

# Iowa Farm Outlook

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## December 2008 Hog and Pig Report Down 2 Percent

The US swine industry continued on its course of retraction in the last months of the year. Swine inventories in nearly all classifications are on the decline. Total hog and pig numbers declined 2.2 percent to 66.7 million head. The inventory of breeding swine declined 2.4 percent to 6.1 million head, while market hog numbers were down 2.1 percent from last year at 60.6 million head. In Iowa, market hog numbers were up 2.2 percent at 18.7 million head while sow numbers declined a percent to 1.1 million head. The decreased pig crop in the fourth quarter of 08 and reduced imports from Canada have driven feeder pig inventories down more than 5 percent. With farrowing intentions down in the next six months the retraction of the industry continues. Table 1 summarizes the December report for the nation and Iowa.

**Table 1. Summary of December Hog and Pig Report**

	US Inventory		Iowa Inventory	
	Million head	% change	Million head	% change
<b>All Hogs</b>	66.7	-2.2%	19.8	2.1%
<b>Breeding Herd</b>	6.1	-2.4%	1.1	-0.9%
<b>Market Hogs</b>	60.6	-2.1%	18.7	2.2%
Under 60	21.3	-5.5%	5.2	-10.7%
60 - 119	15.1	-0.5%	5.3	9.0%
120 - 179	12.7	0.5%	4.5	10.8%
180 & over	11.5	-0.4%	3.7	4.2%
<b>Sows Farrowing Intentions</b>				
Dec - Feb	2.97	-3.3%	0.48	-5.9%
Mar - May	3.01	-1.6%	0.48	-7.7%
<b>Pig Crop</b>				
Jun - Aug	29.3	0.5%	4.79	7.4%
Sep - Nov	28.4	-3.7%	4.75	-5.4%
<b>Pigs per Litter</b>				
Sep - Nov	9.5	2.4%	9.5	2.2%

Losses through 2008 were culminated by nearly record high losses in the fourth quarter. For the year, the average monthly losses for farrow to finish operations will be over \$21/hd (*Iowa Estimated Returns*). December losses are expected to be nearly \$40/hd, the largest December loss since 1998. Although hog prices are expected to be slightly higher in the coming year the declining cost of corn and other feeds may provide an opportunity at a few months of profitability. Based on December 30 grain futures, the average breakeven cost for farrow to finish production is estimated to be \$53/cwt for live hogs in 2009, which is near the predicted average hog price.

## Market outlook

While the supply of pork is expected to decrease with the retraction of the industry there are several factors that will impact overall demand and prices. Changes in export volumes could push pork back on to the domestic market. Although it is expected that production and hog imports will decrease from last year, the supply of pork to the domestic market may depend on whether exports continue to increase or maintain the volumes of the past year. Table 2 contains the ISU production and price projections for the coming year.

**Table 2. December ISU and Futures Forecasts**

	<b>Change in Supply</b>	<b>ISU Price Forecast \$/cwt live</b>	<b>Dec. 30 CME Futures Forecast adjusted for basis, \$/cwt live</b>
Jan-Mar '09	-2%	43 - 46	43.68
Apr-Jun '09	-2%	57 - 61	55.95
Jul-Sep '09	-2%	59 - 63	55.64
Oct-Dec '09	-2%	45 - 48	46.73

Key demand drivers that economists watch include: price of substitutes, consumer income and preferences and exports. Generally, beef and poultry supplies and consumer income are predictable and preferences are stable year-to-year leaving exports as the wild card in forecast. Pork exports grew significantly in 2008 and utilized 21 percent of commercial pork production through October. The upheaval in the US and global economy is causing significant uncertainty in consumer income, purchasing patterns and trade flow. Demand factors were often considered relatively constant and supplies were difficult to predict, however times have changed and supplies are now more predictable than demand factors.

