

## Background Information on Data Sources

This report looks at two data sources of Iowa Workforce Development

## Section One - Laborshed Survey Data

The first section reflects the results of a study completed by lowa Workforce Development using 2009/2010 Laborshed survey data. It contains detailed information regarding gender by occupational category, age range, full-time/part-time employment, educational level, earnings, by industry, and years of experience. This information is derived from a random household employment survey of people 18 to 64 years of age.

## Section Two - Local Employment Dynamics Data

The second section looks at Local Employment Dynamics (LED) data that is a partnership between lowa Workforce Development and the U.S. Census Bureau which is new information about local labor market conditions. The data is built upon wage records in the Unemployment Insurance (UI) system and information from state Quarterly Census of Employment and Wages (QCEW). The universe of QCEW data is Unemployment Insurance (UI) covered earnings covering over $90 \%$ of total wage and salary civilian jobs. This data can be queried by different levels of geography: state, county, metro, and census block; as well as detailed industry, gender and age of workers. The data represents private industry and is compatible for all states that are LED partners. Federal government employment is not generally included. Exempted employment excludes farmers and agricultural workers, members of the Armed Services, as well as certain types of nonprofit employers and religious organizations. The data uses the North American Industry Classification System (NAICS).

## SECTION ONE

## Laborshed Survey Data

In 1993, Iowa Workforce Development (then the Department of Employment Services) conducted a survey to determine if there was a gender gap in wages paid. The results of that survey indicated that females were paid 68 cents for every dollar paid to males. A study was conducted in 1999 which found that females made approximately 73 cents for every dollar made by males in lowa. Since then, a survey was again conducted in 2008 which indicated that females were paid approximately 78 cents for every dollar paid to males. The current 2010 study shows that women earn 76 cents for every dollar earned by their male counterparts. These calculations took into account the average number of hours respondents worked weekly.

In April 2010, Iowa Workforce Development (IWD) was contacted by the Iowa Commission on the Status of Women (ICSW) to request that IWD conduct research to update the 2008 gender wage equity study to determine if the wage disparity between males and females has changed since the 2008 study.

This study was completed by IWD using 2009/2010 Laborshed data consisting of responses from 6,000 employed respondents. Of the respondents, 59.4 percent $(3,561)$ were female, 40.6 percent $(2,439)$ were male. Statewide sampling was provided by the University of Northern Iowa's Institute for Decision Making based on the population per ZIP code.

The results of the survey show that females who are paid an hourly wage earn 24.1 percent ( 75.9 cents for every dollar) less than males earn and females who are salaried earn 19.2 percent less than males. Additional survey results detail the occupational categories, industries and the education and experience levels. All of these characteristics contribute to the disparity.

For more information on the Iowa Commission on the Status of Women please visit www.women.iowa.gov or Iowa's Laborshed Studies please visit www.iowaworkforce.org.

## Age Range by Gender



This current study shows that the age range by gender is very similar among males and females. It is notable that workforce participation is the highest among the respondents of age 45 to 54 for both males and females.

The total percentage in each category was:

- $6.3 \% 18$ to 24 ;
- $25.3 \% 25$ to 34 ;
- $44.8 \% 35$ to 44 ;
- $64.5 \% 45$ to 54 ;
- $59.1 \% 55$ to 64 .

The average age of both males and females is 47 years of age. The 2008 study reported an average age of 46 with 69.6 percent of the workforce in the 45 to 54 age range.

Although industry clusters are not identified in the industry charts within this report, an industry cluster is a concentration of competing, interconnected industries that utilize a common workforce and infrastructure. Iowa analyzed industry clusters in order to identify economic relationships and geographic concentrations of selected industries. Information was extracted from the Laborshed data collected regarding occupations in the three cluster areas. Statewide 20.5 percent of respondents have transferable skills/experience in advanced manufacturing, $12.8 \%$ in biotechnology cluster, and $7.3 \%$ in the information solutions cluster.


The following chart illustrates respondents by occupational category and gender. The occupational categories with the highest percentage of female respondents are the healthcare support or personal care occupations while males dominate the construction \& extraction or installation, maintenance, and repair occupations.

The occupational categories that represent the smallest differences between males and females are in the computer and mathematical science; management; life, physical and social science; farming, fishing, and forestry; production; or sales and related.

> Percent of Females \& Males by Occupational Category


In order to analyze the wage disparity between genders it is important to look at the wages by occupation. There are some occupational categories that indicate little disparity while others reveal quite the opposite. The table at right gives an example of average annual salaries by occupation by gender. The production category illustrates that females earn a higher salary than males; computer and mathematical sciences occupations show little difference in salaries; and transportation and material moving occupations reflect a large gap in the salaries of females and their male counterparts. To compare, in 2008, females earned an average of $\$ 3,500$ more than males within the computer and mathematical sciences occupation; and the greatest wage discrepancy was in the healthcare practitioner \& technical occupational category where males earned on average $\$ 20,000$ more than their female counterparts.

Female Employment Status

| Employment Status | Female Respondents | Percent |
| :--- | :---: | :---: |
| Full-time (35+ hours) | 2,549 | $72.0 \%$ |
| Part-time | 717 | $20.3 \%$ |
| Temporary | 24 | $0.7 \%$ |
| Self-employed | 212 | $6.0 \%$ |
| Seasonal | 31 | $0.8 \%$ |
| Refused | 6 | $0.2 \%$ |
| Total | 3,539 | $100 \%$ |

