



job search strategies

Employees, Employers Search for the Right Fit

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Finding, hiring and retaining the best employees are a high priority of all pork producer owners and managers.

In an effort to identify trends in locating job prospects and potential employees in finding job opportunities, our four surveys from 1990 to 2005 tracked various search methods.

Informal job search networks are a dominant search strategy for employers and job candidates (Table 21).

Word-of-mouth remains the leading means of finding jobs and candidates to fill them. In 1995, nearly two-thirds of employees used this method of find-

ing a job, and that means has held 10 years later. Although not as prevalent with producers, word-of-mouth remained the leading method of finding job applicants at 47.2%.

Newspapers and family referrals are the next most common strategy used by producers. While employees also relied heavily on newspapers, they used magazines slightly more often than family referrals in 2000 and 2005. It is interesting to note that job seekers used magazines more extensively, a trend that has held since 1995.

Employees are more likely to use professional and college placement ser-



vices than producers. Alternatively, with the exception of 1995, producers have relied on vocational placement services more than employees.

Table 21: Methods Used to Locate Job Applicants by Producers and Job Openings by Employees

| Method | Producer | | | | Employee | | | |
|---|----------|-------|-------|-------|----------|-------|-------|-------|
| | 2005 | 2000 | 1995 | 1990 | 2005 | 2000 | 1995 | 1990 |
| College or Vocational Placement Service | 13.5% | 14.7% | 12.8% | 20.8% | 24.7% | 25.0% | 27.6% | 29.5% |
| College Placement Service | 7.8% | 9.6% | 8.3% | NA | 20.7% | 21.6% | 23.4% | NA |
| Vocational Placement Service | 9.5% | 9.1% | 7.7% | NA | 9.4% | 8.4% | 9.6% | NA |
| Professional Placement Service | 6.5% | 9.8% | 6.3% | 10.4% | 15.8% | 22.0% | 17.3% | 19.2% |
| Magazine or Newspaper* | 27.1% | 27.3% | 21.5% | 27.7% | 52.7% | 57.4% | 47.7% | 40.7% |
| Magazine | 7.7% | 6.2% | 4.8% | NA | 29.6% | 29.0% | 24.8% | NA |
| Newspaper | 25.4% | 26.0% | 20.6% | NA | 45.1% | 50.2% | 41.9% | NA |
| Word of Mouth | 47.2% | 47.3% | 44.6% | NA | 61.0% | 68.2% | 63.7% | NA |
| Family | 25.2% | 24.3% | 21.3% | NA | 27.7% | 27.0% | 28.2% | NA |
| Internet | 3.4% | NA | NA | NA | 21.4% | NA | NA | NA |
| Other | 5.4% | 4.9% | 5.5% | NA | 5.8% | 7.1% | 7.7% | NA |

Note: NA means this response was not offered.

*To get the composite for newspaper and magazine percentage in the 1995, 2000, and 2005 surveys, the "an/or" condition was used. Therefore, if the respondent checked the newspaper box or magazine box they were counted once for newspaper/magazine. With the "or" condition, the newspaper and magazine composite for these years will not equal the sum of the individual percentages for newspaper and magazine because some respondents checked both the newspaper box and the magazine box in the 1995, 2000, and 2005 surveys.



In 2005, producers used vocational placement services more often than they used professional and college placement services. The reverse was true for employees. The increased importance of vocational placement services for producers reflects a 10-year trend. Alternatively, the use of professional placement services has been somewhat cyclical – relatively high in 1990 and 2000, but relatively low in 1995 and 2005.

The Internet has become popular with employees, with more than 20% using that resource in 2005. However, producers did not favor the Internet, as only 3.4% used it to locate job applicants.

In the past, employees have used a broader search strategy than producers as they sought job opportunities. The trend continued in 2005.

A more detailed look at the survey responses offers six additional points:

- Producers with larger operations use all search strategies more often

than those with smaller operations.

- With the exception of family referrals, more educated producers and employees tend to use all search strategies more often.
- Producers in the West use word-of-mouth, family referrals, and the Internet more often than producers in other regions.
- Producers in the Southeast rely less on newspapers than producers in other regions.
- Employees in the Southeast and West rely less on newspapers than employees in other regions.
- Employees in the Southeast rely more on word-of-mouth, while

employees in the West rely on this strategy less than employees in other regions.

A producer's success at generating job applicants rebounded from 2000, but was still less than the high in 1995 (Table 22).

However, the number of qualified applicants reported in 2005 held steady with the 2000 survey, as did the weeks required to fill the last full-time openings. The 2.8-week average needed to find an employee in 2005 is still a vast improvement over the 4.4-week average reported a decade ago.