The supply and price of substitutes for pork, primarily beef and poultry, are favorable for pork demand. USDA predicts the production of chicken, turkey and beef as well as pork to be lower in 2009. Egg set and chick placements have been running below year earlier levels since spring 2008 and chicken supplies began to decline relative to 2007 levels after Labor Day and are expected to continue. Beef supplies will finish 2008 about equal to 2007 and is forecast decline in 2009. The lower supplies of chicken and beef are expected to lead to higher prices of these meats at the grocery and restaurant checkout and should be favorable for pork as consumers will be less likely to switch meats if all prices are higher.

Sow slaughter has decreased suggesting that the contraction is slowing. For the year, US sow slaughter is up 5.6 percent, but actually declined since September and particularly after the first of November. However, the change is more pronounced in the US. The number of sows imported for slaughter from Canada increased dramatically in 2008 compared to 2007, especially late in the year. The number of US sows slaughtered has decreased 15.2 percent since the first of November. Reported sow slaughter in Canada has also decreased from 2007 levels, but the sow buyout program makes it difficult to compare slaughter numbers. The September-December period is after the buyout ended and Canada exported nearly 57,000 additional sows to the US from the year before, but slaughtered 5400 fewer sows in Canada suggesting that liquidation is still occurring in Canada.

**Table 3. Sow Slaughter and Imported Sows for Slaughter, 2008 and Change from Same Period in 2007**

	<b>Total Sow Slaughter in US</b>	<b>Canadian Sows Slaughter in US</b>	<b>US Sows Slaughtered</b>
	<b>January-December 15</b>		
1000 head	3368.3	561.5	2806.8
% Change	5.6%	35.8%	1.0%
	<b>September-December 15</b>		
1000 head	989.1	182.8	806.4
% Change	-1.4%	45.3%	-8.1%
	<b>November-December 15</b>		
1000 head	380.7	78.7	301.9
% Change	-6.8%	49.8%	-15.2%

Meat trade relations with Mexico were a little rocky over Christmas. Thirty US meat packing plants were delisted as eligible to export to Mexico, but by the end of the weekend 20 of those plants were permitted back on the list with 5 more anticipated shortly. Because these actions happened over the holiday weekend impact on trade was minimal. However, it does start us to thinking about the impact that foreign demand has on our markets. In the period from Jan-Oct of 2008 more than 4 billion pounds of pork was exported. That is an increase of more than 60 percent from the same period in 2007 and accounts for 21 percent of the 19.4 billion pounds of pork that the US produced. What once made up a small fraction of US pork utilization, foreign markets have become a major factor with strong market influence. This has presented opportunity but also expanded demand risk exposure. For example, if exports were to return to 2007 levels more than 8 percent of US production would be pushed back on to the domestic market and further depress prices.

