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Livestock Marketing

North Central Region

III AUCTION MARKETS

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Michigan, Minnesota, Missouri, Nebraska,
North Dakota, Ohio, South Dakota, Wisconsin,
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FOREWORD

In November, 1942 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.

Since that study was made a number of events occurred which had an important impact on the livestock marketing system. These were: (1) World War II and the accompanying control 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 drought 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.

A new study was undertaken to determine the nature of changes in marketing patterns and also to promote more detailed data than heretofore on methods of operations of marketing agencies.

The results of the phase of the study are published in North Central Regional Publication 104, Ohio Agricultural Experiment Station Research Bulletin 846, December 1959 entitled, "Livestock Marketing in the North Central Region, I: Where Farmers and Ranchers Buy and Sell." A second bulletin in the series entitled. "Livestock Marketing in the North Central Region, II: Channels Through Which Livestock Move from Farm to Final Destination" was concerned with the patterns of livestock movement and changes in their pattern form 1940 to 1957. The present publication deals with the specific role which auction markets play in the livestock marketing in the North Central Region.

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III AUCTION MARKETS

RICHARD R. NEWBERG

INTRODUCTION

During the last thirty years the auction has become increasingly important as a livestock marketing agency in the North Central Region and the United States. The major increase in number of auctions in the North Central Region took place between 1928 and 1940, but volume sold through auctions increased greatly in the North Central Region between 1940 and 1957. In contrast, the major increase in auction numbers in other regions came after 1937. In 1955 there were 1,044 auction markets operating in the North Central Region. This was 45 percent of the total for the United States[1].

Objectives and Procedure

This study summarizes one phase of a North Central Regional Livestock Marketing research project. The major objectives of this phase were:

(1) To determine the methods of operation of livestock auction markets in the region.

(2) To describe what facilities livestock auction markets use.

(3) To describe the schedule of marketing charges of auction markets.

(4) To determine the relationship between market volume and facilities, methods of operation, and market charges.

(5) To determine the relative importance of auctions as a market for different classes of livestock.

Source and Treatment of Data

Data for the study came from several sources: 1) A survey of 7,000 farmers conducted in 1957 which provided data on livestock outlets and sources used by farmers. This study is discussed in detail in *North Central Regional Bulletin* 104[2]; 2) A sample survey of 324 auction markets operating in the North Central Region which was conducted in 1958-60; and 3) Census reports and earlier research studies.

In order to sample the North Central Region, the region first was divided into fifty-four areas (Figure 1). The data were collected in such a way as to provide a sample with approximately equal reliability for each of the areas sampled. The data then were recombined into nine large areas for analysis and presentation (Figure 2). The data found in later chapters show the channels used by farmers in each of these nine major areas and also show the sources and dispositions of the livestock at auction markets in these various areas.

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[1] Engelman, Gerald and Pence, Betty Sue, "Livestock Auction Markets in the United States," USDA, Agricultural Marketing Service, Marketing Research Report 223, March 1958, pp. 3-5.

[2] Newberg, R. R., "Livestock Marketing in the North Central Region I. Where Farmers and Ranchers Buy and Sell," North Central Regional Publication 104, Ohio Agricultural Experiment Station Research Bulletin 846, December 1959.

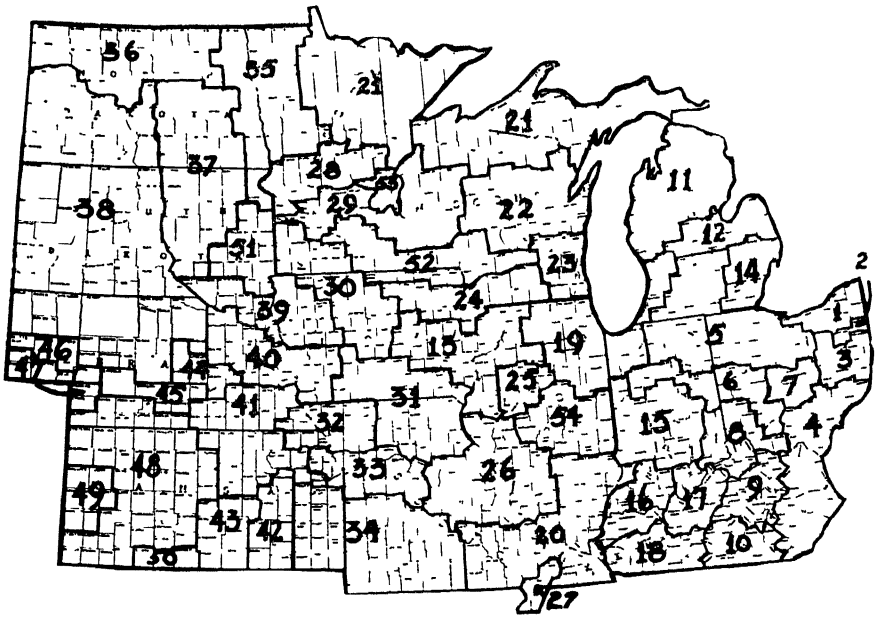


Fig. 1.—Areas used in analyzing the operations and facilities of livestock dealers and local markets in the North Central States and Kentucky, 1957-60.

The data were combined for the whole region for the analysis of facilities, methods of operations, etc. These are discussed primarily by size of auction market and measured in terms of total animal units handled. The data also touch upon: (1) The distribution of facilities by size of market, (2) methods of operation, (3) methods of meeting competition, (4) characteristics of livestock handled, (5) distances from which livestock was received, (6 distances shipped, (7) charges, and (8) numbers of marketing personnel and many other matters concerning the operations of auction markets in the North Central Region.

DEVELOPMENT AND ORGANIZATION

The auction method of selling goods dates back to the seventeenth century; but livestock auctions, as we know them now, are relatively new developments in livestock marketing. Records show that the first livestock auction was held in Ohio in 1836 to sell breeding cattle. During the 1850's the first regularly scheduled auction markets were begun in Ohio and Kentucky. By 1859 auction sales of cattle in Madison County, Ohio, were reported to have reached 1,000 head Court day sales were held on the first Monday of the month at Paris, Lexington, Versailles, Frankfort, and Georgetown, Kentucky, through the 1850's, and livestock of all types was sold through these sales. Buyers came from nearby towns and from as far away as the East Coast and from New Orleans and other Southern points. How-

ever, with the growth of early terminal markets in Cincinnati and other cities, the volume sold at these early auctions declined [3].

Most of the growth in the number of livestock auction markets in the early 1900's was centered in the North Central Region. The first combination sale in Iowa resembling present day livestock auction markets was established in 1904 at Union, Iowa. This auction continued to operate and the seventy-ninth sale was held in 1911. Thus, there was an average of only eight sales per year. The volume of business of that auction was reported to range from $2,500 to $21,000. There was no further increase in the number of Iowa auction markets until 1912 when three new markets were established [4].

The first auction in the western region was started in Miles City, Montana in 1900 but continued for only a few years. A slaughter hog auction was started at Wasco, California in 1917 and by 1919 auctions were being held in seven counties in the state [5].

By the 1920's, auctions were held in many states with the largest number in Iowa. By 1930 there were thirty-three auction markets in operation in Iowa [6]. During the 1930's the number of auction markets grew very rapidly.

[3] Randall and Mann, "Livestock Auction Markets in the United States," pp. 3-4.
[4] Thompson and Bjorka, "Community Livestock Auctions in Iowa," pp. 280-281.
[5] Engelman and Pence, op. cit. pp. 4-5.
[6] Engelman and Pence, op. cit. p. 5; Thompson and Bjorka, op. cit., p.8.

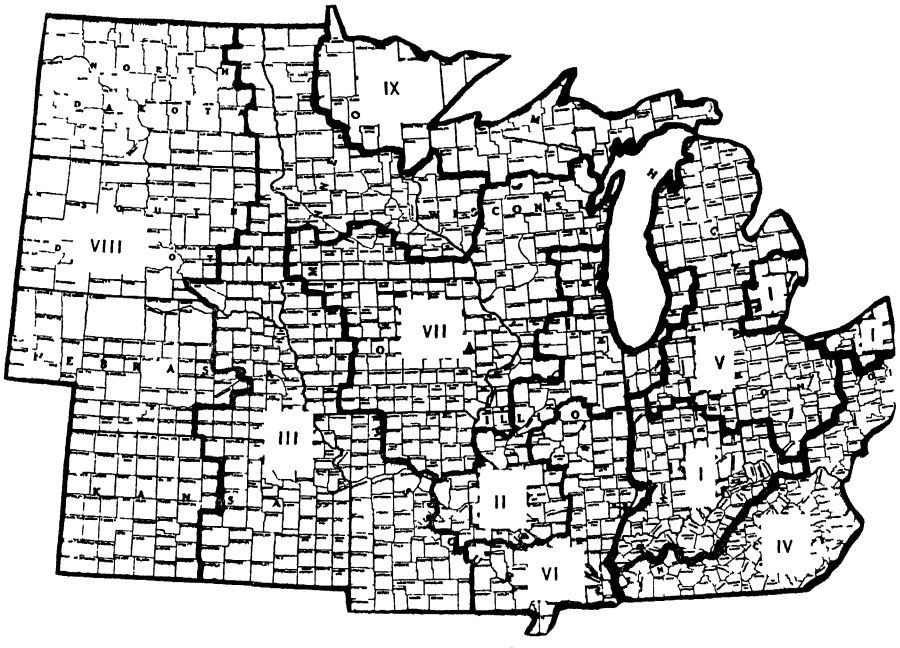
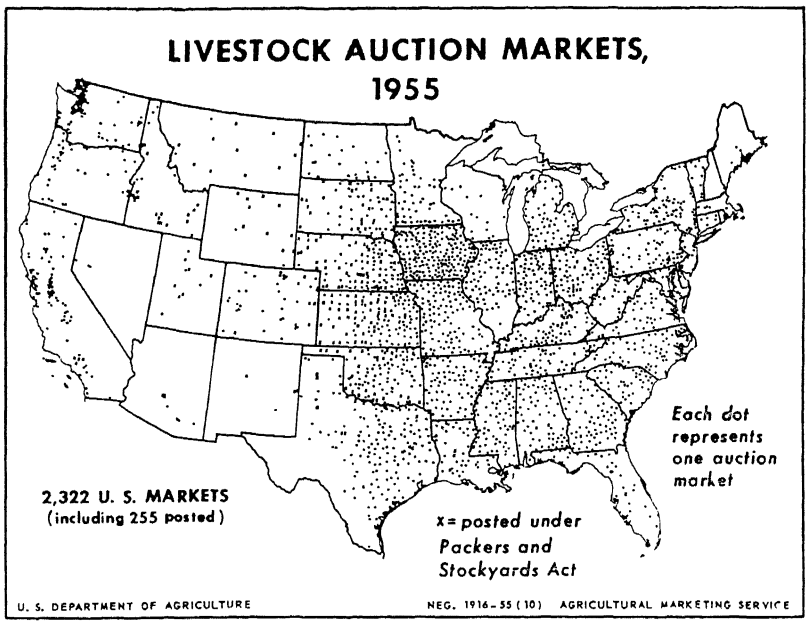


Fig. 2.—Areas used in analyzing the operations and facilities of livestock dealers and local markets in the North Central States and Kentucky.

Figure 3



By 1937 there were an estimated 1,345 auction markets operating in the U. S. with about 70 percent of them concentrated in the North Central Region. The number of auction markets reached a peak in 1952 when there were over 2,500 auction markets in the United States. By 1955 the number had declined to 2,322 (Figure 3).

The growth in auction markets in the period between 1937 and 1955 came largely in areas outside of the North Central Region. In 1937 about 70 percent of all auction markets in the United States were located in the North Central Region while in 1955 the same area accounted for only 45 percent of the United States total (Table 1). A number of conditions appear to have accounted for the very rapid growth of auction markets during the period

TABLE 1

Livestock Auction Markets by Region: 1937, 1949, and 1955*

Region	1937 Number	1949 Number	1955 Number
Northeast	54	192	176
North Central	918	1,187	1,044
South	161	515	598
Southwest Central	132	290	251
West	80	288	253
Total U. S.	1,345	2,472	2,322

*Engelman and Pense, op. cit., p. 10.

TABLE 2

Estimated Number of Livestock Auction Markets in Operation in the North Central States, by States: 1940 and 1956 [1, 2]

State	Auctions	
	1940	1956
Illinois	124	85
Indiana	54	73
Kentucky	48	64
Michigan	45	52
Ohio	85	71
Wisconsin	4	15
East North Central States	360	360
Iowa	185	170
Kansas	116	131
Minnesota	45	66
Missouri	105	108
Nebraska	118	110
N. Dakota	18	27
S. Dakota	49	63
West North Central States	636	675
Region	996	1,035

[1] 1940 data taken from "Marketing Livestock in the Corn Belt Region." November, 1942, South Dakota, Agricultural Experiment Station, Bul. 365.

