Overview of Wisconsin Agriculture

AAE 320: Farming Systems Management

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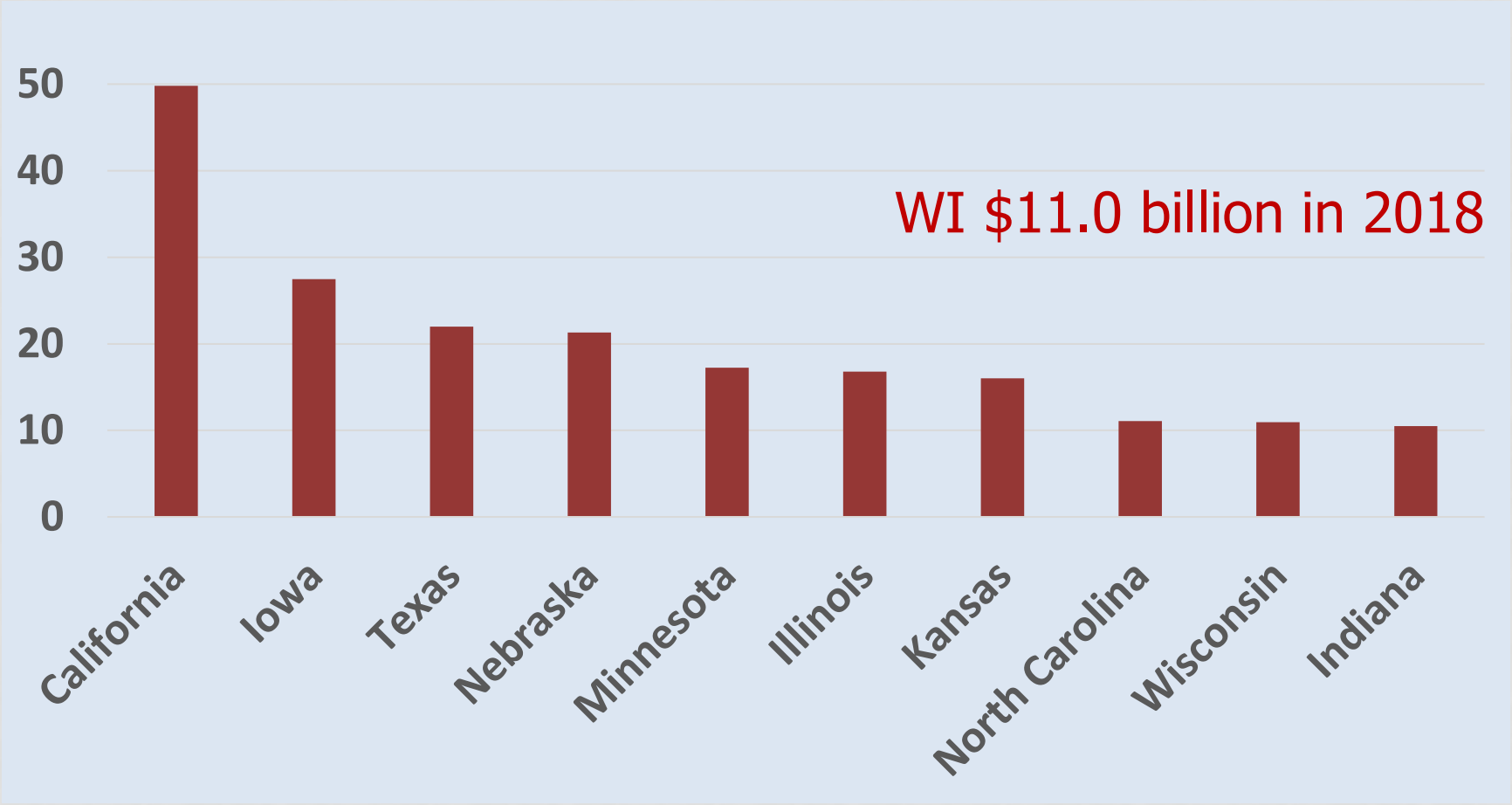
Learning Goals

To become aware of

1. Major agricultural products Wisconsin farmers grow and their relative importance nationally
2. Economic impact of agriculture in Wisconsin
3. Current trends occurring among Wisconsin farms

Farmer Cash Receipts in 2018
Top 10 US States ($ Billion)



Wisconsin is a Major Dairy State (2018)

Dairy	WI Rank	% US	#1 State
Milk production	2	14.1	California
Cheese, total	1	26.3	Wisconsin
American	1	19.5	Wisconsin
Cheddar	1	18.8	Wisconsin
Hispanic	2	29.9	California
Italian	1	31.1	Wisconsin
Mozzarella	2	26.2	California
Dry whey (food)	1	32.6	Wisconsin

Wisconsin's Place in US Agriculture (2018)

Livestock	WI Rank	% US	#1 State
Cattle and calves	9	3.6	Texas
Milk cows	**2**	13.6	California
Hogs and Pigs	20	0.4	Iowa
Sheep	20	1.4	Texas
Milk Goats	**1**	16.7	Wisconsin
Chickens	17	1.7	Iowa
Broilers	20	0.6	Georgia
Eggs	16	1.9	Iowa
Mink Pelts	**1**	31.3	Wisconsin
Honey	16	1.5	North Dakota
Trout	6	1.0	Idaho

Wisconsin's Place in US Agriculture (2018)

