

The Insurance Economy of Iowa

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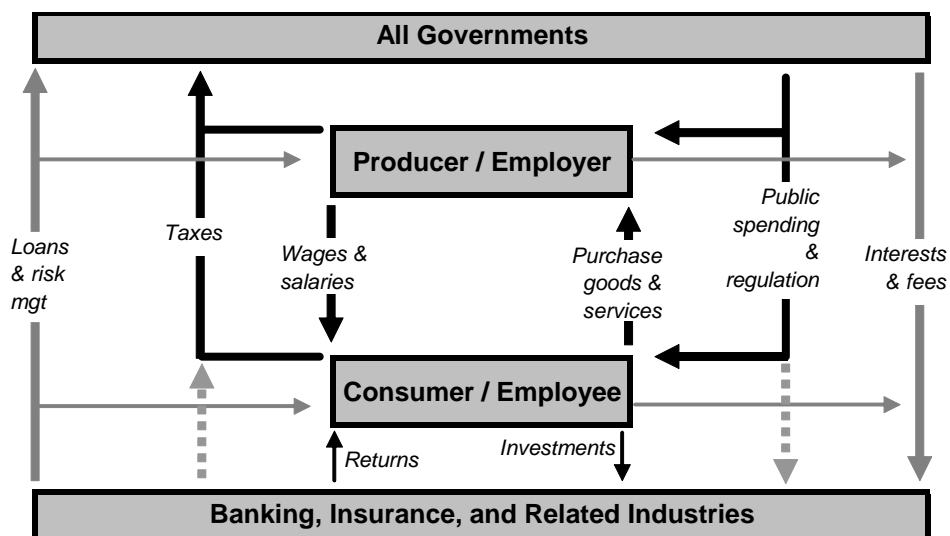
Introduction

The insurance industry in Iowa is an important and growing segment of the state's economy. Though nominally small in comparison to most other major sectors of the economy, just 2.8 percent of all jobs are in insurance currently, the industry enjoys a competitive advantage in Iowa compared to the rest of the nation. Within Iowa, the central Iowa insurance industry enjoys a strong competitive advantage with the rest of the state. The industry is also important because of the quality of its workers and the attractiveness of the industry to Iowa's skilled labor force. This report outlines the substantive and statistical importance of Iowa's insurance industry at the beginning of the 21st century.

Insurance and Financial Services – Just Where Do They Fit in?

A conceptual schematic of the major economic institutions is displayed in Figure 1. The economy is often simply segmented in our minds between producers who supply goods and services and consume labor, and consumers (or households) who supply labor and consume goods and services. Indeed, most discussion about the economy centers on elements of production and consumption.

Figure 1



Our economy, though, is much more complicated. We require governments at all levels to provide services the public sector cannot or will not, and to regulate economic and non-economic behaviors. Furthermore, these three sectors – business, households, and governments – periodically require credit, need risk management, and seek depositories for their surpluses. Hence, the banking, insurance, and related industries are an essential stabilizing fourth element of our economy. The banking and insurance industries occasionally require help, and they may turn to the other three, most especially government, for regulatory assistance or financial relief.

The Comparative Size of the Insurance Industry in Iowa

There are two standard ways in which we measure the economic importance of industries in Iowa. The first is jobs. We qualitatively rate or rank industries by the number of jobs that they provide. We further rate jobs by taking into account average pay, working conditions, and whether the jobs are part-time or seasonal in nature. The second measure is the amount of economic product that an industry generates. There are four elements of economic product: (1) all payments made to workers (wages, salaries, and benefits), (2) normal returns to labor and ownership for sole proprietors, (3) payments made to investors (rents, dividends, and interests), and (4) indirect tax payments incidental to production. The sum of all of these values for a state comprises the Gross State Product (GSP).^{*} Changes in GSP and jobs are the standard measures of the size of an economy and its changes over time.

