



Wisconsin Agricultural and Natural Resource Sector Labor Survey Report

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Executive Summary

In August 2008, the Survey Research Center (SRC) at the University of Wisconsin – River Falls mailed surveys to 643 Wisconsin agricultural and natural resources employers for which we had valid addresses seeking input on the demand for various occupations within their firms, employee attributes, employee education and training, and employee compensation and benefits. Surveys were sent to employers in four sectors: dairy product manufacturing, animal slaughtering and processing, farm supply wholesalers, and bioenergy. In total, 270 surveys were completed for a return rate of 42%. Non-response bias (concern that non-respondents hold consistently different views than those who completed the questionnaire) does not appear to be a problem with this survey.

Key findings of this study include:

Current Labor Force

- The majority of firms are relatively small (81% report having 50 or fewer full-time employees).
- Very few employers report high turnover rates, but a 1% to 25% turnover rate is not uncommon, particularly in the low skill/manual laborer and packaging/machine operator categories.
- All four sectors report vacancies in low skill/manual labor positions at their firms: 35% of dairy product manufacturing had vacancies in this job category, 34% of animal slaughtering and processing firms, 20% of farm supply wholesalers, and 57% of bioenergy firms.
- Almost three-fourths of employers (73%) believe it is difficult or very difficult to find managers at current wage and benefit levels and 70% find it difficult or very difficult to find sales representatives.

Future Labor Force

- A majority of employers anticipate no change over the next five years in the number of employees in the employee categories listed on the survey.
- Forty-one percent of employers anticipate an increase in the number of low skill/manual laborers needed at their firm over the next five years.
- Employers generally have found it more difficult to find new employees over the past year compared to a year ago. Exceptions to this are bookkeepers/accountants (similar difficulty to one year ago), and low skill/manual laborers (somewhat easier than last year).

Employee Attributes

- Oral communication skills, the ability to work in teams with others, and the ability to learn new skills are the top three employee skills in terms of employer satisfaction.
- All four sectors surveyed report at least some low skill/manual labor employees who do not speak English as their first language.
- When employers were asked to compare how the skills needed for success five years ago compare to those needed today, most employers believe the skills for success have expanded, either greatly or slightly, in all work categories.

Employee Education/Training

- In terms of employee preparation, a majority of employers are satisfied/very satisfied with technical colleges, high schools, and 4-year colleges/universities.

Employee Compensation/Benefits

- One-half or more employers offer full-time employees health insurance for themselves, health insurance for the employee and their family, paid sick leave, and retirement savings plans.

Survey Purpose

The primary focus of this survey was to document the current and anticipated demand for workers in four sectors of Wisconsin's agricultural and natural resources industries: dairy product manufacturing, animal slaughtering and processing, farm supply wholesalers, and bioenergy. In addition, the survey examined employee attributes, the level of employee wages, benefits, employer-provided training, and skills demanded by firms.

Survey Methods

In August 2008, the Survey Research Center (SRC) at the University of Wisconsin – River Falls mailed surveys to 692 employers in four sectors of Wisconsin's agricultural and natural resources industries. After two weeks, the SRC mailed postcards to those firms from whom a completed questionnaire had not been received. A second questionnaire was sent to remaining non-respondents in September. Forty-nine surveys were returned as non-deliverable. Based on 643 valid addresses, the SRC received a total of 270 completed questionnaires from employers for a 42 percent response rate.

Any survey has to be concerned with “non-response bias.” Non-response bias refers to a situation in which people who do not return a questionnaire have opinions that are systematically different from the opinions of those who return their surveys. **Based upon a standard statistical analysis that is described in Appendix A, the Survey Research Center (SRC) concludes that there is little evidence that non-response bias is a concern for this sample.**

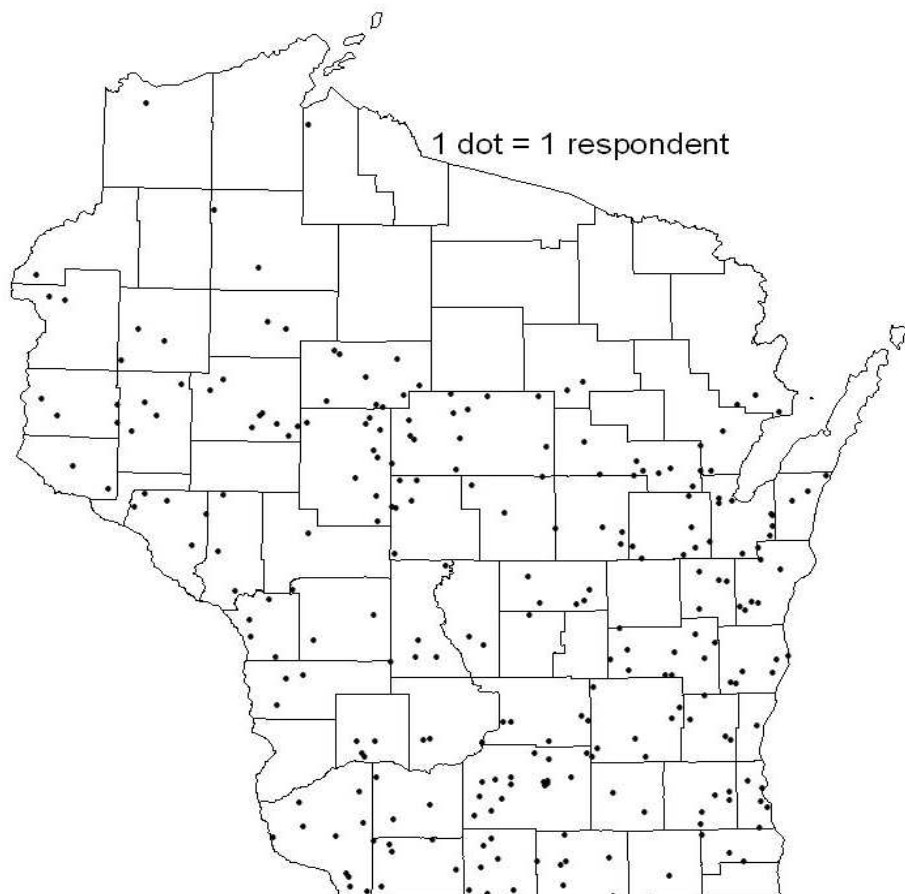
In addition to the numeric responses, employers provided additional written comments that were compiled by the SRC from the surveys. **Appendix B to this report contains the complete compilation of comments.**

Appendix C contains a copy of the survey questionnaire with a quantitative summary of responses by question.

Profile of Respondents

Figure 1 plots the location of Wisconsin respondents to the labor survey by zip code and shows that firms were drawn from throughout Wisconsin..

FIGURE 1: Respondents by Zip Code



Dr. Gary Green compiled the mailing list for the survey. Table 1 summarizes response rates in the 4 sectors that were surveyed. Although bioenergy firms were the smallest sector in terms of surveys mailed, they had the highest percentage of returned questionnaires. Farm supply wholesalers were the sector of highest returns by number. Confidence intervals have been calculated per sector. **When there are significant differences among sectors, they will be noted throughout the various sections of the report.**

Table 1: Profile of Respondents by Sector

Sector	# Surveys Mailed*	# Surveys Returned	Percentage Returned	Confidence Interval 95% confidence level
Dairy Product Manufacturing	143	50	35%	11.2
Animal Slaughter and Processing	121	55	45%	9.8
Farm Supply Wholesalers	362	156	43%	5.9
Bioenergy	17	9	53%	23.1
TOTALS	643	270	42%	4.6

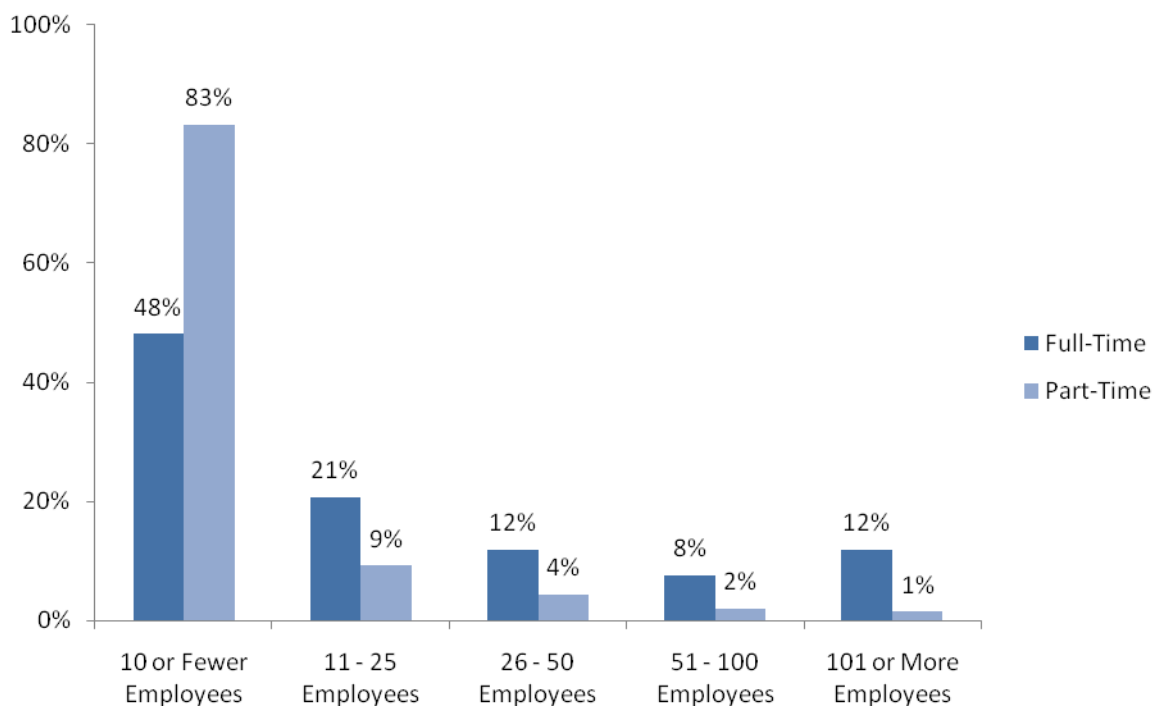
*692 surveys were mailed; 49 were non-deliverable. Results are based on valid addresses only.

