North Central Regional Research Publication 141 April 1963

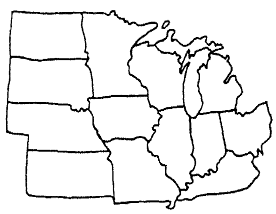
LIVESTOCK MARKETING

NORTH CENTRAL REGION

II. CHANNELS

THROUGH WHICH LIVESTOCK MOVE FROM FARM TO FINAL DESTINATION

RICHARD NEWBERG



Agricultural Experiment Stations of
Illinois, Indiana, Iowa, Kansas, Kentucky,
Michigan, Minnesota, Missouri, Nebraska,
North Dakota, Ohio, South Dakota, Wisconsin,
and the United States Department of Agriculture

OHIO AGRICULTURAL EXPERIMENT STATION
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FOREWORD

In November, 1949, the South Dakota Agricultural Experiment Station published Bulletin 365, entitled "Marketing Livestock in the Corn Belt Region." This Bulletin reported the results of a study which had as its purpose to determine the number, type and location of marketing agencies, and processors, how and where farmers sell and buy livestock of various kinds and the marketing methods and practices followed by farmers. by the middlemen who handle livestock and by processors: Fourteen State Agricultural Experiment Stations and the U. S. Bureau of Agricultural Economics cooperated and undertook the study simultaneously. The study was based on transactions in the year 1940.

This was a pioneering effort in regional research and presented, for the first time, a broad picture of the livestock marketing system of an important geographical area of the United States. Copies of the bulletin were eagerly sought by farmers, farm leaders, livestock marketing agencies, state and federal research and service agencies and others.

Since that study was made a number of events occurred which had an important impact on the livestock marketing system — some of temporary significance but some of long term significance. These included such events as, (1) World War II and the accompanying price control and rationing and control of transportation programs; (2) the post-war inflationary spiral; (3) the Korean War; (4) the sharp break in livestock prices following the Korean War which was accompanied by drouth and short feed crops in many areas; (5) shifting population (a) from rural to urban areas and (b) from one geographical region to another, particularly to the West and South; and (6) changing patterns and methods of production of livestock.

The question has arisen of how and to what extent the livestock marketing picture has changed as a result of these and other factors. Accordingly, preparations were made to undertake another study to describe and analyze the livestock marketing system using 1957 as the base year. Using appropriate sampling techniques and carefully developed schedules, research workers in each of the states obtained data from marketing agencies for tabulation and analysis. Agricultural Experiment Stations in 12 North Central States and Kentucky along with the Agricultural Marketing Service of the United States Department of Agriculture cooperated in the research. This publication is the second in a series of publications resulting from the research. The results are presented for the benefit of farmers, marketing agencies, processors and others interested in an efficient livestock marketing system.

C. Peairs Wilson, Kansas
Administrative Advisor

SUMMARY AND CONCLUSIONS

This publication is the second in a series of regional bulletins which summarize the results of research conducted by the North Central Regional Livestock Marketing Research Committee. The work was undertaken during the years 1955-1959 under the project NCM-18. This publication reports the findings of an investigation into the channels of livestock movement from farms to slaughter destination. It is based on data derived from three sources: (1) A field survey of 7,000 farmers in the North Central States provided data regarding sources and sales outlets for livestock bought and sold by farmers. (2) A survey of marketing agencies operating in the North Central Region provided information on market volume, methods of operation, and other data relevant to individual market operation. (3) Agricultural Census and other published reports provided a third source of data useful in formulating estimating equations.

Analysis of these data disclosed current patterns of livestock movement from farm to final destination and revealed significant changes in the pattern which have occurred since 1940. Estimated numbers of slaughter and non-slaughter livestock handled by the various types of markets are summarized in the accompanying table.

Patterns of livestock movement are seldom simple and straight-forward. Most slaughter livestock is handled more than once in the channel from farm to packing plant. The aggregate of receipts for all markets therefore exceeds the aggregate marketings in any one year. Packing plants rank first in volume of slaughter livestock receipts since they

Number of Head of Livestock Handled by Marketing Agencies in the North Central Region in 1957

	Slaughter Livestock			Feeder, Breeding, and Dairy		
	Cattle & Calves	Hogs & Pigs	Sheep & Lambs	Cattle & Calves	Hogs & Pigs	Sheep & Lambs
Terminals	11,929	18,639	3,037	3,025	138	1,352
Dealers	3,849	15,195	826	6,842	2,949	1,032
Auctions	5,078	5,283	1,637	8,326	6,195	1,722
Local Markets	956	15,238	570	1,044	488	192
Total Volume of Marketing Agencies	21,812	54,355	6,070	20,237	9,770	4,298
Packers:						
Direct Purchases	2,463	21,956	2,022			
Other Purchases	12,677	22,311	3,703			
Total Purchases	15,140	44,267	5,725			
Total Volume for all Marketing Agencies	36,952	98,622	11,795			
Farmer Purchases				9,057	7,030	2,997
Sales by Farmers	17,786	54,323	7,540	7,146	6,098	1,533
Net In-shipments	—2,646	—10,056	—1,815	+1,911	+932	+1,464

represent the final destination of slaughter marketing activity. Terminals rank second in total volume of slaughter livestock receipts, and rank before packing plants as the most important single point of first sale off the farm. Terminals are followed in importance as a point of first-sale by dealers, local markets and auctions in that order. For each of these types of agencies the major source of receipts is the farm and the major outlets are packers or packer representatives.

More non-slaughter livestock sold off the farm are handled through auctions than through other types of markets. Dealers ranked second and terminals third in receipts of non-slaughter stock.

Among auctions, dealers, and terminals, farmers were the principal source of receipts of non-slaughter livestock and were also the most important sales outlet.

Noticeable shifts in the pattern of livestock movement took place between 1940 and 1957. Most important was the decline in share of total receipts handled by terminal markets and the increase in the percent of total marketings received by auctions. Moreover, the structure of the marketing channel varies considerably within the North Central Region. Some of this variation may be explained by intra-regional variations in livestock types and densities but much of it appears to have arisen through custom and other non-economic causes. Data do not support the conclusion that one single type of market or marketing channel structure would be most efficient under all conditions found within the region. Rather, it appears that natural conditions would serve to justify some variation. It appears also that changes in response to new conditions are a continuing phenomenon and that the industry may expect to witness continued adjustment.

The number of marketing agencies competing for the farmers' livestock is large in every area of the region where livestock are available for commercial channels. There is little evidence that the system has reached a point of stability. There is great pressure to reduce the marketing costs of hauling, handling, selling, and even the related indirect costs of shrinkage, crippling and death. Farmers generally expect and, in fact. demand competition in the purchase of their livestock. Marketing agencies must critically evaluate the continuing changes, watch their costs and be prepared to insure existence of competition and to withstand the existence of increasingly keen competion.

Order buying and other similar descriptive transactions are likely to become increasingly important in the future. There will be increased demand for more comprehensive and precise grades and standards and market news to support the trend toward more transactions by description. Market agencies which are prepared to excel in this area are likely to enjoy a strong competitive position in the future.

Livestock Marketing, North Central Region

2. CHANNELS THROUGH WHICH LIVESTOCK MOVE FROM FARM TO FINAL DESTINATION

BY RICHARD R. NEWBERG[1]

INTRODUCTION

The livestock industry in the North Central Region is largely built upon the large volume of feed concentrate produced in the area. Fattening and finishing livestock for slaughter is the major animal enterprize. Although the farms and ranches in the Region produce large numbers of feeder animals for sale, the Region is a net importer of feeder livestock of all species. Feeder cattle and calves make up the bulk of the feeder livestock shipped into the Region. Sheep and lambs rank second in numbers shipped into the Region.

The North Central States and Kentucky together provide the major part of the nation's total supply of slaughter livestock and of red meats. The area produces about 80 percent of the total supply of pork, 50 percent of the total supply of beef, veal and lamb. However, only about 1/3 of the domestic consumption of meat is accounted for by these states. The remainder, of the production which originates in this area, is shipped to other sections for consumption. The North Atlantic States are the largest recipients. But, substantial volumes also go to the West Coast and to Southern areas.

Most of the surplus meat animals are slaughtered within the Region and shipped out in the form of carcass or more highly processed meat products. About 80 percent of the slaughter animals marketed from farms and ranches in the North Central Region are slaughtered within the Region. Only a relatively small proportion of the total slaughter livestock move directly from farm or ranch to slaughtering establishment. In a 1956 study of livestock marketing in the Region, it was found that approximately 12.6 percent of the slaughter cattle and calves, 32.5 percent of slaughter hogs and pigs, and 15.4 percent of the slaughter sheep and lambs were sold direct to packers by farmers and ranchers. The remaining 87.4 percent of the cattle and calves, 67.5 percent of the hogs and pigs, and 84.6 percent of the sheep and lambs sold for slaughter went through one or more marketing agencies before they reached a slaughtering establishment.[2]

The importance of movement of livestock direct to packers compared with movement through other intermediate marketing agencies before arriving at slaughtering establishments varies greatly from one part of the Region to another. For the Region as a whole, there was very little change in the percentage of cattle and calves and sheep and lambs

[1]The author is Professor of Agricultural Economics, Ohio Agricultural Experiment Station, and Cooperative Agent, U. S. Department of Agriculture, Agricultural Marketing Service. The executive committee: C. D. Phillips, J. H. McCoy, T. T. Stout, E. Dailey, and D F. Fienup, had responsibility for direction of this study and preparation of this report.

[2]Newberg, Richard R., "Livestock Marketing, North Central Region", North Central Regional Publication 104, Ohio Agricultural Experiment Station Research Bulletin 846, December, 1959.

moving directly from farm to packer from 1940 to 1956. The percentage of direct sales to packers increased for hogs and pigs.

For livestock sold for purposes other than slaughter, substantial percentages moved directly from one farm or ranch to another without going through any marketing agency. The percentage moving directlv from one farm to another is highest for breeding livestock. For feeder cattle and calves and for feeder sheep and lambs the major part moves through one or more marketing agencies before arriving at the final destination, whether it be another farm or ranch, a commercial feeding operation or a feeding operation associated with some slaughtering establishment.[1]

A large percentage of livestock moves from farm to final destination without any contacts between buyers and sellers with long distances being involved in many livestock movements from the farm. It is therefore extremely important that a well established and well organized market structure be available to facilitate this movement of livestock. The complex job of moving livestock efficiently from origin to destination often requires the inter-action and co-ordinated efforts of many marketing agencies of widely differing types.

North Central Regional Bulletin 104 provides data on movement of livestock from farms to first outlets. The present study provides supplementary data on the movement of livestock from the first outlet on to the final destination.

The objectives of the study were:

1. To describe the pattern of livestock movement in the North Central Region for various classes of livestock.
2. To compare the differences in patterns for different parts of the region.
3. To describe the changes which have taken place in livestock marketing patterns over time.

Marketing Agencies

The major types of livestock marketing agencies operating in the North Central Region are: terminal public markets, auction markets, local dealer markets, packers and dealers. The term packers includes plants, country buying stations and salaried buyers. In addition there are several types of agencies which have no facilities for handling livestock and operate essentially as commission agents for buyers and sellers. These include commission agents on terminal public markets and order buyers operating both at public market and away from the public markets. Many different types of marketing agencies are owned and operated cooperatively by farmers. These are classified in this publication by the general method of operation or functions performed rather than by type of ownership.[2]

The numbers of various types of marketing agencies in the North Central States are shown in Table 1. The number of different types of marketing agencies varies greatly among areas. The Eastern part of the

[1]Ibid.

[2]For definition of the types of marketing agencies, see North Central Regional Bulletin 104, pp 5-7.

Table 1 — Estimated Number of Livestock Market Outlets of Various Types in Operation in the North Central States, by States, 1940 and 1956.[7]

State	Terminals		Auctions		Dealers		Local Markets[5]		Slaughtering Establishments[6] Wholesale		Local	Total
	1940	1956	1940	1956	1940	1956	1940	1956	1940	1955	1955	1955
Illinois	3	5	124	85	572	200[9]	37	31	72	62	73	135
Indiana	3	4	54	73	384	456	86	103	43	47	89	136
Kentucky	1	1	48	64	350	424	25	20	33	25	21	46
Michigan	1	1	45	52	976	424	18	28	57	86	113	199
Ohio	3	3	85	71	1007	159	77	134	158	112	133	245
Wisconsin	1	1	4	15	990	1005	1	187	29	47	12	59
East North Central States	12	13	360	360	4279	2668	244	503	392	379	441	820
Iowa	1	1	185	170	1247	453	43	34[3]	30	28	21	49
Kansas	2	2[1]	116	131	922	150	1	9	44	28	33	61
Minnesota[4]	1	1	45	66	1081	478[8]	7	99	9	19	24	43
Missouri	5	4	105	108	1277	546	5	32	44	39	20	59
Nebraska	1	1	118	110	119	316	10	4	23	29	21	50
North Dakota	1	1	18	27	441	150	8	5	5	4	7	111
South Dakota	1	1	49	63	514	640	1	--	9	8	9	17
West North Central States	12	11	636	675	5601	2733	75	183	164	155	135	290
Region	24	26	996	1035	9880	5401	319	686	556	534	576	1110

[1]Excludes Kansas City Terminal, part of which is in Kansas.

[2]This does not include 204 Order Buyers operating in Iowa

[3]These are local cooperatives, most of which operate in a manner very similar to local markets.

[4]Minnesota also reports 200 local Cooperative Shipping Associations.

[5]For 1940 Local Markets included concentration yards of packers.

[6]Number of plants in 1955 obtained from, "Number of Slaughter Establishments March 1, 1955." Agricultural Marketing Service, U.S.D.A., June 15, 1955.

[7]1940 data taken from "Marketing Livestock in the Corn Belt Region", November 1942, South Dakota Agricultural Experiment Station, Bulletin Number 365.

[8]Minnesota had 478 firms operating as dealers. The Minnesota Railroad and Warehouse Commission had record of licenses issued for 625 buyers and 500 buyer's agents.

[9]This is the estimated number of full time dealers in Illinois. It is estimated that about 800 more individuals in the State do some livestock dealing.

Region has a greater concentration of local dealer markets and packing plants. The locations of packing plants are shown in Figures 1 and 2. Auction markets are fairly evenly distributed over the Region, (Figure 3). However, in the Eastern part of the Region, auctions generally handle large numbers of slaughter livestock, while in the Western range areas, auctions handle mostly feeder livestock. Locations of terminal markets are shown in Fig. 5.

Collection of Data

Data presented in this bulletin came from several different sources. Primary data were collected in two steps. The *first* was a farm survey conducted in 1957 which provided data on place of first sale of livestock after it left the farms and ranches in the Region. The procedures followed in this study are described in the North Central Regional Bulletin 104, pages 8-10. Data obtained from a survey of 7,000 farmers covering 1956 farm sales and purchases were reported and tabulated on the basis of the areas used in this study. These data provided estimates of the volumes of livestock of various classes bought and sold by farmers in each area and the primary sources and outlets used by farmers.

Considerable difficulty was encountered in expanding these data because of the adjustments made in the Agricultural Marketing Service estimates when the Agricultural Census became available just as this work was being completed. The original sampling plan was based on the 1954 Census of Agriculture and the 1956 Agricultural Marketing Service estimates of marketing. After the 1959 Census of Agriculture became available on a state basis, these data were used to readjust the 1957 Agricultural Marketing Service estimates. In most cases the adjustments in numbers were downward.

The estimates of total marketings and total purchases of farmers contained in this bulletin for 1957 are somewhat lower than the estimates for 1956 contained in North Central Regional Bulletin 104. The lower estimates reflect the lower marketings for 1957 compared with 1956 for most major classes of livestock and also the adjustments made after the 1959 census became available in 1961. Thus it is believed that the estimates contained in this bulletin are more accurate than those contained in the earlier publication.

