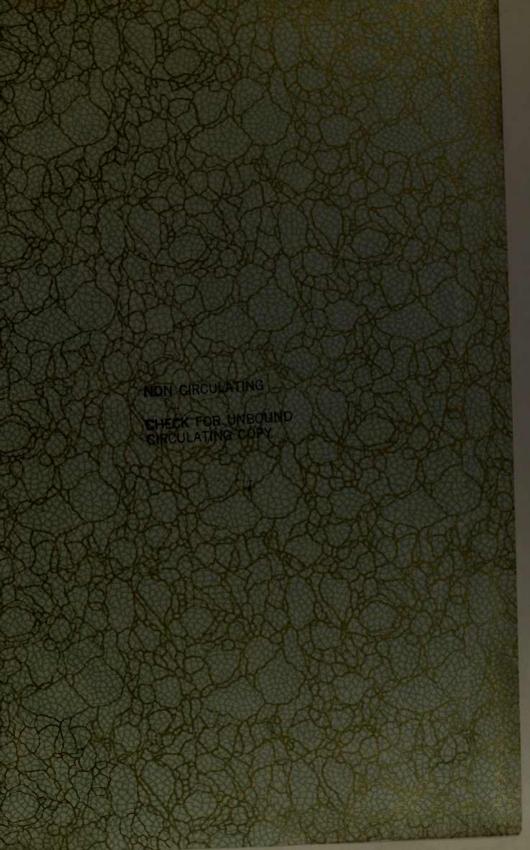
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UNIVERSITY OF ILLINOIS Agricultural Experiment Station

BULLETIN No. 315

MARKET DESTINATIONS OF ILLINOIS GRAIN

BY C. L. STEWART, L. J. NORTON, AND L. F. RICKEY



URBANA, ILLINOIS, SEPTEMBER, 1928

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MARKET DESTINATIONS OF ILLINOIS GRAIN

BY C. L. STEWART, L. J. NORTON, AND L. F. RICKEY¹

Illinois farmers market more grain than do the farmers of any other state. The movement of this grain which figures directly or indirectly in the food consumption of this country and of other countries is a proper subject of understanding by producers, dealers, and consumers alike. Farmers in particular, it is believed, will be interested in knowing to what markets their products move after they are purchased by the country elevators, for such information is needed by producers for an intelligent understanding of the problems involved in the marketing of their product.

The present study follows the three leading grains to their first market destinations and deals with final destinations only in so far as the first markets happen also to be the final markets. While this study may therefore be considered only an approach to the general subject of the routes which Illinois grains take from the points of their production to the points where they are consumed, it will be found to throw considerable new light on the direction of the movements of Illinois grain out of the state in addition to being a fairly complete picture of internal movements.

Before proceeding with the details of the present study it will be of interest to note the position of Illinois in the broader geography of grain marketing.

Government estimates for the five years 1922 to 1926 indicate that 37 percent of the corn produced in Illinois was shipped out of the county where it was grown. Comparative figures for other leading corn-producing states are: Nebraska, 28 percent; Kansas, 26 percent; and South Dakota, Iowa, and Indiana, each 24 percent. Iowa, the only state which exceeds Illinois in volume of corn produced, sends to market both a smaller proportion and a smaller total amount. The fact that Illinois markets such a large proportion of such a large total production makes it the leading state in volume of corn marketed.

During the same period Illinois shipped 43 percent of her oats out of the counties where grown, and again there were only five other states that shipped out 20 percent or more of their production: namely, Indiana, 37 percent; Iowa, 36 percent; South Dakota, 31 percent; Ohio, 30 percent; and Minnesota, 28 percent. Iowa and Minnesota both produce more oats than Illinois, but they ship out a smaller total quantity.

³C. L. Stewart, Chief in Agricultural Economics; L. J. Norton, Assistant Chief in Agricultural Economics; and L. F. Rickey, Associate in Grain Marketing Technology, Agronomy.

[September,

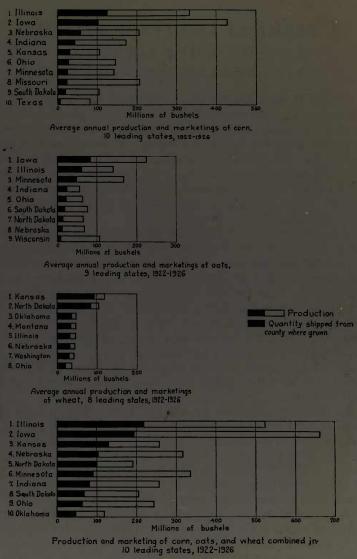


FIG. 1.—POSITION OF ILLINOIS AS A GRAIN MARKETING STATE

Illinois leads all other states in quantity of grain marketed altho led by Iowa in total production. From 1922 to 1926 Illinois led in quantity of corn marketed, was second in oats, and fifth in wheat. (Charts based on data from U. S. Bureau of Agricultural Economics, Division of Crop and Livestock Estimates.)

When it comes to wheat, however, Illinois ranks lowest among the seven leading wheat-producing states in the amount sent into market channels from the counties where grown, shipping 69 percent to market, while North Dakota sends 80 percent; Kansas, 79 percent; Washington and Oklahoma, 77 percent each; Nebraska, 76 percent; and Montana, 75 percent.

The above percentages for Illinois are much above the national averages, which stand at 19 percent for corn, 26 percent for oats, and 64 percent for wheat. Stated in another way, 6 percent of the wheat in the United States sent into market channels originated in Illinois. The corresponding percentage in the case of oats is 17, corn 46, and all three combined, 15.

The tendency of Illinois farmers to market a relatively large proportion of their feed grains rather than to retain them for local use is in response to economic advantages which the state enjoys in marketing as well as in production. Illinois, besides having a large area of land with favorable topography and fertile soils, making high yields and low production costs possible, is more favorably situated for supplying the feed grains and their products to the states to the northeast and southeast than are other portions of the corn belt having the same natural features of soil, climate, and topography.

The situation with respect to wheat is somewhat different. Altho Illinois stands third among the states in production, she stands sixth in the amount sent into market channels. The practice of using wheat in local mills in certain parts of the state, so that flour rather than wheat moves out of the community, may in part account for this situation.

When the combined totals for corn, oats, and wheat are considered, we have an estimate of 215 million bushels as the yearly average of these grains shipped out of Illinois counties during the five years 1922 to 1926. Iowa shipped out 90 percent as much as Illinois; Kansas, 60 percent as much; Nebraska, 47 percent; North Dakota, 45 percent; Minnesota, 42 percent; Indiana, 37 percent; South Dakota, 33 percent; Ohio, 30 percent; and Oklahoma, 23 percent.

SCOPE AND METHOD OF STUDY

Grain moves from Illinois country points to many markets. These markets vary for the different grains, vary widely in different parts of the state, and also shift from year to year. The Illinois Agricultural Experiment Station commenced in July, 1925, to collect facts regarding this problem. This information has been carefully analyzed and the results of the study to date are presented here. Men closely connected with the grain trade are familiar with these facts, but there are many people, farmers and others interested in the marketing of grain, who are not so familiar with them.

[September,

The grain shipping records of about 350 Illinois elevators for the two years July, 1923, to June, 1925, and about 175 for the year July, 1925, to June, 1926, were analyzed. The information for the first two years was obtained in part by personal interviews by representatives of the Illinois Station and in part by questionnaires sent to all elevators in the state. The statistics for 1925-26 were obtained entirely by questionnaires. This accounts for the smaller number of elevators from which information was secured, the number of elevators sending in written reports being about the same each year.

For convenience in summarizing, the state was divided into four districts: (1) northern, including points north of Peoria, El Paso, Gilman, and Sheldon; (2) central, including points between these and Jacksonville, Springfield, Decatur, and Mattoon; (3) southern, including the region south of this latter group of points: (4) western, including all points west of the Illinois river and south of Peoria. These divisions are shown in Fig. 2.

The relative importance of different cities and market areas as markets for grain from different parts of Illinois during these three years is shown in Fig. 2 and Tables 1 to 3. More detailed figures are given in the Appendix, Tables 9 to 16. The distribution as described here is based on information from the reporting elevators. If figures had been obtained from every elevator, the distribution might be somewhat, tho probably not significantly, different. The destinations given are, in general, the first destinations to which the grain was shipped, altho in a few cases final destinations were obtained. As the greater portion of the shipments was made to distributing rather than to consuming markets, only the general direction of the movement is indicated.

DIRECTION OF PRINCIPAL MOVEMENTS OF GRAIN

Corn. The two major channels for the movement of corn were to the north and east, largely, altho not entirely, thru Chicago and to local manufacturing centers, with a movement of lesser importance toward the south. For the state as a whole Chicago was the leading market, with Decatur, Indianapolis, Peoria, and St. Louis leading competitors; and points in the states of Ohio, Michigan, and Indiana outside of Indianapolis made up an important secondary market outlet.

Chicago was the outstanding market for shipments from the northern district. Chicago, Decatur, Indianapolis, Peoria, and St. Louis shared the shipments from the central district, while St. Louis was the principal market for the southern, and Peoria for the western district.

Oats. There were also two major movements of oats: to the north and east largely thru Chicago; and to the south, in part directly

MARKET DESTINATIONS OF ILLINOIS GRAIN

TABLE 1.—PROPORTION OF CORN SHIPPED TO DIFFERENT MARKETS FROM FOUR DISTRICTS OF ILLINOIS AND FROM ENTIRE STATE, JULY, 1923, TO JUNE, 1926

(Percentage of cars to each market)

Market or market area		District	of state1		
Market or market area	Northern	Central	Southern	Western	State
Chicago	69.8	21.1	16.8	20.5	37.5
Decatur	6.0	24.6	16.1	. 6	16.5
Peoria	8.6	15.7	. 6	70.2	12.6
St. Louis	1.1	11.0	32.6	1.9	9.8
Indianapolis	5.0	13.2	13.8		10.1
Southern points		4.5	10.1	. 1	3.5
Other Illinois points	.8	3.7	4.4	6.2	2.8
Other Indiana points	.1	2.4	1-5		1.4
Michigan and Ôhio points	6.3	3.0	3.8		4.2
Other eastern points	.6	. 5	- 3		. 5
Northern and western points	1.6			.5	. 6
Total.	100.0	100.0	100.0	100.0	100.0

See Fig. 2 for territory included in each district.

TABLE 2.—PROPORTION OF OATS SHIPPED TO DIFFERENT MARKETS FROM FOUR DISTRICTS OF ILLINOIS AND FROM ENTIRE STATE, JULY, 1923, TO JUNE, 1926

(Percentage of cars to each market)

Market or market area		District of	f the state ¹		State
Market of market area	Northern	Central	Southern	Western	state
Chicago	57.8	12.2	4.7	25.7	35.3
Decatur	.2	= -7.9	3.5		3.0
lockport	16.3	. 3	.2		9.4
Peoria	4.1	4.2	1 1	3616	5.2
St. Louis	5.6	22.6	39.2	29.1	13.8
ndianapolis	4.9	8.0	9.8		5.9
Cairo	2.7	12.6	17.7	3.9	6.7
Iemphis		12.3	7.1	1.3	5.5
ashville		6.0	5.2	1 2	2.4
)ther southern points	.5	6.5	2.6	1.2	2.7
ther Illinois points	2.1	2.9	1.9	.6	2.3
Other Indiana points	.2	2.8	7.5		1.4
Michigan and Ohio points		1.6	5		2.4
Other eastern points		1			
Northern and western points	.5	- Line		.2	. 4
Total	100.0	100.0	100.0	100.0	100.0

See Fig. 2 for territory included in each district.

TABLE 3.—PROPORTION OF WHEAT SHIPPED TO DIFFERENT MARKETS FROM FOUR DISTRICTS OF ILLINOIS AND FROM ENTIRE STATE, JULY, 1923, TO JUNE, 1926

(Percentage of cars to each market)

Market or market area		District of	the state ¹		State
Market of market area	Northern	Central	Southern	Western	oute
Chicago.	95.7	70.3	21.6	49.9	59.2
St. Louis	2.6	19.5	42.3	34.6	23.7
Indianapolis	1.0	4-0	1.3	.7	2.4
Peoria.	. 6	1.0			. 9
Other Illinois points	.1	3.0	19.4	14.8	<u>S.1</u>
Other Indiana points,		. 9	6.6		2.7
Points south of Ohio river		. 9	8.3		2.9
Points east of Indianapolis		.1	.4	S	. 2
Total	100.0	100.0	100.0	100.0	100.0

See Fig. 2 for territory included in cach district.

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MARKET DESTINATIONS OF ILLINOIS GRAIN

TABLE 1.—Proportion of Corn Shipped to Different Markets From Four Districts of Illinois and From Entire State, July, 1923, to June, 1926

(Percentage of cars to each market)

Market or market area		District	of state1		
Market of market area	Northern	Central	Southern	Western	State
Chicago	69.8	21.1	16.8	20.5	37.5
Decatur	6.0	24.6	16.1	. 6	16.5
Peoria	8.6	15.7	.6	70.2	12.6
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Other eastern points	. 6	.5	.3		. 5
Northern and western points	1.6			.5	. 6
Total	100.0	100.0	100.0	100.0	100.0

See Fig. 2 for territory included in each district.

