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CENSUS OF DISTRIBUTION

AGRICULTURAL COMMODITY SERIES

DISTRIBUTION OF GRAIN

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THE DISTRIBUTION OF GRAIN

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INTRODUCTION

This report on the Distribution of Grain is one of a series of reports on the distribution of agricultural commodities issued by the Bureau of the Census. These reports represent one phase of the work of the first Census of Distribution, taken in 1930, and cover the operations of assemblers and distributors of agricultural commodities for the year 1929 or the crop year most closely corresponding thereto. This report has been prepared under the supervision of Robert J. McFall, chief statistician for distribution, by Charles D. Bohannan, in charge of agricultural and rural distribution.

Scope of the Census of Distribution.—The Census of Distribution is based on a canvass of establishments made by enumerators early in 1930 as a part of the Fifteenth Decennial Census of the United States. This census covered all types of assemblers and dealers where such persons and firms had established places of business; but did not cover storage or warehouse concerns, the transportation business, or strictly service business.

Purpose of the series.—The purpose of the series of reports on the distribution of agricultural commodities is to present a unified picture of the distribution of the major agricultural products, such as will be of the greatest value to individuals, firms, and organizations concerned with any phase of the industry including producers, buyers, dealers, manufacturers, and consumers, as well as to students of the economics of agriculture in its relation to the broader problems of our national economic life. To that end the reports include not only the tabular presentation of the data from the Census of Distribution and the other related economic data, but also incorporate such analytic and descriptive material as is felt will aid in the interpretation of the problems arising in connection with the distribution of the various products. In addition to this report on the Distribution of Grain, the series includes the following reports: The Assembling of Butterfat Through Cream Stations; City Distribution of Fluid Milk and Cream; Distribution of Butter, Cheese, Evaporated and Condensed Milk, and Ice Cream; Distribution of Livestock (including the earlier reports on Direct Receipts of Livestock and Retail Slaughter of Meat Animals); Assembling of Agricultural Commodities by Retailers; and Cooperatives as a Factor in the Distribution of Agricultural Commodities.

The reports in this series present the distribution data as gathered on the Census of Distribution schedules and as obtained by certain supplementary inquiries addressed to various classes of buyers, assemblers, dealers, and other distributors of the various agricultural commodities at wholesale and also at retail in cases where the agricultural product concerned is sold at retail to consumers in practically its original form or after a preliminary processing form.

Scope and purpose of this report.—The chief purpose of this report is to present the data on the assembling and distribution of grain, secured by the Census of Distribution. However, in order that these data may be better interpreted and analyzed in relation to the problems of the grain situation in their entirety, certain additional data also from official sources are included. Naturally it is not possible within the scope of such a report as this to cover clearly and in detail each phase of the very important business, or rather group of businesses, engaged in the process of assembling, storing, transporting, selling, and milling grain, and in storing, transporting, and distributing the mill products—foodstuffs and feedstuffs, and the many other products made therefrom. The transportation and storage industries, as such, were not covered by the Census of Distribution nor were mills, bakeries, and like industries, although the latter are covered by the Census of Manufactures. On some other phases of what one might call the grain and grain products industries and the allied services of storage, transportation, finance, and communication, neither the Bureau of the Census nor any other Government agency at present secures reports which would make possible, even if space permitted, the presentation of a complete picture of this extremely important economic activity.

As already noted, this report covers principally the data on assemblers of and dealers in grain. It thus presents data on grain elevators (independent, line, and cooperative), and on grain commission firms, grain brokers, and other dealers in grain. The Census of Distribution did not cover, either in the case of grain or other commodities, the brokerage houses whose function it is to execute buying and selling orders on the commodity exchanges.

Method of taking the Census of Distribution.—The business data were reported on schedules by enumerators who called at the place of business or office of the individual, firm, or organization. The census, perforce, had to be taken on the establishment basis and hence it is not to be expected that reports were secured from a rather large group of individuals who, while they play a considerable part both in the assembling of agricultural commodities and in retailing, have no established place of business. Thus it is not to be expected that Census of Distribution reports were received covering the 1929 business of track buyers and/or truck buyers of grain who maintain no regular place of business.

Schedules used.—In securing the reports on the grain business in places under 10,000 population the schedules used were the same as those used for all kinds of assemblers, wholesalers, and retailers in the smaller places. A general omnibus schedule was used for all kinds, types, and classes of assemblers, wholesalers and retailers. This schedule did not provide place for reporting either the amounts or the value of commodities sold, by kind.

In cities of over 10,000 population differentiated schedules were used for the wholesale and retail trades. These schedules did provide for the break-down of sales by commodities.

While it is thus apparent that the schedules were not especially designed for securing reports on the grain business they did nevertheless cover the essential business data for assemblers of and dealers in grain with the exception of the commodity break-down of sales. That is, the schedules used provided for securing the name; address; kind of business; number of establishments; data organized; number of employees (full-time and part-time); salaries and wages; rent paid, if any; interest on any money borrowed for the conduct of the business; total sales, subitemized as to cash and credit sales; sales to other dealers; sales to retailers; and a list of the principal commodities handled.

Under the general inquiry as to character of organization, provision was made for reporting whether or not the business was operated by an individual, partnership, incorporated company, or cooperative. Further, where a cooperative was a branch or unit of another cooperative, space was provided to give the name and address of such other cooperative.

In the case of line elevators many of the reports were secured by the enumerators from the central office, that is, from the office of the company operating the line. Some few line-elevator reports were received from enumerators who had secured them from the local line-elevator managers. However, since the schedule itself provided a place for reporting the name and address of the line company it was readily possible to check these against the reports received direct from the offices to avoid duplication. In most cases the enumerator, or other person filling out the report, was quite careful to write, under the general description of the business, the words "grain elevator" wherever the country buyer of grain was reported as actually operating an elevator. Although this was not done in all cases it was possible to check a considerable number of these to other authentic sources of information.

Classification of elevators.—However, it is possible that in the tables presenting the data on elevators some actual elevators may have been omitted due to lack of sufficient information on the schedule to permit their classification as such. It will be noted that these tables present data for three types, namely, independent, line, and cooperative. The term "independent elevator", of course, refers to the individually owned elevator. Those included under "cooperative elevator" are those which were thus reported, but it should be specifically noted that the Census of Distribution made no inquiry as to the degree of farmer control of these elevators. It is also probable that a number of farmer cooperative elevators are not here classed as cooperatives, because on the schedules they were simply designated as "farmers' elevator" without indicating that they were cooperatives. Since it is well known that many privately owned elevators bear the name "farmers' elevator" it was impossible to classify an elevator as a cooperative simply because the report was returned as "farmers' elevator".

The term "line elevator" refers to one of a group or chain of elevators operated by a firm of grain dealers, or by a mill or milling company. There is considerable variation in the number of elevators operated by different elevator companies ranging from only a few in some cases to several hundred in others.

Strictly speaking, the use of the term "line elevator" should be confined to those elevators whose operations are directed from a central office. But it is conceivable that an independent elevator company may own 2, 3, 4, 5, or more elevators, each of which operates to all intents and purposes as a single elevator. For census purposes, however, it was necessary to classify any group of three or more elevators as a line elevator company; hence independent elevator companies operating more than two units were thus automatically designated as line elevators.

ECONOMIC IMPORTANCE OF GRAIN PRODUCTION

The production, distribution, and utilization of grain, expecially of wheat, the great breadstuff, have been matters of vital concern to public administrators, as well as to producers and consumers, since the early dawn of history. As regards wheat the problems relating to its source of supply, the amount of production, and its storage, from times of plenty to those of shortage, have given rise to whole schemes of colonization, taxation, governmental regulation, and in fact, to wars, both actual military wars and class, social, and economic wars. Some of the earliest contentions between Greece and her neighbors were over the wheat situation. Undoubtedly the development of an armed merchant marine and of agricultural colonies by Greece were the direct outgrowth of the need for increasing the supply of this important foodstuff for her increasing population.

One of the earliest government attempts at wheat control is related in the familiar Bible narrative of the food administration of Joseph in the land of Egypt. The wheat plains of southeastern Europe have been the bone of contention between numerous powers, ancient and modern.

Within our own country wheat and the problems incident to its production, transportation, and sale have given rise not only to numerous inventions but also to legislation and regulation. Drastic increases in production with equally drastic declines in price have brought with them social and economic legislation of vast importance. Wheat being a necessity or what amounts to the same thing being thought a necessity in our national diet, became one of the chief cash-crops of a large section of our farm population.

Its ready sale led to the opening up of new wheat lands and revolutionary improvements in harvesting methods. On the other hand the distribution of this highly important and necessary commodity and its manufacture into various products have absorbed the attention and activities of many individuals, firms, and corporations—which have not always been above exploiting, or taking advantage of the producer on the one hand and the consumer on the other. Hence, conditions have at times arisen which occasioned much controversy and have resulted in a mass of State and National restrictive or regulatory legislation. Naturally too, the importance of wheat to producers and consumers has not escaped the attention of the practical and not always scrupulous politician. Just as in Rome, men and parties stayed in power or rose to power on the basis of grants of free wheat and other foodstuffs, so in this country there have been many men and several great political movements which in the last analysis are seen to rest on this question of the importance of wheat.

While data are not available to show all the details the following summary table, taken from the Census of Manufacture, will at least serve to indicate in a general way the importance of the grain and grain products industries in our national economic life.

SUMMARY—GRAIN AND GRAIN PRODUCTS INDUSTRIES, 1929

INDUSTRY	Number of establishments	Total volume of business	Employees	Salaries and wages
Assemblers of grain	11,603	$1,660,155,521	24,605	$27,804,753
Dealers, agents, and brokers in grain	1,174	2,573,823,162	12,099	26,659,217
Flour and other grain-mill products	4,022	1,060,269,418	35,792	55,667,341
Feeds, prepared, for animals and fowls	750	402,752,534	14,384	22,400,452
Cereal preparations	121	175,223,126	8,158	12,230,685
Bread and other bakery products	20,785	1,526,110,811	222,482	324,446,346
Macaroni, spaghetti, vermicelli, and noodles	353	47,074,230	5,964	7,687,109
Malt	28	23,602,938	741	1,670,441
Corn sirup, corn sugar, corn oil, and starch [1]	35	165,983,739	8,218	14,009,167

[1] Includes a small quantity of potatoes and other starches in addition to cornstarch.

United States production of grain.—The following brief summary of grain production figures for 1929, serves to give some idea of the size of the job of assembling and shipping of grain to market or mill. It also shows something of the significance of grain and its proper and economical marketing, not only to the producers thereof, who form a large section of our agricultural population, but also to the entire community in which grain forms a large and important element of the cash farm-income, the size and stability of which, in turn, vitally affect the life and trade of both the nearby towns and the larger cities, not only as reflected in farm purchases, but also in the wage rolls of factories making goods needed by farmers and in the city cost of living. Not only are grain production and prices intricately related to those of flour and other foodstuffs made of grain, but also those of meats, dairy products, poultry products, and the like, into whose production much grain enters, either as feed in the original form or as mill feeds or other commercial feedstuffs.

The table shows for each of 5 important grains the number of farms reporting, production, and the estimated farm value, together with the percentage which the value of each kind was of the total. The data presented are taken from the Census of Agriculture, 1930.

PRODUCTION OF GRAIN, 1929

GRAIN	Farms reporting (number)	Production (bushels)	VALUE	
			Total	Percent of total
Total		**4,222,040,438**	**83,054,908,337**	**100.0**
Wheat	1,208,368	800,648,955	838,506,124	27.4
Corn	4,148,791	2,130,751,782	1,635,909,664	53.6
Oats	1,518,893	992,746,912	410,167,331	13.4
Barley	542,710	263,589,965	140,982,106	4.6
Rye	175,184	34,302,824	29,343,112	1.0

From this table it will be noted that corn, which is extremely important from the feed standpoint, is produced on a greater number of farms than is wheat, and the value is greater. Wheat, however, is much more important in commerce than is corn, only about 16 or 17 percent of the latter being shipped out of the county where grown as compared to about 70 percent for wheat, according to estimates of the United States Department of Agriculture.

The acreage devoted to wheat production, the total production of wheat of all kinds over a period of years as recorded by the decennial censuses 1850–1930, together with population data are given in the following summary which also shows the percentage of increase from decade to decade and also the total increase from 1850 to 1930.

PRODUCTION OF WHEAT AS COMPARED WITH POPULATION BY DECADES

CENSUS YEAR	WHEAT [1]			Population	Percent increase
	Acreage	Production (bushels)	Percent increase [2]		
Total 1850–1930			**696.8**		**429.4**
1850	(3)	100,485,944		23,191,876	
1860	(3)	173,104,924	72.3	31,443,321	35.6
1870	(3)	287,745,626	66.2	38,558,371	22.6
1880	35,430,333	459,483,137	59.7	50,155,783	30.1
1890	33,579,514	468,373,968	1.9	62,947,714	25.5
1900	52,588,574	658,534,252	40.6	75,994,575	20.7
1910	44,262,592	683,379,259	3.8	91,972,266	21.0
1920	73,099,421	945,403,215	38.3	105,710,620	14.9
1930	61,999,908	800,648,955	−15.3	122,775,046	16.1

[1] Covers crop year preceding the census.
[2] A minus sign (−) denotes decrease.
[3] Not reported.

From this table it is seen that from 1850 to 1930 the population increased by 429.4 percent, while the production of wheat in 1930 was 696.8 percent greater than in 1850. The story told by the increase of wheat production from decade to decade presents one of the most interesting pictures of economic development and change due to changed methods of production and harvesting.

The exceptionally heavy production of wheat during the World War years in certain States is of course a direct reflection of that event. The relatively low production during 1919 in Minnesota, North Dakota and South Dakota was due to especially poor crop conditions. In fact, examination of data for individual years shows a considerable fluctuation in wheat production even from year to year with the same, or approximately the same, acreage on account of favorable or unfavorable crop conditions. Wheat is a very good illustration of the risks the farmer encounters in his business undertakings as contrasted with the manufacturer or other business man, and also illustrates the difficulties of crop production control. With an acreage smaller than usual, extremely favorable crop conditions and harvesting conditions may give a decidedly larger than average production, or the reverse may occur.

The rapid expansion of wheat production during and especially immediately after the Civil War brought with it tremendous changes in the economic life of various States, in fact of the entire Nation itself. As already noted in the introduction this has had profound effects on social conditions, politics, and legislation. The most important factors underlying this rapid expansion of wheat acreage and production were: The greatly improved harvesting methods; the opening up of the Western farm lands, largely under the Civil War veteran homestead act; the development of transportation which made it possible to transport fuel to the colder sections of the Northwest, and the wheat produced there, back to the consuming centers and the export markets; and the rapid growth in the population, due to immigration.

Harvesting methods.—Prior to the development of the reaper (1831), and the binder (1870), the implements of wheat harvesting were practically the same as those used by the ancient Egyptians and the Grecians and their subject or allied nations—the sickle, scythe, and cradle, with the flail or flocks of goats and sheep as the available means of threshing out the grain. The amount of wheat one man could produce was pretty well limited by the amount he could harvest.

SHIFT IN WHEAT PRODUCTION—5 LEADING STATES IN PRODUCTION OF WHEAT AT EACH CENSUS, 1840–1930

[Bushels expressed in thousands]

[5 leading States in each year, in italics]

STATE	1840		1850		1860		1870		1880	
	Bushels	Rank	Bushels	Rank	Bushels	Rank	Bushels	Rank	Bushels	Rank
Ohio	*16,572*	1	*14,487*	2	*15,119*	4	*27,882*	3	*46,015*	3
Pennsylvania	*13,213*	2	*15,368*	1	13,042	6	19,673	6	19,462	10
New York	*12,286*	3	*13,121*	3	8,681	7	12,178	11	11,588	13
Virginia	*10,110*	4	*11,213*	4	[1] *13,131*	5	7,399	12	7,826	16
Kentucky	*4,803*	5	2,143	11	7,395	10	5,729	15	11,356	14
Indiana	4,049	7	6,214	6	*16,848*	2	*27,747*	4	*47,285*	2
Illinois	3,335	9	*9,415*	5	*23,837*	1	*30,128*	1	*51,111*	1
Michigan	2,157	10	4,926	7	8,336	9	16,266	9	*35,533*	4
Missouri	1,037	13	2,982	10	4,228	15	14,316	10	24,967	8
Wisconsin	212	21	4,286	9	*15,657*	3	*25,606*	5	24,885	9
Iowa	155	24	1,531	15	8,449	8	*29,436*	2	31,154	6
Minnesota	----------	------	1	33	2,187	17	18,866	7	*34,601*	5
California	----------	------	17	32	5,928	12	16,677	8	29,018	7
North Dakota [2]	----------	------	----------	------	1	41	171	38	2,830	22
South Dakota [2]	----------	------	----------	------	----------	------	----------	------	----------	------
Kansas	----------	------	----------	------	194	31	2,391	18	17,324	11
Nebraska	----------	------	----------	------	148	32	2,125	22	13,847	12
Oklahoma	----------	------	----------	------	----------	------	----------	------	----------	------
Texas	----------	------	42	29	1,478	19	415	29	2,568	23

[1] Includes West Virginia.
[2] North Dakota and South Dakota admitted as States in 1889; figures for 1880, 1870, and 1860 are for Dakota Territory.

SHIFT IN WHEAT PRODUCTION—5 LEADING STATES IN PRODUCTION OF WHEAT AT EACH CENSUS, 1840-1930—Continued

[Bushels expressed in thousands]

[5 leading States in each year, in italics]

STATE	1890		1900		1910		1920		1930	
	Bushels	Rank	Bushels	Rank	Bushels	Rank	Bushels	Rank	Bushels	Rank
Ohio	*35,559*	5	*50,377*	3	30,664	9	58,124	6	30,290	9
Pennsylvania	21,595	10	20,633	12	21,564	11	23,454	13	17,411	15
New York	8,305	17	10,413	20	6,664	21	9,136	23	3,818	26
Virginia	7,904	20	8,908	23	8,077	18	11,446	20	8,575	21
Kentucky	10,707	13	14,265	17	8,739	17	10,375	21	2,483	28
Indiana	*37,319*	4	34,986	7	33,936	8	45,208	8	25,190	12
Illinois	*37,389*	3	19,796	15	37,831	7	*70,891*	2	30,151	10
Michigan	24,771	9	20,535	13	16,026	12	20,412	15	13,711	18
Missouri	30,114	7	23,073	9	29,837	10	*65,210*	4	15,117	17
Wisconsin	11,699	12	9,005	22	2,641	27	7,328	25	1,836	31
Iowa	8,250	19	22,769	10	8,056	19	21,592	14	7,990	22
Minnesota	*52,300*	1	*95,279*	1	*57,094*	3	37,616	10	19,760	14
California	*40,869*	2	36,534	6	6,203	24	16,867	19	10,958	19
North Dakota [2]	26,403	8	*59,889*	2	*116,782*	1	*61,540*	5	*95,574*	2
South Dakota [2]	16,541	11	*41,889*	4	*47,060*	5	31,087	12	34,045	8
Kansas	30,400	6	*38,778*	5	*77,577*	2	*148,476*	1	*148,483*	1
Nebraska	10,571	14	24,925	8	*47,686*	4	57,844	7	*53,868*	3
Oklahoma	30	42	[3] 20,328	14	14,008	13	*65,762*	3	*51,184*	4
Texas	4,283	23	12,266	18	2,561	29	36,427	11	*44,078*	5

[2] North Dakota and South Dakota admitted as States in 1889; figures for 1880, 1870, and 1860 are for Dakota Territory.
[3] Includes Indian Territory.