Wages by Occupational Category

| Occupational Category | Female | Male | Differential |  |
| :--- | :---: | :---: | :---: | :---: |
| Transportation \& Material Moving | $\$ 18,000$ | $\$ 50,000$ | $\$$ | 32,000 |
| Architecture \& Engineering | $\$ 37,250$ | $\$ 66,000$ | $\$$ | 28,750 |
| Legal | $\$ 70,000$ | $\$ 90,000$ | $\$$ | 20,000 |
| Office \& Administration Support | $\$ 35,000$ | $\$ 54,000$ | $\$$ | 19,000 |
| Management | $\$ 43,250$ | $\$ 60,000$ | $\$$ | 16,750 |
| Sales \& Related | $\$ 35,000$ | $\$ 50,000$ | $\$$ | 15,000 |
| Business \& Financial Operations | $\$ 50,000$ | $\$ 60,000$ | $\$$ | 10,000 |
| Healthcare Practitioner \& Technical | $\$ 55,000$ | $\$ 65,000$ | $\$$ | 10,000 |
| Arts, Design, Entertainment Sports, \& Related | $\$ 40,000$ | $\$ 49,000$ | $\$$ | 9,000 |
| Education, Training, \& Library | $\$ 42,000$ | $\$ 50,000$ | $\$$ | 8,000 |
| Life, Physical, \& Social Sciences | $\$ 42,000$ | $\$ 50,000$ | $\$$ | 8,000 |
| Community \& Social Senices | $\$ 40,000$ | $\$ 45,000$ | $\$$ | 5,000 |
| Computer \& Mathmatical Sciences | $\$ 65,000$ | $\$ 69,000$ | $\$$ | 4,000 |
| Production | $\$ 52,500$ | $\$ 50,000$ | $\$$ | $(2,500)$ |
| Building \& Grounds Cleaning \& Maintenance | $\$ 19,500$ | $\star$ |  | $\star$ |
| Construction \& Extraction | $\star$ | $\$ 51,500$ | $*$ |  |
| Farming, Fishing, \& Forestry | $\star$ | $\$ 35,750$ | $*$ |  |
| Food Preparation \& Serving Related | $\$ 17,000$ | $\star$ |  | $*$ |
| Healthcare Support | $\$ 15,000$ | $\star$ |  | $*$ |
| Installation, Maintenance, \& Repair | $\star$ | $\$ 45,000$ |  | $*$ |
| Military Specific | $*$ | $\$ 32,500$ |  | $*$ |
| Personal Care \& Service | $\$ 15,000$ | $\star$ |  | $*$ |
| Protective Service | $\star$ | $\$ 49,500$ |  | $*$ |

*Insufficient survey data/refused

Most females are working full-time (72.0\%); however, it is notable that $6.0 \%$ of the females are self-employed. The highest percentage of those who are self-employed own a personal services business followed by a child care establishment. They have been in business an average of 13 years with a minimum of 1 year and a maximum of 47 years. Most of those who are working in part-time positions are employed in the retail trade (27.3\%), healthcare (23.7\%), or education (15.5\%) industries.

## Hours Worked per Week By Gender

Both genders reported a high percentage of respondents working 31 to 40 hours per week ( $52.9 \%$ for females and $40.5 \%$ for males). However, there are other patterns that are significant and show some distinct differences between the genders. For example, the proportion of female respondents who worked less than 31 hours per week (18.8\%) is more than double the percentage of male respondents (7.8\%) that worked those hours. The reverse situation is reflected in the data for respondents who worked over 50 hours per week. Male respondents outnumbered females in this category ( $18.6 \%$ versus $8.7 \%$ ).

For those respondents who reported working a secondary job, 61.3 percent are females and 38.7 percent are males. Males working multiple jobs are working an average of 48 hours per week; females are working an average of 44 hours per week. This would account for the high percentage of respondents working more than 41 hours per week.

## Percent of Hours Worked per Week By Gender

| Hours Worked <br> Per Week | Male | Female |
| :--- | :---: | :---: |
| 10 or less | $1.1 \%$ | $1.7 \%$ |
| 11 to 20 | $2.9 \%$ | $7.2 \%$ |
| 21 to 30 | $3.8 \%$ | $9.9 \%$ |
| 31 to 40 | $40.5 \%$ | $52.9 \%$ |
| $41-50$ | $33.1 \%$ | $19.6 \%$ |
| 51 or more | $18.6 \%$ | $8.7 \%$ |



## Education Levels by Gender

The respondents were asked during the survey to report the highest level of education attained. A higher percentage of males report having a high school diploma or GED (31.4 percent males, 26.0 percent females); however, females have completed a higher level of education than males. The category labeled "some education beyond high school" represents those that have taken classes beyond high school but have not yet completed a degree or certification program.

The 1999 study shows 27.0 percent of males and 28.4 percent of females had obtained a bachelor's degree or higher. The 2008 study shows that 32.6 percent of males and 33.8 percent of females have obtained a bachelors degree or higher. This study shows that 28.0 percent of males and 29.1 percent of females have obtained a bachelors degree or higher Both studies illustrate that females have achieved a higher level of education than males.


## Gender Wages by Education Level Number of Hourly Wage Earners

Males have higher wages than females for the same level of education. In the high school diploma/GED category, the median hourly wage for males is $\$ 14.51 /$ hour while females are currently making a median wage of $\$ 10.39 / \mathrm{hour}$. Males with an associate degree are receiving a median hourly wage of $\$ 15.00 /$ hour and females are receiving $\$ 13.50 /$ hour. Although 29.1 percent of females and 27.9 percent of males have a bachelor's degree or higher, males again have a higher hourly median wage level ( $\$ 14.00 / \mathrm{hour}$ ) than females (\$11.66/hour).