The *second* phase of the study under the direction of the North Central Livestock Marketing Technical Research Committee was concerned with the movements of livestock after they left the first marketing agency. This phase of collection of data was accomplished primarily during the spring and summer of 1958 and early in 1959. Data were collected directly from marketing agencies by personal interviews. For the purposes of sampling, the North Central Region was divided into 54 areas by the Technical Committee members. These areas were set up on the basis of major types of agencies in the area and were further sub-divided on the basis of density of livestock production. These marketing areas are shown in Figure 4. In most cases, it was difficult to define precise boundaries between areas because the shifts in methods of marketing were not sudden or sharply drawn on a geographical basis. In so far as pos-

Figure 1

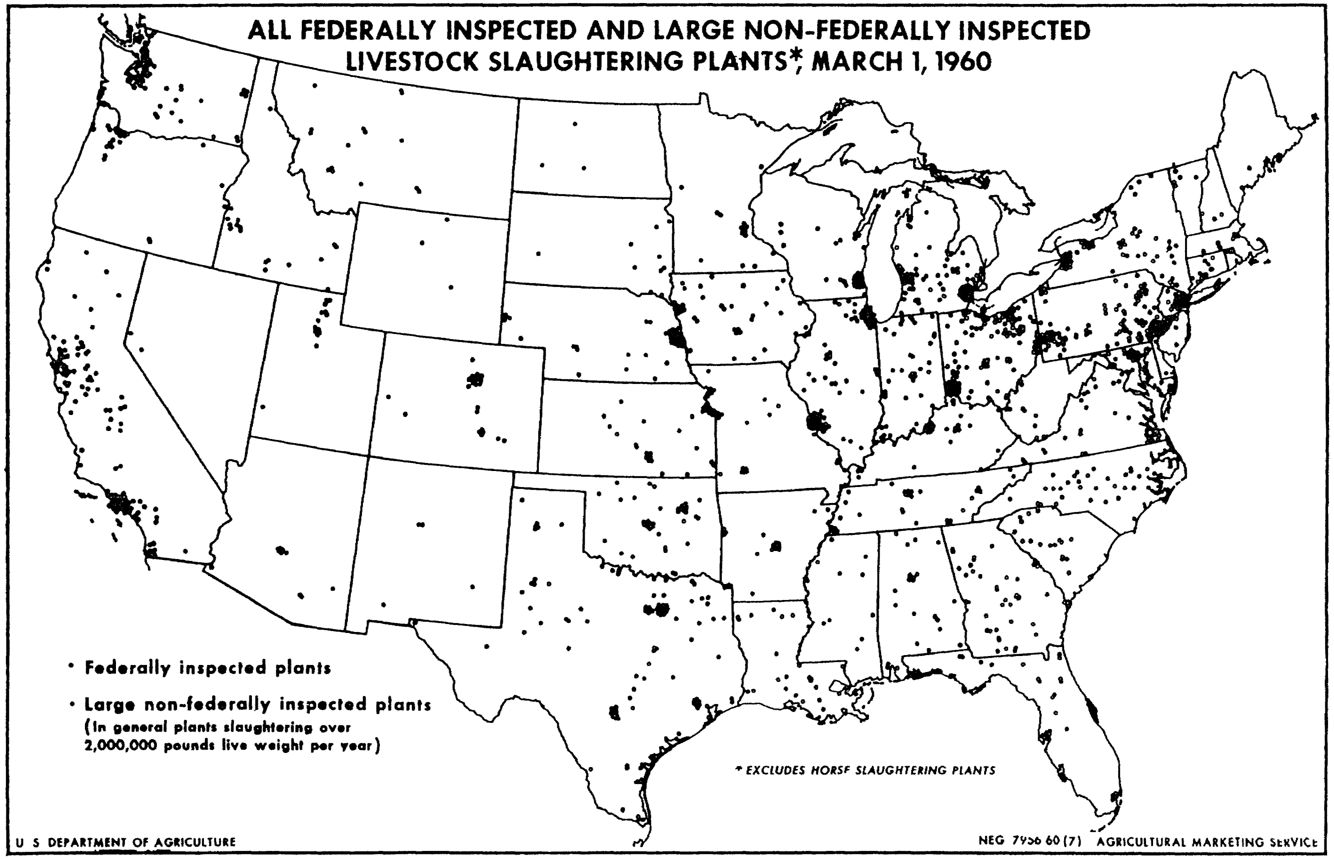

ALL FEDERALLY INSPECTED AND LARGE NON-FEDERALLY INSPECTED
LIVESTOCK SLAUGHTERING PLANTS*, MARCH 1, 1960
• Federally inspected plants
• Large non-federally inspected plants
(In general plants slaughtering over
2,000,000 pounds live weight per year)
* EXCLUDES HORSE SLAUGHTERING PLANTS
U S DEPARTMENT OF AGRICULTURE
NEG 7956 60 (7) AGRICULTURAL MARKETING SERVICE

Figure 2

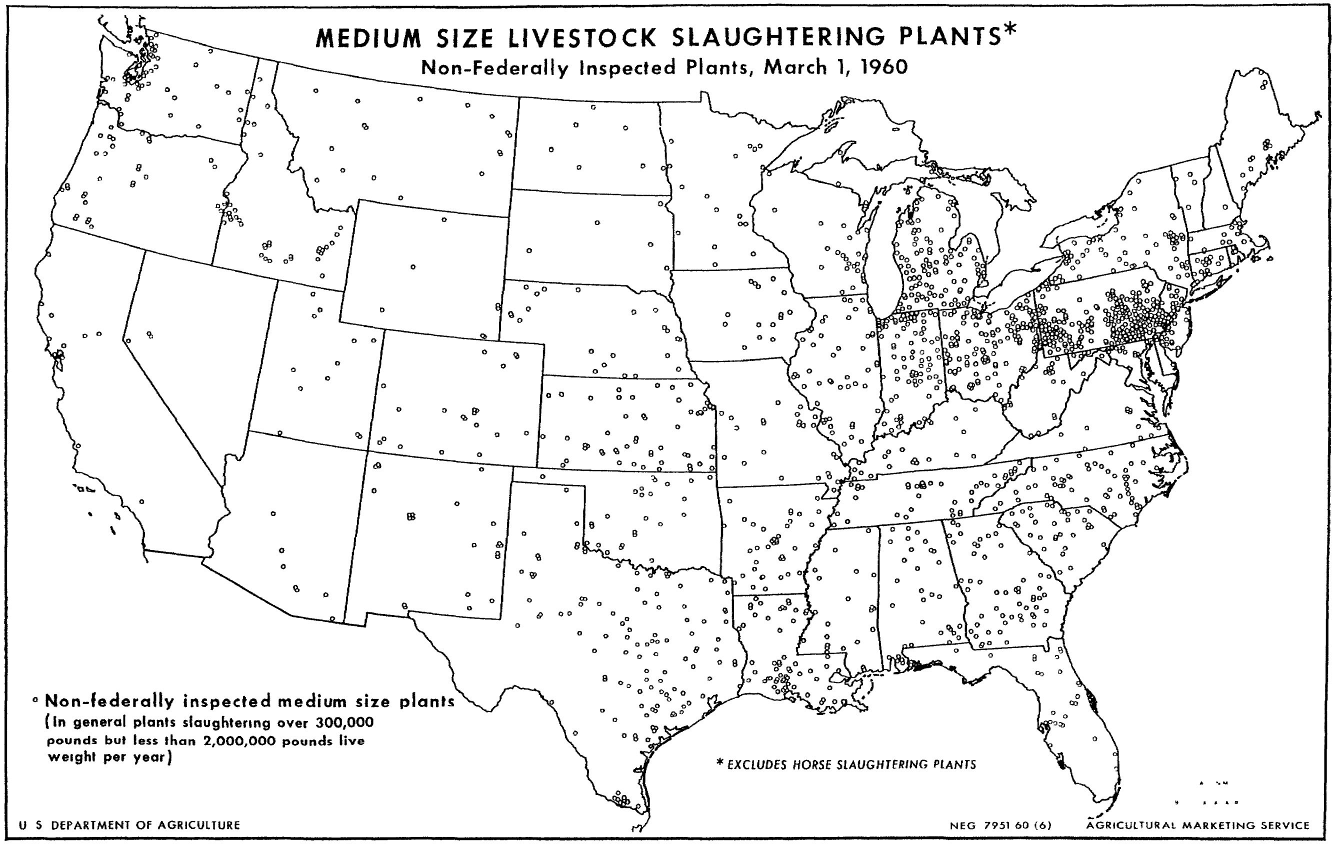

MEDIUM SIZE LIVESTOCK SLAUGHTERING PLANTS*
Non-Federally Inspected Plants, March 1, 1960
° Non-federally inspected medium size plants
(In general plants slaughtering over 300,000 pounds but less than 2,000,000 pounds live weight per year)
* EXCLUDES HORSE SLAUGHTERING PLANTS
U S DEPARTMENT OF AGRICULTURE
NEG 7951 60 (6)
AGRICULTURAL MARKETING SERVICE

Figure 3

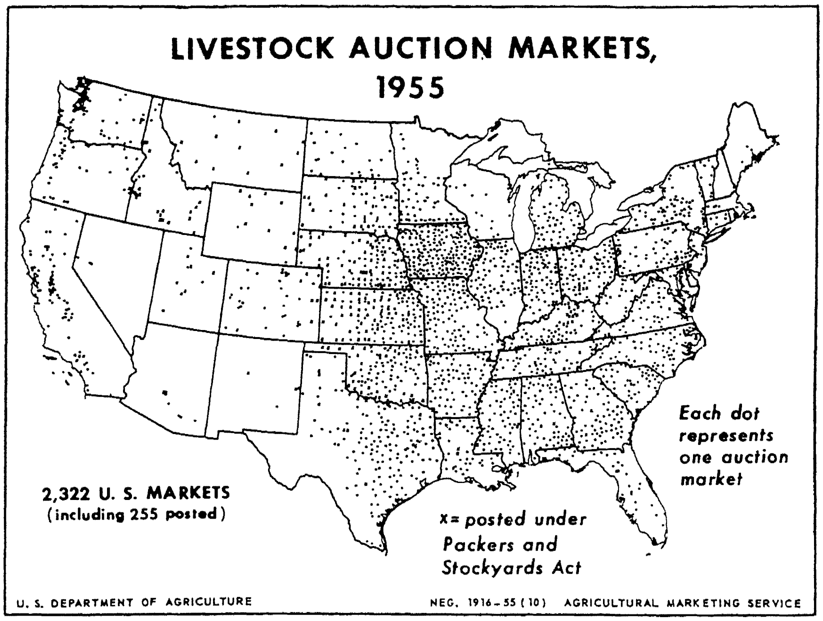
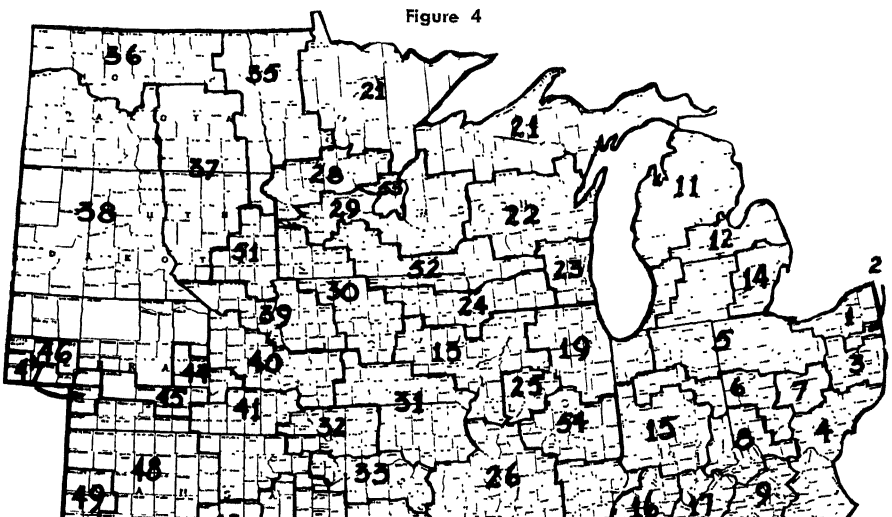


Figure 4



Areas used in analyzing the operations and facilities of livestock dealers and local markets in the North Central States and Kentucky, 1957-60.

sible the areas were set up such that a county which is part of one area tends to conform more to characteristics of that area than to the nearby areas.

The sampling procedure was designed to achieve at least a minimum reliability for sources and outlets for livestock for each type of marketing agency surveyed in each area. These included packers, auctions. local markets, and dealers. Terminal markets were not contacted in this survey. For auctions, dealers, and local markets, the sampling plan was set up to provide a 100 percent sample if there were six or less of a particular type of marketing agency in the area. If the number of a particular type of agency in the area exceeded six, approximately 25 percent of the additional agencies were drawn. This procedure was expected to provide fairly reliable measures of methods of operation and movements of livestock between marketing agencies for each of the areas.

In sampling of slaughtering establishments, the population was divided into two classes. those above 2 million pounds per year, and those below 2 million pounds per year. (See figures 1 and 2) All of the packers with volumes of over 2 million pounds per year were included. The sampling rate for slaughtering establishments below 2 million pounds per year was the same as for auctions and local dealer markets, slightly over 25 percent. However, in some of the areas the individual technical committee members chose to increase the sampling rate for small slaughtering establishments to 100 percent, the same as for large slaughtering establishments.

The only major difficulty encountered in collection of data was in obtaining data from all of the large packers in such a way that the data could be compared and aggregated. All of the packers above 2 million pounds provided data in one way or another, but the difference in the manner in which different packers were willing to release volume data made the estimation of individual area packer procurement data somewhat difficult especially where large packers operated in more than one area.

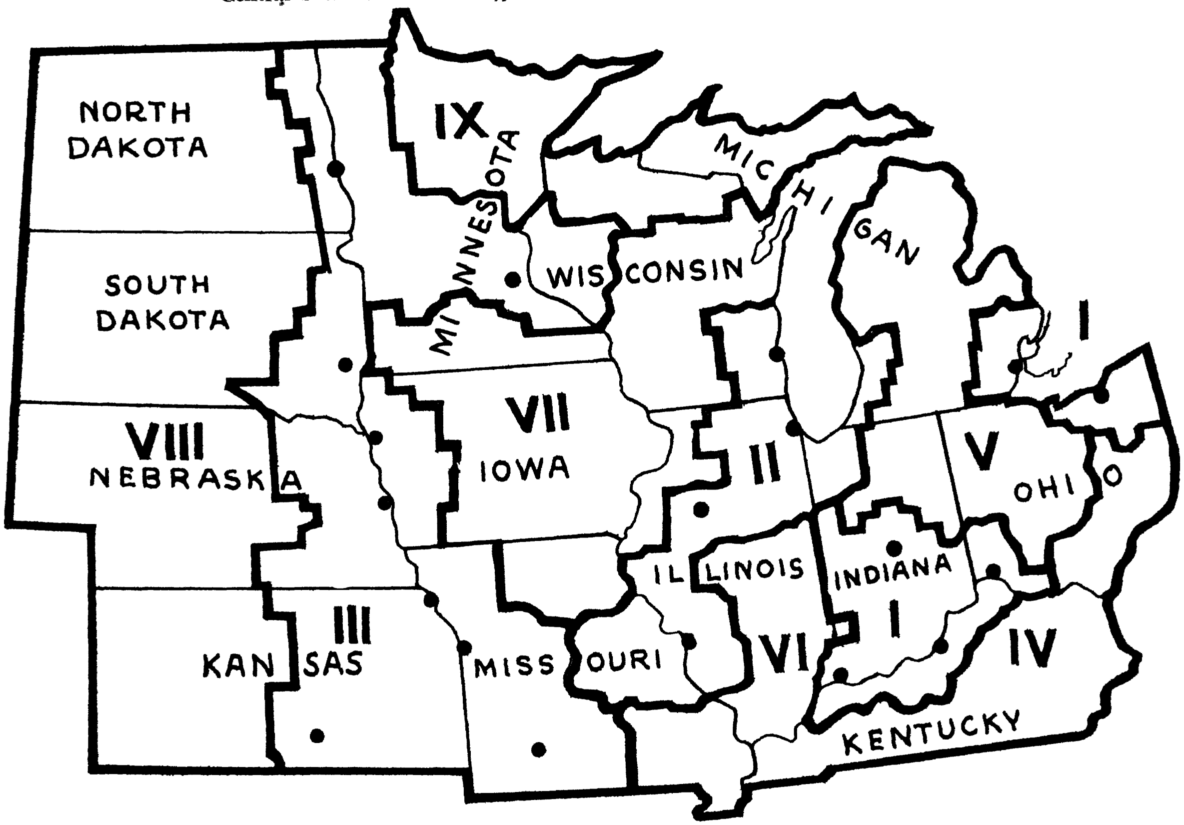
Data were not collected from terminal public markets. Generally adequate data on volume were available from secondary sources for terminals. Terminal sources and dispositions were estimated from data obtained from other marketing agencies and from farmers.