The great increase in production possibilities through improved methods of harvesting, the opening up of western lands, and the increase of farm population, not only increased the amount of wheat available for consumption in this country and for export, but also caused radical shifts of farm production in some of the older States. This is well brought out by the table on page — showing the leading wheat States and their total production of wheat at different periods. It should also be noted that not only did wheat production expand rapidly in the Ohio Valley States and a bit later in Wisconsin and Michigan, but the movement did not stop there. With the railroad and coal transportation developments wheat production expanded by leaps and bounds beyond the Mississippi. Ohio, Indiana, Illinois, and even Wisconsin, once the leaders, declined rapidly in relative importance. These States could not compete with those further to the West and Northwest.

Great hardships were endured by many of the farmers in these wheat States and they were forced, as had been farmers further east at an earlier date, into other lines of production. The great dairy industry of Wisconsin was one outcome of this situation, as was still later on a similar development in dairying in Minnesota and Iowa, and to a lesser, but still quite important extent in certain sections of North Dakota, South Dakota, and Nebraska.

The shifting of wheat to Minnesota and the Dakotas gave rise to the great milling industry and general grain trade of Minneapolis. Later the production of winter wheat extended further South and West to Kansas and Oklahoma and was accompanied by the development of still other important mill centers.

Winter wheat.—Winter wheat, which in 1929 formed slightly over 71 percent of the total wheat production of the United States, is of several kinds, the principal ones of which are the hard red winter wheat, the soft red winter wheat, common white wheat, and the so-called white club wheat.

The 5 leading winter wheat States in 1929 were as follows: Kansas, 147,957,561 bushels; Nebraska, 51,115,355; Oklahoma, 50,829,240; Texas, 43,979,208; and Ohio, 29,962,671. These 5 States produced 56.8 percent of the total production of winter wheat in the United States.

The principal Winter Wheat Belt extends from the northern part of Texas up through Oklahoma (which has within recent years greatly increased its wheat production), through Kansas and Nebraska, with some raised in South Dakota. Throughout this region the chief kind of winter wheat is the hard red winter wheat which from the standpoint of milling quality is next in importance to the hard red spring wheat. In eastern Kansas, northeastern Oklahoma, Missouri, Illinois, Indiana, and Ohio the chief kind of wheat is the soft red winter wheat and this is also true of most of the other eastern and southern States where wheat raising is of any importance, although in some of them common white wheat predominates.

The common white wheat and white club wheat are raised chiefly in the great wheat producing areas lying in central and southeastern Washington, central and southern Idaho, and the northernmost counties of Oregon. These two wheats being relatively low in protein content are especially adapted to the making of pastry and cake flour.

Spring wheat.—Although considerably less in total production than the different kinds of winter wheat, spring wheat is of great value in flour manufacture on account of the higher protein content. In fact, in some of the spring wheat areas especially high protein-content wheats are raised which generally command a substantial market premium.

The most important parts of the Spring Wheat Belt are southern and western Minnesota, the eastern half of South Dakota, North Dakota, with a considerable extension into Montana. Some spring wheat is, of course, raised in other States with the principal regions being in Colorado, Nebraska, Iowa, northern Illinois, and Wisconsin, as well as some in New Mexico, Wyoming, Washington, and Oregon. The principal kind of spring wheat is the hard red type. A special kind of spring wheat is durum, which is exceptionally high in protein content, being used for the making of semolina flour, the manufacture of macaroni, spaghetti, and the like.

Corn.—Corn, the most commonly produced of all the grains, according to the Census of Agriculture was reported by 4,148,791 farms in 1929 as compared with 1,208,368 reporting the production of wheat, and 1,518,893 reporting the production of oats. While some corn for grain is produced in every State in the Union, the great Corn Belt lies on each side of the Mississippi, including on the east, Tennessee, Kentucky, Illinois, and Indiana, and on the west, Missouri, Kansas, Nebraska, Iowa, and certain sections of Minnesota.

The 5 leading States in total production in 1929 were: Iowa, 389,000,414 bushels; Illinois, 275,850,367 bushels; Nebraska, 216,020,274 bushels; Indiana, 114,871,320 bushels; and Missouri, 112,348,071 bushels. The total production in these 5 States was 1,108,090,446 bushels, and represented slightly over one half of the total United States production. Some of the other States important in corn production in addition to those mentioned are Minnesota, Ohio, Kansas, South Dakota, and Texas in the order given. As previously noted under the discussion of changes in wheat production there has been, within recent years, a considerable increase in production of corn, both for grain and for silage, in Minnesota, South Dakota, and certain other States.

Oats.—This grain, like corn, is a great feed crop, and as noted later in the discussion of local marketing, by far the greater part of the total production of oats is used for that purpose either on the farm where raised or on nearby farms, or in commercial feedstuffs. The United States production of oats in 1929 was 992,746,912 bushels. With certain exceptions the chief producing regions for this grain are the same as those for corn, as that is the great general farming and livestock finishing region. There are certain kinds of oats which can be raised in colder regions than the ordinary corn, so that a relatively heavier production of oats than of corn is found in Minnesota. The 5 leading oats States in order of their importance in 1929 are: Iowa, Illinois, Minnesota, Nebraska, and Wisconsin. There are a considerable number of other States, each of which produced 25,000,000 bushels or more; and in addition there are sections in certain States which are heavy oats producing regions such as the Snohomish and Skagit County sections of the State of Washington and certain counties in Oregon. The cool damp climate of these Pacific coast counties is especially adapted to heavy oats yields.

Rye.—The total 1929 production of rye amounted to 34,302,824 bushels. This production was less than one half of the 1919 production which was 75,992,223 bushels. While rye is produced throughout the entire United States, there are only a few States in which it assumes large proportions. The chief rye producing States based on 1929 figures are North Dakota, Minnesota, Nebraska, South Dakota, and Wisconsin; these 5 States produced about two thirds of the total crop.

Barley.—The total production of barley considerably exceeds that of rye because of its variety of uses. The 1929 production of this grain was 263,589,965 bushels. The principal barley States are Minnesota, North Dakota, South Dakota, California, and Wisconsin; although Iowa, Nebraska, and Colorado are also quite important in barley production.

Production point marketing of grain.—As shown in the table, page 6, the total 1929 production of the principal grains as reported to the Bureau of Census was 4,222,040,438 bushels. Of these, wheat is the most important from the standpoint of commerce and distribution. According to the estimates of the United States Department of Agriculture,[1] 69.6 percent of the 1929 wheat crop was shipped out of the county where grown, which would mean that 558,052,322 bushels were marketed elsewhere.

The annual harvesting of wheat starts well to the south and moves northward slowly for a while and then advances rapidly to the northern part of the great Wheat Belt. The date and length of harvest, of course, depend to a considerable extent on weather conditions. Wheat harvest in its rapid conversion of the crop into cash is of great importance not only to the wheat farmer but to the economic life of the region in general, affecting as it does the small-town merchants, banks, and railroads. Good prices for wheat mean prosperity not only for the wheat farmer but, in many counties and States, prosperity for the small-towns and cities, as well as for cities farther east which in turn supply goods to the merchants and farmers. On the other hand, drastically reduced prices slow down business not only in the Wheat Belt, but their effects are felt quite sharply elsewhere. One illustration of this will suffice at this point, namely, that of a small town in the Wheat Belt in Nebraska at the time of the decreased market wheat prices in 1921. A local farm-implement dealer in this small town stated to the writer that for a period of years at wheat-harvesting time his average sale of wheat binders had been 30; while that year he had sold but 1. Multiplying the effects felt in this very small place in the great wheat region by similar situations throughout its entirety, we get a very fine illustration of the importance of agriculture to our entire economic welfare.

By June wheat harvest is well under way in some of the great wheat States; and from that time on until its close in the northern wheat States there is a very heavy movement of wheat to market. In some counties wheat is marketed at the local mill, for which the farmer receives cash or flour and feedstuffs, or credit to be used for such purchases later. However, by far the greater part of wheat is handled by the local elevators or other assemblers, who ship the wheat to mills or grain dealers at various milling or market centers.

According to estimates of the United States Department of Agriculture the disposition of the 1929 wheat crop was as follows: 10.2 percent used for seed; 6.9 percent fed to livestock; 0.8 percent loss, waste and shrinkage; 1.1 percent ground for home use or exchanged for flour; and 81 percent marketed. As shown by their estimates, by far the greater part of the wheat marketed leaves the farm during or shortly after harvest. In fact, during the 2 months of July and August it is estimated that 50 percent of the total wheat crop moves to market, and by the end of October, slightly over 70 percent.

Additional light on the rate of marketing wheat crops is shown in the following table by months. This table shows the inspected receipts of wheat at all inspection points in the United States by months for the 1929–30 crop year, as reported by the United States Department of Agriculture, and for comparative purposes shows for the same year the monthly grindings of wheat as reported by the Department of Commerce. The table not only shows monthly receipts and grindings but the percentage which each represents of the total for the year. This table shows quite clearly that the flour-mill consumption of wheat is much more uniform throughout the year than are the market receipts. This means the development in the large market centers of tremendous wheat-storage elevators.

[1] Crops and Markets, March 1930, U.S. Department of Agriculture.

MONTHLY INSPECTED RECEIPTS AND GRINDINGS OF WHEAT, 1929–30

[Amounts expressed in thousands]

MONTH	RECEIPTS INSPECTED		GRINDINGS [1]	
	Bushels	Percent of total	Bushels	Percent of total
Total	**775, 527**	**100. 0**	**527, 343**	**100. 0**
July	209, 371	27. 0	42, 895	8. 1
August	152, 871	19. 7	50, 725	9. 6
September	82, 242	10. 6	47, 583	9. 0
October	57, 525	7. 4	50, 445	9. 6
November	32, 495	4. 2	43, 912	8. 3
December	40, 912	5. 3	41, 062	7. 8
January	29, 461	3. 8	43, 812	8. 3
February	35, 931	4. 6	40, 506	7. 7
March	25, 663	3. 3	43, 083	8. 2
April	22, 629	2. 9	41, 854	7. 9
May	30, 615	4. 0	41, 329	7. 8
June	55, 812	7. 2	40, 137	7. 6

[1] Represents approximately 94 percent of the total output of wheat flour.

ELEVATORS AND OTHER GRAIN ASSEMBLERS

The following summary shows the number, kind, and total business of elevators and other country assemblers of grain as reported to the Census of Distribution. Assemblers of grain are of various types including track buyers; truck buyers, who buy at the farm and truck the grain to market; warehouses; and elevators.

Wheat.—As noted in this summary table and in the more detailed tables, by far the most important class of local market outlet throughout most of the Wheat Belt is the grain elevator. In the Pacific Northwest the elevator is not so common as the warehouse, since most of the wheat raised on large wheat farms is sacked and either stored on the farms (often in the open), bought and stored by warehouse companies, or stored in the warehouse by the farmer. This, of course, eliminated the necessity for the elevator, as it is known, throughout the great middle western wheat country.

ELEVATORS AND OTHER ASSEMBLERS OF GRAIN IN THE UNITED STATES

ITEM	TOTAL ASSEMBLERS		ELEVATORS		OTHER ASSEMBLERS	
	Number	Total volume of business [1]	Number	Total volume of business [1]	Number	Total volume of business [1]
Total	11, 603	$1, 660, 155, 521	9, 457	$1, 076, 635, 298	2, 146	$583, 520, 223

[1] Includes sales of grain, retail sales, and receipts (if any) from storage.

Corn.—Only about 17 percent of the total corn crop is shipped out of the county where grown, according to United States Department of Agriculture estimates. Corn is the great feed crop just as wheat is the great foodstuff crop. With the exception of certain areas quite favorably located as regards transportation rates to market or mills which grind corn for meal and the like, it is, throughout most of the great Corn Belt, cheaper to feed corn to swine or cattle than to ship the corn to market. The principal corn markets from the standpoint of total receipts, are Chicago, Kansas City, Omaha, Indianapolis, St. Louis, and Peoria.

The heavy movement of corn from the farms takes place in the 4 months, November to February. Based on the estimates of the United States Department of Agriculture, it would appear that in the 1929–30 crop year 44.2 percent of the corn marketed from the farms moved in these 4 months; and if October is included, the total movement of corn in the 5 months was 51.1 percent of the total corn marketed.

Oats.—The major part of oats sold off the farm, like wheat, is marketed during the first few months of the crop year. Thus, for the 1929–30 crop year, according to the United States Department of Agriculture, nearly one third (30.9 percent) of the total marketings moved in August; 13 percent in September; and 8.2 percent in October. If these estimates be applied to the entire supply of oats marketed from the farms that year, it would mean that 52.1 percent, or slightly over one half, moved to market these first 3 months of the season.

Rye.—Rye, unlike corn and oats, is produced principally for the market rather than for use on the farm. This is indicated by the fact that market receipts of rye in 1929 amounted to almost 80 percent of the amount produced. In 1929 the rye production, according to the Census of Agriculture, was slightly over 34,000,000 bushels; while total market receipts, according to the 1932 Annual Supplement of the Survey of Current Business, United States Department of Commerce, amounted to 27,500,000 bushels.

Grain elevators.—When the first elevator was built does not seem to be a matter of record. The elevator is so called because of the mechanical device used to elevate the grain to bins from which it can be loaded into freight cars by gravity. Accordingly the elevator must be located close to a railroad sidetrack or close enough to a railroad line so that a switching spur can be run to it in order that grain cars can be "spotted" on the track close enough to enable direct loading from the elevator. This matter of a railroad siding and also that of having a car at hand at the proper time for loading became matters of vital importance during periods of contention between line elevators and farmer elevators (cooperative) as well as between line elevators and independents. In some instances, because of working relations between the railroad and the line-elevator companies, it became next to impossible for other elevators to obtain a site close enough to the railroad.

The elevator ordinarily receives the farmers' grain by weighing the wagon or truck load on a platform dump scale. The grain is then dumped into the pit for elevation and the empty wagon or truck weighed. In most instances the farmer is given a check for his wheat as soon as he has completed hauling. In many parts of the Wheat Belt the grain is threshed in the field and immediately hauled to the elevator and sold. In some instances, some of the larger elevators hold or store grain on the farmer's account for later sale. The farmer selling to the cooperative may, in some cases, receive only a partial advance on his wheat, the balance being settled later.

Country grain buying is frequently done on the card-price basis, according to instructions or information sent out from the head office in the case of line elevators, or price-card information from a market-news service, in the case of independents or cooperatives. The local price ordinarily represents the price at the large market centers of the area, minus freight charges, handling charges, and the like. There is generally a similar price difference between the primary market and the terminal market.

Grain buying is done on grades established by the United States Department of Agriculture as nearly as the local elevator manager can determine the grades. These grades take into consideration kinds and varieties, the freedom from mixed varieties, freedom from seeds and other foreign matter, weight, moisture, brightness, odor, and the like.

The grains were one of the first group of agricultural commodities for which definite trading grades were established and they had been in existence years before the setting up of Government standards and grades for agricultural commodities. The very physical nature of grains, of course, lends itself to the establishment of such grades as would facilitate trading by sample. This whole matter of grades and standards is an extremely significant one in the selling of any kind of commodity, agricultural or otherwise.

A standard grade, that is, a grade accepted by a majority of traders in a given commodity, establishes, as it were, a common denominator. Whenever a crop—wheat, cotton, tobacco, or what not—can be sold not merely as so much wheat, cotton, or tobacco, but as wheat, cotton, or tobacco of a certain commonly understood grade; it facilitates in a remarkable degree the sale thereof, as well as simplifying the matters of storage, physical handling, finance, etc. Other things being equal, the nearer the point of production the grading can be done, the less expensive is the whole process of marketing.

Well graded representative lots can be safely handled on a narrower operating margin than mixed ungraded lots. Ordinarily the total quantity of a produtc contained in a mixed grade lot brings a smaller price than if the commodity firts be sorted into standard grades. The reasons for this are obvious, since in examining the mixed lot the buyer has no practical means, other than guessing, of knowing how much of each grade such a mixed grade lot contains. Hence, the guesses and the prices offered always have to be very well on the safe side.

In short, it is not too much to say that the established system of the practically universally accepted grain grades, plus the fact that the grain, if properly cared for, will not deteriorate rapidly, form the basis which has made possible the present rapidity with which grain can be sold, even by wire, cable, or radiogram, and also largely accounts for the fact that the various grains can be handled on probably the narrowest margin of any agricultural commodity. It also largely underlies the whole matter of future trading.

While this is true, it is also true that the local elevator manager cannot always determine grades with the highest degree of exactitude. Hence, the necessity for greater leeway on the local buying price and hence, also the opportunity for the development of suspicions among the growers to the effect that a particular elevator manager or all of them at a given station are taking advantage of this fact. Many bitter discussions and contentions have arisen over this matter of grades, dockage, etc., at country buying points. An extreme case of the inability to accurately determine grades at the local elevator is found in the important matter of protein content, which it is practically impossible for the local elevator manager to determine as it requires laboratory processes.

The handling by elevators of the other grains where grown and marketed is similar to that of wheat.

Summary of the data on grain assemblers.—The Census of Distribution data on all kinds of assemblers of grain for which reports were received are given in table 1. This table presents data for the United States by States. Additional details on elevators of various kinds are contained in table 2. Table 3 presents detailed data by counties showing separately all counties from which reports were received for more than two elevators.

According to table 1 there were 11,603 assemblers of grain in 1929 who had a total business of $1,660,155,521, reporting 24,605 employees, full time and/or part time, and payments in salaries and wages of $27,804,753. The total expenses including salaries and wages, but not including cost of grain or other commodities, were $55,599,798.

As noted in the introduction the Census of Distribution was taken on the establishment basis and since some country buyers and other assemblers of grain have no established places of business they are not here included.

The total volume of business figure may, and undoubtedly does, include some business in the handling of other agricultural commodities than grain. However, since the schedule used in all places of less than 10,000 population did not provide for reporting a break-down of the sales of commodities it is impossible to show separately the data for grain handled and for such other commodities as may have been handled. "Total volume of business" includes the value of sales made at retail. The schedule, however, did provide a place for reporting such sales separately and the totals thereof are accordingly placed in the column headed "Retail sales." By subtracting the total retail sales of $154,457,816 from the total volume of business we find that total sales, by these grain assemblers, of grain and other agricultural commodities and receipts, if any, from storage were $1,505,697,705. This represents 90.7 percent of the total volume of business while the retail sales represent 9.3 percent. For the United States, as a whole, the average volume of business was $143,080; sales of agricultural commodities averaged $129,768; and retail sales $13,312.

The ordinary average size local elevator does not require a large number of employees. The average number, including both full-time and part-time, was 2, while the average of the salaries and wages paid was $1,130. The peak of the employment load naturally comes during the heavy movement of grain from the farm, especially that of wheat. Typical employee reports selected at random show that in many cases the only regular employee is the manager, and in others, depending on the size of the business in other agricultural commodities and the retail trade, there are one or two full-time employees in addition to the manager, assisted as the occasion demands by part-time help. On the other hand, there are some elevators which do not remain open during what may be called the "off" season. Since the taking of the Census of Distribution was begun in the spring of 1930 it may be that for this reason some of these elevators were not covered.

