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State of the Crop Insurance Industry

Economics and Management of Risks in Agriculture and Natural Resources

SCC-76 Annual Meeting

Thomas P. Zacharias

Pensacola, Florida

March 17-19 , 2016

Organization of Presentation

- NCIS Backgrounder
- We are Our Members
- 2015 Recap
 - State Regulated (Crop-Hail)
 - Federally Regulated (MPCI)
- Farm Bill Update (Abbreviated)
- Other Considerations
 - Improper Payments
 - Acreage and Crop Reporting Streamlining Initiative (ACRSI)
 - World Trade Organization
- Summary

NCIS Functions

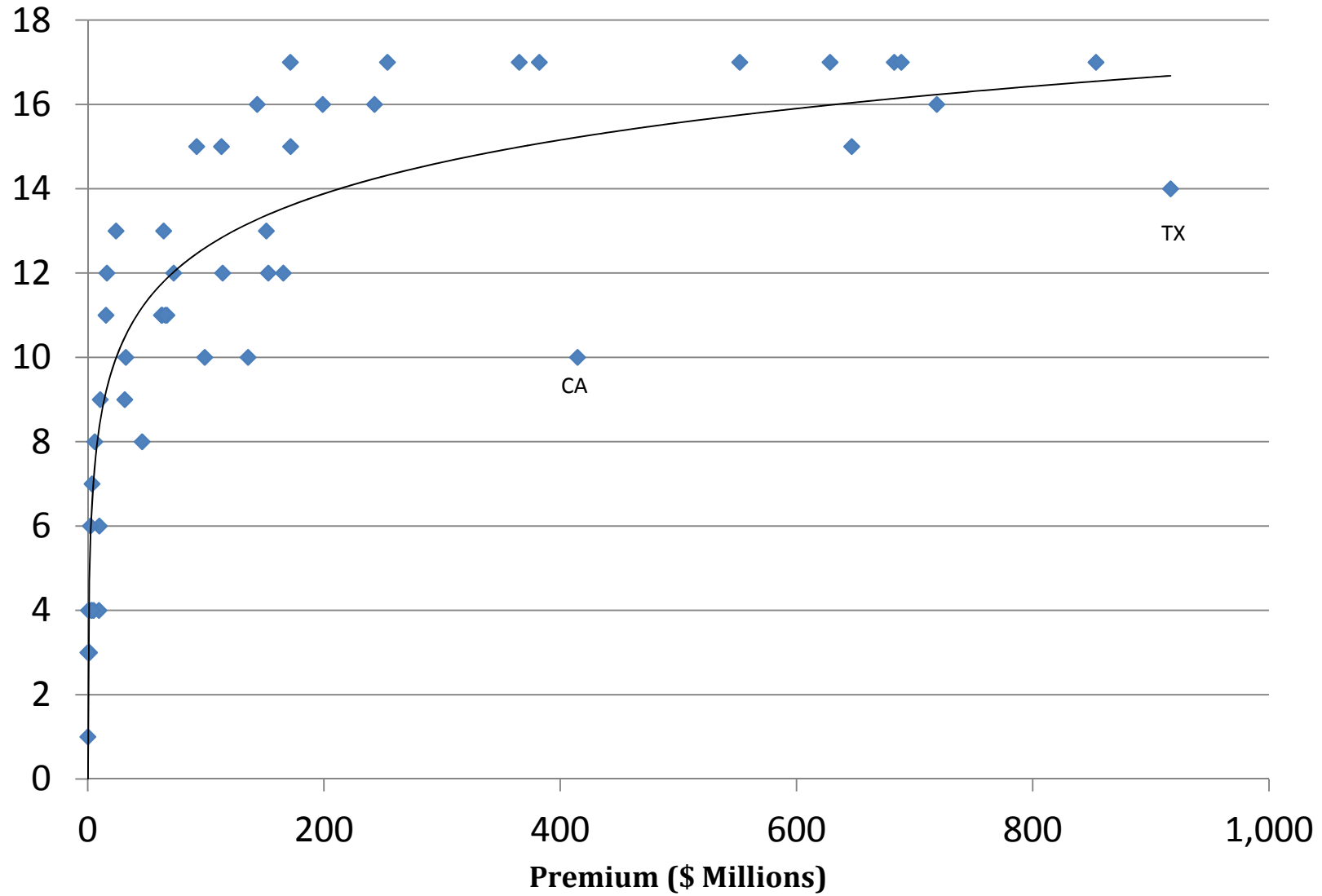
- Crop Insurance Program Development and Analysis
 - Policy Analysis, Loss Adjustment Procedures, Legal Analysis, Agronomic Research
- Economic and Actuarial Analysis
- Education and Training
 - Loss Adjuster Schools – 13 (1,047 attendees)
 - National Conferences – 4 (1,178 attendees)
 - Annual Regional/State Meetings – 19 (491 attendees)
- Crop-Hail Advisory Organization and Statistical Agent
 - Licensed by Individual State Insurance Departments
- Public Relations and Industry Outreach

We Are Our Members

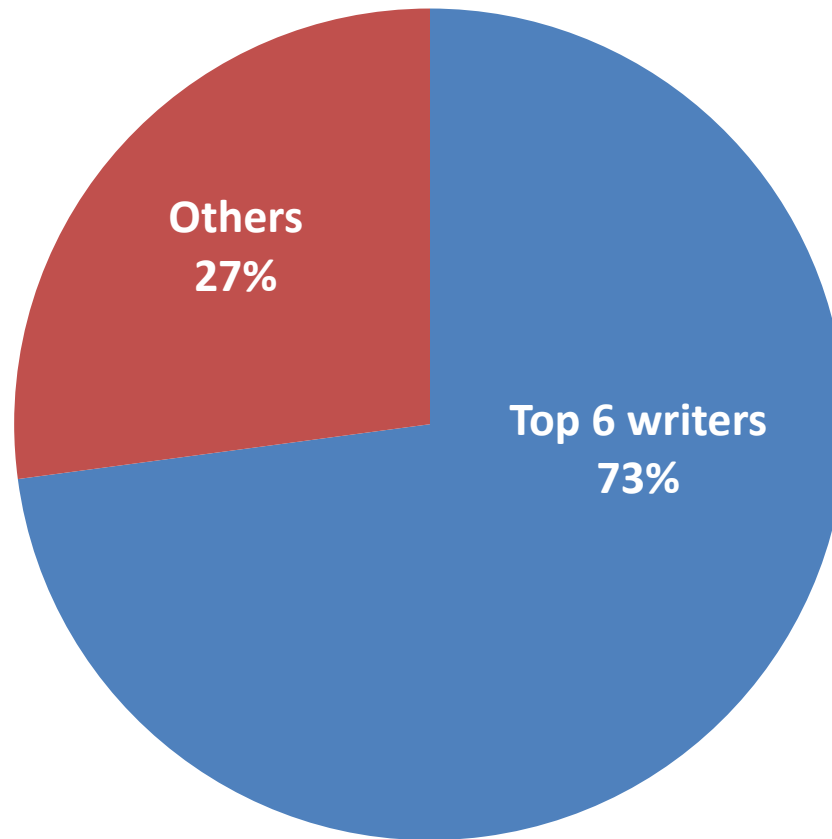
All USDA Approved Insurance Providers
Are
NCIS Members

