

# Federal Crop Insurance Program



Prepared for Federal Accounting Standards Advisory Board

December 18, 2014

# Operating Structure

- Risk Management Agency (RMA) operates and manages the Federal Crop Insurance Corporation (FCIC)
- FCIC has no employees
- FCIC has a Board of Directors
  - USDA Chief Economist
  - Two Under Secretaries
  - Four Producers
  - Two Insurance Regulators

# Program Overview

## **FCIC (RMA)**

- Establishes policies, standards, and premium rates
- Subsidizes premium for growers
- Pay AIPs to market and service policies (A&O subsidy/Delivery Expense)
- Reinsurance to AIPs - AIPs and FCIC share in underwriting gains/losses

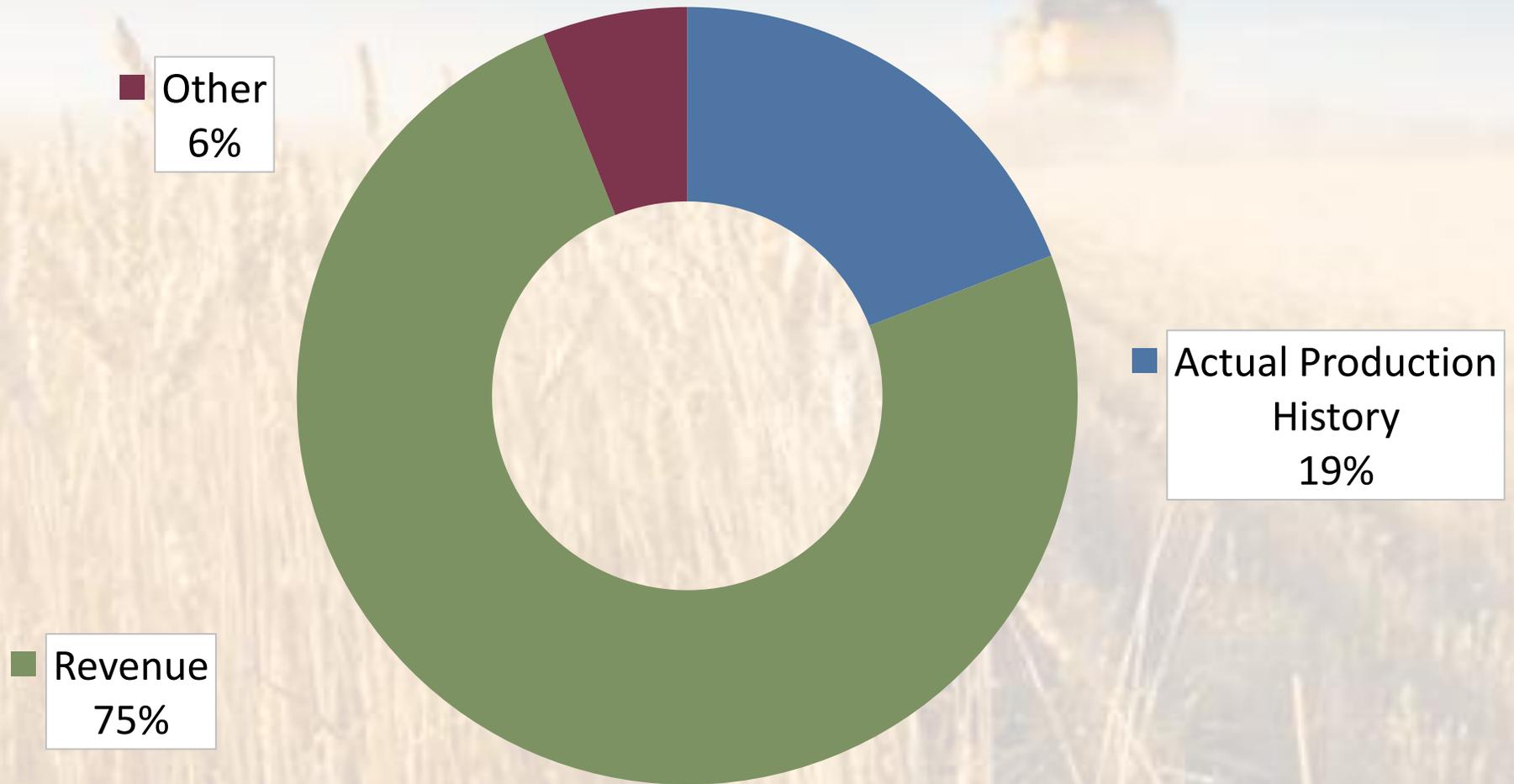
## **Approved Insurance Providers (AIPs)**