| Males | $\begin{gathered} \text { Less than } \\ \$ 5.15 \end{gathered}$ | $\begin{gathered} \$ 5.16 \text { to } \\ \$ 5.99 \end{gathered}$ | $\begin{gathered} \$ 6.00 \text { to } \\ \$ 6.99 \end{gathered}$ | $\begin{gathered} \$ 7.00 \text { to } \\ \$ 7.99 \end{gathered}$ | $\begin{gathered} \$ 8.00 \text { to } \\ \$ 8.99 \end{gathered}$ | $\begin{gathered} \$ 9.00 \text { to } \\ \$ 9.99 \end{gathered}$ | $\begin{gathered} \$ 10.00 \text { to } \\ \$ 10.99 \end{gathered}$ | $\begin{gathered} \$ 11.00 \text { to } \\ \$ 11.99 \end{gathered}$ | $\begin{gathered} \$ 12.00 \text { to } \\ \$ 12.99 \end{gathered}$ | $\begin{array}{\|c} \$ 13.00 \text { to } \\ \$ 13.99 \end{array}$ | $\begin{gathered} \$ 14.00 \text { to } \\ \$ 14.99 \end{gathered}$ | $\$ 15.00 \text { or }$ Higher | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Less than 9th grade | 0 | 0 | 2 | 0 | 3 | 1 | 0 | 0 | 3 | 2 | 1 | 5 | 17 |
| Some HS, no diploma | 1 | 0 | 1 | 9 | 8 | 6 | 9 | 2 | 3 | 6 | 4 | 22 | 71 |
| HS diploma, including GED | 7 | 2 | 2 | 22 | 28 | 22 | 33 | 17 | 35 | 32 | 35 | 228 | 463 |
| Some education beyond HS | 1 | 1 | 3 | 12 | 16 | 16 | 9 | 15 | 10 | 17 | 12 | 112 | 224 |
| Associate degree | 0 | 0 | 0 | 3 | 5 | 5 | 11 | 5 | 12 | 10 | 6 | 67 | 124 |
| Trade certification | 0 | 0 | 0 | 2 | 3 | 1 | 2 | 3 | 4 | 2 | 6 | 46 | 69 |
| Vocational training | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 1 | 2 | 1 | 4 | 27 | 38 |
| Undergraduate degree | 0 | 1 | 0 | 3 | 4 | 7 | 9 | 6 | 7 | 12 | 13 | 73 | 135 |
| Postgraduate degree | 0 | 0 | 0 | 1 | 0 | 3 | 3 | 0 | 2 | 2 | 1 | 16 | 28 |
| Total | 9 | 4 | 8 | 54 | 67 | 61 | 77 | 49 | 78 | 84 | 82 | 596 | 1169 |


| Females | $\begin{gathered} \text { Less than } \\ \$ 5.15 \end{gathered}$ | $\begin{gathered} \$ 5.16 \text { to } \\ \$ 5.99 \end{gathered}$ | $\begin{gathered} \$ 6.00 \text { to } \\ \$ 6.99 \end{gathered}$ | $\begin{gathered} \$ 7.00 \text { to } \\ \$ 7.99 \end{gathered}$ | $\begin{gathered} \$ 8.00 \text { to } \\ \$ 8.99 \end{gathered}$ | $\begin{gathered} \$ 9.00 \text { to } \\ \$ 9.99 \end{gathered}$ | $\begin{gathered} \$ 10.00 \text { to } \\ \$ 10.99 \end{gathered}$ | $\begin{gathered} \$ 11.00 \text { to } \\ \$ 11.99 \end{gathered}$ | $\begin{array}{\|c} \$ 12.00 \text { to } \\ \$ 12.99 \end{array}$ | $\begin{gathered} \$ 13.00 \text { to } \\ \$ 13.99 \end{gathered}$ | $\begin{gathered} \$ 14.00 \text { to } \\ \$ 14.99 \end{gathered}$ | $\begin{aligned} & \text { \$15.00 or } \\ & \text { Higher } \end{aligned}$ | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Less than 9th grade | 2 | 0 | 1 | 4 | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 2 | 18 |
| Some HS, no diploma | 5 | 0 | 2 | 18 | 9 | 8 | 8 | 3 | 2 | 4 | 2 | 2 | 63 |
| HS diploma, including GED | 25 | 4 | 14 | 65 | 62 | 65 | 95 | 50 | 47 | 39 | 33 | 77 | 576 |
| Some education beyond HS | 6 | 4 | 6 | 44 | 45 | 41 | 42 | 37 | 40 | 32 | 20 | 107 | 424 |
| Associate degree | 3 | 0 | 4 | 14 | 21 | 19 | 39 | 15 | 20 | 19 | 18 | 127 | 299 |
| Trade certification | 1 | 0 | 1 | 7 | 9 | 7 | 12 | 12 | 4 | 6 | 7 | 21 | 87 |
| Vocational training | 1 | 0 | 0 | 3 | 6 | 7 | 7 | 5 | 12 | 4 | 6 | 27 | 78 |
| Undergraduate degree | 7 | 1 | 0 | 12 | 14 | 15 | 26 | 30 | 24 | 11 | 8 | 97 | 245 |
| Postgraduate degree | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 4 | 1 | 1 | 1 | 21 | 34 |
| Total | 50 | 9 | 28 | 168 | 170 | 166 | 235 | 156 | 150 | 116 | 95 | 481 | 1824 |

## Gender Wages by Education Level Number of Annual Salary Earners

Males have higher wages than females for the same level of education. In the high school diploma/GED category, the median salary for males is $\$ 50,000 /$ year while females are currently making a median salary of $\$ 30,000 /$ year. Males with an associate degree are receiving a median annual salary of $\$ 50,000 /$ year and females are receiving $\$ 42,00 / y e a r$. Although 29.1 percent of females and 27.9 percent of males have a bachelor's degree or higher, males again have a higher annual median salary level ( $\$ 60,000 / \mathrm{year}$ ) than females (\$50,000/year).

| Males | $\begin{gathered} \text { Less than } \\ \$ 5,000 \end{gathered}$ | $\begin{gathered} \$ 5,001 \text { to } \\ \$ 10,000 \end{gathered}$ | $\begin{array}{\|c} \$ 10,001 \text { to } \\ \$ 15,000 \end{array}$ | $\begin{aligned} & \$ 15,001 \text { to } \\ & \$ 20,000 \end{aligned}$ | $\begin{gathered} \$ 20,001 \text { to } \\ \$ 25,000 \end{gathered}$ | $\begin{gathered} \$ 25,001 \text { to } \\ \$ 35,000 \end{gathered}$ | $\begin{gathered} \$ 35,001 \text { to } \\ \$ 50,000 \end{gathered}$ | $\begin{gathered} \$ 50,001 \text { to } \\ \$ 75,000 \end{gathered}$ | $\begin{array}{\|c} \$ 75,001 \text { to } \\ \$ 100,000 \end{array}$ | $\$ 100,000$ <br> or Higher | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Less than 9th grade | 0 | 0 | 0 | 0 | 3 | 0 | 1 | 0 | 0 | 1 | 5 |
| Some HS, no diploma | 0 | 0 | 0 | 0 | 0 | 2 | 5 | 3 | 0 | 1 | 11 |
| HS diploma, including GED | 1 | 1 | 3 | 2 | 4 | 16 | 37 | 28 | 5 | 5 | 102 |
| Some education beyond HS | 1 | 1 | 1 | 1 | 4 | 11 | 28 | 26 | 6 | 3 | 82 |
| Associate degree | 1 | 1 | 2 | 2 | 3 | 5 | 23 | 23 | 6 | 2 | 68 |
| Trade certification | 0 | 0 | 0 | 0 | 3 | 3 | 4 | 3 | 6 | 1 | 20 |
| Vocational training | 0 | 0 | 1 | 0 | 0 | 1 | 9 | 8 | 1 | 0 | 20 |
| Undergraduate degree | 3 | 1 | 4 | 2 | 3 | 16 | 66 | 56 | 33 | 17 | 201 |
| Postgraduate degree | 0 | 0 | 1 | 2 | 1 | 8 | 26 | 45 | 31 | 14 | 128 |
| Total | 6 | 4 | 12 | 9 | 21 | 62 | 199 | 192 | 88 | 44 | 637 |


