

# FOOD PROCESSING INDUSTRY IN IDAHO



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# Food Processing Industry in Idaho



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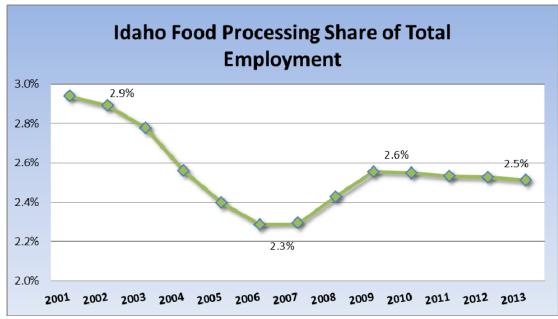
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### SUMMARY OF KEY FINDINGS

Food processing is much more concentrated in Idaho than in most other states, and its average wage is a third higher than Idaho's average wage for all jobs. Idaho's median wage for all jobs, however, ranked 47<sup>th</sup> in the nation, reflecting the comparatively low wage levels overall in the state. The high concentration of food processing has put a sharply competitive edge on wages, especially for higher skills that are in short supply.

Attracting a qualified workforce comes down to wage and benefit packages and the cost of living. Idaho pays a little more to attract candidates from neighboring states where wages are generally higher for various reasons including higher minimum wages, greater union activity or higher costs of living

Food processing accounted for 2.5 percent of all Idaho jobs in 2013, down from a peak of 2.9 percent in 2001, likely the result of technological improvements. Nationally food processing accounted for 1.1 percent of all jobs.



Source: Economic Modeling Specialists Inc.

Food processing is concentrated in southwestern and south central Idaho with growth occurring in the south central region, which has become the epicenter of a developing food processing cluster. The other four regions saw job losses from 2009 to 2013. All six regions saw losses in total jobs, but the food processing cluster kept south central Idaho's overall loss to half the percentage loss statewide over the five-year span. Growth over the last five years in south central Idaho's food processing industry was four times greater than the next best region, north central Idaho.

Milk is Idaho's top commodity based on market receipts, making the dairy industry the leading sector in food processing. Seventy-five percent of the state's dairy cows are in south central Idaho. An expanding export market contributes to Idaho's growth in dairy product manufacturing, driven by increasing demand in China and other Pacific Rim countries. New dairy products and residual-based products are being developed from the value-added process – whey- and casein-based protein powders and coatings are examples. Greek yogurt and custom cheese powders are making inroads domestically.

### **BACKGROUND IN IDAHO**

Idaho's food processing sector traces back to J.R. Simplot when the future Idaho billionaire dehydrated potatoes to be shipped overseas to the troops during World War II. Many food processors have followed with greater employment, more than a handful national companies and conglomerates.

As the industry has evolved over the past seven decades in Idaho and nationally, automation has led to a decline in total sector jobs. Some national companies have also outsourced manufacturing processes to Canada or Mexico in response to the North American Free Trade Agreement 20 years ago.



Source: Economic Modeling Specialists Inc.

Because demand for potato products is high in Mexico, processors can relocate plants there to be closer to customers, reducing shipping costs and taking advantage of lower labor costs. Mexico is also looking to develop the crop so purchasing equipment from Idaho manufacturers contributes to the cluster impact that comes from marketing high-profile food production and processing. Examples of foreign companies doing business in Idaho include McCain Foods of Canada; Glanbia Cheese of Ireland; Sorrento Lactalis of Italy and Frulact of Portugal.

### **Diversification**

Food processing has had its ups and downs in Idaho but has not necessarily followed economic ebbs and flows. Diversification has benefited the industry over decades. Dairy manufacturing has been the latest example as demand nationally and globally has increased for cheese, yogurt, whey and protein concentrates. The Greek yogurt market has increased exponentially over the last five years while whey and protein have been developing over a longer period. Because of its small population, Idaho processors must rely on other areas and countries for the demand side of their equation.

Driven by the commodities Idaho produces, food processing is a large contributor to the state's gross product. Idaho vies with New York state as the nation's third largest dairy producer, passing the state's iconic potato as the number one agricultural product a decade ago even though Idaho continues to be the country's top spud producer. Soil type, the growing season and water availability through irrigation, natural springs and geothermal sources are the underpinnings of a vibrant food processing sector in such a small state. The processing plants are sleek, stainless steel and employ fewer workers with higher skill levels to handle commodities of high quality and sufficient quantity.

### FOOD PROCESSING INDUSTRY

#### Nationwide

The concentration of food processing in south central Idaho is about 6% times greater than the nation. The concentration of establishments is 3% times the country's while the concentration of workers is three times greater. The average food processing wage in south central Idaho, using data from Economic Modeling Specialists International, is \$53,971-35 percent higher than the average of all jobs at \$40,061, reflecting the competition created among companies for high quality workers.

### Statewide

Idaho's food processing industry focuses on the state's dominant commodities – dairy, potatoes, barley, sugar beets and trout – with the J.R. Simplot Co. an example of a stable yet dynamic player. Currently Simplot is consolidating potato processing operations to one new, highly automated plant in southwestern Idaho. This will reduce the jobs impact of

Simplot, which has plants in Washington, North Dakota, Arkansas, Canada and Mexico in addition to Idaho. Many of the other established potato processors still have comparatively large payrolls even as some automate. McCain Foods is revamping its plant in Burley but is maintaining its workforce. The new equipment will enhance plant efficiency. Further expansion is planned including new lines, and that will increase the skill level required of new hires. Programmable logic controllers will command pay about 45 percent above traditional line jobs but will require partnerships and cooperative efforts with educational institutions.

### **Projections and the Pipeline**

With the workforce stabilizing amid increasing automation over the past two decades, growth in food processing is projected to be limited to 2.4 percent during the next decade, well below the national growth rate of 3.6 percent to rank 30<sup>th</sup> among the states. It appears that most of the automation that could reduce existing jobs in Idaho will be completed by the end of 2014. The industry, however, got a boost in 2013 when Chobani Yogurt built its multimillion-dollar Greek yogurt plant in Twin Falls. This high-profile company was followed by other food processors, whose arrivals in Idaho may not be definitively linked to Chobani but do reinforce the cluster trend. These entries into Idaho food processing offset the loss of jobs through the consolidation of three Simplot plants into one and the closures of North American Foods in Glenns Ferry in 2008 and the Heinz plant in Pocatello in 2014.

Export growth could enhance job projections. Since the U.S. market is essentially mature limiting future growth, other nations are becoming target markets, especially those developing nations as their incomes and living standards rise. In "Globalization of the Frozen Potato Industry," Charles Plummer of the U.S. Department of Agriculture's Economic Research Service suggested Idaho was well positioned to take advantage of this since three of Idaho's potato processors are the largest in the world with 75 percent of the market share. Frozen potato product exports totaled almost \$39 million in 2013, up 12 percent from the previous year. The main customer was Mexico, which purchased 76 percent of the total while Canada bought 19 percent. While this export total is relatively small considering the large employers operating in Idaho, it underscores the continuing strength of the domestic market. There has been a tremendous increase in dairy product exports, up 16 percent in 2013 to \$314 million. South Korea, Mexico and Japan bought 81 percent of the cheese and curd worth over \$50 million, up a robust 34 percent. Milk and cream products went primarily to China, Mexico and Indonesia with total exports hitting \$129 million, an increase of 55 percent in just a year. Butter, a lesser-valued export, has more volatility, depending on demand for cream. But in 2013, foreign butter sales rose 160 percent. The top three purchasers accounting for 63 percent of sales were Morocco, Egypt and the Ukraine.

Offsetting that advantage is the prospect that companies could build processing plants in those nations to curtail shipping costs. Idaho processors such as McCain Foods, Glanbia Cheese and Sorrento Lactalis have done just that. Frulact and Materne N.A. are strategically siting their future plants for both supply chain benefit and market access. The Pacific Northwest is acknowledged as having a comparative advantage in accessing the Pacific Rim and Asia as Canada secures the eastern and midwestern U.S. Both countries compete intensely for market share in South and Central America.

Dramatic job loss from 2001 through 2006 put food processing at odds with an otherwise expanding Idaho economy. This job loss reflects advances in technology and decisions to outsource work that had been done in Idaho rather than any decline in consumer demand. Seneca Foods Corp.'s canned sweet corn plant in south central Idaho is a case in point. Seneca made its own cans and provided temporary housing for migrant workers needed during its relatively short season. But several years ago it moved the canning operation overseas and focused on frozen corn and vegetables in Idaho.

When the Great Recession took hold, jobs across the rest of the economy were lost while food processing climbed and seemed to stabilize, trending with the rest of the economy during the recovery. Seneca and others have private label business that the industry estimates is growing 6 percent a year since the recession hit. Market penetration has been 17.4 percent. In what could be another boost to exports, Diane Toops of Food Processing magazine points out that private labels are even more popular in Europe, where 24.2 percent of the products are private labels. Consumer behavior abroad often dictates plant decisions since exports continue to be the source of growth for food processors.

