COSTS OF MARKETING FRUITS AND VEGETABLES

IN THE

COLUMBUS WHOLESALE CURB MARKET

by

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The authors wish to express appreciation to all who have contributed to this study. Cooperation of the 43 growers who sold on the municipal wholesale market lot, essential to the collection of the data, was given without reservation. Officials and employees of the Columbus Fruit and Vegetable Cooperative Association freely permitted access to their records. The Ohio Division of Markets was consulted frequently in checking sales values with their market news reporting service. The Ohio Public Utilities Commission and the Ohio Farm Bureau Mutual Automobile Insurance Company furnished information needed to compute certain costs.

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Marketing costs are a mystery to many growers. Expenses involved in making sales often are unknown unless the grower employs a sales agent who, for a specific charge, undertakes sales, deliveries, collections, losses from uncollectible accounts, etc., and renders itemized returns. Many producers who do their own selling do not keep cost accounts, or else keep records inadequate to show all items of expense which properly should be charged to the marketing operation, Growers selling farm produce in relatively small units in retail and wholesale curb markets find it especially difficult to measure their costs of marketing.

The present study was undertaken, (1) to ascertain the costs of growers selling locally-grown fruits and vegetables in the municipal wholesale curb market in Columbus, (2) to determine the labor income of these growers for the time spent in marketing; and (3) to compare their costs with the customary charges for the same functions when performed by established wholesaling and jobbing agencies in Columbus.

Forty-three growers who appeared rather regularly on the wholesale curb market cooperated in the study. The junior author visited the market lot each morning during the six-months period July 2 to December 31 inclusive, 1934, and recorded for each of these growers:

(a) The amount of each kind of produce offered,
(b) Returns from the goods sold,
(c) Time elapsed between arrival and departure,
(d) Number of helpers, if any, accompanying the growers,
(e) Expenditures for delivery, if any, to buyers' vehicles or places of business,
(f) Expenditures for space rental and sanitation permit,
(g) Make, year of manufacture and weight of truck,
(h) Number of miles between the market and the grower's farm, and
(i) Number of hours spent enroute.

Values of the goods sold as reported by the growers were checked constantly by reference to prices quoted in the daily reports of the Ohio Division of Markets, whose market news reporter covered this market each morning. They were also compared each day with values of similar goods offered by the Columbus Fruit and Vegetable Cooperative Association, and by other wholesalers and jobbers in Columbus.

Sales values of the goods sold by these 43 growers, aggregating $56,361.56, were recorded and their costs analyzed. Total marketing costs, for purposes of analysis, were divided into two classifications which, for convenience, may be termed hauling costs and selling costs.

The first of these consisted of a proportionate part of the expense of operating and maintaining the truck plus an allowance for the time of the grower while enroute. No part of the allowance for helpers, if any, was charged to hauling. These helpers, though accompanying the grower from the farm, were not needed enroute but after arrival in the market. Their entire time while away from the farm was charged to selling. Had the produce been offered through other channels the helpers would not have been needed. Hauling costs of any grower would have been essentially the same regardless of the method of sale employed by that grower.

Selling costs were made up of a proportionate charge for the truck while in use as a place of business on the market lot, space rental, sanitation permit fee, helper and delivery expense, and an allowance for the grower's time between arrival in and departure from the market. Since practically all sales were made for cash, no account was taken of any uncollectible accounts which any of these growers may have had, nor was allowance made for any other unusual losses or expenses.

HAULING COSTS.

Truck operation and maintenance costs varied with the make, year of manufacture, and weight of the truck. Income and expense reports of 78 trucks on file with the Ohio Public Utilities Commission served as the basis for the charges applied to each of the trucks operated by the 43 growers cooperating in the study. The records selected from the Commission's files were of trucks engaged primarily in hauling farm produce, operating in central Ohio, and of the same types used by these growers. Application of these charges to the individual trucks followed the practice of the International Harvester Company of America, the General Motors Corporation, and the Chrysler Automobile Company, and was approved by an official of the Ohio Farm Bureau Mutual Automobile Insurance Company and by the growers.

The following table shows the type of vehicle operated by each grower, the distance from farm to market, the average one way driving time, the number of trips made during the six-months period, and the hours spent enroute. These data were used in computing hauling costs.

TABLE I

TRANSPORTATION DATA USED IN DETERMINING HAULING COSTS OF 43 GROWERS.

Grower	Kind of Truck Make	Year	Weight	Miles from Farm to Market	Average One-Way Driving Time	No. of Trips in 6 months	Hours Spent Enroute
1	Ford	1924	2540 lbs.	5	20 minutes	61	40.6
2	Ford	1924	1400	3	10	20	6.7
3	Ford	1926	2400	3.5	15	50	25.0
4	Dodge	1928	3900	20	60	32	64.0
5	Chev.	1932	3400	40	105	34	119.4
6	Ford	1921	2500	3	15	60	30.0
7	Ford	1926	2700	20	60	9	18.0
8	Ford	1929	2440	5.5	20	43	28.5
9	Ford	1926	1790	8	30	73	73.0
10	Chandler	1928	Sedan	16	45	39	58.5
11	Ford	1927	3400	2	7	49	11.1
12	Ford	1925	2500	7	10	42	14.0
13	Ford	1923	1800	2	15	50	25.0
14	Ford	1928	Sedan	3	15	43	21.5
15	Ford	1925	2600	16	45	44	66.0
16	Ford	1933	4500	20	45	7	10.5
17	Chev.	1929	3440	24	60	30	60.0
18	Ford	1926	2600	28	60	7	14.0
19	Chev.	1927	3100	20	60	33	66.0
20	Dodge	1932	4500	21	45	46	69.0

TABLE I (Continued)

Grower	Kind of Truck Make	Year	Weight	Miles from Farm to Market	Average One-Way Driving Time	No. of Trips in 6 months	Hours Spent Enroute
21	Chev.	1928	Sedan	3	20 minutes	36	24.0
22	Ford	1926	2360 lbs.	3.5	20	70	46.6
23	Ford	1921	2400	7	30	37	37.0
24	Ford	1925	2500	5	20	82	54.5
25	Ford	1933	4470	23	45	98	147.0
26	Dodge	1929	3940	16.5	45	61	90.8
27	Ford	1923	2200	1.5	15	60	30.1
28	Ford	1928	3400	6	20	86	57.1
29	Packard	1926	Sedan	14	30	12	12.0
30	Ford	1932	3820	3	15	77	38.6
31	Graham	1926	3700	3	10	85	28.3
32	Dodge	1925	3600	10	15	72	36.1
33	Ford	1933	4500	26	45	74	111.1
34	Dodge	1924	2860	9	30	19	19.0
	Chev.	1931	3200				
35	Chev.	1927	2820	6.5	10	113	37.6
36	Chev.	1930	4070	30	60	62	124.0
37	Ford	1924	2350	5	25	34	28.5
38	Dodge	1922	2800	5	15	123	61.5
39	Ford	1925	2600	8	15	52	78.1
40	Inter.	1926	4240	7	15	50	25.0
41	Inter.	1931	4750	6.5	20	79	35.5
42	Dodge	1922	2690	5	20	93	62.1
43	Ford	1924	2800	14	30	35	35.0
TOTAL						2282	8738.5

Truck operation and maintenance charged to hauling consisted of gasoline, oil, repairs and replacements of tires and other parts, interest on investment, insurance and depreciation.

