Why did employment expand in poultry processing plants?

Dietary health studies stimulated a shift in meat consumption from beef and pork to poultry, resulting in strong job growth in the poultry processing industry

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During times when most manufacturing industries have experienced restructuring, technical innovations, and job loss, poultry slaughtering and processing plants experienced vigorous growth in employment.[1] This surge reflected consumer's unprecedented shift from red meat to what was believed to be the healthiest of the meat products—poultry.

This article explores the reasons behind employment growth in poultry slaughtering and processing plants and offers some explanation for its vitality. Further, it demonstrates how this somewhat minor segment has kept employment levels relatively stable in the entire food products industry.

Background

Poultry slaughtering and processing plants make up one of three subcomponents of the meat products industry. The other two are meatpacking plants, which engage in the slaughtering of cattle, hogs, sheep, lambs, and calves for immediate use; and sausages and other prepared meats, which include establishments that purchase carcasses mainly to process into various prepared meat products. For the purpose of comparison in this article, these two industries are combined and referred to as red meat.

Comparative payroll employment data between red meat and poultry began in 1972. Poultry employment increased by 2 percent from 1972 to 1979, and subsequently jumped to a 4-percent annual growth rate from 1980 to 1992 for a total 96-percent increase over the period. This contrasts with employment in red meat, which had no growth during the entire period, because mechanization increased productivity at a time of very little growth in output. These trends in red meat employment closely mimicked what was occurring in the overall food industry, which lost jobs at an annual rate of 0.4 percent throughout the eighties because of widespread mechanization and technological improvements. In this context, the strong gains in the poultry industry during the 1980–92 period are worthy of note.

Health concerns + new products = jobs

A preference for poultry. Driven by suggestions in the 1970's that red meat may be linked to certain heart-related disorders and colon cancer, consumers fundamentally changed their eating habits.[2] The resulting substitution of poultry for red meat, combined with a population eating more meat products per person than ever before, produced a per capita poultry consumption increase of 48 percent from 1980 to 1992.[3] (See chart 1.) When increases in per capita poultry consumption combine with population growth, the 66-percent gain in total pounds of poultry consumed is even more impressive. Both per person and total consumption changes are illustrated in the following tabulation:

	Consumption in pounds		
	All meat	*Poultry*	*Other meat*
Total (in thousands)			
1980	38,031	9,240	28,791
1992	44,491	15,338	29,153
Change	6,460	6,098	362
Per person			
1980	167.0	40.6	126.4
1992	174.1	60.0	114.1
Change	7.1	19.4	–12.3

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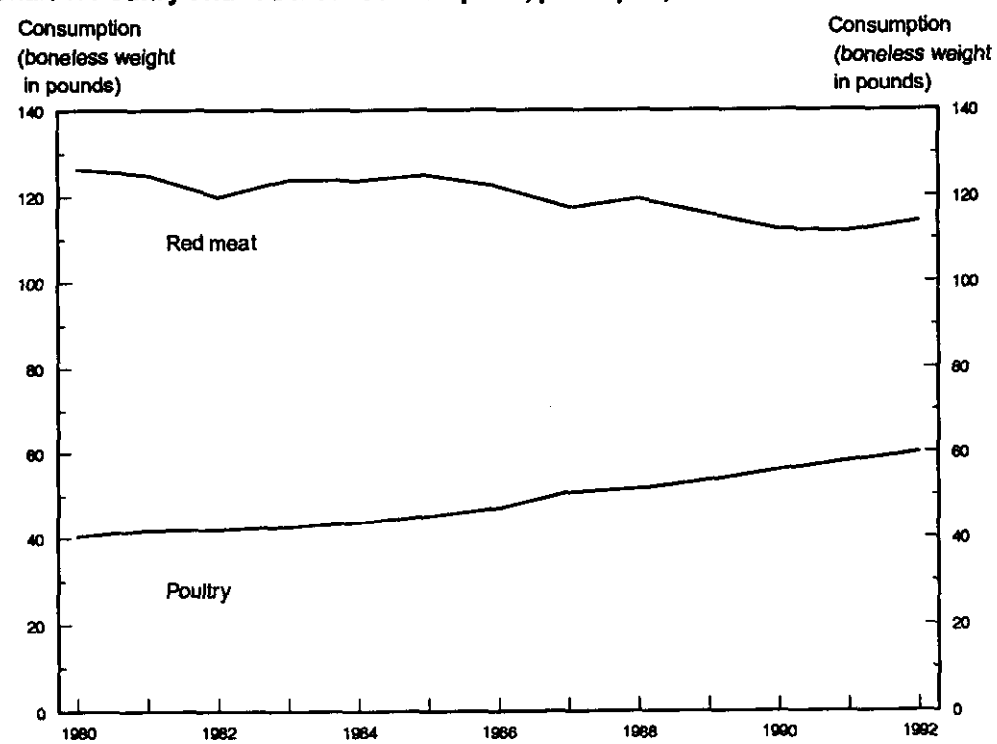
New chicken markets. The dramatic rise in poultry demand led to new products on the market and was reflected in both production and employment in the industry. Production increased 89 percent from 1980 to 1992 and maintained annual growth rates of around 7 percent throughout the period, compared to that for red meat (0.6 percent).[4] This substantial rise in production caused poultry employment to expand markedly, as companies responded to the surge in demand by developing a broad and innovative array of new products. These ranged from unprocessed chicken and turkey parts for expanding menu ideas in homes and restaurants, to the more labor-intensive, processed items such as chicken frankfurters, breakfast/lunch meats, and precooked variations like barbecued or roasted chickens. Boosted by this innovation, increases in poultry consumption led to a 64-percent gain in poultry employment from 1980 to 1992, to a level of 210,000. (See table 1 and chart 2.)