Table 1 contains measures of the jobs and GSP in selected industries in Iowa. The data represent the weighted averages for 2001 through 2004. It shows the job and GSP composition of industry in Iowa. Excepting the “all other” category, the largest employer in the state is the very broad service industry at 33.2 percent. Next, jobs in combined retail and wholesale trade make up nearly 16 percent of job market. Iowa is well-known for its manufacturing sector, and durable and nondurable manufacturing make up 12.2 percent of jobs. The combined farm and farm services sector made up 6.1 percent, and insurance and all other financial services each accounted for 2.7 percent of jobs.

Looking at the GSP measure, however, yields substantially different percentages. The service and trade sectors combined, though nearly half of all jobs, are only 31 percent of GSP, all manufacturing is 20.7 percent, and insurance and all other financial services make up almost 10 percent. Agriculture’s average share during the first four years of the decade was 3.7 percent.

^{*} These four elements comprise the common term “value added”. The terms value added and gross state product are interchangeable.

When we measure the worth of jobs, we also compare shares of GSP with shares of jobs. If an industry's GSP share is higher than its jobs share, then all other things equal, that industry has higher productivity. In Table 1 we see that manufacturing, insurance, and all other finance had GSP shares that were greater than their job shares, therefore, comparatively more productive. Trade, services, and agriculture had GSP shares that were less than their job shares, and were, on average less productive.

Table 1
Average Economic Indicators, 2001 to 2004, as
Percentages of Totals

	Jobs	GSP
Agriculture	6.1%	3.7%
Durable Manufacturing	7.4%	11.2%
Nondurable Manufacturing	4.8%	9.5%
Insurance	2.7%	5.8%
All Other Finance	2.7%	4.1%
Trade	15.9%	12.8%
Services	33.2%	18.4%
All Other Industries and Governments	27.1%	34.4%
Total	100.0%	100.0%

Iowa Shares of National Activity

One way to gauge the importance of the Iowa insurance industry is to compare it with the nation. Again, we are using both jobs and GSP comparisons. In Figure 2 we see selected industries' shares of U.S. employment over the 1992 to 2004 period.* The dark, dotted line represents Iowa's shares of all U.S. jobs – that value is our expected value. That share has been eroding over the years. All financial jobs, insurance included, are increasing, especially during this decade. Manufacturing's shares have been rising rapidly relative to the nation, although much of the growth in later years is due to greater rates of losses in the rest of the U.S. instead of outright gains in Iowa. The greatest competitive position nationally in jobs both historically and at the present among this set is enjoyed by the Iowa insurance industry.

* The 1998 through 2000 period is separated from the previous and later series. This was when economic accounts in the U.S. changed from the Standard Industrial Classification system (SIC) to the North American Industrial Classification system (NAIC). While this was a period of transition, the classification changes did not affect the industries portrayed in this chart as much as other sectors of the economy. Hence, I have high confidence in the comparisons from 1992 through 1997, through the 1998 through 2000 period, and on through the end of the series in 2004. Still, because of the transition period, I am unwilling to join the trends leaving the time series charts segmented into three separate sections.

