Red River Valley Farm Financial Performance

2017 Outlook Conference for Agricultural Lenders

Grand Forks – Oct. 16

Fargo – Oct. 31

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Main Source of Information

North Dakota and Minnesota Farm Business Management Education Programs

Red River Valley
Farm Financial Performance

- What has happened?
- Current Situation
- Future Outlook

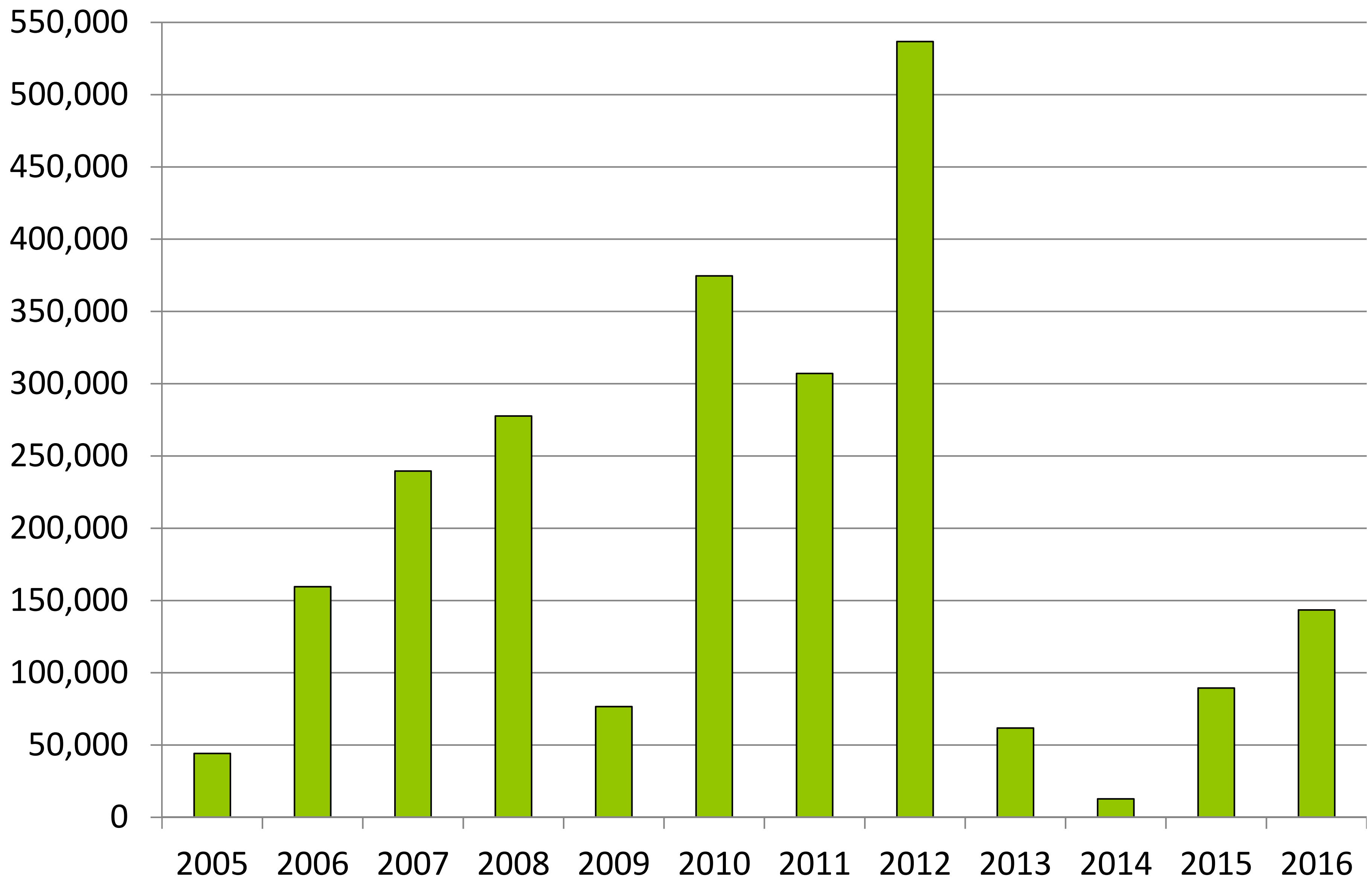
North Dakota Marketing Year Average Price; 2010-2016

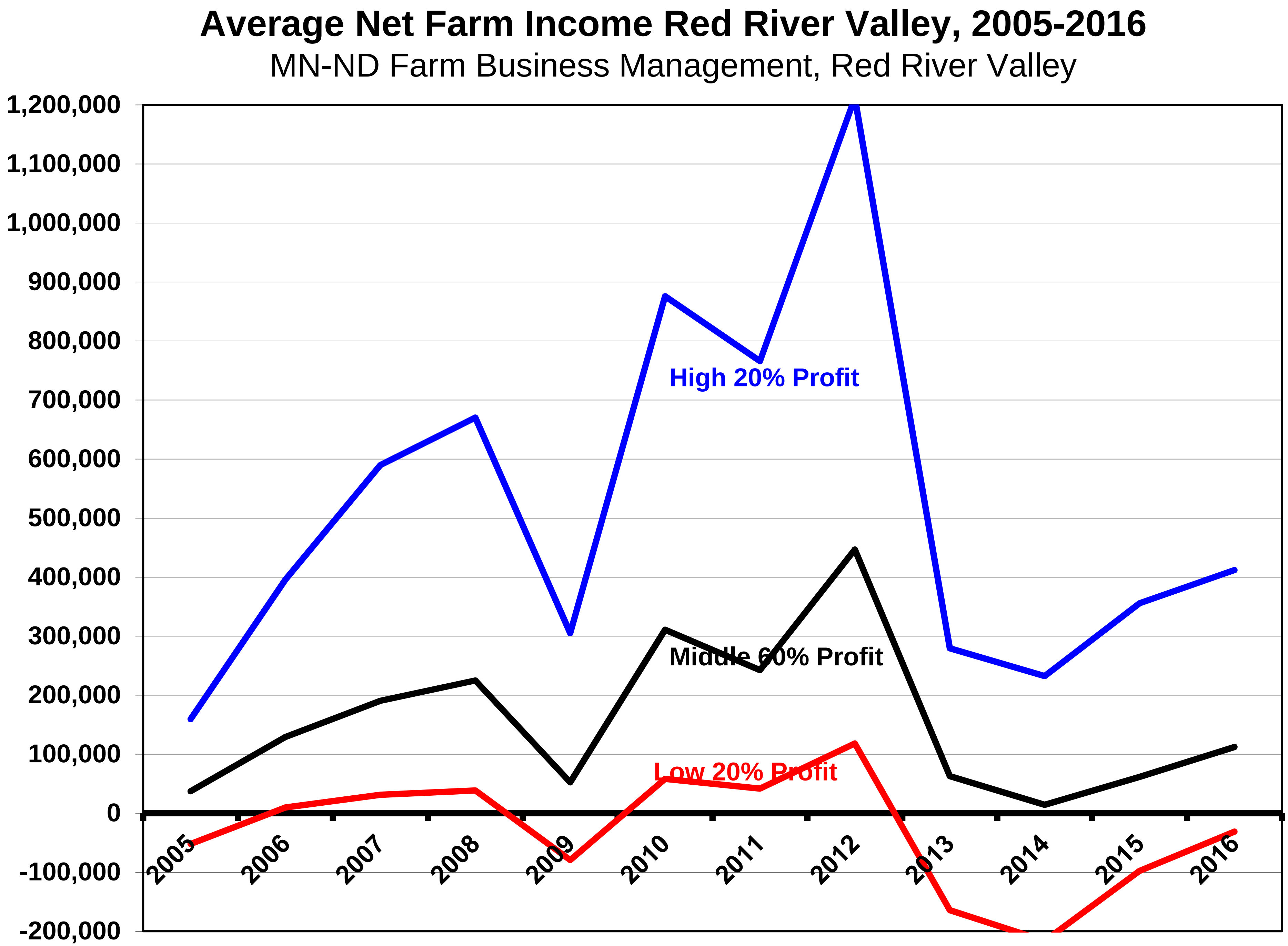
Year	Spring Wheat	Soybean	Corn
2010	6.78	10.90	5.01
2011	8.17	11.90	5.81
2012	8.19	14.00	6.46
2013	6.50	12.40	3.91
2014	5.42	9.49	3.34
2015	4.59	8.49	3.28
2016	4.57	8.97*	3.15*
2017	?	?	?