Production and productivity. The increasing demand for poultry was so strong that production, employment, and productivity all surged ahead. Workers in poultry establishments are heavily concentrated in production work, with 9 of 10 workers involved in that process, compared with 8 of 10 in the red meats segment and 7 of 10 in manufacturing. However, on average, each worker in the red meat industries produces 15 percent more pounds per year than each poultry worker. Therefore, the substitution of poultry for red meat, in itself, resulted in some job creation because more labor was required to produce each pound of poultry.[5]

Despite employment gains in the poultry products industry sector, productivity increased at an annual average rate of 3.1 percent between 1980 and 1990, while the red meat industry, which lost 4 percent of its employment, averaged a mere 0.5-percent annual increase in productivity.[6] The gains in output per hour worked in the poultry processing industry were achieved without extensive investments in technical innovations. In fact, the poultry industry's capital expenditures on new and used equipment per employee averaged 45 percent below the per employee average for all manufacturing workers throughout the 1980's, as compared with around 30 percent below for workers in the red meat industry.[7]

Incentives to invest in technical innovations are lessened by the comparatively low average hourly earnings in poultry. In 1980, production

Chart 1. Poultry and red meat consumption, per capita, 1980–92



SOURCE: U.S. Department of Agriculture.

Table 1. **Distribution of employment in the meat products industry, 1980, 1985 and 1992**

[Levels in thousands]

SIC	Industry	1980		1985		1992		Employment change, 1980–92 (percent)
		Level	Percent	Level	Percent	Level	Percent	
201	Meat products	358.4	100	361.7	100	433.6	100	21.0
2011	Meat packing plants	160.6	44.8	140.3	38.8	135.4	31.2	–15.3
2013	Sausages and other prepared meats	70.1	19.6	74.5	20.6	88.9	20.5	26.8
2015	Poultry slaughtering and processing	127.7	35.6	146.9	40.6	209.3	48.3	63.9

Table 2. **Distribution of employment in the food products industry, 1980, 1985, and 1992**

[Levels in thousands]

SIC	Industry	1980		1985		1992		Employment change, 1980–92 (percent)
		Level	Percent	Level	Percent	Level	Percent	
20	Food and kindred products	1,704	100	1,599	100	1,654	100	–2.9
201	Meat products	358	21.0	362	22.6	434	26.2	21.2
202	Dairy products	175	10.3	162	10.1	152	9.2	–13.1
203	Preserved fruits and vegetables	246	14.4	225	14.1	246	14.9	0.0
204	Grain mill products	144	8.5	125	7.8	124	7.5	–13.9
205	Bakery products	230	13.5	216	13.5	207	12.5	–10.0
206	Sugar and confectionery products	108	6.3	99	6.2	104	6.3	–3.7
207	Fats and oils	44	2.6	35	2.2	32	1.9	–27.3
208	Beverages	234	13.7	214	13.4	175	10.6	–25.2
209	Miscellaneous food and kindred products	165	9.7	161	10.1	180	10.9	9.1

workers in poultry processing made an average of 55 percent less per hour than the average red meat worker. The gap was reduced to 20 percent by the end of 1992 as poultry workers' average earnings grew at about the same rate as both all manufacturing industries and total private industry, while earnings for red meat workers grew very slowly as the following tabulation shows. Still, poultry workers' hourly earnings remain the lowest in the entire food industry and one of the lowest in manufacturing.

