

University of Nebraska - Lincoln

DigitalCommons@University of Nebraska - Lincoln

Historical Materials from University of
Nebraska-Lincoln Extension

Extension

1977

G77-367 Cost Components of the Farm-Retail Price Spread for Beef

Allen Wellman

University of Nebraska - Lincoln

Follow this and additional works at: <https://digitalcommons.unl.edu/extensionhist>



Part of the [Agriculture Commons](#), and the [Curriculum and Instruction Commons](#)

Wellman, Allen, "G77-367 Cost Components of the Farm-Retail Price Spread for Beef" (1977). *Historical Materials from University of Nebraska-Lincoln Extension*. 1701.

<https://digitalcommons.unl.edu/extensionhist/1701>

This Article is brought to you for free and open access by the Extension at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Historical Materials from University of Nebraska-Lincoln Extension by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.



G77-367

Cost Components of the Farm-Retail Price Spread for Beef

Al Wellman, Extension Economist (Marketing)

The farm-retail spread for beef is the difference between the retail price of 1 pound (0.45 kg) of Choice beef and the farm value of 2.28 pounds (1.03 kg) of live Choice steer, less the value of the by-products (hide, tallow, etc.).

The spread between the retail price and the farm value measures variations over time in charges made by firms moving products from the farmer to the consumer. Changes in price spreads during short periods of time are largely caused by price changes at the farm and retail levels. Longer term changes mainly result from changes in costs of labor and other inputs used by marketing agencies. Long-term trends in spreads tend to parallel rather closely price movements in the total economy, since price spreads reflect the costs of goods and services provided by nonfarm industries.

Trends in Price Spreads

The farm to retail price spread for beef has continued to widen nearly every year (see NebGuide G77-339, Price Spreads for Beef and Pork). Increases have been largest in the 1970's. For the most part, larger price spreads realized by food firms have mainly gone to pay for higher costs rather than to add materially to profits. In the past few years the cost of nearly every input used by the food industry has increased substantially. This has been especially true for energy-related goods and services, such as packaging materials, transportation services, and utility rates. However, since about half the costs of food marketing

firms are for direct labor, much of the increase in price spreads has reflected higher labor costs.

Costs and Profits Components of Price Spreads: Estimating Procedures and Problems

Costs and profits making up the price spread are estimated here for beef. For each item, estimates were made for 1976 of how the price spread was divided among marketing functions, such as retailing and processing; and among cost items, such as labor and packaging.

Breaking down price spreads into component costs and profits is only one step toward appraising them. The main value of the data is largely to indicate the broad functions performed, and the approximate cost of each. These data help identify the cost functions where increased efficiency might have the largest impact on reducing marketing costs and retail prices. However, the feasibility or equity of reducing costs or profits cannot be determined from these data. The cost of processing beef, for example, would have to be appraised in terms of the job to be done, costs of inputs, trends in productivity, and the degree to which firms have adopted the most efficient ways of performing the function.

Beef

Farmers receive around three-fifths of each dollar the consumer spends for beef. The farmer's share reflects the return to resources used to produce beef, relative to the marketing functions

performed after these commodities leave the farm.

Cost and profit components of the spread between what the farmer receives and the consumer pays for beef are presented in *Table 1*. Although the beef industry has been moving rapidly to the breaking of carcasses earlier in the beef marketing channel, the cost component estimating procedures used here reflect movement of whole carcasses from packer to retail store, rather than a proportional mix of carcass and other forms.

The farm-retail spread for beef amounted to 61.0 cents per pound in 1976, 7.9 cents larger than in 1975. The largest percentage increase in costs occurred in the retailing function, which averaged 39.9 cents in 1976, compared with 32.2 cents in 1975. Much of the increase resulted from higher labor, packaging and energy costs. Retailing costs include costs for ordering and receiving beef at the retail store, cutting and wrapping, pricing, stocking the meat counter, as well as a proportionate share of store overhead costs, such as advertising and wages and salaries of checkers and managers. For many retail stores, some breaking and cutting of beef is done at the

warehouse and could be considered part of the wholesaling function. In other cases, the retailer buys beef already broken into primals and sub-primal cuts.

Farm Values

Farm values for beef in 1976 were computed from the average price received by farmers for Choice steers. Farmer transportation and marketing costs were deducted from the market price to obtain an estimated price at the farm gate. This average price was multiplied by 2.28 pounds (1.03 kg), the quantity of live animal required to sell 1 pound (0.45 kg) of Choice beef at retail, to obtain a gross farm value. A byproduct value for the hide and offal was subtracted from the gross farm value to obtain a net farm value of the live animal from which the meat was derived. In 1976, the net farm value for beef was 77.9 cents.

