

# An Analysis of Family Living Expense Categories

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## Introduction

High grain prices from 2007 through 2013 caused net farm income for Kansas farms to jump to record levels. As one might imagine, family living increased during this period as well. Figure 1 shows the average family living expense for farms in the Kansas Farm Management Association (KFMA) since 1993. These numbers have been adjusted for inflation so that older numbers are comparable to today's numbers. Family living, which used to be around \$50,000 is now closer to \$70,000.

The last two years have seen lower grain prices and as a result, net farm income for the state has dropped as well. Net farm income dropped slightly in 2014 but in 2015, net farm income was near record lows. This lower net farm income affects the amount of money farm families have to pay for family living expenses as many families get the bulk of their income from the farm business.

In publication GI-2016.7 (available from [AgManager.info](http://AgManager.info)), we examined total family living expenses to determine how farm families have adjusted their spending with lower net farm income. That analysis looked at both the state average numbers and also the KFMA regional averages for family living. In this paper, we examine the specific expense categories that make up aggregate family living to determine where farm families are making adjustments.

## Background

The Kansas Farm Management Association (KFMA) has been keeping computerized farm records since 1973 (the program has been in operation much longer but with paper records). Typically there are around 2,500 farms in the program with over half of these farms providing certified records that can be used for analysis.

The KFMA program mainly keeps track of farm expenses and revenues but also collects some production information such as crop acres and yields. In addition, a subset of these farms also keep track of their family living expenses. These family living expenses are divided into: food, household operation, house upkeep and repairs, furniture and equipment, personal and recreation, education, child care, clothing, gifts, contributions, doctor, health insurance, life insurance, auto expense, utilities, bank interest, and miscellaneous.

Family living expenses have been tracked in the computerized database from the beginning. However, in 1993 a change was made to the database to certify family living separate from the farm records. Thus, the family living records are probably more reliably analyzed from 1993 onward as it is difficult to sometimes determine if the family living was reported accurately just based on the farm certification.

## Procedure

Only farms that had both certified farm financial records and family living records were used in the analysis. Because of data unpredictability, only years 1993 through 2015 were included.

All the net farm income numbers and the family living expenses were adjusted by the CPI index to account for inflation. Thus older numbers should be comparable to current numbers. For much of the analysis, a two-year rolling average was used to help smooth the numbers.

The analysis consists of examining the two-year rolling average of real dollar expenditures for the specific family living expense categories. These results are shown in Figure 2. Also, the percent change from the previous year for the expense categories is calculated and shown in Table 1.

## Results

Family living is correlated to net farm income (correlation 0.62) but it appears to have a lag as the jump in family living expenses happened after the jump in net farm income. In publication GI-2016.7, we hypothesized family living was based on a four-year average of net farm income. Also, while net farm income in 2015 declined to near zero, family living is only starting to show a decline.

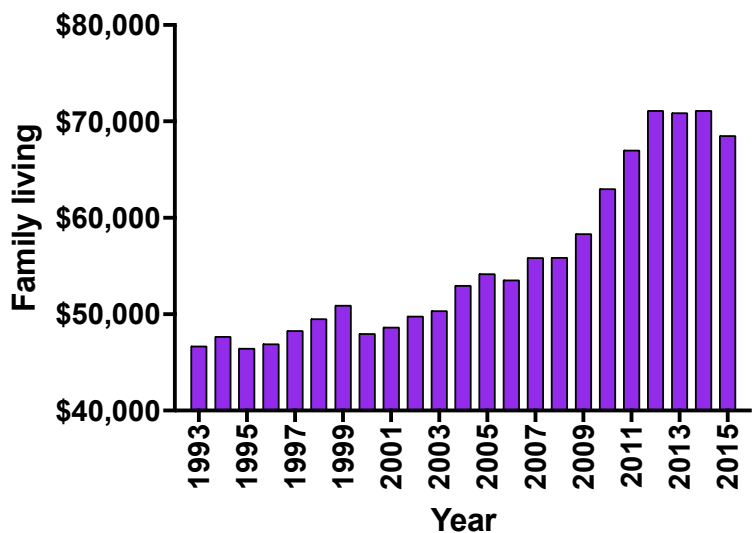
Although total family living expenses declined slightly as indicated in Figure 1, some expense categories showed steeper declines. As can be seen in Figure 2, home repairs, contributions, medical, gifts and auto all showed declines in 2015.

A more complete analysis of family living expense categories is shown in Table 1. Here, all the expense categories are shown (Figure 1 just shows a subset of the major expense categories). Table 1 represents the percent change from the previous year and the table is colored coded to show the degree of change. Green values in the table represent a year-to-year increase in spending in the category and red represents a year-to-year decrease in spending in the category. A darker color represents a greater percentage change. As shown in Table 1, home repairs, gifts, auto, furniture, and contributions all had decreases of over 10 percent from the previous year. In all, 8 categories of expenses decreased in 2015 (medical, contributions, clothing, furniture, auto, gifts, life insurance, home repairs) while 8 categories of expenses

increased (health insurance, interest, childcare, food, household operations, education, utilities, recreation). The decreases in spending outweighed the increases in spending though.

