

Iowa Farm Outlook

Department of Economics
Ames, Iowa

October, 2009

Econ. Info. 1994

September Swine Report, Hogs down 2 Percent

The US swine breeding herd now numbers 5.87 million head, down 2.3 percent from last year. Market hog numbers are down 2.2 percent to 60.75 million head. Total hog numbers are down 2.3 percent from a year ago at just over 67 million head. Farrowing intentions for the next quarter are down more than 3 percent from a year ago, showing a continued reduction of sow inventories. Farrowing intentions in the coming year are also expected to be down more than 3 percent. Pig supplies have not declined as rapidly as the number of sows in part due to ever improving litter sizes which are 2 percent larger than a year ago. Table 1 summarizes the recent swine report for national and Iowa inventories.

Table 1. Swine Inventory Summary

	US		Iowa	
	Million Hd.	% chg.	Million Hd.	% chg.
All Hogs	66.63	-2.3%	19.60	-1.0%
Breeding Herd	5.87	-3.1%	1.01	-5.6%
Market Hogs	60.75	-2.2%	18.59	-0.7%
Under 60	21.84	-3.7%	5.33	-5.2%
60 - 119	15.08	-2.1%	5.25	1.5%
120 - 179	12.67	-1.4%	4.60	3.1%
180 & over	11.16	-0.3%	3.41	-2.0%
Sows Farrowing				
Sep - Nov	5.90	-3.3%	0.48	-5.9%
Dec - Feb	2.93	-3.1%	0.48	-5.0%
Pig Crop				
Mar - May	28.55	-0.3%	4.68	-3.7%
Jun - Aug	28.77	-1.6%	4.63	-3.4%
Pigs per litter	9.51	2.0%	9.40	3.7%

Fourth quarter hog slaughter may decline first time since 2000. After years of continued expansion and surges of productive efficiency, the supply of hogs has been growing even after sow numbers started to decline. Table 2 contains the ISU price and production forecasts for the next four quarters, and futures price adjusted for an Iowa basis. A declining pork supply may not be the only reason to be optimistic about hog prices. Consumer confidence and spending habits have regained some strength as the brunt of the economic recession has passed. Any improvement in economic conditions both domestically and globally will lead to improved demand and prices.

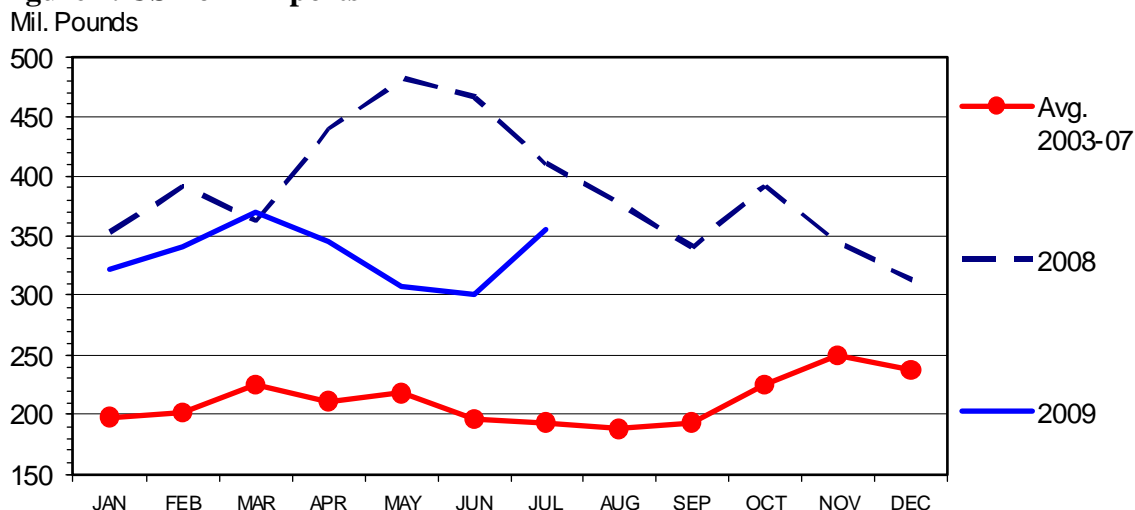
Table 2. Price Forecasts

	% chg in Supply	ISU Forecast \$/cwt live	Futures Forecast, 9-25-09 \$/cwt live
Oct-Dec '09	-1	34-36	34.35
Jan-Mar '10	-1.5	40-42	40.35

Apr-Jun '10	-1.5	48-50	48.50
Jul-Sep '10	-2	43-46	43.43

Year-to-date pork exports are down 19%, but that trend has turned since the middle of the year. If trade conditions continue to improve there will be reason to be more optimistic about the future. Japan continues to be the top customer followed by Mexico and Canada. Exports for Russia have been increasing, while exports to mainland China have amounted to only 15 percent of those a year ago. Figure 1 tracks US pork exports. Exports volumes are back on track with what a traditional year over year increase would have been without last year's exception.

