

Farm Averages for the South Central Region

North Dakota Farms in ND Farm Management Education Program

South Central Region

2013 – 2022

Jason Fewell, Farm Management Education Instructor

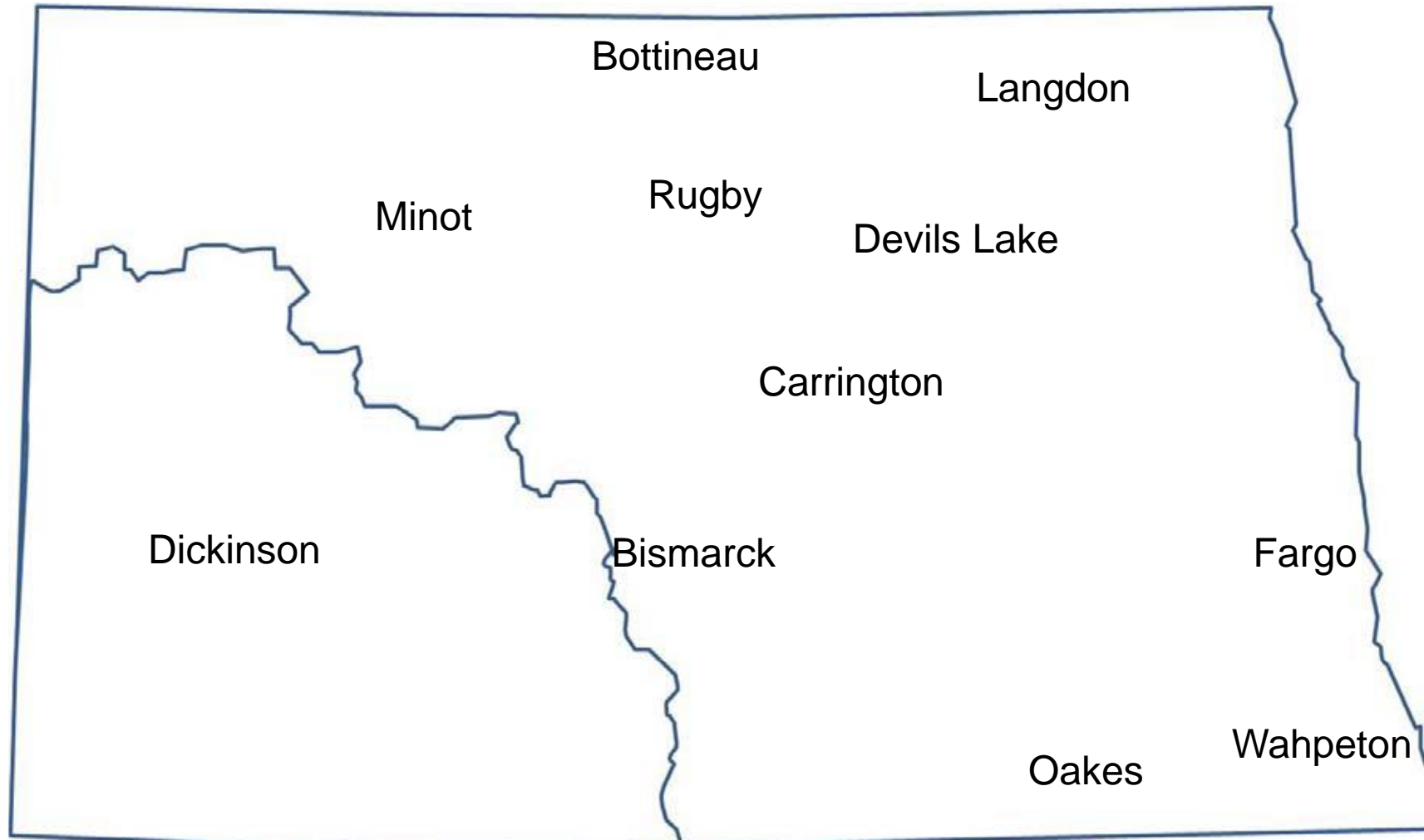
ND Farm Management Education Program

- Statewide program works with about 400 farms
- Assist farmers and ranchers with record keeping, planning, business analysis, and goal setting
- Part of a nation-wide farm financial standards benchmarking program
- www.ndfarmmanagement.com
- Data source for following slides is FINBIN database at the University of Minnesota and can be accessed at: www.finbin.umn.edu and farms enrolled in the local program for 2022.

ND Farm Management Education Program

- The program is administered by 4 two-year colleges
 - Lake Region State College – Devils Lake/Langdon, Carrington
 - Dakota College at Bottineau – Bottineau, Minot, Rugby
 - North Dakota State College of Science – Wahpeton, Fargo/Oakes
 - Bismarck State College – Bismarck, Dickinson

ND Farm Management Education Program Locations



ND Farm Management Education Program

- Utilize FINPACK to compile year-end balance sheets, profit/loss analysis, enterprise analysis, and look at trends
- Provides a lot of (maybe too much) information
 - Profit/loss
 - Changes in net worth
 - Enterprise analysis

Program Benefits

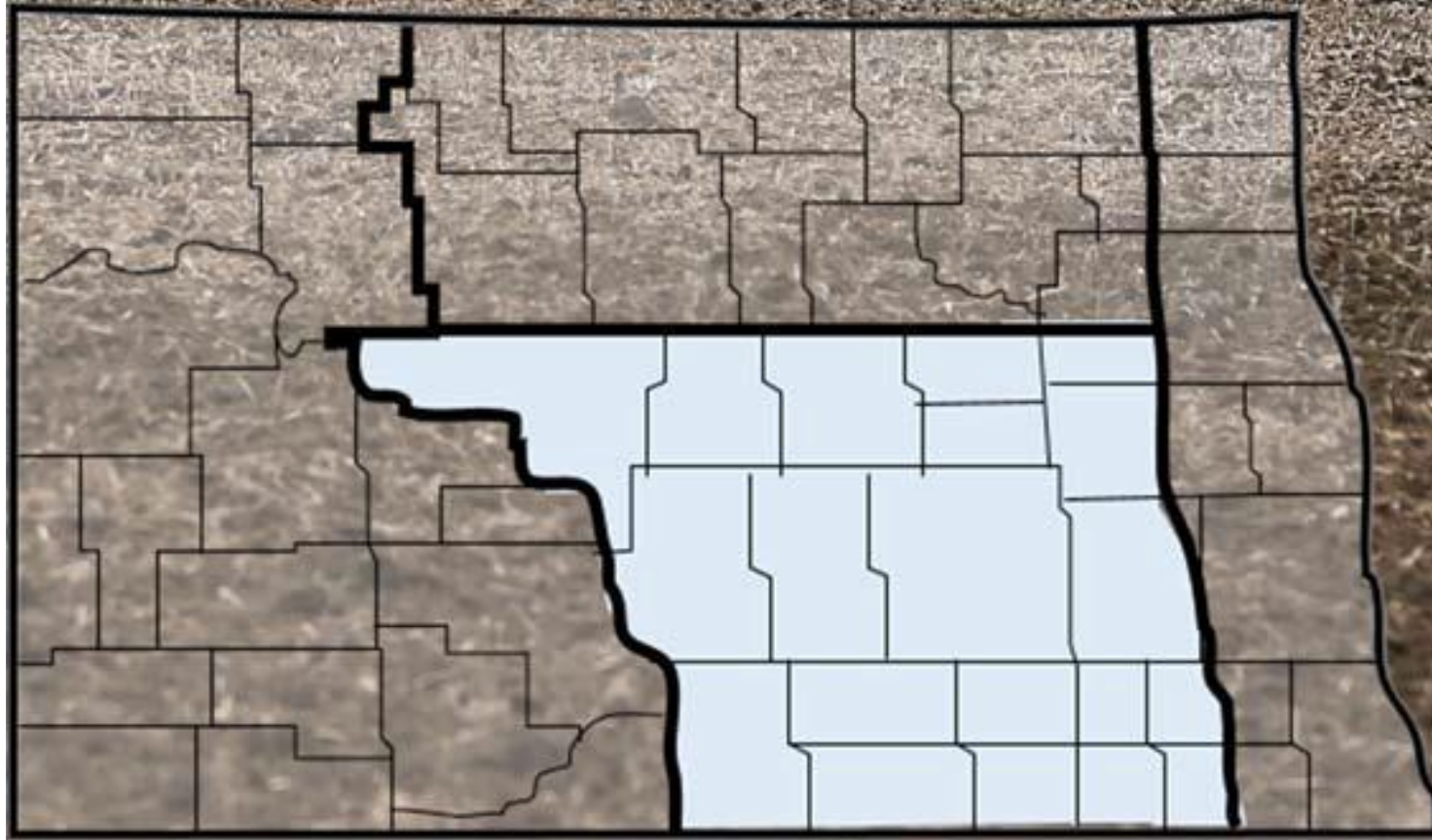
- Analyze the farm profitability and net worth in two ways.
 - Cost is what the farmer put into the business
 - Market net worth changes based on market conditions (land)
- Participating in the program allows farmers to benchmark operation
 - Whole farm
 - Crop and/or livestock enterprise
- Help farmers make informed decisions