Slaughtering and Processing

Slaughtering costs for beef amounted to 12.8 cents in 1976. To obtain the slaughtering margin,

Table 1. Beef (Choice): Components of price spreads per pound at retail, 1976.

| Costs and Profit | Marketing Functions | | | | | |
|------------------------|---------------------|-------------------------------|-------------------|-------------------|----------------|-----------------|
| | Farm Value | Assembly of Live Animal | Slaugh- tering | Whole- saling | Retail- ing | Retail Price |
| Labor | ----- | ----- | 2.7 | ----- | 21.5 | ----- |
| Packaging | ----- | ----- | 0.3 | ----- | 5.0 | ----- |
| Transportation | ----- | 1.0 | 0.9 | 2.1 ^{1/} | ----- | ----- |
| Business taxes | ----- | ----- | 0.1 | ----- | 1.2 | ----- |
| Depreciation | ----- | ----- | 0.4 | ----- | 0.4 | ----- |
| Rent | ----- | ----- | 0.2 | ----- | 0.6 | ----- |
| Repairs | ----- | ----- | 0.2 | ----- | 0.3 | ----- |
| Advertising | ----- | ----- | 0.1 | ----- | 1.6 | ----- |
| Interest | ----- | ----- | 0.4 | ----- | 0.5 | ----- |
| Energy | ----- | ----- | 0.3 ^{2/} | ----- | 1.2 | ----- |
| Other | ----- | ----- | 2.5 ^{3/} | ----- | 4.5 | ----- |
| Profit | ----- | ----- | 0.8 ^{4/} | ----- | 3.1 | ----- |
| Unallocated | ----- | 0.8 | ----- | 8.3 | ----- | ----- |
| Total | 77.9 | 1.8 | 8.9 | 10.4 | 39.9 | 138.9 |

Note: Dashes mean not estimated.

^{1/} Intercity only. ^{2/} Includes water. ^{3/} Includes 0.8 cent for administrative expenses such as wages and salaries, insurance, payroll taxes, office supplies, data processing, and travel; 0.1 cent for inspection and grading; 0.5 cent for shipping and selling; 0.3 cent for procurement and miscellaneous items. ^{4/} Before income taxes.

Source: *Cost Components of Farm-Retail Price Spreads for Selected Foods*, NEAD, ERS, USDA, Agricultural Economics Rpt. No. 343, July 1976.

Developments in Marketing Spreads for Agricultural Production, 1976, NEAD, ERS, USDA, Ag. Econ. Rpt. No. 367, March, 1977.

farmer marketing costs and costs of transporting meat were subtracted from the 12.8 cent total. The deduction for marketing costs of 1.8 cents per retail pound in 1976 appears in *Table 1* as assembly of live animal. This assembly cost includes both the transportation of live animals from farm to market paid by the farmer (estimated at 1.0 cent) and also all other marketing costs incurred, such as yardage and selling fees. Transportation of the meat from the packing plant to the city where the items were consumed were estimated at 2.1 cents, which is listed under wholesaling transportation. Subtracting these two costs from the 12.8 cent total leaves a slaughtering margin of 8.9 cents. It includes the cost from the time the packer-slaughterer purchases the cattle until the carcasses are ready to be shipped from the packing plant as sides or quarters.

There has been a fairly rapid trend in recent years to cutting the beef carcass into primal cuts, subprimal cuts and, occasionally, to retail cuts before delivery to the local store but, as stated, data presented here essentially represent the movement of beef from packers to retailers in carcass form. However, some cutting occurs before the beef leaves the packing plant, and some is being done at the chain warehouse.

Cost Components: Cost of slaughtering (processing) beef were obtained from a survey of meatpacking plants by Food Management Inc. made for USDA in 1974, with estimates updated to 1976. The survey provided detailed information on man hours of labor used and accounting costs for about 30 beef slaughter plants throughout the country. Plants surveyed, all sizes except the very smallest, slaughtered 16 percent of the cattle in 1974. Plant data were obtained for both variable costs of the slaughtering operation and fixed costs of the plant, direct man hours of labor used, and labor fringe benefits. Other data obtained included livestock procurement, shipping, delivery, and related costs.

Carcass and Wholesale Values

A carcass value for beef was estimated from average wholesale prices. The carcass value was obtained by multiplying the average carcass price by 1.41 pounds (0.64 kg), the weight of Choice carcass beef equivalent to 1 pound (0.45 kg) of retail cuts. In 1976, the carcass value amounted to 88.6 cents.

Wholesaling

The cost of wholesaling includes buying meat from the packer, transportation from the packer to the city where the meat will be sold, warehousing, and local transportation to the retail store. Estimates of wholesaling and retailing costs assume that beef is sold by the packer in carcass form.

Data on wholesaling expenses indicate that meat wholesaling costs were about 7.6 percent of sales at wholesale. A retail trade publication, recently indicated that the margin for the meat department of retail stores was about 21.5 percent. Thus, the purchase cost of the meat entering the store was about 78.5 percent of the retail price, or \$1.09 for beef in 1976. Applying the 7.6 percent to these wholesale prices results in a wholesaling cost of 8.3 cents for beef. Data were not available to divide these wholesaling costs into individual cost components. Thus, the total of these costs is shown in *Table 1* under the "unallocated" category.

Retail Prices

The retail price of Choice beef in 1976 was an estimated weighted average price of all salable cuts obtained from a Choice carcass. It was estimated from U.S. average prices reported by the Bureau of Labor Statistics and meat prices reported each week to USDA by 40 retail food chain divisions.

In 1976, the average retail price was nearly \$1.39 per pound of beef.

Summary

The farmer's share of the food dollar basically reflects the amount of resources used in producing the raw products in relation to the marketing functions that are performed after commodities leave the farm. The farmer's share is generally greater for beef than for crop-based foods.

The Cooperative Extension Service provides information
and educational programs to all people without regard
to race, color or national origin.

Extension work in "Agriculture, Home Economics and Subjects relating thereto,"
The Cooperative Extension Service, Institute of Agriculture and Natural
Resources, University of Nebraska-Lincoln, Cooperating with the
Counties and the U.S. Department of Agriculture
Leo E. Lucas, Director

File Under: FARM MANAGEMENT
K-7, Marketing
Issued August 1977