Grain/Feed Crops	WI Rank	% US	#1 State
Corn for grain	10	3.8	Iowa
Corn for silage	**1**	11.0	Wisconsin
Oats	**4**	9.8	North Dakota
Soybeans	14	2.3	Illinois
Wheat, winter	19	1.2	Kansas
Forage (all types)	**4**	8.1	Texas

Wisconsin's Place in US Agriculture (2018)

Vegetable Crops	WI Rank	% US	#1 State
Potatoes	3	6.0	Idaho
Sweet Corn	3	13.1	Washington
Green Peas	3	19.3	Washington
Snap Beans	1	37.5	Wisconsin
Carrots	3	5.2	California
Cabbage	6	6.9	California
Cucumber	7	4.0	Florida
Pumpkins	14	1.6	Illinois


12

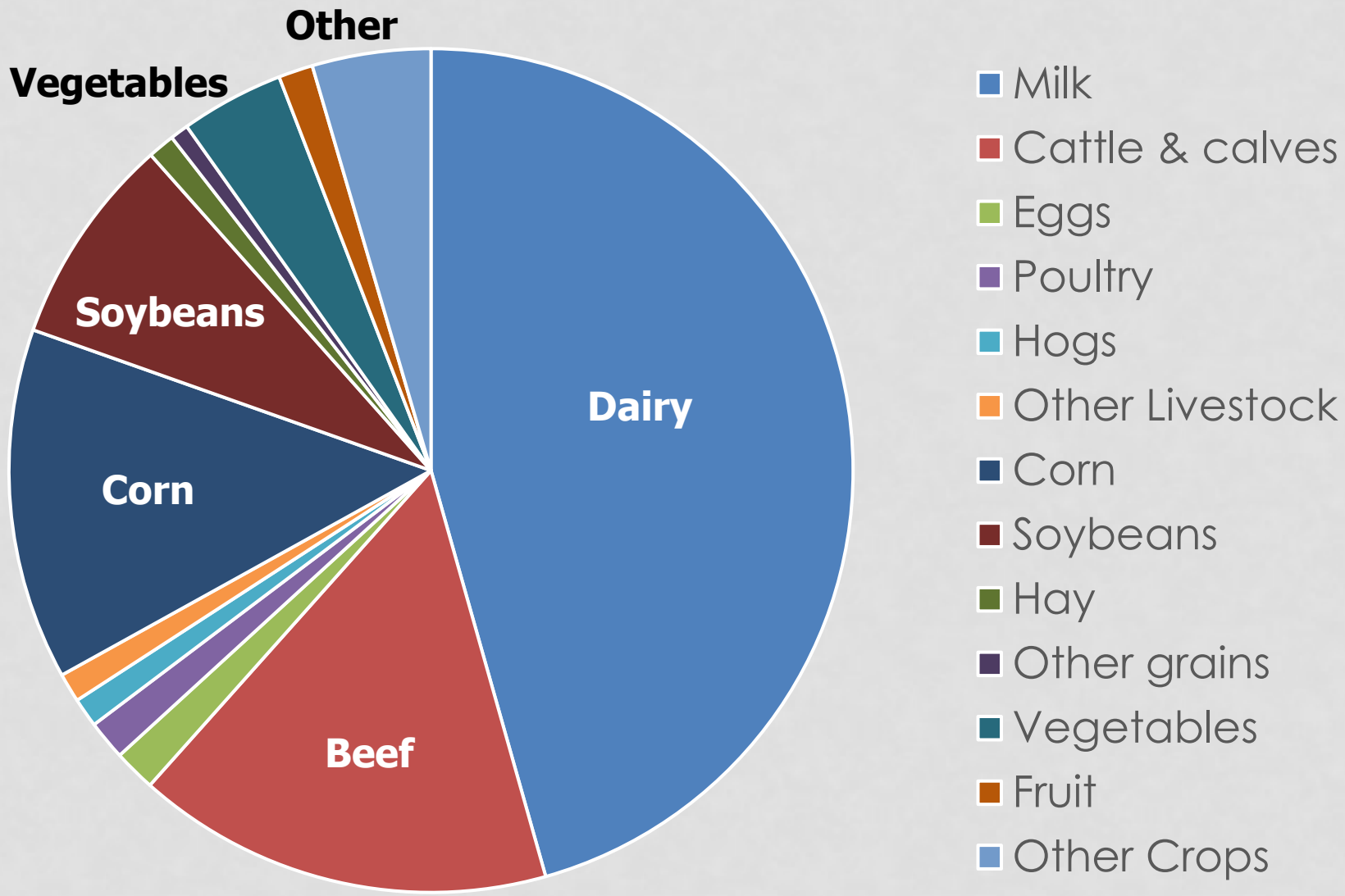
Wisconsin's Place in US Agriculture (2018)

Fruit Crops	WI Rank	% US	#1 State
Cherries, tart	**4**	3.7	Michigan
Apples	11	<1	Washington
Maple syrup	4	5.4	Vermont
Cranberries	**1**	62.1	Wisconsin
Peppermint oil	5	3.2	Idaho
Ginseng	**1**		Wisconsin