Dairy product manufacturing is on the cusp of marked job growth. Its largest employer projects 1,200 on its payroll within two years as it and others recover from the recession. Producers suffered severely weak prices in 2009 that ate up their equity at a time lenders became tightfisted with an industry rife with complexities. Their efforts to cull herds to reduce volume and boost price became more difficult with the closing of a slaughter plant in southwestern Idaho. That left them paying a premium for both time and fuel to haul animals out of state. In the aftermath, two commercial meat slaughtering companies plan operations in Jerome and Cassia counties, adding up to 250 workers. A European company specializing in fruit processing also plans to start an Idaho operation that would become part of the yogurt supply chain.

|                     | Idaho's Top Five                                | Food Pro     | ocessing     | Sector  | S        |                  |                                       |
|---------------------|---|--------------|--------------|---------|----------|------------------|---------------------------------------|
| Idaho-<br>Statewide | Description                                     | 2013<br>Jobs | 2023<br>Jobs | Change  | % Change | 2013<br>Earnings | 2012 National<br>Location<br>Quotient |
| 311411              | Frozen Fruit, Juice and Vegetable Manufacturing | 3,938        | 3,788        | (1,174) | (24%)    | \$55,519         | 28.52                                 |
| 311423              | Dried and Dehydrated Food Manufacturing         | 2,243        | 1,853        | (1,123) | (38%)    | \$46,608         | 44.04                                 |
| 311513              | Cheese Manufacturing                            | 2,009        | 2,368        | 1,218   | 106%     | \$53,007         | 9.63                                  |
| 311313              | Beet Sugar Manufacturing                        | 1,431        | 1,512        | 128     | 9%       | \$73,050         | 46.08                                 |
| 311612              | Meat Processed from Carcasses                   | 917          | 1,368        | 620     | 83%      | \$34,173         | 1.67                                  |

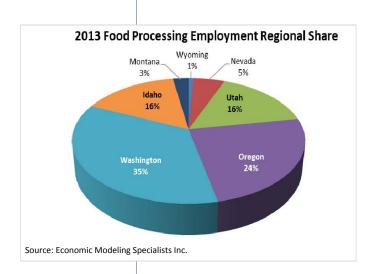
Source: Economic Modeling Specialists Inc.

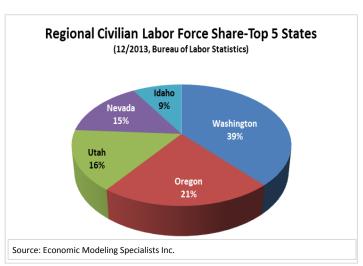
In all, five food processors have plans to open operations in Idaho. Line operating skills are transferrable within food processing and to some durable manufacturing operations, but higher-level skill sets are harder to find and increasingly in demand with automation. Idaho postsecondary institutions are discussing development of training programs to address these industry issues.

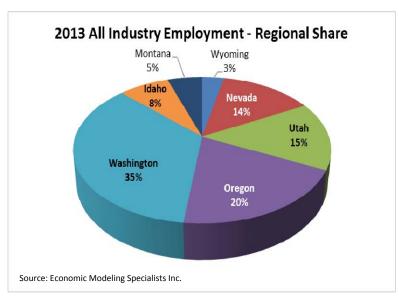
| Company                              | Cap<br>Expenditure<br>(in \$ millions) | Job<br>Creation | Type of Product                                 | Corporate<br>Headquarters | Location   |
|--------------------------------------|--|-----------------|---|---------------------------|------------|
| Frulact                              | \$39                                   | 100             | Fruit Processing                                | Portugal                  | Rupert     |
| Clif Bar                             | \$90                                   | 250             | Non Chocolate<br>Confectionary<br>Manufacturing | California                | Twin Falls |
| Materne North America                | \$85                                   | 230             | Fruit Processing                                | France                    | Nampa      |
| Dale T. Smith & Sons<br>Meat Packing | \$7.50                                 | 100             | Beef Processing                                 | Utah                      | Jerome     |
| 7 Brothers Meats                     | \$5                                    | 100             | Beef Processing                                 | Idaho                     | Burley     |
| McCain Foods                         | \$60<br>renovation                     | 130             | Potato Processing                               | Canada                    | Burley     |

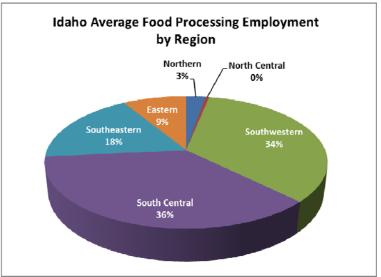
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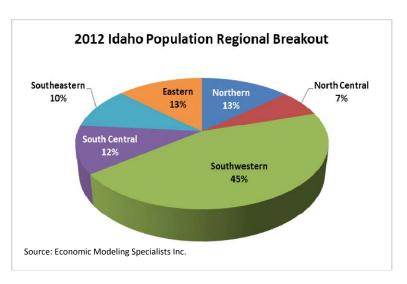
As the two most populous states with the largest labor forces in the region, Washington and Oregon also have the lion's share of food processing jobs, enhanced by their strong fish processing sectors. These two states also have higher wage rates, which enlarges their labor pools. In contrast, Utah with a civilian labor force almost double that of Idaho's has the same share of regional food processing jobs as Idaho. Nevada and Utah emphasize mining, hospitality and leisure jobs more than food processing.







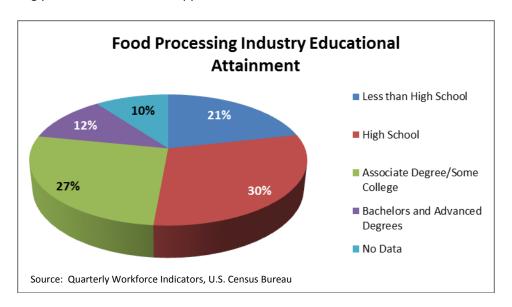




### **WORKFORCE CHARACTERISTICS**

Demographically the food processing workforce has a higher concentration of men, lower educational attainment and higher wages than Idaho's workforce overall. It is predominantly white, reflecting the state's population, but has a higher concentration of Hispanics than the population overall.

Based on Quarterly Workforce Indicators for 2012 compiled by the Census Bureau and the Bureau of Labor Statistics, 66 percent of food processing workers were men compared to 51.2 percent of all workers. The wage gap was still significant. Men in food processing earned 50 percent more than women. But in the overall Idaho economy, men earned two-thirds more than women. The occupations within the food processing industry include food scientists, human resource specialists and mangers, maintenance workers, accountants, line workers that sort, package, and operate machines and those individuals who provide several services and skill sets such as programmable logic controller technicians. Staffing patterns are shown in Appendix 6.



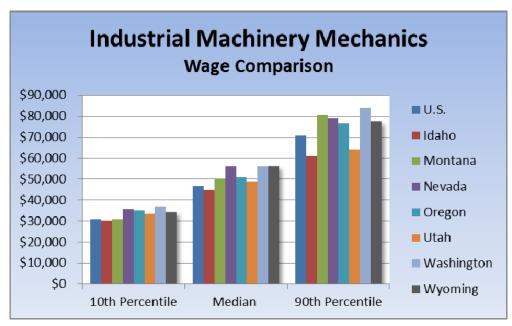
### **OCCUPATIONS**

Idaho's Hot Jobs through 2020 include only three food processing occupations – industrial machinery mechanic, industrial engineer and industrial production manager. All rank high in wages, growth and number of jobs. Industrial machinery mechanic reflects a common type of food processing work that combines skills in electronics, programming and

mechanics.

Washington with its high number of food processing jobs, high union participation and high minimum wage pays the best wages for industrial machinery mechanics followed by Montana and Nevada, where mining and energy compete for these skills. Oregon is next with its diverse group of food processing industries including fish, cheese and fruit.

| Industrial         | Machinery          | y Mechani | c Jobs, |
|--------------------|--------------------|-----------|---------|
|                    | 10-year G          | rowth     |         |
|                    | 2002               | 2012 %    | change  |
| Wyoming            | 1,217              | 2,325     | 91%     |
| Utah               | 2,957              | 3,966     | 34%     |
| Nevada             | 1,296              | 1,652     | 27%     |
| Montana            | 624                | 771       | 24%     |
| Washington         | 6,020              | 6,869     | 14%     |
| Idaho              | 1,463              | 1,615     | 10%     |
| Oregon             | 3,780              | 3,844     | 2%      |
| Nation             | 303,187            | 306,680   | 1%      |
| Source: Economic N | lodeling Specialis | sts Inc.  |         |



Source: Economic Modeling Specialists, Inc.

Idaho's Food Processing Industry

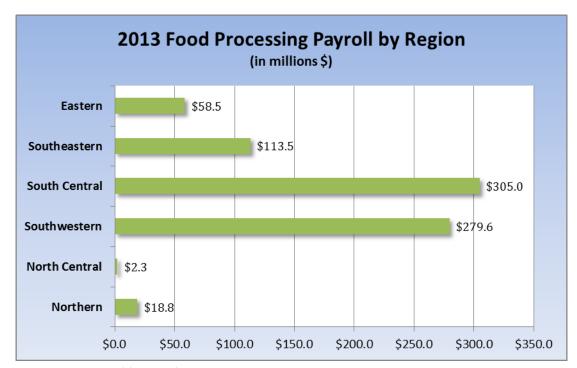
| Industrial | Machiner           | y Mechan | ic Wages           |
|------------|--------------------|----------|--------------------|
|            | 10th<br>Percentile | Median   | 90th<br>Percentile |
| Nation     | \$30,800           | \$46,900 | \$70,800           |
| Idaho      | \$30,300           | \$44,900 | \$60,900           |
| Montana    | \$30,900           | \$50,400 | \$80,600           |
| Nevada     | \$35,700           | \$56,200 | \$79,000           |
| Oregon     | \$35,200           | \$51,000 | \$76,500           |
| Utah       | \$33,500           | \$48,800 | \$64,300           |
| Washington | \$37,100           | \$56,000 | \$84,100           |
| Wyoming    | \$34,200           | \$55,900 | \$77,300           |

|                    | ial Machir<br>ing States | 10-year  |          |  |  |  |  |  |  |  |  |  |
|--------------------|--------------------------|----------|----------|--|--|--|--|--|--|--|--|--|
|                    | Project                  | ions     |          |  |  |  |  |  |  |  |  |  |
|                    | 2012                     | 2022     | % change |  |  |  |  |  |  |  |  |  |
| Nevada             | 1,340                    | 1,950    | 45%      |  |  |  |  |  |  |  |  |  |
| Utah               | 3,060                    | 4,170    | 36%      |  |  |  |  |  |  |  |  |  |
| Idaho              | Idaho 1,270 1,630 28%    |          |          |  |  |  |  |  |  |  |  |  |
| Wyoming            | 2,020                    | 2,550    | 26%      |  |  |  |  |  |  |  |  |  |
| Montana            | 860                      | 1,050    | 22%      |  |  |  |  |  |  |  |  |  |
| Nation             | 319,300                  | 379,600  | 19%      |  |  |  |  |  |  |  |  |  |
| Washington         | 5,920                    | 6,800    | 15%      |  |  |  |  |  |  |  |  |  |
| Oregon             | 3,640                    | 4,100    | 0%       |  |  |  |  |  |  |  |  |  |
| Source: Economic N | Modeling Speciali        | sts Inc. |          |  |  |  |  |  |  |  |  |  |

### **WAGES**

Data compiled by Economic Modeling Specialists International finds south central Idaho with the highest aggregate payroll of all regions at over \$300 million in food processing.