| Females | $\begin{aligned} & \text { Less than } \\ & \$ 5,000 \end{aligned}$ | $\begin{gathered} \$ 5,001 \text { to } \\ \$ 10,000 \end{gathered}$ | $\begin{gathered} \text { \$10,001 to } \\ \$ 15,000 \end{gathered}$ | $\begin{aligned} & \$ 15,001 \text { to } \\ & \$ 20,000 \end{aligned}$ | $\begin{aligned} & \$ 20,001 \text { to } \\ & \$ 25,000 \end{aligned}$ | $\begin{gathered} \$ 25,001 \text { to } \\ \$ 35,000 \end{gathered}$ | $\begin{gathered} \$ 35,001 \text { to } \\ \$ 50,000 \end{gathered}$ | $\begin{gathered} \$ 50,001 \text { to } \\ \$ 75,000 \end{gathered}$ | $\begin{gathered} \$ 75,001 \text { to } \\ \$ 100,000 \end{gathered}$ | $\begin{aligned} & \$ 100,000 \\ & \text { or Higher } \end{aligned}$ | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Some HS, no diploma | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| HS diploma, including GED | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 5 |
| Some education beyond HS | 11 | 10 | 20 | 11 | 13 | 50 | 42 | 31 | 7 | 2 | 197 |
| Associate degree | 1 | 1 | 2 | 2 | 3 | 16 | 31 | 16 | 3 | 1 | 76 |
| Trade certification | 3 | 2 | 5 | 1 | 0 | 3 | 4 | 4 | 0 | 0 | 22 |
| Vocational training | 0 | 1 | 1 | 3 | 2 | 7 | 4 | 2 | 0 | 0 | 20 |
| Undergraduate degree | 1 | 2 | 9 | 6 | 8 | 56 | 119 | 70 | 20 | 0 | 291 |
| Postgraduate degree | 0 | 3 | 6 | 4 | 2 | 20 | 64 | 63 | 20 | 19 | 201 |
| Total | 16 | 21 | 43 | 28 | 29 | 153 | 265 | 187 | 50 | 22 | 814 |

Wages by Gender


A wage disparity is much more apparent when analyzing the hourly wage earners. Lower wages for females appear to be tied to the types of jobs that they hold. Most (36.4\%) of the hourly wage earning females are working in the office/ administrative support or healthcare practitioner/technical occupations while most (41.1\%) of the hourly wage earning males work in construction or transportation, communication, \& public utilities occupations.

Respondents were asked to identify earnings as either hourly wages or annual salaries. The charts at left and below identify wages by gender.

The chart at left indicates that 35.8 percent of females who are salaried employees earn $\$ 35,000$ per year or less compared to 17.7 percent of males. The study performed in 2008 reported 36.5 percent of female respondents earned less than $\$ 35,000$ per year.

The top two occupational categories for both males and females are management and education. Males make up a larger percentage (31.8\%) in management than females (22.5\%). While females make up a greater percentage (24.7\%) in education than males (10.4\%).


Gender Wage/Salary Disparity by Iowa Workforce Development Region


## Gender by Industry

Female respondents were concentrated in education, health care, social services, finance, insurance, or real estate; whereas, male respondents were spread out across the manufacturing, education, transportation, communications, and public utilities, retail trade, and public administration/government industries (see table below).

In the 2008 study, 35.8 percent of the females said they worked in education, 13.5 percent in health care \& social services, and 13.2 percent in finance, insurance, \& real estate. For the male respondents, 14.7 percent worked in manufacturing, 11.3 percent in finance, insurance, \& real estate, 10.7 percent in transportation, communications, \& public utilities and 10.6 percent in education. Just 1.0 percent of the females worked in construction which has not significantly changed in the past eight years.


## Respondents by Years of Experience

With regard to years of experience on the job, males have worked an average of 16 years and females have worked an average of 13 years. A small percentage (3.4\%) of females have been with their current employer for less than one year. This is a great change from the 2008 study results which showed that over one-tenth (11.2\%) of females had been with their employer for less than one year. The current study shows that the majority (39.6\%) have been employed for over 20 years. Likewise, the majority of male respondents $(41.9 \%)$ have over 20 years of experience. However, males also have a small percentage of respondents (3.0\%) that have been with their current employer for one year or less.


| Years of Experience | Females | Males |
| :--- | :---: | :---: |
| Less than 1 | $3.4 \%$ | $3.0 \%$ |
| 2 to 5 | $18.8 \%$ | $16.9 \%$ |
| 6 to 10 | $17.1 \%$ | $15.3 \%$ |
| 11 to 15 | $11.7 \%$ | $11.7 \%$ |
| 16 to 20 | $9.4 \%$ | $11.2 \%$ |
| 21 or More | $39.6 \%$ | $41.9 \%$ |

-Females

- Males


The chart below represents the hourly wages for males and
females by years of experience. When looking at wages in
The chart below represents the hourly wages for males and
females by years of experience. When looking at wages in the 2 to 5 year and 16 to 20 year experience categories,
male wages increase 16.3 percent while female wages the 2 to 5 year and 16 to 20 year experience categories,
male wages increase 16.3 percent while female wages increase 24.5 percent.



