

## Trends in U.S. Pork Industry Employment

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#### Summary and Implications

The comparison of the 1990, 1995, and 1999 National Pork Producers Council/*National Hog Farmer* (NPPC/NHF) surveys reveal a number of positive trends in employee relations and management in the U.S. pork industry. However, it also points to areas of continued weaknesses. Educational attainment has increased for both employers and producers, which suggests the industry is creating higher paying jobs for skilled workers. This suspicion is confirmed by strong wage growth that has exceeded that of the average civilian worker. Although the average annual wage of respondents in 1990 was about 20% less than for the average civilian worker, the average annual wage of respondents in 1999 was only about 6% less than for the average civilian worker. However, the trend in employee benefits is not as clearly positive. Although more employers appear to be offering paid time off, sick leave, pensions, and incentive pay, fewer are offering medical, dental, and life insurance coverage. Medical coverage is an important benefit, which makes it troubling to see declines in employer provision. It also makes it understandable why employers and producers are both concerned about benefits. Employees enjoyed a better work environment and more time off on the weekend in 1999, but still worked long hours and 6 days a week on average. It is unclear whether producers are taking more advantage of important management tools such as employee handbooks, written job descriptions and work plans, and employee evaluations.

#### Introduction

The U.S. pork industry has experienced turbulent change over the past decade. Relatively small operations that rely almost exclusively on family labor continue to be replaced by large operations with a greater demand for hired labor. With the increase in hired labor, pork producers must acquire new skills in personnel management if they want to be able to attract and retain quality employees. To learn more about how this new labor market is evolving the

National Pork Producers Council (NPPC) teamed up with *National Hog Farmer* (NHF) magazine to conduct a series of three employee and producer surveys between 1990 and 2000. The NPPC/NHF surveys provide a unique opportunity to learn more about who is attracted to work in the pork industry and the effectiveness of producers as personnel managers. The purpose of this article is to use the NPPC/NHF survey results to explore trends in employee and producer characteristics, worker compensation, working conditions, management, and job satisfaction during the 1990s. The first survey was conducted in the fourth quarter of 1990, the second in the first quarter of 1995 and the third in the last quarter of 1999.

#### Results and Discussion

It is clear from Table 1 that U.S. pork production remains centered in the Midwest. The geographic distribution of employees and producers has not changed much in the past 10 years, with the exception of a steady increase in employee respondents from the West. During the 1990s, the percentage of producer responses was higher than employee responses for the Midwest and Northeast. Conversely, the percentage of producer responses is lower than the percentage of employee responses for the Southeast and West. These results suggest that producers in the Southeast and West have larger operations than do producers in the Midwest and Northeast.

The average age of employees and producers increased in the 1990s (Table 2). The average age of employees increased by about 3 years, 33 to 36, whereas the average age of producers increased by about 4 years, 42 to 46. One reason is that some farmers are staying in the labor force longer, so the share of hog farmers over 65 has increased. There has been little evidence of a typical exit by young producers over the past 10 years. For example, the cohort aged 25–30 in 1990 would be aged 36–40 in 1999. That cohort represented 15% of the producers in 1990 and 18.2% of the producers in 1999. However, there has been a marked decline in the number of young producers entering the industry, so that the share of 25–30 year olds decreased from 15% in 1990 to 6.2% in 1999. The industry is lacking the younger individuals who move into leadership positions in the future.

The story is different for employees. Although average age is increasing, there is no apparent persistence of cohort employment shares, or increased propensity to remain in the sector at older ages. Instead, fewer young employees are hired. At least in part, this is attributable to rising educational requirements for employees in technologically advanced operations.

Table 3 demonstrates this remarkable increase in educational attainment in the 1990s. In 1990, less than 25% of employees and producers had earned a 4-year college degree. By 1999, almost 33% of the employees and 36% of the producers had completed a 4-year college degree. A larger percentage of employees and producers now also have an advanced degree. The percentage of employees with vocational, high school, or less education has declined since 1990, consistent with the pattern for producer education levels. A greater percentage of employees held a 4-year college or advanced degree than producers in 1995. By 1999, producers appear to have surpassed their employees in educational attainment. Women have increased their presence in the industry. In 1990, 5.9% of employees were women. In 1995, the percentage of women employees increased to 8.5%, and to 11.8% in 1999.

The size of hog operations increased through the 1990s in terms of both the annual production and the number of employees. In 1990, 57% of operations produced between 1,000 and 3,000 hogs annually, with less than 9% producing more than 10,000 hogs annually. In 1995, 49% produced between 1,000 and 3,000 with 12.5% producing more than 10,000 hogs annually. In 1999, 28.8% produced between 1,000 and 3,000, 30.7% produced more than 10,000, and 12.5% produced more than 25,000 hogs annually. The number of full-time employees also has increased dramatically. Between 1990 and 1999, the percentage of producer reporting two or fewer employees decreased by more than 20% from 71.7 to 55.9. At the same time, the percentage of producers that reported more than 10 employees increased more than threefold from 2.9 to 9.6.

The average annual wage of employee respondents increased by 25.4% from \$19,192 to \$24,069 between 1991 and 1995 and by 23.5% from \$24,069 to 29,726 between 1995 and 1999 (Table 4). During this same time the Bureau of Labor Statistic's employment cost index, a measure of wage growth in the U.S. economy, increased by 14.7 and 15.7%. Comparing these increases to the increase in annual wages for employee respondents suggests that wage growth in the pork industry has been stronger than in the economy as a whole. Although this is certainly good news, it is important to keep in mind that the level of wages in the industry has been lower than average in the past. In March 1999, the average civilian worker was estimated to earn \$30,617 in annual wages. With the rapid increase in pork industry wages over the past 10 years, the average wage now appears to be just below that of the average civilian

worker. Overall, wage growth was strongest for assistant managers, followed by herdsman, managers, and farrowing managers.