[2] Newberg, R. R., Livestock Marketing in the North Central Region I. Where Farmers and Ranchers Buy and Sell, North Central Regional Publication 104, Ohio Agricultural Experiment Station Research Bul. 846, December, 1959, p. 13.

of the 1930's. The most important factors were the drought which resulted in a large amount of forced selling of livestock and the very low prices of the depression years which made farmers very conscious of small differences in transportation and selling costs for livestock. Other important factors appear to have been the improvements in truck transportation and roads, and the improvement in market news and use of federal grades[7].

In 1956 the number of auction markets in the North Central Region was almost the same as in 1940 (Table 2). However, auction markets handled a much larger percentage of the livestock marketed by farmers in 1956 compared with 1940, and this increase was particularly large for cattle and calves (Table 3).

Engelman and Pence estimated that in 1955 auction markets in the United States handled over 30 million head of cattle and calves, which was about seven million more than the combined total of the sixty-four terminal markets. Auctions also handled approximately 15.5 million head of hogs and

[7] Thompson and Bjorka, op. cit., p. 282.

TABLE 3

Percentage of Various Classes of Livestock Sold by Farmers Through Auctions, 1940 [1] and 1956 [2], North Central Region*

Class of Livestock	1940 [3]	1956
Vealer and Deacon Calves	10 2	25 9
Slaughter Cattle and Calves	6 2	17 0
Feeder Cattle and Calves	17 1	49 5
Slaughter Hogs	5 0	7 8
Feeder Hogs	18 7	27 7
Breeding Hogs	11 0	15 1
Slaughter Sheep and Lambs	12 2	13 2 [4]
Breeding Sheep and Lambs	10 7	10 5 [4]
Stocker & Feeder Sheep and Lambs	6 5	14 9

[1] 1940 figures are taken from the 1940 regional study, "Marketing Livestock in the Corn Belt Region," South Dakota Experiment Station, Bulletin 365, November, 1942. [2] 1956 figures are from "Livestock Marketing in the North Central Region I. Where Farmers and Ranchers Buy and Sell, Regional Publication 104, Ohio, 1959.

[3] 1940 data also include Kentucky and Oklahoma in the totals for the regions.

[4] 1956 region totals include Kentucky but not Iowa or Oklahoma.

Newberg, R. R., op. cit., pp. 32, 51, 61.

almost 5.9 million head of sheep, which was about two-thirds as much as was handled by terminals (Table 4). A study of livestock marketing channels carried out by the North Central Regional Livestock Marketing Research Committee indicates that the volume of livestock of each class handled by auction markets in 1957 was somewhat higher than for 1955 [5]. Thus, the volume appears to be continuing to increase despite the decline in the total number of auction markets in operation.

[5] Newberg, R. R. "Marketing Livestock in the North Central Region II: Channels Through Which Livestock Moves From Farm to Final Destination."

TABLE 4

Salable Receipts at 64 Terminal Public Markets and Sales at Livestock Auctions, United States, 1955 [1]

Species	Salable Receipts at 64 Terminal Public Markets	Sales at Livestock Auctions
	1,000 Head	1,000 Head
Cattle and Calves	22,935	30,125
Cattle	19,077	18,269
Calves	3,858	11,856
Hogs	24,579	15,481
Sheep and Lamb	8,594	5,858

[1] Engelman and Pence, op. cit.. p. 14.

CHAPTER II

Volume of Livestock Handled by Auction Markets

SLAUGHTER LIVESTOCK

Auction markets play an important role in total livestock marketed in the North Central Region. The proportion of livestock going through auction markets is particularly large for livestock sold for non-slaughter uses. But even the volume of slaughter cattle and calves sold through auction markets in 1957 was equivalent to 30 percent of total livestock sales by farmers in the 13-state region. Volume of slaughter hogs was equivalent to 10 percent of farm sales and volume of slaughter sheep and lambs was equivalent to over 20 percent of farm sales (Table 5). The percentage of total slaughter livestock handled by auctions was relatively small in terminal market areas I, II, and VI, and also in Areas VII and IX where most of the slaughter livestock was sold direct to packers or went through dealers or local markets. In the four remaining areas auction markets were the major marketing agency for slaughter livestock as well as for livestock sold for non-slaughter uses.

The share of total slaughter livestock volume handled by auction markets varied considerably from one part of the region to another. For slaughter cattle and calves, the percentage was largest in Areas IV, V, and VIII. For slaughter hogs the percentage of total volume handled by auctions was largest in Areas IV, VIII, and IX and was lowest in Area VII. For slaughter sheep and lambs the largest percentages of total volume marketed through auctions were in Areas IV, VI, VIII, and IX.

NON-SLAUGHTER LIVESTOCK

In 1957 auctions ranked ahead of any other marketing agency in the volume of feeding, breeding, and dairy livestock handled. They handled an estimated total of 9.3 million head of cattle and calves, 6.2 million head of hogs and pigs, and 1.7 million head of sheep and lambs (Table 6). Dealers were second in importance, terminal markets third, and local markets fourth in the total number of feeding, breeding, and dairy livestock handled by marketing agencies in the North Central Region.

Over 60 percent of cattle and calves were handled by auctions in Areas VII and VIII, almost 90 percent of the non-slaughter hogs and pigs were handled by auctions in Area IV. and 86 percent of non-slaughter sheep and lambs were handled by auctions in Area VII. In only three areas (Area II for cattle and calves, Area IX for hogs and pigs and Area III for sheep and lambs) less than 20 percent of non-slaughter volume was marketed through auctions. Most areas had much higher percentages of the non-slaughter volume marketed through auctions.

DEALER AND LOCAL MARKETING ACTIVITIES OF AUCTIONS

In addition to the volume of livestock handled through the regular auction ring. many auctions also engaged in dealer or local market operations at the yards or in the country. Table 7 shows the estimated volume of various classes of livestock handled through these operations of auction markets or personnel or owners of auction markets. The major volumes were non-slaughter cattle and calves and slaughter hogs and pigs. The number of live-

TABLE 5

ESTIMATED NUMBER OF SLAUGHTER LIVESTOCK
Sold by Farmers and Markets Handled by Each Type of Marketing Agency by Areas, North Central Region, 1957

Cattle and Calves

Area	Terminals	Auctions	Dealers	Local Markets	Total Volume	Packers			Total Volume Marketing Agencies	Sales by Farmers	Net Shipment
						Direct Purchases	Other Purchases	Total Volume			
	(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 Confidence 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 percent probability level. Since terminal markets and packers represent essentially a 100 percent sample, the sampling error 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 negligible errors in total volume. However, the distribution between slaughter and non-slaughter and channels in marketing are based on a sample of 7.000 livestock producers.

Hogs and Pigs

Area	Terminals	Auctions	Dealers	Local Markets	Total Volume	Packers			Total Volume Marketing Agencies	Sales by Farmers	Net Shipment
						Direct Purchases	Other Purchases	Total Volume			
					(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.

Sheep and Lambs

Area	Terminals	Auctions	Dealers	Local Markets	Total Volume	Packers			Total Volume Marketing Agencies	Sales by Farmers	Net Shipment
						Direct Purchases	Other Purchases	Total Volume			
					(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 Confidence 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 6

Estimated Number of Feeder, Breeding, and Dairy Livestock Bought and Sold by Farmers, by Type of Marketing Agency, by Areas, North Central Region, 1957

Cattle and Calves

Area	Terminals	Auctions	Dealers	Local Markets	Total Volumes
		(thousands of head)			
I	155	248	324	163	890
II	228	469	1,118	539	2,355
III	2,640	2,518	1,082	15	6,255
IV	—	414	323	3	740
V	—	503	467	63	1,033
VI	2	366	687	28	1,083
VII	—	2,003	1,076	167	3,246
VIII	—	2,789	1,733	66	4,588
IX	—	16	31	*	47
Region	3,025	9,326	6,841	1,044	20,237
Lower Confidence Limit [1]	3,025	8,393	6,158		18,516

Hogs and Pigs

		(thousands of head)			
I	19	397	174	92	682
II	111	530	90	66	797
III	7	1,426	664	57	2,154
IV	—	360	44	1	405
V	—	647	538	148	1,333
VI	1	475	240	32	748
VII	—	1,851	990	92	2,933
VIII	—	504	164	—	668
IX	—	5	45	—	50
Region	138	6,195	2,949	488	9,770
Lower Confidence Limit [1]	138	5,575	2,654	439	8,806

Sheep and Lambs

		(thousands of head)			
I	87	82	78	145	392
II	73	87	25	—	185
III	1,191	184	120	2	1,497
IV	—	94	36	1	131
V	—	250	83	29	362
VI	1	65	15	5	86
VII	—	416	58	10	484
VIII	—	542	613	—	1,155
IX	—	2	4	—	6
Region	1,352	1,722	1,032	192	4,298
Lower Confidence Limit [1]	1,352	1,550	929	173	4,004

[1] These are the lower confidence limits at 95 percent probability level.
* Less than 500 head.

Table 7

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

Area	Slaughter Livestock			Dairy, Feeding, and Breeding Livestock		
	Cattle and Calves	Hogs and Pigs	Sheep and Lambs	Cattle and Calves	Hogs and Pigs	Sheep and Lambs
	(thousands of head)					
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.

stock purchased and handled by auction markets on their own account amounted to almost ten percent of the total auction market volume. For slaughter hogs and pigs the percentage handled by dealer or local market operations of auctions was almost 30 percent of the total volume handled through the ring.

SOURCES AND OUTLETS OF LIVESTOCK HANDLED BY AUCTION MARKETS

The major part of the total livestock volume of all classes handled by auction markets through the ring was consigned by farmers. The percentage consigned by farmers was the highest for slaughter hogs (97.5 percent) and lowest for feeder and breeding cattle and calves (78.4 percent). "Others" (including primarily dealers) generally accounted for the second largest part of consignments to auction markets while consignments by the auction market iteslf or by personnel of the auction ranked third (Table 8).

Packers and their salaried buyers accounted for over one-half of the purchases of slaughter livestock sold through the auction rings. Packers purchased 61.2 percent of the cattle and calves, 57.9 percent of the hogs and pigs, and 51.3 percent of the sheep and lambs. Other buyers accounted for the major part of the remainder of slaughter livestock. Dealers ranked third and farmers fourth. For non-slaughter livestock, farmers purchased 81.7 percent of the hogs and pigs, 64.4 percent of the cattle and calves, and 72.0 percent of the sheep and lambs. Order buyers ranked second and dealers and local markets were third. Purchases by packers accounted for most of the remainder (Table 8).

Table 8

Percentage of Livestock Received by Auction Markets from Various Sources, and Percentage of Livestock Purchased by Various Types of Buyers, by Class of Livestock, 1957

	Consignor		
Class of Livestock	Auctions	Farmers	Other
Slaughter Cattle & Calves	3.2	89.8	7.0
Slaughter Hogs & Pigs	1.3	97.5	1 2
Slaughter Sheep & Lambs	4.5	93.0	2.5
Feeder & Breeding Cattle	6.1	78.4	15.5
Breeding & Feeder Hogs	1.9	90.0	8.1
Breeding & Feeder Sheep	4.3	87.7	8 0

	Buyer			
Class of Livestock	Dealers and Local Markets	Packers	Farmers	Other
Slaughter Cattle & Calves	11.2	61.2	2.7	24.9
Slaughter Hogs & Pigs	3.5	57.9	2.6	36 0
Slaughter Sheep & Lambs	6.4	51.3	5.1	37.2
Feeder & Breeding Cattle	12.4	4.3	64.4	18.9
Feeder & Breeding Hogs	6.2	2.9	81.7	9.2
Feeder & Breeding Sheep	5.6	3.9	72 0	18.5

Table 9

Livestock Dealer and Local Market Operation of Auction, Percentage Distribution of Source and Disposition, by Specie, North Central Region, 1957

Specie	Where Purchased		Consignor	
	At Own Yard	Elsewhere	Farmer	Other
		Percent		
Slaughter Cattle & Calves	44.5	55.5	65.9	34.1
Feeding & Breeding Cattle & Calves	16.6	83.4	49.0	51.0
Slaughter Hogs & Pigs	92.8	7.2	93.4	6.6
Feeding & Breeding Hogs & Pigs	31 5	68.5	78.3	21.7
Slaughter Sheep	74.5	25.5	89.2	10.8
Feeding & Breeding Sheep	28.1	71.9	64.4	35.6

Specie	Outlet						
	Your Auction	Other Auction	Farmer	Dealer	Terminal	Packers	Other Buyers
				Percent			
Slaughter Cattle & Calves	40.0	4.2	5.7	0.4	4.6	36.8	8.3
Feeding & Breeding Cattle & Calves	60.6	1.3	32.5	2.3	0.5	0.6	2.2
Slaughter Hogs & Pigs	16.3	0.1	2.2	4.9	0.4	63.3	12.8
Feeding & Breeding Hogs & Pigs	49.4	3.4	31.1	3.1	0.2	2.9	9.9
Slaughter Sheep	13.0	—	*	*	34.9	43.5	8.5
Feeding & Breeding Sheep	24.0	1.4	60.6	3.5	*	0.2	10.3

* Less than .05%.