Also on a positive note, producers reported they were able to fill their last part-time opening quicker than in the past.

Relating alternative search strategies to the number of job applications a producer received, and the weeks required to fill a full-time position, provides several interesting insights:

- First, producers who used the newspaper to search for new employees received more applications and more qualified applications, on average, which helps explain the popularity of the strategy.
- Producers who used college placement services also generated more than the average number of qualified applicants, while decreasing the proportion of unqualified applicants.
- Word-of-mouth improved the average number of qualified applicants, while decreasing the number of unqualified applicants. However, it also increased the average weeks

Table 22: Average Success of Producer's Search for New Employees

| Application/Open Position | 2005 | 2000 | 1995 | 1990 |
|---|------|------|------|------|
| Applications Received | 4.0 | 3.2 | 5.1 | 2.8 |
| Qualified Applications Received | 1.3 | 1.3 | 1.7 | 0.8 |
| Weeks Needed to Fill Last Full-Time Opening | 2.8 | 2.7 | 4.4 | 1.7 |
| Weeks Needed to Fill Last Part-Time Opening | 1.5 | 2.1 | 2.8 | 3.0 |

Table 23: Technology Use

| | Producers | | | Employees | | |
|------------------------------|-----------|-------|-------|-----------|-------|-------|
| | 2005 | 2000 | 1995 | 2005 | 2000 | 1995 |
| Production Technology | | | | | | |
| Artificial Insemination | 47.1% | 48.2% | 30.7% | 76.7% | 76.4% | 56.2% |
| Split-Sex Feeding | 36.6% | 46.0% | 40.7% | 39.3% | 46.5% | 47.5% |
| Phase Feeding | 52.5% | 59.3% | 55.1% | 49.8% | 50.9% | 55.2% |
| Multi-Site Production | 32.1% | 34.6% | 28.4% | 45.9% | 47.0% | 38.7% |
| Segregated Early Weaning | 30.2% | 32.5% | 12.2% | 31.8% | 28.8% | 14.7% |
| All-In/All-Out | 66.7% | 68.1% | 58.5% | 60.6% | 64.7% | 67.3% |
| Auto-Sorting | 5.4% | NA | NA | 5.9% | NA | NA |
| Parity-Based Management | 10.8% | NA | NA | 26.1% | NA | NA |
| Management Technology | | | | | | |
| Formal Management Practices* | 57.0% | 56.9% | 59.4% | 79.0% | 72.4% | 65.6% |

Note: NA means this response was not offered.

*Formal management practices reflect employer's use of employee handbooks, job descriptions, written work plans and formal evaluation procedures.

needed to fill an opening.

New Technology

Pork production is a biologically constrained process. Animals must be bred, followed by a fixed gestation

period, farrowing, weaning, growing, and finishing.

In some applications, technology can speed or improve the biological process. Artificial insemination (AI), for example, can take advantage of

superior genetics. Early weaning may reduce the amount of time between farrowing and rebreeding. Split-sex and phase feeding can target nutritional programs and improve feed efficiency. All-in, all-out (AIAO) and multi-site production can help curb the spread of disease and reduce death loss.

Each of these technologies improves efficiency by either speeding up the production cycle, lowering input costs and/or reducing losses. In addition, streamlined organization and management can help allocate resources more efficiently.

Table 23 reviews the levels of production technology adoption. At first glance, the spread between producers and employees using AI seems particularly wide, however, it is important to remember that the employees surveyed tended to work in larger operations. Obviously, the use of AI technology has gained favor in both camps since 1995. Similarly, segregated early weaning has increased substantially in the past 10 years.

On the other hand, support of split-sex and phase feeding appears to be waning.

New to the 2005 survey, producers and employees were asked whether they have adopted two relatively new technologies – auto-sorting and parity-based management. Survey results for auto-sorting were similar, over 5% for both groups, while 10.8% of producers



Table 24: Personal Computer Use

| | Producers | | | | Employees | | | |
|----------------------------------|-----------|-------|-------|-------|-----------|-------|-------|-------|
| | 2005 | 2000 | 1995 | 1990 | 2005 | 2000 | 1995 | 1990 |
| Use Personal Computer | 62.2% | 69.4% | 57.3% | 40.8% | 74.5% | 74.0% | 69.9% | 46.2% |
| Use for Production Recordkeeping | 51.9% | 60.2% | 50.2% | NA | 77.8% | 71.8% | 67.4% | NA |
| Use for Financial Recordkeeping | 68.1% | 73.1% | 61.9% | NA | 68.3% | 68.4% | 66.1% | NA |
| Trained to Use | NA | 59.1% | 48.1% | 35.3% | 72.3% | 51.4% | 45.8% | 34.0% |

Note: NA means this response was not offered.

and a surprising 26.1% of employees reported using parity-based management. The practice segregates gilts and sows based on parity. Benefits of the practice include better conception rates, better nutrition and lower culling rates.