The percentage of employees receiving incentive pay increased by about 20% from 48.6 to 58.1. Most of this increase appears attributable to more employees receiving incentives based on the number of pigs weaned per sow and feed efficiency. The number of employees receiving incentives based on death loss decreased between 1991 and 1995, but rebounded in 1999. The use of pounds of pork produced annually declined sharply in 1995, and increased slightly in 1999.

The percentage of employees that reported their employer provided medical, dental, disability, and life insurance coverage fell in 1995 and again in 1999. Although the drop in 1995 was small, the drop in 1999 was not. Alternatively, a larger percentage of employees both in 1995 and 1999 reported receiving paid vacation, paid holidays, workers compensation, unemployment insurance, paid sick leave, and pension or retirement plans. The decline in the number of employees receiving medical coverage is troubling because good health care is important and costly. The decline in disability insurance was accompanied by an increase in employers providing worker's compensation.

The average workweek has not changed much since 1991. Although employees reported working an average of 45 hours in 1991, in 1995 and 1999, a 50-hour workweek was the norm. Producers have consistently expected employees to work 45 hours on average, which is less than what employees report working. Both employees and producers agree that a 6-day workweek is standard. A 45 to 50-hour workweek is demanding and exceeds that of the average civilian employee by 23.0 to 36.6%. Having two weekends off a month appears to have remained the industry standard. In 1995, there was a substantial increase in more flexible schedules and partial weekends off. This resulted in fewer employees receiving at least two weekends off a month. This trend appears to have reversed itself in 1999. In particular, 66% of employees reported receiving at least 2 weekends off, which is higher than reported in 1990 and 1995.

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**Table 1. Distribution of survey responses by geographic region.**

Region	1999		1995		1990	
	Producer	Employee	Producer	Employee	Producer	Employee
Midwest <sup>a</sup>	81.2%	68.8%	81.2%	67.6%	78.4%	72.9%
Northeast <sup>b</sup>	5.0%	4.8%	5.3%	4.6%	5.1%	5.4%
Southeast <sup>c</sup>	8.2%	11.4%	7.2%	15.8%	8.2%	11.6%
West <sup>d</sup>	5.6%	15.0%	6.4%	12.0%	8.3%	10.1%
Survey Responses	661	853	3,907	1,469	2,098	1,620
Surveys Mailed <sup>e</sup>	9,600	8,276	31,000	9,000	18,000	9,000
Response Rate	6.9%	10.3%	12.6%	16.3%	11.7%	18.0%

<sup>a</sup> Includes IA, IL, IN, MN, MO, ND, NE, OH, SD, and WI.

<sup>b</sup> Includes CT, MD, ME, MI, NJ, NY, and PA.

<sup>c</sup> Includes AL, FL, GA, KY, LA, MS, NC, SC, TN, VA, and WV.

<sup>d</sup> Includes AK, AR, AZ, CA, CO, HI, ID, KS, MT, OK, OR, TX, UT, WA, and WY.

<sup>e</sup> The number of mailed surveys are approximate.

**Table 2. Distribution of age.**

Age	1999		1995		1990	
	Producer	Employee	Producer	Employee	Producer	Employee
Under 18	0.0%	0.3%	0.1%	0.3%	0.1%	0.9%
18-24	0.5%	9.8%	1.8%	12.6%	2.7%	13.4%
25-30	6.2%	24.1%	7.2%	26.2%	15.0%	30.9%
31-35	10.1%	20.2%	14.4%	19.4%	18.0%	23.7%
36-40	18.2%	17.8%	18.6%	17.3%	16.6%	14.8%
41-45	18.0%	14.4%	17.3%	11.4%	13.0%	7.0%
46-50	16.1%	5.8%	13.5%	5.3%	9.6%	2.8%
51-55	11.5%	3.1%	9.6%	2.9%	9.2%	2.8%
56-65	13.3%	4.0%	13.0%	3.7%	11.8%	2.6%
Over 65	6.2%	0.6%	4.6%	0.9%	3.9%	1.1%
Average age	46.0	35.8	44.3	34.8	41.9	33.2
Respondents	566	779	3371	1332	2076	1614

**Table 3: Distribution of educational attainment.**

Level of Education	1999		1995		1990	
	Producer	Employee	Producer	Employee	Producer	Employee
No high school diploma	4.1%	3.7%	3.9%	5.4%	4.8%	5.9%
High school diploma	30.6%	31.9%	32.9%	27.3%	37.6%	33.7%
Vocational degree	8.7%	11.3%	12.2%	13.3%	8.8%	11.2%
Two-year college degree	4.8%	8.0%	6.8%	10.1%	6.2%	10.8%
Four-year college with no degree	8.1%	7.1%	11.1%	7.6%	10.9%	8.9%
Four-year college degree	35.7%	32.6%	26.6%	29.0%	24.1%	23.3%
Masters degree or equivalent	4.6%	2.0%	3.6%	4.1%	4.1%	3.8%
Ph.D. degree or equivalent	1.9%	1.4%	0.7%	0.8%	1.2%	1.2%
Other	1.6%	2.0%	2.2%	2.4%	2.3%	1.2%
Respondents	631	788	3,905	1,456	2,097	1,614

**Table 4. Estimated average annual wages for employee respondents.**

	1999	1995	1990
Managers	\$30,987	\$25,190	\$20,326
Assistant Managers	\$29,329	\$22,672	\$17,645
Farrowing Managers	\$26,277	\$23,203	\$18,226
Herdsmen	\$27,194	\$21,868	\$17,241
Average	\$29,726	\$24,069	\$19,192