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Cornhusker Economics

Unemployment in Ag-Dominant States during and after the Great Recession

Market Report	Year Ago	4 Wks Ago	4-8-16
Livestock and Products,			
Weekly Average			
Nebraska Slaughter Steers, 35-65% Choice, Live Weight.	161.45	*	123.79
Nebraska Feeder Steers, Med. & Large Frame, 550-600 lb.	284.22	193.84	179.32
Nebraska Feeder Steers, Med. & Large Frame 750-800 lb.	224.90	158.93	148.94
Choice Boxed Beef, 600-750 lb. Carcass.	256.94	226.62	215.51
Western Corn Belt Base Hog Price Carcass, Negotiated.	74.62	61.97	70.35
Pork Carcass Cutout, 185 lb. Carcass 51-52% Lean.	71.06	76.02	81.76
Slaughter Lambs, woolled and shorn, 135-165 lb. National.	136.03	132.01	132.10
National Carcass Lamb Cutout FOB.	354.77	346.31	241.09
Crops,			
Daily Spot Prices			
Wheat, No. 1, H.W. Imperial, bu.	4.47	3.87	3.80
Corn, No. 2, Yellow Nebraska City, bu.	3.51	3.40	3.60
Soybeans, No. 1, Yellow Nebraska City, bu.	9.40	8.56	9.56
Grain Sorghum, No.2, Yellow Dorchester, cwt.	7.66	5.61	5.66
Oats, No. 2, Heavy Minneapolis, Mn, bu.	2.71	2.42	2.57
Feed			
Alfalfa, Large Square Bales, Good to Premium, RFV 160-185 Northeast Nebraska, ton.	190.00	200.00	128.00
Alfalfa, Large Rounds, Good Platte Valley, ton.	72.50	77.50	80.00
Grass Hay, Large Rounds, Good Nebraska, ton.	120.00	85.00	85.00
Dried Distillers Grains, 10% Moisture Nebraska Average.	172.50	127.50	128.50
Wet Distillers Grains, 65-70% Moisture Nebraska Average.	58.00	52.00	49.50
* No Market			

The United States and the world saw a major economic decline at the end of 2007. A recession is defined as two or more consecutive quarters of negative economic growth. This one was so severe that it was given a name -- The Great Recession --and called the worst economic crisis since The Great Depression. In the United States more than 7.5 million jobs were lost, doubling the unemployment rate (Grusky, D. B. et al, 2011). There have been several investigations into the causes of the economic recession. The general conclusion is that there were complex and interlinked factors behind the emergence of the crisis, namely loose monetary policies, global imbalances, misperception of risk and lax financial regulation (Verick, S., & I. Islam, 2010).

Among those reasons, one which contributed to the crisis was the subprime mortgages meltdown. One of the primary causes of the subprime meltdown was the structure of securitization as applied to subprime and other non-prime residential loans, along with resecuritization of the resulting mortgage-backed securities (Eggert, K. 2008-2009). In the aftermath of the economic recession Congress responded by passing many regulations and broad financial reforms; most notably, the Dodd-Frank Act, which increased oversight of financial institutions with goals to protect consumers and avoid another financial crisis (Merkley, J., & C. Levin, 2011).

However, the fact remains that economic cycles have always prevailed in the United States in the post-World War II era. In addition, some states are affected more by the downturn in economic growth than others. For instance, the unemployment rate, which is one of the key economic indicators used to measure the economic health of a state, was 11.5% in Nevada in 2009 (more than a 200% increase compared to 2007) while it was only 4.7% in Nebraska (a 56.7 % increase compared to 2007). In a recent analysis we compared unemployment rates between states where agriculture is a dominant industry and those states with a small agricultural economy. We use data on agricultural production from the USDA-Economic Research Service (ERS) for the year 2010 and rank states based on total receipts for all agricultural commodities. We then compare the top 15 states with the lowest 15 states. Data on average annual unemployment from 2007 to 2013 from the Bureau of Labor is used to compare the 30 states.

Tables 1 and 2 show the state receipts for all agricultural commodities and annual unemployment rates for the two groups of states. A common hypothesis is that states with large agricultural economies are not hit as hard as other states during economic declines. However, Tables 1 and 2 do not show a clear pattern in the unemployment rate to support this hypothesis.

We rank the states again based on the contribution of agriculture to the Gross State Product (GSP). We do this because if the agricultural industry helps protect a state from increased unemployment, the relative size of the industry is a better indicator than the absolute measure. As before, annual average unemployment rates were listed for the states for years 2007-2013. Table 3 shows the revised list.

Figure 1 shows a plot of the annual unemployment rate and the agricultural state GSP (as a percent) for all states. It shows a negative correlation between the two variables.