- Market and service policies
- Collect and guarantee producer premium payment to FCIC

# Crop Statistics

<b>Program Information Comparison</b>	<b>Crop Year 2014 (Estimated)</b>	<b>Crop Year 2013 (Actual)</b>
Policies	1.20 million	1.22 million
Farmer Paid Premium	\$3.88 billion	\$4.51 billion
Premium Subsidies	\$6.24 billion	\$7.30 billion
Total Premium	\$10.12 billion	\$11.81 billion
Indemnities	\$7.49 billion	\$12.06 billion
Loss Ratio	74%	102%
Insurance Protection	\$109.46 billion	\$123.77 billion

# Percentage of Insurance in Force by Type of Insurance Plan



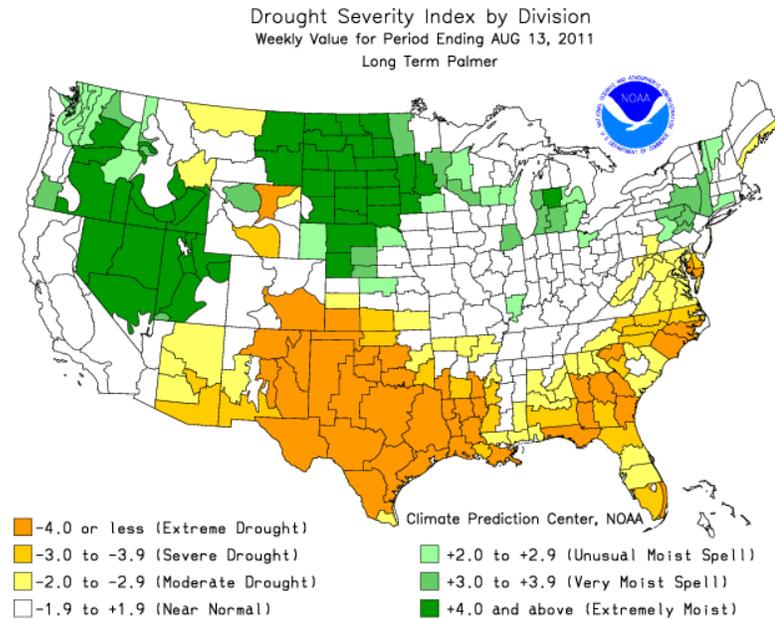
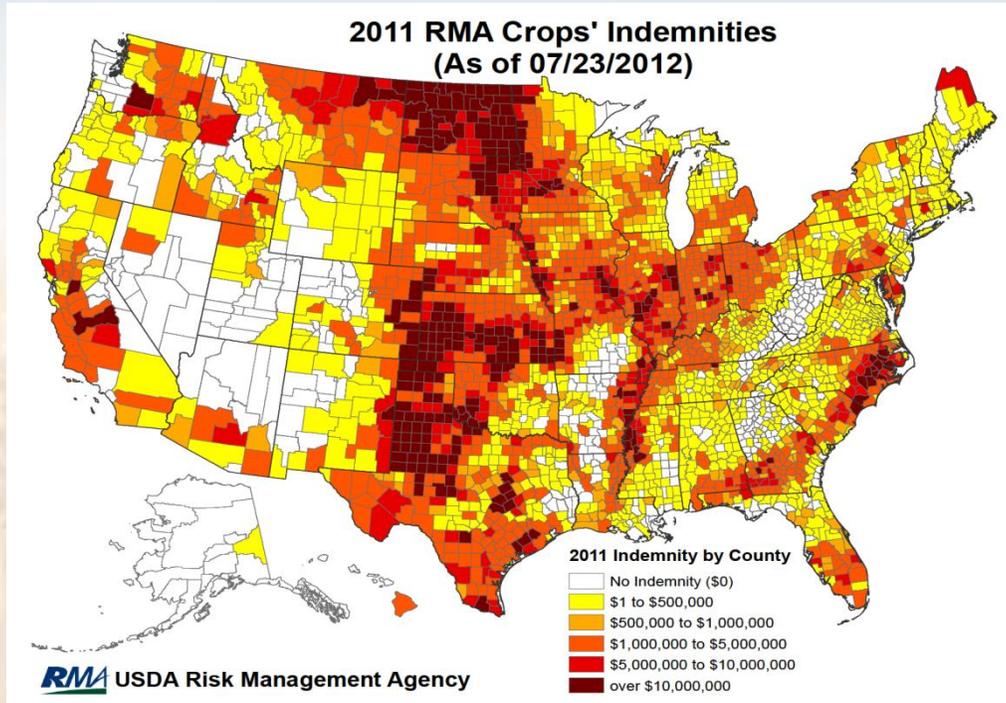
# Types of Insurance Plans

