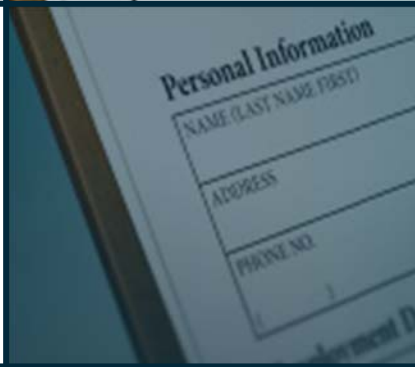


Statewide

Workforce Needs Assessment



Released
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2013

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The Iowa Needs Assessment Survey was made possible by funding from the Iowa Legislature.

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Statewide

Iowa Workforce Development conducted the fourth annual Workforce Needs Assessment from August 2012 through December 2012. In addition to vacancy and retirement data, this year's survey included questions pertaining to average hourly starting wage and enhanced emphasis on fringe benefits. 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 August 2012, 33,095 employers in the state of Iowa were contacted and asked to complete the survey. Three attempts were made to contact each employer. By the end of the survey period (December 15, 2012), the survey had received 6,251 responses, yielding a 18.9 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 may be less likely to respond to the 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	12.4%	24.3%	6,750
Manufacturing	9.3%	17.6%	4,903
Wholesale & Retail Trade	19.5%	9.5%	2,652
Accommodation & Food Services	6.0%	9.0%	2,510
Construction	10.9%	7.6%	2,102
Finance, Insurance & Real Estate	6.6%	6.3%	1,742
Administrative & Waste Services	3.4%	5.4%	1,509
Transportation & Warehousing	3.3%	4.1%	1,133
Professional & Technical Services	7.2%	4.0%	1,117
Public Administration	5.6%	3.2%	900
Personal Services	6.5%	2.9%	810
Educational Services	1.9%	1.6%	455
Information	2.1%	1.4%	381
Arts, Entertainment & Recreation	1.6%	1.2%	344
Agriculture & Mining	2.3%	0.8%	233
Management	0.1%	0.6%	169
Utilities	1.3%	0.4%	111
Total	100%	100%	27,821

** 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 production, personal care & service, office & administrative support and food preparation & serving related 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

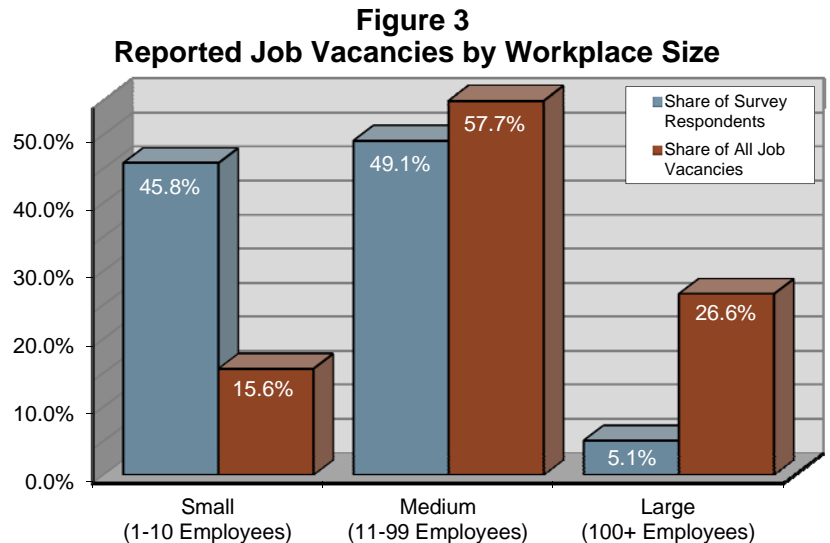
Occupational Category	Percent of Total Vacancies Reported	Estimated Vacancies
Production	13.9%	3,870
Personal Care & Service	10.3%	2,870
Office & Administrative Support	9.9%	2,758
Food Preparation & Serving Related	8.5%	2,372
Transportation & Material Moving	8.5%	2,351
Healthcare Practitioner & Technical	6.6%	1,837
Construction & Extraction	6.4%	1,779
Healthcare Support	6.0%	1,678
Installation, Maintenance & Repair	5.5%	1,519
Sales & Related	5.1%	1,424
Management	3.4%	958
Computer & Mathematical Science	2.7%	752
Building & Grounds Cleaning & Maintenance	2.6%	731
Business & Financial Operations	2.6%	731
Architecture & Engineering	2.1%	593
Education, Training & Library	1.4%	376
Community & Social Science	1.3%	355
Protective Service	1.0%	275
Arts, Design, Entertainment, Sports & Related	0.8%	222
Farming, Fishing & Forestry	0.5%	148
Life, Physical & Social Science	0.4%	116
Legal	0.4%	101
Total	100%	27,816

**totals may vary due to rounding methods*

Of the survey respondents, 1,578 (25.2%) reported having one or more current or anticipated job vacancies, while 4,672 respondents (74.8%) reported having no job vacancies. A total of 5,254 current job vacancies were reported for the State of Iowa, consisting of 63.7 percent full-time, 29.4 percent part-time and 6.9 percent seasonal or temporary positions. When asked why positions are currently vacant, employers responded as follows:

- 30.6% - Permanent business growth/expansion
- 9.4% - Seasonal business growth/expansion
- 4.6% - Replacing retiring employee
- 55.4% - 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, 45.8 percent were businesses with 10 or fewer employees, 49.1 percent had between 11 and 99 employees and 5.1 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 5.1 percent of the survey responses, they reported over one-fourth (26.6%) of the total job vacancies in the State of Iowa.



One measure of workforce demand is determined by the job vacancy rate. With an estimated 27,822 job vacancies and a statewide employment total of 1,444,051¹, there is a 1.9 percent vacancy rate or approximately two 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 ¹	Vacancy Rate
Construction	62,881	3.3%
Healthcare & Social Services	207,514	3.3%
Professional & Technical Services	42,637	2.6%
Accommodation & Food Services	107,108	2.3%
Manufacturing	211,325	2.3%
Administrative & Waste Services	68,295	2.2%
Transportation & Warehousing	55,542	2.0%
Personal Services	42,636	1.9%
Arts, Entertainment & Recreation	20,526	1.7%
Finance, Insurance & Real Estate	99,997	1.7%
Information	27,879	1.4%
Public Administration	64,912	1.4%
Utilities	8,039	1.4%
Agriculture & Mining	18,167	1.3%
Management	15,657	1.1%
Wholesale & Retail Trade	245,232	1.1%
Educational Services	145,704	0.3%

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 construction (3.3%), healthcare & social services (3.3%) and professional & technical services (2.6%). 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**

Occupational Category	Statewide Employment ²	Vacancy Rate
Personal Care & Service	37,030	7.8%
Healthcare Support	45,030	3.7%
Architecture & Engineering	18,500	3.2%
Construction & Extraction	57,470	3.1%
Computer & Mathematical Science	28,510	2.6%
Farming, Fishing & Forestry	5,690	2.6%
Production	150,420	2.6%
Installation, Maintenance & Repair	63,400	2.4%
Healthcare Practitioner & Technical	82,040	2.2%
Transportation & Material Moving	111,590	2.1%
Food Preparation & Serving Related	123,220	1.9%
Building & Grounds Cleaning & Maintenance	45,180	1.6%
Community & Social Science	24,220	1.5%
Legal	6,830	1.5%
Management	62,110	1.5%
Arts, Design, Entertainment, Sports & Related	18,310	1.2%
Business & Financial Operations	59,260	1.2%
Office & Administrative Support	221,060	1.2%
Protective Service	22,510	1.2%
Life, Physical & Social Science	11,250	1.0%
Sales & Related	155,480	0.9%
Education, Training & Library	95,980	0.4%

Figure 5 breaks down the vacancy rate by occupational category. The categories with the highest vacancy rates are personal care & service (7.8%); healthcare support (3.7%); and architecture & engineering (3.2%). 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.

¹ Annual 2012 total statewide employment from Iowa Workforce Development

² Iowa employment by occupational category computed from 2011-2012 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 farming, fishing & forestry occupational category has an above average vacancy rate of 2.6 percent, while the vacancy rate for all categories is 1.9 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 32.6 percent, while the turnover rate for all occupations is 27.1 percent. The HDI for the farming, fishing & forestry occupational category, is calculated as follows:

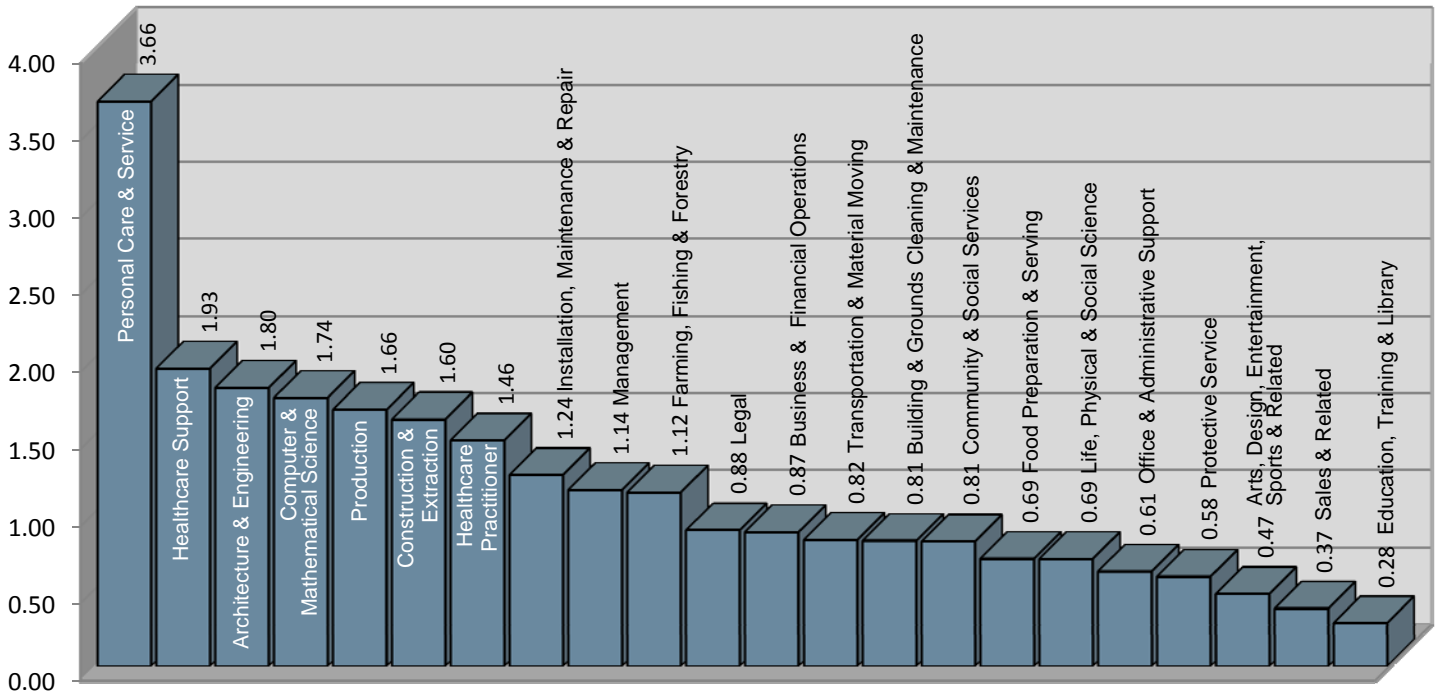
$$(2.6\% \div 1.9\%) \div (32.6\% \div 27.1\%) = 1.12$$

Using the HDI, we can see that the hiring demand for the farming, fishing & forestry 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 2011 Iowa Local Employment Dynamics.

