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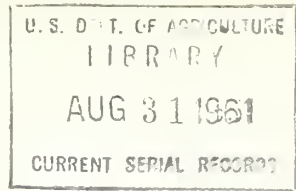
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MEATPACKER COSTS FOR SLAUGHTERING, CUTTING, AND MARKETING FRESH PORK ^{1/}

The Economic Research Service is in the midst of a study of packers' efficiency and expenses in fresh (uncured) pork operations. This study is part of the program conducted by the ERS to suggest ways to improve marketing service and reduce costs. This article is a preliminary report of a first phase of the analysis. In this study a large group of independent meat packers with plants located mostly in the Northeast, North Central and South, voluntarily maintained detailed accounting records and submitted monthly reports on their fresh pork operations. Items reported included costs in detail, man-hours, wage rates and fringe benefits, volume (both weights and numbers), value and yields. Most of the 22 firms that reported for the full year were located in Mid-Atlantic and East North Central States. Some large-volume plants were included, but none of the large national packers were among the reporting group. Volume of pork cut per plant ranged from 2 million pounds to 142 million pounds annually.

This preliminary analysis was limited to fresh pork operations. Earnings from

byproducts such as lard, tankage, and fertilizer depend on market factors not closely related to pork costs and operations. The processing operations, such as curing and smoking bacon and ham, sausage-making, etc., vary a great deal among meat packers. Packers' costs are, of course, higher for the products requiring additional processing and packaging. Variations among firms and among brands in curing methods, ingredients, equipment and labor used, and packaging or other services added, affect packer costs for these cured and smoked or processed pork products.

Although a packer incurs larger total cost in preparing and marketing ham and bacon as compared with fresh loins, slaughtering and dressing operations are the same for each of these products. And packer costs for slaughtering and dressing of hogs into fresh pork cuts stand out sharply. Some firms buy fresh pork cuts in the wholesale market and cure, smoke, and process more than they slaughter; some sell fresh pork cuts to other packers. The hog kill and pork cut operations are the most comparable operations among different packers.

Packer Costs

Total cost of the 22 packers for fresh pork operations, \$25.96 per 100 pounds cut (or 26 cents per pound) ^{2/} on the average, consisted of about \$22.72 for materials, \$1.93 for labor and equipment expenses in slaughtering and cutting, and \$1.30 for "marketing" expenses ^{3/} (table 11). Materials cost consisted of live hogs purchased for

slaughter and carcasses purchased for cutting. Most firms also reported small purchases of fresh pork cuts in most months of the year, mainly to supply the full range of weights desired by customers on hams, picnics or loins rather than for merchandising. Three firms purchased only carcasses and did no slaughtering.

^{1/} Prepared by Donald B. Agnew, Agricultural Economist, Marketing Economics Division, Economics Research Service.

^{2/} Pounds cut represent closely the output of the fresh pork department that is marketed as food. This output includes cuts sold fresh or uncured (loins and spare-ribs mostly, and some fresh hams), cuts for curing and smoking (hams, picnics, Boston butts, bacon sides) sold green or transferred within the plant, and trimmings for sausage or other processed products. There are some losses in weight between carcass weight and total pork output for food uses, for example, fat cuts and fat trimmings used for lard and some inedible lean trim, but these are partly offset by noncarcass items sold for food or used in food processing, for example, livers and other edible offal.

^{3/} "Marketing" expenses include packaging supplies, order filling, shipping room expenses, selling and delivery costs.

Table 11.--Packers' costs of slaughtering, cutting and "marketing" fresh (uncured) pork, 22 packers, September 1959-August 1960

Item	Average cost per 100 pounds of fresh pork						Average volume 1,000 pounds
	Materials	Slaughtering and cutting			Marketing <u>1/</u>	Total	
		Fixed	Labor	Total			
22 firms, including 3 doing no slaughtering	22.72	0.83	1.10	1.93	1.30	25.96	34,400
19 firms slaughter- ing and dressing pork	22.10	.91	1.20	2.11	1.28	25.49	34,460

1/ Marketing costs include expenses of packaging, order filling, shipping room, selling and delivery.

Table 12.--Variation in costs for slaughtering, cutting and marketing per 100 pounds of fresh (uncured) pork, 22 packers, September 1959-August 1960

Item <u>1/</u>	Material cost	Slaughtering and cutting cost			Marketing cost	Total cost	Volume
		Fixed	Labor	Total			
		Dollars	Dollars	Dollars			
High	23.91	1.06	1.30	2.47	1.43	26.77	49,000
Average	22.72	.83	1.10	1.93	1.30	25.96	34,400
Low	21.05	.76	.77	1.59	.84	24.12	11,300

1/ High values are those of firms having the fifth highest cost; the low is for the firms having the fifth lowest. Twelve firms had costs between these two values. Average is for all 22 firms.

