

WORKFORCE NEEDS ASSESSMENT



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Iowa Workforce Development conducted the third annual Workforce Needs Assessment from July 2011 through January 2012. In addition to vacancy and retirement data, this year's survey included questions pertaining to average hourly starting wage. Analysis of the survey illustrates the demand for workers and skills required in the workforce. This information can be used by economic developers, government leaders, educators and state agencies to guide their decision making on issues related to workforce development, vocational training and employee recruitment programs.

Beginning in July 2011, 35,646 employers in the state were contacted and asked to complete the survey. Three attempts were made to contact each employer. By the end of the survey period (January 31, 2012), the survey had received 8,008 responses, yielding a 22.5 percent response rate.

Throughout this report, estimates and data are given by industry and by occupational category. Industry groups are developed around a specific product and employ many different occupations. Occupational categories are focused on the actual tasks done by a worker. The two formats are given to satisfy different end users of the data. Industry groups are of particular importance to economic developers and policy-makers. Occupational categories may be of more use to job seekers and educators.

Figure 1 details the survey respondents by industry, including the percentage of total current vacancies that are accounted for by each industry in the state. Vacancies are classified as current if they are, or will become, available within 12 months of the survey date.

These estimates are only valid if it is assumed that the vacancy rate for survey respondents and non-respondents is the same on average. The vacancy rate may be lower among non-respondents, as businesses that do not have current vacancies are less likely to respond to a Workforce Needs Assessment Survey.

Figure 1
Survey Respondents by Industry and Percentage of Current Vacancies

Industry	Percent of Respondents	Percent of Total Vacancies Reported	Estimated Vacancies
Healthcare & Social Services	13.2%	24.7%	9,753
Manufacturing	8.8%	14.0%	5,533
Wholesale & Retail Trade	20.1%	11.5%	4,509
Administrative & Waste Services	3.3%	10.4%	4,126
Accommodation & Food Services	5.6%	7.0%	2,764
Public Administration	5.2%	4.1%	1,625
Educational Services	4.5%	4.0%	1,571
Professional & Technical Services	7.4%	3.9%	1,522
Transportation & Warehousing	3.2%	3.7%	1,473
Finance, Insurance, & Real Estate	8.3%	3.4%	1,353
Construction	8.0%	3.3%	1,313
Personal Services	5.6%	2.6%	1,033
Management	0.8%	2.5%	1,006
Information	2.1%	2.4%	935
Agriculture & Mining	1.6%	1.4%	539
Arts, Entertainment, & Recreation	1.3%	0.8%	329
Utilities	1.0%	0.3%	129
Total	100%	100%	39,514

**totals may vary due to rounding methods*

Figure 2 (next page) shows estimated vacancies by occupational category. By breaking the data into separate occupational groups, we can see the majority of vacancies are within the office & administrative support; production; and healthcare support occupational categories, likewise, the highest number of vacancies by industry are in the healthcare and manufacturing industries. The occupational categories are clustered using the Standard Occupational Classification (SOC) system. Each broad category includes detailed occupations requiring similar job duties, skills, education, or experience.

Figure 2
Percentage of Current Vacancies by Occupational Category

Occupational Category	Percent of Total Vacancies Reported	Estimated Vacancies
Office & Administrative Support	12.2%	4,816
Production	10.7%	4,238
Healthcare Support	10.0%	3,953
Transportation & Material Moving	9.2%	3,655
Food Preparation & Serving Related	7.6%	3,000
Healthcare Practitioner & Technical	6.9%	2,738
Sales & Related	6.9%	2,729
Installation, Maintenance, & Repair	5.2%	2,061
Management	4.3%	1,683
Education, Training, & Library	3.5%	1,371
Personal Care & Service	3.4%	1,358
Construction & Extraction	2.6%	1,028
Business & Financial Operations	2.4%	944
Arts, Design, Entertainment, Sports, & Related	2.3%	926
Building & Grounds Cleaning & Maintenance	2.3%	908
Architecture & Engineering	2.1%	815
Computer & Mathematical Science	2.1%	810
Community & Social Science	1.8%	699
Life, Physical, & Social Science	1.7%	659
Farming, Fishing, & Forestry	1.5%	588
Protective Service	1.2%	481
Legal	0.1%	58
Total	100%	39,514

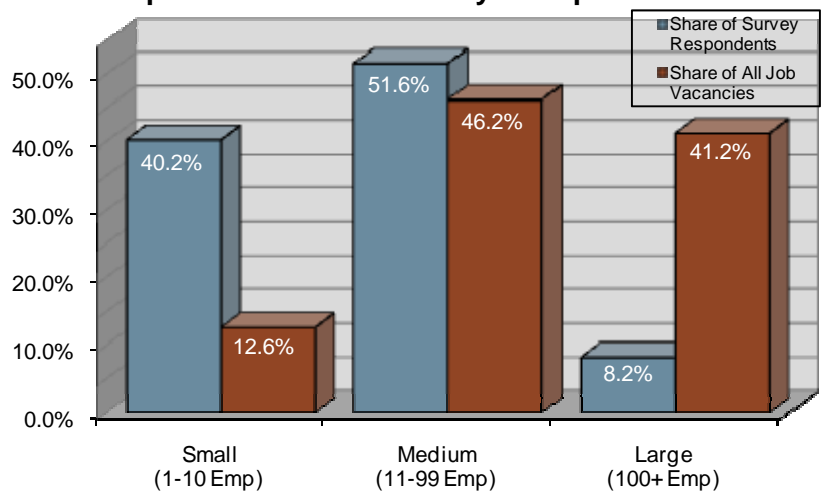
**totals may vary due to rounding methods*

Of the survey respondents, 2,280 (28.5%) reported having one or more current or anticipated job vacancies, while 5,728 respondents (71.5%) reported having no job vacancies. A total of 8,877 current job vacancies were reported for the state, consisting of 61.1 percent permanent-full time, 2.1 percent seasonal-full time, 6.2 percent temporary-full time, 25.9 percent permanent-part time, 2.6 percent seasonal-part time and 2.1 percent temporary-part time positions. When asked why positions are currently vacant, employers responded as follows:

- 25.5% - Permanent business growth/expansion
- 4.0% - Seasonal business growth/expansion
- 6.2% - Replacing retiring employee
- 64.3% - Replacing worker who has left (not retired)

Figure 3 shows the breakdown of job vacancies by employer size. Of employers that responded with job vacancies, 40.2 percent were businesses with 10 or fewer employees, 51.6 percent had between 11 and 99 employees and 8.2 percent had 100 employees or more. **Figure 3** shows the distribution of reported job vacancies by employer size. The response rate for each employer size category is shown next to the respective percentage share of reported job vacancies. While large employers only accounted for 8.2 percent of the survey responses, they reported over two-fifths (41.2%) of the total job vacancies in the state.

Figure 3
Reported Job Vacancies by Workplace Size



One measure of workforce demand is determined by the job vacancy rate. With an estimated 39,514 job vacancies and a statewide employment total of 1,421,945¹, there is a 2.8 percent vacancy rate or approximately three jobs available for every 100 filled positions. A low vacancy rate indicates a lack of jobs while a high vacancy rate may indicate a shortage of qualified workers or simply an industry with a high employee turnover. Conversely, a low vacancy rate may indicate contraction within the industry, an

**Figure 4
Vacancy Rate by Industry**

Industry	Statewide Employment	Vacancy Rate
Management	13,838	7.3%
Administrative & Waste Services	68,084	6.1%
Healthcare & Social Services	205,727	4.7%
Professional & Technical Services	41,379	3.7%
Information	28,280	3.3%
Agriculture & Mining	17,530	3.1%
Transportation & Warehousing	53,566	2.7%
Manufacturing	201,519	2.7%
Accommodation & Food Services	105,808	2.6%
Public Administration	65,803	2.5%
Personal Services	42,006	2.5%
Construction	61,392	2.1%
Wholesale & Retail Trade	244,035	1.8%
Arts, Entertainment, & Recreation	19,671	1.7%
Utilities	8,453	1.5%
Finance, Insurance, & Real Estate	100,083	1.4%
Educational Services	144,771	1.1%

oversupply of workers, or lower than average turnover. It should be noted that many states do not use the same methods when calculating job vacancy rates and many states do not perform such calculations annually.

It is important to note the difference between the number of vacant positions and the vacancy rate. An industry may have a low vacancy rate but have many vacant positions. This is because, when compared to their total workforce, the number of vacant positions is small in comparison.

Figure 4 shows the vacancy rate and how many jobs are available per 100 filled positions by industry. The industries within the state with the highest vacancy rates are management (7.3%), administrative & waste services (6.1%) and healthcare & social services (4.7%). These industries currently have relatively more vacant positions when compared to the size of their workforce. When looking at vacancy rates, it is important to understand the various reasons an industry might have many vacant positions open relative to their total staff.

**Figure 5
Vacancy Rate by Occupational Category**

Figure 5 breaks down the vacancy rate by occupational category. The categories with the highest vacancy rates are farming, fishing, & forestry (10.6%), healthcare support (8.4%); life, physical & social science (6.0%); and arts, design, entertainment, sports & related (5.1%). The services and construction categories typically have high vacancy rates due to high employee turnover. Employers are constantly hiring for many of these positions, while the high vacancy rate for the healthcare category is usually attributed to growth in employment and lack of workforce. Total employment by occupational category may differ from total employment by industry because of confidentiality issues in employer surveys.