Current Labor Force

Employers were asked to describe their current labor force in terms of overall numbers (**Chart 1**) and categories (**Table 2**). Eighty-one percent of firms report 50 or less full-time employees; 89% have 100 or less full-time employees.

- Farm supply wholesalers are the most likely of the four sectors to have 10 or fewer full-time employees (58%).
- Dairy product manufacturers are more likely to have 101 or more full-time employees (23%).

Chart 1: Full-Time and Part-Time Employees

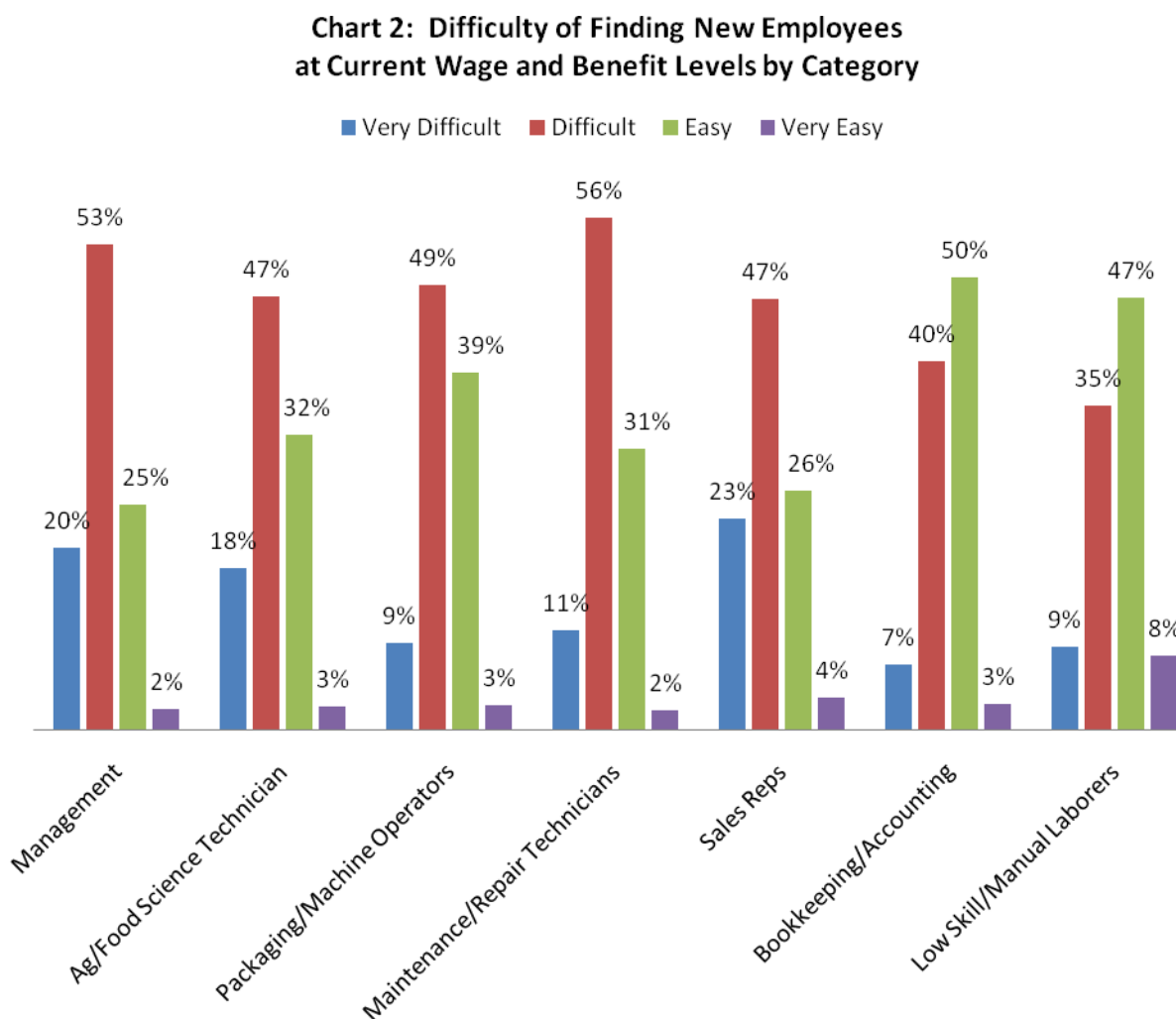


- Over two-thirds of all firms have between 1-5 managerial employees.
- More than one-quarter of all firms surveyed have eleven or more low skill/manual laborers.
- Almost two-thirds (65%) of farm supply wholesalers report having no ag/food science technician employees.

Table 2: Number of Employees by Categories					
	0	1 – 5	5 – 10	11 – 25	25+
Management	12%	67%	11%	7%	4%
Ag/Food Science Technician	53%	33%	9%	4%	2%
Packaging/Machine Operators	25%	44%	15%	7%	8%
Maintenance/Repair Technicians	27%	57%	8%	4%	4%
Sales Reps	26%	58%	9%	4%	4%
Bookkeeping/Accounting	12%	80%	4%	3%	0%
Low skill/Manual Laborers	12%	46%	15%	11%	16%

Difficulty Finding Employees

Employers were asked how difficult it is to find new employees, at current wage and benefit levels (**Chart 2**). Almost three-fourths of employers (73%) believe it is very difficult/difficult to find managers and 70% find it very difficult/difficult to find sales representatives. Fifty-five percent of employers find it easy or very easy to find new low skill/manual laborers.



In terms of comparing the four sectors and their difficulty in finding employees,

- Eighty-one percent of dairy product manufacturing employers find it difficult or very difficult to find maintenance/repair technicians and 70% find it difficult or very difficult to find ag/science technicians.
- Over three-fourths (79%) of farm supply wholesalers report having either a difficult or very difficult time finding sales reps, 77% find it difficult or very difficult to find managerial employees, and 70% find it difficult or very difficult to find ag/science technicians.

Employers generally have found it more difficult over the past year to find new employees when compared to a year ago (**Table 3**). It appears that there has been little change relative to a year ago in the difficulty of finding bookkeepers/accountants and somewhat easier to find low skill/manual laborers.

Table 3: Difficulty in Finding New Employees when Compared to a Year Ago by Category				
	Much More Difficult	More Difficult	Easier	Much Easier
Management	9%	55%	34%	1%
Ag/Food Science Technician	8%	57%	34%	1%
Packaging/Machine Operators	7%	50%	43%	1%
Maintenance/Repair Technicians	5%	53%	40%	1%
Sales Reps	11%	53%	34%	2%
Bookkeeping/Accounting	4%	45%	49%	1%
Low skill/Manual Laborers	6%	41%	47%	6%

- Seventy-four percent of dairy product manufacturers report that it is much more difficult to find new maintenance/repair technicians compared to one year ago. In our discussion of Chart 2 we noted that dairy manufacturers report that it is difficult to find these technicians at the prevailing wage. Table 3 indicates that this challenge has worsened over the past year.
- Seventy-one percent of farm supply wholesalers report that it is more difficult or much more difficult to find sales reps as compared to a year ago. Again, this result is consistent with our discussion of Chart 2 and suggests increasing scarcity of sales reps.
- Over half of dairy product manufacturers (57%) and animal slaughtering and processing employers (56%) report that it is more difficult or much more difficult to find new low skill/manual laborers than it was one year ago.

Employee Turnover

When asked approximately what percentage of employees turnover each year, many employers report none at all (**Chart 3**).

