories, tires, and batteries. For commodity sales of these stores see column marked "Sales of automotive products."

and batteries are sufficiently large to warrant including in this report. There are 3,730 department stores, 31 mail-order general merchandise houses and 9,849 general merchandise stores which sell this kind of merchandise in addition to their more regular lines. Following is a brief table covering these three kinds of stores. More detailed data will be supplied later in the report.

Garages reported the largest sales volume of any of the seven classifications included in this group. More than 50 percent of the total sales of all accessory, tire, and battery dealers, and garages and repair shops were reported by the garages. It is of interest to note that only about 46 percent of the sales of garages consists of repairs and service and storage. The remaining 54 percent represents sales of merchandise. The second highest classification, in volume of sales, is the accessory stores, closely followed by the tire shops. These three kinds of establishments, which were highest in volume of sales, account for more than 86 percent of the aggregate sales of the seven kinds of dealers.

Battery and ignition shops are fourth in sales and account for more than 50 percent of the remaining sales of the group.

How the size of city affects sales.—The cities of more than 30,000 population contain more than 54 percent of the accessory, tire, and battery dealers of the country. These 12,169 stores and shops account for over 68 percent of the aggregate sales of this classification. Only about 32 percent of the garages and repair shops are located in the cities of more than 30,000 population. However, these 21,188 establishments do more than 45 percent of the business of all garages and repair shops in the country. These 30,000-and-over cities contain about 39 percent of the total population of the United States.

The proportion of establishments and sales in the cities of over 30,000 vary materially between States, depending upon the number of cities and the proportion of the total population of the State located in the cities. Table 1 provides necessary data for comparison between States.

Average sales by size-of-city groups.—The sales of these establishments vary materially in the various size-of-city groups. The average sales for all accessory, tire, and battery shops is $26,859 and for garages and repair shops is $11,754. Receipts from repairs and service are included in these sales averages and in the case of garages and repair shops constitute an important part of the sales volume reported. This average for the accessory, tire, and battery dealers located in the over 30,000 cities is $33,374, or more than 25 percent greater than the average for the United States. The average for the cities from 10,000 to 30,000 population is $25,723 which closely parallels the United States average. The sales average is $14,291 for those dealers located in the places of less than 10,000 population.

The average sales of garages and repair shops (including receipts from service and repairs) is $16,846 in the cities of over 30,000 and is $12,713 in the cities from 10,000 to 30,000 population, both of which are well above the average for the country as a whole. The average of only $8,918 for the places of less than 10,000 population is 24 percent below the national average.

The following table presents in tabular form the differences found in the various size-of-city groups.

AVERAGE SALES BY SIZE-OF-CITY GROUPS FOR ACCESSORY, TIRE, AND BATTERY DEALERS—GARAGES AND REPAIR SHOPS

SIZE-OF-CITY GROUPS	AVERAGE SALES PER ESTABLISHMENT	
	Accessory, tire, and battery dealers	Garages and repair shops
United States	$26,859	$11,754
Over 30,000 population	33,734	16,846
10,000 to 30,000 population	25,723	12,713
Under 10,000 population	14,291	8,928

Geographic distribution of stores and sales.—More than 43 percent of the total sales of accessory, tire, and battery dealers were made in establishments located in the Middle Atlantic States centering on New York City and the East North Central Division containing the metropolitan cities of Chicago, Cleveland, and Detroit. The Pacific Coast States alone accounted for more than 12 percent of the national total in these establishments. Together these three geographic divisions accounted for more than the remaining six geographic divisions.

Approximately 60 percent of the sales of all garages and repair shops in the United States were also made in the same three geographic divisions referred to in the preceding paragraph. This concentration is not unexpected for the reason that figures on motor-vehicle registration previously available show that approximately 54 percent of all registered motor cars and trucks belong to persons residing in the States located in these divisions. Following is a table showing, for each of the nine geographic divisions, the number of registered automobiles, the total number of accessory, tire, and battery dealers, and the number of garages and repair shops together with the sales of each.

MOTOR-VEHICLE REGISTRATIONS COMPARED WITH STORES AND SALES, BY GEOGRAPHIC DIVISIONS

GEOGRAPHIC DIVISIONS	Motor-vehicle registration[1]	GARAGES AND REPAIR SHOPS		ACCESSORY, TIRE, AND BATTERY DEALERS	
		Stores	Sales	Stores	Sales
United States total[2]	26, 501, 443	66, 793	$785, 000, 836	22, 313	$599, 295, 161
New England	1, 166, 192	4, 146	53, 783, 204	1, 593	44, 004, 381
Middle Atlantic	4, 828, 874	13, 276	189, 924, 097	4, 839	128, 579, 138
East North Central	6, 437, 021	12, 681	149, 771, 709	5, 840	149, 223, 764
West North Central	3, 663, 223	9, 251	90, 708, 837	3, 056	66, 991, 156
South Atlantic	2, 602, 134	6, 773	63, 417, 783	1, 615	47, 343, 587
East South Central	1, 230, 823	3, 884	34, 496, 087	696	24, 381, 447
West South Central	2, 432, 894	6, 940	72, 799, 012	1, 563	49, 388, 238
Mountain	954, 593	2, 639	33, 334, 788	712	19, 360, 147
Pacific	2, 685, 689	7, 203	96, 764, 219	2, 399	70, 023, 300

[1] Figures from the United States Bureau of Public Roads.
[2] Does not include tax exempt official cars not included in official registrations. These Federal, State, and local official cars totaled 152,007 in 1929.

Sales by States.—More than 50 percent of the sales of accessory, tire, and battery dealers were made in establishments located in seven States. These States arranged in order of their relative sales are New York, California, Pennsylvania, Ohio, Illinois, Michigan, and Texas. These 7 States, the largest of the 48, contain 9 of the 13 cities of more than 500,000 population and 35 of the 93 cities of over 100,000 population (Greater New York is one city). About 43 percent of total population of the United States are residents of these seven States.

The garages and repair shops located in these seven States also account for about 50 percent of the total reported sales of all such establishments in the United States. These seven States differ from those mentioned in the preceding paragraph only by the substitution of the State of New Jersey for the State of Michigan. However, when arranged in sales array the order of the States is changed materially.

The following table illustrates some of the peculiarities of geographic distribution in these two classes of retail establishments. In each case the States are arranged in the order of their sales importance which does not in all cases parallel the order of population.

ARRANGEMENT OF STATES SHOWING SALES OF ACCESSORY, TIRE, AND BATTERY DEALERS, AND GARAGES AND REPAIR SHOPS

STATE	Sales of accessories, tires, and battery shops	Cumulative percent of U.S. total	STATE	Sales of garages and repair shops	Cumulative percent of U.S. total
United States total	$599,295,161	100.00	United States total	$785,000,636	100.00
New York	60,600,814	10.11	New York	101,482,963	12.93
California	54,743,510	19.24	California	68,219,962	21.62
Pennsylvania	45,534,060	26.84	Pennsylvania	56,153,120	28.77
Ohio	44,965,736	34.34	Illinois	53,342,534	35.57
Illinois	42,884,341	41.50	Texas	45,530,281	41.37
Michigan	27,751,633	46.13	Ohio	35,477,508	45.89
Texas	26,605,297	50.57	New Jersey	32,288,014	50.00
Massachusetts	24,168,108	54.60	Missouri	25,770,959	53.28
New Jersey	22,444,264	58.34	Michigan	23,993,282	56.34
Indiana	20,075,642	61.69	Massachusetts	23,137,032	59.29
Missouri	18,502,882	64.78	Indiana	21,925,909	62.08
Iowa	13,681,934	67.09	Iowa	16,127,823	64.13
Wisconsin	13,546,412	69.35	Minnesota	15,917,927	66.16
Oklahoma	12,828,768	71.49	Washington	15,916,833	68.19
Minnesota	12,262,429	73.54	Wisconsin	15,032,416	70.10
Connecticut	10,150,902	75.28	Kansas	14,357,554	71.93
Kansas	10,137,264	76.92	Oklahoma	13,906,869	73.70
Tennessee	9,841,966	78.56	Oregon	12,627,424	75.31
Washington	9,203,441	80.10	Tennessee	11,204,932	76.74
Florida	8,702,987	81.55	North Carolina	10,869,355	78.12
Georgia	7,791,902	82.85	Connecticut	10,778,485	79.49
Nebraska	7,155,153	84.04	Florida	10,637,158	80.85
Maryland	6,888,142	85.19	Colorado	9,545,953	82.07
Colorado	6,565,035	86.28	Kentucky	9,411,339	83.27
Alabama	6,452,425	87.36	Nebraska	9,334,498	84.46
North Carolina	6,406,440	88.43	Virginia	9,165,716	85.63
Oregon	6,076,349	89.44	Maryland	8,605,569	86.73
Virginia	6,000,927	90.44	Georgia	8,268,915	87.78
Kentucky	5,582,165	91.37	Alabama	8,129,356	88.81
Louisiana	5,412,747	92.27	Maine	7,617,306	89.78
Arkansas	4,541,426	93.03	Louisiana	6,888,075	90.66
Rhode Island	4,509,801	93.78	West Virginia	6,804,725	91.53
West Virginia	4,491,873	94.53	Arkansas	6,473,787	92.35
District of Columbia	3,847,961	95.09	Mississippi	5,751,360	93.08
South Dakota	3,284,090	95.64	Montana	5,534,753	93.79
Idaho	2,664,992	96.08	South Dakota	5,262,353	94.46
Montana	2,534,486	96.50	Arizona	4,801,676	95.07
Mississippi	2,504,891	96.92	Rhode Island	4,317,583	95.62
South Carolina	2,466,066	97.33	New Hampshire	4,037,238	96.13
Maine	2,364,406	97.72	North Dakota	3,937,723	96.63
Arizona	2,336,925	98.11	Vermont	3,895,560	97.13
Utah	1,994,548	98.44	District of Columbia	3,868,518	97.62
North Dakota	1,967,407	98.77	Idaho	3,734,773	98.10
Vermont	1,619,776	99.04	South Carolina	3,545,974	98.55
New Mexico	1,482,666	99.29	Utah	3,272,910	98.97
Wyoming	1,313,916	99.51	New Mexico	2,924,874	99.34
Delaware	1,247,339	99.72	Wyoming	1,980,138	99.59
New Hampshire	1,191,388	99.92	Delaware	1,651,853	99.80
Nevada	467,570	100.00	Nevada	1,539,711	100.00

Position index of accessory, tire, and battery dealers, and garages and repair shops.—The unsoundness of per capita sales as an index of relative buying power of a community is fully discussed in chapter II, where on page 15 it is pointed out that population alone is only one factor and does not take into consideration the other contributing factors which affect the buying habits of the inhabitants. Per capita sales should only be used with extreme caution and then only after careful weighing to offset these other factors. The position index for accessory, tire, and battery dealers and for garages and repair shops is shown in table 2.

Size of stores.—The accessory, tire, and battery establishments, and the garages and repair shops are, predominately low-volume businesses. An analysis of the sales of accessory, tire, and battery dealers shows that nearly 75 percent of the establishments had annual sales of less than $30,000 in 1929. In fact, nearly 64 percent had sales of less than $20,000. An analysis of the annual sales reported by garages and repair shops shows that over 84 percent had sales of less than $20,000.

The following table presents in abbreviated form a comparison of stores and sales for accessory, tire, and battery dealers and for garages and repair shops. Complete detailed data for each of 11 size-of-store groups are shown in table 6 of this report. Similar data for each State are shown in the several State reports.[1]

[1] Obtainable from the Superintendent of Documents, Government Printing Office, Washington, D.C., at prices ranging from 5 to 35 cents each.

STORES AND SALES BY SIZE OF BUSINESS

A. ACCESSORY, TIRE, AND BATTERY DEALERS

SIZE-OF-STORE GROUPS CLASSIFIED ACCORDING TO AMOUNT OF ANNUAL SALES	Stores	Percent	Sales (in thousands)	Percent	Average sales per store
Total	22,313	100.00	$590,295	100.00	$26,859
Total, all stores with sales over $20,000	8,142	36.49	491,234	81.97	60,334
Stores with sales of:					
Over $100,000	1,062	4.76	192,494	32.13	181,256
From $50,000 to $100,000	2,071	9.28	141,738	23.65	68,440
From $30,000 to $50,000	2,539	11.38	97,225	16.22	38,293
From $20,000 to $30,000	2,470	11.07	59,777	9.97	24,201
Total, all stores with sales less than $20,000	14,171	63.51	108,061	18.03	7,626
Stores with sales of:					
From $10,000 to $20,000	4,573	20.49	65,020	10.85	14,218
From $5,000 to $10,000	3,960	17.75	28,359	4.73	7,161
Under $5,000	5,638	25.27	14,682	2.45	2,604

B. GARAGES AND REPAIR SHOPS

SIZE-OF-STORE GROUPS CLASSIFIED ACCORDING TO AMOUNT OF ANNUAL SALES	Stores	Percent	Sales (in thousands)	Percent	Average sales per store
Total	66,793	100.00	$785,001	100.00	$11,753
Total, all stores with sales over $20,000	10,548	15.80	437,798	55.77	41,505
Stores with sales of:					
Over $100,000	475	0.72	76,358	9.72	160,743
From $50,000 to $100,000	1,721	2.57	113,744	14.49	65,511
From $30,000 to $50,000	3,498	5.24	131,156	16.71	37,495
From $20,000 to $30,000	4,854	7.27	116,540	14.85	24,009
Total, all stores with sales less than $20,000	56,245	84.20	347,203	44.23	6,173
Stores with sales of:					
From $10,000 to $20,000	12,584	18.83	174,947	22.29	13,902
From $5,000 to $10,000	14,400	21.56	101,354	12.91	7,038
Under $5,000	29,261	43.81	70,902	9.03	2,423

These tables show only general summaries. A more complete analysis may be obtained by breaking down each of the above into their component classifications on the same size basis as outlined on page 65. This will bring out still more striking differences and will go far toward explaining the reasons for the differences.

Operating expenses of accessory, tire, and battery dealers, and garages and repair shops.—These establishments when taken as a group operate at an average expense rate of $39.40 per $100 of sales. However, this average is not representative of expense ratios of either of the two classes of establishments comprising this group. The average for the accessory, tire, and battery dealers is $30.70 per $100 of sales while the average for the garages and repair shops is $46.03 for each $100 of sales. The high total expense rate of the accessory, tire, and battery dealers results partly from the item of service, in which pay roll plays such an important part, and partly as a result of the relatively low sales of these establishments. The high expense rate of the garages and repair shops is the direct result of the pay-roll expense which amounts to an average of $31.25 per $100 of sales. Table 3 presents a comparison for each of these two classes of establishments. It furnishes a comparison of the variation of expense ratios for each of the individual classification included in each class and also presents expense variations for each of the three size-of-city groups. Similar data for department stores with food departments, for mail-order general merchandise houses, and for general merchandise stores with food departments, provide the basis for a comparison of expense ratios of competing stores.

Employees and wages.—A total of 272,209 persons were employed in accessory, tire, and battery shops and garages and repair shops, of which about 32 percent were employed in making repairs and installations. This total number of workers is made up of 96,864 active proprietors, 154,895 full-time employees, and 20,450 part-time employees. The total reported pay roll amounted to $221,645,860, which averages about $4,000,000 a week. To this amount must be added the wage value of proprietors' services in order to arrive at the total wage cost. Proprietors' compensation computed in the manner described in chapter II amounts to $130,505,340.

Following is a table showing the pertinent wage data for the two classes of establishments. Additional detailed information by individual kinds of business will be found in table 3 of this report.

PAY ROLL AND WAGE COSTS

KIND OF BUSINESS	Pay roll	Pay roll cost per $100 of sales	Total wage cost including estimated value of proprietors' services	Total wage cost per $100 of sales
Total	$221,645,860	$15.29	$352,151,200	$25.44
Accessory, tire, and battery dealers	76,103,776	12.70	106,873,721	17.83
Garages and repair shops	145,542,084	18.54	245,277,479	31.25

Repair employees.—The establishments in these two classifications reported a total of 86,443 repair employees, 17,659 of which were employed by accessory, tire, and battery dealers, and 68,784 by garages and repair shops. Additional data on this subject will be found in the special trade study on "Employment and Wages in the Retail Industry" previously referred to and on page 17 of chapter II. This is an important consideration since it may be directly associated with the amount reported as receipts from service and repairs.

Expenses by size of city.—The expense data shown in table 3 for the three size-of-city groups further supports the principle developed by the census that operating costs increase in almost direct proportion to the size of city. The reason is obvious. Wages are lower in the smaller cities, as are rents and many other items of expense. For a comparison of expenses with motor vehicle dealers (new and used) and filling stations see chapters II and IV, respectively, and the complete expense table shown on page 60.

Rents.—More than 80 percent of all accessory, tire, and battery dealers operate in leased premises. The average rental for these 17,908 establishments is $4.52 for each $100 of sales. Only about 57 percent of the garages and repair shops were operated in leased quarters. However, the average rental charges for these 37,941 establishments were $10.45 per $100 of sales. These ratios apply only to those dealers operating in wholly leased premises. The remainder of the establishments were operated in either owned or partly owned premises. Rental data for each of the individual classifications included in the two classes of establishments will be found in table 4.

Expenses of competing stores.—Large quantities of automotive accessories, particularly tires and tubes and batteries, are sold by department stores (without food departments), by mail-order general merchandise houses and by general merchandise stores (without food departments). The expense ratios of these three kinds of stores are well under the expense rate of the accessory, tire and battery shops and are about 15 percent lower than the garages and repair shops. This results in a distinct advantage for these competing stores. It permits a more advantageous pricing of the merchandise. This is also important from another angle namely that it increases store traffic and tends to increase the sales of other lines of merchandise.

Motor-vehicle dealers and filling stations, other important distributors of accessories, tires, and batteries also operate at much lower expense rates than either the regular accessory dealers or the garages. Each of these two kinds of distribution outlets are discussed individually in other chapters of this report, but must be considered collectively in any study of the distribution of automotive products.

Cash versus credit.—The amount of credit sales of accessory, tire, and battery shops, and garages, has heretofore been considered to be of minor importance. Actually, such is not the case, as the figures compiled from data furnished for the retail census clearly show. In reality credit in these establishments amounts to about 25 percent of the total sales and is relatively as important as the credit extended by the apparel stores as well as many others which are looked upon as being credit stores.

Out of a total of 7,762 accessory stores with tires and batteries, 6,074 reported concerning their credit activities. Only 2,709 reported that sales were made strictly on a cash basis. The remaining 3,365 representing more than 55 percent of the total number reporting advised that credit was extended in varying proportions, from amounts representing as little as 10 percent of sales to others

amounting to more than 80 percent of their entire volume. The aggregate amount of credit extended by the 6,074 dealers represents about 22 percent of their sales.

In the case of tire shops, 6,353 stores out of a national total of 8,142, reported as to their credit activities. Sales exclusively for cash were reported by 2,433 leaving 3,920 reporting credit in varying degrees. The credit of these 3,920 stores amounts to about 32 percent of the total sales of the 6,353 shops reporting, including the cash stores. There were 32,973 garages which reported that credit was extended, 18,873 which reported all cash sales and 8,781 which failed to answer the credit inquiry. Credit sales of the 51,846 garages which answered the inquiry amounted to more than 25 percent of their aggregate sales. While there was a total of 12,258 establishments in these three classifications which failed to report, there is little likelihood that the cash and credit ratios would vary materially from those of the 64,273 which did report.

The following series of tables for the three kinds of automotive businesses previously referred to supplies the approximate total credit sales made in each of the 10 degree-of-credit groupings and the proportions which represent cash and credit.

CREDIT OPERATIONS OF ACCESSORY STORES WITH TIRES AND BATTERIES

DEGREE OF CREDIT CLASSIFICATION	Number of establishments	Retail sales cash and credit	Approximate cash proportion	Approximate credit proportion
All cash	2,709	$89,307,000	$89,307,000	----------
1 to 10 percent credit	623	13,728,000	13,041,600	$686,400
11 to 20 percent credit	502	12,501,000	10,625,800	1,875,200
21 to 30 percent credit	413	9,941,000	7,455,500	2,485,500
31 to 40 percent credit	386	10,153,000	6,599,500	3,553,500
41 to 50 percent credit	452	10,330,000	5,681,500	4,648,500
51 to 60 percent credit	308	9,593,000	4,316,800	5,276,200
61 to 70 percent credit	269	9,366,000	3,278,100	6,087,900
71 to 80 percent credit	201	8,761,000	2,190,200	6,570,800
Over 80 percent credit	211	10,858,000	1,085,800	9,772,200
Total analyzed	6,074	184,538,000	143,581,800	40,956,200
Percent of sales	----------	100.00	77.81	22.19

CREDIT OPERATIONS OF TIRE SHOPS (INCLUDING TIRE REPAIRS)

DEGREE OF CREDIT CLASSIFICATION	Number of establishments	Retail sales cash and credit	Approximate cash proportion	Approximate credit proportion
All cash	2,433	$66,399,000	$66,399,000	----------
1 to 10 percent credit	613	9,753,000	9,265,400	$487,600
11 to 20 percent credit	472	8,328,000	7,078,800	1,249,200
21 to 30 percent credit	409	7,303,000	5,477,300	1,825,700
31 to 40 percent credit	405	7,849,000	5,101,800	2,747,200
41 to 50 percent credit	552	12,604,000	6,932,200	5,671,800
51 to 60 percent credit	354	10,521,000	4,734,500	5,786,500
61 to 70 percent credit	320	12,057,000	4,220,000	7,837,000
71 to 80 percent credit	345	14,720,000	3,680,000	11,040,000
Over 80 percent credit	450	20,221,000	2,022,100	18,198,900
Total analyzed	6,353	169,755,000	114,911,100	54,843,900
Percent of sales	----------	100.00	67.69	32.31

CREDIT OPERATIONS OF GARAGES (REPAIRS, STORAGE, GASOLINE, AND OIL, ACCESSORIES)

DEGREE OF CREDIT CLASSIFICATION	Number of establishments	Retail sales cash and credit	Approximate cash proportion	Approximate credit proportion
All cash	18,873	$187,471,000	$187,471,000	----------
1 to 10 percent credit	5,755	66,156,000	62,848,200	$3,307,800
11 to 20 percent credit	5,452	52,457,000	44,588,400	7,868,600
21 to 30 percent credit	4,239	42,931,000	32,198,200	10,732,800
31 to 40 percent credit	4,404	48,556,000	31,561,400	16,994,600
41 to 50 percent credit	5,881	64,082,000	35,245,100	28,836,900
51 to 60 percent credit	2,431	36,038,000	16,217,100	19,820,900
61 to 70 percent credit	2,131	34,263,000	11,992,000	22,271,000
71 to 80 percent credit	1,606	25,411,000	6,652,700	18,758,300
Over 80 percent credit	1,074	20,521,000	2,052,100	18,468,900
Total analyzed	51,846	577,486,000	430,426,200	147,059,80
Percent of sales	----------	100.00	74.53	25.47

Accessory chains.—Chain penetration in this field has not been particularly marked. A total of 52 chain organizations operated 855 separate establishments in 1929 and reported aggregate sales of $59,486,300. The average sales per store amounted to $69,575 at an average operating expense of $27.34 per $100 of sales. These averages are of particular interest since the average sales for all accessory dealers is only about $33,000 at an average expense rate of $28.34. Following is a brief summary of the operating data supplied by the accessory chains.

SUMMARY OF OPERATING DATA—ACCESSORY CHAINS

	Number and amount
Total, accessory chains	52
Number of local chains	34
Number of sectional and national chains	18
Total units	855
Local	189
Sectional and national	666
Total net sales (1929)	$59,486,300
Credit sales	2,500,305
Store-operating expenses (per $100 of sales)	27.34
Pay-roll cost, 4,353 employees (per $100 of sales)	10.77
Other store-operating expenses, including rent (per $100 of sales)	16.57
Rent, 821 leased stores (per $100 of sales)	4.00

Tire chains.—There were 67 tire chains operating 1,137 separate establishments in 1929. The sales of these chain tire shops amounted to a total of $58,381,233 in that year. Nearly 40 percent of these chain stores were opened during 1929. About 25 percent were opened during the period from 1925 to 1928 and the remainder were begun prior to 1925. The following summary of operating data of tire chains is included, not because chain operators were a particularly important factor in the field during 1929, but because of the chain development which has taken place in the field in recent years. The entry of certain tire manufacturers in the field of retailing may have an important influence on the tire distribution in subsequent years.

SUMMARY OF OPERATING DATA—TIRE CHAINS

	Number and amount
Total number of tire chains	67
Number of local chains	50
Number of sectional and national chains	17
Total units	1,137
Local	329
Sectional and national	808
Total net sales (1929)	$58,381,233
Credit sales	8,282,795
Store operating expenses (per $100 of sales)	30.68
All cash chains (per $100 of sales)	28.08
Credit-granting chains (per $100 of sales)	31.30
Pay roll cost, 6,993 employees (per $100 of sales)	14.94
All cash chains, 5,833 employees (per $100 of sales)	13.45
Credit-granting chains, 1,160 employees (per $100 of sales)	15.29
Other store operating expenses, including rent (per $100 of sales)	15.74
All cash chains (per $100 of sales)	14.63
Credit-granting chains (per $100 of sales)	16.01
Rent, 1,062 leased premises (per $100 of sales in such premises)	3.90
All cash chains, 391 leased premises (per $100 of sales in such leased premises)	4.15
Credit-granting chains, 671 leased premises (per $100 of sales in such leased premises)	3.84

CHAPTER IV.—FILLING STATIONS

Description of the business.—The filling stations described and discussed in this chapter are establishments in which the principal activity is the sale of gasoline, lubricating oils, and greases at retail. These stations may, and very often do, sell other merchandise, but unless gasoline, oil, and lubrication service are the principal items sold, they are not classified as filling stations.

Many other kinds of retail dealers also sell gasoline and oil, particularly in the smaller cities and towns and in certain rural areas where the infrequent demand does not warrant establishments devoted exclusively to the sales of this merchandise. These establishments were classified on the basis of the principal commodities sold or on the basis of their popular designation. For example, a country general store selling some gasoline and oil as well as a general line of merchandise is recognized both by residents of the community and by travelers as a general store and it is so classified in the census.

Retail outlets for gasoline and oil.—In order to secure a comprehensive picture of the country's gasoline distribution system a tabulation has been prepared showing by States the number of retailers (irrespective of the kind of business classification) operating gasoline pumps. This tabulation shows that a total of 317,232 retail establishments reported the sale of gasoline in 1929. Only about 38 percent of this number were filling stations (so classified because the sale of gasoline and oil was their principal activity). Nearly 20 percent were garages and parking stations. Another 14 percent of the establishments were motor-vehicle dealers (new and used). The remainder, representing about 28 percent of the total number, are stores engaged primarily in some other line of business and operating gasoline pumps as a secondary part of their business.