Occupational Category	Statewide Employment ²	Vacancy Rate
Farming, Fishing, & Forestry	5,570	10.6%
Healthcare Support	47,290	8.4%
Life, Physical, & Social Science	10,920	6.0%
Arts, Design, Entertainment, Sports, & Related	18,190	5.1%
Architecture & Engineering	17,820	4.6%
Personal Care & Service	34,830	3.9%
Healthcare Practitioner & Technical	79,000	3.5%
Transportation & Material Moving	107,790	3.4%
Installation, Maintenance, & Repair	63,250	3.3%
Computer & Mathematical Science	26,790	3.0%
Production	145,390	2.9%
Management	58,140	2.9%
Community & Social Science	24,540	2.8%
Food Preparation & Serving Related	123,970	2.4%
Protective Service	22,230	2.2%
Office & Administrative Support	226,540	2.1%
Building & Grounds Cleaning & Maintenance	45,590	2.0%
Construction & Extraction	58,070	1.8%
Sales & Related	155,450	1.8%
Business & Financial Operations	58,780	1.6%
Education, Training, & Library	97,730	1.4%
Legal	6,830	0.8%

¹ Annual 2010 Total regional employment from Iowa Workforce Development

² Iowa employment by industry computed from 2010 Iowa Local Employment Dynamics

Figure 6 presents the Hiring Demand Index (HDI)³ by occupational category. The HDI is another way of looking at the workforce needs within the economy. The vacancy rate shows us the overall demand for workers, but can be misleading because of employee turnover. To account for this, we adjust the vacancy rate by employee turnover to see which industries or jobs are in high demand, using the following equation:

$$(Industry\ Vacancy\ Rate \div Avg.\ Vacancy\ Rate) \div (Industry\ Turnover\ Rate \div Avg.\ Turnover\ Rate)$$

Example: The arts, design, & entertainment occupational category has an above average vacancy rate of 5.1 percent, while the vacancy rate for all categories is 2.8 percent. This implies that the workers within the category have a greater hiring demand than workers in other occupational categories. However, the turnover rate for employees in this category (defined as how often the industry hires for the same job within a year) is also much higher than others. The category has a turnover rate of 36.7 percent, while the turnover rate for all occupations is 27.1 percent. The HDI for the arts, design, & entertainment occupational category, is calculated as follows:

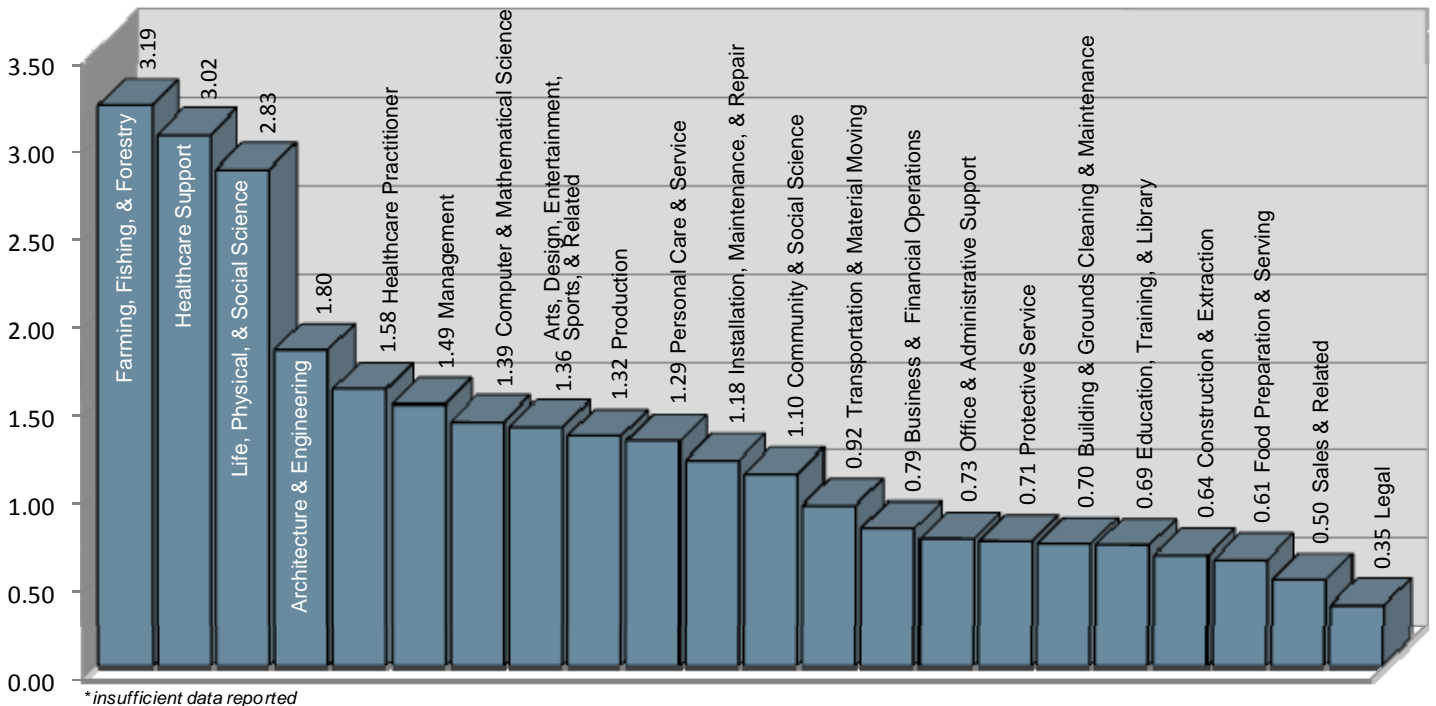
$$(5.1\% \div 2.8\%) \div (36.7\% \div 27.1\%) = 1.36$$

Using the HDI, we can see that the hiring demand for the arts, design, & entertainment occupations is not as high as it may have previously appeared. Note, the vacancy rate is calculated as the total estimated vacancies over the total estimated employment within the state. Using the average of the vacancy rates in each occupational category would be inaccurate due to very high and very low rates and the lack of data in some categories.

A value of one is the average demand for all industries or occupations. A value greater than one means a higher demand for workers, while a value lower than one means a lower than average demand for workers.

By comparing the Hiring Demand Index with the vacancy rates of an occupational category, we can see in which occupations is there a real unmet need for workers. It is also in these occupations that employers will need to pay a higher wage to attract qualified workers. This analysis can be an important tool for economic developers, policy-makers, educators and job seekers.

Figure 6
Hiring Demand Index by Occupational Category



³The Hiring Demand Index (HDI) adjusts industry vacancy rates, from this survey, by industry employee turnover rates which are computed from 2007 Iowa Local Employment Dynamics.

Employers were asked about the education/training and experience requirements of prospective workers for their reported job vacancies. The results for current job vacancies are shown below in **Figure 7** and **Figure 8**.

Figure 7
Education Required - Current Vacancies

Education Required	Percent
No Educational Requirement	19.7%
High School Education/GED	46.6%
Vocational/Technical Training	13.1%
Associate Degree	6.1%
Undergraduate Degree	10.3%
Postgraduate/Professional Degree	4.2%

Figure 8
Experience Required - Current Vacancies

Experience Required	Percent
No Experience Required	49.7%
Less than 1 Year	13.9%
1-2 Years	24.3%
3-5 Years	8.9%
More than 5 Years	3.2%

Employers were asked their perceptions on the degree to which job applicants possessed soft, basic and occupational skills. In addition, employers were asked if applicants, who may or may not possess the necessary skills for the job vacancy, were being disqualified due to the results of controlled substance testing or background checks. The results for all employers are shown below in **Figure 9**.

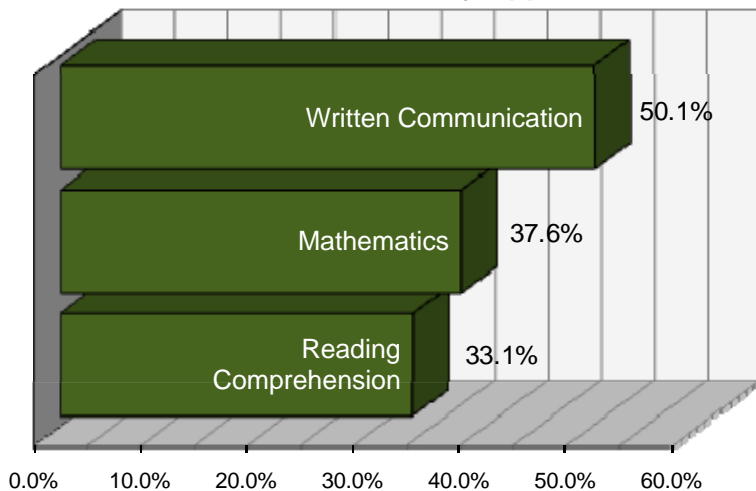
We can begin to analyze any workforce gaps by comparing the inventory of skills needed by employers and those skills held by the population of workers as presented in a Laborshed analysis. This gap is then analyzed and the necessary training and education programs can be formalized through a Skillshed study.

Figure 9
Perception of Applicants

Employer's Perceptions of Job Applicants	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
In general, applicants fulfill all necessary requirements for the job.	17.4%	37.1%	31.2%	11.5%	2.8%
In general, applicants possess the basic skills required for the job.	27.0%	41.8%	23.0%	6.8%	1.4%
In general, applicants possess the soft skills required for the job.	11.4%	37.6%	35.8%	12.8%	2.4%
In general, applicants possess the occupational skills required for the job.	13.0%	33.8%	33.7%	15.5%	4.0%
There is often a problem filling this position because applicants are disqualified due to controlled substance testing.	2.4%	6.0%	26.2%	21.3%	44.1%
There is often a problem filling this position because applicants are disqualified for failure to pass a background check.	4.4%	9.9%	26.7%	23.9%	35.1%

Figures 10, 11 and 12 break down basic, soft and occupational skills that employers reported were lacking by applicants to fill open positions.

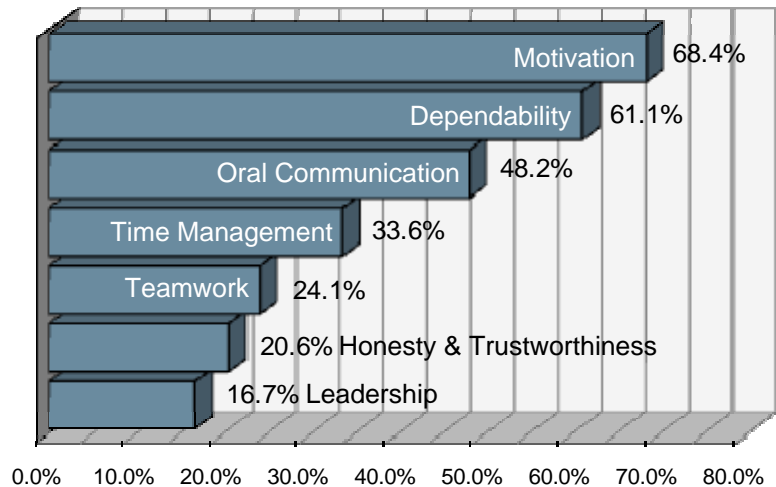
Figure 10
Basic Skills Lacked by Applicants



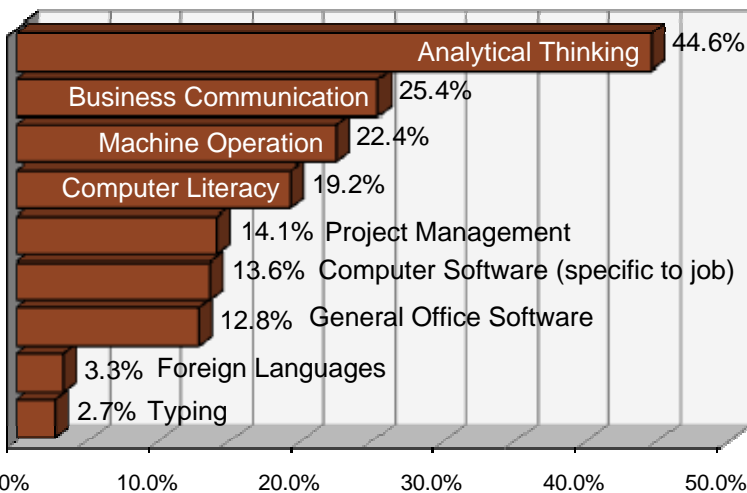
Basic skills are those skills developed during the elementary and middle part of an individual's education. These skills include literacy, numeracy (the ability to do arithmetic and reason with numbers), basic computer skills and organization. Nearly one-tenth (8.2%) of employers surveyed feel that applicants lack basic skills needed for the job.