Chart 3: Zero Percent Employee Turnover per Year by Category

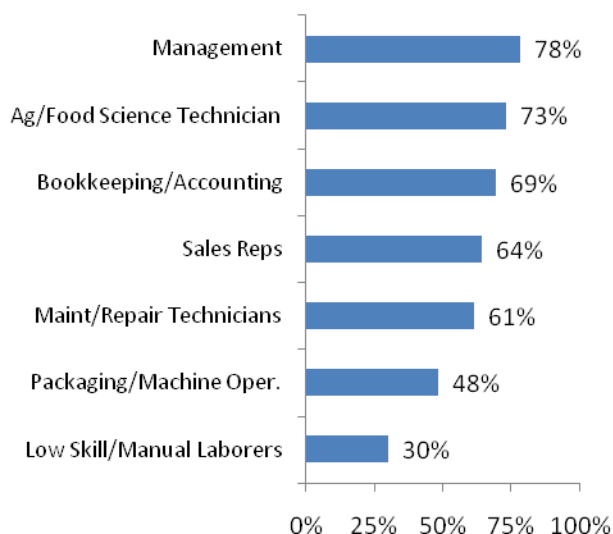
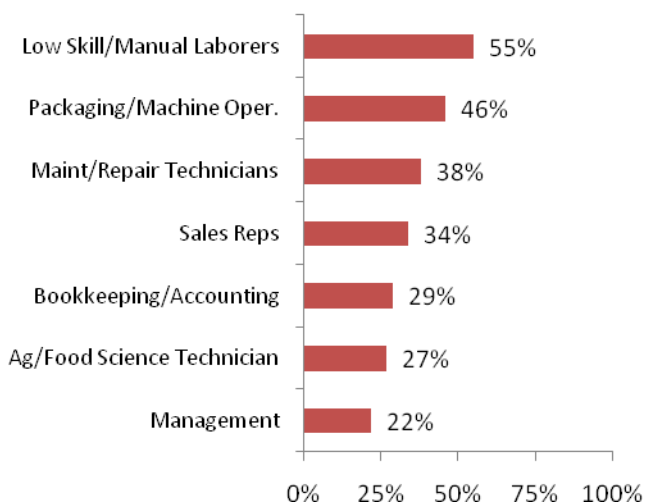


Chart 4: 1 - 25 Percent Employee Turnover per Year by Category



Very few report high turnover rates (26%+), but as Chart 4 highlights a 1 to 25% turnover rate is not uncommon, particularly in the low skill/manual laborer and packaging/machine operators categories.

- Farm supply wholesalers report the least amount of managerial employee turnover (84% report zero turnover each year).
- In contrast, twenty percent of animal slaughtering and processing employers report 26% or more turnover each year for low skill/manual laborers.

Employee Vacancies

Employers were asked to report on current vacancies for various employee categories at their firm. Interestingly, at least 10% of firms in the sample report vacancies in all the job categories considered. The highest vacancy rating occurs with low skill/manual laborers. More than one in four employers report vacancies in low skill/manual laborers ranging from 1% to more than 10% (**Table 4**).

Table 4: Current Vacant Positions by Category				
	0%	1 – 5%	6 – 10%	More than 10%
Management	90%	9%	0%	1%
Bookkeeping/Accounting	90%	8%	1%	1%
Maintenance/Repair Technicians	88%	10%	1%	1%
Ag/Food Science Technician	87%	10%	1%	2%
Sales Reps	84%	10%	3%	3%
Packaging/Machine Operators	83%	14%	2%	1%
Low skill/Manual Laborers	73%	19%	8%	1%

- All four sectors report some level of vacancy of low skill/manual labor at their firms: dairy product manufacturing (35% report they have from 1% to 10% vacancy), animal slaughtering and processing (34% report they have from 1% to more than 10% vacancy), farm supply wholesalers (20% report they have from 1% to 10% vacancy), and bioenergy firms (57% report they have from 1% to 5% vacancy).

Future Labor Force

Employers were asked to estimate how much, over the next 5 years, they expect employee numbers to change in the different categories discussed in the survey. A majority of employers believe there will be no change in the number of employees at their firm over the next 5 years in the various categories listed (**Table 5**). However, a substantially greater proportion of agricultural employers expect their payroll to expand compared to those expecting their work force to shrink. Across all employment categories, at least one-fifth of all firms in this sample expect the number of people they employ to increase over the next 5 years. Table 5 indicates that this expansion is, for most firms, going to be relatively modest; generally, fewer than 5 percent expect to increase hiring by more than 10 percent.

Table 5: Expectation of Employee Numbers Over the Next 5 Years by Category					
	Down 10%+	Down 1 – 10%	No Change	Up 1 – 10%	Up 10%+
Ag/Food Science Technician	3%	1%	74%	20%	2%
Management	2%	3%	73%	20%	2%
Bookkeeping/Accounting	3%	4%	71%	20%	2%
Maintenance/Repair Technicians	2%	2%	70%	24%	2%
Packaging/Machine Operators	2%	2%	65%	27%	4%
Sales Reps	3%	2%	62%	29%	4%
Low skill/Manual Laborers	3%	6%	51%	35%	6%

Employee Attributes

Formal Education

Employers were asked the approximate percentage of their employees who they feel need formal education beyond high school (**Table 6**). Forty-two percent of employers report that between 76 – 100% of their managerial employees need formal education beyond high school. Management is the only job category for which most employers feel that half or more of the positions require formal education beyond high school. The only job category for which a majority of employers said that none of their employees need formal education beyond high school is low skill/manual laborers at 62%.

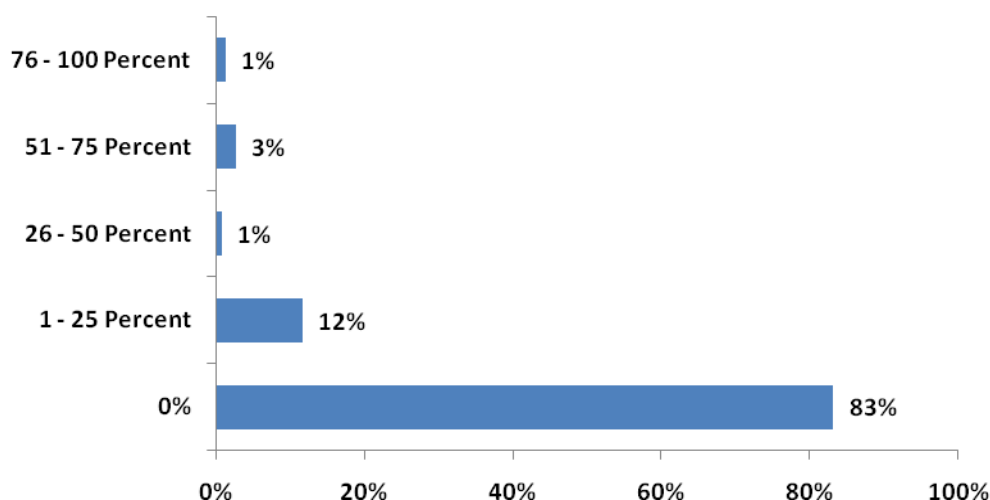
Table 6: Percentage of Employees Than Need Formal Education Beyond High School by Category

	0%	1 – 25%	26 – 50%	51 – 75%	76 – 100%
Management	16%	22%	7%	12%	42%
Ag/Food Science Technician	31%	20%	7%	12%	30%
Sales Reps	26%	21%	9%	17%	28%
Bookkeeping/Accounting	20%	24%	15%	15%	25%
Maintenance/Repair Technicians	29%	26%	22%	13%	9%
Packaging/Machine Operators	50%	26%	17%	5%	2%
Low skill/Manual Laborers	62%	25%	10%	1%	1%

Language

Employers were asked what percentage of employees hired in the past year do not speak English as their first language. In almost all of the job categories, virtually all new hires are native English speakers. The one exception is low skill/manual laborers (**Chart 5**). Even in this category, however, only 17% of employers report hiring employees that do not speak English as their first language and for only 4 percent of the firms are non-native English speakers the majority of manual laborers hired.

Chart 5: Percentage of Low Skill/Manual Laborers Hired in the Past Year That Do Not Speak English as Their First Language



- All sectors report at least some low skill/manual laborers who do not speak English as their first language. Sixteen percent of animal slaughtering and processing employers report that at least a quarter of their newly hired low skill/manual laborers do not speak English as their first language.