-34% -32% -48%

Net Farm Income

MN-ND Farm Business Management, Red River Valley



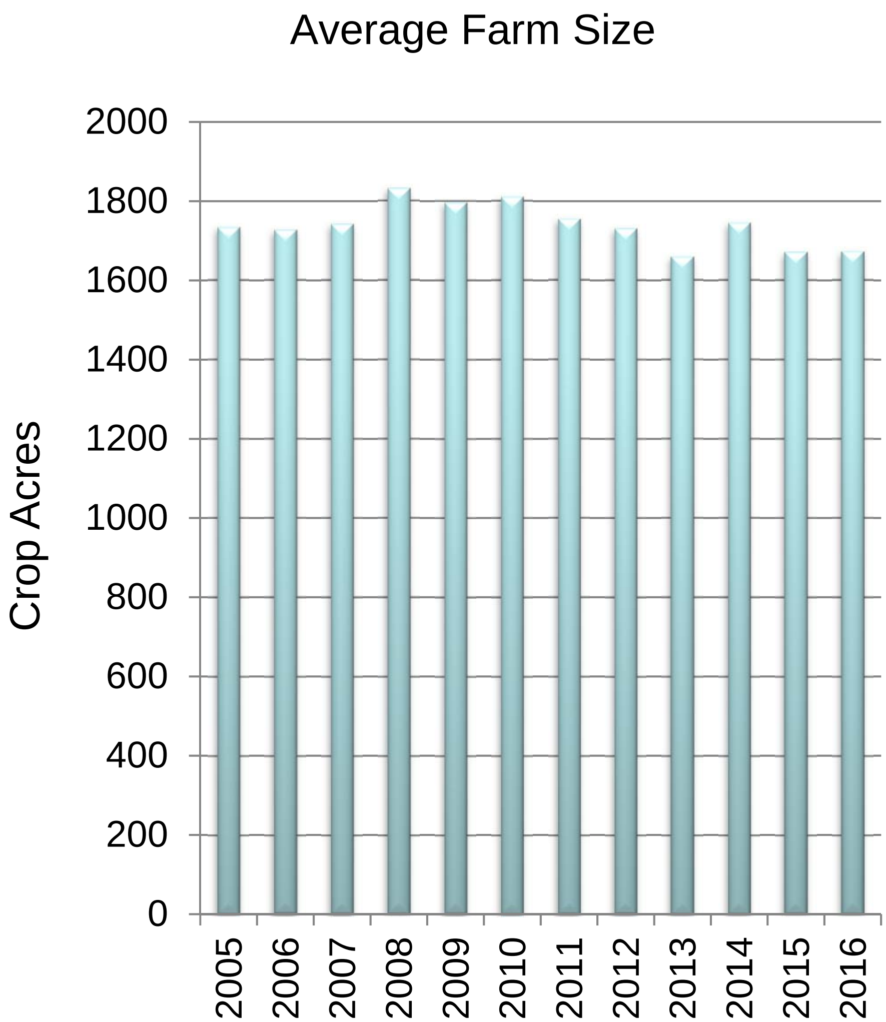


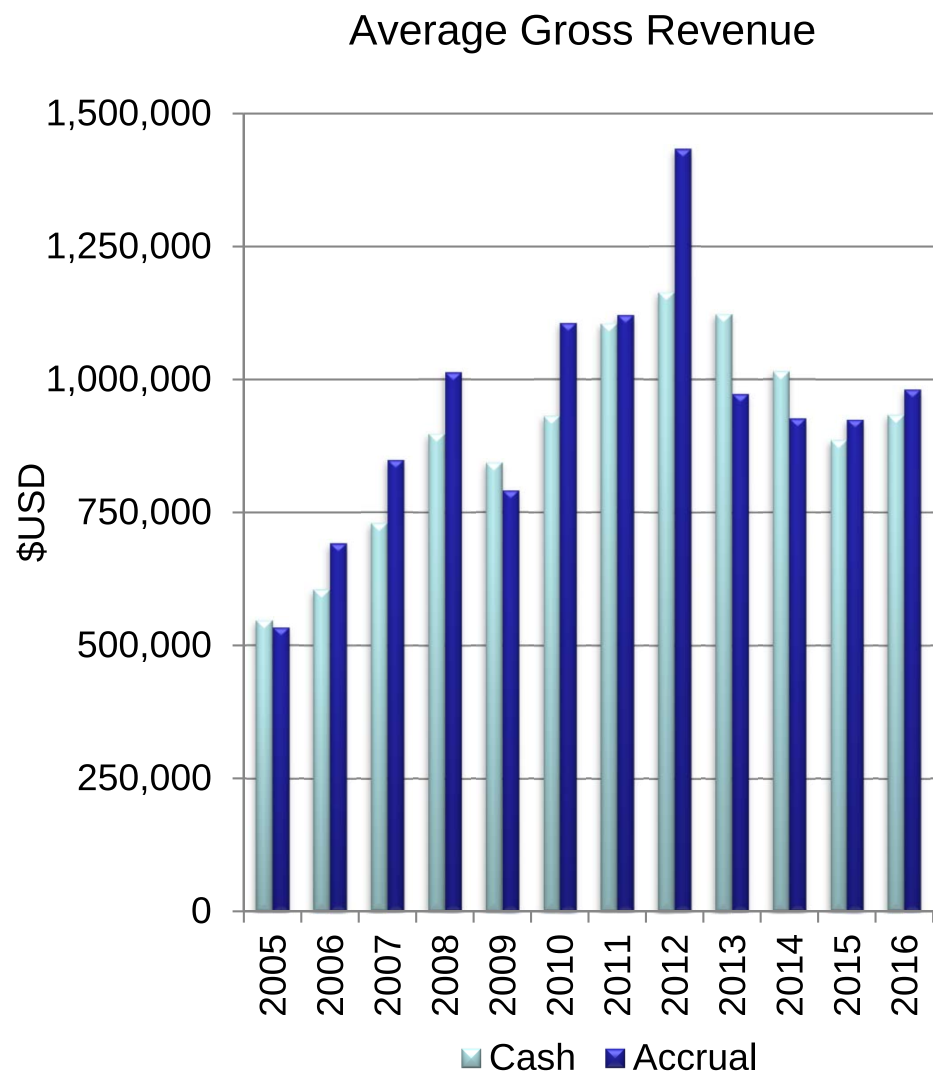
Average Net Farm Income Red River Valley, 2005-2016
MN-ND Farm Business Management, Red River Valley
1,200,000
1,100,000
1,000,000
900,000
800,000
700,000
600,000
500,000
400,000
300,000
200,000
100,000
0
-100,000
-200,000
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
High 20% Profit
Middle 60% Profit
Low 20% Profit

Farms Sorted By Gross Farm Income, 2016

	100,001-250,000	250,001-500,000	500,001-1,000,000	1,000,001-2,000,000	Over 2,000,000
Age	39	48	49	52	50
Total Crop Acres	348	866	1,347	2,462	4,432
Average Net Farm Income	32,558	66,663	128,416	184,741	411,574
Current Ratio	1.77	1.76	1.93	1.92	1.73
Farm Debt to Asset Ratio (cost)	43%	35%	36%	39%	44%
Term Debt Coverage Ratio	1.87	1.70	1.86	1.42	1.76
Operating Expense Ratio	73.4%	71.8%	70.6%	75.5%	74.4%
Depreciation Expense Ratio	4.6%	8.8%	8.3%	7.9%	7.1%
Interest Expense Ratio	3.7%	4.0%	4.0%	3.8%	4.6%
Net Farm Income Ratio	18.2%	15.2%	17.0%	12.8%	13.8%
Machinery Value per Crop Acre	279	432	441	429	426

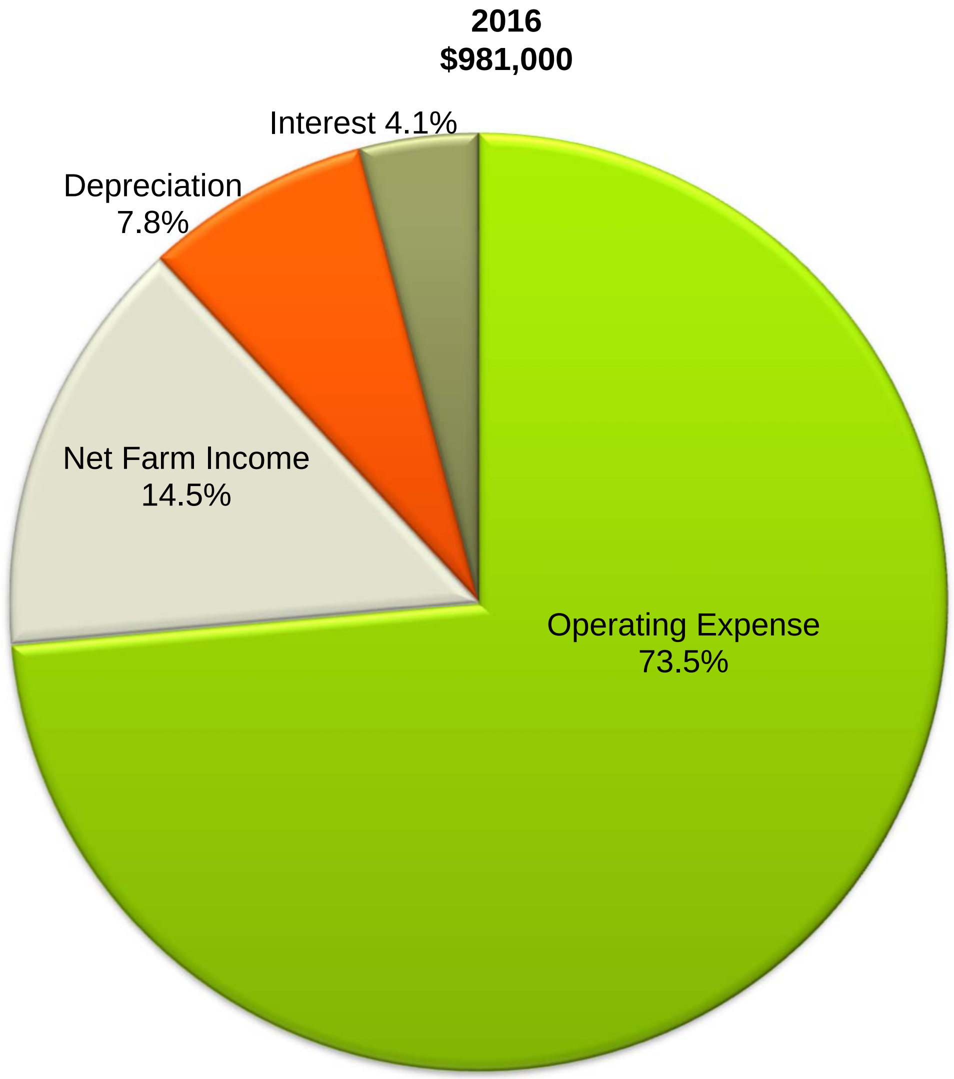
MN-ND Farm Business Mgmt., Red River Valley





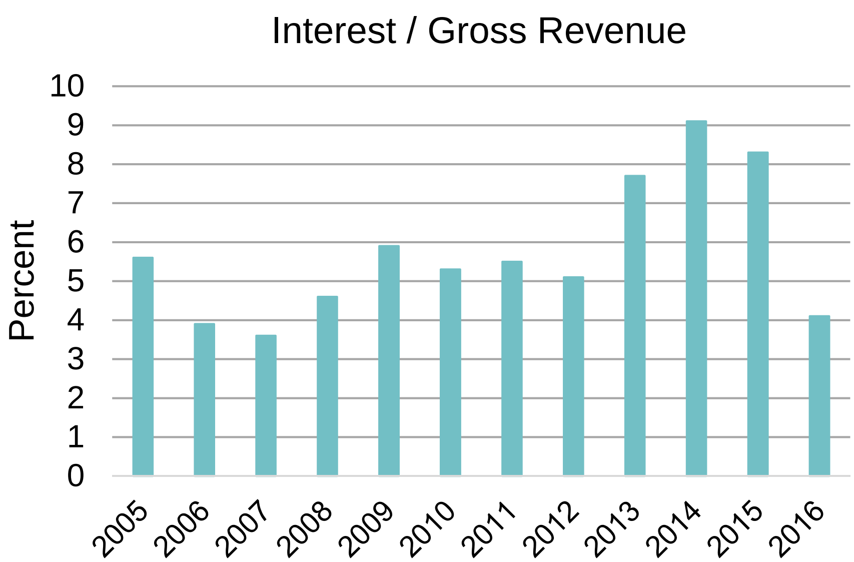
Where Does the Gross Revenue (Accrual) Go?