Dashes indicate none reported in sample.

Purchases of livestock through the dealer and local market operations of auctions were made primarily from farmers. The percentages obtained directly from farmers ranged from a low of 49.0 percent for feeding and breeding cattle and calves to a high of 93.4 percent for slaughter hogs and pigs. Generally, the percentages obtained at the yards of the auction markets in contrast with elsewhere bore a fairly close relationship to the percentage obtained directly from farmers. Thus, in the case of slaughter hogs, where the percentage obtained directly from farmers was high (93.4 percent) the percentage purchased directly in the yards also was high (92.8 percent). Where the percentage obtained directly from farmers was relatively low, the percentage purchased directly in the yards was also low (Table 9).

The largest percentage of the slaughter livestock handled through dealer and local market operations of auctions was sold directly to packers. The only exception was slaughter cattle and calves for which the percentage sold

through the ring was slightly higher than the percentage sold directly to packers. Most of the non-slaughter livestock was marketed through the auction ring.

Auction operators appeared to have two primary motives in handling livestock in their dealer and local market operations. One, of course, was for the additional profit which it provided and the efficiency in more continuous use of the market facilities. For some markets this was the major reason. For other markets, the primary motive was to provide a better, more stable auction market either by providing additional livestock where there was likely to be a short supply or by buying in the auction ring when competition for farmers' livestock was weak. Many auctions followed the practice of starting bidding and as a result sometimes ended up buying livestock on which no additional bids were received.

CHAPTER III

Characteristics of Organization and Operation

SIZE OF AUCTION MARKETS

Most of the livestock auctions in the North Central Region are relatively small operations. Small volume auctions, those handling less than 15,000 animal units per year, represented about 53 percent of the total observations in the study but handled only 23.6 percent of the animal units marketed through the observed auctions[1]. Medium volume auctions, those handling 15,000-30,000 animal units per year, accounted for 31 percent of the observations and handled 37.1 percent of the animal units. Large auctions, those handling over 30,000 animal units per year, included only one-sixth of the sample auctions but accounted for almost 40 percent of the animal units (Table 10).

Generally, the percentages of cattle and hogs handled by each of the various sizes of auctions were about the same as the percentages of total volume. However, small auctions accounted for only 9.6 percent of the sheep while large auctions handled almost 70 percent of the sheep.

OWNERSHIP

About 45 percent of the auctions in the sample were in operation before 1939. Another 45 percent were started between 1939 and 1952. Less than 10 percent of the auctions were started after 1952. The percentage of auctions which started after 1952 was significantly greater for small volume auctions than large volume auctions. The percentage of auctions in operation before 1939 was greatest for the large auctions.

Evidence of considerable transfer of ownership of the auctions was found among those studied. Most auctions had operated under the current ownership for less than five years and only a small percentage had operated

[1] One animal unit is equal to one cow or three hogs or five sheep.

Table 10

Livestock Sold at Auctions, by Class, by Size and Market, North Central Region, 1957

Size of Auctions [1]	Number of Auctions	Cattle	Hogs	Sheep	All Livestock
		(percent)			
Small	170	24.2	24.3	9.6	23.6
Medium	100	39.6	32.0	21.9	37 3
Large	54	36.2	43.7	68.5	39.1
	324	100.0	100.0	100.0	100.0
Total Volume [2] Reported		4,352,000	1,154,000	250,000	5,756,000

[1] Size classifications were based on volume in terms of animal units, one animal unit being equal to one head of cattle, three hogs or five sheep. Small auctions handled under 15,000 animal units per year and large auctions handled over 30,000 animal units annually.

[2] Volume in animal units for all auctions included in the study.

under the current ownership for more than 20 years. The large volume auctions generally had operated under the same ownership for a longer period of time (Table 11).

Ownership of auction markets in the North Central Region fell into four general classes, single proprietorship, partnerships, corporations, and cooperatives. Most of the auctions were either privately owned or owned in partnership. The percentage which were corporations and cooperatives was greater for larger volume auctions. About one-third of the large auctions were cooperatives or corporations as compared to only one-fourth of the small and medium volume auctions (Table 11). The percentage which were single proprietorships was significantly higher for small than medium or large size auctions.

Large auctions averaged a larger number of owners per auction than did the smaller volume auctions (Table 11).

Auction owners had a wide variety of other occupational interests. For all volume classes, farming was the major "other occupational interest" of the owners. Other occupational interests included dealers, auctioneers, and professional people. Auctioneers, dealers, business or professional people more frequently had entire or part ownership of small auctions than larger auctions. Large auctions had a higher proportion of owners with no other occupational interest (Table 11).

Owners of only 15 percent of the small volume auctions operated other livestock auctions. Owners of one-fourth of the medium and large auctions reported they operated one or more other auctions.

Table 11

Ownership Description of Livestock Auctions, by Volume Classes, North Central Region, 1958

	Volume Class of Auctions		
	Small	Medium	Large
Number of Auctions	170	100	54
Year Regular Sales Started	(percent)	(percent)	(percent)
1953-58	21 (12.4)	7 (7.0)	3 (5.6)
1939-52	72 (42.3)	51 (51.0)	19 (35.2)
before 1939	71 (41.8)	42 (42.0)	32 (59.2)
no response	6 (3.5)	0 (0.0)	0 (0.0)
Years Auction Operated Under Current Ownership:			
0- 5 years	81 (47.6)	43 (43.0)	19 (35.3)
6-19 years	70 (41.2)	42 (42.0)	23 (42.5)
20 and over	16 (9.4)	15 (15.0)	10 (18.5)
no response	3 (1.8)	0 (0.0)	2 (3.7)
Type of Ownership:			
single owner	81 (47.6)	30 (30.0)	15 (27.8)
partnership	63 (37.1)	42 (42.0)	21 (38.9)
corporation	23 (13.5)	25 (25.0)	17 (31.5)
cooperative	3 (1.8)	3 (3.0)	1 (1.8)
Average Number of Owners:			
partnership	2.4	2.6	2.9
corporation	9.1	25.1	34.5
cooperative	1900	3033	300 [1]
Other Occupational Interests of Owners: [2]			
none	25 (10.0)	18 (12.0)	65 (25.9)
farmer	90 (36.0)	87 (58.0)	148 (59.2)
auctioneer	36 (14.4)	18 (12.0)	23 (9.2)
dealer or trader	47 (18.8)	15 (10.0)	5 (1.9)
business and profession	39 (15.6)	9 (6.0)	5 (1.9)
others [3]	13 (5.2)	3 (2.0)	5 (1.9)
Other Auctions Operated by Some Owners:			
none	145 (85.1)	74 (74.0)	42 (78.1)
one	20 (11.9)	18 (18.0)	8 (14.6)
two	3 (1.8)	4 (4.0)	1 (1.8)
three	1 (0.6)	2 (2.0)	1 (1.8)
four or more	1 (0.6)	2 (2.0)	2 (3.7)

[1] Only one cooperative included in the sample was in the large volume category.
[2] Major occupation of owner, major partner(s), or major stockholder(s).
[3] Includes truckers, laborers, meat processors, etc.

AUCTION PERSONNEL

There are many different jobs involved in operating an auction, including those of auctioneers, ringmen, yardmen, office personnel and manager. Some of these often involve full-time people such as clerks and the manager. For others, labor may be hired only for sale days, particularly the work of yarding and auctioneering. Large auctions averaged over twenty-nine workers as compared to only nineteen and thirteen for medium and small auctions respectively. Average number of workers increased in each category as volume increased. The largest increase in employees was in number of yardmen.

The number of hours worked per week also increased with volume. Total labor in small auctions averaged only about 99 hours per week. Medium auctions averaged 178 hours per week, and large auctions averaged 376.5 hours of labor per week (Table 12).

Although large volume auctions required more total labor per week than small volume auctions, they generally required less labor per animal unit. Small volume auctions averaged 39 minutes per animal unit as compared to only 26 and 25 minutes per animal unit for medium and large volume auctions respectively. Auctions with an annual volume of less than 5,000 animal units averaged 55 minutes per animal unit[2]. As volume increased, the time spent per animal unit decreased to about 25,000 animal units when the time required per animal unit leveled off (Table 13).

Major labor savings came in time spent per animal unit for auctioneers, managers, ringmen, and office help. Hired labor per animal unit increased from medium to large auctions, but the additional labor needed by large

[2] One small volume auction reported an average of 133 minutes per animal unit.

Table 12

Average Number of Auction Personnel and Average Hours Worked per Week, Average Number of Minutes Worked per Animal Unit, by Type of Work, by Volume Class, North Central Region, 1957

Size of Outlet	Auction-eers	Mgrs.	Office	Yard-men	Ring-men	Veterin-arians	Total
			(Number of Personnel)				
Small	1.68	1.50	3.38	5.65	0.77	0.07	13.05
Medium	1.96	1.65	4.99	9.89	0.91	0.07	19.47
Large	2.15	1.65	6.57	17.09	1.19	0.00	28.65
			(Hours of Labor per Week)				
Small	6.8	26.4	21.6	40.5	3.6	0.4	99.3
Medium	10.2	29.5	43.0	89.6	5.3	0.4	178.0
Large	15.6	39.9	80.6	231.3	9.1	0.0	376.5
			(Average Minutes per Animal Unit)				
Small	2.64	10.27	8.40	15.76	1.40	0.16	38.63
Medium	1.48	4.28	6.24	13.01	0.77	0.06	25.84
Large	1.04	2.67	5.39	15.46	0.61	0.00	25.17

Table 13

Minutes of Labor Required per Animal Unit by Livestock Auctions, by Volume, North Central Region, 1957

Volume in Animal Units	Minutes of Labor per Animal Unit	Observation per Volume Class
Small Volume		
0— 5,000	55	44
5,001—10,000	37	66
10,001—15,000	33	57
[1] Average (Small Volume)	39	167
Medium Volume		
15,001	26	41
20,001	27	33
25,001	23	21
[1] Average (Medium Volume)	26	95
Large Volume		
30,001	25	18
35,001	24	6
40,001	26	11
45,001	33	2
50,001	29	3
55,001	26	3
60,001	31	2
65,001	25	3
70,001	14	2
75,001	14	1
85,001- 90,000	33	1
135,001-140,000	28	1
[1] Average (Large Volume)	25	53
[1] Average (Total)	28	315

[1] Weighted arithmetic mean.

auctions compared with medium size auctions was among the category of workers who normally receive lower wages. Thus, monetary labor costs would probably decrease as volume increased even though actual time required per animal unit did not decrease.

It should be noted that three auctions with a volume of 70,000 to 80,000 animal units averaged only 14 minutes of labor per animal unit. Thus, it is possible to achieve higher efficiency in labor use than now exists. The two auctions with larger volume and those with volume below this level had a higher total time used per animal unit. However, there were also some auctions in the lower volume classes which had very low labor requirements per animal unit.

SALE CHARACTERISTICS

None of the small auctions in the sample had more than one sale per week. Some did not hold sales every week. Only three percent of the medium size auctions had more than one sale per week. None reported more than two sales per week. Almost 15 percent of the large auctions had two sales per week and one large auction reported three sales per week (Table 14).

Sales were reported on all days of the week with the exception of Sunday. Saturday and Wednesday were the most common sale days for small auctions, Tuesday and Wednesday for medium auctions, and Friday and Monday for large auctions. For all auctions the largest number of sales were held on Wednesday and Saturday and the least were held on Friday.

The general pattern of sale days did not change to any extent from season to season. However, there was some shifting in starting times from season to season. This shift was most evident for small and medium size auctions. The percentage of auctions reporting no sale and "after 6:00 p.m." starting times was greater during the spring and summer seasons than for the winter and fall season. This difference was not as important for large auctions. There were no large auctions reporting "after 6:00 p.m." starting times or discontinuation of sales during any seasons.

The average length of sale increased with the size of the auction. The average length of sales were 6.43, 5.31, and 3.91 hours for large, medium, and small auctions respectively. Sales lasted longer during the autumn for all volume classes and were shortest during the summer season. Attendance at auctions was highest in autumn and winter, and lowest in summer and spring.