For comparison purposes, in 2008, 32.1 percent of females and 27.0 percent of males had 1-5 years experience on the job. For respondents with 6-10 years, 11-15 years, or 16-20 years of experience, the percentage difference of male and female respondents was smaller. However, 30.4 percent of males and 20.3 percent of females had more than 20 years experience on the job. In both the 2008 and 2010 studies, males tend to have more experience than females although the disparity appears to be decreasing.

## Methodology for Section One

NCS Pearson administered a random household telephone survey to individuals age 18 to 64 residing within the state of lowa during January 2009 to March 2010. The survey was designed by the Institute for Decision Making at the University of Northern Iowa with assistance from the Center for Social and Behavioral Research at UNI. Statewide sampling was provided by the University of Northern Iowa's Institute for Decision Making based on the population per ZIP code. Validity of survey results is estimated at a confidence interval of $+/-5$ percent. The overall goal of the study was achieved.

Survey administrators posed questions to determine the respondents' gender, age, education level, place of residence, and current employment status. Employed respondents also identified the location of their employer, employer type, occupation, years of employment in their occupation, employment status, current salary or wage, additional education/skills possessed, number of jobs currently held, distance traveled to work and the hours worked per week.

It is notable that the survey sample size of this study was substantially larger $(6,000)$ than the sample size in $1999(1,060)$ therefore more detailed information was available for this analysis. The survey sample size for the 2008 study $(5,669)$ was much closer in size to the 2010 study.

## Occupational categories

The Standard Occupational Classification (SOC) system was used for this report when clustering occupations for male and female respondents. This system is being adopted by federal statistical agencies to classify workers into occupational categories for the purpose of collecting, calculating, or disseminating data. All workers are classified into 1 of more than 800 occupations according to their occupational definition. To facilitate classification, occupations are combined to form 23 major groups, 96 minor groups, and 449 broad occupations. Each broad occupation includes detailed occupations requiring similar job duties, skills, education, or experience. For more detail visit the Bureau of Labor Statistics website www.bls.gov.

## Industry categories

In order to provide consistency with other labor market information, the industrial categories identified in this study using Laborshed data will follow a similar format of the Standard Industrial Classification Manual (1987).

## SECTION TWO

## Local Employment Dynamics Data

## Scope and Methodology

The data presented in industry and age/gender aggregations have been compiled from all employees in lowa that work for establishments that are covered by Unemployment Insurance. Iowa Workforce Development has assembled the report using the wage records of $1,456,975$ workers. These wage records have been merged with administrative demographic data obtained from the US Census Bureau through the Local Employment Dynamics partnership. The time period covers four calendar quarters ending March 31, 2010.

The Local Employment Dynamics program provides innovative demographic employment information for local decision makers, economic development agencies, education and training institutions, and transportation agencies. Just as national economic indicators measure the performance of the overall economy, the Quarterly Workforce Indicators measure the performance of the local economy

It is important to note that although the wage distribution shown here is sorted by industry, the data does not identify occupations within the industry. Many industries have different skill levels, e.g. nurse's aide versus physician, secretary versus engineer. Therefore, when analyzing the data, this must be taken into consideration.

For additional demographic workforce data, please access the following website:
http://lehd.did.census.gov/led/index.html
Or contact lowa Workforce Development's Workforce Data and Business Development Bureau at 515 281-5193

Distribution of Employment and Wages by Gender by Industry

| Industry | Employment Men |  | Average Monthly Wage Men | Employment Women | Average Monthly Wage Women | Percentage of Workforce Women | Percentage of Wages <br> Women to Men |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 11-Agriculture, Forestry, Fishing \& Hunting | 10,806 | \$ | 3,109.00 | 4,226 | \$ 2,286.25 | 28.1\% | 73.5\% |
| 111-Crop Production | 2,219 | \$ | 2,855.00 | 878 | \$ 1,841.25 | 28.4\% | 64.5\% |
| 112-Animal Production | 6,602 | \$ | 2,786.75 | 2,486 | \$ 2,144.00 | 27.4\% | 76.9\% |
| 113-Forestry and Lodging | 22 | \$ | 2,155.00 | 3 | \$ 2,688.50 | 12.0\% | 124.8\% |
| 114-Fishing, Hunting \& Trapping | N/A | \$ | 6,599.50 | N/A | \$ 3,009.25 | N/A | 45.6\% |
| 115-Support Activities for $\mathrm{Ag} /$ /Forestry | 1,960 | \$ | 4,540.50 | 856 | \$ 3,167.00 | 30.4\% | 69.8\% |
| 21-Mining | 2,045 | \$ | 4,327.75 | 235 | \$ 2,980.50 | 10.3\% | 68.9\% |
| 211-Oil \& Gas Extraction | N/A |  | N/A | N/A | N/A | N/A | N/A |
| 212-Mining (except Oil and Gas) | 2,014 | \$ | 4,339.25 | 233 | \$ 2,995.25 | 10.4\% | 69.0\% |
| 213-Support Activities for Mining | 30 | \$ | 3,568.75 | N/A | \$ 1,510.75 | N/A | 42.3\% |
| 22-Utilities | 6,458 | \$ | 6,163.75 | 2,109 | \$ 4,017.00 | 24.6\% | 65.2\% |
| 221-Utilities | 6,458 | \$ | 6,163.75 | 2,109 | \$ 4,017.00 | 24.6\% | 65.2\% |
| 23-Construction | 62,468 | \$ | 3,901.25 | 8,185 | \$ 2,674.50 | 11.6\% | 68.6\% |
| 236-Construction of Buildings | 14,538 | \$ | 3,866.50 | 2,081 | \$ 2,733.00 | 12.5\% | 70.7\% |
| 237-Heavy \& Civil Engineering Construction | 10,574 | \$ | 4,440.75 | 1,422 | \$ 3,275.25 | 11.9\% | 73.8\% |
| 238-Specialty Trade Contractors | 37,355 | \$ | 3,768.00 | 4,681 | \$ 2,473.25 | 11.1\% | 65.6\% |
| 31-33 Manufacturing | 158,195 | \$ | 4,309.00 | 62,471 | \$ 3,081.75 | 28.3\% | 71.5\% |
| 311-Food Mfg | 32,600 | \$ | 3,871.50 | 16,291 | \$ 2,770.50 | 33.3\% | 71.6\% |
| 312-Beverage \& Tobacco Product Mfg | 1,135 | \$ | 3,393.00 | 269 | \$ 2,129.50 | 19.2\% | 62.8\% |
| 313-Textile Mills Mfg | 54 | \$ | 3,980.00 | 93 | \$ 1,980.75 | 63.3\% | 49.8\% |
| 314-Textile Product Mills Mfg | 202 | \$ | 3,144.50 | 473 | \$ 1,863.50 | 70.1\% | 59.3\% |
| 315-Apparel Mfg | 340 | \$ | 3,413.75 | 1,110 | \$ 2,330.50 | 76.6\% | 68.3\% |
| 316-Leather \& Allied Product Mfg | 124 | \$ | 3,888.50 | 176 | \$ 2,074.75 | 58.7\% | 53.4\% |
| 321-Wood Product Mfg | 7,606 | \$ | 3,817.50 | 2,950 | \$ 3,261.25 | 27.9\% | 85.4\% |
| 322 Paper Mfg | 3,101 | \$ | 4,211.00 | 1,236 | \$ 3,274.00 | 28.5\% | 77.7\% |
| 323-Printing \& Related Support Activities | 4,588 | \$ | 3,671.75 | 3,487 | \$ 2,504.25 | 43.2\% | 68.2\% |
| 324-Petroleum \& Coal Products Mfg | 269 | \$ | 5,057.00 | 42 | \$ 3,292.00 | 13.5\% | 65.1\% |
| 325-Chemical Mfg | 6,535 | \$ | 5,245.00 | 3,096 | \$ 3,506.00 | 32.1\% | 66.8\% |
| 326-Plastics \& Rubber Products Mfg | 8,259 | \$ | 3,816.25 | 2,990 | \$ 2,736.50 | 26.6\% | 71.7\% |
| 327-Nonmetallic Mineral Product Mfg | 4,685 | \$ | 3,713.00 | 764 | \$ 2,802.00 | 14.0\% | 75.5\% |
| 331-Primary Metal Mfg | 6,732 | \$ | 4,033.75 | 1,325 | \$ 3,229.75 | 16.4\% | 80.1\% |
| 332-Fabricated Metal Product Mfg | 16,418 | \$ | 3,798.50 | 4,296 | \$ 2,895.75 | 20.7\% | 76.2\% |