TABLE 2.—PROPORTION OF OATS SHIPPED TO DIFFERENT MARKETS FROM FOUR DISTRICTS OF ILLINOIS AND FROM ENTIRE STATE, JULY, 1923, TO JUNE, 1926

(Percentage of cars to each market)

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Other eastern points	.8	1.1			
Northern and western points	.5			.2	4
Total	100.0	100.0	100.0	100.0	100.0

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Other Indiana points		.9	6.6		2.7
Points south of Ohio river		.9	8.3		2.9
Points east of Indianapolis		.i	.4		. 2
Total	100.0	100.0	100.0	100.0	100.0

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ated on the southern edge of the surplus-corn section, this district has a favored location for direct shipments of corn to points in southern states. Naturally its shipments have a wide distribution.

Corn. The leading markets used for corn were Chicago, Decatur, Peoria (including Pekin), St. Louis, and Indianapolis. During the years beginning July, 1923, and July, 1925, Decatur received more corn from reporting elevators than any other market, but during the intervening year was led by Chicago. The increase in shipments to Chicago, from a little less than one-sixth of the total during the first year to over one-fourth the next, illustrates how the relative importance of a market may vary from year to year. Total shipments of corn were some 20 percent larger during the second year.

In addition to these five major markets eorn was shipped to a number of other points, the more important being Springfield, Bloomington and Champaign, Ill.; Louisville, Ky.; Memphis, Tenn.; Sikeston, Mo.; New Orleans, La.; Evansville and Terre Haute, Ind.; interior points in Ohio and Michigan, and to Buffalo, N. Y. There was little direct shipment to feeders and local feed stores in Illinois or to points in the East except Buffalo.

Oats. St. Louis, the largest receiver of oats from this part of the state, drew from one-sixth to one-fourth of the reported shipments during different years. Four southern markets—Cairo, Ill., Louisville, Ky., and Memphis and Nashville, Tenn.—received from 25 to 40 percent and Chicago from 6 to 18 percent of the total shipments. Decatur and Indianapolis were other markets of less importance.

Wheat. Chicago, receiving nearly 80 percent of the shipments in 1923 and 1924 and a little over one-half in 1925, was the most important market, with St. Louis second and Indianapolis of less importance. A few other points received small shipments of wheat. The wheat of this district is largely hard or mixed and much of it is exported.

Southern District

A large number of the reports for 1923-1925 were obtained from the northwestern part of this district, which is very accessible to St. Louis, altho a good sample was included from the grain shipping area along the Wabash river, together with a few reports from other parts. St. Louis is the important market for stations that have favorable rates, but the presence of nearby deficit regions to the south and east causes grain shipments to be scattered rather widely.

Corn. St. Louis was the principal market for corn, about onethird of the reported shipments going there. Chicago, Decatur, and Indianapolis were other important markets, and some corn was shipped to other points in Illinois, to Louisville and Nashville and into southern Ohio. Shipments per elevator were 75 percent larger during MARKET DESTINATIONS OF ILLINOIS GRAIN

1924-25, when prices were high, than during the previous year. A considerable part of this increase went to Chicago, shipments to that point increasing from about one-tenth of the total in 1923-24 to nearly one-fourth in 1924-25.

Oats. The largest market for oats was St. Louis, the balance being shipped to southern points or into Indiana.

Wheat. The wheat is largely soft red winter. The principal markets were St. Louis, mills at interior points in southern Illinois and Indiana, and southern points, particularly Nashville, Tenn. Relatively small shipments were made to Indianapolis and practically none to points east of Indiana.

Western District

Peoria was the most important single market for corn and oats in this district, receiving about 70 percent of the corn and nearly 40 percent of the oats. The other important outlet for corn was Chicago, which received 20 percent of the shipments, while the balance of the oats was about equally divided between Chicago and St. Louis. Wheat went to Chicago and St. Louis in approximately equal quantities, with smaller shipments to Illinois mills and to Peoria. This section shipped more corn to small points than did the others, the products going largely to elevators in cattle-feeding sections. However, the reported shipments to such points made up only about 5 percent of the total.

FACTORS INFLUENCING CHOICE OF MARKETS

Many factors influence the choice of markets by a country elevator, but in general the shipments are made to the markets that can pay the highest price because (1) strong demands exist in the consuming or deficit area served, and (2) transportation costs are less to that market. In general, grain tends to move from surplus to deficit areas by the most economical route. Competition of marketing agencies located on alternative routes to a particular consuming territory works to this end, the market with the most favorable combination of rates and handling costs being able to draw the grain thru the route on which it is located. The movement may be modified by the character of the facilities for handling grain on the different routes, a market with a large storage capacity having advantages in handling a seasonably marketed product which a market more poorly supplied would not have. In the long run, however, markets otherwise favorably located for handling a given product tend to acquire storage and transfer facilities that will enable them to function to advantage.

The location of mills using a product as raw material also influences market movements. Location of such mills will be influenced

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not only by the relative economy of bringing in raw materials and distributing finished products but also by the relative manufacturing costs at different sites as influenced by water power, cost of electric power, water supply, labor supply and other factors.

The marketing channels created by these factors are not rigid or unchanging, for transportation costs vary from time to time and local variations in production cause shifts in the location of surplus areas and in the needs of deficit areas. A few examples will illustrate this point. (1) Where a water route is available only a portion of the year, transportation costs vary between the different seasons of the year; and (2) an abundant production of feed crops in the South reduces the necessity of bringing in corn and oats in the usual volume, and tends to reduce the movement of grain in that direction, while a crop failure in the South has the opposite influence.

These changing conditions are reflected in the net prices that can be realized in the different competing markets. While Illinois is not the most eastern of the corn-belt states, it is the most eastern state shipping corn in large quantities. Consequently Illinois has an advantage in supplying the corn and corn-products requirements of the large consuming area toward the east, both north and south. This region includes the northeastern dairy region, where corn by-products are fed in large quantities, and the southeast, where corn is used extensively as a food. The major movement of corn from Illinois appears to be to supply this eastern and southern demand in part direct and in part thru milling centers located close to producing areas.

There is a large demand for oats in the South to feed work animals. Formerly there was a large trade to eastern cities, but the decreasing number of horses has reduced this outlet materially. The United States Census Bureau reports that between 1910 and 1920 the number of horses not on farms declined from about 3.5 million to about 2.1 million, a decline of about 1.4 million. No official data are available since 1920, but the numbers have doubtless continued to decline and at present (1927) are probably not more than 1.5 million, or but little over 40 percent of the number as shown by the Census of 1910.

A comparison of St. Louis and Chicago prices illustrates how demands in these two markets are constantly altering so as to give first one and then the other a price advantage. Chicago is the gateway to the eastern markets; St. Louis to the southern. Differences in monthly prices of corn, oats, and wheat at Chicago and at St. Louis over a series of years are shown in Fig. 3. If daily prices had been used, the variations would have been greater.

From 1910 to 1926 the average differences between the monthly average *corn* prices was zero, the prices averaging the same for 45 months, being higher at St. Louis for 84 months and higher at Chicago

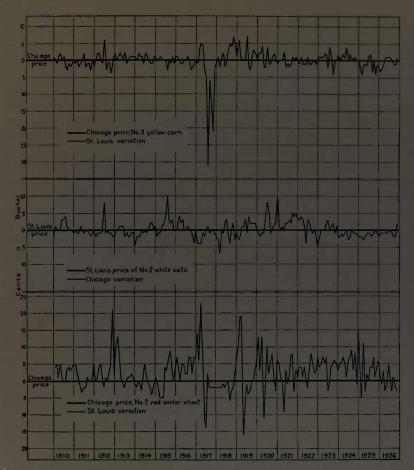


FIG. 3.—MARGIN BETWEEN MONTHLY AVERAGE PRICES OF CORN, OATS, AND SOFT WHEAT AT CHICAGO AND ST. LOUIS, 1910 TO 1926

The margins between the prices of corn, oats, and wheat of the same class and grade at Chicago and St. Louis are rather variable from time to time tho the variations are not usually large in amount. The prices of the corn and oats over this series of years have averaged about the same in the two markets while the price of soft red winter wheat has averaged 2 to 3 cents higher at St. Louis.

for 75 months. In 85 percent of the months the difference was less than 3 cents.

The average differences between the *oats* prices at the two markets for this period was also zero, the prices being equal during 48 months, higher at Chicago for 93 months and higher at St. Louis for 48 months. During 80 percent of the months the difference was less • than 3 cents.

Prices of soft red winter wheat were distinctly higher at St. Louis, the average difference being 2.7 cents in favor of that market. Nevertheless, during 55 months the Chicago price was higher. During 64 months, or nearly one-third of the period, the price at St. Louis averaged 5 cents higher than at Chicago.

These differences indicate how closely Chicago and St. Louis prices for corn and oats correspond and bring out clearly the advantages of St. Louis as a market for soft winter wheat. The great variability in these margins indicates the tendency for a shifting in the relative advantages of these markets.

From July, 1923, to June, 1926, the basic period for this study, there were 9 months during which prices of *corn* averaged the same in Chicago and St. Louis, 13 months when the prices were higher at Chicago, and 14 months when they were higher at St. Louis. There were 4 months when the price of *oats* was equal, 28 months when it was higher at St. Louis, and 4 months when it was higher at Chicago. During the 27 months the price of *soft wheat* was higher at St. Louis and for only 9 months was it the same, or lower.

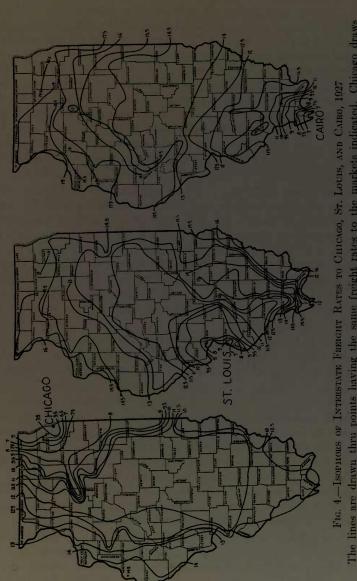
During the three years indicated, the demand in the St. Louis market territory was such that St. Louis could pay a higher price for this class of wheat and for oats and about the same price for corn. This explains why a larger proportion of oats than of corn went to St. Louis from the highly competitive area in central Illinois.

Railroad Rates1

Railroad Rates to Chicago. One basis for the close correspondence in the prices at Chicago and St. Louis is the large area in central Illinois from which both markets draw grain at equal freight rates. This is shown in Fig. 4. Freight rates for 100 pounds of grain shipped to Chicago step up irregularly to the west and south until the 11.5cent rate line is reached. The area from which rates are less than this forms a semicircle with a radius of about 75 miles to the west and southwest of Chicago, a long tongue extending about 50 miles farther south along the eastern border of the state. To the west and south is a large area with a rate of 11.5 cents which roughly covers the eastern two-thirds of the state and extends far enough south to include all points that ship corn or oats in important quantities. To the west the rates step up again, the isophors, or lines drawn thru points having equal rates, extending approximately north and south.

Railroad Rates to St. Louis. The area from which rates favor St. Louis is a little more restricted, forming a semicircle to the north, east, and south, with a radius of perhaps 75 miles. To the northeast

¹Acknowledgment of contribution to the graphic analysis which accompanies this sketch of the grain freight rate structure is made to O. L. Whalin, Research Assistant in Agricultural Economics.



The lines are drawn thru points having the same freight rates to the markets indicated. Chicago draws Louis has an 11.5-cent rate from pounds. St. .5 cents per 100 naving a rate of] grain from a large area.

n southern Illinois rates are 1

central Illinois.]

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[September,

of this is a considerable area in the central part of the state with a rate of 11.5 cents from points on railroads that have direct St. Louis connections. The line of the Toledo, Peoria & Western Railroad, cutting across the northern edge of McLean county, is the approximate northern boundary of this zone. From all of this 11.5-cent zone, except the western edge, there is a similar rate to Chicago and St. Louis. The fact that both markets draw grain at the same rate from this section tends to keep the prices in both markets in line with each other. To the north and west the rates to St. Louis increase, the isophors forming concentric circles. Directly to the west of this 11.5-cent zone the St. Louis rates are equal to or more favorable than those to Chicago. To the north and east St. Louis rates steadily step up, putting St. Louis at a disadvantage in comparison with points to the south.

Railroad Rates to Cairo. Cairo, a market used as a distribution point for much of the Illinois oats and as a transfer point for some grain to be shipped down the Mississippi river, has a 14.5-cent rate from a large part of the area from which rates to St. Louis are 11.5 cents and from a considerable region to the southeast (Fig. 4). A rate of 14.5 cents to Cairo is directly competitive with an 11.5-cent rate to St. Louis, inasmuch as the reshipping rate from St. Louis to Cairo is 3 cents. To the north and west of this competitive area the Cairo rates increase; to the south they decrease, the isophors running approximately east and west.