**Figure 11
Soft Skills Lacked by Applicants**

Soft skills refer to skills associated with an individual’s habits, personality and character. Soft skills include timeliness, responsibility, integrity and self-esteem. Also included are interpersonal skills such as leadership ability, customer service and teamwork. Individuals with strong soft skills are better suited for working within an organization, as well as with customers and, therefore, are valued by employers. Nearly one-sixth (15.2%) of employers surveyed feel that applicants lack soft skills needed for the job.



**Figure 12
Occupational Skills Lacked by Applicants**



Occupational skills are the technical and know-how skills that apply directly to a job. Occupational skills are often referred to as “hard skills” and are primarily job-specific. In general, occupational skills include analytical skills, managerial ability, physical ability, knowledgeable and experience. The exact meaning behind these skills varies, depending on the job in question. Nearly one-fifth (19.5%) of employers surveyed feel that applicants lack occupational skills needed for the job.

In the event that current or newly hired employees are lacking the soft, basic and occupational skills necessary to fill current job vacancies, employers were asked where they send employees to upgrade these skills. These results are listed in **Figure 13**.

**Figure 13
Where Additional Training is Offered**

Training Provider	Percent
In-house training	60.0%
Employee self-directed training	18.2%
No training provided	17.1%
Online	15.2%
Commercial training provider	12.3%
Other	7.4%
College/University	5.9%
Trade school	4.9%

Figure 13 indicates where employers are sending their employees for training to satisfy job requirements. When training is provided, most employers are currently using in-house training or employee self-directed training. Over one-fifth (20.3%) of employers also expressed an interest in working more closely with local education providers to implement training programs.

Recruitment

The time span from when a job vacancy becomes available to the time it is filled is referred to as the recruitment period.

Figure 14 details the recruitment periods reported by employers within the state.

Figure 14
Recruitment Period for Current Vacancies

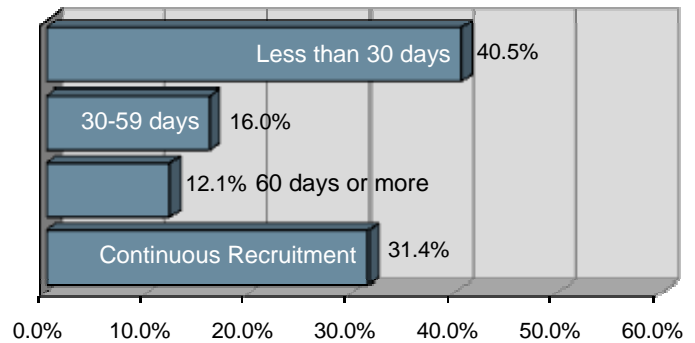


Figure 15
Recruitment Media Utilization

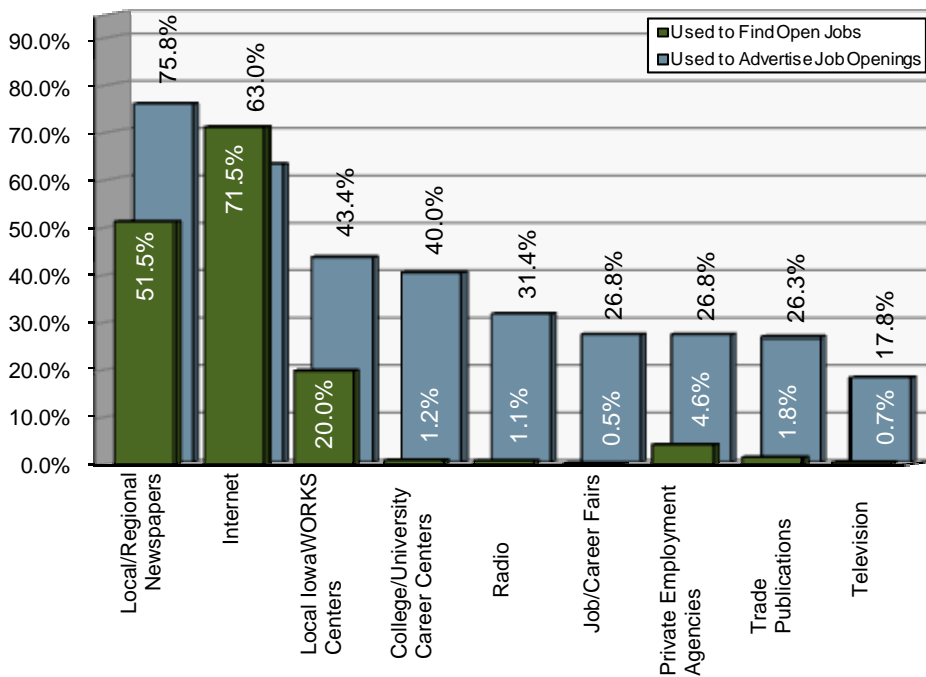


Figure 15 details employer media use for recruitment purposes vs the media use of those looking for employment opportunities.

Employers utilized a variety of media to recruit potential employees. Along with being the most utilized, respondents also indicated that the most useful media outlets were local/regional newspapers, followed by the internet, Iowa Workforce Development Centers, college/university career centers and the radio.

Employers who have a clear understanding of the job search resources used by workers in their respective industry will maximize their effectiveness and efficiency in attracting qualified applicants. Understanding and utilizing traditional and non-traditional advertising media will provide employers with a more focused and effective recruitment tool. Residents living in the state are exposed to numerous sources by which employers communicate job openings and new hiring. Therefore, it is important to understand what sources potential workers rely on when looking for jobs in the area.

Figure 16
Benefits Offered by Employers

Benefits Offered	Full Time Positions	Part-Time Positions
Health Insurance	82.0%	18.1%
Paid Holidays	66.9%	26.8%
Paid Vacation	55.6%	18.3%
Dental Coverage	53.8%	15.0%
Life Insurance	52.8%	13.0%
Retirement/Pension Plan	47.1%	23.5%
Paid Time Off (PTO)	37.0%	20.3%
Disability Insurance	33.6%	8.6%
Paid Sick Leave	30.1%	14.1%
Vision Coverage	16.5%	7.2%
No Benefits	6.5%	49.0%

Employers may also use benefits to attract potential employees. Employers were asked about the types of benefits being offered for their current full time and part time job vacancies. These results are shown in **Figure 16**.

The Laborshed Analysis was used to identify current benefit packages being offered to employees within the state. These benefits include; health/medical insurance (90.3%), pension/retirement options (65.7%), dental coverage (43.9%), paid vacation (40.5%), life insurance (26.3%), vision coverage (25.2%), paid sick leave (22.2%), paid holidays (19.0%), disability insurance (16.8%), paid time off (8.0%), prescription drug coverage (7.0%), tuition assistance (3.0%) and flextime (2.3%). Nearly three-quarters (74.1%) of the employers and employees in the Laborshed area are reported as sharing in the premium costs of health/medical insurance, 17.7 percent of the employers are reported as covering the entire cost of insurance premiums while 8.3 percent of the employers/employees have made other arrangements.

Figure 17
Average Wages by Occupational Category

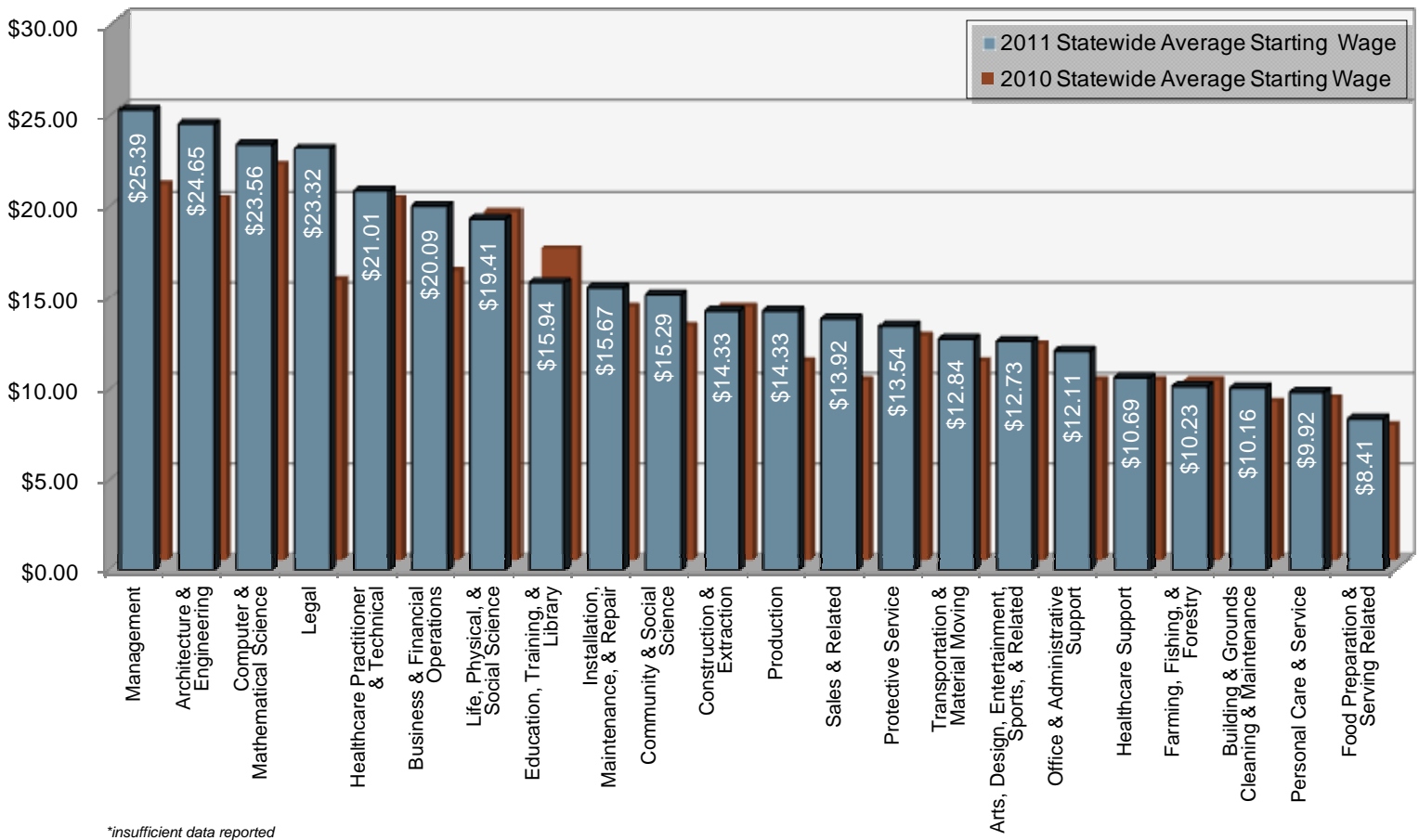


Figure 17 is the 2011 average starting wages⁴ by occupational category with 2010 average starting wages for comparison. This is important for job seekers in determining what jobs can provide a livable wage and have higher earning potential. Employers can use the information to determine their competitiveness with wages among all other categories. From the graph, we see that the management; architecture & engineering; computer & mathematical science; and legal occupational categories pay the highest average starting wages. **Appendix A** (page 19) shows occupations in management; computer & mathematical science; architecture & engineering; and healthcare practitioner & technical categories provide the highest entry level wages. More wage information including a comparison between average occupational wages to statewide average entry level wages and statewide average hourly wages can be found in **Appendix A**.