- Premium Volume
- State Concentration
- Market Concentration

Number of Companies in State vs. 2015 MPCCI Premium



2015 Insurance Provider Premium Concentration Ratio



2015 Recap

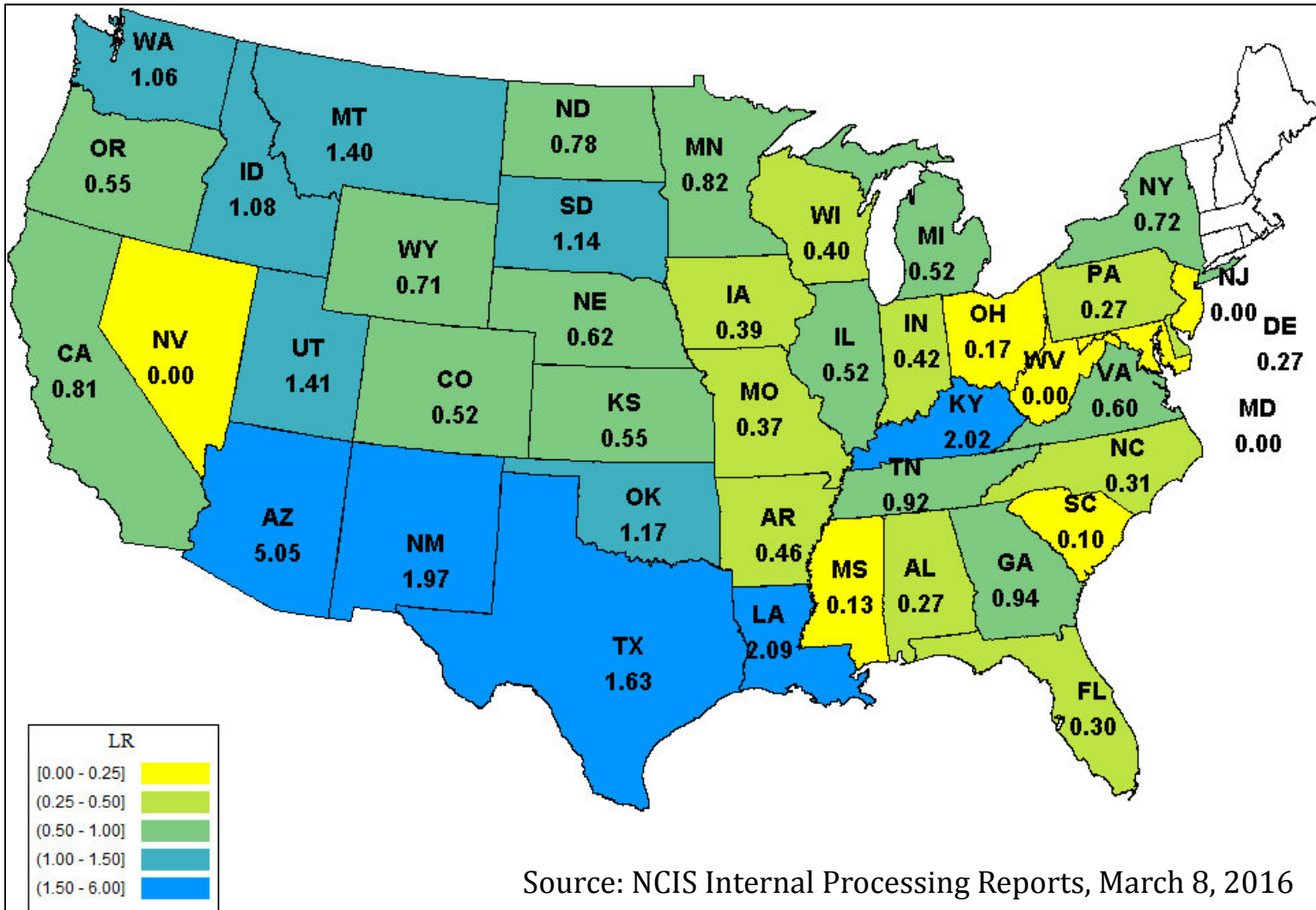
Crop-Hail Premium Totals

State Regulated

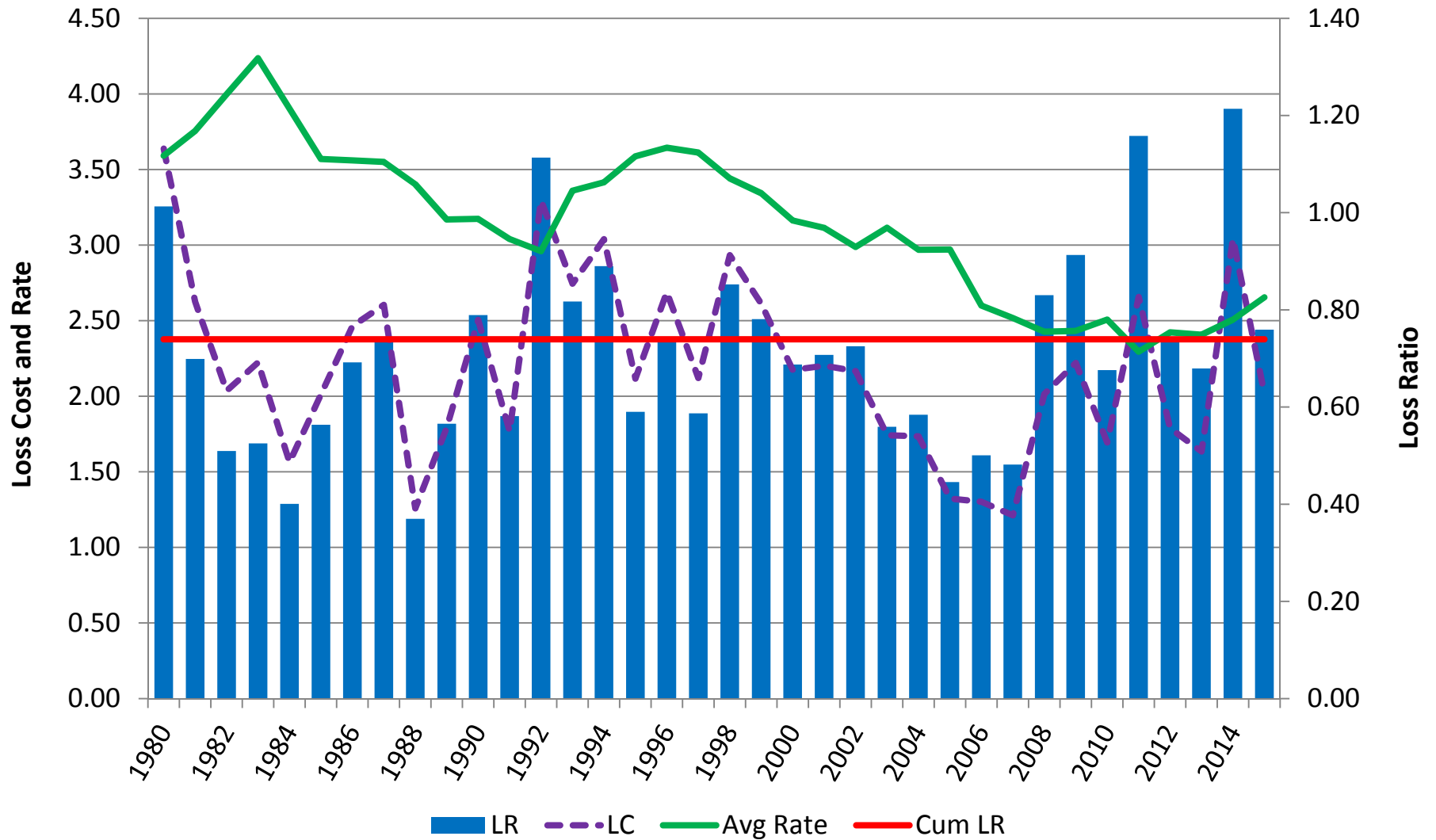
2014-15 Crop-Hail Industrywide Totals			
CROP YEAR	PREMIUM	LOSS	LOSS RATIO
2015	976,905,578	741,717,434	0.76
2014	986,807,393	1,197,730,724	1.21

Top 5 Premium Written States for 2015			
STATE	PREMIUM	LOSS	LOSS RATIO
Nebraska	185,278,931	114,361,288	0.62
Iowa	119,133,880	45,909,406	0.39
Minnesota	102,894,875	84,754,253	0.82
North Dakota	96,806,540	75,095,230	0.78
Illinois	83,271,084	43,245,241	0.52