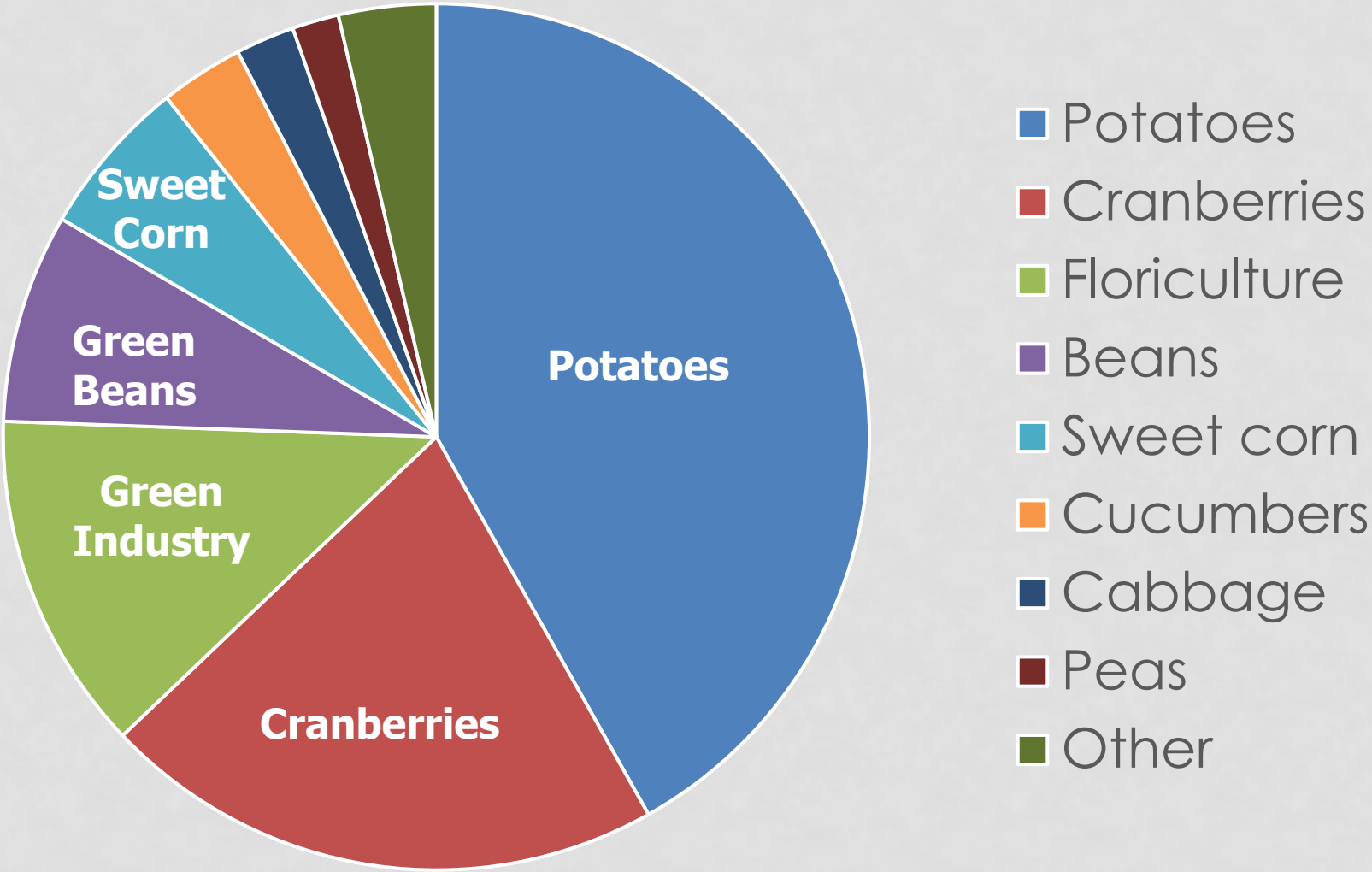
% of WI Farm Cash Receipts by Commodity Category 2011-2018

	2011	2012	2013	2014	2015	2016	2017	2018
Total ($B)	$11.3	$12.0	$12.1	$12.9	$11.3	$10.7	$11.3	$11.0
Livestock	64%	61%	66%	73%	70%	67%	69%	67%
Dairy	46%	44%	46%	52%	45%	47%	48%	46%
Crops	36%	39%	34%	27%	30%	33%	31%	33%
Grains	25%	29%	24%	18%	19%	22%	20%	23%
Vegetables	4%	4%	5%	4%	4%	4%	4%	4%
Fruits	2%	2%	2%	1%	2%	2%	2%	1%