Interest was computed for the total time that the truck was required to be away from the farm, and although this was an insignificant item of cost it was broken down into hauling time and selling time and a proportionate part was charged against each of these operations. It was computed by dividing 7 per cent of the present trade-in value of the truck by 3,000 hours, then multiplying the resultant hourly interest charge by the number of hours the truck was engaged. The present trade-in value of each truck was taken from the Official Used Car Guide of March 10, 1934 published by the National Automobile Dealers Association. Three thousand hours was estimated to be a reasonable average of the number of working hours per year for trucks used by fruit and vegetable growers.

Insurance was charged at the rate of $.001 per mile uniformly against all trucks without regard to make, age, or weight. This was a minor element of cost, and was charged entirely against the hauling operation.

Depreciation was charged only against trucks manufactured in 1928 or later. The depreciation charge per mile was determined by dividing 15 per cent of the original factory price by 5000 miles, 15 per cent being considered the average annual depreciation and 5000 hours the average annual mileage of farm trucks used in this type of business. The original factory price of each truck was secured from the Official Used Car Guide of March 10, 1934. The entire depreciation was charged to hauling.

The time of each grower while enroute to and from the market was charged at $.30 per hour. This was the prevailing rate for commercial truck drivers in Columbus and vicinity during the six-months period of the study. /1

Hauling costs for each of the 43 growers are itemized in the following table.

/1 See discussion on pages 8 and 9.

TABLE II

HAULING COSTS OF 43 GROWERS FOR 6 MONTHS

Grower	Interest (dollars)	Insurance (dollars)	Depreciation (dollars)	Other Truck Expense (dollars)	Growers Time (dollars)	Total Hauling Costs (dollars)
1	.02	.61	--	23.18	12.18	35.99
2	.01	.12	--	4.56	2.00	6.69
3	.03	.35	--	13.30	7.50	21.18
4	.09	1.28	--	79.36	19.20	99.93
5	.88	2.72	35.36	81.62	35.80	156.38
6	.12	.36	--	13.68	9.00	23.06
7	.02	.36	--	13.68	5.40	19.46
8	.07	.47	10.81	15.67	8.55	35.57
9	.09	1.17	--	44.37	21.90	67.53
10	.06	1.25	--	81.12	17.55	99.98
11	.08	.20	--	8.43	3.33	12.04
12	.01	.59	--	19.40	4.30	24.20
13	.02	.20	--	7.64	7.50	15.36
14	.06	.26	--	8.76	6.45	15.53
15	.65	1.76	--	65.12	19.80	87.31
16	.01	.22	3.74	4.78	3.15	11.90
17	.15	1.44	25.92	37.44	18.10	82.95
18	.08	.30	--	14.87	4.30	19.48
19	.04	1.32	--	38.28	19.80	59.44
20	.36	1.93	36.67	88.78	30.70	148.44
21	.05	.22	--	9.13	7.20	16.60
22	.05	.49	--	18.56	13.97	33.07
23	.02	.52	--	19.68	11.10	31.32
24	.05	.82	--	31.15	16.35	48.37
25	1.41	4.51	76.67	89.96	44.10	216.65
26	.13	2.01	32.16	96.62	27.24	158.16
27	.02	.18	--	6.85	9.02	16.07
28	.13	1.03	12.36	34.05	17.12	64.69
29	.07	.34	--	23.18	3.60	27.19
30	.30	.46	7.36	9.22	11.58	28.92
31	.04	.51	--	18.85	8.46	27.86
32	.03	1.44	--	60.47	10.83	72.77
33	1.07	3.85	65.45	76.97	33.33	180.67
34	.06	.34	2.89	12.16	5.70	21.15
35	.07	1.47	--	38.17	11.28	50.99
36	.50	3.72	66.86	111.68	37.20	219.96
37	.02	.34	--	12.86	8.55	21.77
38	.04	1.23	--	51.64	18.45	71.36
39	.05	.83	--	31.61	23.43	55.92
40	.03	.70	--	39.90	7.50	48.13
41	.18	1.03	20.60	58.06	10.65	90.52
42	.04	.93	--	39.04	18.63	58.64
43	.02	.98	--	41.16	10.50	52.66
TOTAL	7.05	44.95	396.85	1595.01	613.00	2655.86

SELLING COSTS

Interest on the present value of each vehicle was computed as described on page 4, and a proportionate part of this expense was charged for each hour the truck was in use as a place of business on the market lot. This was the only truck expense included in selling costs as distinguished from hauling costs. Operating costs, insurance and depreciation were charged entirely to hauling.

Rentals for space on the market lot were charged by the municipality at the rate of $6.00 every three months for one vehicle each Monday, Wednesday and Friday, and at the rate of $9.00 every three months for one vehicle each Tuesday, Thursday, and Saturday. The higher rate for use of the lot on Tuesday's, Thursday's and Saturday's accompanied the greater demand for space on these traditional market days. Transient vehicles were charged at the rates of $.50 per day on Monday, Wednesday and Friday, and $.75 per day on Tuesday, Thursday and Saturday, though these transient rates did not apply to any of the 43 growers participating in this study.

A sanitation permit fee of $2.00 a year is required of all stores, institutions and individuals handling perishable food products in Columbus, and it is not pro rated for periods less than a year. Each grower paid this fee before being given access to the wholesale market. Since the six months period of this study covered either the whole or major part of the selling season of these growers, the entire cost of this permit was charged to the selling expense of each.

Considerable variation existed in the amount and types of help employed by the 43 growers. Four classifications were used in evaluating this help.

(a) Boys 12 to 16 years of age, usually sons of the grower, were valued at $.10 an hour. No value was assigned to the time of boys under 12.

(b) Hired farm laborers accompanying the grower occasionally were valued at $.125 an hour, this being a commonly prevailing rate of pay for that type of labor.

(c) Employees or relatives who accompanied the grower regularly or occasionally and who were competent to substitute for the grower when necessary, coming to the market alone as his salesman or representative at various times, were valued at $.30 an hour. This was a commonly prevailing rate of pay for skilled farm labor and other labor of that general nature during the period of the study.

(d) Some use was made of a porter or deliveryman who frequented the market lot and delivered goods from sellers' trucks to buyers' vehicles or nearby stores. Growers using this service paid usually $.25 a day.

In applying these rates the first three were charged for the total number of hours the helper was away from the farm, that is, for time enroute as well as for time in the market. The entire amount was included as part of the selling costs. Helpers were not needed for hauling, and would not have been needed had the goods been delivered to the warehouse or storeroom of an established sales agency instead of being offered on the growers' lot. Payments to the fourth type of helper, or porter, were added to the selling costs of those growers who used his services. An average of $.25 a day was added for each day he was used.

Evaluation of the grower's time is perhaps more controversial than any other factor entering into these costs. Growers contributing to this study, and others, have estimated variously the value of their time while engaged in marketing their produce.

Some have maintained that those same hours could not have been used in any other way to produce revenue, either directly or indirectly, and therefore were free hours, if not leisure hours. Enjoyment of temporary escape from the routine of regular farm work and opportunity to visit with friends and neighbors is difficult to evaluate in dollars and cents. In the opinion of these growers no price at all, or at the most a very low price, should be set on their marketing time. Others, equally reluctant to assign a definite monetary value to their marketing hours, held the view that the value is high. They reasoned that keeping in touch frequently with buyers and other sellers enables them to know market conditions better than they could otherwise, and consequently they are able to plan their production and sales programs more effectively and to realize higher returns.