2015 Crop-Hail Loss Ratios

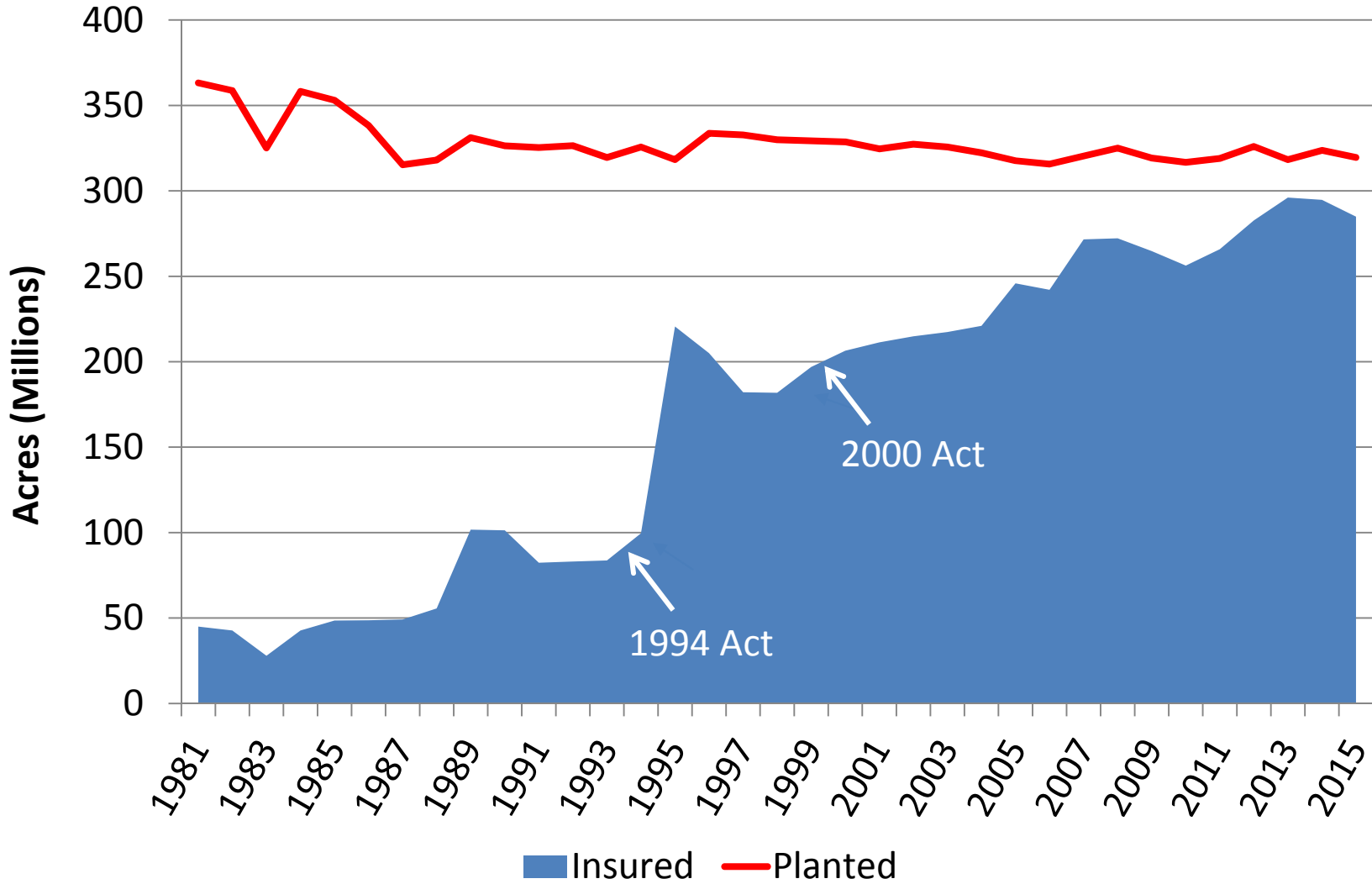


Crop-Hail Summary by Year

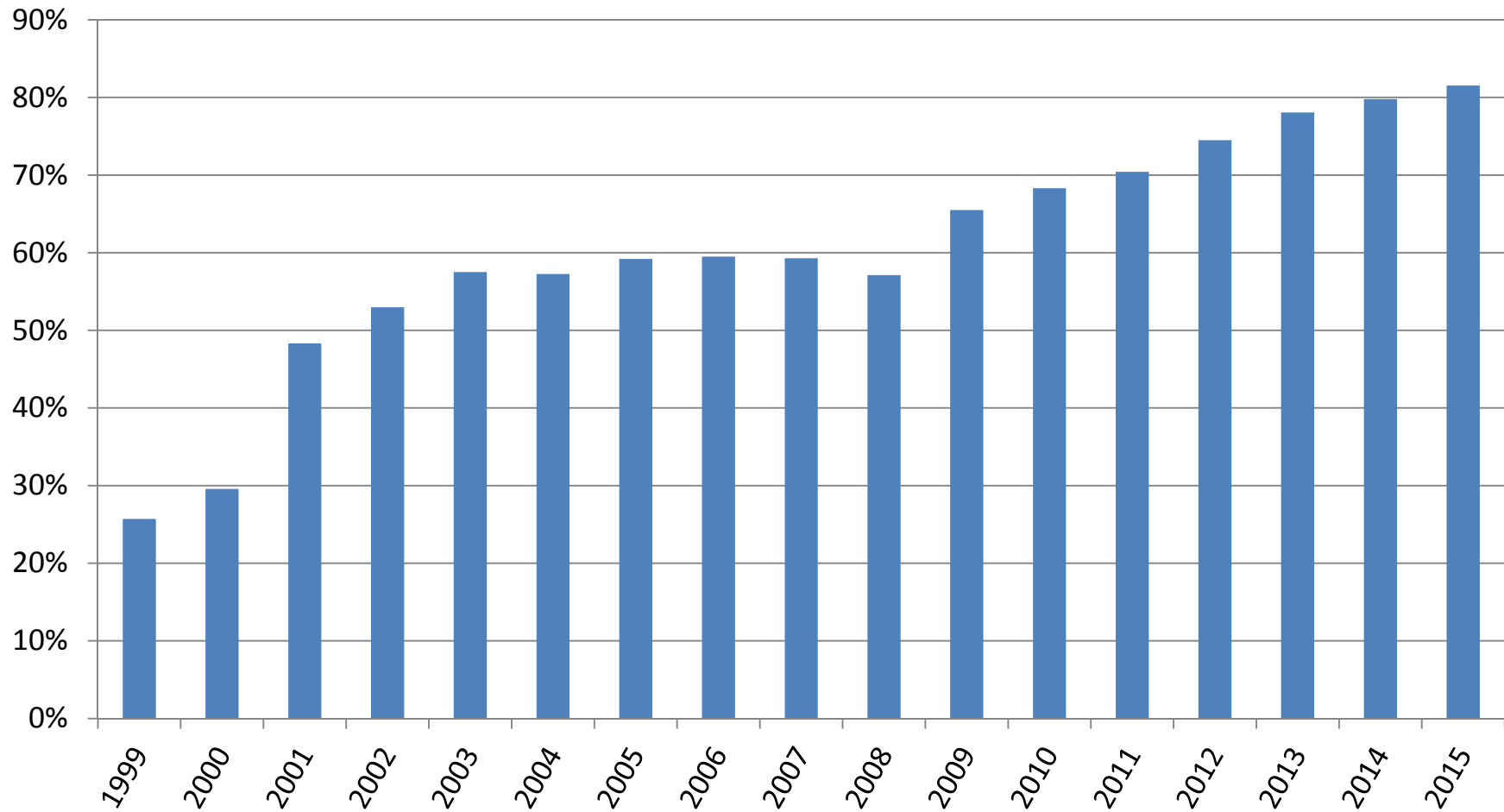


2015 Federally Regulated/ Reinsured Business (MPCI)

Participating Acres Now Equal 90% of Planted



Share of Insured Acres Covered at Coverage Level 70% or Higher (MPCI)



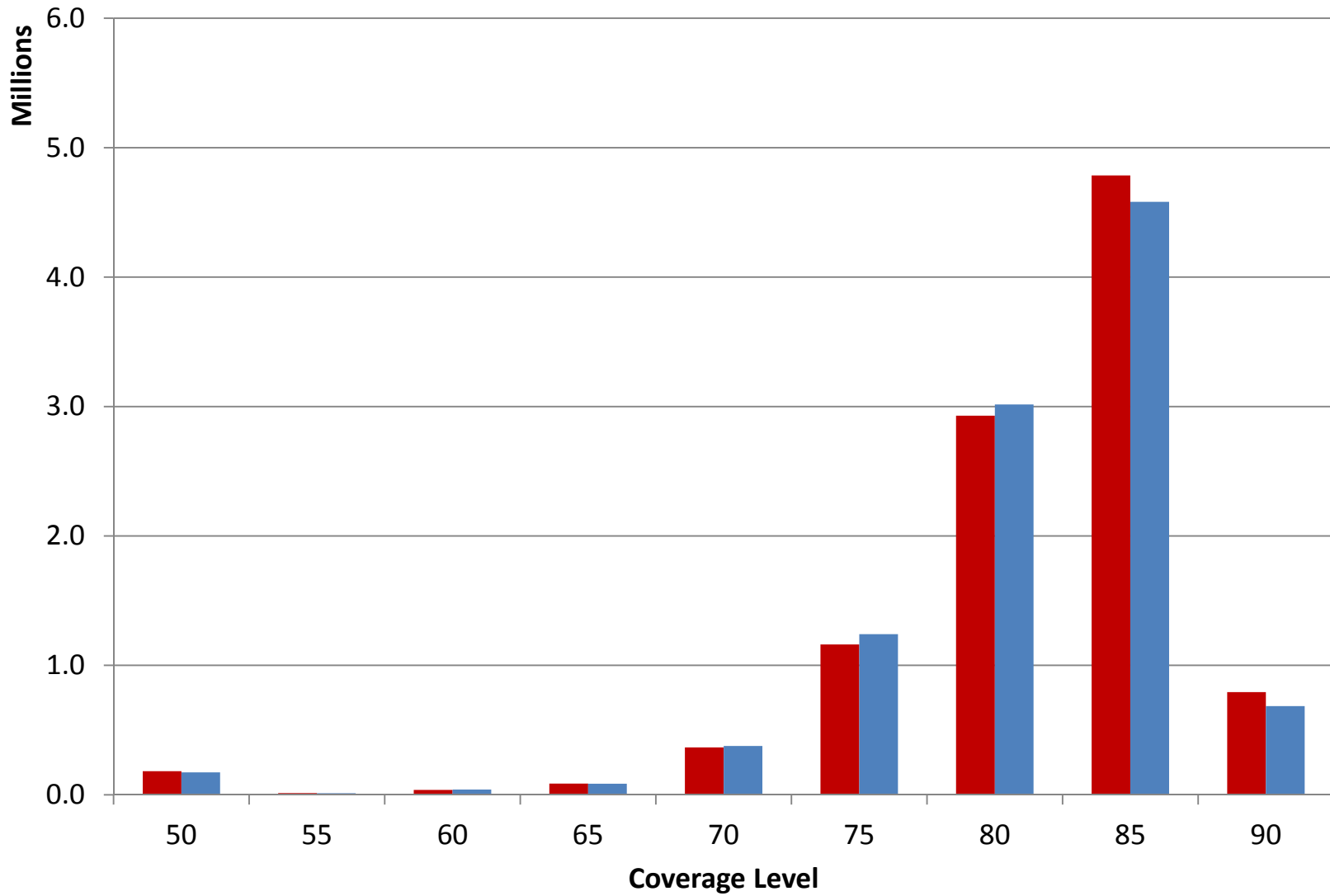
Nationwide Summary

Federally Reinsured Business

2014-15 MPCFI Industrywide Totals			
CROPYEAR	ACRES	LIABILITY	PREMIUM
2015	298,557,716	102,311,456,253	9,738,890,144
2014	294,759,282	109,872,985,600	10,070,257,748

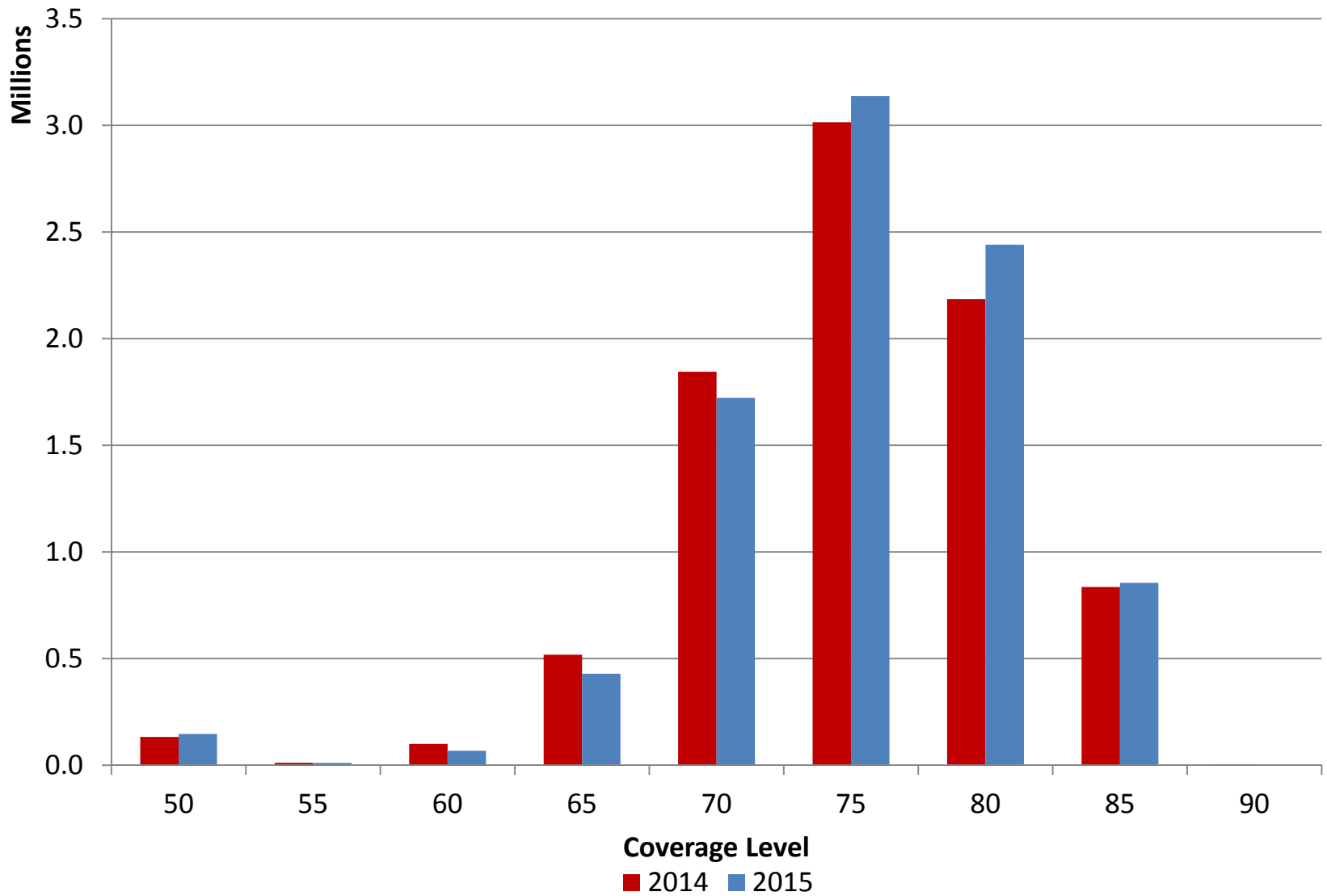
Top 10 Premium States for 2015			
STATE	ACRES	PREMIUM	LOSS RATIO
Texas	46,053,796	923,500,688	0.58
North Dakota	23,130,075	855,420,887	0.36
Iowa	22,152,585	721,970,376	0.20
South Dakota	16,193,628	694,517,292	0.27
Illinois	19,225,447	691,295,012	0.65
Kansas	19,336,212	648,837,373	0.54
Minnesota	17,738,685	630,174,756	0.14
Nebraska	17,669,543	557,354,889	0.33
California	6,758,013	414,076,220	1.35
Missouri	9,443,850	386,726,659	1.34