Distribution of Employment and Wages by Gender by Industry

| Industry | Employment Men | Average Monthly Wage Men | Employment Women | Average Monthly Wage Women | Percentage of Workforce Women | Percentage of Wages <br> Women to Men |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 33-Manufacturing (Cont'd) |  |  |  |  |  |  |
| 333-Machinery Mfg | 32,198 | \$ 5,060.75 | 6,998 | \$ 3,804.25 | 17.9\% | 75.2\% |
| 334-Computer \& Electronic Product Mfg | 9,003 | \$ 7,423.00 | 5,827 | \$ 4,413.75 | 39.3\% | 59.5\% |
| 335-Electrical Equipment, Appliance Mfg | 4,757 | \$ 3,853.50 | 2,394 | \$ 2,890.50 | 33.5\% | 75.0\% |
| 336-Transportation Equipment Mfg | 11,355 | \$ 3,483.00 | 3,923 | \$ 2,728.50 | 25.7\% | 78.3\% |
| 337-Furniture \& Related Product Mfg | 5,783 | \$ 3,497.50 | 2,655 | \$ 2,768.75 | 31.5\% | 79.2\% |
| 339-Miscellaneous Mfg | 2,446 | \$ 3,669.75 | 2,068 | \$ 2,547.75 | 45.8\% | 69.4\% |
|  |  |  |  |  |  |  |
| 42-Wholesale Trade | 52,312 | \$ 4,564.00 | 17,468 | \$ 3,261.00 | 25.0\% | 71.5\% |
| 423-Merchant Wholesalers, Durable Goods | 23,673 | \$ 4,359.75 | 7,058 | \$ 3,117.50 | 23.0\% | 71.5\% |
| 424-Merchant Wholesalers, Nondurable Goods | 24,383 | \$ 4,519.00 | 8,250 | \$ 3,328.50 | 25.3\% | 73.7\% |
| 425-Wholesale Electronics Markets, Agents | 4,256 | \$ 5,984.25 | 2,160 | \$ 3,487.25 | 33.7\% | 58.3\% |
|  |  |  |  |  |  |  |
| 44-45 Retail Trade | 82,621 | \$ 2,464.25 | 93,062 | \$ 1,521.00 | 53.0\% | 61.7\% |
| 441-Motor Vehicle \& Parts Dealers | 16,909 | \$ 3,256.00 | 3,702 | \$ 2,230.50 | 18.0\% | 68.5\% |
| 442-Furniture \& Home Furnishings Stores | 2,555 | \$ 3,046.25 | 2,241 | \$ 1,912.75 | 46.7\% | 62.8\% |
| 443-Electronics \& Appliance Stores | 3,744 | \$ 2,958.75 | 1,892 | \$ 2,205.25 | 33.6\% | 74.5\% |
| 444-Building Materials, Garden Equipment | 11,062 | \$ 2,737.75 | 5,310 | \$ 1,829.25 | 32.4\% | 66.8\% |
| 445-Food \& Beverage Stores | 16,924 | \$ 1,651.50 | 17,058 | \$ 1,132.00 | 50.2\% | 68.5\% |
| 446-Health \& Personal Care Stores | 2,552 | \$ 3,314.75 | 6,508 | \$ 1,971.50 | 71.8\% | 59.5\% |
| 447-Gasoline Stations | 5,855 | \$ 1,888.75 | 12,171 | \$ 1,394.25 | 67.5\% | 73.8\% |
| 448-Clothing \& Clothing Accessoy Stores | 2,295 | \$ 2,093.25 | 8,790 | \$ 1,212.50 | 79.3\% | 57.9\% |
| 451-Sporting Goods, Hobby, Music Stores | 3,136 | \$ 1,789.00 | 3,773 | \$ 1,211.25 | 54.6\% | 67.7\% |
| 452-General Merchandise Stores | 12,914 | \$ 2,239.75 | 23,955 | \$ 1,687.75 | 65.0\% | 75.4\% |
| 453-Miscellaneous Store Retailers | 2,688 | \$ 2,602.25 | 5,749 | \$ 1,147.25 | 68.1\% | 44.1\% |
| 454-Non-Store Retailers | 1,983 | \$ 2,928.00 | 1,909 | \$ 1,985.80 | 49.0\% | 67.8\% |
|  |  |  |  |  |  |  |
| 48-49 Transportation \& Warehousing | 41,386 | \$ 3,273.00 | 11,802 | \$ 2,389.00 | 22.2\% | 73.0\% |
| 481-Air Transportation | 216 | \$ 2,750.25 | 132 | \$ 1,806.50 | 37.9\% | 65.7\% |
| 482-Rail Transportation | N/A | N/A | N/A | N/A | N/A | N/A |
| 483-Water Transportation | 175 | \$ 4,718.00 | 31 | \$ 4,029.00 | 15.0\% | 85.4\% |
| 484-Truck Transportation | 25,080 | \$ 3,319.00 | 4,131 | \$ 2,558.25 | 14.1\% | 77.1\% |
| 485-Transit \& Ground Passenger Transportation | 2,167 | \$ 2,176.75 | 2,095 | \$ 2,272.50 | 49.2\% | 104.4\% |
| 486-Pipeline Tranportation | 309 | \$ 6,454.50 | 19 | \$ 4,864.50 | 5.8\% | 75.4\% |
| 487-Scenic \& Sightseeing Transportation | 19 | \$ 1,057.50 | 7 | \$ 701.25 | 26.9\% | 66.3\% |
| 488-Support Activities for Transportation | 2,215 | \$ 3,294.50 | 661 | \$ 2,622.50 | 23.0\% | 79.6\% |
| 491-Postal Service | N/A | N/A | N/A | N/A | N/A | N/A |