Still others believed that any time spent by the grower either in producing or in marketing his produce not only should justify itself by a substantial return for the time time and labor required, but should be valued at whatever it would cost to hire a competent substitute to perform the same function. This philosophy was adopted as the basis for evaluating the growers' time in this study.

Two principal types of tasks were performed by these 43 growers. First, the responsibility of driving the truck between the farm and market. Second, displaying, selling, collecting for and in some cases delivering the produce to buyers in such a manner as to get the maximum return possible. In Columbus and vincinty during the last six months of 1934 competent men could have been hired to perform these functions at $.30 an hour for the first and $.75 an hour for the second. Thirty cents an hour was an average rate for commercial truck drivers engaged in similar work, and $.75 an hour was an average rate for commission house salesmen whose duties paralleled those of the grower while in the market. Therefore these rates have been applied in computing labor costs. /1 The amount of time charged to selling is shown in Table III. Values of the several items comprising selling costs have been computed for each of the 43 growers, and are shown in Table IV.

TABLE III

TIME OF GROWERS AND HELPERS CHARGED TO SELLING

Grower	Time of Grower on Market Lot. Hrs @ .75	Time of Helpers Enroute and on Market Lot Hrs @ .10	Hrs @ .125	Hrs @ .30	Time of Deliveryman Days @ .25
1	267.5	--	--	293.8	--
2	71.0	28.8	--	--	--
3	146.5	--	157.0	--	--
4	133.5	24.69	--	--	--
5	133.0	--	--	--	34 /2
6	225.0	--	252.5	--	--
7	28.5	--	--	--	7
8	167.0	--	--	--	34
9	256.5	--	--	--	38
10	166.5	--	34	--	17
11	153.0	--	--	--	49
12	155.5	--	20.4	--	40
13	191.5	84.5	--	--	--
14	166.5	--	--	--	43
15	187.0	--	--	--	44

/1 But see also discussion of Labor Income, pages 14 to 17.
/2 Charged at $.50 per day. These growers used deliverymen more than the average.

TABLE III (Continued)

Grower	Time of Grower on Market Lot Hrs @ .75	Time of Helpers Enroute and on Market Lot Hrs @ .10	Hrs @ .125	Hrs @ .30	Time of Deliveryman Days @ .25
16	20.5	--	31.0	--	--
17	119.5	148.1	--	--	--
18	24.0	--	38.0	--	--
19	116.5	182.5	--	--	--
20	123.0	--	--	--	46 /1
21	155.0	45	--	--	18
22	286.0	--	--	--	25
23	130.0	--	--	--	18
24	267.5	--	316.1	--	--
25	459.5	--	588.5	--	--
26	292.5	--	200.0	84.2	--
27	252.5	--	--	--	60
28	320.5	--	--	--	86
29	33.0	--	8.8	--	10
30	328.0	--	--	59.2	77 /1
31	442.0	--	--	420.1	--
32	275.0	26.5	--	--	72
33	317.5	--	45.6	--	74
34	87.0	--	106	--	--
35	408.0	277.0	--	--	--
36	242.5	--	24.4	--	62
37	123.0	--	58.6	--	--
38	347.5	--	--	--	123
39	232.0	--	881.2	--	--
40	349.5	--	--	178.0	--
41	269.5	--	23.2	--	60
42	205.5	148.3	--	--	--
43	166.0	--	200	10.5	8
TOTAL	8841.5	965.39	2985.30	1045.80	1045.00

/1 See note No. 2, page 9.

TABLE IV

SELLING COSTS OF 43 GROWERS FOR 6 MONTHS

Grower	Interest on Truck (dollars)	Space Rental (dollars)	Sanitation Permit Fee (dollars)	Helper and Delivery Costs (dollars)	Value of Grower's Time (dollars)	Total Selling Costs (dollars)
1	.16	12.00	2.00	88.14	200.63	302.93
2	.04	18.00	2.00	2.88	53.25	76.17
3	.19	18.00	2.00	19.62	109.88	149.69
4	.19	20.00	2.00	24.69	100.13	147.01
5	.98	12.00	2.00	17.00	99.75	131.73
6	.14	30.00	2.00	31.57	168.75	232.46
7	.04	8.00	2.00	1.75	21.38	33.17
8	.42	12.00	2.00	8.50	125.25	148.17
9	.34	22.00	2.00	9.50	192.38	226.22
10	.16	12.00	2.00	9.50	124.88	148.54
11	1.13	12.00	2.00	12.25	114.75	142.13
12	.14	18.00	2.00	12.55	116.63	149.32
13	.12	12.00	2.00	8.45	143.63	166.20
14	.43	18.00	2.00	10.75	124.88	156.06
15	1.80	20.00	2.00	11.00	140.25	175.05
16	.03	8.00	2.00	3.88	15.38	29.29
17	.30	12.00	2.00	14.81	89.63	118.74
18	.03	12.00	2.00	4.75	18.00	36.78
19	.07	12.00	2.00	18.25	87.38	119.70
20	.64	20.00	2.00	23.00	92.25	137.89
21	.32	18.00	2.00	9.00	116.25	145.57
22	.29	12.00	2.00	6.25	214.51	235.05
23	.08	8.00	2.00	4.50	97.50	112.08
24	.24	30.00	2.00	39.51	200.63	272.38
25	4.41	30.00	2.00	73.57	344.63	454.61
26	.41	18.00	2.00	50.26	219.38	290.05
27	.15	18.00	2.00	15.00	189.38	224.53
28	.71	30.00	2.00	21.50	240.38	294.59
29	.19	6.00	2.00	3.60	24.75	36.54
30	3.56	30.00	2.00	60.95	246.01	341.52
31	.58	30.00	2.00	126.03	331.51	490.12
32	.25	18.00	2.00	20.65	206.25	247.15
33	3.04	30.00	2.00	24.20	238.13	297.37
34	.28	20.00	2.00	13.25	65.25	100.78
35	.74	30.00	2.00	27.70	306.00	366.44
36	.97	30.00	2.00	18.55	181.88	233.40
37	.08	18.00	2.00	6.06	92.25	118.39
38	.27	30.00	2.00	30.75	335.63	398.65
39	.14	26.00	2.00	77.15	174.00	279.29
40	.30	18.00	2.00	53.40	187.13	260.83
41	1.40	30.00	2.00	17.90	202.13	253.43
42	.12	30.00	2.00	14.83	154.13	201.08
43	.10	20.00	2.00	30.15	124.50	176.75
TOTAL	24.98	838.00	86.00	1077.60	6631.27	8657.85

Costs of hauling and costs of selling have been compiled for ready reference in Table IV, together with sales values of the goods sold by each grower. These costs are also expressed here in terms of percentage of the sales value. It will be noted that selling costs ranged with one exception from 4.88 per cent to 55.22 per cent of the value of the produce sold. More than four-fifths of these growers had selling costs exceeding 10 per cent.

