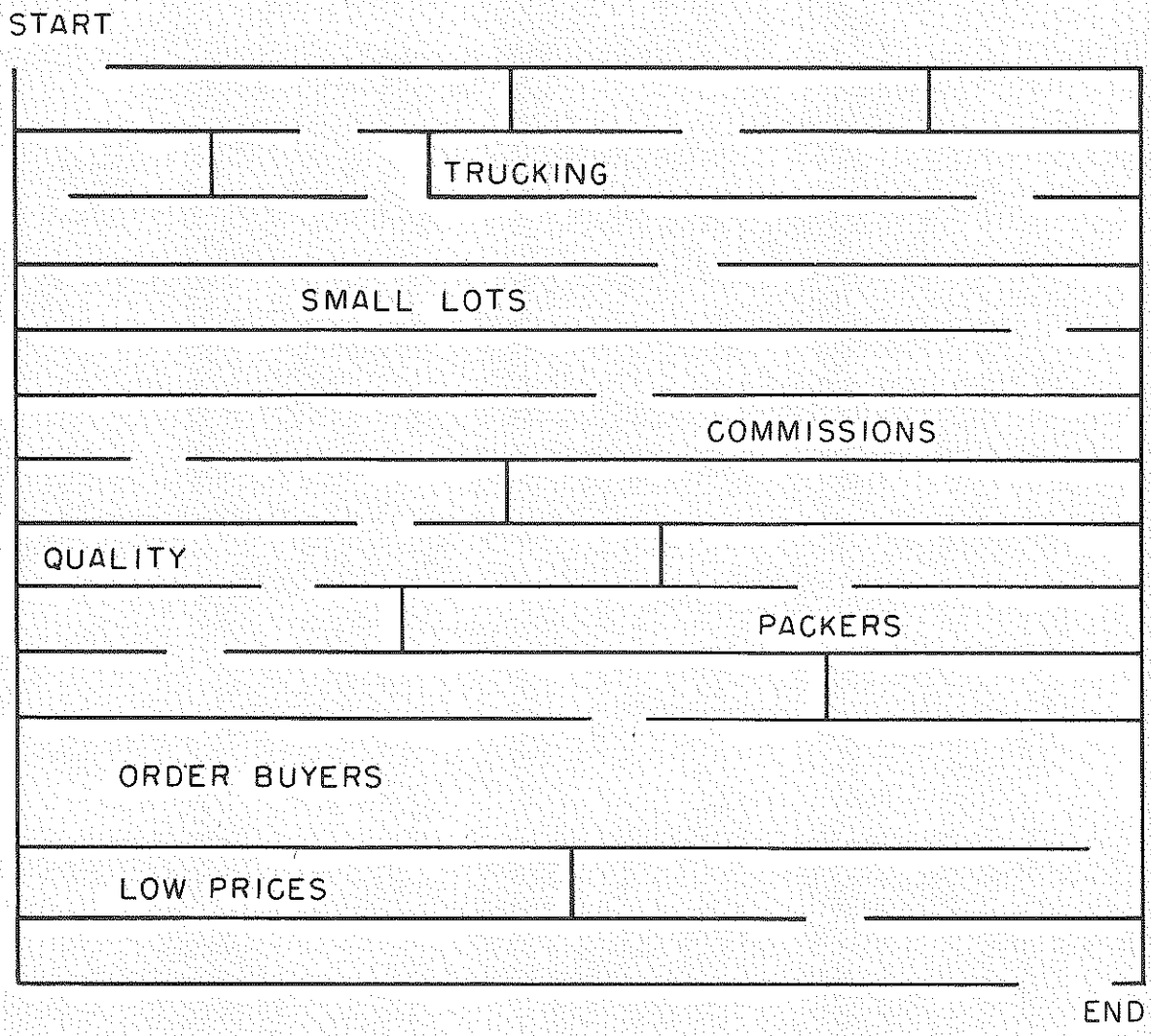
file copy

December 1980

A.E. Res. 80-34

MARKETING FAT CATTLE AND FEEDER CALVES IN NEW YORK



William Lesser

Department of Agricultural Economics
Cornell University Agricultural Experiment Station
New York State College of Agriculture and Life Sciences
A Statutory College of the State University
Cornell University, Ithaca, New York 14853

It is the policy of Cornell University actively to support equality of educational and employment opportunity. No person shall be denied admission to any educational program or activity or be denied employment on the basis of any legally prohibited discrimination involving, but not limited to, such factors as race, color, creed, religion, national or ethnic origin, sex, age or handicap. The University is committed to the maintenance of affirmative action programs which will assure the continuation of such equality of opportunity.

INTRODUCTION

Economists are frequently concerned with the concept of market failures. Within a vertical market system in which the product passes from producer to processor to retailer to the final consumer, a market failure exists when the price at each market level does not adequately coordinate the various participants' activities (Williamson).

What does this have to do with New York beef producers? Much of their current marketing difficulties can be understood better in terms of the failures of the current marketing system to adequately express the actual requirements for local cattle. This bulletin identifies these impediments and suggests means by which interested producers may overcome them. The suggested changes in marketing and production practices will not be appropriate to all producers. To establish the scope of the marketing problem, the current New York supply and regional outlets balance is reviewed.