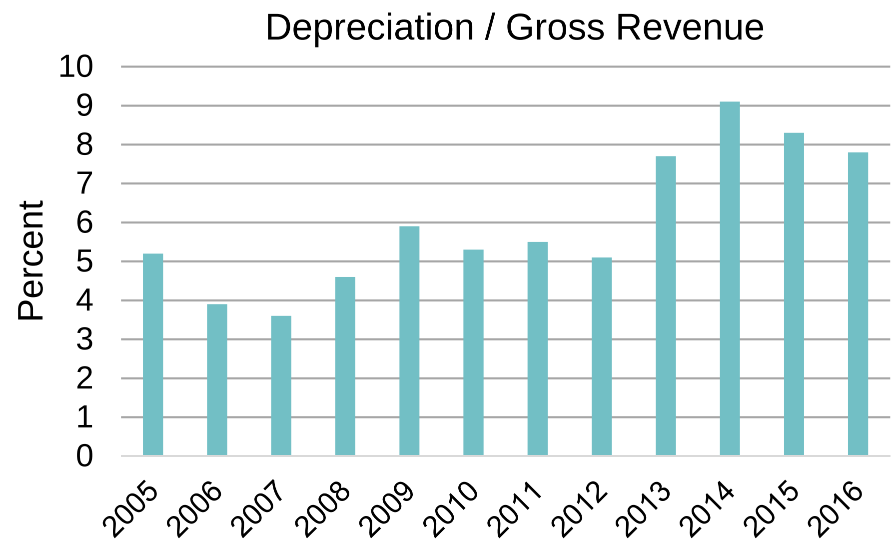
Red River Valley Farms*

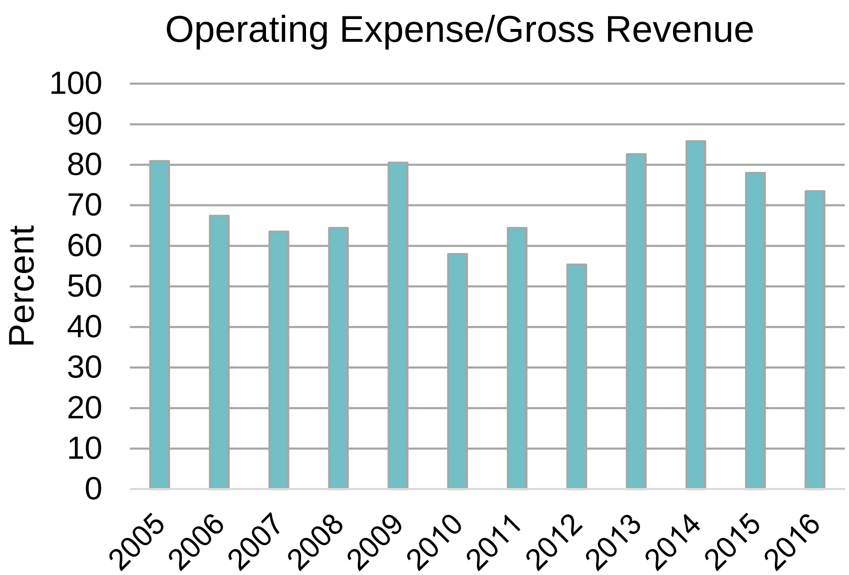


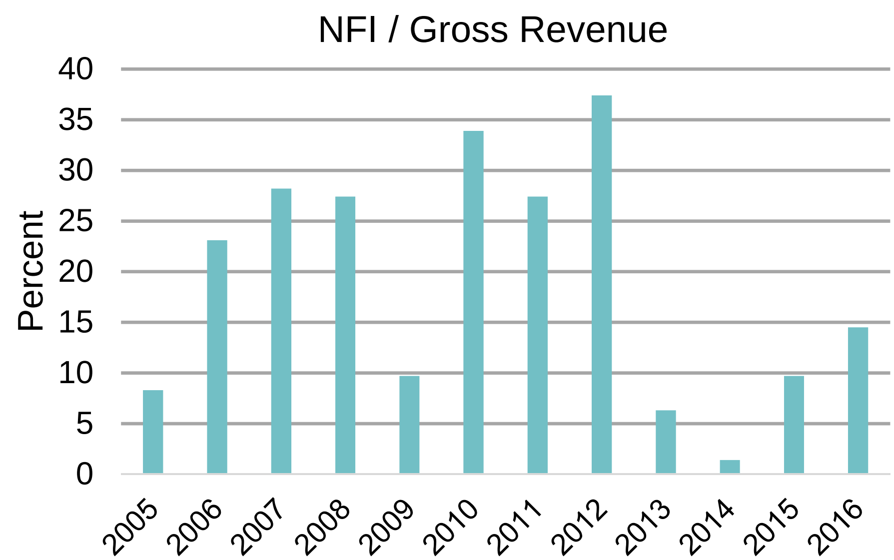
*Source: Minnesota and North Dakota Farm Business Management Education Programs

MN-ND Farm Business Mgmt, Red River Valley



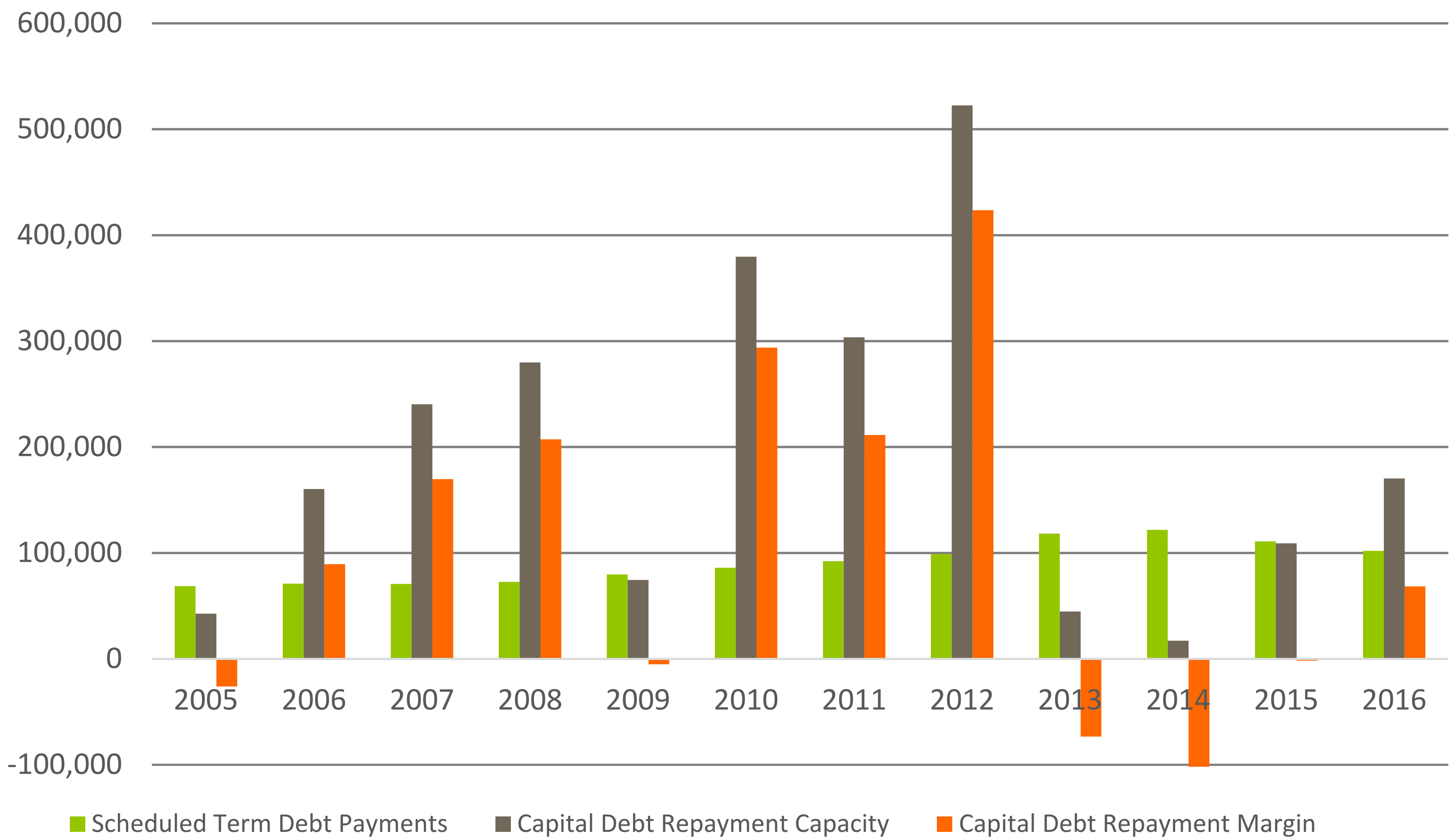






Repayment Capacity, per Farm, 2005-2016

MN-ND Farm Business Management, Red River Valley



Capital Debt Repayment Margin, by Profit Group, 2016

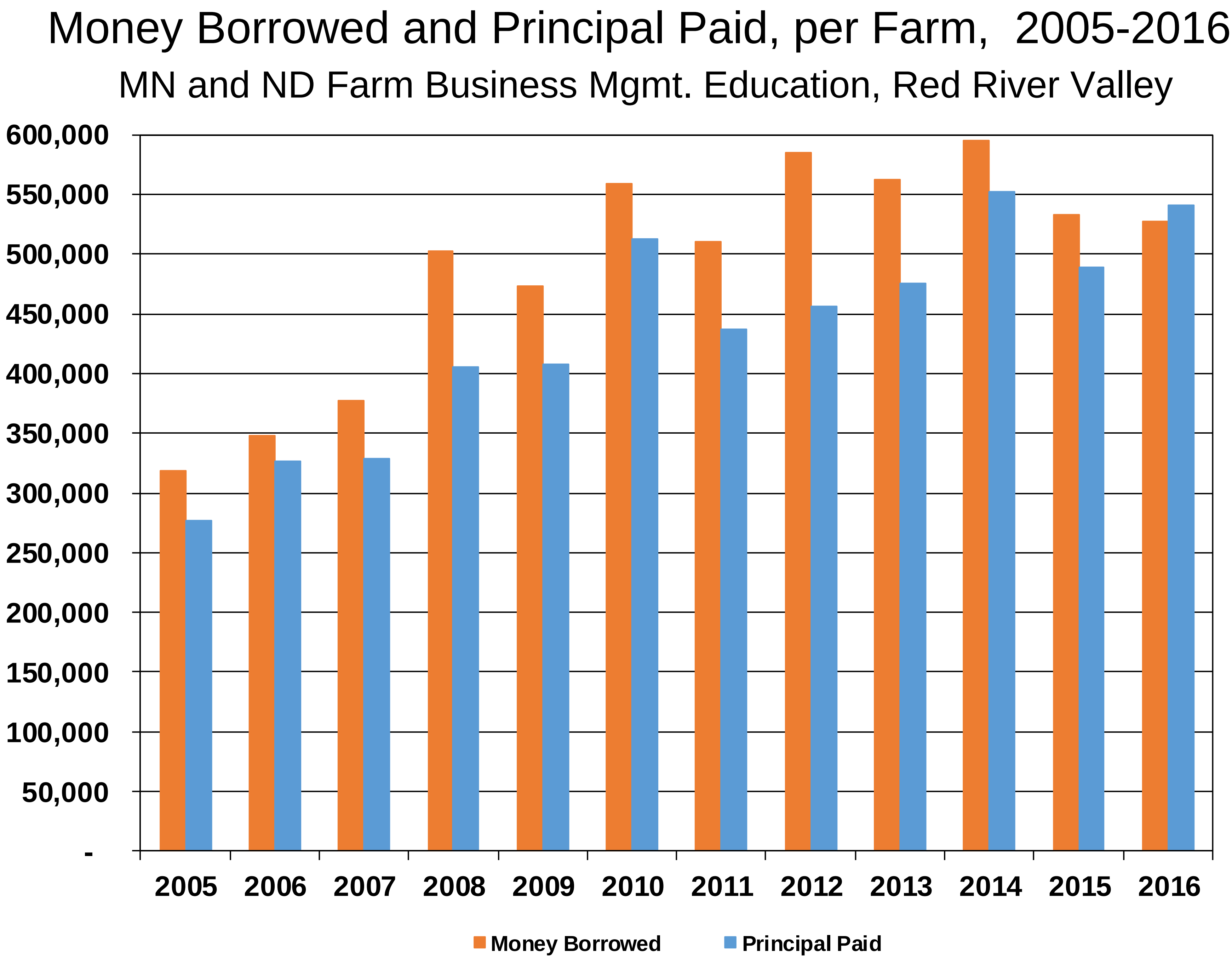
MN-ND Farm Business Management, Red River Valley

	Low 20% Profit		High 20% Profit
Net farm income from operations	-29,313		412,814
Depreciation	65,430		128,870
Personal income	30,009		12,694
Family living/owner withdrawals	-59,877		-107,031
Payments on personal debt	-2,652		-8,628
Income taxes paid	-9,569		-43,083
Interest on term debt	28,369		42,472
Capital debt repayment capacity	22,034		437,939
Scheduled term debt payments	-91,514		-167,445
Capital debt repayment margin	-69,481		270,494