TABLE V

RETURNS AND MARKETING COSTS OF 43 GROWERS

Grower	Value of Goods Sold (dollars)	Hauling Costs Amount (dollars)	Hauling Costs Pct. of Value of Goods (pct.)	Selling Costs Amount (dollars)	Selling Costs Pct. of Value of Goods (pct.)	Total Costs Amount (dollars)	Total Costs Pct. of Value of Goods (pct.)
1	859.03	35.99	4.19	302.93	35.26	338.92	39.45
2	297.14	5.69	2.25	76.17	25.64	82.86	27.89
3	1092.85	21.18	1.94	149.69	13.70	170.87	15.64
4	980.50	99.93	10.19	147.01	14.99	246.94	25.18
5	1771.94	156.38	8.83	131.73	7.43	288.11	16.26
6	528.62	23.06	4.36	232.46	43.98	255.52	48.34
7	117.29	19.46	16.59	33.17	28.28	52.63	44.87
8	388 15	35.57	9.16	148.17	38.17	183.74	47.33
9	640.77	67.53	10.54	226.22	35.31	293.75	45.85
10	446.62	99.98	22.39	148.54	33.26	248.52	55.65
11	257.38	12.04	4.68	142.13	55.22	154.17	59.90
12	451.11	24.20	5.36	149.32	33.10	173.52	38.46
13	304.34	15.36	5.05	166.20	54.61	181.56	59.66
14	135.81	15.53	11.44	156.06	114.91	171.59	126.35
15	1925.00	87.31	4.54	175.05	9.09	262.36	13.63
16	211.28	11.90	5.63	29.29	13.86	41.19	19.49
17	815.85	82.95	10.17	118.74	14.55	201.69	24.72
18	193.40	19.48	10.07	36.78	19.02	56.26	29.09
19	1660.10	59.44	3.57	119.70	7.20	179.14	10.77
20	2827.80	148.44	5.25	137.89	4.88	286.33	10.13

TABLE V (Continued)

Grower	Value of Goods Sold (dollars)	Hauling Costs Amount (dollars)	Hauling Costs Pct. of Value of Goods (pct.)	Selling Costs Amount (dollars)	Selling Costs Pct. of Value of Goods (pct.)	Total Costs Amount (dollars)	Total Costs Pct. of Value of Goods (pct.)
21	489.24	16.60	3.39	145.57	29.75	162.17	33.14
22	425.74	33.07	7.77	235.05	55.21	268.12	62.98
23	673.09	31.32	4.65	112.08	16.65	143.40	21.30
24	4892.18	48.37	.99	272.38	5.57	320.75	6.56
25	7336.42	216.65	2.96	454.61	6.21	671.26	9.17
26	1468.97	158.16	10.77	290.05	19.75	448.21	30.52
27	866.99	16.07	1.85	224.53	25.90	240.60	27.75
28	3232.16	64.69	2.01	294.59	9.14	359.28	11.15
29	76.77	27.19	35.42	36.54	47.60	63.73	83.02
30	1794.76	28.92	1.61	341.52	19.03	370.44	20.64
31	1946.93	27.86	1.43	490.12	25.17	517.98	26.60
32	1593.89	72.77	4.57	247.15	15.51	319.92	20.08
33	2132.39	180.67	8.47	297.37	13.95	478.04	22.42
34	474.53	21.15	4.46	100.78	21.24	121.93	25.70
35	2018.78	50.99	2.53	366.44	18.15	417.43	20.68
36	1593.94	219.96	13.80	233.40	14.64	453.36	28.44
37	683.29	21.77	3.19	118.39	17.33	140.16	20.52
38	2983.49	71.36	2.39	398.65	13.36	470.01	15.75
39	1557.00	55.92	3.59	279.29	17.94	335.21	21.53
40	917.98	48.13	5.24	260.83	28.41	308.96	33.65
41	1126.64	90.52	8.03	253.43	22.49	343.95	30.52
42	1215.70	58.64	4.82	201.08	16.54	259.72	21.36
43	972.70	52.66	5.41	176.75	18.17	229.41	23.58
TOTAL	56,361.56	2,655.86	(4.71)	8,657.85	(15.36)	11,313.71	(20.07)

LABOR INCOME OF GROWERS

Unless a given method of marketing can be shown to produce higher prices than another, then the hourly labor income earned by the grower while engaged in marketing serves as a measure of the efficiency both of the method and of the individual. These 43 growers were not faced with the simple alternative of doing their own selling or leaving the goods unsold. They had the choice of several other sales outlets in Columbus, competent and willing to handle their entire output. Obviously they chose to do their own selling either because they believed the returns to be higher, the costs lower, or for other less material considerations.

Were the returns higher than they would have been if another method of sale had been used? Were these growers able to secure higher prices for a given quantity and quality of produce than was being secured for the same kind of goods by growers elsewhere in the wholesale market? In general, they were not. Observations of the authors and of capable observers in the Columbus wholesale produce market area indicate that no seller or group of sellers was able to maintain a higher unit price on a given grade of goods than any other seller offering the same service. This belief is shared by the official reporter of the State-Federal Market News Service in Columbus.

Throughout the six months period of the study there were no measurable price advantages gained by any of the 43 growers. It is believed that the goods sold by these producers and which brought them a gross return of $56,361.56, would have sold for approximately the same amount if offered in other wholesale and jobbing channels. True, superior sales ability of certain growers may enable those individuals at times to secure a higher price for a given grade of produce than if offered by other growers or by a selling agency other than the grower, although such advantages usually are insignificant and short-lived. On the other hand, a selling organization with warehouse facilities and adequate financial support often can avoid distress sales at clean-up prices which the grower on the market lot might be forced to accept as an alternative to returning home with part of his load unsold. The influence of these two opposing factors would tend to offset each other in the sales of more than $50,000 worth of produce by 43 individuals. Whether one factor or the other wields the greater influence on the sales of any individual must be left to the opinion of that grower.

If it be granted, then, that sales made by these producers on the market lot are comparable with similar sales elsewhere, a measure of the labor income of these growers while selling will serve as a guide to the efficiency and economy of this method of marketing. Recognizing the controversial nature of any fixed value arbitrarily and uniformly assigned to the time of all growers, an attempt has been made to determine the rate of pay earned by each seller during the time he was engaged in that function.

To make this determination there has been calculated for each grower the amount of his costs had he delivered the same goods to any Columbus commission firm for sale at the prevailing commission rate of 10 per cent. The difference between his total costs of marketing through a commission firm and the sum of all cost items except the grower's time may be taken as representing the value of the grower's time while selling on the market lot. This may be much or little, but in any case would seem to furnish a fair means of evaluating his time while so engaged, since he at all times had the opportunity of adopting this alternative method of sale.

To illustrate, the total of all items of hauling and selling expense exclusive of an allowance for grower's time while selling was $4,682.44 for the 43 growers. Had these growers employed a selling agency at 10 per cent commission instead of doing their own selling their total costs for hauling and selling would have been $8,454.05. (Costs of hauling would have been identical in either case, except for a very slight interest charge added to truck expense for unloading time at the commission house.) The difference between these amounts, then, may be considered as the value of the growers' time while selling, or a labor income of $3,771.61 for 8841.5 hours of selling - an average of $.4266 an hour. The rate of $.30 an hour for hauling time was kept constant throughout the study, and no attempt made to fix varying values on the time of the several growers while so engaged.