Railroad Rates to Indianapolis. Fig. 5 is a map of the railroad lines points on which have favorable rates to Indianapolis. Unlike the three previous illustrations Fig. 5 does not show the isophors, because favorable rates are in effect only from points on particular railroad lines. Instead it shows the location of railroad lines having the following combinations of rates: shipments thru Indianapolis, $41\frac{1}{2}$ cents or less to New York and $17\frac{1}{2}$ cents or less to Ohio river points; and $14\frac{1}{2}$ cents or less, local rate, to Indianapolis.

All of the railroads from Illinois running into Indianapolis, and some that do not, permit grain to be handled thru Indianapolis on a thru rate from the point of origin to certain final destinations. This permits Indianapolis to serve as a primary market, and also as a milling point for grain from favorably located Illinois points.

The points which ship any large quantity of grain to Indianapolis from Illinois have the following combination: a $41\frac{1}{2}$ -cent rate on domestic grain to New York and a $17\frac{1}{2}$ -cent rate to points on the Ohio river. The $41\frac{1}{2}$ -cent rate to New York is in effect from a large part of Illinois, but the advantages of Chicago and other markets located on the Lakes in connection with shipments to the East make such a rate to eastern points of little use to Indianapolis. The $17\frac{1}{2}$ cent rate to Ohio river points is in effect from only a few points other than those located on railroads with direct Indianapolis connections. The direct lines are as follows: the Toledo, Peoria & Western, the Lake Erie & Western, and the Toledo, St. Louis & Western divisions of the new Nickel Plate System; the various divisions of the Cleveland,



FIG. 5.—RAILROAD LINES IN ILLINOIS HAVING FAVOR-ABLE RATES ON GRAIN SHIPMENTS TO INDIANAPOLIS

This map shows the approximate location of sections of railroad lines with the following combinations of rates thru Indianapolis: 41.5 cents per 100 pounds to New York, and 17.5 cents to Ohio river points. From all such points there is a local rate of 14.5 cents to Indianapolis. Points having such rates are located chiefly on lines running directly into Indianapolis.

Cincinnati, Chicago & St. Louis (or Big Four); the Pennsylvania (or Vandalia); and the Cincinnati, Indianapolis & Western (now a part

of the Baltimore & Ohio System). From a number of points on the Illinois Central, the same rate is in effect to Louisville only.

A favorable rate to Ohio river points thru Indianapolis is of advantage to an elevator because this frequently is the most favorable outlet for certain kinds and classes of grain, and access to a nearby primary market has advantages to a country elevator operator.

Railroad Rates to Peoria. The Peoria map (Fig. 6) shows simply the area from which proportional rates to Peoria are 2 cents or more less than those to Chicago.

The reshipping rates on grain to eastern terminal points are usually 2 cents more from Peoria than from Chicago. Hence Peoria is on an equal basis on shipments from all points having a proportional rate to Peoria 2 cents less than that to Chicago. Such a basis of equality holds in the area bounded on the east side of the Illinois river by the 9.5-cent proportional rate to Peoria, and in the territory west to the Mississippi river and extending north in general to the main line of the Chicago, Burlington & Quincy Railroad thru Princeton and Galesburg.

Principles of Grain Rate Structure. The existing rate structure (Figs. 4 to 6) is the result of long evolution. The chief factor in determining the rates from particular points has been competition competition among railroads and between rail and water routes for business, competition among markets for advantages in handling the products of a particular area, and competition among country points in obtaining more satisfactory outlets for their grain. Since the policy of regulation of railroad rates has been adopted, the tendency has been to maintain a rather rigid structure.

For purposes of rate making, the United States is divided into three major rate districts, Official, Western and Southern. These districts were not arbitrarily created but have been gradually evolved, the aim being to group together territory in which conditions are similar so far as rate making was concerned. Illinois points east of a line drawn thru Chicago, Joliet, Peoria, Springfield and St. Louis, are in the Official territory. The balance of the state is Western territory.

Commodities are divided for rate-making purposes into a number of classes to which a common rate applies and in addition there are a large number of products with special commodity rates. Grain is one of the latter.

The rates on grain from Chicago to points in the East are certain percentages of the Chicago-New York rate, the percentages having been worked out on the basis of distances to different points and of terminal costs. The eastern rates on grain from most points in Illinois are based on the Chicago-New York rate plus the rates to Chicago, shown in Fig. 4. For instance, the Chicago-New York rate is 30 cents for 100 pounds on grain for domestic consumption. The rate from a point with an 11.5-cent rate to Chicago would be 41.5 cents to New York and rates to intermediate points between Chicago and New York



FIG. 6.—AREA FROM WHICH PEORIA HAS FAVORABLE RATES ON GRAIN

This map shows the area from which proportional rates on grain to Chicago are 2 or more cents per 100 pounds higher than to Peoria, thus placing Peoria on an equal basis with Chicago with respect to all-rail transportation costs to eastern points.

would in general equal given percentages of the Chicago-New York rate plus the Chicago rate shown in Fig. 4. Rates to Baltimore are 3 cents less, to Philadelphia 2 cents less, and to Boston and all New England points 2 cents more than the Chicago-New York rate.

On grain to be exported, the Chicago-New York rate is 7.5 cents per 100 pounds less than on grain for domestic consumption. The market differentials vary on export grain also, that to Philadelphia being 1 cent and that to Baltimore $1\frac{1}{2}$ cents under the New York rate, while Boston takes the New York rate. These differentials in favor of these markets were established as a result of a long controversy and tend to offset the advantages which New York has as a point of export for overseas trade because of the large number of established steamship lines using New York as their American port.

Rates to the south are built up on what is known as the basing point system. Relatively low rates are established to certain points both water and rail, which were determined largely by competition. Rates to other points in the South are equal to the rates to these basing points plus relatively high local rates. The effect of this is to cause these points to develop as distributing centers for goods to be consumed in the surrounding territory; this is one of the reasons why shipments of Illinois grain into the South are made to relatively few points rather than direct to all points of consumption.

Rates from St. Louis to southern points equal the rate from Cairo plus 3 cents. From points with an 11.5-cent rate to St. Louis and a 14.5-cent rate to Cairo, these two markets are on an equal basis. Points in Illinois from which Indianapolis obtains any large amount of grain usually have a rate of 17.5 cents thru Indianapolis to Ohio river points.

The farmer is interested in the particular rate used by his elevator man in determining his buying prices, local buying prices being based on terminal market prices minus freight and other costs. From most points one of the interstate rates shown in Figs. 4 to 6 is so used.

The effect of regulation, which has been of increasing importance in rate making since the movement was initiated in Illinois about 1870, has been toward greater uniformity and rigidity. All rate changes must now be approved by the Interstate Commerce Commission. The chief underlying principle governing rate changes is protection—protection of investments in railroad property, protection of the position of different markets, protection of the interests of the individual shippers and of different producing regions in their trade outlets.

Lake Transportation Costs

For shipments to the East either for domestic consumption or export, the Great Lakes water route frequently gives Chicago an advantage. For the three years 1923, 1924, and 1925 the average rate on a bushel of corn for domestic consumption from Chicago to New York was 16.8 cents, all rail, and 13.9 cents via lake and rail; corresponding rates on grain to be exported were, all rail 12.6 cents, and lake and rail 10.6 cents. Rates on other grains are comparable. This gives Chicago an advantage in moving grain east when the Lakes are open to navigation. From 1923 to 1926 shipments of corn from Chi-

cago to the east by rail averaged 32,086,000 bushels and by lake 14,750,000 bushels. The lake shipments made up nearly one-third of the total movement. During 1923, 1924, and 1925 east-bound shipments of oats from Chicago were, by lake, 7,867,000 bushels and by rail 37,358,000 bushels, lake shipments being only about one-fifth of the rail shipments, compared to one-half in the case of corn. During the same years shipments of wheat from Chicago by lake were twice as large as the rail shipments, an average of 25,126,000 bushels being shipped by lake and 12,509,000 bushels by rail.

In cases where the combination lake and rail rates are equal to or more than the rail rates, the advantage of Chicago as a shipping point disappears. Interior points west of Buffalo are not influenced by the lake shipments to the same extent and more direct shipments are made. Most of the rail shipments to Buffalo from interior Illinois points were made during the season when the Lakes were closed.

The large volume of hard wheat going to Chicago indicates that the lake route furnished the cheapest transportation for moving out the 1923 and 1924 wheat crops. Anything that tends to raise costs on the Lakes or to lower costs by an alternative route, the Mississippi river, for example, would tend to shift the direction of this movement. Improvement of the all-water route to the Atlantic coast would tend to increase the advantage of Chicago in handling Illinois wheat, while improvement of facilities and the lowering of costs of shipment on the Mississippi would increase the advantage of St. Louis and Cairo.

Mississippi River Transportation Costs

The Mississippi-Warrior Service (otherwise known as the Federal Barge Line) handled about 6,000,000 bushels of grain, chiefly wheat, out of St. Louis and Cairo, the principal destination being New Orleans, during the river seasons of both 1925 and 1926. Data furnished by Mr. J. P. Higgins, operating manager, were as follows:

	From S	t. Louis	From	Cairo	T_{c}	otal
	tons	bushels	tons	bushels	tons	bushels
1923	148,665		77,145		225,810	
1924	104,813		90,149			
1925	82,963	2,879,348		3,729,191		
1926	166,014	5,712,914	10,188	354,240	176,202	6,067,154

Rates of 11.5 cents for 100 pounds, or 6.9 cents a bushel, from St. Louis to New Orleans, and 10 cents for 100 pounds, or 6 cents a bushel, from Cairo, were in effect during this period.

The comparative costs, not including transfer costs, of shipping export wheat from a point in central Illinois by the Chicago-New York or by the St. Louis-New Orleans route were approximately as shown on the following page.

	19	25	19	26
Origin of shipment.	St. Louis cents	Chicago cents	St. Louis cents	Chicago cents
Freight from local station	6.9	6.9	6.9 -	6.9
St. Louis to New Orleans via river	6.9		6.9	
Chicago to New York, lake and rail				
export		11.0		12.2
New Orleans to Liverpool ¹	-12.0		14.0	
New York to Liverpool ¹		7.0		9.0
Total	25.8	24.9	27.8	-28.1
(¹ Foreign Crops and Markets 14, 1	350. Marc	h, 1927.)		

Excluding transfer costs, which would be slightly higher by the Chicago-to-New York route, because of the one additional transfer necessary at Buffalo or some other Lake Erie port, the charges were nearly 1 cent higher by way of St. Louis in 1925, the lower charges necessary to reach the seaboard being offset by higher costs from New Orleans to England. In 1926 the increases in the lake freights shifted the balance slightly in favor of St. Louis.

The all-rail export rates are higher than these, being equivalent to 14.7 cents a bushel from Chicago to New York and 10.8 cents from St. Louis to New Orleans. The lower rate from St. Louis is approximately offset by the higher rate from New Orleans to England.

From the area having a 14.5-cent rate to Cairo and an 11.5-cent rate to St. Louis, an area which includes much of central Illinois, the cheaper route to New Orleans would be by St. Louis unless higher handling costs absorbed the difference of 1.5 cents in favor of St. Louis on the total rail and river freight. From points with a 14.5cent rate to both St. Louis and Cairo the lower barge rate gives the latter an advantage on grain to be shipped by water to New Orleans.

Factors Other Than Transportation Costs

Relative costs, chiefly transportation, are of outstanding importance in determining market movement. Other factors which may be of influence are: (1) location of mills using grain as raw material; (2) available storage space; (3) size of markets, and (4) services furnished by terminal market firms. The two factors mentioned first, relative costs and location of manufacturing plants, are the chief explanation of the relative importance of the different markets for Illinois grain.

Location of Plants Using Grain as Raw Material. This factor is significant in all the important markets for Illinois corn. The percentage of corn receipts not reshipped for the two years beginning November 1, 1923, were as follows: at Chicago. 51 percent; at Indianapolis, 64 percent; at Peoria, 42 percent; at St. Louis, 38 percent. At Decatur from July, 1924, to the corresponding date in 1925, only 7 percent of the receipts were inspected for shipment, a fact which indicates that 93 percent of the receipts were used locally. 1928]

The location of a cereal plant at Lockport explains the importance of this point as an oats market. Flour mills at points in southern and western Illinois similarly influence wheat shipments.

Available Storage. When there is a large movement of a crop at harvest time the market with available storage space may have an advantage. Chicago, with a reported elevator capacity of 52 million bushels, has more storage space available than any of the other markets considered here.

Size of Market. Probably because of size, Chicago and, to a lesser extent, St. Louis and Indianapolis, attract some grain. A large market, in theory at least, should be able to absorb varying quantities of grain of different grades with smaller price fluctuations than a small market. A smaller market can overcome this handicap by buying grain on bids with discounts agreed upon in advance.