Computers can also facilitate formal employee management practices such as the provision of employee handbooks, written job descriptions, work plans and formal evaluation procedures. As Table 23 illustrates, computer delivery of personnel management information is more likely in larger operations, as reflected in the 79% reported by employees.

The adoption of personal computers (PC) by producers slipped a little in the last five years, while employee use leveled off (Table 24).

Producers were more likely to use their PCs for financial recordkeeping. Employees reported their personal computers were generally used for keeping production records.

Indeed, over the last decade, the number of employees working for operations that use PCs for production recordkeeping increased by 10.4 percentage points. Employee training on PCs increased by 27.5 percentage points during this time.

More-educated producers and employees and those on larger operations were significantly more likely to report the use of a PC. Older producers and particularly those in the Southeast were the least likely to use PCs.

The adoption of a new technology follows a predictable pattern. Initially, the adoption rate is slow, as only the most entrepreneurial firms are willing to explore the technology's potential.

As the benefits of a new technology become clear, the adoption rate accelerates.

Eventually, adoption plateaus be-

cause firms that find the technology beneficial use it, and those that do not find it beneficial don't.

Most of the technologies tracked in



Table 25: Differences in Wages by Selected Differences in Technology Use

| Difference in Technology Use | Difference in Wages | | |
|--|---------------------|-------|-------|
| | 2005 | 2000 | 1995 |
| Artificial Insemination vs. No Artificial Insemination | 22.2% | 11.9% | 7.4% |
| Split-Sex Feeding vs. No Split-Sex Feeding | -2.9% | 0.2% | 1.3% |
| Phase Feeding vs. No Phase Feeding | 11.3% | 5.6% | 7.6% |
| Multi-Site Production vs. No Multi-Site Production | -1.5% | -0.9% | 0.5% |
| Segregated Early Weaning vs. No Segregated Early Weaning | 0.2% | 5.7% | 2.4% |
| All-In/All-Out Production vs. No All-In/All-Out Production | 9.7% | 6.1% | 7.0% |
| Auto-Sorting vs. No Auto-Sorting | -4.8% | NA | NA |
| Parity-Based Management vs. No Parity-Based Management | -10.0% | NA | NA |
| Formal Management vs. No Formal Management | 5.1% | 7.5% | 14.7% |
| Personal Computer Use vs. No Personal Computer Use | 2.3% | 4.2% | 5.5% |

Note: NA means this response was not offered.

early weaning, and AIAO are not used as often, on average, by southeastern operations. Formal management practices are used more in the West.

Some technological advances require few if any special skills to implement. For example, multiple-site production requires little if any additional skill on the part of labor. But, alternatively, personal computer use or introducing AI requires special training.

If new technologies require employees to have special skills, then they may command higher compensation for acquiring or being blessed with these special skills.

Pay Commensurate With Talents

Using statistical comparisons, it is possible to calculate how much more an employee earns by being able to work with new technologies. When making these statistical comparisons, the only difference between the two employees is the difference in the technologies adopted by their employers.

Table 25 shows these statistical comparisons for the earnings of employees

the surveys over the past decade have moved into the final stages of the technology adoption cycle.

A more in-depth analysis of the survey's technology adoption data helped reveal important characteristics of the types of operations using different technologies.

As one would anticipate, larger operations are using more technology. With the exception of AI, the technology adoption increased with annual hog output. Operations with more

employees are more likely to be using AI, multi-site production, parity-based management and formal management practices.

Older producers are less likely to use AI and phase feeding. Alternatively, more educated producers are more likely to use phase feeding, parity-based management and formal management practices.