- Revenue Policies:
  - Policies to protect the producers against loss of revenue due to price fluctuations and yield loss due to natural causes.
- Actual Production History & Yield Protection Policies:
  - Policies insure producers against yield losses due to natural causes.
- Other Policies:
  - Policies based on county results rather than individual farms
  - Adjusted Gross Revenue
  - Fixed Dollar Amount of Insurance

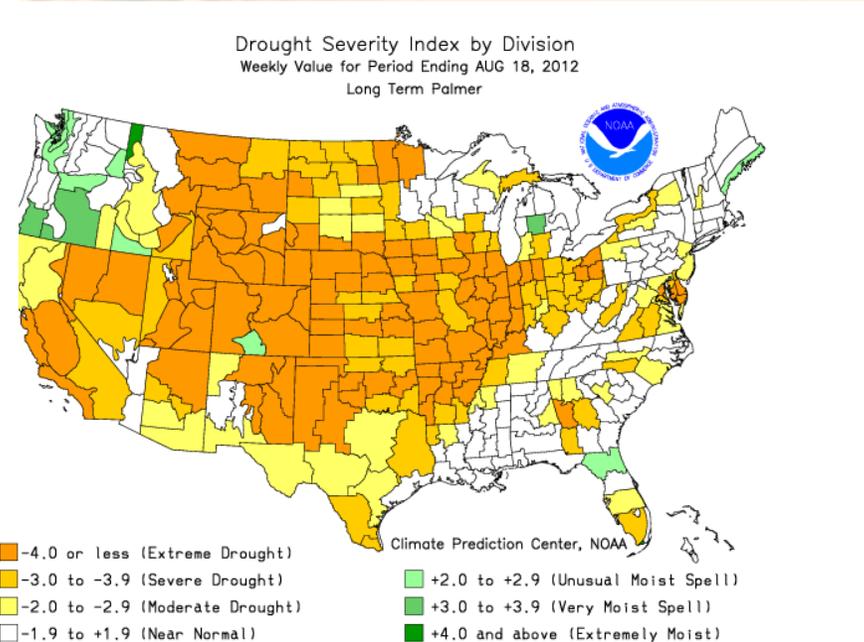
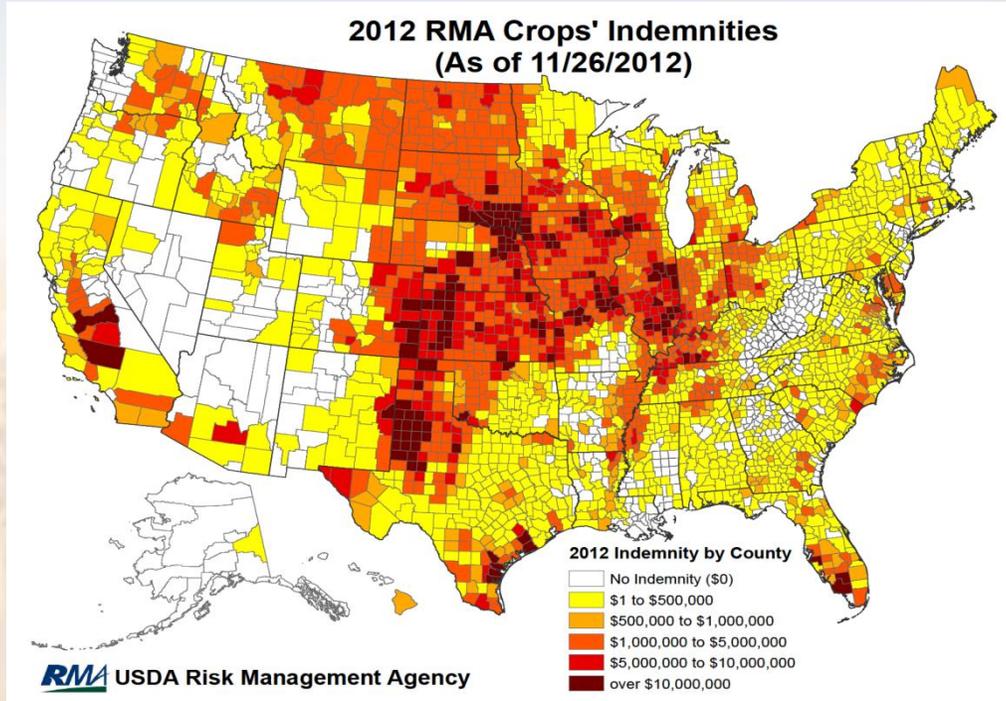
# Premium Rates

- Determined by RMA on behalf of FCIC
- Federal Crop Insurance Act:
  - “the amount of the premium shall be sufficient to cover anticipated losses and a reasonable reserve.”
  - “the Corporation shall periodically review the methodologies employed for rating plans of insurance”
  - “The Corporation shall take such actions. . . to achieve an overall projected loss ratio of not greater than 1.0.”