Figure 2

Iowa Jobs as Percentages of U.S. Jobs, by Industry

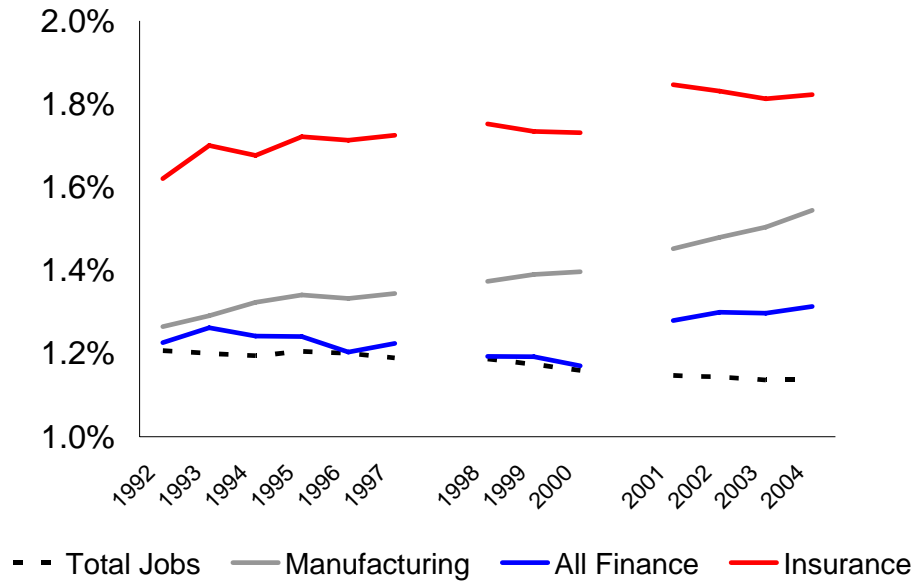
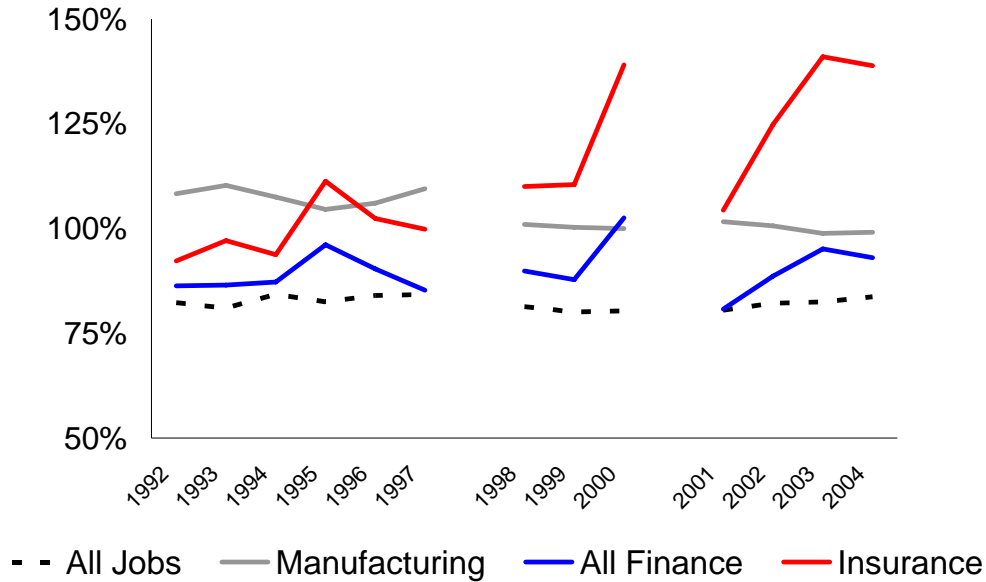


Figure 3 gives a different perspective on the Iowa insurance industry. Here we measure productivity per job in the measured industries compared to their national counterparts. For all Iowa jobs, productivity is less than the national average. In 2004 average per job productivity in Iowa was just 83 percent of the U.S. average. We can also see that comparative productivity in manufacturing is eroding slightly. In 1992, productivity in Iowa manufacturing was 108 percent of the national average, in 2004 it was 99 percent. Volatility is evident in the combined financial sector and in the insurance sector. For one we see huge swings in productivity during the 1999 to 2000 period followed by severe reductions into 2001. This was a time coinciding with massive adjustment in all financial accounts nationally, to include the “dot-com” bust and a national recession. Recently, however, productivity in both industries has recovered, and comparative productivity in the Iowa insurance industry has rocketed upward. In 2001 it was 104 percent of the U.S. average. It grew to 141 percent in 2003 before tailing off slightly.