Table 14

Sale Characteristics of Livestock Auctions by Volume Classes, North Central Region, 1958

Sale Characteristics	Volume Class of Auctions			
	Small	Medium	Large	
Number of Auctions	170	100	54	
Number of Sales Per Week	(percent)	(percent)	(percent)	
One	166 (97.5)	96 (96.00)	45 (83.33)	
Two	0 (00.00)	3 (3.00)	8 (14.82)	
Three	0 (00.00)	0 (0.00)	1 (1.85)	
No Response	4 (2.50)	1 (1.00)	0 (0.00)	
Sale Day:				Total
Monday	22 (13.3)	18 (17.6)	13 (20.31)	53
Tuesday	28 (16.9)	21 (20.7)	8 (12.50)	57
Wednesday	33 (19.8)	20 (19.6)	7 (10.94)	60
Thursday	27 (16.3)	18 (17.6)	10 (15 63)	55
Friday	18 (10.8)	12 (11.8)	17 (26 56)	47
Saturday	38 (22.9)	13 (12.7)	9 (14.06)	60
Total	166	102	64	

(Table 14 Continued)

Sale Characteristics	Volume Class of Auctions		
	Small	Medium	Large
Starting Time:			
Winter:	(percent)	(percent)	(percent)
A.M.	15 (9.0)	9 (8.65)	11 (17.19)
12:00-1:59 P.M.	123 (74.1)	83 (79.81)	46 (71.87)
2:00-6:00 P.M.	19 (11.5)	9 (8.65)	7 (10.94)
after 6:00	6 (3.6)	3 (2.89)	0 (0.00)
No Sale	3 (1.8)	0 (0.0)	0 (0.0)
Total	166	104	64
Spring:			
A.M.	13 (7.8)	7 (6.9)	8 (13.56)
12:00-1:59 P.M.	105 (63.3)	80 (78.4)	44 (74.58)
2:00-6:00	21 (12.6)	9 (8.8)	7 (11.86)
after 6:00	22 (13.3)	5 (4 9)	0 (0.0)
No Sale	5 (3.0)	1 (1 0)	0 (0.0)
Total	166	102	59
Summer:			
A.M.	13 (7.83)	6 (6.0)	6 (10.34)
12:00-1:59 P.M.	99 (59.65)	78 (78.0)	46 (79.32)
2.00-6:00	18 (10.84)	9 (9.0)	6 (10.34)
after 6:00	30 (18.07)	6 (6.0)	0 (0.0)
No Sale	6 (3.61)	1 (1.0)	0 (0.0)
Total	166	100	58
Autumn:			
A.M.	15 (9.04)	9 (8.49)	12 (17.65)
12:00-1:59 P.M.	121 (72.89)	85 (80.19)	50 (73.53)
2:00-6:00	21 (12.65)	9 (8.49)	6 (8.82)
after 6:00	9 (5.42)	3 (2.83)	0 (0.0)
No Sale	0 (0.0)	0 (0.0)	0 (0.0)
Total	166	106	68
Average Length of Sale:			
Winter:			
Under two hours	15 (9.04)	1 (0.96)	2 (3.13)
2-3.9 hours	96 (57.83)	25 (24 04)	16 (25.00)
4-5.9 hours	49 (29.52)	57 (54.81)	16 (25.00)
6 or more	6 (3.61)	21 (20.19)	30 (46.87)
Total	166	104	64
Season Average	3.99 hrs.	5.48 hrs.	6.36 hrs.
Spring:			
Under two hours	15 (9.04)	1 (0.98)	2 (3.39)
2-3.9 hours	107 (64.46)	36 (35.29)	11 (18.64)
4-5.9 hrs.	38 (22.89)	51 (50.00)	24 (40.68)
6 or more hours	6 (3.61)	14 (13.73)	22 (37.29)
Total	166	102	59
Season Average	3.83 hrs.	5.09 hrs.	6.22 hrs.
Summer:			
Under two hours	24 (14.46)	2 (2.0)	1 (1.72)
2-3.9 hours	102 (61.45)	47 (47.0)	15 (25.87)
4-5.9 hours	39 (23.49)	45 (45.0)	25 (43.1)
6 or more hours	1 (0.6)	6 (6.0)	17 (29.31)
Total	166	100	58
Season Average	3.58 hrs.	4.59 hrs.	5.73 hrs.

(Table 14 Continued)

Sale Characteristics	Volume Class of Auctions		
	Small	Medium	Large
Autumn:	(percent)	(percent)	(percent)
Under two hours	8 (4.82)	0 (0.0)	2 (2.9)
2-3.9 hours	95 (57.23)	15 (14.15)	9 (13.2)
4-5.9 hours	53 (31.93)	57 (53.77)	14 (20.6)
6 or more hours	10 (6.02)	34 (32.08)	43 (63.3)
Total	166	106	68
Season Average	4.22 hrs.	6.04 hrs.	7.28 hrs.
Year Average	3.91 hrs.	5.31 hrs.	6.43 hrs.
Average Attendance:			
Winter:			
Under 100	33 (19.88)	9 (8.7)	5 (7.8)
100-199	48 (28.92)	24 (23.1)	16 (25.0)
200-299	38 (22.89)	26 (25.0)	15 (23.5)
300-399	28 (16.87)	23 (22.1)	13 (20.3)
400-499	14 (8.43)	13 (12.5)	13 (20.3)
500 or more	5 (3.01)	9 (8.6)	2 (3.1)
Total	166	104	64
Season Average	278	352	356
Spring:			
Under 100	35 (21.08)	10 (9.8)	3 (5.1)
100-199	61 (36.76)	26 (25.5)	20 (33.9)
200-299	38 (22.89)	29 (28.5)	15 (25.4)
300-399	18 (10.84)	21 (20.6)	14 (23.7)
400-499	10 (6.02)	8 (7.8)	6 (10.2)
500 or more	4 (2.41)	8 (7.8)	1 (1.7)
Total	166	102	59
Season Average	251	327	312
Summer:			
Under 100	45 (27.11)	23 (23.0)	7 (12.1)
100-199	65 (39.16)	27 (27.0)	18 (31.0)
200-299	34 (20.48)	27 (27.0)	20 (34.5)
300-399	9 (5.42)	13 (13.0)	6 (10.3)
400-499	10 (6.02)	8 (8.0)	4 (6.9)
500 or more	3 (1.81)	2 (2.0)	3 (5.2)
Total	166	100	58
Season Average	229	276	291
Autumn:			
Under 100	30 (18.1)	7 (6.6)	4 (5.9)
100-199	50 (30.1)	19 (17.9)	14 (20.6)
200-299	48 (28.9)	30 (28.3)	15 (22.0)
300-399	21 (12.7)	23 (21.7)	18 (26.5)
400-499	11 (6.6)	15 (14.2)	12 (17.6)
500 or more	6 (3.6)	12 (11.3)	5 (7.4)
Total	166	106	68
Season Average	277	375	364
Yearly Average	260	333	333

ORDER OF SELLING

The order of selling of specific classes of livestock varies greatly from auction to auction. The major factor determining the place in the sale lineup for a particular class is the relative importance of the class in the total sales of the auction market. The position in the sale lineup was determined for each class—feeder cattle, dairy cattle, bulls, slaughter cattle, calves, feeder pigs, sows, slaughter barrows and gilts, etc. This ordering was then related to the reported number and value of each class. Results indicated that in approximately three-fourths of the auctions the most important class (in terms of number and value) was sold last. However, in about one-eighth of the auctions, the most important class was scattered throughout the auction period. Generally, auction operators try to place the classes in such a way as to keep buyers for the full sale. However, in some auctions, especially where large quantities of slaughter livestock were involved, the slaughter animals might be sold at the opening of the sale. Alternatively, at some specific hour in the middle of the sale, the auction of non-slaughter livestock might be interrupted while slaughter livestock was sold. The time which would be most convenient for a few major packer buyers might be the determining factor in timing. However, where packer buyers were not such an important factor, the most important classes commonly were held until last to keep buyers at the auctions until the end.

Auction Size	When Is the Major Specie Sold?			
	First	Middle of Sale	Last	Scattered Thruout
		(Percent)		
Small	8.3	4.8	76.2	10.7
Medium	3.0	3 0	72.0	22.0
Large	13.0	3.7	72.2	11.1

TIME OF WEIGHING LIVESTOCK

In order to provide the greatest possible information to the buyer and to minimize his risk, it is desirable that information on weights be made available during the auctioning of the livestock. Generally, it is to be expected that buyers will be less reluctant to bid if they have this information. This is true whether the animal is to be sold by head or weight.

Although occasionally the seller may receive a higher price because the buyer guesses the weight incorrectly, generally buyers will estimate weight conservatively, and will bid lower to protect against this possibility of error.

Less than one-fifth of all the auctions weigh the livestock just before entering the sale ring. However, in many auctions livestock would be driven out and weighed before the sale was completed if buyers requested this service. The percentage of auctions using after sale weights was highest for small auctions and lowest for the large auctions.

Weighing on arrival, which probably is least satisfactory from the buyer's point of view, was practiced in 6 percent of the small auctions, 15 percent of the medium auctions and 18.5 percent of the large auctions. This difference between the small and the large auctions is statistically significant at the .05 probability level.

Auction Size	When Is Livestock Weighed? Percentage of Auctions in Each Class		
	On Arrival	Just Before Entering Ring	Immediately after Leaving Ring
Small	6.2	20.0	73.8
Medium	14.6	17.7	67.7
Large	18.5	18.5	63.0

Weighing just before entering the ring was practiced by a larger percentage of the small than the medium or large size auctions. However, the difference is not statistically significant.

The reason for the use of out-going weights by such a large percentage of auctions is difficult to explain. While the original design of some auctions may make change from out-weights to in-weights difficult, most auctions probably could shift without great difficulty. The use of arrival weights is fairly satisfactory if all livestock arrive very shortly before the sale. But, if they arrive a considerable period before, the use of arrival weights presents a risk to buyers.

Generally, the practice of on-arrival weighing operates to the advantage of local consignors who fill livestock excessively before they leave the farm. It operates to the disadvantage of distant consignors and those who do not fill livestock excessively. Buyers, where they know on-arrival weights are used, bid cautiously on all livestock to protect themselves against loss on livestock which arrives early, excessively filled and shrinks out prior to appearance in the ring.

In most of the auctions where weighing is done on-arrival or just before the livestock enter the ring, the weights usually are announced on classes where weight is meaningful especially where sales are on a weight basis.

Auction Size	Is Weight Announced or Known by Buyers When Bidding?			
	Always	Never	If Requested	Only in Certain Classes
	(Percent)			
Small	21.8	42.2	30.6	5.4
Medium	24.2	35.4	34.3	6.1
Large	29.6	25.9	29.6	14.8

In 42 percent of the small auctions, 35 percent of the medium auctions and 30 percent of the large auctions, weights are never announced or known by the buyer when bidding. In another one-third, weights are given only if requested.

BIDDING

Starting the bidding quickly and at a price very near the final sale price is very important in efficient and rapid selling at the auction. Approximately 60 percent of the auctions in each of the volume classes reported that bidding was started by either the auctioneer or a ringman. Most commonly the ringman starts the bidding. In some auctions the manager or another employee starts the bidding. Starting of bidding by buyers or consignors was practiced in only 15 percent of the large auctions, 16 percent of the medium auctions, and 22 percent of the small auctions. The need to move livestock rapidly probably is a factor in the lower percentage of large auctions leaving the starting of bidding to buyers or sellers. None of these differences were found to be statistically significant at the .05 level.

Auction Size	Who Starts the Bidding?				
	Auctioneer	Ringmen	Buyers	Consignors	Others
Small	17.8	43.7	18.4	3.4	16.7
Medium	15.0	49.0	15.0	1.0	20.0
Large	18.5	40.7	13.0	1.9	25.9

PROTECTION OF CONSIGNORS

In slightly over one-half of the auction markets, auctioneers bid on livestock. Auction operators reported bidding by the auctioneer was done frequently in only about one-fourth of the 50 percent of the auctions where it was done at all. The auctioneer bids frequently in only about one-eighth of the auction markets.

The percentage of small auctions reporting bidding by the auctioneer was significantly higher than the percentage among large auctions. Presumably, in the smaller auctions, auctioneers and managers more commonly found it desirable for auctioneers to bid to provide competition because of the smaller number of active buyers at the auction.