The expense figure may, it is felt, be safely considered as covering all expenses incident to running the elevator business other than the cost of commodities handled. This figure includes salaries and wages; rent paid, if any, for the use of the premises; interest paid on money borrowed for the business; insurance;

telephone rental; and the like. It should be noted here that the expenses include both those for the handling of grain and for conducting the retail end of the business, if any. The expenses of all these assemblers of grain formed 3.4 percent of the total volume of business.

Table 1 presents separately the totals for elevators and for other assemblers of grain. The other assemblers include the grain warehouses of the Pacific northwest, some grain warehouses in other States, and the country buyers of grain who have facilities for the purchasing, loading, and shipping of grain at the time of the great grain movement, but who do not operate elevators. As noted in the introduction some of these other assemblers may actually operate elevators but unless that fact was specifically stated on the schedule they could not be so classed. It might also be well to point out here that the headquarters offices of the line elevator companies and of the line warehouse companies are not included in these totals.

The average business of the 9,457 elevators, that is, total "volume of business" divided by the total number reporting, was $113,845. Of the other assemblers the average was $271,911. The larger average sales of the latter group are undoubtedly largely due to the large-scale wheat business of the grain warehouses of the Pacific Northwest. This is borne out by the fact that in the States of Washington, Oregon, and Idaho the average business of the other assemblers group is very much larger than the average for elevators.

Data for the 5 States reporting the greatest number of assemblers of grain are summarized in the table following:

ASSEMBLERS OF GRAIN, 1929

STATE	Number	Total volume of business	Retail sales	Employees	Salaries and wages	Total expenses [1]
North Dakota	1,543	$142,657,968	$8,956,586	2,212	$2,924,441	$6,233,733
Kansas	1,356	210,131,111	17,583,505	2,581	3,001,030	5,534,153
Illinois	1,213	160,671,009	19,535,410	2,618	2,937,571	5,860,746
Minnesota	938	77,152,001	11,393,701	1,527	1,882,859	3,687,772
Iowa	924	136,640,268	19,917,939	1,852	2,077,231	4,169,045

[1] Includes salaries and wages.

It should be noted that while these are the 5 leading States in the total number of grain assemblers, the State of Washington, with 262 grain assemblers, led in total volume of business of $237,305,747, and also that the State of Nebraska, which ranked sixth in total number of assemblers, reported total volume of business of $133,347,497, thus exceeding in this particular the State of Minnesota, which ranked fourth in total number of assemblers.

Examination of the interrelations of these business data totals for these 5 leading States presents some interesting variations from the national totals and percentages previously discussed. The United States averages and percentages for these 5 States are presented in the table which follows. It will be noted that in Kansas and Iowa the average volume of business per assembler, considerably exceeded the national average; while in Illinois the average was about $10,000 less, and in Minnesota and North Dakota they were approximately $60,000 and $50,000 less, respectively. In like manner there is considerable variation in the percentages which retail sales formed of the total business, ranging from 6.3 percent in North Dakota to 14.6 and 14.8 percent in Iowa and Minnesota, respectively. Total expenses form a smaller percentage of total volume of business in Kansas, 2.6 percent, as compared with the national of 3.4 percent, but in North Dakota they were 4.4 percent of the total business.

Average Volume of Business, Retail Sales, and Expenses for the 5 States Reporting the Greatest Number of Grain Assemblers

State	Average—				Percent of total volume of business	
	Volume of business	Retail sales	Salaries and wages	Expenses	Retail sales	Expenses
United States total	**$143,080**	**$13,312**	**$1,130**	**$4,792**	**9.3**	**3.4**
North Dakota	92,455	5,805	1,322	4,040	6.3	4.4
Kansas	154,964	12,967	1,163	4,081	8.4	2.6
Illinois	132,458	16,105	1,122	4,832	12.2	3.6
Minnesota	82,252	12,147	1,233	3,932	14.8	4.8
Iowa	147,879	21,556	1,122	4,512	14.6	3.1

Elevators by type of control.—Table 2 presents a United States summary of the data on grain elevators by type of control—independent, line, and cooperative. The difference in these three types of control is explained in the introduction. Independents are privately owned and operated and as here classified may include one or two elevators; cooperatives are owned by and operated for a group of farmers; while the line elevators are those belonging to a line or chain of three or more elevators.

Line elevators, strictly speaking, are centrally owned and controlled. Some small groups of 3, 4, 5, or more elevators, although owned by one concern, individual, or partnership, are each of them really operated by the local resident manager, with little or no central control or direction. Such elevators, of course in the strictest sense of the word, are not line elevators. However, since the Census of Distribution did not inquire into such details of control as would make it possible to clearly differentiate in all cases, a rather arbitrary limit as to number had to be used. Hence, any group of three or more elevators were automatically classed as line elevators. The central offices of the larger lines are not here included. In many of the smaller lines, or groups, the central office, or the office of the owner is merely located in one of the elevators and the sales reported therefor covered only the business of that one elevator and in such cases these were here included as elevators. While there are a number of closely related or line cooperative elevators, they have not been so classed here but in each case have been included as cooperative elevators. Thus the data in the "Number of establishments" column refers to the total number of individual elevators.

The following table presents a summary for the United States showing the number of elevators by type, together with total volume of business, sales to dealers, retail sales, expenses, and the percentage the expenses were of the total volume of business.

Summary—Grain Elevators by Type of Control

[Dollars expressed in thousands]

Type	Number of establishments	Total volume of business [1]	Sales to dealers [2]	Retail sales		Expenses	
				Number reporting	Amount	Amount	Percent of total volume of business
United States total	**9,457**	**$1,076,635**	**$934,459**	**5,614**	**$121,487**	**$42,401**	**3.94**
Independent	2,899	317,009	272,330	1,784	37,634	12,742	4.02
Line	4,017	321,354	289,367	2,101	20,752	14,089	4.38
Cooperative	2,541	438,272	372,762	1,729	63,101	15,570	3.55

[1] Includes sales of grain, retail sales, and receipts, if any, from storage.
[2] Sales of grain and other agricultural commodities where handled.

From this table it will be noted that 4,017, or 42.5 percent, of the 9,457 elevators are line elevators; 2,541, or 26.9 percent, are cooperatives; and 2,899, or 30.7 percent, are independents. The total volume of business including sales of grain, and/or other agricultural commodities, here handled, together with retail sales and receipts, if any, from storage, amounted to $1,076,635,298. Of this total elevator business, $438,272,569, or 40.7 percent, was done by the cooperatives, as compared to $321,353,703, or 29.8 percent, by the line elevators, and $317,009,026, or 29.4 percent, by the independents.

The average sales of cooperatives to dealers, including the sales of grain and other agricultural commodities, but exclusive of retail sales, amounted to $146,699 as contrasted with $93,939 for independent elevators, and $72,036 for line elevators. The total operating expenses for the 9,457 elevators represented 3.94 percent of total volume of business. Of the three types the operating expenses for cooperatives, 3.55 percent, are slightly lower than the national percentage, and also slightly lower than for the independents, 4.02 percent, and the line elevators, 4.38 percent.

Retail sales by elevators.—Of the entire number of elevators, 5,614, or 59.4 percent, not only reported the making of sales at retail, but also reported the amount thereof. Such sales totaled $121,486,555, or 11.3 percent of the total elevator sales.

While the total sales of all elevators are not large as compared to the total sales made by all kinds of retail stores in the small city and rural area (that is, all places under 10,000 population), which in 1929 amounted to $14,813,786,942; it is, nevertheless, true that in some of these smaller places and for the lines of merchandise which they handle, elevators do represent an important kind of retail outlet.

While the Census of Distribution schedule used for elevators called only for retail sales rather than for retail sales by kind, some elevators did report kind of merchandise handled at retail, although not the sales of each kind. It was apparent from some of these replies and from other studies of retail sales of elevators that the commodities most commonly handled were coal, feed, and other farm supplies such as fencing and fence posts, roofing, and the like. However, some elevators handled a much more diversified list of merchandise at retail. This is probably true to a greater degree in the case of independents and cooperatives than in the case of line elevators. Many line elevators reported that their entire retail sales consisted of coal and feed.

In some of the older grain States, such as Ohio, Illinois, Indiana, and Iowa, the retail sales of elevators form a much larger percentage of their total business than the national average (see table 2). Thus, in Ohio, 323 out of 438 elevators definitely reported their retail sales, which amounted to 27.1 percent of the total volume of business. In Illinois 642 out of 939 reported retail sales, which represented 12.3 percent of the total volume of business of all elevators. In Iowa the figures and percentages are as follows: 418 out of 692 reported retail sales, which equalled 14.7 percent; and in Indiana, 255 out of 388 elevators reported retail sales, which equalled 18.9 percent of the entire sales. In the retail summary for the United States there are included 221 elevators whose retail sales exceeded 50 percent of their total volume of business.

For all cooperative elevators retail sales formed 14.4 percent of the total volume of business as contrasted with 11.9 percent for independents, and 6.5 percent for line elevators. Not only have some cooperatives developed a well diversified retail branch including, in addition to the well-known farm supplies, farm implements and machinery, flour, sugar, and other staple commodities, but in some cases the retail business has been so acceptable to the members, it has resulted in the establishing of separate cooperative stores. The retail sales of these cooperative stores are not included in this report.

Leading elevator States.—The 6 leading States in the number of elevators are North Dakota, 1,491; Kansas, 1,187; Illinois, 939; Minnesota, 860; South Dakota, 733; and Nebraska, 698. The following table summarizes the business data on the elevators in these 6 States, which together contain a total of 5,908, or 62.5 percent of the entire number reporting. The total volume of business of the elevators in these 6 States amounted to $670,791,234, or 62.3 percent of the total for all elevators.

SUMMARY—6 LEADING ELEVATOR STATES

[Dollars expressed in thousands]

STATE	Number of establishments	Volume of business [1]	Sales to dealers [2]	RETAIL SALES		EXPENSES	
				Number reporting	Amount	Amount	Percent of total volume of business
North Dakota	1,491	$136,311	$126,802	938	$8,428	$5,777	4.24
Kansas	1,187	181,556	166,360	588	14,162	4,659	2.57
Illinois	939	119,011	104,324	642	14,615	4,293	3.61
Minnesota	860	67,785	57,269	547	10,158	3,322	4.90
South Dakota	733	63,831	56,997	460	6,364	2,540	3.98
Nebraska	698	102,299	92,504	466	9,149	2,565	2.51

[1] Includes sales of grain, retail sales, and receipts, if any, from storage.
[2] Sales of grain and other agricultural commodities where handled.

Examination of the data by type as given in table 2 reveals some very interesting facts. For the 6 leading elevator States, the following table shows the percentage distribution by type of the total number of elevators, and of the total volume of business; also by type, the percentage of the total reporting retail sales, and the percentage that these retail sales are of the total volume of business; and lastly, the percentage which expenses formed of the total volume of business:

COMPARISON BY TYPES FOR THE 6 LEADING ELEVATOR STATES

[Percentage relationship]

STATE AND TYPE	Percent of all elevators	Percent of volume of business	RETAIL SALES		EXPENSES
			Percent reporting	Percent of total volume of business	Percent of total volume of business
North Dakota:					
Independent	17.4	18.9	49.0	4.7	4.0
Line	54.9	36.7	67.2	5.5	4.6
Cooperative	27.7	44.4	63.2	7.3	4.0
Kansas:					
Independent	31.3	25.9	63.1	7.6	2.7
Line	42.2	31.4	29.1	2.2	2.9
Cooperative	26.5	42.7	66.0	12.1	2.2
Illinois:					
Independent	44.1	40.8	63.8	12.3	3.5
Line	24.7	17.2	78.0	5.1	4.1
Cooperative	31.2	42.0	67.2	15.2	3.5
Minnesota:					
Independent	23.0	22.9	74.2	15.1	4.8
Line	46.1	26.3	54.0	11.5	5.7
Cooperative	30.9	50.8	69.9	16.7	4.5
South Dakota:					
Independent	26.9	24.4	52.8	8.5	3.5
Line	40.7	23.2	56.7	7.6	5.1
Cooperative	32.4	52.4	78.6	11.7	3.7
Nebraska:					
Independent	32.7	28.0	61.8	7.4	2.4
Line	29.2	20.4	65.2	6.7	2.9
Cooperative	38.1	51.6	72.2	10.7	2.4

The data in this table for the 6 leading elevator States show a situation as regards the importance of the different types of elevators somewhat similar to that presented in the United States summary in table 2. That is, while in some of these States the cooperative elevators do not form as large a percentage of all elevators as do the other types, in each of the 6 States the total volume of business by the cooperatives forms a greater percentage of the total volume of business of all elevators in the State than do the sales of either of the other two types. Thus, in North Dakota cooperatives do 44.4 percent of the total elevator business as contrasted with 18.9 percent for independents and 36.7 percent for line elevators, while in Nebraska cooperatives do 51.6 percent of the volume of business as contrasted with 28 percent for independents, and 20.4 percent for line elevators.

It will also be noted that in Kansas, South Dakota, and Nebraska a greater percentage of cooperative elevators reported retail sales than did either of the other two types. Further, in each of these 6 States the retail sales of cooperatives formed a greater percentage of their total business than was true of either of the other two types.

The column showing the percent which total operating expenses were of total sales would seem to indicate that cooperative elevators are able to operate quite as efficiently as do the independent and line elevators.

Cooperative elevators.—This whole matter of the cooperative elevator forms a most interesting picture of cooperative endeavor among farmers in an attempt to improve the situation surrounding the marketing of one of their major products. Without doubt they have served to stabilize the marketing of grain, especially wheat, if for no other reason than that the presence of a strong, well-conducted cooperative serves to relieve the minds of the farmers of any idea that they are not getting proper service from the other elevators. This, of course is not to be construed as a statement to the effect that cooperative elevators are always more efficiently managed than privately owned elevators, nor that the latter always try to take advantage of the farmer when buying his grain. That would be far from the truth. Cooperative elevators are, however, firmly established in the country handling of grain and, although at first opposed by some of the other elevators, it is now, apparently, the consensus of opinion in the grain trade that the cooperatives are a decidedly worthwhile part of it.

Because of the importance of this type of elevator the following brief sketch of its development is here included.

The first cooperative elevator, or at least one of the first, to be organized in this country was that in Blairstown, Benton County, Iowa, which was started in 1868. Farmers in certain counties in Iowa as well as those in other States largely stimulated by economic and social conditions, took up the idea of cooperative elevators which, as was pointed out in the introduction, were incident to the rapid expansion of the total farm area and especially the expansion of wheat acreage and production in the years shortly following the Civil War.

While the farmers in the older grain States encountered serious problems at this time due to the competition of the newer regions, the farmers in the Western States also were not without their problems. With the greatly increased wheat production, lower prices per bushel, along with relatively high freight rates to market and to export points, and what were felt to be unreasonably high prices of farm machinery, many of the farmers of Iowa, Nebraska, and the other western wheat States joined the Grange, the first national farmers' organization which is still in existence and quite active.

Many, if not most of the cooperative elevators organized at that time were under the auspices of the Grange. Thus, in 1874 the Iowa State Grange reported that there were 53 farmers' elevators. This development of cooperative elevators began in 1868 and reached its culmination about 1880. Following that time there was a lull in the grain cooperative movement which probably resulted in an actual net decrease in the number of cooperative elevators.

Another development in the cooperative elevator movement began about 1902. Here, again, the reason underlying the cooperative development was a feeling of dissatisfaction among farmers over the existing wheat-market situation. This discontent revolved about or was occasioned, principally, by the following facts.

First, a farm price of wheat at 63 cents per bushel as contrasted with 81 cents in 1897; second, dissatisfaction with the grading and dockage practice of the privately owned elevators; and, third, the degree to which local elevators other than cooperative had come to be operated by the so-called line-elevator companies. This line-elevator development, getting under way about 1885, had developed until in 1902 thousands of grain elevators throughout the grain States were in the hands of one or another of the line-elevator companies, the members of whose boards of directors were also in many cases members of the directorate of the railroads over which the grain was shipped. Rightfully or wrongfully the grain farmers naturally attributed at least part of their economic ills to this centralized control of the country market outlets for one of their chief cash crops and determined to go into the elevator business for themselves.

The cooperative elevator movement beginning at this time may be said to have continued down to the present. Many of the first of this group of cooperative elevators were patterned after the one started in Rockwell, Iowa in 1889. When this elevator opened, it immediately announced higher prices for wheat than the other local elevators were paying. The latter countered by raising the price an additional 5 cents and began to receive much of the wheat of the cooperative members. The board of managers of the cooperative finally worked out a plan whereby members were permitted to sell their grain to the other elevators whenever they offered a higher price than the cooperative could afford to pay, but with the understanding that a certain amount of this increased price was to be paid by the member into the treasury of the cooperative-elevator company. This, of course, made it impossible for the independent and line elevators to drive a cooperative out of business by the simple expedient of paying a higher price for a brief period of time.

That the farmers have succeeded in establishing themselves in a firm position in cooperative handling of grain at country points is amply brought out by the table on the 6 leading elevator States already discussed, page 18, as well as the data by States in table 2. While there have, also, been a series of attempts at cooperative marketing of grain on a larger scale, either through regional or State wheat pools or through the maintaining of cooperative sales agencies on the large grain markets, this phase of cooperative marketing of wheat does not, so far, seem to have been nearly as successful as local cooperative elevators.

Doubtless one of the limiting factors here has been the great extent of the wheat growing territory of the United States and the large number of farmers raising it. Another factor is undoubtedly the fact that numerous cooperative elevators have been organized under different auspices, that is, by different farmers' organizations, some of them national or sectional in scope and some of them by entirely local groups. Further, not all wheat, and wheat is the chief commercial grain, is of the same kind and there may be some competition on this basis, as well as a competitive feeling between growers located in different States. It is also true that the management of a single local cooperative elevator, or, as in some cases, a group of several such elevators is a far simpler matter than participation in grain dealing in the large grain markets.

This, of course, should not be interpreted as meaning that it is felt that such centralized cooperative selling of grain cannot be developed. Several attempts have been made. Given the proper type of managerial ability with adequately developed plans backed up by adequate statistical and market information service there would seem to be no reason why large numbers of grain growers might not market their grain through central sales agencies, if they feel that such selling would result in sufficient savings or other material benefits such as strengthening their strategic position in the market.

The Census of Distribution received schedules covering 14 sales agencies, and (or) sales offices, maintained by grain cooperatives in 1929, with total sales of $40,628,632. Of the 14 selling agencies, 4 were organized between 1914 and 1919; 7 between 1920 and 1924; 1 in 1925; 1 in 1926; and 1 in the last half of 1929.

Size distribution by type.—Table 4 presents a distribution of the three types of elevators (independent, line, and cooperative) by size of business. For each type by size group is shown the number, total and average sales to dealers, total and average expenses, and the percentage which expenses are of total sales to dealers.

This table shows that 875 of the 9,457 elevators had total sales of $20,000 and under. Of these 287 are independent, 527, line; and 61, cooperative. At the other extreme there are 10 elevators, each doing a business over $1,000,000, of which 4 are independent; 2, line; and 4, cooperative. The total sales to dealers of the 875 elevators in the smallest size group, that is $20,000 and under, amounted to only $9,500,114, as contrasted with $18,577,123 of the 10 elevators having sales of over $1,000,000.

The predominating size group for all elevators is the $50,001 to $100,000 group, which contains 2,741 elevators. The second group from the standpoint of number is the $1,001 to $200,000 group with 2,404 elevators; and the third is $20,001 to $50,000 group, with 2,130 elevators. The two groups from $50,001 to $200,000 contain 5,145 elevators, or over 50 percent of the total number of elevators. If we include the three groups, $20,001 to $200,000, the percentage is about 77 percent.