Table 1: State Receipts for All Agricultural Commodities and Annual Unemployment Rates for the Top 15 States

Ranking	State	State Receipts for All Ag. Commodities (in \$1,000)	Annual Unemployment Rates						
			2007	2008	2009	2010	2011	2012	2013
1	California	38,388,218	5.4	7.5	11.3	12.1	11.6	10.2	8.8
2	Iowa	23,891,765	3.7	4.3	6.4	6.0	5.5	5.0	4.7
3	Texas	20,343,148	4.3	4.9	7.6	8.1	7.7	6.6	6.0
4	Nebraska	17,018,675	3.0	3.4	4.7	4.6	4.3	3.9	3.7
5	Illinois	15,907,425	5.0	6.5	10.3	10.3	9.6	9.0	8.9
6	Minnesota	15,526,156	4.6	5.5	7.8	7.3	6.4	5.5	4.8
7	Kansas	14,761,486	4.3	4.7	6.9	7.0	6.4	5.7	5.2
8	North Carolina	9,777,231	4.8	6.3	10.6	10.7	10.1	9.1	7.8
9	Indiana	9,748,067	4.6	6.1	10.4	10.3	9.0	8.3	7.5
10	Wisconsin	9,020,955	4.9	5.0	8.7	8.6	7.7	7.0	6.6
11	Missouri	8,517,439	5.2	6.3	9.3	9.5	8.3	6.9	6.5
12	Ohio	7,984,435	5.6	6.6	10.4	10.2	8.8	7.4	7.3
13	Arkansas	7,965,816	5.3	5.5	7.9	8.2	8.2	7.5	7.2
14	Florida	7,741,348	4.1	6.5	10.5	10.9	9.8	8.3	7.0
15	Washington	7,655,264	4.7	5.5	9.2	9.9	9.1	8.0	6.9
	U.S.	321,195,035	4.6	5.8	9.3	9.6	8.9	8.1	7.4

Table 2: State Receipts for All Ag Commodities and Annual Unemployment Rates for the Bottom 15 States.

Ranking	State	State Receipts for All Ag. Commodities (in \$1,000)	Annual Unemployment Rates						
			2007	2008	2009	2010	2011	2012	2013
36	Maryland	1,865,558	3.5	4.4	7.1	7.6	7.1	6.9	6.5
37	Utah	1,360,021	2.6	3.6	7.5	7.9	6.7	5.4	4.4
38	Wyoming	1,178,262	2.9	3.1	6.3	6.5	5.8	5.3	4.7
39	Delaware	1,087,278	3.5	5.0	8.3	8.4	7.5	7.2	6.7
40	New Jersey	943,389	4.3	5.4	9.1	9.5	9.3	9.2	8.0
41	Maine	701,784	4.7	5.5	8.1	8.1	7.9	7.5	6.6
42	Vermont	687,979	4.0	4.7	6.6	6.1	5.5	4.9	4.4
43	Hawaii	686,902	2.8	4.3	7.1	6.9	6.8	6.0	4.8
44	Nevada	576,638	4.5	6.7	11.5	13.5	13.0	11.1	9.4
45	Connecticut	553,886	4.5	5.7	8.1	9.1	8.8	8.3	7.6
46	West Virginia	545,369	4.6	4.5	7.8	8.6	8.0	7.4	6.7
47	Massachusetts	492,062	4.7	5.6	8.3	8.3	7.2	6.7	6.6
48	New Hampshire	208,701	3.5	3.9	6.3	5.8	5.4	5.5	5.1
49	Rhode Island	78,390	5.2	7.8	11.1	11.2	11.1	10.4	9.2
50	Alaska	31,341	6.4	6.7	7.7	7.9	7.6	7.1	6.9
	U.S.	321,195,035	4.6	5.8	9.3	9.6	8.9	8.1	7.4

Table 3: State Receipts for all Agricultural Commodities as a Percent of GSP and Annual Unemployment Rate for the Top 15 States.