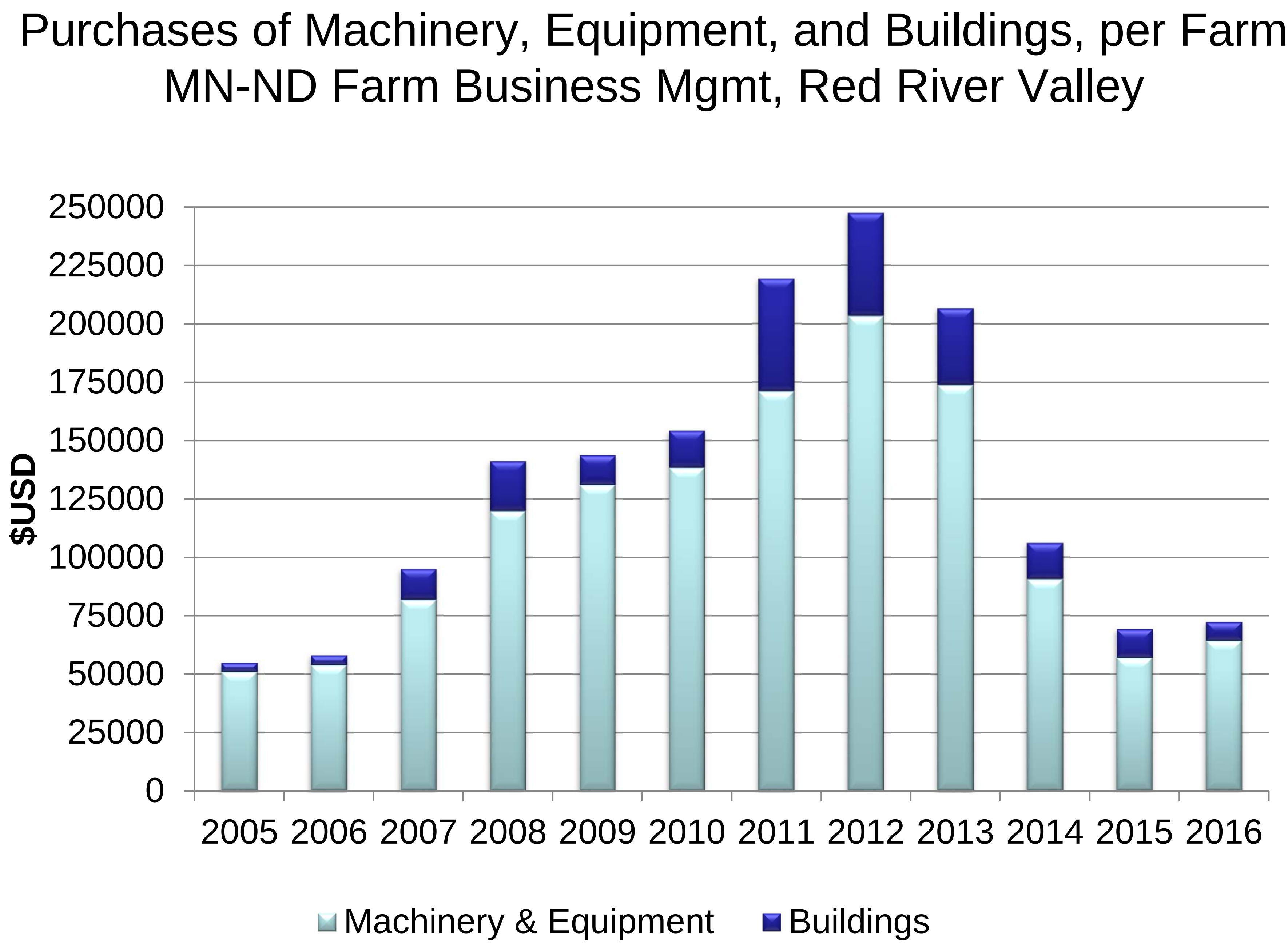
Comparison of High and Low 20% Profit Groups, 2016

MN-ND Farm Business Management, Red River Valley

	Low Profit		High Profit
Age, Years Farming	45.8		49.8
Crop acres	1,301		2,941
Current Ratio	1.35		2.31
Farm Debt to Asset (%)	42.0		36.0
Asset Turnover Ratio (%)	32.3		38.4
Soybean yield	44.5		48.4
Corn yield	189.0		191.1
Wheat yield	60.4		74.3
Soybean sale price	$8.95		$8.99
Corn sale price	$3.16		$3.36
Wheat sale price	$4.96		$4.77

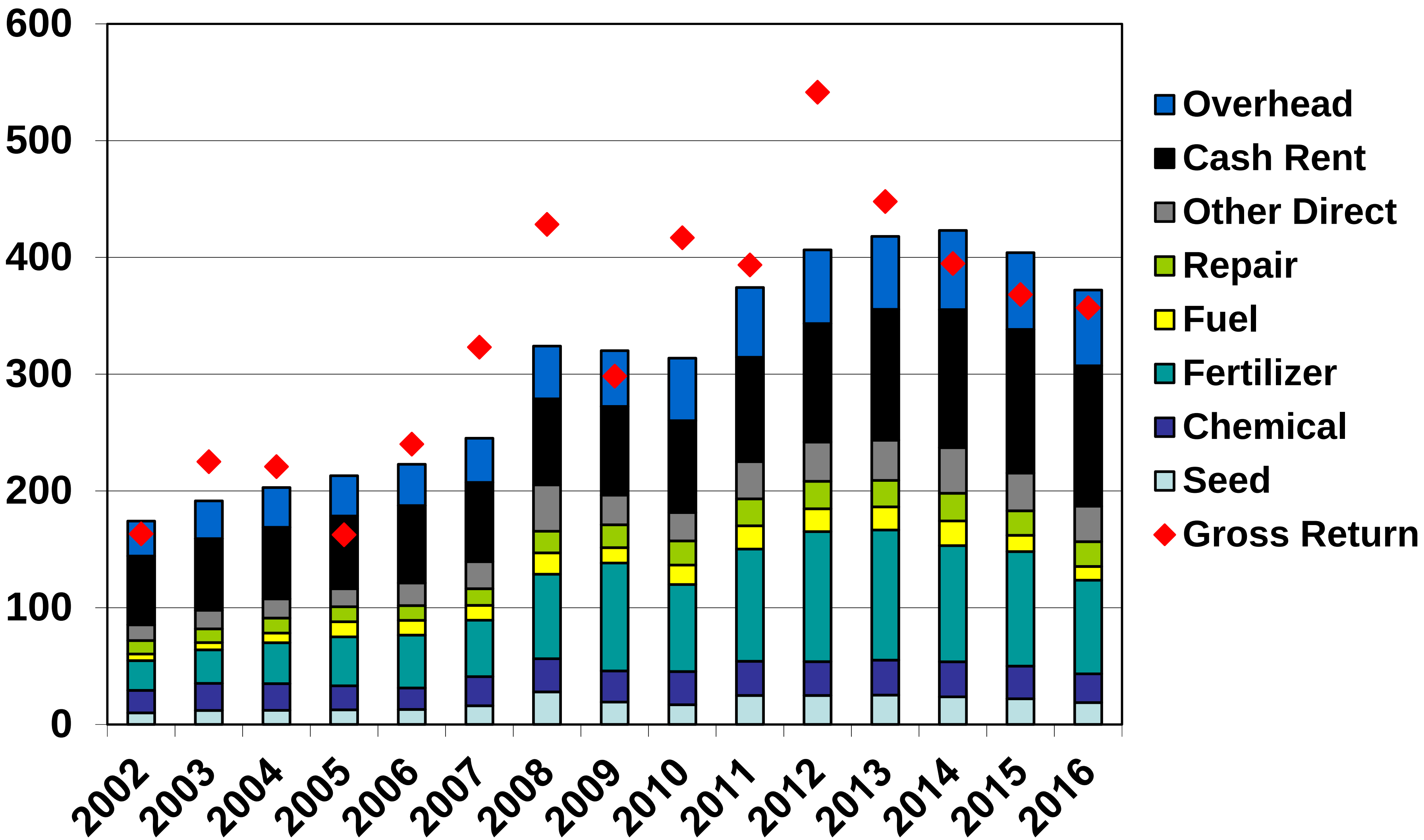


Money Borrowed and Principal Paid, per Farm, 2005-2016
MN and ND Farm Business Mgmt. Education, Red River Valley
600,000
550,000
500,000
450,000
400,000
350,000
300,000
250,000
200,000
150,000
100,000
50,000
-
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
Money Borrowed
Principal Paid


Purchases of Machinery, Equipment, and Buildings, per Farm
MN-ND Farm Business Mgmt, Red River Valley
$USD
250000
225000
200000
175000
150000
125000
100000
75000
50000
25000
0
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
Machinery & Equipment
Buildings

