# COMMODITY PROGRAMS: A FARMER'S PERSPECTIVE

**AAE 320**

**Paul D. Mitchell**

# Goals

- To understand how these four commodity support programs operate at the individual farm level
  - Price Loss Coverage (PLC)
  - Agricultural Risk Coverage (ARC)
  - Marketing Assistance Loans (MAL)
  - Dairy Margin Coverage (DMC)

- Briefly overview Market Facilitation Program (MFP) payments

# Commodity Support Programs
# USDA Farm Service Agency (FSA)

- Programs administered by the USDA Farm Service Agency (FSA)
  - PLC, ARC, MAL, DMC, MFP
- Each county has a county FSA office
- Farmers/land owners sign up each year: file specific forms for each program by specific dates
- Programs often have reporting requirements: acres of each crop planted, where planted, production (yield) reports

# Eligibility for Commodity Support

- Farmer must operate Base Acres to be eligible for PLC/ARC (commodity support) subsidies
  - Do not need Base Acres for MAL or DMC (or MFP)
- Officially designated by FSA Farm Serial Number
  - Farms often farm more than one FSA farm
  - Registered with FSA office in each county
  - Stays with the land, not the farmer
- Each FSA farm has Base Acres for each Program Crop with Program Yields used for PLC
  - “40 corn base acres with 130 bu/ac yield”

# Base Acres

- Average acres of each program crop historically grown on a "farm" at first enrollment in early 1980s
  - "50 base acres of corn and 30 base acres of soybean"
- Have not added Base Acres since early 1980s, but have allowed changing the mix of crops based on historical shares of crops planted on that FSA farm
  - Crops update in 2003 using 1998-2001 averages
  - Crops updated in 2014 using 2009-2012 averages
- Base Acres do not equal what actually plant now
- Payments are "Decoupled" – not tied to how many acres and which crops are planted now, but to historical plantings

# Payment Yield (or Program Yield)

- Historical average yield for program crops grown on an FSA farm
  - Updated in 2014: 90% of 2008-2012 average
  - Previous update in 2003 using 1997-2001 yields
  - Next update in 2020 (based on 2018 Farm Bill)
- Payment Yields lower than farm's average yields
- Final outcome for each FSA farm: Base Acres for each Program Crop and associated Payment Yield
  - Example: a 100 acre FSA farm has 50 corn base acres with a 135 bu/ac payment yield and 25 soybean base acres with a 31 bu/ac payment yield

# Base Acres and Payment Yields

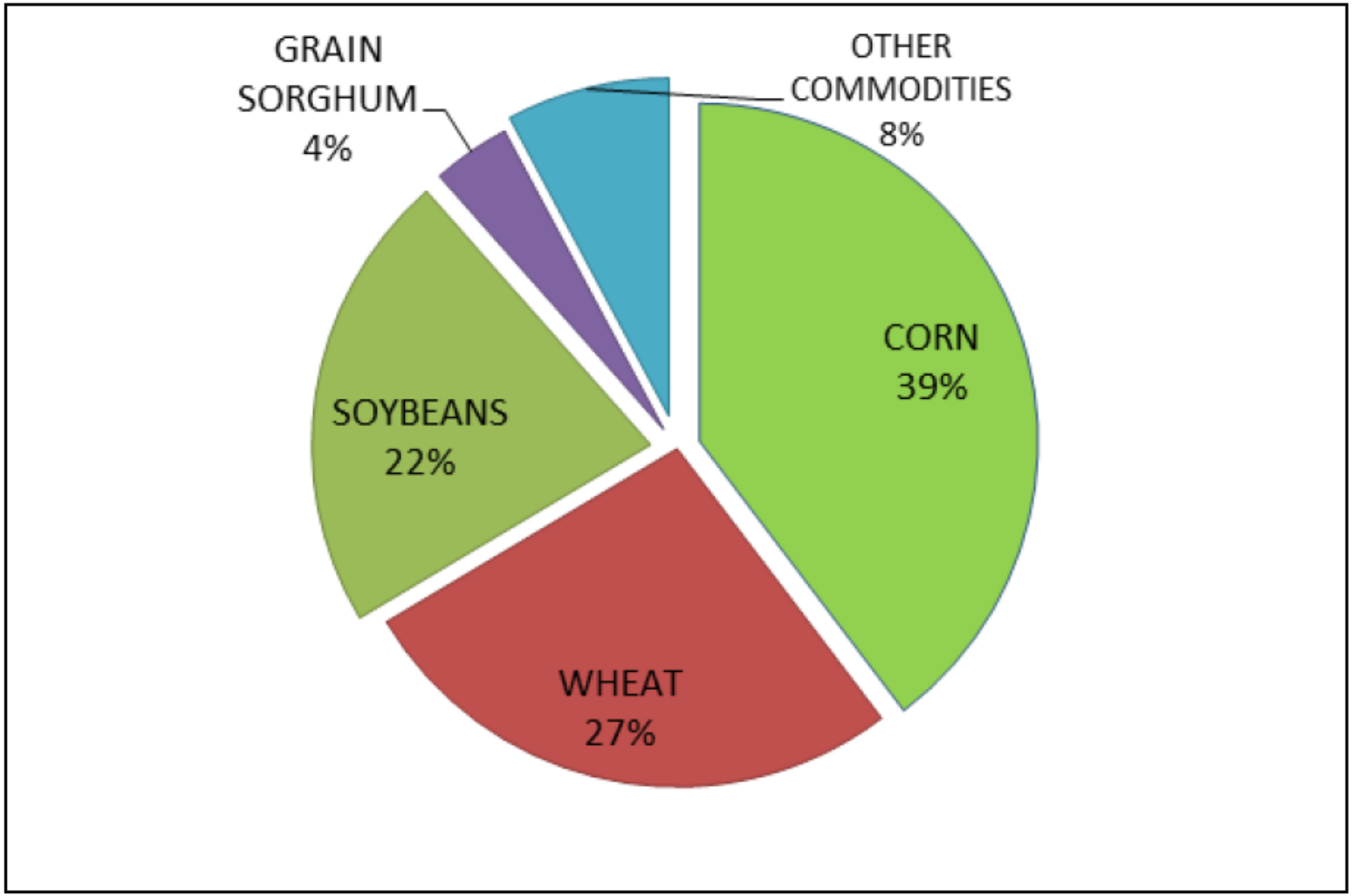
- Over the years, Farm Bill commodity support has used Base Acres and Payment Yields
- The programs and acronyms have changed, but not use of Base Acres and Payment Yields
- Direct Payments (DP), Counter Cyclical Payments (CCP), ACRE (Average Crop Revenue Election) payments
- 2014 Farm Bill created ARC and PLC, again using Base Acres and Payment Yields
- Part of property characteristics now, just like soil quality, road access, etc., part of the price

# Program Crops

- Barley, Canola, Corn , Cotton, Crambe, Dry Peas, Flaxseed, Grain Sorghum, Chick Peas (Large and Small), Lentils, Mustard Seed, Oats, Peanuts, Rapeseed, Rice (Long Grain and Medium/Short Grain), Safflower, Sesame Seed, Soybeans, Sunflower Seed, Wheat

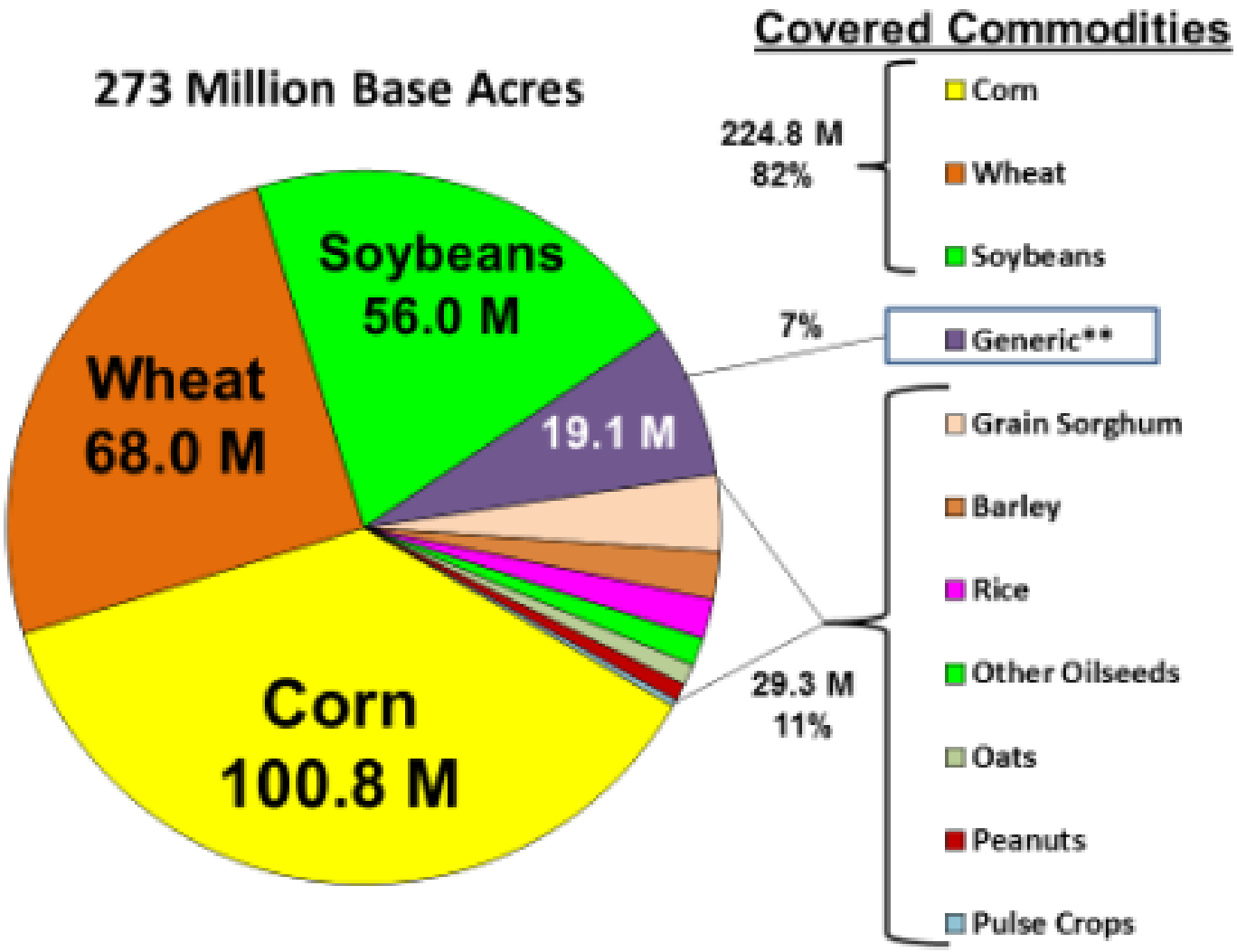
- Major WI Program Crops
  - Corn, Soybeans, Oats, Wheat  (Barley, Sorghum)
  - Corn silage is a type of corn
- **NOT** program crops
  - Alfalfa and Hay, fruits and vegetables (Potato, Sweet Corn, Snap Beans, Green Peas, Cranberry, Ginseng)

# Figure 1. Percent of Base Acres by Commodity



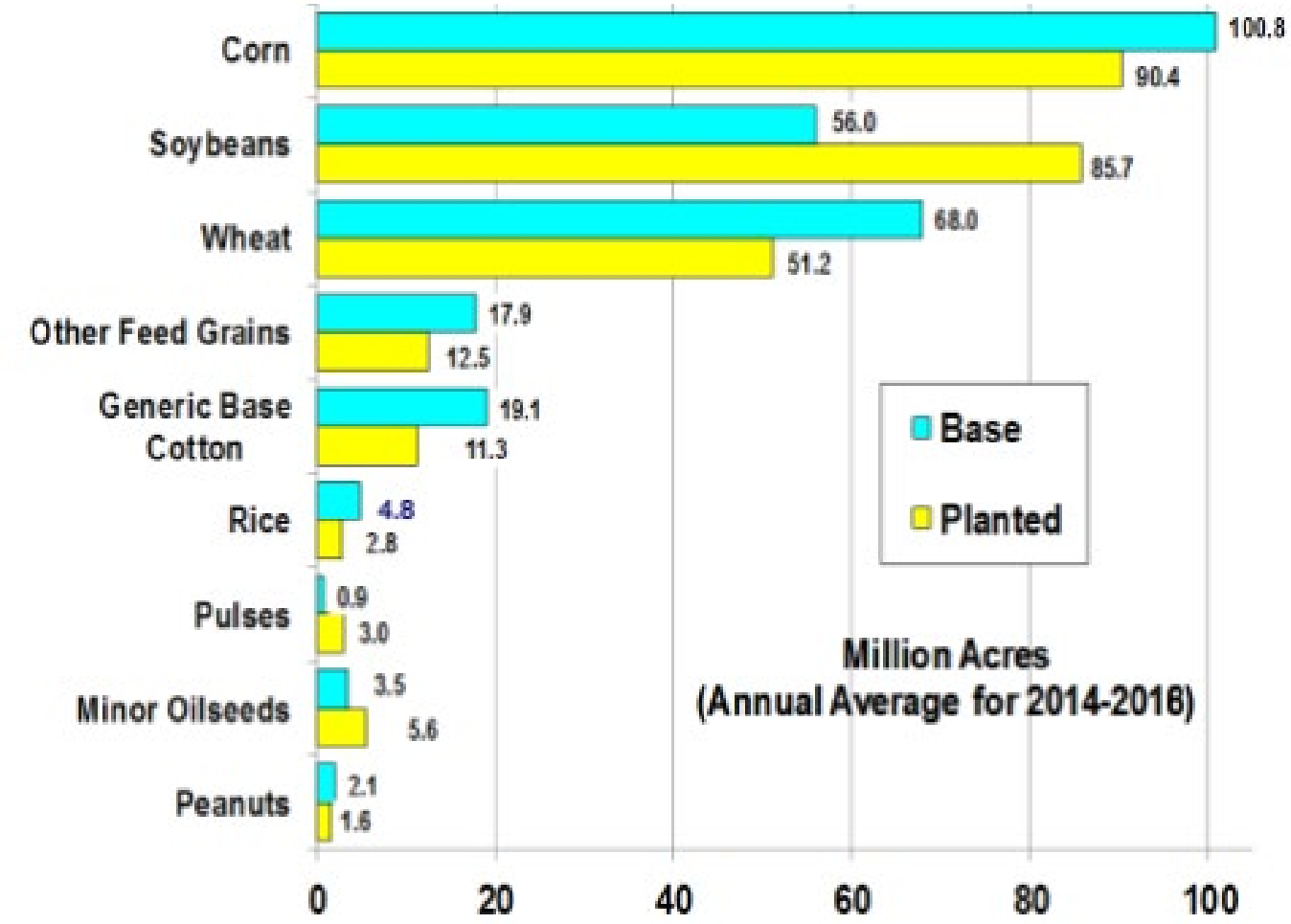

Source: https://fas.org/sgp/crs/misc/R45165.pdf

# Base Acres in 2015




https://www.everycrsreport.com/reports/R45730.html

# Base Acres vs Planted Acres, 2014-2018




https://www.everycrsreport.com/reports/R45730.html

# Commodity Support Programs in 2018 Farm Bill

- Price Loss Coverage (PLC)
  - Establishes a price floor by crop based on the national marketing year average price
- Agriculture Risk Coverage (ARC)
  - County ARC: Establishes a revenue floor by crop based on county revenue
  - Individual ARC: Establishes a revenue floor for whole farm based on farm yields and national prices [*rarely used*]

# Commodity Support Programs

- Farmers have 3 Options
    1) Price Loss Coverage (PLC) by crop
    2) County ARC (ARC-CO) by crop
    3) Individual ARC (ARC-IC) for whole farm
- Our Focus: PLC and County ARC (ARC-CO)

  [*ARC-IC rarely used and fairly complicated*]
- ARC/PLC sign up happening right now
- Started Sep 3, 2019, deadline is March 15, 2020
- Farmers & land owners choosing which program to use for 2019 and 2020 crop season payments

# Price Loss Coverage (PLC)

- Each program crop has a set “Reference Price”
  - Corn $3.70, Soybeans $8.40, Wheat $5.50, Oats $2.40
- If the National Marketing Year Average Price is less than the Reference Price, PLC payments are made
  - PLC PaymentRate = ReferencePrice – MYAPrice
  - PLC Payment =

    85% x BaseAcres x PaymentYield x PLC PaymentRate

- Corn/Soy marketing year: Sept 1 - Aug 31
- Wheat/Oats marketing year: June 1 - May 31

# Simple PLC Example

- Suppose USDA announced 2018 National Marketing Year Average Price of corn was $3.61
- The corn Reference Price is $3.70, so PLC Payment Rate = $3.70 – $3.61 = $0.09/bu
- If you have 100 corn Base Acres with a Payment Yield of 140 bu/ac, then your PLC payment would be
- 85% x 100 ac x 140 bu/ac x $0.09/bu = $1,071
- USDA Announces MYA prices in Sep, payments Oct

| Crop | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|
| Corn | $3.70 | **$3.61** | **$3.36** | **$3.36** | **$3.61** |
| Soybean | $10.10 | $8.95 | $9.47 | $9.33 | $8.48 |

# Think Break #15

- You have a farm with
  a) 30 corn base acres with a 130 bu/ac payment rate
  b) 20 soybean base acres with a 30 bu/ac payment rate
- You signed up for PLC and the national marketing year average price is $3.55 for corn and $8.50 for soybeans
- **What is your PLC payment?**

- Reference Prices: Corn=$3.70, Soybeans=$8.40
- PLC PaymentRate = ReferencePrice – MYAPrice
- PLC Payment = 85% x BaseAcres x PaymentYield x PLC PaymentRate

# PLC Comment: Decoupling

- Notice: PLC payments based on national marketing year average price, base acres, payments yields
- Not on your actual price, your acres planted or your yields
- Farmer could sell corn for $4.00/bu, but would still get a corn PLC payment using the national prices of $3.55/bu
- Farmer could sell corn for $3.00/bu, but would still get a corn PLC payment using the national prices of $3.55/bu
- Farmer could harvest 200 bu/ac (or 100 bu/ac), but would still get PLC payment using 130 bu/ac Payment Yield
- Farmer could plant 50 acres (or 10 acres) of corn, but would still get PLC payment using 30 corn Base Acres
- Payments are decoupled to reduce market distortions

# 2018 Farm Bill Changes

- “Effective” Reference Price used to calculate payments, not the Reference Price
- Allowed to go higher, based on historical average prices
- Use 85% of the 5-year Olympic average of marketing year average price, but with a floor and cap
  - Floor: current Reference Price
  - Cap: 115% of Reference Price
- Olympic Average: drop the high and the low
- To increase, the 5-year Olympic average has to exceed $3.70 / 85% = $4.35 and $8.40 / 85% = $9.88/bu

# 5-Year Olympic Average of Prices

| Crop | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|
| Corn | $3.70 | $3.61 | $3.36 | $3.36 | $3.61 |
| Soybean | $10.10 | $8.95 | $9.47 | $9.33 | $8.48 |

- Corn: Drop $3.70 (hi) and $3.36 (lo)
  - Average ($3.61, $3.36, $3.61) = $3.53
  - 85% of $3.53 = $3.00
  - Corn Effective Reference price stays at $3.70
- Soybean: Drop $10.10 (hi) and $8.48 (lo)
  - Average ($8.95, $9.47, $9.33) = $9.25
  - 85% of $9.25 = $7.86
  - Soybean Effective Reference price stays at $8.40