CURRENT MARKET SITUATION

Production

On January 1, 1980 the State Crop Reporting Service estimated 85,000 beef cows on New York farms. With out-of-state sales of feeder calves, retentions for breeding and the fattening of some dairy breed animals this herd size estimate gives only an approximation of the potential number of fat cattle produced in the state. The best unofficial projection for 1980 is between 45,000 and 60,000 head (Comerford).

The number of beef-breed feeder calves can be determined more accurately as 71,000 if the national average calfing rate of 84 percent and a death loss of 4 percent may be assumed (Agricultural Statistics, 1979).

However, only a small percentage of these calves were ever actually observed. For example, Semlek estimated that of the 80,000 potential feeder calves in New York in 1975, only 2.5 percent of them were documented through the Beef Cattlemen's Association sanctioned sales (Semlek [A], pp.1-2). Thus the error in estimates of marketable animals may be substantial, but all indications are of a small industry in New York.

Prices

New York cattle and beef breed calves sold in state are widely perceived as receiving lower prices than cattle in many other areas (e.g., Semlek [B], p.1). To test this impression, daily prices from New York were compared to the weekly summary prices in the Lancaster, Pennsylvania area for 20 randomly selected days during 1978-1980. Although the reporters in both markets are given the same instruction on how to report prices, the New York price range is typically greater than that in Lancaster. For greater comparability the lower prices of the two ranges in Table 1 were compared on the assumption that they were more equivalent. In nineteen of the twenty cases the New York prices were lower. The difference was significant when the sign test is applied at the five-percent level with the alternative hypothesis that New York prices were lower (Dixon and Massey, pp. 335-39).[1/] This difference was even more significant since the Lancaster area cattle were grouped into yield grades 2-4 while the New York cattle included only yield grades 2-3. Typically, the higher yield grade animals receive lower prices although this may not be as true for Lancaster where the market has been influenced by the particular requirements of the

---

[1/] The results were identical when the upper prices were compared.

Table 1: Comparison of Daily New York and Weekly Lancaster Area Public Market Prices for Choice Steers for Randomly Selected Weeks in 1978-1980.

Date		New York Price	Lancaster Area Price
		---dollars per cwt---	
1978	5-12	52.00-53.50[2]	54.50-58.00
	7-28	49.00-54.00[4]	53.00-56.50
	11-17	50.00-53.25[2]	55.00-57.25
	12-29	52.00-55.75[1]	57.00-59.00
1979	4-20	71.25-74.50[2]	74.00-77.25
	8-17	61.25-64.25[2]	61.85-67.75
	11-02	63.00-66.00[4]	66.00-68.50
	12-07	62.50-64.50[1]	68.50-70.00
1980	1-11	64.00-68.75[2]	66.75-70.75
	1-25	62.00-64.75[4]	67.50-70.00
	2-8	67.76-68.75[4]	67.00-69.50
	3-28	63.00-68.00[3]	66.00-67.00
	4-14	61.00-62.50[3]	64.50-66.00
	5-2	59.00-65.25[1]	62.50-65.75
	6-6	60.00-61.75[2]	64.25-66.25
	7-11	65.00-67.50[2]	66.75-71.00
	8-29	65.75-68.50[2]	74.50-76.50
	9-5	66.00-68.00[2]	74.50-77.00
	9-12	67.50-68.75[1]	74.00-76.25
	11-30	62.75-67.50[4]	68.25-71.25

[1]Includes Little Falls, Pavilion, West Edmeston and West Lowville markets.

[2]Includes Canandaigua, DeKalb Junction, Vernon, and Washington County markets.

[3]Includes Bath, Sennett and Vernon markets.

[4]Includes Caledonia, Cobleskill, Gouverneur and Norwich markets.

Source: Federal-State Livestock Market News Service, various dates.

kosher consumer. The same analysis cannot be done for feeder calf prices because so few transactions were recorded.

As a further test, the actual prices paid for 53 New York steers sampled from prices collected during a special survey in June 1978 were compared to the midpoint prices in Lancaster, Omaha or Joliett for the same grade on the same day (Federal-State News Service). The midpoint of the price range was used and intended to represent the midpoint of the quality range of choice steers of the designated yield grades (Tomek, p.437). Applying the sign test to these same-day observations, the New York prices were found to be higher in only 16 cases which is not a significant difference at the five percent level. Thus New York steer prices again appeared to be lower than those at public markets in other areas. The difference, however, was not as dramatic as when the low range of New York prices was used for comparison. This suggested that part of the local price situation was related to the low end of the range which is associated with the number of lower quality steers sold in New York.

This analysis does support the belief that New York fed beef producers are in fact receiving lower prices than those in Pennsylvania. It does not and should not be interpreted as demonstrating that New York prices are not competitive. These are several reasons discussed below why local cattle are priced below Lancaster. The relatively low New York prices do nevertheless have a depressing effect on cattle production in New York.

Structure of Production

New York cattle producers tend to be quite small. Based on the results of a 1978 survey, nearly 50 pecent of the slaughter cattle

producers and over 50 percent of the feeder calf producers sold five or fewer head annually (Figure 1).[2/] The maximum size also differed with 500 slaughter animals reported sold by the major feeder, but only 44 calves by the largest producer participating in the survey. The smaller size of cow-calf operators compared to feeders is in agreement with national figures. Overall, 77 producers in the survey reported selling some animals, of which 60 (78%) sold slaughter cattle and 24 (31%) sold at least one feeder calf, while 13 (17%) sold both. The remainder sold breeding stock or cull animals.