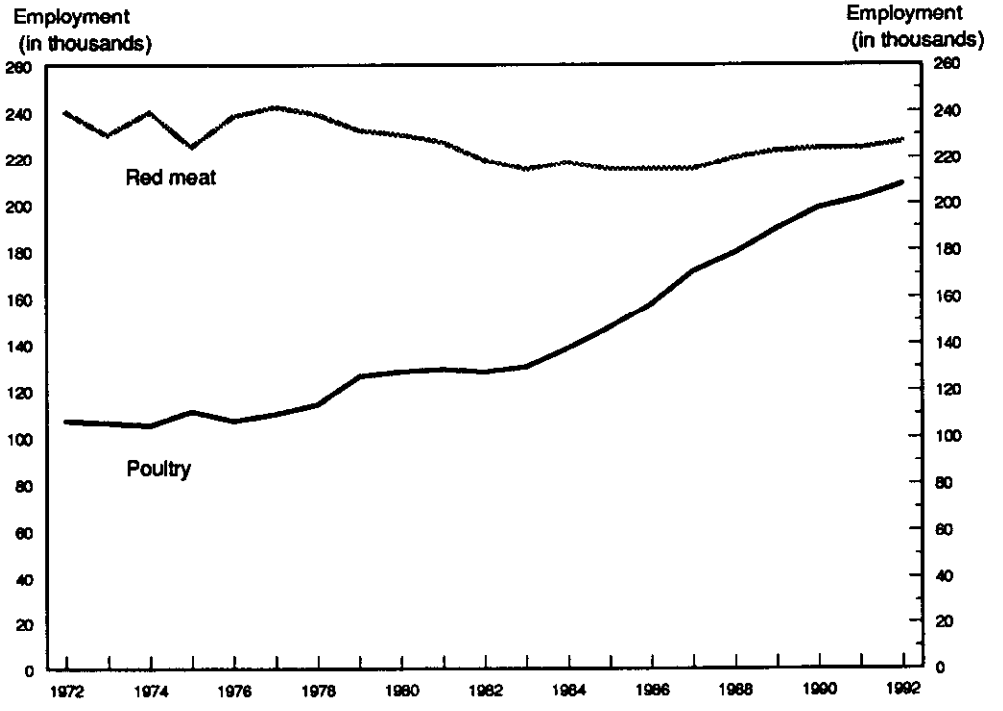
	Earnings		*Change, 1980–92 (percent)*
	1980	*1992*	
Total	$6.66	$10.58	59
Manufacturing	7.27	11.46	58
Red meat	8.28	9.39	13
Poultry	4.53	7.26	60

Impact on the meat products industry. Growth of the poultry industry has resulted in strong employment shifts within the entire meat products industry. Since 1980, the proportion of meat products employees that work in poultry has grown from just one-third to nearly one-half. The robust growth in the number of poultry processing workers has brought the meat products industry healthy employment gains, economic expansion, and stability during the past three recessions (1980, 1981–82, and 1990–91). From 1980 to 1992, the total meat products industry added 75,000 jobs, up 21 percent; all of the gains were in poultry, compared with red meat. Even during the most recent recession, meat products added 4,000 workers, with half of the gains in poultry. The substantial employment increases since 1980 were unequaled throughout the rest of the food industry components, which instead experienced almost universal declines. (See table 2.)

Continued growth or slowdown?

In an industry such as poultry processing, growth is heavily influenced by changing tastes and preferences. A strong increase in consumption can result in substantial job growth in spite of gains in productivity. Foods are also subject to transient consumer eating habits often driven by health concerns, which can change demand markedly. Products such as oat bran, granola, and sugar substitutes are just a few beneficiaries of this phenomenon. Given the changing nature of consumer preferences, employment in the poul-

Chart 2. **Employment in the poultry and red meat products industry, 1972–92**



try industry could take a number of courses in the future. The first course is the optimistic possibility that poultry will continue to find new markets and expand its labor-intensive, value-added products. Employment, therefore, could continue to grow at a healthy rate. More likely, however, is a second course, characterized by slowing demand as markets mature and continued investments in machinery and technology diminish labor dependency. Under these circumstances, poultry employment could realize much slower growth, closer to the 1.1-percent average annual growth projected for all meat products through the year 2005.[8]

Footnotes

[1] Before 1987, SIC 2015, poultry slaughtering and processing plants, was previously split into two other SIC's: poultry dressing plants, SIC 2016, and poultry and egg processing, SIC 2017.

[2] The connection between cholesterol and fat and heart disease was never fully cohesive or convincing until the early 1980's. Consistent warnings against the consumption of red meats came as early as 1977, from both the ongoing Framingham study and Sen. George McGovern's Select Committee on Nutrition and Human Needs. For more information, see Thomas Dawber, *The Framingham Study* (Cambridge, MA, Harvard University Press, 1980) pp.124–41 and Matt Clark and Dan Shapiro, "Diet Crazes." *Newsweek*, Dec. 19, 1977, pp. 68–69. For colon cancer findings, see S. Palmer and K. Bakshi, "Diet, nutrition and cancer: interim dietary guidelines," *Journal of the National Cancer Institute*, June 1983, pp. 1151–70.

[3] *Food Consumption, Prices, and Expenditures Survey* (U.S. Department of Agriculture, Economic Research Service), various annual releases.

[4] *Industrial Production and Capacity Utilization*, G.17(419) (Washington, Board of Governors of the Federal Reserve System), various releases.

[5] *Livestock and Poultry, Situation and Outlook Report* (U.S. Department of Agriculture, Economic Research Service, August 1993), LPS–61.

[6] *Productivity Measures for Selected Industries and Government Services*, Bulletin 2421 (Bureau of Labor Statistics, Office of Productivity and Technology, 1993), pp. 14–15.

[7] *1991 Annual Survey of Manufactures*, M91(AS)–1 (Bureau of the Census), various annual releases.

[8] James C. Franklin, "Industry output and employment," *Monthly Labor Review*, November 1993, p. 53.