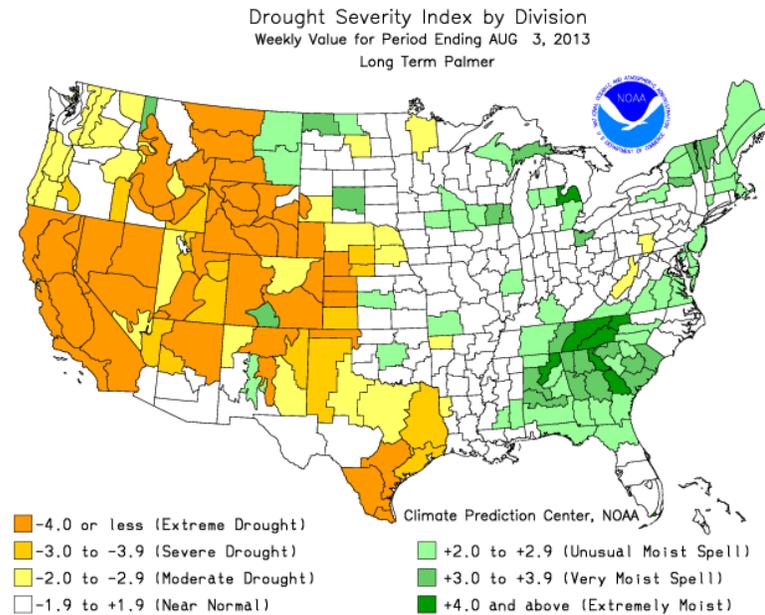
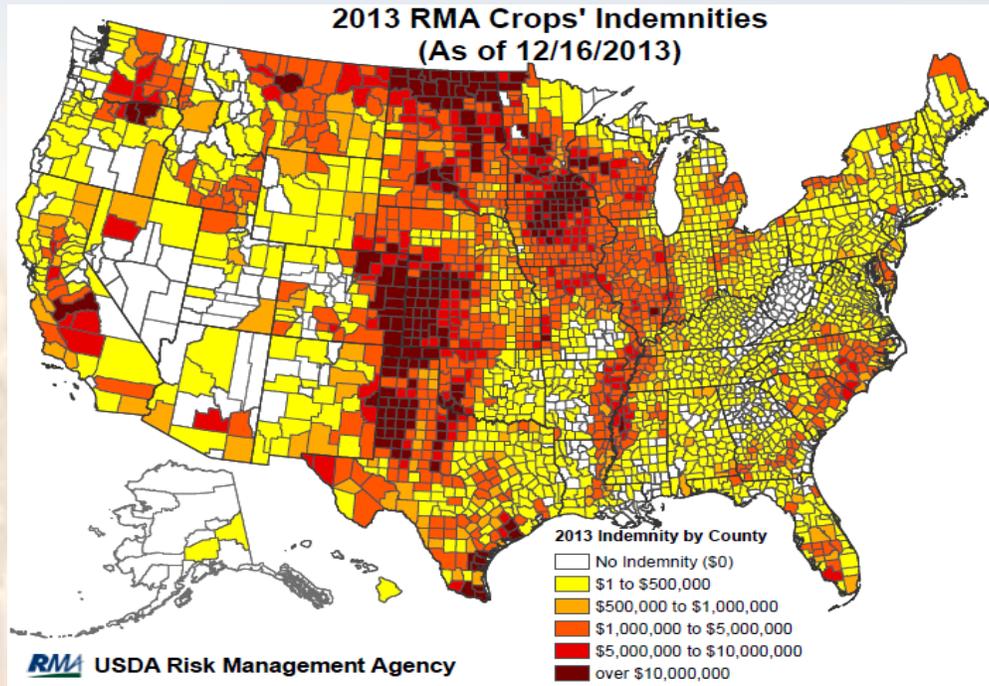
# 2011 Losses