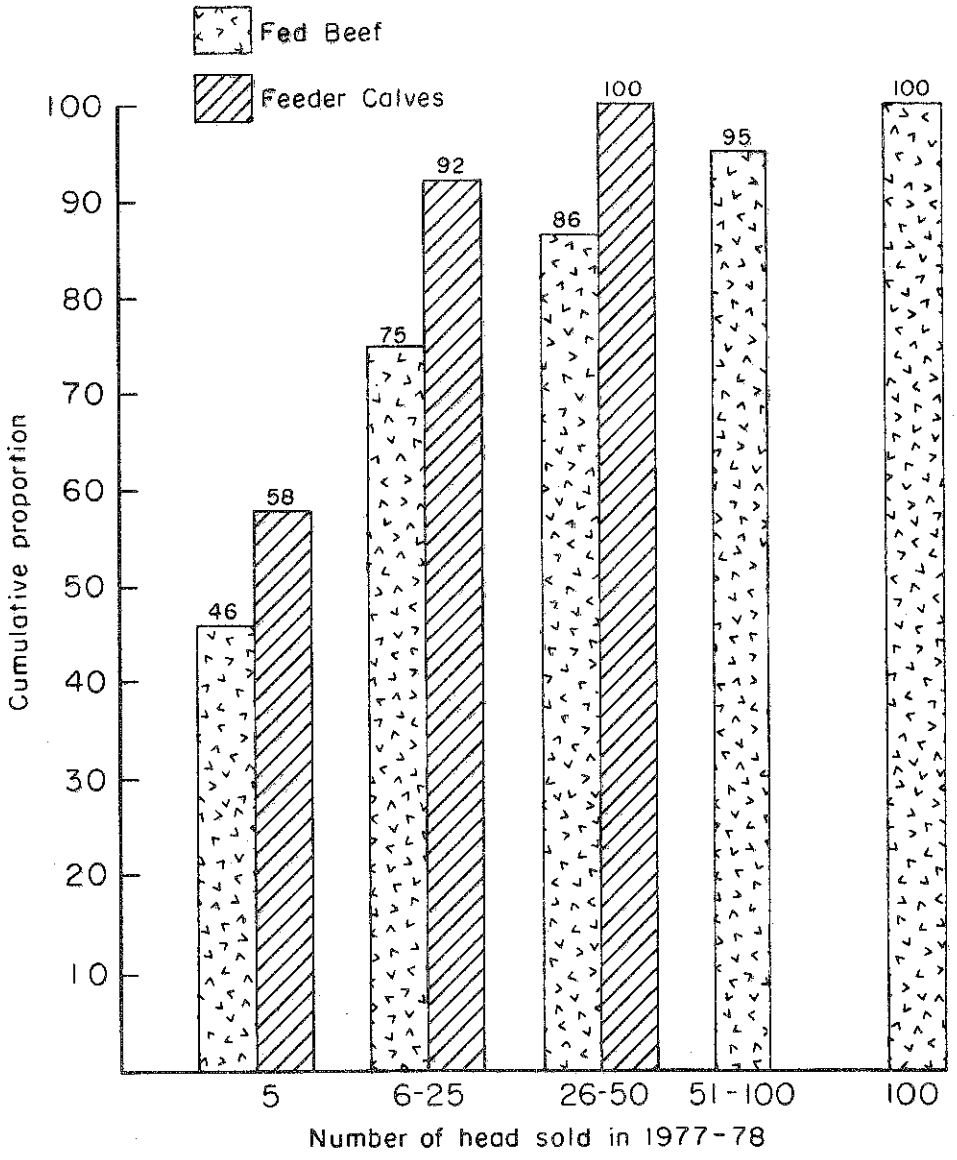
Market Outlets

Does the lower New York price imply that there are insufficient regional outlets for fat cattle and feeder calves? This does not appear to have been the case. Area fed beef producers can sell direct to consumers as freezer beef or to packers directly or through auction and terminal markets. In an earlier study, freezer beef sales were estimated to absorb one-third of the State's fed beef production (Lesser [A], p. 1). That paper also contains suggestions for identifying potential customers, a factor which appears to be a principal limitation to the expansion of freezer beef sales. A survey of the smaller in-state federally inspected packers revealed a weekly kill of over 600 head of good and better grade cattle (Lesser [B]). This figure, however, substantially underestimates the potential market for Northeastern cattle. Four additional packers not

---

[2/] The mailing list of producers used in this survey was not complete meaning that the responses are not necessarily representative of all producers in the state. Thus care should be used in interpreting these figures as representative. Smaller operations are more likely to be omitted than larger ones.

FIGURE 1. SIZE DISTRIBUTION OF NEW YORK FED BEEF AND FEEDER CALF PRODUCERS IN 1978



SOURCE: PRODUCER SURVEY (SEE EXPLANATION IN FOOTNOTE 1).

included in the survey--one in New York, one each in New Jersey and one in western and southern Pennsylvania--had a combined annual kill of almost one-half million head, which is approximately ten times New York's total production of fed cattle. Thus regional packing capacity is not a limitation for sales of New York fed cattle.