The following table shows by kind of business and by States the number of retailers operating gasoline pumps. This table does not take into consideration those retailers who do not sell gasoline but do distribute lubricating oil, either in bulk or in sealed containers. It is recognized that there are many such establishments but no data are available from which authentic totals or even accurate estimates can be secured.

27300—34——5

Retail Outlets for Gasoline and Oil in the United States

[Number of filling stations and other retailers]

STATES	RETAILERS SELLING GASOLINE AND OIL															
		Automotive group					Other kinds of business									
	Total	Filling stations	Garages and parking stations	Motor-car dealers	Used-car dealers	Accessory, tire, battery, and other automotive shops	Country general stores	Grocery and other food stores	Restaurants and other eating places	Hardware stores	Farmers' supply stores	General merchandise stores	Lumber dealers	Furniture stores	Drug stores	All other retail stores
United States	317,232	121,513	62,486	40,797	3,095	5,192	38,530	34,455	3,568	2,085	1,763	1,431	444	430	348	1,095
Percent	100.00	38.30	19.70	12.86	0.97	1.64	12.15	10.86	1.12	0.66	0.55	0.45	0.14	0.14	0.11	0.35
Connecticut	3,380	1,595	760	537	73	52	60	204	47	16	6	2	8	7	-------	13
Maine	2,996	671	622	419	41	40	482	477	73	54	37	34	10	6	4	26
Massachusetts	7,363	3,734	1,401	1,142	148	121	101	452	187	13	9	3	9	7	3	33
New Hampshire	1,741	633	364	254	15	22	171	186	57	9	3	10	3	1	1	12
Rhode Island	1,358	623	344	174	29	31	23	91	17	9	2	4	2	3	-------	6
Vermont	1,740	502	351	212	6	25	363	134	51	31	30	13	8	3	1	10
New York	22,181	8,815	6,032	3,043	252	373	1,343	1,274	425	201	161	41	57	32	17	115
New Jersey	7,867	3,265	2,065	1,167	81	222	236	468	199	42	29	9	15	24	6	39
Pennsylvania	18,910	6,761	4,168	3,119	121	398	1,882	1,452	467	164	142	53	46	39	11	87
Illinois	14,237	6,008	3,285	2,477	218	302	785	645	135	135	111	52	21	13	4	46
Indiana	9,522	3,436	2,064	1,367	68	270	1,004	896	173	74	81	24	15	11	8	31
Michigan	11,340	5,375	1,839	1,829	184	218	674	894	96	66	74	22	7	14	7	41
Ohio	16,851	7,230	3,235	2,460	206	285	1,410	1,414	221	139	85	42	29	20	10	65
Wisconsin	7,674	2,775	1,334	1,694	87	142	638	537	191	120	73	24	13	13	1	32
Iowa	7,366	2,956	1,693	1,538	77	188	411	237	21	111	73	11	14	12	4	20
Kansas	6,557	2,904	1,465	1,106	73	177	356	283	19	43	71	9	15	7	3	26
Minnesota	6,402	2,273	1,417	1,351	31	161	528	330	26	121	93	24	12	14	1	20
Missouri	10,393	3,928	2,330	1,143	135	213	1,577	724	61	62	114	40	16	11	8	31
Nebraska	3,854	1,430	899	924	53	74	185	124	9	75	33	15	9	9	2	13
North Dakota	1,990	503	444	426	-------	27	216	69	5	159	82	18	9	24	-------	8
South Dakota	2,176	686	495	526	3	42	173	100	5	91	29	7	2	4	-------	13

Delaware	774	309	151	83	3	6	90	100	6	4	11	2		1	1	7
District of Columbia	470	269	96	71	18	11		2		1						2
Florida	6,023	2,888	1,032	425	60	118	548	841	44	4	9	26	3	3	9	13
Georgia	8,990	2,818	993	563	21	80	1,786	2,490	76	19	9	53	1	12	42	27
Maryland	3,409	939	674	414	39	53	519	657	37	28	20	10	10	4		5
North Carolina	10,380	4,032	1,123	678	14	50	2,115	2,203	38	11	20	67	3	4	6	16
South Carolina	5,241	1,684	568	326	16	25	1,031	1,513	9	7	4	35	1	4	9	9
Virginia	8,800	2,116	1,039	663	9	64	3,273	1,402	43	29	25	80	8	12	10	27
West Virignia	3,713	1,201	708	495	16	30	800	305	70	9	9	46	5	3	1	15
Alabama	7,173	1,618	960	403	10	110	2,199	1,608	109	11	6	67	1	13	41	17
Kentucky	6,055	1,201	1,147	661	10	83	2,013	692	100	24	39	47	8	8	5	17
Mississippi	6,100	1,612	672	451	4	23	1,715	1,445	55	13	7	53	4	4	33	9
Tennessee	6,099	1,326	979	503	19	84	2,178	828	63	7	18	55	1	11	15	12
Arkansas	5,728	1,807	750	400	11	55	1,458	1,058	34	10	21	64	4	13	29	14
Louisiana	5,290	1,856	685	354	9	44	1,193	1,020	39	4	10	55	3	3	9	6
Oklahoma	8,224	4,336	1,278	864	72	100	555	908	21	15	26	21	5	4	7	12
Texas	19,835	8,523	3,876	1,853	170	215	1,868	2,978	82	29	48	88	10	18	27	50
Arizona	1,642	625	271	172	18	24	153	314	11	1	1	33	2			17
Colorado	3,304	1,349	772	480	50	50	212	277	16	23	21	30	5	1	3	15
Idaho	1,352	441	274	264	3	29	156	129	8	11	11	14	4	4		4
Montana	1,671	434	404	315	9	20	269	119	8	33	24	14	9	5		8
Nevada	379	116	77	74	2	7	60	34				6				3
New Mexico	1,494	450	235	151	3	41	298	275	3	2	1	24	1		2	8
Utah	1,324	554	270	153	7	14	176	107	13	2	4	6	4	1	3	10
Wyoming	778	238	138	169	4	15	114	62	2	4	5	14	6	3		4
California	17,813	8,650	4,549	1,870	515	335	452	1,171	133	13	21	35	10	10	1	48
Oregon	3,781	1,561	965	401	36	45	308	367	31	11	23	10	5	6	1	11
Washington	5,492	2,457	1,193	633	46	78	373	559	32	25	32	19	11	9	3	22

The preceding table will provide the answer for many of the questions raised in the subsequent discussions of filling stations. Probably one of its most popular uses will be to furnish an explanation of why in some sections of the country a lower proportionate number of filling stations are found. The explanation, of course, is that in many communities a large share of the motorists buy fuel for their automobiles from other kinds of retail stores, and not that the number of motor vehicles in operation is relatively low.

Filling stations—number and amount of annual sales.—There were 121,513 stations, classified as such, in operation in the United States in 1929 and their total annual sales aggregated $1,787,423,097 in the same year. This national sales total represents 3.64 percent of the total annual sales of all retail stores in the country and 18.59 percent of the total reported sales of the entire retail automotive group. Table 1E enumerates these stations and sales by States. Filling stations have been classified into three separate kinds in the separate State reports and in the United States Summary, the basis for such segregation being fully explained in that portion of chapter I which is devoted to definitions. The filling station tables contained in this report show the three kinds of establishments separately when necessary for expense comparisons, etc., but combine the three into one group whenever possible.

How the size of city affects sales.—The cities of more than 30,000 population contain only about 27 percent of the filling stations of the country but these 32,381 establishments do more than 41 percent of the total filling station business. The proportion of stations and sales vary materially between States, partly because of the wide variation in population, partly as a result of competition from other kinds of business also selling gasoline and oil and not infrequently, in the more densely populated areas, as a result of local legislative restrictions. Variation in gasoline tax rates in adjoining States may also have an effect on total sales, especially in cities located on or near State boundary lines.

Table 1E provides, for each State and for the nine geographic divisions, a comparison of the number of stations and the sales in each of the three size-of-city groups.

Geographic distribution of filling-station sales.—More than 52 percent of the country's total sales of filling stations were made in establishments located in 9 of the 48 States and the District of Columbia. These States, which include, in respective sales order, New York, California, Ohio, Illinois, Michigan, Pennsylvania, Texas, New Jersey, and Missouri, contain 49 percent of the total population of the United States and 52 percent of all registered motor vehicles.[1] These States contain 10 of the 13 cities of more than 500,000 population and 43 of the 93 cities of over 100,000 population.

The following table presents the States arranged in the order of their filling station sales importance. It also contains a column showing the population ranking. Gasoline and oil and food are two lines of merchandise which, under normal conditions, are most preferably purchased in reasonably close proximity to the place of residence, if other factors influencing the sales are about equal. The State population ranking which shows a considerable variation from the sales ranking is believed to be partly the result of gasoline and oil purchases from other than strictly filling stations.

[1] Registration figures from the U.S. Bureau of Public Roads, Department of Agriculture.

FILLING STATIONS

Filling station sales ranking	States	Population ranking	Sales of filling stations	Cumulative percent of U.S. total	Filling station sales ranking	States	Population ranking	Sales of filling stations	Cumulative percent of U.S. total
	United States total		$1,787,423,097	100.00	24	Colorado	33	$21,763,002	84.02
					25	Tennessee	16	18,984,638	85.08
					26	Louisiana	22	18,752,959	86.13
1	New York	1	140,987,573	7.89	27	Alabama	15	18,424,322	87.16
2	California	6	137,724,082	15.59	28	Arkansas	26	17,992,916	88.17
3	Ohio	4	132,796,326	23.02	29	West Virginia	27	17,987,966	89.17
4	Illinois	3	110,482,634	29.20	30	Mississippi	23	17,115,878	90.13
5	Michigan	7	109,068,913	35.31	31	Maryland	28	17,081,338	91.09
6	Pennsylvania	2	102,570,853	41.04	32	Oregon	34	16,957,001	92.03
7	Texas	5	94,418,511	46.33	33	Kentucky	17	16,548,762	92.95
8	New Jersey	9	54,549,594	49.38	34	South Carolina	20	15,211,650	93.80
9	Missouri	10	53,419,690	52.37	35	South Dakota	36	14,848,453	94.64
10	Massachusetts	8	52,319,468	55.29	36	District of Columbia	41	11,354,951	95.28
11	Indiana	11	51,214,796	58.16	37	North Dakota	38	10,766,926	95.89
12	Oklahoma	21	49,751,828	60.94	38	Montana	39	10,213,083	96.46
13	Wisconsin	13	48,961,635	63.68	39	Rhode Island	37	8,879,971	96.96
14	Iowa	19	48,341,448	66.38	40	Utah	40	8,654,398	97.44
15	Minnesota	18	46,720,813	68.99	41	Arizona	44	8,185,356	97.90
16	Kansas	24	44,344,911	71.47	42	Maine	35	6,987,760	98.27
17	North Carolina	12	37,824,940	73.59	43	Idaho	43	6,268,330	98.63
18	Florida	31	29,903,997	75.26	44	New Hampshire	42	5,318,179	98.93
19	Nebraska	32	29,413,579	76.91	45	New Mexico	45	4,812,807	99.20
20	Washington	30	28,415,451	78.51	46	Vermont	46	4,388,855	99.45
21	Georgia	14	26,845,684	80.01	47	Delaware	47	4,254,238	99.68
22	Connecticut	29	26,387,419	81.49	48	Wyoming	48	4,242,850	99.92
23	Virginia	20	23,610,829	82.81	49	Nevada	49	1,350,934	100.00

Position index of filling stations.—The use of per capita sales as a general index of buying power for popular use has been repeatedly discouraged in all of the special retail trade studies. *Chapter II* outlines several of the reasons why per capita sales indices may result in arriving at inaccurate or unsound conclusions, and why they should be used with extreme care. The position index, briefly described as an index of the relative importance of the sales of a given kind of business in different areas or communities, is a more significant and reliable barometer and is recommended in place of the individual indexes which fail to take into consideration other factors having a definite bearing on the question. Table 2 of this report contains the position index for filling stations as well as for the other important kind-of-business classifications in the retail automotive group.

Size of stations.—Filling stations are predominately low-volume businesses. A comparison of stations and sales by size of establishment shows that more than 54 percent of all stations in operation in 1929 had annual sales of less than $10,000. The total sales of these 65,641 *gasoline* outlets amounted to only $258,635,000 or 14.46 percent of the total sales of all filling stations. In fact more than 76 percent of the stations had annual sales of less than $20,000.

The following brief table shows comparisons of the number of establishments and sales by size-of-business groups. More detailed data will be found in table 6.

NUMBER AND SALES OF FILLING STATIONS BY SIZE OF BUSINESS

SIZE-OF-STATION GROUPS CLASSIFIED ACCORDING TO AMOUNT OF ANNUAL SALES	Stations	Percent	Sales (in thousands)	Percent	Average sales per station
Total, all filling stations	121,513	100.00	$1,787,423	100.00	$14,710
Total, filling stations with sales over $20,000	28,483	23.44	1,139,215	63.74	40,000
Stations with sales of:					
Over $100,000	977	.81	155,528	8.71	159,180
From $50,000 to $100,000	4,440	3.65	291,636	16.32	65,680
From $30,000 to $50,000	9,951	8.19	374,895	20.97	37,670
From $20,000 to $30,000	13,115	10.79	317,156	17.74	24,180
Total, filling stations with sales of less than $20,000	93,030	76.56	648,208	36.26	6,970
Stations with sales of:					
From $10,000 to $20,000	27,389	22.54	389,573	21.80	14,220
From $5,000 to $10,000	23,345	19.21	167,043	9.34	7,160
Under $5,000	42,296	34.81	91,592	5.12	2,170

Operating expenses of filling stations.—Filling stations operate at an average expense rate of $23.81 per $100 of sales. This average is not representative of the operating costs of each of the three kinds of filling stations. Those which sell gasoline and oil exclusively and perform lubrication service operate at a total reported cost of $23.66 per $100 of sales. Those which perform all the functions of the first and in addition sell tires and accessories reported a total operating cost of $22.87 for each $100 of sales, which is nearly 1 percent under the national average for all stations. This is partly accounted for by lower wage costs in relation to sales and partly by a lower rate of rental cost, both apparently resulting from increased sales volume accounted for by the added lines of related merchandise. The stations which sell other miscellaneous merchandise such as smokes, candy, lunches, soft drinks, etc., operate at an expense rate of $25.37 which is $1.50 per $100 of sales higher than the average for all stations. Higher wage costs are largely responsible for this increase in operating costs which suggests that the selling of this additional miscellaneous merchandise required additional employees without providing enough added business to keep them fully occupied.

Table 3 of this report summarizing the expenses of the three kinds of filling stations is worthy of special consideration especially in connection with chapter which contains a breakdown of the commodities sold. Related lines of merchandise should be added only if the additional merchandise can be sold without increasing the costs of operation out of all proportion to the amount added to the sales volume.

Expenses by size of city.—The expenses of filling stations increase with the size of city in the case of the cities of more than 10,000 population. The reports for stations located in places of less than 10,000 population, while about equal to the average for all stations is 1.79 percent higher than those located in cities from 10,000 to 30,000 population. Table 3 provides an explanation of this increase in cost. A much higher proportion of the stations are proprietor-owned which has added materially to the wage costs of these small city and country stations. Reported wages paid to salaried employees are low in this under 10,000 population group but amounts charged to the establishments as compensation for proprietors increase the pay roll cost from $7.08 per $100 of sales to $16.91, an increase of 139 percent over the reported pay roll cost.

Rents paid in leased premises.—Rents, always an important item of expense, average $5.35 per $100 of sales for filling stations operated in leased premises. This national average for all stations does not vary materially between any of the three kinds of establishments. The average for those selling gasoline and oil exclusively is $5.79, the average for those also selling tires and accessories is an even $5; while those selling other miscellaneous merchandise reported an average rental rate of $4.96 per $100 of sales. Only about 42 percent of the filling stations were operated in leased premises.

The following table supplies rental data for each of the three kinds of filling stations:

RENTS PAID IN LEASED PREMISES

KIND OF BUSINESS	Number operated in leased premises	Percent of total operated in leased premises	Rent paid for leased premises	Sales of stations operated in leased premises	Rental cost per $100 of sales
Total, all filling stations	51,249	42.18	$46,854,302	$875,569,485	$5.35
Filling stations (gasoline and oil)	22,132	41.97	23,201,023	400,962,206	5.79
Filling stations (with tires and accessories)	15,153	50.59	15,714,149	314,577,584	5.00
Filling stations (with other merchandise)	13,964	33.24	7,939,130	160,029,695	4.96

Cash versus credit in filling stations.—A total of 91,072 filling stations out of the United States total of 122,513 reported concerning their credit activities. These 91,072 stations are included in an analysis in which they have been classified according to the degree of credit business. Only about 48 percent of these stations reported that they were selling entirely for cash. These cash stations accounted for more than 36 percent of the total business of reporting establishments. The remaining 52 percent of the stations reported that they sell on credit as well as for cash. The sales of credit-granting stations amounted to about 64 percent of the business of reporting establishments.

The following brief table provides some interesting comparisons of average sales between the cash and credit-granting stations.

AVERAGE SALES

STATIONS REPORTING CREDIT	Number of stations	Net sales	Average sales
All stations	91, 072	$1, 223, 780, 000	$13, 438
All cash	43, 589	442, 660, 000	10, 155
Cash-credit	47, 483	781, 120, 000	16, 451

While there were 30,441 stations with sales aggregating $563,643,000 which failed to report concerning their credit activities, the 91,072 which report accounted for 68.41 percent of the total sales of all stations. There is no reason to believe that the cash and credit ratios of the nonreporting stations would materially affect the ratios of the reporting stations. The following table estimates the amount of cash and credit of the 91,072 filling stations reporting on their credit activities.

FILLING STATIONS

DEGREE OF CREDIT CLASSIFICATION	Number of establishments	Retail sales cash and credit	Approximate cash proportion	Approximate credit proportion
All cash	43, 589	$442, 660, 000	$442, 660, 000	
1 to 10 percent credit	13, 106	200, 503, 000	190, 477, 800	$10, 025, 200
11 to 20 percent credit	8, 309	114, 876, 000	97, 644, 600	17, 231, 400
21 to 30 percent credit	6, 469	97, 639, 000	73, 229, 200	24, 409, 800
31 to 40 percent credit	6, 030	100, 946, 000	65, 614, 900	35, 331, 100
41 to 50 percent credit	6, 723	110, 624, 000	60, 843, 200	49, 780, 800
51 to 60 percent credit	2, 767	58, 050, 000	26, 122, 500	31, 927, 500
61 to 70 percent credit	2, 008	42, 020, 000	14, 707, 000	27, 313, 000
71 to 80 percent credit	1, 206	27, 659, 000	6, 914, 700	20, 744, 300
Over 80 percent credit	865	28, 803, 000	2, 880, 300	25, 922, 700
Total analyzed	91, 072	1, 223, 780, 000	981, 094, 200	242, 685, 800
Percent of sales		100. 00	80. 17	19. 83

Table 9 contains complete degree-of-credit figures for filling stations. It also contains a breakdown of all cash stores and cash and credit stores together with the sales of each, for each of the several States. Additional State credit data will be found in each of the separate State reports and in the United States summary.

Filling station chains.—The importance of the chains in the filling station field is evident from the chain figures which show that more than 23 percent of the stations are chain operated and that their sales represent nearly 34 percent of the total annual sales of all filling stations. It is the only field in the automotive group in which the chain growth has been particularly rapid and important. The chain figures shown in this report cover only stations 100 percent operated by the chain organization. Those operated by individuals under a leasing or licensing agreement are independents. See table 8.

The following table, prepared from data contained in the report no. R-63 entitled "Retail Distribution by Filling Station Chains", furnishes expense and other operating data for the chain stations in this field.

This table differs in number of establishments and sales from table 6 of the United States summary of Retail Distribution for the reason that table 6 is based upon individual classification of each schedule, while in the chain report the classification is based on the chain as a whole without taking into consideration each individual station. The difference is insignificant and should have no material effect on the conclusions reached.

CHAIN FILLING STATIONS [1]

	Number and amount
Number of chain organizations	864
Number of units [2]	30,038
Total net sales [2]	$620,024,206
EXPENSES	
Total reported expenses	$149,498,301
Expenses per $100 of sales	$23.77
Total wage cost	$81,230,385
Wage cost per $100 of sales	$12.92
Other operating expenses (including rent)	$4,368,132
CREDIT IN CHAINS REPORTING CREDIT	
Total credit sales	$43,039,937
Percent of total sales	20.8
Total cash sales	$163,480,431
Percent of total sales	79.2

[1] The filling stations included in this table are those which are 100 percent operated by the chain companies. Those operated by individuals on a leasing or licensing arrangement with chain owners are classified as independent operators.

[2] Classified individually the chain stations number 28,617 with sales amounting to $605,203,748, a difference of 1,421 stations and $23,820,548 in sales. For further explanation of differences see the United States Summary of Retail Distribution.

CHAPTER V.—SALES BY COMMODITIES

Manufacturers, marketing their products through wholesale and retail trade channels, and advertising agencies, directing and promoting the distribution of manufactured products have a very definite and direct use for commodity sales data. Likewise, wholesalers and retailers also have definite use for reliable information concerning the nature and volume of each commodity sold in a given kind of business. In fact, authentic commodity sales data are of interest and value to each and every one of the several groups performing any of the necessary functions incidental to the movement of goods from the producer to the consumer.

It is obvious, of course, that accurate data could only be secured to the extent that the records of the establishments made that possible. In the case of concerns engaged in wholesale trade, little difficulty was experienced because the majority were located in the cities of more than 10,000 population and a large proportion had sufficient sales volume to make commodity sales records essential to successful operation. However, in the case of retailers the situation was somewhat different. Not more than 15 percent of the total number of retailers keep records in such detail that they are able to accurately report their sales in terms of commodities sold. They know the amount of their total business and have a general idea of about the proportion of their sales in each merchandise line but are unable to supply accurate book figures, or even close estimates of their dollar sales of each of the different commodities handled.

After the difficulties encountered and the experience gained in the Eleven City Census taken in 1927, it was decided to limit the requests for retail commodity sales figures to retailers located in the cities of more than 10,000 population which were doing an annual business of $60,000 or more. In the case of dealers in automotive products, for which a special schedule had been prepared, the decision was amended to include all dealers regardless of size, located in the cities, which were able to supply commodity data. As a result, the concerns which were able to furnish commodity sales breakdowns, actually accounted for about 33 percent of the total sales of all retail dealers in automotive products. This relatively high degree of coverage for the retail automotive group as a whole is not at all representative of the coverage for the several individual kinds of business. The fact that about 50 percent of the sales of motor vehicle dealers (both new-car and used-car dealers) were made by concerns able to supply a sales breakdown is responsible for the high coverage for the group.

Following is a brief table showing the estimated commodity coverage for nine kinds of retail automotive establishments.

DEGREE OF SALES COVERAGE OF COMMODITY REPORTS

KINDS OF BUSINESS	Average coverage [1] (estimated percent)
Automotive group (retail only)	33.0
Automobile sales rooms (new and trade in)	50.0
Used car dealers	78.0
Automobile dealers, with farm implements and machinery	10.0
Accessory stores with tires and batteries	40.0
Battery and ignition shops	20.0
Tire shops (including tire repairs)	54.0
Filling stations (gasoline and oil only)	18.0
Filling stations with tires and accessories	13.0
Garages	9.0

[1] Commodity coverage is the proportion of sales made in those establishments which reported commodity figures, to the total sales of all establishments in the same kind-of-business classification. These figures are estimated and are included only for the purpose of showing the wide variation between kinds of business in the percent of commodity coverage.

In view of these wide variations in the proportion of commodity coverage and because of the many different kinds of establishments involved, the commodity sales were shown only in percentages in the retail State reports, with the degree of coverage shown for each kind of business.

In the special series of trade reports outlining some specific uses for the data and providing the bases for other studies the percentages shown in the State reports were converted into sales totals, or dollar figures. This is accomplished by applying the percentages shown in the second column of table 15 of each State report to the total sales for the same kind of business as given in table 1 of the same report.

National estimate of the retail sales of automotive products.—Applying the method described above it is possible to obtain a very close approximation of the total sales of each of the automotive products sold by the different kinds of retail establishments. To these totals must be added the retail sales of wholesalers in order to arrive at a total retail figure.

In the manner described it has been estimated that the total retail sales of automotive products through all kinds of retail establishments amounted to approximately $8,234,244,000 for the year 1929. The retail sales of automobile wholesaler-retailers amounted to an additional $225,514,000, which increased the retail sales total to $8,459,759,000. To this total, which represents sales of merchandise only, must be added $991,230,000 of receipts from repairs and storage which obviously are retail operations. This increases the total volume of sales of automotive products and service to $9,450,989,000.

The balance reported as sales is made up of wholesale sales of the retail dealers in automotive products and wholesaler-retailers, from sales of radios and radio equipment and other miscellaneous merchandise. The reported wholesale sales of these establishments will be discussed later in this chapter.

Retail sales of automotive products by retailers.—The $8,234,244,000 reported by retailers of automotive products as representing sales of automobile commodities actually accounts for about 19 percent of the total sales of $49,000,000,000 reported by all retail establishments in the United States. About 59 percent of the total of retail automotive products represents sales of motor vehicles, 18 percent was sales of parts, accessories, tires, and batteries, and 23 percent was sales of gasoline, lubricating oils, and greases.

The following table shows by States and geographic divisions the estimated sales of these retail establishments, arranged in six commodity groups for convenience in comparisons with national totals and averages. These figures are essentially composite figures representing, as they do, the accumulation of all reported retail sales of automotive products by the several kinds of retail businesses. It does not include the retail sales of automobile wholesaler-retailers, which will be separately discussed. Also it does not include the wholesale sales of the retail automobile establishments, nor the receipts from repairs and storage, nor the sales of nonautomotive commodities. Separate reference will also be made for these various items. Table 11 shown on page 77 of this report contains a complete breakdown of the retail sales of automotive products by the retail dealers and the wholesaler-retailers.