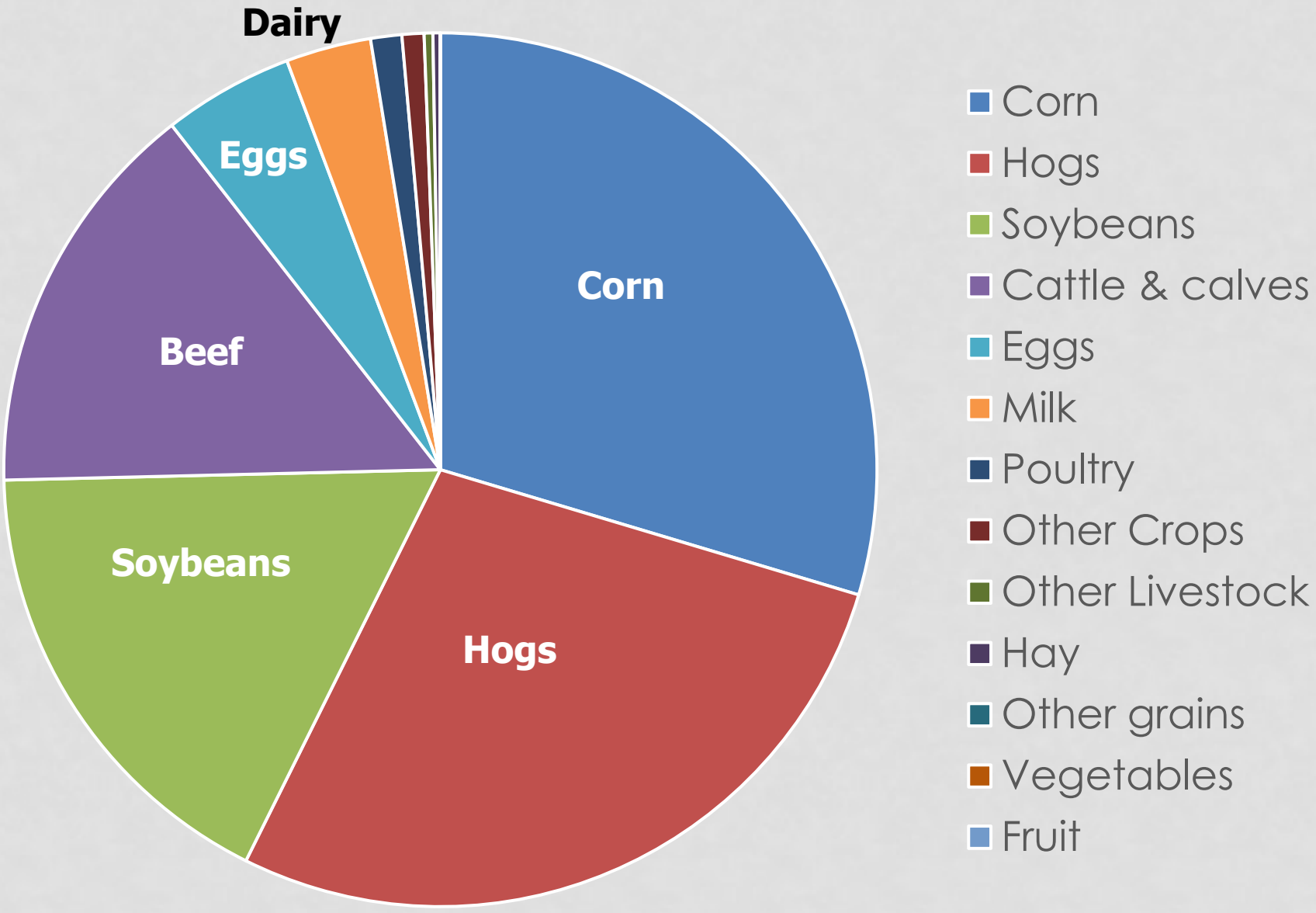
WI Farmer Cash Receipts by Commodity (2018)



WI Farmer Specialty Crop Cash Receipts by Commodity (2018)



Iowa Farmer Cash Receipts by Commodity (2018)



Nationally Important Agriculture in WI

- Dairy is very important: milk, cheese, whey
- Milk cows and milk goats
- Field crops: silage, corn, oats, forage
- Vegetables: potatoes, processing vegetables (sweet corn, snap beans, green peas, carrots, cucumbers)
- Fruits: cranberries, cherries, mint
- Ginseng
- Main Point: Wisconsin Agriculture is more diverse than in many other “ag” states

Discussion Questions

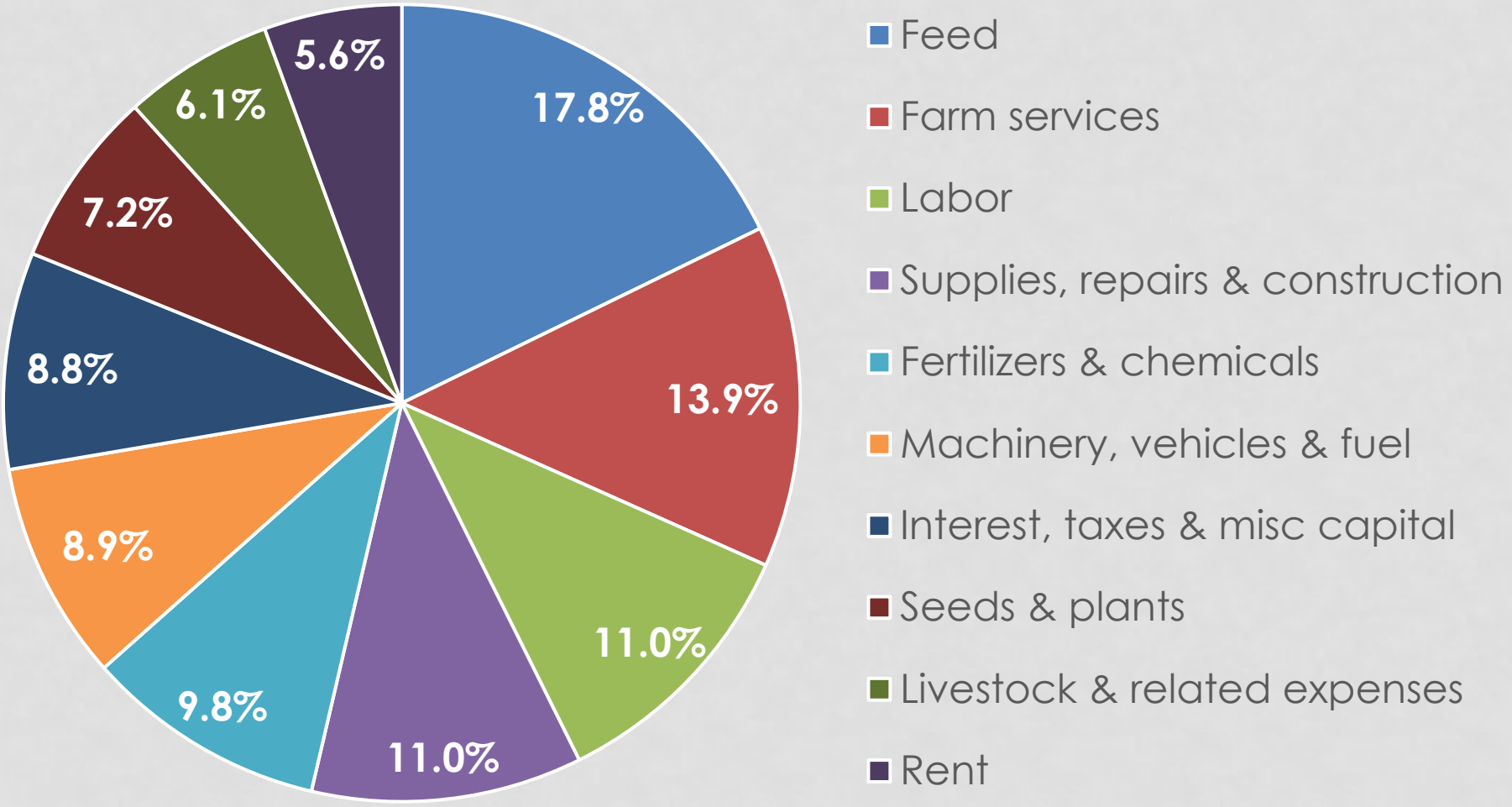
- Was Wisconsin's importance in any of these crops or livestock products surprising to you?
- Do any of you have experience with these crops or livestock?
- What crops or livestock products are missing?
- What are some advantages and disadvantages of diverse and specialized agricultural production?