Because of the volume of data accumulated, the 54 areas were recombined into nine major areas based on marketing methods used and on type of livestock handled. (Figure 5) Areas I, II, and III include the Eastern, Central and River terminal public markets respectively. Terminals are major markets in these areas. In the other areas marketing tends to be handled to a large extent by dealers, local markets, auctions and in the case of slaughter livestock by packer direct purchases. Further more, methods may vary from one type of livestock to another.

CHARACTERISTICS OF LIVESTOCK MARKETINGS IN THE REGION

Slaughter livestock constitute the major part of total farm sales of livestock in the North Central Region. In 1957 farmers and ranchers sold an estimated 24.9 million head of cattle and calves, 60.4 million head of

Figure 5. Nine Major Livestock Marketing Areas and Location of Terminal Markets, North Central States and Kentucky, 1960.



hogs and pigs, and 9.0 million head of sheep and lambs. Slaughter animals made up 70 percent of the cattle and calves, 80 percent of the sheep and lambs, and 90 percent of the hogs and pigs.

Farm sales of slaughter cattle and calves were about twice as large as farm purchases of feeding, dairy, and breeding cattle and calves. Purchases of feeding and breeding sheep and lambs were about 40 percent as large as slaughter sales in the Region. Thus almost 50 percent of the cattle and calves and 60 percent of the sheep and lambs sold for slaughter were finished and sold for slaughter from the farms or ranches on which they were born. (Tables 2 and 3)

In contrast, purchases of hogs and pigs for feeding or breeding amounted to only slightly over 10 percent of slaughter sales. Thus, almost 90 percent of the hogs sold for slaughter, were finished to slaughter weight on the farm where they were farrowed. Farmers and ranchers in the Region sold a total of almost 14.8 million head of livestock for non-slaughter use and purchased 19.1 million head. The difference came mainly from the states to the south and west of the North Central Region.

The origin of the net in-shipments, 1.9 million head of non-slaughter cattle and calves and 1.5 million head of non-slaughter sheep and lambs, were mainly the plains and mountain states to the west and southwest, particularly Colorado, Wyoming, Montana, Utah, Texas, and Oklahoma. Considerable difficulty was encountered in obtaining precise estimates of actual sales of feeders and breeding pigs. The estimated shipments of 0.9 million may be subject to a fairly large sampling error either upward or downward. Shipments of non-slaughter hogs and pigs were most common from the states immediately to the south and southeast.

While the Region was a net importer of non-slaughter livestock, sales of slaughter livestock considerably exceeded numbers slaughtered within the Region. Approximately 10 million hogs, 2 million cattle and calves and 1.8 million sheep and lambs were shipped out of the Region for slaughter. While the biggest volume went east, shipments south and west also were large, particularly shipments of slaughter hogs.

Variation in Livestock Marketings Within the Region

Within the Region, livestock enterprises vary from area to area Large volumes of livestock are moved from one area to another and from one state to another, both for slaughter and for feeding and breeding purposes. Channels in marketing of livestock also differ greatly from one area to another.

Table 4 shows the total volume of livestock sold by farmers and ranchers, by areas of the Region. Volume is aggregated in animal units with one head of cattle or calves equal to three hogs or pigs or 5 sheep or lambs. Area VII had the largest volume of livestock sales and area III was second. These two areas together accounted for 55 percent of the total animal units sold. Area VIII was third in volume. Of course, these areas contain the larger geographical surfaces than the other areas. The volume of sale was least in area IX both in total and on a square mile basis.

Table 2 — ESTIMATED NUMBER OF SLAUGHTER LIVESTOCK

Sold by Farmers and Number Handled by Each Type of Marketing Agency by Area, North Central Region, 1957

Cattle & Calves

Area	Marketing Agencies (except Packers)					Packers					
	Terminals	Auctions	Dealers	Local Markets	Total Volume	Direct Purchases	Other Purchases	Total Volume	Total Volume all Marketing Agencies	Sales by Farmers	Net in-Shipment
						(Thousands of Head)					
I	1,663	186	286	22	2,157	156	2,549	2,705	4,862	1,339	+ 1,366
II	4.231	313	226	40	4.810	290	3,158	3,448	8,258	1,591	+ 1,857
III	5,981	695	774	68	7.518	426	4,942	5,368	12,886	4,976	+ 392
IV	0	903	410	7	1,320	33	97	130	1,450	827	— 697
V	36	899	174	62	1,171	176	508	684	1,855	1,550	— 866
VI	18	343	163	90	614	30	38	68	682	647	— 579
VII	0	1,063	1,342	647	3,052	1 291	1,313	2,604	5,656	5,514	— 2,910
VIII	0	645	375	6	1,026	27	43	70	1,096	1,164	— 1,094
IX	0	31	99	14	144	34	29	63	207	178	— 115
Region	11,929	5,078	3,849	956	21,812	2,463	12,677	15,140	36,952	17,786	— 2,646
Lower Confi-dence Limit[1]	11,929	4,570	3.464	860	20,823	2,463	12.677	15,140	35.963	17,786	— 2,646

[1]These are the lower confidence limits at the 95% probability level. For terminal markets and packers there was essentially a 100% sample, the sampling ciror is essentially zero. However there may be some minute errors in accounting for and reporting volume. Farm sale and purchase data were adjusted by the use of 1959 Agricultural Census and are expected to have only neglibible errors in total volume. The distribution between slaughter and non-slaughter and channels in marketing are based on a sample of 7,000 livestock producers.

Table 2 (Continued)

Hogs & Pigs

Area	Marketing Agencies (except Packers) Terminals	Auctions	Dealers	Local Markets	Total Volume	Packers Direct Purchases	Other Purchases	Total Volume	Total Volume all Marketing Agencies	Sales by Farmers	Net in-Shipment
	(Thousands of Head)										
I	2,329	138	140	628	3,235	1,986	4,004	5,990	9,225	5,245	+ 745
II	6,873	627	806	1,663	9,969	2,760	7,164	9,924	19,893	5,920	+ 4,004
III	8,943	1,010	3,156	692	13,801	5,193	7,493	12,686	26,487	12,793	— 107
IV	0	801	175	49	1,025	84	210	294	1,319	1,222	— 928
V	287	1,191	1,522	5,012	8,012	1,355	1,381	2,736	10,748	5,852	— 3,116
VI	207	298	41	1,903	2,449	69	48	117	2,566	2,465	— 2,348
VII	0	172	7,879	5,275	13,326	10,486	1,941	12,427	25,753	19,516	— 7,089
VIII	0	1,044	1,476	16	2,536	23	70	93	2,629	1,258	— 1,165
IX	0	2	*	*	2	*	0	*	2	52	— 52
Region	18,639	5,283	15,195	15,238	54,355	21,956	22,311	44,267	98,622	54,323	—10,056
Lower Confidence Limit[1]	18,639	4,755	13,675	13,714	50,783	21,956	22,311	44,267	95,050	54,323	—10,056

* Less than 500 head

Table 2 (Continued)

Sheep & Lambs

Area	Marketing Agencies (except Packers): Terminals	Auctions	Dealers	Local Markets	Total Volume	Packers: Direct Purchases	Other Purchases	Total Volume	Total Volume all Marketing Agencies	Sales by Farmers	Net in-Ship-ment
	(Thousands of Head)										
I	594	38	6	112	750	4	742	746	1,496	486	+ 260
II	779	86	20	1	886	91	717	808	1,694	511	+ 297
III	1,644	64	253	2	1,963	833	1,697	2,530	4,493	2,142	+ 388
IV	0	512	218	6	736	*	185	185	921	456	— 271
V	18	440	52	335	843	6	17	23	866	848	— 826
VI	2	109	11	16	138	*	1	1	139	166	— 165
VII	0	248	153	98	499	1,079	301	1,380	1,879	1,581	— 201
VIII	0	139	115	0	254	9	43	52	306	1,309	— 1,257
IX	0	1	*	0	1	0	0	0	1	40	— 40
Region	3,037	1,637	826	570	6,070	2,022	3,703	5,725	11,795	7,540	— 1,815
Lower Confi-dence Limit[1]	3,037	1,473	743	513	5,766	2,022	3,703	5,725	11,491	7,540	— 1,815

* Less than 500 head

Table 3 — Estimated Number of Feeder, Breeding, and Dairy Livestock Bought & Sold by Farmers and Numbers Handled by Each Type of Marketing Agency, by Area, North Central Region, 1957

Area	Terminals	Auctions	Dealers	Local Markets	Total Volume All Agencies	Farmer Purchases	Farmer Sales	Shipment Net in-shipment
Cattle & Calves (thousands of head)								
I	155	248	324	163	890	673	241	+ 432
II	228	469	1,118	539	2,355	1,001	194	+ 807
III	2,640	2,518	1,082	15	6,255	1,900	1,832	+ 68
IV	0	414	323	3	740	447	285	+ 162
V	0	503	467	63	1,033	876	316	+ 560
VI	2	366	687	28	1,083	251	149	+ 102
VII	0	2,003	1,076	167	3,246	2,606	911	+ 1,695
VIII	0	2,789	1,733	66	4,588	1,245	3,143	— 1,898
IX	0	16	31	*	47	58	75	— 17
Region	3,025	8,326	6,842	1,044	20,237	9,057	7,146	+ 1,911
Lower Confidence Limit[1]	3,025	8,393	6,158	940	18,516	9,057	7,146	+ 1,911
Hogs & Pigs (thousands of head)								
I	19	397	174	92	682	376	358	+ 18
II	111	530	90	66	797	1,075	708	+ 367
III	7	1,426	664	57	2,154	1,676	2,090	— 414
IV	0	360	44	1	405	193	375	— 182
V	0	647	538	148	1,333	738	291	+ 447
VI	1	475	240	32	748	529	381	+ 148
VII	0	1,851	990	92	2,933	2,103	1,346	+ 757
VIII	0	504	164	0	668	340	396	— 56
IX	0	5	45	0	50	*	153	— 153
Region	138	6,195	2,949	488	9,770	7,030	6,098	+ 932
Lower Confidence Limit[1]	138	5,575	2,654	439	8,806	7,030	6,098	+ 932
Sheep & Lambs (thousands of head)								
I	87	82	78	145	392	198	32	+ 167
II	73	87	25	0	185	315	11	+ 304
III	1,191	184	120	2	1,497	611	229	+ 382
IV	0	94	36	1	131	183	72	+ 111
V	0	250	83	29	362	245	104	+ 141
VI	1	65	15	5	86	181	26	+ 155
VII	0	416	58	10	484	440	314	+ 126
VIII	0	542	613	0	1,155	811	713	+ 98
IX	0	2	4	0	6	12	32	— 20
Region	1,352	1,722	1,032	192	4,298	2,997	1,533	+ 1,464
Lower Confidence Limit[1]	1,352	1,550	929	173	4,004	2,997	1,533	+ 1,464

[1]These are the lower confience limits at 95% probability level. See foot note to table 2.

*Less than 500 head reported.

Table 4 — Total Animal Units and Percentage of Total Animal Units in Each Class Sold by Farmers by Area, North Central Region, 1957

Area	Total animal units sold in the Region (Thousand)	Slaughter Livestock: Cattle & Calves	Slaughter Livestock: Hogs & Pigs	Slaughter Livestock: Sheep & Lambs	Slaughter Livestock: Total	Dairy Feeder & Breeding Livestock: Cattle & Calves	Dairy Feeder & Breeding Livestock: Hogs & Pigs	Dairy Feeder & Breeding Livestock: Sheep & Lambs	Dairy Feeder & Breeding Livestock: Total
		(Percentage of Total)				(Percentage of Total)			
I	3550	37.7	49.2	2.7	89.7	6.8	3.4	.2	10.3
II	4098	38.8	48.1	2.5	89.5	4.7	5.7	.05	10.5
III	12243	40.6	34.8	3.5	79.0	15.0	5.7	.4	21.0
IV	1749	47.3	23.3	5.2	75.8	16.3	7.1	.8	24.2
V	4105	37.8	47.5	4.1	89.4	7.7	2.4	.5	10.6
VI	1783	36.3	46.1	1.8	84.2	8.4	7.1	.3	15.8
VII	13758	40.1	47.3	2.3	89.7	6.6	3.3	.5	10.3
VIII	5263	22.1	8.0	5.0	35.1	59.7	2.5	2.7	64.9
IX	335	53.1	5.1	2.4	60.6	22.4	15.2	1.8	39.4
Total	46884	37.9	38.6	3.2	79.8	15.2	4.3	.7	20.2

[1]Animal units combined on the following basis: one cow or steer or calf = three hogs or pigs = five sheep or lambs

Sales of slaughter livestock as a percentage of total sales were almost identical in areas I, II, V, and VII, ranging from 89.48 to 89.7 percent of total animal units sold. These areas are part of the Central Corn Belt where livestock feeding is of major importance. In Area VIII, which includes the range area of the Plains states, slaughter livestock made up only 35.1 percent of the total animal units sold. Sales of non-slaughter livestock as a percentage of total sales also were large on the other edges of the Corn Belt, particularly in areas IX and IV and in parts of Areas III and VI.

Slaughter hogs made up the largest part of the total animal units sold in the Central Corn Belt. In Areas I, II, V, VI, and VII they accounted for from 46.1 to 49.2 percent of total animal units sold.

Slaughter cattle sales accounted for between 36.3 and 53.1 percent of total animal units in all areas except area VIII. In area VIII non-slaughter cattle accounted for 59.7 percent of animal units sold. Most of these were feeder cattle and calves.

Areas IV, VIII and IX are distinctively different from the remainder of the Region. These three areas lie outside the main Corn Belt although some corn is produced in these areas. Grain feeding for fattening of livestock is a much less common practice in these areas than in other part of the Region.

Marketing Patterns in Different Areas

Terminal public markets, particularly the large terminals, are found in Areas I, II and III. Large slaughter operations also are located adjacent to the terminal public markets. As a result, in these three areas, slaughter exceeds farm sales of slaughter livestock of all three species. The only exception is slaughter of hogs in area III which is almost exactly in balance with farm marketings.

In Area II slaughter of all species combined exceeded farm sales by 6.2 million head (77%). In Area I slaughter exceeded farm sales by 2.4 million head (34%) but in Area II slaughter exceeded marketings by only .7 million head (3%) in 1957.

In all other areas for all three species, farm sales of slaughter livestock exceeded total slaughter. In Areas IV, VI, VIII and IX slaughter within the area represented only a very small part of total sales.

Area VII accounts for the largest share of the excess of sales over slaughter. Shipment out of area VII for slaughter totaled 10.2 million head, including 2.9 million head of cattle and calves, and 7.1 million head of hogs. Area V ranked second with outshipments numbering 4.8 million head, and Area VIII was third with 3.4 million head shipped out for slaughter. Of course, many of the animals shipped out of these areas went to Areas I, II, and III for slaughter. For the region as a whole, there was a net outshipment of livestock for slaughter of 14.5 million head. (Table 2)

In addition to these inter-regional movements, there were large movements of nonslaughter livestock into the Region primarily for fat-

Table 5 — Estimated Farm Sales, Slaughter, and Ratio by Classes of Slaughter Livestock, by Area, 1957 North Central Region

	Cattle & Calves			Hogs			Sheep & Lamb		
	Farm Sales	Slaughter	Ratio[1]	Farm Sales	Slaughter	Ratio[1]	Farm Sales	Slaughter	Ratio[1]
	(thousands of head)			(thousands of head)			(thousands of head)		
I	1,339	2,705	2.02	5,245	5,990	1.14	486	746	1.53
II	1.591	3,448	2.17	5,920	9,924	1.68	511	808	1.58
III	4.976	5,368	1.08	12,793	12.686	.99	142	2,530	1.18
IV	827	130	.16	1,222	294	.24	456	185	.41
V	1,550	684	.44	5,852	2.736	.47	849	23	.03
VI	647	68	.11	2,465	117	.05	166	1	.01
VII	5,514	2,604	.47	19.516	12.427	.64	1.581	1 380	.87
VIII	1.164	70	.06	1,258	93	.07	1,309	52	.04
IX	178	63	.35	52	0	.10	40	0	.10
Region	17,786	15.140	.85	54,323	44.267	.81	7,540	5.725	.76

[1]Ratio of slaughter to farm sales of slaughter livestock in the area.

tening for slaughter. The net movement into the Region totaled 4.3 million head (Table 3). The largest net imports were to the Central Corn Belt Areas I, II, V, VI, and VII. Area VII was the largest importer for both non-slaughter cattle and calves and hogs and pigs.