**Conclusions**

Many of the categories that showed increases in 2015 were expense categories where it is difficult to control spending. The categories where farm families have more control over spending did see some decreases in 2015. However, if net farm income stays low, many families will have to adjust family living expenses even more.



**Figure 1. Family Living for KFMA Farms - Adjusted for Inflation**

Table 1. Percent Change From Previous Year

Item	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
HealthIns	3.6%	-3.0%	2.3%	6.7%	2.8%	2.7%	4.3%	6.3%	8.1%	7.6%	6.5%	0.9%	-3.2%	4.5%	11.1%	9.6%	7.8%	4.8%	1.7%	0.2%	5.4%
Interest	-1.8%	24.8%	-6.6%	33.2%	18.7%	-9.5%	1.2%	17.6%	10.4%	-9.4%	-25.0%	-5.7%	11.3%	1.1%	13.8%	2.3%	-16.7%	-20.9%	6.6%	8.6%	19.6%
Childcare	-3.0%	-10.9%	11.9%	1.9%	-12.3%	-6.2%	8.8%	3.9%	-3.4%	-5.6%	-10.8%	-0.9%	11.3%	10.7%	9.2%	3.5%	6.0%	2.7%	8.9%	-11.1%	16.8%
Medical	-9.1%	-2.1%	-2.6%	3.3%	8.1%	1.4%	-0.6%	2.0%	-0.3%	2.6%	4.3%	-2.5%	-2.8%	-3.8%	0.7%	4.1%	0.2%	-0.1%	-4.5%	-3.7%	-2.1%
Contributions	1.3%	10.0%	4.4%	2.7%	3.8%	-3.5%	-2.3%	3.4%	0.3%	1.8%	6.3%	-2.0%	3.2%	12.8%	3.1%	0.6%	7.5%	19.8%	18.3%	-5.9%	-11.0%
Food	-0.9%	-1.8%	-1.1%	-0.5%	0.0%	-3.3%	-2.4%	-0.2%	-1.1%	0.7%	2.1%	-2.1%	-0.2%	2.4%	1.7%	2.2%	3.9%	4.1%	1.6%	1.6%	1.3%
Clothing	-5.9%	-4.0%	0.3%	-4.6%	-5.4%	-3.9%	-5.2%	-3.6%	-2.4%	-1.5%	2.2%	-2.1%	-4.9%	-2.4%	1.6%	6.4%	3.9%	3.0%	0.1%	-1.3%	-2.5%
HouseholdOperations	1.4%	-2.7%	5.8%	7.3%	5.7%	-2.0%	-6.4%	2.0%	13.1%	14.3%	2.5%	-0.6%	4.1%	-1.6%	2.0%	11.6%	3.5%	1.9%	3.3%	7.1%	9.5%
Education	-6.7%	-1.9%	-3.5%	7.9%	12.7%	-4.2%	-9.4%	1.9%	0.5%	-0.3%	4.4%	-4.8%	11.8%	16.7%	-1.6%	-6.3%	-3.9%	6.9%	-2.2%	0.1%	3.3%
Furniture	-4.0%	-7.4%	5.4%	4.3%	-3.1%	-4.2%	-8.4%	-4.1%	-10.0%	-0.1%	35.4%	11.9%	-10.5%	1.8%	14.7%	-1.7%	-1.0%	10.5%	-5.6%	-16.4%	-18.2%
Utilities	5.5%	6.3%	6.8%	1.6%	-3.4%	0.5%	6.0%	-1.0%	-4.3%	-3.9%	-3.2%	1.8%	2.5%	-1.7%	1.0%	6.9%	-0.4%	-4.3%	1.4%	4.3%	3.1%
Auto	4.0%	8.7%	9.2%	-3.1%	-0.2%	5.5%	-1.8%	-0.9%	-1.1%	1.9%	2.9%	-1.9%	5.0%	0.9%	-6.7%	1.6%	14.6%	5.3%	5.6%	2.0%	-13.1%
Gifts	-4.4%	-5.7%	2.0%	1.9%	3.0%	-2.9%	0.4%	5.8%	-2.3%	0.9%	9.7%	0.1%	0.6%	12.0%	-0.6%	1.0%	20.0%	31.7%	7.0%	-11.3%	-11.1%
Recreation	3.2%	-0.9%	3.4%	5.5%	5.2%	-3.1%	0.3%	3.4%	-1.0%	3.5%	0.5%	5.0%	9.2%	-1.6%	-4.4%	11.8%	16.1%	2.0%	-4.2%	1.3%	1.0%
LifetIns	-1.0%	-4.0%	0.7%	-1.3%	2.5%	0.7%	-6.1%	2.3%	5.0%	-1.7%	4.5%	-1.7%	-3.8%	0.7%	-4.2%	5.0%	4.8%	1.7%	10.2%	2.0%	-7.1%
HomeRepairs	12.4%	0.1%	-1.2%	0.8%	-1.5%	-2.6%	-13.9%	-1.3%	9.5%	8.7%	8.9%	10.3%	-0.2%	7.9%	21.5%	13.3%	13.7%	19.4%	9.8%	4.4%	-12.9%
Total	-0.3%	-0.8%	1.9%	2.7%	2.7%	-1.5%	-2.3%	1.9%	1.7%	3.2%	3.7%	0.5%	1.5%	2.1%	2.2%	6.2%	7.1%	6.2%	2.8%	0.0%	-1.7%