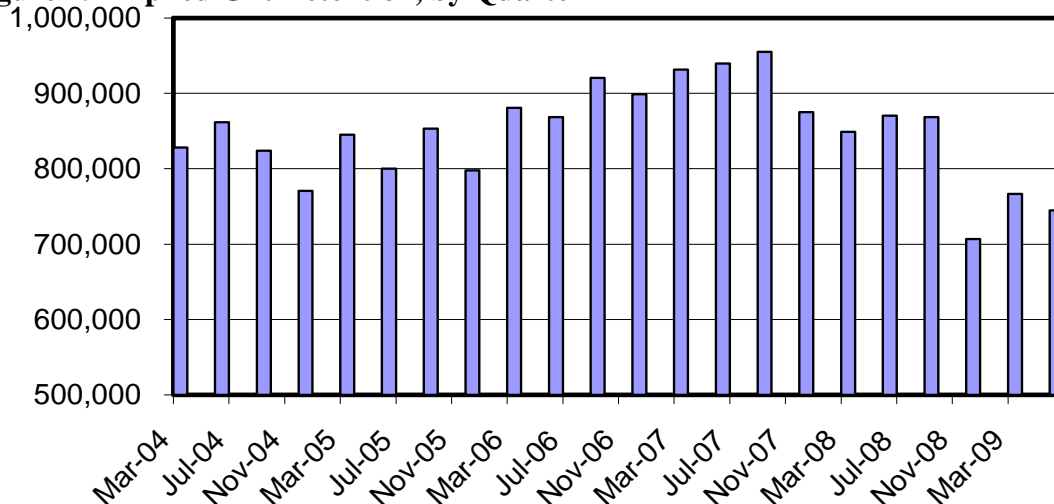
Figure 1. US Pork Exports



In spite of continued losses, US pork producers have been slow to reduce their breeding herd. The June-August sow slaughter in us plant was 5.3% less this year than it was in 2008. After adjusting for slaughter sows and boars imported from Canada, the number of US breeding herd slaughter was 778,000 head, 11.5% less than Jun-Aug a year ago. This is a smaller number and a smaller percent of the June 1 breeding herd inventory culled, 13.0% in 2009 versus 14.3% in 2008.

Using the USDA estimates of breeding inventories, an assumed 1% per quarter breeding herd death loss and slaughter of US sows we can calculate the implied gilt retention (Figure 2). During the Jun-Aug quarter producers retained 745,000 gilts in the breeding heard, 14.4% fewer than the same quarter in 2008. Gilt retention was lowest in Dec-Feb and increased into Mar-May before declining in Jun-Aug. This pattern is consistent with gilt retention in recent years.

Figure 2. Implied Gilt Retention, by Quarter



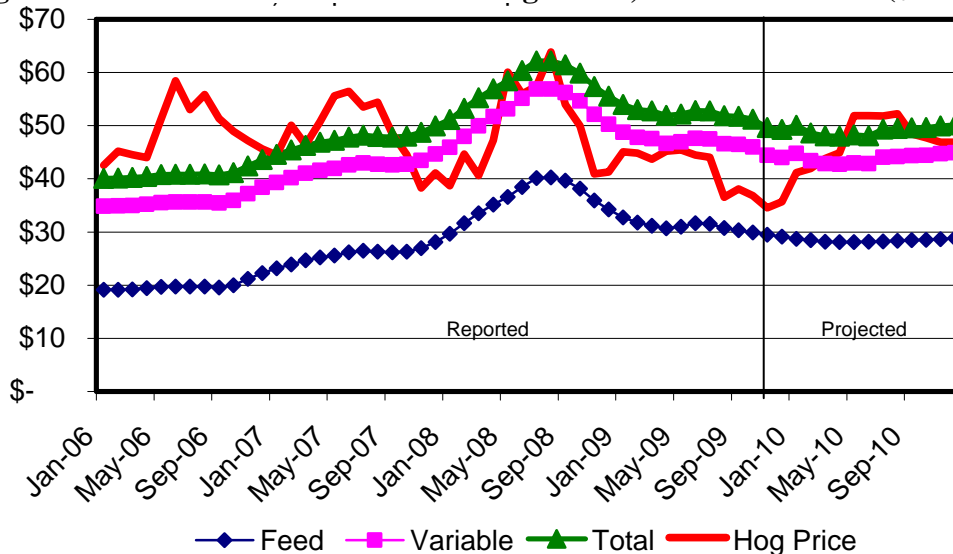
The US breeding herd most recent peak was in December 2007 at 6.233 million head and it showed its first sign of contraction in June 2008 making March 2008 the last quarterly report showing expansion with an inventory

of 6.20 million head. In the 18 months since March 2008 the breeding herd inventory has decreased 326,000 head or about 5.2%. Many analysts in the summer of 2008 suggested that the industry needed to cut production 5-10% to be profitable. Since that time, feed costs have declined, but so has demand. The 5% reduction in the breeding herd has not reduced supplies 5% yet, Jan-Sep pork production is down 3%. Prices have not responded to the reduction that has occurred and have averaged 18% lower than 2008 in spite of the lower supplies.