The Idaho food processing sector's underlying strength is being reinforced by new companies interested in working directly with commodity producers. These companies should increase Idaho's competitiveness domestically and globally.



 $Source: Economic\ Modeling\ Specialists\ Inc.$ 

# **Appendix 1 - Data Sources**

Idaho's Food Processing Industry

### **IN-HOUSE DATA**

The Idaho Department of Labor has in-house data available for analysis from the Quarterly Census of Employment and Wages, Occupational Employment Statistics, occupational and industry projections and exports. The quarterly census data comes from employers who pay unemployment insurance taxes and are referred to as covered employment data. They provide numbers of establishments, employment and earnings by industry. The Occupational Employment Statistics program develops the wage survey publication. It provides data on employment and wages by occupations and information to determine staffing patterns. Projections are developed statewide and by region for the short term – two years – and the long term – 10 years. Export data by country and by commodity are available from Global Trade Information Services developed in cooperation with the U.S. Census Bureau.

These data allow the Department of Labor to conduct numerous industry and occupational analyses for Idaho and its regions. There are limitations, however. QCEW and OES include only covered jobs, which are about 90 percent of total jobs. There is a lack of readily available information for state-to-state comparisons. There are strict confidentiality rules on the use of both QCEW and OES data. This means that even though Idaho Labor might have data, the information will not be released if there is a chance that an individual or business could be identified.

#### **PURCHASED DATA**

The Idaho Department of Labor contracts with Economic Modeling Specialists Inc. to obtain industry and occupational estimates for all 50 states. To estimate industry data, EMSI "combines covered employment data from Quarterly Census of Employment and Wages produced by the Department of Labor with total employment data in the Regional Economic Information System published by the U.S. Bureau of Economic Analysis, augmented with County Business Patterns and Nonemployer Statistics published by the U.S. Census Bureau." EMSI bases occupation estimates "on EMSI's industry data and regional staffing patterns taken from the Occupational Employment Statistics program (U.S. Bureau of Labor Statistics). Wage information is partially derived from the American Community Survey" conducted by the U.S. Census Bureau.

EMSI data are not subject to the same confidentiality requirements as the department's inhouse data. In some instances in this report, actual QCEW data was replaced with EMSI estimated data to protect the integrity of state and national comparisons by using the same methodology.

#### **DATA SET DIFFERENCES**

There are obvious differences between the data sets of the department and Economic Modeling Specialists Inc. because EMSI uses estimates. EMSI's "complete" employment figures are significantly higher than the department's "covered" employment data, which include only employment covered by the unemployment insurance program. EMSI's "complete" employment estimates also include employment outside the unemployment insurance program like the self-employed and the military, pulling data from a variety of sources including the Census Bureau's American Community Survey.

#### **TYPES OF DATA**

### **OCCUPATION AND INDUSTRY**

Food processing in Idaho can be measured by occupation and industry. Occupational data includes employment and wages for specific occupations. For example, "19–1012 food scientists" would count all database administrators whether working in a food processing industry such as cheese manufacturing or an industry not considered food processing such as a large research facility. Sometimes multiple job titles are grouped in one occupation.

Industry information also tracks employment and earnings along with establishments. But it includes every occupation in the industry, whether it is directly related to the industry or not. For example, data on an establishment identified as part of cheese manufacturing would include not just the actual production workers but all the clerks, secretaries, maintenance personnel and other nonproduction workers. Thus, a food processing industry will have both food processing and non-food processing occupations.

### **WHY HAVE TWO MEASURES?**

Occupation information gives what is often referred to as a "workforce oriented" view. This information allows stakeholders such as institutions of higher education to identify occupational shortages or specific occupation needs and to develop career ladders or paths of advancement for a specific career.

Industry information can be useful to economic developers. It provides a wide-angle view of the makeup of an economy and is therefore useful in identifying industry clusters or businesses that may cluster with other similar or supportive industries. This kind of measure allows economic developers to target the identified industries that offer higher wages because, like the high-tech industry, wages can be higher at every occupational level for an entire industry. For businesses willing to relocate entirely rather than move only a few occupations, this wide-angle view can be very useful.

### **ESTABLISHMENTS, EMPLOYMENT, EARNINGS AND WAGES**

An establishment is a single location for an employer. A single employer may have more than one establishment such as a retailer who may be under one company with several locations around the state. Establishments under one company may be assigned to different industry or North American Industry Classification System codes depending on their specific function.

Employment is a count of people working and does not differentiate between full time, part time or people who work multiple jobs. Earnings, for this business scan, include either EMSI's proprietary earnings per worker calculation, which includes estimated benefits, or the quarterly census information on total wages paid by employers to employees. Wages for this business scan include EMSI's estimates on median hourly wage, EMSI's estimated 10<sup>th</sup> and 90<sup>th</sup> percentile wage, which for this paper provides a proxy for a starting and supervisory wages, and the hourly wage estimates provided by OES.