2014 vs. 2015 Illinois Corn Acres - MPC1

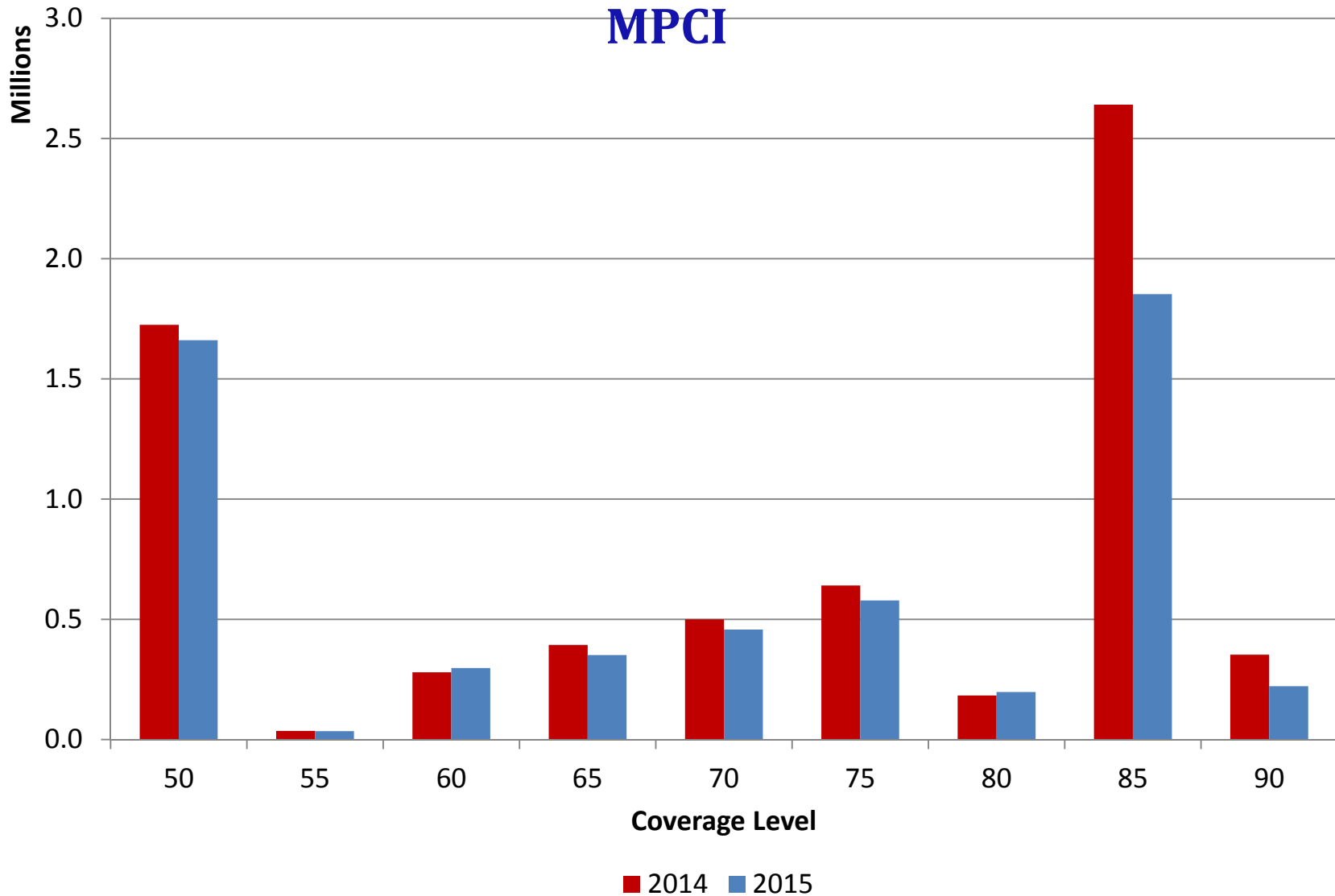


■ 2014 ■ 2015

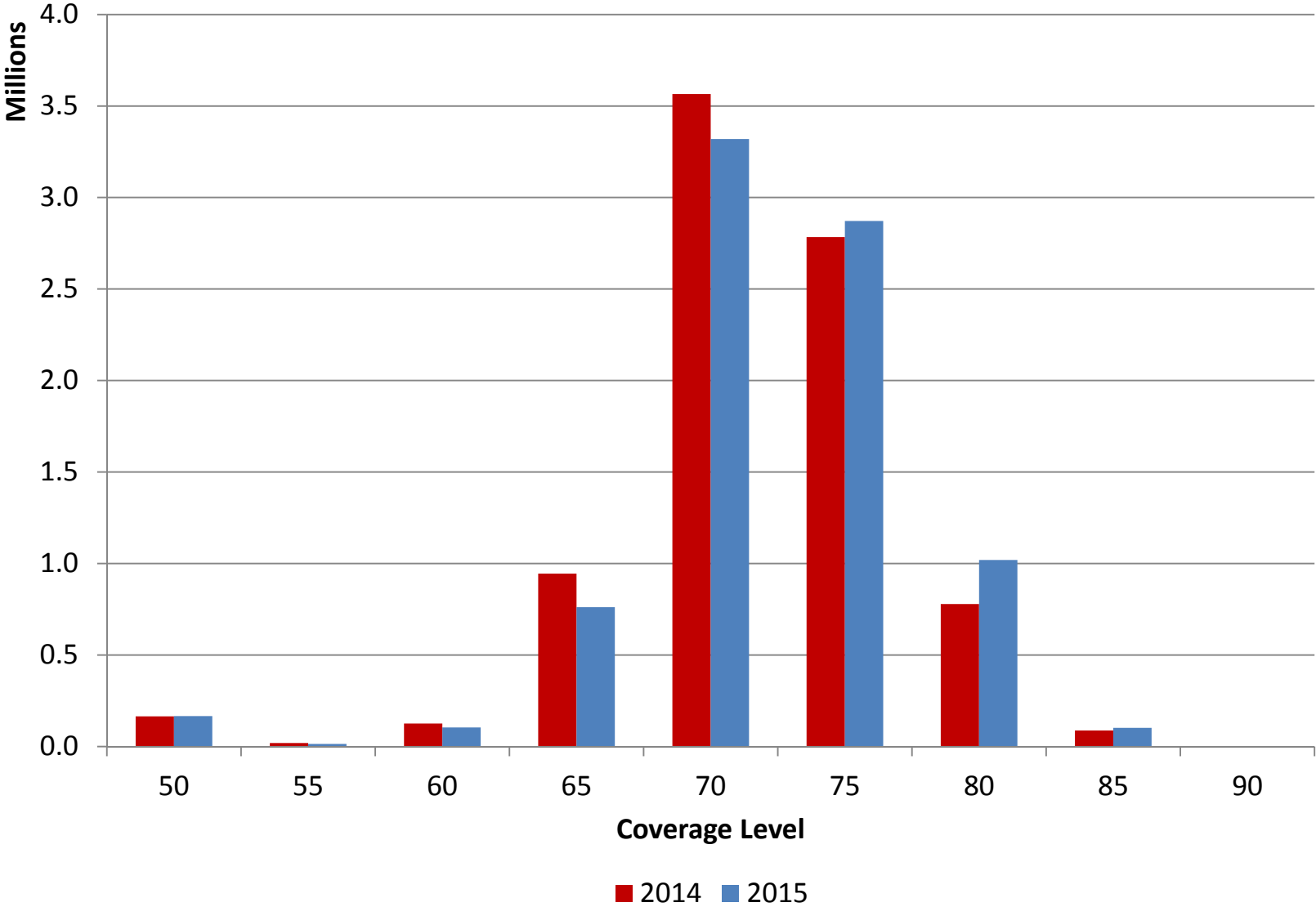
2014 vs. 2015 Nebraska Corn Acres - MPCl



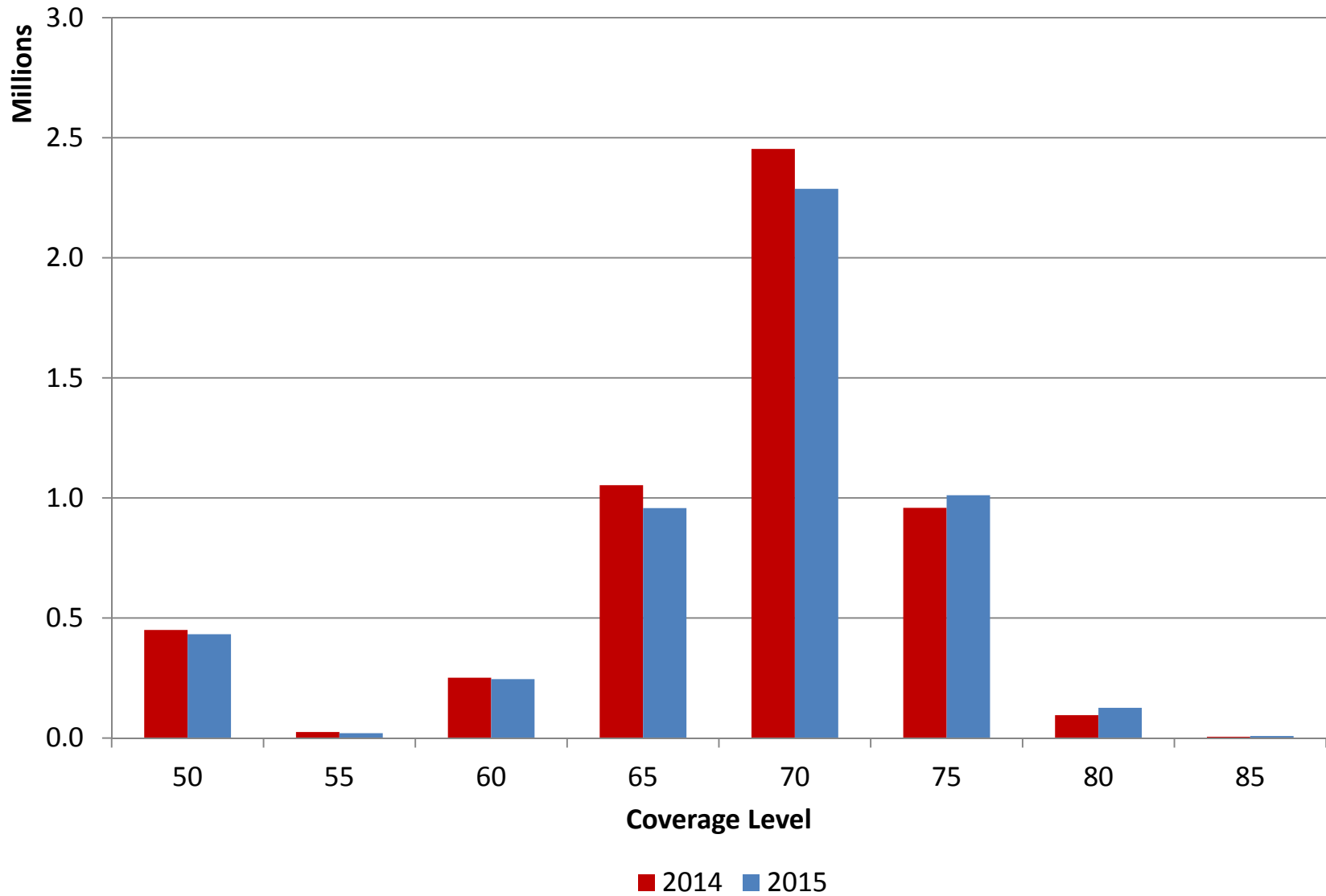
2014 vs. 2015 California All Crops Acres - MPCI