	My Farm	Group Average	Count	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Gross cash farm income	1,288,617	2,101,318	20	520,035	804,714	1,009,770	1,115,058	1,308,277	1,583,230	1,849,752	2,526,100	2,814,130	7,482,120
Total cash operating expense	1,181,375	1,494,903	20	5,253,720	2,300,533	1,734,979	1,314,661	1,138,883	994,581	743,020	606,775	548,622	313,252
Net cash farm income	107,242	606,416	20	95,505	164,589	247,295	364,081	392,205	422,060	646,663	672,828	830,532	2,228,399
Inventory change	474,126	539,740	20	-210,480	-78,902	-9,753	168,995	230,770	297,997	414,822	694,247	1,071,409	2,818,293
Depreciation	-168,344	-190,508	20	-783,148	-332,191	-202,383	-164,716	-149,895	-104,286	-78,812	-49,641	-26,109	-13,896
Net farm income from operations	413,024	955,648	20	61,619	197,435	374,325	422,715	507,594	551,078	796,850	1,044,074	1,665,168	3,935,620
Gain or Loss from capital sales	1,574	18,059	20	-5,564	0	0	0	0	787	8,111	10,435	29,304	137,512
Net farm income	414,599	973,706	20	61,619	201,604	374,325	423,502	508,297	559,189	796,850	1,067,255	1,728,668	4,015,755
Rate of return on assets (cost)	6.2	14.7	20	3.1	6.7	8.6	10.0	11.5	14.3	16.1	17.6	25.9	32.8
Rate of return on equity (cost)	9.3	20.9	20	-5.8	5.5	10.0	11.4	15.3	18.2	21.4	27.0	33.5	59.2
Operating profit margin (cost)	24.0	31.3	20	14.0	24.6	26.5	28.2	30.3	33.3	34.3	34.7	41.1	45.9
Asset turnover rate (cost)	26.0	45.0	20	19.8	26.5	29.0	33.2	35.9	41.3	52.2	55.9	69.6	87.0
Rate of return on assets (mkt)	7.7	17.3	20	4.4	7.5	8.7	10.6	12.4	13.9	17.1	18.1	27.6	53.1
Rate of return on equity (mkt)	11.9	23.0	20	4.4	9.8	11.1	12.7	15.2	18.2	21.3	25.5	33.6	77.7
Operating profit margin (mkt)	32.6	45.1	20	23.4	30.9	35.5	38.0	39.6	41.3	43.9	45.5	46.8	105.8
Asset turnover rate (mkt)	23.7	36.5	20	11.9	19.2	24.1	24.7	28.0	34.7	45.1	48.9	56.9	71.7
Current ratio	1.53	15.93	20	0.88	1.22	1.55	2.26	3.07	3.74	8.86	14.09	39.33	76.75
Working capital	721,324	2,293,504	20	-33,140	273,865	500,139	729,802	823,772	983,395	1,004,820	2,055,548	4,344,690	12,252,146
Working capital to gross revenue	37.0	86.4	20	-4.0	15.8	28.7	56.2	59.9	71.1	86.1	97.2	123.4	329.6
Working capital to oper expense	60.9	169.6	20	-5.5	26.2	50.5	99.3	108.3	134.4	158.9	189.9	271.0	662.8
Debt coverage ratio	1.52	22.77	20	0.51	1.20	2.49	3.18	4.02	6.34	8.45	13.20	54.69	122.45
Term debt coverage ratio	1.63	18.21	20	0.45	1.23	2.60	3.35	4.36	6.37	9.00	13.29	54.78	137.34
Replacement coverage ratio	1.44	4.48	20	0.58	1.23	1.85	2.17	3.04	3.99	4.44	5.74	7.06	14.70

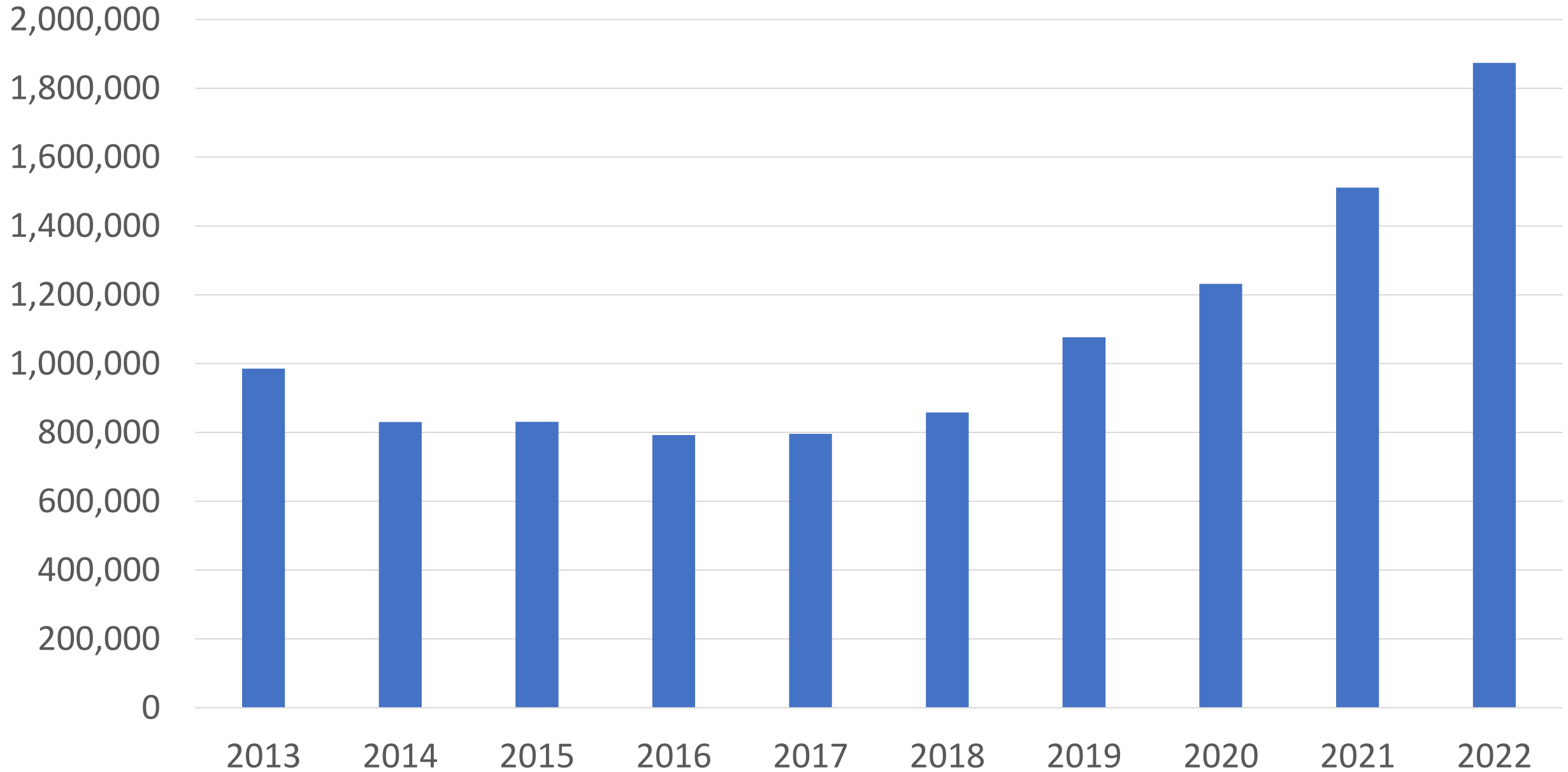
Total assets	8,708,806	9,132,384	20	1,791,141	2,570,693	3,233,453	3,778,045	5,123,849	7,356,841	8,053,903	9,819,348	15,515,400	34,081,169
Total liabilities	4,525,277	1,746,987	20	4,619,978	4,164,548	2,630,968	2,063,182	1,666,666	1,169,037	614,252	396,624	101,292	43,326
Net worth	4,183,529	7,385,397	20	1,094,855	2,148,893	2,230,910	2,638,799	3,501,856	4,482,992	5,343,240	8,477,677	12,488,371	31,446,378
Change in retained earnings	306,438	852,514	20	-66,622	152,454	300,891	377,770	414,304	468,281	617,863	822,001	1,681,003	3,757,200
Net worth change	474,091	1,146,525	20	53,272	348,112	449,891	494,480	519,268	637,666	834,171	1,391,839	2,380,910	4,355,640
Farm debt to asset ratio	53	24	20	63	54	38	29	19	13	11	7	2	1
Total debt to asset ratio	52	23	20	62	52	38	27	19	13	12	6	2	2
Change in earned net worth %	10	23	20	-7	5	10	13	16	21	23	30	40	64
Net nonfarm income	123	12,916	20	-4,599	0	0	167	1,615	5,400	8,909	23,499	32,054	62,115
Family living / owner withdrawals	102,926	100,447	20	264,978	162,333	131,390	116,313	106,788	83,718	57,440	50,300	31,207	0
Income tax (accrued)	19,818	27,980	20	178,857	37,310	29,841	16,826	11,996	4,251	717	0	0	0
Farm capital purchases	156,434	745,290	20	55,125	169,467	201,298	337,212	437,653	478,960	658,556	998,295	1,209,992	2,906,344
Total crop acres	4,142	3,756	20	834	1,269	1,643	1,954	2,554	2,899	3,949	4,307	5,009	13,147
Crop acres owned	1,512	1,003	20	0	43	134	272	471	732	1,227	1,448	1,778	3,922
Crop acres cash rented	2,172	2,675	20	150	301	908	1,297	1,813	2,225	2,548	3,082	3,772	10,657
Crop acres share rented	458	78	20	0	0	0	0	0	0	0	0	79	706
Machinery investment per acre	368	547	20	886	750	685	623	561	511	481	382	316	278

	My Farm	Group Average	Count	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Yield per acre (bu.)	41.98	57.04	82	28.09	40.13	47.28	51.78	58.64	61.60	64.13	68.73	71.88	77.33
Value per unit	8.75	8.67	82	8.00	8.08	8.41	8.59	8.75	8.77	8.82	9.00	9.00	9.29
Total product value	355.27	485.40	82	237.24	331.41	404.42	456.69	492.58	524.08	554.10	572.33	615.27	660.12
Crop insurance	0.00	17.77	10	11.89	11.90	11.90	11.90	11.90	11.90	11.90	11.90	12.10	70.43
Gross return	355.27	488.03	82	238.83	337.72	406.91	456.69	492.58	525.41	555.52	575.69	620.80	664.90
Seed and plants	32.00	27.16	81	44.52	33.69	32.00	30.77	26.24	24.09	22.71	21.77	20.01	16.17
Fertilizer	109.00	124.93	82	185.55	156.76	135.16	130.54	120.32	114.89	112.80	109.00	106.80	79.36
Crop chemicals	28.70	38.24	82	76.98	61.26	47.77	37.40	34.21	29.47	28.70	28.69	21.35	18.18
Crop insurance	44.43	24.59	82	44.72	44.11	29.42	25.77	22.67	19.38	17.56	16.05	15.78	11.35
Fuel & oil	11.62	15.41	82	26.43	19.89	19.21	18.66	15.84	14.85	12.53	11.62	8.90	6.17
Repairs	23.25	33.47	82	74.25	65.82	49.96	36.32	25.11	23.25	22.48	15.08	13.29	11.49
Land rent	56.42	64.36	52	103.20	93.83	81.66	75.32	63.35	55.53	48.52	44.97	44.62	34.57
Operating interest	9.02	4.90	57	11.91	9.02	9.02	8.35	6.14	3.50	1.92	0.13	0.02	0.01
Total direct expenses	294.08	309.79	82	405.88	386.23	367.15	332.02	318.86	303.15	295.93	260.92	240.01	187.41
Return over direct expenses	61.20	178.24	82	-91.36	49.26	97.71	144.22	171.66	209.02	248.07	270.28	308.63	371.92
Custom hire	8.62	6.56	37	9.44	9.44	9.44	8.62	8.62	8.62	8.62	1.32	0.76	0.76
Hired labor	1.59	8.89	75	14.65	13.24	12.10	11.23	10.45	10.03	8.13	5.76	1.59	1.59
Real estate taxes	8.48	9.01	27	12.74	12.74	12.74	11.57	9.37	8.48	7.17	6.52	5.95	3.51
Farm insurance	6.61	6.77	82	13.35	9.14	7.76	7.06	6.61	6.18	5.82	5.28	3.82	2.77
Utilities	4.13	3.76	82	8.78	4.56	4.34	4.13	3.73	2.86	2.68	2.54	2.19	1.94
Dues & professional fees	0.30	1.46	79	4.26	2.44	2.24	2.03	1.37	1.12	0.87	0.30	0.24	0.07
Interest on interm. debt	5.22	4.80	43	8.34	6.82	6.10	5.22	5.22	5.22	3.81	2.82	2.82	1.71
Machinery depreciation	33.66	37.78	82	57.51	51.44	38.49	37.99	37.10	36.32	34.01	33.66	29.79	21.80
Building depreciation	7.48	5.66	78	9.12	8.96	8.04	7.48	6.94	5.31	4.92	4.37	1.00	0.25
Miscellaneous	1.51	9.15	70	25.54	22.52	10.29	8.14	7.63	6.51	4.79	3.04	1.51	1.51
Total overhead expenses	92.50	90.27	82	163.88	112.14	102.04	93.31	84.66	80.16	71.87	69.12	65.89	61.63
Total dir & ovhd expenses	386.57	400.06	82	523.06	485.20	458.73	423.68	413.12	385.51	368.48	355.81	317.87	269.35
Net return	-31.30	87.97	82	-188.11	-57.13	15.21	50.37	81.10	114.57	160.70	192.25	221.27	286.98