Estimated Returns and Looking Ahead

According to the Iowa State University Estimated Returns to Farrow to Finish Enterprises, producers have lost money in 22 of the 24 months beginning with October 2007 sales (Figure 3). While May and August 2008 were profitable, 19 of the 24 months had price below variable cost and a significant drain on equity. Using futures prices adjusted for historical basis patterns the Estimated Return model can forecast returns for the coming months. Using closing prices from September 30, three trading days after the USDA report, the model expects prices to exceed variable cost in March 2010 and total cost in May 2010. The accumulated losses over the last 2 years have already exceeded the entire losses of 27 month stretch from Nov 1997-Jan 2000 on a per head basis. The industry and most individual producers have more hogs today than a decade ago and thus the losses per farm and it total are larger.

Figure 3. ISU Estimated Costs and Selling Prices, Farrow to Finish (\$/cwt Live Wt.)



Based on Sept 30 Futures prices and historic basis

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Harvest Progress, Frosts, and Ending Stocks

Combines are starting to roll through Iowa corn and soybean fields. The USDA reports at the end of September showed 76 percent of Iowa's soybeans were dropping leaves and 6 percent of the crop had been harvested. Like nearly all of the crop progress data last year and this year, harvest is behind the 5-year average. Typically, 20 percent of Iowa's soybeans are harvested by this time. For the nation, the story is very similar with 5 percent of the crop harvested, trailing the 5-year average of 18 percent. Corn maturity is running well behind the 5-year average pace. Nationwide, less than 40 percent of the corn crop is considered mature. Last year at this point nearly half of the crop was mature and the 5-year average is 72 percent. So corn maturity is roughly two weeks behind the average. Iowa's corn crop is a little ahead of last year, but behind the average. Illinois and North Dakota are the furthest behind and the recent spate of cold temperature in the upper Midwest and Plains states is highlighting concerns about frost/freeze impacts on the northern corn crop. Thus far, 2 percent of Iowa's corn crop and 6 percent of the national corn crop have been harvested. Typically, at this stage, the corn harvest percentages would be at 6 percent for Iowa and 18 percent for the U.S. The latest crop conditions report indicates the crop ratings haven't shifted much over the past month. Iowa's corn and soybean crops are rated at roughly 75 percent good to excellent; the national crops are in the upper 60s. Some of the southern soybean fields have reported seed rot and sprouting due to recent wet weather and this has brought soybean ratings down slightly.

The mid-September USDA crop production report raised the estimates for the already large corn and soybean crops. The projection for the national average corn yield is up to 161.9 bushels per acre, up 2.4 bushels from last month and up 8 bushels from last year. Projected corn production is nearly 13 billion bushels, putting the 2009 crop within shouting distance of the 2007 crop. For Iowa, the projections are yields of 187 bushels per acre and production at 2.496 billion bushels. Projected national soybean yields are now at 42.3 bushels per acre, up 0.6 bushels from last month and up 2.7 bushels from last year. The yield boost puts projected production at 3.245 billion bushels. For 2009, Iowa's soybean crop is projected to yield 52 bushels per acre, with production totaling nearly 506 million bushels.

Based on the latest crop conditions report, I have updated the projected yield estimate graphs I showed in last month's Iowa Farm Outlook. These estimates are based on a simple linear model linking crop conditions in late September and a time trend to the final crop yields as reported by USDA. Figure 1 shows the estimates for the U.S. Figure 2 shows the estimates for Iowa. The estimates from the models have U.S. yields at 162.7 bushels per acre for corn and 44.4 bushels per acre for soybeans. The Iowa estimates are 183 bushels for corn and 52 bushels for soybeans. As can be seen from the historical performance of these models, they do a fair job projecting yields. But the historical pattern also indicates some of the conditions where these models may over- or under-predict yields. Given the crop development similarities to last year, the models' over-prediction of last year's soybean yield may be a signal that the current estimates are on the high side.

The mid-September reports also updated the demand picture. For soybeans, 2008/09 export demand was increased by 15 million bushels to 1.28 billion bushels. And the record export demand is expected to hold for the 2009 crop as USDA maintained export demand at the same level going forward. Domestic crush demand is seen as improving slightly over the next year, to 1.69 billion bushels, as soybean meal exports are projected to rise. Looking at the rest of the soybean complex, domestic soybean meal demand is expected to be just slightly higher than last year and biodiesel usage of soybean oil is projected to recover somewhat from the drop-off experienced over the last 12 months.