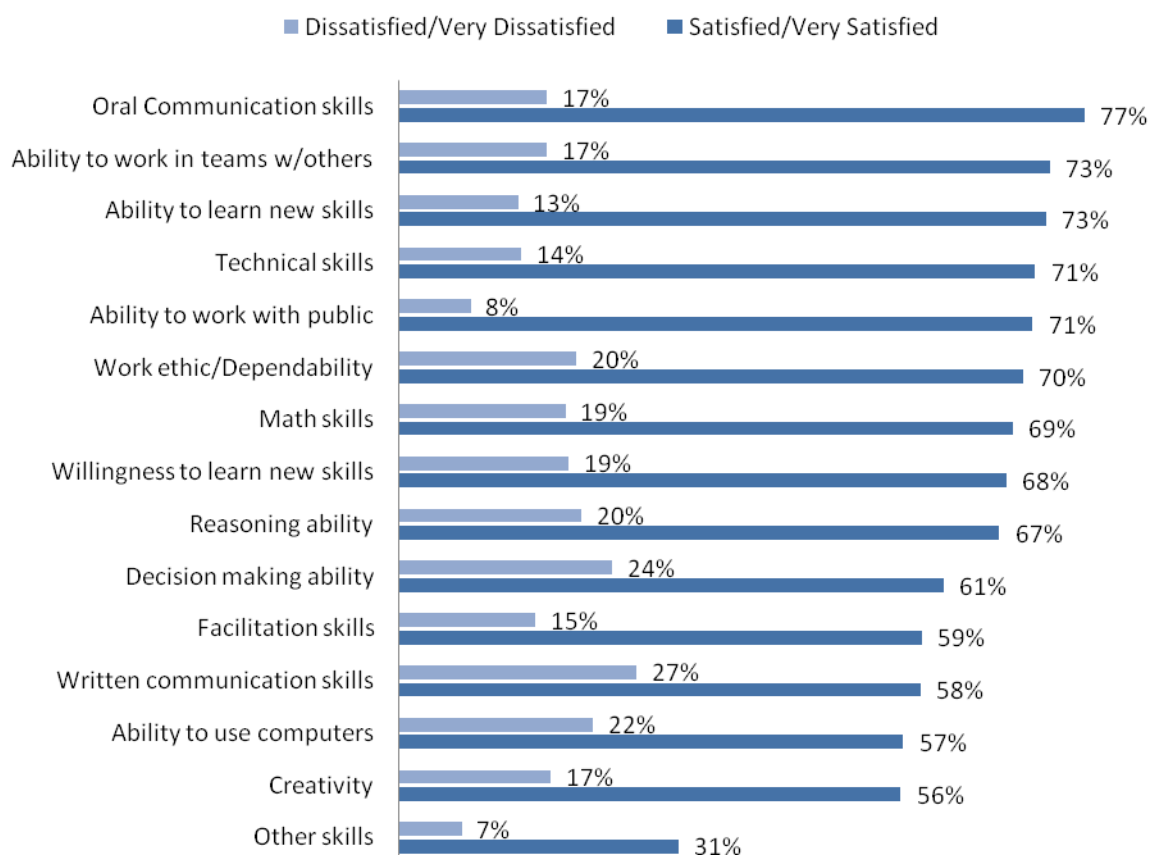
Employees' Skills

Employers are generally satisfied with a wide variety of employee skills (**Chart 6**). Seventy percent of employers or more are satisfied or very satisfied with their employees' oral communication skills, the ability to work in teams with others, the ability to learn new skills, their technical skills, their ability to work with the public and their work ethic.

Skills with which employers are less satisfied include their employees' decision making ability, their facilitation skills, their written communication skills, their computer skills and their creativity.

Employers could write in "other" skills. Email writing, common sense, and telephone skills were mentioned. Appendix B contains the complete compilation of "other" skills mentioned.

Chart 6: Employee Skill Satisfaction



Employers were then asked to take all of the skills listed and report with which one they were the most dissatisfied. The item with the highest dissatisfaction rate, at 18%, is work ethic/dependability. The second highest rate of dissatisfaction is for reasoning ability at 12%, and the third is *willingness* to learn new skills at 11%. Interestingly, no employers said that they are the most dissatisfied with their employee's *ability* to learn new skills. It is also interesting that employers rated work ethic relatively highly overall, which suggests that this may be a fairly focused concern in a minority of employees.

- All nine bioenergy firms reported that they are very satisfied or satisfied with their employees' reasoning ability.
- Forty-two percent of animal slaughtering and processing employers are dissatisfied or very dissatisfied with their employees' work ethic/dependability.

Employee Skills Needed for Success

When employers were asked to compare how the skills needed for success five years ago compare to those needed today, most employers believe the skills for success have expanded, either greatly or slightly, in most of the work categories. (**Table 7a**). On average, across all categories, 63% of employers believe employee skills needed for success have expanded either greatly or slightly in the past 5 years. There were few cases of an employer saying that employee skills have declined (either slightly or greatly) in any of the employee categories. A sizeable portion of employers, ranging from 22% (for management skills) to 50% (for low skill/manual labor skills) believe there has been no change in the skills needed for success compared to 5 years ago.

Employers' opinions regarding the *next five years* are very similar to their opinions about how skill requirements evolved over the previous 5 years (**Table 7b**). Seventy-two percent of employers, on average across all work categories, believe that employee skills will expand greatly or slightly over the next five years. Very few feel that needed skill levels will be lower in the future. As was the case when comparing current skill needs with five years ago, some employers, ranging from 17% (for management skills) to 35% (for low skill/manual labor) believe that there will be no change over the next five years in skills needed for employee success.

Table 7a: Compared To 5 years ago, how have the skills needed for success by employees changed by category?

	Expanded Greatly	Expanded Slightly	No Change	Declined Slightly	Declined Greatly
Management	31%	47%	22%	0%	0%
Ag/Food Science Technician	20%	39%	39%	1%	1%
Packaging/Machine Operators	10%	51%	38%	0%	1%
Maintenance/Repair Technicians	18%	49%	31%	1%	1%
Sales Reps	27%	37%	36%	1%	1%
Bookkeeping/Accounting	14%	51%	34%	0%	0%
Low skill/Manual Laborers	5%	43%	50%	1%	0%

Table 7b: Over the next 5 years, how do you expect the skills needed for success to change by category?

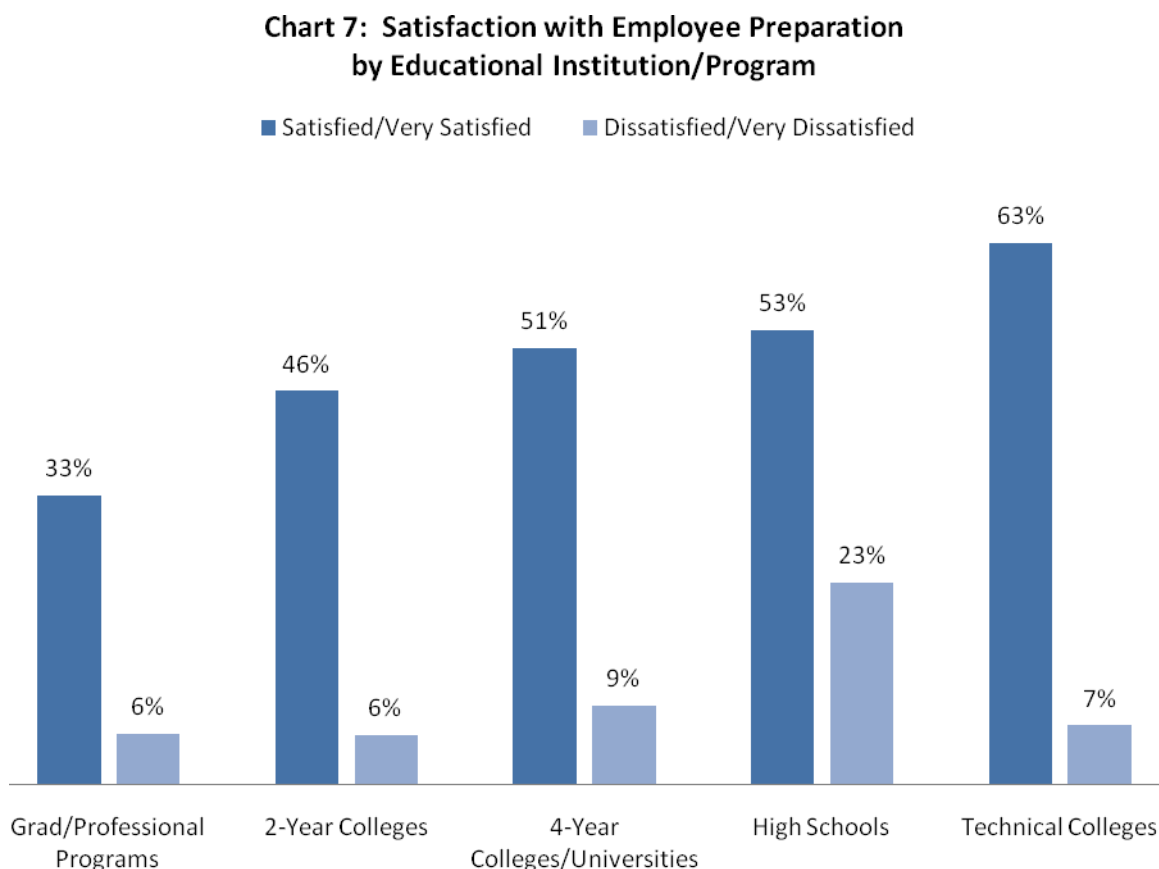
	Expand Greatly	Expand Slightly	No Change	Decline Slightly	Decline Greatly
Management	28%	55%	17%	0%	0%
Ag/Food Science Technician	18%	51%	31%	1%	0%
Packaging/Machine Operators	13%	58%	28%	1%	0%
Maintenance/Repair Technicians	17%	57%	25%	1%	0%
Sales Reps	24%	50%	26%	0%	0%
Bookkeeping/Accounting	11%	60%	28%	0%	0%
Low skill/Manual Laborers	7%	55%	35%	2%	0%

- All of the bioenergy firms report that *compared to five years ago*, the skills needed for managerial success have expanded (either slightly or greatly).
- At least two-thirds of employers in all of the sectors believe that the skills needed by their managers will expand (either slightly or greatly) *over the next five years*.
- Eighty-six percent of farm supply wholesalers expect that skills needed for successful sales reps will expand slightly or greatly; 72% of bioenergy firms concur.

Employee Education/Training

Employee Preparation

Employers were asked how satisfied they are with the ability of educational institutions to prepare employees for jobs in their businesses. Substantially more are satisfied than dissatisfied with the performance of Wisconsin's educational institutions; a majority of employers are satisfied/very satisfied with technical colleges, high schools, and 4-year colleges/universities (**Chart 7**).