Impact of Agriculture on the WI Economy

- Contribution of Agriculture to the Wisconsin Economy: Updated for 2017 (Deller (2019): https://go.wisc.edu/i6947n)
  - Agriculture in WI = $105 billion, 16% of total sales in the state, 12% of jobs, 12% of income
  - On-Farm: $22 billion, 4% of jobs, 3% of income
  - Processing: $83 billion, 8% of jobs, 9% of income
  - Dairy (farm & processing): $46 billion, 4% jobs, 5% income
- Economic Impact of Specialty Crops in Wisconsin
  - Mitchell et al. (2017) https://go.wisc.edu/3ooj1v p. 32-39
  - 2013-2015: Specialty crops $5.8 billion in WI, $1.1 billion production, $4.8 billion processing, 24,500 jobs
  - US's 2nd largest processed vegetable industry

WI Farm Production Expenditures in 2018 by Major Category

$10 Billion in 2018, >$155,000/farm



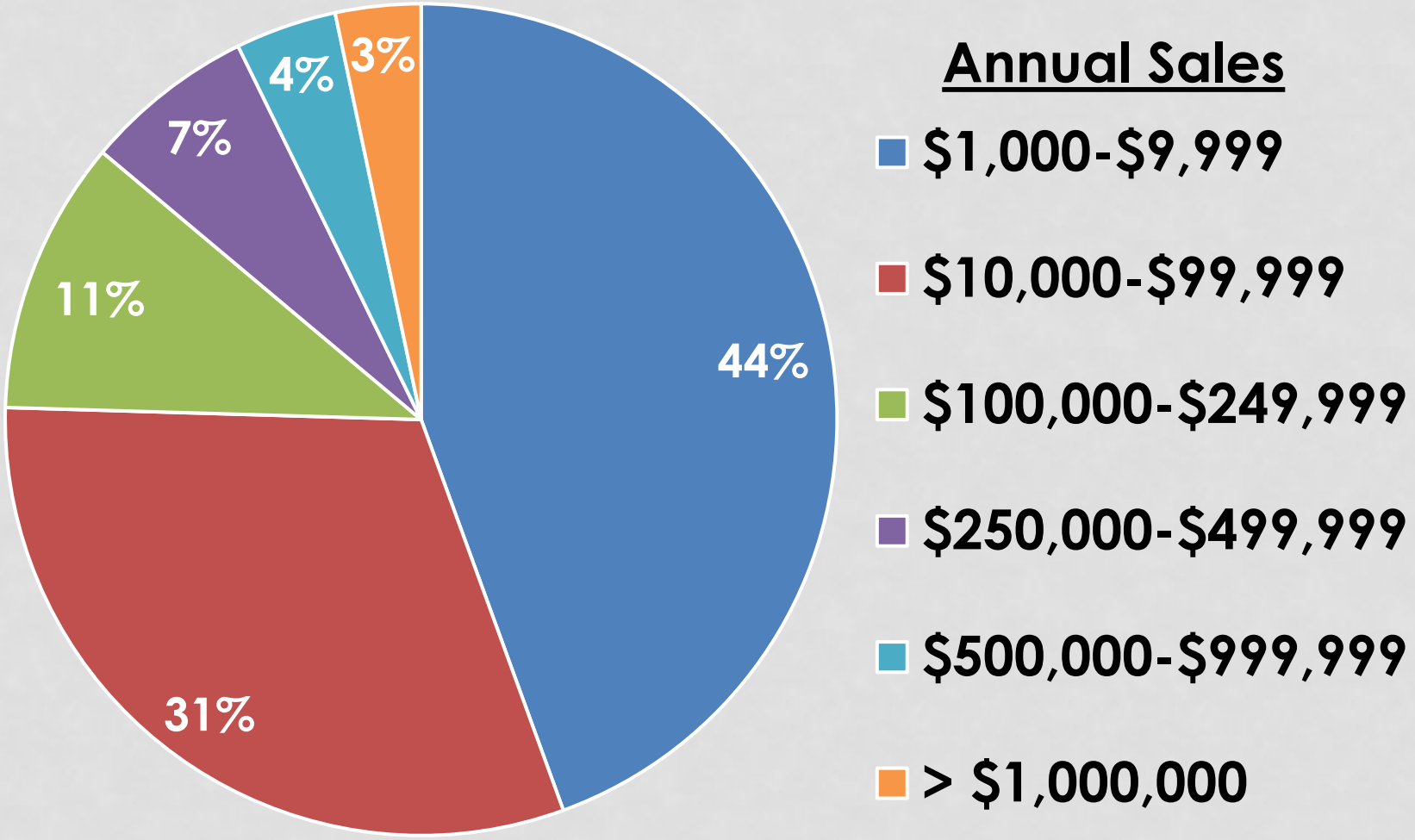
Wisconsin Agricultural Statistics 2019 (for 2018)