For nonslaughter cattle and calves area VIII was the principal surplus producer with 3.1 million head sold and only 1.2 million purchased. Other areas had excesses of purchase over sales of 3.8 million head. Most of the movement of feeder cattle is from the west into these areas. There was a net inter-area movement of 3.8 million head and net inter-regional movement of 1.9 million head. The actual inter-area and inter-regional movements probably were much higher since there was some out movement of non-slaughter livestock.

For non-slaughter sheep and lambs every area except IX showed net inshipments. The net inter-regional movement of non-slaughter sheep and lambs was 1,464,000 head. For non-slaughter hogs and pigs areas III, IV, VIII and IX were the major surplus producers and the other areas were deficit producers.

Marketing Agency Volumes

Altogether these net inter-area and inter-regional movements of slaughter and non-slaughter livestock represent a massive job for marketing agencies in the Region. Tables 6-9 show the estimated number of head of livestock sold by farmers and percentage sold through various agencies. A large volume of livestock is handled by more than one marketing agency between the time it leaves the farm and the time it arrives at the final destination whether it is a slaughterer or a feed lot or breeding herd or flock. Tables 2 and 3 show the estimated total numbers handled by each type of marketing agency and the total volumes handled by marketing agencies.

Volume of livestock at marketing agencies related to total volume of sales of farmers provides some indication of the multiple handling of livestock.[1] Farmers reported total sales of 17.8 million cattle and calves. Marketing agencies, other than packers, reported a total volume of 20.8 million head. If the 2,463,000 bought direct by packers are deducted, the ratio is 20.8 million to 15.3 or an average of number of times sold of 1.36. For non-slaughter cattle and calves, estimated volume handled by marketing agencies was over twice the total volume farmers reported they purchased. It is almost three times the volume farmers reported they had not purchased directly from other farmers. Often transactions with dealers are reported as transactions with farmers both when they buy from and when they sell to farmers directly and also when they deal through other marketing agencies. Thus some of these reported direct farmer to farmer transactions actually involved dealers as one party.

For slaughter hogs, the volume of all marketing agencies other than packers was 50.8 million head compared with 40 million head farmers

[1]It should be noted that marketing agencies in the north Central Region handle some livestock from other Regions. Thus there is some overstatement of actual amount of multiple handling of livestock.

Table 6 — **Number of Head of Livestock and Number Farmers Reported they sold to Various Outlets.**

Volumes Reported Handled by Agencies		Reported Sales by Farmers
Terminal	18,639	20,488
Auctions	4,755	4,153
Dealers	13,675	10,556[1]
Local Markets	13,714	
Packers Direct	21,956	14,654
Farmers		137
Others		4,324

[1]Dealers and local markets combined

reported they sold through other marketing agencies excluding sales directly to packers. Thus, the ratio of marketing agency volume to sales other than directly to packers was 1.27.

The discrepancy between reported sales by farmers direct to packers, reported purchases by packers direct from farmers, and the reported transactions of dealers and local dealer markets provide evidence of the confusion of terminology and the difficulty in identifying the transactions. At the same time, it provides additional insight into the nature of operation of the marketing system.

Following are the reported slaughter hog volumes at marketing agencies at the lower confidence limit and the reported sales through these agencies by farmers.

It will be noted that the number reported handled by marketing agencies do not agree with numbers farmers said they sold or consigned to the various types of marketing agencies. Some of the discrepency maybe due to difficulty in definition of various marketing agencies.

In some areas farmers confuse large local market agencies, such as the Columbus, Ohio, market with terminals. This tends to result in slight overstatement of farmer sales through terminals and understatement of sales to local markets. Farmers consigning or selling livestock to auction operators often identify the local market or operation as a sale to the auction itself. Auction market operators reported a volume of 1.5 million head of slaughter hogs purchased through the dealer or local market activities of the auction markets. These two types of errors probably account for the discrepancy between auction and terminal volume as reported by the agency and the volume reported by farmers.

However, the discrepancy in volume between dealers, local markets, and packers has a somwhat different origin. Packers reported they bought 22 million slaughter hogs direct, but farmers reported they sold only 14.7 million direct to packers. Dealers and local markets to-

Table 7 — Percentage of Cattle and Calves bought and sold by farmers through various types of outlets, by class, by area, North Central Region, 1957

Slaughter Cattle and Calves — Outlet

Area	Terminal Percent	Auction	Dealers and Local Markets	Packers	Farmers	Others	Total No in Thousand
I	71.9	15.0	3.3	7.0	1.8	1.0	1,339
II	78.3	3.3	6.3	9.5	.3	2.6	1,591
III	72.9	10.5	1.3	4.7	.4	7.2	4,976
IV	25.0	59.9	5.9	4.2	.5	4.5	827
V	16.2	62.0	12.5	8.5	.3	.5	1,550
VI	59.0	12.2	16.4	9.0	.4	3.0	647
VII	48.9	9.8	13.4	17.7	.6	9.3	5,514
VIII	48.1	33.6	5.6	11.4	.2	1.1	1,164
IX	51.5	15.8	12.0	9.5	1.1	10.1	178
Region	56.5	18.4	8.6	10.3	.5	5.7	17,786

Feeder and Breeding Cattle and Calves — Source

Area	Terminal Percent	Auction	Dealers and Local Markets	Packers	Farmers	Others	Total No in Thousand
I	7.0	26.5	20.2	—	40.1	6.2	673
II	13.5	22.4	30.4	—	14.6	19.1	1.001
III	7.9	36.1	9.9	—	23.6	2.5	1,900
IV	1.2	30.7	20.4	—	46.7	1.0	447
V	3.6	24.0	42.7	—	21.3	8.4	876
VI	7.3	51.2	15.3	—	24.4	1.8	251
VII	15.2	35.8	24.6	—	18.9	5.5	2,606
VIII	3.8	49.3	2.4	—	40.7	3.8	1,245
IX	2.5	26.1	6.7	—	64.7	—	58
Region	9.2	34.5	20.0	—	26.0	10.3	9,057

Dashes indicate none reported in sample.

Feeder and Breeding Cattle and Calves — Outlet

Area	Terminal Percent	Auction	Dealers and Local Markets	Packers	Farmers	Others	Total No in Thousand
I	5.9	13.2	7.9	—	71.4	1.6	241
II	8.7	22.6	12.9	—	53.9	1.9	194
III	25.9	38.1	4.6	.2	13.8	17.4	1,832
IV	—	35.3	11.6	*	43.5	9.6	285
V	4.3	30.1	22.6	—	42.3	.7	316
VI	2.8	25.2	27.2	.2	39.8	4.8	149
VII	3.8	52.2	10.9	3.0	30.1	—	911
VIII	12.0	57.9	18.8	.5	9.7	1.1	3,143
IX	6.5	5.2	15.5	—	68.3	4.5	75
Region	13.2	46.2	13.7	.7	20.8	5.6	7,146

Dashes indicate none reported in sample.
*Less than .05%.

Table 8 — Percentage of Hogs and Pigs bought and sold by farmers, through various types of outlets, by class, by area, North Central Region, 1957

Area	Terminal Percent	Auction	Dealers and Local Markets	Packers	Farmers	Others	Total No. in Thousand
			Slaughter Hogs and Pigs Outlet				
I	67.4	3.2	12.5	16.0	.6	.3	5,245
II	55.8	4.8	15.0	21.6	.5	2.3	5,920
III	49.2	10.8	4.6	11.3	.3	23.8	12,793
IV	17.5	55.9	9.8	14.7	1.7	.4	1,222
V	7.5	14.3	65.4	11.7	.1	1.0	5,852
VI	41.7	2.3	17.0	25.8	*	13.3	2,465
VII	28.0	1.5	20.4	46.3	—	3.8	19,516
VIII	12.0	39.9	7.1	43.2	.5	.3	1,258
IX	95.0	—	—	—	5.0	—	52
Region	37.6	7.7	19.4	27.0	.3	8.0	54,323
			Feeder and Breeding Hogs and Pigs Source				
I	2.3	23.5	15.3	—	55.1	3.8	376
II	.2	16.8	8.3	—	71.6	3.1	1,075
III	*	16.6	24.7	—	47.8	10.9	1,676
IV	—	38.4	8.4	—	53.2	—	193
V	—	21.5	36.4	—	30.3	11.8	738
VI	—	51.7	1.6	—	45.4	1.3	579
VII	2.9	29.3	25.9	—	35.3	6.6	2,103
VIII	10.2	67.3	8.1	—	14.4	—	340
IX	—	—	—	—	—	—	—
Region	1.1	26.3	18.7	—	47.3	6.6	7,030
			Breeding and Feeder Hogs and Pigs Outlet				
I	—	19.1	3.5	10.2	67.2	—	358
II	3.8	12.3	24.9	—	53.5	5.5	708
III	3.4	27.7	18.0	2.2	19.0	27.7	2,090
IV	.8	29.9	13.6	—	54.5	1.2	375
V	—	43.5	8.5	1.6	46.0	.4	291
VI	.1	21.6	23.1	—	47.3	7.9	381
VII	.4	32.4	27.5	1.5	38.2	.1	1,346
VIII	2.7	49.2	2.0	15.2	28.7	2.2	396
IX	—	28.2	—	—	29.5	42.3	153
Region	1.9	28.4	18.2	2.7	36.2	12.6	6,098

Dashes indicate none reported in sample.
*Less than .05%.

Table 9 — Percentage of Sheep and Lambs bought and sold by farmers, through various types of outlets, by class, by area, North Central Region, 1957

Area	Terminal Percent	Auction	Dealers and Local Markets	Packers	Farmers	Others	Total No. in Thousand
			Slaughter Sheep and Lambs		Outlet		
I	71.8	16.4	2.1	5.4	*	4.3	486
II	73.8	5.6	3.0	11.1	—	6.5	511
III	72.4	1.0	.2	7.4	—	19.0	2,142
IV	29.6	66.0	4.0	.1	—	.3	456
V	21.2	43.9	25.6	1.0	—	8.3	848
VI	75.3	1.3	10.9	.5	—	11.9	166
VII	30.9	11.6	24.4	30.5	—	2.6	1,581
VIII	54.5	9.6	3.1	32.8	—	—	1,309
IX	94.6	—	—	—	—	5.4	40
Region	52.5	14.8	9.4	15.4	*	7.9	7,540
			Breeding and Feeder Sheep and Lambs		Source		
I	5.0	65.7	—		25.2	4.1	198
II	—	38.8	17.3		12.2	31.7	315
III	32.5	10.9	23.9		31.5	1.2	611
IV	25.6	18.4	24.3		31.7	—	183
V	—	14.6	56.1		24.7	4.6	245
VI	92.7	—	—		2.1	5.2	181
VII	—	35.2	34.1		28.2	2.5	440
VIII	.6	42.6	24.8		32.0	*	811
IX	—	—	—		100.0	—	12
Region	14.3	29.7	24.5		26.6	4.9	2,997
			Breeding and Feeder Sheep and Lambs		Outlet		
I	2.2	—	—	—	96.5	1.3	32
II	—	1.1	—	—	98.9	—	11
III	2.6	12.7	41.6	1.2	32.6	9.3	229
IV	—	26.5	24.1	—	49.4	—	72
V	—	33.2	41.7	—	24.7	.4	104
VI	6.3	3.6	—	—	90.1	—	26
VII	—	4.7	—	2.1	93.2	—	314
VIII	19.8	9.8	37.3	—	29.1	4.0	713
IX	100.0	—	—	—	—	—	32
Region	11.8	11.0	27.5	.6	45.8	3.3	1,533

Dashes indicate none reported in sample.
*Less than .05%.

gether reported a volume of at least 27.4 million.[1] Farmers reported sales to dealers and local markets of 10.6 million head. In addition, farmers sold 4.2 million to "others" practically all of which were to dealers or local markets acting as order buyers.

It is a common practice for a packer to "contract" with a dealer or local market operator to buy hogs for him in the country. The agreement generally specifies that the packer will reimburse the operator for the price paid by the dealer or local market operator plus a certain margin for handling the livestock. This margin varies from 10 cents to 50 cents a head depending on various conditions such as volume, and services rendered, local hauling, etc. The dealer or local market operator buys the hogs and puts them on a truck consigned to the packing plant. The packer pays the trucking charge to the plant. This practice apparently has become quite common.

In general, packers reported these purchases as direct purchases. Farmers reported them as sale to either dealers or local markets or to others, which they identified as country order buyers or in some cases as a cooperative which performed this function. Dealers and local markets reported these as part of their volumes. In many cases the dealer or local market operator purchased only for one packer and in other cases for several. Purchases of cattle and calves and sheep and lambs were less frequently made in this manner.

Sales listed as "others" including these dealers and local markets gives total sales of 15 million to dealers and local markets. In addition, dealers reported they obtained almost 4 million head of slaughter hogs from other marketing agencies and local dealer markets reported they obtained 1.5 million from other marketing agencies.

Another difficulty pointed out in connection with terminals is identification between terminals and large local dealer markets. Probably most of the 2 million head by which reported sales of farmers to terminals exceeded receipts as reported by terminals actually went to local dealer markets. In addition, dealers and local markets operated in connection with auctions received about 1.5 million head reported sold to auctions. Adding this, we can account for a total of approximately 24 million of the volume reported by dealers and local markets out of the 27 million head.

To what extent dealers and local markets fail to identify each other correctly in their buying and selling transactions is uncertain. Perhaps this failure accounts for the other 3 million head or more. Since farming and livestock dealing together are such a common practice, it may account for a major part of the total difference in reported receipts and dispositions. Almost three-fourths of the dealers in the region are farmers. Dealers reported they sold 10.3 percent of their slaughter hogs to dealers and local markets and 5.6 percent to "others", but dealers reported purchases of only 5.2 percent from these two sources. Local markets reported sales were 1.6 percent and purchases were 2.5 percent. The total difference amounts to about 1.5 million head sold to dealers and

[1]Based on the lower confidence limit of the data.

local markets by other dealers and local market operators, which these operators reported as purchases from farmers.

There may be some tendency of marketing agencies to over-estimate their total volume and also to over-state the percentage obtained directly from farmers. Where the agency could not identify the seller. there was a tendency to classify him as a farmer. On the other hand, the seller is fairly likely to know to whom he sold livestock, particularly slaughter livestock. Most do keep records of sales. The number of outlets usually is very small relative to the number of sources of slaughter livestock.

In summary then, it appears farmers sold approximately 18 million head of slaughter hogs through terminals, almost 15 million head directly to packers, between 4 and 5 million head through auctions and 18-20 million head directly to dealers and local dealer markets. Of those sold to dealers and local markets, 5-7 million probably were purchased by the dealers or local markets on essentially a commission purchase basis for packers operating within the region. In addition, a large percentage of the remainder were purchased for packers outside the region on essentially the same basis.

Reported sales of slaughter cattle and calves, and slaughter sheep and lambs by farmers to various agencies are in fairly close agreement with reported volume of marketing agencies. For both of these species there is a large movement into and out of the region through terminal markets for both slaughter and non-slaughter use. There was considerable difficulty encountered in classification between slaughter and non-slaughter animals. This was particularly true of slaughter and feeder lambs.

In marketing of non-slaughter livestock, the ratio of total volume handled by marketing agencies to total number bought or sold by farmers was much greater than for slaughter livestock. More of the livestock went through two or more marketing agencies between the selling farmer and the buying farmer. For non-slaughter cattle and calves the volume at marketing agencies was over twice the total number purchased by farmers. For hogs and pigs, volume at marketing agencies was 25 percent higher than total purchases and for lambs it was about 40 percent higher than total purchases of farmers. This was true despite the relatively large number of reported direct farm to farm sales of non-slaughter animals. Much of the farmers' reported sales to other farmers and purchases direct from other farmers actually were sold to or purchased from dealers. Farmers reported that 10 percent of non-slaughter sheep and lambs, 30 percent of the non-slaughter hogs and pigs and 21 percent of the non-slaughter cattle and calves transactions were made directly with other farmers. For both hogs and pigs and cattle and calves percentages reported purchased directly from other farmers were considerably higher than percentages reported sold directly to farmers (Tables 7 and 8).