Distribution of Employment and Wages by Gender by Industry


Distribution of Employment and Wages by Gender by Industry

| Industry | Employment Men | Average Monthly Wage Men | Employment Women | Average Monthly Wage Women | Percentage of Workforce Women | Percentage of Wages <br> Women to Men |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 56-Administrative, Support, Waste Management | 36,060 | \$ 2,669.75 | 29,408 | \$ 2,059.75 | 44.9\% | 77.2\% |
| 561-Administrative \& Support Services | 33,292 | \$ 2,626.00 | 28,799 | \$ 2,053.50 | 46.4\% | 78.2\% |
| 562-Waste Mgmt \& Remediation Services | 2,768 | \$ 3,085.00 | 608 | \$ 2,311.75 | 18.0\% | 74.9\% |
| 61-Educational Services | 44,751 | \$ 3,984.50 | 98,536 | \$ 2,847.00 | 68.8\% | 71.5\% |
| 6111-Elementary \& Secondary Schools | 22,488 | \$ 3,165.00 | 64,251 | \$ 2,510.75 | 74.1\% | 79.3\% |
| 6112-Junior Colleges | 4,280 | \$ 3,062.50 | 6,731 | \$ 2,549.00 | 61.1\% | 83.2\% |
| 6113-Colleges \& Universities | 15,519 | \$ 5,560.75 | 20,362 | \$ 3,989.75 | 56.7\% | 71.7\% |
| 6114-Business, Computer \& Mgmt Training | 385 | \$ 3,913.50 | 605 | \$ 3,265.25 | 61.1\% | 83.4\% |
| 6115-Technical \& Trade Schools | 168 | \$ 3,717.75 | 489 | \$ 2,741.25 | 74.4\% | 73.7\% |
| 6116-Other Schools \& Instruction | 527 | \$ 1,114.75 | 1,342 | \$ 793.50 | 71.8\% | 71.2\% |
| 6117-Educational Support Services | 1,383 | \$ 4,454.25 | 4,754 | \$ 3,687.50 | 77.5\% | 82.8\% |
|  |  |  |  |  |  |  |
| 62-Health Care and Social Assistance | 33,641 | \$ 6,162.75 | 166,452 | \$ 2,646.25 | 83.2\% | 42.9\% |
| 621-Ambulatory \& Healthcare Services | 8,525 | \$ 12,517.00 | 41,064 | \$ 2,983.75 | 82.8\% | 23.8\% |
| 622-Hospitals | 12,225 | \$ 5,740.75 | 55,049 | \$ 3,390.50 | 81.8\% | 59.1\% |
| 623-Nursing \& Residential Care Facilities | 8,325 | \$ 2,204.75 | 46,948 | \$ 1,944.00 | 84.9\% | 88.2\% |
| 624-Social Assistance | 4,565 | \$ 2,041.75 | 23,389 | \$ 1,633.25 | 83.7\% | 80.0\% |
|  |  |  |  |  |  |  |
| 71-Arts, Entertainment \& Recreation | 10,271 | \$ 2,218.75 | 11,018 | \$ 1,425.25 | 51.8\% | 64.2\% |
| 711-Performing Arts, Spectator Sports | 1,690 | \$ 2,157.25 | 1,159 | \$ 1,298.75 | 40.7\% | 60.2\% |
| 712-Museums, Historical Sites, etc. | 387 | \$ 2,672.50 | 742 | \$ 2,065.75 | 65.7\% | 77.3\% |
| 713-Amusement, Gambling, Recreation | 8,193 | \$ 2,209.50 | 9,116 | \$ 1,387.50 | 52.7\% | 62.8\% |
|  |  |  |  |  |  |  |
| 72-Accomodations \& Food Services | 45,520 | \$ 1,298.75 | 64,891 | \$ 1,028.00 | 58.8\% | 79.2\% |
| 721-Accomodations | 6,441 | \$ 1,935.50 | 11,525 | \$ 1,432.50 | 64.1\% | 74.0\% |
| 722-Food Services \& Drinking Places | 39,078 | \$ 1,182.75 | 53,366 | \$ 935.25 | 57.7\% | 79.1\% |
|  |  |  |  |  |  |  |
| 81-Other Services (except Public Administration) | 20,162 | \$ 2,898.25 | 22,349 | \$ 1,688.00 | 52.6\% | 58.2\% |
| 811-Repair \& Maintenance | 12,163 | \$ 3,095.25 | 2,993 | \$ 2,182.25 | 19.7\% | 70.5\% |
| 812-Personal \& Laundry Services | 2,957 | \$ 2,728.25 | 8,490 | \$ 1,488.25 | 74.2\% | 54.5\% |
| 813-Religious, Grant Making, Civic Orgs | 4,796 | \$ 2,575.00 | 9,093 | \$ 1,834.25 | 65.5\% | 71.2\% |
| 814-Private Households | 245 | \$ 1,158.00 | 1,772 | \$ 1,026.75 | 87.9\% | 88.7\% |
|  |  |  |  |  |  |  |
| 92-Public Administration | 36,803 | \$ 3,964.00 | 29,342 | \$ 3,063.00 | 44.4\% | 77.3\% |