# **Appendix 2 - Food Processing Industry Workforce Metrics**

| Size Relative Size Employment to Nation Employment in State                       |  |  |                                   |                         |             | Relative Gr<br>Growth in Employment | Relative Growth of Fi | 00a P     | Growth in Employment             | nent  | Projected Grow      | Projected Growth of Food Processing<br>Employment | ssing      | Relative Earnings<br>Earnings Per Worker | ings<br>orke r |      | Earnings to State State Food Proc to State Total | rte<br>ate Total | Relative<br>Food Process | Relative Establishments<br>Food Processing Est. to Total Est. | s<br>al Est. |
|---|--|--|-----------------------------------|-------------------------|-------------|-------------------------------------|-----------------------|-----------|----------------------------------|-------|---------------------|---|------------|--|----------------|------|--|------------------|--------------------------|---|--------------|
| Rank Area % Rank Area   | Area % Rank Area 2003-2008   | 8 Rank Area 2003-2008  | Rank Area 2003-2008               | Area 2003-2008          | 2003-2008   |                                     | _                     | Area      | 2008-2013                        | Rank  | Area                | 23  | Rank       | Area EPW                                 | L              | Rank | Area %   | Rank             | Area                     | %<br>R  | Rank         |
| Arkansas 3.9% 1 Nevada 26.4%  | Arkansas 3.9% 1 Nevada 26.4%   | rsas 3.9% 1 Nevada 26.4%   | 1 Nevada 26.4%                    | Nevada 26.4%            | da 26.4%    |                                     |                       | Vermont   | ont                              | 1     | Arizona             | 23.2%   | 1 6        | gia                                      | \$63,834       | 1    | Georgia 114                                      | 114.8% 1         | Alaska                   | 0.9%  | 1            |
| 1 Nebraska 3.8% 2 Montana   | sska 3.8% 2 Montana 16.5%  | sska 3.8% 2 Montana 16.5%  | 2 Montana 16.5%                   | Montana 16.5%           | ia 16.5%    |                                     |                       | Wyoming   |                                  | 6 2   | Massachusetts       | 15.0%   | 2 N        | shire                                    | \$63,735       | 2    | lowa 112   | 114.0% 2         |                          | 0.8%  | 2            |
| 5.7% 2 lowa 3.5% 3 Alaska 14.7% 3   | 3.5% 3 Alaska 14.7%  | 3.5% 3 Alaska 14.7%  | 3 Alaska 14.7%                    | Alaska 14.7%            | 14.7%       |                                     |                       | South     | South Dakota 15.8%               | m •   | Utah                | 14.9%   | e =        | New Jersey \$1                           | \$63,633       | m •  |  | 113.2% 3         |                          | 0.7%  | m s          |
| 4 Idaho 2.5% 5 Oregon 6.8%  | 2.5% 5 Oregon 6.8%   | 2.5% 5 Oregon 6.8%   | 5 Oregon 6.8%                     | Oregon 6.8%             | 6.8%        |                                     | Т                     | Rhod      |                                  | s ^o  | Colorado            | 10.3%   |            | P  | 559,900        |      | Ohio 108   |                  | lowa                     | 0.6%  | 4 rv         |
| 5 Kansas 2.3% 6 Michigan 6.8%   | 2.3% 6 Michigan 6.8%   | 2.3% 6 Michigan 6.8%   | 6 Michigan 6.8%                   | Michigan 6.8%           | 6.8%        |                                     |                       | Kentucky  |                                  | 9 %   | Oregon              | %6'6  |            |  | \$58,263       | . 9  | ssee   | 9 %2'.201        |                          | 0.5%  | 9            |
| 6 Wisconsin 2.3% 7 Utah 6.6%  | 2.3% 7 Utah 6.6%   | 2.3% 7 Utah 6.6%   | 7 Utah 6.6%                       | Utah 6.6%               | 9.9%        |                                     |                       | Nevada    |                                  |       | Oklahoma            | 9.7%  |            | essee                                    | \$57,294       |      | kota   |                  |                          | 0.5%  | 7            |
| 3.5% / Delaware 2.2% 8 Indiana 5.7% 8   | 2.2% 8 Indiana 5.7% 2.2% 9 Kentucky 5.0%   | 2.2% 8 Indiana 5.7% 2.2% 9 Kentucky 5.0%   | 8 Indiana 5.7%<br>9 Kentucky 5.0% | Kentucky 5.0%           | . 5.7%      |                                     |                       | Massachi  | Colorado 8.9% Massachusetti 8.5% | ю σ   | Vermont             | 9.6%<br>%4.0                                      | <u>ο</u> ο | Iowa<br>Poposylvania                     | \$57,060       | х о  | Missouri 105                                     | 106.0% 8         | Oregon                   | 0.5%  | 20 σ         |
| 9 Mississippi 2.1% 10 Vermont 4.1%  | 2.1% 10 Vermont 4.1%   | 2.1% 10 Vermont 4.1%   | 10 Vermont 4.1%                   | Vermont 4.1%            | 4.1%        |                                     |                       | Arizona   |                                  |       | New Mexico          | 9.4%  |            |  | \$55,716       | _    |  |                  |                          | 0.5%  | 10           |
| 10 Alabama 1.8% 11 North Carolina 4.0%  | 1.8% 11 North Carolina 4.0%  | 1.8% 11 North Carolina 4.0%  | 11 North Carolina 4.0%            | North Carolina 4.0%     | rolina 4.0% |                                     |                       | Utah      |                                  |       | North Carolina      | 8.9%  | Ē          | ota                                      | \$55,500       | Н    |  | 100.5% 11        | Н                        | 0.5%  | 11           |
| 11 Minnesota 1.7% 12 Missouri 3.6%  | 1.7% 12 Missouri 3.6%  | 1.7% 12 Missouri 3.6%  | 12 Missouri 3.6%                  | Missouri 3.6%           | 3.6%        |                                     |                       | Louisiana |                                  |       | Tennessee           | 8.5%  |            | setts                                    | \$55,044       |      | ··   |                  |                          | 0.4%  | 12           |
| 3.0% 12 Vermont 1.7% 13 Delaware 3.6% 13  | 1.7% 13 Delaware 3.6%  | 1.7% 13 Delaware 3.6%  | 13 Delaware 3.6%                  | Meaning 3.6%            | 3.6%        |                                     |                       | New       | New Jersey 7.1%                  | 6 13  | Texas               | 7.8%  | 13         | Missouri S.                              | \$54,647       | 13   | Indiana 99                                       | 99.9% 13         | Illinois                 | 0.4%  | 13           |
| 14 Missouri 1.6% 15 Oklahoma 2.9%   | 1.6% 15 Oklahoma 2.9%  | 1.6% 15 Oklahoma 2.9%  | 15 Oklahoma 2.9%                  | Oklahoma 2.9%           | 2.9%        |                                     | Н                     | Ohio      | 2006                             |       | Rhode Island        | %8.9  |            |  | \$53,357       | Н    |  |                  |                          | 0.4%  | 12           |
| 15 Kentucky 1.5% 16 lowa 2.5% 16  | 1.5% 16 lowa 2.5% 16   | 1.5% 16 lowa 2.5% 16   | 16 lowa 2.5% 16                   | lowa 2.5% 16            | 2.5% 16     | 16                                  | Ż                     | ě         | Mexico                           |       | South Dakota        | 6.4%  |            |  | \$53,337       |      |  |                  |                          | 0.4%  | 16           |
| 17  | 1.5% 17 Georgia 2.1% 17  | 1.5% 17 Georgia 2.1% 17  | 17 Georgia 2.1% 17                | Georgia 2.1% 17         | 2.1% 17     | 17                                  | ٥                     | u o       | Connecticut 4.6%                 | 6 17  | Kentucky            | 6.2%  |            | California \$:                           | \$53,094       | 17   | Kansas 97  | 97.3% 17         | Oklahoma                 | 0.4%  | 17           |
| 17 Illinois 1.4% 18 Massachusetts 1.5% 18   | 1.4% 18 Massachusetts 1.5% 18  | 1.4% 18 Massachusetts 1.5% 18  | 18 Massachusetts 1.5% 18          | Massachusetts 1.5% 18   | 1.5% 18     | 18                                  | 0                     | Oregon    |                                  |       | New Hampshire       |   | -          | Vermont \$!                              | \$52,656       | 18   | Ivania   |                  |                          | 0.4%  | 18           |
| 18 North Carolina 1.4% 19 South Dakota 0.9% 19                                    | 1.4% 19 South Dakota 0.9% 19   | 1.4% 19 South Dakota 0.9% 19   | 19 South Dakota 0.9% 19           | South Dakota 0.9% 19    | 0.9% 19     | 19                                  | 드                     | Indiana   |                                  |       | NewJersey           | 5.7%  | 19 N       |  | \$51,762       |      | la   |                  |                          | 0.4%  | 13           |
| Transcript 1.3% 20 North Dakota 0.7% 20   | 1.3% 20 North Dakota 0.7% 20   | 1.3% 20 North Dakota 0.7% 20   | 20 North Dakota 0.7% 20           | North Dakota 0.7% 20    | 0.7% 20     | 70 50                               | -                     | VISC      |                                  | 9 7   | Montana             | 5.7%  | t          | Connecticut                              | 551,512        | 139  | Utan 92  | 92.1% 20         |                          | 0.4%  | 8 5          |
| 21 Indiana 12% 22 Idaha .0.5% 21  | 1.2% 21 Colorado -0.5% 21  | 1.2% 21 Colorado -0.5% 21  | 22 Idaha -0.5% 21                 | Haho -0.5% 21           | -0.5% 21    | 7.7                                 |                       | Vasi      | Washington 2.4%<br>Nabraska 2.1% |       | South Carolina      | 0.5%<br>%1.7%                                     | t          |  | 196,066        | Ť    | po   |                  | Ohio                     | 0.4%  | 22           |
| 22 Pennsylvania 1.2% 23 Washington -1.1% 23                                       | 1.2% 23 Washington -1.1% 23  | 1.2% 23 Washington -1.1% 23  | 23 Washington -1.1% 23            | Washington -1.1% 23     | -1.1% 23    | 23                                  | 2                     | ě         |                                  |       | Louisiana           | 5.1%  | 23         | Indiana                                  | \$50,537       | 22   | Na.  | 90.8% 23         | T                        | 0.4%  | 1 23         |
| California -1.8% 24   | 1.2% 24 California -1.8% 24  | 1.2% 24 California -1.8% 24  | 24 California -1.8% 24            | California -1.8% 24     | -1.8% 24    | 24                                  | _                     | lowa      | 1.8%                             |       | Georgia             | 4.7%  |            | Kentucky \$1                             | \$50,455       |      | Arizona 90                                       | 90.4% 24         | Michigan                 | 0.4%  | 24           |
| 24 North Dakota 1.2% 25 South Carolina -1.8% 25                                   | Dakota 1.2% 25 South Carolina -1.8% 25   | Dakota 1.2% 25 South Carolina -1.8% 25   | 25 South Carolina -1.8% 25        | South Carolina -1.8% 25 | -1.8% 25    | 25                                  | -                     | enn       |                                  |       | Arkansas            | 4.0%  | 25 A       |  | \$50,019       | 1    | e,   |                  | 1                        | 0.4%  | 22           |
| 1.7% 25 Ohio 1.1% 26 Kansas -1.8% 26 court Cardina 1.1% 27 Naw Hamnekira -1.0% 27 | 1.1% 26 Kansas -1.8% -1. | 1.1% 26 Kansas -1.8% -1. | 26 Kansas -1.8%                   | Kansas -1.8%            | -1.8%       |                                     |                       | North     | North Dakota 0.2%                | 26 26 | National            | 3.6%  |            | Kansas                                   | 549,182        | 25   | Montana 88                                       | 88.3% 26         | Massachusetts            | 0.4%  | 26           |
| 27 National 1.1% - Alabama -2.1%  | 1.1% - Alabama -2.1%   | 1.1% - Alabama -2.1%   | - Alabama - 2.1%                  | Alabama -2.1%           | -2.1%       |                                     |                       | Alaska    |                                  |       | Nevada              | 3.4%  | 27 5       | Jakota                                   | \$48,020       |      | e  | 87.1% 28         |                          | 0.3%  | 78           |
| 28 Hawaii 1.0% 28 Rhode Island -2.2%  | 1.0% 28 Rhode Island -2.2%   | 1.0% 28 Rhode Island -2.2%   | 28 Rhode Island -2.2%             | Rhode Island -2.2%      | -2.2%       |                                     |                       | Nationa   |                                  |       | Washington          | 3.0%  | Н          |  | \$47,972       |      |  |                  |                          | 0.3%  | 53           |
| Oklahoma 1.0% 29 Hawaii -2.5%   | 1.0% 29 Hawaii -2.5%   | 1.0% 29 Hawaii -2.5%   | 29 Hawaii -2.5%                   | Hawaii -2.5%            | -2.5%       |                                     |                       | Kansas    | as -0.4%                         | 6 29  | Delaware            | 2.4%  | 29 N       | Nebraska \$                              | \$47,456       | 29   |  | 86.2% 29         |                          | 0.3%  | 30           |
| 30 California 1.0% 30 Wisconsin -2.5%   | 1.0% 30 Wisconsin -2.5%  | 1.0% 30 Wisconsin -2.5%  | 30 Wisconsin -2.5%                | Wisconsin -2.5%         | sin -2.5%   |                                     |                       | Hawaii    |                                  |       | Idaho               | 2.4%  |            | е  | \$47,197       | Ť    | on   |                  |                          | 0.3%  | 31           |
| 1.1% 31 Maine 1.0% 31 Onio -3.8% 32   | 1.0% 31 Onio -3.8%   | 1.0% 31 Onio -3.8%   | 31 Onio -3.8%<br>32 Tevas -3.0%   | Onio -3.8%              | -3.8%       |                                     |                       | llinois   | .0.8%                            | 33    | New York<br>Indiana | 2.1%  | 32         | lexas                                    | \$47,113       | 31   | Arkansas 84<br>New Mexico 83                     | 84.0% 31         | National                 | 0.3%  | 33           |
| Michigan 0.9% 33 Illinois -4.0%   | 0.9% 33 Illinois -4.0%   | 0.9% 33 Illinois -4.0%   | 33 Illinois -4.0%                 | Illinois -4.0%          | -4.0%       |                                     |                       | Michigan  |                                  |       | Missouri            | 1.8%  |            | da                                       | \$46,468       |      |  |                  |                          | 0.3%  | 33           |
| 0.9% 34 Connecticut -4.6%   | 0.9% 34 Connecticut -4.6%  | 0.9% 34 Connecticut -4.6%  | 34 Connecticut -4.6%              | Connecticut -4.6%       | -4.6%       |                                     |                       | Virginia  | nia -1.1%                        | 34    | Wisconsin           | 1.8%  |            | Louisiana \$-                            | \$46,119       | Н    | arolina  | 80.7% 34         | Colorado                 | 0.3%  | 34           |
| New Jersey 0.8%   | . 0.8% 35 National   | . 0.8% 35 National   | 35 National                       | National                | _           | -5.1% -                             |                       | Nort      | North Carolin: -1.2%             | 6 35  | North Dakota        | 1.8%  |            | Alaska \$                                | \$45,795       |      | South Carolina 79                                |                  | Alabama                  | 0.3%  | 35           |
| 36 Virginia 0.8% 36 New York -5.8%  | 0.8% 36 New York -5.8%   | 0.8% 36 New York -5.8%   | 36 New York -5.8%                 | New York -5.8%          | -5.8%       |                                     | _                     | Montana   |                                  |       | Virginia            | %6.0  | T          | na                                       | \$44,386       | T    |  |                  | 1                        | 0.3%  | 36           |
| 0.6% 37 Texas 0.8% 37 Arkansas -6.4% 37   | 0.8% 37 Arkansas -6.4%   | 0.8% 37 Arkansas -6.4%   | 37 Arkansas -6.4%                 | Arkansas -6.4%          | -6.4%       |                                     |                       | Penn      | Pennsylvania -2.5%               | 6 37  | Minnesota           | 0.8%  | 37 0       | Oregon \$-                               | \$44,041       | 37   | California 78                                    | 78.3% 37         | North Carolina           | 0.3%  | 37           |
| 30 Phode Icland 0.7% 30 New Jersov -7.1%  | 0.5% 39 New Jarea 7.1%   | 0.5% 39 New Jarea 7.1%   | 30 New Jersey -7.1%               | New Jorgest -7.1%       | -7.1%       |                                     | т                     | Miccouri  |                                  |       | Ohio                | 0.5%  |            | ovice                                    | \$43,200       |      | inni   |                  |                          | 0.3%  | 2 2          |
| 40 New Mexico 0.7% 40 Tennessee -7.2% 40  | 0.7% 40 Tennessee -7.2% 40   | 0.7% 40 Tennessee -7.2% 40   | 40 Tennessee -7.2% 40             | Tennessee -7.2% 40      | -7.2% 40    | 6 9                                 | H                     | Delaware  |                                  |       | California          | 0.4%  | ۲          | e  | \$41.861       |      | s#c  |                  |                          |   | 3 8          |
| A1 Now York 0.6% A1 Minnesotts -7.3% A1   | 0.6% 41 Minnesota -7.3% 41   | 0.6% 41 Minnesota -7.3% 41   | 41 Minnesots -7 29/ 41            | Minnesota -7 39% //     | -7 3% 41    | 2 7                                 | , -                   | Toyac     | ,                                |       | Micciccinni         | -0.1%   |            |  | \$41.026       |      |  |                  |                          |   | 41           |
| 42 Montana 0.6% 42 Maryland -8.0% 42  | 0.6% 42 Maryland -8.0% 42  | 0.6% 42 Maryland -8.0% 42  | 42 Maryland -8.0% 42              | Maryland -8.0% 42       | -8.0% 42    | 42                                  | 2 ≥                   | issi      | iaais                            |       | Illinois            | -1.5%   | Н          |  | \$40.226       | Ė    | ginia  |                  |                          | 0.3%  | 42           |
| 43 Maryland 0.6% 43 Pennsylvania -9.2% 43   | 0.6% 43 Pennsylvania -9.2% 43  | 0.6% 43 Pennsylvania -9.2% 43  | 43 Pennsylvania -9.2% 43          | Pennsylvania -9.2% 43   | -9.2% 43    | 43                                  |                       | Calife    |                                  |       | Pennsylvania        | -2.6%   |            |  | \$39.547       |      |  |                  |                          | 0.3%  | 43           |
| 44 West Virginia 0.5% 44 West Virginia -9.9%                                      | 0.5% 44 West Virginia -9.9%  | 0.5% 44 West Virginia -9.9%  | 44 West Virginia -9.9%            | West Virginia -9.9%     | %6.6-       |                                     | П                     | Georgia   | 3                                |       | Maryland            | -3.0%   |            | and                                      | \$39,191       | Н    |  |                  |                          | 0.3%  | 3 4          |
| 45 Connecticut 0.5% 45 New Mexico -10.1%  | 0.5% 45 New Mexico -10.1%  | 0.5% 45 New Mexico -10.1%  | 45 New Mexico -10.1%              | New Mexico -10.1%       | -10.1%      |                                     |                       | Maryland  |                                  |       | Hawaii              | -3.2%   |            | в  | \$38,029       |      | cticut   |                  |                          | 0.3%  | 45           |
| 46 Arizona 0.5% 46 Virginia -10.2%  | 0.5% 46 Virginia -10.2%  | 0.5% 46 Virginia -10.2%  | 46 Virginia -10.2%                | Virginia -10.2%         | -10.2%      |                                     |                       | Н         |                                  |       | Florida             | -3.4%   | Н          |  | \$37,946       | ۲    | _  |                  | Н                        | 0.2%  | 46           |
| 47 Nevada 0.4% 47 Florida -10.9%  | 0.4% 47 Florida -10.9%   | 0.4% 47 Florida -10.9%   | 47 Florida -10.9%                 | Florida -10.9%          | -10.9%      |                                     |                       | Alabama   |                                  |       | Connecticut         | %6.6-   |            | zinia                                    | \$37.060       |      |  |                  |                          | 0.2%  | 47           |
| 48 Florida 0.4% 48 Mississippi -13.3%   | 0.4% 48 Mississippi -13.3%   | 0.4% 48 Mississippi -13.3%   | 48 Mississippi -13.3%             | Mississippi -13.3%      | ppi -13.3%  |                                     |                       | Н         | 7                                |       | West Virginia       | -5.4%   | Н          |  | \$36,904       | Н    |  |                  | Н                        | 0.2%  | 48           |
| New Hampshire 0.4% 49 Maine -13.4%  | 0.4% 49 Maine -13.4%   | 0.4% 49 Maine -13.4%   | 49 Maine -13.4%                   | Maine -13.4%            | -13.4%      |                                     |                       | West      | West Virginia -10.3%             |       | Wyoming             | -7.2%   |            |  | \$35,708       |      |  |                  | Virginia                 | 0.2%  | 49           |
| 0.1% 50 Wyoming 0.3% 50 Louisiana -15.9% 50                                       | Wyoming 0.3% 50 Louisiana -15.9%   | 0.3% 50 Louisiana -15.9%   | 50 Louisiana -15.9%               | Louisiana -15.9%        | -15.9%      |                                     |                       | Oklahoma  | -23.2%                           |       | Maine               | -9.1%   |            | Mississippi \$:                          | \$34,037       |      |  | 64.6% 50         | Arizona                  | 0.2%  | 20           |
|   |  |  |                                   |                         |             |                                     | L                     | 1         |                                  |       |                     |   |            |  |                |      |  |                  |                          |   |              |