*John Lawrence  
Shane Ellis*

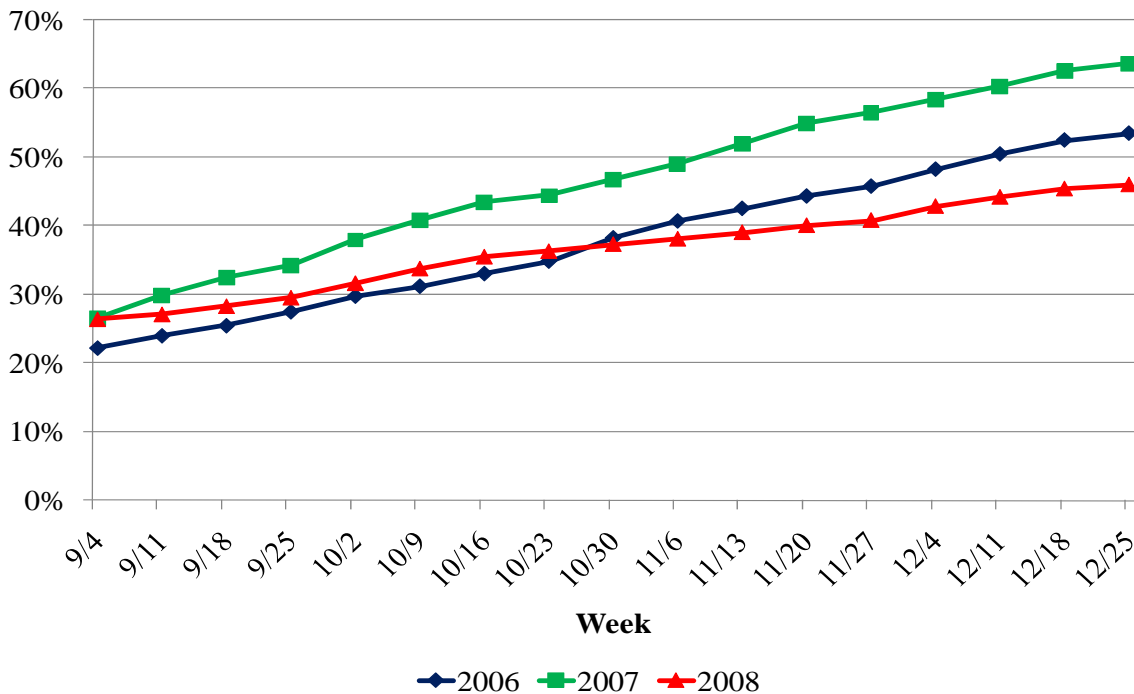
### Watching the Export Markets

The agricultural markets, like the financial markets, have somewhat stabilized after the declines in the latter half of 2008. Over the past two weeks, estimates of the 2008 season-average prices based on current futures prices have been on the upswing. Corn has gained around 15 cents per bushel, while soybeans have added over 60 cents per bushel. The crops have broken away from crude oil, which has continued to see price declines. The strength in crop prices is coming from a variety of sources: weather concerns for the South American crops, acreage bidding for the 2009 crops, and some weakness in the U.S. dollar.

Both Brazil and Argentina have been experiencing warmer and drier conditions than usual over most of their summer crop areas. Recently, rains in central and northeastern Brazil have provided adequate moisture for row crops, but the southern part of the country has experienced warmer and drier than normal conditions. Stress has been noted on emerged crops in the area and USDA has indicated that a return to more seasonable weather “is needed immediately to prevent yield losses in soybeans”. Argentine crops have also been under pressure due to weather conditions. Recent rains have helped reduce crop stress, but much of the key production area in Argentina has been under a drought. The possibility of smaller South American production, combined with the drop in the dollar, is providing some additional hope on the export side. As Figure 1 shows, accumulated corn exports are running well behind last year’s pace with significant declines in corn exports to Africa, the Middle East, Taiwan, and South Korea. Japan has been the bright spot, as corn exports to Japan are up nearly 10% from last year.

