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Characteristics Contributing to Nebraska Farm and Ranch Financial Stress

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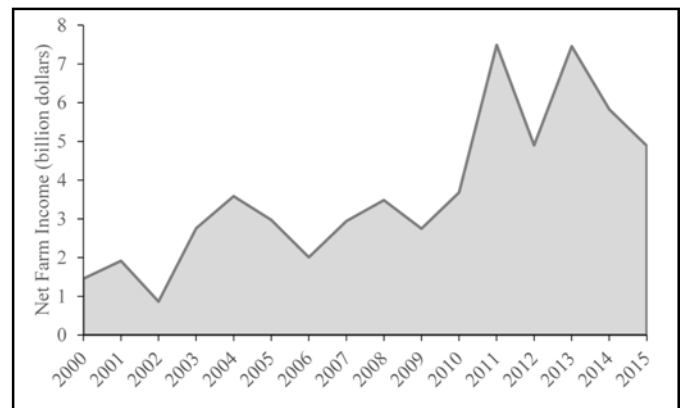
Cornhusker Economics

Characteristics Contributing to Nebraska Farm and Ranch Financial Stress

Market Report	Year Ago	4 Wks Ago	1-19-17
Livestock and Products,			
Weekly Average			
Nebraska Slaughter Steers, 35-65% Choice, Live Weight.	122.00	*	*
Nebraska Feeder Steers, Med. & Large Frame, 550-600 lb.	158.79	177.37	185.50
Nebraska Feeder Steers, Med. & Large Frame 750-800 lb.	137.56	162.67	152.13
Choice Boxed Beef, 600-750 lb. Carcass.	191.65	203.00	205.89
Western Corn Belt Base Hog Price Carcass, Negotiated.	63.79	55.42	69.61
Pork Carcass Cutout, 185 lb. Carcass 51-52% Lean.	78.99	76.81	80.05
Slaughter Lambs, woolled and shorn, 135-165 lb. National.	141.93	132.24	128.01
National Carcass Lamb Cutout FOB.	347.75	380.49	368.74
Crops,			
Daily Spot Prices			
Wheat, No. 1, H.W. Imperial, bu.	3.07	3.24	3.46
Corn, No. 2, Yellow Columbus, bu.	3.26	3.12	3.25
Soybeans, No. 1, Yellow Columbus, bu.	9.67	8.76	8.99
Grain Sorghum, No.2, Yellow Dorchester, cwt.	5.03	5.57	6.34
Oats, No. 2, Heavy Minneapolis, Mn, bu.	2.90	2.79	3.08
Feed			
Alfalfa, Large Square Bales, Good to Premium, RFV 160-185 Northeast Nebraska, ton.	145.00	162.50	*
Alfalfa, Large Rounds, Good Platte Valley, ton.	70.00	87.50	90.00
Grass Hay, Large Rounds, Good Nebraska, ton.	85.00	82.50	82.50
Dried Distillers Grains, 10% Moisture Nebraska Average.	107.25	150.50	151.50
Wet Distillers Grains, 65-70% Moisture Nebraska Average.	43.50	45.08	47.00
* No Market			

Significant financial changes have been underway in the U.S. agricultural system. After a decade of increases in crop and livestock prices mirrored by corresponding increases in expenses, prices began declining dramatically in 2014 (USDA-NASS, 2017). Figure 1 shows yearly net farm income for Nebraska crop and livestock producers from 2000 to 2015 (USDA, ERS). A survey in July 2016 indicated that 52 percent of Nebraska farmers and ranchers were financially stressed.

Figure 1: Nebraska Net Farm Income (2000 to 2015).



Source: USDA, ERS

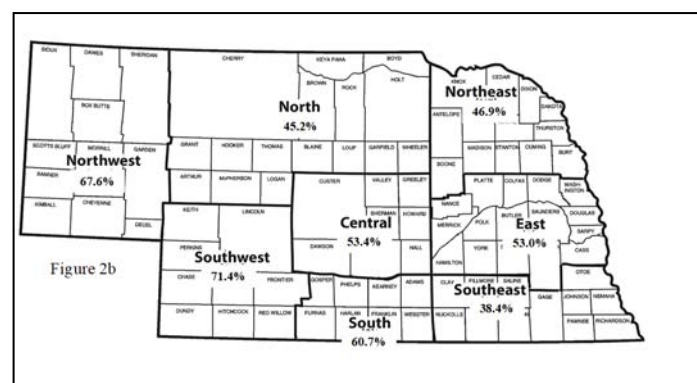
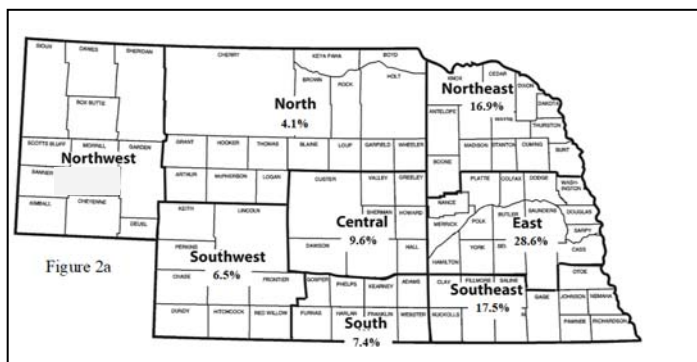
Because producers are unique in their production costs, yields, prices, capital allocation, location, etc., identifying the demographic and financial characteristics that are contributing to financial stress is important to gain a deeper understanding of the problem. With this in mind, a survey of Nebraska agricultural crop and livestock producers was conducted in the summer of 2016 with the overall goal of evaluating financial stress. While identifying stress is useful, identifying actions producers intend to take to help ensure farm