- https://www.nass.usda.gov/Statistics_by_State/Wisconsin/Publications/Annual_Statistical_Bulletin/2019AgStats-WI.pdf
- In Wisconsin, in 2018, there were
  - 64,800 farms
  - 14,300,000 acres in farms
  - Average 221 acres/farm
  - Produced $12.1 billion in production value
  - Generated $2.16 billion in net farm income
  - Profit margin = 2.16/12.1 = 17.9%

WI Farms by Annual Sales 2018

Gross Value of Sales	Number of Farms	% of Total	Average Size (ac)
$1,000-$9,999	28,800	44%	63
$10,000-$99,999	20,100	31%	144
$100,000-$249,999	6,900	11%	304
$250,000-$499,999	4,300	7%	465
$500,000-$999,999	2,550	4%	745
> $1,000,000	2,150	3%	1,674
Total for WI	64,800	100%	221

% of WI Farms by Sales Category



Number of WI Farms by Annual Gross Sales 2014-2018

Gross Sales ($1,000's)	2014	2015	2016	2017	2018
$1 - $10	29,900	29,600	29,200	28,700	28,800
$10 - $100	20,600	20,400	20,200	20,100	20,100
$100 - $250	7,300	7,100	7,000	7,000	6,900
$250 - $500	4,700	4,600	4,400	4,300	4,300
$500 - $1,000	2,800	2,700	2,700	2,550	2,550
> $1,000	2,200	2,200	2,200	2,150	2,150
Total	67,500	66,600	65,700	64,800	64,800
> $100	17,000	16,600	16,300	16,000	15,900
> $250	9,700	9,500	9,300	9,000	9,000
> $500	5,000	4,900	4,900	4,700	4,700

Average Acres per WI Farm by Annual Gross Sales 2014-2018

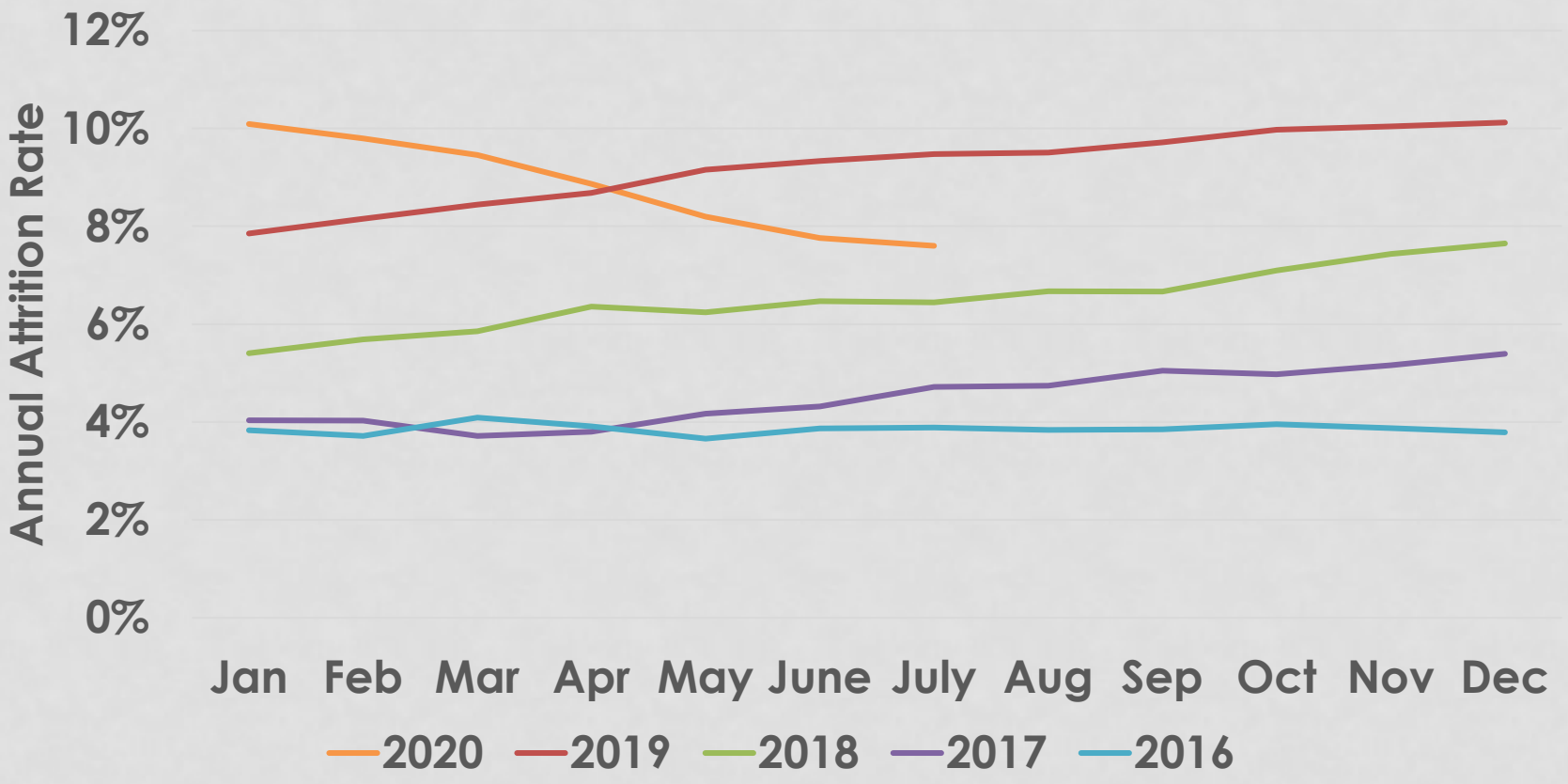
Gross Sales ($1,000's)	2013	2014	2015	2016	2017
$1 to $10	67	64	65	63	63
$10 to $100	141	142	144	144	144
$100 to $250	274	282	300	300	304
$250 to $500	426	435	455	465	465
$500 to $1,000	714	741	704	745	745
> $1,000	1,636	1,636	1,636	1,674	1,674
All Farms	215	216	219	221	221