The abbreviated 6-commodity table follows:

Approximate Total Retail Sales of Automotive Products by States and Geographic Divisions [1] Shown for all Kinds of Retail Establishments Except Country General Stores

[Sales in thousands of dollars]

Divisions and states	Total, automotive commodities	Percent of total	Passenger automobiles (new and used)	Commercial cars and trucks (new and used)	Busses and special-purpose vehicles (including tractors)	Automotive parts and accessories (including batteries)	Tires, tubes, and tire accessories	Gasoline, oils, and greases
United States total	$8,234,244	100.00	$4,186,458	$553,939	$167,396	$952,624	$533,054	$1,860,772
New England	570,680	6.93	304,980	43,612	3,792	72,573	38,206	107,517
Connecticut	121,034	1.47	61,721	9,634	348	14,145	10,690	24,495
Maine	52,247	0.63	28,089	4,188	701	8,126	3,308	7,834
Massachusetts	285,125	3.46	154,260	21,329	1,707	36,210	17,331	54,287
New Hampshire	33,990	.41	18,563	1,927	110	4,790	2,252	6,348
Rhode Island	46,614	.57	24,503	4,390	553	5,243	2,895	9,030
Vermont	31,670	.39	17,843	2,144	371	4,059	1,730	5,523
Middle Atlantic	1,605,995	19.50	811,111	140,696	40,088	187,994	99,883	326,221
New Jersey	278,941	3.39	141,042	25,327	4,150	32,148	16,560	59,712
New York	790,341	9.60	403,983	69,762	29,651	89,615	48,866	148,461
Pennsylvania	536,713	6.51	266,086	45,607	6,287	66,230	34,456	118,047
East North Central	1,959,283	23.79	1,029,675	116,726	21,604	215,287	105,989	470,000
Illinois	534,380	6.48	288,926	29,861	7,283	65,587	28,982	113,739
Indiana	236,095	2.88	128,501	11,306	2,401	24,703	13,610	55,573
Michigan	447,591	5.43	239,463	28,142	4,148	44,632	21,350	109,856
Ohio	529,295	6.43	265,986	33,502	5,063	56,101	32,083	136,559
Wisconsin	211,922	2.57	106,798	13,915	2,709	24,263	9,964	54,273
West North Central	1,016,469	12.34	473,749	63,133	38,403	113,326	64,056	263,802
Iowa	193,827	2.35	94,255	10,203	6,698	21,089	11,081	50,501
Kansas	171,365	2.08	81,634	11,868	2,610	16,578	12,221	46,453
Minnesota	184,647	2.24	85,582	10,125	6,816	20,788	11,694	49,642
Missouri	237,415	2.89	112,700	16,627	4,894	27,232	17,618	58,343
Nebraska	120,803	1.47	54,856	8,110	7,211	15,680	4,932	30,014
North Dakota	53,055	.64	21,515	3,992	5,698	6,078	3,224	12,549
South Dakota	55,357	.67	23,207	2,208	4,476	5,881	3,286	16,299
South Atlantic	727,642	8.84	343,909	50,079	6,414	85,105	48,853	193,281
Delaware	17,812	.22	8,908	1,341	116	2,157	771	4,519
District of Columbia	46,089	.56	21,810	3,801	413	5,715	2,505	11,844
Florida	101,993	1.23	44,508	4,625	734	11,162	7,110	33,853
Georgia	117,084	1.42	56,182	8,037	2,101	14,238	8,701	27,827
Maryland	87,537	1.07	40,567	10,204	1,119	11,087	5,903	18,657
North Carolina	127,436	1.55	56,484	7,096	685	14,874	10,224	38,074
South Carolina	57,066	.69	29,343	2,397	485	6,003	3,900	14,938
Virginia	99,603	1.21	51,151	5,948	422	11,494	4,918	25,669
West Virginia	73,022	.89	34,956	6,630	330	8,375	4,821	17,901
East South Central	376,182	4.57	193,138	25,217	9,246	44,059	27,555	76,966
Alabama	89,494	1.09	43,947	6,793	1,664	10,312	7,627	19,155
Kentucky	94,259	1.14	51,090	6,183	917	10,489	5,396	20,184
Mississippi	78,765	.96	39,756	5,019	2,827	9,362	5,043	16,761
Tennessee	113,664	1.38	58,346	7,222	3,840	13,896	9,495	20,866
West South Central	780,540	9.59	394,062	50,032	11,938	92,042	64,240	177,225
Arkansas	76,989	.93	38,269	5,269	1,548	8,659	4,258	18,984
Louisiana	82,506	1.01	41,282	6,164	511	9,478	7,459	17,611
Oklahoma	197,107	2.39	91,409	14,740	2,806	23,652	15,021	49,480
Texas	432,938	5.26	223,102	23,858	7,074	50,253	37,502	91,151
Mountain	322,467	3.92	160,004	20,209	11,976	37,928	19,354	72,996
Arizona	42,664	.52	21,233	2,419	2,347	4,313	2,682	9,672
Colorado	96,397	1.17	47,197	4,786	2,606	11,512	5,024	25,270
Idaho	35,561	.43	18,152	2,775	779	4,739	2,308	6,807
Montana	52,636	.64	24,812	3,520	4,065	5,641	2,415	12,183
Nevada	10,264	.12	5,865	382	144	1,189	676	2,008
New Mexico	24,353	.30	10,688	1,914	1,346	3,582	2,017	4,806
Utah	37,800	.46	19,916	2,895	359	4,162	3,015	7,452
Wyoming	22,794	.28	12,140	1,518	330	2,790	1,217	4,798
Pacific	865,987	10.52	455,828	44,235	23,935	104,309	64,917	172,764
California	638,576	7.76	350,300	23,057	15,365	75,600	45,071	129,183
Oregon	87,867	1.07	36,771	11,602	4,368	11,550	7,134	16,442
Washington	139,545	1.69	68,757	9,576	4,202	17,158	12,712	27,139

[1] Does not include the retail sales of automobile wholesaler-retailers, which are shown in table 11a.

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Retail sales of automotive products by automobile wholesaler-retailers.—The estimated total retail sales of automobile products by wholesaler-retailers, for the year 1929, was approximately $225,514,000. This amount represents 26.29 percent of the total sales reported by these combination wholesalers-retailers. Nearly 91 percent of the retail sales of these establishments represents sales of motor vehicles. About 8 percent represents retail sales of parts, accessories, tires, and batteries and the remaining 1 percent represents sales of gasoline, oils, and greases.

The following table shows by States and geographic divisions the estimated retail sales of these wholesale automobile distributors who also sell at retail. The commodities are arranged in the same six major groupings for ready comparison with the retail table previously referred to. As in the case of the retail table, receipts from repairs and storage, sales of nonautomotive products, and the wholesale sales have been omitted from this table. Table 10 shown at the back of this report contains a complete breakdown of the retail sales of automotive products by retailers and by automobile wholesaler-retailers.

The abbreviated six-commodity table follows:

APPROXIMATE TOTAL RETAIL SALES OF AUTOMOTIVE PRODUCTS, BY STATES AND GEOGRAPHIC DIVISION, SHOWN FOR AUTOMOBILE WHOLESALER-RETAILERS

[Sale in thousands of dollars]

DIVISIONS AND STATES	Total	Percent	Passenger automobiles (new and used)	Commercial cars and trucks (new and used)	Busses and special-purpose vehicles	Automobile parts and accessories	Tires, tubes, and tire accessories	Gasoline, oils, and greases
United States total	**$225,503**	**100.00**	**$187,908**	**$16,788**	**$359**	**$14,493**	**$3,722**	**$2,233**
NEW ENGLAND	20,197	8.96	17,450	1,408	5	994	150	190
Maine	1,941	.86	1,697	100	5	78	17	44
New Hampshire	250	.11	222			7	2	19
Vermont	219	.10	200			13		6
Massachusetts	13,813	6.13	11,970	1,005		666	89	83
Rhode Island	1,039	.46	1,017				17	5
Connecticut	2,935	1.30	2,344	303		230	25	33
MIDDLE ATLANTIC	69,024	30.61	61,473	2,900	223	2,607	1,288	533
New York	31,509	13.97	28,424	1,287	193	1,083	241	281
New Jersey	8,760	3.89	7,929	251		484	81	15
Pennsylvania	28,755	12.75	25,120	1,362	30	1,040	966	237
EAST NORTH CENTRAL	65,069	28.86	50,402	8,550	9	4,965	682	461
Ohio	18,220	8.08	15,924	281	3	1,737	87	188
Indiana	5,922	2.63	5,062	369	6	316	130	39
Illinois	19,222	8.53	16,833	928		1,251	115	95
Michigan	17,055	7.56	8,884	6,840		1,070	156	105
Wisconsin	4,650	2.06	3,699	132		591	194	34
WEST NORTH CENTRAL	26,974	11.96	22,210	1,216	15	2,544	443	546
Minnesota	6,101	2.70	4,994	416		445	195	51
Iowa	5,090	2.26	4,352	99	3	465	99	72
Missouri	6,916	3.07	5,637	252		908	67	52
North Dakota	735	.32	374			176	7	178
South Dakota	830	.37	609	127	8	70	10	6
Nebraska	5,927	2.63	5,078	308	4	331	59	147
Kansas	1,375	.61	1,166	14		149	6	40
SOUTH ATLANTIC	8,641	3.83	7,460	336	52	580	101	103
Delaware	153	.07		134		19		
Maryland	400	.18	400					
District of Columbia	643	.28	514	65		49	8	7
Virginia	471	.21	350	30	50	12	19	8
West Virginia	2,366	1.05	2,122	8		206	19	11
North Carolina	1,789	.79	1,570	88		89	15	27
South Carolina								
Georgia	1,276	.57	1,220				39	17
Florida	1,543	.68	1,282	11	2	214	1	33

APPROXIMATE TOTAL RETAIL SALES OF AUTOMOTIVE PRODUCTS, BY STATES AND GEOGRAPHIC DIVISION, SHOWN FOR AUTOMOBILE WHOLESALER-RETAILERS—Continued

[Sale in thousands of dollars]

DIVISIONS AND STATES	Total	Per-cent	Passen-ger auto-mobiles (new and used)	Com-mercial cars and trucks (new and used)	Busses and special-purpose vehicles	Auto-mobile parts and acces-sories	Tires, tubes, and tire acces-sories	Gaso-line, oils, and greases
EAST SOUTH CENTRAL	$2,240	.99	$1,781	$270		$158	$17	$14
Kentucky	114	.05		91		23		
Tennessee	2,008	.89	1,781	88		108	17	14
Alabama	118	.05		91		27		
Mississippi								
WEST SOUTH CENTRAL	4,920	2.18	4,217	180		391	89	43
Arkansas								
Louisiana	1,803	.80	1,673	7		116	6	1
Oklahoma	264	.12	201			44	10	9
Texas	2,853	1.26	2,343	173		231	73	33
MOUNTAIN	5,121	2.27	4,345	208	10	378	77	103
Montana	438	.20	350			48	12	28
Idaho	6			6				
Wyoming								
Colorado	2,875	1.28	2,497	152		132	46	48
New Mexico	430	.19	242	7		173	7	1
Arizona	687	.30	652			25	5	5
Utah	685	30	604	43	10		7	21
Nevada								
PACIFIC	23,317	10.34	18,570	1,720	45	1,867	875	240
Washington	4,837	2.14	3,687	452		567	83	48
Oregon	969	.43	883	43		41		2
California	17,511	7.77	14,000	1,225	45	1,259	792	190

Estimate of wholesale sales of automotive products by retailers and by automobile wholesaler-retailers.—The approximate total wholesale sales of automotive products of retail dealers was $485,840,000 in 1929. The wholesale sales of automobile wholesaler-retailers amounted to $598,105,000, making a grand total of $1,083,946,000, or 10 percent of the combined total sales of retail dealers in automotive products, automobile wholesaler-retailers and the automotive sales of other kinds of retail establsihments.

Table 12 contains a summarization of the wholesale sales of the establishments referred to above. It is obvious that the wholesale sales figures are again reported in the retail sales which are also shown in table 11. In the absence of data on the cost of goods sold as well as on the proportion of merchandise purchased by retailers from other types of wholesale distributors it is impossible to obtain totals from which all duplication has been eliminated.

Table 12 shows the wholesale sales which were made by the establishments included in this report, segregation being made by individual kinds of business.

Table 10 furnishes a breakdown of the sales of automotive products into specific commodity lines not only for retailers but for automobile wholesaler-retailers. This table provides the basis for study of the different kinds of merchandise sold by each different kind of business and shows the relative importance of each line.

Commodities sold by dealers in automotive products.—The nature of the merchandise sold by the various kinds of dealers in automotive products varies materially. Also the proportions of each commodity vary, even though many commodities are sold by practically all dealers. The degree of importance of a given commodity in a given kind of establishment necessarily determines whether it is primary or featured merchandise or whether it is related or secondary merchandise. The following tables, supplying national figures for each of 13 different kinds of retail automotive products dealers, together with one showing national commodity totals for automobile wholesaler-retailers, provide the necessary basic data for subsequent discussion of primary and related commodities in which these brief tables will be used as illustrations.

Commodities Sold in Retail Automobile Sales Rooms

COMMODITIES SOLD	Estimated United States total sales	Percent
Total, all commodities	$6,153,216,567	100.00
Automobiles, parts and accessories sold to ultimate consumers, total	*5,685,675,966*	*92.41*
Passenger automobiles (new)	2,899,820,145	47.12
Passenger automobiles (used)	1,125,118,123	18.29
Busses	40,229,901	.65
Commercial cars and trucks (new)	420,823,978	6.84
Commercial cars and trucks (used)	97,986,551	1.59
Special purpose vehicles	26,214,468	.43
Tractors	17,747,927	.29
Automobile parts and accessories (except tires, tubes and batteries)	451,171,613	7.33
Tires, tubes, and tire accessories	56,878,132	.93
Batteries	7,548,754	.12
Gasoline	43,703,309	.71
Oils and greases	28,703,758	.47
Repairs, service, and storage	443,289,252	7.21
Radios and radio equipment	6,483,756	.11
Miscellaneous merchandise	19,896,299	.32
Automobiles, parts and accessories sold to dealers, total	467,540,601	7.59
Passenger automobiles (new)	391,276,364	6.36
Passenger automobiles (used)	6,612,518	.11
Busses	913,885	.01
Commercial cars and trucks (new)	44,185,217	.72
Commercial cars and trucks (used)	797,007	.01
Automobile parts and accessories (except tires and tubes)	23,606,302	.38
Tires, tubes, and tire accessories	149,308	--------

Commodities Sold by Wholesaler-Retailers

COMMODITIES SOLD	Estimated United States total sales	Percent
Total, all commodities	$857,751,335	100.00
Automobiles, parts and accessories, sold to ultimate consumers, total	248,754,398	29.00
Passenger automobiles (new)	131,679,802	15.35
Passenger automobiles (used)	56,228,587	6.56
Busses	125,281	.01
Commercial cars and trucks (new)	8,212,943	.96
Commercial cars and trucks (used)	8,576,542	1.00
Special purpose vehicles	284,900	.03
Automotive parts and accessories (except tires, tubes and batteries)	13,971,518	1.63
Batteries	525,600	.06
Tires, tubes, and tire accessories	3,722,509	.43
Gasoline	1,233,622	.14
Oils and greases	1,002,802	.12
Repairs, service, and storage	21,230,588	2.48
Radios and radio equipment [1]	2,009,644	.23
Automobiles, parts, and accessories sold to dealers, total	608,996,937	71.00
Passenger automobiles (new)	521,783,733	60.83
Passenger automobiles (used)	3,079,517	.36
Busses	149,037	.02
Commercial cars and trucks (new)	*17,412,401*	*2.03*
Commercial cars and trucks (used)	10,963,100	1.28
Tractors	7,660,841	.89
Automobile parts and accessories (except tires, tubes, and batteries)	33,178,958	3.87
Tires, tubes, and tire accessories	3,877,543	.45
Miscellaneous merchandise [2]	10,891,807	1.27

[1] While the schedule makes no provision for determining whether this merchandise was sold at wholesale or at retail, the comparatively insignificant total would indicate individual sales at retail.

[2] This classification includes incidental sales of farm machinery, farm wagons, other farm and garden equipment and supplies, and fuel oil sold by wholesaler-retailers and is believed to consist primarily of miscellaneous wholesale sales.

Commodities Sold in Retail Used-Car Establishments

COMMODITIES SOLD	Estimated United States total sales	Percent
Total, all commodities	$140,932,126	100.00
Automotive parts and accessories	3,634,532	2.58
Automotive parts and accessories, sold to dealers	10,912	.01
Batteries	189,663	.13
Busses	58,636	.04
Commercial cars and trucks (new)	61,450	.04
Gasoline	1,326,514	.94
Miscellaneous merchandise (including candy, lunches, cigars, etc.)	181,142	.13
Oils and greases	234,456	.17
Passenger automobiles (new)	104,285	.07
Radios and radio equipment	129,388	.09
Repairs and service	2,913,868	2.07
Special purpose vehicles	79,327	.06
Special purpose vehicles, sold to dealers	25,667	.02
Storage	356,110	.25
Tires, tubes, and tire accessories	1,310,145	.93
Tractor	39,755	.03
Used commercial cars and trucks	2,926,278	2.07
Used commercial cars and trucks, sold to dealers	9,042	.01
Used passenger cars	124,809,400	88.56
Used passenger cars, sold to dealers	2,531,576	1.80

Commodities Sold by Automobile Dealers With Farm Implements and Machinery

COMMODITIES SOLD	Estimated United States total sales	Percent
Total, all commodities	$113,363,210	100.00
Automotive parts and accessories	5,974,208	5.27
Batteries	25,430	.02
Commercial cars and trucks (new)	27,503,734	24.26
Farm machinery	24,541,654	21.65
Farm wagons	1,519,059	1.34
Gasoline	1,686,172	1.49
Miscellaneous merchandise	5,998,053	5.29
Oils and greases	428,833	.38
Other farm and garden equipment and supplies	3,190,803	2.82
Passenger cars (new)	10,906,050	9.62
Repairs and service	4,911,400	4.33
Special purpose vehicles	23,353	.02
Storage	25,405	.02
Tires, tubes, and tire accessories	1,115,085	.98
Tractors	21,668,700	19.12
Used commercial cars and trucks	3,208,047	2.83
Used passenger cars	630,384	.56

Commodities Sold in Accessory Stores with Tires and Batteries

COMMODITIES SOLD	Estimated United States total sales	Percent
Total, all commodities	$257,742,858	100.00
Automotive parts and accessories	137,627,972	53.40
Automotive parts and accessories, sold to dealers	3,069,633	1.19
Batteries	12,590,201	4.88
Gasoline	10,389,713	4.03
Miscellaneous merchandise (including trucks, passenger cars, motorcycles, bicycles, etc.)	1,886,954	.73
Oils and greases	4,911,682	1.90
Radio sets	7,077,446	2.75
Radio parts and accessories	2,240,373	.87
Repairs and service	18,477,718	7.17
Storage	211,273	.08
Tires, tubes, and tire accessories	57,801,509	22.43
Tires, tubes, and tire accessories sold to dealers	1,022,032	.40
Used passenger cars, commercial cars, and trucks	435,752	.17

Commodities Sold in Battery and Ignition Shops, Brake Repair Shops

COMMODITIES SOLD	Estimated United States total sales	Percent
Total, all commodities	$94,238,218	100.00
Automotive parts and accessories (except tires and tubes)	12,162,712	12.91
Automotive parts and accessories, sold to dealers	*779,129*	*.83*
Batteries	37,230,570	39.51
Gasoline	2,158,233	2.29
Miscellaneous merchandise (including soft drinks, lunches, candy, cigars, etc.)	2,668,595	2.83
Oils and greases	617,189	.65
Radio parts and accessories	1,772,693	1.88
Radio sets	4,495,871	4.77
Repairs and service	30,944,929	32.84
Storage	99,971	.10
Tires, tubes, and tire accessories	1,178,300	1.25
Tires and tubes sold to dealers	114,487	.12
Used passenger cars and trucks	24,539	.03

Commodities Sold in Tire Shops

COMMODITIES SOLD	Estimated United States total sales	Percent
Total, all commodities	$247,314,087	100.00
Automotive parts and accessories (except tires, tubes, and batteries)	9,620,526	3.89
Automotive parts and accessories sold to dealers	131,283	.05
Batteries	5,443,638	2.20
Gasoline	24,673,710	9.89
Miscellaneous merchandise (including candy, soft drinks, lunches, cigars, etc.)	1,689,149	.68
Oils and greases	5,049,649	2.04
Passenger cars and trucks (new and used)	34,398	.01
Radios and radio equipment	2,590,168	1.05
Repairs and service	24,833,643	10.04
Storage	280,502	.11
Tires, tubes, and tire accessories	169,254,131	68.44
Tires and tubes sold to dealers	*3,713,290*	*1.50*

Commodities Sold in Garages (Repairs, Storage, Gasoline, Oil, Accessories)

COMMODITIES SOLD	Estimated United States total sales	Percent
Total, all commodities	*$693,063,270*	*100.00*
Automotive parts and accessories	104,953,007	15.14
Automotive parts and accessories sold to dealers	3,627,369	.52
Batteries	21,523,844	3.11
Commercial cars and trucks (new)	416,819	.06
Gasoline	142,219,183	20.52
Miscellaneous merchandise	8,819,576	1.27
Oils and greases	33,870,875	4.89
Passenger automobiles (new)	828,670	.12
Radios and radio equipment	3,455,415	.50
Repairs and service	268,778,285	38.78
Special purpose vehicles	116,046	.02
Storage	52,128,475	7.52
Tires, tubes, and tire accessories	48,497,064	7.00
Tires, tubes, and tire accessories sold to dealers	1,325,016	.19
Used commercial cars and trucks	314,017	.05
Used passenger cars	2,189,609	.32

Commodities Sold in Body, Fender, and Paint Shops

COMMODITIES SOLD	Estimated United States total sales	Percent
Total, all commodities	$46, 106, 104	100.00
Automotive parts and accessories	11, 992, 648	26.01
Automotive parts and accessories sold to dealers	6, 923	.02
Batteries	12, 801	.04
Gasoline	287, 069	.62
Miscellaneous merchandise	456, 566	.99
Oils and greases	47, 422	.10
Passenger cars, new and used	99, 080	.21
Repairs and service	32, 898, 749	71.35
Tires, tubes, and tire accessories	207, 364	.45
Used passenger cars and trucks	96, 882	.21

Commodities Sold in Radiator Shops

COMMODITIES SOLD	Estimated United States total sales	Percent
Total, all commodities	$6, 569, 523	100.00
Automotive parts and accessories	1, 897, 047	28.88
All other merchandise	137, 282	2.09
Repairs and service	4, 535, 194	69.03

Commodities Sold at Parking Stations

COMMODITIES SOLD	Estimated United States total sales	Percent
Total, all commodities	$39, 261, 738	100.00
Automotive parts and accessories (except tires, tubes, and batteries)	417, 709	1.06
Batteries	273, 830	.70
Gasoline	10, 320, 169	26.29
Miscellaneous merchandise (including candy, lunches, tobacco, etc.)	464, 107	1.18
Oils and greases	1, 407, 556	3.59
Repairs and service	3, 331, 878	8.49
Storage	22, 571, 034	57.49
Tires, tubes, and tire accessories	445, 038	1.14
Tires and tubes sold to dealers	29, 817	.07

Commodities Sold in Filling Stations, Gasoline and Oil

COMMODITIES SOLD	Estimated United States total sales	Percent
Total, all commodities	$869, 081, 365	100.00
Fuel oil	8, 856, 634	1.02
Gasoline	734, 382, 415	84.50
Miscellaneous merchandise (including candy, lunches, cigars, etc.)	8, 934, 846	1.02
Oils and greases	107, 389, 534	12.36
Repairs and service	9, 108, 966	1.05
Storage	408, 970	.05

COMMODITIES SOLD IN FILLING STATIONS WITH TIRES AND ACCESSORIES

COMMODITIES SOLD	Estimated United States total sales	Percent
Total, all commodities	$516,916,621	100.00
Automotive parts and accessories (except tires, tubes, and batteries)	20,166,520	3.90
Automotive parts and accessories, sold to dealers	156,874	.03
Batteries	9,471,615	1.83
Gasoline	332,509,417	64.33
Miscellaneous merchandise (including candy, beverages, lunches, cigars, etc.)	3,322,586	.64
Oils and greases	59,847,506	11.58
Radios and radio equipment	1,070,734	.21
Repairs and service	24,759,648	4.79
Storage	1,209,823	.23
Tires, tubes, and tire accessories	63,591,810	12.30
Tires and tubes, sold to dealers	810,088	.16

COMMODITIES SOLD IN FILLING STATIONS WITH OTHER MERCHANDISE

COMMODITIES SOLD	Estimated United States total sales	Percent
Total, all commodities	$401,425,111	100.00
Automotive parts and accessories (except tires, tubes, and batteries)	13,810,823	3.44
Automotive parts and accessories, sold to dealers	251,262	.06
Batteries	5,156,161	1.29
Gasoline	261,532,318	65.16
Miscellaneous merchandise (including candy, beverages, lunches, cigars, etc.)	21,801,815	5.43
Oils and greases	40,473,163	10.08
Passenger automobiles (new)	168,450	.04
Radios and radio equipment	7,100,936	1.77
Repairs and service	15,748,646	3.92
Storage	888,138	.22
Tires, tubes, and tire accessories	33,476,449	8.34
Tires and tubes, sold to dealers	684,877	.17
Used passenger cars and trucks	332,074	.08

COMMODITIES SOLD IN AUTOMOBILE PARTS AND ACCESSORIES SHOPS (SECOND-HAND)

COMMODITIES SOLD	Estimated United States total sales	Percent
Total, all commodities	$21,929,672	100.00
Automotive parts and accessories	16,767,050	76.46
Automotive parts and accessories, sold to dealers	66,203	.30
Batteries	182,389	.83
Gasoline	336,019	1.53
Miscellaneous merchandise	475,534	2.17
Oils and greases	118,168	.54
Radio sets	43,113	.20
Repairs and service	487,384	2.22
Storage	8,181	.04
Tires, tubes, and tire accessories	1,826,624	8.32
Tires, tubes, and tire accessories, sold to dealers	12,298	.06
Used commercial cars and trucks	386,437	1.76
Used passenger cars	1,205,906	5.50
Used passenger cars, sold to dealers	14,366	.07

Primary commodities versus related commodities.—The varied lines of merchandise sold by most retailers can usually be segregated into two classes, namely, *primary or basic commodities* and *related or secondary commodities.* The first consists of the principal or featured lines of merchandise, which represent a substantial proportion of all goods sold, and which usually are synonymous in the purchaser's mind with the kind of dealer in question. The second class is made up of goods often associated, by the customer, with the primary merchandise sold but which, from the customer's viewpoint are secondary to the featured lines.