Figure 1. Projected Yields for the U.S. based on Crop Conditions

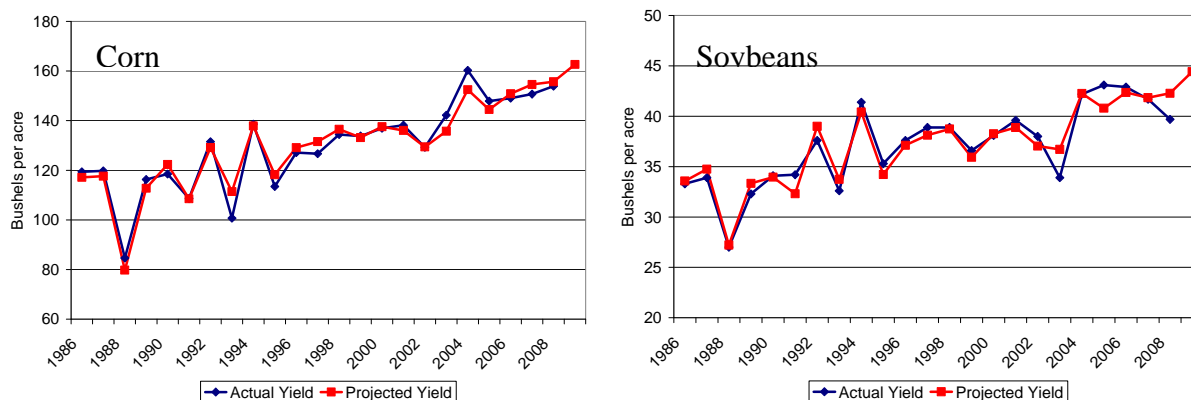
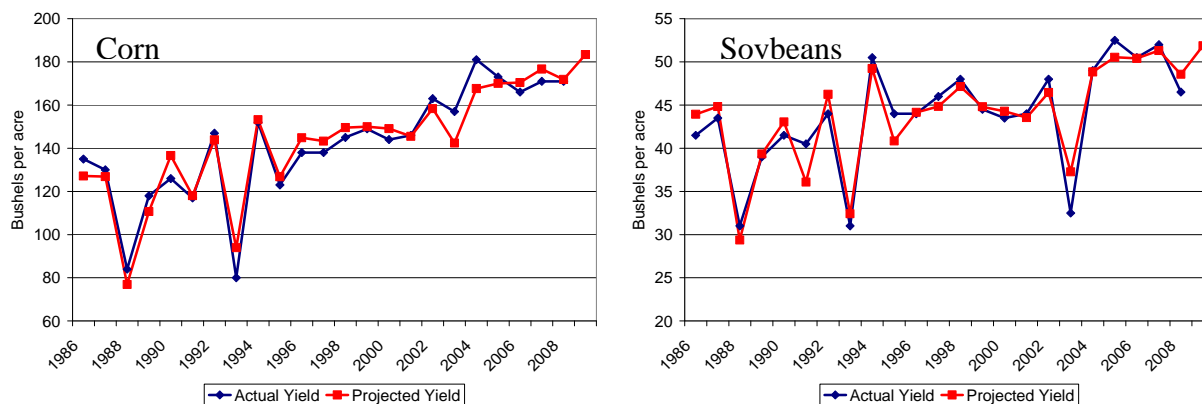


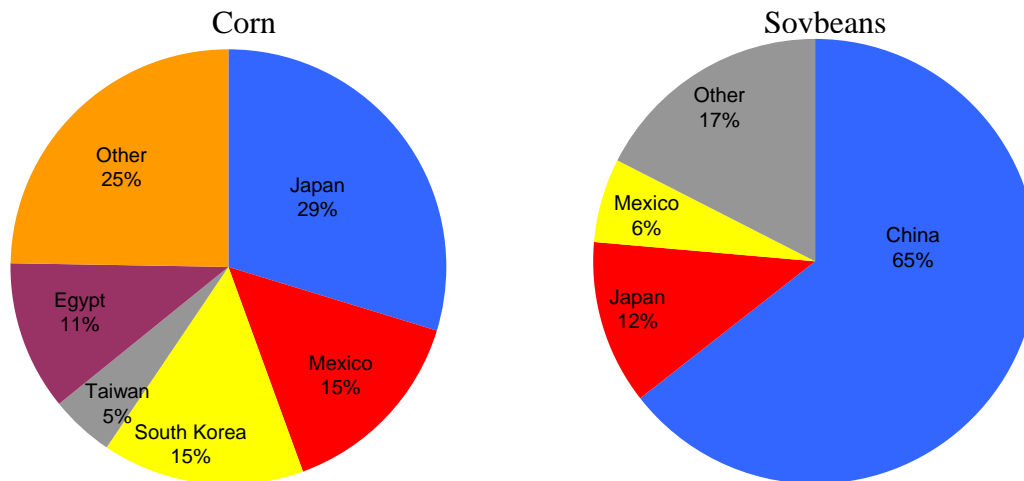
Figure 2. Projected Yields for Iowa based on Crop Conditions



For corn, ethanol demand for the 2008/09 crop was increased by 25 million bushels, reflecting the improved ethanol margins this summer and early this fall. For the 2009/10 crop, projected ethanol demand is at 4.2 billion bushels, up 525 million bushels from 2008/09. The shifts in projected corn demand from last month to this month are in feed and export demand. 2009/10 feed demand is set at 5.35 billion bushels, up 50 million from last month and up 100 million from last year. Corn export demand was raised to 2.2 billion bushels, up 100 million from last month and 350 million from last year.

