

# Agriculture Update

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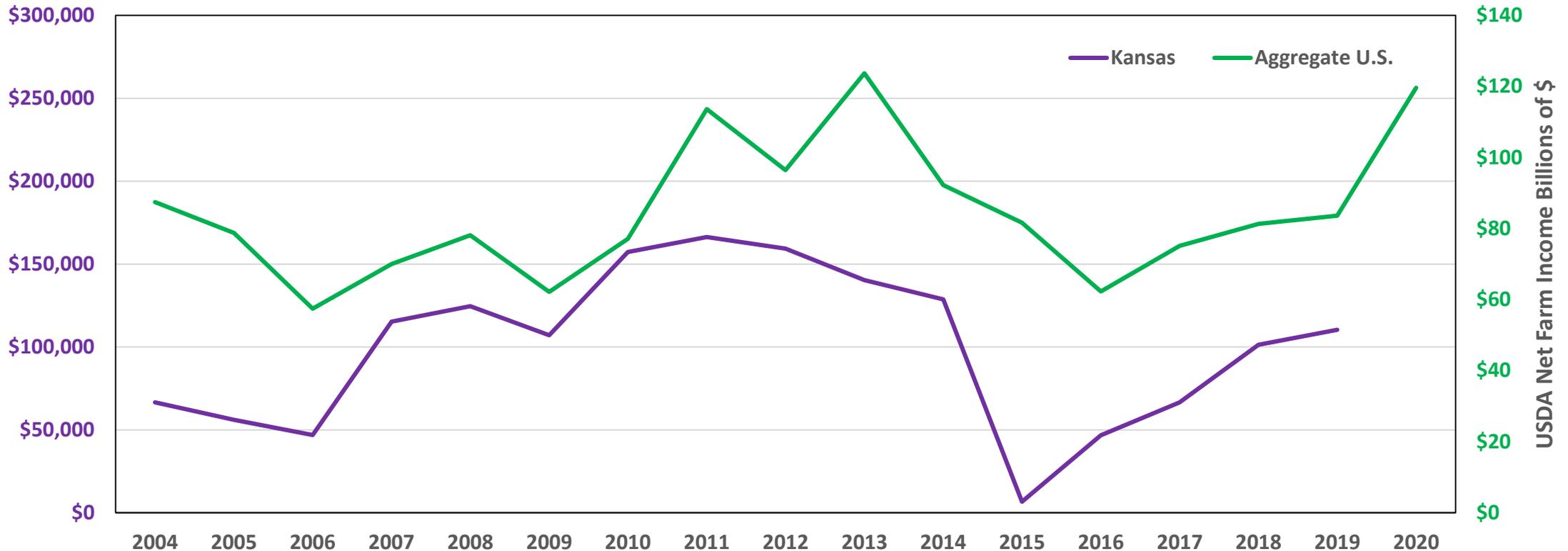


# Introduction

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- ❖ An Improving Farm Economy through the end of 2020 and into 2021
- ❖ Net farm income and government program payments
- ❖ Examination of 518 KFMA farms with continuous data 2014 through 2019
  - ❖ Probability of Default
  - ❖ Debt to Asset Ratio
  - ❖ Working Capital Position
  - ❖ Capital Debt Repayment Capacity
- ❖ Shifting crop mix and 2021 farm income prospects

# Net Farm Income – Kansas Farm Management and Aggregate U.S.



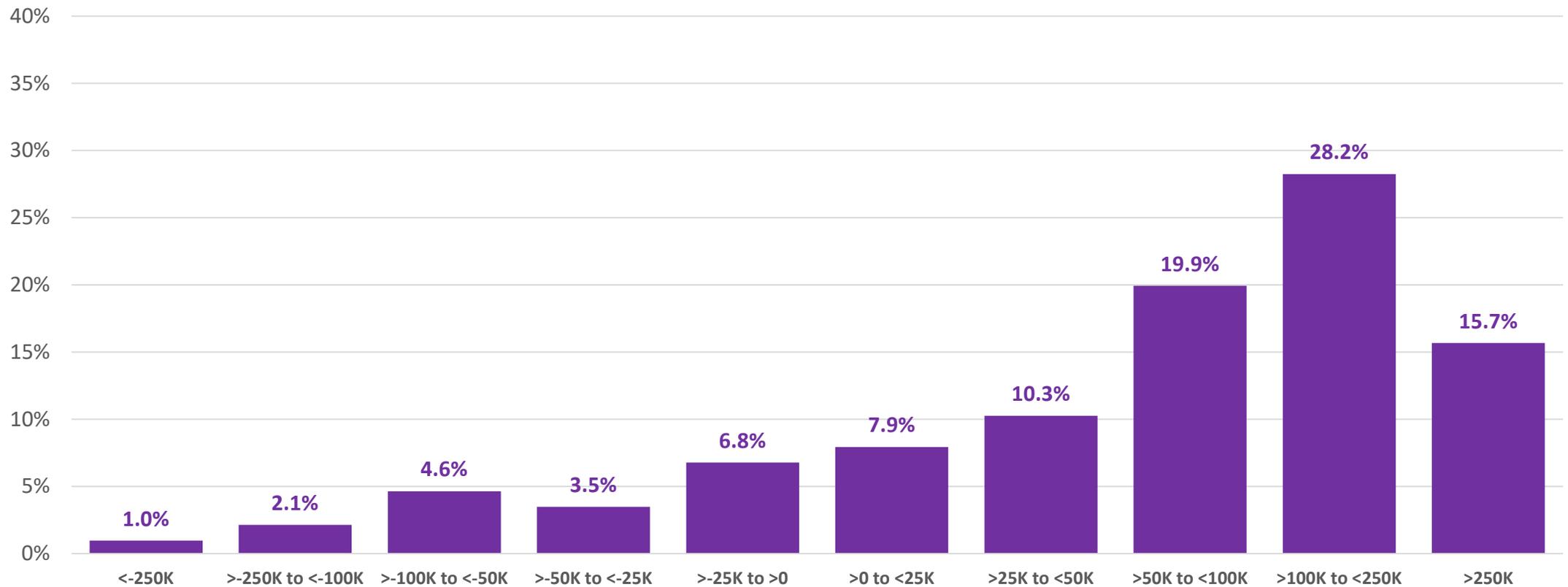
# KFMA Average Net Farm Income and Government Payments

	2014	2015	2016	2017	2018	2019
Net Farm Income	\$137,508	\$13,788	\$58,412	\$74,040	\$109,443	\$120,479
Government Payments	\$28,373	\$20,615	\$26,047	\$27,541	\$41,384	\$90,543
Government Payments as a Percent of Income	20.6%	149.5%	44.6%	37.2%	37.8%	75.2%