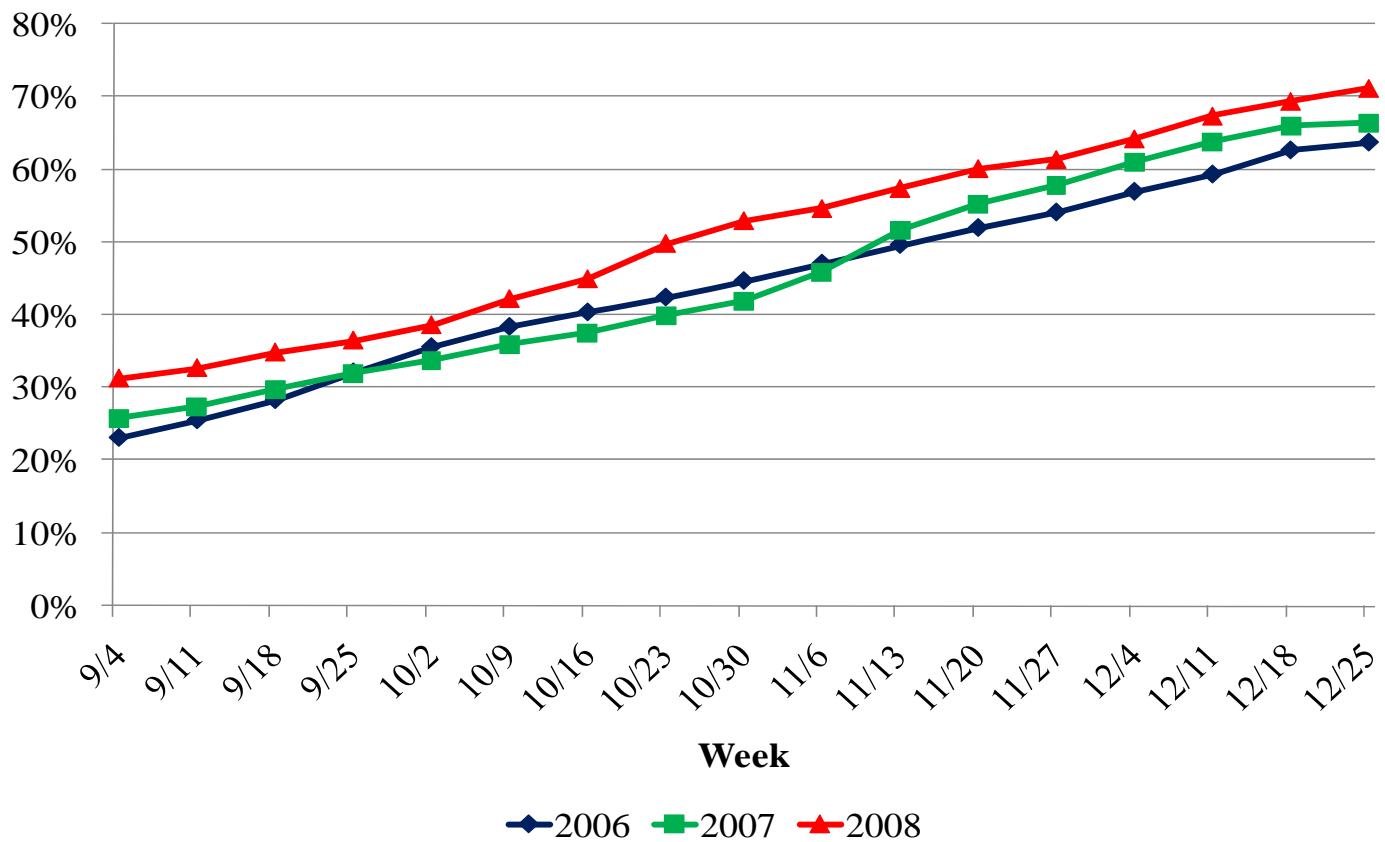
**Figure 1. The Pace of Corn Export Sales**

*Source: USDA-FAS*



The export market has been a source of strength for soybeans. Accumulated soybean exports are running ahead of last year. The surge in soybean exports is due to China, as over half of all soybean exports thus far this marketing year have been directed to China. Soybean exports are down to the EU, Japan, and Mexico. The dollar has shown some weakness recently, but that is not projected to last. Last month, USDA provided its projection for the dollar in 2009. They show the dollar strengthening against most currencies during the 1<sup>st</sup> half of 2009, then gradually weakening over the 2<sup>nd</sup> half of the year. The major exceptions to this pattern are China and Japan. The projections show the dollar slowly strengthening versus the Chinese yuan throughout 2009. Against the yen, the dollar is projected to decline during the 1<sup>st</sup> half of 2009, followed by a slight increase later in the year. If the projections hold, the stronger dollar is continue to be a drag on export demand, with the Chinese and Japanese markets possibly being exceptions. Trade competitors, such as Brazil, could benefit on the trade front from the dollar's strength.