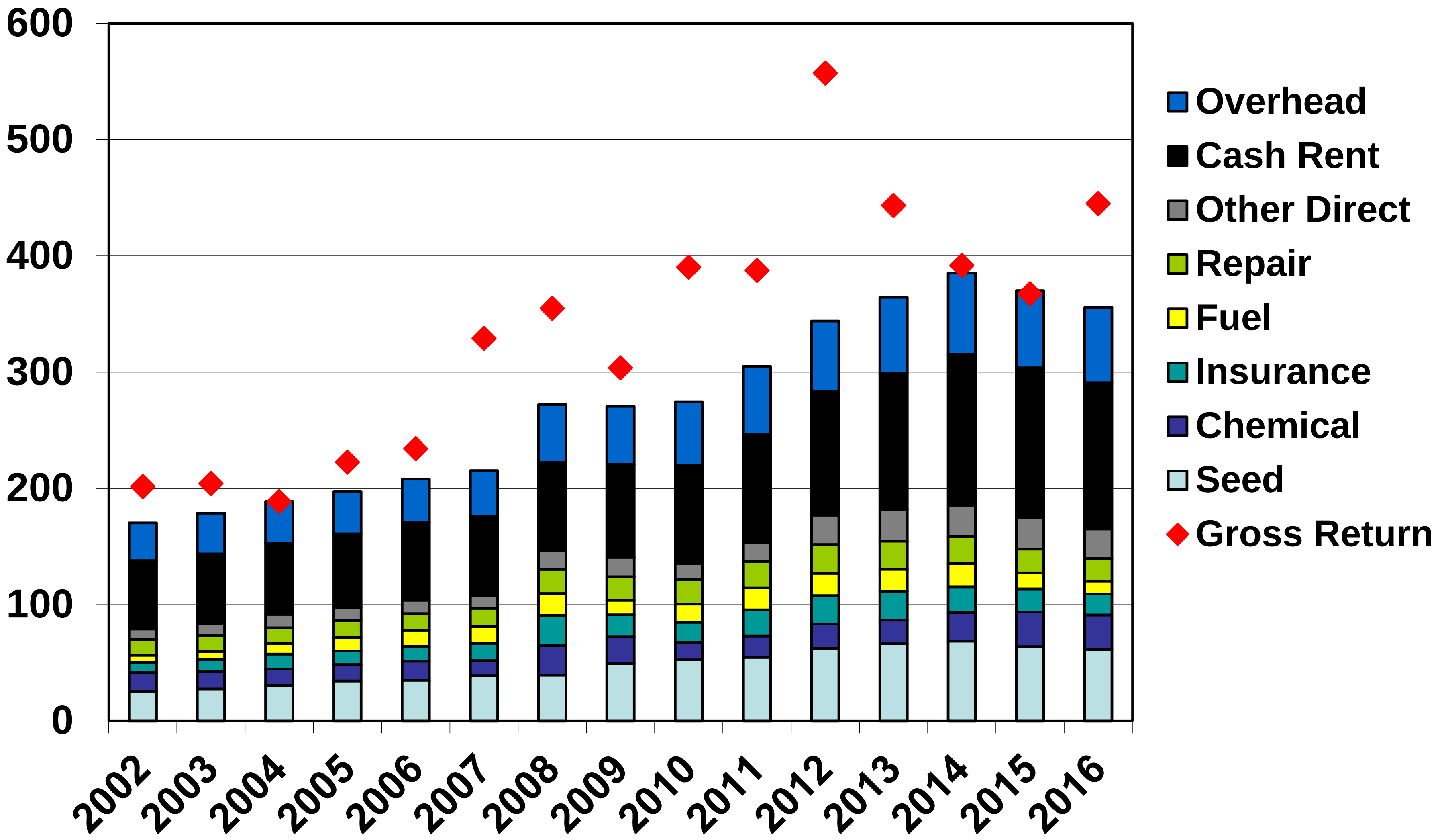
Spring Wheat Costs per Acre

Red River Valley, MN and ND Farm Management Education, 2002-2016



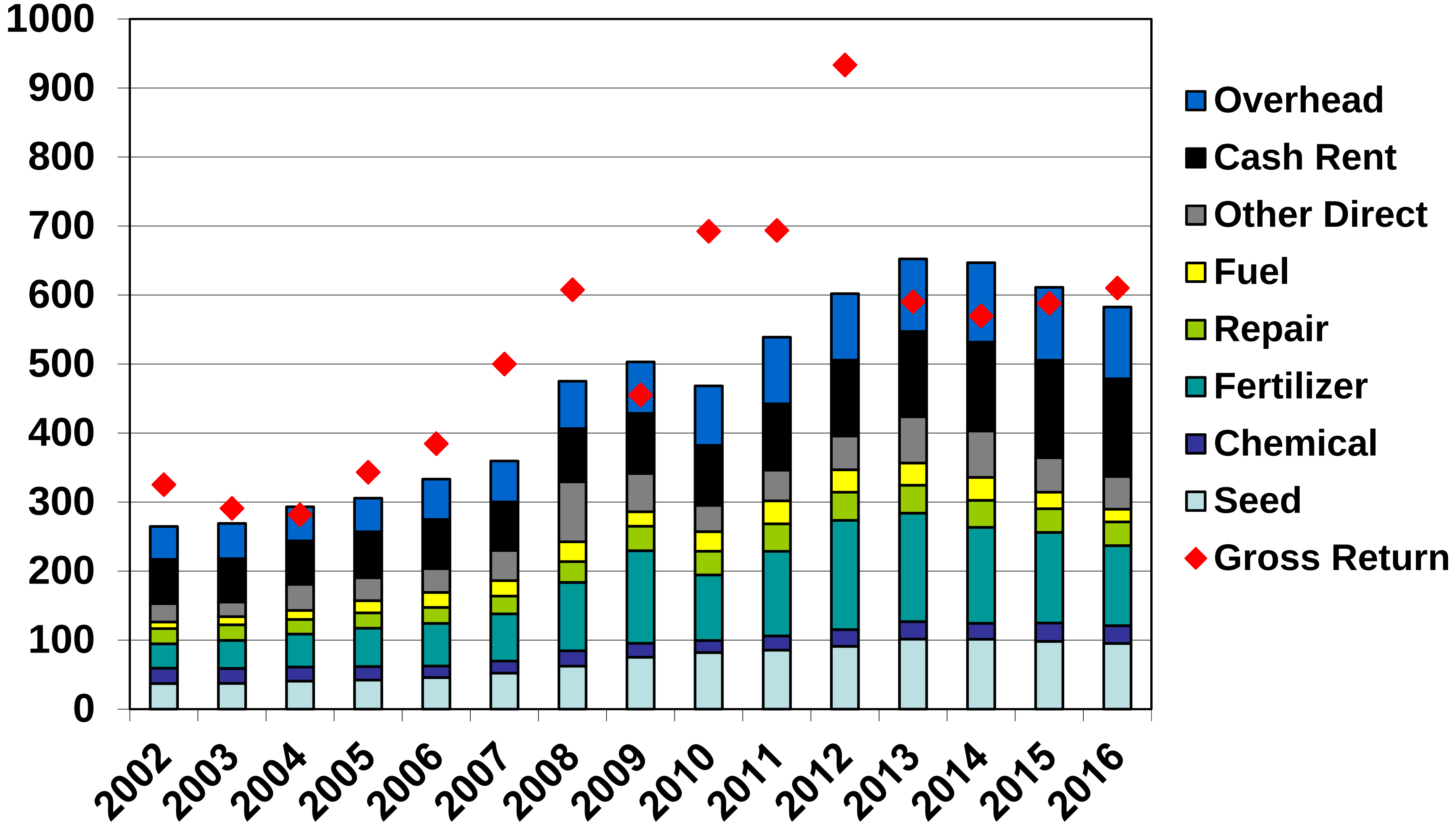
Soybean Costs per Acre

Red River Valley, MN and ND Farm Management Education, 2002-2016



Corn Costs per Acre

Red River Valley, MN and ND Farm Management Education, 2002-2016



Spring Wheat Enterprise Analysis, 2014-2016, and Projections for 2017-2018

MN-ND Red River Valley Farm Business Management

	2014	2015	2016	2017 est.	2018 est.
Yield	66.36	72.01	68.44	67.00	68.00
Price	5.75	4.98	5.00	5.95	5.70
Misc. Inc.	13.24	9.58	14.65	10.00	10.00
Gross	**394.81**	**368.19**	**356.85**	**408.65**	**397.60**
Seed	23.70	22.00	18.71	18.90	21.35
Fertilizer	99.48	98.06	80.21	69.78	66.29
Chemical	29.98	27.96	24.64	25.01	25.38
Insurance	15.80	14.24	13.49	14.54	15.79
Fuel & Lube	21.18	14.02	11.79	13.09	13.74
Repair	23.69	20.91	21.22	21.43	21.65
Other Direct	23.26	18.19	16.84	17.09	17.35
Cash Rent	118.20	122.99	120.27	118.47	116.10
Overhead	67.87	65.75	64.86	65.18	65.51
Listed Costs	**423.16**	**404.12**	**372.03**	**363.49**	**363.17**
Net Return	**-28.35**	**-35.93**	**-15.18**	**45.16**	**34.43**
B/E Price	6.18	5.48	5.22	5.28	5.19

Estimates: A. Swenson, NDSU, 10/11/17

Soybean Enterprise Analysis, 2014-2016, and Projections for 2017-2018

MN-ND Red River Valley Farm Business Management

	2014	2015	2016	2017 est.	2018 est.
Yield	37.50	42.01	46.89	38.00	39.00
Price	9.85	8.47	9.23	8.90	8.90
Misc. Inc.	22.46	11.62	12.19	10.00	10.00
Gross	**391.84**	**367.44**	**444.98**	**348.20**	**357.10**
Seed	68.73	64.00	61.51	60.89	60.29
Fertilizer	12.26	14.00	11.75	10.22	9.71
Chemical	24.38	29.71	29.67	30.12	30.57
Insurance	22.31	19.90	18.08	20.12	19.62
Fuel & Lube	19.90	13.76	10.85	12.04	12.65
Repair	23.44	20.54	19.59	19.79	19.98
Other Direct	14.63	12.77	13.69	13.90	14.10
Cash Rent	129.68	129.12	125.85	123.96	121.48
Overhead	69.92	66.33	64.92	65.24	65.57
Listed Costs	**385.25**	**370.13**	**355.91**	**356.29**	**353.97**
Net Return	**6.59**	**-2.69**	**89.07**	**-8.09**	**3.13**
B/E Price	9.67	8.53	7.33	9.11	8.82

Estimates: A. Swenson, NDSU, 10/11/17

Corn Enterprise Analysis, 2014-2016, and Projections for 2017-2018

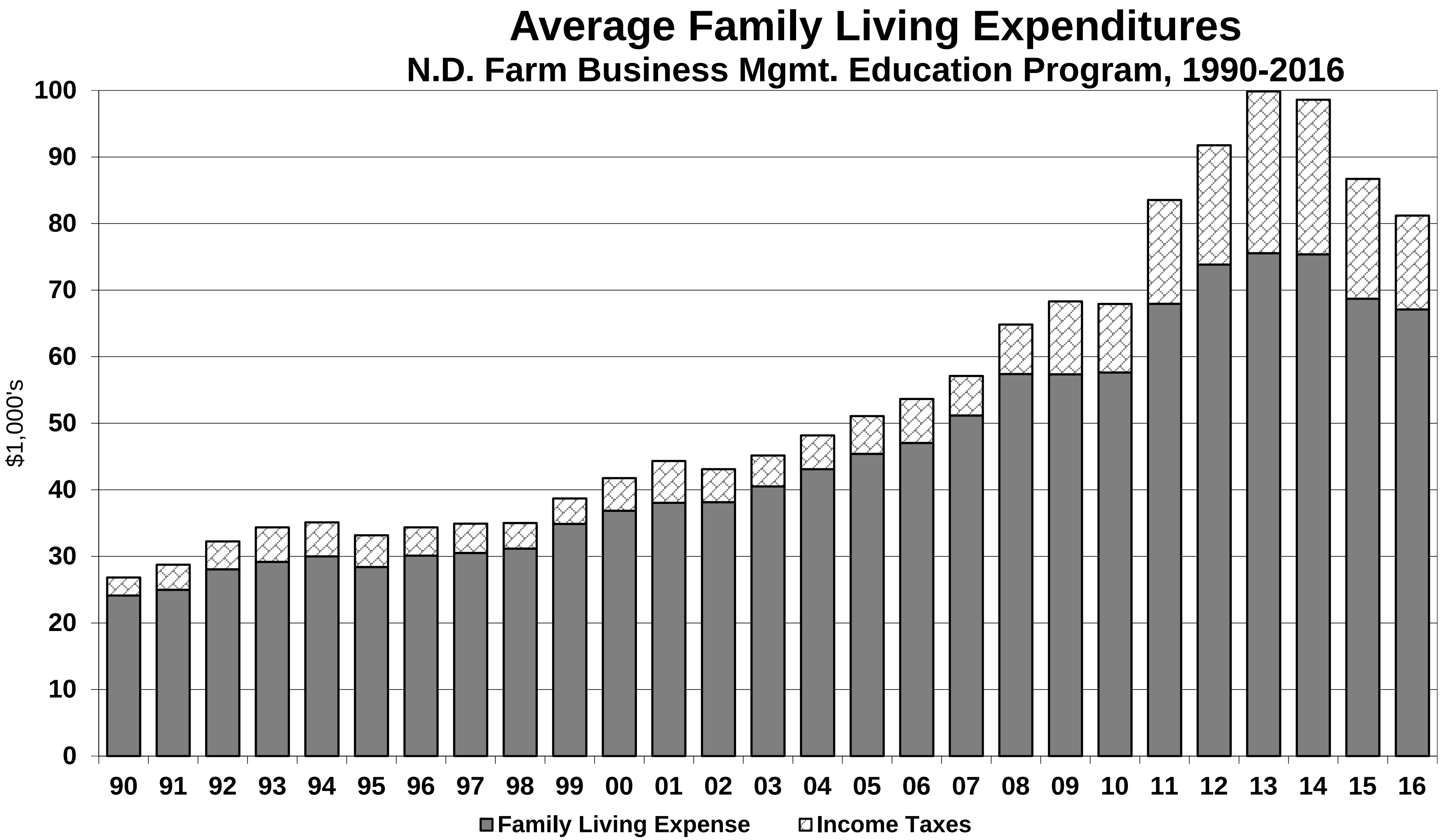
MN-ND Red River Valley Farm Business Management