Looking at the accumulated export numbers so far for this marketing year, corn shipments are running 33 percent ahead of last year and outstanding sales are up 6 percent. For soybeans, shipments are up 69 percent and outstanding sales are up 89 percent. Figure 3 shows the early takers for U.S. corn and soybeans. For corn, the traditional markets (Japan, South Korea, Taiwan, and Mexico) have imported additional quantities compared to last year, and there has been stronger demand out of Africa and the Middle East. For soybeans, as was the case last year, the story is China. While most of the other importing countries have backed off last year's pace, Chinese demand for soybeans is still strong. At this point last year, China had purchased nearly 190 million bushels of soybeans from the U.S. This year the Chinese have purchased over 420 million bushels and we are only a few weeks into the marketing year. So while the corn export demand is enjoyed renewed interest from several countries around the world, soybean exports are highly dependant on one country.

Figure 3. Exports Through Sept. 17 (Source: USDA-FAS)



The end of September also marked the release of USDA's quarterly grain stocks report. Corn ending stocks for 2008/09 were slightly lower than expected at 1.67 billion bushels. Soybean ending stocks were slightly higher than expected at 138 million bushels. Given these stocks and the export and crush data, USDA has revised the soybean production data for 2008. Harvested area was increased to 74.7 million acres. The national yield for 2008 was raised by a tenth of a bushel to 39.7, leading to production of 2.97 billion bushels. For Iowa, the adjustment was in soybean yields, up 0.5 bushels to 46.5 bushels per acre. Overall, compared to last year, total stocks are up for corn, sorghum, oats, barley, and wheat and the same is true for on-farm stocks. On-farm storage of corn is up 22 percent from last year, while on-farm storage of soybeans is down 25 percent. Given the growth in on-farm stocks and the large corn and soybean crops being harvested, storage could be a major issue this year. Another factor playing into the storage issue is the quality of the crops. As like last year, these crops will likely come out of the fields with more moisture than usual. Also, with the hail storms in north central and northeast Iowa this summer, we could see mold be more of a problem this year.

The storage issues and large crops will put additional pressure on basis levels. Basis levels for soybeans have already been weakening over the past couple of weeks. But current basis levels, based on the Sept. 29, 2009 Interior Iowa Daily Grain Prices report, of -21 cents for corn and -41 cents for soybeans are still above their 5-year averages, -30 cents for corn and -67 cents for soybeans.

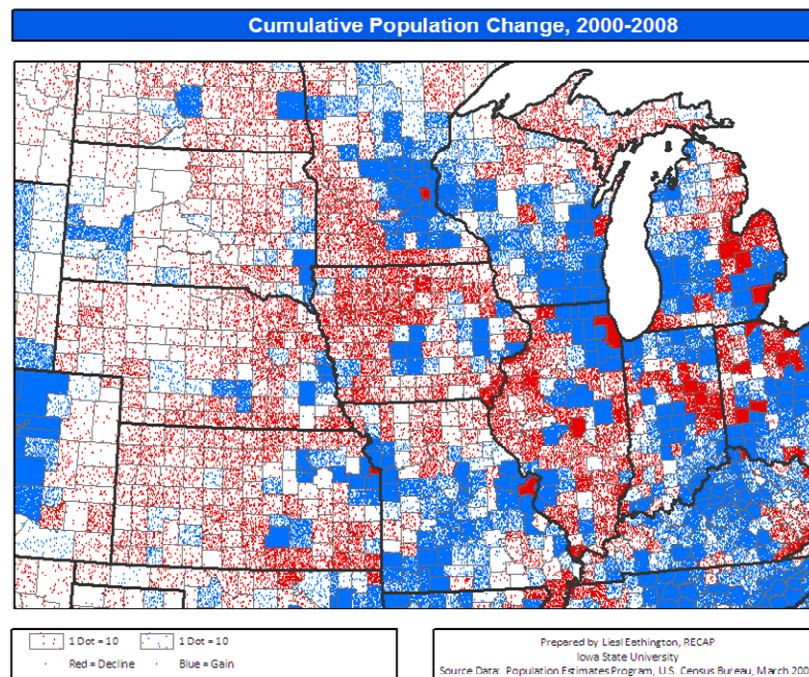
USDA's latest season-average price estimates for 2009/10 are \$3.35 per bushel for corn and \$9.10 per bushel for soybeans. The corn estimate is down 15 cents from last month and off 68 cents from last year. The soybean estimate is down 30 cents from last month and 90 cents from last year. The improved outlook on productions has more than offset the projected demand recovery, sending ending stocks higher and prices lower. Based on the futures prices at the close of business on Sept. 30th, the market is indicating 2009/10 season-average prices of \$3.20 per bushel for corn and \$8.76 per bushel for soybeans. While corn futures over the last month have held the season-average price estimate between \$3.00 and \$3.25 per bushel, the soybean estimate has fallen roughly 80 cents. Corn continues to show some carry in the summer 2010 prices as July 2010 futures prices are 30 cents over December. The inversion in the soybean market has finally collapsed and futures are currently flat across the marketing year.