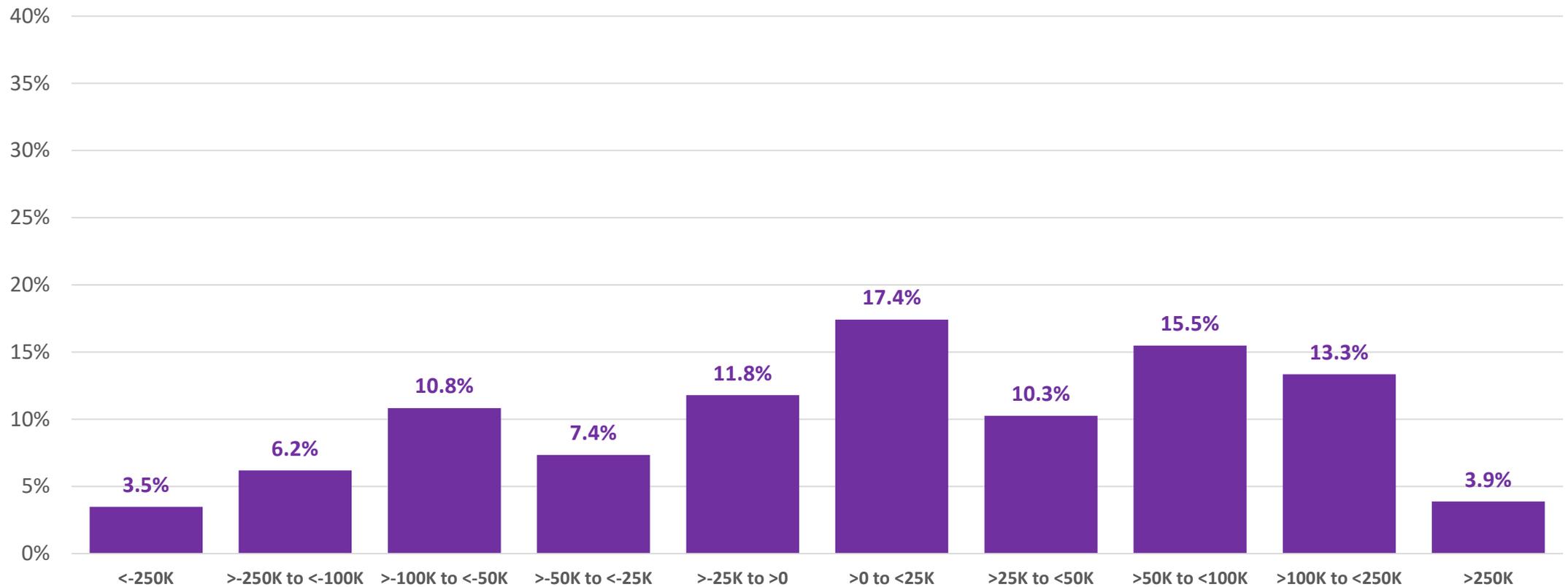
Sample size is 518 farms with 2014 to 2019 continuous data