Ranking	State %	Contribution of state receipts to GSP %	Annual Unemployment rate						
			2007	2008	2009	2010	2011	2012	2013
1	South Dakota	19.75	2.8	3.1	4.9	5.0	4.7	4.3	3.8
2	North Dakota	19.23	3.1	3.2	4.1	3.8	3.5	3.0	2.9
3	Nebraska	18.56	3.0	3.4	4.7	4.6	4.3	3.9	3.7
4	Iowa	16.88	3.7	4.3	6.4	6.0	5.5	5.0	4.7
5	Kansas	11.54	4.3	4.7	6.9	7.0	6.4	5.7	5.2
6	Idaho	10.68	3.1	5.2	8.8	9.0	8.2	7.1	6.0
7	Montana	8.14	3.6	5.1	6.9	7.3	6.9	6.0	5.4
8	Arkansas	7.57	5.3	5.5	7.9	8.2	8.2	7.5	7.2
9	Minnesota	5.71	4.6	5.5	7.8	7.3	6.4	5.5	4.8
10	Mississippi	5.26	6.2	6.8	9.7	10.3	9.9	9.0	8.5
11	Oklahoma	4.01	4.1	3.8	6.4	6.8	5.8	5.2	5.2
12	New Mexico	3.77	3.8	4.5	7.7	8.1	7.5	7.1	6.7
13	Wisconsin	3.55	4.9	5.0	8.7	8.6	7.7	7.0	6.6
14	Indiana	3.45	4.6	6.1	10.4	10.3	9.0	8.3	7.5
15	Missouri	3.32	5.2	6.3	9.3	9.5	8.3	6.9	6.5
	U.S.A	2.20	4.6	5.8	9.3	9.6	8.9	8.1	7.4

Highlighted numbers mean the unemployment rate was higher than national average

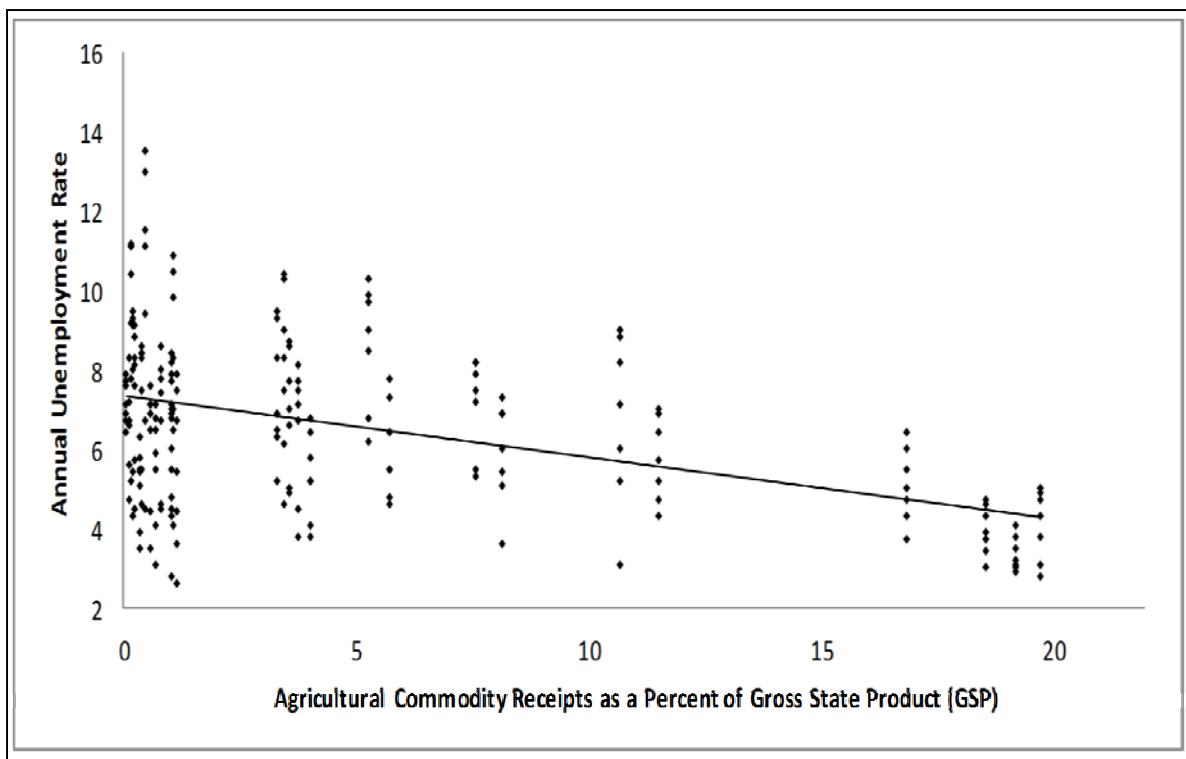


Figure 1: Relationship between Gross State Product (GSP) and Annual Unemployment Rate

Conclusions and policy implications

There are two important conclusions from this study. First, the absolute measure of agricultural production value does not determine the ability of a state to absorb economic downturns. However, the relative measure (agricultural production as a percent of GSP), suggests that there is a negative relationship between the relative measure and unemployment rate. This relationship holds in both normal and economic-decline years. Furthermore, this relationship is even stronger when the agricultural share of GSP is above 11%. So, marginal states might be better off investing more in agriculture production in order to absorb economic downturns

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