This condition, while not as generally apparent among the different kinds of dealers in automotive products as in other kinds of business, nevertheless does exist in automotive trade and is becoming an increasingly important consideration, particularly in connection with certain lines of merchandise. Gasoline, oils, and greases represent a good typical example. This merchandise is clearly a primary-commodity line in filling stations where it accounts for nearly 86 percent of total sales. It is also primary merchandise in garages where it averages 25.41 percent of total sales. The same is true in parking garages and lots where gasoline, oils and greases represent 29.88 percent of their total reported receipts. This latter classification does not include those stations and lots which do not sell merchandise.

On the other hand, gasoline, oils, and greases are related merchandise in automobile salesrooms, many of which do not even carry gasoline for sale to customers. The sale of this merchandise in automobile salesrooms averages only 1.18 percent of total sales. The primary appeal is in automobiles and trucks which is featured as indicated by the proportion of motor vehicles (73.84 percent to consumers and 7.20 percent to other dealers) sold.

Tires and tubes provide another good example. In tire shops they represent about 70 percent of the total sales and are clearly primary commodities. They are also primary commodities in accessory stores where they represent nearly 23 percent of the total business. They are clearly related commodities in the two kinds of filling stations that sell other commodities than gasoline, oils, and greases. In those stations which sell tires and accessories, the sale of tires and tubes account for 12.46 percent of total sales and in the stations selling other miscellaneous merchandise, tire and tube sales represent 8.51 percent of sales. In the case of automobile salesrooms, tires and tubes account for less than 1 percent of sales and are clearly related commodities.

Radios and radio equipment, which are sold by many automotive dealers cannot be classed as primary merchandise in any of the establishments. Those which are built for use in automobiles obviously must be classed as related merchandise, while those which are intended for use in the home, store, etc., are clearly unrelated merchandise. Both types are sold by these dealers in automotive products and in the case of accessory stores amount to 3.62 percent of the total sales of these stores.

Receipts from repairs and service are relatively unimportant in many of these automotive establishments. However, in the case of battery and ignition shops these receipts represent nearly 33 percent of the total sales. It represents the largest item of income in garages where it averages nearly 49 percent of the total receipts, and in body, fender, and paint shops where repairs and service represent about 70 percent of the total income of the business.

Retailers are interested in related commodities.—Related commodity lines are of special interest to retailers because such merchandise should, under normal conditions, sell with less sales effort and with correspondingly lower expense than primary or featured merchandise. This point, which has been stressed repeatedly in previous trade studies, is again emphasized in connection with this study. It is particularly true in connection with certain kinds of automotive establishments and with certain kinds of merchandise.

Mechanical equipment of all kinds require periodic attention, often necessitating the replacing of worn materials with new merchandise. Motor vehicles are particularly susceptible to wear, not only mechanically but because of being driven in all kinds of weather and under all kinds of conditions in all moving and body parts as well. Batteries must be renewed. Tires must be replaced at infrequent intervals. In fact the automobile during its life requires new parts and accessories at any number of vulnerable points. Motorists driving in for a new battery or a new tire or for some minor service may discover other needed and desired merchandise, which obviously can be installed with a minimum of delay along with the originally desired merchandise. The purchaser of a new car is a potential customer for a number of practical accessories. He may find it desirable to have a radio installed if the set is properly demonstrated to him. Or a set of slip covers may be sold without an undue amount of effort. There are any number of desirable accessories which may, through prominent display or some sales effort, find ready sale to the motoring public, without adding materially to the operating costs. This matter is worthy of careful consideration and the brief tables previously given, as well as tables 11 and 12, are provided for purposes of illustrating the practicability of such methods of adding to sales volume as well as to furnish approximate total sales of these various commodity lines.

Related commodity data are of value to the manufacturer and wholesaler.—Dealers in automobile products offer present and potential markets for manufacturers and wholesalers of many commodities. The commodity tables contained in this report enable them to effectively gage their potential market in any of the several kinds of establishments which engage in the sale of automotive products. These tables will assist the manufacturer of a given commodity in deciding what kind of establishment or establishments are most desirable as sales agencies for the product. The State tables used in conjunction with the national commodity tables may also serve as a basis for revising sales territories or advertising plans. Used in connection with the general operating and expense data also found in this report it is possible to determine what kinds of dealers are operating at a mark-up within the range of the article in question. These are merely a few typical illustrations of uses for which commodity sales data answers a long felt need.

Commodity data are of value to all concerns handling automobile products.—Executives of concerns performing any of the functions of marketing are interested in ascertaining, first, what lines of merchandise are handled by the different kinds of automotive dealers to determine the nature and extent of the competition; second, how the expense ratios of these establishments compare and the relation of stocks to sales; third, the approximate total sales of the commodity in question in a given city or area; and fourth, what proportion of this total is supplied by each kind of establishment.

Reliable answers to these and other pertinent questions can be obtained with a minimum of effort by referring to the several State reports which contain all necesary data on State and city basis. Table 1 of each State report shows the total sales of each kind of establishment. Table 2 contains expense data prepared on the same basis. Table 4 contains data by size of business. Table 7 furnishes the basis for determining the relation which credit pays to the sales volume. Table 15 contains commodity sales break-downs for nearly every kind of store, which in the manner described on page 37 may be rebuilt to a dollar sales figure if desired.

The data officially at the disposal of the Bureau and available for analysis, are necessarily limited to the facts contained in the automobile questionnaire. This questionnaire was confined to the minimum consistent with securing the mass of necessary basic data. These limitations naturally preclude any attempt to itemize the many individual commodity items which have been developed by many of the establishments as related merchandise. However sales have been segregated into commodity lines which are sufficiently detailed to enable manufacturers, jobbers, retailers, etc., to satisfactorily gage the effectiveness of any given kind of store for any given commodity or groups of commodities.

TABLE 1A.—ESTABLISHMENTS AND SALES, BY STATES AND GEOGRAPHIC DIVISIONS, AND BY SIZE OF CITY

RETAIL MOTOR-VEHICLE DEALERS (NEW AND USED)

DIVISIONS AND STATES	UNITED STATES TOTAL			CITIES OVER 30,000 POPULATION			CITIES 10,000-30,000 POPULATION			PLACES UNDER 10,000 POPULATION		
	Stores	Sales	Percent of United States sales	Stores	Sales	Percent of State sales	Stores	Sales	Percent of State sales	Stores	Sales	Percent of State sales
United States total	**43,894**	**$6,294,148,693**	**100.00**	**10,980**	**$3,177,046,419**	**50.48**	**6,444**	**$1,006,860,690**	**15.99**	**26,470**	**$2,110,241,584**	**33.53**
NEW ENGLAND	3,050	480,331,649	7.63	1,095	284,280,587	59.19	714	95,265,367	19.83	1,241	100,785,695	20.98
Connecticut	610	98,010,936	1.56	221	58,427,039	59.61	141	17,620,556	17.98	248	21,963,341	22.41
Maine	460	47,408,809	.75	59	11,920,293	25.16	77	12,047,093	25.41	324	23,432,423	49.43
Massachusetts	1,290	241,537,237	3.84	654	176,186,223	72.94	302	38,656,044	16.01	334	26,694,970	11.05
New Hampshire	269	29,434,642	.47	54	8,262,934	28.07	81	12,187,417	41.41	134	8,984,291	30.52
Rhode Island	203	37,934,923	.60	107	29,475,998	77.70	70	6,958,572	18.34	26	1,501,253	3.96
Vermont	218	26,005,102	.41				43	7,795,685	29.98	175	18,209,417	70.02
MIDDLE ATLANTIC	7,783	1,269,523,301	20.17	2,450	742,216,068	58.46	1,443	215,707,632	16.99	3,890	311,599,601	24.55
New Jersey	1,248	213,904,130	3.40	433	119,381,898	55.81	280	43,634,638	20.40	535	50,887,594	23.79
New York	3,295	633,391,942	10.06	1,259	418,184,806	66.02	484	82,387,831	13.01	1,552	132,819,305	20.97
Pennsylvania	3,240	422,227,229	6.71	758	204,649,364	48.47	679	89,685,163	21.24	1,803	127,892,702	30.29
EAST NORTH CENTRAL	10,590	1,478,288,250	23.49	3,115	869,760,843	58.84	1,420	203,337,301	13.75	6,055	405,190,106	27.41
Illinois	2,695	405,189,228	6.44	904	259,273,828	63.99	353	50,404,194	12.44	1,438	95,511,206	23.57
Indiana	1,435	178,379,596	2.84	335	86,819,724	48.67	246	31,272,716	17.53	854	60,287,156	33.80
Michigan	2,013	341,503,033	5.43	651	210,547,701	61.65	245	43,468,791	12.73	1,117	87,486,541	25.62
Ohio	2,666	389,281,666	6.18	861	243,324,232	62.50	389	51,494,400	13.23	1,416	94,463,034	24.27
Wisconsin	1,781	163,934,727	2.60	364	69,795,358	42.58	187	26,697,200	16.28	1,230	67,442,169	41.14
WEST NORTH CENTRAL	7,388	726,419,833	11.54	935	238,444,985	32.82	793	117,316,561	16.15	5,660	370,658,287	51.03
Iowa	1,615	138,779,001	2.21	176	37,626,826	27.11	181	23,165,792	16.69	1,258	77,986,383	56.20
Kansas	1,179	119,796,985	1.90	110	24,358,194	20.33	207	29,982,958	25.03	862	65,455,833	54.64
Minnesota	1,382	130,716,469	2.08	200	51,568,679	39.45	108	16,377,379	12.53	1,074	62,770,411	48.02
Missouri	1,278	175,096,720	2.78	352	101,242,013	57.82	103	14,129,549	8.07	823	59,725,158	34.11
Nebraska	977	87,062,101	1.38	80	19,270,392	22.13	84	12,493,022	14.35	813	55,298,687	63.52
North Dakota	428	36,130,148	.57				55	12,006,046	33.23	373	24,124,102	66.77
South Dakota	529	38,838,409	.62	17	4,378,881	11.27	55	9,161,815	23.59	457	25,297,713	65.14

SOUTH ATLANTIC	3,914	528,215,459	8.39	854	231,801,331	43.88	523	81,811,474	15.49	2,537	214,600,654	40.63
Delaware	86	13,319,878	.21	26	9,297,634	69.80				60	4,022,244	30.20
District of Columbia	89	35,063,202	.56	89	35,063,202	100.00						
Florida	485	67,251,243	1.07	151	30,711,652	45.67	79	11,880,346	17.66	255	24,659,245	36.67
Georgia	584	85,215,975	1.35	96	33,625,608	39.46	72	12,501,361	14.67	416	39,089,006	45.87
Maryland	453	66,343,298	1.05	148	40,252,098	60.67	33	5,601,160	8.44	272	20,490,040	30.89
North Carolina	692	85,687,105	1.36	121	29,527,990	34.46	101	13,914,412	16.24	470	42,244,703	49.30
South Carolina	342	41,681,893	.66	36	8,075,556	19.37	69	11,391,354	27.33	237	22,214,983	53.30
Virginia	672	78,560,407	1.25	118	29,193,056	37.16	84	12,317,418	15.68	470	37,049,933	47.16
West Virginia	511	55,090,458	.88	69	16,054,535	29.14	85	14,205,423	25.79	357	24,830,500	45.07
EAST SOUTH CENTRAL	2,061	296,605,755	4.71	319	111,194,514	37.49	280	48,885,035	16.48	1,462	136,526,206	46.03
Alabama	413	69,928,820	1.11	69	27,676,139	39.58	71	15,016,114	21.47	273	27,236,567	38.95
Kentucky	671	75,616,089	1.20	109	28,892,411	38.21	85	11,284,044	14.92	477	35,439,634	46.87
Mississippi	455	62,613,554	.99	24	7,171,295	11.45	89	16,028,516	25.60	342	39,413,743	62.95
Tennessee	522	88,447,292	1.41	117	47,454,669	53.65	35	6,556,361	7.41	370	34,436,262	38.94
WEST SOUTH CENTRAL	3,733	595,806,108	9.47	618	207,931,650	34.90	485	99,461,786	16.69	2,630	288,412,672	48.41
Arkansas	411	59,813,291	.95	40	11,081,323	18.52	55	12,319,720	20.60	316	36,412,248	60.88
Louisiana	363	62,777,993	1.00	73	25,516,210	40.65	46	10,183,286	16.22	244	27,078,497	43.13
Oklahoma	936	139,204,854	2.21	122	37,645,759	27.04	150	31,475,379	22.61	664	70,083,716	50.35
Texas	2,023	334,009,970	5.31	383	133,688,358	40.02	234	45,483,401	13.62	1,406	154,838,211	46.36
MOUNTAIN	1,874	252,502,382	4.01	249	76,336,409	30.23	238	46,644,445	18.47	1,387	129,521,528	51.30
Arizona	190	33,699,187	.54	42	16,621,664	49.32				148	17,077,523	50.68
Colorado	530	72,305,977	1.15	138	33,710,097	46.62	59	8,799,343	12.17	333	29,796,537	41.21
Idaho	267	29,549,956	.47				28	6,068,970	20.54	239	23,480,986	79.46
Montana	324	36,726,709	.58	20	6,615,986	18.01	64	12,093,124	32.93	240	18,017,599	49.06
Nevada	76	9,513,144	.15				15	4,468,251	46.97	61	5,044,893	53.03
New Mexico	154	19,515,031	.31				31	7,057,262	36.16	123	12,457,769	63.84
Utah	160	32,377,068	.51	49	19,388,662	59.88	12	2,053,232	6.34	99	10,935,174	33.78
Wyoming	173	18,815,310	.30				29	6,104,263	32.44	144	12,711,047	67.56
PACIFIC	3,501	666,457,956	10.59	1,345	415,080,032	62.28	548	98,431,089	14.77	1,608	152,946,835	22.95
California	2,385	483,669,312	7.69	1,067	322,465,825	66.67	358	62,662,172	12.96	962	98,541,315	20.37
Oregon	437	69,205,199	1.10	80	28,155,526	40.68	70	13,298,879	19.22	287	27,750,794	40.10
Washington	679	113,583,445	1.80	198	64,458,681	56.75	122	22,470,038	19.78	359	26,654,726	23.47

TABLE 1B.—ESTABLISHMENTS AND SALES, BY STATES AND GEOGRAPHIC DIVISIONS, AND BY SIZE OF CITY

RETAIL AUTOMOBILE DEALERS WITH FARM IMPLEMENTS AND MACHINERY

DIVISIONS AND STATES	UNITED STATES TOTAL			CITIES OVER 30,000 POPULATION			CITIES 10,000–30,000 POPULATION			PLACES UNDER 10,000 POPULATION		
	Stores	Sales	Percent of United States sales	Stores	Sales	Percent of State sales	Stores	Sales	Percent of State sales	Stores	Sales	Percent of State sales
United States total	**1,407**	**$113,363,249**	**100.00**	**20**	**$4,188,388**	**3.69**	**53**	**$8,099,667**	**7.15**	**1,334**	**$101,075,194**	**89.16**
NEW ENGLAND	16	1,463,585	1.29									
Connecticut							1	83,201	5.68	15	1,380,384	94.32
Maine	10	702,933	.62							10	702,933	100.00
Massachusetts												
New Hampshire	2	95,201	.08				1	83,201	87.40	1	12,000	12.60
Rhode Island												
Vermont	4	665,451	.59							4	665,451	100.00
MIDDLE ATLANTIC	65	5,299,909	4.68	2	237,496	4.48	3	852,998	16.09	60	4,209,415	79.43
New Jersey	2	382,807	.34							2	382,807	100.00
New York	36	2,941,012	2.60	2	237,496	8.07	2	715,794	24.34	32	1,987,722	67.59
Pennsylvania	27	1,976,090	1.74				1	137,204	6.94	26	1,838,886	93.06
EAST NORTH CENTRAL	304	24,613,492	21.71	7	1,067,286	4.34	14	2,084,832	8.47	283	21,461,374	87.19
Illinois	100	7,186,058	6.33				1	265,529	3.70	99	6,920,529	96.30
Indiana	26	1,958,852	1.73	1	310,829	15.87	3	377,058	19.25	22	1,270,965	64.88
Michigan	32	2,504,964	2.21	1	54,607	2.18	2	287,042	11.46	29	2,163,315	86.36
Ohio	50	5,240,953	4.63	4	588,674	11.23	5	450,966	8.61	41	4,201,313	80.16
Wisconsin	96	7,722,665	6.81	1	113,176	1.46	3	704,237	9.12	92	6,905,252	89.42
WEST NORTH CENTRAL	733	50,114,693	44.21				13	1,453,009	2.90	720	48,661,684	97.10
Iowa	110	7,646,599	6.74				4	391,005	5.11	106	7,255,594	94.89
Kansas	128	11,073,186	9.77				3	524,961	4.74	125	10,548,225	95.26
Minnesota	113	8,122,920	7.17				1	57,890	.71	112	8,065,030	99.29
Missouri	40	2,304,093	2.03				1	63,729	2.77	39	2,240,364	97.23
Nebraska	89	5,495,956	4.85				1	30,948	.56	88	5,465,008	99.44
North Dakota	141	9,267,662	8.18				1	19,632	.21	140	9,248,030	99.79
South Dakota	112	6,204,277	5.47				2	364,844	5.88	110	5,839,433	94.12

SOUTH ATLANTIC	40	5,046,408	4.45	5	1,109,560	21.99	5	708,553	14.04	30	3,228,295	63.97
Delaware	2	202,957	.18							2	202,957	100.00
District of Columbia												
Florida	4	344,292	.30				1	140,000	40.66	3	204,292	59.34
Georgia	5	115.975	.10	2	93,833	80.91				3	22,142	19.09
Maryland	7	1,365,587	1.21	1	370,562	27.14	1	94,114	6.89	5	900,911	65.97
North Carolina	9	1,220,193	1.08	1	108,255	8.87	1	73,223	6.00	7	1,038,715	85.13
South Carolina	3	457,788	.40				1	339,216	74.10	2	118,572	25.90
Virginia	6	826,199	.73	1	536,910	64.99				5	289,289	35.01
West Virginia	4	513,417	.45				1	62,000	12.08	3	451,417	87.92
EAST SOUTH CENTRAL	25	2,714,489	2.39	1	143,001	5.27	10	1,353,147	49.85	14	1,218,341	44.88
Alabama	7	585,313	.52				5	449,288	76.76	2	136,025	23.24
Kentucky	4	191,500	.17							4	191,500	100.00
Mississippi	13	1,841,676	1.62	1	143,001	7.76	5	903,859	49.08	7	794,816	43.16
Tennessee	1	96,000	.08							1	96,000	100.00
WEST SOUTH CENTRAL	54	6,728,748	5.94	3	1,266,848	18.83	5	918,835	13.65	46	4,543,065	67.52
Arkansas	1	75,000	.07							1	75,000	100.00
Louisiana	3	452,703	.40	1	178,995	39.54	1	261,600	57.79	1	12,108	2.67
Oklahoma	19	2,308,387	2.04				1	307,708	13.33	18	2,001,179	86.67
Texas	31	3,892,158	3.43	2	1,087,853	27.95	3	349,527	8.98	26	2,454,778	63.07
MOUNTAIN	115	9,794,698	8.64	1	273,646	2.79	1	115,346	1.18	113	9,405,706	96.03
Arizona	4	322,321	.29							4	322,321	100.00
Colorado	17	1,613,395	1.42	1	273,646	16.96				16	1,339,749	83.04
Idaho	13	1,058,237	.93				1	115,346	10.90	12	942,891	89.10
Montana	71	6,068,991	5.35							71	6,068,991	100.00
Nevada												
New Mexico	1	180,953	.16							1	180,953	100.00
Utah												
Wyoming	9	550,801	.49							9	550,801	100.00
PACIFIC	55	7,587,227	6.69	1	90,551	1.19	1	529,746	6.98	53	6,966,930	91.83
California	28	4,896,519	4.32	1	90,551	1.85				27	4,805,968	98.15
Oregon	5	476,455	.42							5	476,455	100.00
Washington	22	2,214,253	1.95				1	529,746	23.92	21	1,684,507	76.08

TABLE 1C.—ESTABLISHMENTS AND SALES, BY STATES AND GEOGRAPHIC DIVISIONS, AND BY SIZE OF CITY

RETAIL ACCESSORY, TIRE, AND, BATTERY DEALERS

DIVISIONS AND STATES	UNITED STATES TOTAL			CITIES OVER 30,000 POPULATION			CITIES 10,000-30,000 POPULATION			PLACES UNDER 10,000 POPULATION		
	Stores	Sales	Percent of United States sales	Stores	Sales	Percent of State sales	Stores	Sales	Percent of State sales	Stores	Sales	Percent of State sales
United States total	22,313	$599,295,161	100.00	12,169	$410,509,250	68.50	3,833	$98,597,083	16.45	6,311	$90,188,828	15.05
NEW ENGLAND	1,593	44,004,381	7.34	1,115	33,851,503	76.93	282	6,493,398	14.76	196	3,659,480	8.31
Connecticut	349	10,150,902	1.69	217	7,357,769	72.48	62	1,463,808	14.42	70	1,329,325	13.10
Maine	97	2,364,406	.40	31	898,892	38.02	24	795,851	33.66	42	669,563	28.32
Massachusetts	847	24,168,108	4.03	700	21,284,030	88.07	107	2,047,457	8.47	40	836,621	3.46
New Hampshire	72	1,191,388	.20	29	495,059	41.55	31	545,178	45.76	12	151,151	12.69
Rhode Island	179	4,509,801	.75	138	3,815,653	84.61	32	600,899	13.32	9	93,249	2.07
Vermont	49	1,619,776	.27				26	1,040,205	64.22	23	579,571	35.78
MIDDLE ATLANTIC	4,839	128,579,138	21.46	3,222	98,187,879	76.36	781	17,102,004	13.30	836	13,289,255	10.34
New Jersey	802	22,444,264	3.75	519	17,121,430	76.28	121	2,755,164	12.28	162	2,567,670	11.44
New York	2,340	60,600,814	10.11	1,769	49,639,256	81.91	297	6,587,794	10.87	274	4,373,764	7.22
Pennsylvania	1,697	45,534,060	7.60	934	31,427,193	69.02	363	7,759,046	17.04	400	6,347,821	13.94
EAST NORTH CENTRAL	5,840	149,223,764	24.90	3,380	107,827,381	72.26	918	20,344,958	13.63	1,542	21,051,425	14.11
Illinois	1,623	42,884,341	7.16	1,070	33,623,671	78.41	211	4,931,690	11.50	342	4,328,980	10.09
Indiana	835	20,075,642	3.35	395	13,057,916	65.04	165	3,273,228	16.31	275	3,744,498	18.65
Michigan	1,008	27,751,633	4.63	588	20,839,664	75.09	167	3,500,519	12.62	253	3,411,450	12.29
Ohio	1,787	44,965,736	7.50	1,074	32,329,737	71.90	261	5,913,477	13.15	452	6,722,522	14.95
Wisconsin	587	13,546,412	2.26	253	7,976,393	58.88	114	2,726,044	20.12	220	2,843,975	21.00
WEST NORTH CENTRAL	3,056	66,991,159	11.18	1,002	33,502,288	50.01	556	14,707,599	21.95	1,498	18,781,272	28.04
Iowa	687	13,681,934	2.28	170	5,223,091	38.18	147	3,618,213	26.44	370	4,840,630	35.38
Kansas	580	10,137,264	1.69	92	2,934,079	28.94	153	3,248,364	32.05	335	3,954,821	39.01
Minnesota	545	12,262,429	2.05	228	6,965,951	56.81	73	1,864,711	15.21	244	3,431,767	27.98
Missouri	709	18,502,882	3.09	412	14,592,654	78.87	64	1,657,819	8.96	233	2,252,409	12.17
Nebraska	313	7,155,153	1.19	85	3,136,250	43.83	56	1,904,262	26.61	172	2,114,641	29.56
North Dakota	92	1,967,407	.33				25	766,170	38.94	67	1,201,237	61.06
South Dakota	130	3,284,090	.55	15	650,263	19.80	38	1,648,060	50.18	77	985,767	30.02
SOUTH ATLANTIC	1,615	47,343,587	7.90	914	34,085,435	71.99	300	8,127,096	17.17	401	5,131,056	10.84
Delaware	49	1,247,339	.21	42	1,151,430	92.31				7	95,909	7.69
District of Columbia	107	3,347,961	.56	107	3,347,961	100.00						
Florida	306	8,702,937	1.45	146	6,057,657	69.60	58	1,401,634	16.11	102	1,243,646	14.29

Georgia	231	7,791,902	1.30	136	5,683,454	72.94	36	1,113,999	14.30	59	994,449	12.76
Maryland	266	6,888,142	1.15	211	6,081,450	88.29	22	445,638	6.47	33	361,054	5.24
North Carolina	187	6,406,440	1.07	77	3,829,551	59.78	54	1,833,746	28.62	56	743,143	11.60
South Carolina	115	2,466,066	.41	29	1,012,724	41.07	40	958,390	38.86	46	494,952	20.07
Virginia	171	6,000,927	1.00	103	4,715,604	78.58	34	852,591	14.21	34	432,732	7.21
West Virginia	183	4,491,873	.75	63	2,205,604	49.10	56	1,521,098	33.86	64	765,171	17.04
EAST SOUTH CENTRAL	696	24,381,447	4.07	335	16,530,418	67.80	159	4,849,769	19.89	202	3,001,260	12.31
Alabama	198	6,452,425	1.08	87	4,102,876	63.59	63	1,720,471	26.66	48	629,078	9.75
Kentucky	216	5,582,165	.93	108	3,616,002	64.78	42	961,857	17.23	66	1,004,306	17.99
Mississippi	84	2,504,891	.42	13	566,477	22.61	41	1,505,634	60.11	30	432,780	17.28
Tennessee	198	9,841,966	1.64	127	8,245,063	83.77	13	661,807	6.73	58	935,096	9.50
WEST SOUTH CENTRAL	1,563	49,388,238	8.24	568	29,903,361	60.55	307	9,805,605	19.85	688	9,679,272	19.60
Arkansas	109	4,541,426	.76	34	3,097,862	68.21	23	712,069	15.68	52	731,495	16.11
Louisiana	128	5,412,747	.90	74	3,875,920	71.61	27	1,172,515	21.66	27	364,312	6.73
Oklahoma	487	12,828,768	2.14	121	6,119,070	47.70	112	3,221,450	25.11	254	3,488,248	27.19
Texas	839	26,605,297	4.44	339	16,810,509	63.19	145	4,699,571	17.66	355	5,095,217	19.15
MOUNTAIN	712	19,360,147	3.23	218	7,990,873	41.27	196	6,051,090	31.26	325	5,318,184	27.47
Arizona	73	2,336,925	.39	35	1,583,116	67.74				38	753,809	32.26
Colorado	261	6,565,035	1.10	123	4,247,078	64.69	52	1,134,079	17.28	86	1,183,878	18.03
Idaho	74	2,664,992	.44				18	1,359,598	51.02	56	1,305,394	48.98
Montana	101	2,534,486	.42	14	412,261	16.27	40	1,591,983	62.81	47	530,242	20.92
Nevada	15	467,579	.08				11	407,681	87.19	4	59,898	12.81
New Mexico	61	1,482,666	.25				20	803,764	54.21	41	678,902	45.79
Utah	59	1,994,548	.33	46	1,748,418	87.66	4	83,271	4.17	9	162,859	8.17
Wyoming	68	1,313,916	.22				24	670,714	51.05	44	643,202	48.95
PACIFIC	2,399	70,023,300	11.68	1,415	48,630,112	69.45	361	11,115,564	15.87	623	10,277,624	14.68
California	1,866	54,743,510	9.13	1,169	39,669,323	72.46	256	7,651,474	13.98	441	7,422,713	13.56
Oregon	208	6,076,349	1.01	82	3,088,240	50.82	35	1,293,394	21.29	91	1,694,715	27.89
Washington	325	9,203,441	1.54	164	5,872,549	63.81	70	2,170,696	23.58	91	1,160,196	12.61