Figure 3

Iowa Productivity by Industry: GSP Per Job As a Percentage of U.S. Averages by Industry



Iowa's comparative performance in job growth and in productivity gains is evident in its insurance industry. We can mathematically decompose the changes in jobs that have occurred in the state into those portions that are attributable to simply better performance than the rest of the nation. In Iowa, between 1992 and 2004, two-thirds of the job growth in the insurance industry represents shifts in the industry in favor of an Iowa location – Iowa's competitive position is consolidating.

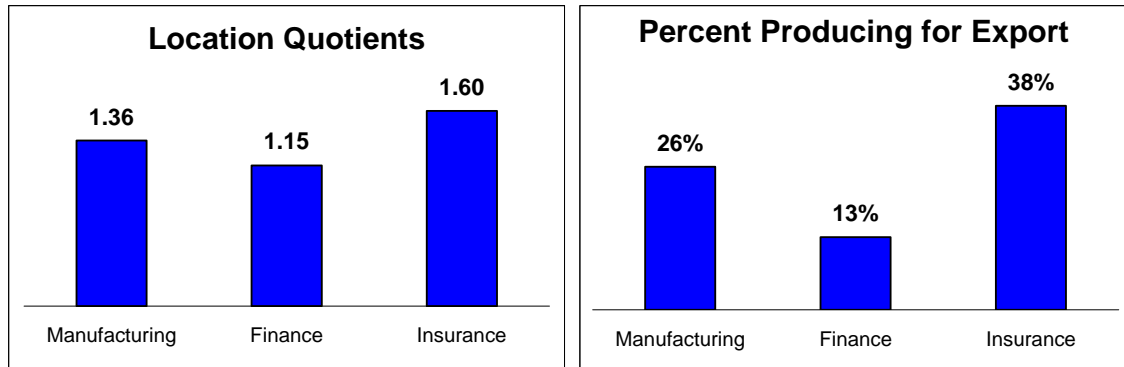
There is another measure of the insurance industry's competitive position vis á vis the nation. That measure is called a location quotient. If our statewide economy was self-sufficient in an industry, it would have a location quotient of 1.0.* If a state has a value greater than 1.0, then it has a competitive advantage and its excess production is for sale outside of the region of analysis. If a state has a location quotient of less than 1.0, it is at a competitive disadvantage from a production standpoint and must import goods made in that industry.

Figure 4 gives us location quotients for manufacturing, the entire financial services industry, and insurance. It also uses those location quotients to estimate the percentage of jobs that

* A location quotient is simply the percentage of jobs in an industry in Iowa divided by percentage of jobs in that industry nationally.

are, on net, producing for export sales. The insurance industry location quotient is quite high at 1.6, Iowa's very important manufacturing sector is somewhat lower at 1.36, and all financial services are much lower at 1.15. As a result, 38 percent of all jobs in Iowa's insurance industry are producing for export sales – sales that bring dollars back into the state – compared to 26 percent for all manufacturing, and just 13 percent for the entire financial services sector combined.*