Chad Hart

Recent Trends in Iowa's Metropolitan and Non-Metropolitan Areas

Many economic development efforts in Iowa focus on non-metropolitan areas, especially as these areas struggle with population decline, losses of major employers, and other challenges. A majority of Iowa's counties have experienced persistent population losses during recent decades, while only a small number have enjoyed population growth. Iowa is not alone in this experience. Figure 1 below shows patterns of recent population change in Iowa and neighboring states during the current decade. Red indicates areas of population loss, and blue indicates gain. Each dot in the map represents a cumulative gain or loss of 10 people. It is immediately apparent that most population growth in the region is accumulating to large metropolitan areas such as Chicago, Minneapolis-St. Paul, Omaha-Council Bluffs, St. Louis, Sioux Falls, Des Moines, and others.

Figure 1. Population Change



Although the term “metropolitan” is widely used, it may be helpful to provide a definition. A metropolitan area includes a core urban area (city) with 50,000 or more inhabitants, plus surrounding counties that are strongly linked to that core. This definition relegates all other areas to an undifferentiated space described only as “non-metropolitan.” Many people, and even federal agencies, consider all nonmetropolitan areas to be “rural,” yet in states like Iowa, this non-metropolitan space includes some relatively large and important regional trade centers. In order to better describe and understand the experiences of non-metropolitan areas, the federal government has defined a second type of urban region called a “micropolitan” area. A micropolitan area includes a smaller core urban area between 10,000 and 49,999 in population, plus any counties with strong links to the core area. Iowa currently has nine metropolitan areas and 15 micropolitan areas. They are shown in Figures 2 and 3 below.

Figure 2.

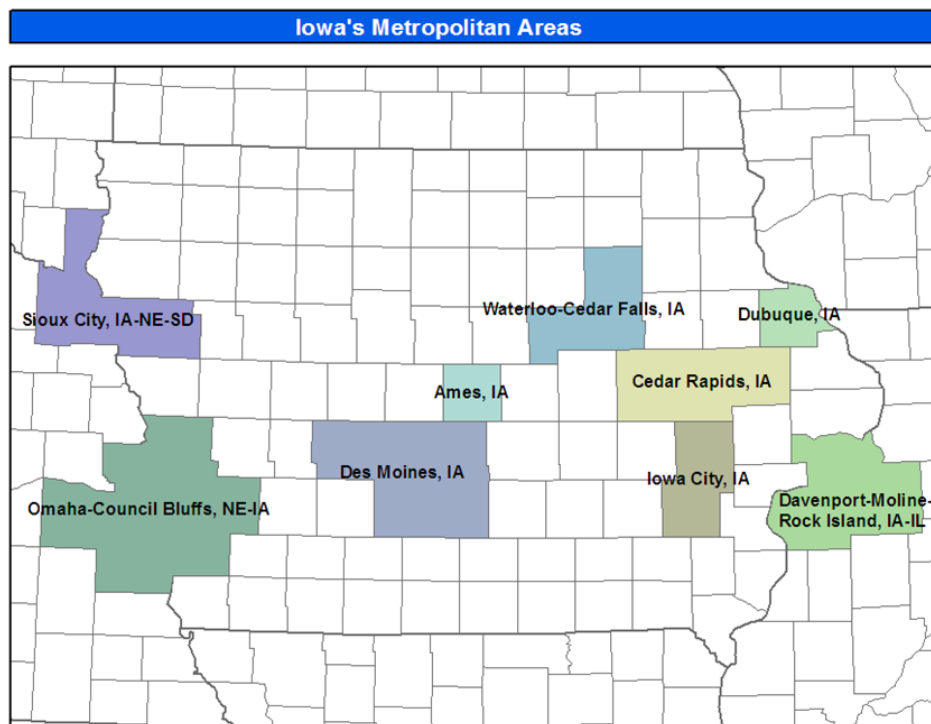
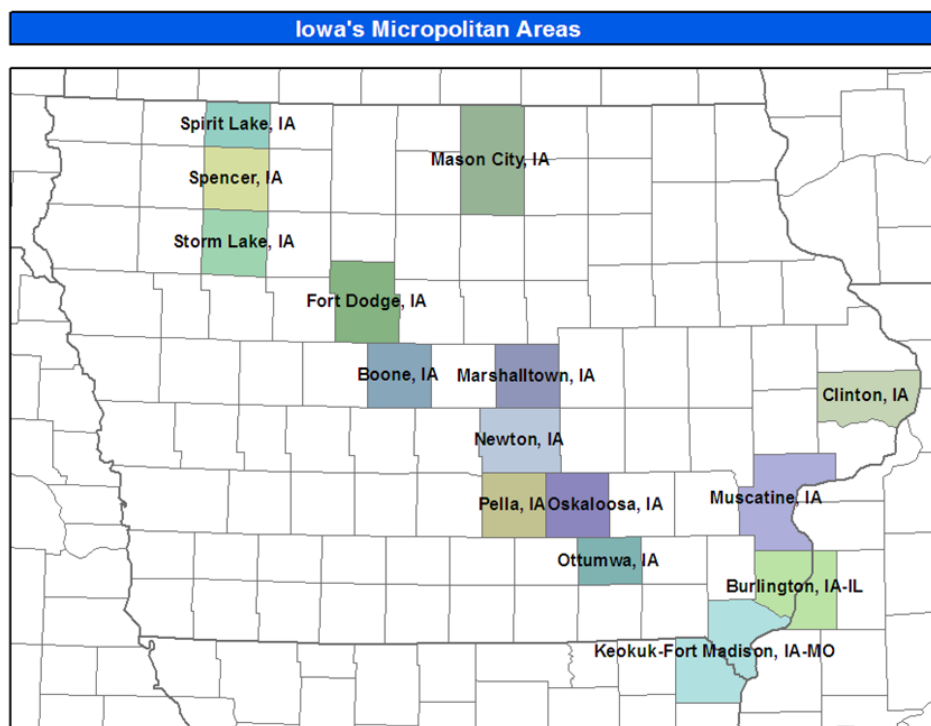