TABLE 1D.—ESTABLISHMENTS AND SALES, BY STATES AND GEOGRAPHIC DIVISIONS, AND BY SIZE OF CITY

GARAGES AND REPAIR SHOPS

DIVISIONS AND STATES	UNITED STATES TOTAL			CITIES OVER 30,000 POPULATION			CITIES 10,000–30,000 POPULATION			PLACES UNDER 10,000 POPULATION		
	Stores	Sales	Percent of United States sales	Stores	Sales	Percent of State sales	Stores	Sales	Percent of State sales	Stores	Sales	Percent of State sales
United States total	66,793	$785,000,636	100.00	21,188	$356,934,936	45.47	5,523	$70,214,275	8.94	40,082	$357,851,425	45.59
NEW ENGLAND	4,146	53,783,204	6.85	1,513	23,116,581	42.98	630	8,149,093	15.15	2,003	22,517,530	41.87
Connecticut	865	10,778,485	1.37	424	5,020,714	46.58	101	1,223,008	11.35	340	4,534,763	42.07
Maine	638	7,617,306	.97	51	1,118,899	14.69	65	1,010,666	13.27	522	5,487,741	72.04
Massachusetts	1,522	23,137,032	2.95	768	13,873,259	59.96	280	3,915,539	16.92	474	5,348,234	23.12
New Hampshire	376	4,037,238	.51	52	295,834	7.33	76	1,037,179	25.69	248	2,704,225	66.98
Rhode Island	387	4,317,583	.55	218	2,807,875	65.03	83	636,009	14.73	86	873,699	20.24
Vermont	358	3,895,560	.50				25	326,692	8.39	333	3,568,868	91.61
MIDDLE ATLANTIC	13,276	189,924,097	24.19	6,121	110,091,830	57.97	1,082	14,969,722	7.88	6,073	64,862,545	34.15
New Jersey	2,230	32,288,014	4.11	918	16,477,877	51.03	278	4,108,982	12.73	1,034	11,701,155	36.24
New York	6,402	101,482,963	12.93	3,466	68,013,428	67.02	404	5,461,201	5.38	2,532	28,008,334	27.60
Pennsylvania	4,644	56,153,120	7.15	1,737	25,600,525	45.59	400	5,399,539	9.62	2,507	25,153,056	44.79
EAST NORTH CENTRAL	12,681	149,771,709	19.08	4,359	76,588,398	51.14	969	11,771,551	7.86	7,353	61,411,760	41.00
Illinois	3,463	53,342,534	6.80	1,459	34,354,930	64.40	214	3,252,890	6.10	1,795	15,734,714	29.50
Indiana	2,216	21,925,969	2.79	501	7,226,071	32.96	240	2,976,337	13.57	1,475	11,723,561	53.47
Michigan	2,006	23,993,282	3.06	655	11,205,342	46.70	147	1,673,519	6.98	1,204	11,114,421	46.32
Ohio	3,562	35,477,508	4.52	1,353	18,333,286	51.68	264	2,609,653	7.35	1,945	14,534,569	40.97
Wisconsin	1,429	15,032,416	1.91	391	5,468,769	36.38	104	1,259,152	8.38	934	8,304,495	55.24
WEST NORTH CENTRAL	9,251	90,708,837	11.56	1,906	28,585,901	31.51	677	7,718,514	8.51	6,668	54,404,422	59.98
Iowa	1,783	16,127,823	2.06	270	4,245,679	26.33	147	1,277,612	7.92	1,366	10,604,532	65.75
Kansas	1,560	14,357,554	1.83	174	2,107,484	14.68	203	2,198,629	15.31	1,183	10,051,441	70.01
Minnesota	1,519	15,917,927	2.03	416	5,879,335	36.94	102	1,030,249	6.47	1,001	9,008,343	56.59
Missouri	2,453	25,770,959	3.28	838	13,246,227	51.40	65	1,125,942	4.37	1,550	11,398,790	44.23
Nebraska	955	9,334,498	1.19	187	2,809,913	30.10	74	710,722	7.61	694	5,813,863	62.29
North Dakota	466	3,937,723	.50				41	682,562	17.33	425	3,255,161	82.67
South Dakota	515	5,262,353	.67	21	297,263	5.65	45	692,798	13.16	449	4,272,292	81.19
SOUTH ATLANTIC	6,773	63,417,783	8.08	1,511	24,899,423	39.26	494	4,923,048	7.76	4,768	33,595,312	52.98
Delaware	161	1,651,853	.21	68	695,068	42.08				93	956,785	57.92
District of Columbia	116	3,868,518	.49	116	3,868,518	100.00						
Florida	1,156	10,637,158	1.36	330	3,747,436	35.23	114	1,167,483	10.98	712	5,722,239	53.79
Georgia	1,047	8,268,915	1.05	231	3,666,608	44.34	67	736,781	8.91	749	3,865,526	46.75

Maryland	711	8,605,569	1.10	246	3,923,473	45.59	18	268,157	3.12	447	4,413,939	51.29
North Carolina	1,171	10,869,355	1.38	171	3,793,608	34.90	82	707,604	6.51	918	6,368,743	58.59
South Carolina	584	3,545,974	.45	43	580,116	16.36	76	582,602	16.43	465	2,383,256	67.21
Virginia	1,084	9,165,716	1.17	208	3,224,805	35.18	71	797,682	8.70	805	5,143,229	56.12
West Virginia	743	6,804,725	.87	98	1,400,392	20.58	66	662,739	9.74	579	4,741,595	69.68
East South Central	3,884	34,496,987	4.39	652	9,054,218	26.25	293	4,129,818	11.97	2,939	21,312,951	61.78
Alabama	986	8,129,356	1.03	151	1,952,583	24.02	66	877,679	10.80	769	5,299,094	65.18
Kentucky	1,190	9,411,339	1.20	195	2,231,393	23.71	91	1,018,957	10.83	904	6,160,989	65.46
Mississippi	692	5,751,360	.73	33	391,484	6.81	92	1,524,132	26.50	567	3,835,744	66.69
Tennessee	1,016	11,204,932	1.43	273	4,478,758	39.97	44	709,050	6.33	699	6,017,124	53.70
West South Central	6,940	72,799,012	9.27	1,408	22,861,178	31.40	546	7,504,268	10.31	4,986	42,433,566	58.29
Arkansas	770	6,473,787	.82	67	683,224	10.55	45	952,401	14.71	658	4,838,162	74.74
Louisiana	729	6,888,075	.88	186	2,376,428	34.50	31	507,027	7.36	512	4,004,620	58.14
Oklahoma	1,355	13,906,869	1.77	152	3,234,904	23.26	160	2,064,337	14.84	1,043	8,607,628	61.90
Texas	4,086	45,530,281	5.80	1,003	16,566,622	36.39	310	3,980,503	8.74	2,773	24,983,156	54.87
Mountain	2,639	33,334,788	4.25	532	7,339,541	22.02	225	3,576,131	10.73	1,882	22,419,116	67.25
Arizona	302	4,801,676	.61	91	2,031,830	42.31				211	2,769,846	57.69
Colorado	854	9,545,953	1.22	325	3,748,729	39.27	61	577,869	6.05	468	5,219,355	54.68
Idaho	292	3,734,773	.48				19	432,455	11.58	273	3,302,318	88.42
Montana	430	5,534,753	.70	21	423,536	7.83	77	1,403,900	25.37	332	3,697,317	66.80
Nevada	80	1,539,711	.20				18	433,514	28.16	62	1,106,197	71.84
New Mexico	250	2,924,874	.37				34	501,161	17.13	216	2,423,713	82.87
Utah	285	3,272,910	.42	95	1,125,446	34.39	1	10,392	.32	189	2,137,072	65.29
Wyoming	146	1,980,138	.25				15	216,840	10.95	131	1,763,298	89.05
Pacific	7,203	96,764,219	12.33	3,186	54,397,866	56.22	607	7,472,130	71.72	3,410	34,894,223	36.06
California	4,903	68,219,962	8.69	2,407	41,497,119	60.83	433	5,016,724	7.35	2,063	21,706,119	31.82
Oregon	1,026	12,627,424	1.61	326	5,412,727	42.87	59	826,259	6.54	641	6,388,438	50.59
Washington	1,274	15,916,833	2.03	453	7,488,020	47.04	115	1,629,147	10.24	706	6,799,666	42.72

TABLE 1E.—ESTABLISHMENTS AND SALES, BY STATES AND GEOGRAPHIC DIVISIONS AND BY SIZE OF CITY

FILLING STATIONS

DIVISIONS AND STATES	UNITED STATES TOTAL			CITIES OVER 30,000 POPULATION			CITIES 10,000–30,000 POPULATION			PLACES UNDER 10,000 POPULATION		
	Stores	Sales	Percent of United States sales	Stores	Sales	Percent of State sales	Stores	Sales	Percent of State sales	Stores	Sales	Percent of State sales
United States total	121,513	$1,787,423,097	100.00	32,381	$737,808,445	41.28	11,096	$231,916,254	12.97	78,036	$817,698,398	45.75
NEW ENGLAND	7,758	104,281,652	5.83	2,461	53,357,153	51.17	1,226	20,512,561	19.67	4,071	30,411,938	29.16
Connecticut	1,595	26,387,419	1.48	543	12,631,409	47.87	184	3,822,277	14.48	868	9,933,733	37.65
Maine	671	6,987,760	.39	68	1,531,285	21.91	84	1,599,334	22.89	519	3,857,141	55.20
Massachusetts	3,734	52,319,468	2.93	1,474	31,707,452	60.60	672	10,253,728	19.60	1,588	10,358,288	19.80
New Hampshire	633	5,318,179	.30	96	1,607,765	30.23	85	1,536,857	28.90	452	2,173,557	40.87
Rhode Island	623	8,879,971	.49	280	5,879,242	66.21	162	2,049,145	23.08	181	951,584	10.71
Vermont	502	4,388,855	.24				39	1,251,220	28.51	463	3,137,635	71.49
MIDDLE ATLANTIC	18,841	298,108,020	16.68	5,816	148,262,330	49.74	1,698	38,015,056	12.75	11,327	111,830,634	37.51
New Jersey	3,265	54,549,594	3.05	946	23,704,005	43.45	394	8,612,837	15.79	1,925	22,232,752	40.76
New York	8,815	140,987,573	7.89	3,036	80,560,468	57.14	729	14,232,662	10.09	5,050	46,194,443	32.77
Pennsylvania	6,761	102,570,853	5.74	1,834	43,997,857	42.89	575	15,169,557	14.79	4,352	43,403,439	42.32
EAST NORTH CENTRAL	24,824	452,524,304	25.32	9,139	228,547,999	50.50	2,375	55,246,600	12.21	13,310	168,729,705	37.29
Illinois	6,008	110,482,634	6.18	2,214	56,999,585	51.59	621	13,430,342	12.16	3,173	40,052,707	36.25
Indiana	3,436	51,214,796	2.87	1,071	21,831,734	42.63	416	8,110,743	15.84	1,949	21,272,319	41.53
Michigan	5,375	109,068,913	6.10	2,233	58,069,085	53.24	405	10,360,663	9.50	2,737	40,639,165	37.26
Ohio	7,230	132,796,326	7.43	2,796	72,519,087	54.61	631	16,076,683	12.11	3,803	44,200,556	33.28
Wisconsin	2,775	48,961,635	2.74	825	19,128,508	39.07	302	7,268,169	14.84	1,648	22,564,958	46.09
WEST NORTH CENTRAL	14,680	247,855,820	13.87	3,252	66,416,415	26.80	1,417	31,231,488	12.60	10,011	150,207,917	60.60
Iowa	2,956	48,341,448	2.71	513	10,197,637	21.09	327	6,791,235	14.05	2,116	31,352,576	64.86
Kansas	2,904	44,344,911	2.48	412	6,449,181	14.54	436	8,425,329	19.00	2,056	29,470,401	66.46
Minnesota	2,273	46,720,813	2.61	755	17,134,054	36.67	175	4,623,523	9.90	1,343	24,963,236	53.43
Missouri	3,928	53,419,690	2.99	1,302	26,988,361	50.52	186	3,131,950	5.86	2,440	23,299,379	43.62
Nebraska	1,430	29,413,579	1.65	235	4,306,821	14.64	130	3,359,126	11.42	1,065	21,747,632	73.94
North Dakota	503	10,766,926	.60				70	1,908,420	17.72	433	8,858,506	82.28
South Dakota	686	14,848,453	.83	35	1,340,361	9.03	93	2,991,905	20.15	558	10,516,187	70.82

SOUTH ATLANTIC	16,256	184,075,593	10.30	2,710	65,996,752	35.85	1,139	23,119,612	12.56	12,407	94,959,229	51.59
Delaware	309	4,254,238	.24	54	1,832,116	43.07				255	2,422,122	56.93
District of Columbia	269	11,354,951	.63	269	11,354,951	100.00						
Florida	2,888	29,903,997	1.67	649	10,222,725	34.19	274	4,307,316	14.40	1,965	15,373,956	51.41
Georgia	2,818	26,845,684	1.50	419	8,674,116	32.31	216	3,496,378	13.02	2,183	14,675,190	54.67
Maryland	939	17,081,338	.96	329	11,155,643	65.31	34	685,200	4.01	576	5,240,495	30.68
North Carolina	4,032	37,824,940	2.12	362	8,892,436	23.51	227	4,408,962	11.66	3,443	24,523,542	64.83
South Carolina	1,684	15,211,650	.85	84	2,313,838	15.21	151	3,054,755	20.08	1,449	9,843,057	64.71
Virginia	2,116	23,610,829	1.32	386	6,885,048	29.16	111	3,373,195	14.29	1,619	13,352,586	56.55
West Virginia	1,201	17,987,966	1.01	158	4,665,879	25.94	126	3,793,806	21.09	917	9,528,281	52.97
EAST SOUTH CENTRAL	5,757	71,073,600	3.98	1,041	24,590,356	34.60	509	10,172,037	14.31	4,207	36,311,207	51.09
Alabama	1,618	18,424,322	1.03	267	6,891,187	37.40	141	2,985,263	16.20	1,210	8,547,872	46.40
Kentucky	1,201	16,548,762	.93	253	7,135,080	43.12	111	2,385,143	14.41	837	7,028,539	42.47
Mississippi	1,612	17,115,878	.96	125	2,523,559	14.74	205	3,226,269	18.85	1,282	11,366,050	66.41
Tennessee	1,326	18,984,638	1.06	396	8,040,530	42.35	52	1,575,362	8.30	878	9,368,746	49.35
WEST SOUTH CENTRAL	16,522	180,916,214	10.12	2,606	45,695,850	25.26	1,297	22,597,792	12.49	12,619	112,622,572	62.25
Arkansas	1,807	17,992,916	1.01	126	1,333,104	7.41	164	3,060,260	17.01	1,517	13,599,552	75.58
Louisiana	1,856	18,752,959	1.05	345	5,677,078	30.27	139	2,345,905	12.51	1,372	10,729,976	57.22
Oklahoma	4,336	49,751,828	2.78	475	8,464,037	17.01	380	7,335,400	14.75	3,481	33,952,391	68.24
Texas	8,523	94,418,511	5.28	1,660	30,221,631	32.01	614	9,856,227	10.44	6,249	54,340,653	57.55
MOUNTAIN	4,207	65,491,360	3.66	695	14,774,644	22.56	352	8,175,956	12.48	3,160	42,540,760	64.96
Arizona	625	8,185,356	.46	123	2,417,750	29.54				502	5,767,606	70.46
Colorado	1,349	21,763,602	1.22	380	7,486,773	34.40	93	2,117,688	9.73	876	12,159,141	55.87
Idaho	441	6,268,330	.35				45	784,603	12.52	396	5,483,727	87.48
Montana	434	10,213,083	.57	20	764,427	7.48	67	2,027,006	19.85	347	7,421,650	72.67
Nevada	116	1,350,934	.07				27	525,161	38.87	89	825,773	61.13
New Mexico	450	4,812,807	.27				66	1,221,693	25.38	384	3,591,114	74.62
Utah	554	8,654,398	.48	172	4,105,694	47.44	4	176,345	2.04	378	4,372,359	50.52
Wyoming	238	4,242,850	.24				50	1,323,460	31.19	188	2,919,390	68.81
PACIFIC	12,668	183,096,534	10.24	4,661	90,166,946	49.24	1,083	22,845,152	12.48	6,924	70,084,436	38.28
California	8,650	137,724,082	7.70	3,589	72,123,979	52.37	736	16,301,777	11.84	4,325	49,298,326	35.79
Oregon	1,561	16,957,001	.95	320	5,394,277	31.81	138	2,451,298	14.46	1,103	9,111,426	53.73
Washington	2,457	28,415,451	1.59	752	12,648,690	44.51	209	4,092,077	14.40	1,496	11,674,684	41.09

Table 2.—Position Index for 5 Kinds of Retail Dealers in Automotive Products

(States arranged in the order of their position)

Motor vehicle dealers (new and used)			Automobile dealers with farm implements and machinery			Accessories, tires, and batteries			Filling stations			Garages and repair shops		
States	Percent of sales to total retail sales	Position index	States	Percent of sales to total retail sales	Position index	States	Percent of sales to total retail sales	Position index	States	Percent of sales to total retail sales	Position index	States	Percent of sales to total retail sales	Position index
United States	12.82	100	United States	0.23	100	United States	1.22	100	United States	3.64	100	United States	1.59	100
1. Nevada	18.86	147	1. North Dakota	3.95	1717	1. Florida	1.72	141	1. Oklahoma	6.26	172	1. Nevada	3.05	192
2. Wyoming	18.19	142	2. Montana	2.49	1083	2. California	1.71	140	2. Kansas	5.96	164	2. Oregon	2.77	174
3. Oklahoma	17.51	137	3. South Dakota	2.43	1057	3. Indiana	1.65	135	3. Florida	5.93	163	3. Vermont	2.56	161
4. Idaho	17.48	136	4. Kansas	1.49	648	4. Oklahoma	1.62	133	4. South Dakota	5.81	160	4. Maine	2.48	156
5. Vermont	17.09	133	5. Nebraska	.98	426	5. Ohio	1.57	129	5. North Carolina	5.78	159	5. New Mexico	2.44	153
6. Arizona	16.97	132	6. Iowa	.79	343	6. Tennessee	1.53	125	6. Nebraska	5.22	143	6. Arizona	2.42	152
7. Utah	16.47	128	7. Minnesota	.77	335	7. Idaho	1.48	121	7. South Carolina	5.07	139	7. Montana	2.27	143
8. Texas	16.35	128	8. Idaho	.63	274	8. Rhode Island	1.42	116	8. Iowa	4.98	137	8. Texas	2.23	140
9. New Mexico	16.30	127	9. Wisconsin	.62	270	9. Colorado	1.41	116	9. Michigan	4.90	135	9. Idaho	2.21	139
10. Kansas	16.09	126	10. Wyoming	.53	230	10. Iowa	1.40	115	10. Colorado	4.66	128	10. New Hampshire	2.19	138
11. New Hampshire	15.97	125	11. Mississippi	.45	196	11. Texas	1.40	115	11. Ohio	4.63	127	11. California	2.12	133
12. Colorado	15.48	121	12. Vermont	.44	191	12. Kansas	1.37	112	12. Texas	4.62	127	12. Washington	2.09	131
13. Nebraska	15.47	121	13. Colorado	.35	152	13. Connecticut	1.33	109	13. North Dakota	4.58	126	13. South Dakota	2.06	130
14. Maine	15.41	120	14. Oklahoma	.29	126	14. Oregon	1.33	109	14. Minnesota	4.44	122	14. Colorado	1.95	123
15. North Dakota	15.38	120	15. Washington	.29	126	15. South Dakota	1.29	106	15. Utah	4.41	121	15. Florida	1.95	123
16. Michigan	15.34	120	16. Maine	.23	100	16. Missouri	1.28	105	16. Arkansas	4.36	120	16. Kansas	1.93	121
17. South Dakota	15.22	119	17. Maryland	.22	96	17. Nebraska	1.27	104	17. California	4.29	118	17. Wyoming	1.91	120
18. Oregon	15.18	118	18. Delaware	.20	87	18. Wyoming	1.27	104	18. Georgia	4.23	116	18. Indiana	1.80	113
19. Mississippi	15.14	118	19. Illinois	.19	83	19. Michigan	1.25	102	19. Montana	4.19	115	19. Missouri	1.78	112
20. California	15.07	118	20. North Carolina	.19	83	20. New Mexico	1.24	102	20. Indiana	4.18	115	20. New Jersey	1.75	110
21. Montana	15.06	117	21. Texas	.19	83	21. Alabama	1.23	101	21. Mississippi	4.14	114	21. Oklahoma	1.75	110
22. Washington	14.91	116	22. Ohio	.18	78	22. Georgia	1.22	100	22. Arizona	4.12	113	22. Tennessee	1.74	109
23. Indiana	14.59	114	23. Arizona	.16	70	23. New Jersey	1.22	100	23. Delaware	4.11	113	23. North Dakota	1.68	106
24. Arkansas	14.49	113	24. Indiana	.16	70	24. Delaware	1.21	99	24. Wyoming	4.10	113	24. North Carolina	1.67	105
25. Iowa	14.28	111	25. Missouri	.16	70	25. Washington	1.21	99	25. New Mexico	4.02	110	25. Iowa	1.66	104
26. South Carolina	13.89	108	26. California	.15	65	26. Pennsylvania	1.20	98	26. West Virginia	4.02	110	26. Utah	1.66	104
27. Tennessee	13.74	107	27. New Mexico	.15	65	27. Arizona	1.18	97	27. Wisconsin	3.95	109	27. Nebraska	1.65	104
28. Ohio	13.59	106	28. South Carolina	.15	65	28. Massachusetts	1.18	97	28. Louisiana	3.94	108	28. Delaware	1.60	101
29. Georgia	13.41	105	29. Virginia	.14	61	29. Illinois	1.16	95	29. Virginia	3.93	108	29. Kentucky	1.60	101

30. Florida	13.32	104	30. Alabama	.11	48	30. Minnesota	1.16	95	30. Washington	3.74	103	30. Arkansas	1.57	99
31. Alabama	13.26	103	31. Michigan	.11	48	31. Louisiana	1.13	93	31. Oregon	3.72	102	31. Alabama	1.53	96
32. Wisconsin	13.25	103	32. Oregon	.11	48	32. Maryland	1.11	91	32. Idaho	3.70	102	32. Virginia	1.53	96
33. Louisiana	13.17	103	33. West Virginia	.11	48	33. Arkansas	1.10	90	33. Missouri	3.69	101	33. Minnesota	1.52	96
34. North Carolina	13.12	102	34. Louisiana	.09	39	34. Wisconsin	1.09	89	34. Alabama	3.50	96	34. West Virginia	1.51	95
35. Virginia	13.07	102	35. Florida	.07	30	35. Vermont	1.06	87	35. Connecticut	3.43	94	35. Pennsylvania	1.48	93
36. Delaware	12.87	100	36. New Hampshire	.05	22	36. Montana	1.04	85	36. Dist. Columbia	3.38	93	36. Louisiana	1.45	91
37. Kentucky	12.87	100	37. Pennsylvania	.05	22	37. Utah	1.01	83	37. Illinois	2.98	82	37. Illinois	1.44	91
38. Connecticut	12.75	99	38. New York	.04	17	38. West Virginia	1.01	83	38. New Jersey	2.96	81	38. New York	1.44	91
39. Minnesota	12.42	97	39. Kentucky	.03	13	39. Dist. Columbia	1.00	82	39. Tennessee	2.94	81	39. Connecticut	1.40	88
40. West Virginia	12.31	96	40. Arkansas	.02	9	40. Virginia	1.00	82	40. New Hampshire	2.89	79	40. Maryland	1.39	87
41. Missouri	12.09	94	41. Georgia	.02	9	41. North Carolina	.98	80	41. Vermont	2.88	79	41. Mississippi	1.38	87
42. Rhode Island	11.91	93	42. New Jersey	.02	9	42. Kentucky	.95	78	42. Kentucky	2.82	77	42. Rhode Island	1.36	86
43. Massachusetts	11.75	92	43. Tennsssee	.01	4	43. Nevada	.93	76	43. Rhode Island	2.79	77	43. Georgia	1.30	82
44. New Jersey	11.60	90	44. Connecticut	------	-----	44. New York	.86	70	44. Maryland	2.76	76	44. Ohio	1.24	78
45. Pennsylvania	11.10	87	45. Dist. Columbia	------	-----	45. North Dakota	.84	69	45. Pennsylvania	2.69	74	45. Wisconsin	1.22	77
46. Illinois	10.92	85	46. Massachusetts	------	-----	46. South Carolina	.82	67	46. Nevada	2.68	74	46. South Carolina	1.18	74
47. Maryland	10.71	84	47. Nevada	------	-----	47. Maine	.76	62	47. Massachusetts	2.54	70	47. Dist. Columbia	1.15	72
48. Dist. Columbia	10.43	81	48. Rhode Island	------	-----	48. New Hampshire	.65	53	48. Maine	2.27	62	48. Massachusetts	1.13	71
49. New York	8.96	70	49. Utah	------	-----	49. Mississippi	.61	50	49. New York	1.99	55	49. Michigan	1.08	68