TABLE VI

LABOR INCOME OF 43 GROWERS WHILE SELLING

Grower	Total Marketing Costs @ 10% Commission (dollars)	Actual Marketing Cost less Selling Time (dollars)	Difference, or Value of Growers Selling Time (dollars)	Selling Time (hours)	Value per Hr. (dols)
1	126.15	138.29	- 12.14	267.5	- .05
2	37.73	29.61	8.12	71.0	.11
3	134.11	60.99	73.12	146.5	.50
4	200.39	146.81	53.58	133.5	.40
5	336.18	188.36	147.82	133.0	1.11
6	80.30	86.77	- 6.47	225.0	- .03
7	31.87	31.25	.62	28.5	.02
8	77.36	58.49	18.87	167.0	.11
9	136.45	101.38	35.07	256.5	.14
10	147.56	123.64	23.92	166.5	.14
11	41.46	39.42	2.04	153.0	.01
12	72.18	56.89	15.29	155.5	.10
13	49.23	37.93	11.30	191.5	.06
14	32.30	46.71	- 14.41	166.5	- .09
15	283.22	122.11	161.11	187.0	.86
16	33.56	25.81	7.75	20.5	.38
17	166.81	112.06	54.75	119.5	.46
18	39.34	38.26	1.08	24.0	.05
19	228.23	91.76	136.47	116.5	1.17
20	434.73	194.08	240.65	123.0	1.96
21	68.17	45.92	22.25	155.0	.14
22	80.30	53.61	26.69	283.0	.09
23	101.42	45.90	55.52	130.0	.43
24	543.50	120.12	423.38	267.5	1.58
25	956.48	326.63	629.85	459.5	1.37
26	309.63	228.83	80.80	292.5	.28
27	107.01	51.22	55.79	252.5	.22
28	392.64	118.90	273.74	320.5	.85
29	35.79	38.98	- 3.19	33.0	- .10
30	213.84	124.42	89.42	328.0	.27
31	228.27	186.47	41.80	442.0	.10
32	237.01	113.67	123.34	275.0	.45
33	399.10	239.91	159.19	317.5	.51
34	70.04	56.68	13.36	87.0	.15
35	260.33	111.43	148.90	406.0	.37
36	384.04	271.48	112.56	243.5	.46
37	92.53	47.91	44.62	123.0	.36
38	378.07	134.38	243.69	447.5	.54
39	215.51	161.21	54.30	238.0	.23
40	143.45	121.83	21.62	249.5	.09
41	208.33	141.82	66.51	269.5	.25
42	186.87	105.59	81.28	205.5	.40
43	152.56	104.91	47.65	166.0	.29
TOTAL	8454.05	4682.44	3771.61	8841.5	.4266

Returns of these individuals for the time spent on the market thus ranged from an earning of $1.96 an hour down to a loss of $.10 an hour. The average rate earned was $.4266 an hour. Only 7 of these farmers earned as much as the standard rate of $.75 an hour paid to produce salesmen. Eighteen earned less than $.20 an hour.

TABLE VII

LABOR INCOME PER HOUR EARNED WHILE SELLING

Dollars per Hour	No. of Growers
1.00 and over	5
.80 to .99	2
.60 to .79	0
.40 to .59	9
.20 to .39	9
.00 to .20	14
less than .00	4
TOTAL	43

Of some significance is the distribution of each grower's time between the two functions of hauling and selling. The time spent in selling may thus be compared with the time spent in hauling, thereby giving an additional measurement of the efficiency of each of the growers using this method of marketing. To illustrate, if two growers whose average loads are about equal in value are located at equal distances from the market and require the same time for hauling, but one takes much longer to sell than the other, then the one requiring the lesser time may be considered more efficient. To provide means of ready comparison the following table has been prepared, showing for each grower the average value of his loads and the amounts and percentages of time spent in hauling and selling. In TABLE I will be found the average one way driving time of each grower.

Figure 1.

MARKETING COSTS OF 43 GROWERS SELLING $56,361.56 WORTH OF PRODUCE ON MARKET LOT, JULY 2 - DEC. 31, 1934
(Compared with costs of selling same goods by commission to determine value of growers' selling time)