Regionally, phase feeding is most popular in the Midwest. Split-sex feeding, multi-site production, segregated

Table 26: Part-Time Labor

| | 2005 | 2000 | 1995 | 1990 |
|---|-------|-------|-------|-------|
| Expected Part-Time Hours/Week | | | | |
| 10 or less | 43.3% | 35.0% | 32.0% | 34.0% |
| 10-15 | 15.5% | 18.0% | 18.8% | 17.3% |
| 15-20 | 19.4% | 21.2% | 21.3% | 20.2% |
| 20-25 | 12.7% | 13.1% | 15.2% | 16.0% |
| 25-30 | 6.4% | 7.5% | 6.8% | 5.4% |
| 30 or more | 2.7% | 5.2% | 5.8% | 7.1% |
| Part-Time Hourly Wages | | | | |
| \$3-4 | 1.2% | 2.2% | 2.8% | 13.3% |
| \$4-5 | 2.2% | 1.9% | 15.1% | 40.3% |
| \$5-6 | 6.2% | 19.0% | 35.5% | 34.5% |
| \$6-7 | 16.4% | 27.2% | 27.4% | 8.1% |
| \$7-8 | 18.9% | 23.1% | 12.6% | 2.6% |
| More than \$8 | 55.1% | 26.5% | 6.6% | 1.2% |
| \$8-9 | 17.6% | 9.8% | 3.0% | NA |
| \$9-10 | 22.0% | 10.1% | 1.6% | NA |
| More than \$10 | 15.5% | 6.6% | 2.0% | NA |
| Producers Reporting Use of Part-Time Employees | 45.1% | 44.5% | 44.5% | 47.4% |
| Part-Time Employees (Average Number) | 2.1% | 3.4% | 1.6% | 1.6% |

Note: NA means this response was not offered.

working in an operation with or without a specific technology.

For example, an employee working for an operation that uses AI earned 7.4% more, on average, in 1995 than an identical worker on a farm that did not use AI. By 2005, the wage premium associated with AI use rose to 22.2%. This result suggests that operations that use AI require special skills that are more valuable to producers.

In contrast, wage differentials associated with split-sex feeding and multi-site production are very small and even negative in some instances.

For example, the analysis suggests an employee on a farm using multi-site production earned only a 0.5% wage premium in 1995, and actually earned 1.5% less in 2005 when compared to an identical worker in a single-site operation. Apparently, employees need few, if any, special skills in order to work for operations that use multiple sites, split-sex feeding, auto-sorting, or parity-based management.

Artificial insemination, phase feeding, AIAO production, formal management and PC use all seem to require special employee skills. To attract and retain those skills, employers have to pay a wage premium.

Notice that wage premiums paid for PC skills declined between 1995 and 2005, which indicates these skills are becoming commonplace in the labor force.

Part-Time Employment

The average number of part-time employees fell by nearly a third between 2000 and 2005, while the proportion of operations using part-time help increased slightly during the period (Table 26).

The hours of weekly work expected from these employees has continued the 15-year trend downward.

Alternatively, the going wage for part-time labor has continued to trend upward, with more than half the producers now offering wages in excess of \$8 an hour. The proportion of operations offering part-time wages in excess of \$10 an hour also has more than



doubled from 6.6% to 15.5% between 2000 and 2005.

Labor as a Resource

Pork producers face the ongoing challenge of matching labor needs with the available labor supply. As employee

skills become more specialized, the pool of qualified workers becomes scarce.

Quality training programs and attractive compensation packages can motivate workers to acquire needed skills, stay with the farm once trained, and remain motivated to work to improve farm output and profitability.

Employees in smaller operations may require more general skills because their responsibilities are likely to be more diverse from day to day. Employees in larger operations will likely have more specialized skills and a more narrow set of responsibilities.

Effective employee management skills and fostering employee satisfaction are important to the competi-

tive position of any swine production facility. While we may think employee management is an issue for larger operations, it is important to remember that good employee management is not size related.

Moreover, as the swine industry continues to adopt new technologies, employees must be flexible and accepting of these innovations. These changes

also create a need for ongoing training for both producers and employees.

The pork industry appears to have a solid employee base. Employee tenure is on the rise after a decade-old decline. More employees believe they are competitively compensated and being well trained for advancement or to own their own operation.

But, there are some warning signs,

Confinement Workers Polled On Respiratory Health

By M. Susan Jones, Professor of Nursing, Western Kentucky University

Agricultural workers are at increased risk for occupational illnesses and injuries, and the pork industry is no exception.

Swine confinement buildings, in particular, expose workers to hazardous gases released as manure decomposes in the storage pits and from dust created primarily from feeding practices. This environment places workers at risk for respiratory exposures and illness.

Despite the protective effects of personal respiratory protection (PRP), many swine confinement workers do not use the devices. The reasons for workers' failure to use protective gear are not well documented, however.

To help fill this void, a study was conducted to identify the variables that influence the frequency of PRP use. The study also examined the relationships of selected demographics and self-reported occupational and respiratory health histories of swine confinement workers to their use of PRP at the worksite. Funding was provided by the National Institute for Occupational Safety and Health (NIOSH) and the Iowa Pork Producers Association.