Within the Region in areas I, II, and III, the percentage of slaughter cattle and calves and percentage of slaughter sheep and lambs farmers reported they sold through terminal markets were almost identical.

varying only from 71.8 to 78.3 percent (Tables 7 and 11). Percentage of slaughter hogs sold through terminals was lower ranging from 49.2 percent in areas III to 67.4 percent in area I.

In area VI terminals received over 50 percent of each species of slaughter livestock. Most of the remainder was divided between direct sales to packers and sales to dealers and local markets.

In area IV, auctions were the major outlet for slaughter livestock, accounting for 55.9 percent of the slaughter hogs and pigs, 59.9 percent of the slaughter cattle and calves and 66.0 percent of the slaughter sheep and lambs.

In area V, auctions were the major outlet for slaughter cattle and calves (62.0 percent) and slaughter sheep and lambs (43.9 percent), but dealers and local markets were the major outlet for slaughter hogs and pigs (65.4 percent). Dealers and local markets also were important outlets for slaughter sheep and lambs and cattle and calves. Terminal markets received a smaller percentage of slaughter animals of all species in area V than in any other area.

Direct sales to packers accounted for a higher percentage of total farm sales in areas VII and VIII than in any other area. In these two areas direct sales accounted for almost one half of the sales of slaughter hogs. In both these areas sales for both slaughter cattle and calves and slaughter sheep and lambs through terminal markets accounted for a larger percentage than direct sales to packers.

In area IX, the major part of the slaughter livestock was reported sold through terminals. In selling of non-slaughter livestock, direct sales to other farmers were the major outlet reported.

SOURCES AND DISPOSITION OF LIVESTOCK PURCHASED BY DEALERS

In 1957 there were over 5,000 dealers operating in the North Central Region. The largest numbers were found in areas III, VII, and VIII. The data presented in this section are based on a sample of slightly over 15 percent of the total number of dealers. Approximately 80 percent of the dealers in the Region had some other type of activity in addition to the livestock dealing operation. The most common other activity was farming.

The primary function of terminal and auction markets is exchange of ownership. In contrast, dealers concentrate on the functions of physical assembly or change of location in addition to exchange of ownership. While some buying usually is done at their own place of business, the major part of the buying of dealers is done away from their place of business. This provides the main distinction between dealers and local (dealer) markets. The latter operate in a manner similar to dealers, taking title to livestock and reselling, but most of the buying of local markets is done at the yard of the local market itself. While some dealers operated largely in local areas, buying from and selling to farmers in the area, large numbers of the dealers operated over long distances particularly in the handling of feeder livestock.

Reports of dealers indicate that they handle almost 10.8 million head of cattle and calves, 18.1 million head of hogs and pigs, and 1.9 million head of sheep and lambs. (Table 10) In the case of cattle and calves, the major part of the volume came from non-slaughter livestock sold for breeding, feeding or for dairy purposes. An estimated 6.8 million head of this type of livestock were handled by dealers while 3.8 million head of slaughter cattle and calves were handled by dealers. A similar relationship existed for sheep and lambs with about 55 percent of the total volume being made up of feeder and breeding sheep and lambs. The remaining 45 percent was slaughter sheep and lambs. In contrast, dealers reported they handled 15.2 million head of slaughter hogs compared with 2.9 million head of feeder and breeding hogs and pigs. (Table 10)

This difference is a reflection partly of the relatively small farm purchases of feeder pigs compared with farm sales of slaughter hogs. But, it also is a reflection of the generally greater distance feeder cattle and sheep are moved to feedlots. There is much less geographical specialization in feeder pig than in feeder cattle and feeder sheep production.

Dealer operations showed that for all three species of livestock the numbers purchased for slaughter were somewhat smaller than numbers sold for slaughter and the numbers purchased for feeding or breeding were somewhat larger than the number sold for these purposes. Dealers frequently selected a few head from the feeder or breeder livestock. They purchased and re-sold them for immediate slaughter rather than selling them back to farmers for fattening or for breeding or dairy uses.

The largest volume of livestock handled by dealers was in area VII where 8.8 million head of hogs and pigs and 2.4 million head of cattle and calves were handled by dealers. Sheep and lamb volume of dealers was the greatest in area VIII with almost one million head handled.

Dealers bought the major part of the total livestock directly from farmers for the region as a whole. They sold most of their slaughter livestock directly to packers and most of the non-slaughter livestock directly to farmers. They obtained over 70 percent of their hogs and pigs and approximately 50 percent of their cattle and calves directly from farmers. However, for slaughter sheep and lambs the percentage purchased from auctions was larger than the percentage purchased directly from farmers. Auctions were the second most important source of livestock purchased by dealers. Other dealers and local markets, terminal markets and "others," principally order buying dealers, altogether represented a relatively small part of the total receipts of dealers for the region as a whole. (Tables 11-16)

In areas I, II, and III where most of the terminal markets are located, the percentages purchased by dealers from terminals generally differed very little from percentages purchased from terminals in other areas. However, in selling of slaughter livestock, dealers in these three areas made considerably more use of terminals than did dealers in other areas. The major outlet in all areas for slaughter livestock was direct sale to packers. The only exceptions were for slaughter sheep and lambs in the

Table 10 — Estimated number of head of livestock handled, by livestock dealers, by species, by class, by area, North Central Region, 1957

	Slaughter Livestock			Dairy, Feeding, and Breeding Livestock		
Area	Cattle and Calves	Hogs and Pigs	Sheep and Lambs	Cattle and Calves	Hogs and Pigs	Sheep and Lambs
	(Thousands of Head)					
I	286	140	6	324	174	78
II	226	806	20	1,119	90	25
III	774	3,156	253	1,082	664	120
IV	410	175	218	323	44	36
V	174	1,522	50	467	538	83
VI	163	41	11	687	240	15
VII	1,342	7,879	153	1,076	990	58
VIII	375	1,476	115	1,733	164	613
IX	99	*	*	31	45	4
Region	3,849	15,195	828	6,842	2,949	1,032

*Less than 500 head.

areas II and III where the percentages sold through terminals were larger than sales to packers. However, the total volume was relatively small in these areas.

The major part of the feeder, breeding, and dairy livestock was sold by dealers directly to farmers. Sales directly to farmers accounted for 69% of the non-slaughter cattle and calves, 79% of the non-slaughter hogs and pigs and 55% of the non-slaughter sheep and lambs. For sheep and lambs packers were the second most important outlet accounting for 28%. However, the major part of this total came from area VIII where 42% of the feeder and breeding sheep and lambs sales by dealers were to packers. Sale through auction markets was second to sales to farmers for feeder, breeding and dairy cattle and calves, (11%). Order buyers listed in the table under "others" were an important outlet for feeder and breeding hogs and pigs sold by dealers.

An examination of the sources, and outlet, for livestock handled by dealers reveals the nature of their activities in each area. In area VIII, for example, dealers handled 375 thousand head of slaughter cattle and calves and 1,733 thousand head of feeder and breeding cattle and calves. Auctions were the major first outlet farmers used in selling cattle and calves in area VIII. Dealers bought slaughter cattle and calves mainly at auctions (54.9%) and directly from farmers (29.0%), and some from other dealers. They sold most of the slaughter cattle directly to packers or through terminals. As seen in Table 2, there are no terminals located in area VIII and there is relatively little slaughtering done. Most of the slaughter cattle and calves bought by dealers were transported out of the area by the dealers for sale to packers or through terminals to buyers in the East or West.

In area VIII, dealers bought feeder cattle and calves mainly from farmers (57.0%) and at auction (40.9%) and re-sold most of them directly to farmers. It is likely that they bought mainly for shipment to feedlots farther east. They may also have bought additional feeder livestock in states to the west or southwest. Ranchers in area VIII report relatively much less than this amount of cattle and calves sold to dealers. The dealer pattern of operation in area VIII appears to be much the same for hogs and pigs and sheep and lambs except that hog and pig shipments were more likely to be north.

Table 11 — Percentage of slaughter Cattle and Calves obtained by livestock dealers from various sources and percentage sold through various outlets, by area, North Central Region, 1957

Area	Terminal Percent	Auction	Dealers and Local Markets	Packers	Farmers	Others	Totals
			Source				
I	21.8	65.0	.1	—	13.1	—	100
II	1.1	36.9	1.9	—	60.1	—	100
III	1.4	29.1	1.5	—	68.0	—	100
IV	*	73.6	.9	—	25.5	—	100
V	*	53.5	2.7	—	42.9	.9	100
VI	1.0	23.2	2.8	—	72.2	.8	100
VII	.5	26.8	.8	—	71.5	.4	100
VIII	4.7	54.9	11.4	—	29.0	*	100
IX	—	17.7	*	—	82.0	—	100
Region	2.6	38.7	2.1	—	56.4	.2	100
			Outlets				
I	14.6	1.8	.3	81.0	—	2.3	100
II	60.5	17.6	7.5	9.1	5.3	—	100
III	27.0	3.8	1.0	66.1	.2	1.9	100
IV	23.1	21.0	1.1	46.4	1.2	7.2	100
V	16.5	30.3	2.9	37.5	—	12.8	100
VI	15.6	13.6	3.7	63.0	—	4.1	100
VII	7.5	1.3	.8	87.6	*	.2	100
VIII	26.7	12.8	3.7	42.9	13.7	.2	100
IX	2.8	1.1	18.1	76.7	—	1.3	100
Region	18.7	7.5	2.1	66.8	1.8	3.1	100

Dashes indicate none reported in sample.
*Less than .05%.

Table 12 — **Perecentage of Feeding, Breeding and Dairy Cattle and Calves obtained by livestock dealers from various sources and percentage sold through various outlets, by area, North Central Region, 1957**

Area	Terminal Percent	Auction	Dealers and Local Markets	Packers	Farmers	Others	Totals
			Source				
I	27.2	32.0	1.9	—	35.8	3.1	100
II	2.8	4.0	6.5	—	80.1	6.6	100
III	6.2	33.8	2.9	—	45.6	11.5	100
IV	17.6	43.3	2.5	—	31.3	5.3	100
V	3.2	15.5	24.8	—	26.8	29.7	100
VI	—	7.5	1.3	—	20.7	70.5	100
VII	11.7	18.4	14.6	—	37.7	17.6	100
VIII	.2	40.9	1.7	—	57.0	.2	100
IX	—	6.2	2.5	—	91.3	—	100
Region	5.5	25.3	6.4	—	48.1	14.7	100
			Outlets				
I	6.9	7.4	.1	6.0	79.6	*	100
II	1.7	1.0	.8	.2	93.5	2.8	100
III	8.2	18.8	.8	3.6	59.8	5.8	100
IV	4.2	35.3	6.8	2.5	49.8	1.4	100
V	.2	9.2	1.5	7.5	79.8	1.8	100
VI	.8	3.6	.2	11.3	82.7	1.4	100
VII	.7	16.8	1.4	2.1	60.9	18.1	100
VIII	4.7	9.5	1.3	15.9	60.7	4.9	100
IX	6.6	22.8	2.6	—	24.3	13.7	100
Region	3.6	11.3	2.6	7.3	69.2	6.0	100

Dashes indicate none reported in sample.
*Less than .05%.

The operations in areas, IV, V, VI, VII, and IX are much like area VIII particularly for slaughter livestock. In each of these areas slaughter livestock marketings exceed slaughter. Dealers buy mainly from farmers and auctions plus some from other dealers or local markets. They sell mainly to packers. A large part probably is moved out of the area.

In areas I, II, and III dealers also buy slaughter livestock mainly from farmers and auction markets. However, they sell a relatively large proportion through terminals, though the major part goes directly to packers.

Changes in Dealer Channels

Patterns of dealer procurement and disposition of livestock have changed in the last 20 years. Dealers now buy more of their livestock at auctions. They buy less directly from farmers. This shift is particularly evident for slaughter sheep and lambs. (Table 17)

In selling slaughter livestock dealers made much less use of terminal markets for all the three species in 1956 compared with 1940. They sold more of their cattle and calves directly to packers. Slaughter hog sales to local markets and direct to packers sales have increased while sales

Table 13 — Percentage of Slaughter Hogs and Pigs obtained by livestock dealers from various sources and percentage sold through various outlets, by area, North Central Region, 1957

Area	Terminal Percent	Auction	Dealers and Local Markets	Packers	Farmers	Others	Total No. in Thousands
			Source				
I	7.2	69.8	.9	—	22.1	—	100
II	—	16.0	21.8	—	62.2	—	100
III	2.3	11.8	5.2	—	79.9	.8	100
IV	.3	93.5	2.8	—	3.4	—	100
V	54.8	25.9	.2	—	19.0	.1	100
VI	—	16.2	—	—	83 8	—	100
VII	—	1.9	4.5	—	93.5	.1	100
VIII	—	70 4	3.7	—	25.9	—	100
IX	—	—	—	—	100 0	—	100
Region	5 9	16.2	5.0	—	72.7	.2	100
			Outlets				
I	21.5	10.0	.9	63.9	3.7	0	100
II	33.6	20.7	.2	43.0	1.0	1.5	100
III	1.8	.2	1.2	90.5	.1	6.2	100
IV	3.1	2 2	.3	93.5	.9	—	100
V	2.0	1.6	1.2	94.7	—	.5	100
VI	30.2	14.0	.9	54.9	—	—	100
VII	.6	—	19.3	68.6	3.3	8.2	100
VIII	2.1	.3	.4	92.6	4.4	.2	100
IX	37.0	—	—	63.0	—	—	100
Region	3.2	1.5	10.3	77.1	2.3	5 6	100

Dashes indicate none reported in sample.

Table 14 — **Percentage of Feeding and Breeding Hogs and Pigs obtained by livestock dealers from various sources and percentage sold through various outlets, by area, North Central Region, 1957**

Area	Terminal Percent	Auction	Dealers and Local Markets	Packers	Farmers	Others	Total No. in Thousands
			Source				
I	3.5	15.6	5.7	—	53.7	21.5	100
II	—	28.6	.5	—	63.0	7.9	100
III	.7	21.0	8	—	72.0	5.5	100
IV	—	30.8	2.4	—	66.8	—	100
V	—	9.5	.4	—	47.5	42.6	100
VI	—	7.5	27.9	—	64.6	—	100
VII	—	3.1	3.4	—	93.3	.2	100
VIII	.2	73.9	.2	—	25.7	—	100
IX	.8	—	7.1	—	92.1	—	100
Region	.3	12.8	4.1	—	74.1	8.7	100
			Outlets				
I	10.4	4.0	.6	19.6	65.4	—	100
II	—	4.7	—	—	90.4	4.9	100
III	1.1	5.6	14.4	1.9	68.1	8.9	100
IV	.8	9.4	1.8	3.4	84.5	—	100
V	—	1.4	.3	8.8	89.4	.1	100
VI	.1	1.4	.1	5.8	56.7	35.9	100
VII	.1	.4	1.2	1.5	83.1	13.7	100
VIII	.5	15.1	2.7	2.6	79.1	—	100
IX	.5	—	—	—	89.3	10.2	100
Region	.8	2.7	3.4	.9	78.8	10.4	100

Dashes indicate none reported in sample.

through terminals declined. For slaughter sheep and lambs, dealer sales through auctions increased and sales through terminals and to local markets declined. (Table 18)

SOURCES AND OUTLETS FOR LIVESTOCK HANDLED BY LOCAL MARKETS

Local dealer markets and local cooperative markets are both included under local markets. Local markets or local dealer markets, as they may be referred to, operate much like dealers. The principal difference is that local markets have yards and make the major part of their purchases at these yards. Generally, very little livestock is purchased by local markets from other markets or directly from farmers in the country.

The number and size of areas covered by these local markets varies considerably from one part of the Region to another. In general, local markets draw from within 25 miles. *Only a very small amount of their livestock is obtained from beyond 25 miles.* Thus, it is to be expected that local markets are less of a factor than dealers in inter-area movement. Many local markets do a large business in order buying for shipments relatively long distances. Most of this buying is done on order for customers. Generally, the livestock is purchased nearby for distant buyers. Relatively little is purchased for local buyers. In contrast, dealers often buy from long distances for sale near their base of operation.