	2014	2015	2016	2017 est.	2018 est.
Yield	131.56	166.72	189.71	150.00	155.00
Price	3.66	3.44	3.14	3.00	3.30
Misc. Inc.	88.28	14.52	14.58	25.00	15.00
Gross	**569.79**	**588.04**	**610.27**	**475.00**	**526.50**
Seed	101.23	98.07	95.26	94.31	93.36
Fertilizer	138.88	131.29	115.87	100.81	95.77
Chemical	23.26	26.68	25.73	26.24	26.51
Insurance	25.98	22.04	19.28	19.67	19.67
Fuel & Lube	33.25	23.93	18.37	20.39	21.41
Repair	39.14	34.36	34.43	34.77	35.12
Other Direct	41.31	27.87	28.16	28.58	29.01
Cash Rent	128.78	141.21	141.60	139.48	136.69
Overhead	115.15	105.69	103.99	104.51	105.03
Listed Costs	**646.98**	**611.14**	**582.69**	**568.76**	**562.57**
Net Return	**-77.19**	**-23.10**	**27.58**	**-93.76**	**-36.07**
B/E Price	4.25	3.58	2.99	3.63	3.53

Estimates: A. Swenson, NDSU, 10/11/17

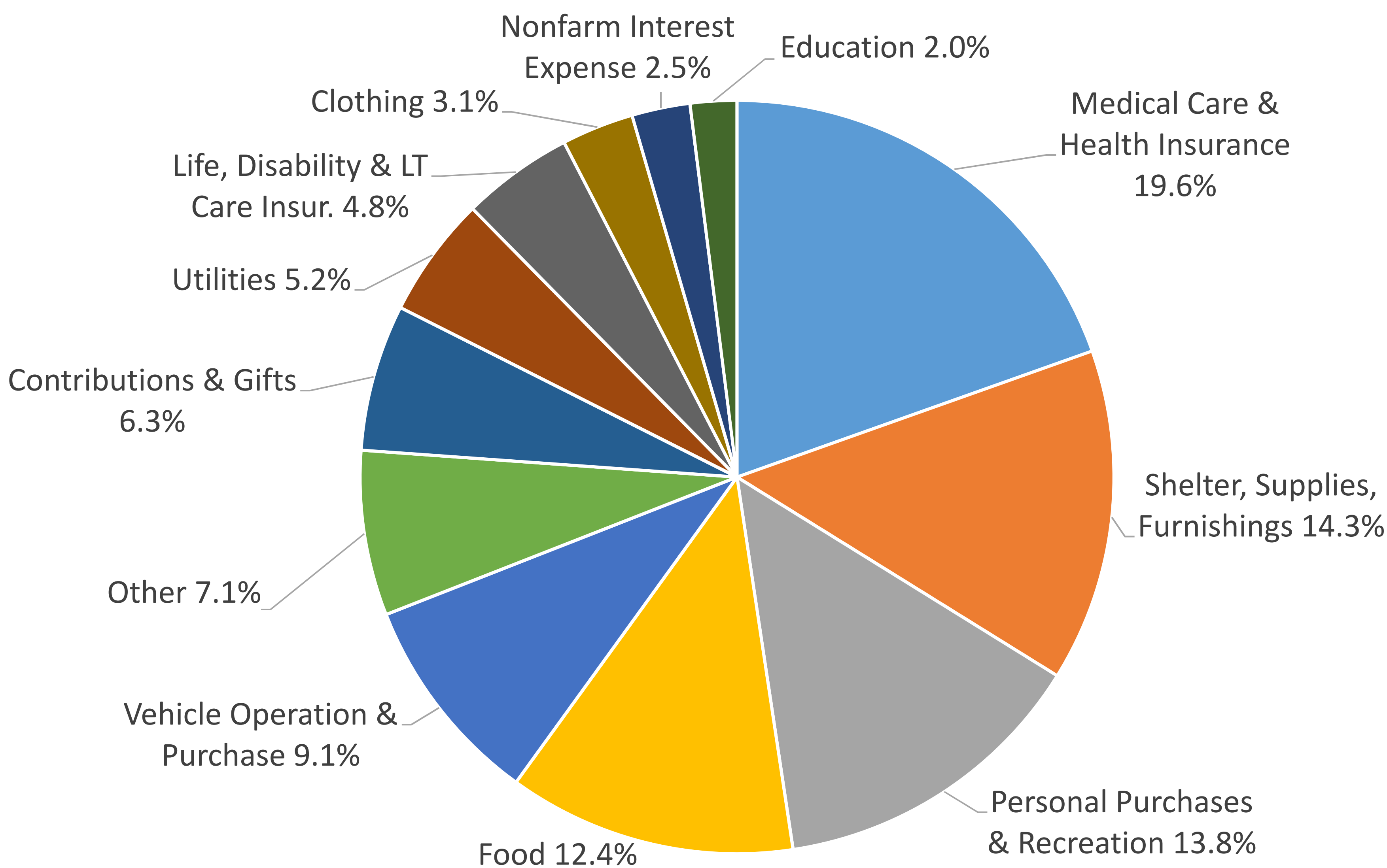
2016 Projected and Actual MN-ND Farm Business Management Education Program Crop Enterprise Analysis on Cash Rented Land (Red River Valley)

	Wheat		Soybeans		Corn	
	Projected	Actual	Projected	Actual	Projected	Actual
Yield	69.00	68.44	44.50	46.89	170.00	189.71
Price	4.72	5.00	9.15	9.23	2.90	3.14
Misc	9.00	14.95	10.00	11.93	15.00	14.52
Gross	**334.68**	**356.85**	**417.18**	**444.98**	**508.00**	**610.27**
Listed Cost	**383.14**	**372.03**	**362.20**	**355.91**	**586.92**	**582.69**
Net Return	**-48.46**	**-15.18**	**54.97**	**89.07**	**-78.92**	**27.58**
B/E Price	5.42	5.22	7.91	7.34	3.36	2.99


Average Family Living Expenditures
N.D. Farm Business Mgmt. Education Program, 1990-2016
$1,000's
100
90
80
70
60
50
40
30
20
10
0
90
91
92
93
94
95
96
97
98
99
00
01
02
03
04
05
06
07
08
09
10
11
12
13
14
15
16
Family Living Expense
Income Taxes

2016 Farm Family Living Expenses, Percent of Total

N.D. Farm Business Management Education Program

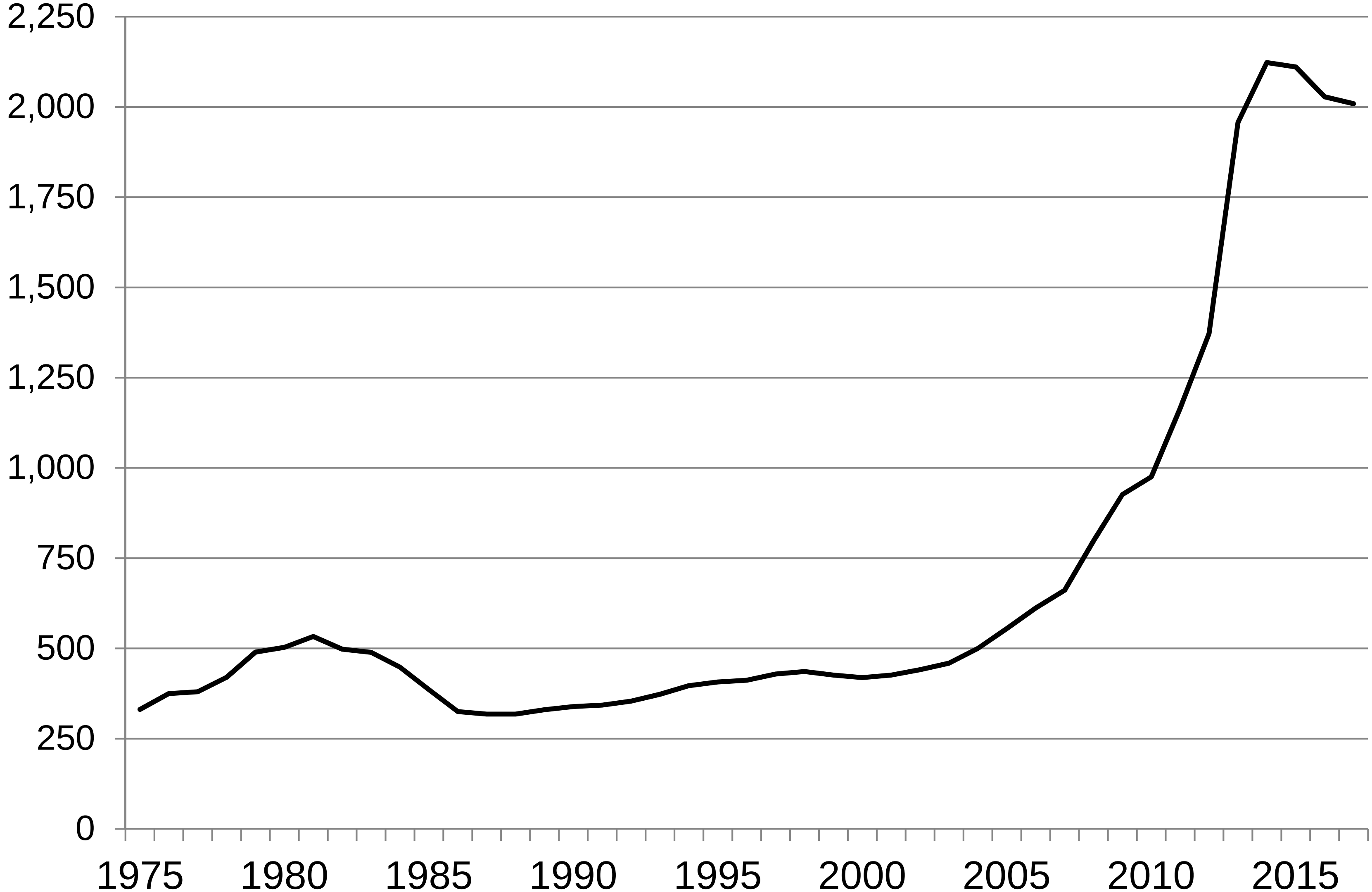


Family Living Expense Items with Major Changes, 2013 to 2016

ND Farm Business Management Education Program

	2013	2016	Change
Non-Farm Interest Expense	1,308	1,678	28.3%
Other Expense	3,936	4,740	20.4%
Life, Disability & Long Term Care Insur.	2,731	3,229	18.2%
Shelter, Supplies, Furnishings	11,393	9,565	-16.0%
Clothing	2,465	2,066	-16.2%
Personal Purchases & Recreation	13,444	9,229	-31.4%
Vehicle, Operation & Purchases	8,970	6,123	-31.7%
Education	1,981	1,333	-32.7%

N.D. Cropland Values, 1975-2017



Average Cropland Values

N.D. Chapter of American Society of Farm Managers and Rural Appraisers

County	2013	2016	Change
Pembina	5,627	4,670	-17%
Walsh (east)	5,296	3,590	-32%
Grand Forks (east)	4,274	3,209	-25%
Traill	4,737	4,342	-8%
Cass (east)	6,034	4,615	-24%
Richland	5,295	4,405	-17%