Government Payments are important as a percentage of income for farms

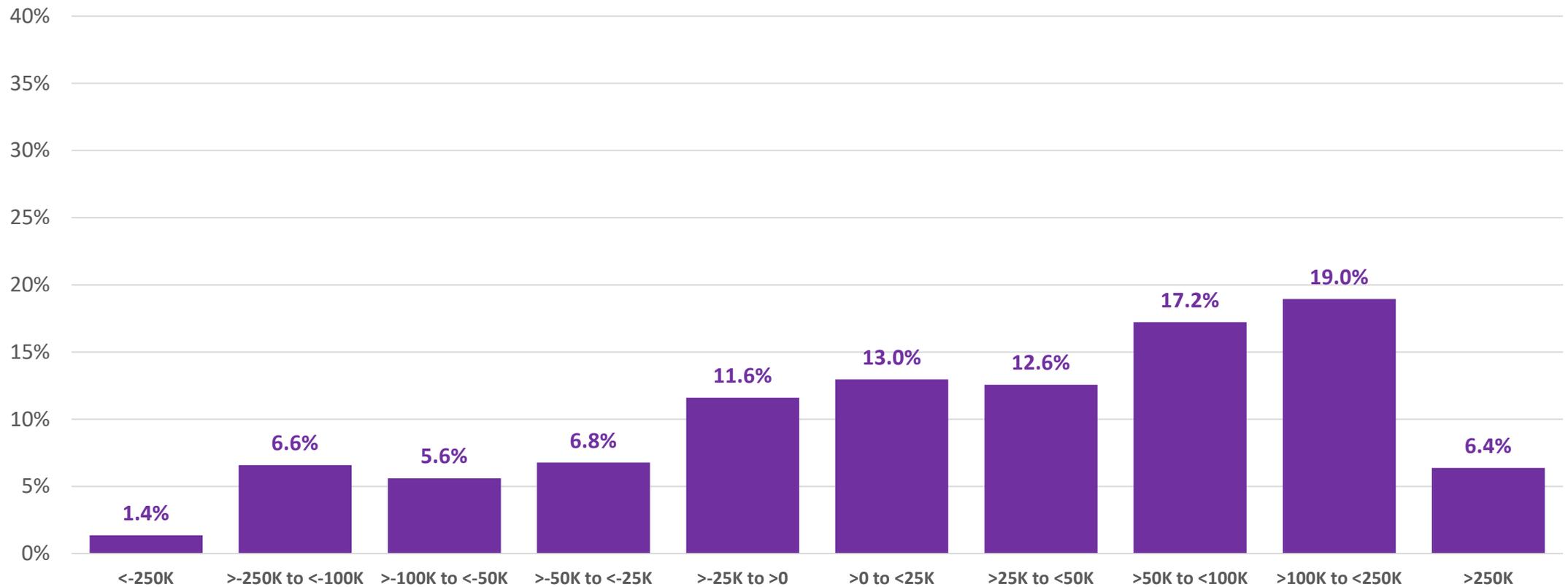
# Distribution of 2014 Net Farm Income



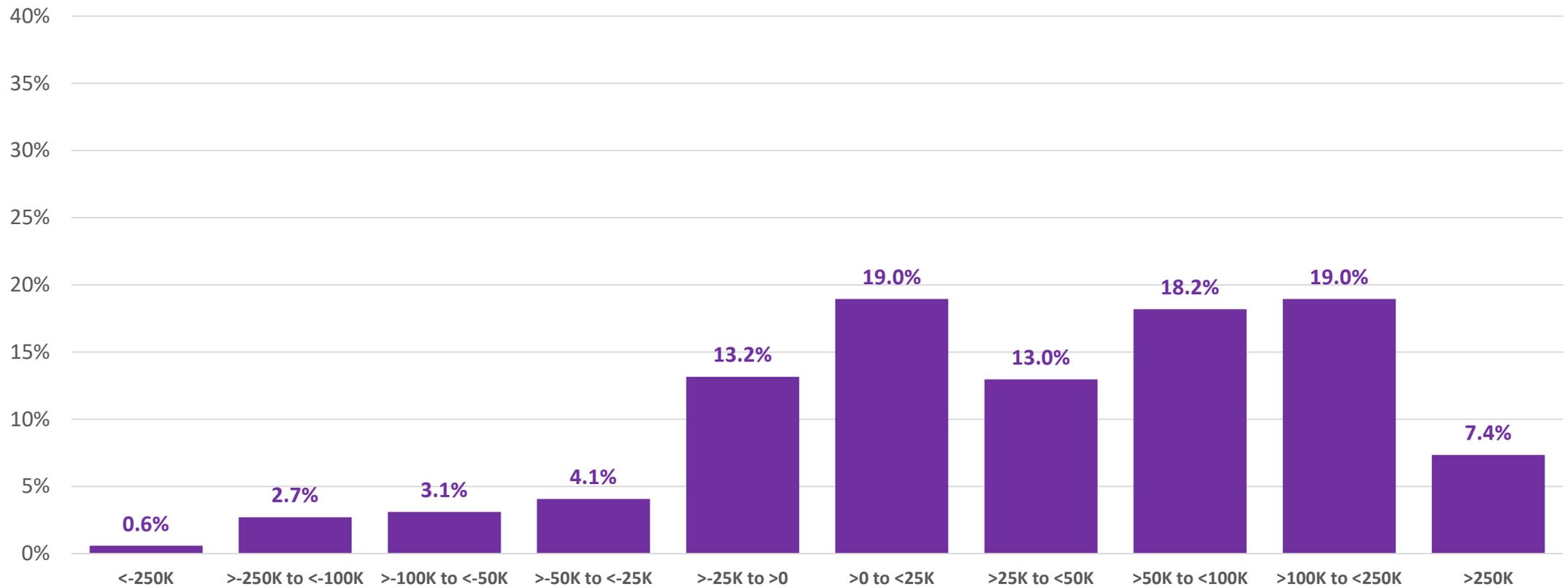
# Distribution of 2015 Net Farm Income



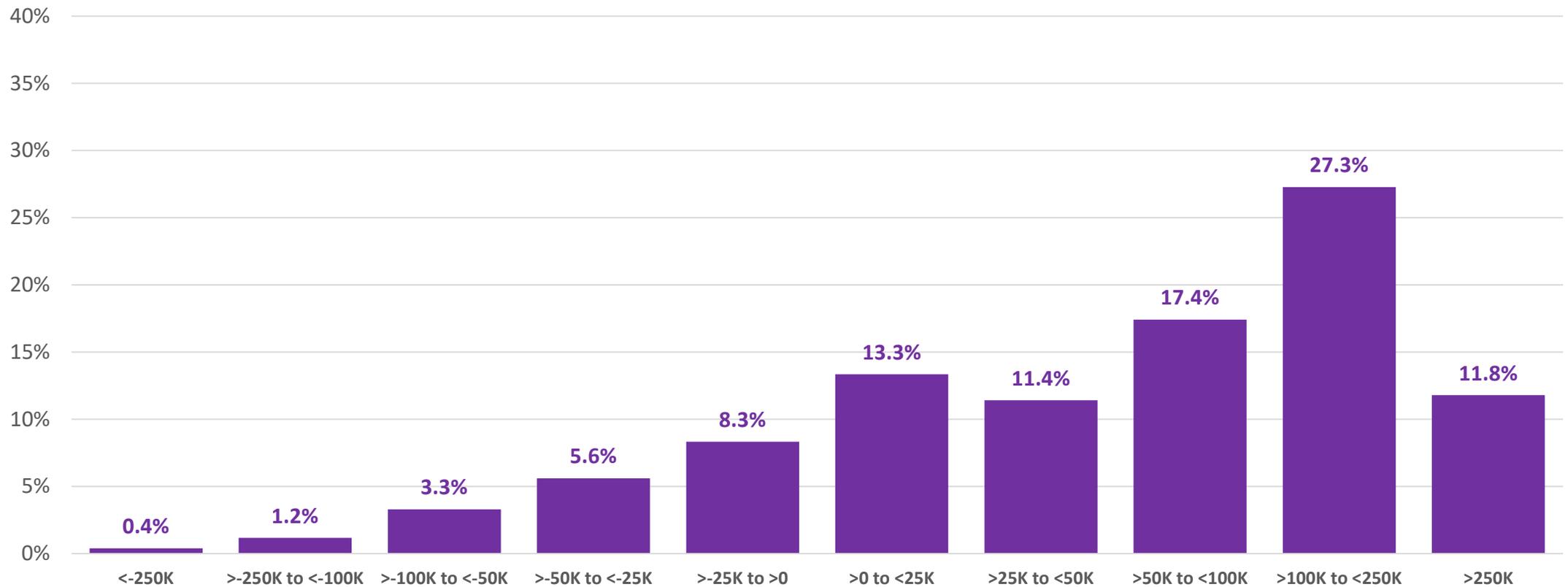
# Distribution of 2016 Net Farm Income



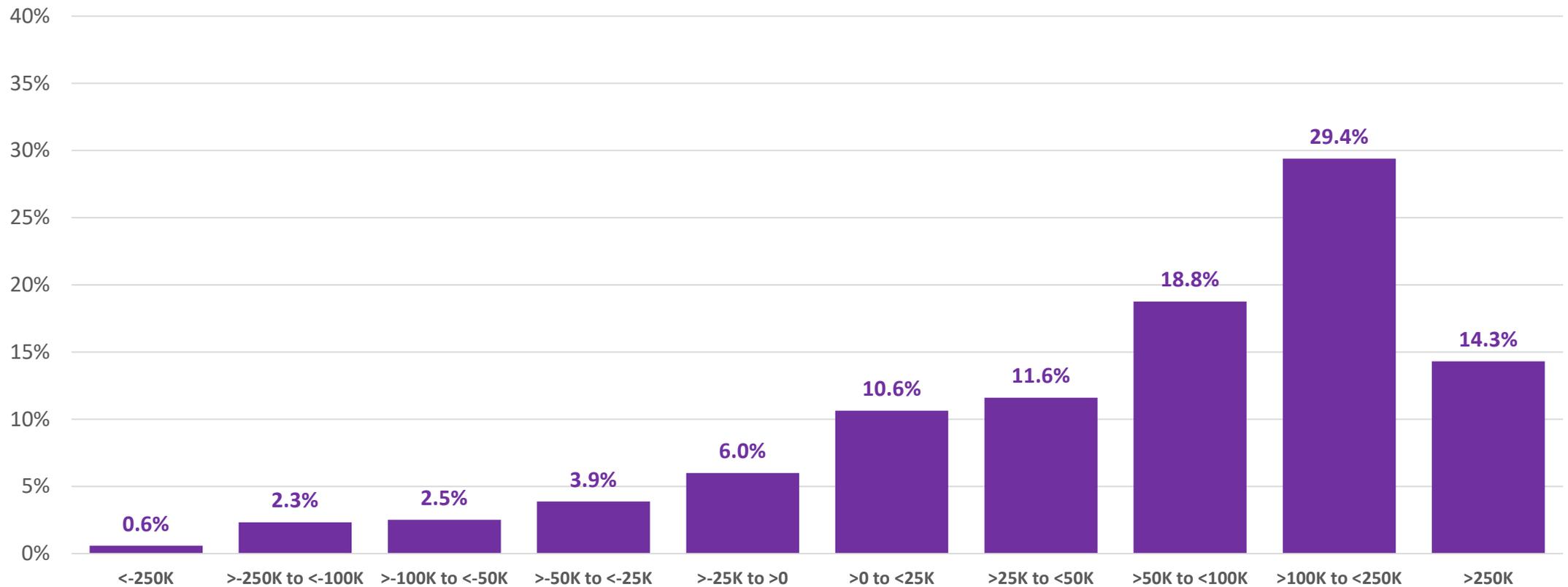