⁴Average Hourly Wage and Average Entry Level Wage are taken from 2011 Occupational Employment Statistics (OES) data. Average Starting Wage is taken from this survey data.

Future Plans

Employers were asked a series of questions about their plans for future payroll changes. They were asked whether they planned on increasing or decreasing the number of workers on payroll or if they planned to keep their workforce at its current strength, timeframe for the change, reasons for the change and jobs that would be affected by the change.

When analyzing reported workforce changes, it is important to note not only the specific reasons provided by employers but also the business and economic environment during which the employers were surveyed. Because of the great uncertainty surrounding the near-term economic health of the state, many employers were not able to state their workforce plans in any definite way.

Figure 18
Future Workforce Plans

Figure 18 shows the proportion of employers planning to expand, reduce or maintain the size of their workforce. Nearly three-fourths of employers are planning to keep the size of their workforce steady (74.5%), while 21.6 percent of employers plan to expand their workforce and only 3.9 percent plan to reduce their workforce.

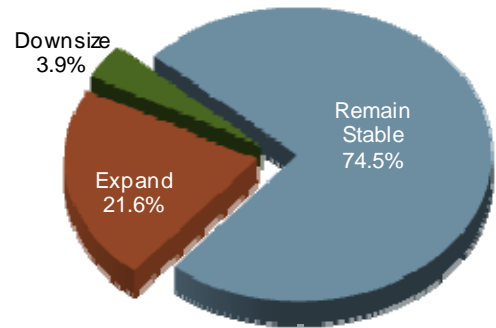
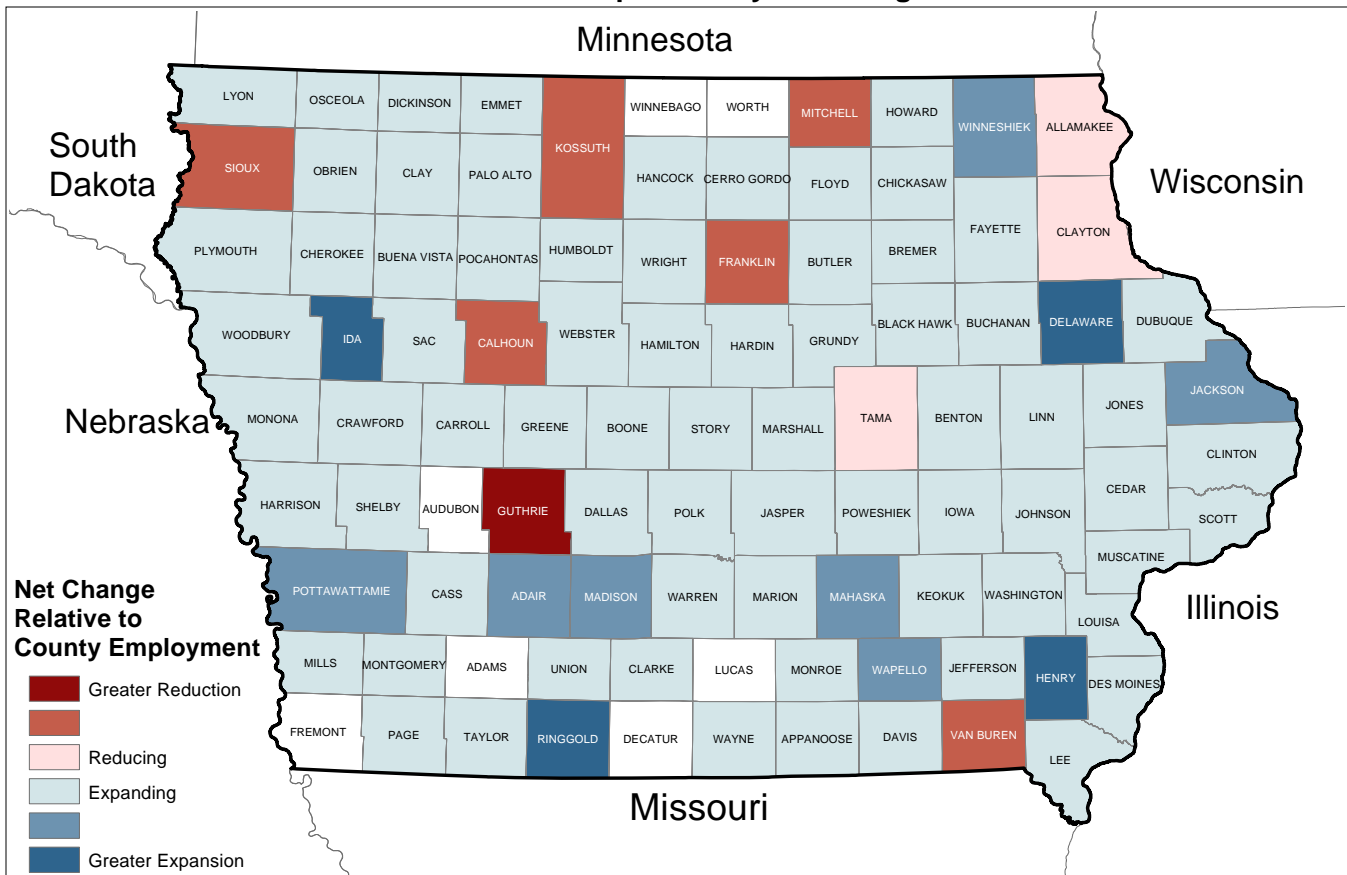


Figure 19
Net Reported Payroll Change

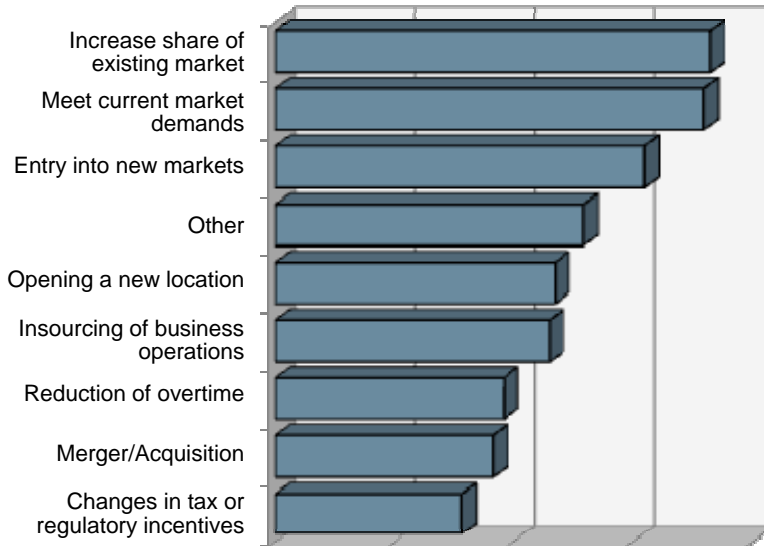


The map above (**Figure 19**) shows the net change of job expansion/reduction by county. The Net Reported Payroll Change map shows the relative intensity of plans by employers to expand or reduce their workforces in each county in terms of total jobs to be created or cut, normalized by the total employment of the county. The darker red indicates greater expected reductions, relative to local employment, while the darker blue indicates counties in which employers plan to expand most heavily, relative to local employment. Counties in white indicate a net-zero or no response. Separate maps of expansion and reduction can be found in **Appendix B**.

Planned Workforce Expansion

Over one-fifth (21.6%) of the employers surveyed are planning to expand their workforce in the future. Of those employers planning on expanding their workforce, 51.0 percent indicated they were planning to do within 12 months, 35.4 percent indicated that they were planning to expand in 1 to 2 years and 15.3 percent are planning to expand in 2 to 3 years. Over one-third (34.0%) of the companies planning to expand would be interested in working with a local education provider to set up a program for training/educating potential employees to fill these needs.

Figure 20
Reasons for Payroll Expansion

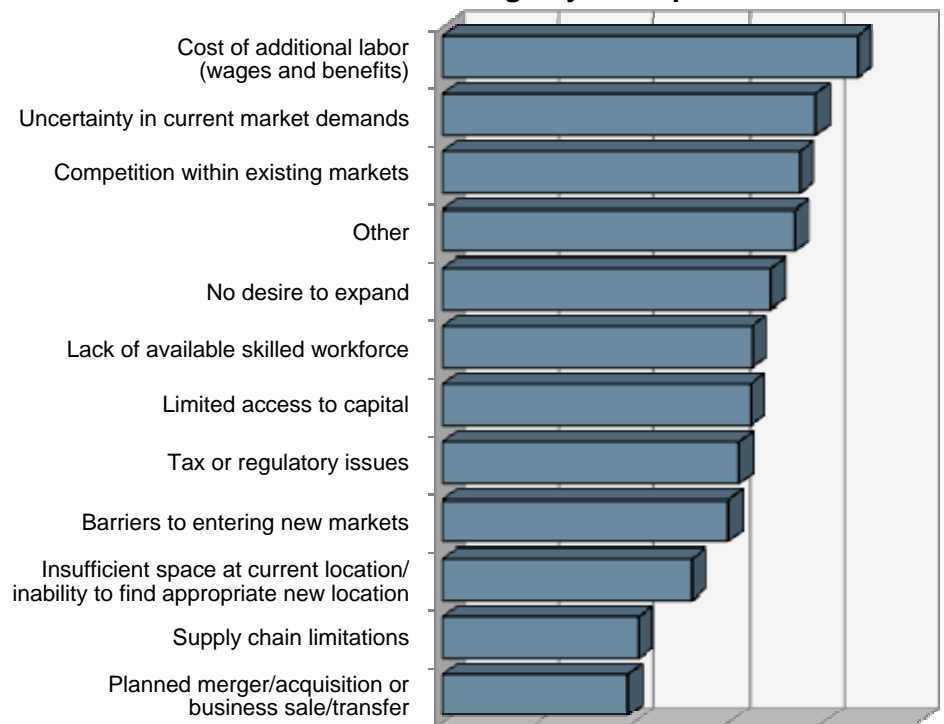


Respondents were asked to rank, in order of significance, possible reasons for expanding, maintaining, or reducing the size of their workforce. **Figures 20, 21** and **25** show the average importance of reasons for each case.