Cropland Cash Rent Range, Years 2013 & 2016

N.D. Chapter of American Society of Farm Managers and Rural Appraisers

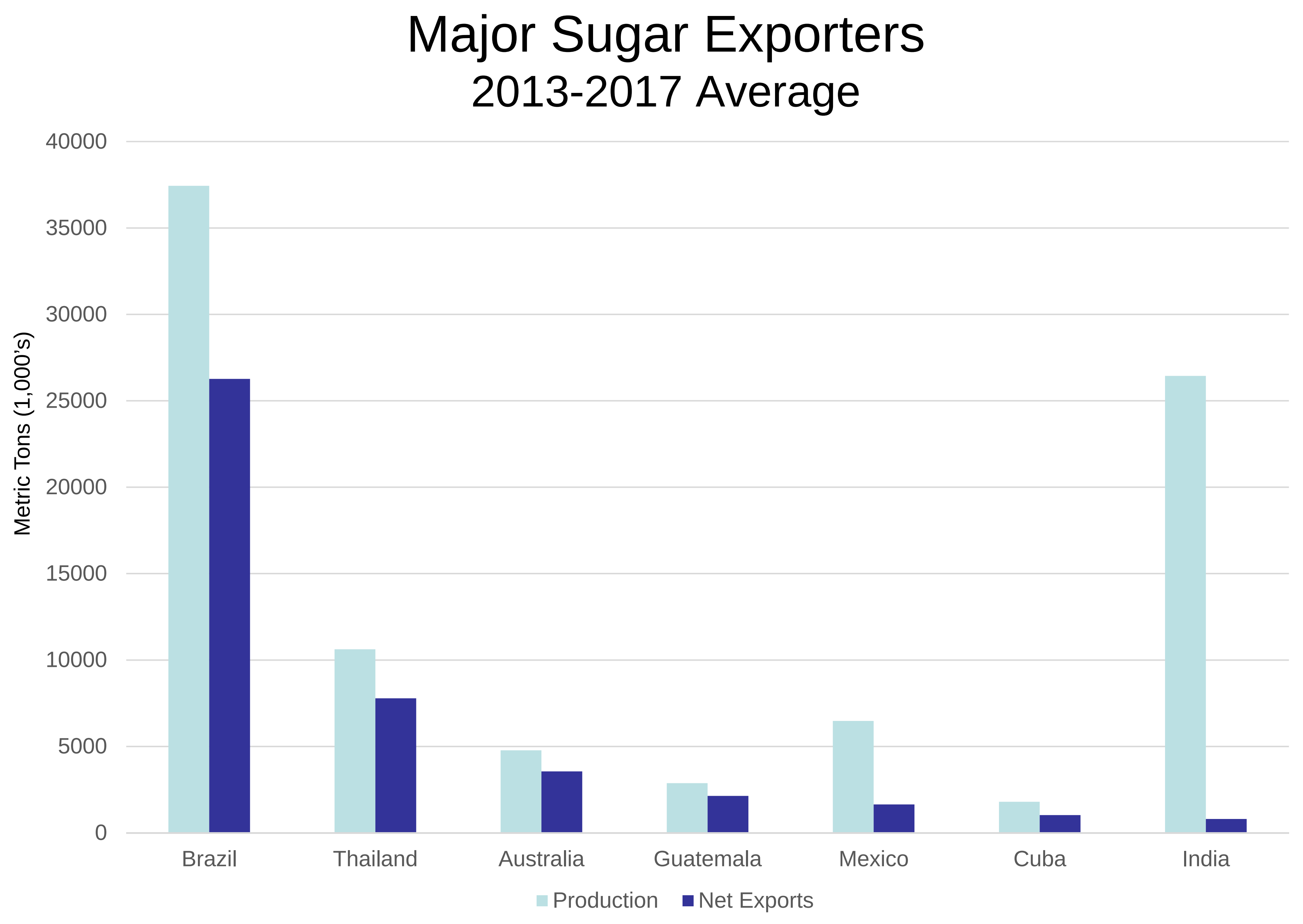
County	Low			High		
	2013	2016	Change	2013	2016	Change
Pembina	50	75	50%	250	200	-20%
Walsh (east)	75	106	41%	250	200	-20%
Grand Forks (east)	60	65	8%	250	200	-20%
Traill	75	70	-7%	250	214	-14%
Cass (east)	100	100	0%	310	216	-30%
Richland	75	75	0%	250	200	-20%

Higher Capitalization Rates Drive Land Values Lower

Assume:	$125	land rent
	-$15	RE tax
	$110	Net Return

Return /	"Cap. Rate"	=	Land Value
$110/	2.5%	=	$4,400
$110/	3.0%	=	$3,667
$110/	3.5%	=	$3,143

Sugar Beet Economics in the Red River Valley



Major Sugar Exporters
2013-2017 Average
Metric Tons (1,000's)
40000
35000
30000
25000
20000
15000
10000
5000
0
Brazil
Thailand
Australia
Guatemala
Mexico
Cuba
India
Production
Net Exports

U.S. Sugar Program

Main Purpose

Maintain minimum market price for U.S. producers.

Main Policy Tools

- Loan program
- Import restriction
- Production allotments

Loan Rates:

$0.1875/lb. for cane sugar, raw value

$0.2409/lb. for beet sugar, refined

U.S. sugar: supply and use (1,000 short tons, raw value), by fiscal year

	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
Beginning stocks	1,498	1,378	1,979	2,158	1,810	1,815	2,054	1,760
Total production	7,831	8,488	8,981	8,462	8,656	8,989	8,848	8,929
Beet sugar	4,659	4,900	5,076	4,794	4,893	5,119	4,998	5,017
Cane sugar	3,172	3,588	3,905	3,667	3,763	3,870	3,850	3,912
Total imports	3,738	3,632	3,224	3,742	3,553	3,341	3,338	3,688
Tariff-rate quota imports	1,721	1,883	957	1,302	1,536	1,620	1,727	1,707
Other program Imports	291	664	136	305	471	396	385	200
Non-program imports	1,726	1,085	2,131	2,135	1,546	1,325	1,226	1,781
Mexico	1,708	1,071	2,124	2,130	1,532	1,309	1,216	1,771
Total Supply	13,067	13,498	14,185	14,362	14,019	14,145	14,240	14,377
Total exports	248	269	274	306	185	74	125	25
Miscellaneous	19	-64	-23	0	0	-33	0	0
Deliveries for domestic use	11,422	11,313	11,776	12,246	12,019	12,051	12,355	12,678
Total Use	11,689	11,519	12,027	12,552	12,204	12,091	12,480	12,703
Ending stocks	1,378	1,979	2,158	1,810	1,815	2,054	1,760	1,674
Stocks-to-use ratio	11.79	17.18	17.95	14.42	14.87	16.99	14.10	13.18

U.S. wholesale refined beet sugar price
Quarterly, Midwest markets

Year	1st Q.	2nd Q.	3rd Q.	4th Q.
2005	23.42	24.81	30.95	38.97
2006	36.03	35.46	33.57	27.35
2007	25.13	25.00	25.45	24.67
2008	26.18	30.28	38.30	35.40
2009	35.00	34.72	38.47	44.20
2010	51.92	47.73	57.30	55.97
2011	55.00	55.27	57.00	57.62
2012	51.25	47.69	40.48	34.12
2013	28.87	26.48	25.92	27.63
2014	26.42	32.12	36.70	36.20
2015	35.46	34.60	33.31	32.13
2016	31.33	30.08	28.67	28.50
2017	28.74	29.90	32.30	

MN-ND Red River Valley Farm Business Mgmt Sugar Beet Enterprise Analysis, 2007-2016, on Cash Rented Land and Stock Joint Venture

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Yield	21.66	20.98	21.14	27.54	18.11	26.35	24.62	23.09	26.69	31.90
Price (updated*)	45.04	48.58	49.87	69.02	55.67	65.41	43.23	42.01	45.77	37.00
Misc inc	30.01	59.73	42.25	4.67	106.87	3.79	50.43	39.30	7.01	23.05
Gross	**1,005.58**	**1,078.94**	**1,096.50**	**1,905.48**	**1,115.05**	**1,727.34**	**1,114.75**	**1,009.31**	**1,228.61**	**1,203.35**
Seed	58.65	93.61	135.17	158.47	159.05	173.38	199.54	206.46	218.05	224.34
Fertilizer	52.37	75.53	98.43	80.53	96.93	119.17	106.56	106.53	100.61	88.11
Chemical	102.10	89.94	55.03	63.36	82.64	91.08	78.80	65.16	75.92	85.92
Crop Ins.	19.39	21.77	20.89	22.13	26.20	32.68	34.06	24.41	24.53	29.38
Fuel & Oil	59.85	75.05	55.16	65.03	78.70	82.48	82.86	73.83	53.87	46.66
Repair	71.13	80.69	78.41	92.87	94.96	103.16	96.53	78.02	77.98	78.27
Other Direct	73.24	79.22	64.49	74.28	62.41	89.29	73.33	73.33	85.94	93.21
Cash Rent	80.69	86.61	90.12	96.20	106.42	124.49	131.89	128.23	132.50	137.90
Stock Joint Vent.	214.93	216.11	213.19	258.26	277.82	328.36	265.55	61.74	154.43	143.42
Overhead	148.64	150.21	147.94	179.22	192.38	217.23	212.09	224.24	220.74	222.02
Listed Costs	**881.01**	**968.75**	**958.84**	**1,090.35**	**1,177.51**	**1,361.32**	**1,281.21**	**1,042.11**	**1,144.56**	**1,149.23**
Net Return	**124.57**	**110.19**	**137.66**	**815.13**	**-62.46**	**366.02**	**-166.14**	**-32.80**	**84.05**	**54.12**

*Final American Crystal net payment per ton is used, except for 2016 crop year with current estimate at $37 per ton.