Requirements, Skills & Training

Employers were asked about the education/training and experience requirements of applicants 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	20.1%
High School Education/GED	45.2%
Vocational/Technical Training	15.4%
Associate Degree	7.3%
Undergraduate Degree	9.3%
Postgraduate/Professional Degree	2.7%

Figure 8
Experience Required - Current Vacancies

Experience Required	Percent
No Experience Required	45.0%
Less than 1 Year	14.2%
1-2 Years	24.6%
3-5 Years	11.8%
More than 5 Years	4.4%

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**.

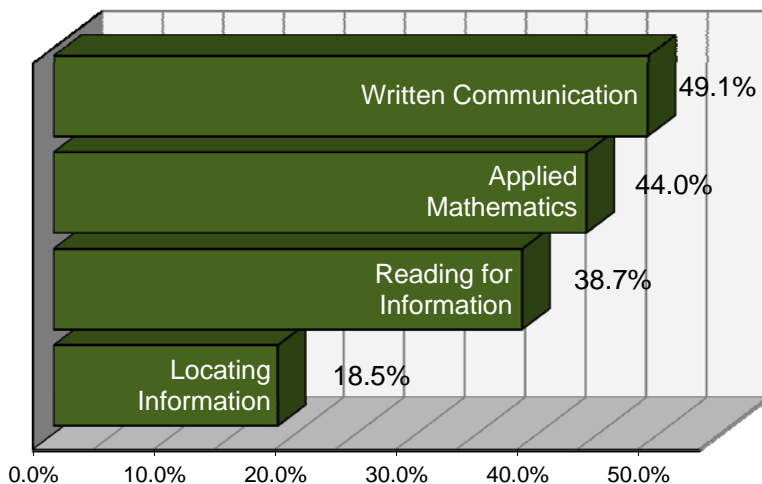
We can begin to analyze any workforce gaps by comparing the inventory of skills needed by employers and those skills held by the population of workers as presented in a Laborshed analysis. This gap is then analyzed and the necessary training and education programs can be formalized through a Skillshed 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.	13.7%	34.0%	32.8%	14.4%	5.2%
In general, applicants possess the basic skills required for the job.	14.7%	41.3%	30.9%	10.4%	2.6%
In general, applicants possess the soft skills required for the job.	8.1%	32.6%	38.8%	16.3%	4.2%
In general, applicants possess the occupational skills required for the job.	9.2%	29.8%	34.3%	19.9%	6.7%
There is often a problem filling this position because applicants are disqualified due to controlled substance testing.	3.0%	6.1%	27.6%	18.9%	44.4%
There is often a problem filling this position because applicants are disqualified for failure to pass a background check.	5.0%	9.1%	28.4%	22.7%	34.7%

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

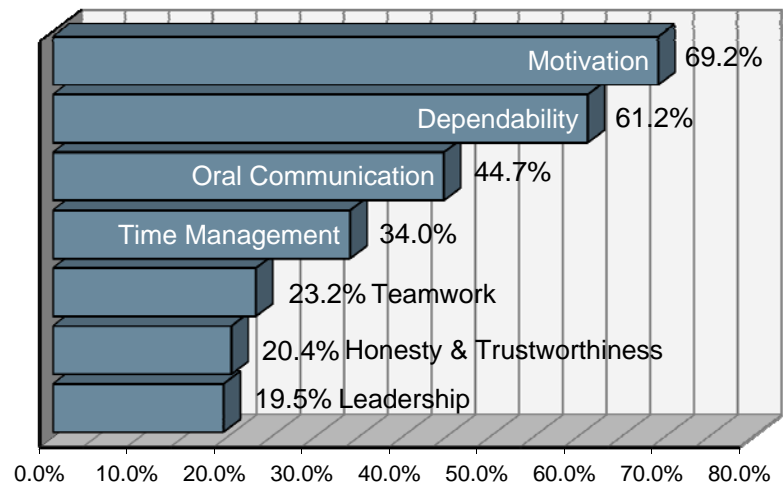
Figure 10
Basic Skills Lacked by Applicants



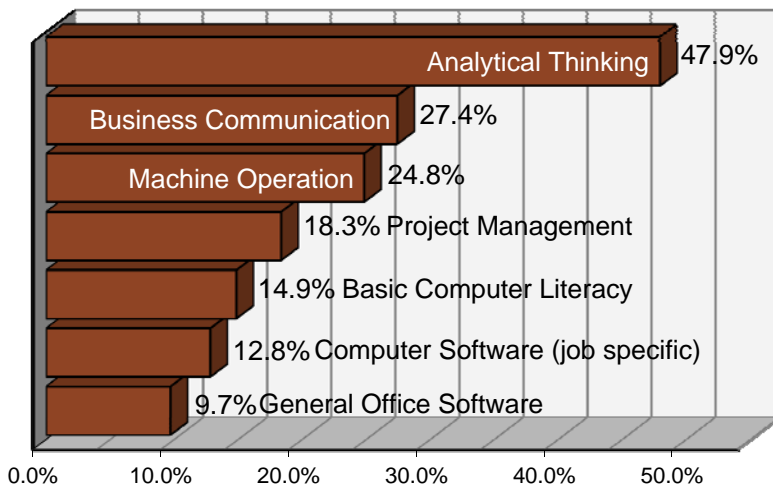
Basic skills are those skills developed during the elementary and middle part of an individual's education. These skills include literacy, numeracy (the ability to do arithmetic and reason with numbers), basic computer skills and organization. Over one-tenth (13.0%) of employers surveyed feel that applicants lack basic skills needed for the job. The Skilled Iowa initiative provides a means to benchmark and certify applicant's skills in Applied Mathematics, Reading for Information and Locating Information through the National Career Readiness Certificate testing program. More information on Skilled Iowa can be found at www.skillediowa.org.

**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. More than one-fifth (20.5%) 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. Over one-fourth (26.6%) 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	51.8%
Commercial training provider	22.7%
Online	20.0%
Employee self-directed training	19.0%
No training provided	13.8%
College/University	10.3%
Trade school	9.2%
Other	8.7%

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 commercial training providers. Almost all (88.7%) of employers report taking employee input under consideration when planning what training to provide. More than one-fourth (26.1%) 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 of Iowa.

Figure 14
Recruitment Period for Current Vacancies

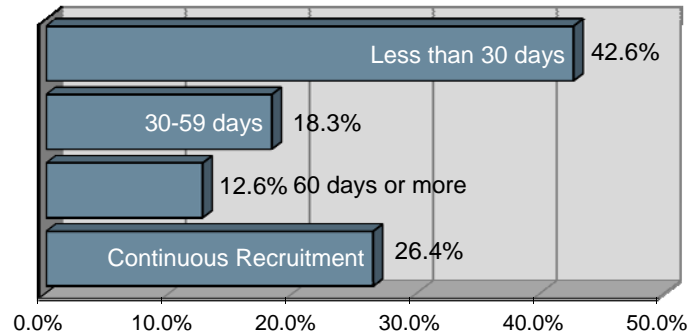
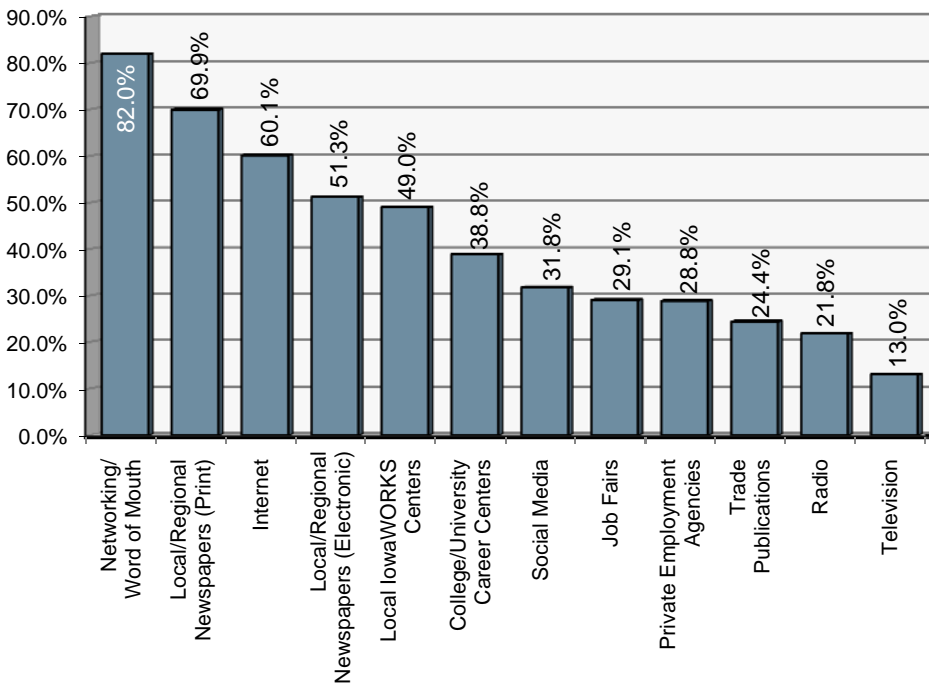


Figure 15
Recruitment Media Utilization



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

Employers utilized a variety of media to recruit potential employees. Respondents indicated that the most useful media outlets were networking/word of mouth, followed by print editions of local and regional newspapers, the internet, electronic editions of local/regional newspapers, local IowaWORKS centers, college/university career centers and social media.

