

## **A Comparison of Net Farm Income in Kansas - Good Years vs Bad Years**

### **Introduction**

The last 10 years have provided a contrast in farm profitability for Kansas farmers. The years from 2009 through 2014 were some of the more profitable ones that farmers have experienced. However, in 2015, the bottom fell out of farm income resulting in the lowest profitability since the 1980's farm crisis. The three years since then have seen slightly better profits but still well below the six years prior to 2015. The purpose of this paper is to examine farm profitability over the last 10 years by comparing the years 2009-14 (good years) to the years 2015-2018 (bad years) to determine how severe this downturn has been to farmers.

### **Methods**

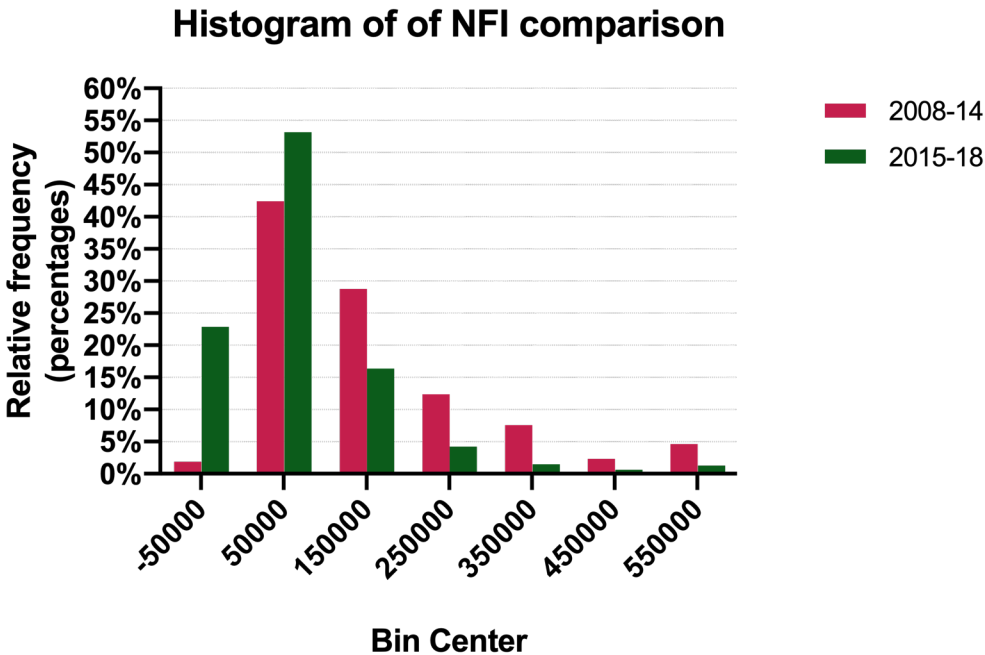
This paper uses a 10-year panel dataset of 476 farms from the KFMA program. The KFMA has been helping farmers since the 1930's and actually has computerized farm records back to the early 1970's. There are currently around 2,500 farms in the KFMA system and in any given year about 1,500 of those farms will have records that are useable for research, teaching, and Extension analysis. This is one of the best systems in the country and the data provided by the KFMA can help answer those questions of farmer profitability.

A panel dataset is used since it is based on the same set of farms. That is, these 476 are in the dataset each year. This helps keep the results from being distorted as farms either enter or

leave the program. For this study, net farm income (NFI) for each farm from 2009 through 2014 is averaged to calculate NFI for each farm during the “good years” of the last decade. NFI for each farm from 2015 through 2018 is also averaged to calculate NFI for each farm during the “bad years”. A frequency distribution and cumulative distribution are used to show the difference between those sets of years.

## Results

Figure 1 shows the frequency distribution or histogram of the average net farm income from the two time periods. Figure 2 shows the cumulative distribution. Both figures are basically showing the same thing. The histogram in Figure 1 shows the percent of farms that fall within each bin. The cumulative distribution in Figure 2 shows the percentage of farms that have a specific level of net farm income or lower.