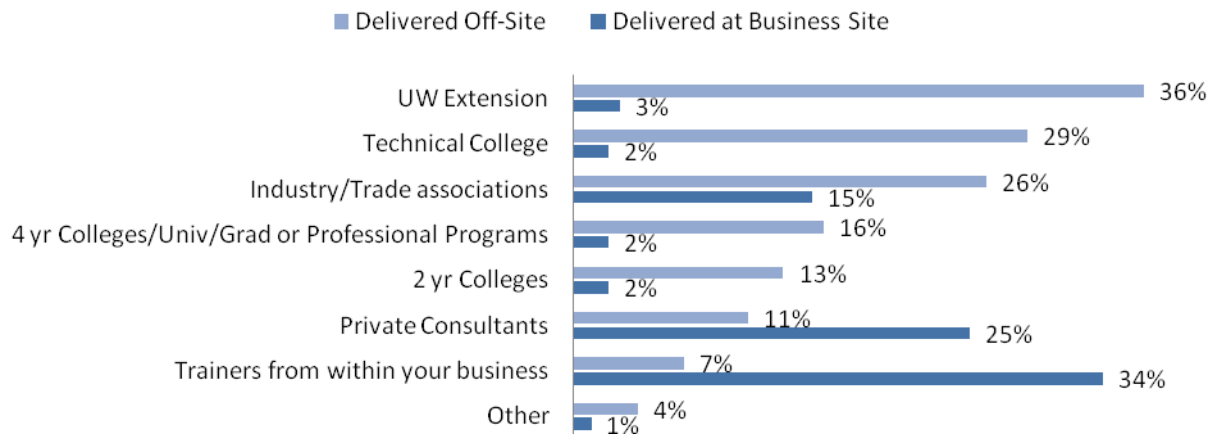


- Almost one-quarter of employers are dissatisfied with the ability of high schools to prepare their employees for jobs in their businesses.
- The highest satisfaction from the four sectors comes from dairy product manufacturers with 73% very satisfied or satisfied with technical colleges' ability to prepare their employees.
- Animal slaughtering and processing employers have the highest rate of concern about Wisconsin's high schools; 32% are dissatisfied or very dissatisfied with high schools' ability to prepare their employees.

Providers of Training/Educational Programs

Chart 8 shows that roughly four in ten employers have had UW-Extension, industry/trade associations, or trainers from within their own business provide training/educational programs, delivered on or off-site, to their employees during the past year. Employers wrote in "other" programming they have used during the past year. Examples include videos and high schools. Appendix B contains the complete compilation of "other" providers of training/educational programming.

Chart 8: Providers of Training/Educational Programs for Employees During the Past Year

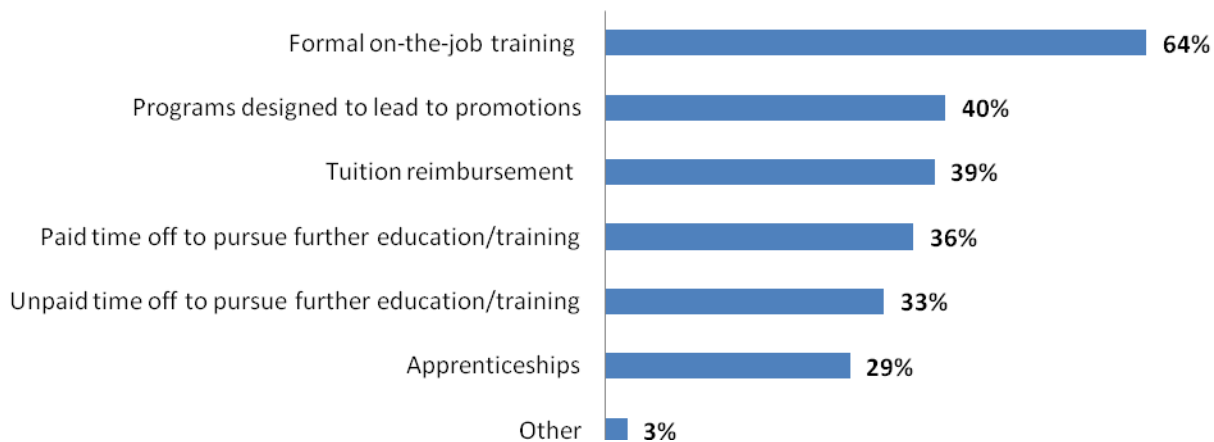


- Over half of dairy product manufacturing employers (56%) report industry/trade association training/educational programs both off and on-site during the past year.

Training/Educational Programs Offered to Employees

Employers were asked about the types of training/educational programs offered to their employees (**Chart 9**). Almost two-thirds of employers provide formal on-the-job training, this is also the most common type of employee training offered in the four sectors. Four in ten employers provide programs designed to lead to promotions and nearly forty percent provide tuition reimbursement. Appendix B contains the complete compilation of “other” types of training/educational programs.

Chart 9: Training/Educational Programs for Employees



- Dairy product manufacturers report the highest level of formal, on-the-job, training programs at 78%. The lowest level of formal, on-the-job, training is reported by bioenergy firms at 50%.
- Sixty-three percent of bioenergy firms and 59% of dairy product manufacturers provide tuition reimbursement.

Employee Compensation/Benefits

Table 8 highlights the benefits provided to employees as reported by employers. One-half or more firms offer their full-time employees health insurance for themselves, health insurance for the employee and their family, paid sick leave, and retirement savings plans. A retirement savings plan is the only benefit provided to full and part-time employees by more than 10% of employers. Employers wrote in “other” benefits offered to employees. Examples include free cheese and bonuses. Appendix B contains the complete compilation of “other” benefits.

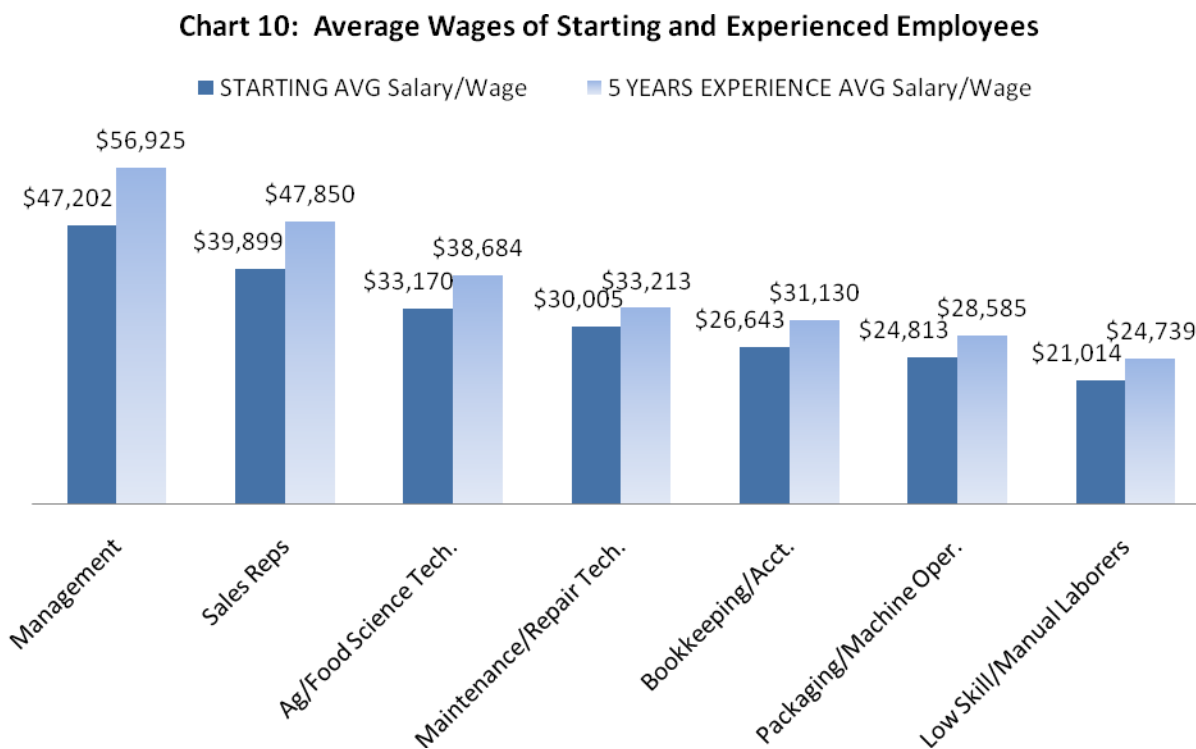
	Offered to Full-Time Employees Only	Offered to Full and Part-Time Employees	Don't Offer
Health Insurance for Employee	63%	9%	28%
Health Insurance for Employee and Family	60%	9%	31%
Paid Sick Leave	53%	9%	38%
Retirement Savings Plan (e.g. 401k)	50%	17%	33%
Disability Insurance	44%	9%	48%
Life Insurance	43%	7%	49%
Dental Insurance	39%	6%	56%
Health Savings Accounts	29%	5%	66%
Other	27%	18%	55%
Profit Sharing Options	24%	9%	67%
Defined Pension Plan	21%	8%	71%
Employee Stock Option Plan	4%	4%	94%

- Relatively high levels of bioenergy employers (88%) and dairy product employers (84%) provide health insurance for their full-time employees; less for farm supply wholesalers (59%), and animal slaughtering and processing employers (51%).
- As was the case with health insurance for employees, when asked about health insurance for employees and their families, 84% of dairy product manufacturing employers provide this benefit to full-time employees as do 75% of bioenergy firms, 57% of farm supply wholesalers, and 43% of animal slaughtering and processing employers.
- Approximately one-half of bioenergy firms and dairy product manufacturers provide health saving accounts to full-time workers.
- All bioenergy firms report that they offer paid sick leave; slightly over one-fourth (26%) of animal slaughtering and processing firms report this benefit.