Figure 4



The Economic Impact of the Insurance Industry in Iowa

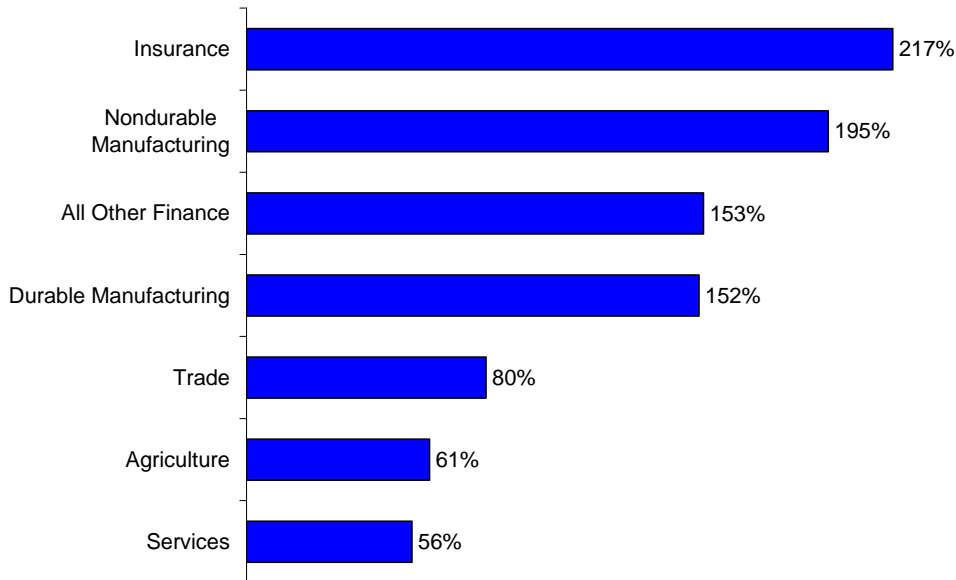
There are several measures of the worth of an industry to an economy. Job and GSP measures have already been discussed. One can also look at total output (a value representing gross sales), along with intuitively pleasing, semi-qualitative measures like average earnings. First, Figure 5 puts the comparative productivity picture of the insurance industry in Iowa into perspective.

The prominent position of the insurance industry in the state is clearly evident. Average productivity per job was 217 percent of the statewide average over the 2001 to 2004 period and exceeded even the highly profitable durable goods manufacturing sector. Indeed, productivity was also much greater than the remainder of the state's financial sector, which scored a 153 percent. Trade, agriculture, and services yielded values much less than the state average value of 100 percent. Stated simply, jobs added in the insurance industry add more GSP per job than other jobs if recent trends are a guide to the near future.

* Export estimates are compiled net of cross-hauled sales. For instance, if I purchase insurance services from an Illinois firm, that offsets an equal amount of our exports to other states. The transactions cancel each other out on an import / export basis. As another example, Iowa manufacturing produces heavily for export sales, yet Iowa industry and consumers must import a tremendous amount of manufactured goods. Once all of that is accounted for, just 26 percent of manufacturing jobs produce for net export sales.

Figure 5

**Productivity Per Job as a Percentage of the State
Average, 2001 - 2004**



Another measure of the economic value of an industry involves the use of input-output econometric modeling systems to determine the extent to which an industry interacts with the remaining economy and creates more, or multiplied, economic activity.* One can calculate the value of linkages that industries have with one another, the amounts of value added (economic product) and labor incomes (as a subset of value added), and the number of jobs.

Table 2 compares the statewide economic values that are econometrically linked with \$1.0 million in sales in three industries: insurance, appliance manufacturing, and corn production. I chose the comparison industries for this segment because the state has recently learned that one of its most famous manufacturing firms will close. Also, it is sometimes instructive to factor in an agriculture example to give readers additional perspective.

Generally, the insurance industry produces the most linked values with output, value added, and labor incomes. The industry links to slightly fewer total jobs than corn production. Per

* Determining net economic impacts due to specific industrial activity requires careful research. Many people can gain access to tables of multipliers, but they frequently apply them either naively or otherwise inappropriately. As a consequence, state economic development and even university service professionals frequently misinform the public about the potential economic outcomes to a region of specific types of industrial change. This practice is proliferating in recent years, and all consumers of economic multipliers and input-output analyses are urged to use extreme caution when interpreting claims of economic impacts.

one million dollars of direct sales by Iowa’s insurance industry, \$1.65 million in total output (or sales) accrue to the whole economy. This happens because (a) the insurance industry must purchase goods and service inputs from other Iowa industries, and (b) because workers in the insurance industry and in the supplying industries take their paychecks and buy additional goods and services, which in turn drive sales and hiring in the sectors that supply households. This is what a multiplier effect consists of. These values are standardized to a per-million in output basis to make them comparable across industries.