**Figure 2. The Pace of Soybean Export Sales**



In the latest supply and demand report, corn feed demand was increased by 50 million bushels, while corn demand from ethanol was lowered by 300 million bushels. The reduction in corn usage for ethanol puts us very close to the levels needed for the Renewable Fuels Standard. Since the Renewable Fuels Standard was first put in place, (2005), ethanol production has always exceeded the mandate. The 2009 calendar year may be the first year production falls below targeted levels. The ethanol industry has not been immune to financial distress as the Verasun bankruptcy showed. But the industry continues to build out many of the plants that are under construction. And those plants will likely be needed to meet the renewable fuel targets over the next few years. On the feed side, the drop in projected ethanol production implies a decline in the supply of distillers grains and a slight switch back to corn. For soybeans, domestic crush projections were lowered by 30 million bushels. The main reason given was the continuing reduction in the livestock industry. Soybean meal demand in the U.S. and Canada is projected to be on the decline.

Over the past few years, corn and soybeans have pulled land away from other crops and other uses. Since 1990, the amount of U.S. cropland planted to corn and soybeans has increased, on average, by 1.5 million acres per year. The price rally corn and soybeans have enjoyed over the past few weeks is the start of the competition for

2009 acreage. The decline in prices in the second half of 2008 put futures prices at or below projected production costs for both crops. As margins look to remain tight, the combined area for corn and soybeans is not likely to increase as rapidly as it has in the past. In fact, the battle for acreage may be a battle to maintain, not grow. Early 2009 acreage projections from *Informa* and *Farm Futures* magazine put U.S. soybean area above 80 million acres, with corn losing from 1 to 3 percent of its 2008 area. This would be a record amount of land devoted to soybeans. Higher production costs, especially fertilizer, and narrower margins are the major reasons given for the possible shift. Based on these early projections, round one goes to soybeans, but there are several more rounds to go before this acreage battle will be decided. With the lateness of the 2008 crop and the delay in some fall field work, farmers have some additional flexibility in their planting decisions. Prices in the early part of 2009, and weather conditions through the planting season, will ultimately set the acreage allocation.

*Chad Hart*

## **The 2008 Population Bowl**

College football's annual bowl season has stirred up fierce state and regional rivalries. In keeping with that competitive spirit, this is a good time to check the standings in a quieter but no less fierce rivalry among the states and regions: the competition for population growth. The U.S. Census Bureau recently released its annual estimates of population for the United States. These estimates provide a benchmark for states to assess their performance in producing, retaining, and attracting new residents. This article investigates Iowa's population growth from 2000 to 2008, both in absolute terms and in comparison with other states.

Iowa currently ranks as the 30<sup>th</sup> largest state. As of July 1<sup>st</sup> of 2008, Iowa's population was an estimated 3,002,555 residents. The state exceeded the 3 million population mark some time after July 1<sup>st</sup> of 2007. Iowa's 2007-2008 growth rate of 0.6 percent yielded 19,195 new residents and a ranking of 33<sup>rd</sup> among the states. For the current decade, Iowa's overall growth rate of 2.6 percent ranks 42<sup>nd</sup> among the states and is roughly a third of the nation's rate of growth over the same period.

Iowa's total population change from 2000 to 2008 can be decomposed into three key components: its natural change, net domestic migration, and net international migration. Following is a competitive analysis of the state's performance in these three components.