Average Start Wage/Experience Wage by Category

Employers were asked what a typical starting salary/wage was for specific employee categories. A follow-up question asked what an average salary/wage would be for an employee with about five years experience. The SRC converted hourly wages into yearly salaries for comparison purposes (annual wages have been calculated by multiplying the hourly wage by a figure of 2,000 hours). Average annual starting and experienced wages are shown in Chart 10.

For all employee categories, a starting employee could expect between a 10% to 17% average salary/wage increase with about 5 years experience. Management and sales reps were the two employee categories showing the highest increase in wages based on experience at 17%. The lowest increase per category was the 10% increase shown between a starting maintenance/repair technician and an experienced one.



Average Start Wage/Experience Wage by Sector

Table 9 provides average salaries for starting and experienced personnel by sector. For all categories, bioenergy firms have the highest starting wages and highest wages for employees with about 5 years experience. Animal slaughter and processing employers report the lowest average annual wage for both a starting employee and an experienced one.

Table 9: Average Annual Salaries of Starting and Experienced Employees by Category and Sector				
Category	Dairy Product Manufacturing	Animal Slaughter and Processing	Farm Supply Wholesalers	Bioenergy
Management - Starting	\$45,790	\$37,487	\$48,989	\$79,000
Management - Experienced	\$64,219	\$47,362	\$57,299	\$67,500*
Ag/Food Science Tech - Starting	\$30,887	\$29,047	\$36,222	\$40,000
Ag/Food Science Tech - Experienced	\$35,759	\$34,988	\$43,200	\$45,000
Sales Reps - Starting	\$41,350	\$34,250	\$40,399	\$45,000
Sales Reps - Experienced	\$48,300	\$41,375	\$48,812	\$60,000
Bookkeeping/Acct- Starting	\$27,167	\$24,310	\$26,647	\$36,800
Bookkeeping/Acct - Experienced	\$31,504	\$31,052	\$30,922	\$40,000
Packaging/Machine Oper - Starting	\$25,032	\$21,584	\$25,731	\$34,400
Packaging/Machine Oper - Experienced	\$29,259	\$25,344	\$29,738	\$40,000
Maintenance/Repair Tech - Starting	\$32,024	\$28,514	\$29,067	\$35,400
Maintenance/Repair Tech - Experienced	\$33,006	\$33,749	\$32,907	\$40,000
Low skill/Manual Laborer - Starting	\$21,568	\$19,361	\$21,396	\$24,667
Low skill/Manual Laborer - Experienced	\$25,491	\$22,115	\$25,486	\$28,000

*Bioenergy firms provided 'starting' managerial employee annual wage information ranging from \$50,000 to \$150,000; information for 'experienced' managers was provided ranging from \$50,000 to \$85,000.

Although not exact matches in terms of the sector's classifications in the North American Industry Classification System (NAICS), the US. Department of Labor, Bureau of Labor Statistics reported in 2007 an annual mean wage *in Wisconsin* of \$27,390 in the Farming, Fishing, and Forestry Occupations.¹ National NAICS data reports that in 2007 the average wage for dairy product manufacturing (all occupations) was \$36,490,² animal slaughter and processing (all occupations) was \$26,390,³ and misc. nondurable goods merchant wholesalers (all occupations) was \$36,750.⁴

¹ Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics, 10/8/08.
[http://www.bls.gov/oes/current/oes_wi.htm#\(2\)](http://www.bls.gov/oes/current/oes_wi.htm#(2)).

² Ibid. http://www.bls.gov/oes/current/naics4_311500.htm

³ Ibid. http://www.bls.gov/oes/current/naics4_311600.htm

⁴ Ibid. http://www.bls.gov/oes/current/naics4_424900.htm

Additional Comments

Employers were asked to provide final comments about labor issues as they affect their business. Twelve percent or thirty-two employers provided additional comments. One-third of all written comments pertain to employers' concern with the lack of employee skills, lack of work ethic, and difficulty finding employees to do physical labor. The 'negative' comments were evenly dispersed among three sectors: dairy product manufacturing, animal slaughtering and processing, and farm supply wholesalers. Other miscellaneous comments pertained to organizational structure (i.e., we are a small family operated business) or comments regarding the applicability of the survey to their organization (i.e., my husband only runs our business – we have no employees).

Typical comments include:

"Very disappointed in the quality of grads coming out of 4 year colleges. They basically come out of college with no skills."

"We work outdoors and some of our jobs are dirty and labor intensive and it seems young people now days don't seem too interested in working this type of job."

"We struggle to find manual laborers. Where are all the people who were laid off? I would think they need a job. We start at \$10.10 per hour. Not sure if wage, location or type of work is the issue. People of all ages start and then quit within 2 weeks. Poor work ethic of those who apply. Where are all the "go getters?"

Additional comments describe other labor concerns:

"Our business is too small for most of these questions. Can't afford more employees so we have to work 168 hr. days as owners to make it!"

"We struggle with government problems more than anything. The regulation paper work takes too much time from economy stuff. Looks like we will struggle to serve with outlook (in) future with tax load and license fees."

"We're downsizing and using third party providers more than we've ever done before. Moved most production work out of state to a third party - see this trend continuing."

Appendix B contains the complete compilation of final comments.

Conclusions

This survey was designed to assess the demand for workers in several key agricultural and natural resource industries. In addition, the survey examined employee attributes, employee wages, benefits, and employer-provided training and skills demanded by firms. Estimates provided in this report include:

- The majority of employers anticipate no major changes over the next five years in occupations within their firms.
- A majority of employers are, relative to a year ago, finding it more difficult to find new employees at current wage levels and benefits in all categories listed with two exceptions, bookkeeping/accounting and low skill/manual laborers.
- Seventy-seven percent of employers are satisfied or very satisfied with their employees' oral communication skills; 27% are dissatisfied or very dissatisfied with their employees' writing skills.
- Almost two-thirds of employers offer health insurance to their full-time employees.

In terms of the four sectors that were surveyed:

Dairy Product Manufacturers

Dairy product manufacturers were more likely than the other three sectors to have over one hundred full-time employees. Finding maintenance/repair technicians and ag/science technicians at current wage and benefit levels is difficult or very difficult for a large number of these employers. Dairy product manufacturers report the highest level of formal, on-the-job, training programs at 78%. **High levels (84%) provide health insurance for their full-time employees.**

Animal Slaughtering and Processing

Animal slaughter and processing employers report the lowest average annual wage for both a starting employee and an experienced one. One-fifth report 26% or more turnover each year for low skill/manual laborers. Sixteen percent of animal slaughtering and processing employers report that at least a quarter of their newly hired low skill/manual laborers do not speak English as their first language. **Forty-two percent are dissatisfied or very dissatisfied with their employees' work ethic/dependability.**

Farm Supply Wholesalers

Farm supply wholesalers are the most likely of the four sectors to have 10 or fewer full-time employees. Over three-fourths (79%) report having either a difficult or very difficult time finding sales reps, 77% find it difficult or very difficult to find managerial employees, and 70% find it difficult or very difficult to find ag/science technicians. **Seventy-one percent of farm supply wholesalers report that it is more difficult or much more difficult to find sales reps as compared to a year ago.**

Bioenergy Firms

For all employee categories, bioenergy firms have the highest starting wages and highest wages for employees with about 5 years experience. All bioenergy firms report that they offer paid sick leave. Eighty-eight percent provide health insurance for their full-time employees; seventy-five percent provide insurance for employees and their families. The lowest level of formal, on-the-job, training is reported by bioenergy firms at 50%.

Appendix A – Non-Response Bias Test

Any survey has to be concerned with “non-response bias.” Non-response bias refers to a situation in which people who do not return a questionnaire have opinions that are systematically different from the opinions of those who return their surveys. For example, suppose employers are very satisfied with their employees’ math skills (Question 10c), whereas most of those who did not return their questionnaire are not satisfied. In this case, non-response bias would exist and the raw results would overstate the level of satisfaction with employee math skills.

The standard way to test for non-response bias is to compare the responses of those who return the first mailing of a questionnaire to those who return the second mailing. Those who return the second questionnaire are, in effect, a sample of non-respondents (to the first mailing), and we assume that they are representative of that group. In this survey, 166 employers responded to the first mailing and 104 responded to the second mailing.