Auction Size	Can Auctioneers Bid on Livestock?					
	Yes	No	(Percent)	Yes	No	No Reply
Small	64.0	36.0		27.3	69.1	3.6
Medium	52.0	48.0	If yes, is this	17.0	73 0	10.0
Large	44.4	55.6	done frequently?	25.0	75.0	0.0

Slightly over 40 percent of the auction operators reported that livestock was bought by the auction. Slightly less than 40 percent reported the auction did not buy on its own account. No reply was obtained from the remaining one-fifth. The percentage of auctions where buying on the account of the auction was practiced was essentially the same for all three sizes of auctions.

Auction Size	Does the Auction Buy Livestock on Its Own Account? (Percent)		
	Yes	No	No Reply
Small	41.8	38.2	20.0
Medium	40.0	39.0	21.0
Large	42.6	35.2	22.2

Slightly over one-half of the auction operators reported that livestock was purchased by the auction on order for farmers. The percentage of auctions providing the service for farmers was significantly higher (at the .05 probability level) for medium and large auctions than for small auctions.

Auction Size	Does the Auction Buy on Order for Farmers or Others?		
	Yes	No (Percent)	No Reply
Small	42.6	37.9	19.5
Medium	56.0	25.0	19.0
Large	61.1	22.2	16.7

The bidding by auctioneers, by the auction itself, and buying on order for farmers all tend to provide a certain amount of price protection to consignors. In addition, some other types of protection to consignors, such as rejection of bids, naming lowest prices in advance, bidding on own livestock and by-bidding were permitted by most auctions.

The privilege of rejection of bids by the consignor was the most common type of protection afforded. This was less commonly permitted in large auctions than in small or medium size auctions. However, a larger percentage of large auctions than small or medium auctions permitted the consignor to name the lowest acceptable price in advance.

Auction Size	How Is the Consignor Protected?											
	May He Reject Bid			May He Name Lowest Price in Advance			May He Bid on Own Stock			Does By-bidding Occur		
	Yes	No	No Reply	Yes	No	No Reply	Yes	No	No Reply	Yes	No	No Reply
Small	88.2	10.1	1.7	65.3	31.2	3.5	70.9	27.9	1.2	56.4	37.5	6.1
Medium	91.0	8.0	1.0	71.0	27.0	2.0	74.0	26.0	0.0	57.0	35.0	8.0
Large	79.6	18.5	1.9	74.1	25.9	0.0	70.4	27.8	1.8	55.6	40.7	3.7

In almost three-fourths of the auctions, managers said the consignor was permitted to bid on his own livestock and only 56 percent said that "by-bidding" occurred. Thus, many auction managers (at least 15 percent) made a distinction between bidding by the owner on his own livestock and "by-bidding." By-bidding apparently was defined as bidding done by bidders other than the owner to push up the price.

By-bidding is commonly criticized by auction buyers as unfair or unethical. Thus, it is understandable that some auction operators made a distinction between bidding (or perhaps bidding in) limited to owners and by-bidding by planted bidders.

Protection of consignors in the form of settlement for lost, injured, or dead livestock was provided by most auctions. This protection was provided by a significantly larger percentage of larger than small auctions. Only 6 percent of the large auctions provided no such protection compared with 25 percent of the smaller auctions.

Auction Size	Is Any Provision Made for Settlement When Livestock Is Lost, Injured, or Dies in Yard?		
	Yes	(Percent) No	No Reply
Small	74.0	24.8	1.2
Medium	82 0	18.0	0.0
Large	92.6	5 6	1.8

Bonding to assure payment for livestock by the auction was provided by three-fourths of the auctions. Approximately the same percentage of auctions of each size reported being bonded to assure payment. Since this is required in most states for all auctions regardless of size, a significant difference was not to be expected in percentage between auction sizes.

Auction Size	Is Company Bonded to Assure Payment for Livestock?		
	Yes	No	No Reply
		(Percent)	
Small	76.0	13.5	10.5
Medium	74.0	15.0	11.0
Large	77.8	5.6	16.6

Practically all auction market operators reported payment was made the same day the auction was held. However, the percentage not making payment until the following day increased as the size of auction increased.

Auction Size	How Soon Can the Seller Get Paid for His Livestock?		
	Same Day	Following Day	Later
		(Percent)	
Small	96.5	2.9	0.6
Medium	95.0	4.0	1.0
Large	92.6	7.4	0.0

PROTECTION OF BUYERS

In most auctions, the auction management accepts no responsibility for quality, conditions, or any guarantees made for the livestock. For most of the livestock no guarantee is made by anyone. However, for some classes of livestock the consignor may make some type of statement and possibly an outright guarantee of certain characteristics of the livestock. Where this is done the auction generally takes no part in the guarantee nor the enforcement of any promise made by the seller to the buyer. Guarantees by the auctions usually are limited to accuracy of weight and clear title.

	What Announcements or Guarantees Are Made?		
	Small	Medium	Large
		(Percent)	
None	27.3	20.0	33.3
Only consignee guarantee	36.4	50.0	26.7
Weight only	6.0	5.0	0.0
General condition	9.1	10.0	0.0
As is	9.1	5.0	0.0
Only certain classes	12.1	10.0	13.3
Title only	0.0	0.0	13.3

Approximately 90 percent of the auction managers reported that warning phrases such as "as is" were given.

Auction Size	Are Warning Phrases (such as "as is") Given?		
	Yes	No	No Reply
		(Percent)	
Small	87.5	12.5	0.0
Medium	93.0	6.0	1.0
Large	88.9	11.1	0.0

Practically all of the auction markets included in the sample were under either state or Packers and Stockyards regulations. Generally the small markets did not meet the minimum requirements for Packers and Stockyards

regulation, but most of the large size auctions reported being under Packer and Stockyards regulations and two-thirds of the auctions which were reported as being under Packers and Stockyards regulation also were reported as being under state regulation.

Auction Size	Is the Market Under P.&S. or State Regulations?				
	P.&S. Only	State Only	Both	Neither	No Reply
			(Percent)		
Small	0.7	80.5	8.5	1.8	8.5
Medium	10.0	57.0	22.0	0.0	11.0
Large	27.8	24.1	31.5	0.0	16.6

SORTING

Grading or sorting was done in approximately 80 percent of the auctions. In the small auction markets the auction owner or manager generally did the grading or sorting (71 percent of the auctions). In contrast, in the large auctions grading and sorting more frequently was done by yardmen (47.9 percent) than by owners or managers (31.2 percent). In the larger auction markets the job of managing the facilities is more a full time office job with relatively little time being left for yard work.

Professional sorters were used by some of the auctions. The use of professional sorters increased with size of auctions.

Auction Size	Who Did the Grading or Sorting?				
	Professional Sorter	Yard Owner or Manager	Yardmen	Buyers	Others
			(percent)		
Small	5.7	71.0	13.8	0.7	8.7
Medium	10.0	44.4	31.1	1.1	13.3
Large	10.4	31.2	47.9	2.0	8.3

As a rule, auctions either sorted none of the livestock or sorted a high percentage of the livestock (Table 15). Only a small number of auctions sorted between one and 50 percent of their livestock. Hogs were more often sorted by weight than other species. The percentage of large auctions which did no sorting of cattle was larger than for the medium or small sizes. For all other species, the percentage of the volume class which did no sorting decreased, and the percentage which sorted all of the particular species increased as the volume class of the auction increased.

Table 15

Percentage of Livestock Sorted by Grade and/or Weight at Livestock Auctions, by Species, by Market Volume, North Central Region, 1957

Cattle

Size of Auction	None Sorted [2]	Sorted 1-49%			Sorted 50-99%			Sorted 100%		
		Grade Only	Wt. Only	Both	Grade Only	Wt. Only	Both	Grade Only	Wt. Only	Both
	Percent of Cattle Auctions [1]									
Small	20.6	5.3	1.2	2.9	7.6	5.9	8.2	14.7	7.1	26.5
Medium	19.0	2.0	1.0	2.0	2.0	3.0	3.0	11.0	17.0	36.0
Large	27.7	0.0	1.9	0.0	1.9	7.4	1.9	7.4	5.5	46 3
Calves										
Small	40.0	1.2	0.6	0.6	2.9	3.5	4.7	11.2	7.6	27.7
Medium	34.0	0.0	0.0	1.0	1.0	1.0	3.0	2.0	20.0	34.0
Large	22.2	0.0	0.0	1.9	1.9	1.9	9.2	7.4	7.4	48.1
Hogs										
Small	24.7	1.2	4.3	1.9	4.9	6.8	6.2	9.3	16.0	24.7
Medium	17.0	0.0	1.0	2.0	3.0	4.0	8.0	7.0	36.0	22.0
Large	3.8	0.0	0.0	5.7	0.0	5.7	5.7	5.7	30.1	43.3
Sheep										
Small	43.2	1.5	1.5	0.0	.8	3.8	2.3	13.6	10.6	22.7
Medium	35.4	1.2	2.4	1.2	2.4	0.0	1.2	4.9	12.2	39.1
Large	21.3	0.0	0.0	0.0	0.0	2.1	4.3	10.6	10.6	51.1

[1] Percentages for auctions which responded to this question.
[2] Percentage of auctions which did no sorting, either by grade or weight.

Comingling

Comingling of livestock before sale was practiced in only a small percentage of the auctions. Comingling was practiced more commonly in the

Auction Size	Percentage of Auctions Which Practiced Comingling											
	CATTLE			CALVES			HOGS			SHEEP		
	Yes	No	Partly	Yes	No	Partly	Yes	No	Partly	Yes	No	Partly
	(Percent)											
Small	10.1	87.3	2.6	17.7	80.4	1.9	11.0	88.4	0.6	9.2	90.1	0.7
Medium	9.6	89.3	1.1	22.3	76.6	1.1	18.3	80.6	1.1	15.6	83.1	1.3
Large	10.6	87.3	2.1	26.0	72.0	2.0	26.9	71.2	1.9	28.3	69.5	2.2

large auctions than in the small auctions and was more common with calves, hogs, and sheep than with cattle.

SPECIAL AUCTIONS

Slightly over 40 percent of the auction market operators reported holding special feeder or breeder sales during the year. The percentage of small auctions holding special feeder or breeder sales was significantly less than the percentages of medium and large auctions.

Auction Size	Percentage of Auctions which Held Special Sales
	(Percent)
Small	36.9
Medium	47.0
Large	45.5

Almost all of the special sales involved cattle and calves. Sixty-two percent of the special sales of small auctions were breeder cattle sales and 25 percent were feeder cattle sales. These percentages were just reversed for medium size auctions. Large auctions were split equally with one-half of the special sales for feeder cattle and one-half for breeder cattle.

Auction Size	Feeder Cattle	Types of Special Sales				
		Breeder Cattle	Feeder Swine	Breeder Swine	Feeder Lambs	Breeder Ewes
			(Percent)			
Small	25.5	61.9	3.2	0.0	1.5	7.9
Medium	61.7	25.5	2.1	6.4	0.0	4.3
Large	50.0	50.0	0.0	0.0	0.0	0.0

OTHER SERVICES

Auction market operators provided a wide variety of other services in addition to the selling function. In general, the larger the auction market the more services were offered to patrons.

Livestock price quotations from the auction market were furnished to farmers by 49 percent of the small auctions, 70 percent of the medium auctions, and 95 percent of the large auctions. (These differences are all significant at the 1 percent probability level). The number of methods of disseminating price quotations increased as the size of auctions increased.

Small auction markets used mainly telephone or newspapers to disseminate price information where only one method was used and newspapers plus either telephone or radio where two methods were used.

For medium size auctions, newspapers generally were used where only one method was used to disseminate market information and newspaper and radio were used where two or more methods were used.

Larger auctions made more use of circular letters and less use of telephones compared with smaller auctions. Some large auctions used televisions and radios for disseminating market quotations.

Auction Size	Number of Methods Used to Report Price Quotations			
	Number of Methods			
	1	2	3	4
	Percentage of Auctions			
Small	54	46	0	0
Medium	61	35	4	0
Large	28	44	22	6

Auction Size	Major Methods of Reporting Price Quotations			
	Number of Methods When Used			
	1	2	3	4
Small	1. Newspaper 2. Telephone 3. Radio	1. Newspaper & Radio 2. Newspaper & Telephone		
Medium	1. Newspaper	1. Newspaper & Radio	1. Newspaper, Radio & Telephone	
Large	1. Circular Letter 2. Newspaper 3. Radio	1. Newspaper & Radio	1. Newspaper, Radio & Telephone	1. Newspaper, Radio, Telephone & Circular Letter

Price quotations on other markets were offered by only a small percentage of auctions. The percentages of auctions disseminating price information on other markets increased with size of auctions.

Methods of reporting price information on other markets were similar to methods used for reporting information in the auction market itself.

Trucking service was provided by a significantly higher percentage of small auctions than with medium or large auctions. One-third of the small auctions trucked livestock for farmers.