# **Appendix 3 - Food Processing Occupation Workforce Metrics**

Food Processing Industry Labor Force Metrics for Idaho by Region - 2013

|                              | Size                        |         | Re            | lative Size                 |      |               |             | Relative | Growth          |           |      |
|------------------------------|-----------------------------|---------|---------------|-----------------------------|------|---------------|-------------|----------|-----------------|-----------|------|
| Share of Food Pro<br>in Idah | ocessing Emp<br>o by Region | loyment |               | ng Employme<br>stry Employm |      |               | Growth in F | ood Proc | essing Employme | nt        |      |
| Area                         | Percent                     | Rank    | Area          | Percent                     | Rank | Area          | 2003-2008   | Rank     | Area            | 2008-2013 | Rank |
| State                        | 100%                        |         | South Central | 6.8%                        | 1    | Northern      | 33.6%       | 1        | South Central   | 16.5%     | 1    |
| South Central                | 36.0%                       | 1       | Southeastern  | 4.6%                        | 2    | Southeastern  | 14.6%       | 2        | North Central   | 4.1%      | 2    |
| Southwestern                 | 34.2%                       | 2       | State         | 2.4%                        |      | South Central | 2.0%        | 3        | State           | 0.0%      |      |
| Southeastern                 | 17.9%                       | 3       | Southwestern  | 1.8%                        | 3    | State         | -0.6%       |          | Southwestern    | -3.0%     | 3    |
| Eastern                      | 8.7%                        | 4       | Eastern       | 1.6%                        | 4    | Southwestern  | -8.2%       | 4        | Eastern         | -4.3%     | 4    |
| Northern                     | 2.7%                        | 5       | Northern      | 0.5%                        | 5    | Eastern       | -12.6%      | 5        | Northern        | -4.5%     | 5    |
| North Central                | 0.5%                        | 6       | North Central | 0.2%                        | 6    | North Central | -24.5%      | 6        | Southeastern    | -16.5%    | 6    |