We found 15 variables with statistically significant differences between the mean responses of these two groups of respondents (Table A1) out of 119 tested. In most cases, the difference of opinion between the first and second mailing are differences of degree (they would round to the same integer value) rather than a substantive difference. Because of the relatively small differences in the magnitude of responses of first and second mailing respondents, **the Survey Research Center (SRC) concludes that non-response bias was not a concern for this sample.**

Variable	Mean First Mailing	Mean Second Mailing	Stat. Signif.
Q3e. Over Next 5 Years: Expect Employee Numbers to Change: Sales Reps	3.38	3.15	.021
Q3f. Over Next 5 Years: Expect Employee Numbers to Change: Bookkeeping/Acct.	3.21	3.03	.034
Q3g. Over Next 5 Years: Expect Employee Numbers to Change: Low skill/Man. Labor	3.48	3.12	.001
Q4b. Difficulty Finding New Employees: Ag/Food Science Technicians	2.10	2.38	.027
Q5c. Compared to Year Ago: Difficult Finding New Empl: Packaging/Machine Oper.	2.28	2.51	.024
Q8f. Employees Needing Formal Education Beyond High School: Bookkeeping/Acct.	3.16	2.72	.034
Q10m. Satisfaction with Employees Skills: Ability to work with public	2.29	2.08	.039
Q10n. Satisfaction with Employees Skills: Creativity	2.59	2.32	.030
Q12b. Compared to 5 Years Ago: Skills Needed for Success: Ag/Food Science Tech.	2.13	2.40	.040
Q12f. Compared to 5 Years Ago: Skills Needed for Success: Bookkeeping/Acct.	2.14	2.37	.018
Q13b. Over the Next 5 Years: Skills Needed for Success: Ag/Food Science Tech.	2.06	2.29	.038
Q14b. Satisfaction with Employee Preparation: Technical Colleges	2.57	2.29	.039
Q16c. Training/Educational Programs: Designed to Lead to Promotions	1.52	1.73	.003
Q16f. Training/Educational Programs: Tuition Reimbursement	1.55	1.73	.007
Q17g. Benefits: Disability Insurance	2.33	2.50	.048

Appendix B: Wisconsin Agricultural and Natural Resource Sector Labor Survey

Written Comments

Q10 In general, how satisfied are you with your employees' skills in the following areas?

'Other Skill' responses (6 Comments)

The scale used for this question was Very Satisfied → Very Dissatisfied. By each answer is the satisfaction rating that was given for the 'other skill' described.

- Common sense - Satisfied
- Email writing - Dissatisfied
- Manual laborers – No Opinion
- Nothing is even good enough for the manual laborers – Very Dissatisfied
- Telephone – Very Satisfied
- Whatever – Very Satisfied

Q15 Please identify all providers of training/educational programs your business has used for your employees during the past year. Please indicate if these programs were delivered at your business, off-site or both.

'Other' responses (14 Comments)

If respondents reported how the programs were delivered, they are listed by the right of their answers.

- None/None of the above (2x)
- Seminars (2x) – off business site
- 2-3 short courses – off business site
- CDR – off business site
- Companies – off business site
- High School
- High School Ag Dept. – at business site
- Sales Reps/Consultants from those who supply us with products – both on and off site
- Seed Companies – both on and off site
- State Programs – off business site
- Suppliers – at business site
- Videos – off business site

Q16 Does your business offer the following training/educational programs?

'Other' responses (4 comments)

- No/none (2x)
- On the job training
- Seminars

Q17 Does your business offer the following benefits?

'Other' responses (26 Comments)

- | | | |
|--|---|-------------------------|
| • Paid vacation (6x) | • ESOP | • Personal days |
| • Year end bonus (3x) | • Free cheese | • Personnel time |
| • Vacation (2x) | • Free meals | • Product discounts |
| • Vision ins. (2x) | • Holiday | • Vacation pay |
| • 401k match, HSA-put money in employees' accounts | • Incentives | • Variable compensation |
| • Bonuses | • No money in the above for us, let alone the employees | |

Q20 Do you have any final comments about labor issues as they affect your business? (32 Comments)

Employees

- Butchers and meat cutters who know how to break down beef and hogs are impossible to find. A course offered in this field would be very helpful. The need will always be there.
- Communication between Spanish speakers and English speakers
- Drugs. Very prevalent among workforce. Over 50% of all applicants fail test. Ethics- Poorly reared. Poor parents. No ethics. Lazy. Cell Phones - Very bad. Used too much. Too dependent upon.
- If you want to hire illegal workers, there is many to choose from.
- It is becoming hard to find employees to do physical or dirty jobs.
- It is getting more difficult to hire low skill manual labor with high school education. More Hispanics are being hired that don't know English which makes it hard to communicate. The other option is to incur a higher turnover rate. Hispanic workers as a whole are great workers, where we see young, white, non-educated workers have poor work ethic.
- Meat packing plants seem to attract poor quality workers in the low skills areas.
- Need more skilled people in agriculture
- Need workers to have more care for the job & common sense!
- Our managers all have worked for our company for over 20 yrs. Question on starting wages.
- Some employees are great. Some are not.
- Use "head hunter firms to fill management & sales positions." Word of mouth has worked best to fill hourly positions.
- Very disappointed in the quality of grads coming out of 4-year colleges. They basically come out of college with no skills.
- We are finding it extremely difficult to acquire younger workers who have initiative and good work ethic habits. There seems to be a lack of commitment, across the board, to getting a job done correctly and in a fashion to be proud of. Nobody seems to care about efficient work until its time to stand in line for the pay check.
- We employ mostly truck drivers and there is a turn over and it is difficult to find good, responsible, reliable drivers.
- We need more young people that will work 5 days a week as laborers, not just schooling.
- We struggle to find manual laborers. Where are all the people who were laid off? I would think they need a job. We start at \$10.10 per hour. Not sure if wage, location or type of work is the issue. People of all ages start and then quit within 2 weeks. Poor work ethic of those who apply. Where are all the "go getters"
- We work outdoors and some of our jobs are dirty and labor intensive and it seems young people now days don't seem too interested in working this type of job.
- Work ethic & dependability is our greatest issue with today's workforce

Miscellaneous

- I sold my business in April but have passed the survey request on to the new buyer. Apparently, he never filled it out. I'm doing as though I was still the principal.
- No farmers **(from Farm Supply Wholesaler)**
- No this was hard for us to answer, as we don't fit into a certain field. We custom blend vitamins and minerals for dairy feed.
- Our business is relatively new so completing questions for 5yrs +/- are difficult.
- Our business is too small for most of these questions. Can't afford more employees so we have to work 168 hr days as owners to make it!!
- Our little sausage making business is just to supplement the owner and only employee's social security. We do not plan to hire or expand in the future. The owner is 70 years old.
- We are a small family operated business
- We pay extremely well; seldom any turnovers and we give good benefits.
- We struggle with government problems more than anything. The regulation paper work takes too much time from economy stuff. Looks like we will struggle to serve with outlook in future with tax load and license fees.
- We're downsizing & using 3rd party providers more than we've ever done before. Moved most production work out of state to a 3rd party-see this trend continuing.

Survey Does Not Apply

- This doesn't apply to my business
- We have one employee - related to husband and wife owned business none of these questions apply.
- We really do not qualify for this survey. My husband only runs our business - we have no employees

Appendix C: Quantitative Summary of Responses by Question

Wisconsin Agricultural and Natural Resource Sector Labor Survey

Please completely fill the “bubble” that corresponds to your selection. Like this: ☒ Not like this: ☐ ☐ ☐

DEMAND FOR LABOR

1. Approximately how many employees do you have in your business who are:

	10 or Fewer	11 – 25	26 – 50	51 – 100	101 or More
a. Full-Time (35+ hours/week)	48%	21%	12%	8%	12%
b. Part-Time (less than 35 hrs/wk)	83%	9%	4%	2%	1%

2. Approximately how many of your employees fall into the following categories?

	0	1 – 5	5 – 10	11 – 25	25+
a. Management	12%	67%	11%	7%	4%
b. Ag/Food Science Technicians	53%	33%	9%	4%	2%
c. Packaging/Machine Operators	25%	44%	15%	7%	8%
d. Maintenance/Repair Technicians	27%	57%	8%	4%	4%
e. Sales Reps	26%	58%	9%	4%	4%
f. Bookkeeping/Accounting	12%	80%	4%	3%	0%
g. Low skill/Manual laborers	12%	46%	15%	11%	16%

3. Over the next 5 years, how do you expect employee numbers in the following categories to change?

	Down 10%+	Down 1-10%	No Change	Up 1-10%	Up 10%+
a. Management	2%	3%	73%	20%	2%
b. Ag/Food Science Technician	3%	1%	74%	20%	2%
c. Packaging/Machine Operators	2%	2%	65%	27%	4%
d. Maintenance/Repair Technicians	2%	2%	70%	24%	2%
e. Sales Reps	3%	2%	62%	29%	4%
f. Bookkeeping/Accounting	3%	4%	71%	20%	2%
g. Low skill/Manual laborers	3%	6%	51%	35%	6%

4. Currently, how difficult is it for you to find new employees, at current wage and benefit levels, in the following categories?