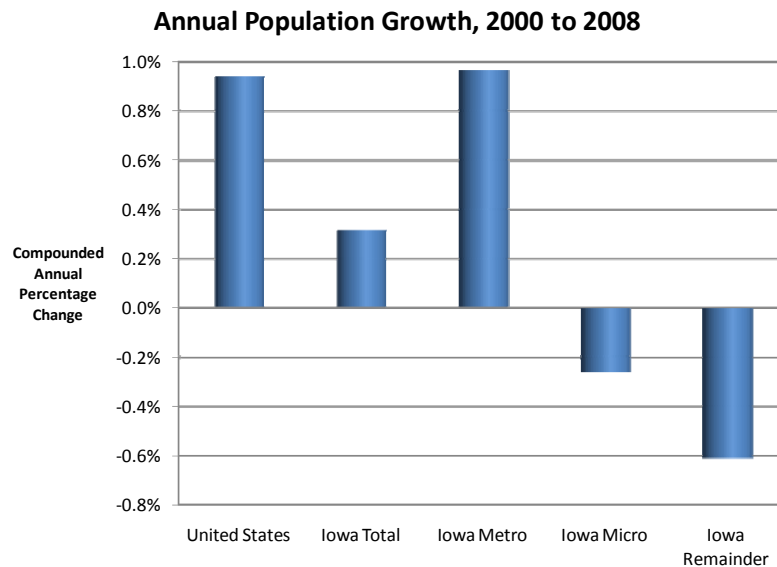
Figure 3.



Differences in the recent fortunes and misfortunes of Iowa's metropolitan, micropolitan, and all other counties are apparent when we compare key economic and demographic indicators. Figures 4 through 8 illustrate annual population growth rates, annual employment growth rates, total manufacturing job losses, and unemployment rates by type of county in Iowa. Comparative data are included for the United States and the state of Iowa as a whole.

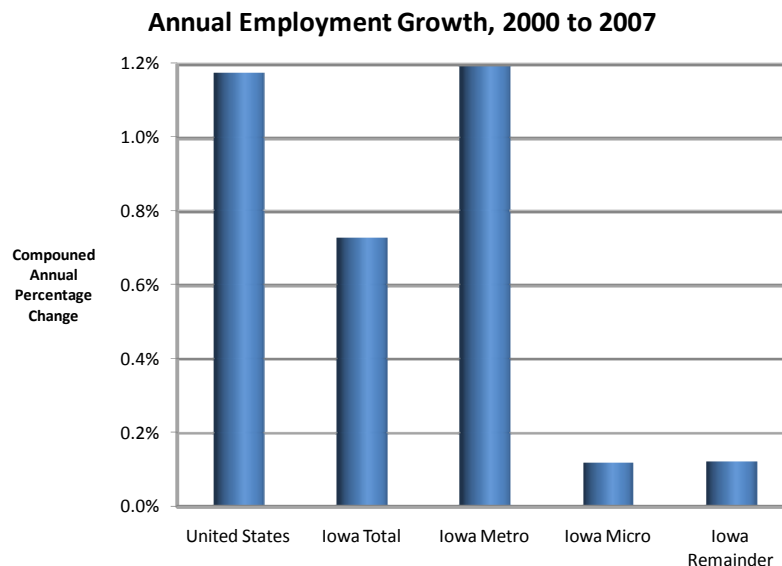
Between 2000 and 2008, Iowa's metropolitan counties enjoyed an average annual population growth rate of nearly one percent per year, slightly exceeding the overall growth rate for the United States. In contrast, Iowa's micropolitan areas experienced annual population losses of more than two-tenths of one percent. The remaining counties in Iowa lost population at a rate exceeding six-tenths of one percent per year.