Auction Size	Trucking Services Provided by Auctions	
	Trucked Livestock	Assisted in Finding Trucks
	Percentage of Auctions	
Small	32	95
Medium	12	93
Large	16	95

Almost all (95 percent) of the auctions provided assistance to farmers in obtaining trucks to haul livestock.

FEEDING AND WATERING OF LIVESTOCK

About two-thirds of the auctions fed and watered at least some of the livestock but not all livestock. About one-fifth of the auction managers indicated that all of the livestock received at the market were provided with feed and water in pens.

There is relatively little difference among the three volume size categories of auctions in the percentage of auctions providing feed and water for livestock.

Auction Size	What Percentages Do You Feed and Water Before Sale?					
	None	1-24%	24-49%	50-74%	75-99%	100%
Small	36.3	21.4	10.7	7.1	1.8	22.6
Medium	31.0	32.0	4.0	7.0	9.0	17.0
Large	38.9	18.5	1.9	14.8	9.3	16.7

CREDIT

More than four-fifths of the auctions checked the credit of new buyers before livestock was released. This was a more common practice with the large auctions than with the medium or small auctions. Ninety-five percent of the small auction operators indicated animals had to be settled for before they were released. Only 82 percent of the large auctions required settlement before livestock was released.

Auction Size	Is Credit of New Buyers Checked Before Livestock Is Released?	
	Yes	No
	(Percent)	
Small	81 0	12.0
Medium	82.4	17.6
Large	87.0	13 0

Auction Size	Must Settlement Be Made Before Livestock Is Released?	
	Yes	No
	(Percent)	
Small	95.2	4.8
Medium	88.0	12.0
Large	81.5	18.5

PROBLEMS OF MEETING COMPETITION

Over one-half of the auction operators indicated they face a wide range of different types of livestock market competition. However, almost one-third said their principal competition came from other auction markets. Terminals ranked second where only one type of competitor was reported.

The percentage of auction operations which reported their only competition was terminal markets declined as the size of the auction market increased.

Auction Size	Principal Competition of Auction Market Outlets					
	Other Auctions	Terminals	Packer & Order Buyer	Dealers	Truckers	Combination
	(Percentage of Auctions)					
Small	20	16	4	2	2	56
Medium	35	9	3	6	0	47
Large	33	6	6	0	0	55

Auction markets are faced with two separate competitive problems. One of these is the problem of competing with other marketing agencies in obtaining livestock. The other is the problem of assuring adequate buyer competition for the livestock sold at the auction market.

Obviously, providing adequate buyer competition at the auction is an important factor in the auction ability to attract consignments. The most common method of getting buyers to auctions was notifying them of sales (60 percent). Twelve percent of the auction operators said they did nothing and 12 percent said they had quality and quantity of livestock available. Only 7 percent advertised to get buyers, and 7 percent provided special services to buyers.

Auction Size	Methods of Improving Buyer Competition					
	Nothing	Notify Buyers of Sales	Quality & Quantity of Livestock	Service to Buyers	Buy Livestock on Auction Account	Advertising
	(Percentage of Auctions)					
Small	15	55	9	7	7	7
Medium	6	68	14	9	0	3
Large	12	58	12	0	6	12

Better prices were more commonly given as the method of meeting competition. Better services were second in frequency listed by auction operators.

Auction Size	Major Methods of Meeting Competition					
	Nothing	Better Prices	Adver-tising	Better Service	Farmer Sat-isfaction	Repu-tation
	(Percentage of Auctions)					
Small	13	35	2	15	15	20
Medium	6	50	3	35	3	3
Large	11	59	6	18	0	6

Most auctions solicit business. However, a significantly higher percentage of medium and large auctions than small auctions solicit. All auction operators indicated that solicitation increased business, and about 10 percent indicated that it was necessary to stay in business. Personal contact was the method of soliciting most often used.

Auction Size	Percentage of Auctions Which Solicit
Small	77
Medium	91
Large	95

Auction Size	Main Methods of Soliciting		
	Personal Contact	Paid Solicitors	Adver-tising
	(Percentage of Auctions)		
Small	90	5	5
Medium	100	0	0
Large	95	5	0

CHAPTER IV

Marketing Charges at Auctions

There were many variations used by the auctions included in this study in the computation of marketing charges. Generally, marketing charges included a fee for selling, weighing, yardage, feed, insurance and inspection. Some auctions listed a separate charge for each service rendered, while other auctions combined several services under one charge. Also, many auctions did not perform all of the services and, thus, did not base their charge on them. All auctions made a charge for selling, often called a commission. This was the primary source of income for most auctions. For some this was their only listed charge.

Methods of computing or assessing marketing charges at auctions were grouped into three broad categories:

(1) Straight per head method—all charges levied on a per head basis
(2) Straight percentage method—all charges assessed as a percentage of gross sales
(3) Combination head and percentage method—some charges were based on a per head basis while others were based on a percentage basis.

Each of these categories was then broken down into several sub-categories (Table 16).

Table 16
Method of Computing Marketing Charges for Auctions, by Volume Classes, North Central Region, 1957

Total Observations	Volume Classes of Auctions		
	Small	Medium	Large
	165	90	44
	(Percent of Auctions)		
Method of Computing Charge:			
1. Percentage Basis			
Straight Percentage	15.2	11.5	4.5
Percentage Based on Consignment Value	3.2	0.0	4.5
Total (Percentage Basis)	18.4	11.5	9.0
2. Head Basis			
Set per Head Charge	9.2	21.2	29.0
Charge Varied by Consignment Value	3.2	11.3	15.3
Charge Varied by Consignment Size	6.1	5.5	2.2
Total (Head Basis)	18.5	38.0	46.5
3. Combination Percentage and Head Basis			
Straight Percentage Plus per Head Handling Charge	32.6	29.3	13.5
Percentage Based upon Value Plus per Head Handling Charge	18.2	14.8	19.9
Percentage Plus Small Fixed per Lot Charge	6.1	7.4	4.5
Percentage Plus Charge Varied by Consignment Size	3.1	0.0	2.2
Percentage Plus Charge Varied by Consignment Value	3.1	0.0	2.2
Percentage or Fixed Charge per Head (whichever is lower) Plus Handling Charge	0 0	0.0	2.2
Total (Combination Method)	63.1	51.5	44.5

Of the auctions which responded to the "schedule of charges" question, the largest number used the combination method of assessing charges. The straight per head method was second and the straight percentage method third.

The method of computing charges varied from one volume class to another. A larger percentage of small volume auctions used the straight percentage method and the combination method compared with the two larger volume classes. As the volume of auctions increased, the percentage of auctions using the straight percentage method of computing selling costs or the combination method declined and the percentage using the straight per head method increased.

Within the straight percentage classification, auctions used either a graduated percentage based upon value of the consignment or a fixed percentage. The most common graduated percentage used was three percent up to $500 value and two percent over $500 value. The fixed percentages ranged from two percent to five percent. Most auctions in this classification used the fixed percentage. However, the smaller auctions used a fixed percentage more frequently than large auctions.

There were several variations used when a per head method of computing marketing was used. Most auctions in this classification used a set charge per head for each class of livestock although several auctions used a charge which varied with consignment value and others used a charge which varied with number of animals in the consignment.

The combination method of computing marketing charges had the greatest number of different variations in making rates. A fixed percentage commission plus fixed per head handling charges was the most common method. Other methods in order of frequency included: (1) a percentage varied with consignment value plus fixed per head handling charges, (2) fixed percentage plus a small fixed per lot handling charge, (3) fixed percentage plus a per head charge varied with consignment value, (4) fixed percentage plus a per head charge varied with size of consignment (in number of head) and (5) a percentage or fixed per head charge (whichever was lower) plus a per head handling charge.

COMPUTED MARKETING CHARGES

Marketing charges were computed for typical consignments of each kind of livestock for each of the three volume classes of auctions. For each volume class, marketing charges were based upon cattle with a $100 and $200 per head value, and hogs and pigs with a $15 and $30 per head value and sheep with a $10 and $20 per head value. Consignment sizes of one and ten head were used for each volume class. Actual average consignment sizes are shown in Table 17.

Table 17

Size of Consignments to Auctions, by Kind of Livestock, Classes, North Central Region, 1957

Volume Class	Class of Livestock							
	Cattle		Calves		Hogs		Sheep	
	Average	Mode	Average	Mode	Average	Mode	Average	Mode
Small	7.2	6	4.5	2	11.3	10	12.0	10
Medium	10.3	6	7.7	2	15.9	15	17.0	10
Large	13.5	25	11.8	2	17.7	15	15.4	25

CATTLE: Marketing charges were computed for two different values of cattle ($100 per head for feeder cattle and $200 per head for slaughter, breeding and other cattle). The "head basis" method of assessing charges yielded the lowest charge for both assumed cattle values for all three volume classes of auctions (Table 18). This method also had the lowest variation in charges among the volume classes of auctions. The "straight percentage" charge usually was highest, but the combination method yielded high marketing charges in some cases.

The amount of the marketing charge was affected to a great extent by the per head value of livestock for both the "percentage" method and the "combination" method. In both cases there was a substantial increase in marketing charges as the value of the livestock increased. Although the actual dollar charge increased, the percentage which the marketing charges were of total value generally decreased as value increased.

Average charges made by small auctions were higher than those made by medium and large auctions for both $100 and $200 per head values. There was very little difference between medium and large auctions in average charges. The larger auctions were lower by only a few cents per head. Medium auctions charged more than large auctions for all but the $200 value cattle under the "per head" method of computing charges.

Small auctions also had a greater range of marketing charges with most of the additional range on the higher end. The range was greater for the combination method than for other methods and also was greater for the higher value cattle than for lower value cattle.

HOGS: Marketing charges were also computed for two values of hogs: $15 per head (using feeder pig rates) and $30 per head (using slaughter or breeding hog rates). The "straight percentage" method yielded the lowest marketing charges for $15 per head hogs while the "per head" method had the lowest charges for $30 per head hogs (Table 19). The largest differences in charges among the methods were in the small auctions. For medium and

large auctions there was little difference among methods in total marketing charges, especially for slaughter hogs.

As in the case of cattle, as the volume of the auction increased, the marketing charges for hogs decreased in most cases. However, the difference was not as great as it was for cattle. In some cases there was little relationship between volume and marketing charges. Where charges were made on a per head basis, small auctions had lower charges than medium or large auctions.

The amount of marketing charge per head was higher for higher value hogs for all methods of computation. The increase was largest for the "percentage" and the "combination" methods.

Table 18

Marketing Charges Made by Auctions for Cattle, by Value, by Size of Auction, North Central Region, 1957

	One Head					
	$100 Cattle			$200 Cattle		
	Small	Medium	Large	Small	Medium	Large
Percentage:						
Average	3.72	2.63	2.56	6.54	4 50	4.40
Mode	3.00	3.00	2.00	6.00	4 50	4.25
Range	3.00-5.00	2.00-3.00	2.00-3.00	5.00-10.00	4.00-5.00	4.00-5.00
Head:						
Average	2.22	2.21	2.21	2.32	2.22	2.60
Mode	2.00	2.05	2.25	2.00	2.07	2.35
Range	1.50-2.80	1.91-2.90	1.25-3.00	1.50- 2.90	1.91-2.90	1.57-4.50
Percentage and Head:						
Average	2.96	2.75	2.68	5.23	4 35	4.35
Mode	3.10	3.10	2.45	6.15	4.60	4.25
Range	1.50-5.05	1.50-3.23	2.00-3.90	1.60-10.05	1.60-6.20	2.05-5.71
Total:						
Average	2.96	2.53	2.46	4.94	3.57	3.55
Mode	3.10	2.25	2.25	6.00	4.10	4.25
Range	1.50-5.05	1.50-3.23	1.25-3.90	1.50-10.05	1.60-6.20	1.57-5.71
Average All Sizes:	2.77			Average All Sizes:	4.35	

Table 18 (Continued)

	Ten Head					
	$100 Cattle			$200 Cattle		
	Small	Medium	Large	Small	Medium	Large
Percentage:						
Average	3 62	2.63	2.55	6.22	4.50	4 29
Mode	3.00	3.00	2.30	6.00	4.50	4 50
Range	3.00-5.00	2.00-3.00	2 00-3.00	4.25-10.00	4.00-5.00	4.00-4 60
Head:						
Average	2.13	2.11	2.16	2.21	2.19	2.54
Mode	2.00	2.05	2.20	2.00	2.05	2.50
Range	1.50-2.80	1.91-2.90	1.25-3.00	1.50- 2.90	1.91-2.90	1.57-4.50
Percentage and Head:						
Average	2.86	2.64	2.63	5.03	4.29	4.22
Mode	3.00	3.10	2.35	6.05	4.63	4.11
Range	1.50-5.05	1.50-3.23	2.00-3.90	1.60-10.05	1.60-6.20	2.05-5.71
Total:						
Average	2.87	2.47	2.41	4.73	3.59	3.46
Mode	3.00	2.25	2.20	6.05	4.10	4.10
Range	1.50-5.05	1.50-3.23	1.25-4.50	1.50-10.05	1.60-6.20	1.57-5.71
Average All Sizes:	2.69			Average All Sizes:	4.22	

SHEEP: Marketing charges were computed for $10 sheep (feeder) and $20 sheep (slaughter sheep). Generally, marketing charges for sheep followed the same pattern as for hogs (Table 20). The "percentage" basis had the lowest charge for $10 sheep, while the "per head" had the lowest charge for $20 sheep.