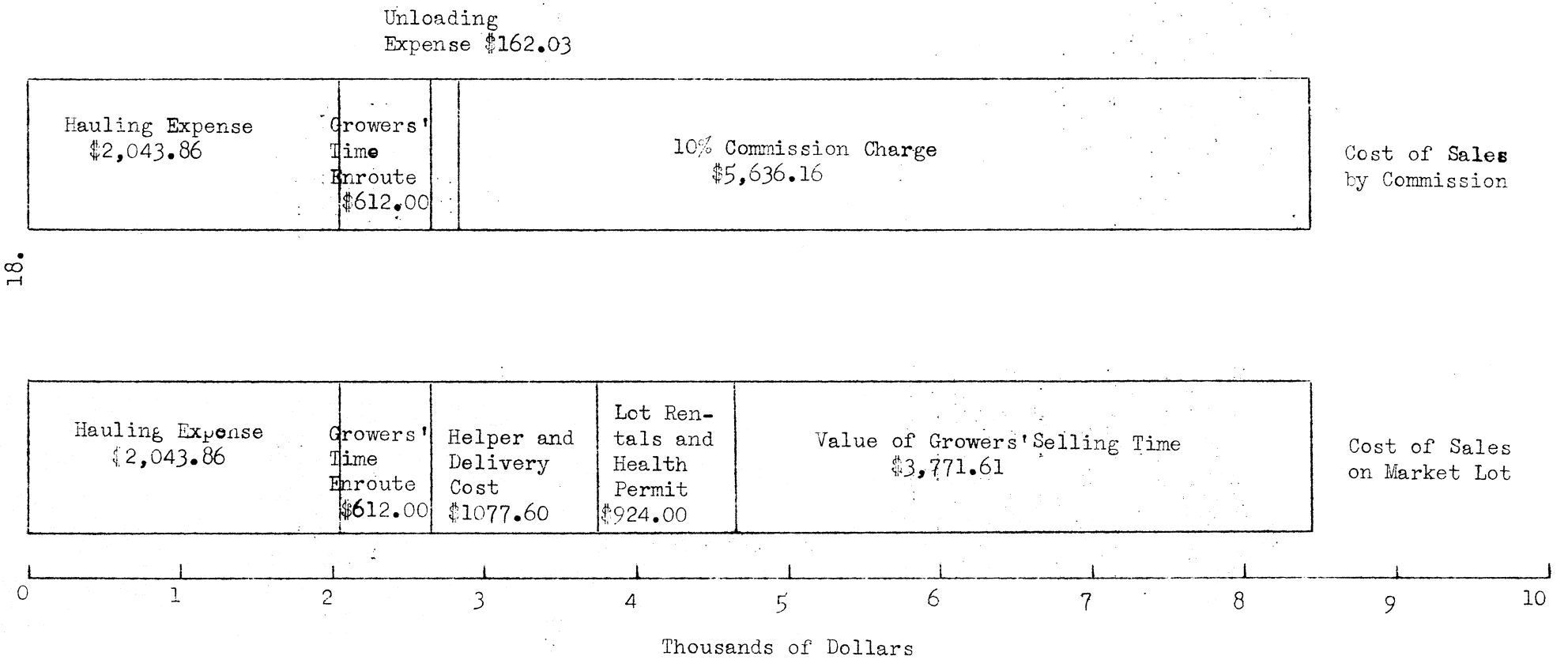


TABLE VIII

DISTRIBUTION OF MARKETING TIME OF 43 GROWERS

Grower	Average Value of Loads (dollars)	Hauling Time Amount (hours)	Hauling Time pct. of total (pct.)	Selling Time Amount (hours)	Selling Time pct. of total (pct.)	Total Time (hours)
1	14.08	40.6	13.18	267.5	86.82	308.1
2	14.85	6.7	8.63	71.0	91.37	77.7
3	21.85	25.0	14.62	146.0	85.38	171.0
4	30.64	64.0	32.41	133.5	67.59	197.5
5	52.12	119.4	47.31	133.0	52.69	252.4
6	8.81	30.0	11.76	225.0	88.24	255.0
7	13.03	18.0	38.71	38.5	61.29	46.5
8	9.03	28.5	14.58	167.0	85.42	195.5
9	8.78	73.0	22.15	256.5	77.85	329.5
10	11.45	58.5	26.00	166.5	74.00	225.0
11	5.25	11.1	6.76	153.0	93.24	164.1
12	10.74	14.0	8.26	155.5	91.74	169.5
13	8.09	25.0	11.55	191.5	88.45	216.5
14	3.16	21.5	11.44	166.5	88.56	188.0
15	43.75	66.0	26.09	187.0	73.91	253.0
16	30.18	10.5	33.87	20.5	66.13	31.0
17	27.20	60.0	33.43	119.5	66.57	179.5
18	27.62	14.0	36.84	24.0	63.16	38.0
19	50.40	66.0	36.16	116.5	63.84	182.5
20	61.47	69.0	35.94	123.0	64.06	192.0
21	13.59	24.0	13.41	155.0	86.59	179.0
22	6.08	46.6	14.01	286.0	85.99	332.6
23	18.19	37.0	22.16	130.0	77.84	167.0
24	59.66	54.5	16.93	267.5	83.07	322.0
25	74.76	147.0	24.24	459.5	75.76	606.5
26	24.08	90.8	23.69	292.5	76.31	383.3
27	14.45	30.1	10.65	252.5	89.35	282.6
28	37.46	57.1	15.12	320.5	84.88	377.6
29	6.40	12.0	26.67	33.0	73.33	45.0
30	23.31	38.6	10.53	328.0	89.47	366.6
31	22.91	28.2	6.00	442.0	94.00	470.2
32	22.14	36.1	11.60	275.0	88.40	311.1
33	28.82	111.1	25.92	317.5	74.08	428.6
34	24.98	19.0	17.92	87.0	82.08	106.0
35	17.86	37.6	8.44	408.0	91.56	445.6
36	25.71	124.0	33.83	242.5	66.17	366.5
37	20.10	28.5	18.81	123.0	81.19	151.5
38	24.26	61.5	12.08	447.5	87.92	509.0
39	29.94	78.1	25.19	232.0	74.81	310.1
40	18.36	25.0	9.11	249.5	90.89	274.5
41	14.26	35.5	11.64	269.5	88.36	305.0
42	13.07	62.1	23.21	205.5	76.79	267.6
43	27.79	35.0	17.41	166.0	82.59	201.0
TOTAL	(24.70)	2040.2	(18.75)	8841.0	(81.25)	10,881.2

The amount of produce sold per trip as indicated by the average load values bore a close relationship to the labor income rates of the individual growers. This relationship may be expressed mathematically by a coefficient of correlation of .94 or a coefficient of determination of .88. Figure 2 shows a line of regression applied to the paired variables. /1

This figure and the calculations on which it is based may be interpreted roughly as meaning that when the value of the load is known the rate earned per hour for selling may be estimated approximately. To illustrate, loads worth $8.75 or less probably would not permit the grower to earn anything for his selling time. The grower would probably earn about $.25 an hour if his loads averaged $18.75, $.50 an hour if they averaged $28.00, and $.75 an hour if they averaged $38.50.

In general the conclusion may be drawn that only those growers having a large volume of produce per load can afford to adopt the wholesale curb market as a sales outlet, unless they place an unusually high value upon the intangible advantages of that method.

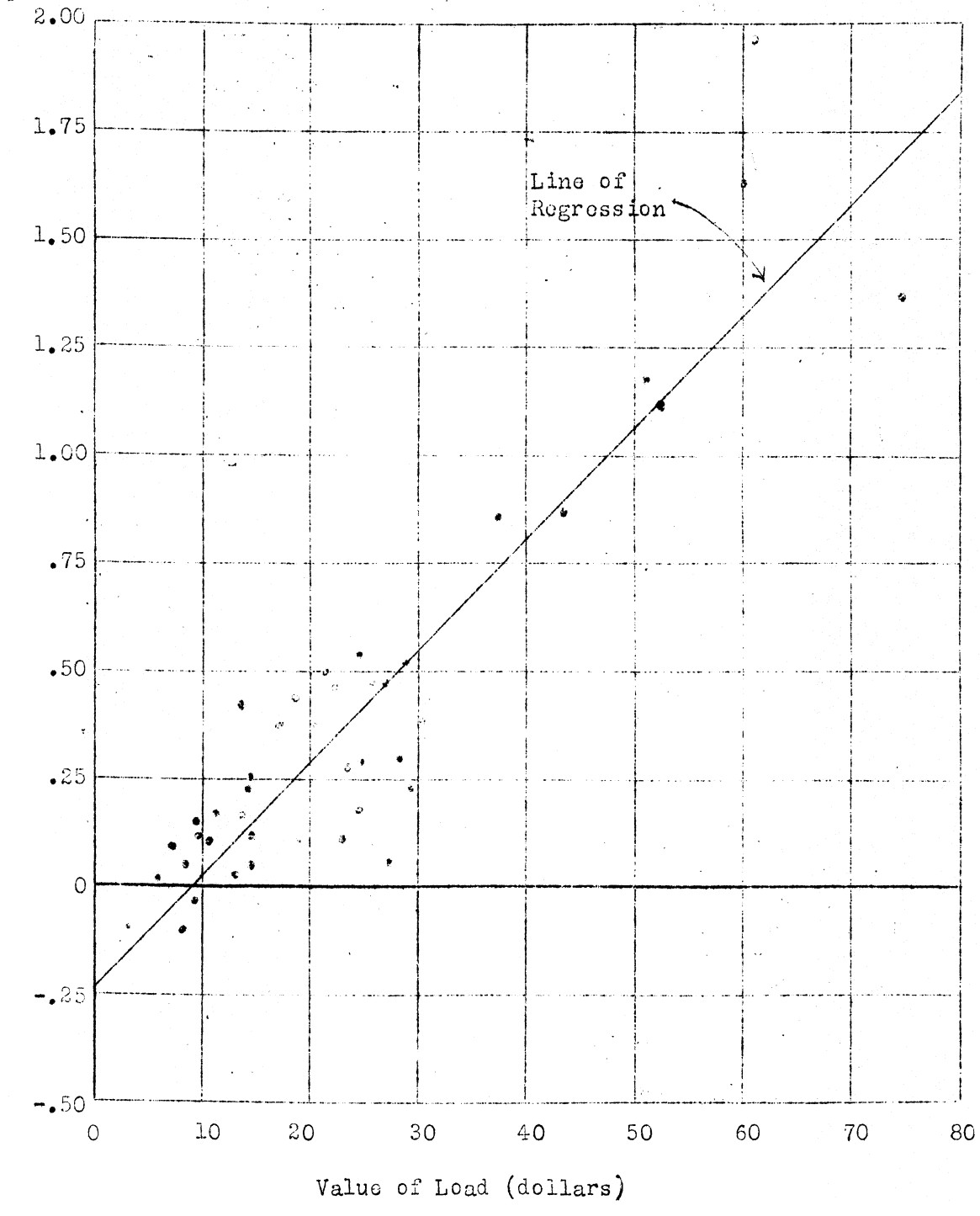
/1 Equation of line of regression is:

$$y-.389=(.94)(.0279)(x-23.69)$$

$$y=.0262x-.2317$$

Figure 2

RELATIONSHIP OF VALUE OF GROWER'S SELLING TIME TO VALUE OF AVERAGE LOAD



RETURNS AND COSTS OF 108 OTHER GROWERS

In addition to the 43 growers whose returns and costs have been reported in the preceding pages similar records were compiled for 108 growers whose produce was sold by the Columbus Fruit and Vegetable Cooperative Association, Incorporated during the same six months period. Thirty-one of these were members and 77 were non-members of that organization. Produce sold for these members aggregated $54,488.81 in value, and for these non-members $20,478.22.

Costs of hauling were computed for each of these 108 growers in the same manner as for the 43 who sold on the municipal wholesale curb market. Costs of selling were covered by deductions or commission charges assessed by the association amounting to 12½ per cent of the sales value of the produce offered by members and 10 per cent of that offered by non-members.

Ten per cent is the prevailing rate charged by old-line commission firms in Columbus and the association believed it could not secure any appreciable volume of non-member patronage if it charged more. On the other hand, members agreed to the higher charge of 12½ per cent in order that the necessary capital and operating funds for this newly-organized association might be provided in part through gradual deductions instead of through somewhat larger initial cash contributions. Deductions from members' returns are subject to patronage dividends in the event dividends are justified by earnings of the association, but non-members will not participate in such disbursements. The organization opened for business May 21, 1934, therefore results of the first season's operations are not yet known.

Costs of the two groups of growers are presented in the following table. Though computed in the same manner they are not set forth here in as great detail as in the case of the 43 growers who sold on the municipal wholesale market lot. It will be noted that aggregate hauling costs both of members and of non-members represented larger percentages of the values of the goods sold than did hauling costs of those who sold on the lot, due primarily to greater hauling distances. Lower selling costs, however, more than compensated for this extra expense in the case of members of the association, so that total marketing costs of that group actually were lower.

TABLE IX

RETURNS AND MARKETING COSTS OF 31 MEMBERS OF COOPERATIVE ASSOCIATION FOR 6 MONTHS

Grower	Value of Goods Sold	Hauling Costs		Selling Costs		Total Costs	
		Amount	Pct. of Value of Goods	Amount	Pct. of Value of Goods	Amount	Pct. of Value of Goods
	(dollars)	(dollars)	(pct.)	(dollars)	(pct.)	(dollars)	(pct.)
1	2731.00	73.61	2.70	341.45	12.5	415.06	15.20
2	1494.81	29.55	1.98	186.85	12.5	216.40	14.48
3	2977.16	66.09	1.22	372.30	12.5	438.39	13.72
4	594.98	28.92	4.86	74.41	12.5	103.33	17.36
5	412.20	37.49	9.10	51.53	12.5	89.02	21.60
6	128.44	16.18	12.60	16.06	12.5	32.24	25.10
7	1597.85	53.48	3.35	199.73	12.5	253.21	15.85
8	463.25	17.21	3.72	57.91	12.5	75.12	16.22
9	1503.66	55.96	3.72	187.96	12.5	243.92	16.22
10	1525.60	79.93	5.24	190.70	12.5	270.63	17.74
11	3493.60	86.23	2.47	436.70	12.5	522.93	14.97
12	2999.96	231.12	7.70	375.00	12.5	606.12	20.20
13	3979.97	75.80	1.90	497.50	12.5	573.30	14.40
14	5534.99	347.50	6.28	691.87	12.5	1039.37	18.78
15	636.58	105.21	16.53	79.57	12.5	184.78	29.03
16	3355.55	712.06	21.22	419.44	12.5	1131.50	33.72
17	3310.22	105.32	4.56	288.78	12.5	394.10	17.06
18	277.35	33.52	12.09	34.67	12.5	68.19	24.59
19	959.63	42.87	4.47	119.95	12.5	162.82	16.97
20	3566.57	58.41	2.27	320.82	12.5	379.23	14.77
21	990.50	85.88	8.67	123.81	12.5	209.69	21.17
22	1965.67	57.31	2.92	245.71	12.5	303.02	15.42
23	67.35	5.99	8.89	8.42	12.5	14.41	21.39
24	322.35	20.33	6.31	40.29	12.5	60.62	18.81
25	843.50	40.15	4.76	105.44	12.5	145.59	17.26
26	3577.26	62.37	1.74	447.16	12.5	509.53	14.24
27	3220.89	58.15	1.81	402.61	12.5	460.76	14.31
28	1353.13	54.95	4.06	169.14	12.5	224.09	16.56
29	2377.97	180.77	7.60	297.25	12.5	478.02	20.10
30	161.83	18.46	11.41	20.20	12.5	38.66	23.91
31	64.99	4.74	7.29	8.12	12.5	12.86	20.19
TOTAL	54488.81	2845.56	(5.22)	6811.35	(12.5)	9656.91	(17.72)