# Distribution of 2017 Net Farm Income



# Distribution of 2018 Net Farm Income



# Distribution of 2019 Net Farm Income



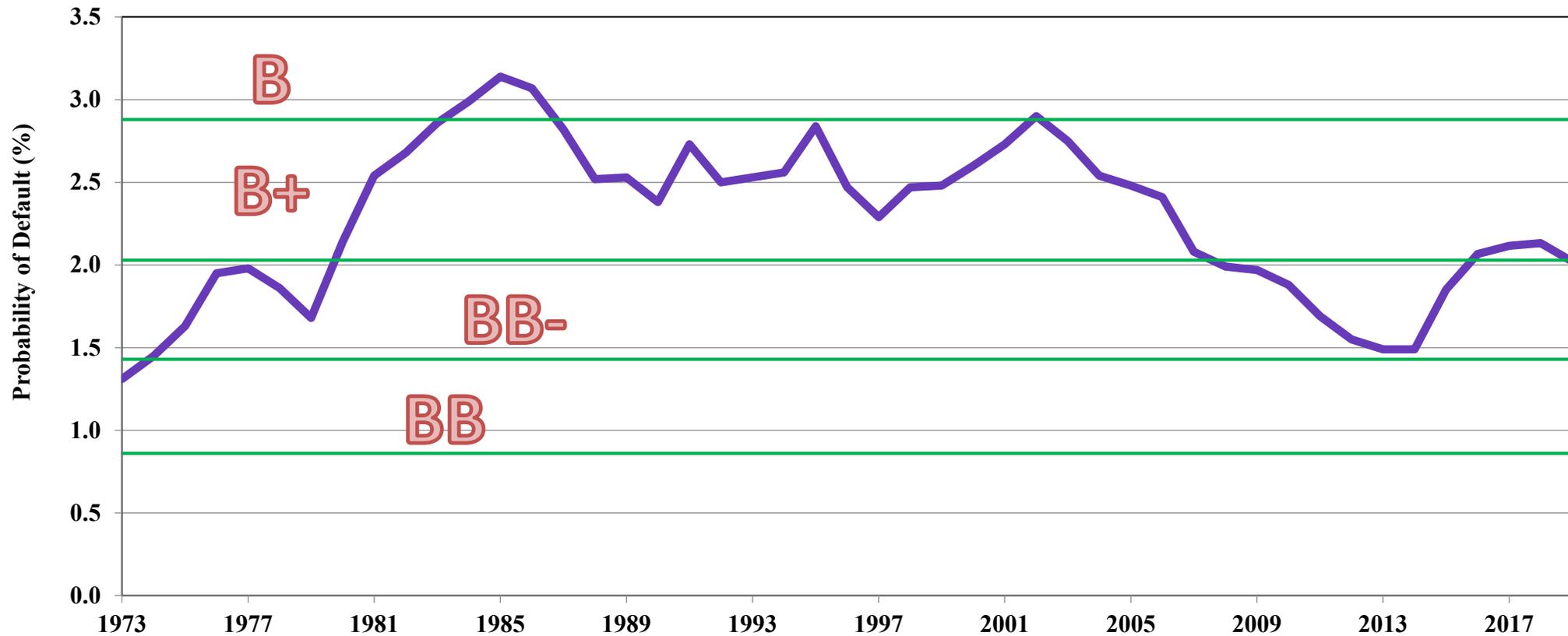
# Distribution of KFMA Net Farm Income

Farms with	2014	2015	2016	2017	2018	2019
Negative Net Farm Income	18.0%	39.7%	31.9%	23.6%	18.8%	15.3%
Net Farm Income Less than \$50,000	36.2%	67.3%	57.4%	55.5%	43.5%	37.5%

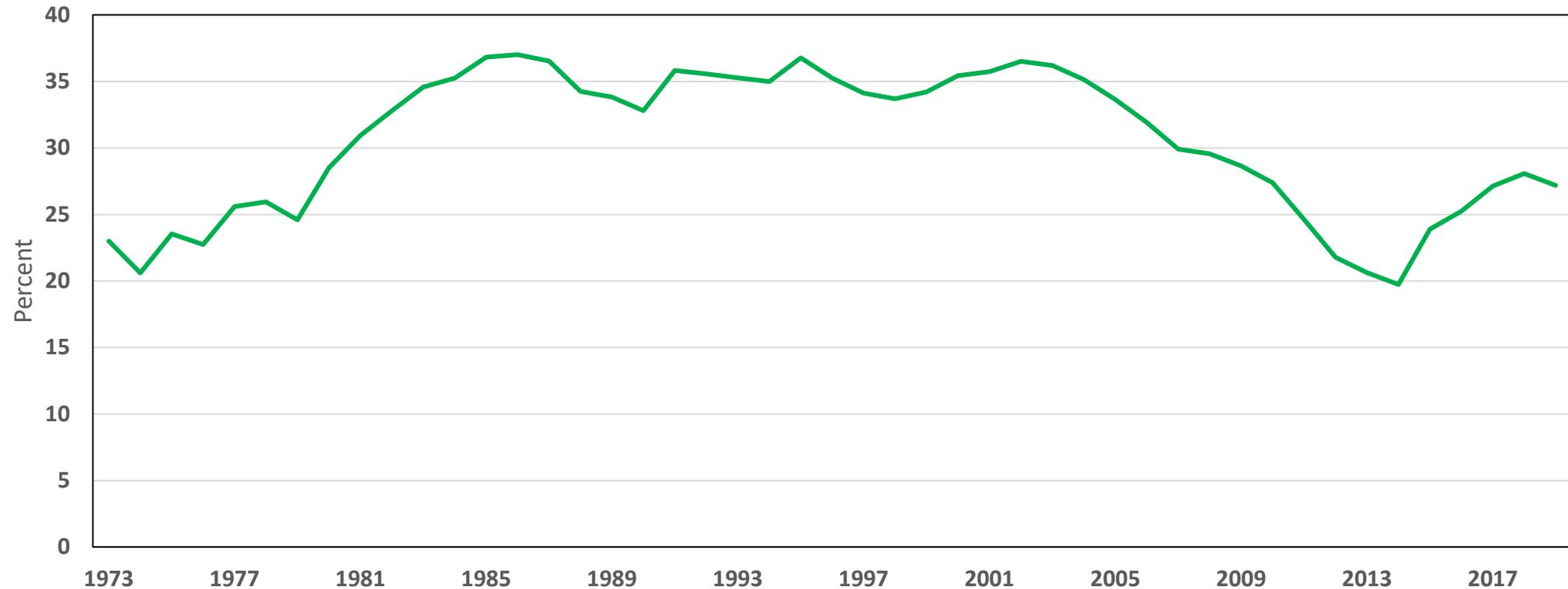
Farms with negative income each year from 2014 – 2.3%