The market for New York feeder calves is more difficult to assess since relatively little is known about what is produced, where it goes, and at what price. In fact, a large proportion of the calves may never leave the farm (Semlek [B], pp. 1-2). Based on a 1978 mail survey of New York beef producers, for those selling feeder calves (15% of the respondents), 39 percent used auction markets for at least some of their sales, 22 percent sold direct and the remainder used dealers, terminal markets, special sales, and other market outlets. Thus the market potential for feeder calves requires further investigation. A stronger local market for fat cattle should, however, also strengthen the feeder calf market.

MARKET FAILURES

A major impediment to expanded sales, therefore, appears to be the linkage and communication between producers and buyers (feeders or packers). There is nothing new in this observation. Writing in 1958, Professor Lacy noted, "Marketing continues to be one of the important problems for cattle feeders in areas where cattle numbers are small.[3/]

[3/] Feeder calf sales may have become more difficult over the years. In 1958 "...several regional sales selling more than 1200 head annually" existed (Lacy p. 44). These were much larger than current sales.

Marketing Costs

The marketing problems in areas with limited production can be described largely in terms of high unit costs. For the packer who puts a buyer in local auctions or terminal markets with low volumes of uniform fed animals, the buying cost per head is relatively high. Transport costs for packers also vary with truck size. In 1974 for example the national average hundredweight rate for a 50-mile, one-way trip was 23 cents for a semi-trailer truck and 26 cents for a straight truck, an 11 percent difference (Boles, p. 13). If a truck is not loaded to capacity, the unit cost is proportionately higher. The packer buyer may respond to higher buying and transportation costs by paying less for the cattle at the market or by not being represented at many markets at all. In a June 1978 survey of auction markets in New York, the number of buyers (including order buyers) of cattle of good and better grades ranged from 3 to 6 with most markets having 4 or 5 while there were 3 to 9 buyers for cull cows with most having 6 to 8. The smaller number of buyers may (but not necessarily) mean lower prices (Kuehn, pp. 9-10). Thus the limited number of fat cattle at local auctions may reduce producer prices by both increasing packer costs and limiting buyer competition.

Producer marketing costs are increased directly in low producing areas through a combination of higher commission fees and trucking charges. With lower density cattle feeding and smaller lot sizes, direct sales opportunities are severely limited. Only 13 percent of the fed beef producers responding to the 1978 survey sold any cattle direct to packers, and almost half of these were very small, e.g., six head or less per year. These probably represented sales to small local firms. Thus many cattle in this area move through the sales ring where commission rates in fall 1980

were about six to ten dollars per head. Due to the small size of the local markets, operating costs of these markets were up to twice those of larger auctions (Lesser and Greene). Trucking costs were also higher than in major beef producing areas.

Livestock Trucking

Transportation was identified by producers participating in the 1978 survey as the major marketing problem (after low prices) in the State. Livestock transportation is a critical link in the New York cattle and calf marketing system where the producer typically has the responsibility for delivering his/her animals to market. This is distinct from major producing areas where many cattle are bought at the farm and transport is arranged by the buyer. Additionally, since New York producers tend to be smaller and less specialized they often cannot justify owning their own truck or livestock trailer. Transport is therefore carried out to a large extent by livestock truckers around the state.

Livestock truckers operating on a fee basis should be differentiated from livestock dealers who buy on their own account. This latter group, which is licensed by the State, is involved primarily with dairy animals, particularly replacements (Marion, p. 12). A survey of dealers at several central New York auction markets during the summer of 1978 confirmed that livestock dealers concentrated on dairy replacement sales with sales of slaughter stock frequently handled as a service and partial payment for replacements by dairymen. Beef producers consequently use livestock truckers for custom hauling services and the attention here will be placed on that group.

Conversations with producers, market operators and truckers lead to a description of the system as follows. Markets maintain a list of recommended truckers. When a producer contacts the market seeking to make trucking arrangements, the request is conveyed to the regular trucker serving that area. The producer and trucker then schedule a shipping time when the animal or animals will be picked up and delivered to market. The trucking fee is deducted from the producer's check and the amount is paid to the trucker directly by the market. As an alternative, the producer may contact a local trucker directly or the trucker may call on farms within his regular service territory.

The trucker's functions can be described quite simply as assembling animals from several farms and hauling to a market. Sometimes additional business is available after a sale, such as hauling replacements for a buyer or slaughter animals to a packer. To carry out these functions the principal equipment was a truck which ranged in size from 3/4 to 2 1/2 ton straight chassis although some own fifth-wheel trailers. Little was learned about the operators themselves except that some drove full time while others limited their activities to a few days a week. Most trucking appeared to be done by individual owner/operators rather than by firms operating multiple trucks with hired drivers.

Livestock trucking may be analyzed from two perspectives--stability and equity. Stability refers to how variable the supply of trucking services has been over time while equity is the relationship between the cost incurred, including a return for the owner/operator, and the fee charged. The discussion of these issues is based on records from four auction markets from 1974-1979 and a survey of truckers hauling for seven auction markets in New York during the summer of 1979.

The stability of the trucking operations may be inferred from information on the number of years in business and age of the trucks. If many truckers were new to the business or if the equipment were generally old it may be concluded that the industry was unstable or that a decline was anticipated, discouraging new investment. The 1979 survey disclosed that length of time in the business for truckers serving five markets ranged from 0 to 40 years with an average of 15.5 years. Several old trucks dating back to 1949 were in use in 1979, but 26 percent were either 1978 or 1979 model years. Thus the industry in New York appears to be quite stable. This has also been found to be true throughout the country (Boles, pp. 2-3).