% Change 2014 to 2018

Gross Sales ($1,000's)	Number of Farms	Average Acres/Farm
$1 - $10	-3.7%	-6.0%
$10 - $100	-2.4%	2.1%
$100 - $250	-5.5%	10.9%
$250 - $500	-8.5%	9.2%
$500 - $1,000	-8.9%	4.3%
> $1,000	-2.3%	2.3%
Total	-4.0%	2.8%

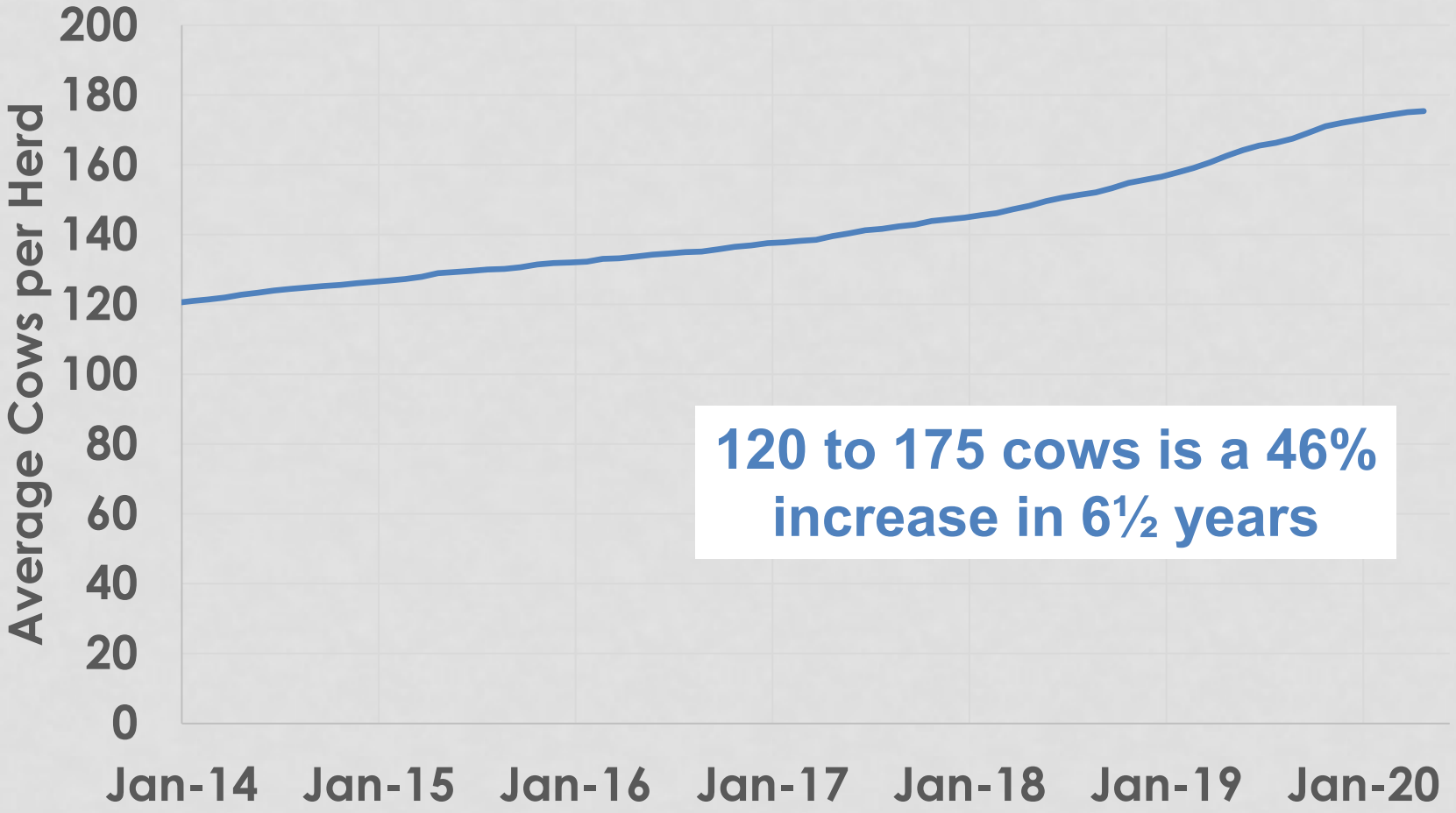
- Number of farms declined 4% & become almost 3% larger
- Number of mid-sized farms declined faster and increased in size faster than for small and large farms