Potential employees, on the other hand, were most likely to go first to the internet, followed by local/regional newspapers, networking/word of mouth, local IowaWORKS centers and private employment agencies when looking for jobs.

These mismatches in advertising versus search media usage can increase recruitment time periods and cost. More information on job search media usage can be found in the Statewide Laborshed Report (http://www.iowaworkforce.org/lmi/labsur/iowa_statewide_laborshed_2012.pdf).

Figure 16
Average Wages by Occupational Category

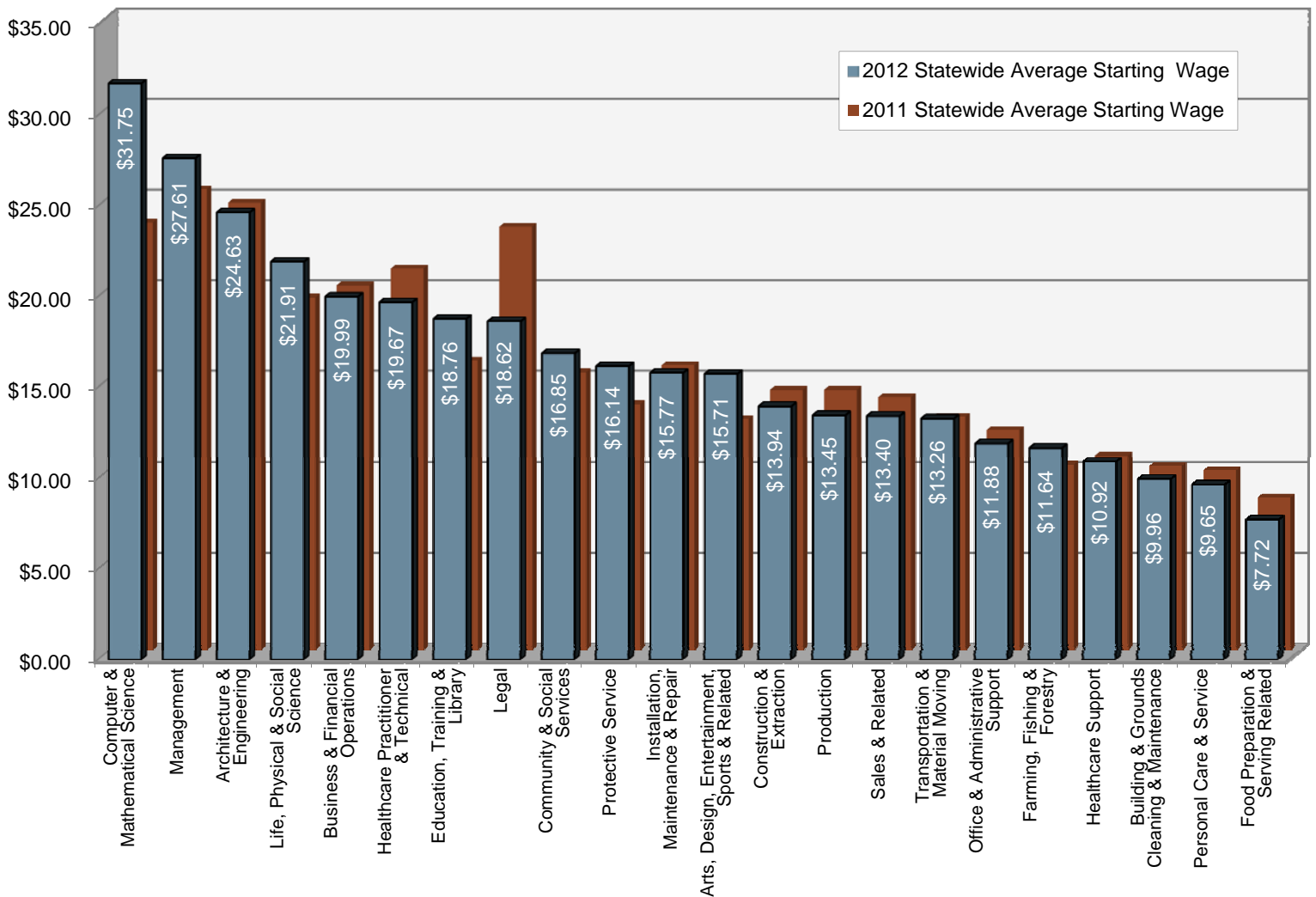


Figure 16 is the 2012 survey-reported average starting wages by occupational category with 2011 survey-reported average starting wages for comparison. This is important for job seekers in determining what jobs can provide a livable wage and have higher earning potential. Employers can use the information to determine their competitiveness with wages among all other categories. From the graph, we see that the computer & mathematical science; management; architecture & engineering; and life, physical & social science occupational categories pay the highest average starting wages. **Appendix A** (page 19) shows occupations in management; architecture & engineering; computer & mathematical science; business & financial operations; 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**.

Benefits Offered

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 **Figures 17, 18 & 19.**

Figure 17
Insurance Benefits Offered by Employers

Insurance Benefits Offered	Full Time Positions	Part-Time Positions
Health/Medical	89.1%	10.4%
Prescription Drug Plans	74.6%	9.5%
Life Insurance	62.5%	10.3%
Dental	57.0%	10.4%
Accidental Death & Dismemberment	49.6%	7.8%
Long Term Disability	43.3%	7.2%
Short-Term Disability	41.9%	7.6%
Vision	32.6%	6.4%

Paid leave is another common form of employee benefit. Holiday leave varies by company in both the number of days and the particular holidays recognized. Some employers may also offer increased holiday pay in lieu of time off. Similarly, the specifics of maternity/paternity leave programs vary widely among different employers. Combined paid time off (PTO) refers to programs that allow employees to accumulate paid time off in a single pool to be used for either vacation or sick leave versus situations in which employees accrue time in separate pools.

Figure 19
Other Benefits Offered by Employers

Other Benefits Offered	Full Time Positions	Part-Time Positions
Bonuses	66.6%	36.7%
Company Vehicle	61.7%	34.0%
Retirement Package	50.7%	21.0%
Flex Spending Accounts/Cafeteria Plans	44.7%	15.0%
Uniform Allowances	37.7%	18.3%
Tuition Assistance	29.7%	11.6%
Profit Sharing/Stock Options	23.4%	9.4%
Employee Assistance Program	20.7%	13.6%
Wellness Programs	17.5%	11.1%
Shift Differential Pay	16.1%	10.6%
Relocation/Moving Expenses	11.4%	1.4%
Childcare	3.4%	1.6%

The Statewide Laborshed Analysis was used to identify current benefit packages being offered to employees within the state. These benefits include; health/medical insurance (90.4%), pension/retirement options (69.0%), dental coverage (54.0%), paid vacation (45.5%), vision coverage (33.4%), life insurance (29.0%), paid sick leave (27.8%), paid holidays (25.9%), disability insurance (18.4%), prescription drug coverage (8.7%) and paid time off (7.4%). Over three-quarters (76.8%) of the employers and employees are reported as sharing in the premium costs of health/medical insurance, 15.3 percent of the employers are reported as covering the entire cost of insurance premiums while 7.9 percent of the employers/employees have made other arrangements.

Insurance is a common benefit offered by employers. Different types of health care insurance (vision, dental, etc.) may be offered as part of an umbrella plan. Respondents were asked to indicate those separately if included in a combined package. Employers were not asked about workers compensation insurance as that program is intended to cover employer liability and not employee needs directly.

Figure 18
Paid Leave Benefits Offered by Employers

Paid Leave Benefits Offered	Full Time Positions	Part-Time Positions
Holiday	89.5%	31.1%
Vacation	84.5%	24.3%
Bereavement/Funeral	73.5%	26.0%
Sick Leave	58.5%	17.9%
Personal Days/Floating Holidays	47.8%	15.0%
Combined Paid Time Off (PTO)	47.6%	16.5%
Maternity/Paternity	46.5%	15.9%
Training	42.3%	16.8%

In addition to insurance and paid leave employers offer a range of other benefits. Bonuses are common and are offered on a wide range of criteria including individual performance incentives, longevity awards and company-wide success. Company vehicle benefits include mileage reimbursement for the use of employee owned vehicles. Retirement packages may be either defined benefit (traditional pensions) or defined contribution (401K). Depending on the type of retirement package payments may or may not include either employer or employee matching contributions. Childcare benefits include both reimbursement programs and on-site facilities.

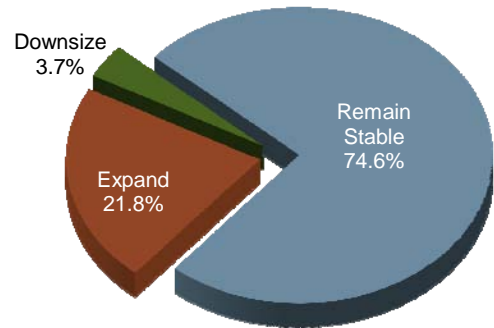
Future Plans

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 20 shows the proportion of employers planning to expand, reduce or maintain the size of their workforce. Almost three-fourths (74.6%) of employers are planning to keep the size of their workforce steady while 21.8 percent of employers plan to expand their workforce and only 3.7 percent plan to reduce their workforce.