In general, local market operations are larger and tend to be more of a full-time business activity than dealer operations. The major class of livestock handled by local markets is slaughter hogs. Non-slaughter

Table 15 — Perecentage of Slaughter Sheep and Lambs obtained by livestock dealers from various sources and percentage sold through various outlets, by area, North Central Region, 1957

Area	Terminal Percent	Auction	Dealers and Local Markets	Packers	Farmers	Others	Total No. in Thousands
			Source				
I	—	85.8	—	—	14.2	—	100
II	—	52.3	—	—	47.7	—	100
III	—	10.0	45.3	—	14.5	—	100
IV	—	95.3	*	—	4.7	—	100
V	—	46.1	—	—	53.9	—	100
VI	—	—	—	—	100.0	—	100
VII	—	42.9	.4	—	65.5	.2	100
VIII	6.0	35.1	*	—	58.9	—	100
IX	—	—	—	—	100.0	—	100
Region	10.4	46.2	14.9	—	28.5	*	100
			Outlets				
I	8.0	1.2	13.1	77.7	—	—	100
II	37.8	3.6	—	18.1	.6	39.9	100
III	46.8	30.9	—	20.3	2.0	—	100
IV	—	18.6	—	81.3	.1	—	100
V	67.1	1.3	1.3	28.3	—	2.0	100
VI	9.5	1.1	—	65.2	24.2	—	100
VII	8.8	.2	3.0	84.5	2.6	.9	100
VIII	16.4	*	—	70.4	13.2	—	100
IX	33.3	—	—	66.7	—	—	100
Region	23.4	14.6	.7	56.7	3.3	1.3	100

Dashes indicate none reported in sample.
*Less than .05%.

Table 16 — **Percentage of Feeding and Breeding Sheep and Lambs obtained, by livestock dealers from various sources and percentage sold through various outlets, by area, North Central Region, 1957**

Area	Terminal Percent	Auction	Dealers and Local Markets	Packers	Farmers	Others	Total No. in Thousands
			Source				
I	.3	30.8	—	—	29.1	39.8	100
II	—	21.5	—	—	78.5	—	100
III	—	28.5	*	—	40.5	31.0	100
IV	—	77.1	—	—	22.9	—	100
V	—	22.3	—	—	77.7	—	100
VI	—	—	—	—	100.0	—	100
VII	—	28.3	2.0	—	66.1	3.6	100
VIII	2.9	26.2	14.3	—	56.6	—	100
IX	4.0	—	—	—	96.0	—	100
Region	1.8	27.7	9.0	—	55.3	6.2	100
			Outlets				
I	.8	9.4	.1	3.2	86.5	—	100
II	—	—	—	—	100.0	—	100
III	1.0	7.4	—	13.0	78.2	.4	100
IV	—	58.8	—	—	41.2	—	100
V	13.7	3.4	—	3.2	78.5	1.2	100
VI	.2	.2	—	28.2	71.4	—	100
VII	4.3	5.0	*	19.1	47.6	24.0	100
VIII	12.5	1.3	1.0	42.2	42.7	.3	100
IX	75.9	—	—	—	24.1	—	100
Region	9.2	4.9	.6	28.5	55.1	1.7	100

Dashes indicate none reported in sample.
*Less than .05%.

cattle and cattle and calves and slaughter cattle and calves rank second and third respectively, but together are only a fraction of the number of slaughter hogs handled.

The areas of major importance for local markets are VII, V, II, and VI. The major volume of slaughter cattle and calves handled is in area VII while the major part of the volume of non-slaughter cattle and calves is in area II. The major part of the sheep volume is in area V. (Table 19)

Local markets buy the major part of their slaughter livestock of all classes from farmers and they sell mainly to packers. For the Region 90% of the slaughter hogs were bought from farmers and most of the remainder from auctions. Over 97% were sold direct to packers. The largest share of the remainder went to other local markets and dealers.

Table 17 — Percentages of Slaughter Livestock Purchased by Dealers from Various Sources, North Central Region, 1940 and 1957

	Farmers		Other Dealers and Local Markets		Auctions		Terminals	
	1940	1957	1940	1957	1940	1957	1940	1957
Cattle & Calves	76.2	56.4	4.3	2.3	19.2	38.7	0.3	2.6
Hogs & Pigs	85.7	72.7	3.4	5.2	10.9	16.2	*	5.9
Sheep & Lambs	85.0	28.5	2.1	14.9	10.2	46.2	2.7	10.4

Source of 1940 data: Marketing Livestock in the Corn Belt Region, South Dakota Agricultural Experiment Station Bulletin #365, November, 1942, pp. 134, 136.

Table 18 — Percentages of Slaughter Livestock Sold by Dealers Through Various Types of Outlets, North Central Region, 1940 and 1957

	Terminals		Packers		Other Dealers and Local Markets		Auctions		Farmer & Other	
	1940	1957	1940	1957	1940	1957	1940	1957	1940	1957
Cattle & Calves	42.4	18.7	41.3	66.8	3.3	2.1	8.2	7.5	4.8	4.9
Hogs & Pigs	17.4	3.2	74.0	77.1	5.6	10.3	2.5	1.5	.5	7.9
Sheep & Lambs	31.6	23.4	55.9	56.7	5.4	.7	.6	14.6	6.5	4.4

Table 19 — Estimated Number of Head of Livestock Handled by Local Markets, by Class, by Area, North Central Region, 1957

	Slaughter Livestock			Dairy, Feeding, and Breeding Livestock		
Area	Cattle and Calves	Hogs and Pigs	Sheep and Lambs	Cattle and Calves	Hogs and Pigs	Sheep and Lambs
			(Thousands of Head)			
I	22	628	112	163	92	145
II	40	1,663	1	539	66	—
III	68	692	2	15	57	2
IV	7	49	6	3	1	1
V	62	5,012	335	63	148	29
VI	90	1,903	16	28	32	5
VII	647	5,275	98	167	92	10
VIII	6	16	0	66	—	—
IX	14	*	*	*	—	—
Region	957	15,240	567	1,043	489	192

Dashes indicate none reported in sample.
*Less than 500 head.

The situation is similar for slaughter cattle and calves and slaughter sheep and lambs. Generally, exceptions were where a local market operator bought at an auction or terminal to fill out the packers needs.

Local market operators sometimes bought feeder and breeding livestock away from their yards for resale locally. It appears that usually this was done as a service to customers or treated as a sideline. Methods of operation usually were quite different from normal operations.

In area II virtually all of the livestock of all classes but non-slaughter cattle and calves were bought from farmers and dealers. A substantial volume of non-slaughter cattle and calves bought for sale by farmers were obtained from terminals. (Tables 20-25)

Frequently local markets operated essentially as country commission buying stations. They bought slaughter livestock, particularly hogs, on order for packers. The packers paid the cost of the hogs plus a small

Table 20 — Percentage of Slaughter Cattle and Calves Obtained by Local Markets from Various Sources and Percentage Sold Through Various Outlets, by Area, North Central Region, 1957

	Source						
Area	Terminal	Auction	Dealers and Local Markets	Packers	Farmers	Others	Total
I	—	3.0	2.4	—	94.6	—	100
II	—	12.4	—	—	87.6	—	100
III	—	3.8	1.2	—	95.0	—	100
IV	—	8.0	1.2	—	90.8	—	100
V	—	8.8	.4	—	90.8	—	100
VI	36.0	30.2	1.1	—	32.7	—	100
VII	.1	.3	4.9	—	94.6	.1	100
VIII	—	—	—	—	100.0	—	100
IX	—	—	—	—	100.0	—	100
Region	3.3	4.5	3.6	—	88.5	.1	100
	Outlet						
I	4.6	—	2.9	30.4	—	62.1	100
II	40.3	5.0	—	53.0	—	1.7	100
III	7.6	—	—	91.9	.5	—	100
IV	—	—	—	100.0	—	—	100
V	14.3	5.8	.2	79.3	.4	—	100
VI	21.5	1.3	—	70.8	—	6.4	100
VII	12.5	—	.5	83.6	.2	3.2	100
VIII	15.3	8.4	—	79.3	—	—	100
IX	—	—	—	100.0	—	—	100
Region	13.9	0.8	0.4	80.5	0.2	4.2	100

Dashes indicate none reported in sample.

Table 21 — Percentage of Breeding, Feeder and Dairy Cattle and Calves Obtained by Local Markets from Various Sources and Percentage Sold Through Various Outlets, by Area, North Central Region, 1957

Area	Terminal	Auction	Dealers and Local Markets	Packers	Farmers	Others	Total
			Source				
I	—	.4	50.2	—	40.9	8.5	100
II	88.3	2.7	1.8	—	7.2	—	100
III	—	2.7	6.9	—	90.4	—	100
IV	—	23.7	—	—	76.3	—	100
V	11.3	4.1	2.6	—	55.7	26.3	100
VI	17.7	7.8	26.7	—	43.9	3.9	100
VII	—	.3	1.9	—	84.3	13.5	100
VIII	—	13.2	—	—	86.8	—	100
IX	—	—	—	—	—	—	100
Region	46.2	2.9	10.0	—	35.4	5.5	100
			Outlets				
I	—	—	—	.2	99.8	—	100
II	.1	.4	.2	.7	98.1	.5	100
III	1.2	1.8	8.5	—	67.2	21.3	100
IV	—	—	24.2	16.3	59.5	—	100
V	1.1	.9	—	46.0	51.2	.8	100
VI	.2	2.3	7.0	2.6	87.5	.4	100
VII	2.2	1.9	.3	4.7	81.7	9.2	100
VIII	—	—	9.2	—	54.2	36.6	100
IX	—	—	—	—	—	—	100
Region	.5	.7	1.1	4.7	88.7	4.3	100

Dashes indicate none reported in sample.

handling fee of usually 10-20 cents per cwt. However, many local market operators bought without a price agreement and resold to packers at the best price possible. Some hogs were bought on speculation and held for sale later. This was true even when the local market operators had pre-arrangements with buyers on price. Frequently some sorting was done for shipment to different packers, but some of the local markets bought for only a single packer.[1]

SOURCES AND OUTLETS FOR LIVESTOCK SOLD THROUGH AUCTION MARKETS

The fastest growing single type of marketing agency in the North Central Region in the period from 1940 to 1957 was local auction markets. There has been an increase in the *percentage* of the total receipts for all classes of livestock, going to local auction with the exception of

[1]Earlier data are not adequate to indicate trends in channels used by local markets

Table 22 — **Percentage of Slaughter Hogs and Pigs Obtained by Local Markets From Various Sources and Percentage Sold Through Various Outlets, by Area, North Central Region, 1957**

Area	Terminal	Auction	Dealers and Local Markets	Packers	Farmers	Others	Total
			Source				
I	—	—	1.6	—	98.4	—	100
II	2.2	1.1	12.4	—	84.3	—	100
III	—	2.0	6.8	—	91.2	—	100
IV	—	—	1.7	—	98.3	—	100
V	.4	9.7	1.8	—	88.1	—	100
VI	.1	29.4	.6	—	69.2	.7	100
VII	—	.2	.2	—	99.6	—	100
VIII	—	—	—	—	100.0	—	100
IX	—	—	—	—	100.0	—	100
Region	.4	7.3	2.4	—	89.8	.1	100
			Outlets				
I	—	—	7.9	91.7	—	.4	100
II	.6	—	.4	98.6	.3	.1	100
III	2.4	—	—	94.7	—	2.9	100
IV	—	—	—	100.0	—	—	100
V	.3	—	1.4	98.2	—	.1	100
VI	.8	1.6	—	96.1	.4	1.1	100
VII	1.5	—	.7	97.1	—	.7	100
VIII	—	—	—	100.0	—	—	100
IX	—	—	—	100.0	—	—	100
Region	.9	.2	1.1	97.2	.1	.5	100

Dashes indicate none reported in sample.

breeding sheep and lambs for which there has been very little change in percentage of total sold through auction markets. The largest increase has been in percentage of feeder cattle sold through auctions. An earlier phase of study showed that the percentage of total feeder cattle sold to auction markets increased from 17 percent to 50 percent between 1940 and 1956. The increase in percentage of slaughter cattle sold to auction markets was from 10 percent to 26 percent. The increases in percentages were less for other classes of livestock.[2]

The earlier study indicates that the major appeal of local auction markets to farmers depends on convenience along with lower transportation costs and higher prices or other price related reasons such as broader markets. Many farmers also indicated being able to watch the sale themselves was of primary importance to them in selecting local

[2]Bulletin 846, pp. 33-36, 51053, 64.

Table 23 — Percentage of Breeding and Feeder Hogs and Pigs Obtained by Local Markets From Various Sources and Percentage Sold Through Various Outlets, by Area, North Central Region, 1957

Area	Terminal	Auction	Dealers and Local Markets	Packers	Farmers	Others	Total
			Source				
I	—	—	.3	—	99.7	—	100
II	—	.6	12 8	—	86.6	—	100
III	—	—	18.9	—	25.9	55 2	100
IV	—	40.0	—	—	60.0	—	100
V	—	.8	7.4	—	91.8	—	100
VI	—	2.1	6.9	—	90.1	.9	100
VII	—	1	—	—	99.0	.9	100
VIII	—	—	—	—	100 0	—	100
IX	—	—	—	—	—	—	100
Region	—	.5	6.4	—	87.0	6.1	100
			Outlets				
I	—	—	6.1	41.1	45.7	7.1	100
II	.4	.2	—	23.1	76.3	—	100
III	.3	—	—	.1	33.8	65.8	100
IV	—	—	—	—	100.0	—	100
V	.4	2.8	—	85.5	11.3	—	100
VI	—	—	—	1.4	93.2	5.4	100
VII	.3	—	—	—	92.9	6.8	100
VIII	—	—	—	—	—	—	100
IX	—	—	—	—	—	—	100
Region	.3	.9	1.1	37.1	50.0	10.6	100

Dashes indicate none reported in sample.

auction markets. Presence of potential buyers also was indicated by some farmers as a reason for selling livestock through auction.[3]

In 1957, auction markets in the North Central Region handled over 9 million head of feeder cattle and calves and over 5 million head of slaughter cattle and calves. In addition, they handled over 5 million head of slaughter hogs and over 6 million head of feeder hogs and pigs. Auctions handled 1.6 million head each of slaughter sheep and lambs and of non-slaughter sheep and lambs (Table 26).

In general, auction markets have been used more for selling non-slaughter livestock than for selling slaughter livestock. The largest volume of feeder, breeding and dairy cattle and calves were handled in the western part of the region especially in areas VIII and III. Next in importance was area VII.

[3]Bulletin 846, pp. 124-127, 129-132.

Table 24 — **Percentage of Slaughter Sheep and Lambs Obtained by Local Markets From Various Sources and Percentage Sold Through Various Outlets, by Area, North Central Region, 1957**

Area	Terminal	Auction	Dealers and Local Markets	Packers	Farmers	Others	Total
			Source				
I	—	75.2	.4	—	24.4	—	100
II	—	2.7	—	—	97.3	—	100
III	—	16.7	33.0	—	50.0	—	100
IV	—	—	—	—	100.0	—	100
V	—	6.1	—	—	93.9	—	100
VI	—	—	—	—	100.0	—	100
VII	—	.1	5.0	—	94.9	—	100
VIII	—	—	—	—	—	—	100
IX	—	—	—	—	100.0	—	100
Region	—	16.5	.9	—	82.6	—	100
			Outlets				
I	.5	—	.4	99.1	—	—	100
II	.7	—	—	99.3	—	—	100
III	3.3	—	—	63.4	33.3	—	100
IV	—	—	—	100.0	—	—	100
V	1.0	.8	—	98.1	—	.1	100
VI	4.0	.5	—	93.0	2.0	.5	100
VII	8.2	—	—	91.6	—	.2	100
VIII	—	—	—	—	—	—	100
IX	—	—	—	100.0	—	—	100
Region	2.0	.5	.1	97.1	.2	.1	100

Dashes indicate none reported in sample.