There is, of course, a vast difference between an elevator doing slightly over $20,000, or, as here shown, on the average of $31,644 worth of business (of grain and other agricultural commodities), and one doing over $100,000 worth of business. For example, for the $20,001 to $50,000 group expenses form 7.57 percent of the total sales as compared with only 4.30 percentage in the group doing from $100,001 to $200,000 worth of business. On the type basis, we find the greatest number of independent elevators are also in the $50,001 to $100,000 group; line elevators, in the $20,001 to $50,000 group; and cooperatives, in the $100,001 to $200,000 group. This size distribution by type is perhaps better brought out in the following summary:

TYPE OF ELEVATOR BY SIZE OF BUSINESS, 1929

TYPE	$20,000 and under	$20,001 to $50,000	$50,001 to $100,000	$100,001 to $200,000	$200,001 to $300,000
	Number	*Number*	*Number*	*Number*	*Number*
Independent	287	594	918	761	217
Line	527	1,315	1,238	694	142
Cooperative	61	221	585	949	391

TYPE	$300,001 to $400,000	$400,001 to $500,000	$500,001 to $750,000	$750,001 to $1,000,000	Over $1,000,000
	Number	*Number*	*Number*	*Number*	*Number*
Independent	60	22	30	6	4
Line	54	21	17	7	2
Cooperative	191	77	52	10	4

Relation of expenses to sales by size and type.—For the entire group of 9,457 elevators operating expenses formed 4.54 percent of sales to dealers; and there was not a great deal of difference between the three types—4.68 percent, for all independents; 4.87 percent, for all line elevators; and 4.18 percent, for all cooperatives. Note, however, that as before stated (page 16), on the basis of total volume of business, including sales to dealers, and retail sales, the percent expenses formed for each of these three types was: Independents, 4.02 percent; line, 4.38 percent; and cooperatives, 3.55 percent.

The 875 small elevators, in the $20,000 and under value group, had expenses which were 12.91 percent of sales to dealers; while for the $50,001 to $100,000, the largest group from the standpoint of number of elevators, the operating expenses formed only 5.64 percent of sales. The 10 elevators doing over $1,000,000 each, had expenses which were 3.35 percent of sales.

Data on the wholesale trade in grain.—The Census of Distribution data on the wholesale trade in grain, as differentiated from elevators and other country assemblers, are given in table 7. This table shows reports were received from 1,174 wholesalers of all kinds and types, with a total business in 1929 of $2,573,823,162. In the last four columns of the table "dealers" are distinguished from "agents and brokers." In considering the data in this table the following explanation should be kept in mind.

The Census of Distribution did not cover the storage or warehouse business, either in the case of grain or in the case of any other commodity. Thus, a concern whose chief business was that of storing grain would not be included in this table, even though it might perhaps buy and sell or sell for others considerable quantities of grain. Neither did the Census of Distribution cover brokerage houses, whose chief function is the execution of orders for the purchase and (or) sale of grain for appliance on the grain exchanges. Milling companies in the aggregate sell considerable quantities of grain, either because they have secured through their country buying activities more than they need or too much of certain grades and kinds. Such business is not here included since mills were covered by the Census of Manufactures and not by the Census of Distribution.

Further, the schedule used for dealers in the larger cities, while a more highly differentiated one than that used in the samller places, was not especially designed for securing reports on the grain trade. This has not made it possible to present the data here in as much detail by different classes or types of grain dealers as perhaps, from certain standpoints, might be desirable. The schedule, it is true, made provisions for the reporting of the amount of grain sold by kind, together with the value of each kind, but there was not a sufficient consistency in reporting on this basis to make it feasible to tabulate the data separately.

The kind of business classification, that is, as a dealer in grain, was, wherever possible based on the 50 percent plan, i.e., some dealers in grain also deal in other commodities; but no dealer was classified as a grain dealer unless 50 percent or more of his total business consisted in the handling of grain, where such information was available on the schedule. In other cases where the break-down was not completely given the style of the firm name was the deciding factor in the classification.

There are, of course, a number of different types of grain dealers: Commission firms, brokers, exporters, importers, wholesalers (that is, those who buy and sell grain outright), as well as some special types of agents. While the schedule used provided a place for the firm to check itself either as a commission firm, wholesaler, or broker, the reports of various firms were not consistent enough to justify the making of a clear cut classification between straight commission firms, that is, those who operate on a strictly commission basis, and those who buy and sell outright. Some firms, which in their firm names style themselves grain commission companies, checked merely the designation "wholesaler"; while others who merely called themselves grain dealers checked the words "commission dealer" under the type classification. Accordingly the "dealer" classification as presented in table 7 includes grain commission firms, wholesalers, exporters, and importers; while the "broker" and "agent" classifications include brokers, both buying and selling, and a few branch sales offices of grain firms, and the cooperative sales agencies.

Since the Census of Distribution schedule made no inquiry either as to the type of dealer from which grain was bought or the type of dealer to which grain in turn was sold, and because of the difficulties in making a clear-cut type classification, the total sales figures as here given undoubtedly include some duplication of sales, that is, from one type of dealer to another dealer, either of the same or a different type.

Minneapolis, Chicago, and St. Louis are the leading domestic wheat markets; although Omaha, Kansas City, and Indianapolis are also very important. The leading export markets are New York, Portland, Tacoma, Galveston, San Francisco, and New Orleans. The relative importance of the wheat markets from the standpoint of total receipts is to a certain extent indicated by the following data from the United States Department of Agriculture showing the total number of bushels inspected, compiled through the district offices of the Federal grain supervision.

WHEAT RECEIPTS INSPECTED

MARKET	1929-30 (thousands of bushels)	MARKET	1929-30 (thousands of bushels)
Total	775,527	Wichita	28,985
		Portland, Oreg	26,332
Minneapolis	83,291	New York	11,939
Duluth	41,822	Philadelphia	1,525
Kansas City	83,123	Baltimore	8,862
Chicago	28,492	New Orleans	10,035
St. Louis	27,769	Galveston	22,991
Omaha	31,673	All other inspection points	368,688

As previously explained under the discussion of "production point marketing of grain," the rapid movement of wheat from farm to market made necessary the development of large storage elevators at various market centers. While, as noted in the introduction, the Census of Distribution did not cover these, the following data taken from the Fiftieth Annual Report of the Minneapolis Chamber of Commerce may be of interest. This summary shows for a number of cities the number of storage elevators and their capacity in bushels.

STORAGE ELEVATOR CAPACITY IN VARIOUS CITIES, 1932

CITIES	Number of elevators	Capacity (bushels)	CITIES	Number of elevators	Capacity (bushels)
Minneapolis	65	91,020,050	Cincinnati	13	2,300,850
Chicago	62	53,979,000	Galveston	3	7,500,000
Duluth-Superior	33	50,375,000	Omaha	18	26,410,000
Buffalo	38	49,543,000	St. Joseph	13	10,352,000
St. Louis and East St. Louis	39	15,314,500	Indianapolis	9	5,500,000
Baltimore	5	12,750,000	Portland	14	10,096,170
Milwaukee	24	17,740,000			

The 10 leading markets for other grains—corn, oats, barley, and rye—based on the total receipts, according to the Fiftieth Annual Report of the Minneapolis Chamber of Commerce, are shown in the following table. For comparative purposes the table shows the receipts of these grains and the corresponding rank therein of each of these markets. Thus it will be noted that while Chicago leads in the receipt of corn, oats, and rye, it ranks sixth in total receipts of barley, Duluth ranking second in receipts of barley and rye, but eighth in oats, and only sixteenth in corn. Indianapolis ranks fifth in receipts of both corn and oats, but fourteenth in rye, and sixteenth in barley.

RECEIPTS OF SPECIFIED GRAINS AT VARIOUS MARKETS, 1929

[Ten leading markets are shown in italics]

MARKET	CORN		OATS		BARLEY		RYE	
	Rank	Receipts	Rank	Receipts	Rank	Receipts	Rank	Receipts
		Bushels		*Bushels*		*Bushels*		*Bushels*
Minneapolis	8	*12,609,950*	2	*25,042,190*	1	*20,205,830*	3	*7,620,390*
Chicago	1	*81,581,000*	1	*37,605,000*	6	*8,553,000*	1	*8,591,000*
Duluth	16	1,962,858	9	*5,450,372*	2	*15,258,634*	2	*7,636,132*
Milwaukee	7	*13,750,335*	4	*13,204,670*	4	*12,237,850*	6	*694,960*
Omaha	6	*18,761,400*	6	*8,290,000*	10	*1,779,200*	4	*1,904,000*
Kansas City	3	*32,416,500*	11	5,156,000	9	*2,676,800*	11	204,000
St. Louis	2	*33,869,000*	3	*21,804,000*	11	1,764,000	9	*359,200*
Peoria	4	*26,093,850*	7	*7,692,100*	8	*3,380,600*	16	50,200
Toledo	20	1,396,250	10	*5,400,280*	21	116,400	13	121,200
Detroit	22	421,500	19	866,000	18	232,500	10	*235,500*
Buffalo	10	*9,990,561*	8	*5,538,932*	3	*15,154,821*	5	*1,328,896*
New York	19	1,559,500	12	4,949,000	5	*11,437,400*	7	*606,000*
St. Joseph	9	*10,323,000*	17	970,000	19	210,000	22	6,000
Sioux City	11	8,149,000	13	4,490,000	22	75,000	8	*385,000*
Indianapolis	5	*23,301,000*	5	*11,990,000*	16	576,000	14	97,500
Baltimore	17	1,961,839	21	796,871	7	*4,153,181*	15	55,398

MILLING OR PROCESSING OF GRAIN

While data are not available to show in complete detail the utilization of each of the grains in manufacturing or processing and the further utilization of the milled or ground products by other plants, the following summary data from the Census of Manufactures does probably cover the more important phases of this matter.

The total amount of each of specified kinds of grain ground or milled during 1929 in the flour and other grain-mill-products industry is given in the following table. This table shows the 10 leading States in the milling and grinding of each of the grains and for comparative purposes there are also shown the amounts of other grain ground or milled in the same States and their rank therein. Thus, it will be noted that Minnesota leads in the milling of wheat and rye; Missouri is the leader in the milling and grinding of corn; New York of oats; and California in barley. Indiana ranking second in corn is eleventh in flour milling, while Kansas, second in flour milling, is fourteenth in the grinding of corn.

Grain Ground or Milled, by Kind, in the 10 Leading States for Each of the 5 Selected Kinds, 1929

[Bushels expressed in thousands]

[Ten leading markets are shown in italics]

State	Wheat		Corn		Oats		Barley		Rye	
	Bushels	Rank	Bushels	Rank	Bushels	Rank	Bushels	Rank	Bushels	Rank
United States total	546,242	-------	87,453	-------	29,006	-------	9,499	-------	9,671	------
Minnesota	*93,912*	1	2,225	17	*1,659*	5	*406*	6	*4,088*	1
Kansas	*77,627*	2	2,697	14	414	21	190	12	15	15
New York	*58,781*	3	*4,161*	7	*4,574*	1	*481*	5	*894*	3
Missouri	*48,204*	4	*8,432*	1	843	12	*280*	8	32	12
Washington	*25,764*	5	2,030	19	*1,143*	7	*783*	2	13	16
Texas	*24,691*	6	*5,856*	3	*1,176*	6	*214*	9	[1]	------
Illinois	*23,308*	7	*4,669*	4	628	15	[1]	-------	[1]	------
Ohio	*19,982*	8	*3,517*	9	*1,028*	10	82	16	19	14
Oklahoma	*15,698*	9	*2,855*	10	721	14	103	15	[1]	------
Nebraska	*15,565*	10	2,844	11	172	28	38	20	*61*	7
Indiana	12,324	11	*5,914*	2	400	22	36	22	*37*	10
Oregon	12,249	12	403	32	*1,035*	9	*385*	7	*85*	6
California	10,344	13	*4,047*	8	745	13	*3,779*	1	[1]	------
Tennessee	10,159	14	*4,631*	5	1,026	11	4	27	[1]	------
Michigan	9,601	15	780	29	530	17	78	17	*118*	5
Pennsylvania	8,893	16	2,779	13	*1,821*	4	136	13	*409*	4
Kentucky	8,358	18	*4,424*	6	420	20	[1]	-------	---------	------
Colorado	7,802	19	1,130	24	434	18	*769*	3	[1]	------
Iowa	7,617	20	430	31	*2,524*	2	36	21	32	11
Wisconsin	6,151	22	1,102	25	*1,053*	8	191	11	*2,336*	2
Utah	5,548	25	347	34	132	30	*197*	10	[1]	------
Idaho	3,894	26	171	39	376	23	*492*	4	[1]	------
Maryland	3,735	27	912	27	202	27	42	19	*55*	8
New Jersey	1,209	29	832	28	357	24	125	14	*46*	9
Arkansas	711	32	2,193	18	*1,967*	3	[1]	-------	---------	------

[1] Not shown separately.

The total output of certain grain products as reported by the Census of Manufactures for the flour and grain mill-products industry for 1929 are as indicated in the summary following:

Production in the Flour Milling and Grain Products Industry, 1929

Kind	Quantity	Kind	Quantity
Wheat flour .... barrels	120,039,673	Corn flour .... barrels	589,073
White flour .... do	113,034,325	Buckwheat flour .... pounds	38,452,929
Graham and whole-wheat .... do	1,361,895	Other flour .... do	21,090,575
Semolina .... do	2,959,322	Corn meal .... (200 lb.) barrels	10,488,083
Prepared flour .... do	2,684,131	Bran and middlings ..(2,000 lb.) tons	4,681,802
Rye flour .... do	1,678,822	Feed screenings, etc .... do	2,471,661

The output of certain kinds of breakfast-cereal preparations and the total output of prepared feeds made chiefly of grain were as follows: Cereals made chiefly from corn, 383,867,163 pounds; cereals made chiefly from oats, 718,382,081 pounds; cereals made from other grains, 58,365,090 pounds; and feeds made chiefly from grain, 7,667,318 tons.

While this report, as indicated in the introduction, is concerned chiefly with the distribution of the grains themselves, it is felt that the following data on channels of distribution used by manufacturing plants in the flour and other grain-mill products industries, not including cereal preparations, will be of interest. These data were gathered for the first time as part of the work of the Census of Distribution in collaboration with the Census of Manufactures. Each manufacturer was requested to report the amount of total sales distributed from his plant through each of several methods. The analysis of reports on flour and the other mill-products industries shows that in 1929 such plants made 40.3 percent of their total factory sales to wholesalers who in turn, of course, sell to retailers and to various kinds of concerns and/or individuals who use flour for baking or other purposes. The direct sales to retailers amounted to 27.1 percent of the total sales; sales to bakeries, other manufacturers, and retail customers were 23.5 percent; while 7.7 percent was sold to, or through the manufacturers own wholesale branches; and 1.4 percent to the manufacturers retail branches.

TABLE 1.—ASSEMBLERS OF GRAIN—UNITED STATES AND STATE SUMMARY

[(x) is used to prevent disclosure of individual operations]

DIVISION OR STATE	ALL TYPES OF ASSEMBLERS					
	Number	Total volume of business [1]	Retail sales	Number of employees	Salaries and wages	Total expenses
United States	**11,603**	**$1,660,155,521**	**$154,457,816**	**24,605**	**$27,804,753**	**$55,599,798**
NEW ENGLAND:						
Maine	--------	--------	--------	--------	--------	--------
New Hampshire	--------	--------	--------	--------	--------	--------
Vermont	1	(x)	(x)	(x)	(x)	(x)
Massachusetts	--------	--------	--------	--------	--------	--------
Rhode Island	1	(x)	--------	(x)	(x)	(x)
Connecticut	--------	--------	--------	--------	--------	--------
MIDDLE ATLANTIC:						
New York	30	3,198,650	265,104	186	106,779	173,102
New Jersey	5	2,175,564	82,627	54	56,926	104,931
Pennsylvania	22	1,006,299	310,144	51	36,078	102,084
EAST NORTH CENTRAL:						
Ohio	530	57,473,336	14,266,388	1,476	1,723,014	3,290,522
Indiana	456	39,388,519	7,640,030	1,080	1,126,211	2,315,248
Illinois	1,213	160,671,009	19,535,410	2,618	2,937,571	5,860,746
Michigan	328	47,963,254	11,043,393	1,814	1,677,131	3,266,335
Wisconsin	35	3,448,423	661,367	114	126,388	302,172
WEST NORTH CENTRAL:						
Minnesota	938	77,152,001	11,393,701	1,527	1,882,859	3,687,772
Iowa	924	136,640,268	19,917,939	1,852	2,077,231	4,169,045
Missouri	234	35,952,886	3,845,958	799	993,147	2,604,366
North Dakota	1,543	142,657,968	8,956,586	2,212	2,924,441	6,233,733
South Dakota	799	72,188,314	7,081,815	1,275	1,454,753	2,831,779
Nebraska	860	133,347,497	11,423,941	1,611	1,786,592	3,370,950
Kansas	1,356	210,131,111	17,583,505	2,581	3,001,030	5,534,153
SOUTH ATLANTIC:						
Delaware	10	1,487,576	247,650	37	28,357	78,560
Maryland	24	17,813,054	484,095	76	80,584	154,203
District of Columbia	--------	--------	--------	--------	--------	--------
Virginia	5	209,198	9,000	9	7,825	15,198
West Virginia	6	282,520	57,000	14	8,600	23,540
North Carolina	8	226,485	--------	16	7,160	29,331
South Carolina	3	193,065	--------	--------	--------	4,982
Georgia	4	189,500	80,000	10	6,620	15,040
Florida	3	130,000	--------	7	4,680	16,260
EAST SOUTH CENTRAL:						
Kentucky	11	282,343	2,340	19	11,586	12,574
Tennessee	31	4,979,700	74,123	91	98,359	218,482
Alabama	3	417,450	22,700	24	4,600	4,895
Mississippi	5	824,733	--------	6	3,350	11,155
WEST SOUTH CENTRAL:						
Arkansas	7	679,727	66,000	38	32,914	115,094
Louisiana	3	1,291,117	--------	19	21,000	32,430
Oklahoma	542	52,363,080	4,850,128	1,080	1,120,166	2,046,590
Texas	318	53,216,629	1,899,116	1,023	907,490	1,774,226
MOUNTAIN:						
Montana	529	46,945,636	2,005,252	653	1,011,498	1,865,272
Idaho	161	44,055,672	1,875,021	432	573,871	1,146,023
Wyoming	22	2,566,503	507,293	53	99,905	211,082
Colorado	218	33,756,776	4,027,907	452	638,666	1,307,284
New Mexico	12	4,493,198	51,754	52	57,134	164,399
Arizona	1	(x)	--------	--------	--------	--------
Utah	17	1,417,626	36,055	46	58,838	122,129
Nevada	2	(x)	--------	(x)	(x)	(x)
PACIFIC:						
Washington	262	237,305,747	2,310,841	793	675,193	1,292,769
Oregon	67	14,663,395	1,063,525	211	179,425	570,509
California	54	16,630,445	770,308	184	240,992	481,744

TABLE 1.—ASSEMBLERS OF GRAIN—UNITED STATES AND STATE SUMMARY—Continued

[(x) is used to prevent disclosure of individual operations]

DIVISION OR STATE	ELEVATORS		OTHER ASSEMBLERS	
	Number	Total volume of business [1]	Number	Total volume of business [1]
United States	9,457	$1,076,635,298	2,146	$583,520,223
NEW ENGLAND:				
Maine				
New Hampshire				
Vermont			1	(x)
Massachusetts				
Rhode Island			1	(x)
Connecticut				
MIDDLE ATLANTIC:				
New York	12	835,374	18	2,363,276
New Jersey			5	2,175,564
Pennsylvania	6	456,985	16	549,314
EAST NORTH CENTRAL:				
Ohio	438	46,661,724	92	10,811,612
Indiana	388	32,287,912	68	7,100,607
Illinois	939	119,010,783	274	41,660,226
Michigan	297	41,995,776	31	5,967,478
Wisconsin	18	1,493,567	17	1,954,856
WEST NORTH CENTRAL:				
Minnesota	860	67,784,688	78	9,367,313
Iowa	692	97,279,294	232	39,360,974
Missouri	158	11,993,238	76	23,959,648
North Dakota	1,491	136,310,504	52	6,347,464
South Dakota	733	63,830,788	66	8,357,526
Nebraska	698	102,298,558	162	31,048,939
Kansas	1,187	181,555,913	169	28,575,198
SOUTH ATLANTIC:				
Delaware			10	1,487,576
Maryland	9	2,240,284	15	15,572,770
District of Columbia				
Virginia	2	(x)	3	(x)
West Virginia	5	(x)	1	(x)
North Carolina			8	226,485
South Carolina	1	(x)	2	(x)
Georgia	1	(x)	3	(x)
Florida			3	130,000
EAST SOUTH CENTRAL:				
Kentucky	2	(x)	9	(x)
Tennessee			31	4,979,700
Alabama			3	417,450
Mississippi			5	824,733
WEST SOUTH CENTRAL:				
Arkansas	1	(x)	6	(x)
Louisiana	1	(x)	2	(x)
Oklahoma	437	41,459,374	105	10,903,706
Texas	218	35,688,384	100	17,528,245
MOUNTAIN:				
Montana	512	45,343,283	17	1,602,353
Idaho	101	13,453,715	60	30,601,957
Wyoming	18	2,039,728	4	526,775
Colorado	181	23,055,265	37	10,701,511
New Mexico	8	3,067,053	4	1,426,145
Arizona			1	(x)
Utah	6	1,162,749	11	254,877
Nevada	1	(x)	1	(x)
PACIFIC:				
Washington	6	944,069	256	236,361,678
Oregon	29	2,272,575	38	12,390,820
California	1	(x)	53	(x)

[1] Includes sales of grain, retail sales, and receipts (if any) from storage.