survival is equally important. Using the same demographic and financial characteristics used in the stress model, we evaluate the characteristics contributing to producers: (1) focusing on increasing revenue and/or (2) lowering costs. Models were used to determine variables that impacted the likelihood a producer was financially stressed as well as how they were planning to react to it.

The following discussion summarizes results found in the manuscript that will be published in early 2018 in the *Journal of the American Society of Farm Managers and Rural Appraisers*.

Surveys were mailed to livestock and crop producers across the state of Nebraska regarding their farm financial health. An online survey was also available and publicized by the Nebraska Department of Agriculture through news releases and radio interviews as well as through Nebraska Commodity Boards. A total of 1,000 surveys were returned with a total of 758 thoroughly completed and used in the analysis. District representation of the survey participants is presented in Figure 2a and the percent of participants by district agreeing to being financially stressed is presented in Figure 2b. While, on average, 52 percent of the respondents were financially stressed in Nebraska, there is variability across districts.

Figure 2. District Representation of Survey Participants (2a) and Percentage Financially Stressed (2b).



Producers were also asked a series of questions regarding actions they were taking to reduce operating costs or to increase income. There were 46.7 percent of the producers sur-

veyed who indicated they were not taking any actions to increase their income. However, 32.2 percent of the producers indicated they would pursue off-farm income and 14.8% indicated they were engaged in custom operations to increase income. Similarly, producers were asked if they would take any actions to reduce operating costs on their livestock or cropping operation. Twenty-one percent of the producers indicated they would not take any action to reduce operating costs on either a livestock or cropping operation. Of cropping operations, 45 percent indicated they were deferring machinery replacement and 43 percent indicated they were reducing family living expenses to reduce this year's operating costs. For livestock operations, over 17 percent of the survey participants indicated they would reduce family living expenses and/or defer machinery replacement.

Models were used to estimate the likelihood a producer with given demographic characteristics (1) was financially stressed, (2) indicated they were completing at least one action to reduce this year's operating costs and (3) indicated they were completing at least one action to increase income. The variables that impact producer odds of agreeing to being financially stressed are found to be different than the variables that impact the odds of taking action to increase income or decrease operating costs. Across districts, five were more likely to indicate being stressed than the Southeast district, but only two of those districts were more likely to be actively trying to increase income and none of the districts were more likely to be actively decreasing costs. The Northwest district appears to be the most financially stressed and trying to increase income compared to all other districts.

Younger producers were more likely to be stressed, more likely to be trying to increase income and much more likely to be attempting to decrease operating costs. Education level also impacted one's odds of being financially stressed and the odds of attempting to decrease operating costs, but had no impact on the odds of attempting to increase income. Those with a high school degree or less were more likely to be financially stressed and attempting to decrease operating costs compared to those with a post doctorate degree.

While the likelihood one would be financially stressed was higher if they had more than 31% of their income from crops compared to the mainly livestock group, only those producers with 63 to 94 percent of their income from crops had an increased likelihood of actively trying to increase income. While crop producers were more likely to be stressed than livestock producers, no differences were seen in the likelihood that they would be decreasing operating costs.

Producers who had lower levels of owner's equity were more likely to be financially stressed and more likely to attempt to increase income, but were not different in the likelihood of trying to decrease costs. This shows that producers with lower equity built up in their operations feel stressed and are trying to find ways to increase income outside their current farming operation.

Results indicate that being self-financed (defined as over 80 percent of operating capital was self-financed) reduced the odds of being financially stressed, attempting to increase income, and attempting to decrease costs compared to those that are not self-financed (defined as less than 80% of operating capital was self-financed). This result indicates that having working capital to operate lowered stress among producers while also lowering their odds of both increasing revenue and lowering operating costs over those who were not self-financed.

A producer's intention to expand land and the farms per square mile in the county had no impact on the odds of the producer being financially stressed, attempting to increase income, or attempting to decrease operating costs. Finally, expectations for overall financial conditions had an impact. Producers with the expectation that financial conditions would be the same in 2017 were less likely to be stressed, less likely to attempt to increase income, and less likely to attempt to decrease operating costs compared to those who felt that financial conditions would be declining in 2017. This result suggests that producers with a negative expectation for financial conditions were more stressed and more likely attempting to increase income and decrease operating costs to account for the weakening financial conditions.

As extension programs are designed and implemented across Nebraska, attention needs to be paid to where the financially stressed producers might be located and factors that may be contributing to the stress levels as well as what currently stressed producers are doing to increase income or decrease operating costs. This will impact programming approaches and delivery mechanisms in order to best serve the needs of the state. Future research needs to be developed further to identify stressors among producers and actions that help to relieve stress across different producer groups.

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