For all three species of slaughter livestock by far the largest part of the total volume of the auctions came directly from farmers. For slaughter cattle and calves, auctions reported 90 percent consigned by farmers. For slaughter hogs almost 98 percent was consigned by farmers directly, and for slaughter sheep and lambs 93 percent was consigned by farmers directly. The biggest single reported type of consignor outside of the farmers in most areas was the auction market operators themselves. Of course it is probable that some of the consignments which auction market operators thought came from farmers actually came from dealers or local markets.

Percentage of slaughter livestock purchased by different types of buyers from auctions varies from one area and species to another. Packers accounted for the major part of the total purchases. Purchases by packers directly accounted for 51 percent of the slaughter sheep and lambs, 58 percent of slaughter hogs and 61 percent of slaughter cattle and calves sold through auctions. In general, these figures are expected to be fairly reliable since the auction market operator usually knows who is paying for the livestock purchases. The other major type of purchaser on auction markets was the country order buyer purchasing on behalf of packers. When the total volume purchased by order buyers and packers is combined, results indicate that approximately 90 percent of the slaughter livestock sold through auctions were purchased either by packer buyers directly or by their buying representatives. Dealers and local markets buying on their own for resale later to either packers or retail slaughterers accounted for the major part of the remainder. However, farmers did buy some slaughter livestock at auctions. (Tables 27-28)

Table 25 — Percentage of Breeding and Feeder Sheep and Lambs Obtained, by Local Markets From Various Sources and Percentage Sold Through Various Outlets, by Area, North Central Region, 1957

Area	Terminal	Auction	Dealers and Local Markets	Packers	Farmers	Others	Total
			Source				
I	—	—	27.6	—	72.4	—	100
II	—	—	—	—	—	—	100
III	17.0	17.0	17.0	—	49.0	—	100
IV	—	—	—	—	100.0	—	100
V	8.9	.1	—	—	91.0	—	100
VI	—	1.2	—	—	69.5	29.3	100
VII	—	—	—	—	100.0	—	100
VIII	—	—	—	—	—	—	100
IX	—	—	—	—	—	—	100
Region	1.8	.2	20.1	—	77.2	.7	100
			Outlets				
I	—	—	—	—	100.0	—	100
II	—	—	—	—	—	—	100
III	—	—	—	85.1	14.9	—	100
IV	—	—	—	—	100.0	—	100
V	2.1	5.6	1.2	33.3	57.3	—	100
VI	—	—	—	1.0	99.0	—	100
VII	—	—	—	72.8	9.0	18.2	100
VIII	—	—	—	—	—	—	100
IX	—	—	—	—	—	—	100
Region	.4	1.0	3	10.6	86.8	.9	100

Dashes indicate none reported in sample.

Table 26 — Estimated Number of Head of Livestock Handled by Auction Markets by Class of Livestock, by Area, 1957

Area	Slaughter Livestock			Dairy, Feeder & Breeding Livestock		
	Cattle & Calves	Hogs & Pigs	Sheep & Lambs	Cattle & Calves	Hogs & Pigs	Sheep & Lambs
	(thousands of head)					
I	186	138	38	248	397	82
II	313	627	86	469	530	97
III	695	1,010	64	2,518	1,426	184
IV	903	801	512	414	360	94
V	4,899	1,191	440	503	647	250
VI	343	298	109	366	475	65
VII	1,063	173	248	2,003	1,851	416
VIII	645	1,044	139	2,789	504	542
IX	31	2	1	16	5	2
Region	5,078	5,283	1,637	9,326	6,195	1,722

The percentage of livestock purchased by different types of buyers varied greatly from one area to another. The percentage bought by packers directly was lowest in area IV, where only 35 percent of the slaughter cattle and calves, 20 percent of the slaughter hogs and 37 percent of slaughter sheep and lambs were purchased by packers on their own account. The largest part of the remainder was sold to order buyers.

Percentages purchased by dealers or local markets were largest in areas III, IV, and VII.

The percentages of feeder and breeding livestock consigned to auctions by farmers were slightly lower than the percentages of slaughter livestock. Auction operators reported that approximately 90 percent of non-slaughter hogs and pigs, but only 78 percent of the dairy, breeding and feeder cattle were consigned by farmers.

Fifteen percent of the cattle and calves were consigned by dealers and local market operators and 6 percent were consigned by auction operators. However, in general, the data from dealers and local markets indicate that the percentage consigned to auctions by dealers and local markets is much higher than auction operators realized.

In all areas and for all three species of non-slaughter livestock, farmers accounted for the major part of the total purchases. Farmers bought 66 percent of the cattle and calves, 72 percent of the sheep and lambs and 82 percent of the hogs and pigs. Dealers and local markets took 10 percent of the cattle, 6 percent of sheep and lambs and 6 percent of the hogs and pigs. Order buyers accounted for the largest part of the remaining feeder, breeding and dairy livestock.

The percentage taken by these major groups of farmers, dealers, local markets and order buyers varied considerably from area to area. In some cases the packers bought a fairly substantial part of the total volume of non-slaughter livestock sold. A considerable amount of the livestock packers bought through auction markets may have been slaughtered immediately though auction operators reported they would probably be used for feeding, breeding or dairy.

In general the percentage of feeder and breeding livestock purchased by dealers from auctions was largest in the surplus feeder livestock producing areas.

For feeder pigs, the percentage which dealers purchased was largest in areas IV, VI, and IX. For feeder cattle and calves it was largest in area IX. For feeder and breeding sheep and lambs the percentage taken by dealers, and local markets was highest in area V. The percentages purchased by feeder livestock order buyers were largest for area VIII for both cattle and sheep. For feeder pigs the percentages purchased by order buyers were largest in areas II, IV, VI, and VIII. Most of the pigs purchased by order buyers in these areas on the edge of the corn belt were probably shipped to hog finishing areas in the center of the corn belt.

Purchases and sales by auction operators on their own accounts are shown in the appendix table. In general, these operations were much like regular dealer and local market operations described earlier. However, auction operators generally bought most of their slaughter livestock at their own auction and resold to packers. They bought most of their non-slaughter livestock away from the auction market and resold through the auction market.

Reported sources of slaughter livestock by auctions shows that the percentage obtained from farmers has increased for all three species. Other parts of the study also indicate the increased use being made by farmers of auctions as outlets for slaughter livestock.

The percentage which packers purchased of slaughter livestock, through auction markets increased greatly between 1940 and 1957. In 1940 packers purchased between 32 and 40% of slaughter livestock sold at auctions. By 1957 the percentage had increased to between 57 and 61% for the different species. (Table 28)

SOURCES OF LIVESTOCK PURCHASED BY PACKERS

Packers operating in the North Central Region purchased 15 million head of slaughter cattle and calves, 44 million head of slaughter hogs and 5.7 million head of slaughter sheep and lambs. (Tables 29-31) In addition packers from outside the region did some direct buying of livestock within the region. However, packers from outside the region depended primarily on other marketing agencies to forward the livestock they wanted from the North Central Region.

Slaughter operations in areas I, II, and III exceeded sales of slaughter livestock sales by farmers in those areas. Thus, there was a net inshipment of slaughter livestock into these three areas. In each of the other areas, farmers sold more slaughter livestock than there was slaughtered within the areas. (Table 2)

Packers obtained 64.5 percent of their slaughter cattle and calves from terminals. The percentages obtained from terminals were much

Table 27 — Percentages of Livestock Received by Auction Markets from Various Sources, and Percentages of Livestock Purchased by Various Types of Buyers, by Class of Livestock and by Area, 1957

	CONSIGNOR					BUYER					
Area	Terminal	Auction	D. & L. M.	Farmers	Others	Terminal	Auction	D. & L. M	Packers	Farmers	Others
					Slaughter Cattle and Calves						
I	0	4.6	0	89.1	6.3	0	0	10.5	56.2	3.2	30.1
II	0	4.1	0	94.4	1.5	0	0	5.5	49.0	10.1	35.4
III	0	2.9	0	88.4	9.5	0	0	16.6	64.1	1.8	17.5
IV	0	.9	*	91.0	8.4	0	0	15.0	31.5	6.0	47.5
V	0	.9	*	91.5	8.6	0	0	2.9	96.2	.3	20.6
VI	0	4.8	0	80.4	14.8	0	0	8.8	58.0	.6	32.6
VII	0	6.4	0	87.4	6.2	0	0	14.1	69.7	2.6	13.6
VIII	0	1.8	0	95.0	2.4	0	0	10.2	73.0	1.2	15.6
IX	0	4.7	0	65.2	30.1	0	0	10.7	69.7	0	19.6
Total	0	3.2	*	89.8	7.0	0	0	11.2	61.2	2.7	24.9
					Slaughter Hogs						
I	0	3.2	0	94.5	2.3	0	0	10.1	44.4	.3	45.2
II	0	3.7	0	95.6	.7	0	0	2.3	51.4	18.3	28.3
III	0	2.3	0	96.8	.9	0	0	6.1	72.5	.4	20.9
IV	0	0	0	97.5	2.5	0	0	2.4	18.1	1.2	78.3
V	0	.7	0	98.7	.6	0	0	.8	63.3	*	35.9
VI	0	.7	0	96.9	2.4	0	0	3.5	55.9	1.0	39.6
VII	0	.5	0	93.6	5.9	0	0	16.8	78.9	0	4.3
VIII	0	.2	0	99.3	.5	0	0	1.8	67.4	.8	30.0
IX	0	3.8	0	88.1	8.9	0	0	60.0	32.8	0	7.2
Total	0	1.3	0	97.5	1.2	0	0	3.5	57.9	2.6	36.0

*Less than one percent.

Table 27 (Continued)

	CONSIGNOR					BUYER					
Area	Terminal	Auction	D & L M	Farmers	Others	Terminal	Auction	D. & L. M.	Packers	Farmers	Others
					Slaughter Sheep and Lambs						
I	0	.4	0	98.3	1.3	0	0	11.2	31.6	*	57.2
II	0	.1	0	92.8	7.1	0	0	3.5	57.8	17.6	21.1
III	0	.3	0	93.3	6.4	0	0	32.3	37.9	20.3	9.5
IV	0	.4	0	99.0	.6	0	0	2.2	35.9	4.6	57.3
V	0	1.3	0	96.6	2.1	0	0	3.9	58.9	3.2	34.0
VI	0	59.2	0	40.7	.1	0	0	8.1	34.0	2.7	55.2
VII	0	.5	0	92.5	7.0	0	0	13.6	61.9	6.1	18.4
VIII	0	*	0	99.9	*	0	0	3.7	86.8	*	9.5
IX	0	0	0	91.7	8.3	0	0	0	14.5	10.4	75.1
Total	0	4.5	0	93.0	2.5	0	0	6.4	51.3	5.1	37.2
					Feeder and Breeding Cattle						
I	0	13.2	0	78.0	7.8	0	0	10.1	3.6	84.2	2.1
II	0	15.0	0	63.2	21.8	0	0	5.7	5.3	72.8	16.2
III	0	5.4	0	76.5	18.1	0	0	10.7	1.5	68.4	19.4
IV	0	2.7	0	80.7	16.6	0	0	16.2	5.8	53.3	22.7
V	0	4.2	0	86.2	9.6	0	0	12.7	18.0	60.4	8.9
VI	0	14.2	0	68.4	17.4	0	0	11.2	3.3	74.3	11.2
VII	0	6.8	0	68.1	25.1	0	0	11.3	8.2	69.7	10.8
VIII	0	4.1	0	89.8	6.1	0	0	8.9	1.7	61.0	28.4
IX	0	12.2	0	59.5	28.3	0	0	39.3	0	56.0	4.7
Total	0	6.1	0	78.4	15.5	0	0	12.4	4.3	66.4	18.9

*Less than one percent.

Table 27 (Continued)

Breeding and Feeder Hogs

Area	Terminal	Auction	D & L. M.	Farmers	Others	Terminal	Auction	D. & L. M	Packers	Farmers	Others
		CONSIGNOR							BUYER		
I	0	4.3	0	93.4	2.3	0	0	4.6	2.7	87.7	5.0
II	0	1.0	0	72.1	6.9	0	0	.8	4.3	82.3	12.6
III	0	1.9	0	90.2	7.8	0	0	3.7	1.2	86.3	8.7
IV	0	.1	0	95.6	4.3	0	0	20.1	3.1	63.6	13.2
V	0	1.1	0	92.0	6.9	0	0	9.6	6.9	77.0	6.5
VI	0	3.4	0	86.0	10.6	0	0	11.7	1.9	67.6	18.8
VII	0	2.3	0	85.4	12.3	0	0	5.5	2.0	86.2	6.3
VIII	0	.4	0	98.9	.7	0	0	5.0	5.8	76.6	12.6
IX	0	0	0	100.0	0	0	0	12.6	0	87.4	0
Total	0	1.9	0	90.0	8.1	0	0	6.2	2.9	81.7	9.2
				Feeder and Breeding Sheep and Lambs							
I	0	.9	0	96.3	2.8	0	0	5.5	6.3	86.0	2.2
II	0	.4	0	89.4	10.2	0	0	2.2	8.7	69.1	20.0
III	0	1.6	0	91.6	6.8	0	0	5.8	.03	88.1	6.0
IV	0	.6	0	90.7	8.7	0	0	3.5	10.4	81.1	5.0
V	0	7.5	0	89.3	3.2	0	0	12.0	6.7	65.9	15.4
VI	0	12.4	0	87.6	0	0	0	4.5	0	95.1	.4
VII	0	1.4	0	83.3	15.3	0	0	6.1	1.9	89.0	3.0
VIII	0	*	0	93.7	6.3	0	0	3.0	3.6	50.1	43.3
IX	0	0	0	98.1	1.9	0	0	.4	.3	79.1	19.6
Total	0	4.3	0	87.2	8.0	0	0	5.6	3.9	72.0	18.5

*Less than one percent.

Table 28 — **Percentages of Slaughter Livestock Received by Auction Markets from Various Consignors and Percentages Purchased by Various Types of Buyers, 1940 and 1957**

	Consignors				Buyers			
	Farmers		Dealer & Others		Packers		Others	
	1940	1957	1940	1957	1940	1957	1940	1957
Cattle & Calves	73.4	89.8	36.6	10.2	39.1	61.2	60.9	38 8
Hogs & Pigs	82.4	97.5	17.6	2 5	35.1	57 5	64.9	42 5
Sheep & Lambs	84.4	93.0	15.5	7.0	32.6	57.3	67.4	42 7

Source: Marketing Livestock in the Corn Belt Region, South Dakota Agricultural Experiment Station Bul. 365, pp. 142, 145.

higher in areas I, II, and III than in other areas. In these areas, packers purchase direct from farmers only a small part of the total (Table 29).

In contrast, in the other areas purchases on terminal markets ranged from 3.2% to 31.2% and direct purchases from farmers ranged from 25.7% to 53.1%. Packer purchases from auctions were large in most areas except II and III where terminals were the principal source and in areas VII and IX, where most of the buying was directly from farmers.

The percentages of packer volume of slaughter sheep and lambs obtained from terminals was smaller than for cattle and calves. Percentages purchased direct from farmers were larger for sheep and lambs than for cattle and calves in the three large slaughter volume areas. (III, VII, and II).

Packers in the Region reported they purchased one-half of their total slaughter hogs direct from farmers. Terminals accounted for 35.7 percent and dealers and local markets for 10.4 percent. The major hog slaughter areas in order of volume were III, VII, II, I, and V. Packers in areas I and II reported they obtained over one-half of their slaughter hogs from terminals. In area III, 43 percent came from terminals. Packers reported direct purchases from farmers accounted for 27.8 percent to 41.7 percent in these three areas. In contrast, in area VII, packers reported they obtained 84.8 percent of their slaughter hogs direct from farmers and less than 2% from terminals. (Table 30) The remainder came from dealers and local markets. Of course, as noted earlier, direct purchases included a large number purchased on commission basis through dealers and local markets.

In area V one-half of the hogs were reported purchased direct, and the remainder divided among dealers, and local markets, terminals, and auctions.