TABLE 3.—OPERATING EXPENSES OF RETAIL DEALERS IN AUTOMOTIVE PRODUCTS, BY KINDS OF BUSINESS AND BY SIZE OF CITY

KIND OF BUSINESS	Number of stores	Proprietors	EMPLOYEES		PAY ROLL			Value of proprietors' services	Total wage cost	Total wage cost per $100 of sales	All other expense (including rent)	Total operating expense per $100 of sales	Stocks on hand
			Full-time	Part-time	Total	Total pay-roll cost per $100 of sales	Part-time						
Motor-vehicle dealers	43,894	41,826	337,891	12,161	$540,793,007	$8.59	$4,109,441	$65,416,910	$606,209,917	$9.63	$514,001,081	$17.80	$622,879,910
Auto salesrooms	40,797	38,790	330,617	11,413	528,987,607	8.60	3,863,888	60,617,274	589,604,881	9.58	499,945,210	17.71	606,321,610
Used-car dealers	3,097	3,036	7,274	748	11,805,400	8.38	245,553	4,799,636	16,605,036	11.78	14,055,871	21.76	16,468,300
Motor-vehicle dealers (new and used)	43,894	41,826	337,891	12,161	540,793,007	8.59	4,109,441	65,416,910	606,209,917	9.63	514,001,081	17.80	622,789,910
Cities over 30,000	10,980	6,629	165,628	2,140	293,499,950	9.24	858,402	16,563,310	310,063,260	9.76	288,850,428	18.85	296,045,280
Cities 10,000 to 30,000	6,444	5,476	54,268	1,571	84,087,914	8.35	521,054	8,433,040	92,520,954	9.19	82,142,965	17.35	97,097,580
Places under 10,000	26,470	29,721	117,995	8,450	163,205,143	7.73	2,729,985	40,420,560	203,625,703	9.65	143,007,688	16.43	229,647,050
Automobile dealers with farm implements and machinery	1,407	1,635	5,679	848	8,217,289	7.25	220,390	2,267,409	10,484,698	9.25	7,855,840	16.18	19,014,180
Cities over 30,000	20	12	258	6	478,285	11.42	773	37,248	515,533	12.31	354,012	20.76	532,890
Cities 10,000 to 30,000	53	42	501	35	793,317	9.79	8,835	65,772	859,089	10.61	657,731	18.73	1,318,430
Places under 10,000	1,334	1,581	4,920	807	6,945,687	6.87	210,782	2,164,389	9,110,076	9.01	6,844,097	15.78	17,162,860
Accessories, tires, and batteries	22,313	20,961	50,886	4,330	76,103,776	12.70	1,238,174	30,769,945	106,873,721	17.83	77,133,109	30.70	96,682,540
Accessory stores with tires and batteries	7,762	6,801	20,336	1,506	30,990,392	12.02	437,929	10,070,458	41.060,850	15.93	31,972,396	28.34	49,726,710
Battery and ignition—brake repair shops	6,409	6,819	10,550	1,259	15,442,170	16.39	366,134	9,759,713	25,201,883	26.74	14,185,476	41.80	12,589,560
Tire shops	8,142	7,341	20,000	1,565	29,671,214	12.00	434,111	10,939,774	40,610,988	16.42	30,975,237	28.95	34,366,270
Accessories, tires, and batteries	22,313	20,961	50,886	4,330	76,103,776	12.70	1,238,174	30,769,945	106,873,721	17.83	77,133,109	30.70	96,682,540
Cities over 30,000	12,169	10,549	35,788	1,991	56,382,822	13.73	611,357	17,907,169	74,289,991	18.10	56,257,454	31.80	63,455,810
Cities 10,000 to 30,000	3,833	3,685	8,281	855	11,275,755	11.44	246,743	4,904,735	16,180,490	16.41	11,468,405	28.04	17,107,140
Places under 10,000	6,311	6,727	6,817	1,484	8,445,199	9.36	380,074	7,958,041	16,403,240	18.19	9,407,250	28.62	16,119,590
Filling stations	121,513	100,746	126,721	23,800	159,211,697	8.91	6,136,730	113,826,962	273,038,659	15.28	152,635,423	23.81	83,655,130
Filling stations, gasoline and oil	52,727	32,281	66,655	7,986	87,517,127	10.07	2,222,149	40,409,610	127,926,737	14.72	77,674,389	23.66	29,161,000
Filling stations with tires and accessories	26,775	27,269	35,339	7,535	43,173,479	8.35	2,102,398	31,797,280	74,970,759	14.50	43,241,905	22.87	32,010,860
Filling stations with other merchandise	42,011	41,196	24,727	8,279	28,521,091	7.10	1,812,183	41,620,072	70,141,163	17.47	31,719,129	25.37	22,483,270
Filling stations	121,513	100,746	126,721	23,800	159,211,697	8.91	6,136,730	113,826,962	273,038,659	15.28	152,635,423	23.81	83,655,130
Cities over 30,000	32,381	18,577	58,843	6,943	79,083,080	10.72	2,086,423	24,015,161	103,098,241	13.97	75,974,907	24.27	24,106,200
Cities 10,000 to 30,000	11,096	7,562	17,187	2,594	22,246,121	9.59	740,515	9,460,062	31,706,183	13.67	19,546,684	22.10	10,773,640
Places under 10,000	78,036	74,607	50,691	14,263	57,882,496	7.08	3,309,792	80,351,739	138,234,235	16.91	57,113,832	23.89	48,775,290

Garages and repair shops	66,793	75,903	104,009	16,120	145,542,084	18.54	4,709,063	99,735,395	245,277,479	31.25	116,091,433	46.03	62,929,870
Body, fender, and paint shops	3,379	3,754	9,596	1,033	15,288,921	33.16	379,001	5,788,446	21,077,367	45.71	6,962,900	60.82	3,124,200
Garages, gas, oil, repairs, and storage, etc	60,627	69,746	88,357	14,636	121,257,445	17.50	4,179,510	90,435,668	211,693,113	30.54	97,258,283	44.58	58,375,210
Parking stations and lots	2,059	1,585	5,015	312	7,441,590	18.95	110,862	2,341,711	9,783,301	24.92	10,740,915	52.27	993,750
Radiator shops, including repairs	728	818	1,041	139	1,554,128	23.66	39,690	1,169,570	2,723,698	41.46	1,129,335	58.65	436,710
Garages and repair shops	66,793	75,903	104,009	16,120	145,542,084	18.54	4,709,063	99,735,395	245,277,479	31.25	116,091,433	46.03	62,929,870
Cities over 30,000	21,188	22,567	56,384	4,561	86,823,754	24.32	1,576,914	38,536,171	125,359,925	35.12	71,491,124	55.15	18,502,320
Cities 10,000 to 30,000	5,523	6,408	10,449	1,362	14,218,881	20.25	436,831	8,452,152	22,671,033	32.29	9,963,695	46.48	5,644,350
Places under 10,000	40,082	46,928	37,176	10,197	44,499,449	12.44	2,695,318	52,747,072	97,246,521	27.18	34,636,614	36.85	38,783,200
Other stores selling accessories, tires, and batteries:													
Department stores without food departments	3,730	1,249	342,138	48,107	443,090,863	14.95	13,000,347	1,532,870	444,623,733	15.00	422,247,343	29.25	522,640,533
Mail-order houses	31	8	35,483	386	38,606,539	8.64	216,894	10,001	38,616,540	8.64	63,507,349	22.85	65,467,367
General merchandise without food departments	9,849	9,527	28,803	12,764	31,904,750	8.77	2,129,449	9,910,452	41,815,202	11.49	37,006,078	21.66	144,117,950

TABLE 4.—RENTAL COSTS IN LEASED PREMISES, BY KINDS OF BUSINESS[1]

KINDS OF BUSINESS	Number of stores	Rent	Sales	Rental cost per $100 of sales
Motor-vehicle dealers	28,219	$79,580,589	$4,426,073,580	$1.80
Auto salesrooms	25,819	75,601,179	4,304,664,658	1.77
Used-car dealers	2,400	3,979,410	121,408,922	3.28
Motor-vehicle dealers (new and used)	28,219	79,580,589	4,426,073,580	1.80
Automobile dealers with farm implements and machinery	641	685,404	57,836,399	1.19
Accessories, tires and batteries	17,908	22,168,334	490,613,083	4.52
Accessory stores with tires and batteries	6,110	8,774,389	207,457,281	4.23
Battery and ignition-brake repair shops	5,085	4,587,727	74,139,172	6.19
Tire shops	6,713	8,806,218	209,016,630	4.21
Filling stations	51,249	46,854,302	875,569,485	5.35
Filling stations, gasoline and oil	22,132	23,201,023	400,962,206	5.79
Filling stations with tires and accessories	15,153	15,714,149	314,577,584	5.00
Filling stations with other merchandise	13,964	7,939,130	160,029,695	4.96
Garages and repair shops	37,941	$49,594,861	$474,426,898	$0.45
Body, fender, and paint shops	2,460	2,648,260	32,906,857	8.05
Garages (repairs, storage, gasoline, oil, etc.)	33,471	39,293,707	407,777,555	9.64
Parking stations, lots, and garages	1,416	7,247,671	28,540,978	25.39
Radiator shops (including repairs)	594	405,223	5,201,508	7.79
Department stores without food departments	3,296	70,206,674	2,367,416,466	2.97
Mail-order houses	22	4,091,670	379,188,375	1.08
General merchandise stores without food departments	6,919	9,714,984	268,321,714	3.62

[1] This table includes only those establishments operated in wholly leased premises.

TABLE 5A—ESTABLISHMENTS, SALES, AND EXPENSES OF WHOLESALER-RETAILERS (DISTRIBUTOR-DEALERS)

[(x) indicates amounts not shown to avoid disclosure of individual operations]

DIVISIONS AND STATES	Number of stores	Proprietors and firm members (not on pay roll)	EMPLOYEES		PAY ROLL		Value of proprietors' services at same rate as that paid full-time employees	Total wage cost (including proprietors' services)	Total wage cost per $100 of sales	All other reported expenses (including rent)	Total operating expenses (per $100 of sales)	Stocks	Net sales (1929)
			Full-time	Part-time	Total (full- and part-time)	Part-time only							
United States total	**500**	**97**	**24,449**	**206**	**$48,475,725**	**$121,372**	**$200,904**	**$48,676,629**	**$5.67**	**$49,569,384**	**$11.45**	**$62,100,778**	**$857,751,33**
NEW ENGLAND	38	5	1,904		3,437,480		8,938	3,446,418	5.73	4,125,984	12.60	4,085,545	60,103,366
Connecticut	8		250		538,785			538,785	6.52	590,325	13.67	751,684	8,260,747
Maine	6		166		337,775			337,775	6.75	369,314	14.12	344,479	5,005,796
Massachusetts	18	2	1,348		2,303,348		3,418	2,306,766	5.36	2,934,926	12.17	2,551,498	43,075,335
New Hampshire	2	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)
Rhode Island	2	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)
Vermont	2	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)
MIDDLE ATLANTIC	138	29	7,393		14,871,137		57,595	14,928,732	5.39	15,607,913	11.02	17,980,650	277,174,273
New Jersey	15	3	662		1,416,335		6,417	1,422,752	5.66	1,734,344	12.57	1,435,919	25,124,057
New York	63	8	3,536		7,304,316		16,528	7,320,844	5.28	7,321,247	10.56	8,525,425	138,713,916
Pennsylvania	60	18	3,195		6,150,486		34,650	6,185,136	5.46	6,552,322	11.24	8,019,306	113,336,300
EAST NORTH CENTRAL	113	25	7,365	1	14,697,610	200	50,087	14,747,697	5.69	13,030,593	10.71	18,956,973	259,397,835
Illinois	27	10	2,336	1	4,595,588	200	19,670	4,615,258	5.44	3,280,528	9.30	9,420,299	84,883,754
Indiana	10	1	498		952,401		1,912	954,313	5.40	933,564	10.68	894,260	17,671,235
Michigan	21	7	2,020		4,230,712		14,658	4,245,370	6.46	3,288,966	11.47	4,335,033	65,676,864
Ohio	36	5	1,957		3,705,018		9,465	3,714,483	5.47	4,437,092	12.01	3,187,314	67,845,257
Wisconsin	19	2	554		1,213,891		4,382	1,218,273	5.22	1,090,443	9.90	1,120,067	23,320,725
WEST NORTH CENTRAL	83	25	2,929	16	6,244,687	3,509	60,872	6,305,559	5.98	7,579,795	13.18	7,791,865	105,357,562
Iowa	24	6	299	3	1,276,193	830	25,608	1,301,801	6.02	1,213,044	11.62	2,438,021	21,640,126
Kansas	5	7	129		239,869		13,013	252,882	6.21	263,000	12.68	282,527	4,069,344
Minnesota	13	5	651		1,202,941		9,240	1,212,181	6.09	1,356,733	12.90	1,294,900	19,911,008
Missouri	12	1	736	1	1,460,272	95	1,984	1,462,256	7.82	1,513,107	15.91	1,436,542	18,699,011
Nebraska	16	4	862	12	1,598,135	2,584	7,404	1,605,539	7.05	2,605,202	18.49	2,042,165	22,770,331
North Dakota	8		174		335,406		1,932	337,338	2.06	493,202	5.08	28,349	16,350,330
South Dakota	5	2	78		131,871		1,691	133,562	6.97	135,507	14.04	269,361	1,917,412

SOUTH ATLANTIC	39	5	1,196		2,024,926		8,174	2,033,100	6.43	1,976,357	12.70	2,913,423	31,584,011
Delaware	1	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)
District of Columbia	4	1	169		280,582		1,660	282,242	3.44	273,159	6.76	709,794	8,214,880
Florida	6		234		449,592			449,592	8.58	336,444	14.99	707,142	5,243,395
Georgia	4		188		266,110			266,110	7.04	327,208	15.69	393,892	3,781,447
Maryland	1	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)
North Carolina	9	2	215		358,134		3,332	361,466	6.64	460,785	15.11	418,841	5,439,484
South Carolina													
Virginia	5	2	90		143,181		3,182	146,363	11.25	112,383	19.88	94,046	1,301,279
West Virginia	9		222		367,849			367,849	5.75	379,004	11.68	399,073	6,394,937
EAST SOUTH CENTRAL	8		345		578,410			578,410	5.48	601,569	11.18	1,030,377	10,553,444
Alabama	1	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)
Kentucky	1	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)
Mississippi													
Tennessee	6		307		515,269			515,269	5.16	506,052	10.22	943,127	9,994,107
WEST SOUTH CENTRAL	17	2	589	44	1,147,975	31,208	3,786	1,151,761	6.24	1,036,487	11.86	1,413,030	18,446,637
Arkansas													
Louisiana	5		181		332,561			332,561	7.59	363,736	15.90	328,931	4,379,725
Oklahoma	3		135		267,422			267,422	3.90	125,445	5.73	452,513	6,854,505
Texas	9	2	273	44	547,992	31,208	3,786	551,778	7.65	547,306	15.24	631,586	7,212,407
MOUNTAIN	22	1	556	101	1,059,157	34,354	1,250	1,060,407	4.63	1,133,427	9.59	1,344,264	22,885,743
Arizona	2	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)
Colorado	9		330		589,069			589,069	6.42	658,885	13.61	629,091	9,171,691
Idaho	1	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)
Montana	2	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)
Nevada													
New Mexico	3	1	30		37,505		1,250	38,755	5.24	42,933	11.05	63,234	739,198
Utah	5		101	100	256,007	34,177		256,007	2.55	254,138	5.08	449,271	10,050,922
Wyoming													
PACIFIC	42	5	2,172	44	4,414,343	52,101	10,202	4,424,545	6.12	4,476,799	12.32	6,584,651	72,248,465
California	29	3	1,579	44	3,146,984	52,101	5,880	3,152,864	5.45	3,506,153	11.52	5,317,706	57,824,329
Oregon	4		114		232,230			232,230	8.99	173,802	15.73	274,628	2,582,539
Washington	9	2	479		1,035,129		4,322	1,039,451	8.78	796,834	15.51	992,317	11,841,597

TABLE 5B.—RENTAL COSTS OF WHOLESALER-RETAILERS (INCLUDED IN "ALL OTHER EXPENSE" COLUMN IN TABLE 5)

DIVISIONS AND STATES	Rent paid for leased premises	Net sales of stores in leased premises	Rental cost per $100 of sales in leased premises
United States total	$7,710,918	$785,629,453	$0.98
NEW ENGLAND	629,628	58,145,820	1.08
Connecticut	98,744	6,305,701	1.57
Maine	53,033	5,005,796	1.06
Massachusetts	431,786	43,072,835	1.00
New Hampshire	(x)	(x)	(x)
Rhode Island	(x)	(x)	(x)
Vermont	(x)	(x)	(x)
MIDDLE ATLANTIC	2,795,432	244,939,398	1.14
New Jersey	277,862	23,299,470	1.19
New York	1,507,545	128,463,045	1.17
Pennsylvania	1,010,025	93,176,883	1.08
EAST NORTH CENTRAL	2,161,406	246,839,267	0.88
Illinois	591,149	84,883,754	0.70
Indiana	109,000	17,671,235	0.62
Michigan	483,706	60,689,975	0.80
Ohio	801,288	63,944,265	1.25
Wisconsin	176,263	19,650,038	0.90
WEST NORTH CENTRAL	765,319	92,290,491	0.83
Iowa	185,839	21,640,126	0.86
Kansas	34,721	3,920,191	0.89
Minnesota	174,459	19,911,008	0.88
Missouri	225,346	18,699,011	1.21
Nebraska	97,633	22,770,331	0.43
North Dakota	19,447	3,432,412	0.57
South Dakota	27,874	1,917,412	1.45
SOUTH ATLANTIC	322,578	29,487,489	1.09
Delaware	(x)	(x)	(x)
District of Columbia	76,773	8,214,880	0.93
Florida	51,827	5,243,395	0.99
SOUTH ATLANTIC—Continued.			
Georgia	$47,980	$3,781,447	$1.27
Maryland	(x)	(x)	(x)
North Carolina	51,790	4,474,222	1.16
South Carolina			
Virginia	19,800	918,797	2.15
West Virginia	55,222	5,646,159	0.98
EAST SOUTH CENTRAL	85,728	9,786,499	0.88
Alabama	(x)	(x)	(x)
Kentucky	(x)	(x)	(x)
Mississippi			
Tennessee	77,049	9,227,162	0.84
WEST SOUTH CENTRAL	186,452	17,668,933	1.06
Arkansas			
Louisiana	58,364	4,379,725	1.33
Oklahoma	38,236	6,854,505	0.56
Texas	89,852	6,434,703	1.40
MOUNTAIN	118,992	14,223,092	0.84
Arizona	(x)	(x)	(x)
Colorado	81,088	9,171,691	0.88
Idaho	(x)	(x)	(x)
Montana	(x)	(x)	(x)
Nevada			
New Mexico			
Utah	18,058	1,913,447	0.94
Wyoming			
PACIFIC	645,383	72,248,465	0.89
California	492,704	57,824,329	0.85
Oregon	34,500	2,582,539	1.34
Washington	118,179	11,841,597	1.00

TABLE 6.—ESTABLISHMENTS AND SALES OF RETAIL DEALERS IN AUTOMOTIVE PRODUCTS, BY SIZE OF BUSINESS

[Sales shown in thousands of dollars]

KIND OF BUSINESS	UNITED STATES TOTALS		ANNUAL SALES EXCEEDING $1,000,000		ANNUAL SALES FROM $500,000 TO $999,999		ANNUAL SALES FROM $300,000 TO $499,999		ANNUAL SALES FROM $200,000 TO $299,999		ANNUAL SALES FROM $100,000 TO $199,999	
	Stores	Sales	Stores	Sales	Stores	Sales	Stores	Sales	Stores	Sales	Stores	Sales
Motor-vehicle dealers	43,894	$6,294,149	504	$842,808	1,691	$1,156,306	2,861	$1,088,008	3,616	$877,540	8,874	$1,256,065
Percent of stores and sales	100.00	100.00	1.15	13.39	3.85	18.37	6.52	17.29	8.24	13.94	20.22	19.96
Automobile salesrooms	40,797	$6,153,217	502	$839,392	1,677	$1,146,355	2,819	$1,072,192	3,554	$862,713	8,657	$1,226,653
Percent of stores and sales	100.00	100.00	1.23	13.64	4.11	18.63	6.91	17.42	8.71	14.02	21.22	19.94
Used-car dealers	3,097	$140,932	2	$3,416	14	$9,951	42	$15,816	.62	$14,827	217	$29,412
Percent of stores and sales	100.00	100.00	0.06	2.42	0.45	7.06	1.36	11.22	2.00	10.52	7.01	20.87
Automobile dealers with farm implements and machinery	1,407	$113,363			9	$5,305	28	$9,770	64	$15,451	271	$36,990
Percent of stores and sales	100.00	100.00			0.64	4.68	1.99	8.62	4.55	13.63	19.26	32.63
Accessories, tires, and batteries	22,313	$599,295	3	$3,254	18	$10,672	88	$32,189	165	$40,383	788	$105,993
Percent of stores and sales	100.00	100.00	0.01	0.54	0.08	1.78	0.40	5.37	0.74	6.74	3.53	17.70
Accessory stores with tires and batteries	7,762	$257,743	3	$3,254	10	$5,800	44	$16,167	73	$17,693	366	$49,222
Percent of stores and sales	100.00	100.00	0.04	1.26	0.13	2.25	0.57	6.27	0.94	6.86	4.71	19.10
Battery and ignition shops and brake repair shops	6,409	$94,238			2	$1,351	6	$2,042	12	$3,010	70	$9,305
Percent of stores and sales	100.00	100.00			0.03	1.43	0.09	2.17	0.19	3.19	1.09	9.87
Tire shops	8,142	$247,314			6	$3,521	38	$13,980	80	$19,680	352	$47,466
Percent of stores and sales	100.00	100.00			0.07	1.43	0.47	5.65	0.98	7.96	4.32	19.19
Filling stations	121,513	$1,787,423	1	$1,000	9	$5,930	45	$16,811	117	$27,812	805	$103,970
Percent of stores and sales	100.00	100.00	0.00	0.06	0.01	0.33	0.04	0.94	0.10	1.56	0.66	5.82
Filling stations—gasoline and oil	52,727	$869,081	1	$1,000	7	$4,492	32	$12,143	71	$16,915	405	$52,248
Percent of stores and sales	100.00	100.00	0.00	0.11	0.01	0.51	0.06	1.40	0.13	1.95	0.77	6.01
Filling stations with tires and accessories	26,775	$516,917			2	$1,438	9	$3,293	36	$8,405	265	$34,361
Percent of stores and sales	100.00	100.00			0.01	0.28	0.03	0.64	0.13	1.63	0.99	6.65
Filling stations with other merchandise	42,011	$401,425					4	$1,375	10	$2,492	135	$17,361
Percent of stores and sales	100.00	100.00					0.01	0.34	0.02	0.62	0.32	4.33
Garages and repair shops	66,793	$785,001	1	$1,354	7	$4,650	13	$4,617	58	$13,735	396	$51,988
Percent of stores and sales	100.00	100.00	0.00	0.17	0.01	0.59	0.02	0.59	0.10	1.75	0.59	6.62
Body, fender, and paint shops	3,379	$46,106			2	$1,319			3	$720	23	$2,901
Percent of stores and sales	*100.00*	*100.00*			*0.06*	*2.86*			0.09	1.56	0.68	6.29
Garages (repairs, storage, etc.)	60,627	$693,063	1	$1,354	5	$3,331	12	$4,161	49	$11,651	354	$46,594
Percent of stores and sales	100.00	100.00	0.00	0.20	0.01	0.48	0.02	0.60	0.08	1.68	0.58	6.72
Parking stations, garages	2,059	$39,262					1	$456	6	$1,364	15	$1,968
Percent of stores and sales	100.00	100.00					0.05	1.16	0.29	3.48	0.73	5.01
Radiator shops	728	$6,570									4	$525
Percent of stores and sales	100.00	100.00									0.55	7.99

TABLE 6.—ESTABLISHMENTS AND SALES OF RETAIL DEALERS IN AUTOMOTIVE PRODUCTS, BY SIZE OF BUSINESS—Continued

[Sales shown in thousands of dollars]

KIND OF BUSINESS	ANNUAL SALES FROM $50,000 TO $99,999		ANNUAL SALES FROM $30,000 TO $49,999		ANNUAL SALES FROM $20,000 TO $29,999		ANNUAL SALES FROM $10,000 TO $19,999		ANNUAL SALES FROM $5,000 TO $9,999		ANNUAL SALES OF LESS THAN $5,000	
	Stores	Sales	Stores	Sales	Stores	Sales	Stores	Sales	Stores	Sales	Stores	Sales
Motor-vehicle dealers	9,435	$682,929	5,684	$221,429	3,566	$87,216	4,086	$59,454	2,086	$15,188	1,491	$7,212
Percent of stores and sales	21.50	10.85	12.95	3.52	8.11	1.39	9.31	0.94	4.75	0.24	3.40	0.11
Automobile salesrooms	8,971	$650,300	5,304	$206,836	3,236	$79,188	3,538	$51,669	1,664	$12,215	875	$5,699
Percent of stores and sales	21.99	10.57	13.00	3.36	7.93	1.29	8.67	0.84	4.08	0.20	2.15	0.09
Used-car dealers	464	$32,629	380	$14,593	330	$8,028	548	$7,785	422	$2,973	616	$1,513
Percent of stores and sales	14.98	23.15	12.27	10.36	10.66	5.70	17.69	5.52	13.63	2.11	19.89	1.07
Automobile dealers with farm implements and machinery	417	$29,274	276	$10,657	141	$3,455	142	$2,103	40	$300	19	$63
Percent of stores and sales	29.64	25.82	19.62	9.40	10.02	3.05	10.09	1.86	2.84	0.26	1.35	0.05
Accessories, tires, and batteries	2,071	$141,738	2,539	$97,225	2,470	$59,777	4,573	$65,020	3,960	$28,359	5,638	$14,682
Percent of stores and sales	9.28	23.65	11.38	16.22	11.07	9.97	20.49	10.85	17.75	4.73	25.27	2.45
Accessory stores with tires and batteries	932	$64,558	1,090	$41,999	968	$23,552	1,633	$23,504	1,146	$8,258	1,497	$3,732
Percent of stores and sales	12.01	25.05	14.04	16.30	12.47	9.14	21.04	9.12	14.76	3.20	19.29	1.45
Battery and ignition shops and brake repair shops	211	$14,156	400	$15,287	564	$13,663	1,329	$18,532	1,487	$10,600	2,328	$6,297
Percent of stores and sales	3.29	15.02	6.24	16.22	8.80	14.50	20.74	19.67	23.20	11.25	36.33	6.68
Tire shops	928	$63,024	1,049	$39,939	938	$22,562	1,611	$22,984	1,327	$9,501	1,813	$4,653
Percent of stores and sales	11.40	25.49	12.88	16.15	11.52	9.12	19.79	9.29	16.30	3.84	22.27	1.88
Filling stations	4,440	$291,636	9,951	$374,895	13,115	$317,156	27,389	$389,573	23,345	$167,043	42,296	$91,592
Percent of stores and sales	3.65	16.32	8.19	20.97	10.79	17.74	22.54	21.80	19.21	9.34	34.81	5.12
Filling stations—gasoline and oil	2,165	$144,251	5,031	$189,226	6,830	$165,456	12,737	$184,131	9,119	$66,170	16,329	$33,046
Percent of stores and sales	4.11	16.60	9.54	21.77	12.95	19.04	24.16	21.19	17.30	7.61	30.97	3.81
Filling stations with tires and accessories	1,547	$99,792	3,168	$119,747	3,766	$91,047	7,453	$106,343	5,273	$38,450	5,256	$14,051
Percent of stores and sales	5.78	19.30	11.83	23.16	14.07	17.61	27.84	20.57	19.69	7.44	19.63	2.72
Filling stations with other merchandise	728	$47,593	1,752	$65,922	2,519	$60,653	7,199	$99,099	8,953	$62,423	20,711	$44,495
Percent of stores and sales	1.73	11.86	4.17	16.42	6.00	15.11	17.14	24.68	21.31	15.55	49.30	11.09
Garages and repair shops	1,721	$113,744	3,498	$131,156	4,854	$116,540	12,584	$174,947	14,400	$101,354	29,261	$70,902
Percent of stores and sales	2.57	14.49	5.24	16.71	7.27	14.85	18.83	22.29	21.56	12.91	43.81	9.03
Body, fender, and paint shops	142	$9,219	237	$8,871	224	$5,467	606	$8,486	784	$5,473	1,358	$3,652
Percent of stores and sales	4.20	20.00	7.02	19.24	6.63	11.86	17.93	18.40	23.20	11.87	40.19	7.92
Garages (repairs, storage, etc.)	1,484	$98,413	3,000	$112,389	4,282	$102,714	11,213	$155,526	13,035	$91,682	27,192	$65,236
Percent of stores and sales	2.45	14.20	4.95	16.22	7.06	14.82	18.50	22.44	21.50	13.23	44.85	9.41
Parking stations, garages	88	$5,659	239	$9,073	301	$7,223	666	$9,547	400	$2,959	343	$1,012
Percent of stores and sales	4.27	14.41	11.61	23.11	14.62	18.40	32.34	24.32	19.43	7.53	16.66	2.58
Radiator shops	7	$453	22	$823	47	$1,136	99	$1,388	181	$1,240	368	$1,002
Percent of stores and sales	0.96	6.91	3.02	12.54	6.46	17.30	13.60	21.13	24.86	18.88	50.55	15.25