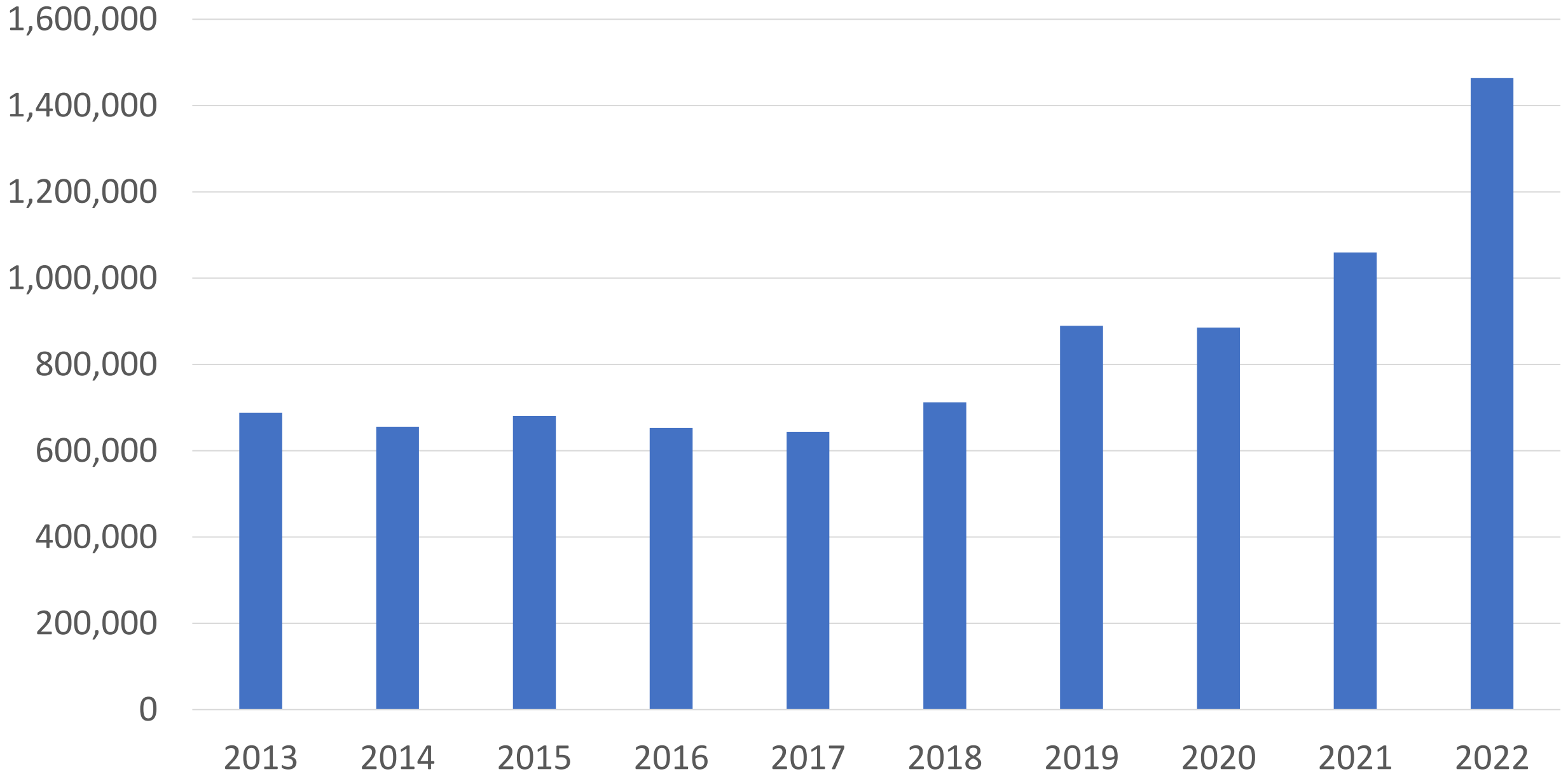
ND Farm Management Education Program South Central Region