Table 2
Economic Multipliers Per \$ Million of Industry Output

	All Insurance	Appliance Manufacturing	Corn Production
Output	1,649,545	1,594,684	1,426,960
Value Added	918,378	559,039	752,196
Labor Income	555,060	369,938	249,043
Jobs	13.4	8.6	15.5
<i>Income Per Job</i>	<i>41,422</i>	<i>43,016</i>	<i>16,067</i>
<i>Value Added Per Job (Productivity)</i>	<i>68,536</i>	<i>65,005</i>	<i>48,529</i>

The worth of these jobs can be measured in two other ways: labor income per job and productivity. The appliance industry yields, after all impacts are measured, slightly more income per all jobs affected than the insurance industry. The corn production labor income outcomes are very low at \$16,067 per job. Total productivity per job after accounting for the multiplied effects, however, are much higher in the insurance industry at \$68,536.*

The near-term prospects of these industries are decidedly different. Iowa corn production over time requires less and less labor and more and more land and capital investment, although recent bio-fuels production will certainly drive up the non-labor portion of value added in that sector in the short turn. In all, electronic appliance manufacturing in the U.S. has been declining sharply over the past decade placing very strong downward pressure on wages and profit margins, and in Iowa of late, the number of jobs. The insurance industry, in contrast, is both consolidating and thriving in the current Iowa economy – especially in central Iowa.

* These values represent total effects after all spending works its way through the economy, not the direct effects of the measured industries. The productivity values, for example, per insurance sector job are much higher than the amounts displayed in Table 2 which take into account all job and income effects in all affected sectors.

The Clustering of Insurance Activity in Central Iowa

When we measure industrial activity spatially, we look for evidence of beneficial clusters. An industry is considered to be clustered in an area when it has strong vertical linkages with other firms (as would be the case of agriculture, livestock feeding, and food processing industries in Iowa), or when like industries are co-located and demonstrate significant horizontal linkages. Iowa's insurance industry demonstrates strong elements of both types of industrial clusters.

- Clusters are part of what are often termed "localization" economies or localization agglomerations. These economies accumulate because firms are able to tap into more specialized (and efficient) suppliers of inputs and producer services, and the firms are able to access an adequate pool of specialized and skilled workers.
- Significant industrial clusters may be more responsive to demands for re-organization, re-investment, and related industrial spin-offs as a consequence to their proximity to each other, because of their pool of both specialized suppliers and labor in the region, and the need to remain not just globally but regionally competitive with one another.
- Clusters maximize the opportunity for inter-firm and intra-industry communication, cooperation, and coordination regarding their collective capacities to identify markets, share and disseminate expert industrial knowledge, and otherwise operate beneficial formal and informal networks.
- Last, clusters have the potential for larger localized economic impacts than isolated industries where there are no clusters in evidence.

Indications of significant insurance clustering in central Iowa include

- The combined insurance industry location quotient is 5.03, which means that over 80 percent of all jobs are producing for export sales outside of the region. The region demonstrates a very high competitive advantage.
- There are more than 480 insurance related firms in Polk County, and more than 160 of those firms are insurance carriers. The insurance carriers account for 77 percent of the insurance jobs in the region.
- The average employment in insurance carrier firms in the region is nearly 130 jobs.
- Iowa insurance firms link strongly with other area insurance operations and the broader finance industry.