Services of Terminal Agencies. Services furnished to local elevators or grain dealers probably influence the movement of grain. Many elevators obtain market information from local offices of terminal grain firms. Chicago has an advantage in this respect because its future market makes possible the maintenance of branch offices of certain of its grain firms at many downstate points which are in close contact with a group of local elevators. Markets located in the midst of producing regions, such as Decatur and Peoria, have certain advantages from the close and direct contacts that grain buyers may have with shippers in the vicinity.

AREAS FROM WHICH DIFFERENT MARKETS DREW GRAIN, 1923 TO 1926

The above discussion indicates that a variety of markets compete for shipments of Illinois grain. Which market is used is determined largely by the relative prices that can be netted for grain, and this in turn depends on the relative prices in each market and the freight rates and connections.

Chicago Dominates the Market in Northern Illinois

The advantages of Chicago as a market for Illinois grain include the following: (1) location on Lake Michigan, which gives an advantage in rates to the east during the season in which the lakes are open; (2) favorable railroad connections; (3) a freight-rate structure which permits shipments from central Illinois to go thru Chicago and east by rail at the same rate as tho such shipments were made direct to eastern points; (4) a large local consuming demand, the relative amount of which is indicated by the following percentages of the receipts at Chicago which were used locally from 1921 to 1926: corn, 50; oats, 27; wheat, 18; (5) the large amount of available storage capacity, reported at 52 million bushels in July, 1926.

Chicago drew corn from all the surplus-producing section of the state except the lower Wabash valley, altho shipments from some of the railroad lines with direct eastern connections, such as the Big Four from Peoria to Danville, were rather small. From the northern area about 70 percent of the reported shipments went to Chicago and from the rest of the state an average of about 20 percent.

Compared with this dominance as a corn market Chicago was less important as a market for Illinois oats, being the reported destination for about 60 percent of the oats shipments from the northern area, a little over 10 percent from the central, 5 percent from the southern and 25 percent from the western.

Chicago was the principal destination for shipments of hard wheat from all parts of the state, being reported as the destination each year in the case of practically all shipments from the northern district, about 70 percent from the central, 50 percent from the western, and about 20 percent from the southern.

From this it may be concluded that Chicago dominates as the grain market for northern Illinois, but in the balance of the state meets keen competition from other markets. In this more competitive area Chicago has the greatest advantages in the case of hard wheat, followed by corn, then by oats, and finally by soft wheat.

St. Louis Ranks Second as Market for Illinois Grain

On the whole, St. Louis ranks second as a market for Illinois grain. Its location at a converging point for railroads from the northeast and from the southeast, its favorable rates to southern points, the availability of river transportation to New Orleans, the presence of mills nearby, and the possession of a volume of receipts large enough to make a satisfactory consignment market are some of the reasons for the importance of St. Louis, particularly as a distributing point to the southeastern states. The necessity for using all-rail rates for eastern shipments, and the lack of any large amount of storage capacity are limiting factors.

The grain requirements of the St. Louis market were reported as ealling for about one-third of the corn shipments from the southern Illinois district, and about one-tenth from the central district of the state but for practically none from the northern or western district. These requirements were satisfied by the elevators along the southern fringe of the corn-shipping sections.

St. Louis finds it necessary to come farther north, however, to supply the oats which its trade requires, drawing about 40 percent of the total shipments from the southern district, 25 percent from the central, 20 percent from the western, and 5 percent from the northern.

MARKET DESTINATIONS OF ILLINOIS GRAIN

There was a marked tendency for all soft wheat shipped from points on railroads entering St. Louis from the north to move to that market first. St. Louis drew only scattered shipments from the northern area, a little over one-tenth of the total the first two years, and in 1923-1926 one-third of the total from the central district, about onethird from the western and about two-fifths from the southern. Except in 1925 most of this wheat was either soft or mixed.

Indianapolis Draws Grain From Eastern Illinois

The bulk of the grain going to Indianapolis from Illinois points eame from stations on railroads with direct Indianapolis connections, such as the Lake Erie & Western, the Cincinnati, Indianapolis & Western (now a part of the Baltimore & Ohio System), the Pennsylvania, the Big Four, and the Toledo, Peoria & Western.

From the northern area Indianapolis drew about 5 percent of the shipments, largely from the Big Four, Illinois Central, and the Wabash; from the central area about 12 percent of the total but about 50 percent of the shipments from lines with favorable connections; and from the southern area about 10 percent, chiefly from points on the Big Four. Apparently the Indianapolis market has outlets that put it in a position to attract considerable corn from any point in the eastern part of Illinois which has favorable rates and connections.

Indianapolis drew a small amount of oats from Illinois. Scattered shipments were made quite generally from lines in the northern area, but from the central and southern areas shipments were largely confined to stations located on direct lines. From three particularly favored railroads about one-third of the oats went to Indianapolis.

Shipments of wheat were largely confined to the lines having direct connections and the proportion of wheat shipped from them to Indianapolis was less than for either corn or oats. Elevators on the three lines that shipped about one-half of their corn and one-third of their oats, shipped only about one-fifth of their wheat to Indianapolis.

Manufacturing Plants at Peoria Attract Grain

Peoria, with which has been included Pekin, was of primary importance as a receiver of corn, and also an important outlet for oats from western, northern, and central points having favorable rates and connections. Manufacturing plants using corn for various industrial uses are located in this market area. A large part of the grain from elevators using the Illinois river as a means of transportation goes to Peoria. No data were obtained as to the amount of such shipments.

Shipments of corn to Peoria amounted to about 70 percent of the shipments from the western district, 16 percent of the shipments from the central, and but from 5 to 10 percent of those from the northern.

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Oats shipments amounted to about one-third of the total from the western and a little less than 5 percent from the northern and western districts.

Corn-Products Plant Chief Factor at Decatur

The importance of Decatur, which is indicated to be one of the five leading markets for Illinois corn, is due principally to the location there of a large corn-products plant, and secondarily, to its development as a distributing point for grain.

This market was reported as handling about 25 percent of the corn shipments from the central area during each year, as well as a considerable quantity of eorn from conveniently located points in other areas. It is probable that a small part of the corn which was credited to Decatur was not shipped there but was sold to Decatur firms. The records of the elevators did not always indicate the point to which the grain was shipped. A large part of this grain, however, was either used in Decatur or inspected there. A smaller amount of oats than of corn was sold thru this market, and the territory from which the oats were drawn was much more limited. Practically no wheat was shipped to Decatur.

Lockport Draws Oats From Northern Illinois

Lockport ranked next to Chicago as a market for oats from northern Illinois. The presence of a cercal manufacturing plant in this market is the explanation. It is probable that a part of these oats was reshipped to Chicago and other points.

Movements to Other Market Points in Illinois

Chicago, Decatur, Lockport, and Peoria have been discussed. The bulk of the Illinois shipments indicated as going to St. Louis actually went to East St. Louis, but as the sales were made in St. Louis, they have been accounted for at that market. Cairo has been included with the southern markets because of its location.

The direct movement of corn and oats from reporting elevators to points in Illinois other than those mentioned was comparatively light. Springfield uses considerable quantities of white corn for manufacturing purposes, supplied from nearby points. Bloomington and Champaign handle some corn, chiefly from nearby points. From all parts of the state there is a small movement of corn to feeders, and to local elevators in areas that do not produce sufficient grain for local use. Such shipments were largest in the western Illinois district, where livestock feeding is extensively done, and were also of some importance in southern Illinois, but they were of small importance in northern and central Illinois. Shipments of oats to other Illinois points, altho made from all parts of the state, were relatively small.

MARKET DESTINATIONS OF ILLINOIS GRAIN

Shipments of wheat to other than terminal markets were of some importance in the central and of considerable importance in the southern and western sections. In southern Illinois especially, there was a large movement to Illinois mills. These made up the second largest reported outlet for soft wheat, St. Louis being the largest outlet.

Southern Markets Furnish Important Outlet for Oats

Under this designation are grouped Cairo, Ill., Louisville, Ky., Memphis and Nashville, Tenn., and a number of other points of which New Orleans is perhaps most important. These markets furnished an important outlet for oats and one of less significance for corn and soft red winter wheat. Cairo and Memphis were the most important.

Direct shipments of corn to these points amounted to about 5 percent of the total shipments from the central Illinois district and about 10 percent from the southern. Direct shipments of wheat amounted to about 8 percent of the total from the southern district. About 5 percent of the total oats shipments from the western and northern districts and about 35 percent from the central and southern districts went to these points.

Corn Chief Grain Sent to Eastern Markets

The only market east of Illinois that has been discussed is Indianapolis. The other markets were grouped as other Indiana points (Indiana outside of Indianapolis), Ohio and Michigan, and other eastern points, among which Buffalo is the most important.

The direct movement of grain to all these points taken together is not large, shipments of corn being most important. By sections the percentages of the total shipments into this territory were as follows: northern, 7 percent, chiefly to Battle Creek and other interior Michigan points; central, 6 percent, about equally divided between Indiana points outside of Indianapolis (chiefly Terre Haute), and points in Ohio and Michigan, with a small movement to Buffalo, particularly in 1924-25; southern, 5 percent, into southern Indiana and Ohio; and western, none. The shipments were widely scattered from the northern area, but from the others were more largely confined to the railroads with their own lines into the East, such as the Wabash or the Big Four.

The direct eastern movement of oats was smaller. By areas the proportions so disposed of were as follows: from the northern district, 4 percent, chiefly to Michigan points, with a little less than 1 percent of the total going to Buffalo; from the central district, 4 percent; and from the southern district, 8 percent, chiefly to points in Indiana.

There was a small movement of wheat from southern Illinois direct to mills in southern Indiana, but shipments east of Indiana were negligible.

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Northern and Western Points Attract Little Grain The movement of grain to the north and west was very small. A few cars of corn and oats moved from the northern area to Clinton, Ia., and into Wisconsin.

CHANGES IN MARKETS FROM 1923 TO 1926

From July, 1923, to June, 1926, no marked shifts took place in the markets used by Illinois elevators for grain. Comparative destinations from elevators for which reports were obtained for all of the three years are shown in Figs. 7 to 9. There was a noticeable tendency for the markets used to vary more from year to year in the southern part of the state than in the northern.

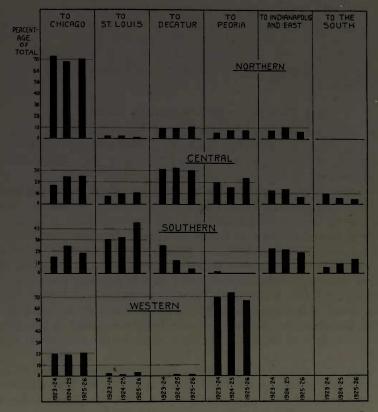


FIG. 7.—PROPORTION OF CORN SHIPPED BY IDENTICAL ELEVATORS TO IMPORTANT MARKETS BY YEARS, 1923-24 TO 1925-26

There were few changes in the markets for coru used by elevators in northern and western Illinois, but many variations from year to year by those in the central and southern sections of the state.

MARKET DESTINATIONS OF ILLINOIS GRAIN

Corn. The elevators located in the central area shipped a larger proportion of their corn to Chicago in 1924-25 and 1925-26 than in 1923-24. A similar tho smaller increase was made in shipments to St. Louis. During both of the later years shipments to southern points were smaller, and in 1925-26 the shipments to all points east of Illinois declined because of the large corn crops of Ohio and Indiana which reduced the market for Illinois corn in the East. Shipments from southern Illinois to St. Louis and to the south increased particularly in 1925-26, accompanied by a decline in shipments to Decatur.

Oats. Shipments of oats to Chicago from the northern district fell off gradually during these three years and shipments to Indianapolis and eastern points increased correspondingly.

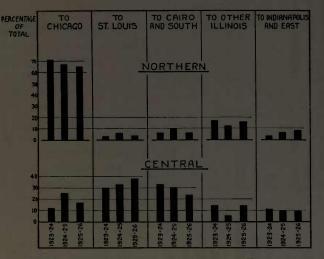


FIG. S.—PROPORTION OF OATS SHIPPED BY IDENTICAL ELEVATORS TO IMPORTANT MARKETS BY YEARS, 1923-24 TO 1925-26

From the northern district there was a tendency for oats shipments to Chicago to decrease, and those to Indianapolis to increase during this three-year period. From the central district shipments to Chicago increased irregularly and to St. Louis steadily increased, while shipments directly to southern points fell off.

In the central district the markets used for oats varied considerably from year to year. Shipments to Chicago, altho only 12 percent of the total in 1923-24, increased to 25 percent in 1924-25 and declined to 17 percent in 1925-26. Shipments to St. Louis increased each year over the previous year, direct shipments to the southern markets showing corresponding declines. Shipments to other Illinois points, principally to Peoria and Decatur, and also to Indianapolis and other points east of Illinois, declined in 1924-25 as compared with the previ-

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ous year but increased again in 1925-26. The destinations of oats from the southern district were even more variable.

Wheat. There was a definite tendency for shipments of wheat to Chicago from central and southern Illinois to decline, there being corresponding increases in shipments to St. Louis, particularly in 1925-26. This shift indicates the flexibility of the market outlets for grain from this region.