Farms with positive income each year from 2014 – 30.6%

# Default Risk for KFMA farms 1973 through 2019



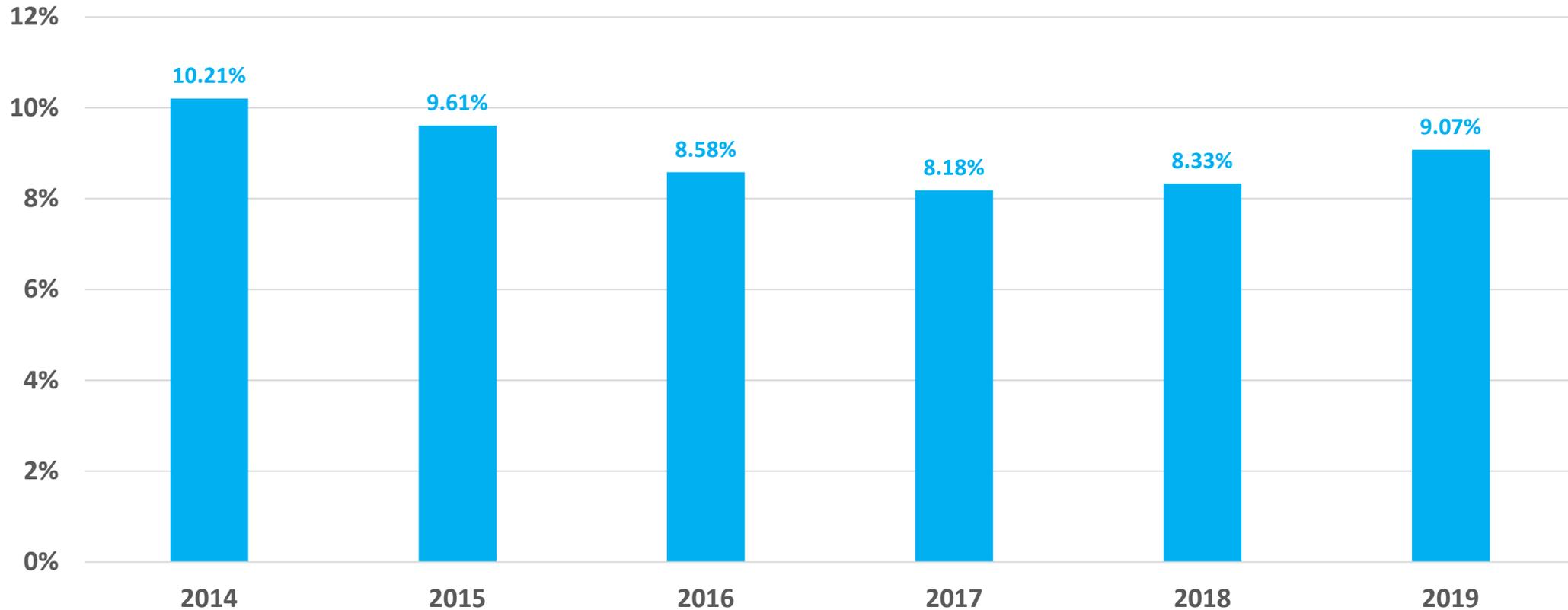
# KFMA Farms Debt to Asset Ratio



# Lower Tail of the Debt to Asset Ratio

Farms with	2014	2015	2016	2017	2018	2019
Debt > 40%	11.2%	16.6%	20.3%	21.5%	21.7%	20.1%
Debt > 70%	1.9%	2.7%	4.1%	3.9%	3.9%	3.9%