CHARGE FOR SALE OTHER THAN THROUGH THE AUCTION

Only about one-third of the auctions handled livestock for farmers on non-sale days (Table 21). Of these auctions, only about one-sixth made no marketing charge on non-sale days. About 38 percent of the small volume auctions which handled livestock on non-sale days charged their regular sale day charge, while 30 percent charged commission only and 15 percent charged "feed and yardage" charges only. Nearly three-fourths of the medium

volume auctions charged commission only, while the remainder charged their regular "sale day" fee. Large volume auctions which made charges for non-sale day livestock were equally divided between charging regular charges or charging commission only (Table 21).

Although almost 90 percent of the auctions considered the sale of livestock by private treaty before the auction sale begins as an undesirable practice, the practice occurred at over 50 percent of the auctions. The practice was most commonly reported at small auctions. Many auctions discouraged the practice by assessing regular charges or charging regular commission fees for livestock sold through private treaty. Only a small percentage (4.5 percent) of the small auctions did not make a marketing charge for private treaty sales (Table 22).

Table 19

Marketing Charges Made by Auctions for Hogs, by Volume, by Size of Auction, North Central Region, 1957

	One Head					
	$15 Hog$_1$			$30 Hog$_1$		
	Small	Medium	Large	Small	Medium	Large
Percentage:						
Average	.55	.39	.40	1.15	.78	.82
Mode	.45	.45	.30 & .45	.90	.90	.60 & .90
Range	.45-.75	.30- .45	.30- .45	.90-1.50	.60- .90	.60- .90
Head:						
Average	.62	.67	.65	.75	.82	.77
Mode	.50	.60	.70	.80	.75	.75
Range	.50-.80	.35-1.05	.35-1.25	.50-1.00	.60-1 10	.35-1.25
Percentage and Head:						
Average	.60	.55	.55	.94	.90	.88
Mode	.55	.55	.50	1.00	.97	.75
Range	.32-.80	.40- .84	.40-1.25	.55-1.00	.55-1.00	.35-1.21
Total:						
Average	.59	.58	.58	.94	.86	.82
Mode	.50	.50	.50	1.00	90	.75
Range	.32-.80	.30-1.05	.30-1.25	.50-1.50	.55-1.10	.35-1.25
Average All Sizes: .59				Average All Sizes: .90		

Table 19 (Continued)

	Ten Head					
	$15 Hog[1]			$30 Hog[1]		
	Small	Medium	Large	Small	Medium	Large
Percentage:						
Average	.55	.39	.38	1.12	.78	.78
Mode	.45	.45	.45	1.00	.90	.80
Range	.45-.75	.30-.45	.30-.45	.90-1.50	.60-.90	.60-1.00
Head:						
Average	.59	.66	.65	.72	.80	.74
Mode	.50	.60	.70	.80	.75	.71
Range	.50-.80	.35-1.05	.35-1.25	.50-1.00	.60-1.10	35-1.25
Percentage and Head:						
Average	.57	.52	.53	.93	.88	.86
Mode	.55	.55	.45	1.00	.93	.75
Range	.32-.80	.40-.84	.40-1.25	.55-1.00	.55-1.00	.35-1.21
Total:						
Average	.57	.56	.57	.93	.84	.80
Mode	.50	.55	.45	1.00	.90	.75
Range	.32-.80	.30-1.05	.30-1.25	.50-1.50	.55-1.10	.35-1.25
Average All Sizes:	.57			Average All Sizes: .89		

[1] $15 hogs are based on feeder pig price charges; $30 hogs are based on slaughter hog charges.

Table 20

Marketing Charges Made by Auctions for Sheep, by Value, by Volume Class, North Central Region, 1957

Method of Computing Marketing Charge [1]	10 Head					
	$10 Value Sheep [2]			$20 Value Sheep [2]		
	Volume Class of Auctions					
	Small	Medium	Large	Small	Medium	Large
	Charge in Dollars per Head					
Percent Basis:						
Average	.37	.26	.25	.73	.53	.50
Mode	.30	.30	.20 & .30	.60	.60	.40 & .60
Range	.30-.50	.20- .30	.20- .30	.60-1.00	.40- .60	.40- .60
Head Basis:						
Average	.48	.56	.51	.50	.58	.53
Mode	.50	.53	.60	.50	.70	.60
Range	.30-.63	.43- .70	.30- .70	.30- 70	.43- .70	.25- .65
Combination Basis:						
Average	.44	.40	.35	.71	.61	.60
Mode	.40	.40	.35	.70	.70	.45
Range	.30-.60	.30- .60	.25- .55	.35-1.05	.45- .70	.30- .80
Total:						
Average [3]	.43	.42	.43	.67	.58	.54
Mode	.40	.40	.35	.70	.60	.60
Range	.30-.63	.20- .70	.20- .70	.30-1.05	.40- .70	.25- .80

[1] Average consignment given in Table IV - 2.
[2] Per head value.
[3] Weighted arithmetic mean.

Table 20 (Continued)

	One Head					
	$10 Sheep			$20 Sheep		
	Small	Medium	Large	Small	Medium	Large
Percentage:						
Average	.38	.26	.25	.75	.53	.54
Mode	.30	.30	20 & .30	.60	.60	.50
Range	.30-.50	.20- .30	.20- .30	.60-1.00	.40- .60	.40- 60
Head:						
Average	.51	.60	.53	.52	.62	.56
Mode	.50	.55	.60	.50	.70	.65
Range	.30-.63	.43- .70	30- .70	.30- .63	.43- .70	.25- .75
Percentage and Head:						
Average	.47	.45	.37	.77	.67	.65
Mode	.45	.40	.35	.70	70	.45
Range	.30-.60	.30- .60	.25- .55	.35-1.05	.45- .70	30- .80
Total:						
Average	.46	.48	43	.72	.63	.60
Mode	.45	.40	.35	.70	.70	.50
Range	.30-.63	.20- .70	.20- .70	.30-1.05	.40- .70	.25- .80
Average All Sizes: .46				Average All Sizes: .68		

Table 21

Auctions Which Handled Livestock on Non-Sale Days and Charges Made, by Volume Classes, North Central Region, 1957

	Volume Class		
	Small	Medium	Large
		(Percent)	
Percent Which Handled Livestock on Non-Sale Days	38.2	35.0	33.0
Marketing Charges on Non-Sale Days	Percent of Auctions Handling Livestock on Non-Sale Days		
None	15.4	14.3	20.0
Regular Fees	38.4	14.3	40.0
Commission Only	30.8	71.4	40.0
Feed and Yardage Only	15.4	0.0	0.0

Table 22

Private Treaty Sales at Auctions, by Volume Class, North Central Region, 1957

	Volume Class		
	Small	Medium	Large
		(Percent)	
Percent of Auctions Which Reported Private Treaty Sales	64.7	50.0	53 3
Percent of Auctions Which Considered This Undesirable Practice	88.2	90.0	86.7
Charges Made to Consignors for Private Treaty Sales:			
None	4.5	0.0	0.0
Regular Charges	40.9	40.0	62.5
Commission Only	54.6	60.0	37.5

CHAPTER V

Market Facilities

STOCKYARDS

Auction markets must provide adequate yard facilities to handle peak volume days and also must be designed to operate efficiently during the low season in receipts. Since most facilities are used only one day a week, they must be used very intensively on that one day if the costs of construction, maintenance, and operation are to be covered.

In general, however, most auction markets made only partial use of facilities on auction days over the year. Most auctions had capacity to take care of much larger volumes that were being handled.

Number of pens and amount of space showed a close relationship with market volume. Larger auctions averaged almost three times as many pens and four times as much pen and alley space compared with small auctions. The relationship held both for total pen space and pen space under roof. The average percentage of total area under roof differed very little among auction sizes.

Auction Size	Size of Stockyards		
	Average No. of Pens & Alleys Per Auction	Avg. Sq. Ft. of Pens & Alleys Per Auction	Avg. Sq. Ft. of Pen Space per Animal Unit [1]
Small	57.5	18,058	2.25
Medium	82.3	36,347	1.69
Large	155.3	78,442	1.68

Auction Size	Pens Under Roof				
	Avg. No. of Pens & Alleys Under Roof	Pct. of Total Pens Under Roof	Avg. Sq. Ft. Pens & Alleys Under Roof	Pct. of Total Area Under Roof	Avg. Sq. Ft. per Animal Unit [2]
Small	43.9	76.3	8,019	44.4	1.00
Medium	55.2	67.1	12,035	33.1	0.56
Large	112.9	72.7	38,492	49.1	0.82

[1] Total number of square feet divided by total animal units handled per year. Actual pen space available per animal unit handled per auction sale would be slightly over 100 square feet for small auctions and slightly under 100 square feet for large auctions.

[2] Total number of square feet divided by total animal units handled per year. Actual pen space available per animal unit handled per auction sale would be slightly over 100 square feet for small auctions and slightly under 100 square feet for large auctions.

Small size auctions had more square feet of pen space per animal unit handled per year than did medium or large auctions. However, small auctions had lower average number of sales per year compared with medium and large auctions. Average pen space for each animal unit on an average sale day would be very nearly 100 square feet for all sizes of auctions with medium size auctions averaging less square feet of pen space per animal unit than either small or large auctions. The average amount of space greatly exceeds the space needed to hold livestock comfortably. The recommended pen space is only approximately 20 square feet per head for cattle above 1,000 pounds. The average for all cattle and calves is only 16 square feet. The requirement for an average animal unit would be about 18 square feet of pen space[3]. Thus the average auction has several times as much pen space as is needed for the amount of livestock handled. The number of pens is in fairly close agreement with the recommendation of Brasington[4].

NUMBER OF RINGS USED

Only one of the 269 small and medium auctions reported using a second ring while 16 percent of the large auction markets had two or more rings. Generally, only the very large auction markets could justify more than one ring. Where two rings were used, care had to be exercised to avoid simultaneous auctioning of two classes of livestock which might interest the same buyers thereby forcing buyers to run back and forth to see when certain classes were being auctioned. An auction might auction feeder pigs and slaughter cattle simultaneously. Feeder or two-way cattle would be held until the feeder pig auction was completed. Sheep and lambs might be fitted into the schedule in a similar way.

Auction Size	Percentage of Auctions with Various Numbers of Auction Rings by Volume of Auction, North Central Region, 1957			Total Observations
	1	2	3 or more	
	Percent	Percent	Percent	
Small	99.3	0.7	0.0	169
Medium	100.0	0.0	0.0	100
Large	86.4	11.4	2.2	46

LOADING FACILITIES

The amount of receiving and loading out facilities required depends on a number of conditions. The total volume livestock handled and the receiving time are the most important factors affecting requirements.

[3] Brasington, Clayton F., "Livestock Auction Markets in the Appalachian Area Methods and Facilities," U. S. Dept. of Agr., Agr. Marketing Service, Marketing Research Report No. 309, March 1959, p. 25.

[4] Brasington, Clayton F., *ibid*, p. 27.

Brasington estimated that a well designed auction with volume equal to the average for large size auctions should provide unloading capacity for six trucks and load capacity for three trucks. The average of 6.6 truck chutes and a capacity for 2.3 rail cars for large auction markets was very near the recommended capacity [5].

The loading facilities for trucks and trailers and rail cars were related to the volume of the auction. Small auctions had an average loading and unloading capacity for 3.2 trucks compared with 4.2 and 6.6 trucks for medium and large auctions respectively. Average capacity for rail cars was 0.7, 1.4, and 2.3 cars for the small, medium and large auctions respectively.

Auction Size	Average Unloading Capacity of Trucks and Rail Cars	
	Trucks	Rail Cars
Small	3.2	0.7
Medium	4.2	1.4
Large	6.6	2.3

Large auctions made much more intensive use of their loading facilities in total compared with small volume auctions. However sale periods usually were shorter in the small auctions; thus greater loading and unloading capacity per 1,000 animal units would be required for smaller volume markets.