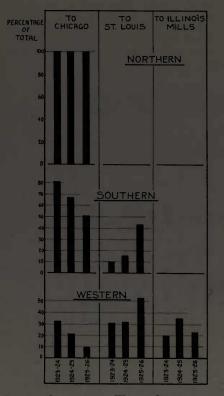


FIG. 9.—CHANGES IN WHEAT SHIPMENTS BY IDENTICAL ELEVATORS TO IMPORTANT MARKETS BY YEARS, 1923-24 TO 1925-26

The outstanding changes in wheat destinations during the three years 1923-24 to 1925-26 were the decrease in shipments to Chicago and the increase in shipments to St. Louis from the highly competitive area in central and southern Illinois. COMPARISON OF MAR-KETS USED BY FARMERS AND PRIVATELY OWNED ELEVATORS, 1923 TO 1926

To answer the question whether the farmers' elevators utilize these different markets as extensively as elevators privately owned and operated, a comparison was made between the destinations given for the grain shipped from the two types of elevators.

Both farmers' and private elevators used a wide variety of markets and there were no verv marked differences between the two groups. Individual elevators in both groups utilized more distant markets to a greater extent than did their neighbors. There was, however, a tendency for the privately owned elevators, as a whole, to distribute their grain more widely than the farmers' elevators and to make less use of the larger primary markets.

The markets used by the two groups for shipments of corn and oats from these se-

lected sections are indicated in general in Tables 4 and 5. It will be noted that as compared with privately owned elevators, the farmers'

s' AND	
RMER 24-25	ted)
4.—Comparative Destinations of Coin Shipped by Farmens Private Elevators From Selected Areas of Illinois, 1924-25	(Percentage of cars from each type of elevator to market indicate
CABLE 4CON PRIVATE	

Location of points from which shipments were mude on lines indicated	Chi	Chicago	Othe nois 1	Other Illi- nois points	St. J and	St. Louis and south	Indiana Michiga and caste points	Indiana, Michigan and castern points	Iowa Wisc	Iowa and Wisconsin
	-	Ъ	H	Ъ	H	4	4	-	4	A
C. B. & O.										
North of Peoria	85	87	n	2	:	01	2	11	5	:
Tast of Decatur	t-	9	30	IS	13	6	48	66		÷
Gilman-Springfield	53	25	29	44	15	10	-	61		
Jilman-Mattoon	26	38	41	36	20	6	12	16		: :
Champaign-Havana	38 44	62	31	22	:0 m	21 3	:01	44	:	:

= shipments from farmers' elevators; P = shipments from privately owned elevators.

TABLE 5.—Comparative Destinations of Oats Shipped by Faimers' and Private Elevators From Selected Areas of Illinois, 1924-25

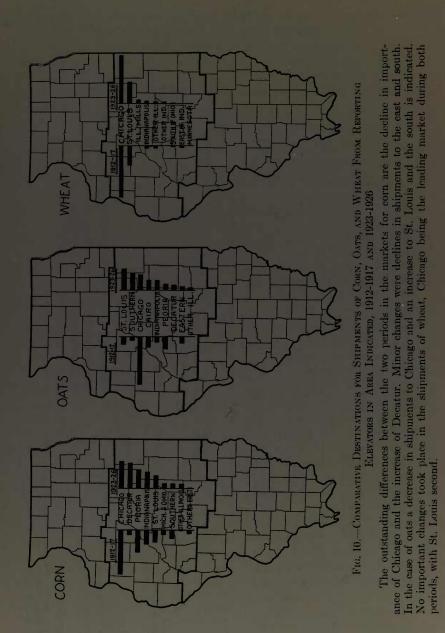
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F = shipments from farmers' elevators; P = shipments from privately owned elevators *Less than .1 percent.

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MARKET DESTINATIONS OF ILLINOIS GRAIN

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elevators consistently shipped a larger proportion of their corn to St. Louis and southern points and a smaller proportion to Indiana and other states east of Illinois. Neither group consistently led the other in shipments to Chicago or other Illinois points.

In the case of oats no uniform tendency for either class of elevator to use any of these groups of markets more commonly than the other is to be noted.

In the case of wheat shipments, there were not sufficient differences in destinations used to warrant the use of a table to show them in detail.

CHANGES IN MARKETS BETWEEN 1912-1917 AND 1923-1926

In 1917 the Federal Trade Commission made the most complete survey of the grain trade that has yet been made in the United States. Comprehensive information was obtained from country elevators for a large number of points, including markets used for grain for each year from 1912-13 to 1916-17. At the request of the Illinois Station, the Bureau of Agricultural Economics, U. S. Department of Agriculture, retabulated the results reported to the Federal Trade Commission by the Illinois elevators. A summary was furnished to the Station for the belt of counties across the center of Illinois, as shown in Fig. 10, extending from Henderson, Knox, Livingston, and Iroquois counties on the north, to Hancock, Scott, Christian and Edgar counties on the south. The markets used for grain from reporting elevators were distributed each year as shown in Tables 6, 7, and 8.

From this area grain is now shipped to many markets, and the same was true in the earlier period. Some significant changes have taken place in distribution, however. The most important of these are: (1) the decline in relative importance of Chicago and eastern markets as destinations for both corn and oats, (2) the growth of Decatur as a market for corn, and (3) the growth of St. Louis and the southern points as markets for oats. Presumably the belt in question has been subject to more change than areas north of it, largely as a result of the more northerly reach of the demand for oats from the South expressed thru St. Louis, Indianapolis, and otherwise, and as a result of the growth of Decatur and other corn-milling points in this belt.

Corn. Chicago and Peoria were the two most important markets for reported shipments during this earlier period. Markets of lesser importance were St. Louis, Indianapolis, and southern points. Of still less importance were Decatur, Ill., Buffalo, N. Y., and points in Ohio and Michigan.

The two sets of figures are not for identical elevators. A comparison of the two series, however, will at least suggest, even if it does not definitely measure, the changes that have taken place. The pro-

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	Minn. Iowa Wis.
x	Others east
ILLINOI	Buf- falo
ENTRAL	Mich. and Ohio
From C	Other Ind.
ARKETS	Others south
RENT M tet)	Mem- phis
) Dirfe each mark	Cairo
YEAR TO	Louis- ville
HIPPED EACH YEAR TO LUFFERENT MARF (Percentage of cars to each market)	Other 111.
SHIPPE) (Pe	Pekin, Peoria
RTION OF CORN SH	De- catur
ORTION (India- 11apolis
PROPC	St. Louis
l'ABLE 6.	Chi- eago
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Iowa Wis.	°:::**:****	
Others	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
falo	9989999 980500694	
and Ohio	10101010141010400 00004400000	
lnd.	1.0 4.1 4.1 4.1 7 8.0 8.1 8.1 8.1 8.1 8.1 8.1 8.1 8.1 8.1 8.1	
south	1.5 1.0 1.3 1.5 1.5 1.5	
phis	1.22	
Cairo	111233339011	
ville	1.49 1.49 1.49 1.49 1.49 1.49 1.49 1.49	
UIII.	4.0.01.0 6.0.4.01.4.10.00.0.4	
Peoria	14.1 15.8 20.2 23.0 19.3 18.7 13.2 15.5	
eatur	2.9 33.1 23.3 23.3 23.3 23.3 23.3 23.3 23.3	
muna	9.2 11.7 14.1 14.1 14.8 17.5 16.1 16.1 16.1 16.1	
Louis	10.2 12.8 5.9 9.6 10.6 10.6 11.3	
cago	41.9 38.9 34.0 34.8 34.8 34.8 384.8 384.8 384.8 384.8 384.8 25.9 27.4 25.9 25.9	
Year	1912-13 41.9 1912-13 38.9 1913-14 38.9 1915-16 38.9 1915-16 38.9 1915-16 38.9 1915-16 38.9 1915-16 38.9 1915-17 38.3 1912-26 27.4 1925-26 25.0 1925-26 25.0 1925-26 25.0	

Minn.	Wis Iowa	* :::::::::::::::::::::::::::::::::::::
	Other east	ल्न * * = : : : : : : : : : : : : : : : : :
	Buf- falo	1.6 1.6 1.6 1.5 1.3 .1 .1 .1
	Mich. and Ohio	2.5 2.6 2.6 2.6 2.0 2.0 1.0 1.0
	Other Ind.	1.7 1.7 1.7 1.7 2.2
	Other III.	2.1 2.3 2.1 2.1 2.1
	Pe- oria	$\begin{array}{c} 12.1\\ 14.3\\ 15.8\\ 15.8\\ 11.2\\ 7.0\\ 7.0\\ 8.5\\ 7.4\end{array}$
	Deca- tur	2.886.60 * *: :
	Loek- port	::::::::::::::::::::::::::::::::::::::
	Others south	2.5 2.5 1.9 1.9
	New Orleans	2.
	Nash- ville	C
	Mem- phis	3.8 2.0 2.0 2.0 2.2 6.9 8.9 8.9 8.9
	Cairo	10.8 13.2 9.1 14.3 11.1 13.7 13.2 13.2 13.2 13.2 13.2
	Louis- ville	2.1 1.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1
•	ian- apolis	6.7 6.2 6.2 6.7 7 7.7 1 1.2 10.7
-	St. Louis	9.0 9.7 6.6 9.6 9.6 23.2 23.2 23.0 23.0
	Chi- cago	46.9 45.6 52.4 60.9 50.9 11.8 18.9 18.9 19.1 16.6
	Year	1912-13 1913-14 1913-14 1914-17 1915-16 1915-17 1912-17 1923-26 1923-26 1923-26

TABLE 7.—PROPORTION OF UATS SHIPPED EACH YEAR TO DIFFERENT MARKETS FROM CENTRAL ILLINOIS

*Less than .1 percent

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portion of reported shipments of corn to different markets for the two periods were as follows:

	1912-1917 <i>percent</i>	1923-1926 percent			1923-1926 percent
Chicago	38	23	Other Illinois		
			points	(1)	3
Peoria	19	16	Southern points	7	4
Indianapolis	12	14	Other Indiana, Ohio, and Mich-		
			igan points	6	5
St. Louis	10	11	Eastern points	- 3	(1)
Decatur	4	22	Points in states		
			north and west	(1)	(1)

¹Less than 1 percent.

Some important changes are to be noted. The decline in shipments to Chicago, the increase in shipments to Decatur, and the declines in the comparatively small shipments to southern and eastern points are marked. The indicated decline to southern markets may be due to greater uses of intermediate markets or to an actual decline in consumption of corn in that region.

Oats. The disposal of oats has changed even more strikingly. In the earlier period Chicago was reported as the market for over 50 percent of the shipments while in the later period for but one-sixth. This decline has been offset by increases in shipment to St. Louis, Indianapolis, Decatur, and to the south. Shipments to Peoria and to Lake Erie ports and points farther east declined. Cairo was of about equal importance during both periods in spite of a considerable increase in shipments to all southern points.

These changes indicate a shift in the market for the oats of this competitive territory of central Illinois, the South having gained at the expense of the East. The explanation is the decline in the consumption of oats in the East which is due to substitution of motor for horse power.

Comparative oats figures for the two periods were as follows:

	1912-1917 percent	1923-1926 percent			1923-1926 percent
Chicago	51	17	Ohio and Michi- gan points	4	2
Peoria Cairo	13 11	7	Memphis Other southern	2	0
	0	23	points	$\frac{2}{2}$	9 (1)
St. Louis Indianapolis	6	23 11	Eastern points Decatur	- (1)	6
Other Indiana points	2	9	Other Illinois points	(1)	2
			Points in states north and west	(1)	(1)

¹Less than 1 percent.

	Minnesota	:এমগ :গ০০০*
	East of Indiana	808 - 8158888, 11
R	South of Ohio	
	Other Indiana	*
ch markct)	Other Illinois	147.8 2.12 2.966.9 2.966.9 2.966.9 2.966.0000000000000000000000000000000000
(Percentage of cars to each market)	Illinois mills	
(Percents	Indianapolis	4.916.89.90.00.92 6.916.916.89.89.99
	St. Louis	25.9 12.6 12.6 12.6 23.4 20.3 20.3 20.3 20.3 20.5 20.5 20.5 20.5 20.5 20.5 20.5 20.5
	Chicago	59.5 77.8 81.7 71.1 71.1 59.5 69.5 69.5 72.7 72.7 72.7 73.8 63.8 63.8 63.8 63.8
	Year	1912-13 1913-14 1914-15 1914-15 1914-17 1914-17 1912-17 1923-26 1925-26 1925-26 1925-26 1925-26 1925-26 1925-26

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<b>TABLE 8.—PROPORTION OF ILLINOIS WHEAT SHIPPED E</b>	E

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### MARKET DESTINATIONS OF ILLINOIS GRAIN

Wheat. The principal market for wheat shipped from this area during the earlier period was Chicago, with St. Louis next in importance, and Indianapolis and Peoria of minor importance. From 1912 to 1915 small direct shipments to Atlantic ports were reported. The relative importance of Chicago and St. Louis fluctuated from year to year, Chicago declining and St. Louis increasing in importance in 1912, 1915, and 1916. This indicates that the highly competitive condition which continues to exist at the present time, causing a similar shift in 1925, has long existed. No important changes seem to have taken place since 1917 except a slight increase in shipments to Illinois mills and a marked decrease in direct eastern shipments. The distribution of wheat for each period follows:

	1912-1917 percent	1923-1926 percent		1912-1917 percent	
Chicago	70	64	Other Illinois	2	
St. Louis	21	23	points Other Indiana	9	2
Indianapolis	3	3	points Points east of	(1)	2
Illinois mills	(1)		Indiana Points south of	2	(1)
		+	Ohio	1	1

Less than 1 percent.