**Figure 20
Future Workforce Plans**



**Figure 21
Net Reported Payroll Change**

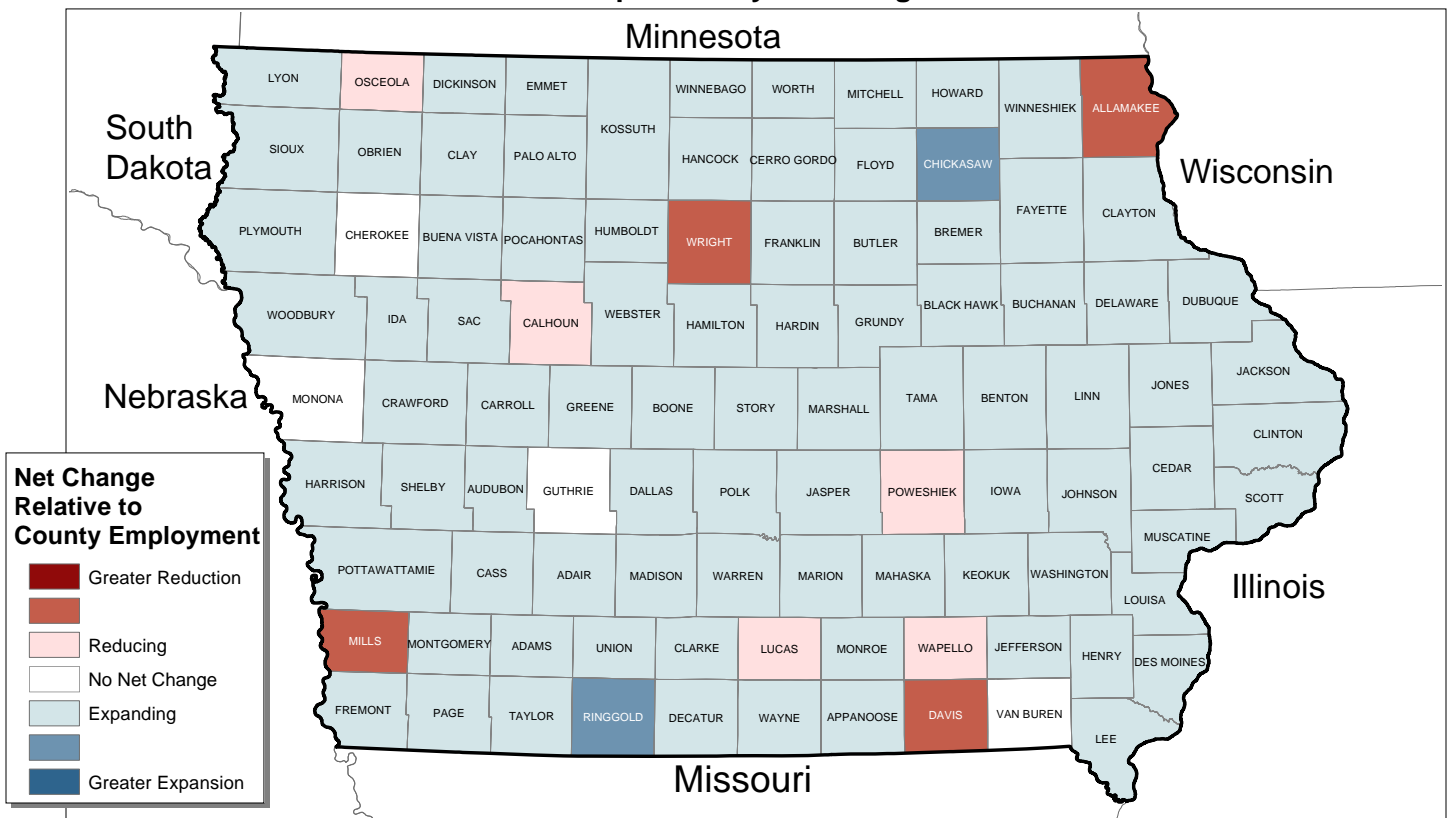


Figure 21 The Net Reported Payroll Change map shows the relative intensity of plans by employers to expand or reduce their workforces in each county in terms of total jobs to be created or cut, normalized by the total employment of the county. The darker red indicates greater expected reductions, relative 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 (21.8%) of the employers surveyed are planning to expand their workforce in the future. Of those employers planning on expanding their workforce, 52.3 percent indicated they were planning to do within 12 months, 33.7 percent indicated that they were planning to expand in one to two years, 10.0 percent are planning to expand in two to three years and 4.0 percent plan to expand in more than three years. Two-fifths (40.0%) 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 22
Reasons for Payroll Expansion
Ranked by Relative Importance

Reasons for Expansion
Increase share of existing market
Meet current market demands
Entry into new markets
Opening a new location
Insourcing of business operations
Reduction of overtime
Merger/Acquisition
Changes in tax or regulatory incentives

Respondents were asked to rank, in order of significance, possible reasons for expanding, maintaining or reducing the size of their workforce. **Figures 22, 23** and **27** (on page 13) show the average importance of reasons for each case.

Figure 22 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 anticipation of future increases in demand.

Figure 23
Constraints Preventing Payroll Expansion
Ranked by Relative Importance

Figure 23 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 marginal cost of additional labor, increases in cost of benefits and uncertainty in current or expected market demands. Common other constraints include declining public funding and improvements in technology that reduce the need for additional workers.

Impediments for Expansion
Cost of additional labor
Expense related to benefits
Uncertainty in current market demands
Competition within existing markets
Tax or regulatory issues
Lack of available skilled workforce
No desire to expand
Limited access to capital
Barriers to entering new markets
Insufficient space at current location/inability to find appropriate new location
Supply chain limitations
Planned merger/acquisition or business sale/transfer
Dont know steps/processes needed to expand

**Figure 24
Planned Payroll Expansion**

Industry	Percent of Each Industry	Percent of Total
Wholesale & Retail Trade	20.1%	18.1%
Manufacturing	35.1%	15.0%
Healthcare & Social Services	23.8%	13.6%
Construction	25.0%	12.6%
Professional & Technical Services	28.4%	9.4%
Finance, Insurance & Real Estate	19.8%	6.0%
Personal Services	16.8%	5.0%
Administrative & Waste Services	31.3%	4.8%
Accommodation & Food Services	13.9%	3.8%
Transportation & Warehousing	23.1%	3.5%
Information	20.9%	2.0%
Public Administration	6.6%	1.7%
Agriculture & Mining	14.8%	1.5%
Arts, Entertainment & Recreation	16.8%	1.2%
Educational Services	14.7%	1.2%
Utilities	6.0%	0.4%
Management	12.5%	0.1%

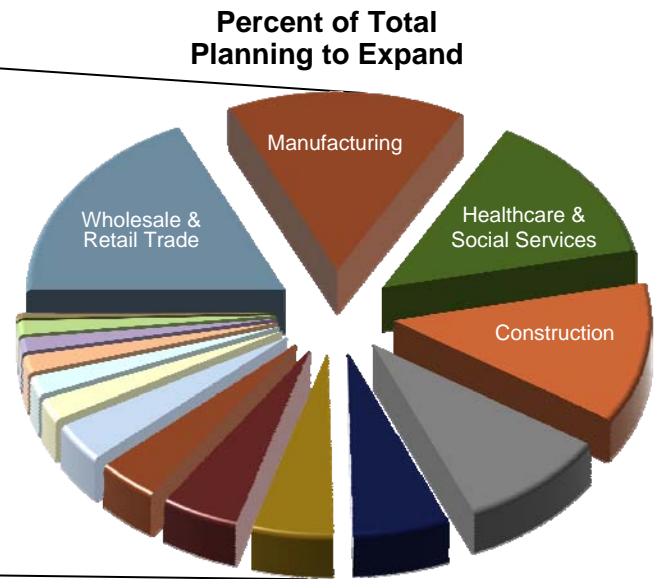


Figure 24 shows those employers who are planning to expand by industry. The “Percent of Each Industry” column shows what percentage of employers in each industry is planning to expand their payroll. The “Percent of Total” column shows what percentage of all businesses planning to expand their payroll is accounted for by each industry. For example, 20.1 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 18.1 percent of all the businesses in the survey that are planning to expand their payrolls in the future.

**Figure 25
Timing of Planned Expansion**

Estimated Time for Expansion	Percent of Respondents
Within 12 months	52.3%
1-2 years	33.7%
2-3 years	10.0%
More than 3 years	4.0%

Figure 26 shows the percent of planned expansion by occupational category. Office & administrative support represents one of the largest categories among current vacancies (**Figure 2**, page 2) and the category accounts for 9.9 percent of the planned payroll expansion positions. Production related occupations, on the other hand, represent 13.9 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; food preparation & serving related; office & administrative support; construction & extraction; and transportation & material moving.

Figure 25 shows the timeframe for those employers who are planning to expand their payrolls.

**Figure 26
Planned Payroll Expansion by Occupational Category**

Occupational Category	Percent of Planned Expansion
Production	22.5%
Food Preparation & Serving Related	10.3%
Office & Administrative Support	9.9%
Construction & Extraction	8.6%
Transportation & Material Moving	6.5%
Sales & Related	5.5%
Personal Care & Service	5.3%
Installation, Maintenance & Repair	4.9%
Farming, Fishing & Forestry	4.5%
Healthcare Practitioner & Technical	3.5%
Building & Grounds Cleaning & Maintenance	2.6%
Healthcare Support	2.6%
Management	2.6%
Architecture & Engineering	2.5%
Computer & Mathematical Science	1.9%
Business & Financial Operations	1.6%
Education, Training & Library	1.2%
Community & Social Science	0.8%
Protective Service	0.8%
Arts, Design, Entertainment, Sports & Related	0.6%
Legal	0.5%
Life, Physical & Social Science	0.4%

Planned Workforce Reduction

Very few (3.7%) of the employers surveyed are planning to reduce their workforce in the future. Of those employers planning on reducing their workforce, 72.4 percent indicated they were planning to do so within 12 months, 17.8 percent indicated that they were planning to downsize in 1 to 2 years, 6.1 percent are planning to downsize in 2 to 3 years and 3.7 percent plan to reduce the size of their workforce in more than three years. More than one-fifth (21.8%) 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 27
Reasons for Workforce Downsizing
Ranked by Relative Importance

Figure 27 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, expenses related to employee benefits, changes in tax or regulatory burdens, or responding to reduced market demand. Commonly cited other reasons for companies reducing their workforce include productivity improvements in technology and reduced public funding.

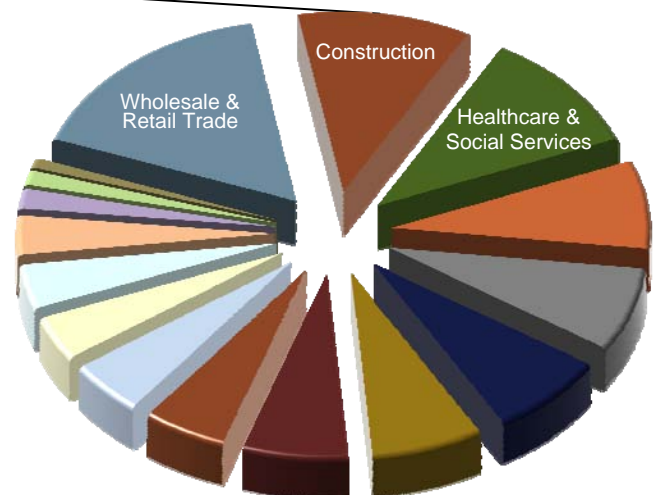
Reasons for Downsizing
Reduced profits from current operations
Expenses related to benefits
Changes in tax or regulatory burdens
Respond to reduced market demands
Reduced share of existing market
Business sale or closure
Exit from existing markets or business division closing
Closing an existing location
Outsourcing of business operations

The middle column in **Figure 28**, "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, 3.1 percent of all businesses in the wholesale & retail trade industry are planning to reduce their payroll in the future. Those businesses within the wholesale & retail trade industry make up 16.6 percent of all the businesses in the survey that are planning to reduce their payrolls in the future.