	Very Difficult	Difficult	Easy	Very Easy
a. Management	20%	53%	25%	2%
b. Ag/Food Science Technician	18%	47%	32%	3%
c. Packaging/Machine Operators	9%	49%	39%	3%
d. Maintenance/Repair Technicians	11%	56%	31%	2%
e. Sales Reps	23%	47%	26%	4%
f. Bookkeeping/Accounting	7%	40%	50%	3%
g. Low skill/Manual laborers	9%	35%	47%	8%

5. Compared to a year ago, how difficult is it to find new employees in the following categories?

	Much More Difficult	More Difficult	Easier	Much Easier
a. Management	9%	55%	34%	1%
b. Ag/Food Science Technician	8%	57%	34%	1%
c. Packaging/Machine Operators	7%	50%	43%	1%
d. Maintenance/Repair Technicians	5%	53%	40%	1%
e. Sales Reps	11%	53%	34%	2%
f. Bookkeeping/Accounting	4%	45%	49%	1%
g. Low skill/Manual laborers	6%	41%	47%	6%

6. Approximately what percentage of your employees in the following categories turnover each year?

(% turnover = the percent you need to replace because of retirements, resignations, or firings)

	0%	1 – 25%	26 – 50%	51 – 75%	76 – 100%
a. Management	78%	22%	0%	0%	0%
b. Ag/Food Science Technician	73%	27%	1%	0%	0%
c. Packaging/Machine Operators	48%	46%	5%	1%	0%
d. Maintenance/Repair Technicians	61%	38%	1%	0%	0%
e. Sales Reps	64%	34%	1%	0%	0%
f. Bookkeeping/Accounting	69%	29%	1%	0%	0%
g. Low skill/Manual laborers	30%	55%	10%	3%	1%

7. Approximately what percentage of the positions in your firm in the following categories are currently vacant?

	0%	1 – 5%	6 – 10%	More than 10%
a. Management	90%	9%	0%	1%
b. Ag/Food Science Technician	87%	10%	1%	2%
c. Packaging/Machine Operators	83%	14%	2%	1%
d. Maintenance/Repair Technicians	88%	10%	1%	1%
e. Sales Reps	84%	10%	3%	3%
f. Bookkeeping/Accounting	90%	8%	1%	1%
g. Low skill/Manual laborers	73%	19%	8%	1%

EMPLOYEE ATTRIBUTES

8. Approximately what percentage of your employees in the following categories do you feel need formal education beyond high school (e.g. technical college, community college, university, etc.)?

	0%	1 – 25%	26 – 50%	51 – 75%	76 – 100%
a. Management	16%	22%	7%	12%	42%
b. Ag/Food Science Technician	31%	20%	7%	12%	30%
c. Packaging/Machine Operators	50%	26%	17%	5%	2%
d. Maintenance/Repair Technicians	29%	26%	22%	13%	9%
e. Sales Reps	26%	21%	9%	17%	28%
f. Bookkeeping/Accounting	20%	24%	15%	15%	25%
g. Low skill/Manual laborers	62%	25%	10%	1%	1%

9. What percent of you employees hired in the past year in the following categories don't speak English as their 1st language?

	0%	1 – 25%	26 – 50%	51 – 75%	76 – 100%
a. Management	99%	1%	0%	0%	0%
b. Ag/Food Science Technician	98%	1%	1%	0%	0%
c. Packaging/Machine Operators	93%	4%	2%	0%	0%
d. Maintenance/Repair Technicians	98%	2%	0%	0%	0%
e. Sales Reps	99%	1%	0%	0%	0%
f. Bookkeeping/Accounting	99%	1%	0%	0%	0%
g. Low skill/Manual laborers	83%	12%	1%	3%	1%

10. In general, how satisfied are you with your employees' skills in the following areas?

	Very Satisfied	Satisfied	No Opinion	Dissatisfied	Very Dissatisfied
a. Oral communication skills	18%	59%	6%	16%	0%
b. Written communication skills	13%	45%	15%	25%	2%
c. Math skills	14%	55%	13%	19%	0%
d. Technical skills	14%	57%	15%	13%	0%
e. Reasoning ability	13%	54%	12%	19%	1%
f. Decision making ability	13%	49%	15%	22%	2%
g. Work ethic/dependability	25%	45%	10%	19%	1%
h. Ability to work in teams with others	19%	54%	10%	15%	1%
i. Ability to learn new skills	16%	57%	14%	13%	0%
j. Willingness to learn new skills	17%	51%	13%	18%	1%
k. Facilitation skills	12%	47%	26%	15%	0%
l. Ability to use computers	10%	46%	22%	20%	2%
m. Ability to work with public	16%	55%	21%	8%	0%
n. Creativity	13%	43%	27%	16%	1%
o. Other skill See Appendix B Comments	9%	22%	62%	6%	1%

11. If you are dissatisfied with your employees' skills in any of the areas mentioned in question 10, with which are you most dissatisfied? (please write the appropriate letter, a – n, in the following space): _____

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
7%	9%	6%	2%	12%	9%	18%	10%	0%	11%	2%	10%	1%	3%	1%

12. Compared to 5 years ago, how have the skills needed for success in the following employee categories changed?

	Expanded Greatly	Expanded Slightly	No Change	Declined Slightly	Declined Greatly
a. Management	31%	47%	22%	0%	0%
b. Ag/Food Science Technician	20%	39%	39%	1%	1%
c. Packaging/Machine Operators	10%	51%	38%	0%	1%
d. Maintenance/Repair Technicians	18%	49%	31%	1%	1%
e. Sales Reps	27%	37%	36%	1%	1%
f. Bookkeeping/Accounting	14%	51%	34%	0%	0%
g. Low skill/Manual laborers	5%	43%	50%	1%	0%

13. Over the next 5 years, how do you expect the skills needed for success in the following employee categories to change?

	Expand Greatly	Expand Slightly	No Change	Decline Slightly	Decline Greatly
a. Management	28%	55%	17%	0%	0%
b. Ag/Food Science Technician	18%	51%	31%	1%	0%
c. Packaging/Machine Operators	13%	58%	28%	1%	0%
d. Maintenance/Repair Technicians	17%	57%	25%	1%	0%
e. Sales Reps	24%	50%	26%	0%	0%
f. Bookkeeping/Accounting	11%	60%	28%	0%	0%
g. Low skill/Manual laborers	7%	55%	35%	2%	0%

EMPLOYEE EDUCATION/TRAINING

14. In terms of preparing your employees for jobs in your business, how satisfied are you with the following?

	Very Satisfied	Satisfied	No Opinion	Dissatisfied	Very Dissatisfied	Not Applicable
a. High schools	8%	45%	22%	20%	4%	2%
b. Technical Colleges	9%	54%	26%	6%	0%	4%
c. 2-Year Colleges	6%	40%	42%	5%	0%	7%
d. 4-Year Colleges/Universities	10%	41%	34%	8%	1%	6%
e. Grad/Professional Programs	6%	28%	50%	4%	1%	11%

15. Please identify all providers of training/educational programs your business has used for your employees during the past year. Please indicate if these programs were delivered at your business, off-site or both.

	At my business site	Off my business site	Both
a. UW-Extension	3%	36%	2%
b. Technical College	2%	29%	2%
c. 2-Year Colleges	2%	13%	1%
d. 4-Year Colleges/Universities/Grad or Professional Programs	2%	16%	1%
f. Trainers from within your business	34%	7%	11%
g. Private consultants	25%	11%	8%
h. Industry/Trade associations	15%	26%	10%
i. Other See Appendix B Comments	1%	4%	1%

16. Does your business offer the following training/educational programs?

	Yes	No
a. Apprenticeships	29%	71%
b. Formal on-the-job training programs (improve employees' skills in current positions)	64%	36%
c. Programs designed to lead to promotions (prepare employees' for higher positions)	40%	60%
d. Unpaid time off from work to pursue further education/training	33%	67%
e. Paid time off from work to pursue further education/training	36%	64%
f. Tuition re-imbursement programs	39%	61%
g. Other See Appendix B Comments	3%	97%

EMPLOYEE COMPENSATION/BENEFITS

17. Does your business offer the following benefits?

	Offered to Full- & Part-Time Emps	Offered to Full- Time Emps Only	Don't Offer
a. Health insurance for employee	9%	63%	28%
b. Health insurance for employee and family	9%	60%	31%
c. Health savings accounts	5%	29%	66%
d. Defined pension plan	8%	21%	71%
e. Retirement savings plan (e.g. 401k)	17%	50%	33%
f. Employee stock option plan	2%	4%	94%
g. Disability insurance	9%	44%	48%
h. Dental insurance	6%	39%	56%
i. Life insurance	7%	43%	49%
j. Paid sick leave	9%	53%	38%
k. Profit sharing options	9%	24%	67%
L. Other See Appendix B Comments	18%	27%	55%

18. For each of the following employee categories, what is a typical starting salary/wage in your firm? (please specify amount per year for a salary or per hour for a wage)

	AVG Salary/Wage
a. Management	\$47,202 per year
b. Ag/Food Science Technician	\$33,170 per year
c. Packaging/Machine Operators	\$24,813 per year
d. Maintenance/Repair Technicians	\$30,005 per year
e. Sales Reps	\$39,899 per year
f. Bookkeeping/Accounting	\$26,643 per year
g. Low skill/Manual laborers	\$21,764 per year

19. For each of the following employee categories, what is an average salary/wage for an employee with about 5 years experience in your firm? (please specify amount per year for a salary or per hour for a wage)

	AVG Salary/Wage
a. Management	\$56,925 per year
b. Ag/Food Science Technician	\$38,684 per year
c. Packaging/Machine Operators	\$28,585 per year
d. Maintenance/Repair Technicians	\$33,213 per year
e. Sales Reps	\$47,850 per year
f. Bookkeeping/Accounting	\$31,130 per year
g. Low skill/Manual laborers	\$24,739 per year

20. Do you have any final comments about labor issues as they affect your business? **See Appendix B Comments**

Thanks for completing the survey!
Please return your survey by _____, 2008 to:
Survey Research Center
 University of Wisconsin - River Falls
 410 S. Third St., 124 Regional Development Institute
 River Falls, WI 54022-5001