Figure 20 compares employers' stated reasons for planning to increase the size of their workforce. The reasons indicated as being of the greatest importance in deciding to expand include plans to increase their share of existing markets, meeting current market demands and entering new markets. Common "Other" reasons include planning for future retirements and the availability of low-cost or high quality workers.

Figure 21
Constraints Preventing Payroll Expansion

Figure 21 compares employers' stated constraints to increasing the size of their workforce. The reasons indicated as being of the greatest importance in preventing the expansion of workforces include cost of additional labor, uncertainty in current or expected market demands and competition within current markets. Common "Other" constraints include declining public funding and the recent completion of a planned change in workforce size.



**Figure 22
Planned Payroll Expansion**

Industry	Percent of Each Industry	Percent of Total
Wholesale & Retail Trade	20.6%	19.1%
Healthcare & Social Services	24.7%	15.1%
Manufacturing	35.0%	14.0%
Professional & Technical Services	26.9%	9.2%
Construction	20.1%	7.5%
Finance, Insurance, & Real Estate	18.9%	7.3%
Administrative & Waste Services	38.5%	5.8%
Personal Services	21.1%	5.5%
Accommodation & Food Services	18.0%	4.7%
Transportation & Warehousing	27.4%	4.1%
Educational Services	7.5%	1.6%
Agriculture & Mining	18.0%	1.3%
Public Administration	5.0%	1.2%
Information	12.5%	1.2%
Arts, Entertainment, & Recreation	15.8%	0.9%
Management	24.6%	0.9%
Utilities	6.3%	0.3%

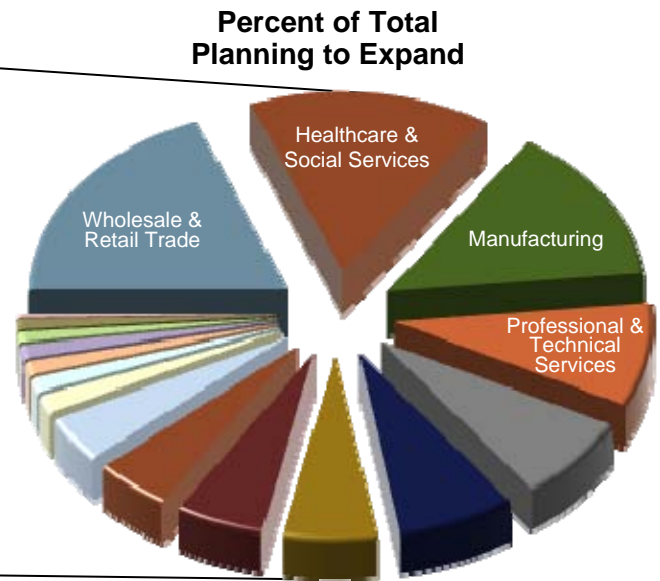


Figure 22 shows those employers who are planning to expand by industry. The “Percent of Each Industry” column shows what percentage of employers in each industry is planning to expand their payroll. The “Percent of Total” column shows what percentage of all businesses planning to expand their payroll is accounted for by each industry. For example, 20.6 percent of all businesses in the wholesale & retail trade industry are planning to expand their payroll in the future. Those businesses within the wholesale & retail trade industry make up 19.1 percent of all the businesses in the survey that are planning to expand their payrolls in the future.

**Figure 23
Timing of Planned Expansion**

Estimated Time for Expansion	Percent of Respondents
Within 12 months	51.0%
1-2 years	35.4%
2-3 years	15.3%

Figure 24 shows the percent of planned expansion by occupational category. While healthcare support represents one of the largest categories among current vacancies (**Figure 2**, page 2), the category accounts for only 4.8 percent of the planned payroll expansion positions. Production occupations, on the other hand, represent 10.7 percent of current vacancies and employers planning to expand their payrolls indicated they plan on increasing payroll most frequently within this category. The occupational categories that will be most affected are: production, office & administrative support; transportation & material moving; sales & related; food preparation & serving; and installation, maintenance, & repair.

Figure 23 shows the timeframe for those employers who are planning to expand their payrolls.

**Figure 24
Planned Payroll Expansion by Occupational Category**

Occupational Category	Percent of Planned Expansion
Production	22.0%
Office & Administrative Support	11.1%
Transportation & Material Moving	9.8%
Sales & Related	7.9%
Food Preparation & Serving Related	6.2%
Installation, Maintenance, & Repair	5.3%
Healthcare Support	4.8%
Farming, Fishing, & Forestry	4.5%
Healthcare Practitioner & Technical	4.4%
Construction & Extraction	3.4%
Personal Care & Service	3.3%
Management	2.7%
Business & Financial Operations	2.6%
Education, Training, & Library	2.2%
Building & Grounds Cleaning & Maintenance	2.2%
Architecture & Engineering	1.9%
Computer & Mathematical Science	1.7%
Protective Service	1.5%
Community & Social Science	1.1%
Life, Physical, & Social Science	0.5%
Legal	0.5%
Arts, Design, Entertainment, Sports, & Related	0.4%

Planned Workforce Reduction

Very few (3.9%) of the employers surveyed are planning to reduce their workforce in the future. Of those employers planning on reduce their workforce, 56.7 percent indicated they were planning to do within 12 months, 27.7 percent indicated that they were planning to downsize in 1 to 2 years and 14.6 percent are planning to downsize in 2 to 3 years. Nearly one-fifth (19.5%) of the companies planning to downsize would be interested in working with a local education provider to set up programs to train/educate employees to transition to new jobs.

Figure 25
Reasons for Workforce Downsizing

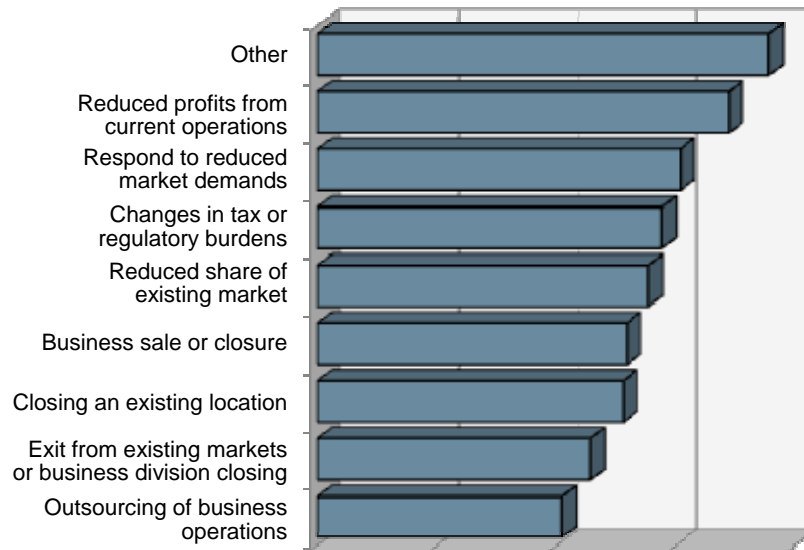


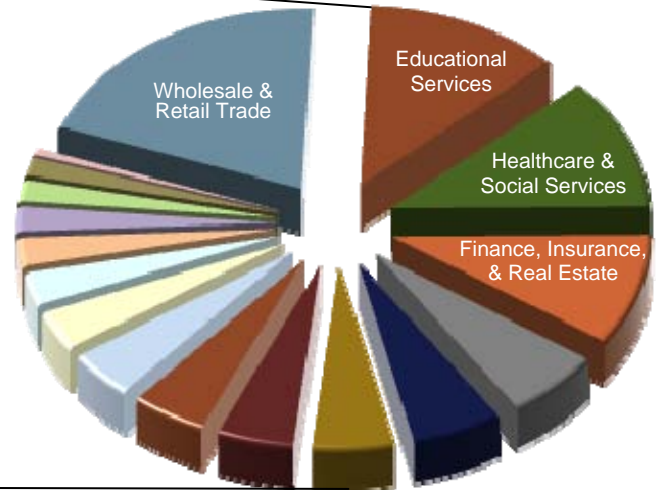
Figure 25 compares employer's stated reasons for planning to reduce the size of their workforce. The reasons indicated as being of greatest importance in deciding to reduce the size of workforces include reduced profits from current operations, responding to reduced market demand, changes in tax or regulatory burdens, or reduced share of existing markets. Commonly cited "Other" reasons for companies reducing their workforce include productivity improvements in technology and reduced public funding.

The middle column in **Figure 26** (next page), "Percent of Each Industry," shows what percentage of each industry is planning to reduce their payroll in the future. The far right column, "Percent of Total," shows what percentage of all businesses planning to reduce their payroll is accounted for by each industry. For example, 3.5 percent of all businesses in the healthcare industry are planning to reduce their payroll in the future. Those businesses within the healthcare industry make up 11.8 percent of all the businesses in the survey that are planning to reduce their payrolls in the future.

**Figure 26
Planned Payroll Reduction**

Industry	Percent of Each Industry	Percent of Total
Wholesale & Retail Trade	3.9%	20.1%
Educational Services	10.8%	12.4%
Healthcare & Social Services	3.5%	11.8%
Finance, Insurance, & Real Estate	4.6%	9.9%
Professional & Technical Services	3.2%	6.1%
Public Administration	4.3%	5.7%
Accommodation & Food Services	3.5%	5.1%
Construction	2.3%	4.8%
Transportation & Warehousing	5.8%	4.7%
Manufacturing	1.9%	4.2%
Personal Services	2.4%	3.5%
Information	5.4%	2.9%
Administrative & Waste Services	3.1%	2.5%
Management	10.8%	2.2%
Utilities	7.5%	1.9%
Agriculture & Mining	3.9%	1.6%
Arts, Entertainment, & Recreation	2.0%	0.6%

**Percent of Total
Planning to Downsize**



**Figure 27
Timing of Planned
Reduction**

Estimated Time for Reduction	Percent of Respondents
Within 12 months	56.7%
1-2 years	27.7%
2-3 years	14.6%

Figure 27 shows the timeframe of those employers who are planning to reduce their payrolls.

Figure 28 shows the percent of planned payroll reduction by occupational category. The healthcare support category represents one of the largest occupational categories among current vacancies (Figure 2, page 2) and as would be expected only 3.7 percent of employers in the category plan on downsizing their payroll in the near future. Construction & extraction occupations currently represent 2.6 percent of current vacancies and employers planning to reduce their payrolls indicated that they plan on decreasing payroll most frequently within this category. The occupational categories that will be most affected are: construction & extraction; production; office & administrative support; education, training, & library; and transportation & material moving.