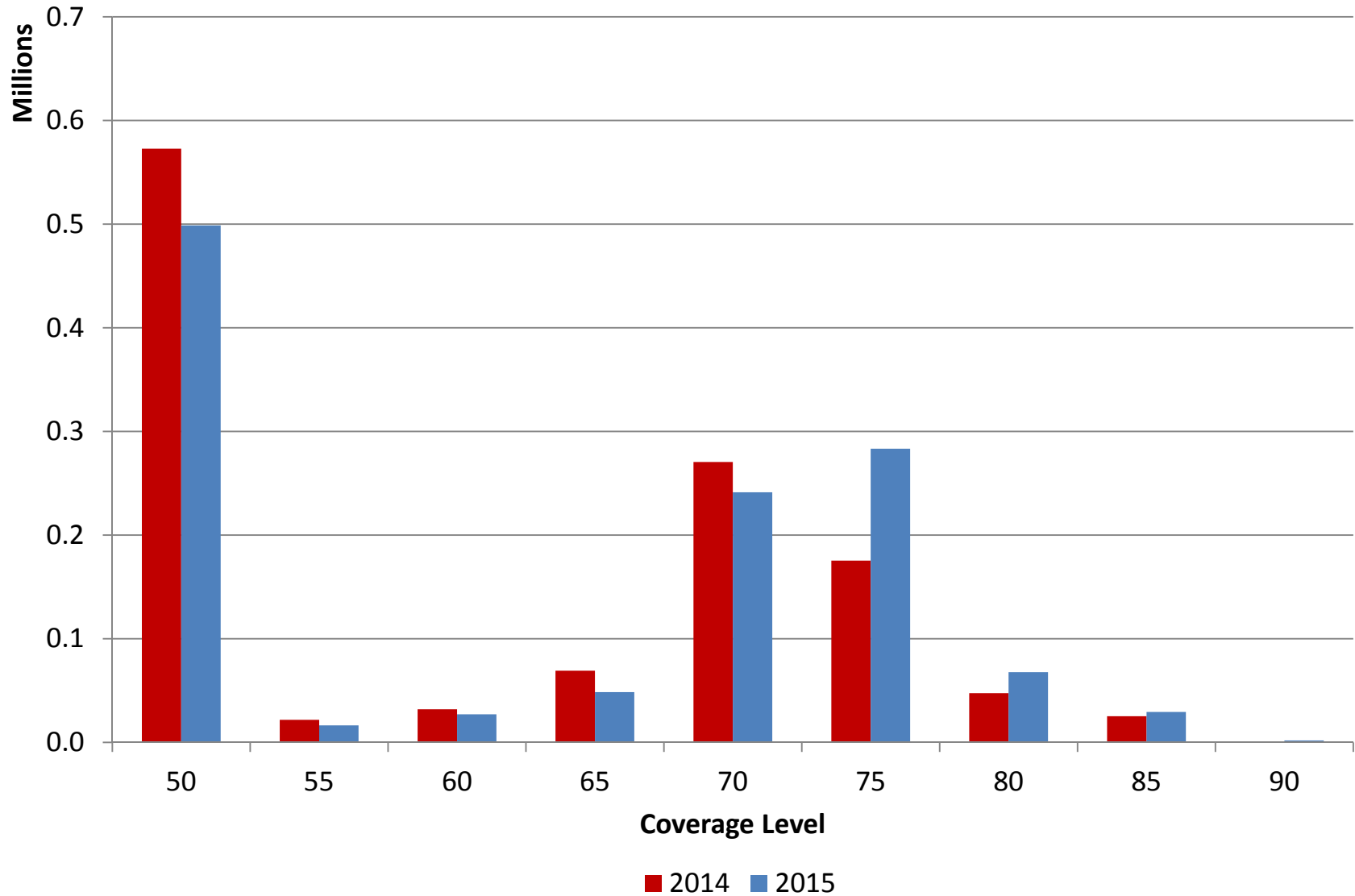
2014 vs. 2015 Kansas Wheat Acres - MPC1



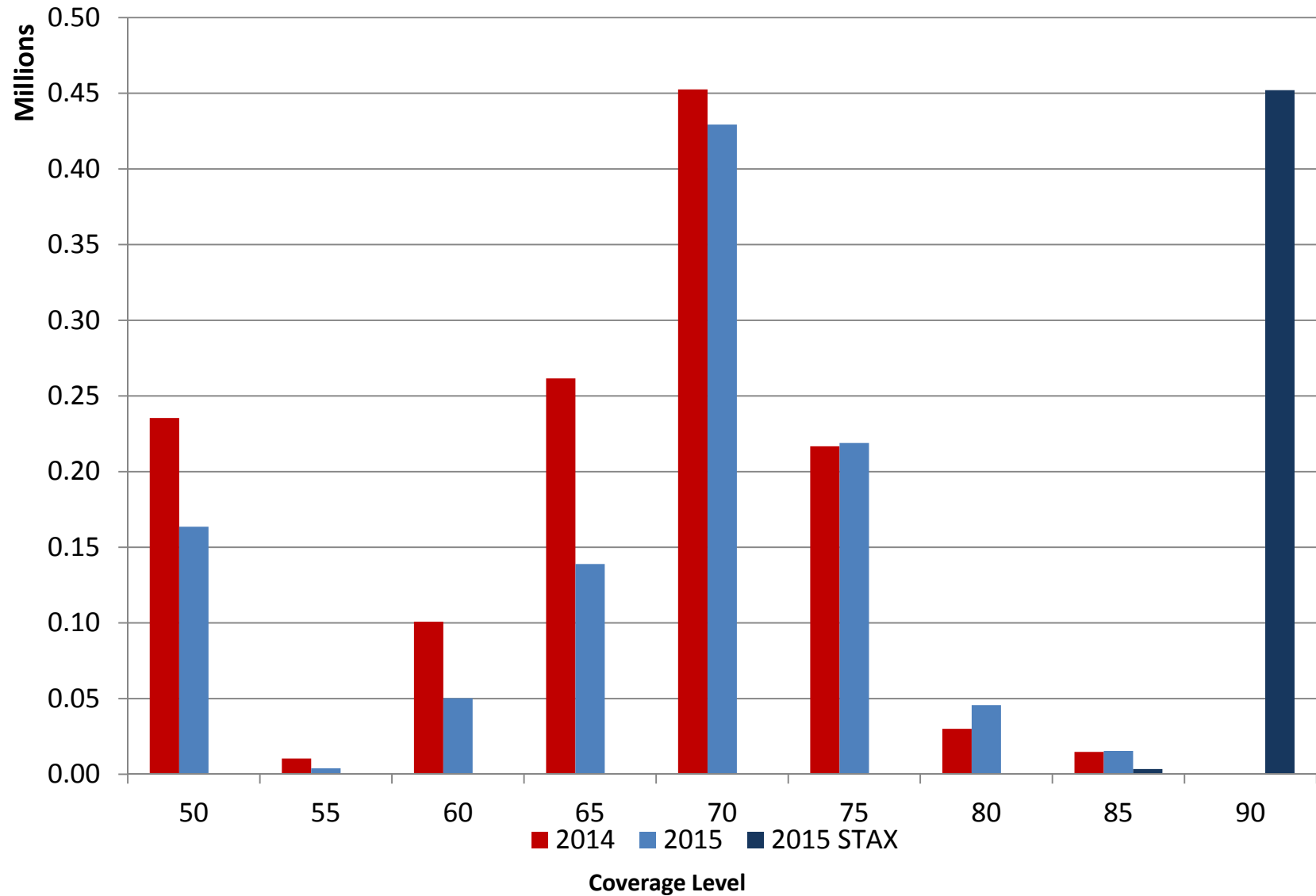
2014 vs. 2015 Montana Wheat Acres - MPCl