Table 29 — **Estimated Number of Head of Slaughter Cattle and Calves Purchased by Packers and Percentages Obtained from Various Sources by Area, North Central Region, 1957**

Area	Terminal (Percent)	Auctions (Percent)	Dealers of Local Markets (Percent)	Farmers (Percent)	Others (Percent)	Total No Purchased (Thousand)
I	66.1	26.8	1.3	5.8	*	2,704
II	80.4	8.3	2.9	8.4	*	3,448
III	82.0	6.0	4.1	7.9	*	5,368
IV	3.2	66.9	4.3	25.8	.1	130
V	27.1	42.5	4.7	25.7	*	684
VI	15.6	24.7	14 9	44.22	.7	68
VII	21.9	15.1	13.5	49.5	*	2,604
VIII	12.8	47.9	1.4	37.9	*	70
IX	31.2	*	15.7	53.1	*	63
Region	64.5	14.2	5.4	16.3	*	15,139

*Less than .05%.

For all three species in area IV, auctions were the major source of slaughter livestock. In area VII direct purchases were most important and in areas I, II, and III terminals were the major source.

Changes in Packers Source of Livestock

The procurement pattern of packers in the North Central Region changed between 1940 and 1957. Packers increased the percentage of their slaughter livestock which they purchased at terminals for all three

Table 30 — **Estimated Number of Head of Slaughter Pigs and Hogs Purchased by Packers and Percentage Obtained from Various Sources by Area, North Central Region, 1957**

Area	Terminal (Percent)	Auctions (Percent)	Dealers of Local Markets (Percent)	Farmers (Percent)	Others (Percent)	Total No. Purchased (Thousand)
I	50.4	8.2	9.5	31.9	*	5,990
II	64.6	1.1	6.5	27.8	*	9,924
III	43.2	6.5	8.5	41.7	*	12,686
IV	17.0	49.9	4.5	28.6	*	294
V	19.1	11.2	20.1	49.6	*	2,736*
VI	3.6	2.2	24.3	58.7	11.2	117
VII	1.9	*	13.7	89.8	*	12,427
VIII	39.9	33.5	1.7	24.9	*	93
IX	*	*	*	*	*	0
Region	35.7	4.3	10.4	99.6	*	44,267

*Less than .05%

Table 31 — Estimated Number of Head, of Slaughter Sheep and Lambs Purchased by Packers and Percentage Obtained from Various Sources by Area, North Central Region, 1957

Area	Terminal (Percent)	Auctions (Percent)	Dealers of Local Markets (Percent)	Farmers (Percent)	Others (Percent)	Total No. Purchased (Thousand)
I	62.6	35.5	1.4	.5	*	746
II	78.7	8.2	1.8	11.3	*	808
III	63.6	1.8	1.7	32.9	*	7,530
IV	23.7	75.9	.3	.1	*	185
V	3.4	65.5	3.4	27.3	*	23
VI	.4	25.3	41.6	16.2	16.5	1
VII	8.2	2.8	10.8	78.2	*	1 380
VIII	78.7	4.2	*	17.1	*	52
IX						
Region	50.9	10.0	3.8	35.3	*	5,725

*Less than .05 %

species. They also increased slightly the percentage purchased at auctions. However, the percentage purchased directly from farmers declined while the percentage reported purchased directly from farmers increased for hogs and for sheep and lambs. (Table 32)

Present difficulty in the definition of the dealer and local market role in these "direct purchases" was previously noted. It is not certain how important they were in 1940 direct marketing operations. It appears that packers from outside the region now are making considerably more use of dealers and local markets in buying compared with packers within the region.

Table 32 — Percentage of all Livestock Purchased by Packers from Various Sources, 1940 and 1957

	Farmers & Others		Dealers & Local Mkts.		Auction		Terminals	
	1940	1957	1940	1957	1940	1957	1940	1957
Slaughter Cattle & Calves	20.3	15.9	9.5	5.4	8.6	14.2	49 6	64.5
Slaughter Hogs & Pigs	27.3	49.6	20.0	10.4	4.0	4.3	31.1	35.7
Slaughter Sheep & Lambs	21.7	35.3	14.6	3.8	7.8	10.0	47.6	50.9

BUYING AND SELLING OF LIVESTOCK AT TERMINAL MARKETS

Most of the terminal markets are located in areas I, II and III and most of the livestock going to terminals comes from these three areas.

Table 33 — Estimated Number of Head and Percentage of Livestock Consigned to Terminals by Farmers, Dealers, Local Markets, and Auctions

	Farmer		Dealer		Local Markets		Auctions		
	No. Thousands	%	No. Thousands	%	No. Thousands	%	No. Thousands	%	Total Thousands
Slaughter Cattle and Calves	10,023	90.9	720	6.5	276	2.5	10	.1	11,029
Slaughter Hogs and Pigs	20,488	97.0	486	2.3	137	.6	6	*	21,117
Slaughter Sheep and Lambs	3,957	93.2	193	4.5	11	.3	85	2.0	4,246
Feeding Breeding & Dairy Cattle & Calves	940	78.7	246	20.8	5	.4	4	.3	1,195
Feeding and Breeding Hogs and Pigs	117	81.8	24	16.8	1	.7	1	.7	143
Feeding and Breeding Sheep and Lambs	182	65.7	95	34.3	1	.4	*	*	277

*Less than .05 percent

However, farmers and dealers from other areas also consigned considerable numbers to terminals within these three areas. This was particularly true for cattle and calves and sheep and lambs.

Area III has the largest number of terminals and accounted for one-half of the total slaughter livestock handled by terminals. Terminals in area III handled almost 90% of the total volume of non-slaughter cattle and calves and sheep and lambs handled by terminals in the North Central Region, but a relatively small part of the non-slaughter hogs and pigs handled. (Table 2, 3)

Based on reported consignments by farmers and other marketing agencies, it is possible to estimate the sources of terminal market receipts (Table 33). Farmers consigned over 90 percent for all species of slaughter livestock received at terminal. They consigned 65.7 percent to 80 percent of the non-slaughter sheep and lambs and approximately 80 percent of the other non-slaughter livestock.

Dealers consigned practically all of the remainder for all three species, for both slaughter and non-slaughter livestock.

Earlier data are not adequate to estimate the percentages of terminal livestock bought and sold by farmers and by various types of marketing agencies. Changes in operation of other marketing agencies suggest that probably the percentage of total terminal volume which comes directly from farmers is increasing. The decline in numbers and importance of packing plants located near terminals also would suggest that less of the terminal's slaughter livestock is being purchased directly by packers. Probably order buyers account for increased percentages of the total livestock sold on terminals compared with 1940.

APPENDIX

Table 34 — Livestock Dealer and Local Market Operations of Auctions, Percentage Distribution of Source and Disposition, of Slaughter Cattle and Calves, by Area, North Central Region, 1957

	Place of Purchase		Seller	
Area	At Own Yards Percent	Elsewhere Percent	Farmer Percent	Other Percent
I	81.1	18.9	100.0	—
II	100.0	—	100.0	—
III	33.5	66.5	64.6	35.4
IV	79.6	20.4	21.3	78.7
V	76.1	23.9	90.2	9 8
VI	35.4	64.6	65.2	34.8
VII	20.2	79.8	56.6	42.4
VIII	23.9	76.1	47.0	53.0
IX	22.1	77.9	91.2	8.8
Region	44.5	55.5	65 9	34.1

Outlets

Area	Your Auction Percent	Other Auction Percent	Farmer Percent	Dealer Percent	Terminals Percent	Packers Percent	Other Buyers Percent
I	3.8	34.0	—	—	—	62.2	—
II	—	—	—	—	—	—	—
III	44.5	.8	4.0	2.8	13.4	33.4	1 1
IV	13.7	15.4	—	—	4.0	16.6	50.3
V	27.5	.9	9.4	—	4.7	47.2	10 3
VI	39.4	—	—	—	.4	51.0	9.2
VII	58.2	.1	9.9	.4	2.2	29.2	—
VIII	42.5	29.9	.3	.2	6.9	20.2	—
IX	66.2	—	—	—	33.8	—	—
Region	40.0	4.2	5.7	.4	4.6	36.8	8 3

Dashes indicate none reported in sample.

Table 35 — **Livestock Dealer and Local Market Operations of Auctions, Percentage Distribution of Source and, Disposition, of Feeding and Breeding Cattle and Calves, by Area, North Central Region, 1957**

Area	Place of Purchase		Seller	
	Purchased at Own Yards (%)	Purchased Elsewhere (%)	Purchased Farmer (%)	Purchased Other (%)
		Source		
I	51.0	49.0	57.3	42.7
II	8.7	91.3	34.9	65.1
III	16.6	83.4	54.3	45.7
IV	41.6	58.4	54.2	45.8
V	24.2	75.8	56.6	43.4
VI	17.3	82.7	43.2	56.8
VII	10.5	89.5	40.2	59.8
VIII	22.9	77.1	62.2	37.8
IX	22.5	77.5	91.0	9.0
Region	16.6	83.4	49.0	51.0

Outlets

Area	Your Auction Percent	Other Auction Percent	Farmer Percent	Dealer Percent	Terminals Percent	Packers Percent	Other Buyers Percent
I	70.6	16.3	2.0	9.3	1.8	—	—
II	54.7	—	33.6	11.7	—	—	*
III	72.4	1.5	21.9	1.8	.2	—	2.2
IV	65.1	34.2	.7	—	—	—	—
V	12.0	.1	71.2	1.9	—	3.8	11.0
VI	79.6	1.1	18.2	*	.4	.2	.5
VII	51.6	—	45.0	1.5	*	.8	1.1
VIII	78.0	1.9	15.6	.1	2.1	*	2.3
IX	77.4	—	—	—	1.8	—	20.8
Region	60.6	1.3	32.5	2.3	.5	.6	2.2

Dashes indicate none reported in sample

*Less than .05%.

Table 36 — **Livestock Dealer and Local Market Operations of Auctions, Percentage Distribution of Source and Disposition, of Slaughter Hogs and Pigs, by Area, North Central Region, 1957**

Area	Place of Purchase: At Own Yards Percent	Place of Purchase: Elsewhere Percent	Seller: Farmer Percent	Seller: Other Percent
I	99.9	.1	100.0	--
II	76.9	23.1	100.0	—
III	75.0	25.0	92.1	7.9
IV	94.2	5.8	96.5	3 5
V	96.3	3.7	96.4	3.6
VI	93.2	6.8	84.9	15.1
VII	85.7	14.3	86.4	13.6
VIII	89.7	10.3	88.0	12.0
IX	—	100.0	100.0	—
Region	92.8	7.2	93.4	6.6

Outlets

Area	Your Auction Percent	Other Auction Percent	Farmer Percent	Dealer Percent	Terminals Percent	Packer Percent	Order Buyers Percent
I	99.1	.4	—	—	—	.5	—
II	—	—	87.3	—	—	12.7	—
III	5.1	*	—	1.0	.2	92.9	.8
IV	—	.2	—	—	.1	64.1	35.6
V	25.1	—	3.7	2.3	*	54.4	14.5
VI	3.6	—	—	*	1.3	91.3	3.8
VII	.2	—	4.5	—	—	95.3	—
VIII	2.4	*	.4	89.4	4.0	3.8	—
IX	—	—	—	—	100.0	—	—
Region	16.3	.1	2.2	4.9	.4	63.3	12.8

Dashes indicate none reported in sample
*Less than .05%.

Table 37 — Livestock Dealer and Local Market Operations of Auctions, Percentage Distribution of Source and Disposition, of Feeding and Breeding Hogs and Pigs, by Area, North Central Region, 1957

Area	Place of Purchase: At Own Yards Percent	Place of Purchase: Elsewhere Percent	Seller: Farmer Percent	Seller: Other Percent
I	65.7	34.3	100.0	—
II	88.4	11.6	100.0	—
III	18.7	81.3	82.8	17.2
IV	70.5	29.5	100.0	—
V	82.3	17.7	83.7	16.3
VI	.1	91.9	73.5	26.5
VII	23.0	77.0	74.5	25.5
VIII	51.7	48.3	39.6	60.4
IX	—	—	—	—
Region	31.5	68.5	78.3	21.7

Outlets

Area	Your Auction Percent	Other Auction Percent	Farmer Percent	Dealer Percent	Terminals Percent	Packer Percent	Order Buyers Percent
I	8.0	41.8	45.4	—	—	4.8	—
II	91.5	—	8.5	—	—	—	—
III	68.6	.3	30.1	.8	.2	—	*
IV	100.0	—	—	—	—	—	—
V	57.6	—	21.9	11.6	—	4.4	4.5
VI	26.8	.8	53.7	*	—	—	28.7
VII	45.4	14.9	27.7	.8	—	11.2	—
VIII	86.3	.5	7.6	—	5.5	—	—
IX	—	—	—	—	—	—	—
Region	49.4	3.4	31.1	3.1	.2	2.9	9.9

Dashes indicate none reported in sample

*Less than .05%

Table 38 — Livestock Dealer and Local Market Operations of Auctions, Percentage Distribution of Source and Disposition of Slaughter Sheep, by Area, North Central Region, 1957

	Place of Purchase		Seller	
Area	At Own Yards Percent	Elsewhere Percent	Farmer Percent	Other Percent
I	—	—	—	—
II	—	—	—	—
III	60.0	40.0	92.0	8.0
IV	86.4	13.6	89.2	10.8
V	48.9	51.1	81.1	18.9
VI	86.4	13.6	90.2	9.8
VII	42.8	57.2	91.1	8.9
VIII	84.5	15.5	94.8	5.2
IX	—	—	—	—
Region	74.5	25.5	89.2	10.8

Outlets

Area	Your Auction Percent	Other Auction Percent	Farmer Percent	Dealer Percent	Terminals Percent	Packer Percent	Order Buyers Percent
I	—	—	—	—	—	—	—
II	—	—	—	—	—	—	—
III	30.9	—	—	7.7	61.4	—	—
IV	24.5	—	—	—	—	75.5	—
V	38.6	—	—	—	.2	33.6	27.6
VI	2.5	—	—	—	—	96.3	1.5
VII	57.8	—	3.0	—	2.3	36.9	—
VIII	.3	—	*	—	99.3	.4	—
IX	—	—	—	—	—	—	—
Region	13.0	—	*	*	34.9	43.5	8.5

Dashes indicate none reported in sample.
*Less than .05%.

Table 39 — **Livestock Dealer and Local Market Operations of Auctions, Percentage Distribution of Source and Disposition of Feeding and Breeding Sheep, by Area, North Central Region, 1957**

	Place of Purchase		Seller	
Area	At Own Yards Percent	Elsewhere Percent	Farmer Percent	Percent Other
I	62.4	37.6	100.0	—
II	—	—	—	—
III	1.2	98.8	69.0	31.0
IV	1.2	100.0	3.8	96.2
V	49.9	50.1	56.8	43.2
VI	16.4	83.6	34.2	65.8
VII	.8	99.2	91.5	8.5
VIII	85.5	14.5	95.0	5.0
IX	—	—	—	—
Region	28.1	71.9	64.4	35.6

Outlets

Area	Your Auction Percent	Other Auction Percent	Farmer Percent	Dealer Percent	Terminals Percent	Packer Percent	Order Buyers Percent
I	12.6	79.4	4.0	—	—	4.0	—
II	—	—	—	—	—	—	—
III	82.6	—	17.4	—	—	—	—
IV	100.0	—	—	—	—	—	—
V	31.5	—	48.3	13.2	.1	.3	6.5
VI	14.3	—	85.4	.3	—	—	—
VII	5.8	—	94.2	—	—	—	—
VIII	22.1	—	.2	—	—	—	77.7
IX	—	—	—	—	—	—	—
Region	24.0	1.4	60.6	3.5	*	.2	10.3

Dashes indicate none reported in sample.
*Less than .05%.

Table 40 — **Estimated Number of Head of Livestock Handled by Livestock Dealer and Local Market Operations of Auctions, by Species, by Class, by Area, North Central Region, 1957**

	Slaughter Livestock			Dairy, Feeding, and Breeding Livestock		
Area	Cattle and Calves	Hogs and Pigs	Sheep and Lambs	Cattle and Calves	Hogs and Pigs	Sheep and Lambs
I	2	55	—	13	3	3
II	*	2	—	82	4	—
III	32	112	1	175	55	10
IV	15	231	4	9	*	3
V	57	684	70	67	58	36
VI	37	199	82	65	75	37
VII	54	137	2	292	42	35
VIII	17	64	84	182	5	15
IX	2	1	—	3	—	—
Region	215	1,484	242	889	244	139

Dashes indicate none reported in sample

*Less than 500 head reported.