Changes in Markets on Illinois Central Railroad. In the handling of grain the Illinois Central Railroad serves central Illinois east of the Illinois river more completely than any other railroad. It has lines to Chicago, St. Louis, Indianapolis, Peoria, and Decatur and also into the southern territory that uses large quantities of Illinois oats.

The changes in destinations between the two points for elevators located on this system were the same as for the area as a whole. Chicago and the South declined in importance as a market for corn while Decatur increased strikingly. Shipments of oats to St. Louis, Indianapolis, and to Memphis, Nashville and other southern points increased, while shipments to Chicago, to Cairo, and to the east declined. During both periods Chicago and St. Louis divided the wheat, the percentage varying from year to year.

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## SUMMARY AND CONCLUSIONS

The corn, oats, and wheat marketed in Illinois moves to many points in response to forces of market gravitation.

This study is based on records showing destinations of grain shipped from 350 elevators from July, 1923, to June, 1925, and from about 175 elevators from July, 1925, to June, 1926. The outstanding things revealed are: a large number of important markets, a varying importance of these markets for shipments from various parts of the state, and shifts in relative importance indicated in some areas from year to year. Two major channels are shown for the movement of corn, one to the north and east, largely tho not entirely thru Chicago, and one to local milling cities. An outlet of less importance was toward the south. Two important movements of oats are indicated, one to the north and east, largely thru Chicago, the other to the south in part direct and in part thru intermediate markets of which St. Louis is most important. Hard wheat went chiefly to Chicago, while soft wheat moved toward the south.

From the northern part of the state Chicago was the leading market, from the southern, St. Louis, and from the western, Peoria. Over large areas, conditions are indicated to be quite competitive.

The chief factors explaining this distribution are freight rates and the outlets of the various markets. One outstanding feature of the grain rate structure is the very large area in the heavy grain marketing districts which has a uniform rate to Chicago. Another is the large area in the central part of the state where rates are competitive between Chicago and St. Louis as well as between smaller markets, including Indianapolis. While competitive conditions exist thruout the state, except in the territory in the immediate vicinity of a market, competition is particularly keen in the central district. The effect is to make market outlets highly dynamic. Small fractions of a cent turn the direction of the movement at many points. This tendency is more pronounced in the southern than in the northern portion of the state.

Chicago, being located on Lake Michigan, has some advantage in shipping to the east. From 1923 to 1926 about two-thirds of the wheat, one-third of the corn, and slightly less than one-fifth of the oats shipments were routed over the lake. These quantities are much larger than those that were moved by the Mississippi Barge Line south from St. Louis and Cairo to New Orleans.

The post-war distribution of grain from local shipping points has been compared with the pre-war distribution for a belt of counties across the center of the state. From this area corn shipments show increased tendency to go to Decatur and oats shipments to St. Louis and southern points. Corresponding declines in the relative drawing power of Chicago are to be noted. The change in the position of Chicago was greatest in the case of oats, where the decline was from 51 to 17 percent, compared with from 38 to 23 percent for corn and from 70 to 64 percent for wheat. This reflects declining demands for oats as horse feed in eastern cities.

Both farmers' and privately owned elevators used a wide variety of markets, and there were no very marked differences in them in this respect. There was some tendency for the privately owned elevators to distribute their shipments of corn more widely and to use large primary markets less than did the farmers' elevators.

The near-monopoly of Chicago as the outlet for grain shipped from the northern counties is more extensive and complete than the near-monopoly of St. Louis and of Indianapolis in the areas lying nearest to those markets. Elsewhere, however, competition among these and other markets is plainly written on the face of the returns examined in this study. Into the midst of these competitive areas, more or less local markets have thrust themselves, some of them becoming, as Peoria in earlier years and as Decatur more recently, highly important as grain manufacturing and consuming centers.

### APPENDIX

In the following tables detailed data are presented showing the distribution of shipments of corn, oats, and wheat from the reporting elevators for the three years beginning July, 1923. By referring to these tables it will be possible for anyone to learn the distribution of grain from his particular locality. The elevators are grouped first by districts of the state, as described on page 68, and then further classified according to railroad lines, stations between well-known points being grouped together. The railroad classification has been adopted in preference to a county classification because even within such a small area as a county railroad connections may cause variations in the markets used.

Instead of reporting the number of cars shipped to each market, only the total number of cars and the proportion going to each market is given, the percentages being much more readily comparable than figures showing the absolute number of cars.

When an elevator shipped over two railroads, its shipments were included under both. This accounts for certain apparent discrepancies. For example, shipments to Indianapolis from railroads with unfavorable rates or connections to that point are explained by the inclusion of grain from points which also had connections over a direct line to Indianapolis.

The destinations here given are as near to the point where the grain was unloaded as was possible to determine from the records. In general, they represent the first market to which the grain moved. The terms "northern," "central," "southern," and "western," used to describe

The terms "northern," "central," "southern," and "western," used to describe certain railroads in the Appendix tables, merely indicate the locations of the lines in Illinois.

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TABLE 9.—CORN: MARKET DESTINATION OF SUIPMENTS FROM FOUR DISTRICTS OF ILLINOIS, JULY, 1923, TO JUNE, 1924

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	Cars shipped		565	503	11	74 469	1341 892 977	524 552	357 162 6827		480	559 156	406	1235 219	795 303 805 600 678 1036
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ailroads within district.	or sections of roads, on which shipments were re- ported.		A. T. & S. F.	Big Four Seneca-Sheldon	North of Bloomington.	North of Watseka	C. B. & U. North of Peoria C. M. & St. P., C. M. & G. C. R. I. & P.	. C. Freeport-Bloomington. Chicago-Gilman	Wabash North of Mansfield Other northern lines		Big Four Peoria-Danville	Bloomington and Peoria-Springfield Peoria-Jacksonville	South to Watseka	East of Decatur	Gilman-Springfield Bloomington-Decatur Gilman-Mattoon Peoria-Mattoon Champaign-Decatur . Champaign-Havana

TABLE 9.-Concluded

Railroads within district,									Pere	entage of	Percentage of ears to each destination	teh destin	tion						
or sections of roads, on which shipments were re- ported.	Re- ports	Cars shipped	Chi- cago	St. Louis	Indi- anap- olis	Deca- tur	Peoria	Spring- field	Other III.	Louis- ville	Cairo	Mem- phis	Nash- ville	Other south	Other Ind.	Mich. and Ohio	Buffalo	Other east	Iowa and Wis.
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Total state	356	18821																	

¹Percentages are averages of the groups and are not weighted by number of ears. *Less than .1 percent. TABLE 10.-CORN: MARKET DESTINATION OF SHIPMENTS FROM FOUR DISTRICTS OF LIAINOIS, JULY, 1924, TO JUNE, 1925

ftnilroads within district.									Perc	colage of	cars to e	Percentage of cars to each de thation	ation						
or sections of roads, on which shipments were re- ported.	Ro- ports	Cars shipped	Chi- engo	St. Louis	huli- nnap- ola	Decatur	Decature Peoria	Spring- field	Other III.	Louis-	Cairo	Mem- phin	Naah- ville	Others south	Other Ind.	Mich. and Ohio	Buffalo	Others east	lown and Wis.
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Walmah North of Mansfield Other northern lines Total northern ¹	++ 0	479 206 8142	100 101	4 5	e 17	5 -9		14.4	10		- 4.	- 1.			100	13		Đ.	
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Rig Four Peorin-Danville	×	520	e1	3	11		н		-	•		•	·		-	11	8	-	1000
Bloomington and Peoria-Springfield.	x m	74.5	ŦZ	17	-	SI X	61	••	-						•	• 3		• :	
South of Watseks	2	456	9	10	10	+				-		*	-1	8.	30				1
Fant of Decatur	5 3	1460 2011	۰.	x 0	41	38		• =	•	01	• 4				•	n –		• ‡	100
Gilman-Springfield. Noomington-Deedur Gilman-Mattoon.	포우드림	1037 475 1051 750	RARS	5 <u>5</u> 61 61	∞, ∞,	8588	9 S - S	78.	==?1.	• • - •			111	•		· · ·	- [		111
Champaign-Decatur.	x =	811 107S	81	7 <u>9</u>		39 26	x			°1 .	•••		-	<del>.</del>	•••	• =	C1 C1		

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are undiana of sounds and																			
which shipments were re-	Reports	Cars	Chi- cugo	St. Louis	Indi- nump- olis	Deentur Peoria	Puorin	Spring- field	Oduer III.	Louis-	Cniro	Mem- phis	Nash- ville	Others south	Other Ind.	Mich. and Ohio	Buffalo	Others	Iowa and Wis.
I. T. S	14	808	22	10	-	7	43	•	•						·	••	•		
T. P. & W.	= ª	686 572	815 10	00 CH	32	30	36 25	• 1	· .	-		• :			•	•			
Wabash Mansfield-Decatur	4	374	98	1~1	11	H								-		1-	5		
Deentur-Springfield.	-	378	22		~.	48 71		•					•	~		. =	• ~		
Springfield-Bluffs	158	357 12313	35	71	13	51	212		- 00	1.	1.					100	-		
							S	TOBTEL NAMERT'UOS	LISIU N	HCT .									
B. & O.	1	257		15	1	1~		*	13	ŀ			12	3		28	**		
Danville to ML. Carned Bit. Louis-Pana	-	01 10 10	10	5 23	32				- 1	2			10	•	-	-			
Springfield-St. Louis.	- 1-	E SE	ĢX	£ 13		8 20	• }	•	27					100					
South of Illinois river	2	385	48	EI.		13		•	-										
Springfield-Litehfield. Decatur-Pann		162 326	423	속어	How	4.2	• "	1	•	157		3.					1		
Penn. Fonthern lines			3		•								-					-	
Wabada Decatur-St. Louis Other southern lines	====	648 185 2023	828	10	-	5 - a				9.9	122		110	100	11	. ²	• "•		
							-	WESTERN DISTRICT	DISTR	tor.									
C. B. & Q. Other western lines Total western ¹	172	3377 545 301	288	• **			226		40 (N				100				110		
Total state	- 360	23769																	

¹Percentages are averages of the groups and are not weighted by number of a *Less than A percent. TABLE 11.-CORN: MARKET DESTINATION OF SHIPMENTS FROM FOUR DISTRICTS OF ILLINOIS, JULY, 1925, TO JUNE, 1926

ons of roads, on hipments were re-									Perce	ntage of	ears to ea	Percentage of cars to each destination	tion						
porteu.	Re- ports	Cars shipped	Chi- cago	St. Louis	Indi- anap- olis	Decatur Peoria	Peoria	Spring- field	Other III.	Louis- ville	Cairo	Mem- phis	Nash- ville	Others south	Other Ind.	Mich. and Ohio	Buffalo	Others east	lowa and Wis.
							N	NORTHERN DISTRICT	N DIST	RICT									
A. T. & S. F.	3	365	58	~	*		25			:						14			
& A. North of Bloomington. & N. W.	5 13	460 394	58 66	° : :	* :	11	27 19	• :								<u>،</u> د ن			4
C. B. & Q. North of Peoria C. M. & St. P.	12 8 6	896 140 423	70 89 47	* ::		9°° .	13								- 10 	≈ : : : :	ୁଟୀ : : :	111	× 11
C. Freeport-Bloomington. Chieago-Gilman	410	539 911	42 65	· 2	3 28	33		¢								<u>e</u> r-	÷÷	::	5
Wabash North of Mansfield Other northern lines Total northern ¹	83 24 73	156 273 4557	43 96 63	::-	: :**	51 11		:: <b>:</b> *				: ;•			::+				Kon
								CENTRAL DISTRICT	L DISTR	ICT									
Big Four Peoria-Danville	2	578	~	4	20	14	47	*	~	1		-	*	-7	1	-			22005
C. & E. I. South to Watseka	10	945	42	15	r-	8			3		67	51	¢1	2	8	6	*	10.202	No.
Gilman-Mattoon Other central	10	1084 1174 524	21 27	3 16 1	4010	50 37 13	13 50 50		* - *		۰.	ei –		∞ ei −	* * :	** ×	• : :	:* :	2010
Wabash	9	299	18	18.		52			4			-1		77	-	-	*		
lines	ж ф	723 460	6 11	07 I	22 17	° 13	30 55	1.	- <u>-</u> 1	≎1 :					15	× -	: :		: :
Other central lines to Chicago Total central ¹	4 64	315 6370	47 21	21		6 22	27 25	ŀ	- ~	:-		-	t		- ~	4			Sec.