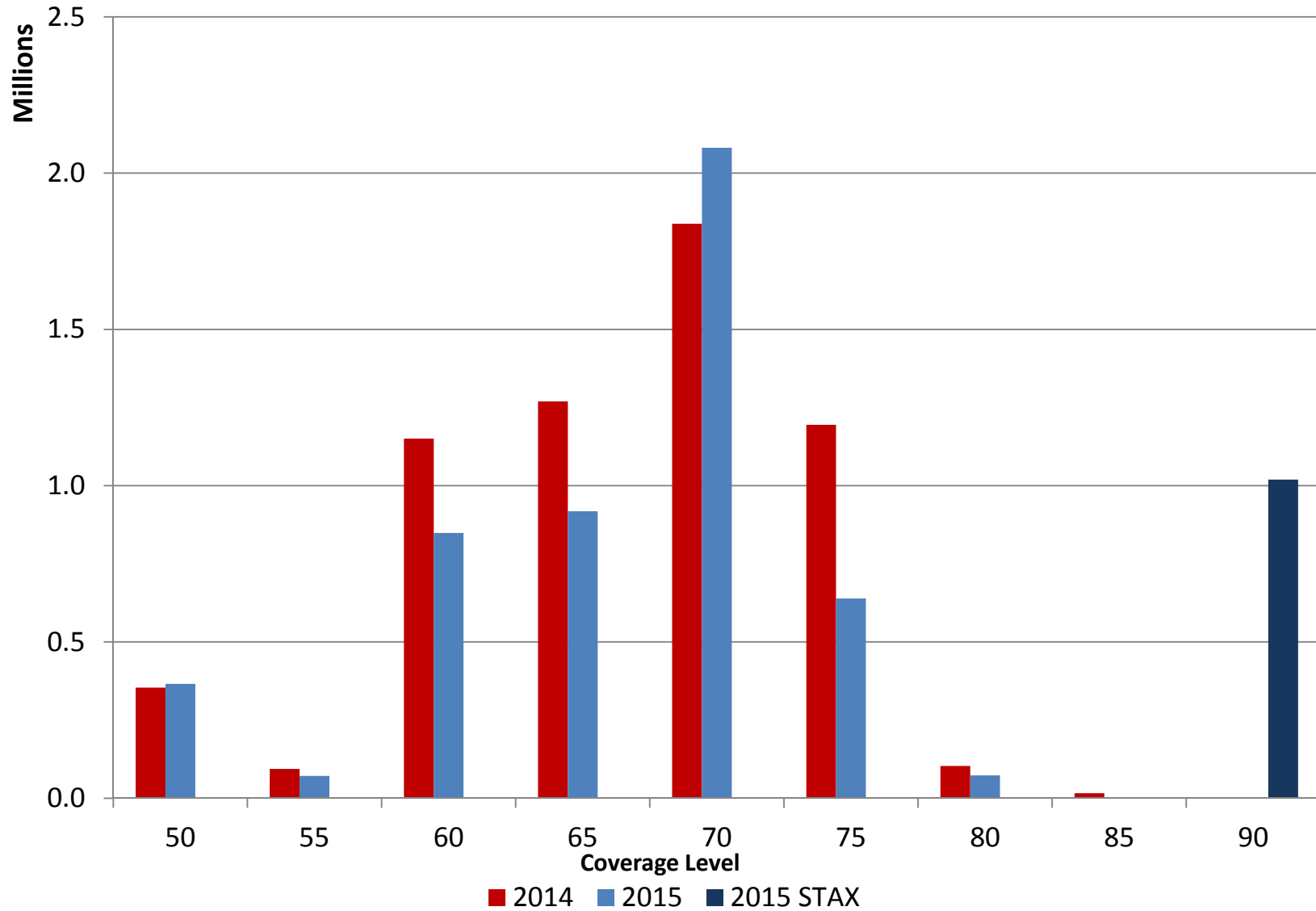
2014 vs. 2015 Arkansas Rice Acres - MPCl



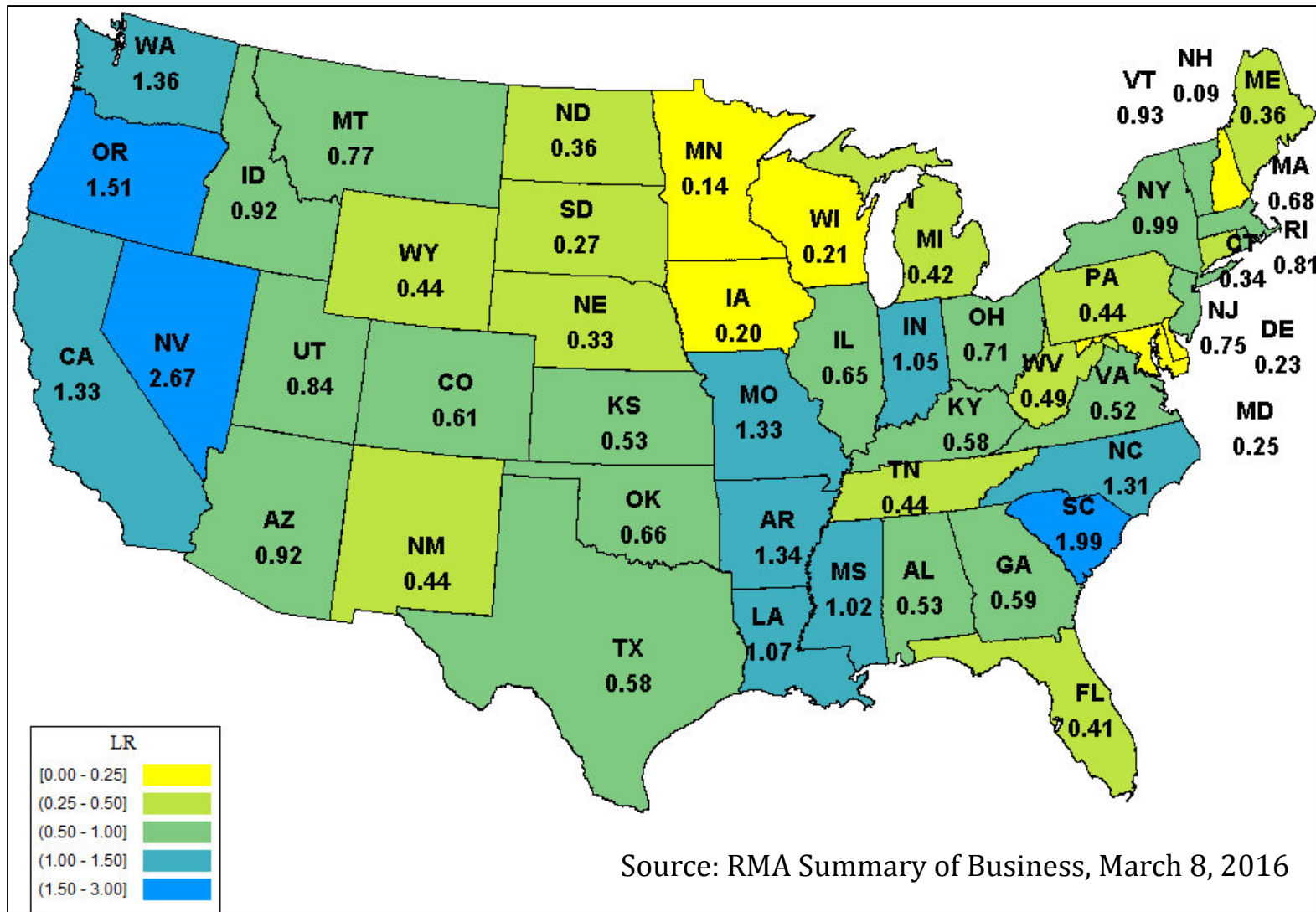
2014 vs. 2015 Georgia Cotton Acres - MPCCI



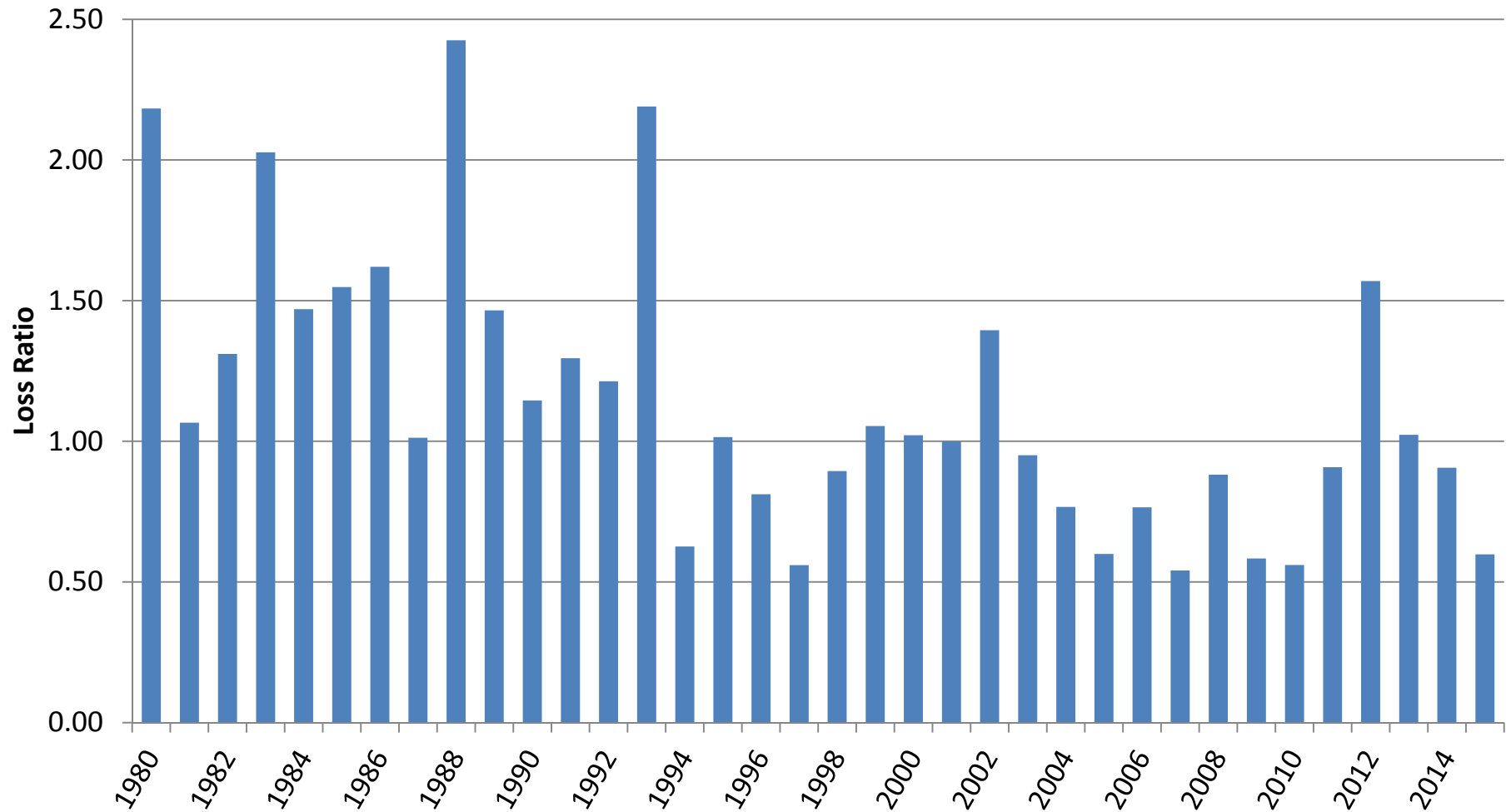
2014 vs. 2015 Texas Cotton Acres - MPCCI



2015 MPCJ Loss Ratios



MPCI Gross Loss Ratios 1980 - 2015



Loss Ratio = Indemnity/Premium

2016 Premium Decomposition

	Multiple Peril Crop	Crop-Hail
2015 Premium	\$9.698 Billion	\$0.976 Billion
Rate Change	+5.4%	
Price Change	-6.3%	-6.3%
Volatility Impact	-2.7%	
Overall 2016 Change	-3.9%	
2016 Premium (estimate)	\$9.320 Billion	\$0.915 Billion