TABLE 2.—GRAIN ELEVATORS—NUMBER, TOTAL VOLUME OF BUSINESS, SALES, AND EXPENSES, 1929, BY TYPE AND BY STATES

[(x) is used to prevent disclosure of individual operations]

STATE AND TYPE	Number of establishments	Total volume of business [1]	Sales to dealers [2]	RETAIL SALES		EXPENSES	
				Number reporting	Amount	Amount	Percent of total volume of business
United States total	9,457	$1,076,635,298	$934,458,920	5,614	$121,486,555	$42,401,398	3.94
Independent	2,899	317,009,026	272,330,297	1,784	37,634,193	12,742,050	4.02
Line	4,017	321,353,703	289,367,225	2,101	20,751,881	14,089,345	4.38
Cooperative	2,541	438,272,569	372,761,398	1,729	63,100,481	15,570,003	3.55
Arkansas	1	(x)	(x)	1	(x)	(x)	(x)
Independent	1	(x)	(x)	1	(x)	(x)	(x)
Line	----	----	----	----	----	----	----
Cooperative	----	----	----	----	----	----	----
California	1	(x)	(3)	(3)	(3)	(x)	(x)
Independent	----	----	----	----	----	----	----
Line	1	(x)	(3)	(3)	(3)	(x)	(x)
Cooperative	----	----	----	----	----	----	----
Colorado	181	23,055,265	20,595,794	111	2,386,210	1,001,542	4.34
Independent	34	3,815,056	3,176,748	23	629,000	182,008	4.77
Line	119	14,409,619	13,262,577	66	1,115,229	607,605	4.22
Cooperative	28	4,830,590	4,156,469	22	641,981	211,929	4.39
Georgia	1	(x)	(x)	1	(x)	(x)	(x)
Independent	1	(x)	(x)	1	(x)	(x)	(x)
Line	----	----	----	----	----	----	----
Cooperative	----	----	----	----	----	----	----
Idaho	101	13,453,715	11,212,126	69	1,515,985	683,980	5.08
Independent	10	1,046,200	857,369	7	174,947	76,027	7.27
Line	91	12,407,515	10,354,757	62	1,341,038	607,953	4.90
Cooperative	----	----	----	----	----	----	----
Illinois	939	119,010,783	104,324,358	642	14,615,129	4,293,432	3.61
Independent	414	48,532,750	42,574,578	264	5,958,172	1,703,882	3.51
Line	232	20,486,438	19,443,534	181	1,039,884	841,535	4.11
Cooperative	293	49,991,595	42,306,246	197	7,617,073	1,748,015	3.50
Indiana	388	32,287,912	16,130,155	255	6,115,914	1,840,654	5.70
Independent	210	18,285,862	11,835,210	138	3,596,593	1,080,352	5.91
Line	123	7,204,896	355,355	74	1,224,512	402,924	5.59
Cooperative	55	6,797,154	3,939,590	43	1,294,809	357,378	5.26
Iowa	692	97,279,294	82,585,645	418	14,273,928	3,087,932	3.17
Independent	246	28,494,003	25,102,296	147	2,999,407	809,376	2.84
Line	172	14,343,116	13,071,965	108	1,271,151	548,718	3.83
Cooperative	274	54,442,175	44,411,384	163	10,003,370	1,729,838	3.18
Kansas	1,187	181,555,913	166,359,707	588	14,161,559	4,659,253	2.57
Independent	371	47,014,821	43,385,778	234	3,567,715	1,275,974	2.71
Line	501	57,004,104	55,111,012	146	1,249,718	1,654,858	2.90
Cooperative	315	77,536,988	67,862,917	208	9,344,126	1,728,421	2.23
Kentucky	2	(x)	(x)	----	----	(x)	(x)
Independent	1	(x)	(x)	----	----	(x)	(x)
Line	1	(x)	(x)	----	----	(x)	(x)
Cooperative	----	----	----	----	----	----	----
Louisiana	1	(x)	(x)	----	----	(x)	(x)
Independent	1	(x)	(x)	----	----	(x)	(x)
Line	----	----	----	----	----	----	----
Cooperative	----	----	----	----	----	----	----
Maryland	9	2,240,284	2,014,938	7	225,301	68,918	3.08
Independent	9	2,240,284	2,014,938	7	225,301	68,918	3.08
Line	----	----	----	----	----	----	----
Cooperative	----	----	----	----	----	----	----
Michigan	297	41,995,776	31,841,301	222	9,863,432	2,930,922	6.98
Independent	133	15,787,287	12,437,553	93	3,127,701	1,147,667	7.27
Line	99	14,746,171	11,545,539	72	3,161,241	981,948	6.66
Cooperative	65	11,462,318	7,858,209	57	3,574,490	801,307	6.99

[1] Includes sales of grain, retail sales, and receipts (if any) from storage.
[2] Sales of grain and other agricultural commodities where handled.
[3] Not separately reported.

TABLE 2.—GRAIN ELEVATORS—NUMBER, TOTAL VOLUME OF BUSINESS, SALES, AND EXPENSES, 1929, BY TYPE AND BY STATES—Continued

[(x) is used to prevent disclosure of individual operations]

STATE AND TYPE	Number of establishments	Total volume of business	Sales to dealers	RETAIL SALES: Number reporting	RETAIL SALES: Amount	EXPENSES: Amount	EXPENSES: Percent of total volume of business
Minnesota	860	$67,784,688	$57,268,905	547	$10,157,605	$3,322,320	4.90
Independent	198	15,513,630	13,170,345	147	2,343,285	744,671	4.80
Line	396	17,799,379	15,395,682	214	2,045,519	1,015,179	5.70
Cooperative	266	34,471,679	28,702,878	186	5,768,801	1,562,470	4.53
Missouri	158	11,993,238	8,702,055	94	2,707,362	1,299,727	10.84
Independent	80	5,414,510	3,920,130	43	969,290	373,193	6.89
Line	31	1,654,444	1,503,588	20	92,125	660,052	39.90
Cooperative	47	4,924,284	3,278,337	31	1,645,947	266,482	5.41
Montana	512	45,343,283	41,587,044	191	1,956,672	1,773,902	3.91
Independent	41	4,509,012	3,621,302	14	270,305	198,176	4.40
Line	422	29,313,843	27,326,962	151	804,719	1,136,038	3.88
Cooperative	49	11,520,428	10,638,780	26	881,648	439,688	3.82
Nebraska	698	102,298,558	92,504,081	466	9,148,957	2,564,652	2.51
Independent	228	28,688,714	26,551,967	141	2,136,747	685,110	2.39
Line	204	20,849,946	18,732,267	133	1,387,947	601,614	2.89
Cooperative	266	52,759,898	47,219,847	192	5,624,263	1,277,928	2.42
Nevada	1	(x)	(x)			(x)	(x)
Independent	1	(x)	(x)			(x)	(x)
Line							
Cooperative							
New Mexico	8	3,067,053	2,998,739	1	(x)	117,965	3.85
Independent	5	2,327,648	2,295,334	1	(x)	94,093	4.04
Line	3	739,405	703,405			23,872	3.23
Cooperative							
New York	12	835,374	813,387	2	(x)	44,392	5.31
Independent	3	74,874	52,887	2	(x)	5,777	7.72
Line	9	760,500	760,500			38,615	5.08
Cooperative							
North Dakota	1,491	136,310,504	126,801,843	938	8,428,272	5,776,516	4.24
Independent	259	25,839,132	23,936,592	127	1,217,756	1,033,966	4.00
Line	819	49,975,583	47,175,607	550	2,771,540	2,298,968	4.60
Cooperative	413	60,495,789	55,689,644	261	4,438,976	2,443,582	4.04
Ohio	438	46,661,724	33,770,083	323	12,643,075	2,861,507	6.13
Independent	235	23,416,145	17,367,462	184	6,048,683	1,495,077	6.38
Line	74	4,597,797	3,735,966	48	651,438	292,022	6.35
Cooperative	129	18,647,782	12,666,655	91	5,942,954	1,074,408	5.76
Oklahoma	437	41,459,374	37,517,345	190	3,702,015	1,590,463	3.84
Independent	102	8,485,772	7,367,390	56	1,021,293	336,166	3.96
Line	274	23,351,547	22,143,785	86	1,072,701	903,594	3.87
Cooperative	61	9,622,055	8,006,170	48	1,608,021	350,703	3.64
Oregon	29	2,272,575	1,926,995	4	343,357	152,282	6.66
Independent	2	(x)	(x)	1	(x)	(x)	(x)
Line	22	1,071,200	1,063,301	1	(x)	66,136	6.17
Cooperative	5	(x)	(x)	2	(x)	(x)	(x)
Pennsylvania	6	456,895	232,488	4	224,497	40,151	8.79
Independent	6	456,985	232,488	4	224,497	40,151	8.79
Line							
Cooperative							
South Carolina	1	(x)	(x)			(x)	(x)
Independent							
Line							
Cooperative	1	(x)	(x)			(x)	(x)
South Dakota	733	63,830,788	56,997,462	460	6,363,849	2,540,320	3.98
Independent	197	15,538,521	14,215,640	104	1,322,881	539,765	3.47
Line	298	14,835,598	13,265,559	169	1,132,102	749,445	5.05
Cooperative	238	33,456,669	29,516,263	187	3,908,866	1,251,110	3.74

TABLE 2.—GRAIN ELEVATORS—NUMBER, TOTAL VOLUME OF BUSINESS, SALES, AND EXPENSES, 1929, BY TYPE AND BY STATES—Continued

[(x) is used to prevent disclosure of individual operations]

STATE AND TYPE	Number of establishments	Total volume of business	Sales to dealers	RETAIL SALES: Number reporting	RETAIL SALES: Amount	EXPENSES: Amount	EXPENSES: Percent of total volume of business
Texas	218	$35,688,384	$33,581,830	49	$1,286,608	$1,170,096	3.28
Independent	82	18,029,746	16,381,767	30	926,667	535,893	2.97
Line	115	13,579,817	13,231,737	13	249,446	509,307	3.75
Cooperative	21	4,078,821	3,968,326	6	110,495	124,896	3.06
Utah	6	1,162,749	369,048	3	10,840	80,639	6.94
Independent	2	(x)	([3])	([3])	([3])	(x)	(x)
Line	4	(x)	(x)	3	(x)	(x)	(x)
Cooperative	-------	-------	-------	-------	-------	-------	-------
Virginia	2	(x)	(x)	1	(x)	(x)	(x)
Independent	2	(x)	(x)	1	(x)	(x)	(x)
Line	-------	-------	-------	-------	-------	-------	-------
Cooperative	-------	-------	-------	-------	-------	-------	-------
Washington	6	944,069	754,453	4	189,616	53,185	5.63
Independent	-------	-------	-------	-------	-------	-------	-------
Line	-------	-------	-------	-------	-------	-------	-------
Cooperative	6	944,069	754,453	4	189,616	53,185	5.63
West Virginia	5	263,665	152,750	2	(x)	(x)	(x)
Independent	3	(x)	(x)	-------	-------	(x)	(x)
Line	-------	-------	-------	-------	-------	-------	-------
Cooperative	2	(x)	(x)	2	(x)	(x)	(x)
Wisconsin	18	1,493,567	1,095,789	8	397,778	118,278	7.92
Independent	13	906,117	606,732	6	299,385	76,491	8.44
Line	-------	-------	-------	-------	-------	-------	-------
Cooperative	5	587,450	489,057	2	(x)	41,787	7.11
Wyoming	18	2,039,728	1,525,535	13	507,293	178,453	8.75
Independent	9	911,876	545,515	8	359,461	118,595	13.01
Line	7	(x)	(x)	4	(x)	(x)	(x)
Cooperative	2	(x)	(x)	1	(x)	(x)	(x)

[3] Not separately reported.

TABLE 3.—ELEVATORS—NUMBER BY TYPE, TOTAL VOLUME OF BUSINESS, AND RETAIL SALES, 1929, BY STATES AND COUNTIES

STATE AND COUNTY	NUMBER: Total	NUMBER: Independent	NUMBER: Line	NUMBER: Cooperative	Total volume of business	Retail sales
United States total	9,457	2,899	4,017	2,541	$1,076,635,298	$121,486,555
MIDDLE ATLANTIC						
New York total	12	3	9	-------	835,374	21,987
Livingston	9	-------	9	-------	760,500	-------
Balance of State	3	3	-------	-------	74,874	21,987
Pennsylvania total	6	6	-------	-------	456,985	224,497
EAST NORTH CENTRAL						
Ohio total	438	235	74	129	46,661,724	12,643,075
Allen	5	3	-------	2	321,580	107,068
Ashland	7	5	-------	2	634,000	5,000
Auglaize	5	4	-------	1	325,019	149,642
Butler	3	3	-------	-------	358,000	134,700
Champaign	11	9	-------	2	862,737	327,551
Clark	4	3	1	-------	425,735	151,315
Clinton	4	4	-------	-------	154,925	69,248
Crawford	10	6	-------	4	893,790	387,745
Darke	17	16	1	-------	1,175,637	322,538
Defiance	7	3	-------	4	718,506	170,801

TABLE 3.—ELEVATORS—NUMBER BY TYPE, TOTAL VOLUME OF BUSINESS, AND RETAIL SALES, 1929, BY STATES AND COUNTIES—Continued

STATE AND COUNTY	NUMBER				Total volume of business	Retail sales
	Total	Independent	Line	Cooperative		
EAST NORTH CENTRAL—Continued						
Ohio—Continued.						
Erie	4		1	3	$603,486	$173,910
Fairfield	8	7		1	466,331	119,831
Franklin	7	6		1	1,047,629	406,424
Fulton	9	8		1	1,117,979	460,468
Greene	7	5		2	426,156	184,774
Hancock	12	4		8	1,911,967	683,742
Hardin	12	5	5	2	472,585	116,189
Henry	13	3		10	2,259,727	419,428
Holmes	4	4			213,881	44,889
Huron	13	3	5	5	1,239,858	403,452
Knox	3	2		1	247,263	164,958
Licking	3	2		1	141,576	85,000
Logan	4	4			396,519	197,331
Lorain	5	1		4	408,143	73,800
Madison	11	10	1		1,842,543	395,125
Marion	8	3		5	531,917	221,307
Medina	5	2		3	1,005,432	768,646
Mercer	10	9	1		595,875	180,971
Miami	17	11	5	1	1,748,747	469,500
Montgomery	6	4		2	878,414	349,572
Ottawa	7			7	1,272,931	600,515
Paulding	14	3	5	6	1,788,703	203,418
Pickaway	10	7		3	993,222	219,229
Preble	6	4	1	1	575,957	157,127
Putnam	14	3	9	2	1,493,832	347,312
Richland	4	2		2	299,646	81,626
Ross	7	6	1		1,008,205	106,120
Sandusky	13	7	2	4	1,985,796	294,040
Senaca	23	1	15	7	1,789,927	326,474
Shelby	18	12		6	1,394,224	402,724
Union	6	2	2	2	367,637	114,136
Van Wert	17	10	2	5	1,894,149	474,558
Wayne	10	4	4	2	1,549,115	209,077
Williams	8	6	1	1	1,789,839	379,689
Wood	23	6	7	10	2,877,192	374,726
Wyandot	9	5	2	2	561,539	201,385
Balance of State	15	8	3	4	1,593,853	405,994
Indiana total	388	210	123	55	32,287,912	6,115,914
Adams	6	3	2	1	348,418	39,226
Allen	5	3	1	1	281,863	32,139
Bartholomew	10	7	2	1	629,170	80,617
Benton	14	7	3	4	1,881,476	24,030
Boone	5	2	3		368,245	41,614
Carroll	9	3	4	2	762,237	86,892
Cass	11	3		8	1,275,000	232,100
Clinton	15	14	1		1,419,605	452,274
Daviess	3	2	1		206,545	62,545
Decatur	5	1	4		317,786	123,104
De Kalb	3	3			162,103	4,105
Delaware	7	2	1	4	434,060	221,018
Fayette	4	4			253,058	38,126
Fountain	10	6	2	2	1,035,118	218,593
Fulton	6	4	1	1	720,212	280,565
Gibson	5	2	3		205,307	12,751
Grant	5	3	1	1	359,458	31,809
Greene	5	5			265,684	54,646
Hamilton	3	1	1	1	301,473	114,513
Hancock	7	6	1		401,290	149,374
Hendricks	4	2	2		112,119	
Henry	3	1	1	1	310,732	98,203
Howard	4	4			264,500	69,750
Huntington	4	2	1	1	406,121	91,057
Jay	5	1	4		235,000	66,310
Jasper	16	4	10	2	992,782	
Johnson	6	5	1		795,429	306,359
Knox	6	5		1	535,058	1,890
Lake	6	2	2	2	715,792	130,596
La Porte	6	4		2	716,433	155,919
Madison	5	3	2		210,019	34,549
Marion	4	1	3		165,086	38,478
Miami	9	7	1	1	666,022	172,547