# Agriculture Risk Coverage (ARC)

- County ARC payments made if Actual County Revenue is less than the County Guarantee
- County Benchmark = 5-Year Olympic Average County Yield x 5-Year Olympic Average national MYA Price
  - Use Effective Reference Price if higher than MYA Price
  - Use 70% County T Yield if higher than County Yield
- County Guarantee = 86% of County Benchmark
- Actual Revenue = County Average Yield x MYA Price
- ARC Payment Rate = County Guarantee – Actual County Revenue, up to 10% of County Benchmark
- ARC Payment = 85% x Base Acres x ARC Payment Rate

# Farmer Perspective

- Your county has county revenue guarantee for each crop
  - Complicated process to get county guarantee, based on 5-year Olympic averages of county yields with caps and cups and national MYA prices, times 86%
- If actual county revenue falls below this guarantee, you receive payments = 85% x Base Acres x Revenue Loss, where the Revenue Loss = Guarantee – Actual
- Actual also uses county yield and national price
- Maximum ARC payment based on % of county guarantee

# Unofficial Corn 2020 Example for Dane County

| Year | Yield | Price |
|---|---|---|
| 2018 | 188.9 | 3.61 |
| 2017 | 191.4 | 3.36 |
| 2016 | 192.5 | 3.36 |
| 2015 | 183.7 | 3.61 |
| 2014 | 180.7 | 3.70 |

- Notice the years used, we do not have 2019 yields yet
- Olympic Average Yield = 188.0
- Olympic Average Price = $3.53
- ARC County Benchmark = $3.53 x 188.0 = $663.64
- ARC Guarantee = 86% x $663.64 = $570.73
- Maximum ARC Payment = 10% x $663.64 = $66.36

# Unofficial Corn 2020 Example for Dane County

- Hypothetical Example: Suppose 2020 County ARC Guarantee is $570.73 for corn in Dane County
- Suppose 2020 actual USDA yield in Dane County is 165 bu/ac and 2020 MYA corn price is $3.40
- Actual revenue = 165 x 3.40 = $561/ac, triggers payment
- ARC Payment Rate = 570.73 – 561.00 = $9.73/ac, well below max payment, so ARC Payment Rate = $9.73
- ARC Payment = 85% x BaseAcres x ARC Payment Rate
- ARC Payment = 85% x $9.73 = $8.27 per corn base acre
- Decoupled ARC Payments: Farmer paid regardless of how much they sell their corn for, what their yields are and how much corn they plant

# Farmers have to choose: ARC or PLC?

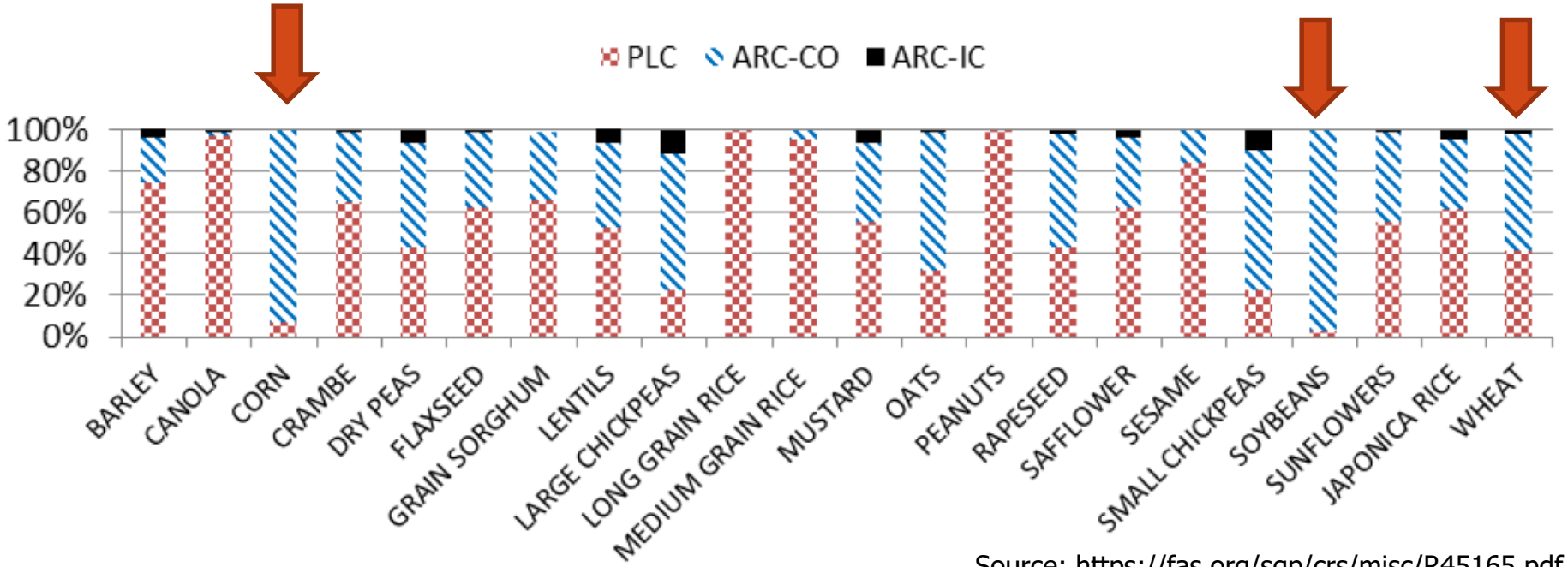
- 2014 Farm Bill required farms to make an irrevocable choice, ARC or PLC, by crop for 5 years (2014-2018)
  - We will look at choice and payment data

- 2018 Farm Bill: again, farmers have to choose ARC or PLC, by crop for 2 years (2019 and 2020)
- 2021, 2022, 2023: Annual choice by crop
- ARC/PLC signup for 2019 & 2020, started Sep 3, 2019 and have to decide by Mar 15, 2020

- Major outreach (and media) efforts: guidance on how to decide, what to decide

# ARC vs PLC: 2014 Farm Bill

- Farmers and landowners had to choose ARC or PLC at signup in 2014 – <u>One program for all 5 years</u>
  - Could differ by crop, e.g., ARC for Corn, PLC for Wheat
- 95%+ farmers chose ARC for Corn and Soybean
- About 1/3 farmers chose PLC for Wheat

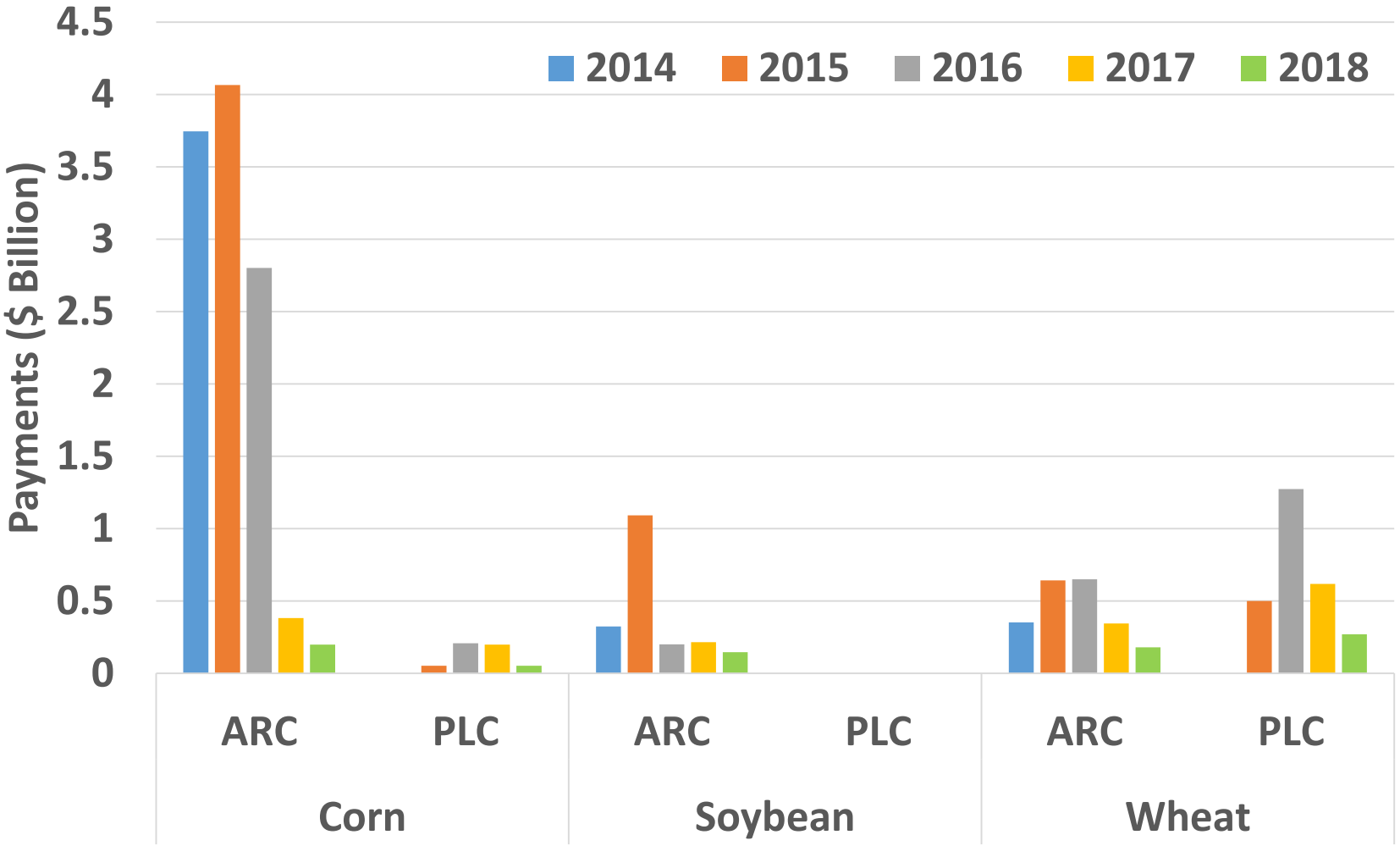



Source: https://fas.org/sgp/crs/misc/R45165.pdf

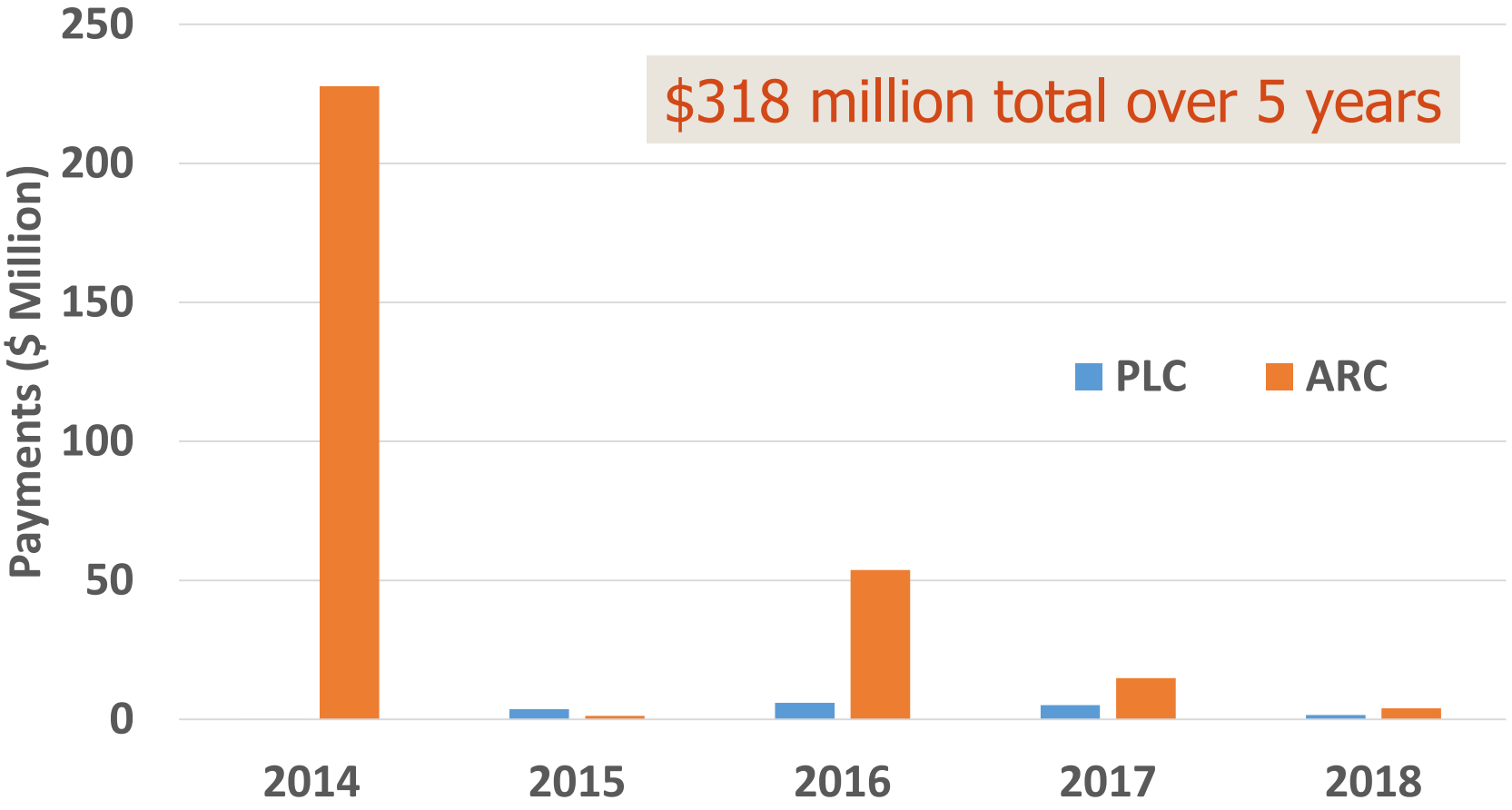
# Total ARC and PLC Payments ($ Billion)

| Crop Year | Corn | | Soybean | | Wheat | |
|---|---|---|---|---|---|---|
| | ARC | PLC | ARC | PLC | ARC | PLC |
| 2014 | 3.745 | --- | 0.325 | --- | 0.353 | --- |
| 2015 | 4.066 | 0.053 | 1.093 | --- | 0.642 | 0.500 |
| 2016 | 2.801 | 0.208 | 0.201 | --- | 0.651 | 1.273 |
| 2017 | 0.382 | 0.199 | 0.216 | --- | 0.345 | 0.618 |
| 2018 | 0.200 | 0.053 | 0.147 | --- | 0.180 | 0.270 |

# ARC and PLC Payments by Crop and Year

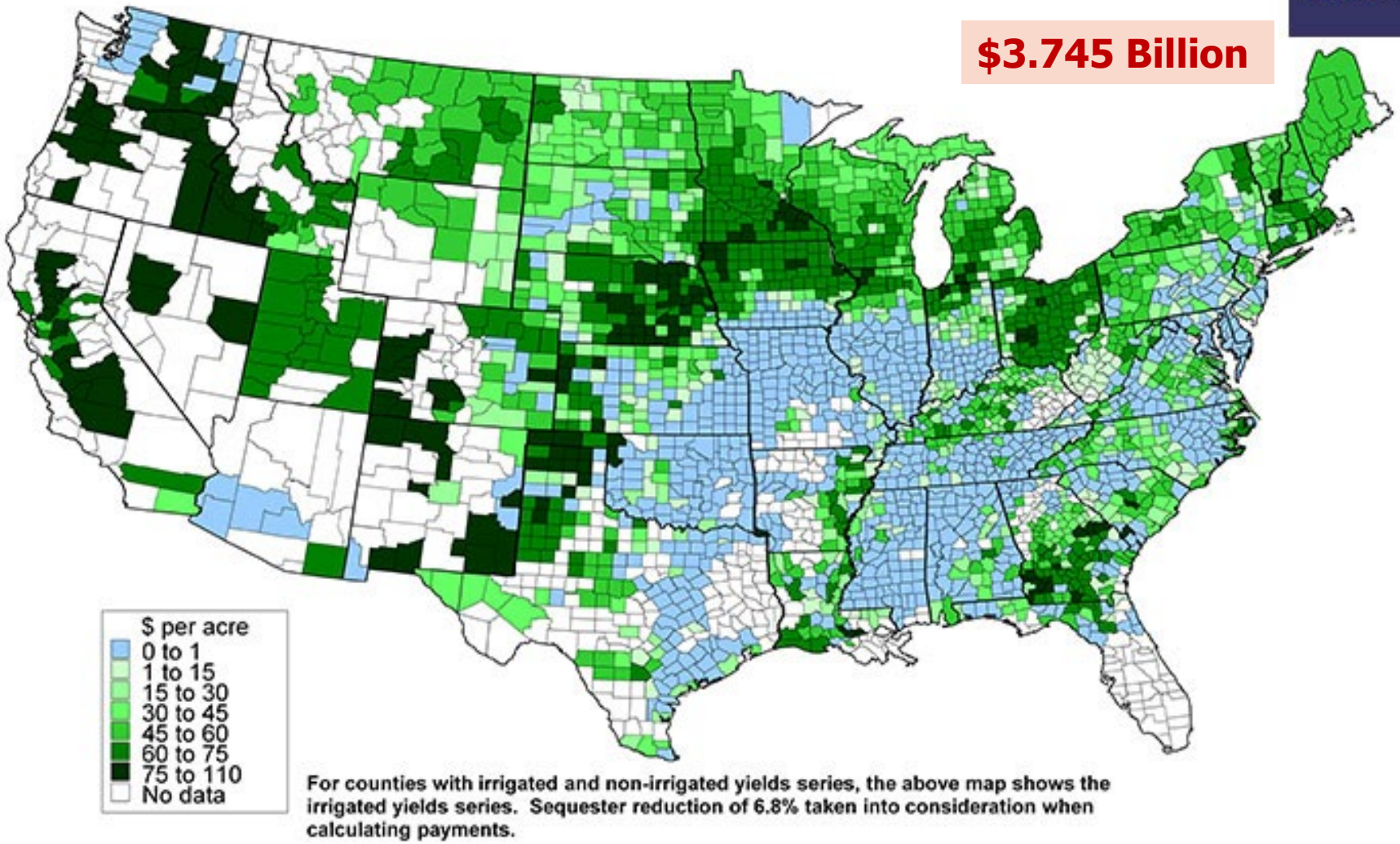


# ARC and PLC Payments by Year in Wisconsin



## Figure 2. 2014 ARC-CO County Payments for Corn Per Base Acre

**$3.745 Billion**

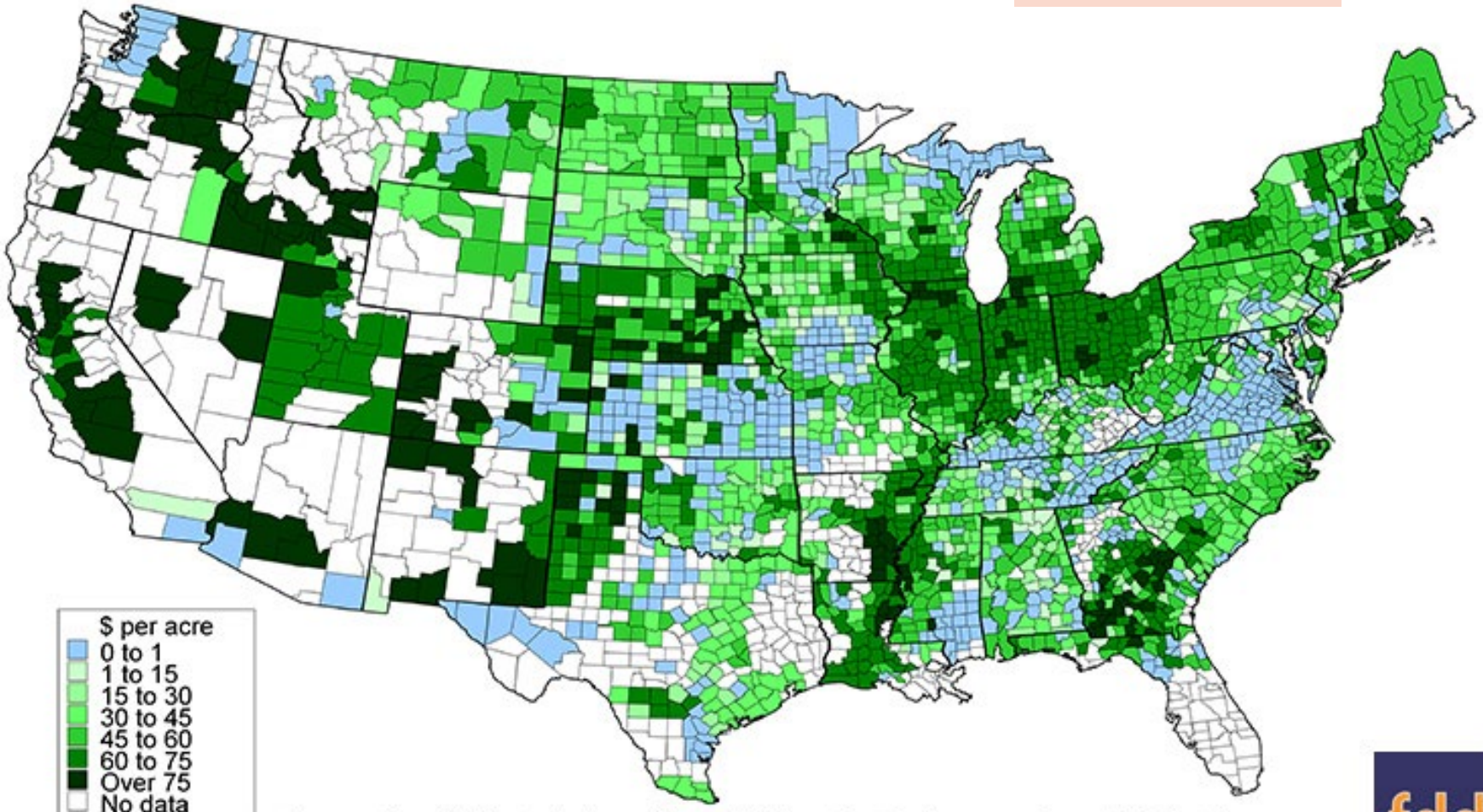



For counties with irrigated and non-irrigated yields series, the above map shows the irrigated yields series. Sequester reduction of 6.8% taken into consideration when calculating payments.