| Projec          | ted Growth     |         | ı              | Earnings      |           | Food Process    | Earnings to S | State  | Relative E       | stablishmen   | nts     |
|-----------------|----------------|---------|----------------|---------------|-----------|-----------------|---------------|--------|------------------|---------------|---------|
| Projected Growt | th of Food Pro | cessing | Food Processin | g Earnings Pe | er Worker | EPW in Food Pro | cessing as %  | of EPW | 2012 Food Proce  | ssing Establi | shments |
| Emp             | loyment        |         |                | (EPW)         |           | in All          | Industries    |        | as % of All Indu | stry Establis | hments  |
| Area            | 2013-2023      | Rank    | Area           | EPW           | Rank      | Area            | Percent       | Rank   | Area             | Percent       | Rank    |
| Southwestern    | 17.9%          | 1       | South Central  | \$53,791      | 1         | South Central   | 134.3%        | 1      | South Central    | 1.1%          | 1       |
| State           | 1.3%           |         | Southwestern   | \$51,823      | 2         | Southeastern    | 113.9%        | 2      | Eastern          | 0.6%          | 2       |
| South Central   | -4.1%          | 2       | State          | \$50,637      |           | State           | 113.5%        |        | State            | 0.5%          |         |
| Eastern         | -4.4%          | 3       | Southeastern   | \$47,322      | 3         | Southwestern    | 108.6%        | 3      | Southeastern     | 0.5%          | 3       |
| Northern        | -5.0%          | 4       | Northern       | \$44,578      | 4         | Northern        | 105.2%        | 4      | Southwestern     | 0.4%          | 4       |
| Southeastern    | -15.0%         | 5       | Eastern        | \$42,785      | 5         | Eastern         | 98.0%         | 5      | North Central    | 0.3%          | 5       |
| North Central   | -26.0%         | 6       | North Central  | \$29,336      | 6         | North Central   | 69.5%         | 6      | Northern         | 0.3%          | 6       |

Source: Economic Modeling Specialists Inc.

### Food Processing Industry Labor Force Metrics for Surrounding and Top-Ranked States - 2013

|                         | Size                      |      | Re                         | lative Size                  |      |                |           | Relative G  | rowth            |           |      |
|-------------------------|---------------------------|------|----------------------------|------------------------------|------|----------------|-----------|-------------|------------------|-----------|------|
| Share of F<br>Employmen | ood Proces<br>t by Select |      | Food Processing<br>Industi | Employment a<br>y Employment |      |                | Growth in | Food Proces | ssing Employment |           |      |
| Area                    | Percent                   | Rank | Area                       | Percent                      | Rank | Area           | 2001-2007 | Rank        | Area             | 2007-2013 | Rank |
| National                | 100%                      |      | National                   | 1.1%                         |      | National       | -5.1%     |             | National         | -0.3%     |      |
| California              | 9.8%                      | 1    | Arkansas                   | 3.9%                         | 1    | Nevada         | 29.9%     | 1           | Vermont          | 32.5%     | 1    |
| Texas                   | 5.7%                      | 2    | Nebraska                   | 3.8%                         | 2    | Arizona        | 20.4%     | 2           | South Dakota     | 17.0%     | 2    |
| Illinois                | 5.2%                      | 3    | Iowa                       | 3.5%                         | 3    | Montana        | 13.3%     | 3           | Wyoming          | 15.6%     | 3    |
| Pennsylvania            | 4.5%                      | 4    | Alaska                     | 2.8%                         | 4    | Utah           | 5.6%      | 4           | Utah             | 14.9%     | 4    |
| Georgia                 | 4.3%                      | 5    | Idaho                      | 2.5%                         | 5    | North Carolina | 4.6%      | 5           | Colorado         | 14.2%     | 5    |
| Washington              | 2.4%                      | 14   | Kansas                     | 2.3%                         | 6    | Indiana        | 3.8%      | 6           | Rhode Island     | 14.0%     | 6    |
| Oregon                  | 1.6%                      | 26   | Oregon                     | 1.5%                         | 17   | Oregon         | 3.6%      | 7           | South Carolina   | 12.8%     | 7    |
| Utah                    | 1.1%                      | 31   | Utah                       | 1.3%                         | 20   | Delaware       | 3.5%      | 8           | Nevada           | 8.5%      | 10   |
| Idaho                   | 1.1%                      | 32   | Washington                 | 1.2%                         | 24   | Alaska         | 3.4%      | 9           | Oregon           | 5.8%      | 16   |
| Nevada                  | 0.3%                      | 43   | Montana                    | 0.6%                         | 42   | Washington     | -8.4%     | 35          | Idaho            | 3.8%      | 20   |
| Montana                 | 0.2%                      | 48   | Nevada                     | 0.4%                         | 47   | Idaho          | -9.2%     | 37          | Washington       | 3.0%      | 23   |
| Wyoming                 | 0.1%                      | 50   | Wyoming                    | 0.3%                         | 50   | Wyoming        | -11.7%    | 43          | Montana          | -1.4%     | 32   |

| Projec       | ted Growth   |      | Ea                   | ırniı      | ngs    |        | Food Process    | ing: Earnings to              | State    | Relative                           | Establishmen                       | ts   |
|--------------|--------------|------|----------------------|------------|--------|--------|-----------------|-------------------------------|----------|------------------------------------|------------------------------------|------|
|              | Growth of Fo |      | Food Processing<br>( | Ear<br>EPV |        | Worker | EPW in Food Pro | ocessing as % o<br>Industries | f EPW in | 2012 Food Proces<br>% of All Indus | ssing Establish<br>stry Establishn |      |
| Area         | 2013-2023    | Rank | Area                 |            | EPW    | Rank   | Area            | Percent                       | Rank     | Area                               | Percent                            | Rank |
| National     | 3.6%         |      | National             | \$         | 51,762 |        | National        | 86.3%                         |          | National                           | 0.3%                               |      |
| Arizona      | 23.2%        | 1    | Georgia              | \$         | 63,854 | 1      | Georgia         | 114.8%                        | 1        | Alaska                             | 0.9%                               | 1    |
| Massachusett | 15.0%        | 2    | New Hampshire        | \$         | 63,735 | 2      | lowa            | 114.0%                        | 2        | Hawaii                             | 0.8%                               | 2    |
| Utah         | 14.9%        | 3    | New Jersey           | \$         | 63,633 | 3      | Idaho           | 113.2%                        | 3        | Vermont                            | 0.7%                               | 3    |
| Alaska       | 10.5%        | 4    | Illinois             | \$         | 63,536 | 4      | New Hampshire   | 111.3%                        | 4        | Wisconsin                          | 0.7%                               | 4    |
| Colorado     | 10.3%        | 5    | Maryland             | \$         | 59,900 | 5      | Ohio            | 108.5%                        | 5        | Iowa                               | 0.6%                               | 5    |
| Oregon       | 9.9%         | 6    | Washington           | \$         | 54,446 | 14     | Tennessee       | 107.7%                        | 6        | Idaho                              | 0.5%                               | 8    |
| Oklahoma     | 9.7%         | 7    | Idaho                | \$         | 50,768 | 21     | Utah            | 92.1%                         | 20       | Oregon                             | 0.5%                               | 9    |
| Montana      | 5.7%         | 20   | Utah                 | \$         | 46,968 | 32     | Montana         | 88.3%                         | 26       | Montana                            | 0.4%                               | 14   |
| Nevada       | 3.4%         | 27   | Nevada               | \$         | 46,468 | 33     | Nevada          | 87.8%                         | 27       | Washington                         | 0.4%                               | 18   |
| Washington   | 3.0%         | 28   | Oregon               | \$         | 44,041 | 37     | Washington      | 85.5%                         | 30       | Utah                               | 0.4%                               | 19   |
| Idaho        | 2.4%         | 30   | Montana              | \$         | 41,036 | 41     | Oregon          | 81.1%                         | 33       | Wyoming                            | 0.3%                               | 33   |
| Wyoming      | -7.2%        | 49   | Wyoming              | \$         | 35,708 | 49     | Wyoming         | 65.2%                         | 49       | Nevada                             | 0.3%                               | 43   |