WI Annual Dairy Herd Attrition Rate by Month (Jan 2016 to July 2020)



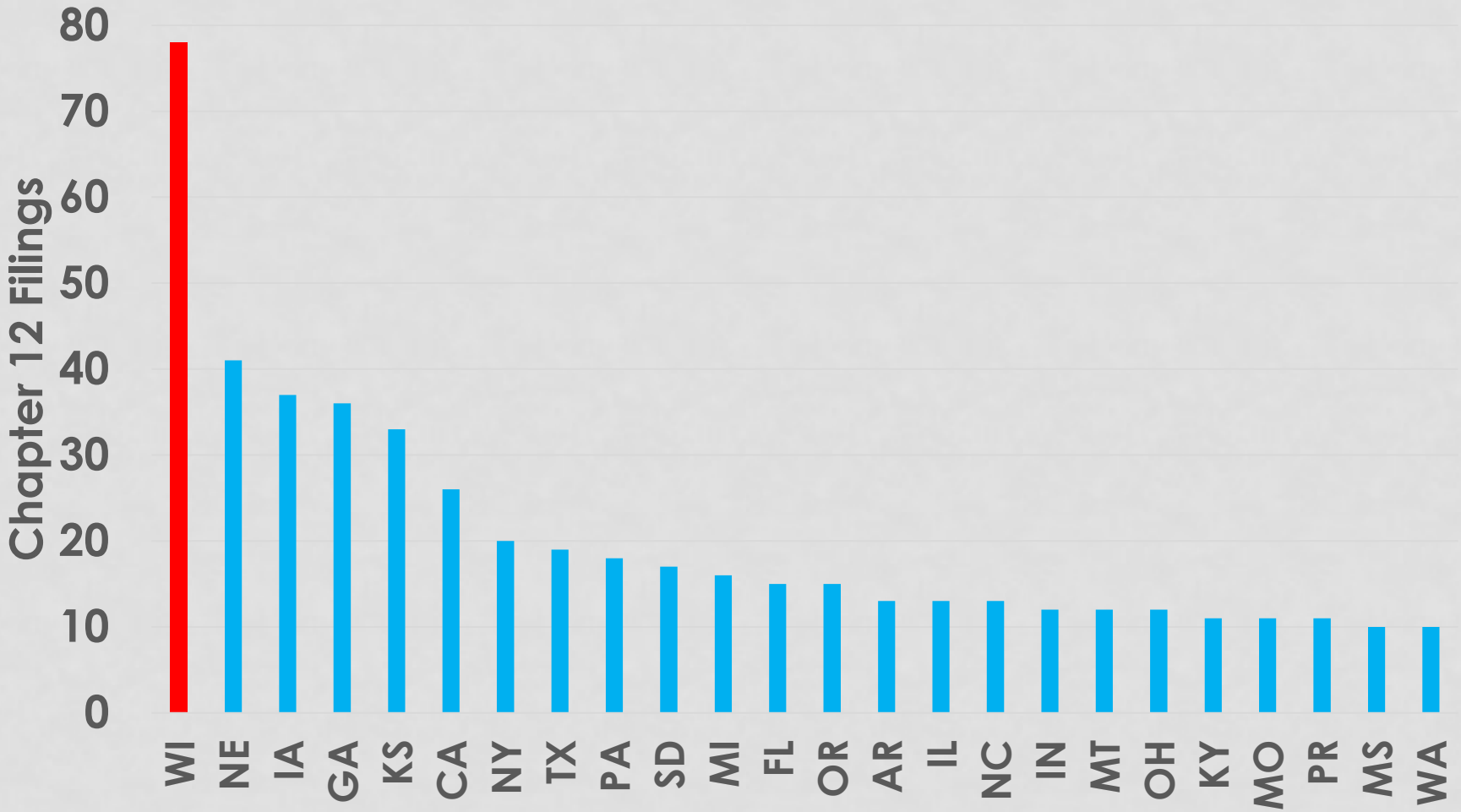
WI Annual Dairy Herd Attrition Rate by Month (Jan 2015 to July 2020)

Average Number of Cows per Herd in WI
Jan 2014 to May 2020



Chapter 12 Farm Bankruptcy Filings by State

Apr 1, 2019 to Mar 31, 2020



Summary of Trends
What's Happening?

- Lots of small farms in Wisconsin, but the number of full-time WI farmers is small (~10-15%)
  - Most households with small farms have substantial off-farm income, not "full-time" farmers
  - Rural residents vs Rural poor
- The number of farms in WI is slowly declining, faster for mid-sized farms than for small and large farms
- Average WI farm size slowing increasing, especially for mid-sized farms
- Dairy farms have been consolidating at a faster than average rapid rate
- Farm bankruptcy filings are relatively high in WI

Discussion Questions

- What are some ways that the management goals and practices of small/part time farmers differ from full-time farmers?
  - Would you use different sales/buying strategies to sell to/buy from them?
- What are ABM implications of farm consolidation?
- Should we have policies and programs to help keep people in farming?
  - Do we need farm support programs?
  - Should they differ for part-time vs full-time?