**Figure 1. Histogram of NFI for the Time Periods 2008-14 and 2015-18**

## Cumulative Distribution of NFI comparison

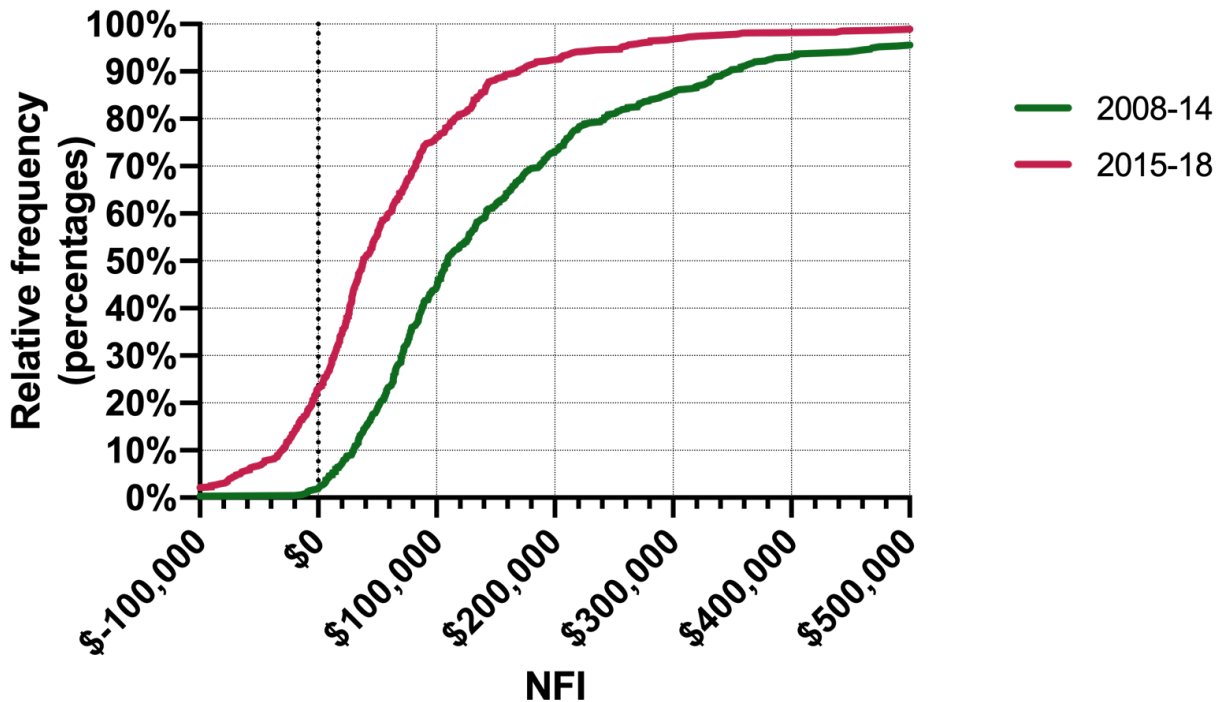


Figure 2. Cumulative Distribution of NFI for the Time Periods 2008-14 and 2015-18

### Discussion

As both of these figures indicate, there is a clear difference in the NFI between the first part of the last 10 years and the last part. In the early time period, nearly every farm had an average NFI above zero, with a median NFI of \$109,000. In the later time period, 23% of the farms had an average NFI below zero, with a median NFI of \$38,000.

Another way of looking at these last four years is that a quarter of the Kansas farms have not made any money over this time frame and another quarter of farmers have earned from \$0 to \$38,000 per year. As shown in AgManger publication “The Changing Farm Debt Situation” (<https://www.agmanager.info/finance-business-planning/financial-management/changing-farm-debt-situation>), there has been a large increase in the number of farms with over \$1 million in

farm debt. These last four years where 50% of KFMA farms have earned less than \$40,000 have likely contributed to those farms with more debt.

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