http://farmdocdaily.illinois.edu/2015/11/2014-arc-co-payments-release-county-yields.html

## Figure 1. 2015 ARC-CO County Payments for Corn, $ per Base Acre

**$4.066 Billion**




For counties with irrigated and non-irrigated yields series, the above map shows the irrigated yields series. Sequester reduction of 6.8% taken into consideration when calculating payments.

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http://farmdocdaily.illinois.edu/2016/10/2015-arc-co-payments-for-corn-soybeans-wheat.html

# Figure 1. 2016 ARC-CO Payments for Corn

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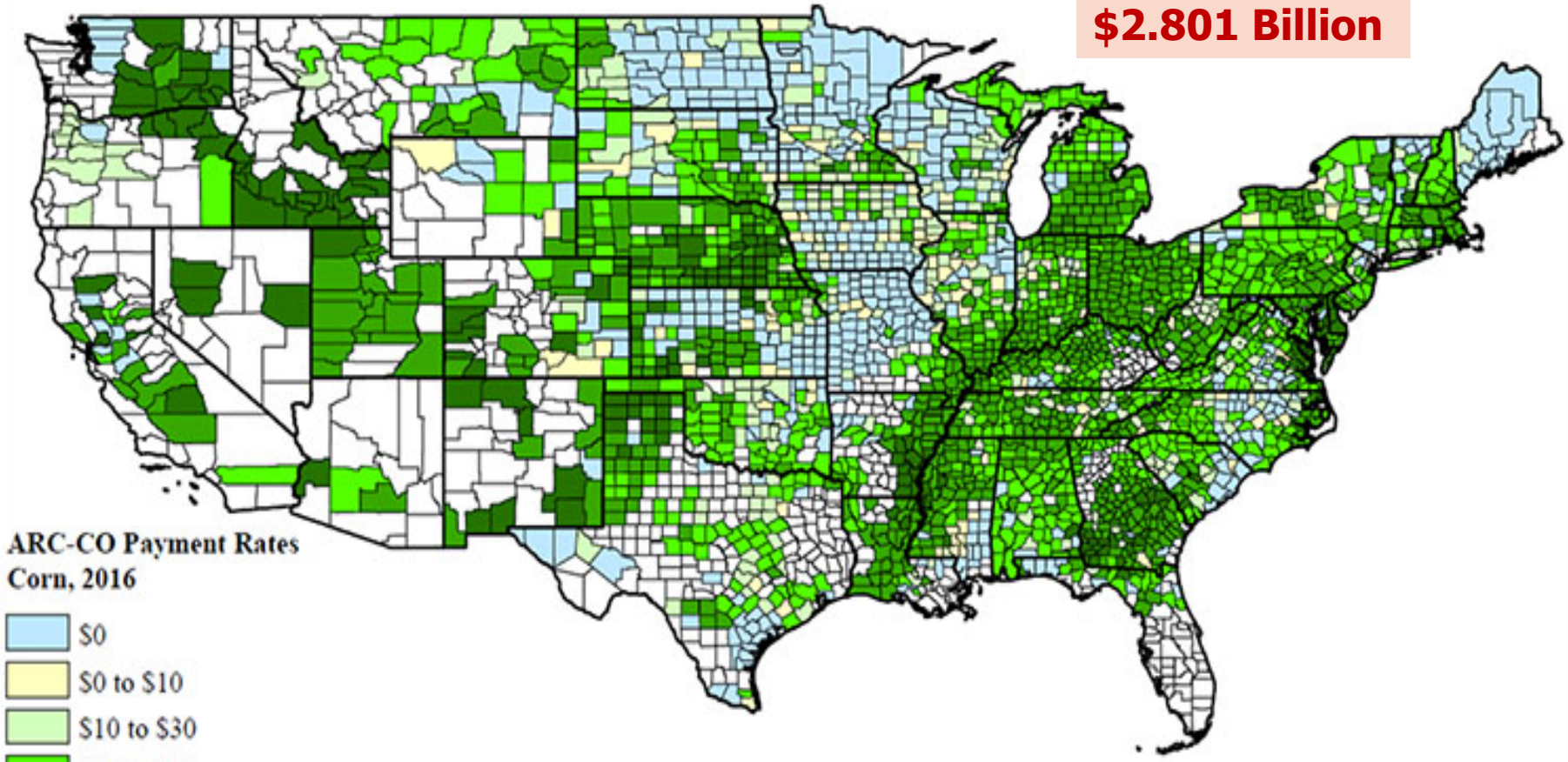
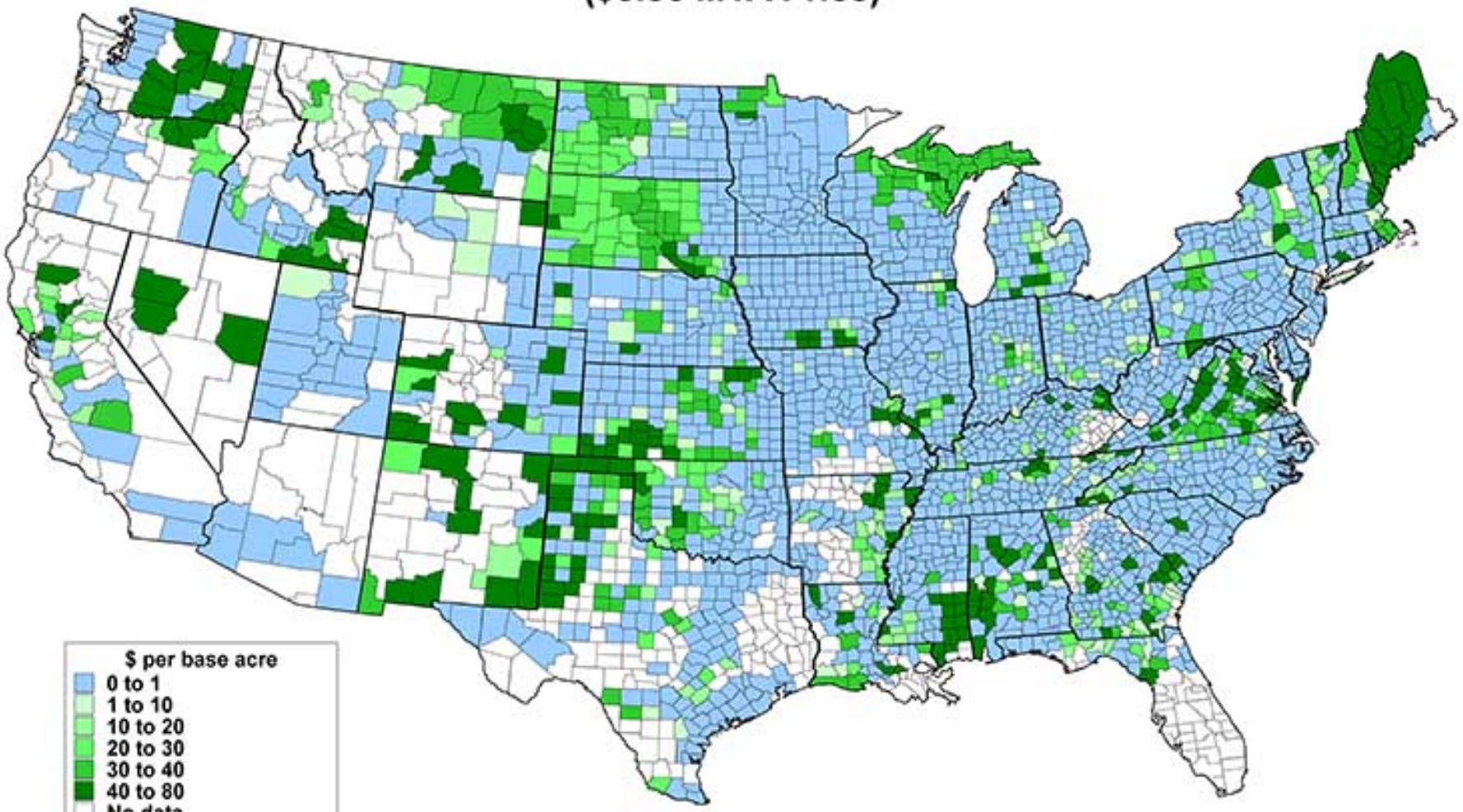
**$2.801 Billion**




For counties with irrigated and non-irrigated yield series, the above map shows payments for irrigated farmland. Sequester reduction of 6.8% taken into consideration when calculating

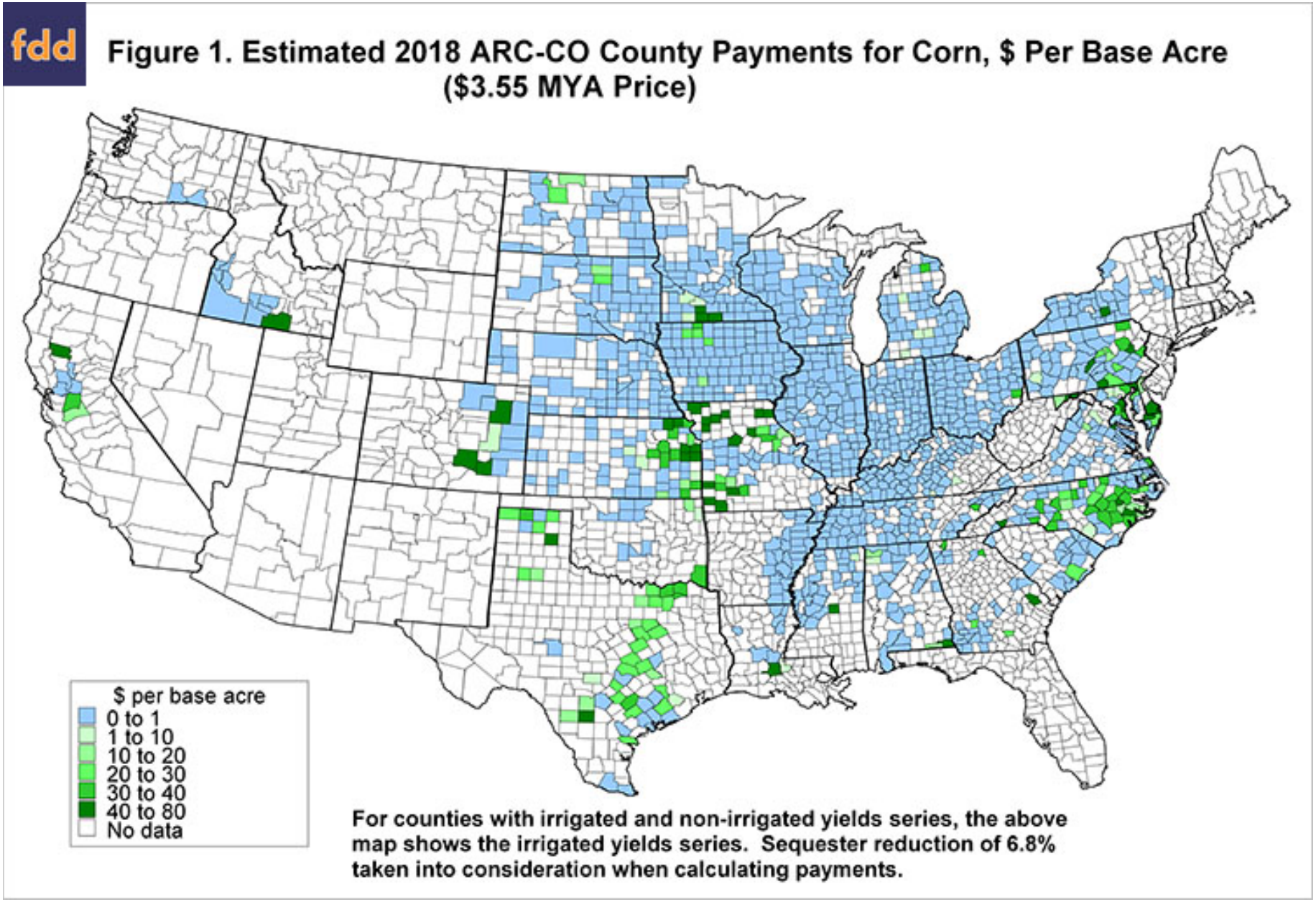
https://farmdocdaily.illinois.edu/2017/10/2016-arc-co-payments.html

## Figure 2. 2017 ARC-CO County Payments for Corn, $ Per Base Acre ($3.36 MYA Price)




For counties with irrigated and non-irrigated yields series, the above map shows the irrigated yields series. Sequester reduction of 6.8% taken into consideration when calculating payments.

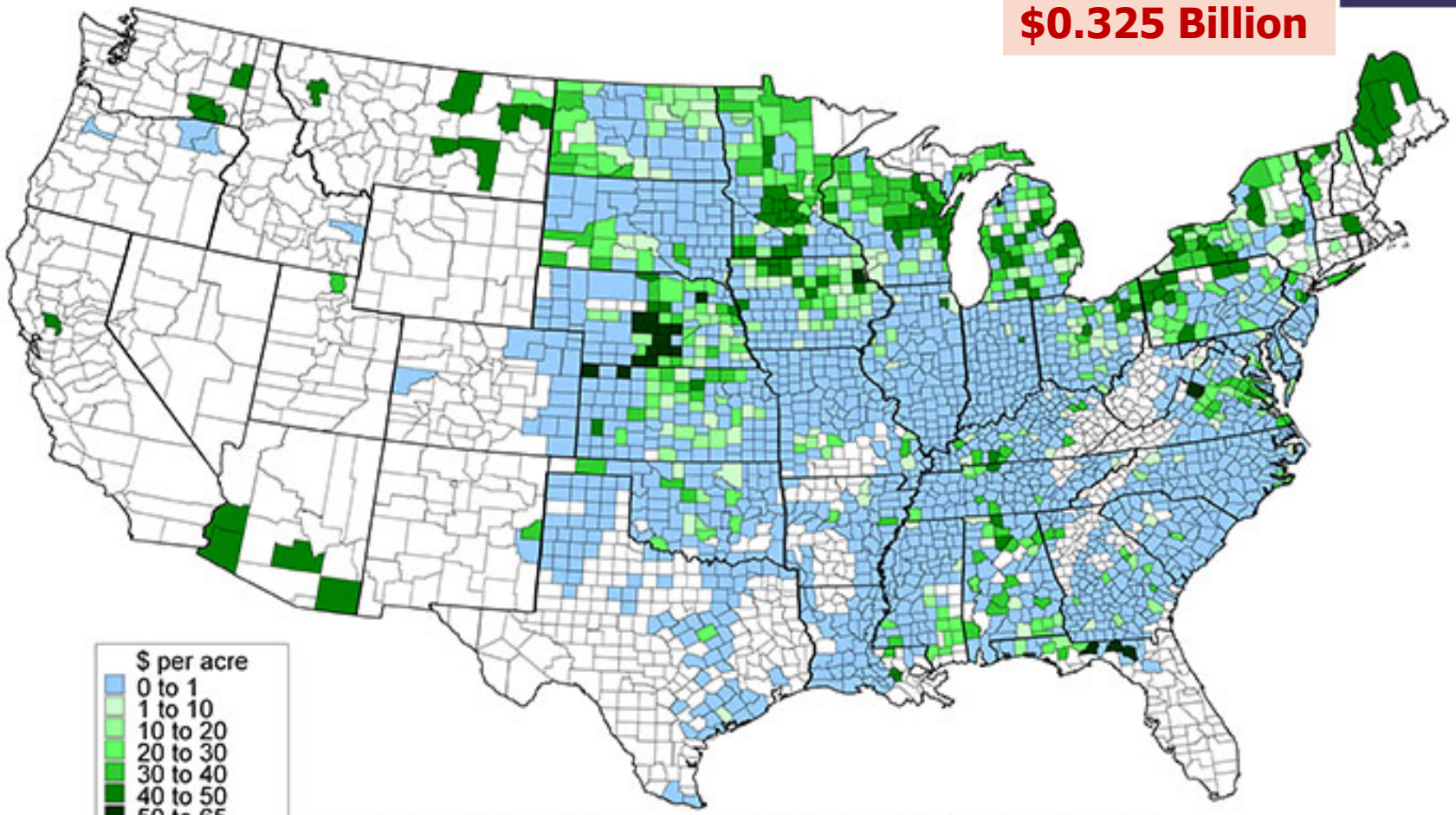
https://farmdocdaily.illinois.edu/2018/10/2017-arc-co-payments-and-outlook-for-2018-payments.html