**Figure 28
Planned Payroll Reduction by Occupational Category**

Occupational Category	Percent Planning to Downsize
Construction & Extraction	16.0%
Production	14.5%
Office & Administrative Support	13.7%
Education, Training, & Library	12.1%
Transportation & Material Moving	9.8%
Sales & Related	5.5%
Food Preparation & Serving Related	4.2%
Installation, Maintenance, & Repair	4.0%
Healthcare Support	3.7%
Management	3.2%
Farming, Fishing, & Forestry	2.4%
Healthcare Practitioner & Technical	2.0%
Building & Grounds Cleaning & Maintenance	1.9%
Community & Social Science	1.4%
Legal	1.4%
Business & Financial Operations	1.1%
Computer & Mathematical Science	1.1%
Architecture & Engineering	0.8%
Arts, Design, Entertainment, Sports, & Related	0.7%
Personal Care & Service	0.6%
Life, Physical, & Social Science	0.1%

Retirement

Currently, there are 63,533 individuals over the age of 64 working throughout the state. They represent approximately 4.5 percent of the total workforce. The arts & entertainment (7.4%), agriculture & mining (6.6%) and personal services (6.3%) industries have the highest percentage of their workforce over the age of 64. There are more males than females in this portion of the workforce, with 50.5 and 49.5 percent respectively.

Of those employees eligible to retire, almost all (94.2%) of them meet the current skill requirements of the positions they occupy. It's also notable that retirement eligibility requirements do vary by employer and industry.

While the number of retirees can be somewhat hard for employers to gauge as they look toward the future, **Figure 29** presents the annual estimated number of eligible retirees through 2016. Recognizing that some employees will not retire the year that they first become eligible, employers were asked not to double count employees who were eligible to retire in subsequent years.

There are an estimated 21,242 employees already eligible to retire who have remained in their positions. These retirement-eligible employees may be choosing to remain in the workforce due to their employer's retention efforts or due to personal reasons. According to the survey, an average of 1.3 percent of the state's workforce becomes eligible for retirement each year (18,939 divided by total employment of about 1,421,945 workers). Future analysis of trend data will help us understand how many retirement eligible workers are remaining in the workforce and for how long.

The future year estimates in subsequent reports will reflect employees who did not retire in the year they actually were eligible as they may choose to continue their employment because of retention efforts by employers.

Figure 29
Estimate of Those Newly Eligible to Retire

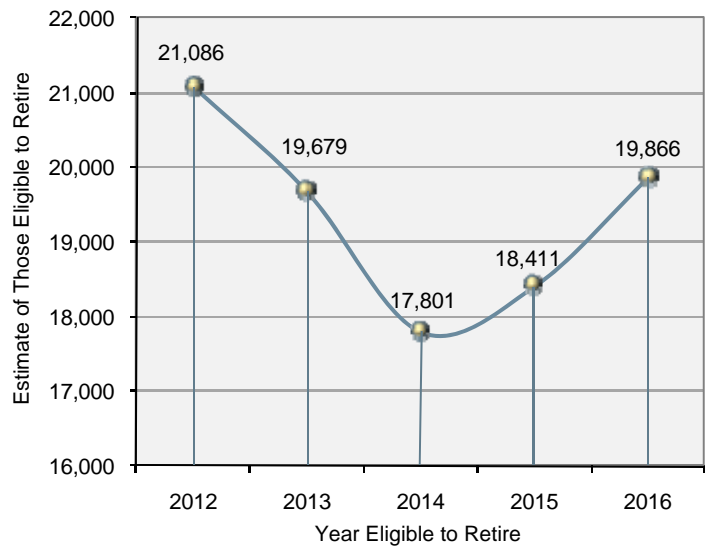


Figure 30 shows the estimated percentage of potential worker loss due to retirement by industry. In the next five years, there will be a significant number of workers eligible for retirement from the manufacturing, healthcare, wholesale & retail and educational services industries.

Figure 30
Retirement Eligibility by Industry

Industry	Percent of Expected Retirements
Manufacturing	19.1%
Healthcare & Social Services	16.3%
Wholesale & Retail Trade	12.9%
Educational Services	12.7%
Finance, Insurance, & Real Estate	7.3%
Public Administration	7.0%
Professional & Technical Services	5.2%
Construction	4.3%
Transportation & Warehousing	3.4%
Personal Services	2.5%
Management	2.1%
Utilities	1.7%
Administrative & Waste Services	1.6%
Information	1.5%
Accommodation & Food Services	1.2%
Agriculture & Mining	0.7%
Arts, Entertainment, & Recreation	0.6%

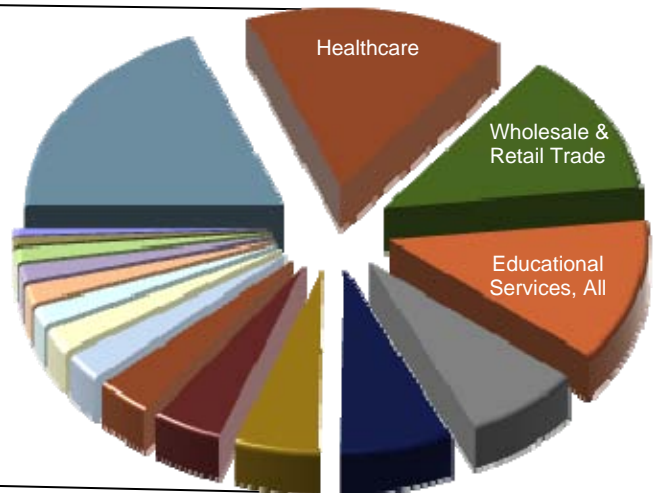


Figure 31
Retirement Eligibility within each Occupational Category

Occupational Category	Percent Affected by Retirements
Production	17.1%
Office & Administrative Support	15.1%
Management	11.6%
Education, Training, & Library	10.2%
Transportation & Material Moving	8.5%
Healthcare Practitioner & Technical	5.6%
Sales & Related	5.5%
Installation, Maintenance, & Repair	5.2%
Business & Financial Operations	3.6%
Construction & Extraction	2.8%
Healthcare Support	2.4%
Protective Service	1.9%
Building & Grounds Cleaning & Maintenance	1.9%
Personal Care & Service	1.8%
Community & Social Science	1.7%
Food Preparation & Serving Related	1.1%
Architecture & Engineering	1.0%
Legal	1.0%
Arts, Design, Entertainment, Sports, & Related	0.8%
Computer & Mathematical Science	0.4%
Life, Physical, & Social Science	0.4%
Farming, Fishing, & Forestry	0.3%

Figure 31 shows the percent of eligible retirement within each occupational category. Production is the second largest occupational category among current vacancies (10.7%) (**Figure 2**, page 2) and is the largest occupational category among jobs potentially affected by retiring workers. While healthcare support occupations make up 10.0 percent of the state's current vacancies (**Figure 2**, page 2), they are not significantly affected by workers potentially retiring (2.4%). The occupational categories that will potentially be the most affected are: production; office & administrative support; management; and education, training, & library.

Nearly three-fourths (72.4%) of employers indicated that they are engaged in retiree retention efforts. **Figure 32** details employer responses regarding the strategies used to retain retirees. Nearly half (46.8%) of the employers are offering retirees flexible work schedule; followed by a increased wages and/or bonuses; additional training to upgrade their skills; a change in duties/responsibilities to take away from the repetitiveness in the workplace; other or no efforts; more recognition for work done; benefits to part-time employees; seasonal work schedules; benefits to retirees; and allowing telecommuting/working from home.

Figure 32
Retiree Retention Efforts by Employers

Efforts to Keep/Attract Retirees	Percent
Flexible work schedules	46.8%
Increase wages and/or bonuses	40.3%
Additional training	28.2%
Change in duties/responsibilities	25.8%
Other/None	21.1%
More recognition	20.7%
Benefits to part-time employees	16.9%
Seasonal work schedules	11.0%
Benefits to retirees	7.9%
Allow telecommuting/working from home	5.9%

Figure 33
How Companies Plan to Replace Those Who Retire

Replacing Vacancies Due to Retirements	Percent
Combination of hiring outside workers and promoting from within the company	43.4%
Hire workers from outside of the company	32.3%
Not currently planning to fill these positions	14.0%
Promote employees from within the company	10.3%

Figure 33 shows how companies plan to fill vacant positions left behind from those who have retired. Of those who reported, 32.3 percent plan only to hire workers from outside the company, 43.4 percent plan to use a combination of hiring outside workers along with promoting from within the company, 14.0 percent do not currently plan on filling these positions and 10.3 percent plan on only promoting from within the company.

Conclusion

The Workforce Needs Assessment gives us an idea of the demand for workers within an industry. The survey shows a relative high demand in the healthcare; manufacturing; and wholesale & retail trade industries. By occupational category the survey shows a relative high demand in the office & administrative support; production; healthcare support; and transportation & material moving occupational categories.

Currently, the state has a large number of estimated job vacancies in healthcare related occupations (6,691), including health diagnosing, treating practitioners, nursing and home health-aide occupations. There is an additional demand for health technicians and technologists. Metal and plastic workers along with all types of production occupations represent 10.7 percent of the current openings across the state. Together, these occupational categories account for 27.6 percent of all reported job vacancies, signaling a large number of opportunities for students and workers in related industries.

Over four-fifths of the current job vacancies (85.5%) reportedly require an education level at or below an associates degree. Nearly one-sixth (14.5%) of current job vacancies require an undergraduate degree or higher. Nearly half (49.7%) of the current job vacancies reportedly require no experience, while 87.9 percent require experience totaling less than two years.

Vacancies due to upcoming retirements are showing, in total, slightly higher requirements than current job vacancies, where 38.8 percent of jobs will require a high school education, 14.4 percent will require technical training/certification and 15.6 percent will require an undergraduate degree. Job vacancies due to retirements will also require slightly more experience than current job vacancies, with 28.8 percent requiring no experience and 68.3 percent requiring experience totaling less than two years.

As a result of this survey, Iowa will be able to identify the gap between the existing workforce and the skills it possesses and the existing needs of industries. Identifying this gap will allow Iowa to assist community colleges, universities and other educational institutions in preparing upcoming workers with the necessary and appropriate skills to make them successful in the workforce.

This Workforce Needs Assessment Survey was conducted by Iowa Workforce Development's Regional Research & Analysis Bureau in partnership with the Iowa Association of Business and Industry and validated by the University of Northern Iowa's Institute for Decision Making.

Job Vacancies

The following section shows estimated vacancies for each reported job title utilizing data from the workforce needs assessment. Using the sources below, planners can better understand the labor market dynamics of each occupations and from where future growth may come. These sources enable a more detailed analysis to be performed regarding the education, experience and skill requirements for each job vacancy category.