Figure 28
Planned Payroll Reduction

Industry	Percent of Each Industry	Percent of Total
Wholesale & Retail Trade	3.1%	16.6%
Construction	3.7%	10.9%
Healthcare & Social Services	3.2%	10.9%
Finance, Insurance & Real Estate	4.3%	7.9%
Manufacturing	2.9%	7.4%
Personal Services	4.2%	7.4%
Professional & Technical Services	3.5%	7.0%
Transportation & Warehousing	7.2%	6.6%
Accommodation & Food Services	3.2%	5.2%
Educational Services	9.5%	4.8%
Administrative & Waste Services	4.3%	3.9%
Agriculture & Mining	6.3%	3.9%
Public Administration	2.3%	3.5%
Information	3.1%	1.7%
Arts, Entertainment & Recreation	3.0%	1.3%
Utilities	2.4%	0.9%
Management	*	*

Percent of Total
Planning to Downsize



*insufficient data reported

Retirement

Currently, there are 66,586 individuals over the age of 64 working throughout the State of Iowa. They represent approximately 4.6 percent of the total workforce. The agriculture & mining (13.0%); finance, insurance & real estate (11.4%); and wholesale & retail trade (11.4%) 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 51.2 and 48.8 percent respectively⁴.

Of those employees eligible to retire, almost all (93.7%) 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 30** 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 12,473 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 0.7 percent of the State of Iowa's workforce becomes eligible for retirement each year (10,431 divided by total employment of about 1,444,051 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.

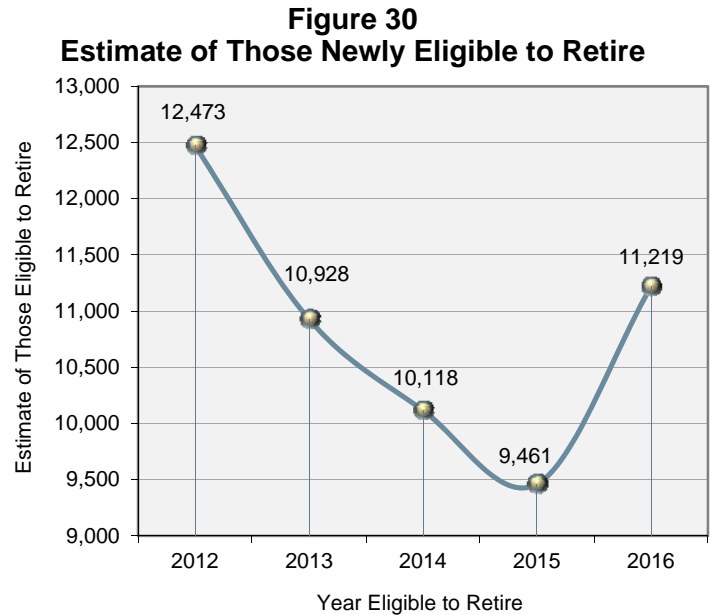
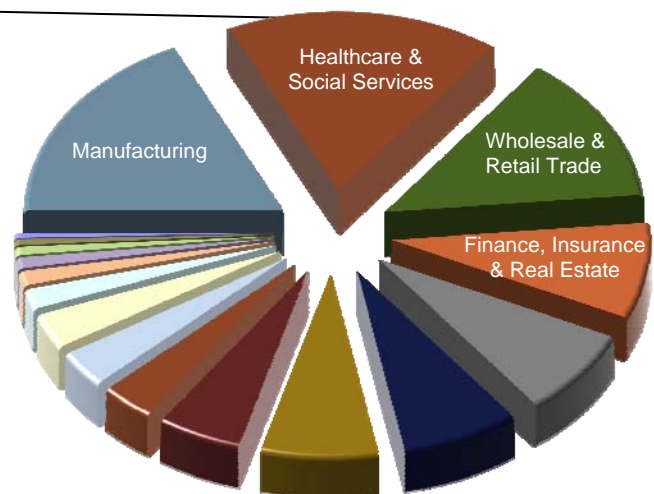


Figure 31 shows the estimated percentage of potential worker loss due to retirement by industry. In the next five years, there will be a significant number of workers eligible for retirement from the manufacturing; healthcare & social services; wholesale & retail trade; and finance insurance & real estate industries.

Figure 31
Retirement Eligibility by Industry

Industry	Percent of Expected Retirements
Manufacturing	17.9%
Healthcare & Social Services	17.3%
Wholesale & Retail Trade	13.3%
Finance, Insurance & Real Estate	8.5%
Educational Services	7.7%
Construction	7.4%
Public Administration	7.3%
Professional & Technical Services	5.3%
Utilities	3.3%
Transportation & Warehousing	3.2%
Personal Services	3.1%
Administrative & Waste Services	1.8%
Information	1.3%
Accommodation & Food Services	1.0%
Agriculture & Mining	0.7%
Arts, Entertainment & Recreation	0.5%
Management	0.4%



⁴ 2011-2012 Iowa Local Employment Dynamics

Figure 32
Retirement Eligibility within each Occupational Category

Occupational Category	Percent Affected by Retirements
Office & Administrative Support	17.0%
Management	15.9%
Production	11.5%
Transportation & Material Moving	6.9%
Healthcare Practitioner & Technical	6.8%
Installation, Maintenance & Repair	6.4%
Sales & Related	5.8%
Education, Training & Library	5.5%
Business & Financial Operations	4.8%
Construction & Extraction	4.8%
Healthcare Support	2.5%
Personal Care & Service	2.0%
Building & Grounds Cleaning & Maintenance	1.9%
Architecture & Engineering	1.7%
Food Preparation & Serving Related	1.4%
Legal	1.2%
Community & Social Science	1.0%
Computer & Mathematical Science	1.0%
Protective Service	0.7%
Arts, Design, Entertainment, Sports & Related	0.5%
Farming, Fishing & Forestry	0.3%
Life, Physical & Social Science	0.3%

Figure 32 shows the percent of eligible retirement within each occupational category. Office & administrative support positions supported the third largest occupational category among current vacancies (9.9%) (**Figure 2**, page 2) and is the largest occupational category among jobs potentially affected by retiring workers. While personal care & service occupations make up 10.3 percent of the state's current vacancies (**Figure 2**, page 2), they are not significantly affected by workers potentially retiring (2.0%). The occupational categories that will potentially be the most affected are: office & administrative support; management; production; transportation & material moving; and healthcare practitioner & technical.

Nearly three-fourths (72.0%) of employers indicated that they are engaged in retiree retention efforts. **Figure 33** details employer responses regarding the strategies used to retain retirees. Nearly half (46.3%) of the employers are offering retirees flexible work schedules; followed by increased wages and/or bonuses; a change in duties/responsibilities; other or no efforts; additional training to upgrade their skills; more recognition for work done; seasonal work schedules; benefits to part-time employees; allowing telecommuting/working from home; and benefits to retirees.

Figure 33
Retiree Retention Efforts by Employers

Efforts to Keep/Attract Retirees	Percent
Flexible work schedules	46.3%
Increase wages and/or bonuses	41.5%
Change in duties/responsibilities	29.4%
Offer additional training	25.7%
Other/none	20.4%
More recognition	18.2%
Benefits to part-time employees	13.4%
Seasonal work schedules	11.3%
Telecommuting/working from home	6.6%
Benefits to retirees	6.1%

Figure 34
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	40.8%
Hire workers from outside of the company	34.9%
Not currently planning to fill these positions	14.7%
Promote employees from within the company	9.7%

Figure 34 shows how companies plan to fill vacant positions left behind from those who have retired. Of those who reported, 34.9 percent plan only to hire workers from outside the company, 40.8 percent plan to use a combination of hiring outside workers along with promoting from within the company, 14.7 percent do not currently plan on filling these positions and 9.7 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 production, personal care & service and office & administrative support occupational categories.

Currently, the state has a large number of estimated job vacancies in healthcare related occupations (3,515), 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 13.9 percent of the current openings across the state. Together, these occupational categories account for 26.6 percent of all reported job vacancies, signaling a large number of opportunities for students and workers in related industries.

Over four-fifths (88.0%) of the current job vacancies reportedly require an education level at or below an associates degree. Over one-tenth (12.0%) of current job vacancies require an undergraduate degree or higher. Over two-fifths (45.0%) of the current job vacancies reportedly require no experience, while 38.9 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 35.5 percent of jobs will require a high school education, 17.1 percent will require technical training/certification and 24.3 percent will require an undergraduate degree. Job vacancies due to retirements will also require slightly more experience than current job vacancies, with 18.8 percent requiring no experience and 58.4 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, 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 Survey.