https://farmdocdaily.illinois.edu/2019/04/estimated-2018-arc-co-payments.html

## Figure 3. 2014 ARC-CO County Payments for Soybeans Per Base Acre

**$0.325 Billion**

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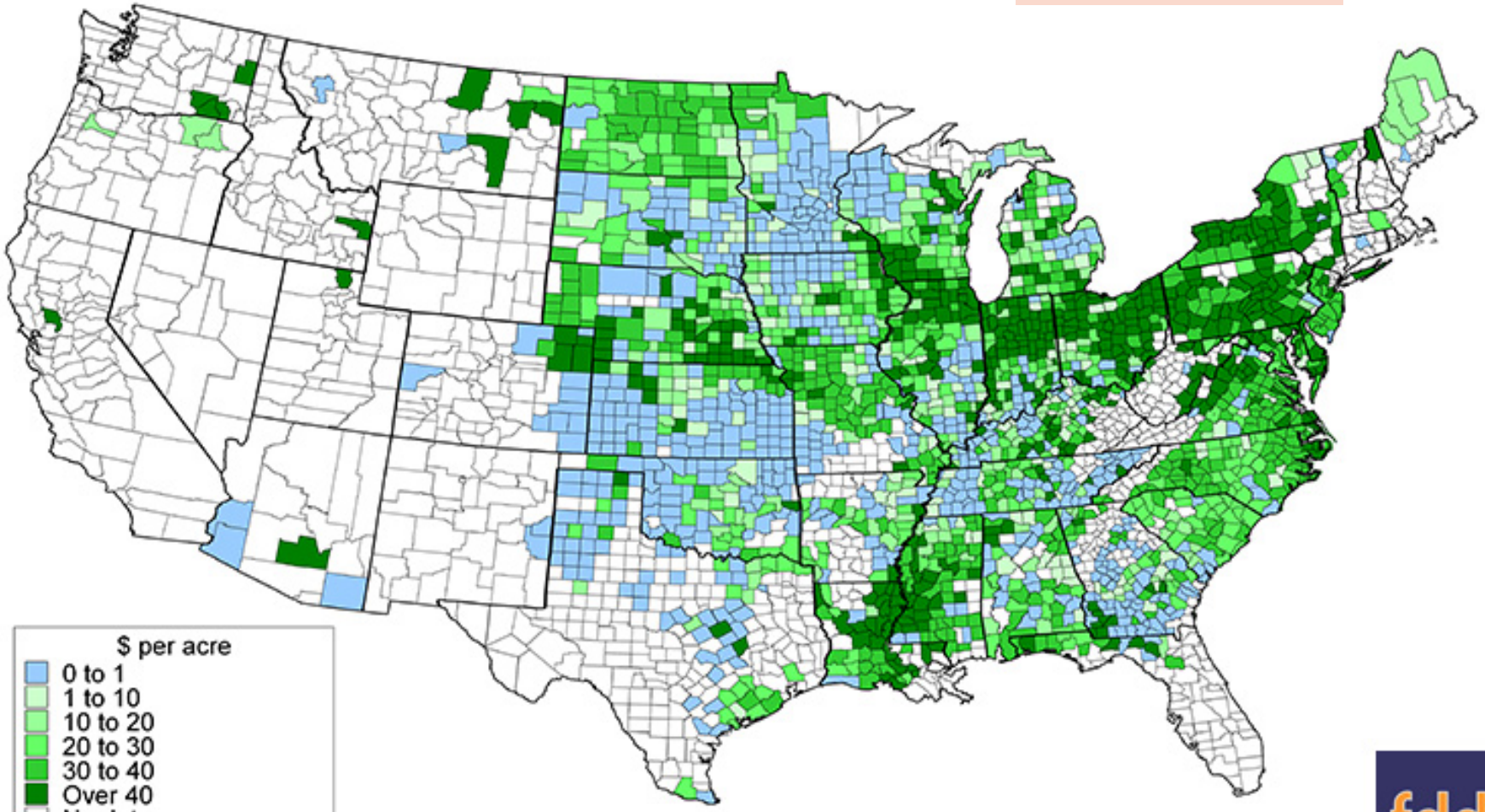
http://farmdocdaily.illinois.edu/2015/11/2014-arc-co-payments-release-county-yields.html

## Figure 2. 2015 ARC-CO County Payments for Soybeans, $ Per Base Acre

**$1.093 Billion**




For counties with irrigated and non-irrigated yields series, the above map shows the irrigated yields series. Sequester reduction of 6.8% taken into consideration when calculating payments.

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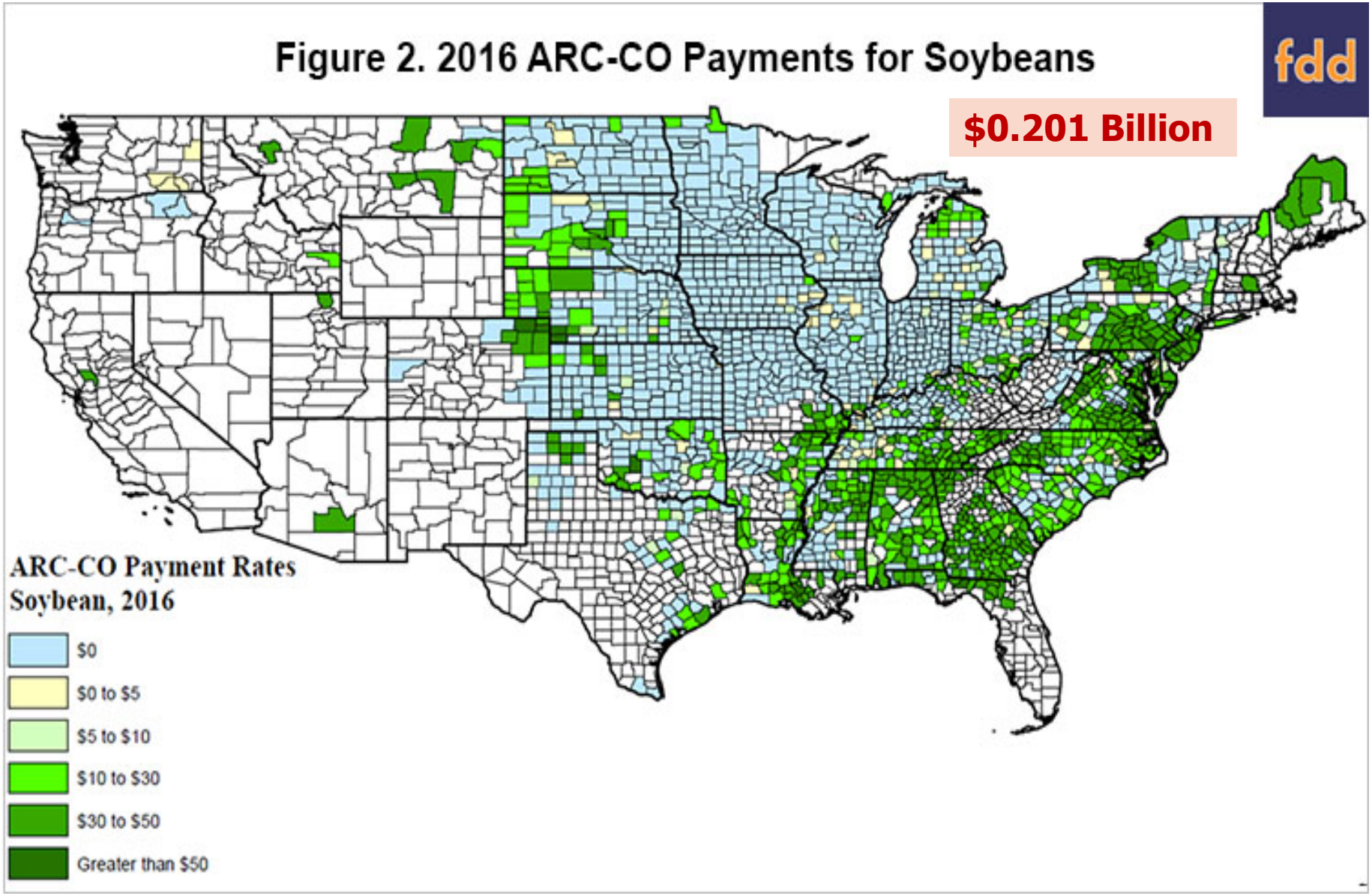
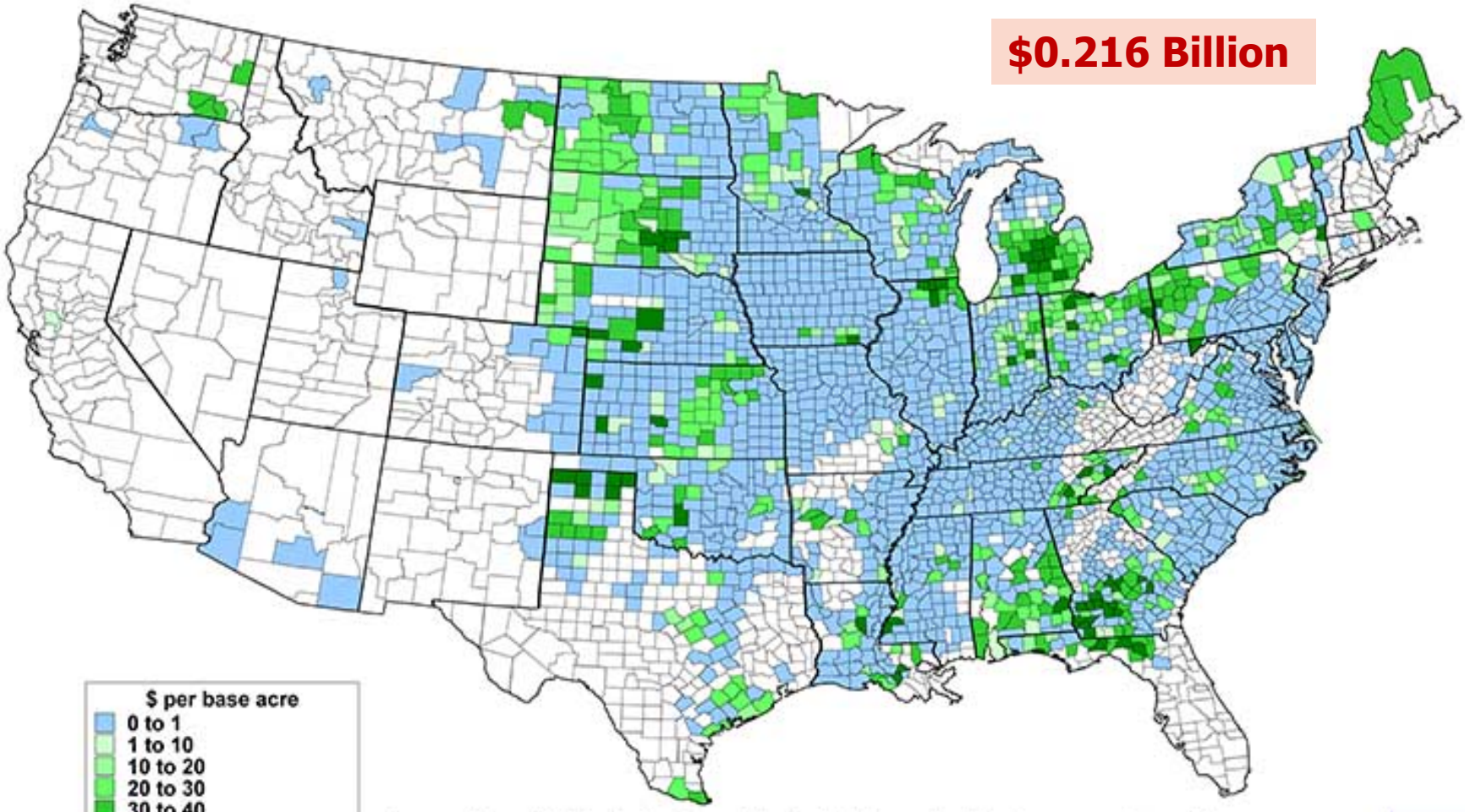
http://farmdocdaily.illinois.edu/2016/10/2015-arc-co-payments-for-corn-soybeans-wheat.html




https://farmdocdaily.illinois.edu/2017/10/2016-arc-co-payments.html

## Figure 4. Estimated 2017 ARC-CO County Payments for Soybeans, $ Per Base Acre ($9.33 MYA Price)

**$0.216 Billion**




For counties with irrigated and non-irrigated yields series, the above map shows the irrigated yields series. Sequester reduction of 6.8% taken into consideration when calculating payments.

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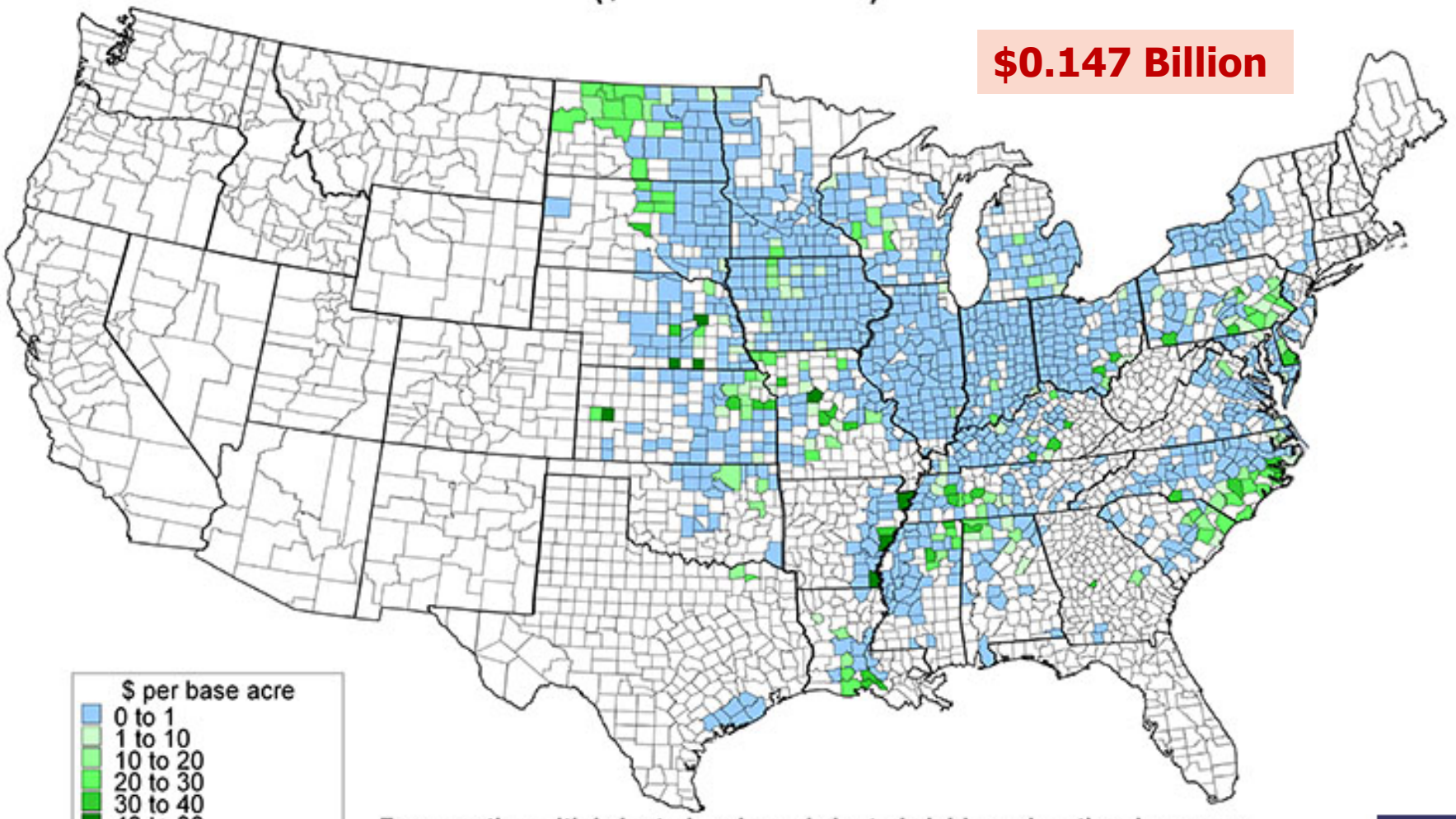
https://farmdocdaily.illinois.edu/2018/10/2017-arc-co-payments-and-outlook-for-2018-payments.html

## Figure 2. Estimated 2018 ARC-CO County Payments for Soybeans, $ Per Base Acre ($8.60 MYA Price)

**$0.147 Billion**

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https://farmdocdaily.illinois.edu/2019/04/estimated-2018-arc-co-payments.html

## Figure 4. 2014 ARC-CO County Payments for Wheat Per Base Acre

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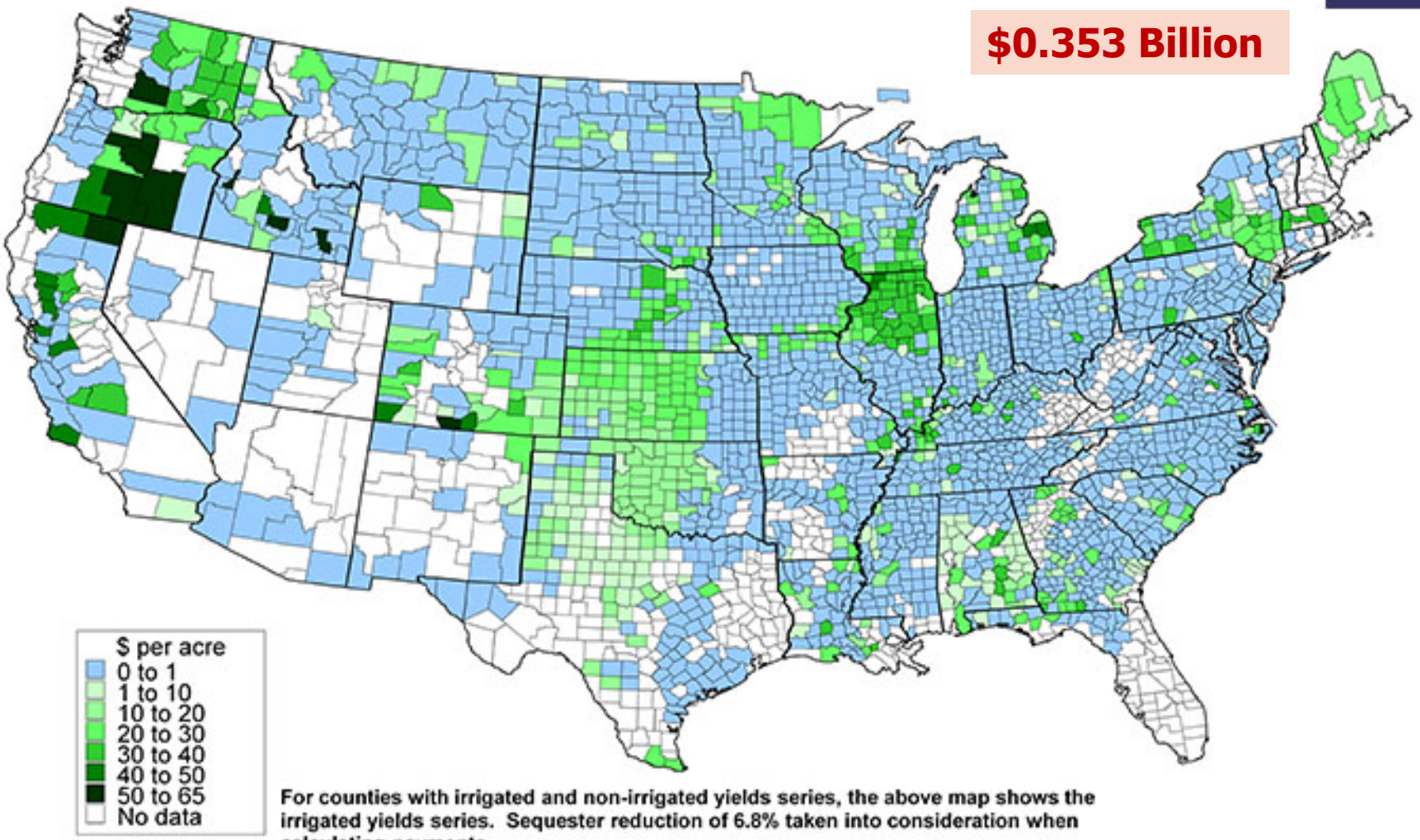
**$0.353 Billion**