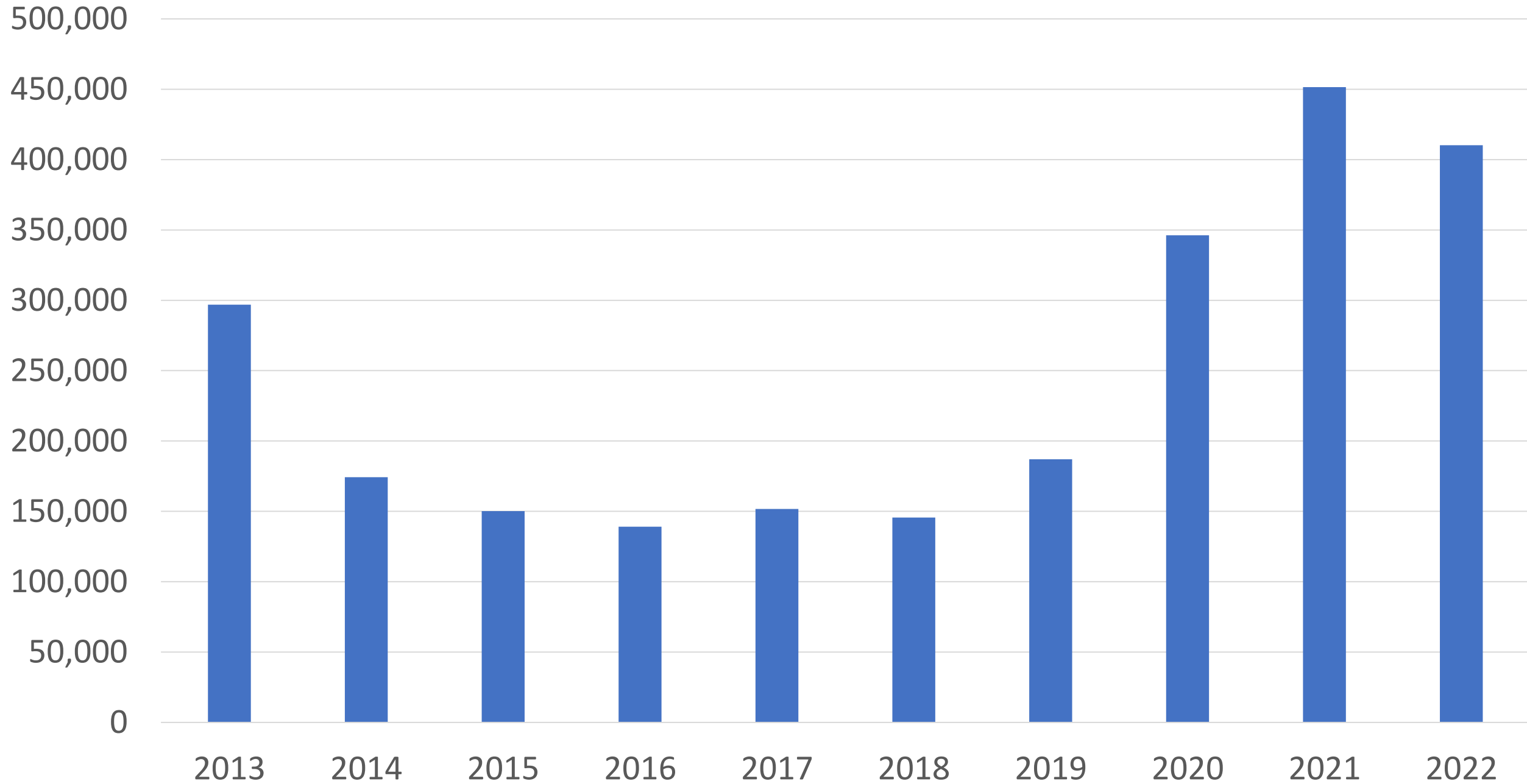
Gross cash farm income



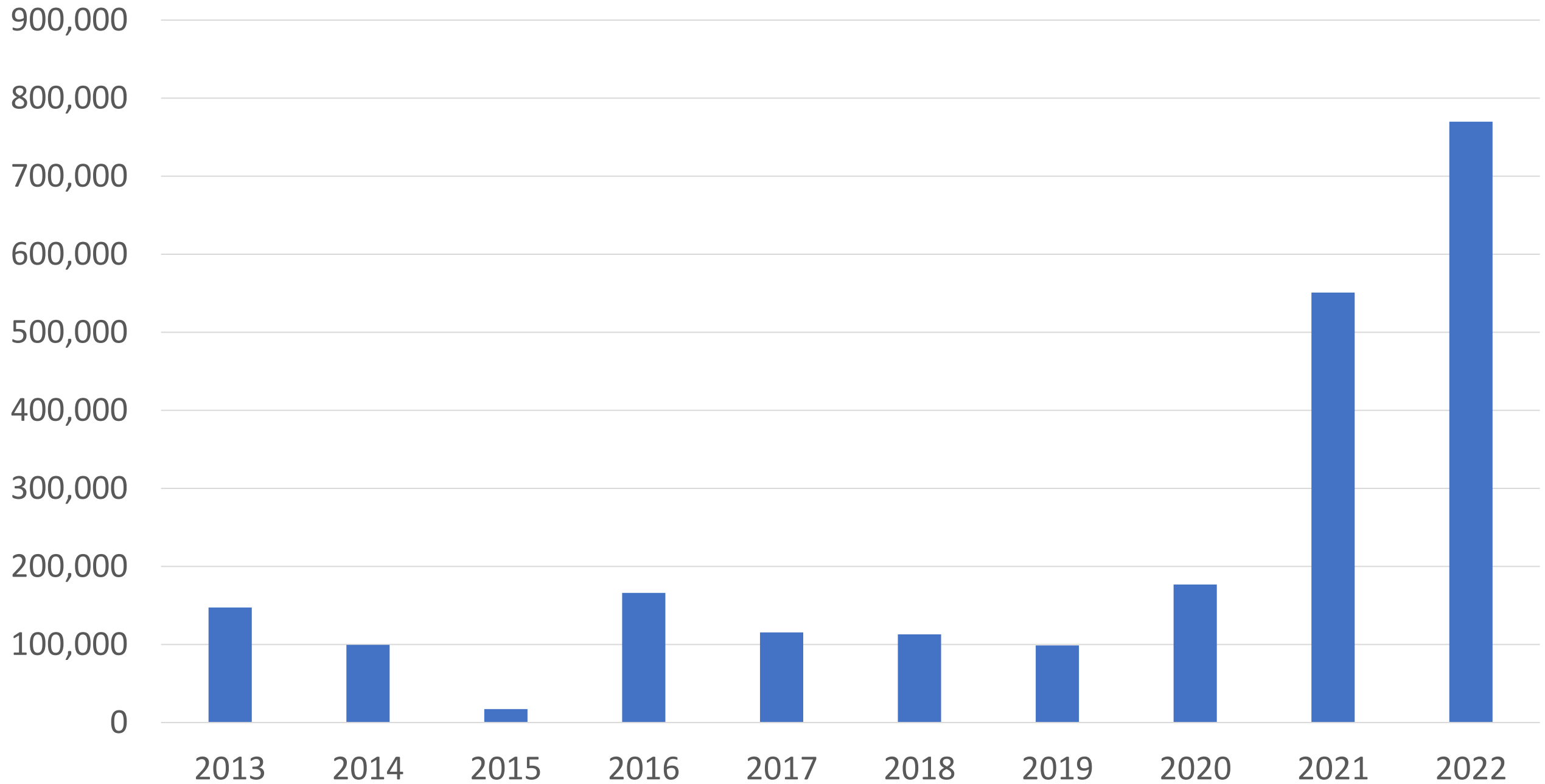
Total cash farm expense



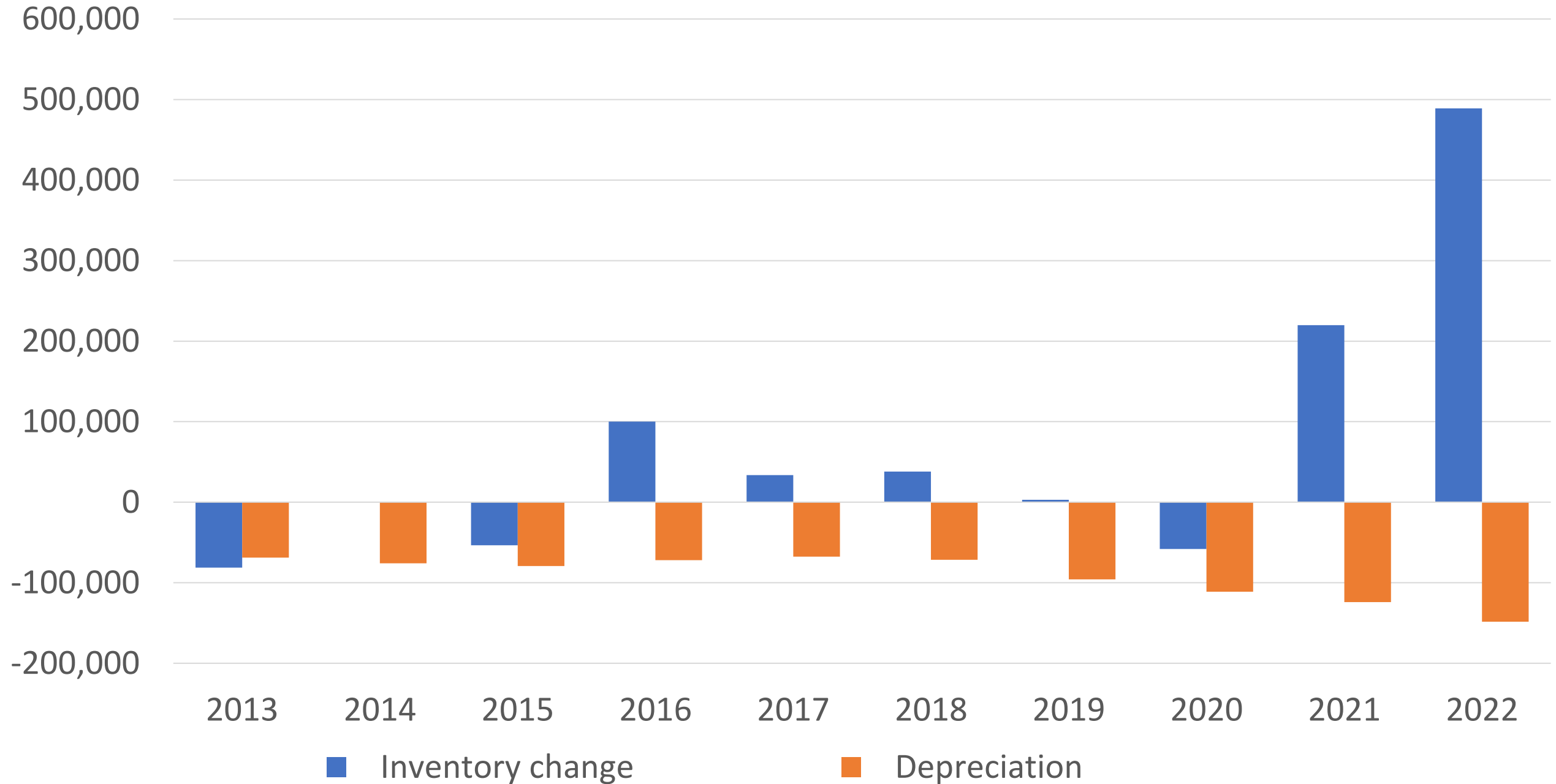
Net cash farm income



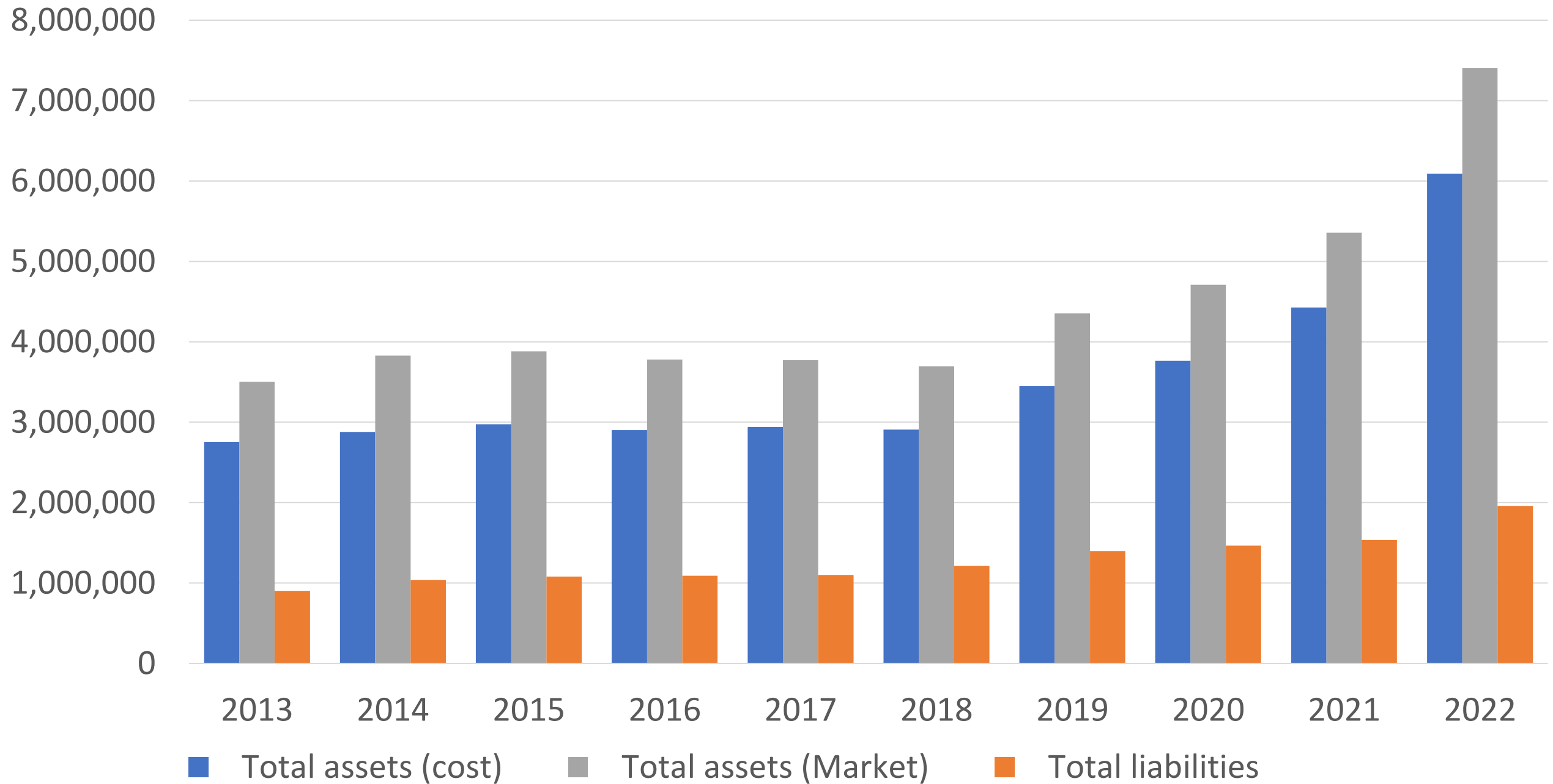
Net farm income, accrual



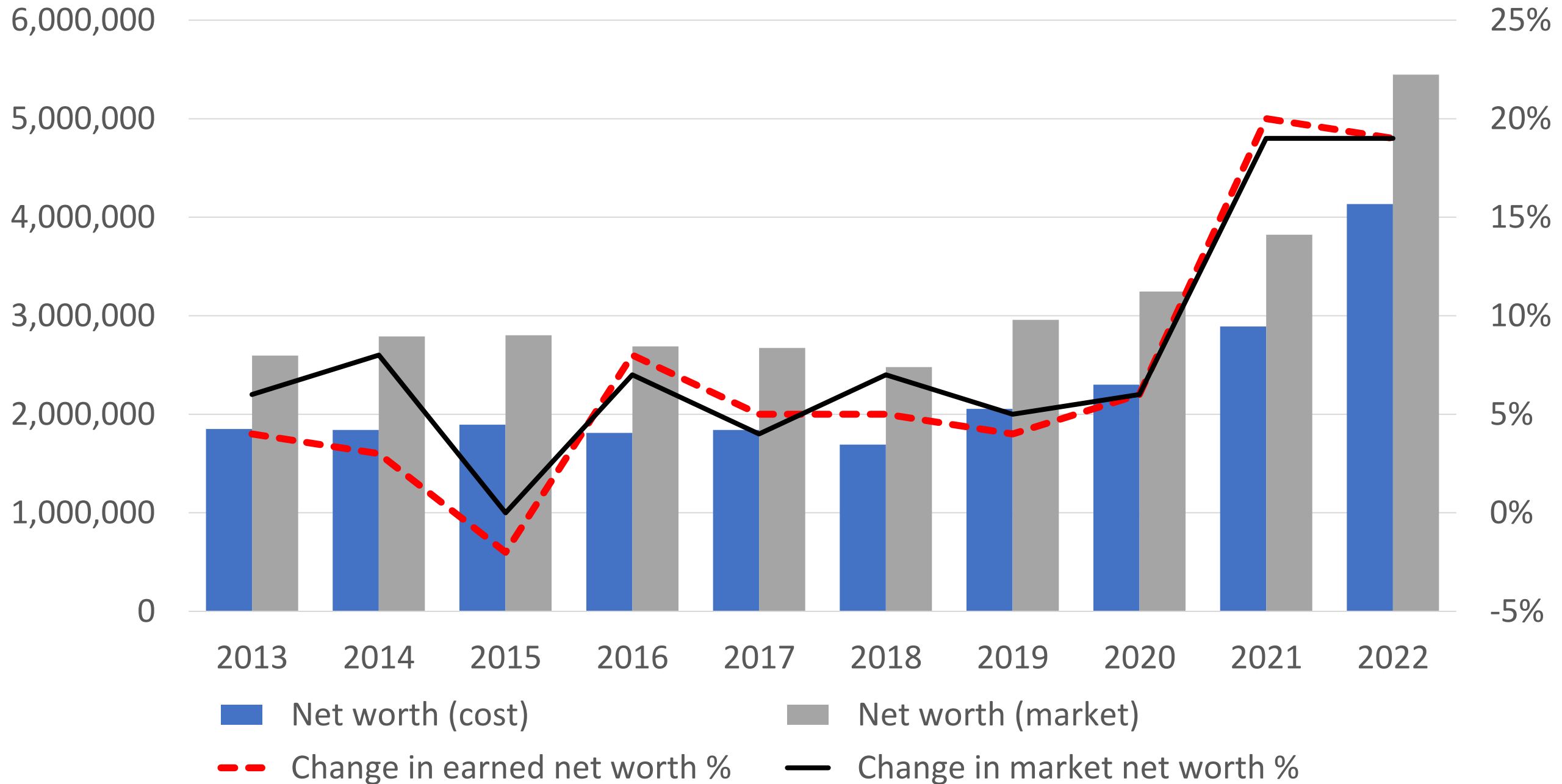