TABLE 3.—ELEVATORS—NUMBER BY TYPE, TOTAL VOLUME OF BUSINESS, AND RETAIL SALES, 1929, BY STATES AND COUNTIES—Continued

STATE AND COUNTY	NUMBER				Total volume of business	Retail sales
	Total	Independent	Line	Cooperative		
EAST NORTH CENTRAL—Continued						
Indiana—Continued.						
Montgomery	9	3	5	1	$480,093	$85,457
Newton	7	3	3	1	870,745	172,848
Noble	3	2	1	-	256,040	28,006
Porter	4	2	1	1	410,445	49,588
Posey	9	4	5	-	243,646	55,936
Pulaski	5	2	-	3	844,319	53,390
Randolph	12	6	5	1	942,823	330,270
Rush	10	2	8	-	422,916	89,206
St. Joseph	3	3	-	-	528,279	40,634
Shelby	13	5	6	2	905,382	152,834
Starke	5	5	-	-	379,964	82,800
Steuben	3	3	-	-	287,432	65,757
Tippecanoe	15	6	8	1	1,499,178	169,734
Tipton	7	4	2	1	470,738	111,620
Union	4	4	-	-	225,550	64,100
Vanderburg	5	-	5	-	498,416	-
Vermillion	3	2	1	-	246,349	13,255
Wabash	8	5	1	2	893,345	298,237
Warren	13	9	4	-	995,681	50,855
Wayne	3	2	-	1	296,841	17,600
White	7	5	2	-	861,875	224,654
Whitley	3	1	1	1	414,695	81,979
Balance of State	21	10	7	4	1,559,959	411,555
Illinois total	**939**	**414**	**232**	**293**	**119,010,783**	**14,615,129**
Adams	8	6	-	2	605,527	108,379
Bond	7	4	-	3	471,923	184,375
Boone	3	1	-	2	396,065	291,943
Brown	6	1	3	2	416,891	184,176
Bureau	19	8	2	9	4,071,178	1,005,737
Carroll	3	3	-	-	321,727	176,669
Cass	7	-	2	5	891,172	51,014
Champaign	36	19	5	12	7,390,620	670,295
Christian	18	9	4	5	2,500,179	201,787
Clinton	6	2	-	4	153,612	72,211
Coles	12	7	4	1	1,739,732	92,080
Crawford	5	5	-	-	125,985	34,624
De Kalb	10	4	3	3	1,315,509	314,990
De Witt	11	1	8	2	1,585,254	129,239
Douglas	15	8	4	3	2,110,443	89,705
Edgar	31	7	24	-	2,509,852	95,256
Edwards	4	4	-	-	317,062	101,501
Ford	9	3	-	6	1,623,463	107,335
Fulton	13	3	5	5	1,629,153	420,333
Gallatin	4	4	-	-	232,518	27,341
Greene	10	4	2	4	881,977	146,983
Hancock	19	11	1	7	1,395,209	362,043
Henderson	6	6	-	-	554,186	50,925
Henry	12	6	-	6	1,828,263	445,957
Iroquois	13	2	3	8	2,788,059	211,136
Jackson	3	-	2	1	132,192	9,164
Jo Daviess	3	3	-	-	63,153	-
Kankakee	21	6	5	10	2,364,926	251,469
Kendall	8	3	-	5	1,681,327	273,741
Knox	15	4	4	7	1,341,320	179,283
La Salle	22	9	-	13	5,237,565	324,956
Lawrence	3	1	-	2	113,873	35,038
Lee	15	7	-	8	2,235,478	387,397
Livingston	36	22	6	8	6,346,710	294,426
Logan	27	13	7	7	4,177,226	176,206
McDonough	13	4	5	4	1,421,662	182,118
McLean	49	27	5	17	9,660,144	549,701
Macon	26	13	8	5	4,003,023	180,379
Macoupin	13	7	-	6	1,064,943	343,748
Madison	5	2	-	3	343,104	186,863

TABLE 3.—ELEVATORS—NUMBER BY TYPE, TOTAL VOLUME OF BUSINESS, AND RETAIL SALES, 1929, BY STATES AND COUNTIES—Continued

STATE AND COUNTY	NUMBER				Total volume of business	Retail sales
	Total	Independent	Line	Cooperative		
EAST NORTH CENTRAL—Continued						
Illinois—Continued.						
Marshall	10	3	7	--------	$1,345,819	$177,958
Mason	24	1	18	5	1,933,291	30,958
Menard	11	--------	7	4	1,203,765	8,364
Monroe	4	--------	4	--------	306,102	27,173
Montgomery	7	3	--------	4	559,611	123,611
Morgan	23	6	7	10	1,960,832	225,771
Moultrie	22	15	4	3	2,897,713	105,564
Ogle	22	17	3	2	1,725,221	611,471
Peoria	10	3	2	5	1,305,770	188,042
Piatt	8	4	3	1	876,499	54,752
Pike	7	1	5	1	467,645	138,976
Putnam	6	2	1	3	924,415	102,125
Randolph	3	2	1	--------	65,645	7,983
Rock Island	3	1	--------	2	562,270	241,300
Sangamon	36	16	15	5	3,086,403	198,001
Scott	8	3	3	2	1,043,425	171,161
Shelby	5	5	--------	--------	536,872	23,312
Stark	5	2	1	2	732,725	45,943
Stephenson	4	3	1	--------	136,357	115,754
Tazewell	50	14	10	26	3,931,234	316,466
Vermilion	26	17	8	1	2,967,440	140,097
Wabash	7	4	3	--------	439,800	48,099
Warren	7	--------	5	2	661,374	85,641
Washington	9	8	--------	1	435,158	177,876
White	10	3	7	--------	449,624	43,715
Whiteside	6	2	1	3	1,216,082	324,411
Will	17	10	--------	7	2,383,692	495,238
Winnebago	3	2	1	--------	215,468	126,805
Woodford	16	9	2	5	3,585,520	312,723
Balance of State	24	9	1	14	3,012,806	995,316
Michigan total	297	133	99	65	41,995,776	9,863,432
Alcona	4	4	--------	--------	323,670	153,896
Barry	8	1	3	4	1,039,385	515,332
Bay	6	3	3	--------	554,225	38,818
Calhoun	6	4	--------	2	697,352	112,919
Clare	3	1	2	--------	279,822	57,877
Clinton	10	4	5	1	2,150,049	485,237
Eaton	12	5	4	3	1,973,260	620,710
Genesee	7	4	2	1	1,401,952	256,110
Gratiot	17	5	9	3	3,292,656	411,192
Huron	21	2	12	7	3,681,963	401,001
Ingham	10	6	2	2	1,535,461	466,899
Ionia	12	9	1	2	1,953,255	622,062
Iosco	3	1	--------	2	143,263	45,756
Isabella	8	5	2	1	1,303,232	195,538
Jackson	5	3	--------	2	417,305	100,897
Kent	10	5	--------	5	1,053,776	548,360
Lapeer	7	5	2	--------	717,664	177,731
Livingston	5	4	1	--------	581,320	97,377
Mason	4	1	3	--------	69,963	20,507
Monroe	6	3	3	--------	1,070,661	281,687
Montcalm	16	9	7	--------	1,766,087	330,843
Oakland	4	1	--------	3	354,456	92,115
Osceola	3	3	--------	--------	156,278	40,000
Ottawa	3	1	1	1	693,812	608,886
St. Clair	9	5	--------	4	876,493	184,637
St. Joseph	7	5	1	1	379,371	96,080
Saginaw	15	2	10	3	3,122,874	831,926
Sanilac	14	7	4	3	999,330	186,051
Shiawassee	15	7	5	3	3,084,706	402,739
Tuscola	23	5	14	4	3,461,784	821,860
Balance of State	24	13	3	8	2,860,351	658,389
Wisconsin total	18	13	--------	5	1,493,567	397,778
Calumet	3	3	--------	--------	393,922	111,508
Manitowoc	3	2	--------	1	209,821	63,671
Balance of State	12	8	--------	4	889,824	222,599

TABLE 3.—ELEVATORS—NUMBER BY TYPE, TOTAL VOLUME OF BUSINESS, AND RETAIL SALES, 1929, BY STATES AND COUNTIES—Continued

STATE AND COUNTY	NUMBER				Total volume of business	Retail sales
	Total	Independent	Line	Cooperative		
WEST NORTH CENTRAL						
Minnesota total	**860**	**198**	**396**	**266**	**$67,784,688**	**$10,157,605**
Becker	7	2	3	2	394,891	277,167
Benton	3	2	1	-	356,028	114,850
Big Stone	22	5	14	3	1,018,631	115,983
Blue Earth	19	4	13	2	1,340,655	142,097
Brown	16	5	7	4	1,406,211	124,144
Carver	6	1	2	3	204,982	92,674
Chippewa	18	3	9	6	1,314,591	184,929
Clay	29	5	16	8	1,962,686	280,649
Cottonwood	10	3	2	5	1,527,560	362,338
Dakota	7	2	3	2	442,643	43,565
Dodge	5	3	-	2	486,804	49,343
Douglas	10	5	3	2	427,206	101,535
Faribault	15	2	3	10	2,199,857	446,734
Fillmore	9	5	-	4	673,482	117,606
Freeborn	13	3	8	2	614,405	149,115
Goodhue	7	3	1	3	1,227,255	266,647
Grant	19	5	9	5	1,097,181	172,487
Hennepin	3	-	3	-	677,366	6,218
Jackson	10	4	-	6	1,840,497	264,305
Kandiyohi	18	6	7	5	1,098,009	161,130
Kittson	16	4	3	9	1,104,689	131,810
Lac qui Parle	21	1	12	8	1,714,567	187,523
Le Sueur	9	2	6	1	677,750	72,653
Lincoln	12	1	7	4	942,743	193,187
Lyon	28	8	10	10	2,989,045	182,064
McLeod	13	1	7	5	836,970	260,470
Marshall	23	4	10	9	1,890,142	184,914
Martin	20	4	7	9	2,099,370	410,904
Meeker	13	4	4	5	711,342	85,443
Morrison	4	1	3	-	243,355	47,956
Mower	16	7	5	4	779,083	227,783
Murray	10	3	2	5	1,176,554	129,896
Nicollet	4	-	3	1	201,826	53,995
Nobles	17	1	11	5	2,026,577	196,235
Norman	26	2	17	7	1,629,662	145,823
Olmsted	3	1	1	1	387,425	-
Otter Tail	18	8	4	6	1,124,074	179,756
Pennington	6	2	3	1	348,839	17,012
Pipestone	14	1	7	6	675,636	137,265
Polk	44	1	35	8	2,004,045	214,232
Pope	10	6	1	3	603,550	91,430
Red Lake	10	1	5	4	418,379	38,360
Redwood	29	8	12	9	3,453,477	346,456
Renville	24	3	13	8	2,163,671	378,573
Rice	5	1	1	3	470,374	133,890
Rock	23	3	11	9	1,923,804	264,792
Roseau	5	-	4	1	226,380	24,503
Scott	8	4	2	2	886,917	130,529
Sherburne	3	3	-	-	227,965	10,863
Sibley	7	3	2	2	791,119	179,317
Stearns	16	9	6	1	666,108	124,771
Steele	4	-	2	2	218,807	59,947
Stevens	13	7	3	3	1,229,685	120,756
Swift	21	6	11	4	1,496,441	143,911
Todd	5	2	3	-	139,458	7,730
Traverse	18	3	13	2	816,345	51,184
Wabasha	8	1	6	1	1,316,394	411,714
Wadena	4	-	3	1	180,745	29,308
Waseca	6	1	1	4	472,336	82,243
Watonwan	14	1	8	5	1,357,316	185,134
Wilkin	20	4	8	8	1,544,225	67,780
Winona	9	2	4	3	596,613	158,671
Wright	9	2	5	2	331,460	145,944
Yellow Medicine	16	1	6	9	1,730,008	234,766
Balance of State	10	3	5	2	648,477	202,596

TABLE 3.—ELEVATORS—NUMBER BY TYPE, TOTAL VOLUME OF BUSINESS, AND RETAIL SALES, 1929, BY STATES AND COUNTIES—Continued

STATE AND COUNTY	NUMBER				Total volume of business	Retail sales
	Total	Independent	Line	Cooperative		
WEST NORTH CENTRAL—Continued						
Iowa total	**692**	**246**	**172**	**274**	**$97,279,294**	**$14,273,928**
Audubon	3	1	2		113,797	10,050
Benton	12	5	2	5	1,575,391	261,947
Black Hawk	6	5		1	722,371	144,695
Boone	12	6	2	4	2,518,083	212,538
Buchanan	10	6	1	3	690,233	99,938
Buena Vista	11	3	4	4	1,566,635	243,045
Butler	8	5		3	693,122	259,971
Calhoun	14	3	3	8	2,487,644	135,294
Carroll	11	5	2	4	1,964,891	196,859
Cass	6	1	3	2	923,930	50,445
Cedar	6	2	3	1	547,139	233,360
Cerro Gordo	4	1	2	1	267,173	56,990
Cherokee	6	2		4	850,044	64,260
Clay	11	5	2	4	1,617,676	313,238
Clinton	4	2		2	514,142	94,105
Crawford	4	2	1	1	1,642,283	146,116
Dallas	5		3	2	844,095	20,627
Decatur	4		4		91,764	14,500
Dickinson	4		3	1	314,802	22,185
Emmet	11	3	5	3	904,360	72,292
Floyd	4	1		3	582,537	127,119
Franklin	7	2	1	4	1,201,862	328,993
Fremont	15	6	5	4	2,682,386	110,873
Greene	12	2	7	3	2,360,763	302,852
Grundy	12	4		8	1,461,484	424,695
Guthrie	10	4	2	4	1,905,613	219,839
Hamilton	15	4	1	10	3,205,315	650,651
Hancock	16	7	1	8	2,138,408	545,967
Hardin	19	7		12	2,811,287	405,168
Harrison	4	3		1	570,800	95,974
Henry	10	1	4	5	1,311,251	439,185
Howard	5		5		141,570	34,466
Humboldt	11	2	3	6	1,819,262	339,411
Ida	5	1	2	2	469,719	68,234
Iowa	7	2	3	2	564,283	39,848
Jasper	7		2	5	1,392,058	251,816
Jefferson	6	3	3		406,157	50,244
Johnson	3	1	2		47,209	18,159
Jones	3	2		1	146,400	24,200
Keokuk	4	1	1	2	249,317	89,182
Kossuth	17	4	5	8	3,254,147	391,093
Linn	5	3	1	1	538,451	144,[illegible]9
Louisa	4			4	300,959	105,743
Lyon	13	3	5	5	1,382,853	245,147
Mahaska	3	1		2	220,807	49,601
Marshall	12	7		5	1,352,644	316,240
Mills	7	6		1	1,773,479	149,555
Mitchell	9	3	3	3	793,939	248,562
Monona	13	7	1	5	2,640,087	56,077
Muscatine	4	3	1		450,940	69,747
O'Brien	17	6	4	7	2,406,006	398,580
Osceola	14	2	7	5	1,521,704	40,553
Page	4			4	866,354	65,354
Palo Alto	10	3	2	5	2,281,724	251,873
Plymouth	14	5	4	5	1,775,248	409,122
Pocahontas	12	5	1	6	2,017,773	147,704
Polk	10	2	6	2	868,414	85,044
Pottawattamie	7		6	1	489,685	
Poweshiek	4	1	2	1	661,213	207,730
Ringgold	6	5	1		134,581	26,000
Sac	7	2	1	4	1,880,461	318,767
Scott	6	3		3	674,611	211,963
Shelby	7		5	2	1,015,489	24,710
Sioux	18	6	4	8	3,018,007	543,670
Story	21	8	6	7	3,187,755	532,822
Tama	12	8	2	2	837,028	223,093

TABLE 3.—ELEVATORS—NUMBER BY TYPE, TOTAL VOLUME OF BUSINESS, AND RETAIL SALES, 1929, BY STATES AND COUNTIES—Continued

STATE AND COUNTY	NUMBER				Total volume of business	Retail sales
	Total	Independent	Line	Cooperative		
WEST NORTH CENTRAL—Continued						
Iowa—Continued.						
Taylor	3	2	-------	1	$232,900	$42,692
Union	3	1	-------	2	597,039	43,536
Wapello	3	2	1	-------	181,249	21,249
Warren	3	1	1	1	271,576	1,274
Washington	4	4	-------	-------	114,019	23,972
Webster	29	11	4	14	5,285,152	384,504
Winnebago	8	-------	1	7	1,074,468	199,516
Woodbury	19	10	3	6	2,199,431	184,203
Worth	5	3	2	-------	331,210	59,701
Wright	14	-------	5	9	2,459,225	483,486
Balance of State	18	9	4	5	1,870,410	347,046
Missouri total	**158**	**80**	**31**	**47**	**11,993,238**	**2,707,362**
Barton	5	1	4	-------	383,954	65,840
Bates	7	6	-------	1	714,548	-------
Buchanan	3	3	-------	-------	81,936	12,843
Cass	3	3	-------	-------	98,600	30,400
Chariton	7	3	1	3	417,438	19,961
Cooper	5	3	-------	2	390,571	84,963
Dade	3	3	-------	-------	127,624	17,527
Henry	3	1	-------	2	229,667	160,834
Holt	6	5	-------	1	374,267	106,267
Howard	3	2	-------	1	255,357	95,263
Jasper	7	3	2	2	268,524	18,000
Lafayette	9	6	-------	3	920,483	268,023
Lincoln	6	1	-------	5	368,254	156,355
Moniteau	5	2	-------	3	281,794	87,028
New Madrid	4	-------	4	-------	67,447	-------
Pike	4	1	-------	3	345,370	219,124
Platte	3	-------	-------	3	370,723	53,011
Ray	3	3	-------	-------	216,300	1,500
St. Clair	3	2	1	-------	110,208	14,785
St. Louis	3	-------	-------	3	153,962	50,210
Saline	4	1	2	1	153,980	41,568
Scott	5	1	4	-------	284,697	17,500
Texas	11	-------	11	-------	814,938	-------
Vernon	3	2	-------	1	77,079	1,079
Balance of State	43	28	2	13	4,485,517	1,185,281
North Dakota total	**1,491**	**259**	**819**	**413**	**136,310,504**	**8,428,272**
Adams	15	3	7	5	2,454,434	216,232
Barnes	49	10	25	14	4,768,574	661,473
Benson	47	6	30	11	2,970,847	167,608
Bottineau	59	6	42	11	4,524,979	304,201
Bowman	12	3	6	3	1,665,245	207,076
Burke	29	2	22	5	2,028,074	104,510
Burleigh	18	4	10	4	1,902,430	78,681
Cass	45	10	14	21	4,559,218	323,545
Cavalier	55	10	35	10	3,990,350	262,208
Dickey	15	2	7	6	606,935	81,593
Divide	23	3	12	8	1,882,644	79,499
Dunn	13	1	8	4	1,714,722	50,168
Eddy	11	1	7	3	1,046,355	67,034
Emmons	21	8	5	8	2,334,415	150,021
Foster	15	3	9	3	862,012	57,996
Golden Valley	9	-------	5	4	1,862,398	48,415
Grand Forks	44	8	26	10	3,092,536	191,087
Grant	18	4	12	2	1,155,358	54,091
Griggs	27	2	17	8	1,588,572	211,263
Hettinger	18	-------	11	7	3,282,000	36,888
Kidder	16	1	9	6	1,342,402	195,954
La Moure	37	11	18	8	2,645,068	233,541
Logan	20	12	3	5	1,677,942	67,120
McHenry	47	10	24	13	4,225,522	191,531
McIntosh	19	17	1	1	1,547,435	27,281
McKenzie	14	-------	11	3	1,980,817	7,824
McLean	31	7	16	8	3,929,847	98,432
Mercer	14	2	7	5	1,777,617	56,484
Morton	24	5	12	7	3,080,848	305,390
Mountrail	38	6	20	12	4,697,634	96,489