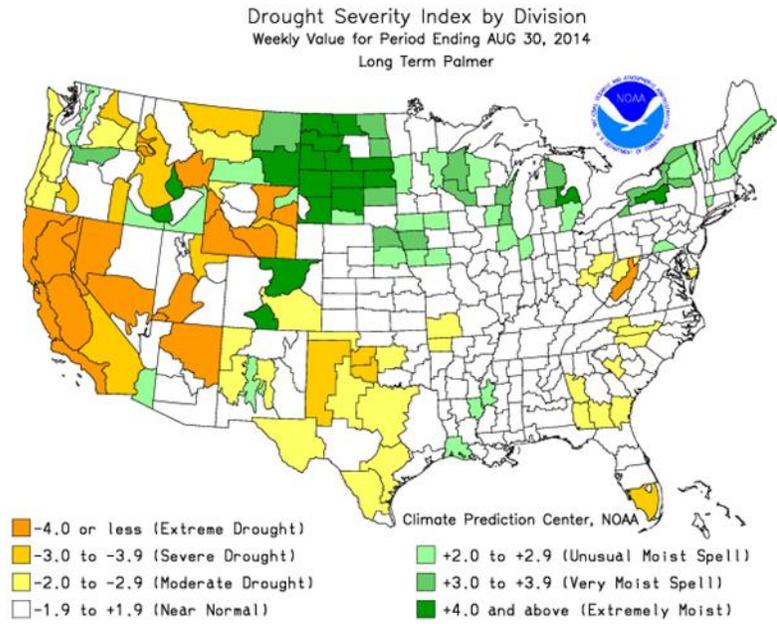
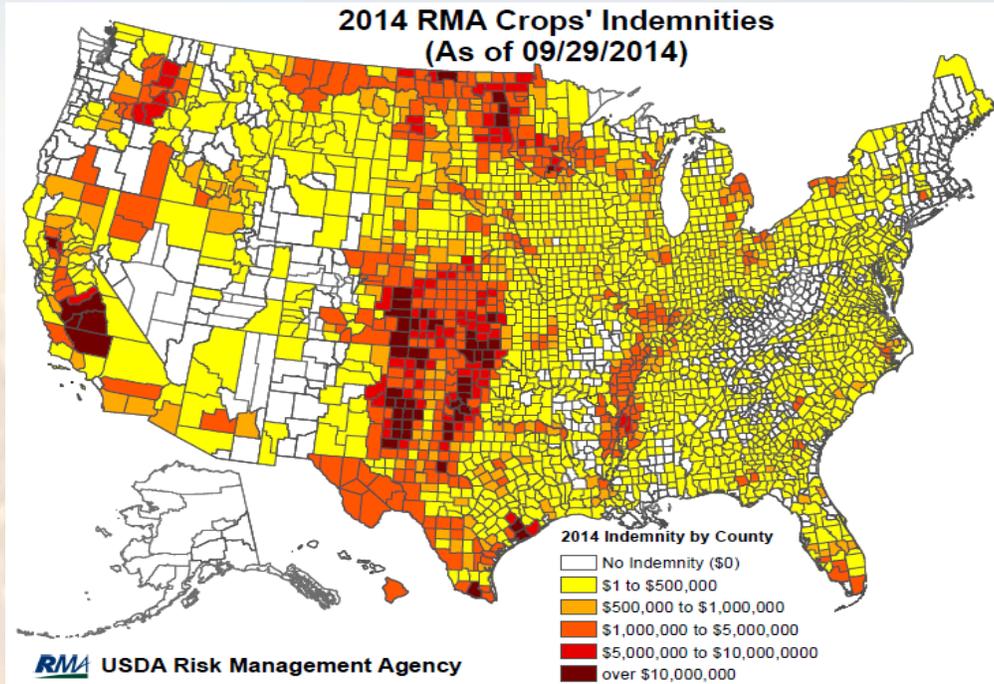
# 2012 Losses