Source: NCIS internal estimate, March 9, 2016

2014 Farm Bill Implementation Update (Abbreviated)

- Conservation Compliance
- Beginning Farmer/Rancher
- Organics
- Whole Farm Revenue Program (WFRP)
- APH – Yield Exclusion (APH-YE)
- Supplemental Coverage Option (SCO)
- Stacked Income Protection (STAX)

Conservation Compliance

- 98.2% of farmers have filed compliance paperwork (AD-1026)
- Extensive outreach
- Exceptions are:
 - New to farming
 - New to compliance
 - New entity
 - Extenuating circumstances

Source: RMA Presentation by Brandon Willis, Crop Insurance Annual Convention, February 15, 2016

Beginning Farmer/Rancher Analysis

Reinsurance Year 2015 – All States

Count of Total RMA Producers	555,988
Count of Primary Producers with BFR	13,713
BFR Additional Premium Subsidy	\$12,872,808
Administrative Fees Waived	\$1,667,550
Count of BFR Producers Using Yields From a Previous Operator	1,219
Count of BFR Producers with Yield Adjustment	4,943
BFR Net Acres	3,804,947

Source: RMA Presentation by Brandon Willis, Crop Insurance Annual Convention, February 15, 2016

Organic Price Elections Over the Years

From 4 to 56 Crops

- 2011** **Corn; Cotton; Soybeans; Processing Tomatoes (CA)**
- 2012** **Corn; Cotton; Soybeans; Processing Tomatoes (CA)**
- 2013** **ADDED: Avocados (CA); Fresh Freestone Peaches (CA); Fresh Nectarines (CA); Fresh Plums (CA)**
- 2014** **ADDED: Almonds (CA); Blueberries (CA, OR, WA); Peppermint; Juice Grapes (WA); Oats; Fresh and Processing Apples (WA)
Pears (WA, OR); *Stonefruit* - Fresh Apricots (CA, ID, OR, WA); Fresh Nectarines; Plums; Freestone Peaches (ID, OR, WA)**
- 2015** **ADDED: Millet; Figs; Walnuts; Flax; Popcorn; Corn Silage; Grain Sorghum; Raisins; Hybrid Sorghum Seed; Hybrid Corn Seed, Silage Sorghum.**
- 2016** **ADDED: Barley, Burley Tobacco, Cabbage, Cigar Binder Tobacco, Cranberries, Cultivated Wild Rice, Dry Air Tobacco, Dry Peas (select states), Flue Cured Tobacco, Forage Production (with the inclusion of Alfalfa in select states), Fresh Market Sweet Corn, Hybrid Sweet Corn Seed, Maryland Tobacco, Onions (fresh Onions in select states), Pinto Beans, Potatoes, Processing Clingstone Peaches, Rice, Rye, Safflower, Sugarcane, Sunflower, Table Grapes, and Wheat. The availability of organic price elections has been expanded for: Avocadoes in Florida, Blueberries in all remaining states, and Pears in California**
- 2017** **ADDED so far: Citrus (AZ, CA, FL): Grapefruit; Lemons; Mandarins; Oranges; Tangelos**

Source: RMA Presentation by Brandon Willis, Crop Insurance Annual Convention, February 15, 2016

2015 Top Ten Organic Crops by Liability

Organic Crop	Acres Insured	Liability
Corn	178,608	\$125,967,968
Apples	12,895	\$88,078,837
Soybeans	91,235	\$37,773,463
Wheat	255,731	\$36,917,391
Grapes	11,564	\$32,491,143
Almonds	6,181	\$31,442,273
Rice	41,560	\$26,703,206
Tobacco	6,374	\$25,504,386
Tomatoes	8,455	\$24,559,440
Blueberries	2,765	\$22,225,320
Totals	615,368	\$451,663,427

Source: RMA Presentation by Brandon Willis, Crop Insurance Annual Convention, February 15, 2016

Whole Farm Revenue Protection

Changes for 2016 – Nationwide

- Contemporaneous marketing records-acceptable for direct market crops
- Animal & animal product Limit \$1 million (remove 35% limit)
- Greenhouse/nursery limit \$1 million (remove 35 % limit)
- Allow increase up to 35% of expected revenue for expanding operations
- Farms qualifying for indexing may choose to use it or not
- Beginning farmers/ranchers may qualify with three historic years and a lag year
- Farmer's missing a year in history may use lag year to meet requirements

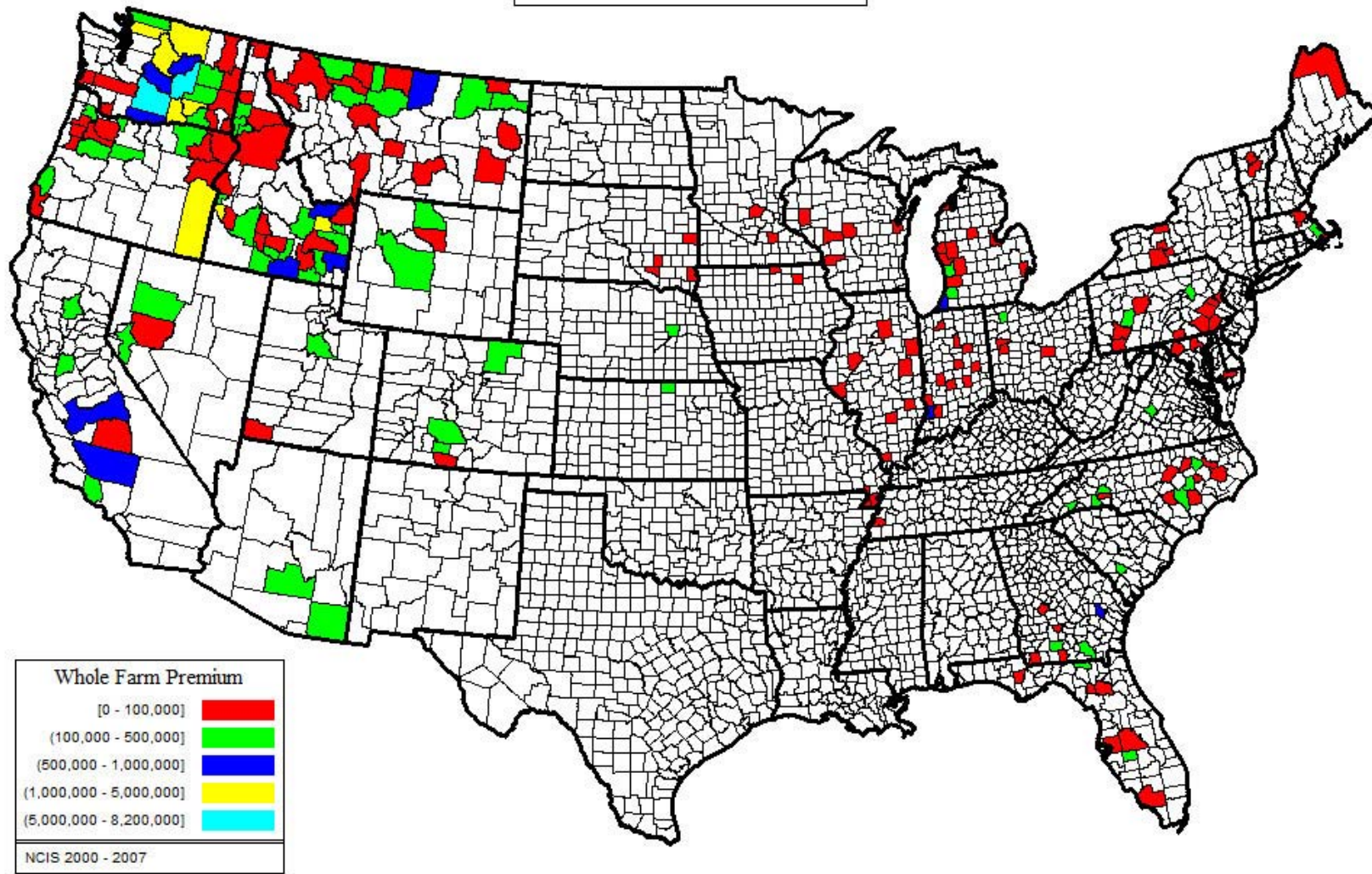
Source: RMA Presentation by Brandon Willis, Crop Insurance Annual Convention, February 15, 2016

2015 WFRP Compared to 2014 AGR/AGR-Lite

	2015 WFRP	2014 AGR/AGR-Lite	Change
Policies	1089	791	37.7%
Liability	\$ 1,108,506,534	\$ 521,256,768	112.7%
Premium	\$ 52,197,398	\$ 19,484,157	167.9%
Producer Premium	\$ 14,905,341	\$ 8,902,007	67.4%
Subsidy	\$ 37,292,057	\$ 10,582,150	252.4%
States	33	25	32.0%
Counties	208	134	55.2%
Crops	212	198	7.1%

Source: RMA Presentation by Brandon Willis, Crop Insurance Annual Convention, February 15, 2016

2015 Whole Farm Premium



APH Yield Exclusion (YE) – 2015 Participation

Crop	All Insured Acres*	Percent of All Insured Acres		Avg. YE Impact on Approved Yield
		YE Eligible	YE Selected	
Barley	2,607,795	79%	4%	8%
Canola	1,714,369	37%	1%	8%
Corn	76,353,243	66%	17%	7%
Cotton	8,484,086	90%	23%	22%
Grain Sorghum	6,768,885	100%	17%	12%
Peanuts	1,493,065	52%	2%	7%
Popcorn	189,298	49%	4%	7%
Rice	2,628,872	3%	0%	3%
Soybeans	73,002,384	52%	5%	7%
Sunflowers	1,685,942	99%	9%	8%
Wheat	46,585,151	16%	2%	7%

*Acres Insured Under Insurance Plans Eligible for YE

Source: RMA Presentation by Brandon Willis, Crop Insurance Annual Convention, February 15, 2016

Actual Production History – Yield Exclusion (APH-YE)