The sources below will provide detailed information for each job title.

Job Description - overview of the position (<http://online.onetcenter.org>)

Sample of Reported Titles - reported identified by surveyed businesses

Job Skills/Experience - listing of both reported skills needed and skills identified through the O*Net Website (<http://online.onetcenter.org>)

Education Requirements - not all positions require a certain level of education; therefore, it is important to note that this section also gives a percent in parenthesis which pertains to the percent of positions within the job title that would require the level of education listed, depending upon employer preference. Source: O*Net Online (www.onetonline.org)

Median Wages and National & State Employment Trends - information in these charts were acquired from the O*Net Website (www.careeronestop.org) Note: the data for these trends are not directly comparable. The projections period for state and national data is 2008-2018.

Figure 34
Estimated Reported Vacancies

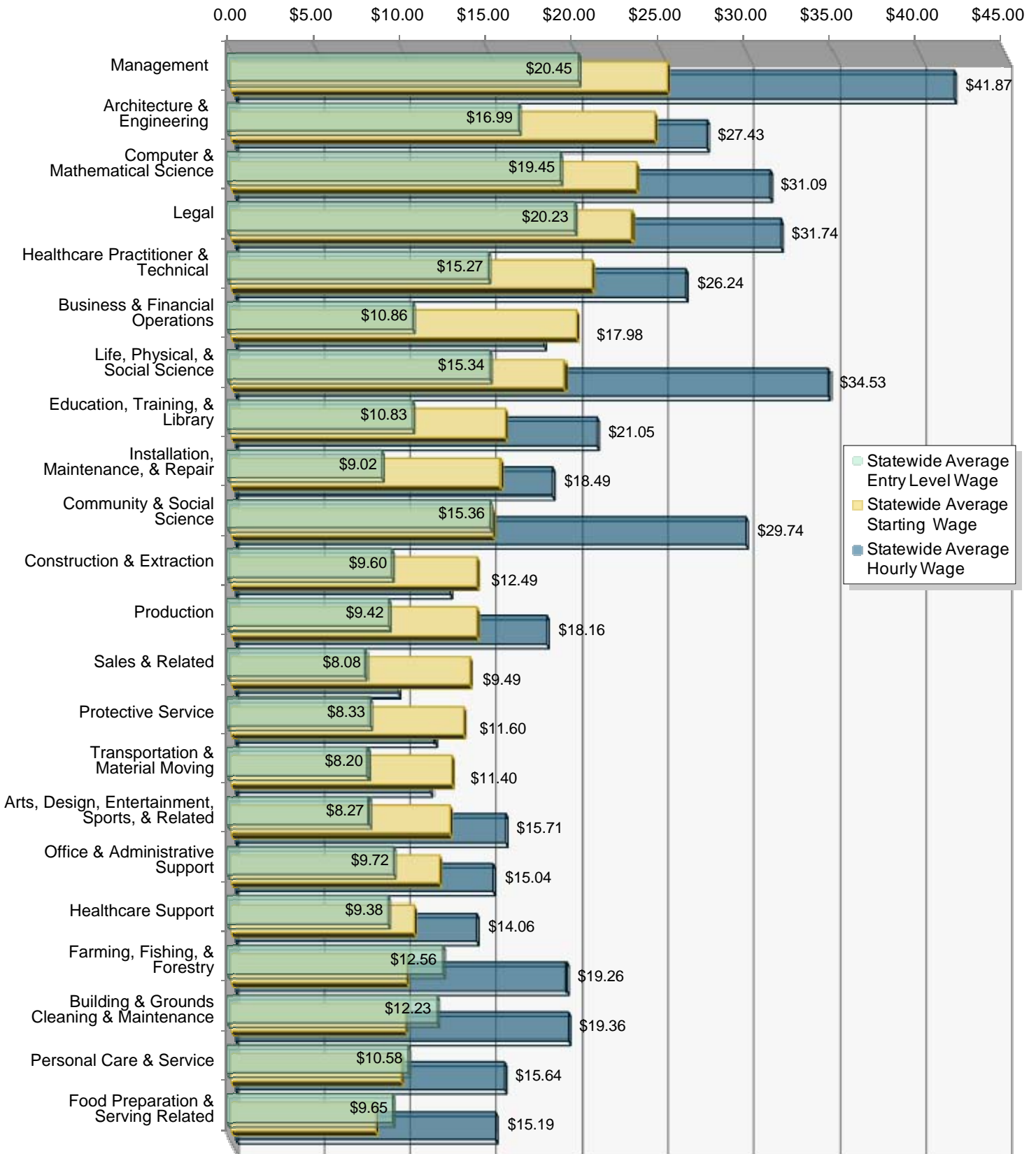
Job Title	SOC Code	Estimated Vacancies
Registered Nurses	29-1141	7,356
Nursing Assistants	31-1014	5,355
Customer Service Representatives	43-4051	3,815
Combined Food Preparation and Serving Workers, Including Fast Food	35-3021	2,844
Heavy and Tractor-Trailer Truck Drivers	53-3032	2,840
Office Clerks, General	43-9061	2,680
Maids and Housekeeping Cleaners	37-2012	2,653
Marketing Managers	11-2021	2,203
Medical and Health Services Managers	11-9111	2,088
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific	41-4012	2,074
First-Line Supervisors of Food Preparation and Serving Workers	35-1012	1,990
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	43-6014	1,988
Laborers and Freight, Stock, and Material Movers, Hand	53-7062	1,972
Software Developers, Applications	15-1132	1,874
Maintenance and Repair Workers, General	49-9071	1,803
Waiters and Waitresses	35-3031	1,749
Residential Advisors	39-9041	1,691
Medical Secretaries	43-6013	1,660
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	37-2011	1,596
Medical Assistants	31-9092	1,585
Occupational Therapist Assistants	31-2011	1,567
Packers and Packagers, Hand	53-7064	1,522
Nurse Practitioners	29-1171	1,518
Physical Therapists	29-1123	1,509
Occupational Therapists	29-1122	1,496
Occupational Therapist Aides	31-2012	1,496
Stock Clerks and Order Fillers	43-5081	1,438
Retail Salespersons	41-2031	1,393

Table Continued, Next Page

**Figure 34 (continued)
Estimated Reported Vacancies**

Job Title	SOC Code	Estimated Vacancies
Table Continued		
Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	51-4122	1,380
Cashiers	41-2011	1,309
First-Line Supervisors of Production and Operating Workers	51-1011	1,304
Accountants and Auditors	13-2011	1,295
Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	51-4081	1,286
Bill and Account Collectors	43-3011	1,278
Electricians	47-2111	1,251
General and Operations Managers	11-1021	1,246
Financial Managers	11-3031	1,229
Education Administrators, Postsecondary	11-9033	1,229
Natural Sciences Managers	11-9121	1,229
Market Research Analysts	19-3021	1,197
Postsecondary Teachers, All Other	25-1199	1,171
Childcare Workers	39-9011	1,171
Management Analysts	13-1111	1,144
Computer Programmers	15-1131	1,144
Personal Care Aides	39-9021	1,144
Teacher Assistants	25-9041	1,128
Librarians	25-4021	1,095
Coaches and Scouts	27-2022	1,077
Engineers, All Other	17-2199	997
Team Assemblers	51-2092	997
Cooks, All Other	35-2019	961
Production Workers, All Other	51-9199	935
Computer User Support Specialists	15-1151	926
Emergency Medical Technicians and Paramedics	29-2041	921
Correctional Officers and Jailers	33-3012	921
Receptionists and Information Clerks	43-4171	921
Merchandise Displayers and Window Trimmers	27-1026	913
Speech-Language Pathologists	29-1127	904
Light Truck or Delivery Services Drivers	53-3033	904
Executive Secretaries and Executive Administrative Assistants	43-6011	872
Food Preparation Workers	35-2021	828
Social and Human Service Assistants	21-1093	779
Home Health Aides	31-1011	779
Industrial Truck and Tractor Operators	53-7051	770
Sales Managers	11-2022	766
Life, Physical, and Social Science Technicians, All Other	19-4099	743
Bartenders	35-3011	743
Operations Research Analysts	15-2031	721
Food Service Managers	11-9051	717
Medical Records and Health Information Technicians	29-2071	712
Market Research Analysts and Marketing Specialists	13-1161	699
Automotive Service Technicians and Mechanics	49-3023	699
Assemblers and Fabricators, All Other	51-2099	686
Managers, All Other	11-9199	681
Security Guards	33-9032	637
First-Line Supervisors of Office and Administrative Support Workers	43-1011	637
Instructional Coordinators	25-9031	632
Dishwashers	35-9021	619
Hotel, Motel, and Resort Desk Clerks	43-4081	614
Farmworkers, Farm, Ranch and Aquacultural Animals	45-2093	596

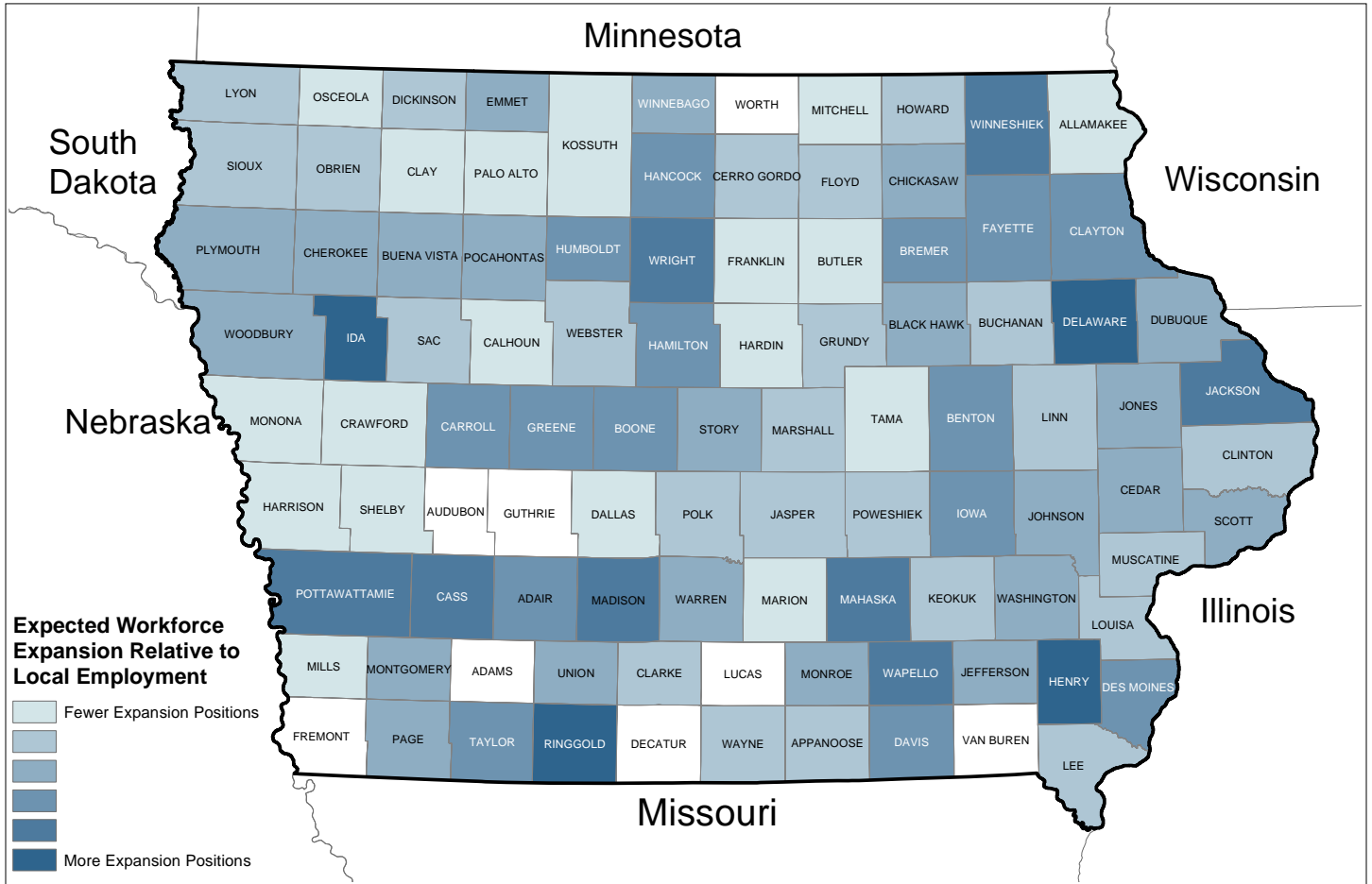
Average Statewide Starting Wages Compared to Statewide Entry Level & Statewide Average Hourly Wages