TABLE 3.—ELEVATORS—NUMBER BY TYPE, TOTAL VOLUME OF BUSINESS, AND RETAIL SALES, 1929, BY STATES AND COUNTIES—Continued

STATE AND COUNTY	NUMBER				Total volume of business	Retail sales
	Total	Independent	Line	Cooperative		
WEST NORTH CENTRAL—Continued						
North Dakota—Continued.						
Nelson	30	6	19	5	$1,683,198	$101,203
Oliver	4	1	3		175,538	1,445
Pembina	46	3	35	8	2,804,116	163,175
Pierce	25	5	17	3	1,847,016	63,374
Ramsey	47	4	20	23	3,609,212	334,476
Ransom	20	4	9	7	1,294,952	201,897
Renville	34	3	22	9	3,693,140	100,075
Richland	34	4	20	10	2,182,002	125,365
Rolette	28	2	20	6	1,677,560	75,384
Sargent	28	2	16	10	1,964,529	201,044
Sheridan	14	8	2	4	1,545,470	69,253
Sioux	5		3	2	436,423	18,773
Stark	22	5	12	5	4,115,497	52,580
Steele	17	3	13	1	1,280,573	57,456
Stutsman	50	11	26	13	4,298,423	280,819
Towner	31	8	17	6	2,399,665	173,032
Traill	33	3	20	10	3,732,774	379,499
Walsh	49	5	31	13	3,307,705	462,610
Ward	59	7	33	19	6,792,628	218,462
Wells	41	10	23	8	3,547,615	164,586
Williams	44	6	26	12	5,609,230	216,982
Balance of State	27	2	1	24	3,116,008	333,147
South Dakota total	**733**	**197**	**298**	**238**	**63,830,788**	**6,363,849**
Aurora	5	4	1		248,759	17,121
Beadle	18	3	13	2	1,157,073	75,002
Bon Homme	12	4	5	3	1,024,108	18,480
Brookings	15	5	6	4	1,034,127	211,214
Brown	51	6	20	25	3,243,419	352,362
Brule	3	1	1	1	327,710	3,401
Butte	5	1	4		291,817	29,850
Campbell	9	5	1	3	978,250	102,292
Charles Mix	18	7	8	3	2,275,302	101,131
Clark	20	4	9	7	1,089,744	185,992
Clay	7	3	2	2	841,744	43,384
Codington	20	2	12	6	959,077	117,346
Corson	12	1	5	6	1,539,745	157,390
Davison	8	2	4	2	828,548	51,601
Day	33	6	17	10	1,673,107	206,626
Deuel	16	8	5	3	1,034,428	157,817
Dewey	12	3	5	4	784,672	59,716
Douglas	9	4	2	3	1,557,090	34,731
Edmunds	17	8	4	5	1,616,161	78,504
Faulk	18	3	6	9	1,662,479	435,073
Grant	18	3	10	5	713,780	78,949
Gregory	5	1		4	1,277,802	101,737
Hamlin	14	2	5	7	1,034,765	176,101
Hand	11		7	4	736,089	129,412
Hanson	9	4	3	2	676,370	2,296
Hughes	6	1	4	1	508,017	23,111
Hutchinson	14	4	3	7	1,873,978	214,201
Hyde	4		3	1	320,206	28,703
Jerauld	8	3		5	1,036,557	52,165
Kingsbury	28	12	10	6	1,671,409	190,008
Lake	14	3	6	5	1,502,940	278,706
Lincoln	15	6	5	4	1,558,285	66,635
Lyman	8	2	6		309,357	5,850
McCook	19	4	8	7	1,681,137	40,270
McPherson	18	9	5	4	1,422,246	131,274
Marshall	20	6	9	5	1,109,698	135,123
Meade	3	2	1		399,345	21,516
Miner	12	5	5	2	479,539	106,459
Minnehaha	20	4	7	9	1,969,045	257,308
Moody	6	2	3	1	839,566	122,771
Pennington	5	1	3	1	695,532	71,561
Perkins	6	1	3	2	990,319	26,277
Potter	13	6	5	2	906,421	94,743
Roberts	32	6	15	11	1,950,867	196,389

TABLE 3.—ELEVATORS—NUMBER BY TYPE, TOTAL VOLUME OF BUSINESS, AND RETAIL SALES, 1929, BY STATES AND COUNTIES—Continued

STATE AND COUNTY	NUMBER				Total volume of business	Retail sales
	Total	Independent	Line	Cooperative		
WEST NORTH CENTRAL—Continued						
South Dakota—Continued.						
Sanborn	7	1	3	3	$782,959	$116,854
Spink	31	6	9	16	2,012,948	238,525
Sully	4	2	2		426,706	35,962
Tripp	7	5		2	1,706,430	168,398
Turner	20	6	8	6	1,886,034	200,202
Union	11	4	4	3	1,857,739	75,169
Walworth	12		6	6	2,180,556	106,045
Yankton	12	4	4	4	989,303	132,336
Ziebach	3		2	1	203,718	19,927
Balance of State	10	2	4	4	1,943,765	279,833
Nebraska total	698	228	204	266	102,298,558	9,148,957
Adams	18	2	3	13	1,586,671	109,230
Antelope	6	1	1	4	838,520	348,892
Boone	16	4	8	4	967,863	193,585
Boyd	4		2	2	520,042	81,042
Buffalo	10	2	8		635,096	43,867
Burt	6	1	2	3	1,057,557	39,213
Butler	21	4	7	10	2,924,257	225,866
Cass	17	7	2	8	2,816,363	133,833
Cedar	12	2	9	1	1,226,373	79,554
Chase	3	1		2	1,302,907	221,883
Cherry	5	1	3	1	1,246,950	291,729
Cheyenne	16	11		5	2,861,272	216,293
Clay	20	4	7	9	2,601,660	161,067
Colfax	3	1	1	1	650,423	
Custer	18	6	7	5	2,845,123	164,764
Dakota	6	3	2	1	230,260	11,635
Dawes	3	3			225,828	
Dawson	9	3	3	3	802,095	64,215
Deuel	5	2	1	2	2,176,970	113,969
Dixon	14	6	6	2	881,887	46,330
Dodge	5		2	3	687,866	99,114
Douglas	5	4	1		1,481,808	42,000
Dundy	6	1	3	2	1,283,002	67,885
Fillmore	16	6	6	4	2,445,173	233,266
Franklin	7	4		3	893,347	135,757
Frontier	7	1	3	3	1,181,849	131,387
Furnas	16	8	2	6	2,035,312	124,615
Gage	19	5	3	11	3,107,998	119,299
Gosper	3	1		2	559,045	181,651
Hall	7	4		3	937,872	14,410
Hamilton	12		6	6	4,089,689	170,102
Harlan	6	3	1	2	593,748	48,166
Hitchcock	6	4	1	1	1,647,368	124,830
Howard	6	1		5	832,973	248,384
Jefferson	13	5	2	6	1,441,297	56,226
Johnson	9	4	1	4	1,224,527	179,125
Kearney	11	4	3	4	1,055,612	52,645
Keith	6	3		3	1,517,803	54,483
Kimball	5	3	1	1	1,412,735	50,000
Knox	13	5	5	3	2,046,897	68,230
Lancaster	32	14	2	16	4,133,029	247,786
Lincoln	3		1	2	585,575	
Madison	4		3	1	725,040	50,000
Merrick	9	1	5	3	837,920	139,517
Morrill	4	3	1		496,504	108,669
Nance	6	1	2	3	486,067	138,200
Nemaha	5	1	2	2	361,663	6,995
Nuckolls	11	4	2	5	1,092,109	137,251
Otoe	23	3	10	10	2,471,943	143,686
Pawnee	6	3		3	468,106	30,242
Perkins	7	3	1	3	1,950,387	56,185
Phelps	11	3	4	4	1,204,635	219,058
Pierce	5	3	2		252,470	62,536
Platte	9	1	4	4	2,135,678	64,236
Polk	5		3	2	443,945	13,378
Redwillow	11	6		5	2,410,222	341,807
Richardson	7	4	1	2	869,626	35,027
Saline	10	3	4	3	1,601,771	177,900
Sarpy	5	3	2		712,160	39,653
Saunders	19	3	3	13	3,440,993	457,320
Seward	20	6	5	9	3,477,269	347,931

TABLE 3.—ELEVATORS—NUMBER BY TYPE, TOTAL VOLUME OF BUSINESS, AND RETAIL SALES, 1929, BY STATES AND COUNTIES—Continued

STATE AND COUNTY	NUMBER				Total volume of business	Retail sales
	Total	Independent	Line	Cooperative		
WEST NORTH CENTRAL—Continued						
Nebraska—Continued.						
Sheridan	8	6	1	1	$1,796,487	$31,815
Sherman	3	1		2	162,940	7,757
Thayer	11	2	5	4	1,291,763	53,988
Thurston	7	1	6		543,548	81,560
Valley	4	2		2	2,104,072	393,070
Washington	7	2	5		717,163	201,197
Wayne	4	3	1		87,856	10,356
Webster	11	4	2	5	1,601,002	134,424
York	20	8	5	7	2,282,662	270,988
Balance of State	21	4	10	7	2,679,915	9,148,957
Kansas total	1,187	371	501	315	181,555,913	14,161,559
Allen	5	2	2	1	540,000	62,000
Atchison	5	2		3	2,232,392	81,092
Barber	19	3	11	5	1,584,563	196,076
Barton	31	15	11	5	3,952,052	282,999
Brown	15	7		8	1,620,991	200,676
Butler	8	6	1	1	375,163	36,857
Cherokee	8	1	2	5	840,878	56,918
Cheyenne	4	3		1	1,026,763	2,310
Clark	9		6	3	2,334,143	296,739
Clay	15	8	2	5	1,988,171	200,037
Cloud	16	7	6	3	1,765,036	226,082
Coffey	5	3		2	335,820	23,000
Comanche	5		3	2	1,642,667	10,403
Crawford	10	3		7	635,446	264,536
Decatur	10	7	1	2	1,849,502	108,831
Dickinson	22	6	7	9	2,479,434	259,117
Doniphan	11	10		1	796,579	173,797
Douglas	6	3	1	2	150,978	45,624
Edwards	20	5	12	3	3,006,562	66,731
Ellis	12	1	7	4	2,857,093	235,840
Ellsworth	18	1	13	4	2,137,399	168,801
Finney	6	1	4	1	10,567,129	83,450
Ford	26	5	14	7	6,289,142	702,981
Franklin	3	2		1	162,975	30,000
Gove	10		7	3	2,120,249	114,414
Graham	11	1	7	3	1,497,550	16,578
Grant	9	1	8		3,463,321	
Gray	17	2	11	4	6,456,151	1,251,233
Hamilton	5	2	3		729,951	57,316
Harper	15	4	6	5	1,302,731	229,000
Harvey	15	3	9	3	951,428	44,467
Haskell	9	3	5	1	2,676,046	98,216
Hodgeman	8	4	2	2	1,832,559	142,937
Jackson	10	4		6	742,622	73,487
Jefferson	10	8	1	1	525,537	86,831
Jewell	12	8	1	3	1,393,693	137,863
Johnson	9	5		4	675,517	246,226
Kearny	4	2	1	1	613,982	18,507
Kiowa	15	5	8	2	2,196,101	89,095
Kingman	25	8	15	2	2,782,335	143,154
Labette	8	1	5	2	373,680	79,700
Lane	9	1	4	4	2,712,663	101,430
Leavenworth	3	2	1		138,475	4,300
Lincoln	14		12	2	1,254,244	35,848
Logan	9	1	6	2	1,465,962	116,269
Lyon	3	3			59,883	20,392
McPherson	22	6	9	7	2,111,243	263,932
Marion	13	4	2	7	2,017,781	207,039
Marshall	29	13	4	12	2,810,404	239,015
Meade	9	1	5	3	3,460,344	139,249

TABLE 3.—ELEVATORS—NUMBER BY TYPE, TOTAL VOLUME OF BUSINESS, AND RETAIL SALES, 1929, BY STATES AND COUNTIES—Continued

[(x) is used to prevent disclosure of individual operation]

STATE AND COUNTY	NUMBER				Total volume of business	Retail sales
	Total	Independent	Line	Cooperative		
WEST NORTH CENTRAL—Continued						
Kansas—Continued.						
Miami	4	3		1	$261,458	$111,926
Mitchell	15	4	3	8	2,827,600	76,892
Morris	7	4		3	679,651	177,350
Morton	9	1	6	2	2,500,332	92,000
Nemaha	9	5	1	3	812,041	125,909
Neosho	6	3		3	457,521	179,940
Ness	24	6	12	6	4,492,263	234,377
Norton	12	7	2	3	2,299,207	28,521
Osage	5	3		2	321,875	65,197
Osborne	17	6	3	8	2,385,206	369,102
Ottawa	19	6	10	3	2,295,544	216,135
Pawnee	23	2	14	7	4,631 391	785,075
Phillips	13	9		4	2,423,790	160,840
Pottawatomie	6	6			797,397	285,022
Pratt	20	3	12	5	3,012,382	219,244
Rawlins	5	1	1	3	1,023,000	4,000
Reno	26	2	17	7	2,844,520	166,401
Republic	16	10	3	3	1,063,436	43,757
Rice	26	7	13	6	2,474,273	348,029
Riley	3	1		2	488,864	128,706
Rooks	19	6	9	4	2,858,949	74,889
Rush	14		9	5	2,705,916	82,104
Russell	19	5	10	4	1,732,850	125,650
Saline	25	5	15	5	1,681,229	165,004
Scott	5	2	2	1	396,258	48,745
Sedgwick	40	15	13	12	5,284,872	483,867
Seward	10	1	7	2	2,952,435	135,525
Shawnee	10	5	3	2	811,930	128,330
Sheridan	7	3	3	1	822,579	17,905
Sherman	5		3	2	1,407,358	43,002
Smith	16	8	6	2	2,177,822	270,345
Stafford	17		11	6	2,835,313	169,546
Stanton	8	4	4		1,876,604	3,500
Stevens	10	3	4	3	2,213,948	12,008
Summer	42	5	33	4	2,024,552	106,816
Thomas	24	8	12	4	4,292,848	122,017
Trego	11		7	4	1,443,696	71,721
Wabaunsee	4	3		1	112,484	12,245
Wallace	3	1	2		375,473	69,738
Washington	17	10	2	5	2,225,983	92,890
Wichita	5	2	3		603,112	125,000
Balance of State	19	3	11	5	5,092,621	210,894
SOUTH ATLANTIC						
Maryland total	9	9			2,240,284	225,301
Queen Annes	3	3			1,288,944	82,802
Washington	3	3			139,000	28,000
Balance of State	3	3			812,340	114,499
West Virginia total	5	3		2	(x)	57,000
Jefferson	5	3		2	(x)	57,000
WEST SOUTH CENTRAL						
Oklahoma total	437	102	274	61	41,459,374	3,702,015
Alfalfa	36	10	21	5	2,518,958	249,872
Beaver	18	3	15		2,267,352	15,561
Beckham	4	1	1	2	355,326	204,479
Blaine	24	6	12	6	2,244,748	224,879
Caddo	15	4	6	5	1,655,063	417,528
Canadian	12	5	4	3	3,078,594	370,664
Cimarron	10		10		1,107,281	2,000
Cleveland	3	2	1		118,101	36,073
Comanche	8	2	6		718,286	163,680
Cotton	6	3	2	1	474,221	109,891

TABLE 3.—ELEVATORS—NUMBER BY TYPE, TOTAL VOLUME OF BUSINESS, AND RETAIL SALES, 1929, BY STATES AND COUNTIES—Continued

STATE AND COUNTY	NUMBER				Total volume of business	Retail sales
	Total	Independent	Line	Cooperative		
WEST SOUTH CENTRAL—Continued						
Oklahoma—Continued.						
Craig	4	4			$197,591	$51,431
Custer	5		3	2	1,058,114	19,288
Dewey	9	1	7	1	420,676	30,113
Ellis	6		6		979,879	107,840
Garfield	34	4	22	8	2,528,308	158,032
Grady	7	1	5	1	402,769	106,630
Grant	24	3	18	3	1,813,106	139,563
Greer	3		3		58,111	
Harper	12	2	7	3	1,461,756	43,331
Jackson	4	1	2	1	328,575	47,658
Kay	21	4	13	4	1,546,644	183,492
Kingfisher	11		10	1	1,587,040	25,796
Kiowa	11	3	7	1	742,178	93,033
Logan	6	1	3	2	512,169	9,629
Major	15	2	11	2	1,044,894	58,900
Mayes	5	2	3		283,828	1,177
Noble	8	1	6	1	1,000,373	24,024
Nowata	4	3	1		179,803	34,863
Ottawa	5	2	3		659,161	18,662
Roger Mills	5	1	2	2	230,236	96,704
Rogers	3	1	2		106,382	33,728
Texas	29	2	26	1	4,491,179	85,782
Tillman	14	3	10	1	466,227	17,000
Tulsa	6	4	2		319,602	13,507
Washita	7	2	4	1	384,628	80,042
Woods	14	2	11	1	1,465,646	97,215
Woodward	11	4	5	2	1,520,105	58,768
Balance of State	18	13	4	1	1,132,464	271,180
Texas total	**218**	**82**	**115**	**21**	**35,688,384**	**1,286,608**
Armstrong	4	1	3		738,479	30,000
Bailey	4	2	2		1,621,006	22,763
Baylor	4	2	2		146,574	5,718
Carson	13	3	8	2	2,865,849	216,591
Castro	5	2	3		1,835,890	53,117
Collin	4	3	1		768,976	
Cook	8	2	6		239,495	
Crosby	6	2	4		565,401	77,159
Dallam	4	2	2		506,444	
Dallas	3		3		53,337	
Deaf Smith	5	1	3	1	1,321,094	
Denton	8		8		367,543	23,420
Donley	4	1	3		97,063	
Floyd	10	7	3		1,566,964	185,107
Gray	9		7	2	1,162,167	
Grayson	4	2	2		274,052	45,000
Hale	10	5	3	2	2,223,380	120,976
Hansford	11	7	4		2,573,514	100,468
Hardeman	3	1	2		29,782	3,300
Hartley	3	2	1		731,452	
Hemphill	3	1	2		496,277	7,000
Lamb	4	2	2		201,766	9,543
Lipscomb	10		8	2	1,583,313	42,000
Ochiltree	6	4	2		1,684,096	24,534
Oldham	9	5	1	3	1,809,122	5,120
Parmer	11	3	6	2	1,454,852	15,600
Roberts	3		1	2	34,022	
Sherman	4	2		2	1,669,961	21,079
Swisher	5	4		1	2,082,303	12,812
Balance of State	41	16	23	2	4,984,210	265,301