Inventory Change & Depreciation



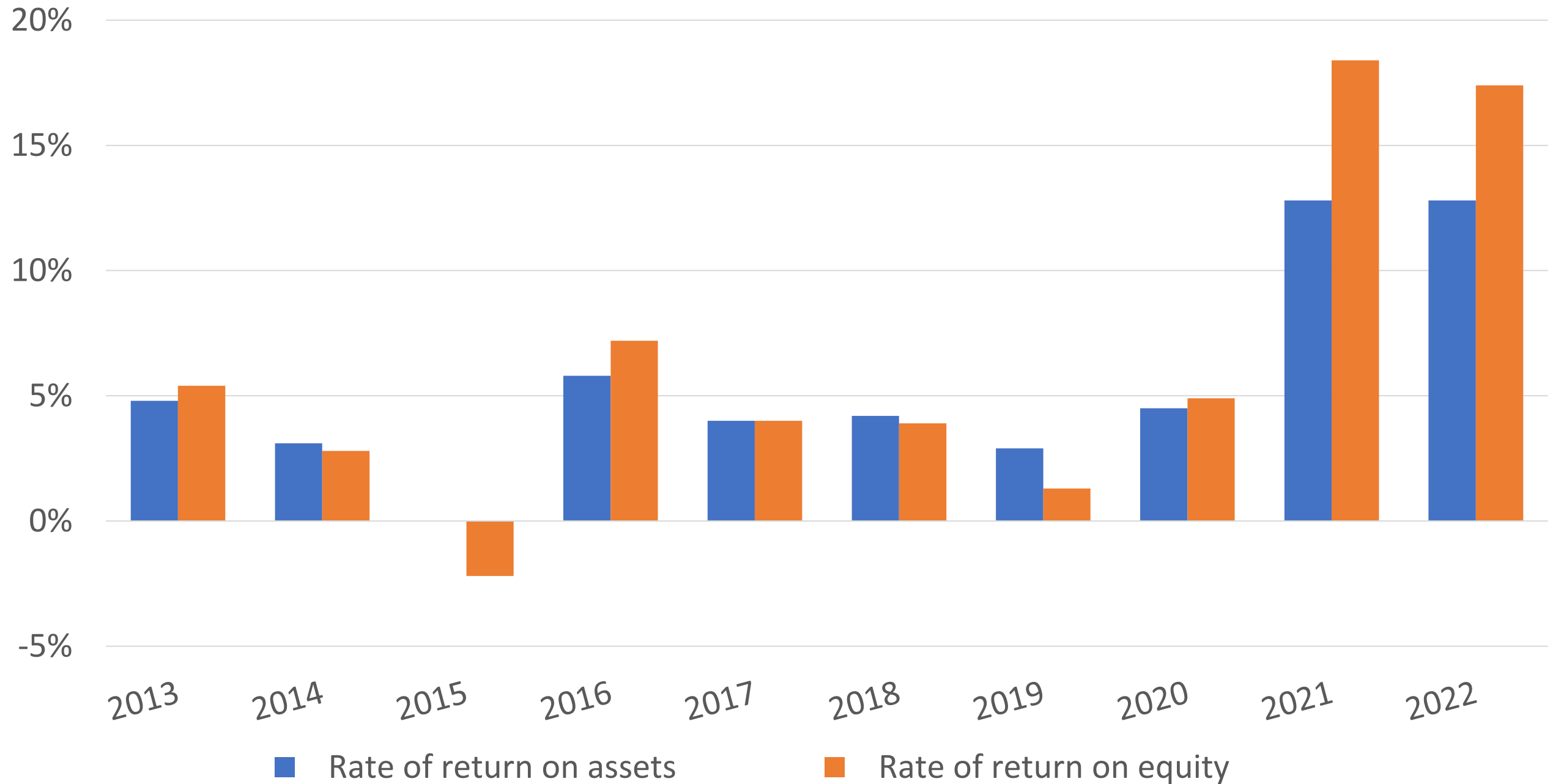
Assets and Liabilities, cost vs. market



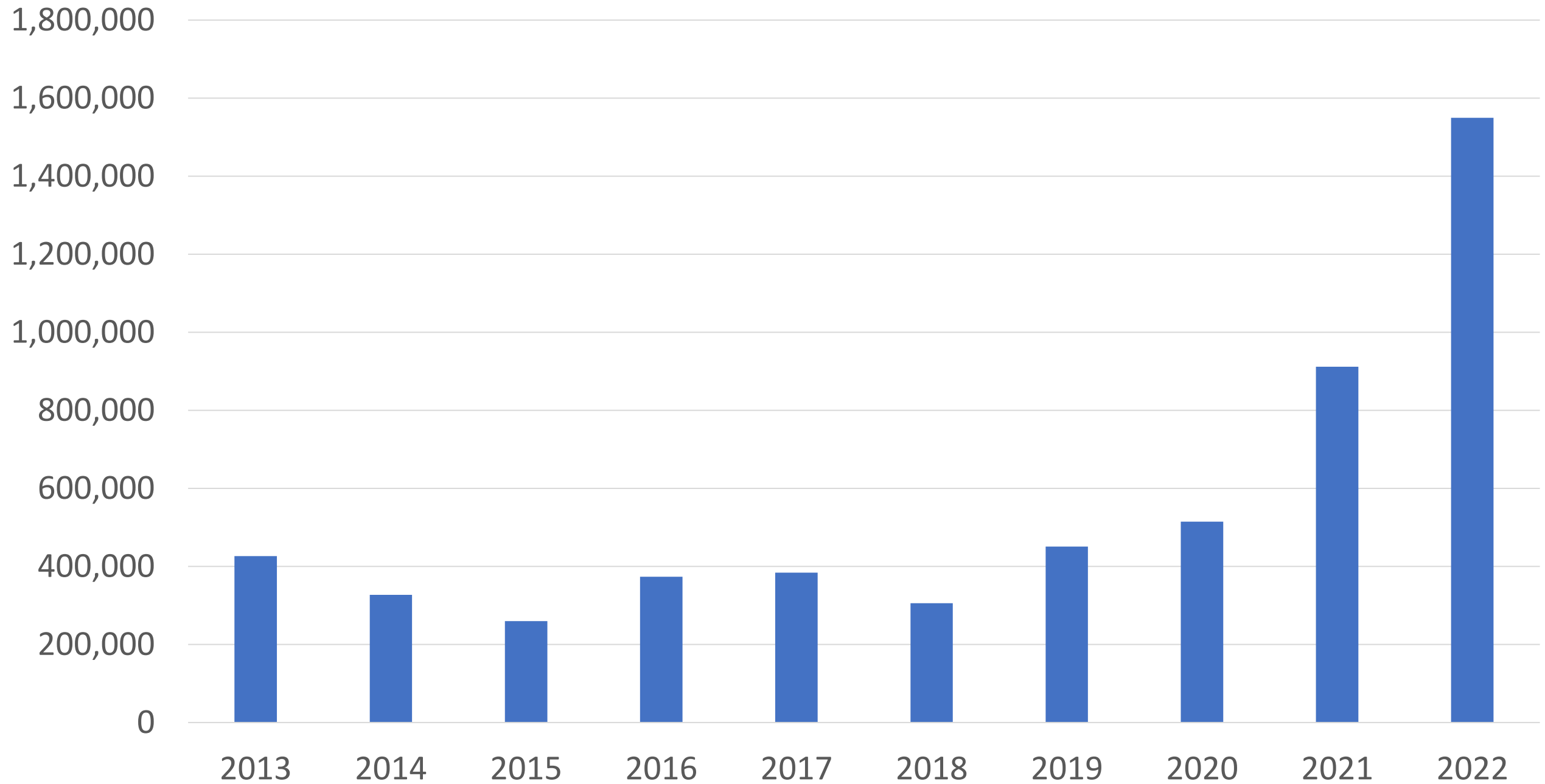
Net Worth & Net Worth Change



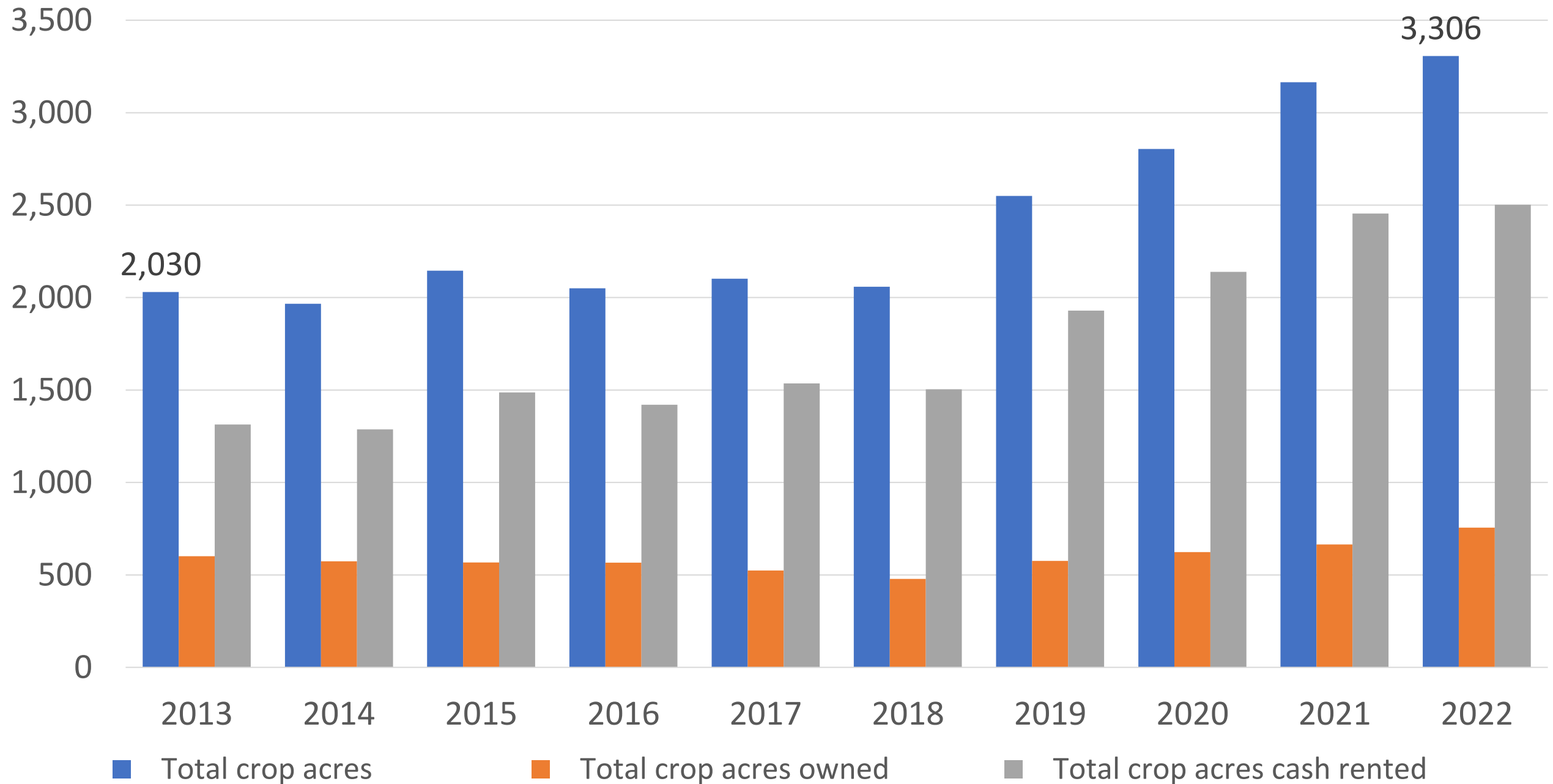
Rate of Return on Assets & Equity



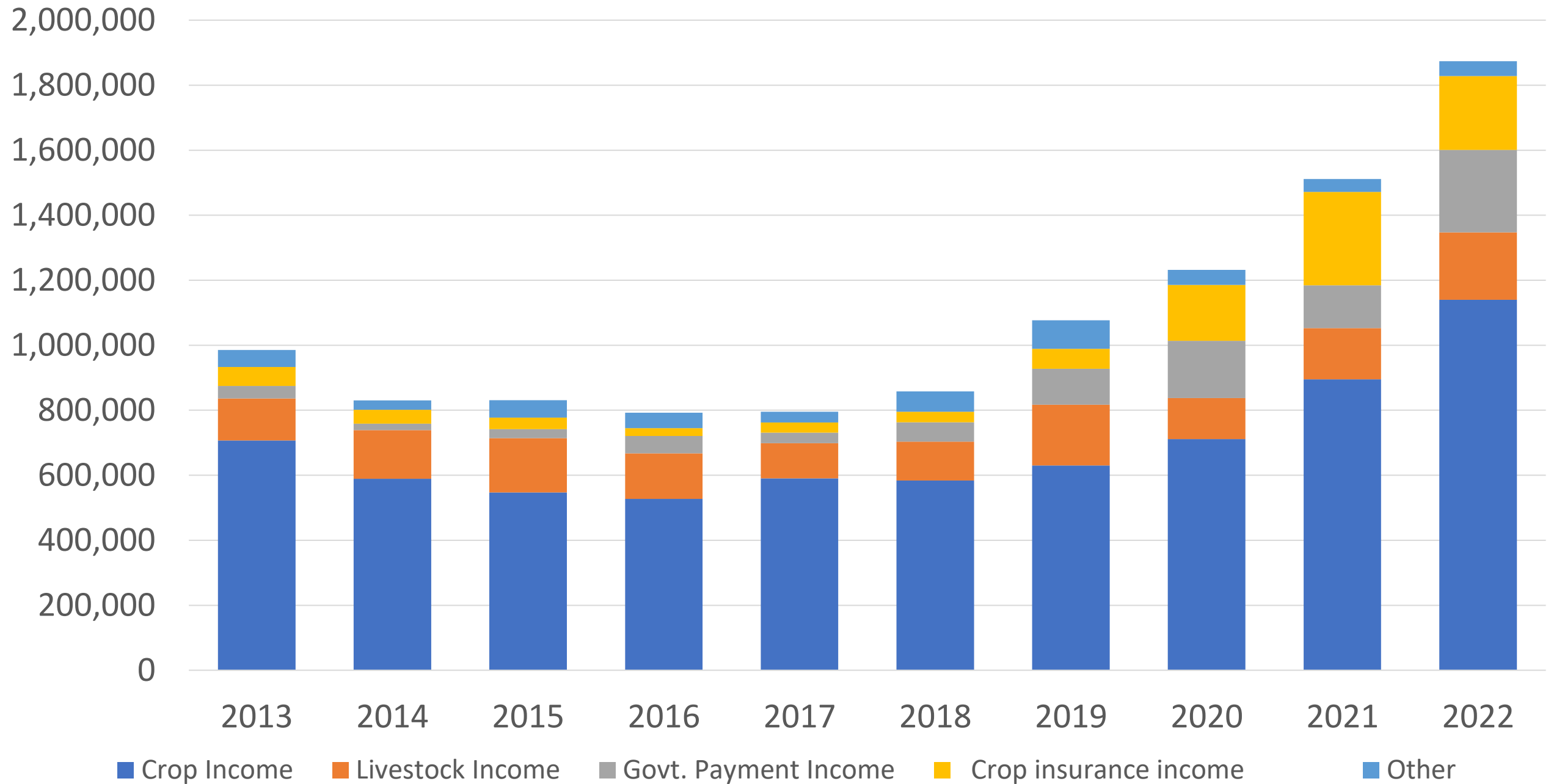
Working capital