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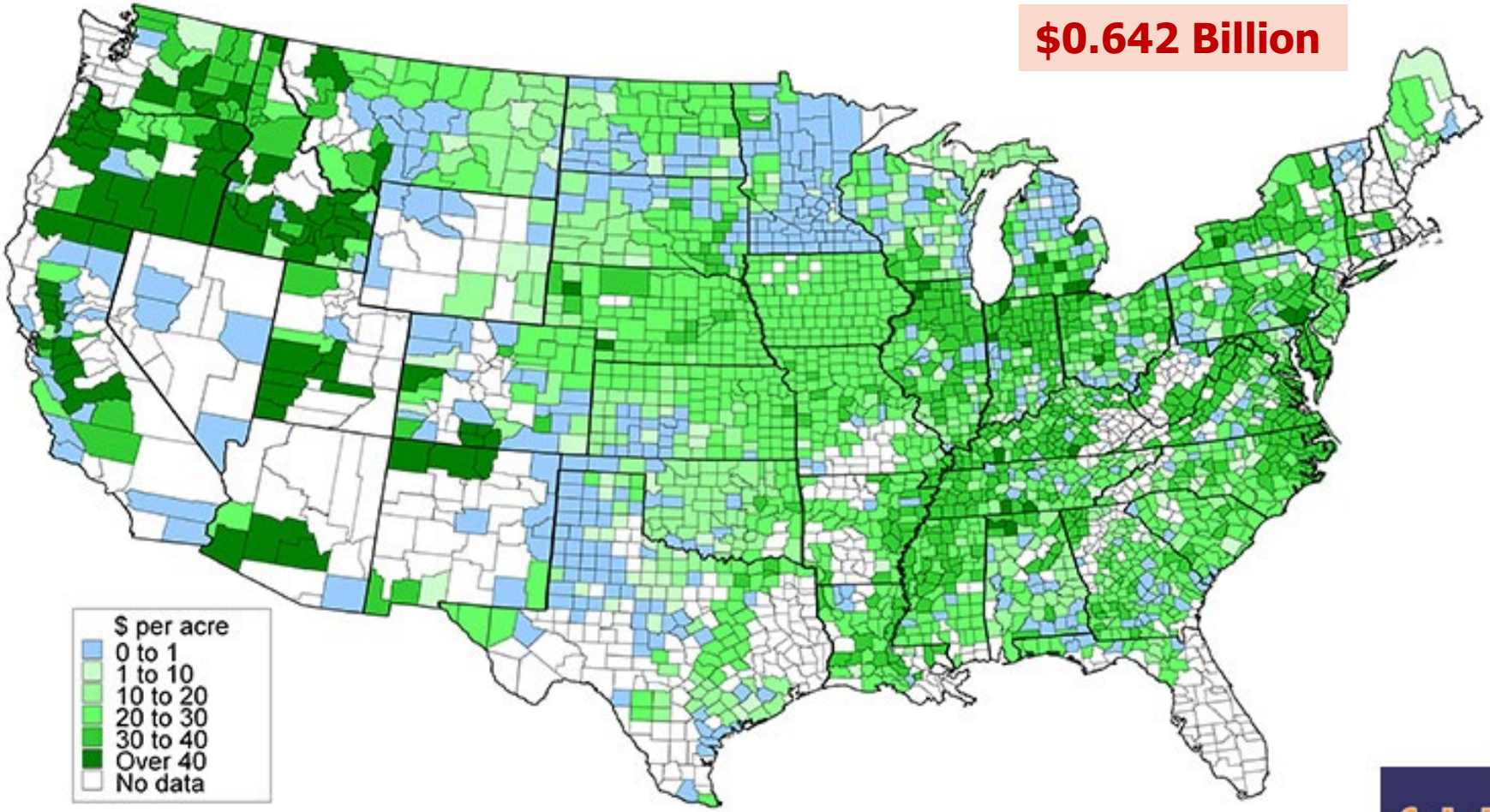
http://farmdocdaily.illinois.edu/2015/11/2014-arc-co-payments-release-county-yields.html

## Figure 3. 2015 ARC-CO County Payments for Wheat, $ Per Base Acre

**$0.642 Billion**




For counties with irrigated and non-irrigated yields series, the above map shows the irrigated yields series. Sequester reduction of 6.8% taken into consideration when calculating payments.

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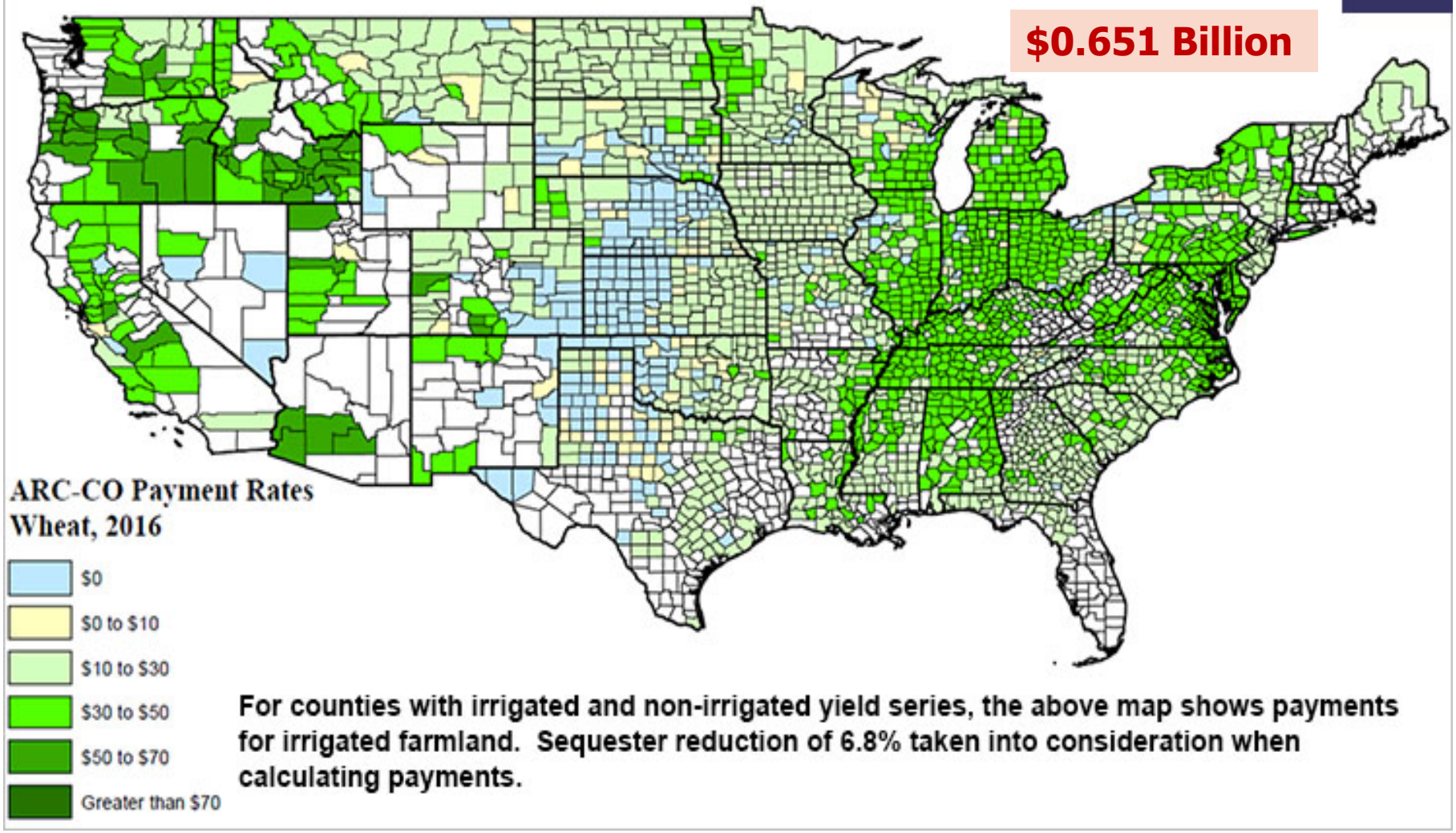
http://farmdocdaily.illinois.edu/2016/10/2015-arc-co-payments-for-corn-soybeans-wheat.html

## Figure 3. 2016 ARC-CO Payments for Wheat




For counties with irrigated and non-irrigated yield series, the above map shows payments for irrigated farmland. Sequester reduction of 6.8% taken into consideration when calculating payments.

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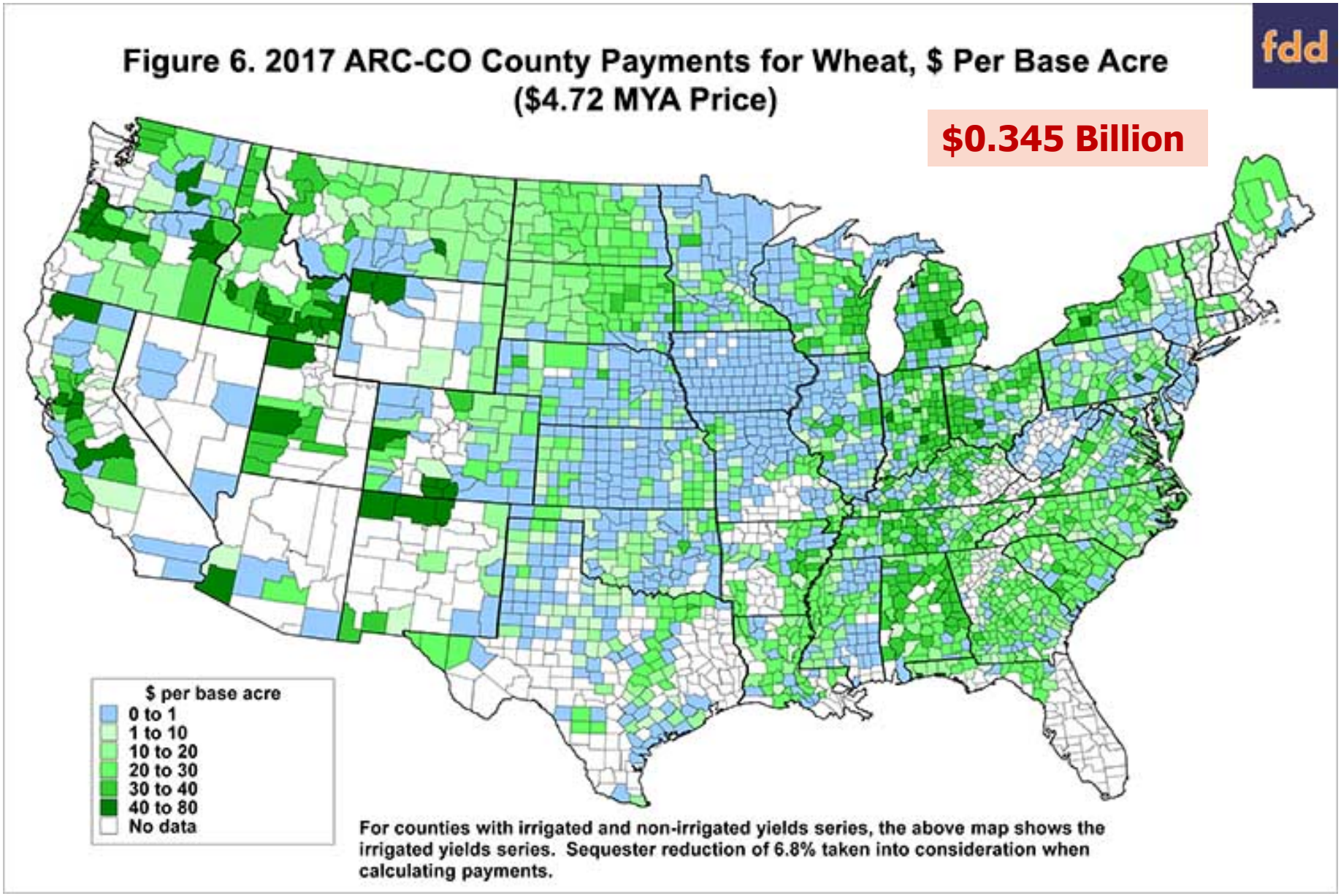


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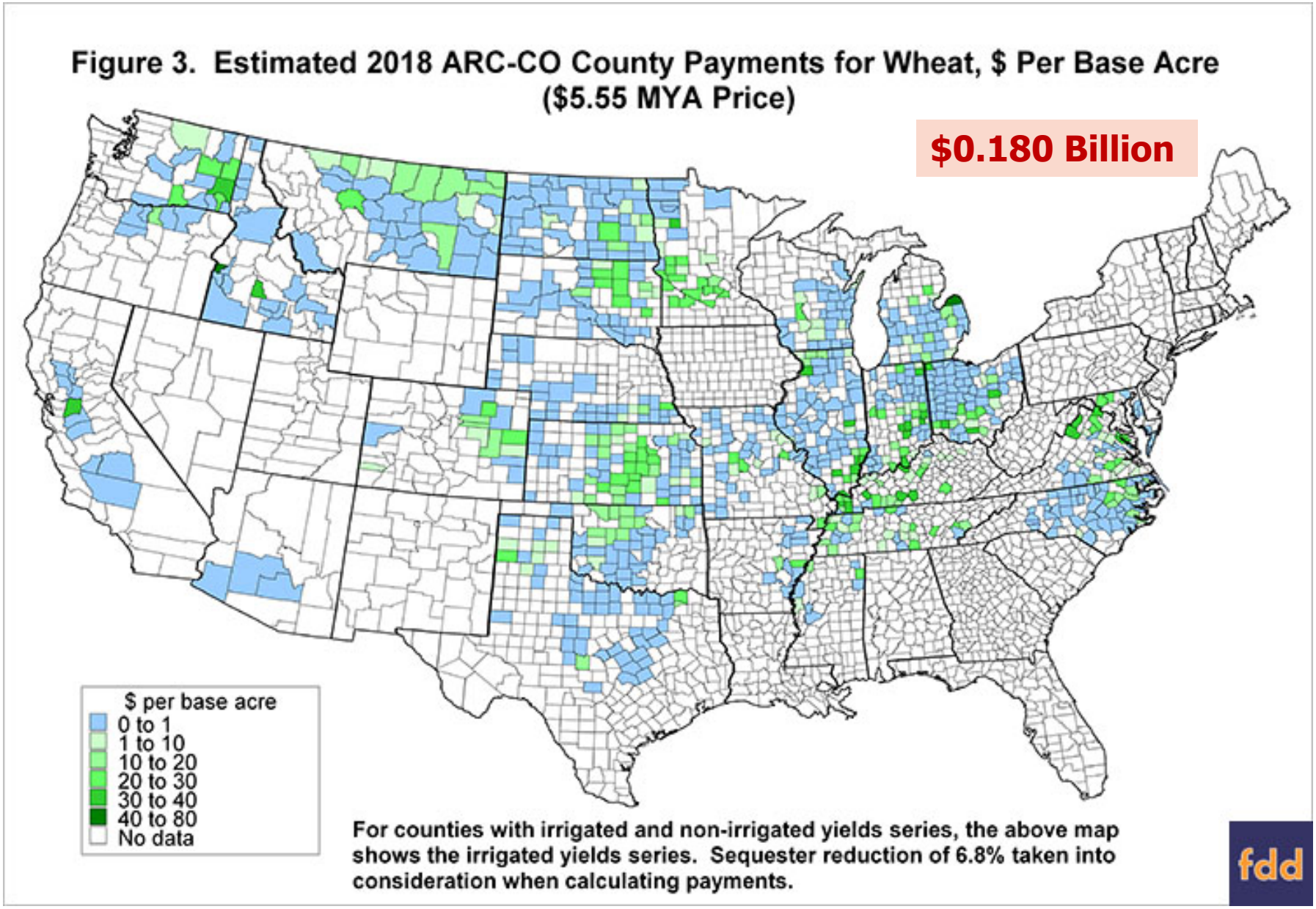



https://farmdocdaily.illinois.edu/2019/04/estimated-2018-arc-co-payments.html

# Main Point

- County ARC payments vary by county and year
- Main idea: like county-level revenue insurance with an 86% coverage level
- Differences from Crop Insurance
  - Uses 5-Year Olympic Average prices and yield to determine guarantee
  - Uses national marketing year average price as the actual price

# Agriculture Risk Coverage (ARC)

- Individual ARC based on revenue from all program crops as a whole for an FSA farm, not crop by crop
- For a simple hypothetical example, assume 2 program crops: corn and soybeans
- Benchmark Revenue by Crop = 5-Year Olympic Average of (Yield per Planted Acre x MYA Price)
- Individual Benchmark Revenue =

  (Corn Acres/Total Acres) x Corn Benchmark Revenue +

  (Soy Acres/Total Acres) x Soy Benchmark Revenue
- Individual Guarantee = 86% of Farm Benchmark Revenue

# Agriculture Risk Coverage (ARC)

- Individual ARC Payment Rate = Farm Guarantee – Actual Farm Revenue, up to 10% of County Benchmark
- Individual ARC Payment = **65%** x Base Acres x Individual ARC Payment Rate
  - Maximum is 10% of County Benchmark
- Actual Revenue = (Corn Production x MYA Corn Price) + (Soy Production x MYA Soy Price) / Total Planted Acres
  - Use PLC Reference Price if higher than MYA Price
  - Use 70% County T Yield if higher than your Yield
- Almost no one signed up for ARC-IC for Corn & Soybeans

# Marketing Assistance Loans (MAL) & Loan Deficiency Payments (LDP)

# Marketing Assistance Loans (MAL) & Loan Deficiency Payments (LDP)

- MAL: loans to help farmers manage cash flow (pay off operating loans), so can wait to sell grain when prices are higher
- LDP: Payments that give farmers a price floor equal to the Loan Rate
  - Price support for prices below the Loan Rate
  - Where counter cyclical payments (CCP) used to stop (though CCP eliminated now)
  - MAL-LDP programs meant to work together
- **Not tied to Base Ares or Program Yields**

# Marketing Assistance Loans

- Farmers receive a marketing assistance loan (MAL) from the Commodity Credit Corporation (CCC), using their harvested grain as collateral
  - Your harvested grain, no matter acres grown on
  - Receive $/bu in loan equal to the Loan Rate
  - National Loan Rates
    - Corn $1.95, Soybeans $5.00, Wheat $2.94
  - Count loan rates will likely differ from these by a few cents, WI tends to be lower than these
- Have to grow the grain yourself, can't buy from someone else and then enroll in MAL
- MAL is for up to 9 months

# MAL Payback

- Farmer picks a day to “sell” and payoff loan
  - Actual physical sale may occur later, but not earlier
- Each day, there is a Posted County Price (PCP) for each commodity, official FSA estimate of local price
- If PCP > Loan Rate, farmer pays back MAL in full, plus small interest payment
- If PCP < Loan Rate, farmer pays back MAL at Marketing Loan Repayment Rate ≈ PCP
- Loan Deficiency Payment (LDP) = Loan Rate – PCP
- Simplification: Don’t take loan and pay it back, but receive LDP = Loan Rate – PCP, if PCP < Loan Rate
- Program used to be used a lot when lower prices

# Think Break #16

- Suppose planted and harvested 5,000 bu of soybeans and enroll all 5,000 bu for a Marketing Assistance Loan
- Soybeans has a $5.00/bu loan rate, so how much will your MAL be?
- Suppose you pay back the MAL on Feb 1st when the posted county price for soybean is $6.00/bu,
- What is your Loan Deficiency Payment?
- How much will you pay back?
- Suppose instead you pay back the MAL on Feb 1st when the posted county price for soybean is $4.50/bu,
- How much will you pay back?
- What is your Loan Deficiency Payment?