TABLE X

RETURNS AND MARKETING COSTS OF 77 NON-MEMBERS
SELLING THROUGH COOPERATIVE ASSOCIATION FOR 6 MONTHS

Grower	Value of Goods Sold (dollars)	Hauling Costs Amount (dollars)	Hauling Costs Pct. of Value of Goods (pct.)	Selling Costs Amount (dollars)	Selling Costs Pct. of Value of Goods (pct.)	Total Costs Amount (dollars)	Total Costs Pct. of Value of Goods (pct.)
1	30.45	17.64	57.94	3.05	10.0	20.69	67.94
2	78.70	10.08	12.81	7.87	10.0	17.95	22.81
3	145.50	9.60	6.60	14.55	10.0	24.15	16.60
4	92.45	24.24	26.22	9.25	10.0	33.49	36.22
5	145.15	6.00	4.13	14.52	10.0	20.52	14.13
6	617.90	86.40	13.98	61.79	10.0	148.19	23.98
7	37.13	11.76	31.67	3.71	10.0	15.47	41.67
8	904.55	28.56	3.16	90.46	10.0	119.02	13.16
9	143.25	17.40	12.15	14.33	10.0	31.73	22.15
10	167.59	126.36	75.40	16.76	10.0	143.12	85.40
11	43.35	28.08	64.78	4.34	10.0	32.42	74.78
12	51.80	14.24	27.49	5.18	10.0	19.42	37.49
13	9.10	9.48	104.18	.91	10.0	10.39	114.18
14	138.50	14.64	10.57	13.85	10.0	28.49	20.57
15	60.20	11.76	19.53	6.02	10.0	17.78	29.53
16	95.25	12.08	12.68	9.53	10.0	21.61	22.68
17	228.05	9.60	4.21	22.81	10.0	32.41	14.21
18	16.20	3.00	18.52	1.62	10.0	4.62	28.52
19	48.30	5.28	10.93	4.83	10.0	10.11	20.93
20	161.58	55.44	34.31	16.16	10.0	71.60	44.31
21	51.50	7.68	14.91	5.15	10.0	12.83	24.91
22	316.80	42.36	13.37	31.68	10.0	74.04	23.37
23	245.55	14.28	5.82	24.56	10.0	38.84	15.82
24	21.40	13.20	61.68	2.14	10.0	15.34	71.68
25	289.50	24.00	8.29	28.95	10.0	52.95	18.29
26	306.05	96.96	31.68	30.61	10.0	127.57	41.68
27	12.80	12.00	93.75	1.28	10.0	13.28	103.75
28	435.25	117.00	26.88	43.53	10.0	160.53	36.88
29	386.70	26.31	6.80	38.67	10.0	64.98	16.80
30	2152.85	130.56	6.06	215.29	10.0	345.85	16.06
31	8.00	.60	7.50	.80	10.0	1.40	17.50
32	507.65	36.00	7.09	50.77	10.0	86.77	17.09
33	875.85	4.80	.55	87.59	10.0	92.39	10.55
34	214.95	50.04	23.28	21.50	10.0	71.54	33.28
35	1415.55	23.97	1.69	141.56	10.0	165.53	11.69
36	7.25	6.00	82.76	.73	10.0	6.73	92.76
37	391.18	27.36	6.99	39.12	10.0	66.48	16.99
38	288.50	25.20	8.73	28.85	10.0	54.05	18.73
39	364.92	61.20	16.77	36.49	10.0	97.69	26.77
40	35.70	13.92	38.99	3.57	10.0	17.49	48.99

TABLE X (Continued)

Grower	Value of Goods Sold (dollars)	Hauling Costs Amount (dollars)	Hauling Costs Pct. of Value of Goods (pct.)	Selling Costs Amount (dollars)	Selling Costs Pct. of Value of Goods (pct.)	Total Costs Amount (dollars)	Total Costs Pct. of Value of Goods (pct.)
41	308.15	12.23	3.97	30.82	10.0	43.05	13.97
42	418.15	360.00	86.09	41.82	10.0	401.82	96.09
43	5.40	1.44	26.67	.54	10.0	1.98	36.67
44	73.85	12.12	16.41	7.39	10.0	19.51	26.41
45	11.00	2.76	25.09	1.10	10.0	3.86	35.09
46	579.85	84.24	14.53	57.99	10.0	142.23	24.53
47	132.08	31.68	23.99	13.21	10.0	44.89	33.99
48	341.25	33.12	9.71	34.13	10.0	67.25	19.71
49	267.35	5.34	2.00	26.74	10.0	32.08	12.00
50	1331.05	12.90	.97	133.11	10.0	146.01	10.97
51	92.70	28.80	31.07	9.27	10.0	38.07	41.07
52	144.25	14.40	9.98	14.43	10.0	28.83	19.98
53	301.40	12.24	4.06	30.14	10.0	42.38	14.06
54	34.03	24.00	70.53	3.40	10.0	27.40	80.73
55	14.15	5.52	39.01	1.42	10.0	6.94	49.01
56	1130.21	42.86	3.79	113.02	10.0	155.88	13.79
57	342.89	84.24	24.57	34.29	10.0	118.53	34.57
58	10.00	14.04	140.40	1.00	10.0	15.04	150.40
59	62.53	28.08	44.91	6.25	10.0	34.33	54.91
60	411.52	126.36	30.71	41.15	10.0	167.51	40.71
61	128.31	58.56	45.64	12.83	10.0	71.39	55.64
62	7.00	2.64	37.72	.70	10.0	3.34	47.72
63	85.30	8.40	9.85	8.53	10.0	16.93	19.85
64	233.36	135.72	58.16	23.34	10.0	159.06	68.16
65	4.05	9.00	222.22	.41	10.0	9.41	232.22
66	19.50	5.28	270.77	1.95	10.0	7.23	280.77
67	22.50	6.60	29.33	2.25	10.0	8.85	39.33
68	303.30	11.04	36.40	30.33	10.0	41.37	46.40
69	392.65	2.40	.61	39.27	10.0	41.67	10.61
70	90.94	6.00	6.60	9.09	10.0	15.09	16.60
71	6.45	14.40	223.26	.65	10.0	15.05	233.26
72	1042.10	122.88	11.79	104.21	10.0	227.09	21.79
73	82.95	4.80	5.79	8.30	10.0	13.10	15.79
74	174.90	4.80	2.74	17.49	10.0	22.29	12.74
75	68.25	14.12	20.69	6.83	10.0	20.95	30.69
76	70.15	24.20	34.50	7.02	10.0	31.22	44.50
77	191.75	45.10	23.52	19.18	10.0	64.28	33.52
TOTAL	20478.22	2647.39	(12.93)	2047.98	(10.0)	4695.37	(22.93)

SUMMARY

This study was undertaken, (1) to ascertain the costs of growers selling locally-grown fruits and vegetables in the municipal wholesale curb market in Columbus, (2) to determine the labor income of these growers for the time spent in marketing, and (3) to compare their costs with the customary charges for the same functions when performed by established wholesaling and jobbing agencies in Columbus.

Records of costs and returns were compiled and analyzed for 43 growers selling $56,361.56 worth of produce from July 2 to December 31 inclusive, 1934.

Hauling costs consisted of a proportionate part of the expense of operating and maintaining the truck plus an allowance for the time of the grower while enroute, and aggregated 4.71 per cent of the value of the goods sold.

Selling costs were made up of a proportionate charge for the truck while in use as a place of business on the market lot. Space rental, sanitation permit fee, helper and delivery expense, and an allowance for the grower's time between arrival in and departure from the market. Selling costs amounted to 15.36 per cent of the value of the goods sold. More than four-fifths of these growers had selling costs (exclusive of hauling costs) exceeding 10 per cent.

Labor income for the time spent in selling varied from a gain of $1.96 an hour, to a loss of $.10 an hour. The average rate earned was $.4266 an hour. Only 7 of these farmers earned as much as the standard rate of $.75 an hour paid to produce salesmen. Eighteen earned less than $.20 an hour.

The average amount of produce sold per trip bore a close relationship to the labor income rates of the individual growers. The larger the load the greater was the income per hour. Loads worth $8.75 or less usually did not permit the grower any earning for his selling time. Growers earned about $.25 an hour when their loads averaged $18.75, $.50 an hour when they averaged $28.00, and $.75 an hour when they averaged $38.50.

Similar records of costs and returns were compiled during the same six-months period for 31 members of the Columbus Fruit and Vegetable Cooperative Association, selling $54,488.81 worth of produce, and 77 other growers, not members of that organization for whom the association sold goods valued at $20,478.22. Selling costs of those two groups of growers were represented by deductions from returns, amounting to 12½ per cent of the gross sales value in the case of members and 10 per cent in the case of non-members. The amount of patronage dividends, if any, to be repaid to members is not yet known, since the association has been in business only since May 21, 1934.

Hauling costs both of members and of non-members represented larger percentages of the value of the goods sold than did hauling costs of those who sold on the market lot, due primarily to greater hauling distances. Lower selling costs, however, more than compensated for this extra expense in the case of members of the association, so that total marketing costs of that group actually were lower.