TABLE 7.—ESTABLISHMENTS AND SALES OF WHOLESALER-RETAILERS (DISTRIBUTOR-DEALERS), BY SIZE OF BUSINESS AND BY STATES

[(x) indicates amounts not shown to avoid disclosure of individual operations]

STATES	UNITED STATES TOTALS		ANNUAL SALES EXCEEDING $1,000,000		ANNUAL SALES FROM $500,000 TO $999,999		ANNUAL SALES FROM $300,000 TO $499,999		ANNUAL SALES FROM $200,000 TO $299,999		ANNUAL SALES FROM $100,000 TO $199,999	
	Stores	Sales	Stores	Sales	Stores	Sales	Stores	Sales	Stores	Sales	Stores	Sales
United States total	500	$857,751,336	229	$742,755,451	111	$81,227,210	48	$18,457,930	34	$8,496,511	30	$4,648,663
Percent of establishments and sales	100.00	100.00	45.80	86.59	22.20	9.47	9.60	2.15	6.80	0.99	6.00	0.54
Alabama	1	(x)										
Arizona	2	(x)			2	(x)						
Arkansas												
California	29	57,824,329	14	54,596,823	2	1,512,667	2	779,114	1	283,680	3	459,773
Colorado	9	9,171,691	4	6,662,858	3	1,990,973	1	494,860				
Connecticut	8	8,260,747	5	6,622,385	2	1,286,605	1	351,757				
Delaware	1	(x)					1	(x)				
District of Columbia	4	8,214,880	2	7,858,122					1	200,000	1	156,758
Florida	6	5,243,395	3	3,917,011	2	1,259,006						
Georgia	4	3,781,447	3	3,718,104								
Idaho	1	(x)										
Illinois	27	84,883,754	18	82,987,484	2	1,436,725			1	235,155		
Indiana	10	17,671,235	8	16,905,330			1	483,226	1	282,679		
Iowa	24	21,640,126	6	12,778,069	10	6,890,930	3	1,037,264	2	541,711	2	299,014
Kansas	5	4,069,344	1	1,415,146	3	2,505,045					1	149,153
Kentucky	1	(x)					1	(x)				
Louisiana	5	4,379,725	1	2,796,492	2	1,464,802						
Maine	6	5,005,796	3	3,980,591			2	833,643			1	191,562
Maryland	1	(x)			1	(x)						
Massachusetts	18	43,075,335	11	39,837,480	3	2,345,934	2	849,421				
Michigan	21	65,676,864	11	62,084,099	3	2,101,676	1	361,863	4	1,036,809		
Minnesota	13	19,911,008	7	16,872,259	4	2,720,993			1	222,364		
Mississippi												
Missouri	12	18,699,011	9	17,421,752	1	842,842			1	276,789	1	157,628
Montana	2	(x)			2	(x)						
Nebraska	16	22,770,331	7	19,068,491	4	2,817,910	1	355,860			3	477,472
Nevada												
New Hampshire	2	(x)					1	(x)	1	(x)		
New Jersey	15	25,124,057	6	19,665,967	6	4,525,921	2	727,684	1	204,485		
New Mexico	3	739,198					1	355,426	1	214,022	1	169,750
New York	63	138,713,916	33	125,136,959	13	9,902,452	5	2,199,195	3	664,277	4	569,836
North Carolina	9	5,439,484			5	4,164,881	2	822,117	2	452,486		

TABLE 7.—ESTABLISHMENTS AND SALES OF WHOLESALER-RETAILERS (DISTRIBUTOR-DEALERS), BY SIZE OF BUSINESS AND BY STATES—Continued

STATES	UNITED STATES TOTALS		ANNUAL SALES EXCEEDING $1,000,000		ANNUAL SALES FROM $500,000 TO $999,999		ANNUAL SALES FROM $300,000 TO $499,999		ANNUAL SALES FROM $200,000 TO $299,999		ANNUAL SALES FROM $100,000 TO $199,999	
	Stores	Sales	Stores	Sales	Stores	Sales	Stores	Sales	Stores	Sales	Stores	Sales
North Dakota	8	$16,350,330	2	$14,691,016	2	$1,124,046	1	$312,573			1	$169,896
Ohio	36	67,845,257	24	63,435,470	4	2,916,290	3	980,739	1	$268,734		
Oklahoma	3	6,854,505	1	5,960,397			2	894,108				
Oregon	4	2,582,539	1	1,159,107	2	1,225,812					1	197,620
Pennsylvania	60	113,336,300	27	97,529,070	16	12,480,455	3	1,141,217	5	1,305,720	5	722,275
Rhode Island	2	(X)	2	(X)								
South Carolina												
South Dakota	5	1,917,412			1	635,216	2	697,583	2	584,613		
Tennessee	6	9,994,107	3	7,968,551	2	1,718,523	1	307,033				
Texas	9	7,212,407	3	4,380,332	3	1,890,409	2	885,521				
Utah	5	10,050,922	2	9,480,622			1	325,866			1	193,205
Vermont	2	(X)					1	(X)	1	(X)		
Virginia	5	1,301,279			1	569,449	1	382,482			1	172,273
Washington	9	11,841,597	4	9,147,771	2	1,637,532	2	788,542	1	267,752		
West Virginia	9	6,394,937	2	2,360,833	5	3,594,831			1	245,604	1	193,669
Wisconsin	19	23,320,725	6	19,718,194	3	2,003,095	2	764,576	2	488,922	2	223,258

STATES	ANNUAL SALES FROM $50,000 TO $99,999		ANNUAL SALES FROM $30,000 TO $49,999		ANNUAL SALES FROM $20,000 TO $29,999		ANNUAL SALES FROM $10,000 TO $19,999		ANNUAL SALES OF LESS THAN $10,000	
	Stores	Sales	Stores	Sales	Stores	Sales	Stores	Sales	Stores	Sales
United States total	21	$1,488,252	9	$355,292	10	$244,279	4	$53,234	4	$24,514
Percent of establishments and sales	4.20	0.17	1.80	0.04	2.00	0.03	0.80	0.01	0.80	(1)
Alabama										
Arizona										
Arkansas										
California										
Colorado	1	52,500	1	30,488	4	96,526	1	12,758		
Connecticut					1	23,000				
Delaware										
District of Columbia										

Florida	1	67,378								
Georgia	1	63,343								
Idaho										
Illinois	3	191,545					1	18,380	2	14,465
Indiana										
Iowa	1	93,138								
Kansas										
Kentucky										
Louisiana	1	98,375			1	20,056				
Maine										
Maryland										
Massachusetts			1	40,000					1	2,500
Michigan	1	84,868							1	7,549
Minnesota	1	95,392								
Mississippi										
Missouri										
Montana										
Nebraska	1	50,598								
Nevada										
New Hampshire										
New Jersey										
New Mexico										
New York	2	126,604	3	114,592						
North Carolina										
North Dakota					2	52,799				
Ohio	3	217,424			1	26,600				
Oklahoma										
Oregon										
Pennsylvania	1	62,638	2	83,744			1	11,181		
Rhode Island										
South Carolina										
South Dakota										
Tennessee										
Texas	1	56,145								
Utah	1	51,229								
Vermont										
Virginia	2	177,075								
Washington										
West Virginia										
Wisconsin			2	86,467	1	25,298	1	10,915		
Wyoming										

[1] Less than 0.01 percent.

TABLE 8.—FILLING STATIONS AND SALES BY TYPE OF OPERATION AND BY SIZE OF CITY IN 9 GEOGRAPHIC DIVISIONS

	TOTALS			SINGLE-STORE INDEPENDENTS			TWO- AND THREE-STORE INDEPENDENTS (INCLUDES LOCAL BRANCH SYSTEMS)			LOCAL CHAINS		
	Number of stores	Net sales	Percent	Number of stores	Net sales	Percent	Number of stores	Net sales	Percent	Number of stores	Net sales	Percent
United States total	**121,513**	**$1,787,423,097**	**100.00**	**85,426**	**$984,658,904**	**55.09**	**4,939**	**$128,353,249**	**7.18**	**6,751**	**$172,317,220**	**9.64**
Cities over 30,000	32,381	737,808,445	41.28	15,791	317,190,770	42.99	1,841	60,313,912	8.17	3,734	104,962,476	14.23
Cities 10,000–30,000	11,096	231,916,254	12.97	6,287	120,550,789	51.98	762	24,605,444	10.61	914	25,716,532	11.09
Places under 10,000	78,036	817,698,398	45.75	63,348	546,917,345	66.89	2,336	43,433,893	5.31	2,103	41,638,212	5.09
New England	7,758	104,281,652	5.83	5,727	58,267,423	55.88	311	7,844,915	7.52	282	7,804,113	7.49
Cities over 30,000	2,461	53,357,153	2.98	1,243	22,138,924	41.49	161	4,847,585	9.09	201	5,755,190	10.79
Cities 10,000–30,000	1,226	20,512,561	1.15	887	13,282,038	64.75	66	1,747,340	8.52	35	851,765	4.15
Places under 10,000	4,071	30,411,938	1.70	3,597	22,846,461	75.12	84	1,249,990	4.11	46	1,197,158	3.94
Middle Atlantic	18,841	298,108,020	16.68	13,349	151,835,313	50.93	850	23,473,166	7.88	1,431	46,146,395	15.48
Cities over 30,000	5,816	148,262,330	8.29	2,990	58,168,646	39.23	388	12,590,728	8.49	860	32,146,692	21.68
Cities 10,000–30,000	1,698	38,015,056	2.13	979	19,119,675	50.30	139	4,460,476	11.73	192	5,250,716	13.81
Places under 10,000	11,327	111,830,634	6.26	9,380	74,546,992	66.66	323	6,421,962	5.74	379	8,748,987	7.82
East North Central	24,824	452,524,304	25.32	15,084	218,032,658	48.18	1,150	35,891,098	7.93	2,366	59,131,631	13.07
Cities over 30,000	9,139	228,547,999	12.79	3,599	88,580,042	38.76	525	18,459,706	8.07	1,360	36,660,936	16.04
Cities 10,000–30,000	2,375	55,246,600	3.09	1,145	23,330,042	42.23	169	6,666,752	12.07	326	9,364,536	16.95
Places under 10,000	13,310	168,729,705	9.44	10,340	106,122,574	62.89	456	10,764,640	6.38	680	13,106,159	7.77
West North Central	14,680	247,855,820	13.87	8,195	116,814,706	47.13	670	17,215,934	6.94	909	21,584,054	8.71
Cities over 30,000	3,252	66,416,415	3.72	1,112	24,145,373	36.36	152	4,483,426	6.75	307	7,075,784	10.65
Cities 10,000–30,000	1,417	31,231,488	1.75	569	12,325,669	39.47	145	5,138,476	16.45	130	4,104,312	13.14
Places under 10,000	10,011	150,207,917	8.40	6,514	80,343,664	53.49	373	7,594,032	5.06	472	10,403,958	6.93
South Atlantic	16,256	184,075,593	10.30	12,786	109,344,605	59.40	479	10,328,651	5.61	501	13,455,206	7.31
Cities over 30,000	2,710	65,996,752	3.69	1,299	25,192,815	38.17	112	4,959,979	7.52	310	8,759,412	13.27
Cities 10,000–30,000	1,139	23,119,612	1.30	667	12,394,311	53.61	58	1,072,546	4.64	67	2,501,163	10.82
Places under 10,000	12,407	94,959,229	5.31	10,820	71,757,479	75.57	309	4,296,126	4.52	124	2,194,631	2.31
East South Central	5,757	71,073,600	3.98	4,273	40,850,543	57.48	215	5,539,701	7.79	123	3,017,022	4.24
Cities over 30,000	1,041	24,590,356	1.38	422	8,870,619	36.07	60	2,388,393	9.71	77	2,155,356	8.77
Cities 10,000–30,000	509	10,172,037	.57	243	4,911,119	48.28	28	1,330,047	13.08	15	292,837	2.88
Places under 10,000	4,207	36,311,207	2.03	3,608	27,068,805	74.54	127	1,821,261	5.02	31	568,829	1.57
West South Central	16,522	180,916,214	10.12	12,272	108,302,769	59.86	585	10,611,112	5.87	690	11,031,306	6.10
Cities over 30,000	2,606	45,695,850	2.55	1,324	20,672,179	45.24	161	3,797,470	8.31	381	6,258,560	13.69
Cities 10,000–30,000	1,297	22,597,792	1.26	739	12,201,455	53.99	82	2,019,487	8.94	91	2,017,628	8.93
Places under 10,000	12,619	112,622,572	6.31	10,209	75,429,135	66.97	342	4,794,155	4.26	218	2,755,118	2.45
Mountain	4,207	65,491,360	3.66	3,199	41,976,218	64.09	224	5,633,887	8.60	211	5,507,799	8.41
Cities over 30,000	695	14,774,644	.82	398	7,323,500	49.57	59	1,829,109	12.38	82	2,842,143	19.24
Cities 10,000–30,000	352	8,175,956	.46	203	5,074,911	62.07	25	810,270	9.91	35	913,546	11.17
Places under 10,000	3,160	42,540,760	2.38	2,598	29,577,807	69.53	140	2,994,508	7.04	94	1,752,110	4.12
Pacific	12,668	183,096,534	10.24	10,541	139,234,669	76.04	455	11,814,785	6.45	238	4,639,694	2.53
Cities over 30,000	4,661	90,166,946	5.04	3,404	62,098,672	68.87	223	6,957,516	7.72	156	3,308,403	3.67
Cities 10,000–30,000	1,083	22,845,152	1.28	855	17,911,569	78.40	50	6,360,050	5.95	23	420,029	1.84
Places under 10,000	6,924	70,084,436	3.92	6,282	59,224,428	84.50	182	3,497,219	4.99	59	911,262	1.30

	SECTIONAL CHAINS			NATIONAL CHAINS			OTHER TYPES OF OPERATION		
	Number of stores	Net sales	Percent	Number of stores	Net sales	Percent	Number of stores	Net sales	Percent
United States total	15,118	$306,714,144	17.18	6,748	$1,260,172,384	7.06	2,531	$69,207,196	3.87
Cities over 30,000	6,937	170,448,201	23.10	4,069	84,383,056	11.44	9	510,030	0.07
Cities 10,000-30,000	2,185	43,666,814	18.83	933	17,177,108	7.40	15	199,567	0.09
Places under 10,000	5,996	92,599,129	11.32	1,746	24,612,220	3.01	2,507	68,497,599	8.38
New England	1,078	21,318,536	20.44	307	8,334,358	7.99	53	712,307	0.68
Cities over 30,000	620	14,178,958	26.57	235	6,421,533	12.03	1	14,963	0.03
Cities 10,000-30,000	185	3,538,063	17.25	46	1,018,845	4.97	7	74,510	0.36
Places under 10,000	273	3,601,515	11.84	26	893,980	2.94	45	622,834	2.05
Middle Atlantic	1,782	34,885,508	11.70	1,229	33,652,519	11.29	200	8,115,119	2.72
Cities over 30,000	725	20,116,037	13.57	853	25,240,227	17.03			
Cities 10,000-30,000	247	5,590,290	14.71	136	3,505,798	9.22	5	88,101	0.23
Places under 10,000	810	9,179,181	8.21	240	4,906,494	4.39	195	8,027,018	7.18
East North Central	4,070	99,352,709	21.95	1,806	28,582,035	6.32	348	11,534,173	2.55
Cities over 30,000	2,358	63,465,734	27.77	1,292	21,275,055	9.31	5	106,526	0.05
Cities 10,000-30,000	560	12,926,246	23.40	175	2,959,024	5.35			
Places under 10,000	1,152	22,960,729	13.61	339	4,347,956	2.58	343	11,427,647	6.77
West North Central	2,955	51,898,731	20.94	1,237	15,826,419	6.39	714	24,515,976	9.89
Cities over 30,000	1,035	21,159,514	31.86	646	9,552,318	14.38			
Cities 10,000-30,000	421	7,614,557	24.38	152	2,048,474	6.56			
Places under 10,000	1,499	23,124,660	15.39	439	4,225,627	2.81	714	24,515,976	16.32
South Atlantic	1,409	33,357,545	18.12	645	12,521,822	6.80	436	5,067,764	2.76
Cities over 30,000	621	19,655,537	29.78	368	7,429,009	11.26			
Cities 10,000-30,000	226	5,013,532	21.68	121	2,138,060	9.25			
Places under 10,000	562	8,688,476	9.15	156	2,954,753	3.11	436	5,067,764	5.34
East South Central	715	11,896,947	16.74	305	6,444,493	9.07	126	3,324,894	4.68
Cities over 30,000	306	6,654,191	27.06	174	4,141,756	16.84	2	380,041	1.55
Cities 10,000-30,000	156	2,308,531	22.69	67	1,329,503	13.07			
Places under 10,000	253	2,934,225	8.08	64	973,234	2.68	124	2,944,853	8.11
West South Central	1,623	24,678,977	13.64	853	15,240,147	8.42	499	11,051,903	6.11
Cities over 30,000	400	7,561,744	16.55	340	7,405,897	16.21			
Cities 10,000-30,000	237	3,458,458	15.30	147	2,892,033	12.80	1	8,731	0.04
Places under 10,000	986	13,658,775	12.13	366	4,942,217	4.39	498	11,043,172	9.80
Mountain	202	4,129,727	6.31	265	4,116,879	6.29	106	4,126,850	6.30
Cities over 30,000	40	474,829	3.21	115	2,296,563	15.54	1	8,500	0.06
Cities 10,000-30,000	23	537,856	6.58	65	815,532	9.98	1	23,841	0.29
Places under 10,000	139	3,117,042	7.33	85	1,004,784	2.36	104	4,094,509	9.62
Pacific	1,284	25,195,464	13.76	101	1,453,712	0.80	49	758,210	0.42
Cities over 30,000	832	17,181,657	19.05	46	620,698	0.69			
Cities 10,000-30,000	130	2,679,281	11.73	24	469,839	2.06	1	4,384	0.02
Places under 10,000	322	5,334,526	7.61	31	363,175	0.52	48	753,826	1.08

TABLE 9A.—RETAIL ESTABLISHMENTS REPORTING SALES ON AN "ALL-CASH" BASIS, COMPARED WITH THOSE REPORTING "CASH-CREDIT" SALES

AUTOMOBILE SALES ROOMS

(Sales expressed in thousands)

DIVISIONS AND STATES	TOTAL		ALL-CASH		CASH-CREDIT	
	Stores	Sales	Stores	Sales	Stores	Sales
United States total	**36,423**	**$5,386,051**	**4,939**	**$515,962**	**31,484**	**$4,870,089**
New England	2,363	381,360	318	34,529	2,045	346,089
Connecticut	465	79,624	50	4,411	415	75,213
Maine	366	40,033	65	4,702	301	35,331
Massachusetts	948	179,844	131	17,746	817	162,098
New Hampshire	229	25,650	36	3,386	193	22,264
Rhode Island	156	32,155	20	3,236	136	28,919
Vermont	199	24,054	16	1,048	183	23,006
MIDDLE ATLANTIC	6,399	1,070,331	1,066	135,099	5,333	935,232
New Jersey	946	160,791	163	20,367	783	140,424
New York	2,686	544,064	388	59,482	2,298	484,582
Pennsylvania	2,767	365,476	515	55,250	2,252	310,226
EAST NORTH CENTRAL	8,862	1,260,367	1,061	104,882	7,801	1,155,485
Illinois	2,181	332,186	311	31,947	1,870	300,239
Indiana	1,227	154,527	164	14,750	1,063	139,777
Michigan	1,664	296,996	176	21,555	1,488	275,441
Ohio	2,263	334,831	218	22,034	2,045	312,797
Wisconsin	1,527	141,827	192	14,596	1,335	127,231
WEST NORTH CENTRAL	6,355	635,068	904	57,411	5,451	577,657
Iowa	1,411	123,730	210	12,937	1,201	110,793
Kansas	1,014	105,337	132	8,260	882	97,077
Minnesota	1,236	114,077	155	9,775	1,081	104,302
Missouri	1,033	152,116	181	12,119	852	139,997
Nebraska	820	75,432	136	9,383	684	66,049
North Dakota	386	32,947	32	1,789	354	31,158
South Dakota	455	31,429	58	3,148	397	28,281
SOUTH ATLANTIC	3,294	457,637	471	50,006	2,823	407,631
Delaware	81	12,985	12	979	69	12,006
District of Columbia	63	28,442	3	804	60	27,638
Florida	356	57,209	56	7,411	300	49,798
Georgia	497	74,430	48	5,331	449	69,099
Maryland	349	52,686	69	7,900	280	44,786
North Carolina	606	73,740	73	8,369	533	65,371
South Carolina	299	38,577	75	6,315	224	32,262
Virginia	613	72,977	69	8,227	544	64,750
West Virginia	430	46,591	66	4,670	364	41,921
EAST SOUTH CENTRAL	1,830	265,994	225	24,963	1,605	241,031
Alabama	363	63,747	41	5,801	322	57,946
Kentucky	606	67,794	71	4,509	535	63,285
Mississippi	407	56,207	64	7,326	343	48,881
Tennessee	454	78,246	49	7,327	405	70,919
WEST SOUTH CENTRAL	3,162	531,217	442	57,445	2,720	473,772
Arkansas	368	54,118	66	9,491	302	44,627
Louisiana	312	52,170	61	7,562	251	44,608
Oklahoma	812	126,769	76	10,808	736	115,961
Texas	1,670	298,160	439	29,584	1,431	268,576
MOUNTAIN	1,556	217,844	226	22,990	1,330	194,854
Arizona	155	29,833	28	3,123	127	26,710
Colorado	439	65,992	83	9,555	356	56,437
Idaho	225	24,664	45	4,186	180	20,478
Montana	284	34,173	21	1,958	263	32,215
Nevada	70	9,079	9	759	61	8,320
New Mexico	125	15,674	19	1,873	106	13,801
Utah	116	22,049	8	844	108	21,205
Wyoming	142	16,380	13	692	129	15,688
PACIFIC	2,602	566,233	226	28,637	2,376	537,596
California	1,670	406,951	135	18,768	1,535	388,183
Oregon	358	55,874	49	5,502	309	50,372
Washington	574	103,408	42	4,367	532	99,041

TABLE 9B.—RETAIL ESTABLISHMENTS REPORTING SALES ON AN "ALL-CASH" BASIS, COMPARED WITH THOSE REPORTING "CASH-CREDIT" SALES

USED CAR DEALERS

(Sales expressed in thousands)

DIVISIONS AND STATES	TOTAL		ALL-CASH		CASH-CREDIT	
	Stores	Sales	Stores	Sales	Stores	Sales
United States total	2,823	$129,529	521	$12,812	2,302	$116,717
NEW ENGLAND	271	9,428	63	1,065	208	8,363
Connecticut	61	1,902	12	191	49	1,711
Maine	37	724	9	153	28	571
Massachusetts	125	4,801	36	657	89	4,144
New Hampshire	15	263	3	54	12	209
Rhode Island	27	1,622	1	7	26	1,615
Vermont	6	116	2	3	4	113
MIDDLE ATLANTIC	395	21,429	127	4,364	268	17,065
New Jersey	59	2,369	28	667	31	1,702
New York	226	14,940	59	2,849	167	12,091
Pennsylvania	110	4,120	40	848	70	3,272
EAST NORTH CENTRAL	702	41,515	110	3,499	592	38,016
Illinois	195	12,941	44	2,067	151	10,874
Indiana	58	2,853	10	280	48	2,573
Michigan	180	12,395	16	694	164	11,701
Ohio	187	10,155	25	241	162	9,914
Wisconsin	82	3,171	15	217	67	2,954
WEST NORTH CENTRAL	343	10,616	70	1,181	273	9,435
Iowa	68	2,332	15	286	53	2,046
Kansas	70	1,271	14	99	56	1,172
Minnesota	29	811	7	40	22	771
Missouri	121	4,387	23	665	98	3,722
Nebraska	51	1,730	10	81	41	1,649
North Dakota	2	69			2	69
South Dakota	2	16	1	10	1	6
SOUTH ATLANTIC	179	6,171	34	294	145	5,877
Delaware	3	51			3	51
District of Columbia	17	1,089	2	38	15	1,051
Florida	54	1,832	11	125	43	1,707
Georgia	19	609	2	14	17	595
Maryland	35	1,579	9	38	26	1,541
North Carolina	12	240	3	21	9	219
South Carolina	16	266	4	17	12	249
Virginia	8	181	1	24	7	157
West Virginia	15	324	2	17	13	307
EAST SOUTH CENTRAL	40	1,595	4	28	36	1,567
Alabama	8	481			8	481
Kentucky	10	473			10	473
Mississippi	4	81	1	17	3	64
Tennessee	18	560	3	11	15	549
WEST SOUTH CENTRAL	248	8,646	29	834	219	7,812
Arkansas	10	221	1	31	9	190
Louisiana	8	420	1	14	7	406
Oklahoma	69	2,547	8	297	61	2,250
Texas	161	5,458	19	492	142	4,966
MOUNTAIN	96	2,224	16	182	80	2,042
Arizona	16	209	8	103	8	106
Colorado	53	1,389	7	77	46	1,312
Idaho	3	35			3	35
Montana	8	117			8	117
Nevada	2	7			2	7
New Mexico	3	67	1	2	2	65
Utah	7	299			7	299
Wyoming	4	101			4	101
PACIFIC	549	27,905	68	1,365	481	26,540
California	474	26,281	51	1,148	423	25,133
Oregon	32	747	7	111	25	636
Washington	43	877	10	106	33	771