Statistics compiled from 1,456,975 wage record recipients covered by Unemployment Insurance
Source: Iowa Workforce Development, Locale Employment Dynamics Program, 4 qtr average ending 3-31-10

# Distribution of Employment and Wages by Gender by Industry 

| Industry | Employment Men | Average Monthly Wage Men | Employment Women | Average Monthly Wage Women | Percentage of Workforce Women | Percentage of Wages <br> Women to Men |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TOTAL ALL INDUSTRIES | 724,425 | \$ 4,022.25 | 732,550 | \$ 2,622.25 | 50.3\% | 68.2\% |

The preceding tables illustrate the variances in wages earned by males and females by industry and reflect reported data by employers in Iowa for the year ending March 31, 2010. As can be seen by the above industry totals, the distribution of females (50.3\%) in the workforce is slightly greater than that of males (49.7\%). In addition, the average monthly wage over all industries for females is 68.2 percent of the male's average.

Information on page 19, indicates that over four-fifths (83.2\%) of the workforce employed within the health care \& social assistance industry are female; however, they earn 57.1 percent less than males employed within the industry. In addition, the professional, scientific, and technical services and management of companies industries report a high disparity between male and female wages, 49.7 and 50.8 percent, respectively. This is a slight improvement when compared to the 2008 study which reported a disparity of 48.6 percent within the professional, scientific, and technical industry and 48.0 percent within the management of companies industry.

Conversely, females employed within the accommodations \& food services industry earn only 20.8 percent less than males employed within the industry which is the smallest variance between male and female wages across all industries followed by public administration (22.7\%), administrative, support, and waste management (22.8\%), and transportation and warehousing (27.0\%). The agriculture and manufacturing industries also show a lesser difference in wages between genders. Females in the agricultural sector earn 73.5 percent of what their male counterparts earn and within the manufacturing industry they earn 71.5 percent of the average male wage. The 2008 study showed earnings of 71.6 and 70.2 percent of male earnings in these industries, respectively. In considering these disparities it is important to note that differences in occupations and skills within each industry sector have not been accounted for.

Wage Comparison

| Industry | Percentage of <br> Wages <br> Women to Men <br> 2010 | Percentage of <br> Wages <br> Women to Men <br> 2008 | \% change |
| :--- | :---: | :---: | :---: |
| Wholesale Trade | $71.5 \%$ | $52.6 \%$ | $18.9 \%$ |
| Mining | $68.9 \%$ | $62.8 \%$ | $6.1 \%$ |
| Finance and Insurance | $55.5 \%$ | $51.4 \%$ | $4.1 \%$ |
| Real Estate, Rental, Leasing | $70.3 \%$ | $67.0 \%$ | $3.3 \%$ |
| Transportation \& Warehousing | $73.0 \%$ | $70.1 \%$ | $2.9 \%$ |
| Management of Companies \& Enterprises | $50.8 \%$ | $48.0 \%$ | $2.8 \%$ |
| Information | $71.3 \%$ | $68.6 \%$ | $2.7 \%$ |
| Retail Trade | $61.7 \%$ | $59.1 \%$ | $2.6 \%$ |
| Educational Services | $71.5 \%$ | $69.2 \%$ | $2.3 \%$ |
| Agriculture, Forestry, Fishing \& Hunting | $73.5 \%$ | $71.6 \%$ | $1.9 \%$ |
| Accomodations \& Food Services | $79.2 \%$ | $77.3 \%$ | $1.9 \%$ |
| Construction | $68.6 \%$ | $67.1 \%$ | $1.5 \%$ |
| Manufacturing | $71.5 \%$ | $70.2 \%$ | $1.3 \%$ |
| Professional, Scientific, Technical Services | $49.7 \%$ | $48.6 \%$ | $1.1 \%$ |
| Health Care and Social Assistance | $42.9 \%$ | $42.0 \%$ | $0.9 \%$ |
| Other Services (except Public Administration) | $58.2 \%$ | $57.9 \%$ | $0.3 \%$ |
| Administrative, Support, Waste Management | $77.2 \%$ | $77.2 \%$ | $0.0 \%$ |
| Utilities | $65.2 \%$ | $65.6 \%$ | $-0.4 \%$ |
| Public Administration | $77.3 \%$ | $78.0 \%$ | $-0.7 \%$ |
| Arts, Entertainment \& Recreation | $64.2 \%$ | $67.7 \%$ | $-3.5 \%$ |

The above table compares the average percentage of wages, women to men, as reported in 2008 and 2010. The largest gain by females in closing the wage gap can be seen in the wholesale trade industry; where in 2010 females earned 71.5 percent of what their male counterparts earned compared to the 52.6 percent they earned in 2008. That is an increase of 18.9 percent. Large gains can also be seen in the mining industry where females experienced an increase of 6.1 percent as well as in the finance and insurance industry which had a gain of 4.1 percent. Conversely, the utilities and public administration industries show a loss, or increase in the wage gap. This is also true within the arts, entertainment, \& recreation industry which shows the greatest loss of -3.5 percent.