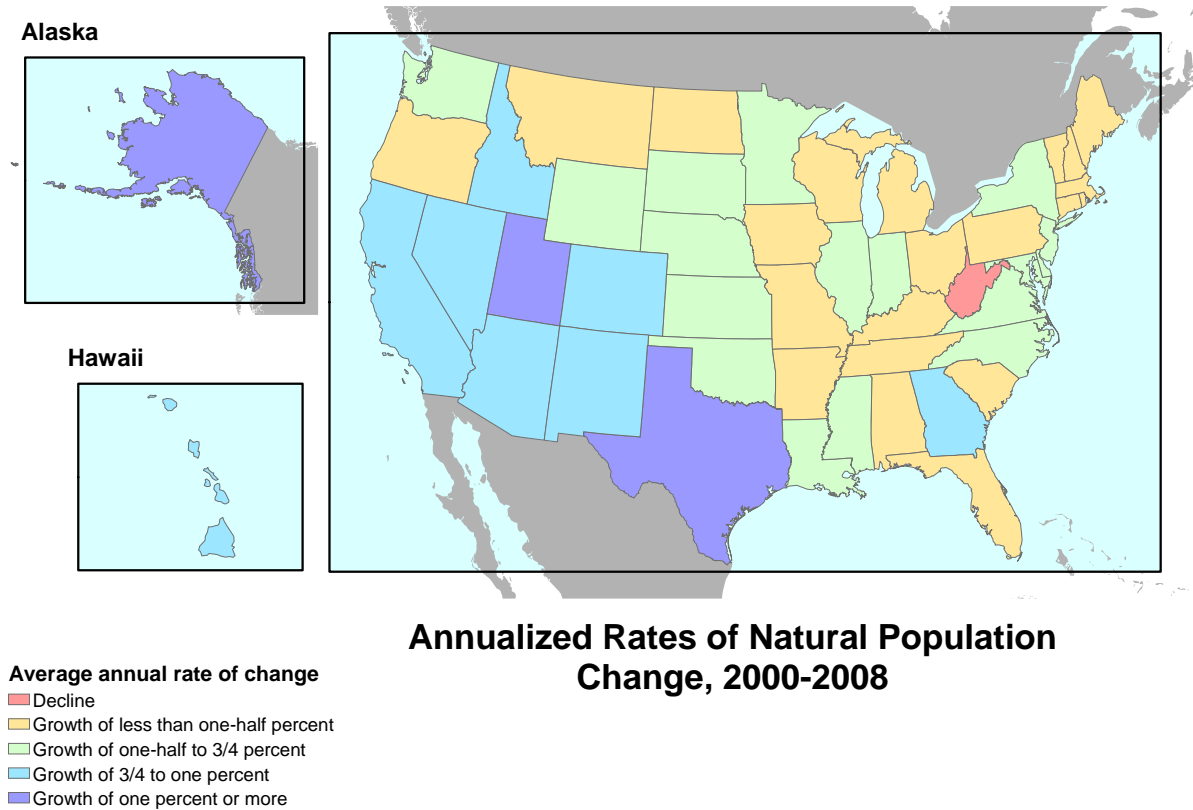
### **Natural Population Change**

The first major component is natural population change. Natural population change measures the difference between the number of births and deaths in the region. When the number of births exceeds the number of deaths, the region experiences natural population growth. If the number of deaths exceeds the number of births, the region is said to be experiencing natural population decline.

Measured on an annual basis, Iowa's rate of natural population growth has averaged less than one-half of one percent since 2000. Overall, Iowa has gained 96,250 residents from natural population change between 2000 and 2008. Although the state as a whole is experiencing natural population growth, data through 2007 show that 44 counties in Iowa experienced natural declines during the current decade.

Regions that are attractive to young adults typically enjoy higher rates of natural population growth than regions with older population base. Figure 1 illustrates the average annual rates of natural population change among all states from 2000 to 2008. States with relatively high rates of natural population growth include Utah, Texas, and Alaska. The states with the lowest rates of natural population growth were Maine, Pennsylvania, and Vermont. West Virginia was the only state to experience natural population decline between 2000 and 2008. Iowa's ranking on an average, annual basis was 37<sup>th</sup>.