RAILROAD FACILITIES

Large auctions were more frequently located on a railroad than small auctions. About two-thirds of the large auctions, one-fourth of the medium auctions, and only one-fifth of the small auctions were located on a railroad. As noted above, some of the auctions located on railroads did not have unloading facilities for rail cars.

Percentage of Auctions Located on a Railroad

	Percent
Small	21.0
Medium	26.5
Large	66.7

Only a small percentage of the auctions reported receiving livestock by rail. Larger auctions received a higher percentage of livestock by rail compared with smaller volume auctions. Very few auctions received as much as 50 percent of their livestock by rail (Table 23).

Small and medium volume auctions differed relatively little in the percentage of livestock loaded out by rail compared with the percentage received

[5] Brasington, Clayton F., *op. cit.* pp. 21, 29.

Table 23

Percentage of Auctions Handling Each Class of Livestock Reporting Receiving Various Percentages of Their Total Volume by Rail

Class of Livestock	Size of Auction	Percentage of Total Volume Received by Rail (Percentages) None	1-9	10-19	20-49	50 & Over
		(Percentage of Auctions)				
Cattle	Small	94.1	3.5	1.2	0.0	1.2
	Medium	84.7	8.2	4.1	1.0	2.0
	Large	61.9	27.3	3.6	3.6	3.6
Calves	Small	94.8	1.9	1.9	0.0	1.4
	Medium	91.8	4.1	3.1	0.0	1.0
	Large	74.6	14.6	3.6	3.6	3.6
Hogs	Small	99.3	0.7	0.0	0.0	0.0
	Medium	98.0	1.0	0.0	0.0	1.0
	Large	98.2	1.8	0.0	0.0	0.0
Sheep	Small	99.2	0.0	0.8	0.0	0.0
	Medium	98.0	2.0	0.0	0.0	0.0
	Large	92.7	7.3	0.0	0.0	0.0

by rail (Table 24). However, among large auctions, rail facilities were used more on livestock loaded out than on livestock received at the auction. The percentage of auctions reporting no use of rail facilities was lower for all classes of livestock loaded out than for livestock shipped into the large auctions.

SCALES

About 19 percent of the small auctions, 4 percent of the medium-size auctions and none of the large auctions reported they did not have weighing facilities at their place of operation.

Four different types of scales were reported by auctions which had weighing facilities (Table 25). They were (1) beam self-recording, (2) beam hand-recording, (3) dial self-recording and (4) dial hand-recording. Beam scales were by far the most commonly used scales by all sizes of outlets. Small, medium, and large size auctions reported 84.4 percent, 86 percent, and 81.8 percent beam scales. Auctions were evenly divided between self-recording and hand-recording scales.

Scales which reported weights to the nearest five pounds were most frequently used. Small, medium, and large size auctions reported 89.5 percent, 95 percent, and 95.6 percent respectively of their scales weighed to the

Table 24

Percentage of Auctions Handling Each Class of Livestock Reporting Loading Out Various Percentages of Their Total Volume by Rail

Class of Livestock	Size of Auction	Percentage of Total Volume Loaded Out by Rail (Percentages) None	1-9	10-19	20-49	50 & Over
		Percentage of Auctions				
Cattle	Small	95.8	2.4	1.2	0.6	0.0
	Medium	83.7	7.1	6.1	3 1	0.0
	Large	56.4	25.5	14 5	3 6	0.0
Calves	Small	96.1	1.3	1.3	1.3	0 0
	Medium	88.8	4.1	4.1	2.0	1.0
	Large	63.7	14.5	16.4	3.6	1.8
Hogs	Small	99.4	0.0	0 0	0.6	0.0
	Medium	97.0	1.0	0.0	1.0	1.0
	Large	76.4	10.9	7.3	0.0	5.4
Sheep	Small	98.8	0.6	0.6	0.0	0.0
	Medium	95.0	0.0	2.0	2.0	1.0
	Large	83.7	5.4	7.3	0.0	3.6

nearest five pounds. Only a small percentage of scales recorded weights to the nearest pound, 2.5 pounds or 10 pounds (Table 25).

Over three-fourths (77.1 percent) of the small auctions had only one scale, only 1.8 percent had two scales and none had more than two scales. Scales with 10,000 and 20,000 pound capacity were most frequently used (Table 26). Eighty-six percent of the medium size auctions had one scale and 10 percent had two scales. None of the medium size auctions had more than two scales. The 10,000 and 20,000 pound capacity scales were most frequently used. Two-thirds of the large auctions had only one scale, 15.2 percent had two scales, 13.3 percent had three scales, 1.9 percent had four scales and one auction reported six scales (Table 26). The 20,000 pound capacity scale was most frequently used. Many large auctions reported scales with a capacity over 20,000 pounds, however (Table 27).

Table 25

Percentage of Livestock Scales of Various Types Reported, by Size of Auction

Type of Scale & Weight Recorded	Size of Auction		
	Small	Medium	Large
Beam Self-Recording:			
To nearest pound	3.0	1	1.1
To nearest 2.5 pounds	2.2	1	1.1
To nearest 5 pounds	37.0	47	34.2
To nearest 10 pounds	0.0	2	1.1
Total	42.2	51	37.5
Beam Hand-Recording:			
To nearest pound	2.2	0	0.0
To nearest 2.5 pounds	3.0	0	0.0
To nearest 5 pounds	37.0	36	44.3
To nearest 10 pounds	0.0	0	0.0
Total	42.2	36	44.3
Dial Self-Recording:			
To nearest pound	0.0	0	0.0
To nearest 2.5 pounds	0.0	1	1.1
To nearest 5 pounds	7.4	6	11.4
To nearest 10 pounds	0.0	0	0.0
Total	7.4	7	12.5
Dial Hand-Recording:			
To nearest pound	0.0	0	0 0
To nearest 2.5 pounds	0.0	0	0.0
To nearest 5 pounds	8.2	6	5.7
To nearest 10 pounds	0.0	0	0.0
Total	8.2	6	5.7
TOTALS:			
Nearest pound	5.2	1	1.1
Nearest 2.5 pounds	5.2	1	1.1
Nearest 5 pounds	89.6	95	95.6
Nearest 10 pounds	0.0	2	1.1

Table 26

Percentage of Auctions with Various Numbers of Scales

Size of Auction	Percentage of Auctions		
	Small	Medium	Large
No Scale	18 8	4.0	0.0
One Scale	77.1	86.0	67.7
Two Scales	1.8	10.0	15.2
Three Scales	0.0	0.0	13.3
Four Scales	0 0	0.0	1.9
Six Scales	0.0	0.0	1.9
No Response	2.3	0.0	0.0
Total	100 0	100.0	100.0

Table 27

Percentage of Scales with Various Weight Capacities

Size of Auction	Percentage of Scales		
	Small	Medium	Large
Capacity:			
5,000	3.0	5.2	1.7
8,000	1.5	2.1	1.7
9,000	2 2	0.0	0.0
10,000	48.9	34.5	31.0
12,000	4.5	1.1	3.3
15,000	2.2	2.1	1.7
16,000	0.7	0.0	0.0
20,000	34.8	41.4	39.5
Over 20,000	2.2	13.6	21.1
Total	100.0	100.0	100.0

SUMMARY

During the last thirty years auction markets have become increasingly important as a marketing agency in the North Central Region and in the United States. Most of the increase in auction numbers took place early during this period; however, both total volume of livestock handled by auction markets and percentage of total United States livestock volume handled by auction markets increased throughout the period.

This study was one phase of a North Central Regional Livestock marketing research project. The major objectives of this phase were:

(1) To determine the methods of operation of livestock auction markets in the region.
(2) To determine the facilities that livestock auction markets use.
(3) To determine the schedule of marketing charges of auction markets.
(4) To determine the relationship between market volume facilities, methods of operation, and marketing charges.

Data for the study came from several sources: 1) A survey of 7,000 farmers conducted in 1957 which provided data on livestock outlets and sources used by farmers; 2) a sample survey of 324 auction markets operating in the North Central Region which was conducted in 1958-60; and 3) census reports and earlier research studies.

Auction markets handled approximately one-tenth of the total volume of slaughter hogs sold by farmers in the North Central Region. They ranked second to packers in the volume of slaughter cattle and calves handled and third in the volume of slaughter sheep handled. Auction markets ranked ahead of any other marketing agency in the volume of non-slaughter livestock handled. In addition to the volume of livestock handled through the regular auction ring, many auction markets engaged in dealer and local market operations and, thus, actually accounted for a larger volume than would normally be shown by volume figures.

The major part of each class of livestock handled by auction markets was consigned by farmers. Packing plants and order buyers accounted for over one-half of the purchases of slaughter livestock while farmers purchased most of the non-slaughter livestock.

Most of the auctions included in this study were relatively small in terms of total volume of livestock handled. Small auctions, with a volume of less than 15,000 animal units per year, represented 53 percent of the observations, but accounted for only 23.6 percent of total volume of all sampled auctions. Medium volume auctions, 15,000-30,000 animal units per year, represented 31 percent of the observations and accounted for 37.1 percent of total volume while large volume auctions, those with a volume of over 30,000 animal units per year, accounted for only one-sixth of the observations but handled almost 40 percent of total volume.

About one-half of the auctions sampled were in operation prior to 1939. A larger percentage of the large rather than smaller auction markets were in operation for longer periods of time. There was considerable transfer of ownership of auction markets. Only a relatively small percentage had operated under the same ownership for more than twenty years. A large percentage of the small auctions (81 percent) had operated under the current ownership for less than five years.

Only about 20 percent of the auction market owners reported more than one auction. Most of the owners had other occupational interests, with farming most often mentioned. Other occupational interests included auctioneering, trucking, and professional work.

Small volume auction markets used a smaller average number of auction workers and a smaller number of hours of labor per week. However, as the volume of the auctions increased, the time used per animal unit decreased. Other factors closely related with auction market volume included number of sales per year, average length of sales in hours, and average attendance per sale.

The majority of auctions reported that livestock was weighed immediately after leaving the sales ring. Consequently, weight was not usually known by buyers when bidding, although some auctions announced weights on certain classes or if specifically requested interrupted the auctions to weigh the livestock.

Most auctions provided some type of price protection to consignors. Usually this was done by permitting rejection of bids, by-bidding, or naming of the lowest acceptable bid in advance. In some auctions, the market started the bid or actively bid for livestock. Buyer protection by the auction market was generally limited to accurate weight, although consignors could usually make guarantees on their own livestock.

Large auctions generally provided more information on price quotations at both their own market and at competitor markets than small auctions did.

Auctions either sorted none of their livestock or sorted a high percentage of their livestock. Most auctions which practiced sorting, sorted both by weight and grade, but hogs were most often sorted by weight only. In most cases sorting was done either by a yardman or the auction owner or manager.

More auctions used a combination head and percentage method than any other method for computation of marketing charges. The straight per head method of assessing charges was second and the straight percentage method was used by the least number of auctions. There were several variations of each of the three major methods used to assess marketing charges. Most auctions varied charges for different size consignments. Computation

of charges for fairly typical lot sizes and value yield the following results. Average charges for consignments of ten cattle valued at $100 per head were $2.87, $2.47, and $2.41 per head for the small, medium, and large auctions respectively. Charges per head for ten $30 hogs were $.93, $.84, and $.80 respectively for small, medium, and large auctions. For sheep the charges per head were $.67, $.62, and $.57 in lots of ten $20 sheep for the small, medium, and large auctions respectively.

As was expected, average number and area of pens and alleys, both open, and under roof, increased as the auction volume increased. However, average square feet of pen space per animal unit both open and covered decreased as volume increased.

All auctions had facilities for loading and unloading trucks, however, about 25 percent of the auctions located on railroads had no facilities for unloading rail cars, especially the smaller volume auctions. In addition to auctions having no railroad facilities, only about one-third of the auctions were located on a railroad, with most of these in the large volume category. Only a small percentage of livestock was either shipped in or shipped out by rail. More cattle and calves were moved by rail than other species of livestock, and more livestock was shipped from auctions than to auctions by rail.

Beam scales recording weight to the nearest five pounds were most often used by the auctions in this study. Most auctions had only one scale, although about one-fifth of the small auctions had no scale and about one-third of the large auctions had two or more scales.

In general, results of the analysis indicate that costs per animal unit declined in terms of labor and facilities as auction value increased up to about 15,000 to 20,000 animal units per year. After that costs leveled off. However, there were exceptional lower cost markets below these volumes. But in general, in order to achieve reasonable efficiency in use of resources a minimum value of 15,000 was desirable. The large variations in inputs per animal unit indicates a large amount of room for improvement or operation efficiency. The data in the tables indicate the average inputs for different volumes. For most volume sizes there were several auctions which had inputs (costs) less than half the average. This is where auction markets need to aim in evaluating and improving their efficiency.