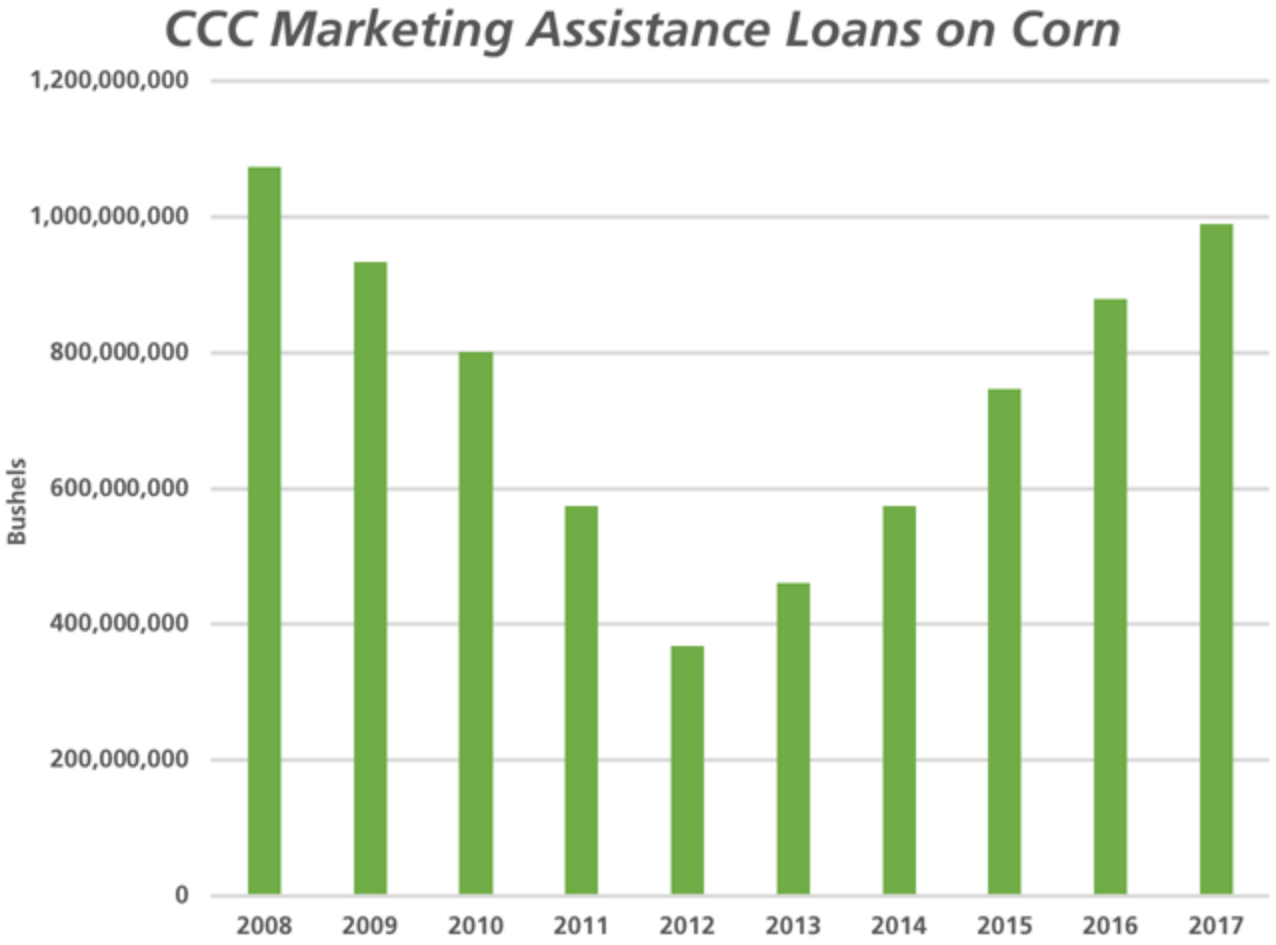
# Marketing Assistance Loans (MAL) & Loan Deficiency Payments (LDP)

- Main idea: Program works to give farmers a price floor equal to the Loan Rate
  - Reality is that loan rates are so low for corn soybeans and wheat that no one expects LDPs, just use MAL as a cheap loan program
- LDPs have been paid in recent years for some classes of wheat and “Southern” crops (peanuts, cotton, rice)
- Based on actual farmer harvested production and local prics (but not actual price you sell for)
  - **MAL/LDPs do not use National MYA prices, Base Acres or Program Yields**

# Summary of Loan Deficiency Payments (LDP)

- LDP ($/harvested bushel)
  - LDP = Loan Rate – PCP, if PCP < Loan Rate
- Depends on local Posted County Price when you "sell" the crop (may not be price actually receive when physical sale occurs)
- Depends on how many bushels harvested, not acres harvested
- Gives farmers the Loan Rate as minimum price on all bushels enrolled
  - Corn $1.95, Soybeans $5.00, Wheat $2.94

# MAL Used for ~1 Billion bu in 2017 (about 7% of total production)

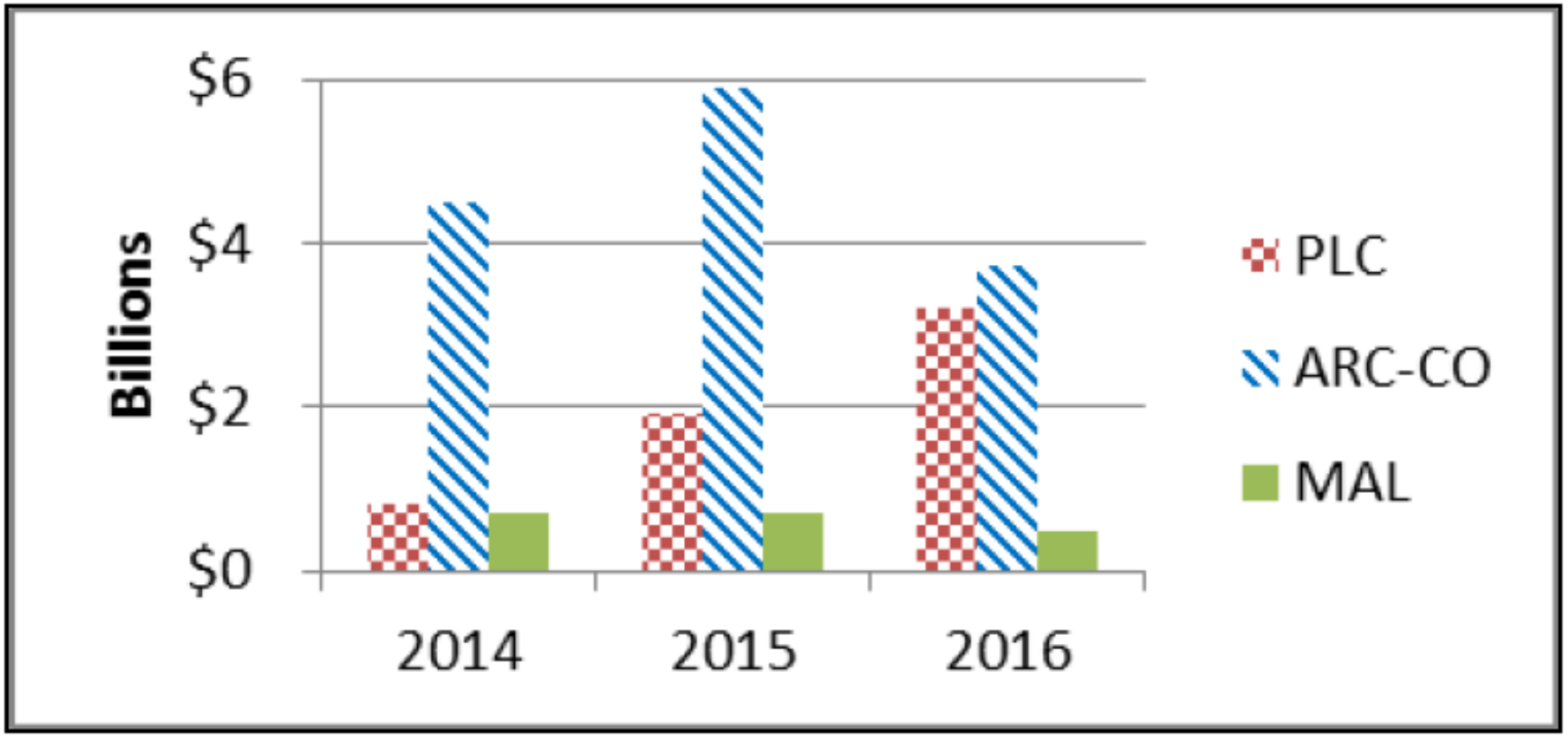



https://www.dtnpf.com/agriculture/web/ag/blogs/minding-ags-business/blog-post/2018/09/10/farmers-using-usdas-marketing-loans

# MAL/LDPs versus ARC and PLC

**Figure 5. Program Outlays Under the 2014 Farm Bill**

(billions of dollars)



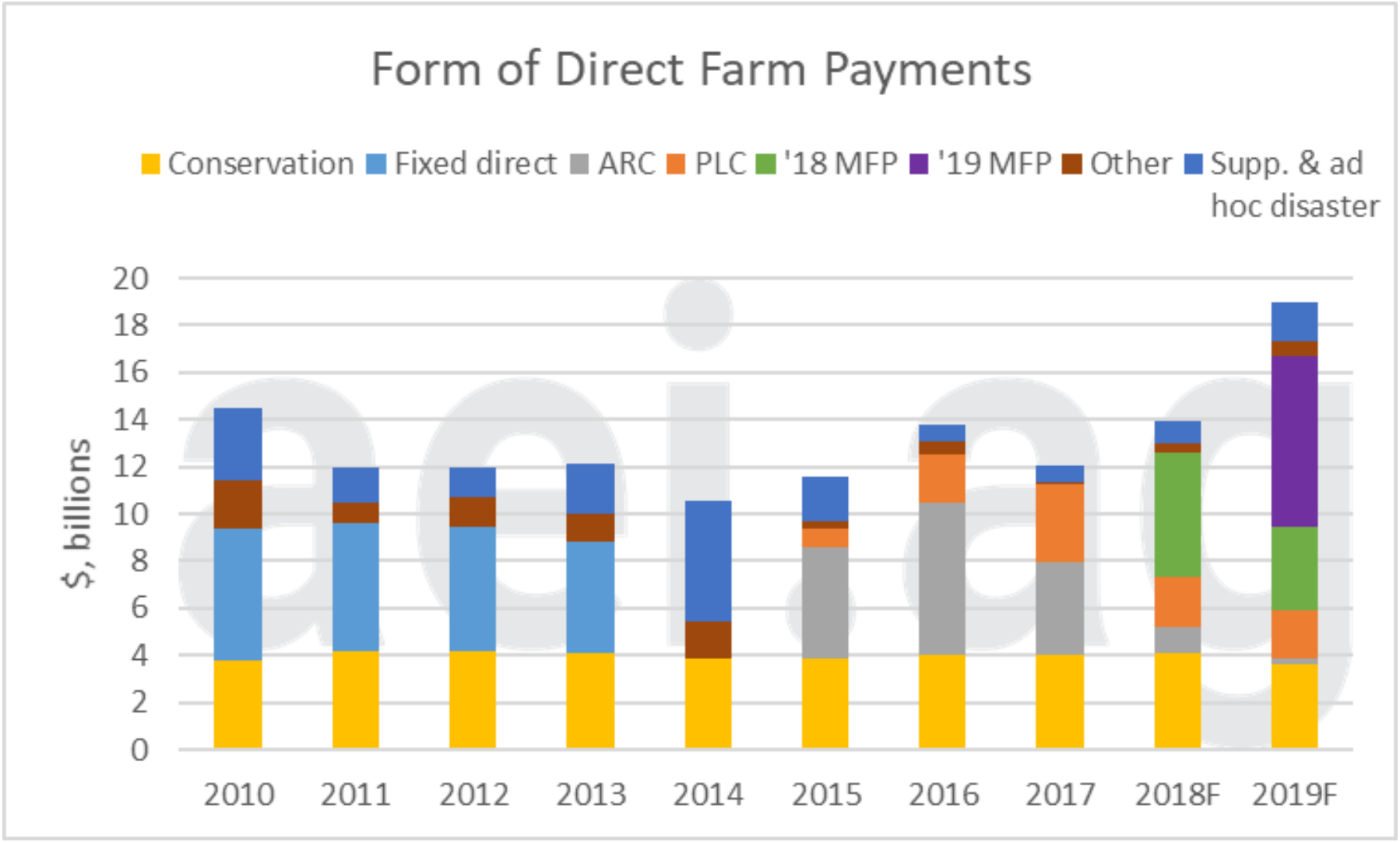

Source: https://fas.org/sgp/crs/misc/R45165.pdf

# Market Facilitation Program (MFP)

# Market Facilitation Program (MFP)

- In 2018, trade wars led to tariffs on US ag exports and large price declines for several ag commodities
  - Already low prices and low farm income
- Administration created the Market Facilitation Program
  - Outside of Farm  Bill and usual legislative process
- Rules were developed and payments announced
- MFP payments announced in 2019, different rules
- MFP is broader than just payments to farmers:
- Food Purchase and Distribution Program buying surplus of affected commodities
- Trade Promotion Program to restore lost markets and develop new export markets

# Payments to Farmers




https://aei.ag/2019/11/10/farm-level-implication-of-mfp-payments/

# MFP Covered Commodities

- MFP provides payments to eligible producers of:
- Non-Specialty Crops: alfalfa hay, barley, canola, corn, crambe, dried beans, dry peas, extra-long staple cotton, flaxseed, lentils, long grain and medium grain rice, millet, mustard seed, oats, peanuts, rapeseed, rye, safflower, sesame seed, small and large chickpeas, sorghum, soybeans, sunflower seed, temperate japonica rice, triticale, upland cotton, and wheat
- Specialty Crops: almonds, cranberries, cultivated ginseng, fresh grapes, fresh sweet cherries, hazelnuts, macadamia nuts, pecans, pistachios, and walnuts.
- Livestock: dairy and hogs.

# MFP Eligibility

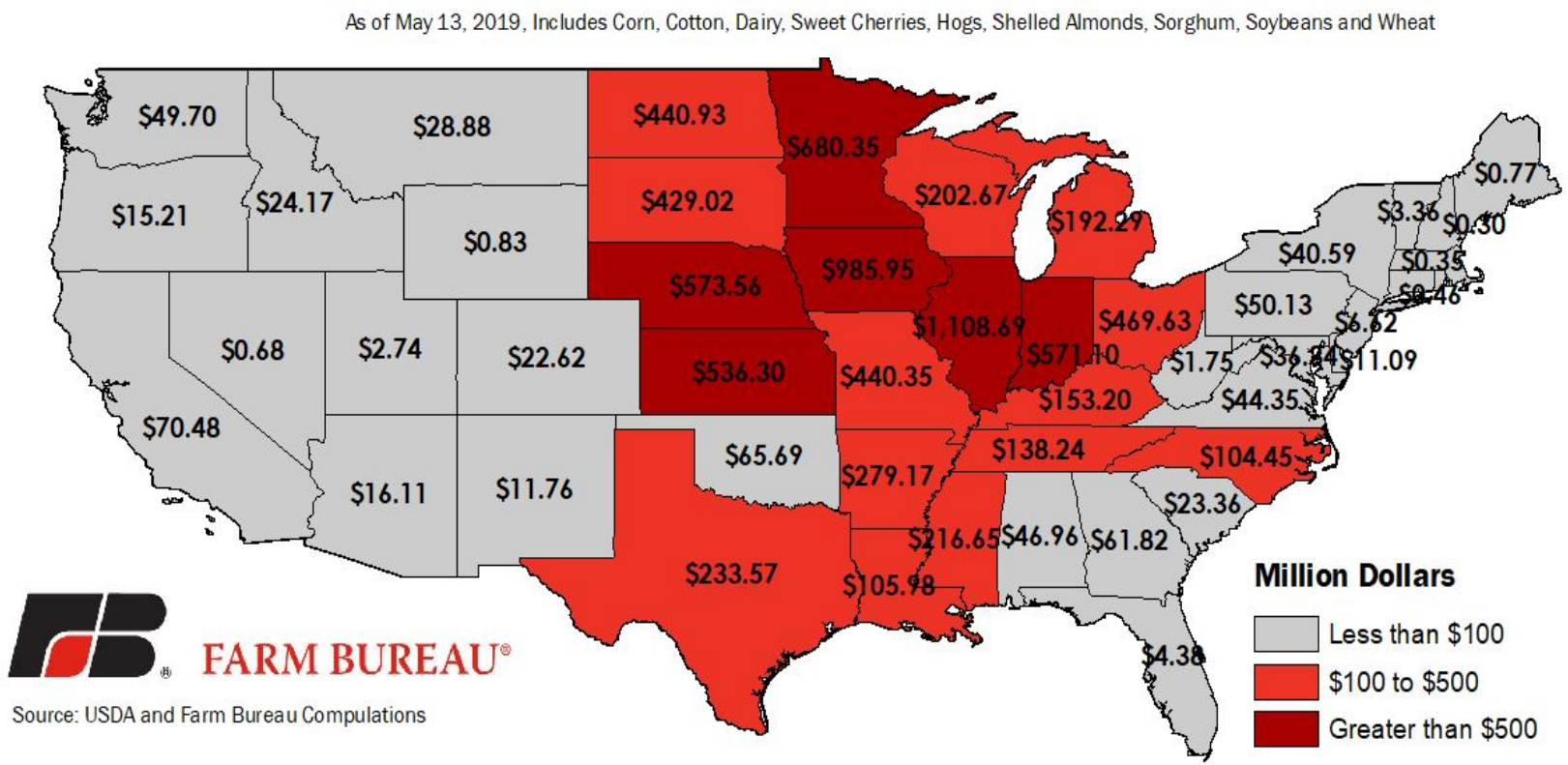
- Produce one or more of these commodities, and must either:
  - 1) Have an average adjusted gross income for tax years 2015, 2016, and 2017 of less than $900,000; or
  - 2) Derive at least 75% of adjusted gross income from farming or ranching
- Producers also must:
  - Comply with the provisions of the “Highly Erodible Land and Wetland Conservation” regulations, often called the conservation compliance provisions
  - Have a farm number with USDA's Farm Service Agency

# MFP Payments

- 2018: MFP made payments based on farmer's production of affected commodities: Soybeans = $1.62/bu, Wheat = $0.14/bu, Dairy = $0.12/cwt, Corn = $0.01/bu
- 2019: MFP made payments based on total acres of affected commodities a farmer planted, each county had a different rate
  - Acres instead of production: To be decoupled?