# KFMA Farms Working Capital to Asset Ratio

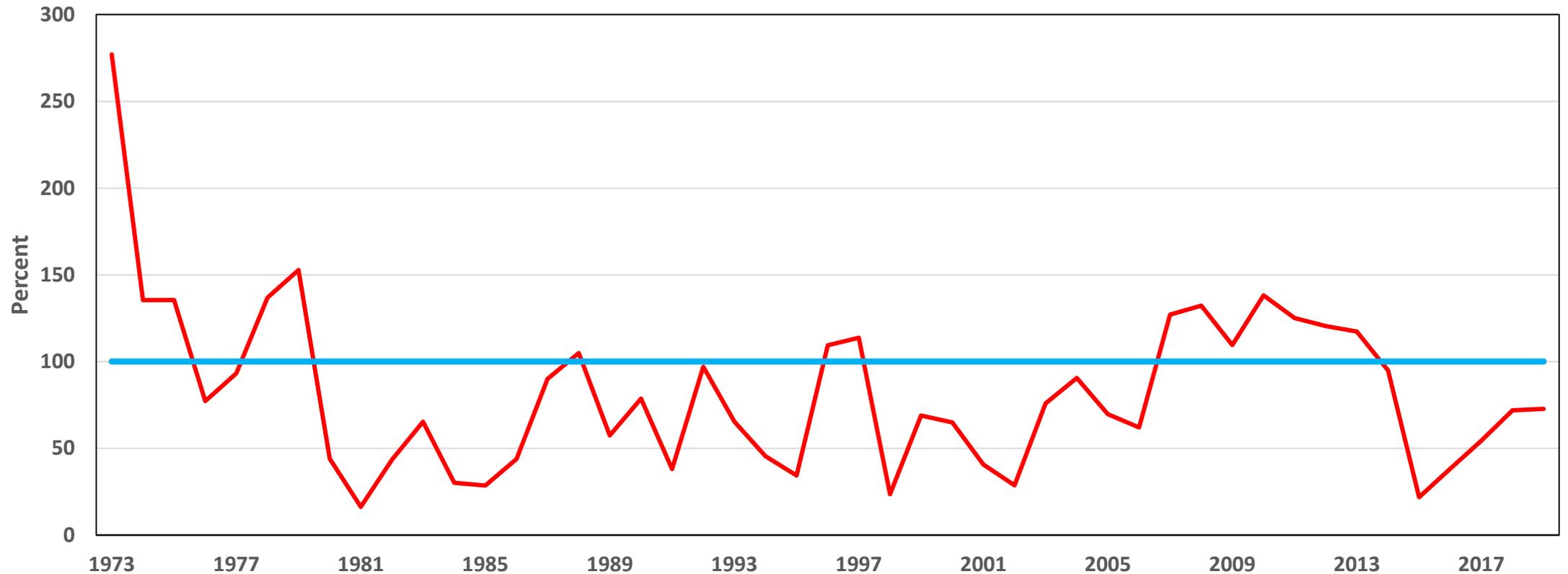


# Tails of the Working Capital to Asset Ratio

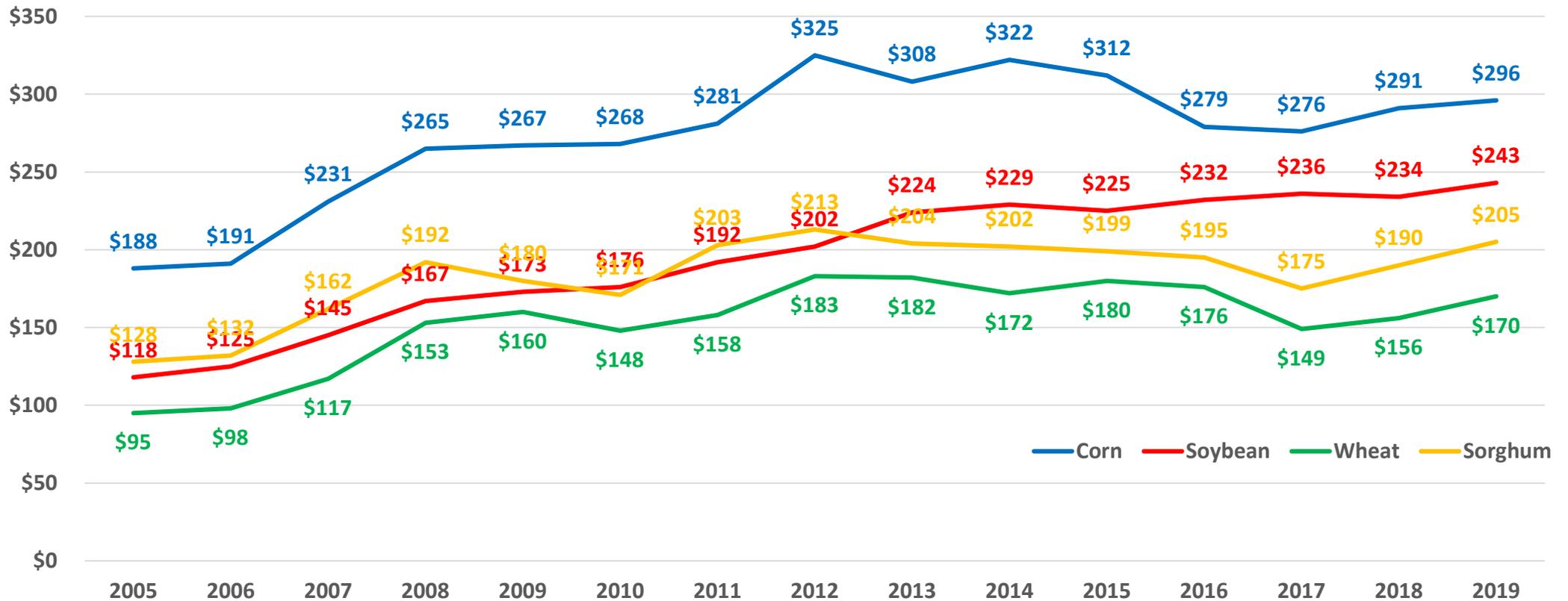
Farms with	2014	2015	2016	2017	2018	2019
Ratio < 0	15.7%	19.5%	23.2%	26.1%	25.5%	23.6%
Ratio > 20%	18.8%	22.1%	19.3%	19.9%	19.3%	19.7%

Working Capital to Asset Ratio has improved but is has not reached 2014 levels with many farms less than zero

# KFMA Farms Repayment Capacity



# KFMA Enterprise Non-Irrigated Variable Cost of Production per Acre



# 2019 Enterprise Information – Crop Mix Shift?

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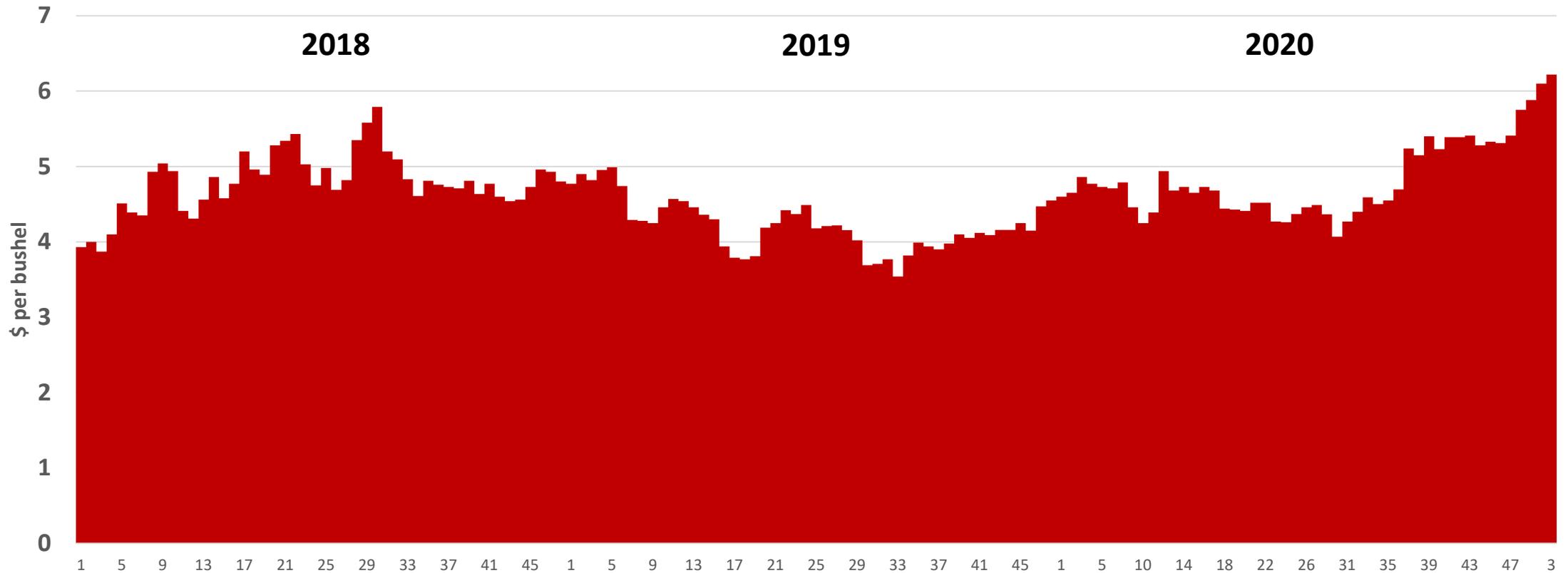
- **Kansas Corn – 2019 Yield 7% below the previous 5 year average**
  - Revenue - \$395 per acre
  - Variable Cost - \$296 per acre
  - Total Cost - \$411 per acre
- **Kansas Soybeans – 2019 Yield 6% above previous 5 year average**
  - Revenue - \$396 per acre
  - Variable Cost - \$243 per acre
  - Total Cost - \$355 per acre
- **Kansas Wheat – 2019 Yield 21% above the previous 5 year average**
  - Revenue - \$250 per acre
  - Variable Cost - \$170 per acre
  - Total Cost - \$248 per acre
- **Kansas Sorghum – 2019 Yield 10% above the previous 5 year average**
  - Revenue - \$313 per acre
  - Variable Cost - \$205 per acre
  - Total Cost - \$295 per acre