For more information use O*Net (<http://www.onetonline.org/>), which provides information on the following for each job title:

- Abilities
- Education
- Interests
- Job Tasks
- Job Zone
- Knowledge
- Related Occupations
- Skills
- Tools & Technology Used
- Wages & Employment - State/National
- Work Activities
- Work Context
- Work Styles
- Work Values

Figure 35
Estimated Reported Vacancies

Job Title	SOC Code	Estimated Vacancies
Personal Care Aides	39-9021	1,922
Nursing Assistants	31-1014	1,091
Heavy and Tractor-Trailer Truck Drivers	53-3032	1,022
Combined Food Preparation and Serving Workers, Including Fast Food	35-3021	958
Registered Nurses	29-1141	911
Customer Service Representatives	43-4051	784
Production Workers, All Other	51-9199	773
Construction Laborers	47-2061	524
Food Batchmakers	51-3092	461
Amusement and Recreation Attendants	39-3091	455
Retail Salespersons	41-2031	424
Packers and Packagers, Hand	53-7064	355
Automotive Service Technicians and Mechanics	49-3023	349
Waiters and Waitresses	35-3031	349
Assemblers and Fabricators, All Other	51-2099	344
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	37-2011	341
Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	51-4122	334
Laborers and Freight, Stock, and Material Movers, Hand	53-7062	328
Computer-Controlled Machine Tool Operators, Metal and Plastic	51-4011	302
Cooks, All Other	35-2019	254
Light Truck or Delivery Services Drivers	53-3033	244
Sales and Related Workers, All Other	41-9099	244
Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	51-4081	233
Cashiers	41-2011	212
Maids and Housekeeping Cleaners	37-2012	212
Home Health Aides	31-1011	196
Tellers	43-3071	180
Bookkeeping, Accounting, and Auditing Clerks	43-3031	175
Engineers, All Other	17-2199	175
Maintenance and Repair Workers, General	49-9071	175
Receptionists and Information Clerks	43-4171	175
Welders, Cutters, Solderers, and Brazers	51-4121	175
Computer Programmers	15-1131	169
Table Continued, Next Page		

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

Job Title	SOC Code	Estimated Vacancies
Painters, Construction and Maintenance	47-2141	164
First-Line Supervisors of Production and Operating Workers	51-1011	159
Heating, Air Conditioning, and Refrigeration Mechanics and Installers	49-9021	159
Office Clerks, General	43-9061	159
Industrial Machinery Mechanics	49-9041	154
Stock Clerks and Order Fillers	43-5081	154
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	43-6014	143
Licensed Practical and Licensed Vocational Nurses	29-2061	138
Accountants and Auditors	13-2011	132
Bartenders	35-3011	132
Cement Masons and Concrete Finishers	47-2051	132
Childcare Workers	39-9011	132
Correctional Officers and Jailers	33-3012	132
Packaging and Filling Machine Operators and Tenders	51-9111	132
Medical Assistants	31-9092	127
Sales Managers	11-2022	127
Bus and Truck Mechanics and Diesel Engine Specialists	49-3031	122
Carpenters	47-2031	122
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	41-4012	116
Structural Iron and Steel Workers	47-2221	116
Mechanical Engineers	17-2141	111
Food Servers, Nonrestaurant	35-3041	106
Industrial Truck and Tractor Operators	53-7051	106
Insurance Claims and Policy Processing Clerks	43-9041	106
Sales Representatives, Services, All Other	41-3099	106
Financial Managers	11-3031	101
First-Line Supervisors of Food Preparation and Serving Workers	35-1012	101
Loan Interviewers and Clerks	43-4131	101
Hairdressers, Hairstylists, and Cosmetologists	39-5012	95
Landscaping and Groundskeeping Workers	37-3011	95
Plumbers, Pipefitters, and Steamfitters	47-2152	95
Water and Wastewater Treatment Plant and System Operators	51-8031	95
Bill and Account Collectors	43-3011	90
Computer Occupations, All Other	15-1199	90
Dietetic Technicians	29-2051	90
Farmworkers, Farm, Ranch and Aquacultural Animals	45-2093	90
Machinists	51-4041	90
Software Developers, Applications	15-1132	90
Administrative Services Managers	11-3011	85
Bus Drivers, School or Special Client	53-3022	85
First-Line Supervisors of Construction Trades and Extraction Workers	47-1011	85
Marketing Managers	11-2021	85
Teacher Assistants	25-9041	85
Community and Social Service Specialists, All Other	21-1099	79
Farm Equipment Mechanics and Service Technicians	49-3041	79
First-Line Supervisors of Office and Administrative Support Workers	43-1011	79
Medical and Clinical Laboratory Technicians	29-2012	79
Operating Engineers and Other Construction Equipment Operators	47-2073	79
Phlebotomists	31-9097	79
Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	41-4011	79
Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	51-4031	74
Industrial Production Managers	11-3051	74
Medical and Health Services Managers	11-9111	74
Medical Secretaries	43-6013	74
Police and Sheriff's Patrol Officers	33-3051	74
Bus Drivers, Transit and Intercity	53-3021	69
Inspectors, Testers, Sorters, Samplers, and Weighers	51-9061	69
Occupational Therapist Aides	31-2012	69

Table Continued, Next Page

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

Job Title	SOC Code	Estimated Vacancies
Sheet Metal Workers	47-2211	69
Software Developers, Systems Software	15-1133	69
Claims Adjusters, Examiners, and Investigators	13-1031	64
Cooks, Fast Food	35-2011	64
Cooks, Institution and Cafeteria	35-2012	64
Dining Room and Cafeteria Attendants and Bartender Helpers	35-9011	64
Electricians	47-2111	64
First-Line Supervisors of Retail Sales Workers	41-1011	64
Human Resources Specialists	13-1071	64
Metal-Refining Furnace Operators and Tenders	51-4051	64
Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic	51-4072	64
Therapists, All Other	29-1129	64
Cleaners of Vehicles and Equipment	53-7061	58
Dispatchers, Except Police, Fire, and Ambulance	43-5032	58
Emergency Medical Technicians and Paramedics	29-2041	58
Health Specialties Teachers, Postsecondary	25-1071	58
Hotel, Motel, and Resort Desk Clerks	43-4081	58
Automotive Body and Related Repairers	49-3021	53
Cooks, Restaurant	35-2014	53
Electrical and Electronics Repairers, Commercial and Industrial Equipment	49-2094	53
Market Research Analysts and Marketing Specialists	13-1161	53
Merchandise Displayers and Window Trimmers	27-1026	53
Telemarketers	41-9041	53
Billing and Posting Clerks and Machine Operators	43-3021	48
Business Operations Specialists, All Other	13-1199	48
Coaches and Scouts	27-2022	48
Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	35-3022	48
Dishwashers	35-9021	48
General and Operations Managers	11-1021	48
Loan Officers	13-2072	48
Nurse Practitioners	29-1171	48
Occupational Therapists	29-1122	48
Production, Planning, and Expediting Clerks	43-5061	48
Roofers	47-2181	48
Social and Community Service Managers	11-9151	48
Surgical Technologists	29-2055	48
Team Assemblers	51-2092	48
Tool and Die Makers	51-4111	48
Training Development Specialists	13-1151	48
Child, Family, and School Social Workers	21-1021	42
Computer Systems Analysts	15-1121	42
Computer User Support Specialists	15-1151	42
Environmental Science and Protection Technicians, Including Health	19-4091	42
Highway Maintenance Workers	47-4051	42
Industrial Engineers	17-2112	42
Lawyers	23-1011	42
Locker Room, Coatroom, and Dressing Room Attendants	39-3093	42
Millwrights	49-9044	42
Paralegals and Legal Assistants	23-2011	42
Physical Therapists	29-1123	42
Postsecondary Teachers, All Other	25-1199	42
Preschool Teachers, Except Special Education	25-2011	42
Recreation Workers	39-9032	42
Architectural and Civil Drafters	17-3011	37
Computer Network Support Specialists	15-1152	37
Cooks, Short Order	35-2015	37
Dental Assistants	31-9091	37
Driver/Sales Workers	53-3031	37

Table Continued, Next Page

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

Job Title	SOC Code	Estimated Vacancies
File Clerks	43-4071	37
Financial Specialists, All Other	13-2099	37
First-Line Supervisors/Managers of Personal Service Workers	39-1021	37
Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	35-9031	37
Installation, Maintenance, and Repair Workers, All Other	49-9099	37
Instructional Coordinators	25-9031	37
Insulation Workers, Floor, Ceiling, and Wall	47-2131	37
Life, Physical, and Social Science Technicians, All Other	19-4099	37
Managers, All Other	11-9199	37
Marriage and Family Therapists	21-1013	37
Mechanical Drafters	17-3013	37
Mobile Heavy Equipment Mechanics, Except Engines	49-3042	37
Network and Computer Systems Administrators	15-1142	37
Painters, Transportation Equipment	51-9122	37
Pesticide Handlers, Sprayers, and Applicators, Vegetation	37-3012	37
Printing Press Operators	51-5112	37
Public Relations and Fundraising Managers	11-2031	37
Radiologic Technologists	29-2034	37
Residential Advisors	39-9041	37
Web Developers	15-1134	37
Cargo and Freight Agents	43-5011	32
Civil Engineers	17-2051	32
Computer and Information Systems Managers	11-3021	32
Cost Estimators	13-1051	32
Counselors, All Other	21-1019	32
Electrical Engineers	17-2071	32
Farmworkers and Laborers, Crop, Nursery, and Greenhouse	45-2092	32
First-Line Supervisors of Mechanics, Installers, and Repairers	49-1011	32
Food Service Managers	11-9051	32
Insurance Underwriters	13-2053	32
Mechanical Door Repairers	49-9011	32
Nursing Instructors and Teachers, Postsecondary	25-1072	32
Securities, Commodities, and Financial Services Sales Agents	41-3031	32
Shipping, Receiving, and Traffic Clerks	43-5071	32
Social Workers, All Other	21-1029	32
Telecommunications Equipment Installers and Repairers, Except Line Installers	49-2022	32
Architects, Except Landscape and Naval	17-1011	26
Chefs and Head Cooks	35-1011	26
Chief Executives	11-1011	26
Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic	51-4012	26
Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders	51-9021	26
Electrical Power-Line Installers and Repairers	49-9051	26
Food Preparation Workers	35-2021	26
Healthcare Social Workers	21-1022	26
Mental Health Counselors	21-1014	26
Nonfarm Animal Caretakers	39-2021	26
Parts Salespersons	41-2022	26
Pharmacists	29-1051	26
Septic Tank Servicers and Sewer Pipe Cleaners	47-4071	26
Veterinary Technologists and Technicians	29-2056	26
Wholesale and Retail Buyers, Except Farm Products	13-1022	26
Anesthesiologists	29-1061	21
Bakers	51-3011	21
Computer Network Architects	15-1143	21
Credit Analysts	13-2041	21
Dental Hygienists	29-2021	21
Eligibility Interviewers, Government Programs	43-4061	21
Farmers, Ranchers, and Other Agricultural Managers	11-9013	21