World Pork Expo Polls

Data was collected in the trade show

area at the 2003 World Pork Expo in Des Moines, IA. To be included in the study, participants had to be 18 years of age or older, work in a swine confinement facility for at least two hours a day and be able to read and write English. Participation was voluntary.

The sample was composed of 503 swine confinement barn workers from 27 states and three Canadian provinces. Two hundred (40.6%) of the subjects were from Iowa and 52 (10.5%) were

from South Dakota, so more than half of the samples were within driving distance of the event.

While the study was conducted during the World Pork Expo, it is important to recognize its limitations:

- Only workers attending the event and voluntarily participating were polled.
- All data was self-reported, thereby limited to each participant's interpretation.



too. Fewer employees hope to make a lifelong career in the pork industry and more feel advancement with their current employer is limited.

There continues to be a sharp decline in the number of young people entering the industry workforce and the number of young employees that plan to stay with the industry as a career.

The 2005 labor market can be con-

sidered soft relative to the labor markets the industry faced in 2000. Even with a relatively soft labor market, pork industry employees enjoyed strong wage growth, while other industries witnessed negligible growth.

Work environment in pork production facilities had a large impact on job satisfaction. Employees who rated the working environment in hog facilities

as excellent were much more likely to report they were very satisfied with the job.

Improving the working environment in production facilities can improve pig production performance, dramatically improve employee satisfaction levels and improve the ability to retain the best employees. As the working environment improves, everybody wins. □

- A new tool was developed for data collection. A questionnaire was used to elicit demographics and occupational and respiratory histories, and frequency of PRP use among swine confinement workers.

In addition, a PRP survey contained a rating scale developed to measure the constructs theorized to influence the frequency of respiratory protection use. Workers were also asked to indicate to what degree specific statements or phrases represented their beliefs about using PRPs when working in swine confinement buildings.

What We Learned

As one would expect, the data revealed that participants varied in age, educational level, stage of production and hours worked per week in swine confinement barns.

The majority of those completing the survey were married, white males and the principle owner or a family member of the principle owner or operator of the swine farm.

Also, the majority of the workers were employed on farms producing over 5,000 pigs annually and staffed with 1-5 additional employees (excluding family members), and reported to have worked over 14 years in swine confinement facilities. These employees reported working over 3 hours/day, more than 20 hours/week and over 6 days/week in swine confinement barns.

Few of the workers reported having received information about the need for PRP or instructions in selecting the

appropriate type of protection.

Information received by the workers originated from multiple sources. Over one-fourth reported they had experienced a breathing problem they related to farming, had experienced flu-like symptoms associated with working in swine confinement buildings, and knew someone who became ill from not wearing PRP while working in that setting.

Descriptive analyses found that 36.3% of the workers never used, and 21.2% seldom used, personal respiratory protection at the worksite during the preceding year.

A statistical formula was developed to explain the frequency of PRP use. Of the variation in PRP use, 38.9% was explained by the study's variables; 12% of the variance was explained by the combination of the demographic, occupational, and respiratory history variables. An additional 27% of the variation was explained by six of the theoretical constructs – knowledge deficit barriers, external barriers, norms, severity, benefits and personal barriers.

More Awareness Needed

Results of this study can serve as the basis for intervention research studies and also guide the development and dissemination of educational programs designed to promote health improvements for workers in swine confinement facilities.

The study suggests that interventions to increase PRP use should be guided by the variables of benefits, norms, severity and barriers (personal,

knowledge deficit, external).

For example, because “benefits” were found to be the strongest predictor of workers’ use of PRP, educational programs should focus on the positive respiratory health outcomes of wearing the protection and focus on how PRP protects the lungs.

Because “norms” were found to be a moderately strong predictor of the workers’ use of PRP, programs should be designed to use social pressure in an attempt to change the workers’ behaviors and incorporate the assistance of the worker’s spouse, co-workers or farm owner/operator to help influence PRP use among the workers.

Since “severity” was found to be a significant predictor of PRP use, strategies should be implemented to emphasize the association of using the devices to decrease the physical, financial and emotional impact of a respiratory disorder resulting from working in a confinement unit.

Likewise, interventions to increase use of PRP will increase their likelihood of success if the interventions utilize information gained from this study about “barriers” to PRP use.

Interventions should include educating the workers about how to select, use and care for the PRP devices (removing knowledge deficit barriers), making it easier to purchase PRP and locate the devices at the worksite (eliminating external barriers), and working with manufacturers in an effort to redesign the devices so they will be more comfortable to wear at the worksite (addressing personal barriers). □