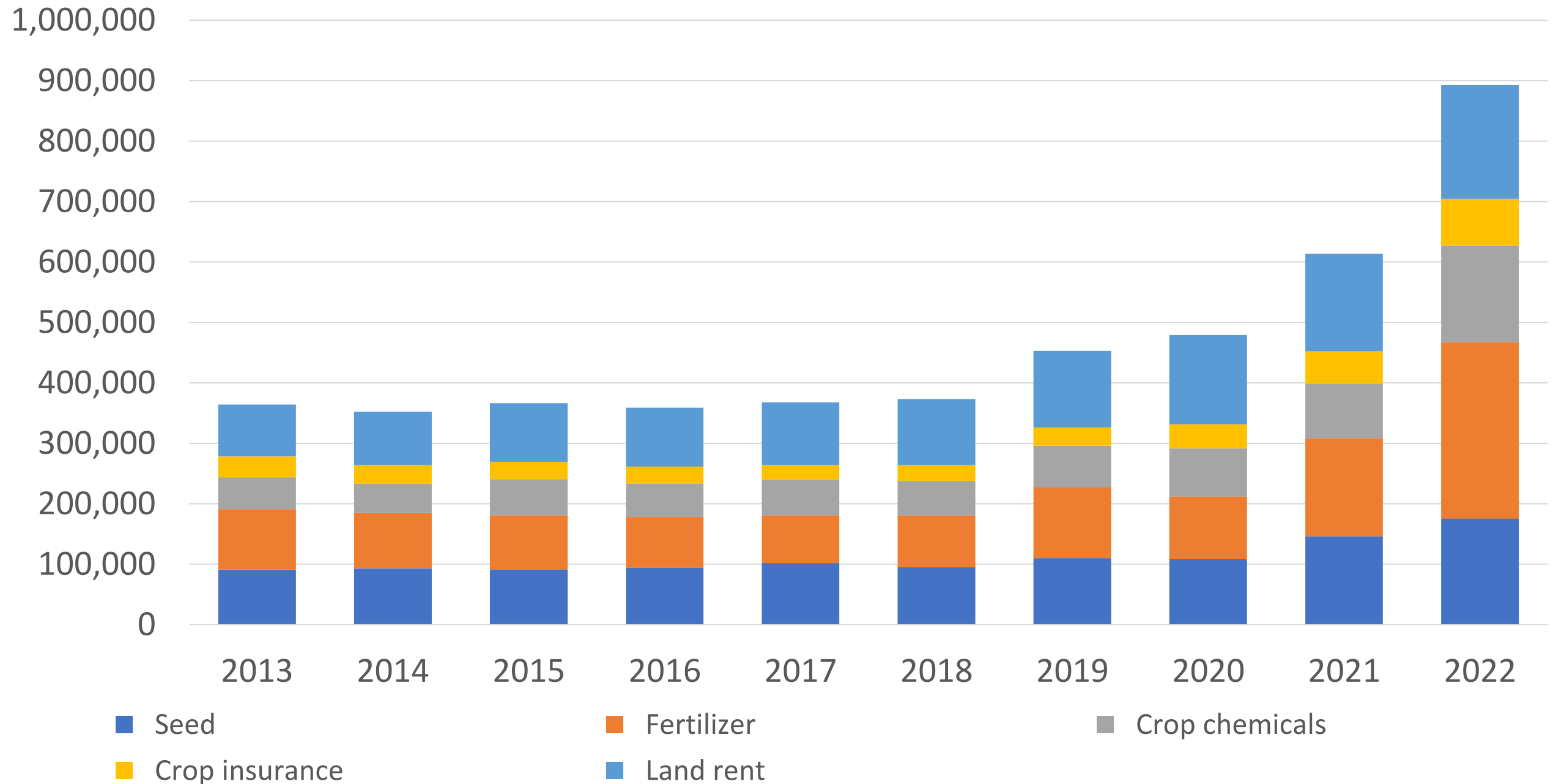
Crop Acres



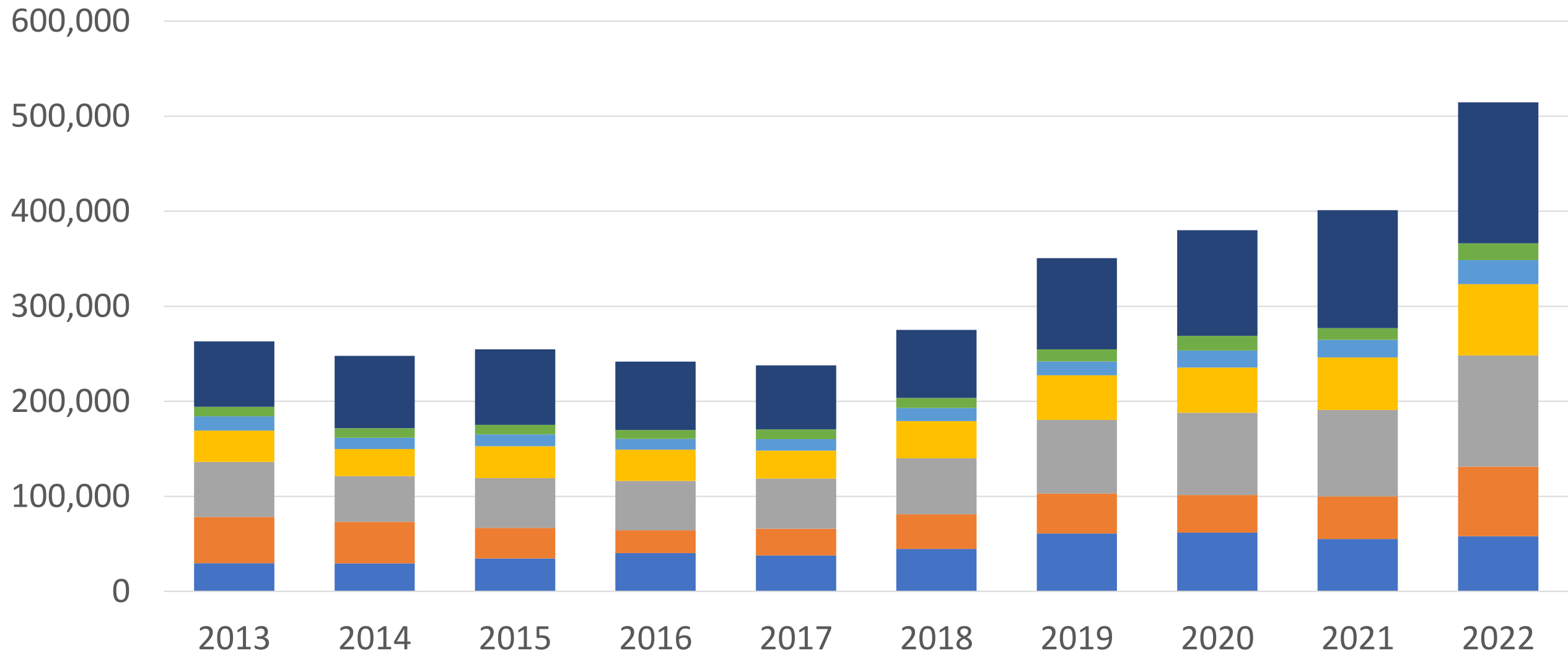
Cash Income Sources



Selected Direct Cash Expenses



Selected Overhead Expenses



Interest

Fuel & oil

Repairs

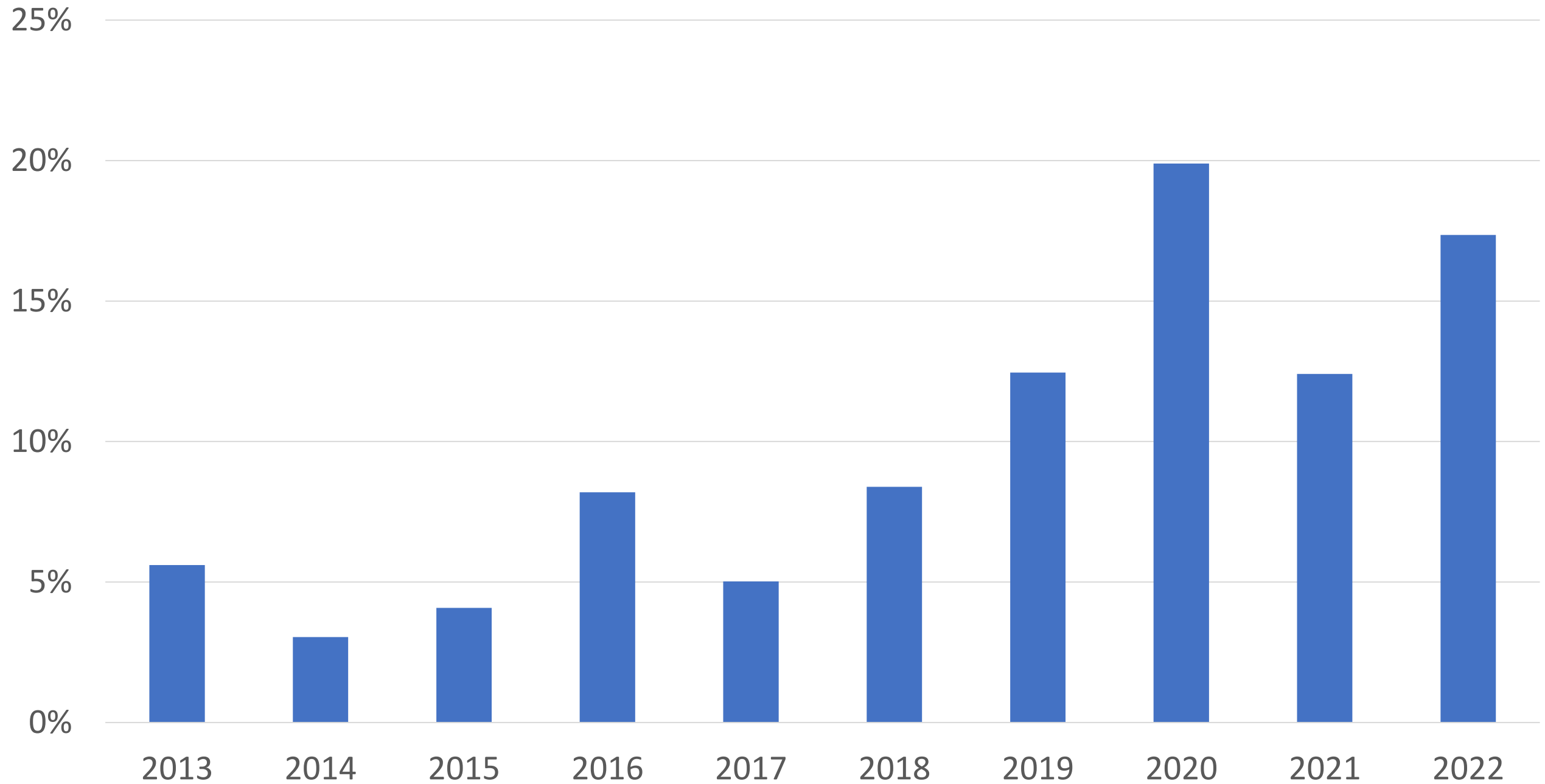
Hired labor

Farm insurance

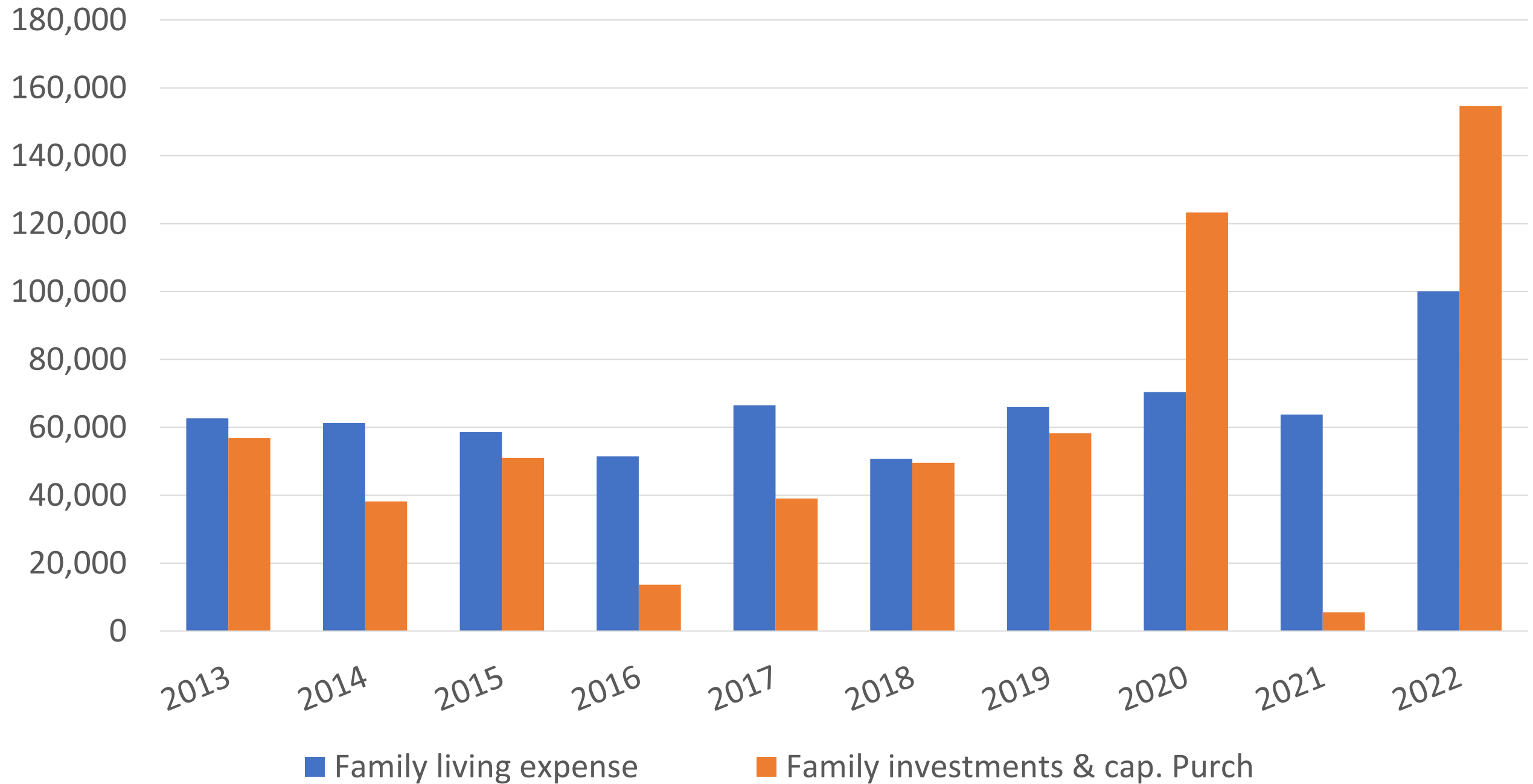