Table Continued, Next Page

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

Job Title	SOC Code	Estimated Vacancies
Firefighters	33-2011	21
Fitness Trainers and Aerobics Instructors	39-9031	21
Glaziers	47-2121	21
Graders and Sorters, Agricultural Products	45-2041	21
Graphic Designers	27-1024	21
Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic	51-4033	21
Helpers--Electricians	47-3013	21
Helpers--Pipelayers, Plumbers, Pipefitters, and Steamfitters	47-3015	21
Laundry and Dry-Cleaning Workers	51-6011	21
Librarians	25-4021	21
Library Assistants, Clerical	43-4121	21
Management Analysts	13-1111	21
Massage Therapists	31-9011	21
Medical Records and Health Information Technicians	29-2071	21
Mental Health and Substance Abuse Social Workers	21-1023	21
Opticians, Dispensing	29-2081	21
Physician Assistants	29-1071	21
Property, Real Estate, and Community Association Managers	11-9141	21
Security and Fire Alarm Systems Installers	49-2098	21
Social and Human Service Assistants	21-1093	21
Advertising Sales Agents	41-3011	16
Audio and Video Equipment Technicians	27-4011	16
Cabinetmakers and Bench Carpenters	51-7011	16
Construction Managers	11-9021	16
Court, Municipal, and License Clerks	43-4031	16
Education Administrators, Postsecondary	11-9033	16
Electrical and Electronic Engineering Technicians	17-3023	16
Electrical and Electronics Drafters	17-3012	16
Environmental Engineers	17-2081	16
First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand	53-1021	16
First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	37-1012	16
First-Line Supervisors Police and Detectives	33-1012	16
Floor Layers, Except Carpet, Wood, and Hard Tiles	47-2042	16
Fundraisers	13-1131	16
Home Appliance Repairers	49-9031	16
Legislators	11-1031	16
Manicurists and Pedicurists	39-5092	16
Medical Equipment Preparers	31-9093	16
Mixing and Blending Machine Setters, Operators, and Tenders	51-9023	16
Motorcycle Mechanics	49-3052	16
Paving, Surfacing, and Tamping Equipment Operators	47-2071	16
Pharmacy Technicians	29-2052	16
Physical Therapist Aides	31-2022	16
Pipelayers	47-2151	16
Plant and System Operators, All Other	51-8099	16
Probation Officers and Correctional Treatment Specialists	21-1092	16
Public Relations Specialists	27-3031	16
Respiratory Therapists	29-1126	16
Sales Engineers	41-9031	16
Substance Abuse and Behavioral Disorder Counselors	21-1011	16
Technical Writers	27-3042	16
Telecommunications Line Installers and Repairers	49-9052	16
Tire Repairers and Changers	49-3093	16
Title Examiners, Abstractors, and Searchers	23-2093	16
Transportation, Storage, and Distribution Managers	11-3071	16
Aerospace Engineers	17-2011	11
Aircraft Structure, Surfaces, Rigging, and Systems Assemblers	51-2011	11
Appraisers and Assessors of Real Estate	13-2021	11

Table Continued, Next Page

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

Job Title	SOC Code	Estimated Vacancies
Baggage Porters and Bellhops	39-6011	11
Barbers	39-5011	11
Business Teachers, Postsecondary	25-1011	11
Cardiovascular Technologists and Technicians	29-2031	11
Chemical Plant and System Operators	51-8091	11
Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	51-9121	11
Compliance Officers	13-1041	11
Computer Operators	43-9011	11
Counter and Rental Clerks	41-2021	11
Credit Counselors	13-2071	11
Crossing Guards	33-9091	11
Cutting and Slicing Machine Setters, Operators, and Tenders	51-9032	11
Database Administrators	15-1141	11
Drafters, All Other	17-3019	11
Drywall and Ceiling Tile Installers	47-2081	11
Earth Drillers, Except Oil and Gas	47-5021	11
Electrical and Electronic Equipment Assemblers	51-2022	11
Engineering Technicians, Except Drafters, All Other	17-3029	11
Environmental Scientists and Specialists, Including Health	19-2041	11
Executive Secretaries and Executive Administrative Assistants	43-6011	11
Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic	51-4021	11
Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	51-9041	11
Financial Analysts	13-2051	11
First-Line Supervisors of Housekeeping and Janitorial Workers	37-1011	11
First-Line Supervisors of Non-Retail Sales Workers	41-1012	11
Floral Designers	27-1023	11
Gaming Dealers	39-3011	11
Helpers--Brickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters	47-3011	11
Human Resources Assistants, Except Payroll and Timekeeping	43-4161	11
Industrial Engineering Technicians	17-3026	11
Information and Record Clerks, All Other	43-4199	11
Labor Relations Specialists	13-1075	11
Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic	51-4034	11
Legal Secretaries	43-6012	11
Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers	33-9092	11
Mail Clerks and Mail Machine Operators, Except Postal Service	43-9051	11
Molders, Shapers, and Casters, Except Metal and Plastic	51-9195	11
Occupational Therapist Assistants	31-2011	11
Office and Administrative Support Workers, All Other	43-9199	11
Office Machine Operators, Except Computer	43-9071	11
Operations Research Analysts	15-2031	11
Ophthalmic Medical Technicians	29-2057	11
Parking Lot Attendants	53-6021	11
Payroll and Timekeeping Clerks	43-3051	11
Personal Financial Advisors	13-2052	11
Plasterers and Stucco Masons	47-2161	11
Police, Fire, and Ambulance Dispatchers	43-5031	11
Power Plant Operators	51-8013	11
Psychiatric Technicians	29-2053	11
Purchasing Managers	11-3061	11
Reporters and Correspondents	27-3022	11
Security Guards	33-9032	11
Sewing Machine Operators	51-6031	11
Soil and Plant Scientists	19-1013	11
Tax Preparers	13-2082	11
Teachers and Instructors, All Other	25-3099	11
Travel Agents	41-3041	11
Tree Trimmers and Pruners	37-3013	11

Table Continued, Next Page

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

Job Title	SOC Code	Estimated Vacancies
Vocational Education Teachers, Postsecondary	25-1194	11
Weighers, Measurers, Checkers, and Samplers, Recordkeeping	43-5111	11
Actuaries	15-2011	5
Adult Basic and Secondary Education and Literacy Teachers and Instructors	25-3011	5
Advertising and Promotions Managers	11-2011	5
Aircraft Mechanics and Service Technicians	49-3011	5
Ambulance Drivers and Attendants, Except Emergency Medical Technicians	53-3011	5
Animal Breeders	45-2021	5
Architectural and Engineering Managers	11-9041	5
Art Directors	27-1011	5
Athletic Trainers	29-9091	5
Audiologists	29-1181	5
Bicycle Repairers	49-3091	5
Broadcast Technicians	27-4012	5
Butchers and Meat Cutters	51-3021	5
Buyers and Purchasing Agents, Farm Products	13-1021	5
Clergy	21-2011	5
Coin, Vending, and Amusement Machine Servicers and Repairers	49-9091	5
Commercial and Industrial Designers	27-1021	5
Computer Science Teachers, Postsecondary	25-1021	5
Computer, Automated Teller, and Office Machine Repairers	49-2011	5
Construction and Building Inspectors	47-4011	5
Cooks, Private Household	35-2013	5
Couriers and Messengers	43-5021	5
Dental Laboratory Technicians	51-9081	5
Dentists, All Other Specialists	29-1029	5
Education Administrators, Preschool and Childcare Center/Program	11-9031	5
Electrical and Electronics Installers and Repairers, Transportation Equipment	49-2093	5
Epidemiologists	19-1041	5
Fence Erectors	47-4031	5
Financial Clerks, All Other	43-3099	5
Food Scientists and Technologists	19-1012	5
Foreign Language and Literature Teachers, Postsecondary	25-1124	5
Furniture Finishers	51-7021	5
Grinding and Polishing Workers, Hand	51-9022	5
Grounds Maintenance Workers, All Other	37-3019	5
Health and Safety Engineers, Except Mining Safety Engineers and Inspectors	17-2111	5
Health Technologists and Technicians, All Other	29-2099	5
Helpers--Installation, Maintenance, and Repair Workers	49-9098	5
Helpers--Painters, Paperhangers, Plasterers, and Stucco Masons	47-3014	5
Helpers--Production Workers	51-9198	5
Information Security Analysts	15-1122	5
Insulation Workers, Mechanical	47-2132	5
Insurance Appraisers, Auto Damage	13-1032	5
Insurance Sales Agents	41-3021	5
Interviewers, Except Eligibility and Loan	43-4111	5
Landscape Architects	17-1012	5
Maintenance Workers, Machinery	49-9043	5
Material Moving Workers, All Other	53-7199	5
Mathematical Science Teachers, Postsecondary	25-1022	5
Meat, Poultry, and Fish Cutters and Trimmers	51-3022	5
Medical and Clinical Laboratory Technologists	29-2011	5
Meeting, Convention, and Event Planners	13-1121	5
Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic	51-4035	5
Morticians, Undertakers, and Funeral Directors	39-4031	5
Motorboat Mechanics and Service Technicians	49-3051	5
Multimedia Artists and Animators	27-1014	5
Museum Technicians and Conservators	25-4013	5

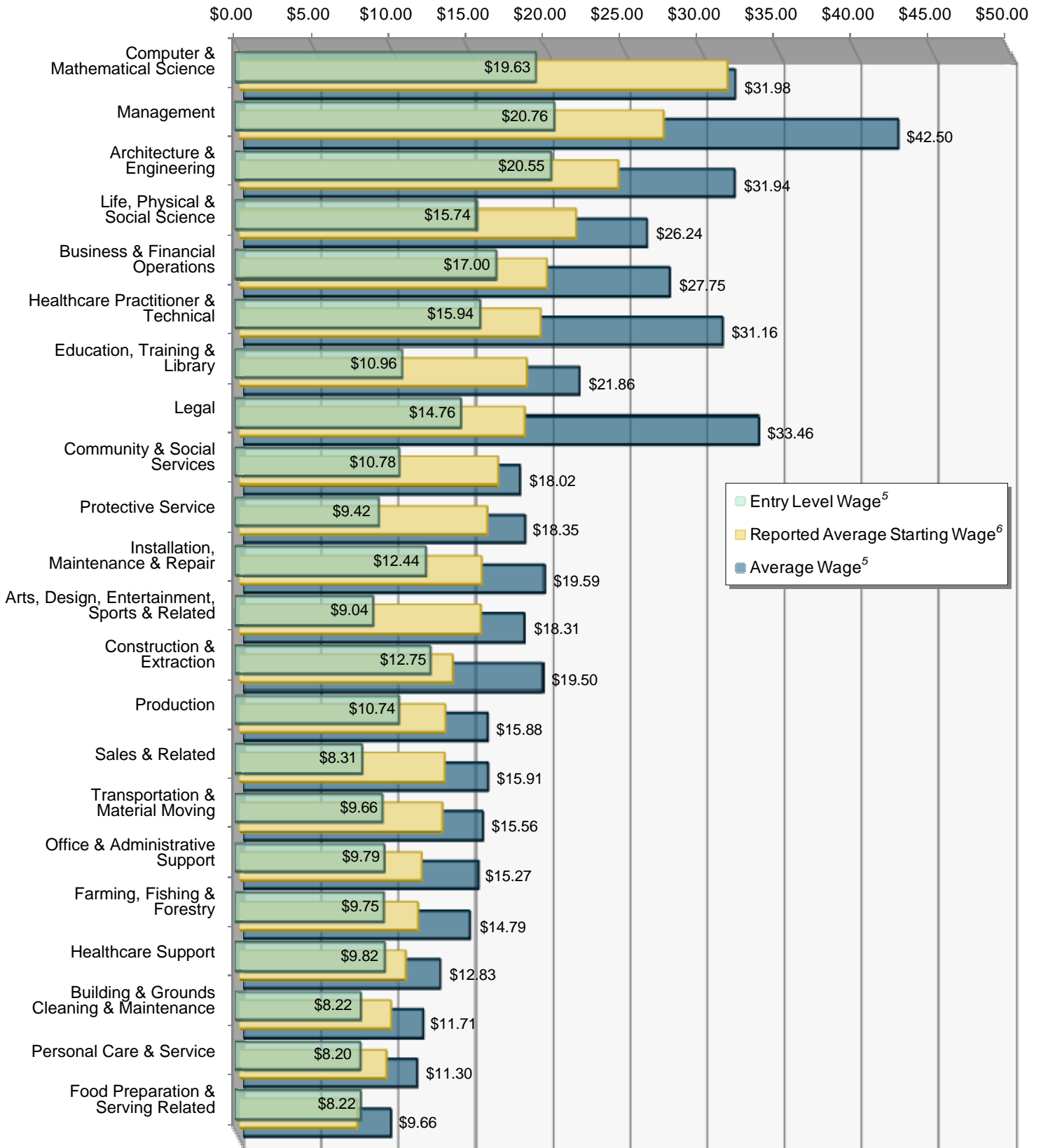
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**Figure 34 (continued)
Estimated Reported Vacancies**