Red River Valley Sugar Beet Enterprises, 2016

Minnesota and North Dakota Farm Business Management Programs

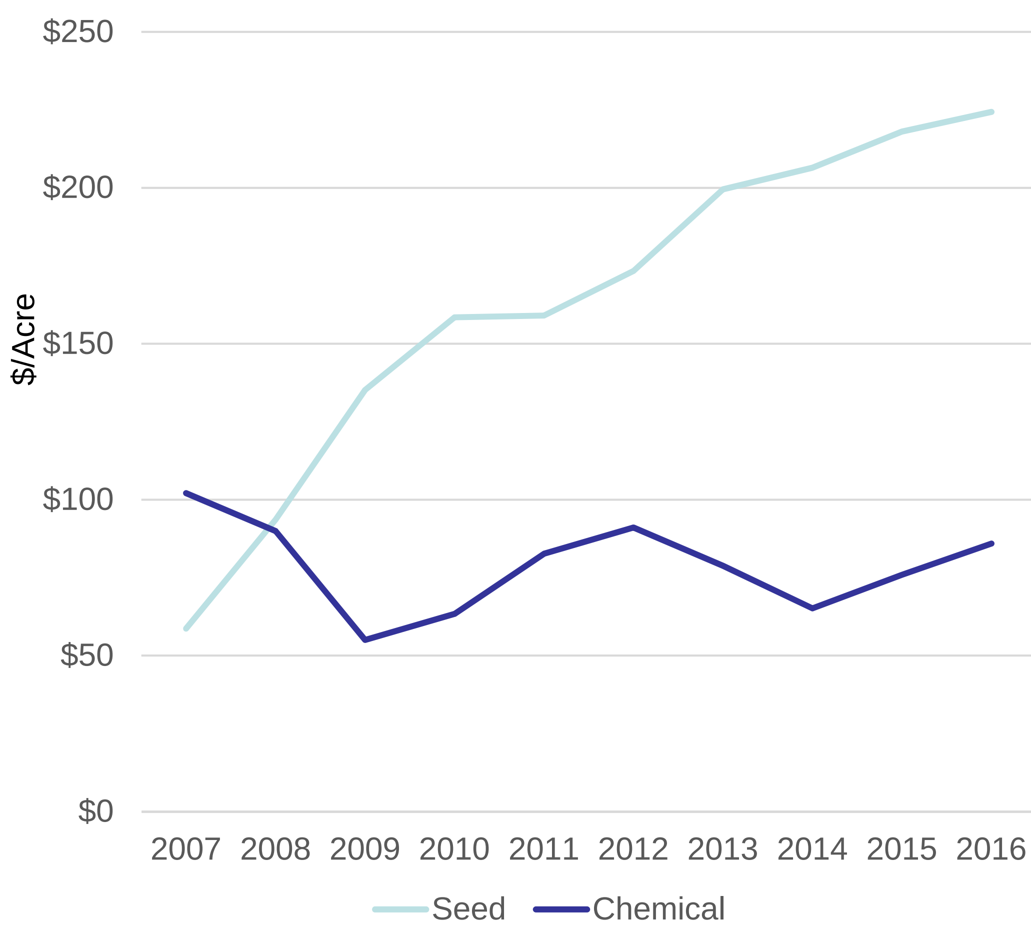
	Own Stock		Joint Venture	
	Owned Land	Cash Rent	Owned Land	Cash Rent
# of Farms Reporting	*30*	*49*	*20*	*40*
Gross Revenue*	$1,238	$1,200	$1,264	$1,203
Direct Cost	660	652	668	646
Land Rent	--	133	--	138
Joint Venture	--	--	112	143
Overhead Cost	306	234	317	222
Total Listed Costs	966	1,019	1,098	1,149
Net Return	$272	$181	$166	$54

*estimated net price of $37 per ton

Seed and Chemical Cost Per Acre

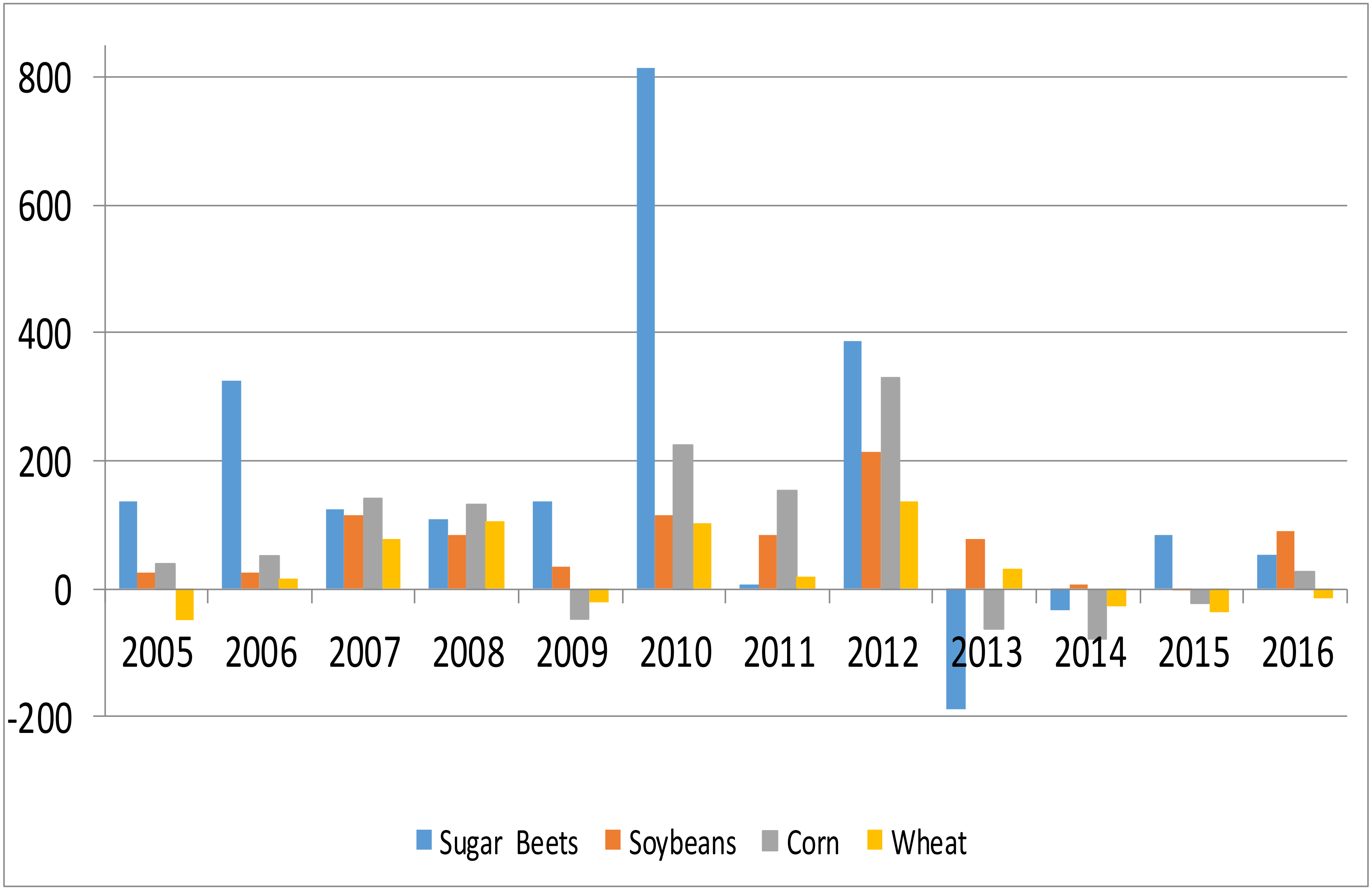
MN-ND Red River Valley Farm Business Mgmt Sugar Beet Enterprise Analysis, 2007-2016, on Cash Rented Land and Stock Joint Venture

	Seed	Chemical
2007	58.65	102.10
2008	93.61	89.94
2009	135.17	55.03
2010	158.47	63.36
2011	159.05	82.64
2012	173.38	91.08
2013	199.54	78.80
2014	206.46	65.16
2015	218.05	75.92
2016	224.34	85.92

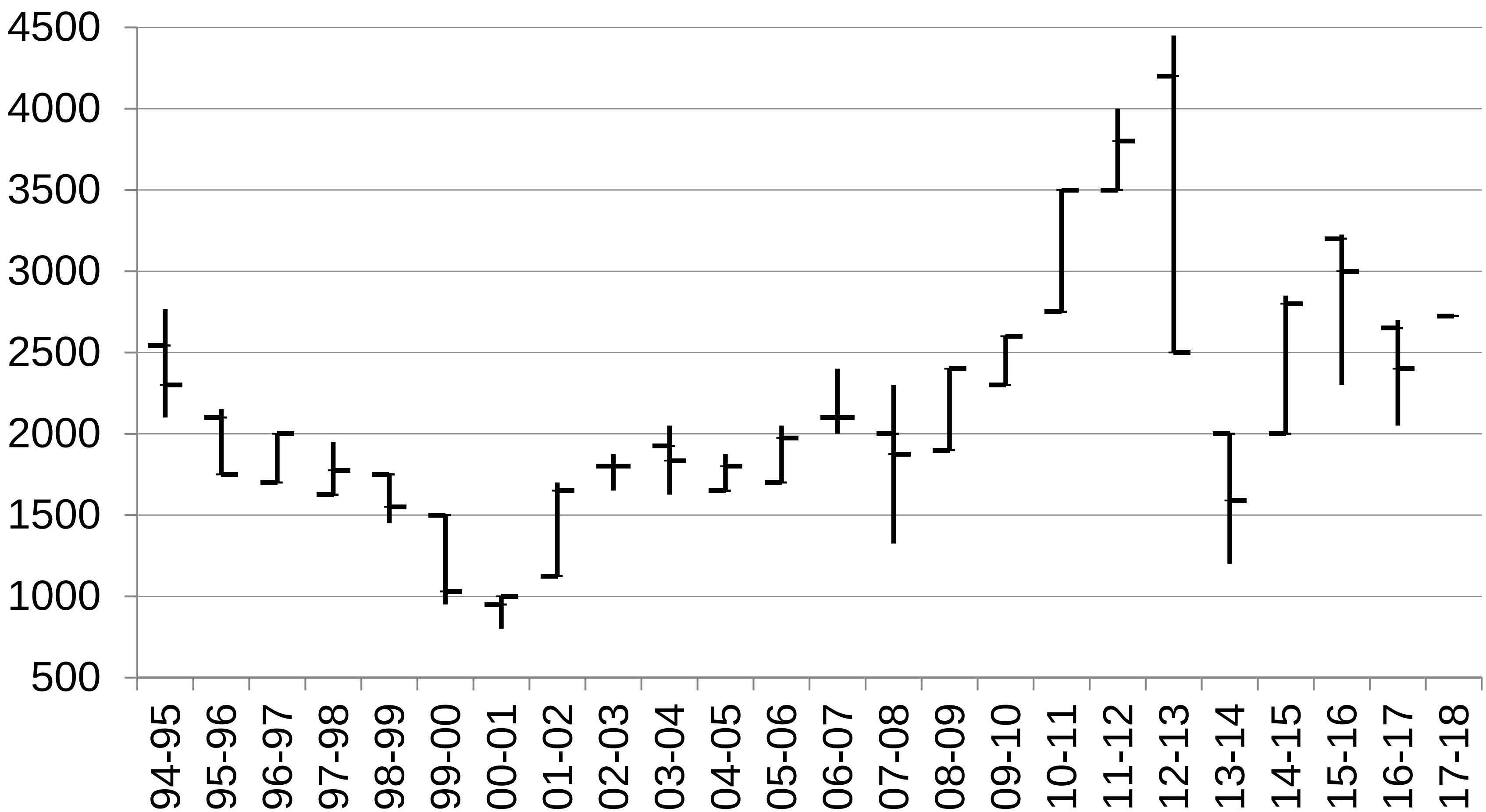


Red River Valley Net Income per Acre, on Cash Rented Land, of Sugar Beets (joint venture), Soybeans, Corn and Wheat

MN-ND Farm Business Mgt.



American Crystal Sugar Co. Stock Price Range and Beginning and Ending Price, 1994-2017, Shares Traded at www.fncagstock.com



Recent Sales and Available Listings of American Crystal Sugar Co. Stock

at FNC Ag Stock, LLC (www.fncagstock.com)

Date	Shares Purchased	Price
10/04/2017	20	$2,675.00
10/03/2017	15	$2,700.00
09/26/2017	15	$2,725.00
09/13/2017	65	$2,725.00

Recent Listing			Recent Offers	
Asking Price	Shares Available	Expiration Date	Offering Price	Number of Shares
$2,750.00	35	12/31/2017	$2,700.00	100
$2,800.00	140	12/31/2017	$2,675.00	10
$2,800.00	15	02/19/2018	$2,675.00	20
$2,875.00	25	12/31/2017	$2,550.00	15
$2,900.00	114	12/31/2017	$2,550.00	10
$2,900.00	50	12/31/2017	$2,550.00	200