- Specialty crops were also paid on per acre basis
  - Cranberry and Ginseng the major WI crops

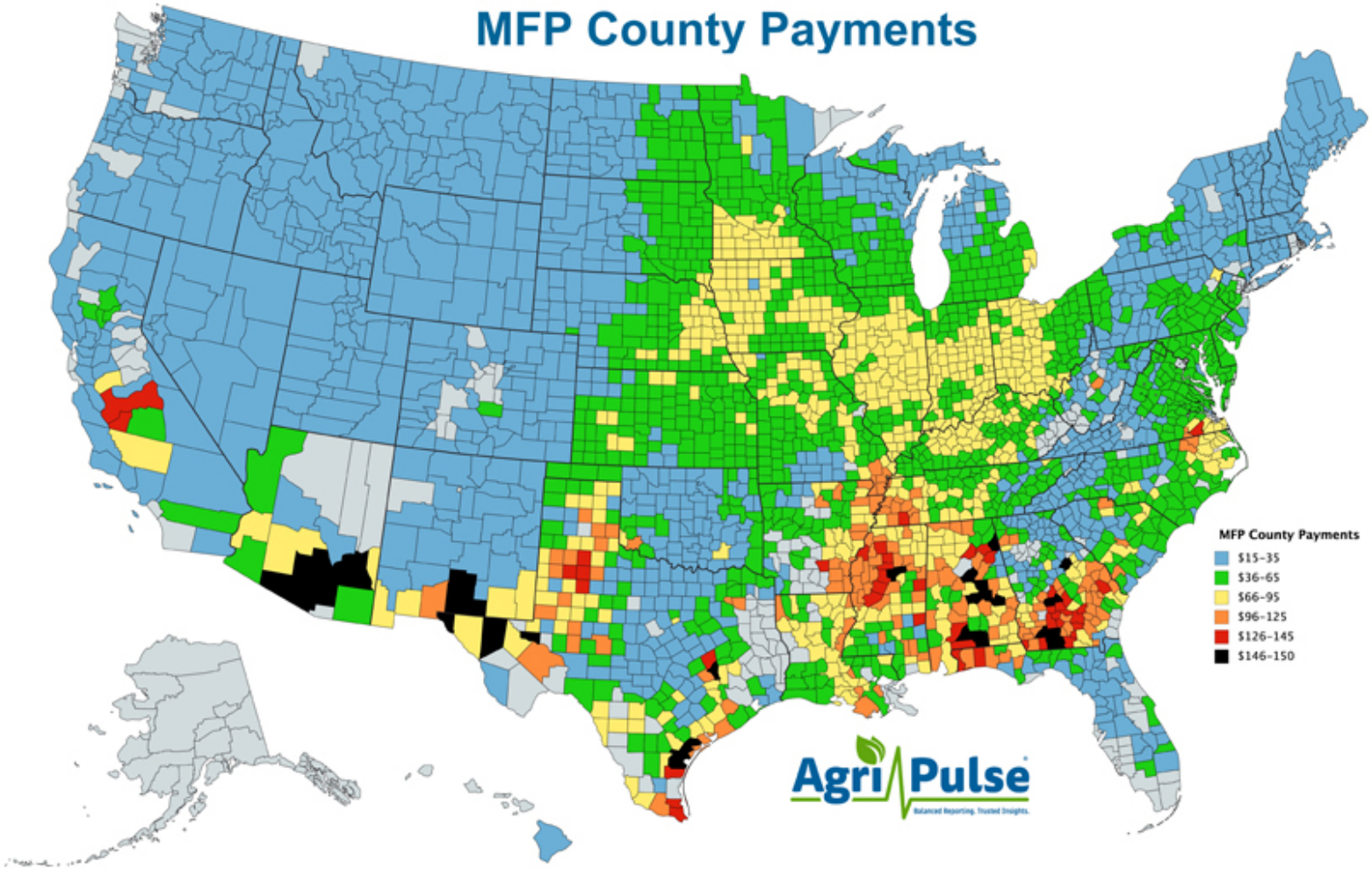
# Payments for 2018 Program




2018 MFP payments exceeded $200 Million in WI:
Soybeans $166 Million, Dairy $28 Million, Corn $5 Million

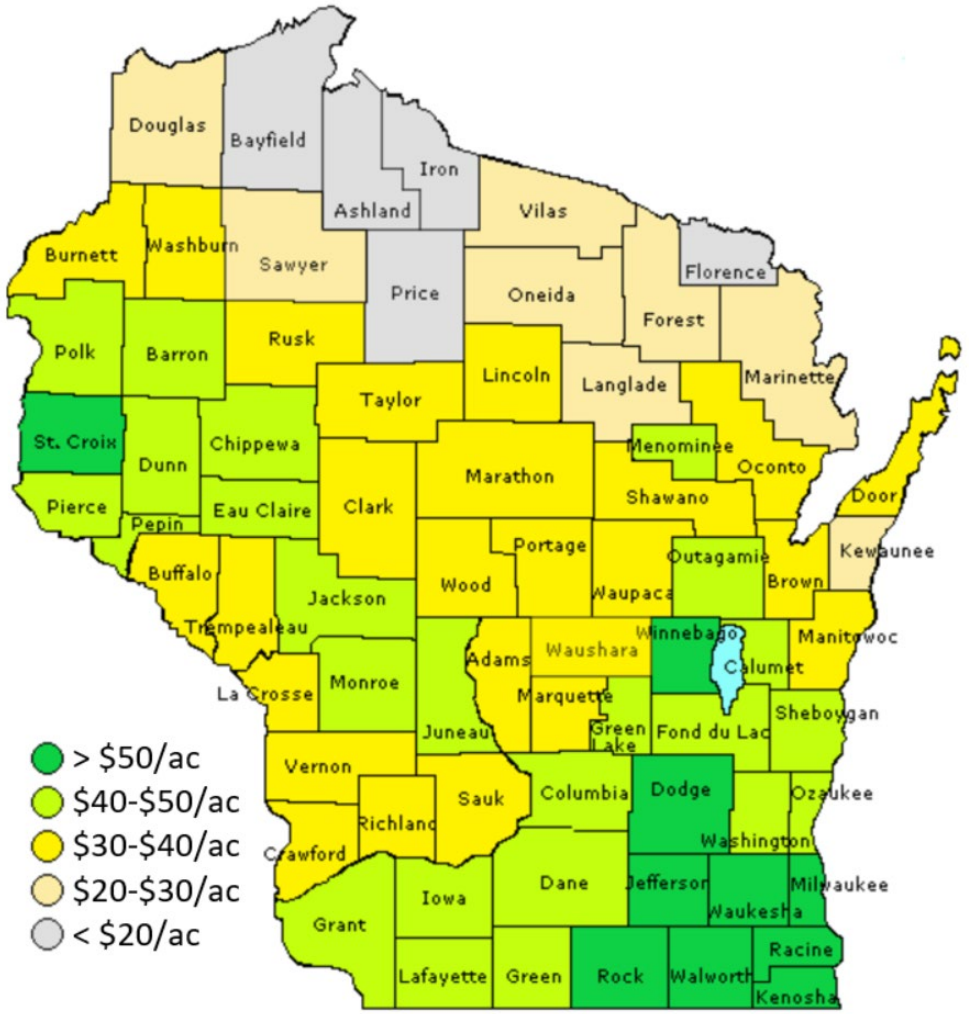
https://www.fb.org/market-intel/mapping-8.5-billion-in-trade-assistance

# MFP Payment Rates for 2019




https://www.agri-pulse.com/articles/12457-map-a-look-at-where-the-mfp-payments-are-going

# 2019 MFP Payment Rates in WI




https://renk.aae.wisc.edu/2019/08/05/market-facilitation-program-what-it-means-for-wisconsin-producers/

# 2019 MFP Payment Rates in WI

**Table of MFP payment rates for all Wisconsin counties**

| | | | |
|---|---|---|---|
| Adams: $37 | Florence: $17 | Marathon: $36 | Rusk: $34 |
| Ashland: $15 | Fond du Lac: $45 | Marinette: $25 | Sauk: $37 |
| Barron: $42 | Forest: $20 | Marquette: $31 | Sawyer: $27 |
| Bayfield: $15 | Grant: $44 | Menominee: $45 | Shawano: $32 |
| Brown: $33 | Green: $48 | Milwaukee: $59 | Sheboygan: $44 |
| Buffalo: $39 | Green Lake: $42 | Monroe: $41 | St. Croix: $50 |
| Burnett: $39 | Iowa: $46 | Oconto: $33 | Taylor: $38 |
| Calumet: $43 | Iron: $15 | Oneida: $23 | Trempealeau: $39 |
| Chippewa: $42 | Jackson: $41 | Outagamie: $45 | Vernon: $35 |
| Clark: $37 | Jefferson: $54 | Ozaukee: $44 | Vilas: $20 |
| Columbia: $48 | Juneau: $43 | Pepin: $44 | Walworth: $52 |
| Crawford: $39 | Kenosha: $58 | Pierce: $48 | Washburn: $39 |
| Dane: $48 | Kewaunee: $29 | Polk: $42 | Washington: $46 |
| Dodge: $51 | La Crosse: $39 | Portage: $31 | Waukesha: $53 |
| Door: $33 | Lafayette: $49 | Price: $18 | Waupaca: $36 |
| Douglas: $24 | Langlade: $23 | Racine: $58 | Waushara: $39 |
| Dunn: $49 | Lincoln: $31 | Richland: $33 | Winnebago: $53 |
| Eau Claire: $42 | Manitowoc: $34 | Rock: $58 | Wood: $32 |

https://renk.aae.wisc.edu/2019/08/05/market-facilitation-program-what-it-means-for-wisconsin-producers/

# Market Facilitation Program (MFP)

- MFP was a temporary program outside of the Farm Bill that gave farmers a major influx of money when needed
- Key is temporary: the budgetary authority used is almost consumed ($30 Billion) and trade war is hopefully ending
- Example of a new program, another acronym, and new set of rules to learn
- All part of being a farmer

# Dairy Margin Coverage (DMC)

# Dairy Margin Coverage (DMC)

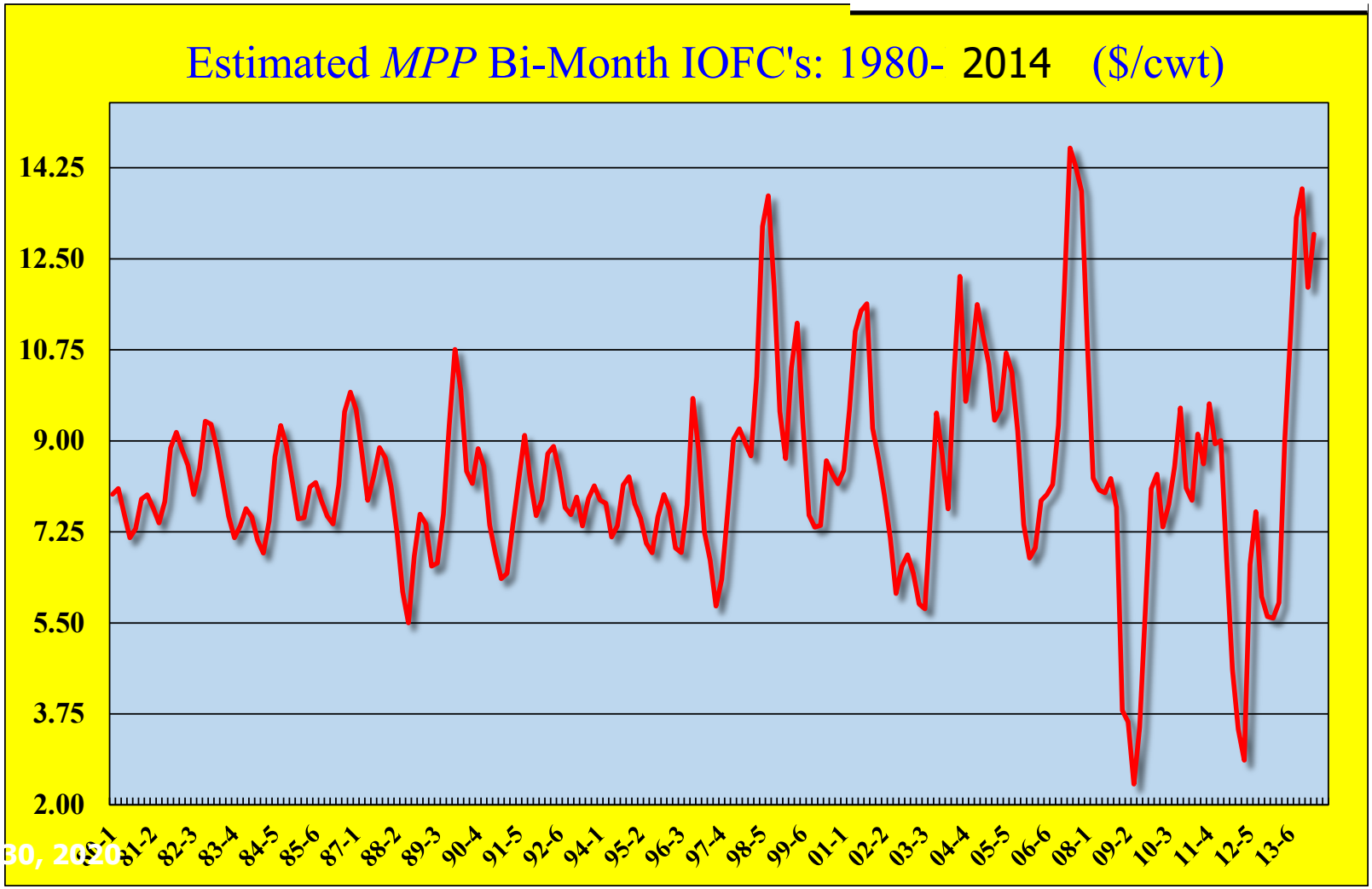
- 2018 Farm Bill included a new dairy program: Dairy Margin Coverage (DMC)
  - Replaced the unpopular Dairy Margin Protection Program (MPP) that started with the 2014 Farm Bill, which replaced the Milk Income Loss Coverage (MILC)
- DMC is very much like the MPP, but tweaked the program parameters and changed the name
  - PLC did the same for CCP on crop side

# Dairy Margin Protection Program (MPP) from the 2014 Farm Bill

- USDA-FSA program that makes payments when the margin between milk price and feed costs is too small
  - Margin used to pay fixed costs, overhead, management
- Specifics: Makes payments when the difference between the USDA's average national All-Milk price and a program-defined fixed feed ration valued at U.S. average prices falls below producer chosen Income Over Feed Costs (IOFC)

# Why Dairy Margins? Because they have become more volatile!

| IOFC | Average | St Dev |
|---|---|---|
| 1980-89 | 8.03 | 0.96 |
| 1990-99 | 8.32 | 1.51 |
| 2000-09 | 8.60 | 2.47 |
| 2010- | 8.22 | 2.75 |



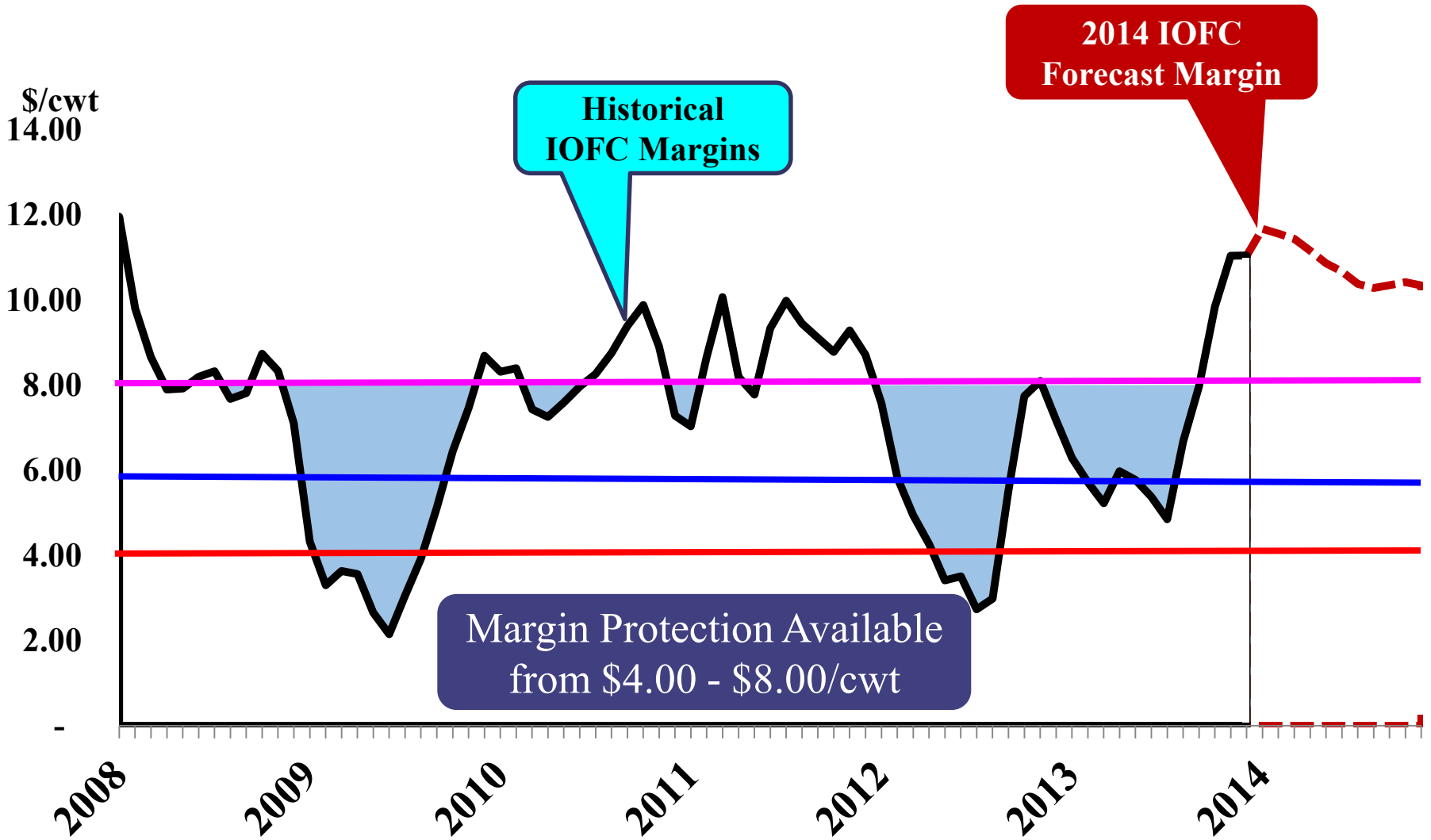
# Dairy Margin Protection Program (2014)

- Producers choose a milk margin, get $4/cwt margin for free, buy higher coverage
- Program pays when Actual Dairy Production Margin falls below selected Coverage Level Threshold
- Actual Dairy Production Margin = All-Milk Price minus Average Feed Cost (cost index)
  - Feed Cost = 1.0728 x Corn Price + 0.00735 x Soybean Meal Price + 0.0137 x Alfalfa Price
- Payments = 1/6 x Actual Dairy Production History x Payment Rate x (Margin Guarantee – Actual Dairy Production Margin)

# Dairy Margin Protection Program (2014)

- Margin Guarantee (Coverage Level Threshold)
  - $4.00/cwt to $8.00/cwt in 50¢ increments
- Payment Rate (Percentage of Coverage)
  - 25% to 90% in 5% increments
  - Payment rate for each $ Actual Margin < Guarantee
- Voluntary program with annual coverage decisions
- Uses pre-set 2 month periods (JF, MA, MJ, JA, SO, ND)
- Farmer gets $4/cwt margin for free, pay for higher margin, with higher premium for production over 4 million pounds
- Cannot enroll in Dairy MPP and buy LGM Dairy insurance or Dairy Revenue Protection insurance