Figure 4



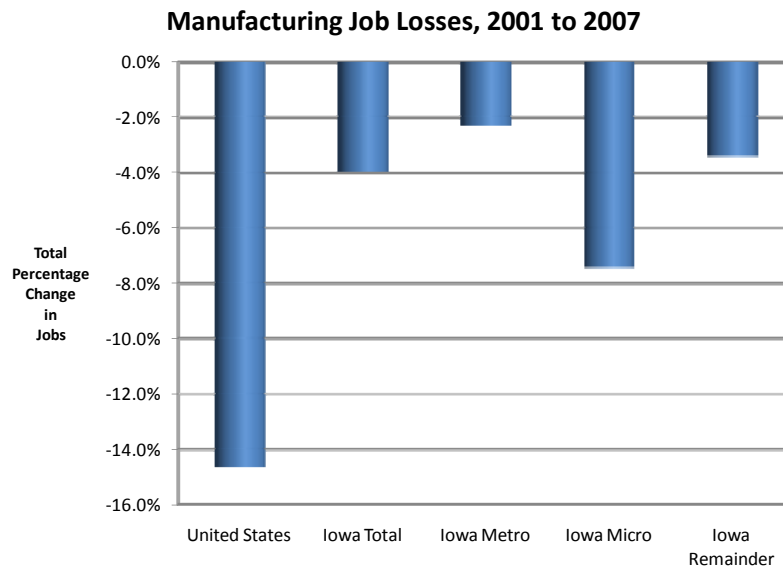
Iowa's metropolitan counties have also experienced much faster rates of employment growth in recent years, as shown in Figure 5. Between 2000 and 2007, employment in metropolitan counties grew by about 1.2 percent per year, again slightly exceeding the overall average rate for the United States. Employment in Iowa's micropolitan and remaining counties grew much more slowly, with both groups averaging about one-tenth of one percent per year.

Figure 5.



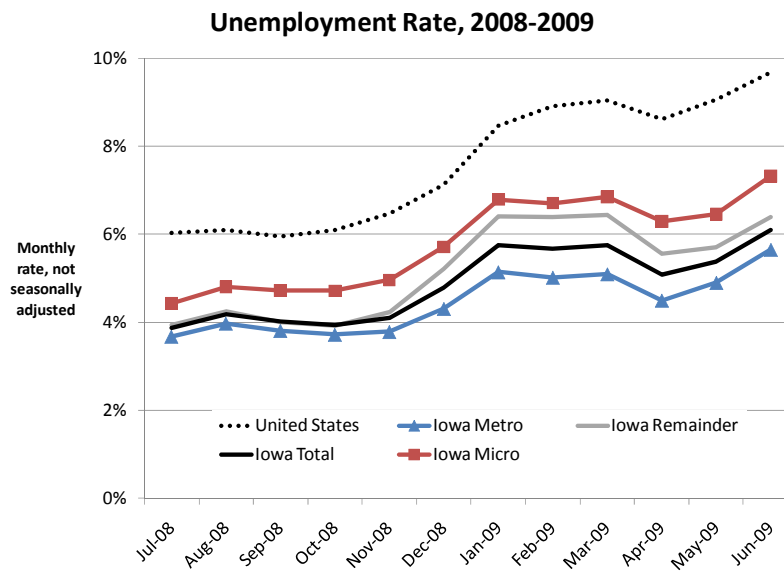
The manufacturing sector is an important component of Iowa's economy, contributing nearly 20 percent of the state's gross domestic product (GDP) in 2007. In Iowa's micropolitan counties, manufacturing accounts for an even larger share of GDP at about 30 percent. Thus, recent manufacturing job losses are of particular concern in Iowa's micropolitan areas. Between 2001 and 2007, the total number of manufacturing jobs in the U.S. declined by more than 14 percent. Iowa fared slightly better, losing only about 4 percent of its manufacturing jobs during that time. The rate of manufacturing job loss was most pronounced in Iowa's micropolitan areas, which lost about 7 percent of their manufacturing jobs.

Figure 6.



Population and employment trends during this decade suggest continued economic challenges for Iowa's non-metropolitan areas, and the current recession may have compounded those challenges. Unemployment data suggest that the recession may be taking a heavier toll in the state's non-metropolitan areas. Iowa's overall unemployment rate has remained below the national average rate in recent years, even during the current recession. As of June 2009, the state's unemployment rate was 6.1 percent while the U.S. posted a rate of 9.7 percent. However, the average unemployment rates in Iowa's micropolitan and all other areas exceed the statewide average. The June 2009 rates for the metropolitan, micropolitan, and all other areas were 5.6 percent, 7.3 percent, and 6.4 percent, respectively.

Figure 7. Unemployment Rate



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