**Figure 1**



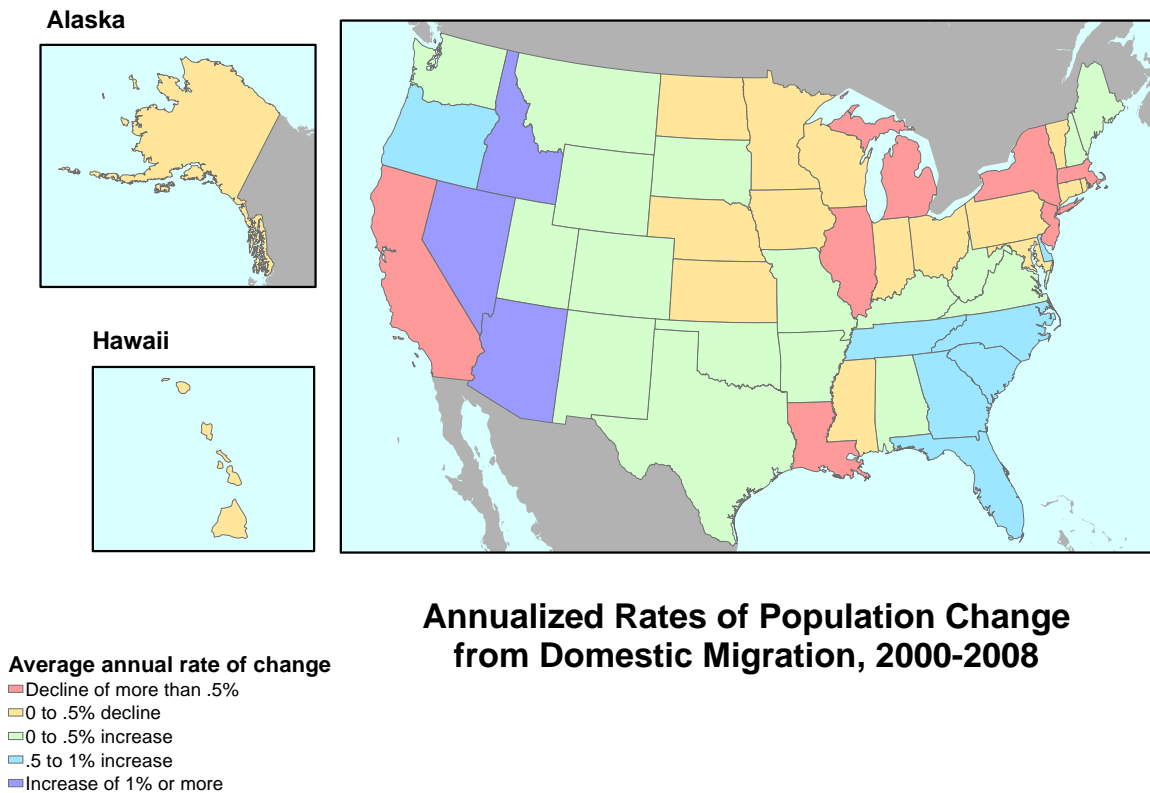
## Domestic Migration

The second major component of population change is net domestic migration. Domestic migration flows simply describe the movement of individuals from one U.S. state to another during a particular time period of interest. Regardless of their citizenship status or country of origin, a person is included as a domestic migrant if they were residing in the United States at the beginning of the reference period and moved from one state to another during the period of interest. For example, a person who was born in Mexico, moved to the state of Texas in 1999, and then moved to Iowa in 2005 would be counted as a domestic in-migrant to Iowa for the 2000-2008 time period.

A state experiences net domestic in-migration when the number of people who move in from all other states exceeds the number moving out to other states. For the first time this decade, Iowa posted net domestic in-migration for the period from 2007 and 2008. Still, on an annualized basis, Iowa has been losing an average of one-fifth of one percent of its population per year due to net domestic out-migration. Since 2000, the state has lost nearly 50,000 more residents to other states than it has received.

Figure 2 shows the average annual rates of net domestic migration from April 1<sup>st</sup> of 2000 through July 1<sup>st</sup> of 2008. In all, 24 states experienced net domestic out-migration during this time period. The states with the highest rates of net population loss to other states include New York, the District of Columbia, and Louisiana. Among the net migration gainers, Nevada, Arizona, and Idaho experienced the highest rates of net domestic in-migration. Iowa's 2000-2008 performance, measured on an average, annual basis, ranked 36<sup>th</sup> among the states.