# What Have Been Historical MPP Margins?



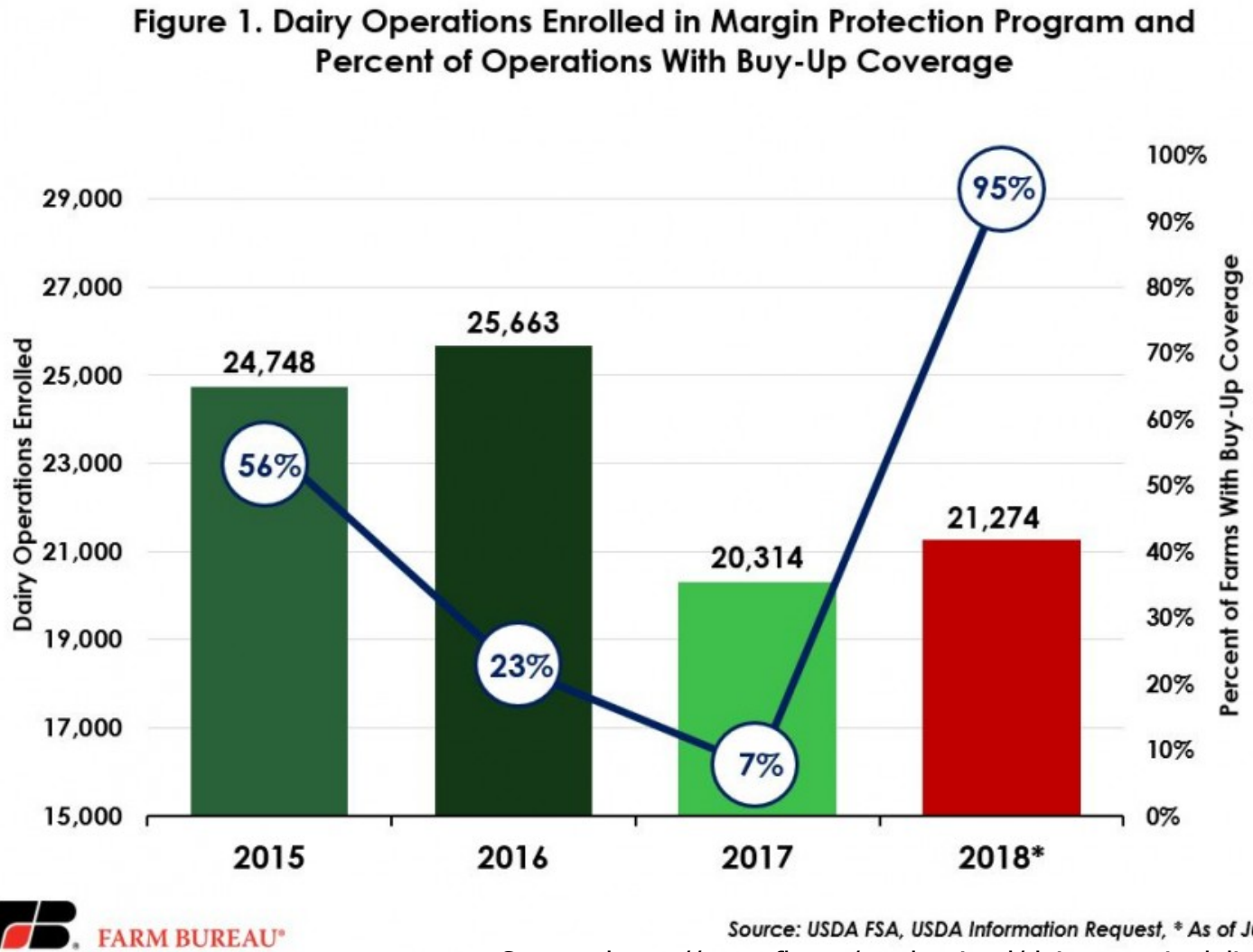
# Hypothetical Example

- Produce 3 million pounds/year (= 30,000 cwt)
- Chose $4.00/cwt margin (free)
- Chose 90% Coverage Percentage
- Suppose Actual Margin is $3.50 for Jan-Feb of 2015
  - Low milk prices relative to feed costs
- $4.00 < $3.50 = so trigger a payment of $0.50/cwt
- Payments = 1/6 x Actual Dairy Production History x Payment Rate x (Margin Guarantee – Actual Dairy Production Margin)
- Payment = 1/6 x 30,000 cwt x 90% x $0.50 = $2,250, or $0.45/cwt for the two-month period

# Premium Costs ($/cwt) for Dairy Margin Protection

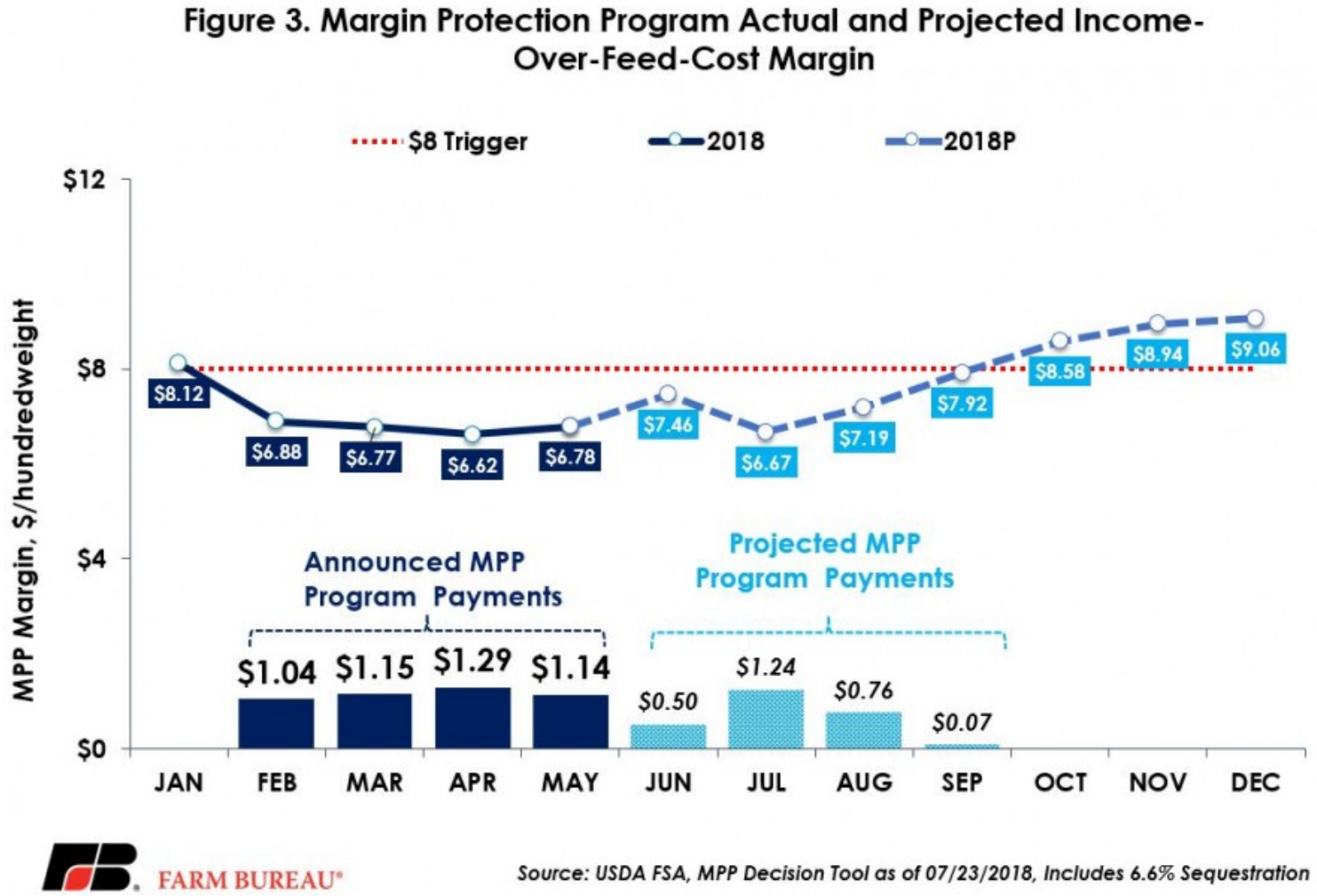
| Margin ($/cwt) | First 4 million pounds | Above 4 million pounds |
|---|---|---|
| $4.00 | 0.000 Free | 0.000 Free |
| $4.50 | 0.010 | 0.020 |
| $5.00 | 0.025 | 0.040 |
| $5.50 | 0.040 | 0.100 |
| $6.00 | 0.055 | 0.155 |
| $6.50 | 0.090 | 0.290 |
| $7.00 | 0.217 | 0.830 |
| $7.50 | 0.300 | 1.060 |
| $8.00 | 0.475 | 1.360 |

# MPP participation started out high, but declined (rarely paid), so changes in 2018



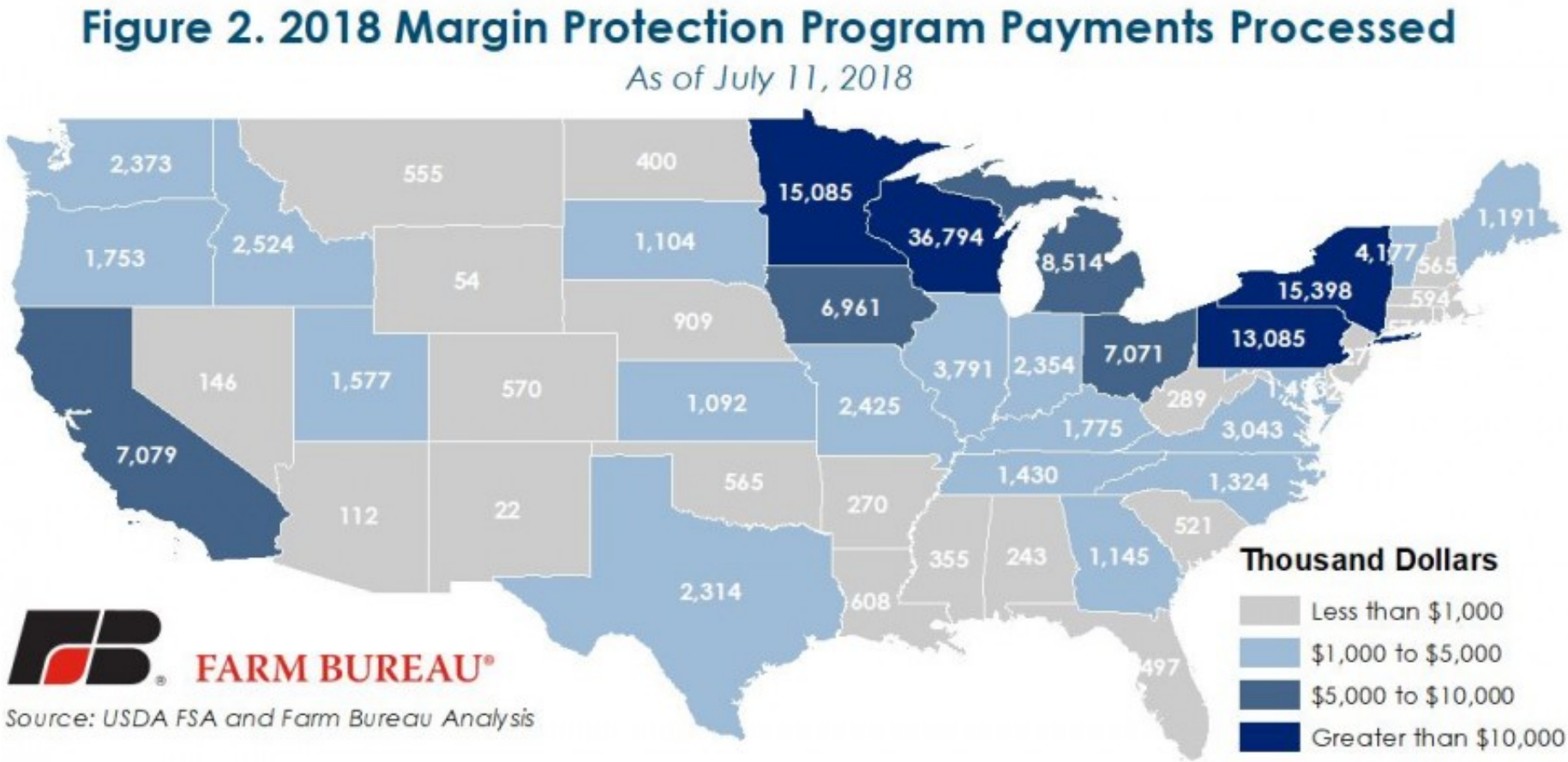

Source: https://www.fb.org/market-intel/dairy-mpp-is-delivering-in-2018

# Monthly period (vs bi-monthly), 5 million free, lower premiums for buy-up




Source: https://www.fb.org/market-intel/dairy-mpp-is-delivering-in-2018

# WI farmers received almost $37 million as of July 2018




Source: https://www.fb.org/market-intel/dairy-mpp-is-delivering-in-2018

# DMC vs MPP with 2018 Farm Bill

- Made many 2018 MPP changes permanent
  - Tier 1 coverage: DMC = 5 million pounds, MPP 4 million
  - Monthly, not bi-monthly
- Broader range of Payment Rates (production covered)
  - DMC: 5% to 95%  MPP: 25% to 90%
- Program premiums for buy-up coverage are lower
- Allowed higher Margin Guarantees
  - DMC up to $9.50/cwt  MPP: up to $8.00/cwt
- Payments = 1/12 x Actual Dairy Production History x Payment Rate x (Margin Guarantee – Actual Dairy Production Margin)

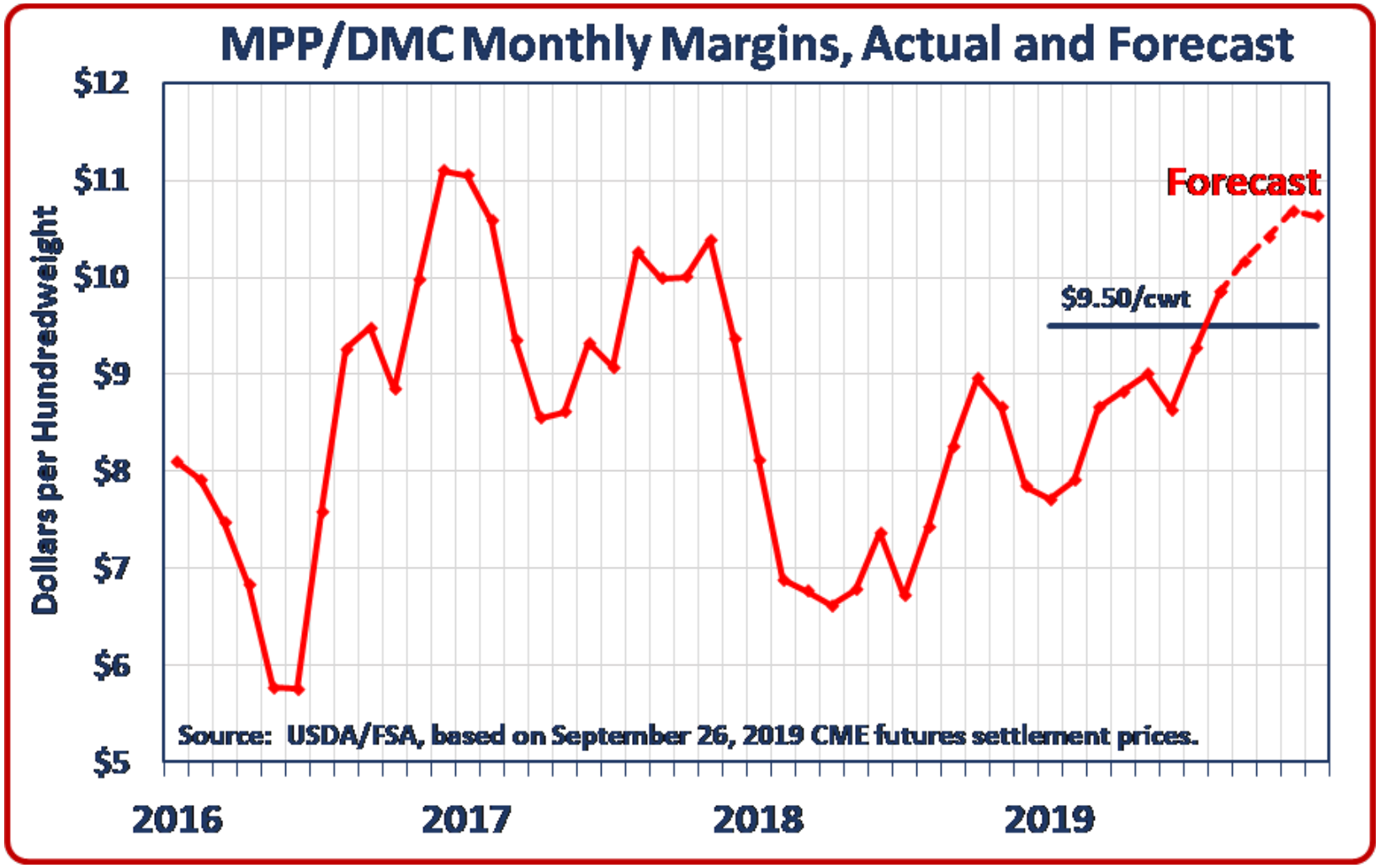
# DMC vs MPP Premiums & Coverage Levels

| Coverage Level Threshold | Tier 1 MPP-Dairy, 2016 to 2017 | Tier 1 MPP-Dairy, 2018 | Tier 2 MPP-Dairy | Tier 1 DMC | Tier 2 DMC |
|---|---|---|---|---|---|
| *Qualifying Production* | 4 M lbs. or less | 5 M lbs. or less | above 5 M lbs. | 5 M lbs. or less | above 5 M lbs. |
| $4.00 | $- | $- | $- | $- | $- |
| $4.50 | $0.0080 | $- | $0.0200 | $0.0025 | $0.0025 |
| $5.00 | $0.0190 | $- | $0.0400 | $0.0050 | $0.0050 |
| $5.50 | $0.0300 | $0.0090 | $0.1000 | $0.0300 | $0.1000 |
| $6.00 | $0.0410 | $0.0160 | $0.1550 | $0.0500 | $0.3100 |
| $6.50 | $0.0680 | $0.0400 | $0.2900 | $0.0700 | $0.6500 |
| $7.00 | $0.1630 | $0.0630 | $0.8300 | $0.0800 | $1.1070 |
| $7.50 | $0.2250 | $0.0870 | $1.0300 | $0.0900 | $1.4130 |
| $8.00 | $0.4750 | $0.1420 | $1.3600 | $0.1000 | $1.8130 |
| $8.50 | n.a. | n.a. | n.a. | $0.1050 | n.a. |
| $9.00 | n.a. | n.a. | n.a. | $0.1100 | n.a. |
| $9.50 | n.a. | n.a. | n.a. | $0.1500 | n.a. |

DMC premiums discounted 25% lower if lock in margin guarantee and payment rate for 5 years

Courtesy of Dr. Mark Stephenson UW CDP

# MPP/DMC Margins since 2016




https://www.nmpf.org/dmc-margins-rise-above-aid-threshold/

# DMC Signup at USDA-FSA Office

- 2019 Signup was June 17, 2019 to Sep 27, 2019
- 2020 Signup is Oct 7, 2019 to Dec 13, 2019
- First signup ended between problem sets #1 and #2
- 2020 signup deadline is the day before our final

# Summary of USDA-FSA Programs

- Overview of commodity support programs
- Administered by USDA-Farm Service Agency (FSA) in each county
  - Price Loss Coverage (PLC)
  - Agricultural Risk Coverage (ARC)
  - Marketing Assistance Loans (MAL)
  - Market Facilitation Program (MFP)
  - Dairy Margin Coverage (DMC)