TABLE 11.-Concluded

Railroads within district,									Perec	Percentage of cars to each destination	pars to ea	ch destina	tion						
or sections of roads, on Re- which shipments were re- ports ported.	Re-	Cars shipped	Chi- cago	St. Louis	Indi- anap- olis	Decatur	Peoria	Spring- field	Other III.	Louis- ville	Cairo	Mem- phis	Nash- ville	Others south	Other Ind.	Mich. and Ohio	Buffalo	Others east	Iowa and Wis.
							50	SOUTHERN DISTRICT	N DISTR	HCT									
B. & 0	3	199		-	28	:			21	:	:	:	51	4		14			:
Danville-Mt. Carmel.	1	405	:	s :	42	:	:	į	16		-	4	2	7	13	3	:	:	
C. & A.	4 03	44 231		5.5	16	£							:			:		:	
C. B. & Q.	2	1	1		:	-			-			:	:			:	:	:	
South of Illinois river.	4	427	43	51		9			:			:	:						
M & O	<del>ب</del> د		03		×	16						+		~	~	~			
Penn.	•	-	:			1	•	:	:								:	:	
Southern lines.	5	85	••••	64		a,	-					C1		-1	~				12.42
Total southern ¹	52	110	16 2	47	: 21	-10	•		2			Lu.	t	5	: ea	. 3	: 4		
							W	WESTERN DISTRICT	DISTRI	CT									
C. B. & Q.		271	12	100	••••	• •	72		8	:				:	:	:		:	
Total montown!	* -	106	04	0 a 1	:	24			••••••	:		:		:		:	:	:	23
TOIGH MICHAEL	-	107	00	PI		-	0.e		•		•••••		:	••••	••••	:		:	10

¹Percentages are averages of the groups and are not weighted by number of cars. •Less than .1 percent.

Total state..... 190 12858

TABLE 12.-OATS: MARKET DESTINATION OF SHIPMENTS FROM FOUR DISTRICTS OF ILLINOIS, JULY, 1923, TO JUNE, 1924.

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			1			**		*							1000
		144	-				2	8.				:			:
			-			::*						÷	::		:
Buffalo		-	\$	•	::	::*	***	<b>4</b> :				÷	::		:
Ohio and Mich.			14	67		00 . Co	2	9		4		*			
Other Ind.										-		2	- :	* :- :*	9° × 10
Other III.			-7		26	* * 1	_{ଦୀ} *			7	4		¢1 4		1
Peoria		6		3	30	x : 4					29 29			<b>1</b> 0 33	
							-	°1 *			<del>ເ</del> ອ		17	28 ° 23 13	16
Loek- port		36	22	51		36	131	12 % [2							
Others south	-											¢1	• :		<del>,</del>
New Irlcans	STRICT						4		TRICT	-			•	100000	- 10
	SRN DI	*							AL DIS	16	- <del>4</del> 1	24	6 :		. 6
	ORTH						4	4	CENTR	-	67	28	en 20	9 4 5 5 9 5 4 5 5 4 6	1=
	z	2		÷		• • :	16			30	eo 61	r.	36 42	10 12 23 21 X	20
						• = :	•				174	9	10 20	: :* * ©:	101
		9	21	•	Ч.	°° * °'	GP 63	10		28	• :		4 23		
St. Louis		4		6		3	21	12		П	81 12	24	10	28 36 53 18	32
Chi- eago		41	35	32	90 30	77 76 47	31 74	44 98 58		-	42	÷		4 x 0 c) x	•
ipped		487	379	360	81 249	1096 818 787	419 433	334 192 5635		189	178 24	145	334 24	191 99 357 150 224	297
		9	5	9	2 18	22 20 14	12 4	4 4 117		30	c- cc	9	16 4	13 6 11 8	ц
		P. & S. F.	neea-Sheldon	orth of Bloomington	orth of Watseka.	orth of Peoria. M. & St. P., C. M. & G. L. I. & P.	reeport-Bloomington			Four coria-Danville	loomington and Peoria- Springfield	outh of Watseka	ast of Decatur	Gilman-Springfield Bloomington-Decatur Gilman-Mattoon Peoria-Mattoon Champaire-Decatur	Champaign-Havana
	St. Indi- Iouis- Cairo Mem- Nash- New Others Lock- Deca- Peoria Other Other Indi- Louis anap- ville Cairo phis ville Orleans south port tur Peoria III. Ind.	Re- porta     Cars shipped     St. cuip     Buff- stan- oils     Carino     Mem- phils     New Nether     New port     Deter- tur     Deter- tur     Other     Othe	Re- porta     Cars slipped (see)     St. Louis     Indi- sum oils     Data Louis     Store sum oils     New Louis     New south port     Lowis tur     Deter tur     Peoria     Other III.     Other and Mich.     Other and     Other and <th< th=""><th>¹ Res     Cars     Cars     Indi- olis     Indi- ville     Indi- strate     Indi- strate     Indi- strate     Indi- strate     Indi- strate     Indi- strate     Other strate     <th< th=""><th>¹ Res         Carso         Other         Indi- and olis         Indi- ville         Indi- olis         Indi- ville         Indi- olis         Wear         Parts         Provis         Provis         Provis         Provis         Wis- out         Wis- out         Wear         Wear         Provis         Provis         Provis         Wis- out         Wis- out         Wis- out         Wear         Provis         Provis         Provis         Wis- out         <th< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></th<></th></th<></th></th<>	¹ Res     Cars     Cars     Indi- olis     Indi- ville     Indi- strate     Indi- strate     Indi- strate     Indi- strate     Indi- strate     Indi- strate     Other strate     Other strate <th< th=""><th>¹ Res         Carso         Other         Indi- and olis         Indi- ville         Indi- olis         Indi- ville         Indi- olis         Wear         Parts         Provis         Provis         Provis         Provis         Wis- out         Wis- out         Wear         Wear         Provis         Provis         Provis         Wis- out         Wis- out         Wis- out         Wear         Provis         Provis         Provis         Wis- out         <th< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></th<></th></th<>	¹ Res         Carso         Other         Indi- and olis         Indi- ville         Indi- olis         Indi- ville         Indi- olis         Wear         Parts         Provis         Provis         Provis         Provis         Wis- out         Wis- out         Wear         Wear         Provis         Provis         Provis         Wis- out         Wis- out         Wis- out         Wear         Provis         Provis         Provis         Wis- out         Wis- out <th< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></th<>										

TABLE 12.-Concluded

Railroads within district or										Percent	Percentage of cars to each destination	rs to ca	ch destin	ation							İ.
	Re- ports	Cars shipped	Chi- cago	St. Louis	Indi- anap- olis	Louis- ville	Cairo	Mem- phis	Nash- ville	New Orleans	Others south	Lock- port	Deca-	Peoria	Other (	Other Ind.	Ohio and Mich.	Buffalo	Others east	Wis- consin	Iowa
I. T. S.	12	175	3	49	9		19	2	3		:	:	-	9	1		3			1	1:
Peoria-Arcola	11 6	211 304	8 10	40 8	2 59	~ ~ ~	2	6	- :				£	6	~~ vc	• d	* 2			- 11	
Mansfield-Decatur Danville-Decatur	4.10	111 79	5	31 20		4	18	17	33	c1 +	co 40		17								
Decatur-Springfield	5 6 153	35 22 3149	9 9	32 8 0 3 8 8 0	9	5	37	• • • • • • • • • • • • • • • • • • •	-18:		) : : °		::: <b>:</b>	::: <b>^</b>	2		•		: : : <b>.</b>	-	
							x	SOUTHERN DISTRICT	RN DI	STRICT											
B. & O.	1	3		100				:							:			:		:	1000
Danville-Mt. Carmel	99	69	i	1	20	-	23		17						0	35	÷	:	1	-	
C. & A.	•	-		5											-		:	:			
Springfield-St. Louis	4-0	20 3	::	100												::			22	R	
South of Illinois river	6	35	29	12									:				:		1		
Springfield-Litehfield	441	72	::	100 6		; es	53				. 4		:=			. 4	-	10	10	100	
Penn.	° ,	N (					:								100						
Nabash Wabash	-	•	÷		i		:										:	1	(and a second		
Decatur-St. Louis Other southern lines Total southern ¹	⊕ ∞ %	40 5 259	10	62 80 63	: :°'	20	∞1	دە 1	r - 3						۲~ : <del></del>	4					
								WESTE	WESTERN DISTRICT	STRICT											
C. B. & Q. Other western lines Total western ¹	12 4 13	220 119 339	29 44 80	24 18			10 01	• °I-			• •			37 24 30	°7 -						ŀ.
Total state	354	9382																			

¹Percentages are averages of the groups and are not weighted by number of cars. "Less than .] percent.

TABLE 13.--OATS: MARKET DESTINATIONS OF SHIPMENTS FROM FOUR DISTRICTS OF ILLINOIS, JULY, 1924, TO JUNE, 1925

										Percenta	Percentage of cars to each destination	rs to eac	h destina	tion							
Railroads within district, or sections of roads, on which shipments were reported.	Re- ports	Cars shipped	Chi- cago	St. Louis	Indi- anap- olis	Louis- ville	Cairo	Mem- phis	Nash- ville	New Others Orleans south	Others south	Lock- port	Deca- tur	Peoria	Other ( III.	Other Ind.	Ohio and Mieh.	Buffalo	Others	Wis- consin	Iowa
								NORTH	ERN D	NORTHERN DISTRICT	L										
A. T. & S. F.	7	557	34	12	:		:	:	:	:	÷	29	:	2		:	18	5	:	:	
Seneca-Sheldon	3	404	32		21			:				34					4	-	:	;	1
North of Bloomington	9	317	43	12	•		21					41		2		*		:	4	100	
North of Watseka	2 18	69 296	100 70			::		::						. t-	: 20		16		e e		
C. D. & Y. P. C. M. & G. North of Peoria and Galesburg. C. M. & St. P., C. M. & G., C. R. I. & P.	$   \begin{array}{c}     24 \\     20 \\     15   \end{array} $	1129 742 736	73 77 56	ci :4	10	• 11	•		1.1			4 20 33		∞ : <b>⊓</b> 	•••				:::		•• 3
I. C. Freeport-Bloomington Chicago-Gilman	12	456 419	43 57	<del>6</del> :	<b>4</b> + oc		24	4.01		10		32	1+1		• •		2			1	
Wabash North of Mansfield Other northern lines Total northern ¹	4 4 121	323 208 5656	60 62 62	14 6	: :0 :4	1.	9 . e	6		-		4 3 17	84	2			° . °	ci 4 ci		22.55	
								CENTI	AL DIS	CENTRAL DISTRICT											Ĭ I
Big Four Peoria-Danville	8	200	*	1.0	30	÷	12	3	16	:	:		-	6	14	9	4				
Bloomington and Peoria- Springfield		240 30	18 30	65 33		- :	2	-# : : :	::	• :		14	4	* 20							
South of Watseka.	1-	155	14	26	-	-	-	27	21	ŀ	•					ŝ	4	:	:	:	÷
East of Decatur	16 4	337 42	4	24 57	37 31	9		eo : :	10	::			01 04		•	• :	t- C1			::	13:
1. C. Gilman-Springfield Bloomington-Deeatur Gilman-Mattoon Peoria-Mattoon	13 5 12 12	226 176 386 187	38 39 23 23	20 40 27	::• :	* ***	∞ <del>4</del> 1- m	16 * 4	16 * 3	¢, ',	• 10		19 14 26	*	2		1		::::	: ::::	

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299 343 255

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Champaign-Decatur.... Champaign-Havana..... I. T. S..... TABLE 13.—Concluded

	Iowa					Ŀ		10	1111			:::			
	Wis- consin			::			::		-					:::	
	Others east	::		:		÷	::		:					:::	
	Buffalo			-		:	::	::	÷			•		:::	
	Ohio and Mieh.	يە : :		2			12		:	:::		• :		:::	
	Other Ind.	• :	• : :			:	29		:			* :**		:::	
	Other III.	· · ·		2		11	. 44	::	:	• e 100		2			
ation	Peoria	25	:::	4		:	::	::		: 61				43 36 40	
ch destin	Deca- tur	14	20 7			11	::	::		25		° 4			
Percentage of cars to each destination	Lock- port	4				:	::		:			 15 1		:::	
tage of e	Others south	::			L	:	::		:	ۍ :		11+	2	2 1	
Percent	New Orleans		69 44	-	DISTRICT	:	::	::	÷				WESTERN DISTRICT	:::	
ł	Nash- ville	::	3 24		SOUTHERN I	:	30	::	÷	.4		3. 53	ERN DI		
1.	Mem- phis	1	17 12	÷	SOUTH	~	°° : :		:	24	:		WEST	• •	:
ľ	Cairo	4.01	10 5	 9 		:	::	::		22		4		5: CI	
ł	Louis- ville	6.5	°° : :	. 61			** :		÷		i	: :•		• •	
	Indi- anap- olis	3 29	- : :	<i>L</i>			21 22	-i i						:::	
	St. Louis	40 13	19 35 76	35		02	3 74	86 95	80	91	÷	68 60 57		30 20	:
	Chi- cago	8 21	16 9 13			:	::	14 5	20	-100	:	8 25 7		17 53 35	
	Cars shipped	237 248	154 68 37			37	66 23	49 40	19	32 116 4	0	119 20 567		254 124 378	10269
-	Re- ports	11 5	4.0.0	.157		2	91-		11	4 4 W	1	11 8 78		11 4 15	371
Tother and a state of the second	rtauroads within district, or sections of roads, on which shipments were reported.	Penn. Peoria-Areola T. P. & W.	held-Decatur	Springheld-Bluffs		B. & O	Danville-Mt. Carmel	Springfield-St. Louis Spring field-St. Louis	South of Illinois river	Springfield-Litchfield Decatur-Pana Other southern lines	Penn. Southern lines	Decatur-St. Louis		C. B. & Q	Total state

 $^1\mathrm{Percentages}$  are averages of the groups and are not weighted by number of cars. *Less than .1 percent.