A complete analysis of the equity of hauling rates would require a detailing of the costs of providing services, including an appropriate return for the operator's labor and management inputs. Such a detailed examination goes beyond the purpose of this study.4/ Nevertheless, some insights into the rate structure can be gained by looking at changes across time and distance.

Across time, rates have been relatively stable. The modal rate for one cow for the four markets was seven dollars in 1975 and eight dollars in 1979. This 14-percent increase lagged behind the almost one-third increase in the fuel-cost index, and the 29-percent increase in transportation index. This index takes into account changes in equipment as well as fuel costs (US Bureau of Labor Statistics). Thus, 1979 rates in real terms, i.e., adjusted for inflation, were lower than in 1975, assuming there had not been systematic reductions in service or distance traveled.

4/For examples of studies of this kind see Lin and Kuehn, Anderson and Budt, and Boles.

For 1974 through 1979 this same situation is reflected in the relatively small partial correlations of .09 between the rate charged and the fuel cost index, and .08 between rates and cow prices. In this respect, New York livestock truckers were setting rates in a similar manner as in New Hampshire (Davulis et al., pp. 5-6).

Another aspect of the rate structure may be analyzed by examining the relationships between rates, distance to market, truck size and density of farms in the assembly area. Rates are expected to increase in an approximately linear fashion with transport distance for the relatively short hauls typical in New York (Anderson and Budt, pp. 15-16). Truckers operating larger trucks which have some size economy savings over smaller ones (Boles, pp. 12-14) are expected to charge lower rates, while counties with greater concentrations of livestock per acre should require shorter assembly miles per load and as a result lower costs and rates (Davulis et al., p. 11).

To determine the effects of these factors a multiple regression model was run using the data from the 1979 survey of truckers serving seven auction markets. (In some instances a trucker hauled to more than one of the markets.) Livestock density was measured as the average density per square mile of all cattle on farms as of January 1, 1976 for the county(ies) served by a trucker (NY Crop Rep. Serv.). Distance was calculated as the straight-line distance from the nearest town served to the market, measured in inches, while truck size was the reported rack size for the trucks included in the sample.[5/]

[5/] If the rack size was not included a standard rack size for the weight capacity of the truck is used. Local truck dealers and service centers provided the estimates of appropriate rack sizes.

The results for the calf hauling rate generally supported the above expectations (Table 2). Distance has a positive sign with a relatively large t-statistic. Converting the units to miles, the coefficient may be interpreted as a marginal charge of .06 cents per head mile. This is equivalent to 1.14 cents per mile for a truck with a 20 calf capacity (10 animal units) (Lin and Kuehn, pp. 3-4). One plus cents are substantially below the estimated June 1980 variable cost of 37.4 cents per mile for operating a bulk milk assembly truck, a roughly comparable activity in terms of routing (Lesser and Wasserman, p. 5) and below the estimated variable cost of operating a 1 1/2 ton livestock truck in 1973 of 12.7 cents per mile (Lin and Kuehn, p. 11). Thus New York livestock truckers appeared to be operating largely on a flat rate basis with only minor

Table 2: Regression Results of Calf Hauling Rates in 1979

RCALF	=	3.11	+ .0038 DIST	- .062 TRUKS	+	.046 DENST	
		(3.93)	(3.67)	(-1.30)		(.95)	

N = 97 S = .895 $\bar{R}^2$ = .14

RCALF - rate charged for hauling one calf to market, in $

DIST - distance, measured in INCHES x 100

TRUKS - truck rack size, in feet

DENST - cattle density of counties served, in head per acre

Note: t-statistics are in parentheses.

adjustments for mileage within a given radius from the market. This pricing pattern is again similar to that used in New Hampshire (Andrews, et al., pp. 13-14), but it does make trucking less profitable the further away from the market the driver hauls. This also discourages hauling to other more distant markets. The selection of a market may be more critical for beef breed and slaughter livestock producers for which buyers in many markets are limited.

Larger trucks, as expected, do charge somewhat lower rates, after differences in distances and densities are accounted for. The t-ratio is relatively small, although this may be due to the unidimensional measure of size used in the analysis. Estimates of truck capacity would have been preferable but were unavailable. Only density in the assembly area had an unexpected sign and a small t-statistic. The measure used, a simple average of cow numbers and acreage over one or more counties, is rather imprecise and may not indicate true density in the assembly area of any one hauler. Nevertheless, it suggested some imperfection in the current rate structure although overall there was no evidence of serious equity problems in the calf hauling rate structure for individual animals.