Job Title	SOC Code	Estimated Vacancies
New Accounts Clerks	43-4141	5
Occupational Health and Safety Technicians	29-9012	5
Order Clerks	43-4151	5
Orderlies	31-1015	5
Outdoor Power Equipment and Other Small Engine Mechanics	49-3053	5
Pharmacy Aides	31-9095	5
Photographers	27-4021	5
Physicians and Surgeons, All Other	29-1069	5
Precision Instrument and Equipment Repairers, All Other	49-9069	5
Procurement Clerks	43-3061	5
Psychiatrists	29-1066	5
Reservation and Transportation Ticket Agents and Travel Clerks	43-4181	5
Sailors and Marine Oilers	53-5011	5
Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and Tenders	51-9012	5
Skincare Specialists	39-5094	5
Social Science Research Assistants	19-4061	5
Speech-Language Pathologists	29-1127	5
Structural Metal Fabricators and Fitters	51-2041	5
Switchboard Operators, Including Answering Service	43-2011	5
Tank Car, Truck, and Ship Loaders	53-7121	5
Upholsterers	51-6093	5
Veterinarians	29-1131	5
Veterinary Assistants and Laboratory Animal Caretakers	31-9096	5
Writers and Authors	27-3043	5
Estimated Total Vacancies		27,816

** totals may vary due to rounding methods*

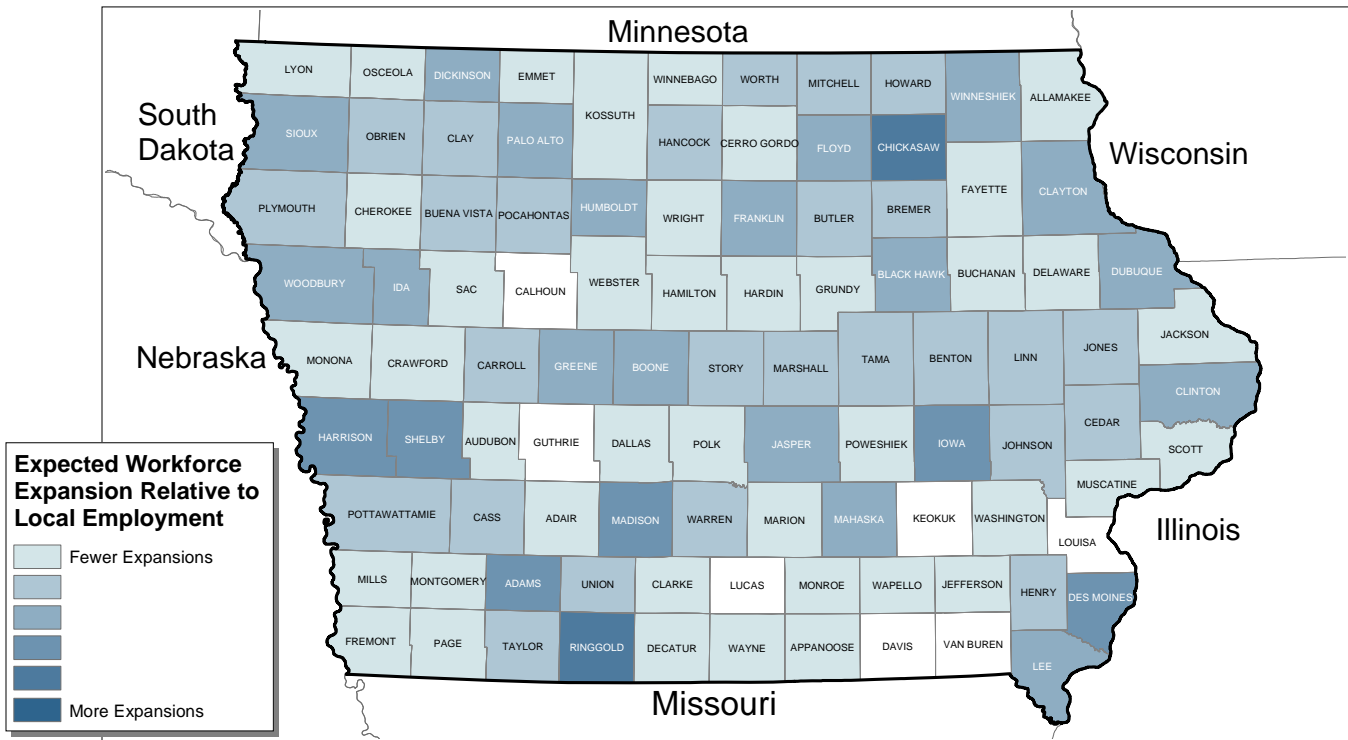
Average Statewide Starting Wages Compared to Statewide Entry Level & Statewide Average Hourly Wages



⁵Entry Level Wage and Average Wage taken from 2012 Iowa Wage Survey.

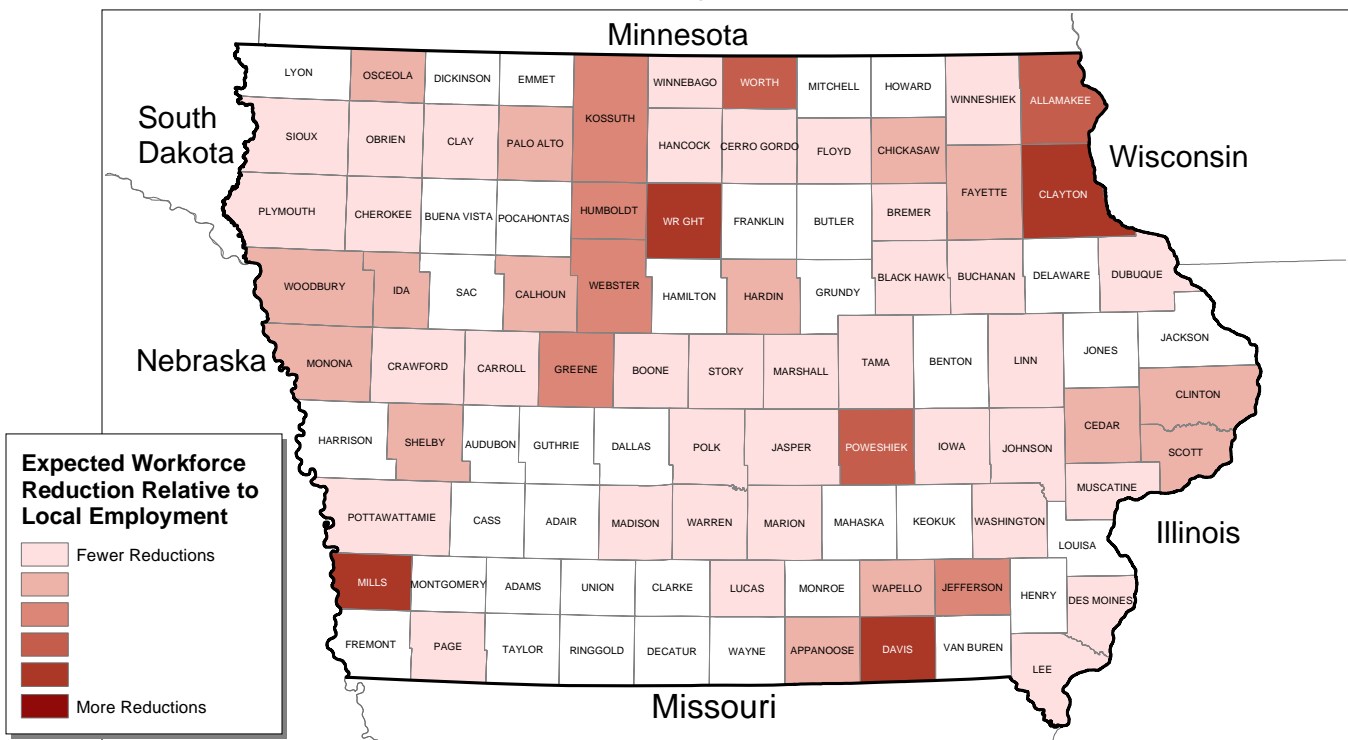
⁶Average Starting Wage is taken from the Workforce Needs Assessment survey data.

Reported Payroll Expansion



The Reported Payroll Expansion map shows the relative intensity of plans by employers to expand their workforce in each county, normalized by the total employment of the county. The darker the shade of blue, the greater expected new hires relative to local employment.

Reported Payroll Reduction



The Reported Payroll Reduction map (above) shows the relative intensity of plans by employers to reduce their workforce in each county, normalized by the total employment of the county. The darker the shade of red, the greater expected reductions relative to local employment.



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