Utilities

Depreciation

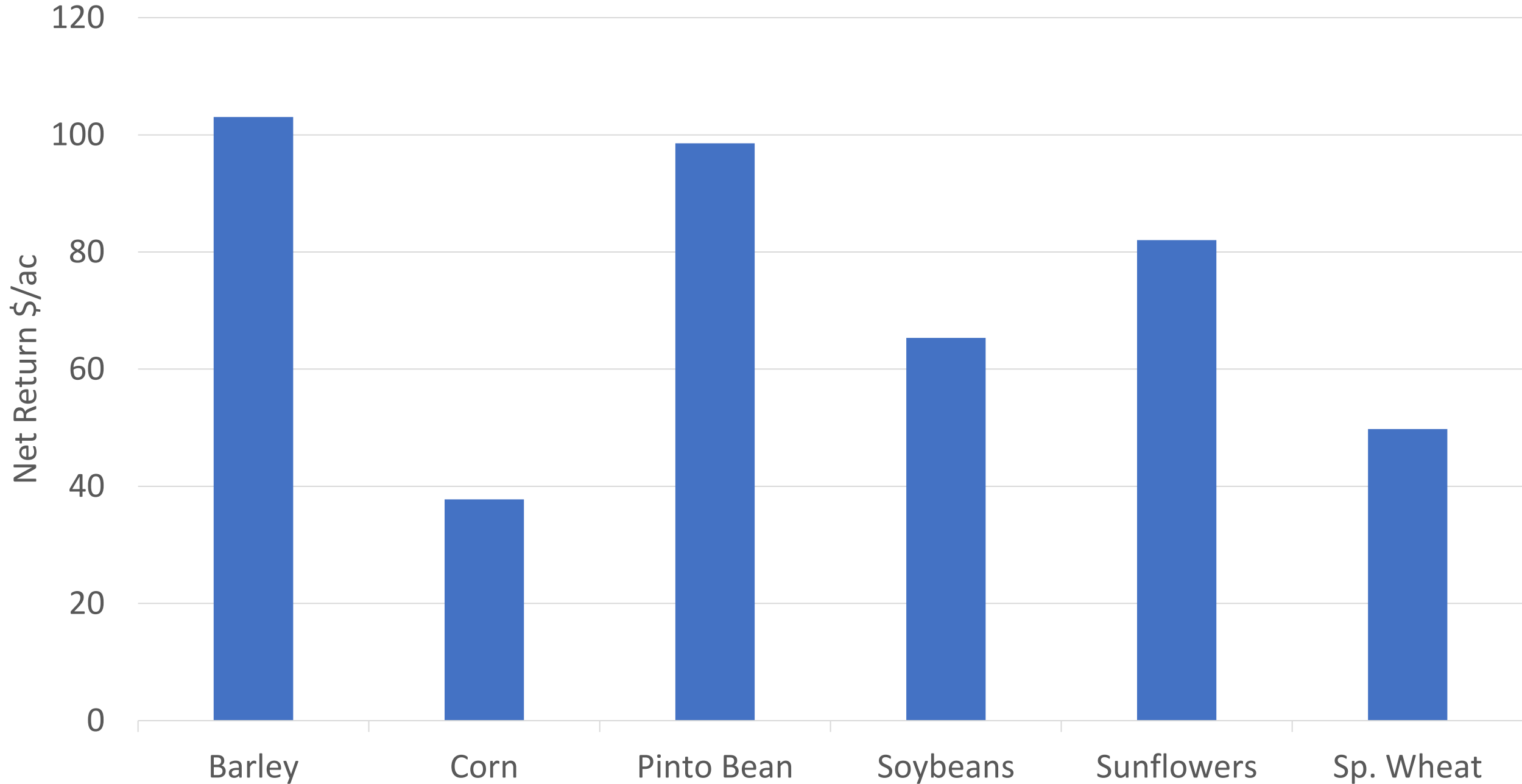
Govt. Payment as a Percent of Total Expenses



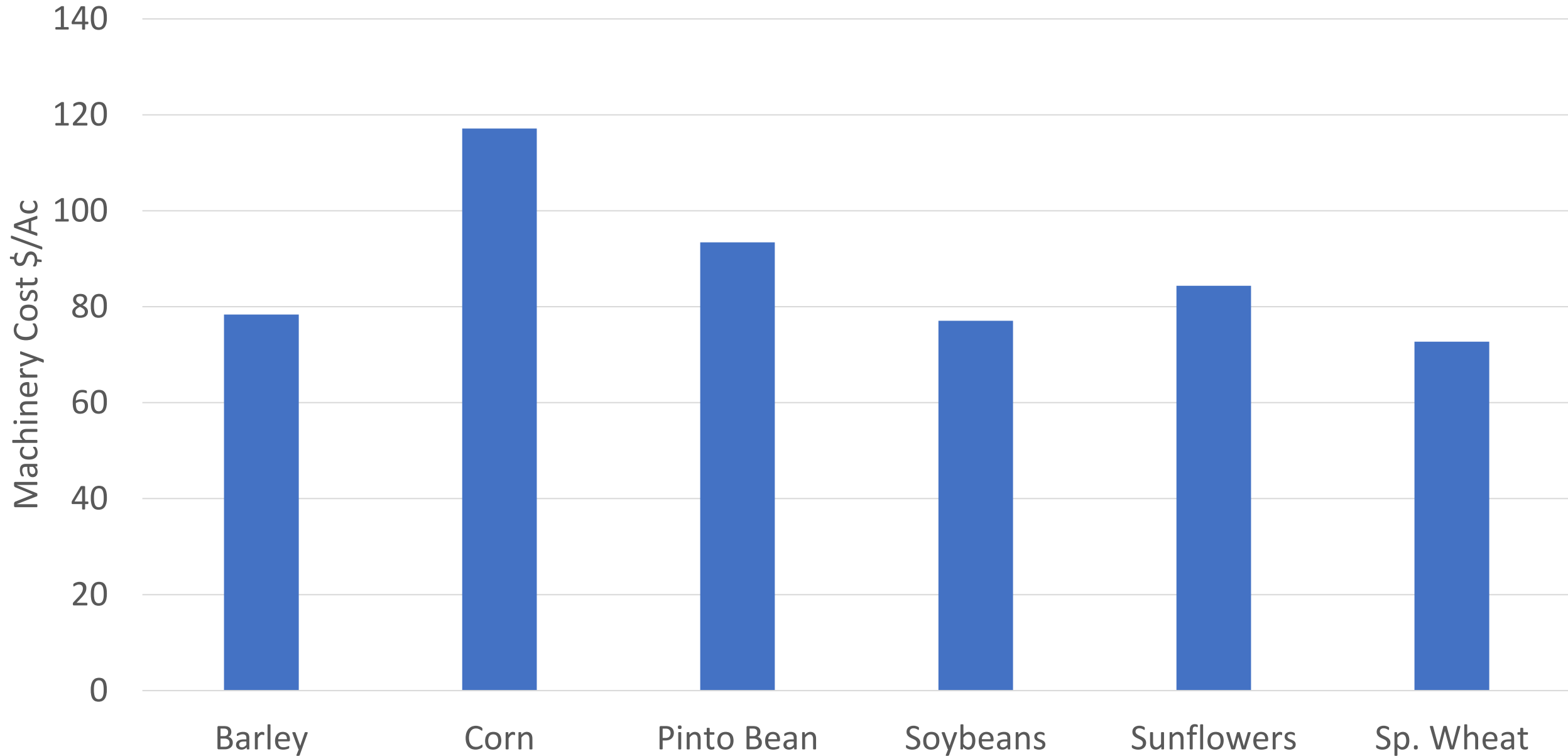
Family Living Expenses & Invest/Capital Purchases



Average Net Return before Govt. Payments 2013-2022



Average Machinery Costs per Acre 2013-2022



Future Concerns

- Output prices
 - Future prices are considerably lower than current prices
- Input costs
 - Fertilizer—has come down
 - Chemicals—has come down
 - Seed
 - Fuel—lower than last year now, but going up
 - LAND RENT

Questions? Comments?

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