# Shifting Crop Mix

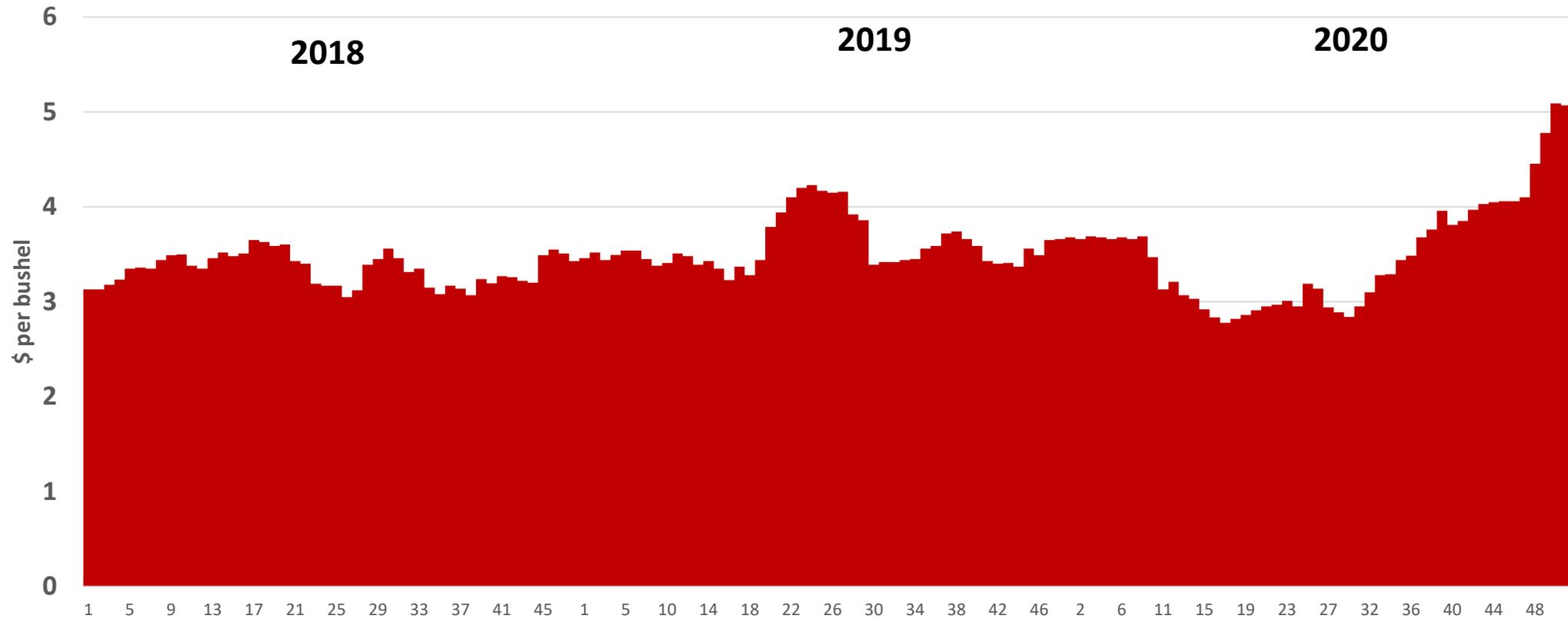
Crop	2015	2016	2017	2018	2019	2020	5-Year % Change
	Acres Harvested (Thousand)						
Corn	3,920	4,920	5,200	4,980	6,020	5,750	47%
Sorghum	3,200	2,950	2,360	2,650	2,450	2,760	-14%
Soybean	3,860	4,010	5,110	4,690	4,490	4,750	23%
Wheat	8,700	8,200	6,950	7,300	6,500	6,400	-26%
Total	19,680	20,080	19,620	19,760	19,460	19,950	1.4%

Increase in soybean and sorghum acres in 2020 and a decrease in corn and wheat acres