What did appear to be an inequity was the rate structure for multiple head pickups. Since a portion of a trucker's cost was involved with travelling to a farm and setting up the loading chute, the additional cost of loading another head would be small. Thus, the average rate for two or more head should be lower than the single head rate if the trucker were passing along some of the savings. The actual volume discount which can be expected is unknown because it depends on a number of factors, including the ratio of assembly to transport distances, the size of the truck and the capacity utilization of the trucker. To determine if unit rates for

multiple head loads were lower than single head rates the sign test was applied to the time-series data on hauling rates to four auction markets in New York. For this test 90 paired observations of the same trucker hauling single and multiple animal loads of the same class to the same market on a particular day were selected at random. When the unit cost for multiple head loads were subtracted from the single head price the difference was noted with a "+" if positive and a "-" if there was no difference. (There were three cases in which the unit multiple head rate exceeded the single head rate, and these were excluded from the sample.) This was a departure from the usual application of the sign test. In the sample of 87 pairs only 12 were pluses while 75 were minuses. With the critical value for the number of pluses equal to 31 for a two-tailed test at the one percent level, the hypothesis of significant differences in prices can be rejected. Thus area livestock truckers did generally charge the same rate for single or multiple head pick-ups. In the cases where multiple-head discounts have been available, they ranged up to 40 percent with most in the 20-33 percent range.

This fixed rate system represents pricing inefficiency as well as inequity for the producer. The inequity is particularly burdensome for the fed beef or feeder calf producer who is more likely to be shipping multiple head to market at one time. What appears to be happening is that the livestock trucking industry is serving the dairy industry for which livestock sales are a regular byproduct. Thus sales are frequent and volume small, requiring greater labor and travel inputs in the assembly process (Davulis et al., p. 5). For the dairyman, trucking costs are a small portion of their total revenue since they constitute a minor portion of the value of the livestock sold which in total amounted to only seven percent of total farm receipts for 610 New York dairy farms in 1979 (Smith, pp. 8).

For the beef producer, livestock sales amount to almost 100 percent of farm receipts and trucking costs are a much greater percent of total farm expenses. In addition, truckers sometimes charge more for steers than cows (Davulis, p. 6), possibly because steers are less accustomed to handling and are more difficult to load. Thus while the current for-hire livestock trucking industry in the state may be by-and-large charging equitable rates for dairy stock it does not appear to be so for beef producers and other shippers of multihead loads. Some adjustment in rate policies seems necessary.

Quality

A second form of market failure evidenced in the State was the low and uneven quality of some local fed beef and feeder calves. Some local packers who handle both in- and out-of-state cattle never tired of showing the corner of their cooler where the lean, lightweight and dark cutting carcasses are kept, many from New York animals. The situation is not a minor one. Of the fed slaughter animals observed during the June 1978 survey at 16 local auction markets, 581 or more than half were below 750 pounds. Because of the lower dressing yields of smaller-framed animals and the greater labor input per pound of carcass meat, these animals are typically discounted by larger packer buyers. Thus the relatively low price of New York fed cattle is further compounded.

These are several explanations for the light weights at which many animals are sold. First, since the herd reduction phase of the cattle cycle was not completed in 1978, some animals may have been sold prematurely to accelerate liquidation. Second, since many fed animals are

raised for the freezer trade for which there is a preference for smaller animals (Lesser [A], p. 6) many animals may have been intended for this trade but sales declined with falling prices and alternative markets had to be found. Third, inexperienced feeders may be selling some animals prematurely due to a failure to recognize a properly finished animal. And finally, many of the feeder cattle raised locally are smaller-framed and reach optimal finish at weights under 1,000 pounds.

The first two factors while they represent possible short-term losses to individuals will be largely overcome as a natural result of the upturn in the cattle cycle. The second two, however, represent longer-term dislocations in the industry which will require specific corrective actions where appropriate. The price mechanism may have failed to convey the proper incentives to producers to provide the kind of animal required by larger packers. Instead of seeing low price as a signal to reanalyze production practices, many operators have apparently interpreted it as a general regional problem distinct from their own activities.

MARKET ADJUSTMENTS

From the preceding discussion of the current status of feeder calf and fed beef marketing in New York, two approaches for improving the system emerge: (1) reducing the quality variability of cattle and calves, and (2) streamlining assembly system to reduce assembly and marketing costs for sellers and buyers.

Improving Quality

A principal cause of the inconsistency of quality of local cattle appears to be the failure of the price system to convey information to

producers on the relative value of different grades and weights of animals. This happens partially because some producers are unable to visually distinguish the characteristics for which buyers are offering premiums or discounts and partially because some sellers may not be as attuned to the information conveyed in prices as they could be. Once the premium system is understood producers can determine the profitability of improving the quality of their animals.

Improvement of quality where appropriate will require an extensive education program. Much of this education must come from working with individuals or small groups on herd management and the recognition of grades in live animals. Cooperative Extension, 4-H and similar organizations can provide this individualized service. Some education, however, can and is being done in conjunction with routine marketing activities. A cooperative Federal-State tagging program permits the feeder or calf producer to get information from the packer on the carcass grade of tagged cattle. Recent changes in feeder calf grades which categorize them into small, medium and large frame sizes will also relay more information to producers.

Reducing Marketing Costs

The range of marketing alternatives available for New York producers depends largely on the aggregate level of production. Thus a discussion of marketing adjustments must be divided into the short run and the long run. The short run is defined as the period when the number of head of fed beef and feeder calves remains at current levels, while the long run relates to a time when numbers are three or more times current levels.

Short Run - In the short-run, animal numbers are too small to make major changes in the marketing system and the use of existing local auction markets and livestock trading services is expected to continue. The reduction in buying costs then depends on assembling more animals in one place, permitting more choice and larger volumes for packer buyers. One means of accomplishing an assembly of more slaughter cattle is for producers to implement a cattle pool. The pool concept, which has operated successfully for hogs in the State for a number of years, involves designating one or several auction markets for fat cattle sales on one or two days each month. In this way, the number sold piecemeal through the many available markets would be consolidated in one place, increasing choice and volume and, potentially, increasing competition and reducing unit costs.