TABLE 9C.—RETAIL ESTABLISHMENTS REPORTING SALES ON AN "ALL-CASH" BASIS, COMPARED WITH THOSE REPORTING "CASH-CREDIT" SALES

AUTOMOBILE DEALERS WITH FARM IMPLEMENTS AND MACHINERY

(Sales expressed in thousands)

DIVISIONS AND STATES	TOTAL		ALL-CASH		CASH-CREDIT	
	Stores	Sales	Stores	Sales	Stores	Sales
United States total	**1,301**	**$103,295**	**96**	**$6,178**	**1,205**	**$97,117**
NEW ENGLAND	13	1,198	2	95	11	1,103
Connecticut						
Maine	7	438	1	12	6	426
Massachusetts						
New Hampshire	2	95	1	83	1	12
Rhode Island						
Vermont	4	665			4	665
MIDDLE ATLANTIC	57	4,726	4	225	53	4,501
New Jersey	2	383			2	383
New York	31	2,572	2	202	29	2,370
Pennsylvania	24	1,771	2	23	22	1,748
EAST NORTH CENTRAL	276	21,374	21	1,350	255	20,024
Illinois	91	5,993	5	103	86	5,890
Indiana	26	1,959	1	189	25	1,770
Michigan	29	2,276			29	2,276
Ohio	45	4,432	7	575	38	3,857
Wisconsin	85	6,714	8	483	77	6,231
WEST NORTH CENTRAL	688	46,167	48	2,354	640	43,813
Iowa	103	7,117	10	363	93	6,754
Kansas	120	10,061	12	850	108	9,211
Minnesota	106	7,223	13	542	93	6,681
Missouri	38	2,251	1	152	37	2,099
Nebraska	86	5,425	4	110	82	5,315
North Dakota	133	8,702	3	192	130	8,510
South Dakota	102	5,388	5	145	97	5,243
SOUTH ATLANTIC	38	4,930	7	816	31	4,114
Delaware	2	203			2	203
District of Columbia						
Florida	4	344			4	344
Georgia	5	116	2	29	3	87
Maryland	7	1,366	1	306	6	1,060
North Carolina	9	1,220	1	73	8	1,147
South Carolina	3	458	1	24	2	434
Virginia	5	772	1	25	4	747
West Virginia	3	451	1	359	2	92
EAST SOUTH CENTRAL	22	2,238	1	7	21	2,231
Alabama	6	479			6	479
Kentucky	4	192	1	7	3	185
Mississippi	11	1,471			11	1,471
Tennessee	1	96			1	96
WEST SOUTH CENTRAL	51	6,419	5	393	46	6,026
Arkansas	1	75			1	75
Louisiana	3	453			3	453
Oklahoma	18	2,146			18	2,146
Texas	29	3,745	5	393	24	3,352
MOUNTAIN	109	9,089	7	408	102	8,681
Arizona	4	322			4	322
Colorado	16	1,340	2	62	14	1,278
Idaho	13	1,058	2	208	11	850
Montana	67	5,468	3	138	64	5,330
Nevada	1	234			1	234
New Mexico	1	181			1	181
Utah						
Wyoming	7	486			7	486
PACIFIC	47	7,154	1	530	46	6,624
California	24	4,688			24	4,688
Oregon	4	475			4	475
Washington	19	1,991	1	530	18	1,461

TABLE 9D.—RETAIL ESTABLISHMENTS REPORTING SALES ON AN "ALL-CASH" BASIS, COMPARED WITH THOSE REPORTING "CASH-CREDIT" SALES

FILLING STATIONS

(Sales expressed in thousands)

DIVISIONS AND STATES	TOTAL		ALL-CASH		CASH-CREDIT	
	Stores	Sales	Stores	Sales	Stores	Sales
United States total	91,072	$1,223,780	43,589	$442,660	47,483	$781,120
NEW ENGLAND	5,307	65,586	3,482	34,180	1,825	31,406
Connecticut	973	18,441	621	11,092	352	7,349
Maine	542	5,236	370	2,698	172	2,538
Massachusetts	2,365	28,806	1,509	14,202	856	14,604
New Hampshire	531	4,829	407	2,629	124	2,200
Rhode Island	460	5,073	293	2,273	167	2,800
Vermont	436	3,201	282	1,286	154	1,915
MIDDLE ATLANTIC	12,725	164,152	7,594	80,847	5,131	83,305
New Jersey	2,020	24,655	1,294	13,258	726	11,397
New York	5,632	78,384	3,513	41,779	2,119	36,605
Pennsylvania	5,073	61,113	2,787	25,810	2,286	35,303
EAST NORTH CENTRAL	17,358	292,561	8,029	107,946	9,329	184,615
Illinois	4,281	74,779	2,322	34,612	1,959	40,167
Indiana	2,398	31,794	1,189	12,311	1,209	19,483
Michigan	3,441	64,527	1,580	23,935	1,861	40,592
Ohio	5,494	92,402	2,152	26,335	3,342	66,067
Wisconsin	1,744	29,059	786	10,753	958	18,306
WEST NORTH CENTRAL	10,771	177,183	4,348	51,580	6,423	125,603
Iowa	2,144	34,727	946	11,653	1,198	23,074
Kansas	2,313	34,111	805	8,644	1,508	25,467
Minnesota	1,399	28,310	489	6,402	910	21,908
Missouri	2,845	36,107	1,411	13,759	1,434	22,348
Nebraska	1,234	25,968	423	7,333	811	18,635
North Dakota	348	7,678	110	1,408	238	6,270
South Dakota	488	10,282	164	2,381	324	7,901
SOUTH ATLANTIC	12,964	128,463	6,595	53,048	6,369	75,415
Delaware	261	3,033	129	1,366	132	1,667
District of Columbia	116	5,083	54	2,700	62	2,383
Florida	2,335	24,252	1,290	9,491	1,045	14,761
Georgia	2,218	18,910	1,091	6,074	1,127	12,836
Maryland	579	7,075	332	4,093	247	2,982
North Carolina	3,419	29,230	1,562	11,290	1,857	17,940
South Carolina	1,429	11,505	835	5,383	594	6,122
Virginia	1,722	18,873	854	8,857	868	10,016
West Virginia	885	10,502	448	3,794	437	6,708
EAST SOUTH CENTRAL	4,917	60,653	2,174	16,816	2,743	43,837
Alabama	1,431	16,017	725	5,407	706	10,610
Kentucky	1,033	14,526	386	2,148	647	12,378
Mississippi	1,327	14,653	584	4,439	743	10,214
Tennessee	1,126	15,457	479	4,822	647	10,635
WEST SOUTH CENTRAL	14,110	151,397	5,855	41,508	8,255	109,889
Arkansas	1,641	16,783	647	3,876	994	12,907
Louisiana	1,471	15,110	708	4,846	763	10,264
Oklahoma	3,830	44,134	1,344	9,622	2,486	34,512
Texas	7,168	75,370	3,156	23,164	4,012	52,206
MOUNTAIN	3,409	52,092	1,374	15,671	2,035	36,421
Arizona	538	7,136	208	1,926	330	5,210
Colorado	1,083	16,392	411	3,938	672	12,454
Idaho	399	5,731	199	2,074	200	3,657
Montana	334	7,946	117	2,209	217	5,737
Nevada	93	1,104	47	438	46	666
New Mexico	339	3,657	117	1,047	222	2,610
Utah	429	6,537	186	2,621	243	3,916
Wyoming	194	3,589	89	1,418	105	2,171
PACIFIC	9,511	131,693	4,138	41,064	5,373	90,629
California	6,125	92,551	2,611	28,181	3,514	64,370
Oregon	1,264	13,454	679	5,928	585	7,526
Washington	2,122	25,688	848	6,955	1,274	18,733

TABLE 10.—SALES OF RETAIL DEALERS IN AUTOMOTIVE PRODUCTS AND OF AUTOMOBILE WHOLESALER-RETAILERS ARRANGED BY COMMODITY LINES

KIND OF BUSINESS	Total	Automobile products sold to ultimate consumers [1]	Repairs and storage	Radios and equipment	Automobile products sold to dealers [2]	Miscellaneous merchandise [3] (including candy, cigars, etc.)
Total sales—retailers and wholesaler-retailers	$10,698,609,758	$8,450,758,512	$991,229,699	$38,426,424	$1,083,945,548	$125,249,575
Percent	100.00	79.07	9.27	0.36	10.13	1.17
Retail dealers in automotive products—total [1]	9,579,230,837	7,979,819,241	962,796,630	36,416,780	485,840,418	114,357,708
Auto salesrooms	6,153,216,567	5,216,006,659	443,289,252	6,483,756	467,540,601	19,896,299
Used-car establishments	140,932,126	134,774,481	3,269,978	129,388	2,577,137	181,142
Auto dealers with farm implements and machinery	113,363,249	73,170,665	4,936,925			35,255,660
Accessory stores with tires and batteries	257,742,858	223,756,829	18,688,991	9,317,819	4,092,265	1,886,954
Battery and ignition shops—brake repair shops	94,238,218	53,371,542	31,035,900	6,268,564	893,616	2,668,595
Tire shops (including tire repairs)	247,314,087	214,076,052	25,114,145	2,590,168	3,844,573	1,689,149
Filling stations—gasoline and oil	869,081,365	841,771,949	9,517,936			17,791,480
Filling stations with tires and accessories	516,916,621	485,586,868	25,969,471	1,070,734	966,962	3,322,586
Filling stations with other merchandise	401,425,111	354,949,438	16,636,783	7,100,936	936,139	21,801,815
Garages (gasoline, oil, repairs, and storage)	693,063,270	354,942,577	320,906,760	3,455,415	4,952,385	8,806,133
Body, fender, and paint shops	46,106,104	12,650,232	32,992,383		6,923	456,566
Radiator shops	6,569,523	1,897,047	4,535,194			137,282
Parking stations and parking lots	39,261,738	12,864,902	25,902,912		29,817	464,107
All other retailers of automotive products [4]	261,627,586	254,425,105	7,202,481			
Department stores	82,774,242	82,714,251	59,991			
Mail-order houses	24,513,997	24,513,997				
General merchandise stores	18,452,317	18,445,247	7,070			
Variety stores	3,049,628	3,049,628				
Feed stores (flour, feed, etc.)	1,496,608	1,491,738	4,870			
Coal and feed stores	1,351,108	1,310,288	40,820			
Radio and electrical stores	8,226,160	7,477,868	748,292			
Hardware stores	12,144,326	11,768,089	376,237			
Hardware and farm implements stores	20,273,891	19,956,558	317,333			
Furniture stores	1,554,893	1,525,123	29,770			
Family clothing stores	133,502	133,502				
Farm implements, machinery, and equipment	54,251,982	53,816,791	435,191			
Lumber and hardware dealers	328,216	303,016	25,200			
Coal and wood yards	3,686,575	3,676,602	9,973			
Second-hand auto parts stores [5] / All other retail stores [5]	29,390,141	20,822,593 / 3,419,814	5,147,734			
Total retail sales of automotive products by all retail stores	9,204,243,457	8,234,244,546	969,999,111			
Wholesaler-retailers of motor vehicles	857,751,335	220,514,166	21,230,588	2,009,644	598,105,130	10,891,807

[1] For a breakdown of this column see table 11A.
[2] This classification includes among other merchandise such items as farm machinery, farm wagons, other farm and garden equipment, and fuel oil for which no specific inquiry was incorporated in the automobile schedule.
[3] This classification includes both retail and wholesale sales because no segregation could be made.
[4] Bicycle shops, motorcycle shops, boat dealers, and aeroplane dealers are in "all other retailers" of automotive products.
[5] Repairs and storage cannot be segregated.

TABLE 11A.—RETAIL SALES OF AUTOMOTIVE COMMODITIES (EXCEPT IN GENERAL STORES) BY RETAILERS OF AUTOMOTIVE PRODUCTS AND OF AUTOMOBILE WHOLESALER-RETAILERS

KIND OF BUSINESS	TOTALS (INCLUDES TABLE 11-B)		PASSENGER AUTOMOBILES (NEW)		PASSENGER AUTOMOBILES (USED)		COMMERCIAL CARS AND TRUCKS (NEW)	
	United States total sales	Percent	United States total sales	Percent	United States total sales	Percent	United States total sales	Percent
Total, all retail sales	$8,459,758,512	100.00	$3,043,518,452	100.00	$1,310,849,412	100.00	$457,048,214	100.00
Percent	100.00		35.98		15.50		5.40	
All retail stores	8,234,244,346	97.33	2,911,838,590	95.67	1,254,620,825	95.71	448,835,271	98.20
Percent	100.00		35.36		15.24		5.45	
Automobile salesrooms—new and trade-in	5,216,006,659	61.66	2,899,822,145	95.28	1,125,118,123	85.83	420,823,978	92.07
Used-car establishments	134,774,481	1.59	104,265	(1)	124,809,460	9.52	61,450	0.01
Auto dealers with farm implements	73,170,665	0.86	10,906,650	0.36	630,384	0.05	27,503,734	6.02
Accessory stores with tires and batteries	223,756,829	2.64			179,709	0.01		
Battery and ignition shops—brake repair shops	53,371,542	0.63			14,143	(1)		
Tire shops	214,076,052	2.53	2,954	(1)	28,490	(1)		
Filling stations—gasoline and oil	841,771,949	9.95						
Filling stations with tires and accessories	485,586,868	5.74						
Filling stations with other merchandise	354,949,438	4.20	168,450	(1)	328,216	0.03		
Garages (repairs, storage, gas, oil, accessories)	354,942,577	4.19	328,670	0.03	2,189,609	0.17	416,819	0.09
Body, fender, and paint shops	12,650,232	0.15	5,456	(1)	93,624	0.01		
Radiator shops	1,897,047	0.02						
Parking stations and lots	12,864,902	0.15						
Department stores	82,714,251	0.97						
With food departments	13,837,728							
Without food departments	68,876,523							
Mail-order houses (catalog)	24,513,997	0.29						
General merchandise stores	18,445,247	0.22						
Variety stores	3,049,628	0.04						
Feed stores (flour, feed, etc.)	1,491,738	0.02						
Radio and electrical shops	7,477,868	0.09						
Coal and feed stores	1,310,288	0.02						
Hardware stores	11,768,089	0.14						
Hardware and farm implements stores	19,956,558	0.24						
Furniture stores	1,525,123	0.02						
Family clothing stores	133,502	(1)						
Farm implements, machinery, and equipment dealers	53,816,791	0.64						
Lumber and hardware stores	303,016	(1)						
Second-hand auto parts dealers	20,822,593	0.25			1,205,906	0.09		
Coal and wood yards	3,676,602	0.04						
All other retail stores	3,419,814	0.04			23,161	(1)	29,290	(1)
Wholesaler-retailers	225,514,166	2.67	131,679,862	4.33	56,228,587	4.29	8,212,943	1.80
Percent	100.00		58.39		24.93		3.64	

1 Less than 0.01 percent.

TABLE 11A.—RETAIL SALES OF AUTOMOTIVE COMMODITIES (EXCEPT IN GENERAL STORES) BY RETAILERS OF AUTOMOTIVE PRODUCTS AND OF AUTOMOBILE WHOLESALER-RETAILERS—Continued

KIND OF BUSINESS	COMMERCIAL CARS AND TRUCKS (USED)		TRACTORS		SPECIAL-PURPOSE VEHICLES		BUSSES	
	United States total sales	Percent	United States total sales	Percent	United States total sales	Percent	United States total sales	Percent
Total, all retail sales	$113,680,574	100.00	$100,634,975	100.00	$26,693,691	100.00	$40,427,261	100.00
Percent	1.34		1.19		0.32		0.48	
All retail stores	105,104,032	92.46	100,634,975	100.00	26,458,791	99.12	40,301,980	99.69
Percent	1.28		1.22		0.32		0.49	
Automobile salesrooms—new and trade in	97,986,551	86.19	17,747,927	17.64	26,214,468	98.20	40,229,901	99.51
Used-car establishments	2,926,278	2.58	39,755	0.04	79,327	0.30	58,636	0.15
Auto dealers with farm implements	3,208,047	2.82	21,668,700	21.53	23,353	0.09		
Accessory stores with tires and batteries	256,043	0.23						
Battery and ignition shops—brake repair shops	10,395	0.01						
Tire shops	2,954	(1)						
Filling stations with other merchandise	3,858	(1)						
Garages (repairs, storage, gas, oil, accessories)	314,017	0.28			116,046	0.43	13,443	0.03
Body, fender, and paint shops	3,248	(1)						
General merchandise stores			62,089	0.06				
Hardware stores			159,835	0.16				
Hardware and farm implements stores			11,873,812	11.80				
Farm implements, machinery, and equipment dealers			48,607,437	48.30				
Lumber and hardware stores			303,016	0.30				
Second-hand auto parts dealers	386,437	0.34						
All other retail stores	6,204	(1)	172,404	0.17	25,597	0.10		
Wholesaler-retailers	8,576,542	7.54			234,900	0.88	125,281	0.31
Percent	3.80				0.10		0.06	

[1] Less than 0.01 percent.

TABLE 11-B.—RETAIL SALES OF AUTOMOTIVE COMMODITIES (EXCEPT IN GENERAL STORES) BY RETAILERS OF AUTOMOTIVE PRODUCTS AND OF AUTOMOBILE WHOLESALER-RETAILERS

KINDS OF BUSINESS	AUTOMOBILE PARTS AND ACCESSORIES (EXCEPT TIRES, TUBES, AND BATTERIES)		BATTERIES		TIRES, TUBES, AND TIRE ACCESSORIES		GASOLINE		OILS AND GREASES	
	United States total sales	Percent	United States total sales	Percent	United States total sales	Percent	United States total sales	Percent	United States total sales	Percent
Total, all retail stores	$860,494,173	100.00	$106,626,870	100.00	$536,776,242	100.00	$1,574,639,330	100.00	$288,369,318	100.00
Percent	10.17		1.26		6.34		18.61		3.41	
All retail stores	846,522,655	98.38	106,101,270	99.51	533,053,733	99.31	1,573,405,708	99.92	287,366,516	99.65
Percent	10.28		1.29		6.47		19.11		3.49	
Automobile salesrooms—new and trade-in	451,171,613	52.43	7,548,754	7.08	56,878,132	10.60	43,703,309	2.78	28,763,758	9.97
Used-car establishments	3,634,532	.42	189,663	.18	1,310,145	.24	1,326,514	.08	234,456	.08
Auto dealers with farm implements	5,974,268	.69	25,439	.02	1,115,085	.21	1,686,172	.11	428,833	.15
Accessory stores with tires and batteries	137,627,972	16.00	12,590,201	11.81	57,801,509	10.77	10,389,713	.66	4,911,682	1.70
Battery and ignition shops—brake repair shops	12,162,712	1.41	37,230,570	34.92	1,178,300	.22	2,158,233	.14	617,189	.21
Tire shops	9,620,526	1.12	5,443,638	5.10	169,254,131	31.53	24,673,710	1.57	5,049,649	1.75
Filling stations—gasoline and oil							734,382,415	46.64	107,389,534	37.24
Filling stations with tires and accessories	20,166,520	2.34	9,471,615	8.88	63,591,810	11.85	332,509,417	21.12	59,847,506	20.75
Filling stations with other merchandise	13,810,823	1.61	5,156,161	4.83	33,476,449	6.24	261,532,318	16.61	40,473,163	14.04
Garages (repairs, storage, gas, oil, accessories)	104,953,007	12.20	21,523,844	20.19	48,497,064	9.04	142,219,183	9.03	33,870,875	11.75
Body, fender, and paint shops	11,992,648	1.39	10,801	.01	207,364	.04	287,669	.02	47,422	.02
Radiator shops	1,897,047	.22								
Parking stations and lots	417,709	.05	273,830	.26	445,638	.08	10,320,169	.65	1,407,556	.49
Department stores	23,653,461	2.75	648,292	.61	58,412,498	10.88				
With food departments	3,102,466		125,597		10,609,665					
Without food departments	20,550,995		522,695		47,802,833					
Mail-order houses (catalog)	6,590,270	.77	649,059	.61	17,274,668	3.22				
General merchandise stores	6,474,264	.75	381,507	.36	10,522,419	1.96	875,703	.06	129,265	.04
Variety stores	1,021,071	.12	2,028,557	1.90						
Feed stores (flour, feed, etc.)							680,923	.04	810,815	.28
Radio and electrical shops	3,411,709	.40	2,001,012	1.88	1,840,435	.34	185,583	.01	39,129	.01
Coal and feed stores							228,691	.01	1,081,597	.38
Hardware stores	6,680,493	.78	428,776	.40	3,729,267	.70	444,809	.03	324,909	.11
Hardware and farm-implements stores	3,624,890	.42	186,765	.18	3,083,498	.57	757,738	.05	429,855	.16
Furniture stores					1,525,123	.28				
Family clothing stores					133,502	.02				
Farm implements, machinery and equipment dealers	4,071,998	.47			302,013	.06	537,597	.03	297,746	.10
Lumber and hardware stores										
Second-hand auto parts dealers	16,767,050	1.95	182,389	.17	1,826,624	.34	336,019	.02	118,168	.04
Coal and wood yards							2,908,128	.18	768,474	.27
All other retail stores	798,072	.09	130,397	.12	648,059	.12	1,261,695	.08	324,935	.11
Wholesale-retailers	13,971,518	1.62	525,600	.49	3,722,509	.69	1,233,622	.08	1,002,802	.35
Percent	6.20		.23		1.65		.55		.45	

TABLE 12.—WHOLESALE SALES OF RETAILERS OF AUTOMOTIVE PRODUCTS AND OF AUTOMOBILE WHOLESALER-RETAILERS [1]

KINDS OF BUSINESS	TOTAL SALES	PERCENT	PASSENGER AUTOMOBILES (NEW)		PASSENGER AUTOMOBILES (USED)		BUSSES		COMMERCIAL CARS AND TRUCKS (NEW)	
			Sales	Percent	Sales	Percent	Sales	Percent	Sales	Percent
Total, wholesale sales of retailers and wholesaler-retailers	$1,094,930,222	100.00	$913,074,463	100.00	$12,223,611	100.00	$1,062,922	100.00	$61,606,660	100.00
Percent	100.00		83.39		1.12		.10		5.63	
Retail automotive group—total	485,933,285	44.38	391,290,730	42.85	9,144,094	74.80	913,885	85.98	44,194,259	71.74
Percent	100.00		80.52		1.88		.19		9.10	
Automobile salesrooms	467,540,601	42.70	391,276,364	42.85	6,612,518	54.10	913,885	85.98	44,185,217	71.74
Used-car dealers	2,577,137	.24			2,531,576	20.70			9,042	(4)
Accessory stores with tires and batteries	4,092,265	.37								
Battery and ignition shops	893,616	.08								
Tire shops	3,844,573	.35								
Garages	4,952,385	.45								
Body, fender, and paint shops	6,923	(4)								
Parking garages and lots	29,817	(4)								
Filling stations	1,903,101	.17								
Dealers in second-hand parts and accessories [3]	92,867	.01	14,366	(4)						
Automobile wholesaler-retailers	608,996,937	55.62	521,783,733	57.15	3,079,517	25.20	149,037	14.02	17,412,401	28.26
Percent	100.00		85.68		.51		.02		2.86	

KINDS OF BUSINESS	COMMERCIAL CARS AND TRUCKS (USED)		TRACTORS		AUTOMOBILE PARTS AND ACCESSORIES (EXCEPT TIRES AND TUBES)		TIRES, TUBES, AND TIRE ACCESSORIES		MISCELLANEOUS OTHER MERCHANDISE [2]	
	Sales	Percent	Sales	Percent	Sales	Percent	Sales	Percent	Sales	Percent
Total, wholesale sales of retailers and wholesaler-retailers	$11,760,107	100.00	$7,660,841	100.00	$64,884,848	100.00	$11,739,356	100.00	$19,917,414	100.00
Percent	1.07		.70		5.93		1.07		.99	
Retail automotive group—total	797,007	6.78			31,705,890	48.86	7,861,813	66.97	25,607	.23
Percent	.16				6.52		1.62		.01	
Automobile salesrooms	797,007	6.78			23,606,302	36.38	149,308	1.27		
Used-car dealers					10,912	.02			25,607	.23
Accessory stores with tires and batteries					3,069,633	4.73	1,022,632	8.71		
Battery and ignition shops					779,129	1.20	114,487	.98		
Tire shops					131,283	.20	3,713,290	31.63		
Garages					3,627,369	5.59	1,325,016	11.29		
Body, fender, and paint shops					6,923	.01				
Parking garages and lots							29,817	.25		
Filling stations					408,136	.63	1,494,965	12.74		
Dealers in second-hand parts and accessories [3]					66,203	.10	12,298	.10		
Automobile wholesaler-retailers	10,963,100	93.22	7,660,841	100.00	33,178,958	51.14	3,877,543	33.03	10,891,807	99.77
Percent	1.80		1.26		5.45		.63		1.79	

[1] For complete data on "Wholesale Trade" see the United States Summary of Wholesale Distribution.
[2] This classification includes among other merchandise such items as farm machinery, farm wagons, other farm and garden equipment and fuel oil as well as the wholesale sales of special-purpose motor vehicles by retailers.
[3] Included in "Other retail stores" in table 10.
[4] Amount less than 0.01 percent.