TARE 14.--OATS: MARKET DESTINATION OF SHIPMENTS FROM FOUR DISTRICTS OF LILINOIS, JULY, 1925, TO JUNE, 1926

										Percent	Percentage of cars to each destination	rs to ea	ch destin	ation							
Railroads within district, or sections of roads, on which shipments were reported.	Re- ports	Cars shipped	Chi- cago	st. Louis	Indi- anap- olis	Louis- ville	Cairo	Mem- phis	Nash- ville	New Others Orleans south	Others south	Lock- port	Deca- tur	Peoria (	Other (	Other Ind.	Ohio and Mieh.	Buffalo	Others east	Wis- eonsin	Iowa
								NORTH	ERN D	NORTHERN DISTRICT	-										
A. T. & S. F.	~	212	21	12	:	÷	6	2	÷			51	ŀ	2				(in .			10
C. & A. North of Bloomington	<u>т</u> о	245 179	38 <u>18</u>	8 <u>6</u>			:-	¥7 ; ;				47		4 11	9 22		Ŧ	•			
C. B. & Y. North of Peoria.	6 % <u>1</u> 3	576 151 211	77 74 46	° : :	10 2		• :::							10 . 18	- <del>4</del> " : .*	. 12	· · · · · · · · · · · · · · · · · · ·				* °° Ø
Freeport-Bloomington	4-10	233 349	20 66	37	8 26		$\frac{26}{1}$	~10							. 2		-		::	6	242
Wapasu North of Mansfield Other northern lines	63 57 20 63	$     \begin{array}{c}       99 \\       168 \\       2423 \\     \end{array} $	75 100 56	∞ :∞ ∶	:		4	61				::=	:: <b>:</b> *	• • • • •	 4.		$\frac{17}{2}$	÷ :•	:::		8.:-
								CENTH	AL DI	DENTRAL DISTRICT											
Big Four	.0	151	-	3		-	19	45	:C		4			10	2	-	61	:		:	ŀ
South of Watseka.	10	364	25	14	-	-	15	20	5		~					12			:		:
Gilman-Mattoon	011	310	18 20	÷ ۲		* **	20	36	P-01	1	9 co 0	: :	22		<b>€</b> 4			::	::	::	
T. P. & W. Wabash. Other central lines to east.	<del>4</del> 90 X	163 146 267	4 0 4	325 4		m o :	9 4 4	21 8			× + : :				- 4	15	s :	:::	:::	:::	
Uther central lines to St. Louis	9	93	-	×	••		23	30	3				:	16	=	61	÷	÷	:	:	II.
Chicago	4 64	$^{31}_{1732}$	16	112	···	· 61		. 18	c: 22	2	3	:		10 8			2	::	::	1011	

TABLE 14.—Concluded

¹Percentages are averages of the groups and are not weighted by number of cars. *Less than .1 percent.

TABLE 15.--WHEAT: MARKET DESTINATIONS OF SHIPMENTS FROM FOUR DISTRICTS OF ILLINOIS, JULY, 1923, TO JUNE, 1925

-				r	July, 1923, to June, 1924	8, to Jun	c, 1924								ſ	uly, 192	July, 1924, to June, 1925	e, 1925				
Railroads within dis-					Percent	age of ca	Percentage of cars to each destination	h destin	ation							Percenta	sge of ca	Percentage of cars to cach destination	h destina	ation		1
roads, on which sup- ments were reported.	Re- ports	Cars shipped	Chi- cago	St. Louis	Indi- anap- olis	III. I IIIs	Peoria	Other III.	Other Ind.	So. of Ohio river	East of Ind.	Re- ports s	Cars shipped	Chi- cago	St. Louis	Indi- anap- olis .	III. mills	Peoria	Other III.	Other Ind.	So. of Ohio river	East of Ind.
								NO	RTHE	NORTHERN DISTRICT	TRICT											
A. T. & S. F.	ŝ	159	80	14	4		1		:		:	9	154	94	-*	2	:	:	:	:		:
Seneca-Sheldon	5	123	80	18	÷			¢1		į		IC.	59	80		20	÷	÷	÷	:	:	÷
North of Bloomington.	9	122	96	÷				:		:		9	16	06	10	ŀ	:	:	÷	:	1	4
of Watseka	2 18	35 264	100 88						::			18 2	26 240	100 89	:=			::		14	11	
C. B. & Q. North of Peoria C. M. & St. P., C. M. & G. C. R. 1. & P	21 18 14	319 178 311	100 100 99	:• =•	• :::		111					23 19 15	286 119 237	90 100		• ::	411	6	:::			11
rt-Bloomington.	≫ <del>4</del>	46 176	100	::			::	::	::			~∽	38 80	100				::	::	::	::	
Wabash North of Mansfield Other northern lines	4 4 109	77 35 1845	100 100 95		14.		::*	::*			:::	4 4 112	26 29 1385	100 100 95	<b>2</b>	3		::*			:::	
								C	ENTRA	ENTRAL DISTRICT	RICT											
Big Four Peoria-Danville	80	188	47	8	21		5	14			10	8	06	29	Ŧ	29	:	26	en	6	:	ĥ
Peoria-Roodhouse	4	394 277	61 16	8 19	::	::	4	1 :		: <b></b>		-1 80	340 163	93 83	7 18		::		• :		::	
C. & E. I. South of Watscha	9	89	8	12	3							1	51	94	4		:		:	61	:	1
East of Decatur	16 5	421 160	44 27	10 55	30 6			14 12		- :	* *	17 5	263 59	52 15	21 51	25 27	::				• ]	
G. Gilman-Springfield Bloomington-Decatur	41.00	466	88 91 91	مە	* :	• :	::		• =	61 : :	¥.	14 5 5	239 63	76 94	17 6	61 :	::	::		÷.		• 1
Peoria-Mattoon	» I «	497	66 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	1-0			:.		: :	•		្មដ	299 299 150	66	: 00 m	÷		: :	:1			
Champaign-Havana	II	503	94	1.0				•				Ē	316	33			•					

TABLE 15.—Concluded

						July, 1923, to June, 1924	3, to Ju	ne, 1924									July, 1924, to June, 1925	4, to Jun	ie, 1925					
	Railroads within dis- trict, or sections of					Percent	age of ca	Percentage of cars to each destination	h destin	ation							Percents	ige of ca	Percentage of cars to each destination	n destina	tion			
	roads, on which ship- ments were reported.	Re- ports	Cars shipped	Chi- cago	St. Louis	Indi- anap- olis	III. mills	Peoria	Other III.	Other Ind.	So. of Ohio river	Fast of Ind.	Re- ports s	Cars	Chi- cago	St. Louis	Indi- anap- olis	III. mills	Peoria (	Other III.	Other Ind.	So. of Ohio river	East of Ind	
	I. T. S	13	452	64	28	3	:	1	4	:	:		13	198	29	10	9	3	12		:	:		
	Peoria-Areola	11 6	411 85	71	14 11	2 12	14	-1-	12 4	• :			10	171 36	57 64	16 8	11 %	 14	13 6	. 5		• 1		
	Mausheld-Decatur Mansfield-Decatur Danville-Decatur Springfield-Bluffs Total central ¹ .	120 0 5 4 4	162 97 184 407 5441	92 25 25 25 25 25 25 25 25 25 25 25 25 25	4 34 12 24 14		: c1 : : * *		440 4	:::: <b>·</b>	1 : : :*		4 4 20 9 27	94 68 51 257 2960	97 72 94 82 82	28 15 15		:::::::::::::::::::::::::::::::::::::::	: : : : : . :		·		141.0	
									S	DUTHE	SOUTHERN DISTRICT	TRICT									-			
	B. & 0	30	306	4	19		48		:	12	15	*	8	142	9	14	2	49			16	H	~	
113	Danville-Mt. Carmel	11	174 192		3 74	22 *	17 14	::		28	28 2	. 3		122 78	: ~~	13 70	3.0	22 24			28	23	•	
	Springfield-St. Louis Springfield-St. Louis	ۍ ده ا	198 272	10 62	38 38	::					• :	::	t- co	75 71	20 35	77 65	::	- :		- :		- 21		
	South of Illinois river	10	546	44	47	÷	5	:	*	i	3	:	12	281	37	42		18				5		
	Springfield-Litehfield Decatur-Pana	4400	178 68 98	44 82 6	37 13	:::	15 • • • •		ະຕິ :	:::	15 32 32		440	31 49 63	45 65 5	26 14 16		29 52		. 44 .	:0100			
	Southern lines	1	12		58	:	42					:	-	œ		62		38		:				
	Decatur-St. Louis	10 71 71	536 282 2862	47 25 28	40 28 37	: :01	9 35 20		F :*	3	2 12 9	:: <b>:</b>	12 8 78 78	$     \begin{array}{c}       134 \\       140 \\       1194     \end{array}   $	28 11 21	51 23 39	2	21 44 25		::-		 8	3 2	

WESTERN DISTRICT

¹Percentages are averages of the percentage figures for each group; they are not weighted by number of cars. *Less than .1 percent.

TABLE 16.-WHEAT: MARKET DESTINATIONS OF SHIPMENTS FROM FOUR DISTRICTS OF ILLINOIS, JULY, 1925, TO JUNE, 1926

						Percentage (	Percentage of cars to each destination	destination			
Railroads within district, or sections of roads, on which shipments were reported.	Reports	Cars shipped	Chicago	St. Louis	Indianapolis	Indianapolis Illinois mills	Peoria	Other Illinois	Other Indiana	South of Ohio river	East of Indiana
				NORTHI	NORTHERN DISTRICT	L					
A. T. & S. F.	3	32	94	9	•			:	- 2440		
North of Bloomington	13	43 62	95 100	2 · · ·			::	. :			Ţ
North of Peoria North of Peoria C. M. & Si. P.	61 25 69	93 70 × 33	100 100 99							111	
Freeport-Bloomington	-# +C	13 39	100 97				::		::		
Watosh North of Mansfield Other northern lines. Total northern ¹ .	63 a 2	5 31 396	100 100 99		E.E.		:::				
				CENTR	CENTRAL DISTRICT						
Big Four Peoria-Danville	5	55	38	47	13					2	1
South of Watseka	10	73	86	11	:	:				3	
Cilman-Mattoon Other central	11	45 170 5	78 59 40	16 35 60	4 63	:::		:	::::	21 <del>4</del> 1	:::
Wabash Other central lines to Chicago	• 10 - <del>4</del> - 20	208 74	48 58 28	50 27 43	× 1	12			20	01 01 ·	Ĩ
Other central lines to St. Louis Total central ¹	64	68 746	32	65 39	91 92 93 93 93 94 94 94 94 94 94 94 94 94 94 94 94 94		:::	:.	2		::: :::

TABLE 16.—Concluded

						Percentage o	Percentage of cars to cach destination	lestination			
Rauroads within district, or sections of roads, on which slipments were reported.	Reports	Cars shipped	Chicago	St. Louis	Indianapolis Illinois mills	Illinois mills	Peoria	Other Illinois	Other Indiana	South of Ohio river	East of Indiana
				SOUTHF	SOUTHERN DISTRICT	T					
Big Four Danville-Mt. Carmel	1-4	162 56		7 75	1 2	19 20			54	4	
B. & 0. C. & A. C. & A.	10 20	107 - 72	26	33 74	::	* : :			29	24	
South of Illinois river I. C. M. & O. M. & O.	4.0.4	248 46 52	31 26	53 41 90	4	16			4	. 20	2
Penn. Southern Illinois lines. Other southern lines.	5 11 52	124 179 1046	2 5 10	71 56 56	4	23 23 14				16 9	÷
				WESTE	WESTERN DISTRICT						
C. B. & Q. Walash Total western ¹	11	122 38 160	26 • • • • •	42 42 42		26 58 42	33 Q				114
Total state	190	2348									

¹Percentages are averages of the percentage figures for each group; they are not weighted by number of ears. *Less than .1 percent.

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