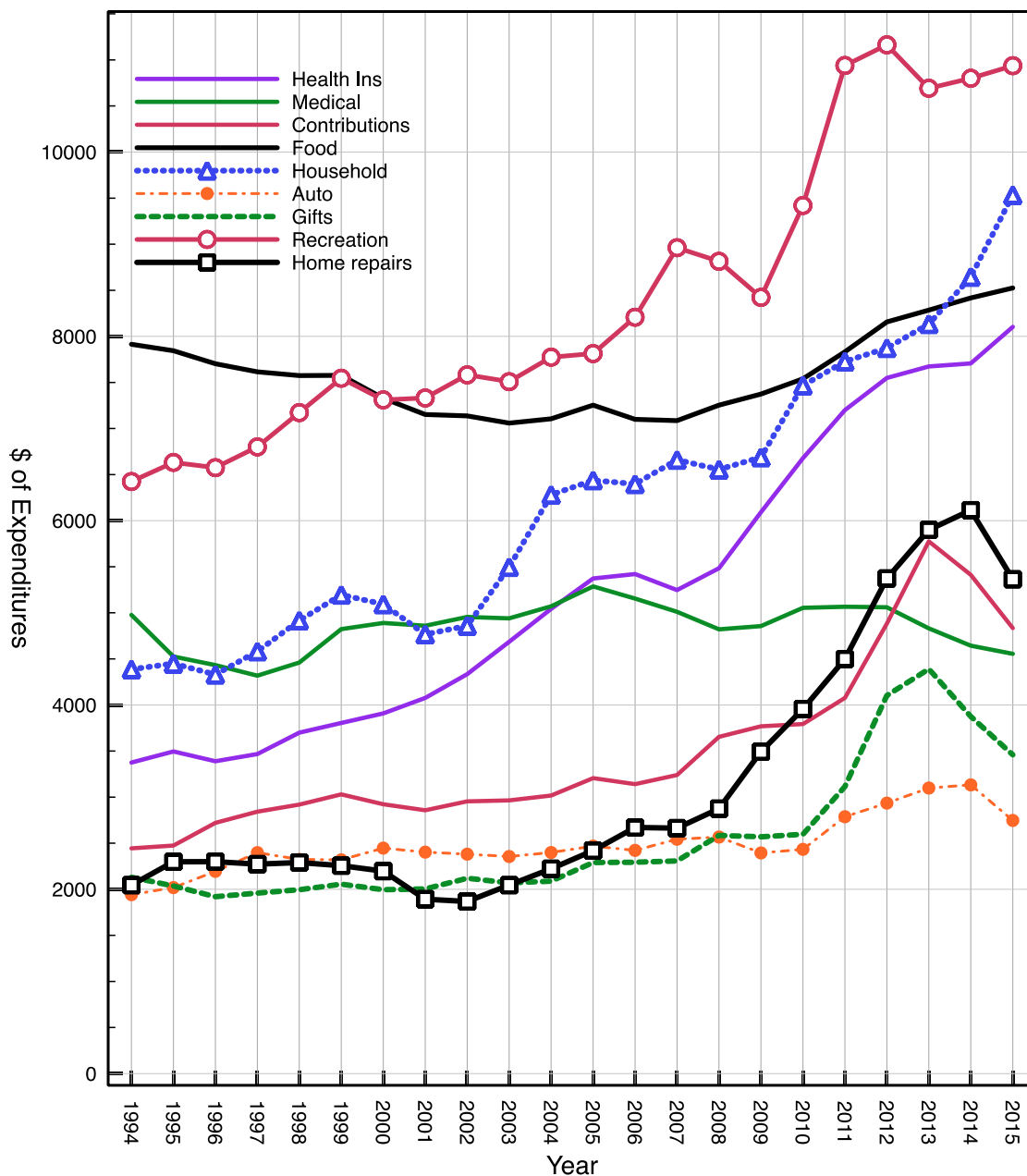


Figure 2. Family Living Expense Categories

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