*insufficient data reported

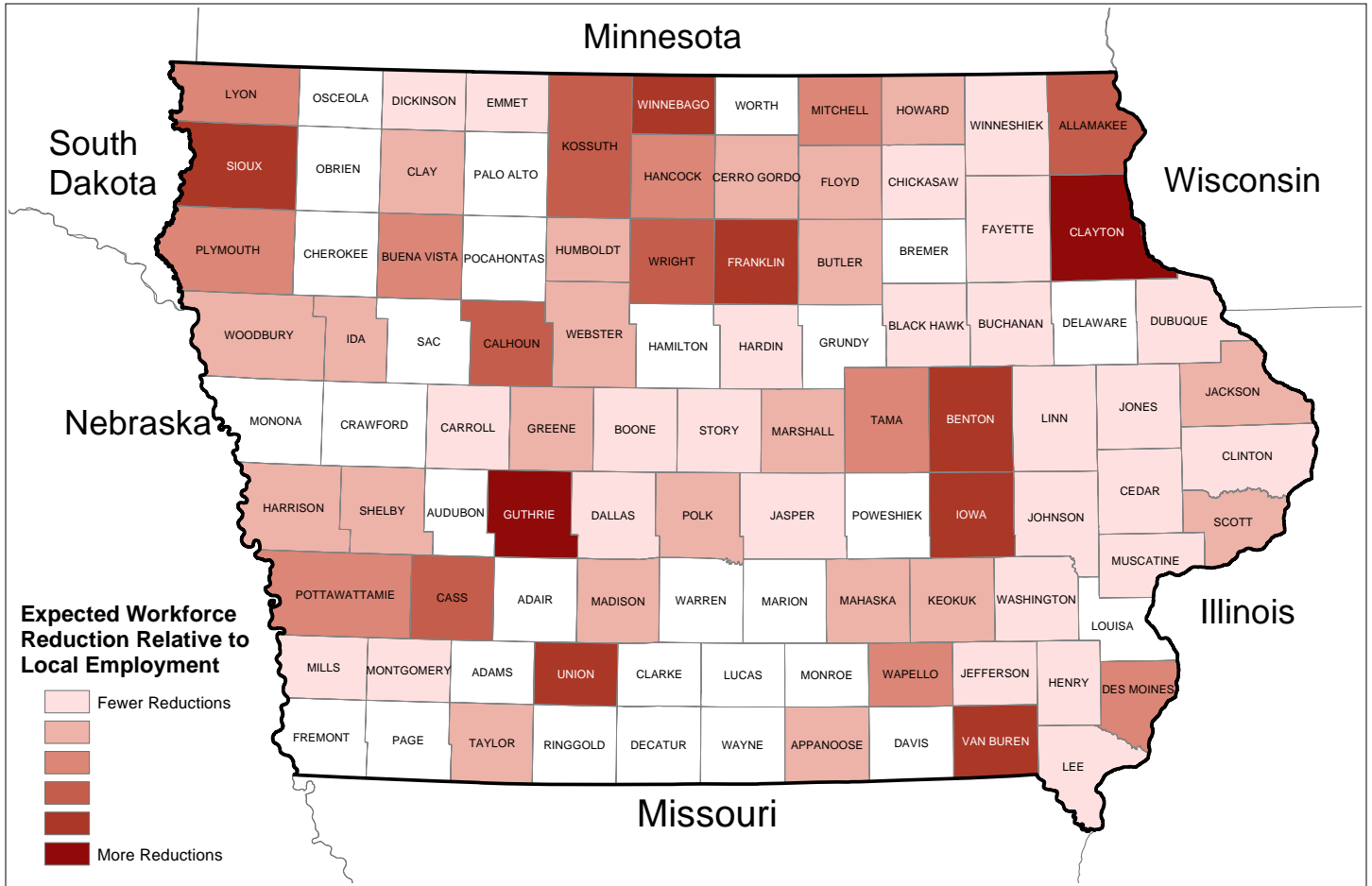
Average Hourly Wage and Average Entry Level Wage are taken from 2011 Occupational Employment Statistics (OES) data. Average Starting Wage is taken from this survey data.

Reported Payroll Expansion



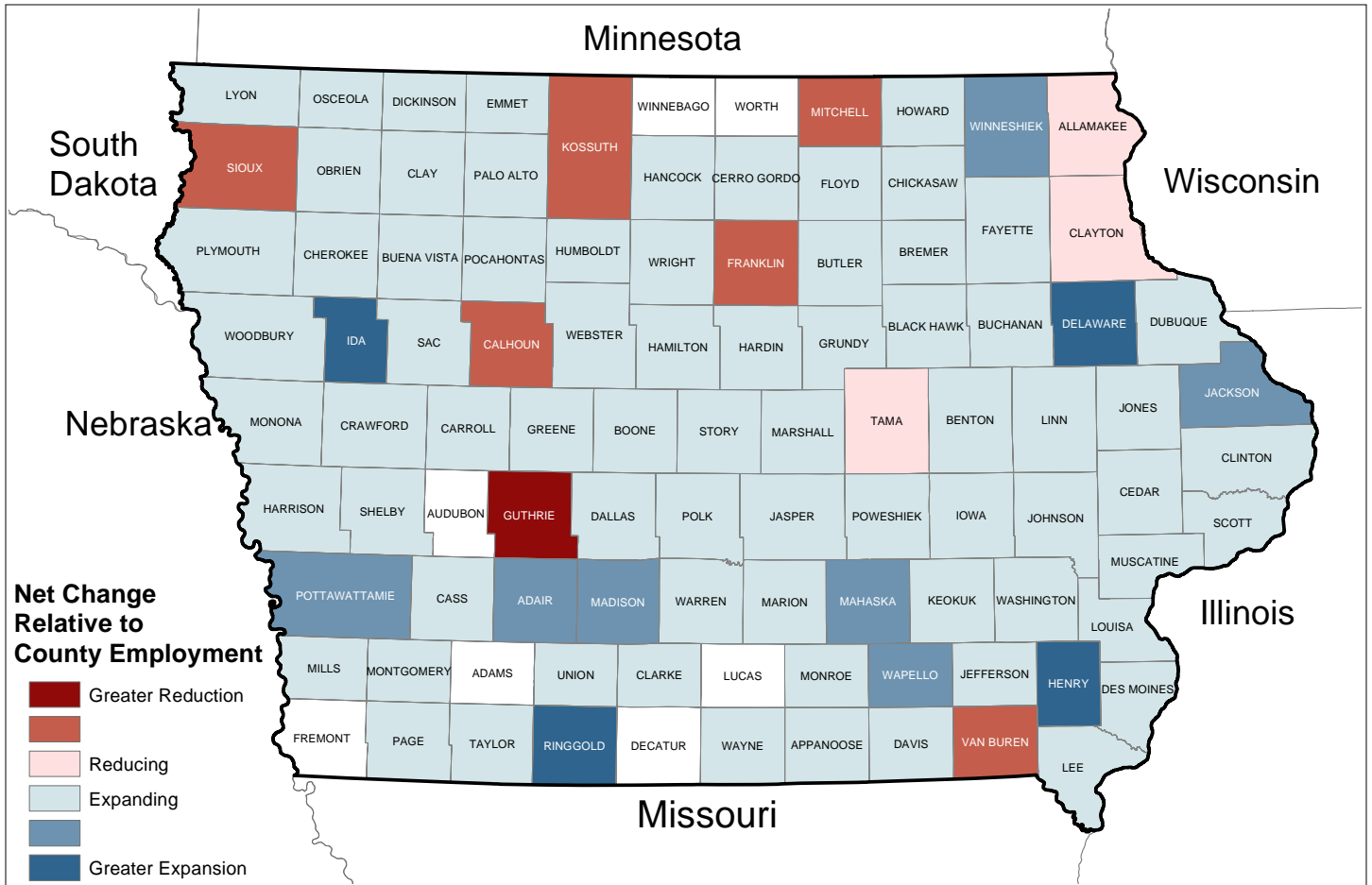
The Reported Payroll Expansion map shows the relative intensity of plans by employers to expand their workforces in each county, normalized by the total employment of the county. The darker blue indicates greater expected new hires relative to local employment while the white indicates counties in which no employer reported plans to expand.

Reported Payroll Reduction



The Reported Payroll Reduction map (above) shows the relative intensity of plans by employers to reduce their workforces in each county, normalized by the total employment of the county. The darker red indicates greater expected reductions relative to local employment while the white indicates counties in which no employer reported plans to downsize.

Net Reported Payroll Change



The Net Reported Payroll Change map (above) shows the relative intensity of plans by employers to expand or reduce their workforces in each county in terms of total jobs to be created or cut, normalized by the total employment of the county. The darker red indicates greater expected reductions, relative to local employment, while the darker blue indicates counties in which employers plan to expand most heavily, relative to local employment. Counties in white indicate a net-zero or no response. The Net Reported Payroll Change map (here and page 9) is derived by combining the Reported Payroll Expansion map (page 20) with the Reported Payroll Reduction map (page 21).



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