TABLE 3.—ELEVATORS—NUMBER BY TYPE, TOTAL VOLUME OF BUSINESS, AND RETAIL SALES, 1929, BY STATES AND COUNTIES—Continued

STATE AND COUNTY	NUMBER				Total volume of business	Retail sales
	Total	Independent	Line	Cooperative		
MOUNTAIN						
Montana total	**512**	**41**	**422**	**49**	**$45,343,283**	**$1,956,672**
Blaine	12	2	8	2	965,705	31,170
Broadwater	3	1	2		260,776	42
Carbon	11		11		469,754	44,655
Cascade	24		22	2	1,428,793	21,084
Chouteau	33	1	30	2	3,586,726	46,061
Custer	4	1	3		292,279	22,271
Daniels	17	1	12	4	2,039,827	152,319
Dawson	15		14	1	1,351,247	52,108
Fallon	10	2	6	2	887,413	15,800
Fergus	48	4	43	1	3,284,150	187,004
Gallatin	17	2	15		1,565,133	55,429
Glacier	4		4		344,282	16,898
Golden Valley	7	1	5	1	227,293	39,109
Hill	25	1	22	2	2,854,135	58,425
Judith Basin	20	3	17		926,156	34,930
Lake	4		4		193,679	18,071
Liberty	7	1	6		876,955	19,057
McCone	6		6		495,691	15,777
Madison	3		3		143,368	31,736
Musselshell	8		8		334,153	31,388
Park	3		3		160,250	7,824
Phillips	14		12	2	1,701,060	303,337
Pondera	16	2	11	3	2,625,656	47,059
Prairie	7	1	6		640,356	11,090
Richland	14	1	10	3	1,498,633	17,241
Roosevelt	23	1	17	5	3,016,651	48,631
Rosebud	5	2	3		235,545	5,103
Sheridan	30	4	20	6	3,239,364	85,917
Stillwater	15	1	12	2	823,524	61,486
Teton	32	1	27	4	2,796,297	44,710
Toole	6		6		625,238	11,296
Valley	27	2	21	4	1,917,251	63,037
Wheatland	3		3		85,871	850
Wibaux	5	2	2	1	787,174	21,646
Yellowstone	17		16	1	913,342	61,289
Balance of State	17	4	12	1	1,749,556	272,822
Idaho total	**101**	**10**	**91**		**13,453,715**	**1,515,985**
Bannock	10		10		881,191	58,574
Bingham	3		3		359,045	89,405
Bonneville	6		6		942,946	233,704
Camas	3		3		387,968	24,787
Canyon	4		4		545,022	99,942
Cassia	6	1	5		401,266	36,573
Franklin	3		3		268,814	39,562
Fremont	10	1	9		992,464	109,529
Jefferson	8		8		478,040	63,967
Jerome	4		4		632,291	112,643
Latah	3	1	2		1,546,838	4,944
Madison	4		4		663,261	71,431
Nez Perce	3		3		192,023	16,570
Power	6		6		877,042	57,729
Teton	4		4		347,118	27,593
Twin Falls	8	1	7		2,347,820	212,509
Washington	3		3		164,902	34,196
Balance of State	13	6	7		1,425,664	222,327
Wyoming total	**18**	**9**	**7**	**2**	**2,039,728**	**507,293**
Laramie	7	1	4	2	874,020	139,528
Balance of State	11	8	3		1,165,708	367,765
Colorado total	**181**	**34**	**119**	**28**	**23,055,265**	**2,386,210**
Adams	4		2	2	317,106	36,381
Arapahoe	5		5		681,472	21,592
Baca	11	3	8		2,376,537	132,500
Bent	5		5		1,365,294	74,047
Boulder	8	1	7		713,025	70,461
Cheyenne	6	2	4		629,053	46,968
Elbert	4		3	1	329,693	28,217
El Paso	4	2	1	1	454,122	145,110
Kit Carson	14	3	7	4	1,449,238	144,372
Larimer	9	4	5		1,063,878	153,303

TABLE 3.—ELEVATORS—NUMBER BY TYPE, TOTAL VOLUME OF BUSINESS, AND RETAIL SALES, 1929, BY STATES AND COUNTIES—Continued

STATE AND COUNTY	NUMBER				Total volume of business	Retail sales
	Total	Independent	Line	Cooperative		
MOUNTAIN—Continued						
Colorado—Continued.						
Lincoln	4	3	1		$289,128	$44,498
Logan	18		13	5	2,363,662	50,145
Morgan	6		3	3	616,668	145,694
Phillips	9	1	4	4	1,856,048	190,283
Prowers	8	1	6	1	922,331	167,902
Sedgwick	4	1	3		729,825	43,500
Washington	4		3	1	384,176	13,023
Weld	29	7	19	3	3,497,204	484,482
Yuma	6		4	2	1,016,974	81,167
Balance of State	23	6	16	1	1,999,831	312,565
New Mexico total	8	5	3		3,067,053	32,314
Curry	5	4	1		2,216,231	32,314
Balance of State	3	1	2		850,822	
Utah total	6	2	4		1,162,749	10,840
PACIFIC						
Washington total	6			6	944,069	189,616
Spokane	3			3	635,566	153,445
Balance of State	3			3	308,503	36,171
Oregon total	29	2	22	5	2,272,575	343,357
Morrow	3		1	2	1,056,148	224,152
Umatilla	20	1	18	1	840,390	111,306
Balance of State	6	1	3	2	376,037	7,899
All other States	10	7	2	1	1,850,050	150,000

TABLE 4.—GRAIN ELEVATORS—NUMBER, SALES TO DEALERS, AND EXPENSES, BY SIZE OF BUSINESS, 1929

SIZE OF BUSINESS	Number	SALES TO DEALERS [1]		EXPENSES		
		Total	Average	Total	Average	Per cent of sales to dealers
Total	9,457	$934,458,920	$98,811	$42,401,398	$4,484	4.54
Independent	2,899	272,330,297	93,939	12,742,050	4,395	4.68
Line	4,017	289,367,225	72,036	14,089,345	3,507	4.87
Cooperative	2,541	372,761,398	146,699	15,570,003	6,128	4.18
$20,000 and under	875	9,500,114	10,857	1,226,459	1,402	12.91
Independent	287	3,153,393	10,987	387,209	1,349	12.28
Line	527	5,769,106	10,947	687,541	1,305	11.92
Cooperative	61	577,615	9,469	151,709	2,487	26.26
$20,001-$50,000	2,130	67,401,696	31,644	5,104,901	2,397	7.57
Independent	594	18,505,318	31,154	1,506,150	2,536	8.14
Line	1,315	42,115,009	32,027	2,900,141	2,205	6.89
Cooperative	221	6,781,369	30,685	698,610	3,161	10.30
$50,001-$100,000	2,741	173,693,233	63,369	9,804,356	3,577	5.64
Independent	918	57,791,679	62,954	3,256,099	3,547	5.63
Line	1,238	79,678,204	64,360	3,858,926	3,117	4.84
Cooperative	585	36,223,350	61,920	2,689,331	4,597	7.42
$100,001-$200,000	2,404	297,592,792	123,791	12,803,414	5,326	4.30
Independent	761	92,593,894	121,674	4,156,743	5,462	4.49
Line	694	89,308,518	128,687	3,087,034	4,448	3.46
Cooperative	949	115,690,380	121,908	5,559,637	5,858	4.81

[1] Does not include sales at retail or purchases of feed, fertilizer, implements, coal, and other supplies for members.

TABLE 4.—GRAIN ELEVATORS—NUMBER, SALES TO DEALERS, AND EXPENSES, BY SIZE OF BUSINESS, 1929—Continued

SIZE OF BUSINESS	Number	SALES TO DEALERS: Total	SALES TO DEALERS: Average	EXPENSES: Total	EXPENSES: Average	EXPENSES: Percent of sales to dealers
$200,001-$300,000	750	$158, 540, 614	$211, 387	$5, 773, 792	$7, 698	3. 64
Independent	217	45, 945, 787	211, 732	1, 678, 842	7, 737	3. 65
Line	142	31, 219, 141	219, 853	1, 083, 048	7, 627	3. 47
Cooperative	391	81, 375, 686	208, 122	3, 011, 902	7, 703	3. 70
$300,001-$400,000	305	91, 482, 185	299, 942	2, 901, 313	9, 513	3. 17
Independent	60	17, 983, 089	299, 718	558, 618	9, 310	3. 11
Line	54	16, 820, 791	311, 496	631, 721	11, 699	3. 76
Cooperative	191	56, 678, 305	296, 745	1, 710, 974	8, 958	3. 02
$400,001-$500,000	120	46, 967, 974	391, 400	1, 524, 940	12, 708	3. 25
Independent	22	9, 001, 823	409, 174	239, 808	10, 900	2. 66
Line	21	7, 936, 773	377, 942	414, 991	19, 761	5. 23
Cooperative	77	30, 029, 378	389, 992	870, 141	11, 301	2. 90
$500,001-$750,000	99	52, 942, 968	534, 777	1, 931, 329	19, 508	3. 65
Independent	30	18, 179, 269	605, 976	363, 721	12, 124	2. 00
Line	17	7, 941, 607	467, 153	916, 696	53, 923	11. 54
Cooperative	52	26, 822, 092	515, 809	650, 912	12, 518	2. 43
$750,001-$1,000,000	23	17, 760, 221	772, 184	708, 875	30, 821	3. 99
Independent	6	5, 098, 896	849, 816	138, 399	23, 067	2. 71
Line	7	5, 650, 579	807, 226	407, 595	58, 228	7. 21
Cooperative	10	7, 010, 746	701, 075	162, 881	16, 288	2. 32
Over $1,000,000	10	18, 577, 123	1, 857, 712	622, 019	62, 202	3. 35
Independent	4	4, 077, 149	1, 019, 287	456, 461	114, 115	11. 20
Line	2	2, 927, 497	1, 463, 749	101, 652	50, 826	3. 47
Cooperative	4	11, 572, 477	2, 893, 119	63, 906	15, 977	. 55

TABLE 5.—COOPERATIVE ELEVATORS [1] REPORTING GRAIN SALES SEPARATELY, 1929—BY SIZE OF BUSINESS, NUMBER, SALES, AND EXPENSES

SIZE OF BUSINESS	Number of cooperatives	SALES OF GRAIN [2]: Amount	SALES OF GRAIN [2]: Average per cooperative	EXPENSES: Total	EXPENSES: Average per cooperative	EXPENSES: Percent of sales
Total	**1, 389**	**$202, 698, 464**	**$145, 931**	**$7, 897, 639**	**$5, 686**	**3. 90**
$20,000 and under	37	341, 130	9, 220	81, 413	2, 200	28. 87
$20,001-$50,000	134	4, 103, 007	30, 619	424, 108	3, 165	10. 34
$50,001-$100,000	315	19, 574, 977	62, 143	1, 384, 157	4, 394	7. 07
$100,001-$200,000	533	64, 775, 993	121, 531	2, 877, 151	5, 398	4. 44
$200,001-$300,000	206	43, 083, 651	209, 144	1, 532, 404	7, 439	3. 56
$300,001-$400,000	98	29, 822, 364	304, 310	877, 215	8, 951	2. 94
$400,001-$500,000	33	13, 216, 790	400, 509	287, 125	8, 701	2. 17
$500,001-$750,000	25	13, 398, 072	535, 923	320, 795	12, 832	2. 39
$750,001-$1,000,000	4	2, 810, 003	702, 501	49, 365	12, 341	1. 76
Over $1,000,000	4	11, 572, 477	2, 893, 119	63, 906	15, 977	. 55

[1] Includes only those grain cooperatives which definitely reported operating an elevator and which either sold only grain or reported retail sales separately.
[2] Does not include sales at retail or purchases of feed, fertilizer, implements, coal, and other supplies for members.

TABLE 6.—GRAIN COOPERATIVES—NUMBER, MEMBERSHIP, AND SALES, 1929, BY STATES

[(x) is used to prevent disclosure of individual operations]

STATE	NUMBER OF GRAIN COOPERATIVES[1]			MEMBERSHIP REPORTED			MEMBERSHIP NOT REPORTED		SALES TO DEALERS			
					Members				Cooperatives selling grain, exclusively		Cooperatives selling grain and other commodities	
	Total	Elevators	Other	Number of cooperatives	Number	Average per cooperative	Number of cooperatives	Estimated number of members	Number	Sales	Number	Sales
United States	**3,008**	**2,541**	**467**	**1,882**	**264,871**	**141**	**1,126**	**158,766**	**1,615**	**$254,058,021**	**[2] 1,393**	**$215,174,432**
Arkansas	1		1	1	245						1	(x)
California	1		1	1	150						1	(x)
Colorado	36	28	8	21	3,323	158	15	2,370	18	3,056,005	18	3,492,287
Idaho	6		6	3	436	145	3	435			6	1,829,106
Illinois	363	293	70	181	19,968	110	182	20,020	257	40,321,957	106	14,823,669
Indiana	73	55	18	41	4,947	121	32	3,872	45	4,512,586	28	2,986,853
Iowa	336	274	62	231	31,549	137	105	14,385	226	32,119,421	110	24,509,718
Kansas	351	315	36	280	60,924	218	71	15,478	286	64,008,009	65	11,533,167
Louisiana	2		2	1	18	18	1	18			2	(x)
Maryland	2		2				2		1	(x)	1	(x)
Michigan	80	65	15	60	10,261	171	20	3,420	14	622,029	66	9,279,996
Minnesota	302	266	36	182	22,241	122	120	14,640	85	7,768,203	217	24,517,910
Missouri	74	47	27	37	4,278	116	37	4,292	26	1,812,510	48	4,527,199
Montana	57	49	8	39	5,144	132	18	2,376	19	2,685,835	33	8,260,007
Nebraska	311	266	45	235	26,139	111	76	8,436	231	36,272,161	80	19,795,951
North Dakota	429	413	16	223	24,125	108	206	22,248	85	9,618,345	344	48,946,771
Ohio	147	129	18	68	13,593	200	79	15,800	83	6,423,332	64	7,916,231
Oklahoma	92	61	31	68	11,519	169	24	4,056	80	9,056,038	12	3,265,446
Oregon	7	5	2	3	107	36	4	144	4	573,573	3	279,000
South Carolina	1	1					1				1	(x)
South Dakota	266	238	28	182	23,253	128	84	10,752	101	10,602,008	165	21,602,562
Texas	35	21	14	12	914	76	23	1,748	25	5,588,512	10	4,848,980
Washington	22	6	16	8	1,085	136	14	1,904	22	4,296,646		
West Virginia	2	2					2		2	(x)		
Wisconsin	10	5	5	5	652	130	5	650	5	637,851	5	409,427
Wyoming	2	2					2				2	(x)

[1] "Total" includes all grain cooperatives for which reports were received. "Elevators" include only those definitely reporting an elevator. A number of those listed under "Other" no doubt also operated elevators.

[2] Includes 179 cooperatives selling grain and livestock exclusively, with sales amounting to $41,733,241.

TABLE 7.—WHOLESALE TRADE IN GRAIN, 1929, BY STATES

STATE	ALL TYPES					DEALERS		AGENTS AND BROKERS	
	Number	Sales	Employees	Salaries and wages	Expenses	Number	Sales	Number	Sales
United States total	1,174	$2,573,823,162	12,099	$26,659,217	$58,627,813	972	$2,165,413,128	202	$408,410,034
Alabama	24	8,090,312	173	270,791	505,149	15	6,027,733	9	2,062,579
Arizona	5	643,058	21	24,108	51,412	4	621,258	1	21,800
Arkansas	4	1,108,624	32	36,803	71,050	2	716,061	2	392,563
California	55	62,351,056	282	605,733	1,458,311	40	50,628,403	15	11,722,653
Colorado	16	23,056,624	120	210,394	555,870	15	23,000,624	1	56,000
Connecticut	10	2,404,655	112	138,612	263,470	9	2,388,655	1	16,000
District of Columbia	2	305,000	13	17,150	26,868	2	305,000		
Florida	11	4,362,997	83	122,492	246,959	8	3,145,366	3	1,217,631
Georgia	1	390,800	1	600	1,140			1	390,800
Idaho	2	4,371,054	73	101,161	268,465	2	4,371,054		
Illinois	92	280,106,894	1,621	3,647,048	9,270,994	67	219,554,497	25	60,552,397
Indiana	47	64,400,045	280	498,044	907,142	42	56,253,122	5	8,146,923
Iowa	34	45,907,500	326	602,273	1,354,272	28	42,185,291	6	3,722,209
Kansas	68	220,008,986	396	964,549	2,305,334	62	202,918,291	6	17,090,695
Kentucky	14	5,776,030	131	177,426	411,898	14	5,776,030		
Louisiana	6	29,946,765	47	157,593	1,615,827	6	29,946,765		
Maine	8	4,941,837	68	123,947	225,536	7	3,438,087	1	1,503,750
Maryland	20	15,383,510	85	163,066	304,134	15	10,103,612	5	5,279,898
Massachusetts	27	27,288,867	256	418,749	901,582	21	21,054,205	6	6,234,662
Michigan	11	7,694,115	150	179,651	298,246	11	7,694,115		
Minnesota	121	371,441,715	1,585	3,947,593	9,614,354	114	362,068,732	7	9,372,983
Mississippi	2	136,294			19,751			2	136,294
Missouri	105	381,540,567	1,140	2,695,742	7,375,821	85	312,916,668	20	68,623,899
Montana	11	7,451,109	80	136,131	312,034	11	7,451,109		
Nebraska	45	121,912,935	436	1,026,749	2,913,544	39	100,457,307	6	21,455,628
Nevada	2	598,646	13	28,697	51,208	2	598,646		
New Hampshire	4	1,597,598	34	41,323	98,622	4	1,597,598		
New Jersey	9	3,287,267	89	172,998	278,051	9	3,287,267		
New Mexico	1	872,957	12	11,629	31,569	1	872,957		
New York	82	459,449,172	515	1,618,451	4,521,107	64	313,191,013	18	146,258,159
North Carolina	15	5,005,833	53	74,855	138,563	7	3,377,205	8	1,628,628
North Dakota	1	544,134	1	3,000	8,192	1	544,134		
Ohio	37	39,513,355	1,394	961,586	2,229,978	30	35,667,469	7	3,845,886
Oklahoma	28	24,982,612	174	252,828	694,141	26	24,170,152	2	812,460
Oregon	25	52,182,995	390	438,684	1,188,722	21	48,747,195	4	3,435,800
Pennsylvania	32	23,151,849	136	241,706	511,222	25	14,537,318	7	8,614,531

Rhode Island	2	2,344,010	42	59,667	94,543	2	2,344,010		
South Carolina	8	1,155,788	26	28,756	85,598	6	715,288	2	440,500
South Dakota	7	4,340,900	69	129,768	271,458	6	3,195,765	1	1,145,135
Tennessee	18	12,130,404	221	297,517	800,588	16	11,405,298	2	725,106
Texas	77	115,430,024	650	4,498,763	2,525,840	65	106,292,869	12	9,137,155
Utah	6	2,564,174	38	57,958	127,257	5	1,484,174	1	1,080,000
Vermont	2	745,920	12	19,516	33,641	2	745,920		
Virginia	24	5,172,145	108	173,136	391,767	15	2,753,080	9	2,419,065
Washington	27	68,608,000	170	455,648	865,447	22	58,752,477	5	9,855,523
West Virginia	3	1,341,465	58	90,429	238,679	3	1,341,465		
Wisconsin	23	57,782,565	383	735,897	2,162,357	21	56,769,843	2	1,012,722