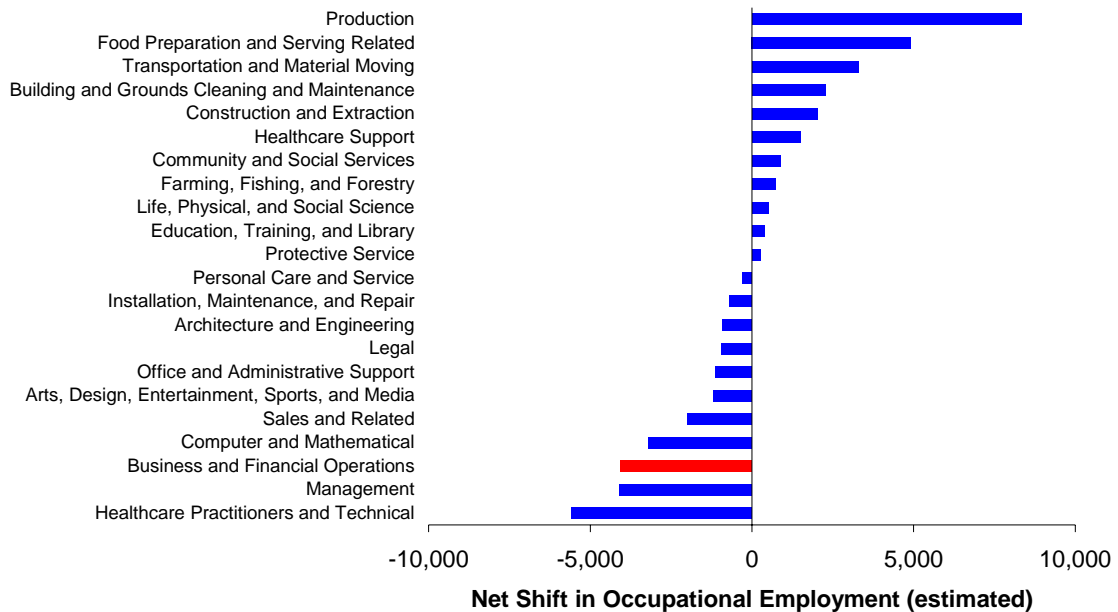
The Important Issue of Human Capital

Iowa business and political leaders are concerned about the persistent pattern of outmigration in the state, especially among its younger and educated citizens. Indeed, it has been difficult for the state to compete with other states and growth centers when it comes to retaining its pool of talented workers. Stated differently, the state is leaking its human capital to other areas. The effect of this shift is starkly evident in Figure 6. It demonstrates the net exchange of occupations among those who migrated in and those who migrated out of Iowa during the 1995 to 2000 period. It tells what kind of workers we are sending out and what kind of workers we are attracting.

The rest of the country and the world found jobs in Iowa as production workers (mostly meat packing), food preparation, and warehousing and materials-moving workers. Iowa sent out to the rest of the nation people that found jobs as health care workers, managers, financial services workers, and computer and mathematical professionals in large numbers. Comparing the extremes of this graph tells you what Iowa produces in terms of human talent and exports or supplies to the rest of the world and what Iowa industry, on net, demands from the rest of the world.

Figure 6

Occupational Shifts from Iowa's Migration Flows, 1995-2000



The insurance industry of Iowa performs much better than the average industry in Iowa in providing quality job opportunities, equal employment opportunity, higher than average compensation, and utilizing Iowa's educated workers. Here is what we know from the last census about people working in the Iowa insurance industry:

- Higher education levels: 45 percent of all workers in all occupations in the insurance industry had an associates degree or higher education compared to 29 percent for the whole economy.
- More opportunities for women: A full two-thirds of the industry's employees were women compared to just under half for the rest of the economy.
- The industry hires Iowans: A higher percentage of insurance workers came from Iowa as compared to the remainder of the economy.
- Superior compensation: Average wages and salaries in the insurance industry were 48 percent higher than the average for all Iowa jobs.
- Many of the jobs are creative: The insurance industry in Iowa provided much higher access to creative occupations – occupations that are managerial, technical, scientific, financial, or otherwise requiring advanced education and skills. This is especially true for young workers.
 - Among workers under age 30, slightly more than 39 percent were in creative occupations versus 18 percent for that same age group for the whole Iowa economy.
 - For the whole industry, for all employees of all ages, almost 38 percent of the jobs were considered creative occupations, compared to 27 percent for the whole Iowa economy.

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