With fat cattle constituting a larger portion of market income, cattle feeders would have greater leverage in bargaining with the auction market operators. Perhaps smaller commission fees could be agreed upon, especially if there are sufficient numbers to sell uniform, multihead lots which are less costly on a per-head basis for market operators. Commingled sales of this type are also believed to raise the average price (Haas, pp. 28-29). Producers could also bargain more effectively with livestock truckers, using auction market management as an intermediary, if necessary, for the establishment of a multihead discount schedule.

Short-run improvements in the marketing system for feeder calves is more difficult to describe because little is known about how the estimated 97.5 percent which is not marketed at the Beef Cattlemen's annual feeder calf sales is sold. Very likely, many are used for home consumption as freezer beef or sold direct to small feeders (Semlek [B], pp. 2-3). Those

sold at regularly scheduled auctions are not identified separately from Holstein calves so the price structure is not known. For medium-size cow-calf operators, e.g., those with more than a few head but less than a truckload of uniform calves, the Cattlemen's Association sales are a good opportunity. Substantial improvements have been made in these sales in recent years, which should help to attract additional buyers. These changes have been in the grading system as well as additional inspections for proper healing following castration and dehorning. In 1980, several important additional agreements were made regarding the Association's feeder calf sale near Gouverneur. These included a previously agreed-upon pricing formula based on in- and out-of-state prices, plus a commitment by one feeder to buy a specified number of head according to grading decisions made by a third party (an employee of the State Department of Agriculture and Markets). (For details, see Cattle Purchase Agreement, June 1980.) If this sale functions smoothly it will be a relatively small step to move to a teleauction system. As buyers need not be present under this marketing system, buying costs can be reduced substantially, encouraging greater participation. In 1972 the savings over auction market sales were estimated to be about $10 per head (Johnson, p. 5).

Long-Run - In the long-run, the objective in marketing fed beef should be to bypass auction markets and make sales direct to packers primarily as a means of reducing costs. Some means of pooling will nevertheless be necessary if economically sized lots are to be assembled from numerous small producers. If grade and yield sales can be accepted by all parties, total costs would be reduced further since buyers would not be required to have a

representative present. Often the greatest resistence to grade-and-yield sales comes from the sellers who do not wish to risk rejects and who may feel uncertain about the tagging system used by packers to identify carcasses. The rejection risk is smaller for producers who know well the performance of their cattle, while a producers' association with the right to make unannounced inspections could help to assure producers of the integrity of the system.

With relatively few large volume packers in the region, producers may be justifiably wary of the balance of bargaining power between feeders and packers. This concern would be particularly acute if a longer-term, exclusive marketing agreement were entered into. Thus, as part of any such agreement, sellers may want to establish a pricing formula which would relate regional prices to the national market, e.g., Joliett, Omaha. Regional producers will wish to retain much of the transportation advantage compared to out-of-state cattle, but to maintain packer interest part of this margin must be shared.

SUMMARY AND CONCLUSION

The marketing problems of New York fed beef and feeder calf producers are described in terms of two market failures: high costs and variable quality. Regional buying and selling costs are higher than for major producing regions due to the smaller number of animals which requires large labor inputs per head and many purchased services such as auctions and truckers. Livestock trucking was identified as a particularly costly service for beef producers because of the general lack of multihead discounts. The results of these costs were a lower margin for producers, lower bid prices by which buyers compensate for higher buying costs, and/or declining

altogether to send representatives to many markets. The overall effect is to provide smaller production incentives to New York producers than would be the case with a more efficient assembly and marketing system. For fat cattle, it is a partial explanation of why New York producers are currently supplying very small proportions of the regional kill.

A partial solution to these problems in the short run with the current number of cattle and calves is to assemble larger numbers in one market as a means of attracting more buyers and reducing unit buying costs. For fat cattle, a monthly or bimonthly cattle pool might be attempted while for feeder calves, the annual sales by the New York Beef Cattlemen's Association provide a good alternative. Through pooling at one or a few markets, producers can gain greater leverage with auction market operators and may negotiate lower commission fees or, with their support, volume discounts for trucking.

In the longer run, defined as the time when the number of head of fed beef is significantly greater, producers should strive to expand direct sales to packers. With smaller feeders and dispersed production, some form of pooling is expected to be required. The use of grade-and-yield sales would reduce costs by eliminating the need for packer representatives at the assembly points. To assure equity, local producers should strive for a pricing formula which links New York with national cattle prices while sharing the transportation savings with regional packers. A larger fed beef industry should provide additional direct-marketing opportunities for feeder calf producers, although much of the increase in finished beef is likely to come from Holstein calves (Knoblauch, et al.). The present experiment by the Cattlemen's Association with a contract agreement for calf sales could lead to a telephone auction system. These systems reduce

buying costs and can increase the competition for and price of the calves if adequate numbers of uniform calves are available.