Of slaughtering and cutting expenses, labor constituted \$1.10 and fixed costs 83 cents per 100 pounds for all 22 firms. Labor cost was related to both labor efficiency measured by output per man-hour and to average wage rates. Firms showing lower than average labor cost also showed higher than average output per man-hour in both killing and cutting. Higher labor cost per pound was associated with low output per man-hour, even for firms with low average wage rates.

Fixed costs included plant and equipment expenses for the killing room and cutting room and an allocated portion of office and administrative expenses. Individual firms, as expected, showed lower fixed costs per unit during months with larger volume; and fixed costs per unit tended to be somewhat lower for those plants with larger volume, although there were exceptions.

Marketing expenses, \$1.30 per 100 pounds, tended to range higher for firms with larger volume, illustrating the cost of increasing competition for sales with growth in size of firm.

Packers' Returns

Were returns to packers in their fresh pork operations adequate to cover their costs? For these firms and this marketing year, just barely (table 13). On the average, the entire group of 22 firms showed 34 cents per 100 pounds of fresh pork-cut as a contribution from the hog killing and pork cutting departments to the firms earnings before interest charges and Federal and State taxes (partial net margin). Within this group of firms there seemed to be little consistent relation of volume to a firm's partial net margin, although most of the firms with net losses were among the one-half with larger pork volume (table 14). Of the 15 firms with "plus" partial net margins only 5 exceeded \$1.00 per 100 pounds or 1 cent per pound; of the 7 with "minus" nets, 5 were 22 cents or more per 100 pounds or 0.2 cent per pound.

The live-wholesale price spread for pork, or the so-called "packer spread", averaged \$5.44 per 100 pounds of live hogs for October 1959-September 1960, using Chicago prices--equivalent to about \$7.66 on a carcass weight basis. The corresponding margin for the hog killing and cutting operation studied here amount-

Variation in Costs

How variable were expenses among packers? For the first year studied, some individual cost items varied more among firms than did total cost (table 12.) This suggests that there are instances of high fixed cost combined with low labor cost, for example, or high operating expenses in combination with low material cost. Furthermore, some firms may be able to operate successfully at higher cost levels by furnishing a specialized and higher-priced product line, as a result of extra trim or other service.

For the three firms that bought only carcasses and did no slaughtering, their material cost as expected was higher than average, but their production expenses--fixed cost and labor cost--were below average for firms both slaughtering hogs and dressing carcasses. They avoided the fixed cost and labor cost involved in slaughtering and problems of byproduct processing or disposal--but these costs were being incurred by the firms supplying them with carcasses.

ed to \$3.57 per 100 pounds cut for all 22 firms (or \$3.82 per 100 pounds for the 19 firms slaughtering and cutting) and thus constituted about half of the live-wholesale margin or packer spread for hogs during the same period.

The packer spread covers the entire range of operations and costs from buying live hogs to selling pork products to retailers--procurement, killing and cutting, smoking and curing, rendering lard, and advertising and selling expenses.

These preliminary findings suggest several areas for more detailed study. Collection of monthly data on meat packers' fresh pork operations is continuing, with additional details on composition of labor costs, direct wages and fringe benefits, labor efficiency, and product yields. Future work will include additional packinghouse operations and a larger group of firms. Also, additional data will show whether the 3-1/2 to 4 cents per pound for September 1959 through August 1960 is a typical spread between material cost and income from sales and intra-firm transfers, and whether it covers packers' production and marketing expenses for fresh pork.

Table 13.--Buying-selling margin and operating results for slaughtering, cutting, and marketing per 100 pounds of fresh (uncured) pork, 22 packers, September 1959-August 1960

Item	Cost of materials	Value of sales and intrafirm transfers	Margin on materials	Slaughtering, cutting and marketing expenses	Partial net margin	Average volume
	Dollars	Dollars	Dollars	Dollars	Dollars	1,000 pounds
22 firms, including 3 doing no slaughtering	22.72	26.28	3.57	3.23	0.34	34,400
19 firms slaughtering and dressing hogs	22.10	25.92	3.82	3.39	.43	34,460

Table 14.--Variation in buying-selling margin and operating results for slaughtering, cutting and marketing per 100 pounds of fresh (uncured) pork, 22 packers, September 1959-August 1960

Item ^{1/}	Cost of materials	Value of sales and intrafirm transfers	Margin on materials	Slaughtering, cutting and marketing expenses	Partial net margin	Average volume
	Dollars	Dollars	Dollars	Dollars	Dollars	1,000 pounds
High	27.91	23.91	4.36	3.90	1.08	49,000
Average	26.28	22.72	3.57	3.23	.34	34,400
Low	24.57	21.05	3.12	2.43	-.22	11,300

^{1/} The high value is that of firms having the fifth highest value of sales, cost of materials, volume, etc.; the low is for the firms having the fifth lowest. Twelve firms had value of sales, costs of materials, etc. between the high and low values. The average is for all 22 firms.

MARKETING ECONOMICS DIVISION
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