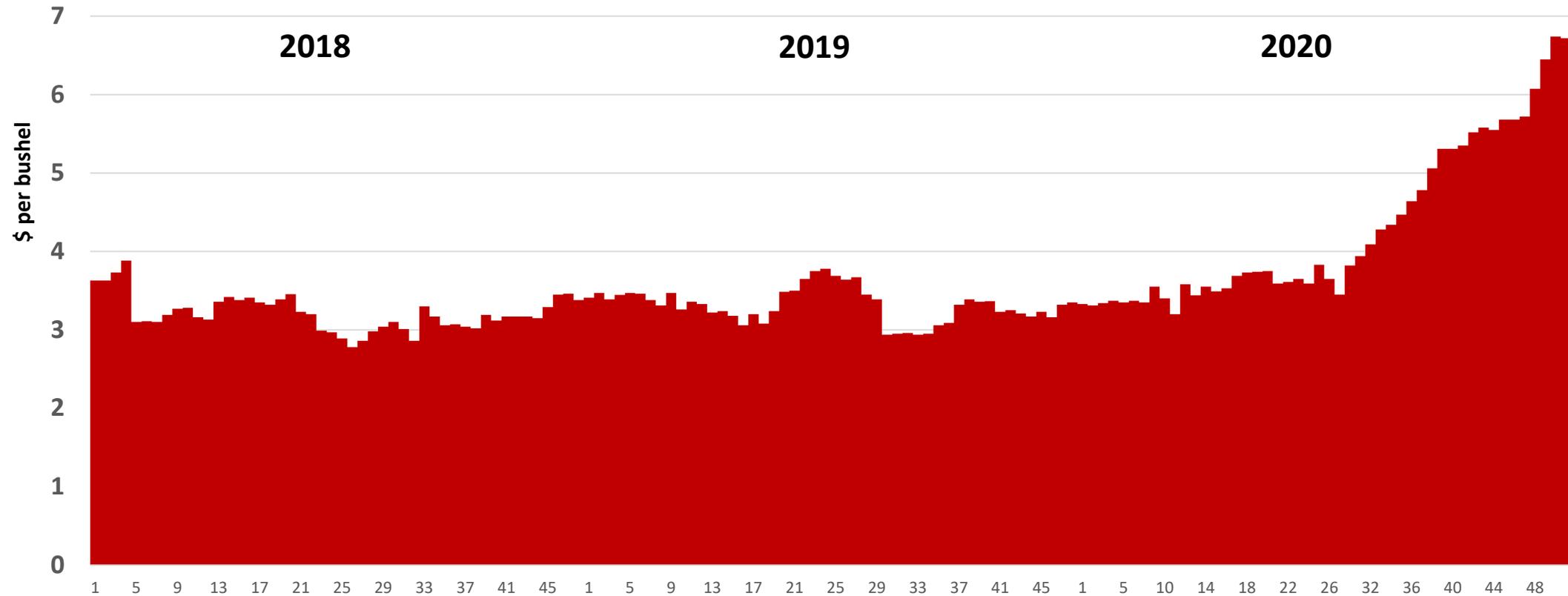
# Salina Cash Wheat Price



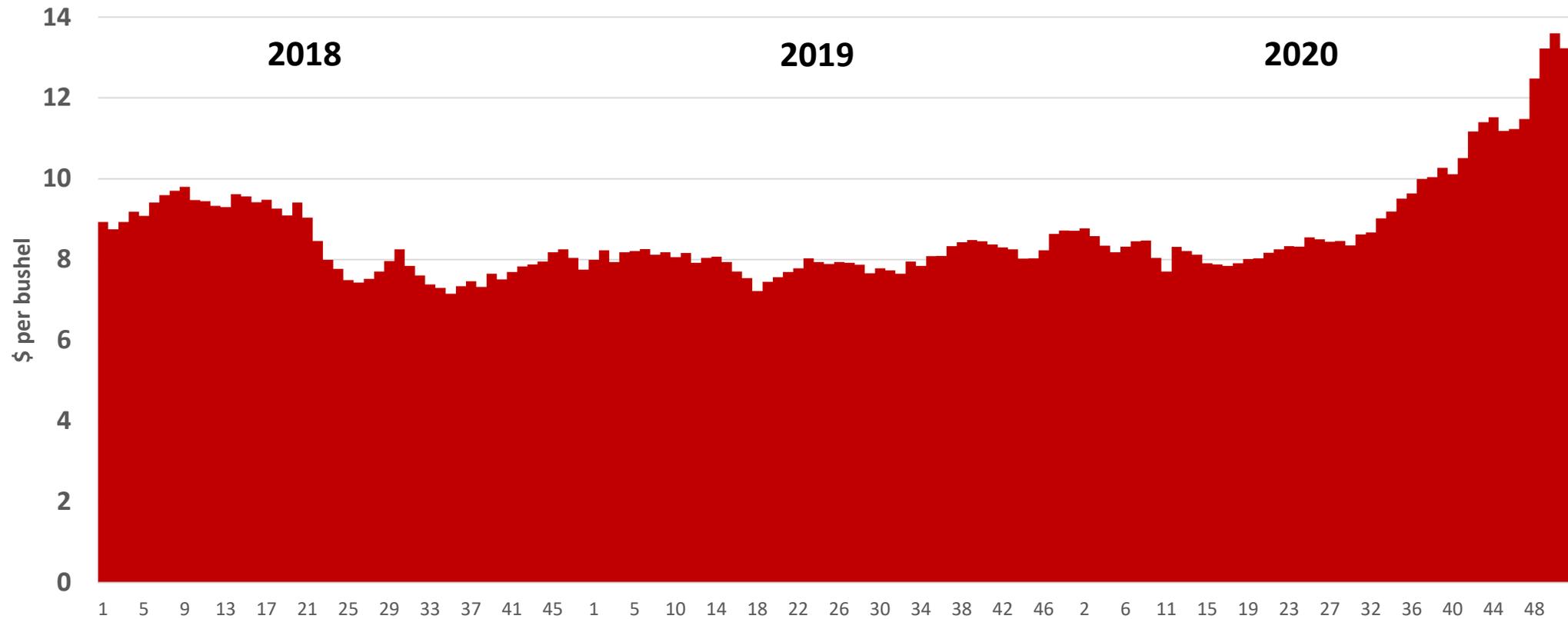
# Salina Cash Corn Price



# Salina Cash Sorghum Price



# Salina Cash Soybean Price



# 2021 Price Outlook

Commodity	Cash Bid (1/22)	Forward Bid (2021 Crop)	Difference
Wheat	\$5.94	\$5.87	\$0.07
Corn	\$5.01	\$4.16	\$0.85
Sorghum	\$6.61	\$4.81	\$1.80
Soybean	\$13.03	\$10.80	\$2.23

# Crop Farm Income Estimates

Year	Net Farm Income	Government Payments	% Government Payments
2018	\$127,709	\$68,504	53.6%
2019	\$164,711	\$93,109	56.5%
2020	\$163,742	\$59,813	36.5%
2021	\$226,030	\$0	0%

# Summary

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- At the end of 2019, Kansas has experienced four years of increasing net farm income on average
  - Farms with negative net income fell from 39.7% of farms to 15.3% of farms
  - Much of that improvement was due to increasing government payments
- 2020 will likely be the fifth year of increasing average net farm income
- The probability of default improved in 2019
- The debt to asset ratio improved in 2019
  - 20.1% of KFMA farms had a debt to asset ratio of greater than 40%, down from 21.7% in 2018
  - 3.9% of KFMA farms had a debt to asset ratio of greater than 70%, roughly the same as in 2018
- The working capital to asset ratio increased for the 2<sup>nd</sup> year in a row in 2019
- The capital debt repayment capacity increased for the 4<sup>th</sup> year in a row in 2019
- Farmers continue to shift crop mix in Kansas
  - Shift to Soybean and Sorghum in 2019 away from Corn and Wheat

# Conclusions

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- Crop Farmers income will be up in 2020
- Government Payments will be up in 2020
- 2021 prospects also appear encouraging