Source: Economic Modeling Specialists Inc. 2013.2

# **Appendix 4 - Idaho's Food Processing Sectors**

| Idaho Food Processing Industries                     | NAICS Code |
|--|------------|
| Dog and cat food manufacturing                       | 311111     |
| Other animal food manufacturing                      | 311119     |
| Flour milling  | 311211     |
| Rice milling   | 311212     |
| Wet corn milling                                     | 311221     |
| Soybean processing                                   | 311222     |
| Other oil seeds processing                           | 311223     |
| Fats and oils refining & blending                    | 311225     |
| Beet sugar manufacturing                             | 311313     |
| Confectionary manufacturing from cacao bean          | 311320     |
| Confectionary manufacturing from purchased chocolate | 311330     |
| Frozen fruit & vegetable manufacturing               | 311411     |
| Frozen specialty food manufacturing                  | 311412     |
| Fruit & vegetable canning                            | 311421     |
| Specialty canning                                    | 311422     |
| Dried & dehydrated food manufacturing                | 311423     |
| Fluid milk manufacturing                             | 311511     |
| Creamery butter manufacturing                        | 311512     |
| Cheese manufacturing                                 | 311513     |
| Dry, condensed & evaporated dairy products           | 311514     |
| Ice cream & frozen dessert manufacturing             | 311520     |
| Animal, except poultry, slaughtering                 | 311611     |
| Meat processed from carcasses                        | 311612     |
| Rendering & meat byproduct processing                | 311613     |
| Poultry processing                                   | 311615     |
| Fresh & frozen seafood processing                    | 311712     |
| Retail bakeries                                      | 311811     |
| Commercial bakeries                                  | 311812     |
| Frozen cakes & other pastries manufacturing          | 311813     |
| Cookie & cracker manufacturing                       | 311821     |
| Dry pasta manufacturing                              | 311823     |
| Tortilla manufacturing                               | 311830     |
| Other snack food manufacturing                       | 311919     |
| Coffee and tea manufacturing                         | 311920     |
| Mayonnaise, dressing & sauce manufacturing           | 311941     |
| Spice and extract processing                         | 311942     |
| Perishable prepared food manufacturing               | 311991     |
| All other miscellaneous food manufacturing           | 311999     |

Source: Economic Modeling Specialists Inc

# **Appendix 5 - Idaho Food Processing Exports**

# Idaho World-Wide Exports - Dairy

| U.S. Dollar           |             |             |             |       | % Share |       |           |  |
|-----------------------|-------------|-------------|-------------|-------|---------|-------|-----------|--|
| Description           | 2011        | 2012        | 2013        | 2011  | 2012    | 2013  | 2013/2012 |  |
| Dairy/Eggs/Honey/     | 267,655,861 | 270,098,017 | 314,194,537 | 100   | 100     | 100   | 16.33     |  |
| Milk/Cream/Sweet      | 89,548,914  | 83,075,366  | 128,458,270 | 33.46 | 30.76   | 40.88 | 54.63     |  |
| Whey/Other Milk Prods | 113,028,462 | 130,208,848 | 97,645,005  | 42.23 | 48.21   | 31.08 | -25.01    |  |
| Cheese and Curd       | 28,409,154  | 47,284,354  | 63,268,288  | 10.61 | 17.51   | 20.14 | 33.8      |  |
| Butter/Oils From Milk | 36,660,151  | 9,015,706   | 23,498,861  | 13.7  | 3.34    | 7.48  | 160.64    |  |
| Buttermlk/Yogurt      | 0           | 494,963     | 1,162,545   | 0     | 0.18    | 0.37  | 134.88    |  |
| Fresh Eggs            | 0           | 0           | 82,947      | 0     | 0       | 0.03  |           |  |
| Processed Eggs        | 9,180       | 18,780      | 78,621      | 0     | 0.01    | 0.03  | 318.64    |  |

Source: World Trade Statistics Online

# **Idaho Cheese and Curd Exports by Country**

|         |                      |              | U.S. Dollar  |              | %    | 6 Share |      | % Change  |
|---------|----------------------|--------------|--------------|--------------|------|---------|------|-----------|
| Rank    | Country              | 2011         | 2012         | 2013         | 2011 | 2012    |      | 2013/2012 |
| rtariit | World                | \$28,409,154 | \$47,284,354 | \$63,268,288 | 100  | 100     | 100  | 33.8      |
| 1       | Korean Republic      | \$10,511,589 | \$28,830,343 | \$34,871,269 | 37.0 | 61.0    | 55.1 | 21.0      |
| 2       | Mexico               | \$6,364,608  | \$6,935,819  | \$11,870,028 | 22.4 | 14.7    | 18.8 | 71.1      |
| 3       | Japan                | \$786,197    | \$2,239,232  | \$4,283,536  | 2.8  | 4.7     | 6.8  | 91.3      |
| 4       | Australia            | \$0          | \$629,171    | \$2,874,967  | 0.0  | 1.3     | 4.5  | 356.9     |
| 5       | Bahrain              | \$282,147    | \$176,127    | \$1,534,438  | 1.0  | 0.4     | 2.4  | 771.2     |
| 6       | China                | \$2,601,004  | \$3,894,352  | \$1,513,387  | 9.2  | 8.2     | 2.4  | -61.1     |
| 7       | Trinidad and Tobago  | \$1,262,649  | \$963,264    | \$1,060,198  | 4.4  | 2.0     | 1.7  | 10.1      |
| 8       | Morocco              | \$206,736    | \$364,253    | \$1,020,855  | 0.7  | 0.8     | 1.6  | 180.3     |
| 9       | Egypt                | \$1,390,799  | \$1,278,246  | \$978,942    | 4.9  | 2.7     | 1.5  | -23.4     |
| 10      | Saudi Arabia         | \$2,952,623  | \$585,792    | \$645,007    | 10.4 | 1.2     | 1.0  | 10.1      |
| 11      | Philippines          | \$296,676    | \$87,685     | \$540,689    | 1.0  | 0.2     | 0.9  | 516.6     |
| 12      | Netherlands          | \$0          | \$0          | \$406,843    | 0.0  | 0.0     | 0.6  |           |
| 13      | United Arab Emirates | \$0          | \$228,000    | \$345,704    | 0.0  | 0.5     | 0.5  | 51.6      |
| 14      | Jamaica              | \$363,101    | \$203,549    | \$344,428    | 1.3  | 0.4     | 0.5  | 69.2      |
| 15      | Hong Kong            | \$5,497      | \$72,000     | \$229,110    | 0.0  | 0.2     | 0.4  | 218.2     |
| 16      | Taiwan               | \$312,384    | \$206,633    | \$214,217    | 1.1  | 0.4     | 0.3  | 3.7       |
| 17      | Kuwait               | \$0          | \$0          | \$187,049    | 0.0  | 0.0     | 0.3  |           |
| 18      | Qatar                | \$0          | \$0          | \$185,047    | 0.0  | 0.0     | 0.3  |           |
| 19      | Jordan               | \$207,492    | \$0          | \$92,201     | 0.7  | 0.0     | 0.1  |           |
| 20      | Barbados             | \$15,964     | \$54,211     | \$70,373     | 0.1  | 0.1     | 0.1  | 29.8      |
| 21      | Canada               | \$0          | \$6,362      | \$0          | 0.0  | 0.0     | 0.0  | -100.0    |
| 22      | El Salvador          | \$0          | \$83,904     | \$0          | 0.0  | 0.2     | 0.0  | -100.0    |
| 23      | French Polynesia     | \$14,008     | \$0          | \$0          | 0.0  | 0.0     | 0.0  |           |
| 24      | Guatemala            | \$171,114    | \$0          | \$0          | 0.6  | 0.0     | 0.0  |           |
| 25      | Israel               | \$80,446     | \$0          | \$0          | 0.3  | 0.0     | 0.0  |           |
| 26      | Panama               | \$584,120    | \$0          | \$0          | 2.1  | 0.0     | 0.0  |           |
| 27      | Malaysia             | \$0          | \$122,844    | \$0          | 0.0  | 0.3     | 0.0  | -100.0    |
| 28      | Tunisia              | \$0          | \$322,567    | \$0          | 0.0  | 0.7     | 0.0  | -100.0    |