Reinsurance Year 2016 Availability

- Alfalfa Seed
- Apples
- Barley*
- Blueberries
- Buckwheat
- Burley Tobacco
- Cabbage
- Canola*
- Cigar Binder Tobacco
- Corn*
- Cotton*
- Cotton ELS
- Cultivated Wild Rice
- Dark Air Tobacco
- Dry Beans
- Dry Peas
- Flax
- Flue Cured Tobacco
- Forage Production
- Grain Sorghum*
- Grapefruit
- Grapes
- Green Peas
- Lemons
- Mandarins/Tangerines
- Maryland Tobacco
- Millet
- Mustard
- Oats
- Onions
- Oranges
- Peaches
- Peanuts*
- Popcorn*
- Potatoes
- Processing Beans
- Prunes
- Pumpkins
- Rice*
- Rye
- Safflower
- Silage Sorghum
- Soybeans*
- Sugar Beets
- Sunflowers*
- Sweet Corn
- Tangelos
- Tomatoes
- Walnuts
- Wheat*

*APH-YE available in RY 2015

Source: RMA Presentation by Brandon Willis, Crop Insurance Annual Convention, February 15, 2016

SCO and STAX

2015 State Premiums

Plan & Crop	From \$1 to \$100,000	From \$100,001 to \$1,000,000	From \$1,000,001 to \$5,000,000	More than \$5,000,000
SCO Wheat	AR, CA, IN, MN, MO, MS, NC, NY, OH, OR, PA, SC, TN, VA, WA, WI, WY	CO, ID, IL, KY, MI, MT, ND, NE, NM, SD	KS	OK, TX
SCO Corn	AL, CO, DE, GA, LA, MN, MS, NC, ND, NY, OH, PA, SC, SD, TN, WI, WV, WY	AR, CA, IA, IL, IN, KS, KY, MD, MI, MO, NE, OK, VA	TX	
SCO Soybeans	AL, DE, GA, IA, IN, MD, MI, MN, MS, NE, OH, PA, SC, SD, TN	AR, IL, KS, KY, LA, MO, NC, OK, TX, VA, WI		
SCO Grain Sorghum	AR, IL, LA, MO, NE, NM	CO, KS, OK, TX		
SCO Rice	CA, MO, MS, TX	AR, LA		
SCO Barley	ID, MN, WY	MT, ND		
STAX	CA, KS	MO, NM	AZ, AR, FL, LA, OK, SC, TX, VA	AL, GA, MS, NC, TX

Source: RMA Summary of Business, March 8, 2016

Improper Payments Background

- **Improper payments as defined by the Office of Management & Budget**
- Improper payments occur when either:
 - federal funds go to the wrong recipient,
 - the recipient receives the incorrect amount of funds,
 - documentation is not available to support a payment

Source: RMA Presentation by Heather Manzano, Claims Manager Convention, January 20, 2016

IMPROPER PAYMENTS

	2012	2013	2014	2015
RMA	4.08%	5.23%	5.58%	2.20%
USDA	5.11%	5.36%	5.52%	
Government -wide	4.35%	3.53%	4.02%	

Source: RMA Presentation by Brandon Willis, Crop Insurance Annual Convention, February 15, 2016

FY 2015 Improper Payment Errors

Types of Errors	% of Occurrences	Reasons for Improper Payment
Acreage Reporting	23%	Over and under reporting acreage, combining or separating units, and entering incorrect descriptions
Production Records	19%	Over and under reporting of production
Production Records - Acceptability	11%	Providing inadequate, unacceptable, and/or unverifiable production records (i.e., not reflecting unit or farm identifiers)
Unit Structure	11%	Insuring units separately that that should have been combined
Land Classification	8%	Incorrectly rating land (i.e., "AAA" vs. "High Risk")
Yield Reporting Match	8%	Incorrectly entering data and using an incorrect amount for Approved Production History
Share	4%	Incorrectly reporting share for each unit
Practice/Type/Variety match	4%	Misreporting units as irrigated
Contract Selection	4%	Improperly processing the correct coverage level
Revised Acreage Report	4%	Revising an acreage report after the due date
Production to Count	4%	Excluding some of the harvest production from the loss adjustment
Total	100%	

Source: RMA Presentation by Brandon Willis, Crop Insurance Annual Convention, February 15, 2016

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ACRSI Overview

ACRSI Intent

- Acreage Crop Reporting Streamlining Initiative (ACRSI) officially started in July 2010
- By streamlining and automating reporting, ACRSI will reduce the burden on the producer to participate in USDA programs while simultaneously improving program integrity and data sharing across USDA agencies and programs
- Ultimately, ACRSI will allow automated reporting from the producer's precision farming equipment or farm management system

ACRSI Acreage Reporting Flow Scenario: Producer Reports via Agent/AIP

Producer Perspective

- To receive Federal crop insurance coverage, **Alvin, a producer**, reports his acreage to his AIP through his insurance agent no later than the acreage reporting date(s) for his crops. Alvin initiates the process each year by contacting his insurance agent to schedule an appointment, during which Alvin updates his required acreage report information and certifies the final report. During the appointment, Alvin's agent enters the updated information from Alvin into the AIP's acreage reporting system, which generates a file to be sent to the Risk Management Agency (RMA). Finally, Alvin is provided a copy of the signed acreage report.
- If Alvin wants to qualify for FSA farm programs as well, he should then visit his FSA county office to provide the remaining data that FSA will need.

ACRSI Acreage Reporting Flow Scenario: Producer Reports via Agent/AIP, cont'd

Insurance Agent Perspective

- **Theodore, the insurance agent**, works with Alvin during their appointment to review/complete the data required for a complete acreage report based on Alvin's information. Theodore will then enter the acreage information from the finalized report into the AIP acreage reporting system, which will generate the acreage report in RMA's system (PASS). Once Alvin has signed the acreage report form, Theodore will give Alvin a copy of the acreage report for his records.

ACRSI Acreage Reporting Flow Scenario: Producer Reports via Agent/AIP, cont'd

FSA County Office Perspective

- Because Alvin also wants to be eligible for FSA farm programs, he visits **Simon, a County Office technician**. By the time Simon meets with Alvin (the producer), the acreage report data from RMA has already been populated into the ACRSI Clearinghouse, to which Simon then submits Alvin's FSA-specific information via the Crop Acreage Reporting System (CARS) for a complete, multi-agency acreage report.

ACRSI Acreage Reporting Flow Scenario: Producer Reports via Agent/AIP



Acreage Reporting: All Phases

- A common set of core acreage report data
 - Land location by CLU and/or using precision ag planter monitor geospatial data
 - Other 'standard' acreage reporting elements
[Commodity Validation Tables (CVT) crop, practice, type]
- Reported via 1 of 3 paths:
 - FSA County Office
 - Crop Insurance Agent
 - Third Party Software
- Data exchanged through RMA clearinghouse
- **Crop-insurance-specific details still via agent**
- **FSA-specific details still via county office**
- Wait:
 - (1) Crop Insurance is policy between company and farmer
 - (2) RMA and FSA programs are different

The WTO and Crop Insurance Issues and Challenges

A key question asked of every new farm proposal or program is:

- How it will affect U.S. commitments under the World Trade Organization's (WTO's) Agreement on Agriculture (AoA).
- Recently its agreement on Subsidies and Countervailing Measures (SCM).

Measuring Crop Insurance Support for the WTO Payments Were Never a Green Box Program*

1995 through 2007 Net Insurance Indemnities Were Reported

- Support = indemnities – total premiums paid by producers; notified on a non-product specific basis

Rationale – premium subsidy associated with any policy is equal across products; premium subsidy is not “specific” to any commodity; non-product

Non-Product Specific support never exceeded de minimis threshold

*“US Response to Question by India in Connection with Individual Notifications.” Committee on Agriculture, March 4. Available through the WTO Agricultural Information Management System, ID No. 76045. Geneva, 2015. A&O and Underwriting Gains are reported as Green Box expenditures in the General Services category.

Measuring Crop Insurance Support for the WTO Payments Were Never a Green Box Program* Cont'd

2008 - 2011

- Support = Premium Subsidy

Rationale – mandated long-run objective of loss ratio of 1.0 premiums will equal indemnities over time; and it is consistent with other country's policies*

2012 forward

- Support = Premium Subsidy on a Commodity Specific Basis

Rationale – more closely reflects characteristics of crop insurance policies

*"US Response to Question by India in Connection with Individual Notifications." Committee on Agriculture, March 4. Available through the WTO Agricultural Information Management System, ID No. 76045. Geneva, 2015. A&O and Underwriting Gains are reported as Green Box expenditures in the General Services category.

WTO Crop Insurance Issues Going Forward

Of more concern may be challenges to the program with regard to SCM rules

- SCM rules governing adverse market effects resulting from a farm program—comes into play when a domestic farm policy effect spills over into international markets.
- Of specific concern is the question: do domestic support policies incentivize overproduction and result in significant market distortion—whether as lower market prices or altered trade patterns.

WTO Crop Insurance Issues Going Forward

There Is Research That Supports the View of Minimal Effects

“The primary driver behind planting decisions is crop prices — which have increased dramatically since 2006 — not crop insurance policies that farmers purchase to manage risk. The 327 million acres planted in 2014 was about the same as the 328 million acres averaged over 1981 to 2014.” NCIS – Just the Facts

<http://www.ag-risk.org/AboutCropInsurance/default.htm>

“Insurance generally improves welfare for risk-averse producers (Just, Hueth, and Schmitz 2005), because in the presence of contingency markets like crop insurance, these producers will grow more. However, empirical evidence for US producers suggests that these effects are likely small. “

“Recent studies by Walters et al. (2012) and Claasen, Langpap, and Wu (2015) found negligible effects of crop insurance on land use, though the latter found more significant impacts on crop choice and crop rotation. “

Quotes from Glauber, IFPRI , October 2015

Summary: WTO and Crop Insurance Issues Going Forward

- Given current projections for prices and yields the threat of domestic support levels exceeding WTO bound limits seems low.
- Potential changes to how the U.S. notifies crop insurance (back to net indemnities; inclusion of general services in Amber, etc.) need to be monitored and examined in relation to WTO commitments.
- Concerns surrounding challenges to programs from SCM issues should be taken seriously
- Examination of the methodology and results from analysis in support of such challenges and independent analysis of production and world price impacts will be important in identifying and filling knowledge gaps on these subjects.

Summary

2015 Results Improved

“...Rock me on the water,....Sister soothe my fevered brow...”

Farm Bill “Assimilated”

“...Objects in the rearview mirror...”

2016

“Waiting for Godot”

2016 Farm Economics

“...I pulled into Nazareth...”

Appropriations

“...sat down and wrote you a long letter...”

Alice Cooper

“I wanna be elected...”

“‘cause it’s a long, long way to paradise...”



Websites

NCIS

www.ag-risk.org

Crop Insurance in America

www.cropinsuranceinamerica.org



Twitter

@USCropInsurance

Facebook

CropInsuranceInAmerica



Pinterest

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Tumblr

CropInsuranceInAmerica



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