**Figure 2**



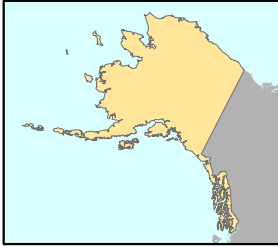
### **International Migration**

The third major source of population growth comes from net international migration flows. International in-migrants are current residents who lived outside the United States in the year prior to the reference period. For example, an individual who was living in Canada in 1999 and moved directly to Iowa in 2003 would be counted as an international in-migrant to Iowa for the 2000-2008 period. International out-migrants include former residents of the United States who moved to somewhere outside the United States during the reference period. As with domestic migration flows, international migration flows are measured regardless of a person's citizenship status. The movements of members of the Armed Forces are captured within the international migration flows.

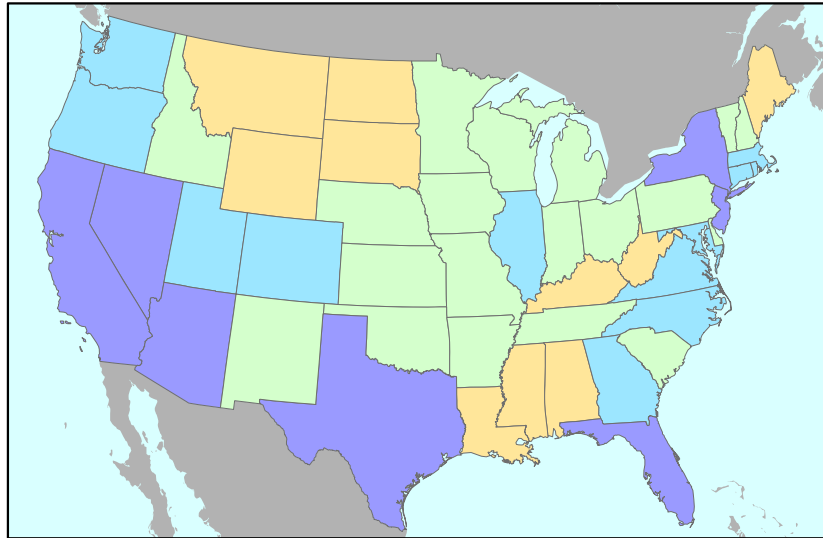
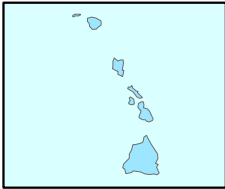
For Iowa and several other Midwestern states, the net inflows from international migration have helped to buffer their domestic losses in recent years. Iowa has gained nearly 37,000 new residents from net international inflows since 2000, which has helped to offset the net domestic outflows of nearly 50,000 residents.

Figure 3 illustrates the average annual rates of net international migration by state from April 1<sup>st</sup> of 2000 through July 1<sup>st</sup> of 2008. All of the states have experienced net gains from international migration during this decade. Iowa averaged an annual growth rate of 0.16 percent, which ranked 29<sup>th</sup> among the states. The three states with the highest rates of net international in-migration include California, New York, and New Jersey. States with relatively low rates include Montana, West Virginia, and Mississippi.

### Alaska



### Hawaii



## Annualized Rates of Population Change from International Migration, 2000-2008

### Average annual rate of change

- Growth of less than 1/10th percent
- Growth of 1/10th to 1 quarter percent
- Growth of 1 quarter to one half percent
- Growth of one half percent or more

## Conclusions

The U.S. Census Bureau's annual population estimates provide key measures to assess the rates of population growth among the states. In Iowa, natural population growth remains the single largest source of new residents – a fact that is frequently overlooked amid the widespread concern about the state's rate of domestic out-migration. International in-migration has provided another important source of growth that has helped to partially offset Iowa's net outflows to other states. Still, Iowa remains in the middle of the pack in the overall competition for population growth. In terms of this decade's population win-loss record, Iowa has a lot to overcome before it can be considered a major population contender.

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