Source: Global Trade World Information Services, Inc. Annual Series 2011-2013

# **Appendix 5 - Idaho Food Processing Exports (cont.)**

Idaho Milk, Concentrate or Sweetened Cream Exports by Country

|      | January - December   |              |              |               |        |              |        |           |
|------|----------------------|--------------|--------------|---------------|--------|--------------|--------|-----------|
|      |                      | U.S. Dollar  |              |               |        | % Change     |        |           |
| Rank | Country              | 2011         | 2012         | 2013          | 2011   | % Share 2012 | 2013   | 2013/2012 |
|      | World                | \$89,548,914 |              | \$128,458,270 | 100.0% | 100.0%       | 100.0% | 54.6%     |
| 1    | China                | \$1,355,671  | \$3,792,928  | \$30,697,904  | 1.5%   | 4.6%         | 23.9%  | 709.4%    |
| 2    | Mexico               | \$2,161,563  | \$12,479,329 | \$25,005,994  | 2.4%   | 15.0%        | 19.5%  | 100.4%    |
| 3    | Indonesia            | \$27,695,220 | \$23,982,511 | \$19,439,377  | 30.9%  | 28.9%        | 15.1%  | -18.9%    |
| 4    | Philippines          | \$12,057,306 | \$8,610,413  | \$15,158,682  | 13.5%  | 10.4%        | 11.8%  | 76.1%     |
| 5    | Chile                | \$7,487,463  | \$6,119,144  | \$9,161,009   | 8.4%   | 7.4%         | 7.1%   | 49.7%     |
| 6    | Malaysia             | \$15,320,591 | \$4,695,043  | \$7,446,657   | 17.1%  | 5.7%         | 5.8%   | 58.6%     |
| 7    | Thailand             | \$8,029,316  | \$6,991,560  | \$6,133,898   | 9.0%   | 8.4%         | 4.8%   | -12.3%    |
| 8    | Korean Republic      | \$707,518    | \$863,934    | \$2,793,827   | 0.8%   | 1.0%         | 2.2%   | 223.4%    |
| 9    | Sri Lanka            | \$495,957    | \$2,561,288  | \$2,681,436   | 0.6%   | 3.1%         | 2.1%   | 4.7%      |
| 10   | Singapore            | \$247,439    | \$132,412    | \$1,977,215   | 0.3%   | 0.2%         | 1.5%   | 1393.2%   |
| 11   | Vietnam              | \$6,050,904  | \$3,482,387  | \$1,895,068   | 6.8%   | 4.2%         | 1.5%   | -45.6%    |
| 12   | Australia            | \$0          | \$166,250    | \$1,382,426   | 0.0%   | 0.2%         | 1.1%   | 731.5%    |
| 13   | Panama               | \$0          | \$133,860    | \$1,253,151   | 0.0%   | 0.2%         | 1.0%   | 836.2%    |
| 14   | Egypt                | \$2,098,764  | \$377,518    | \$1,038,031   | 2.3%   | 0.5%         | 0.8%   | 175.0%    |
| 15   | Saudi Arabia         | \$2,392,235  | \$659,728    | \$956,203     | 2.7%   | 0.8%         | 0.7%   | 44.9%     |
| 16   | Venezuela            | \$0          | \$0          | \$671,828     | 0.0%   | 0.0%         | 0.5%   | 0.0%      |
| 17   | United Arab Emirates | \$0          | \$43,510     | \$358,552     | 0.0%   | 0.1%         | 0.3%   | 724.1%    |
| 18   | Taiwan               | \$422,434    | \$1,735,148  | \$173,062     | 0.5%   | 2.1%         | 0.1%   | -90.0%    |
| 19   | El Salvador          | \$0          | \$267,655    | \$69,900      | 0.0%   | 0.3%         | 0.1%   | -73.9%    |
| 20   | Canada               | \$337,425    | \$181,604    | \$66,478      | 0.4%   | 0.2%         | 0.1%   | -63.4%    |
| 21   | Brazil               | \$0          | \$39,450     | \$51,572      | 0.0%   | 0.1%         | 0.0%   | 30.7%     |
| 22   | Guatemala            | \$103,715    | \$77,406     | \$46,000      | 0.1%   | 0.1%         | 0.0%   | -40.6%    |
| 23   | Jamaica              | \$0          | \$248,571    | \$0           | 0.0%   | 0.3%         | 0.0%   | -100.0%   |
| 24   | Japan                | \$1,103,685  | \$483,645    | \$0           | 1.2%   | 0.6%         | 0.0%   | -100.0%   |
| 25   | Jordan               | \$126,456    | \$0          | \$0           | 0.1%   | 0.0%         | 0.0%   | 0.0%      |
| 26   | Bahrain              | \$735,470    | \$93,678     | \$0           | 0.8%   | 0.1%         | 0.0%   | -100.0%   |
| 27   | Germany              | \$220,834    | \$0          | \$0           | 0.3%   | 0.0%         | 0.0%   | 0.0%      |
| 28   | Colombia             | \$0          | \$113,429    | \$0           | 0.0%   | 0.1%         | 0.0%   | -100.0%   |
| 29   | Dominican Republic   | \$0          | \$193,626    | \$0           | 0.0%   | 0.2%         | 0.0%   | -100.0%   |
| 30   | South Africa         | \$0          | \$962,223    | \$0           | 0.0%   | 1.2%         | 0.0%   | -100.0%   |
| 31   | Ukraine              | \$165,348    | \$0          | \$0           | 0.2%   | 0.0%         | 0.0%   | 0.0%      |
| 32   | Peru                 | \$0          | \$1,391,792  | \$0           | 0.0%   | 1.7%         | 0.0%   | -100.0%   |
| 33   | Morocco              | \$233,600    | \$53,738     | \$0           | 0.3%   | 0.1%         | 0.0%   | -100.0%   |
| 34   | Nicaragua            | \$0          | \$1,610,934  | \$0           | 0.0%   | 1.9%         | 0.0%   | -100.0%   |
| 35   | Nigeria              | \$0          | \$275,577    | \$0           | 0.0%   | 0.3%         | 0.0%   | -100.0%   |
| 36   | Yemen Rep of         | \$0          | \$255,075    | \$0           | 0.0%   | 0.3%         | 0.0%   | -100.0%   |

Source: Word Trade Statistics Online

# **Appendix 5 - Idaho Food Processing Exports (cont.)**

**Idaho Frozen Potato Exports** 

|      | idano i i otato Exporto |              |              |              |      |         |          |           |
|------|-------------------------|--------------|--------------|--------------|------|---------|----------|-----------|
|      |                         | U.S. Dollar  |              |              |      | % Share | % Change |           |
| Rank | Country                 | 2011         | 2012         | 2013         | 2011 | 2012    | 2013     | 2013/2012 |
|      | World                   | \$17,454,573 | \$34,512,436 | \$38,692,851 | 100  | 100     | 100      | 12.1%     |
| 1    | Mexico                  | \$12,162,837 | \$27,569,367 | \$29,361,098 | 69.7 | 79.9    | 75.9     | 6.5%      |
| 2    | Canada                  | \$4,506,018  | \$6,059,765  | \$7,486,557  | 25.8 | 17.6    | 19.3     | 23.5%     |
| 3    | Korean Republic         | \$472,086    | \$655,098    | \$594,603    | 2.7  | 1.9     | 1.5      | -9.2%     |
| 4    | Venezuela               | \$0          | \$0          | \$427,270    | 0.0  | 0.0     | 1.1      | n.a.      |
| 5    | India                   | \$0          | \$0          | \$343,853    | 0.0  | 0.0     | 0.9      | n.a.      |
| 6    | China                   | \$0          | \$0          | \$221,274    | 0.0  | 0.0     | 0.6      | n.a.      |
| 7    | Chile                   | \$0          | \$0          | \$140,895    | 0.0  | 0.0     | 0.4      | n.a.      |
| 8    | Nicaragua               | \$0          | \$0          | \$67,101     | 0.0  | 0.0     | 0.2      | n.a.      |
| 9    | Panama                  | \$0          | \$50,200     | \$50,200     | 0.0  | 0.1     | 0.1      | 0.0%      |
| 10   | Netherlands             | \$214,064    | \$169,097    | \$0          | 1.2  | 0.5     | 0.0      | -100.0%   |
| 11   | Bahamas                 | \$0          | \$8,909      | \$0          | 0.0  | 0.0     | 0.0      | -100.0%   |
| 12   | El Salvador             | \$15,645     | \$0          | \$0          | 0.1  | 0.0     | 0.0      | n.a.      |
| 13   | Japan                   | \$83,923     | \$0          | \$0          | 0.5  | 0.0     | 0.0      | n.a.      |

Source: World Trade Statistics Online

# **Appendix 6 - Staffing Patterns**

# Jobs in Food Processing in Idaho by Occupation and Percent of Total

| 202     | Commention  | % of the Total Jobs in |
|---------|---|------------------------|
| SOC     | Occupation  | Industry (2014)        |
| 51-9111 | Packaging and Filling Machine Operators and Tenders   | 9.6%                   |
| 51-3092 | Food Batchmakers  | 7.1%                   |
| 51-3093 | Food Cooking Machine Operators and Tenders  | 5.0%                   |
| 51-1011 | First-Line Supervisors of Production and Operating Workers  | 3.4%                   |
| 49-9041 | Industrial Machinery Mechanics  | 3.3%                   |
| 51-2092 | Team Assemblers   | 3.3%                   |
| 53-7051 | Industrial Truck and Tractor Operators  | 3.2%                   |
| 53-7062 | Laborers and Freight, Stock and Material Movers, Hand   | 3.2%                   |
| 51-3011 | Bakers  | 2.6%                   |
| 51-3091 | Food and Tobacco Roasting, Baking and Drying Machine Operators and Tenders                        | 2.6%                   |
| 45-2041 | Graders and Sorters, Agricultural Products  | 2.6%                   |
| 51-9198 | HelpersProduction Workers   | 2.5%                   |
| 49-9071 | Maintenance and Repair Workers, General   | 2.4%                   |
| 53-3032 | Heavy and Tractor-Trailer Truck Drivers   | 2.3%                   |
| 51-3023 | Slaughterers and Meat Packers   | 2.1%                   |
| 51-9012 | Separating, Filtering, Clarifying, Precipitating and Still Machine Setters, Operators and Tenders | 1.8%                   |
| 51-3022 | Meat, Poultry and Fish Cutters and Trimmers   | 1.8%                   |
| 19-4011 | Agricultural and Food Science Technicians   | 1.5%                   |
| 53-7064 | Packers and Packagers, Hand   | 1.5%                   |
| 53-7061 | Cleaners of Vehicles and Equipment  | 1.4%                   |
| 51-9032 | Cutting and Slicing Machine Setters, Operators and Tenders  | 1.4%                   |
| 11-1021 | General and Operations Managers   | 1.4%                   |
| 53-3031 | Driver/Sales Workers  | 1.3%                   |
| 51-9061 | Inspectors, Testers, Sorters, Samplers and Weighers   | 1.3%                   |
| 37-2011 | Janitors and Cleaners, Except Maids and Housekeeping Cleaners                                     | 1.2%                   |
| 43-5071 | Shipping, Receiving and Traffic Clerks  | 1.2%                   |
| 49-9043 | Maintenance Workers, Machinery  | 1.2%                   |
| 41-4012 | Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products      | 1.1%                   |
| 51-9023 | Mixing and Blending Machine Setters, Operators and Tenders  | 1.1%                   |
| 43-9061 | Office Clerks, General  | 0.9%                   |
| 11-9199 | Managers, All Other   | 0.8%                   |
| 51-9193 | Cooling and Freezing Equipment Operators and Tenders  | 0.8%                   |
| 11-3051 | Industrial Production Managers  | 0.8%                   |

Source: Economic Modeling Specialists Inc.