The poor quality of some New York cattle can be seen as dark cutters or lean sides in the meat cooler or in the sale ring where animals are found underfinished or too small-framed for the current packer market. This situation discourages repeat buying of local cattle or causes discounting all head purchased as a precaution. Producers who receive low prices, on the other hand, may have difficulty distinguishing an individual quality problem from a pervasive relative low price situation. As a result, some producers do not identify a price incentive to upgrade their genetic stock and/or to improve management and feed systems. Part of this information failure may be overcome by the new grading standards which separate calves into small, medium and large frame size categories in relation to expected weight at maturity. A federal-state tagging system is becoming available which will provide a producer with information on grade and yield at slaughter. Other aspects of the problem are amenable to direct educational programs for helping producers identify the quality of their animals and the general market premiums and discounts for variations in quality. However, only the producer can determine if quality improvement is economically justifiable for his or her operation.

REFERENCES

Anderson, D. G. and W. W. Budt. "A Rate/Cost Analysis of Nebraska Meat Trucking Activities with Livestock Trucking Cost Comparisons." University of Nebraska, Ag. Exp. Sta., Res. Bulletin 269, March 1975.

Andrews, R. A., G. Yunker, J. P. Davulis and G. F. Frick. "Marketing Agricultural Products in New Hampshire I: The Structure of the Livestock Marketing System." University of New Hampshire, Ag. Exp. Sta., Res. Report 39, August 1974.

Boles, P. P. "Operations of For-Hire Livestock Trucking Firms." USDA, ERS, Ag. Econ. Rpt. 342, July 1976.

Bureau of Labor Statistics. "Wholesale Prices and Price Indexes." In Statistical Abstract of the U.S., Bureau of Census, Washington, DC, various years.

Cattle Purchase Agreement Between Glen Poris and Northern Division of the New York State Cattlemen's Association." Cornell University, Department of Animal Science, June 1980.

Comerford, P. Livestock grading specialist, NY State Department of Ag. and Markets, personal communication.

Davulis, J. P., R. A. Anderson, C. Yunker and G. E. Frick. "Marketing Agricultural Products in New Hampshire II: Cost Analysis of Assembling Dairy Livestock for Commercial Slaughter." University of New Hampshire, Ag. Exp. Sta., Res. Report 44, November 1975.

Dixon, W. J. and F. J. Massey, Jr. Introduction to Statistical Analysis. New York: McGraw-Hill, Inc., Third Edition, 1969.

Federal-State Livestock Market News Service. NY State Dept. of Ag. and Markets, Div. of Farm Product Services, various dates.

Haas, John T. "Veal Calf Pooling." USDA, FCS, Marketing Research Report 615, August 1963.

Johnson, R. D. "An Economic Evaluation of Alternative Marketing Methods for Fed Cattle." University of Nebraska, Ag. Exp. Sta., SB520, June 1972.

Knoblauch, W. A., D. G. Fox, M. W. Lang and R. A. Milligan. "Supplementing Milk Income with Dairy Steers." Cornell University, Dept. of Ag. Econ., A.E.Res.80-4, February 1980.

Kuehn, J. P. "An Analysis of the West Virginia Livestock Auction Pricing Mechanism." West Virginia University, Ag. and Forestry Exp. Sta. R.M.77, September 1979.

Lacy, M. D. "Raising Beef Cattle in New York." Cornell University, Ag. Exp. Sta., Ext. Bulletin 1011, June 1958.

Lesser, W. [A]. "Marketing Freezer Beef in New York State." Cornell University, Dept. of Ag. Econ., A.E.Res.79-12, May 1979.

Lesser, W. [B]. "Direct Wholesale Marketing Opportunities for New York State Livestock Producers." Cornell University, Dept. of Ag. Econ., A.E.Ext.79-24, July 1979.

Lesser, W. H. and W. H. Greene. "Economies of Size and Operating Efficiency of Livestock Markets: A Frontier Function Approach." Jr. Northeastern Agr. Econ. Council, April 1980.

Lesser, W. and W. Wasserman. "Using the TI-59 Programmable Calculator to Estimate Operating Costs and Hauling Rates for Bulk Milk Assembly." Cornell University, Dept. of Ag. Econ., A.E.Res.80-12, June 1980.

Lin, C. and J. P. Kuehn. "Livestock Transportation Costs in West Virginia." West Virginia University, Ag. Exp. Sta., Bulletin 613, January 1973.

Marion, D. R. "Livestock Marketing in New York State, 1953. Part III: Livestock Dealer Operations." Cornell University, Dept. of Ag. Econ., A.E.1022, February 1956.

NY Crop Reporting Service. "Cattle, Number on Farms." Albany, NY, January 1, 1980.

Semlek, M. A. [A]. "Marketing Systems for New York Beef Cattle: Analysis - Situation and Need." Cornell University, Dept. of Animal Sci., mimeograph, 1978.

Semlek, M. A. [B]. "Marketing Systems for New York Beef Cattle: Analysis - Problems and Recommendations for Improvement." Cornell University, Dept. of Animal Sci., mimeograph, 1978.

Smith, S. "Dairy Farm Management Business Summary." Cornell University, Dept. of Ag. Econ., A.E.Res.80-16, September 1980.

Tomek, W. G. "Price Behavior on a Declining Terminal Market." Am. Jr. Agr. Econ. 62(1980):434-44.

US Dept. of Agriculture. "Agricultural Statistics." US Government Printing Office, Washington, DC, 1979.

Williamson, O. E. "The Vertical Integration of Production: Market Failure Considerations." Am. Econ. Rev. 61(1971):113-23.