# 2013 Losses

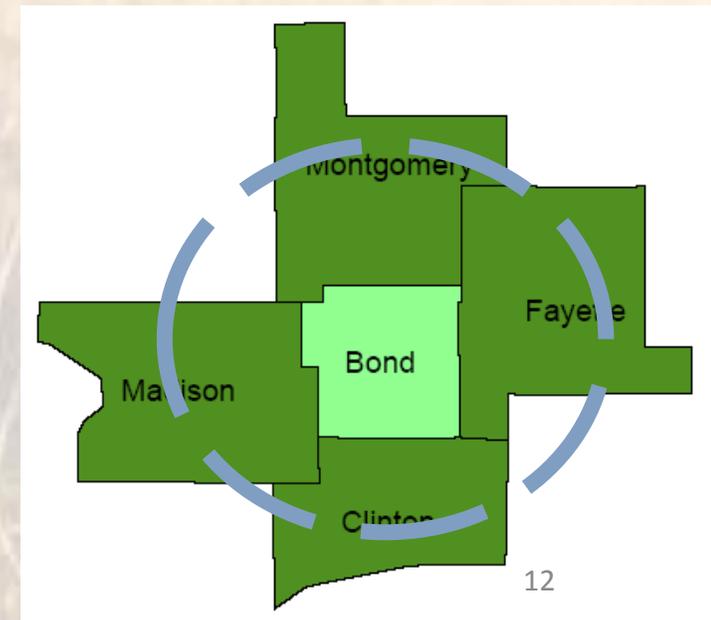
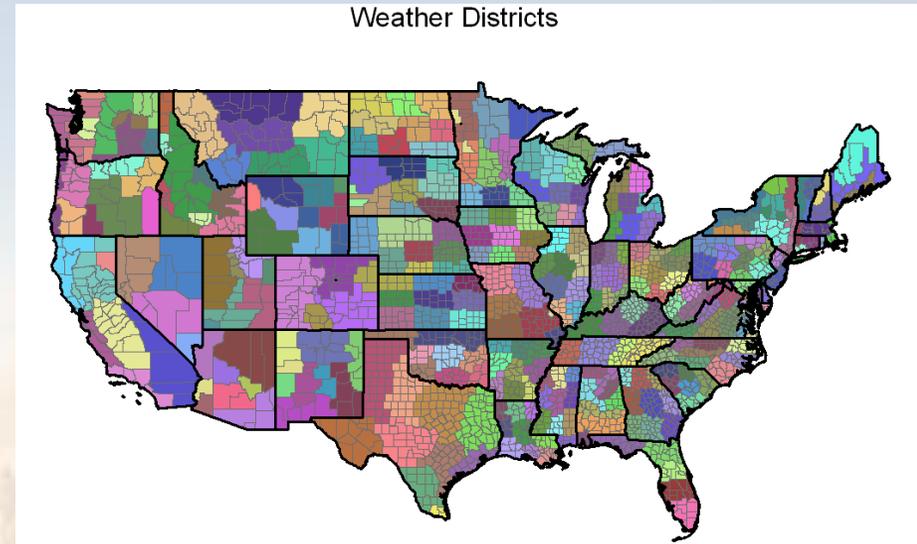


# 2014 Losses



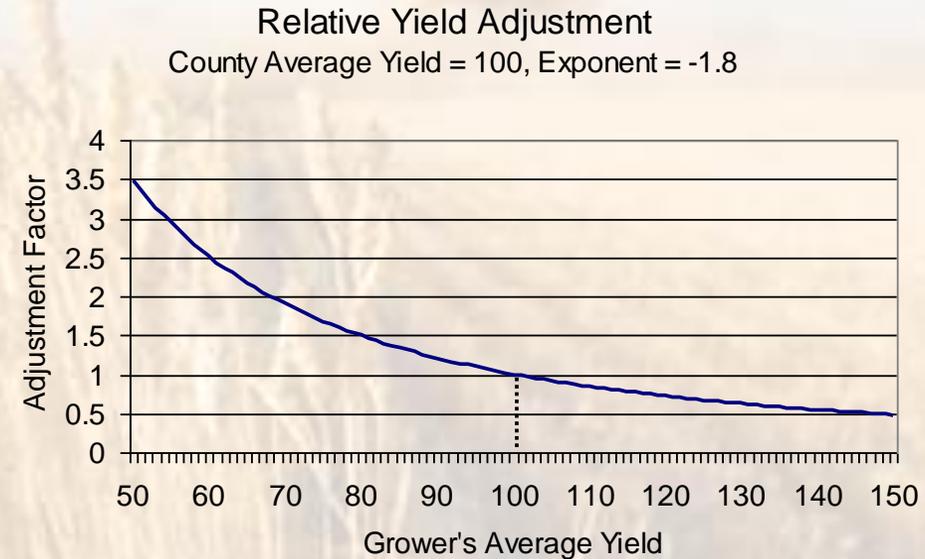
# Premium Rating

- Pure premium rate
  - No expense load
  - Expected indemnities
- Loss cost method – Average rate of loss
  - Loss/Liability
  - Rolling 20 years
- Other Adjustments:
  - Credibility smoothing with adjacent counties
  - Catastrophic loading
  - Weather weighting

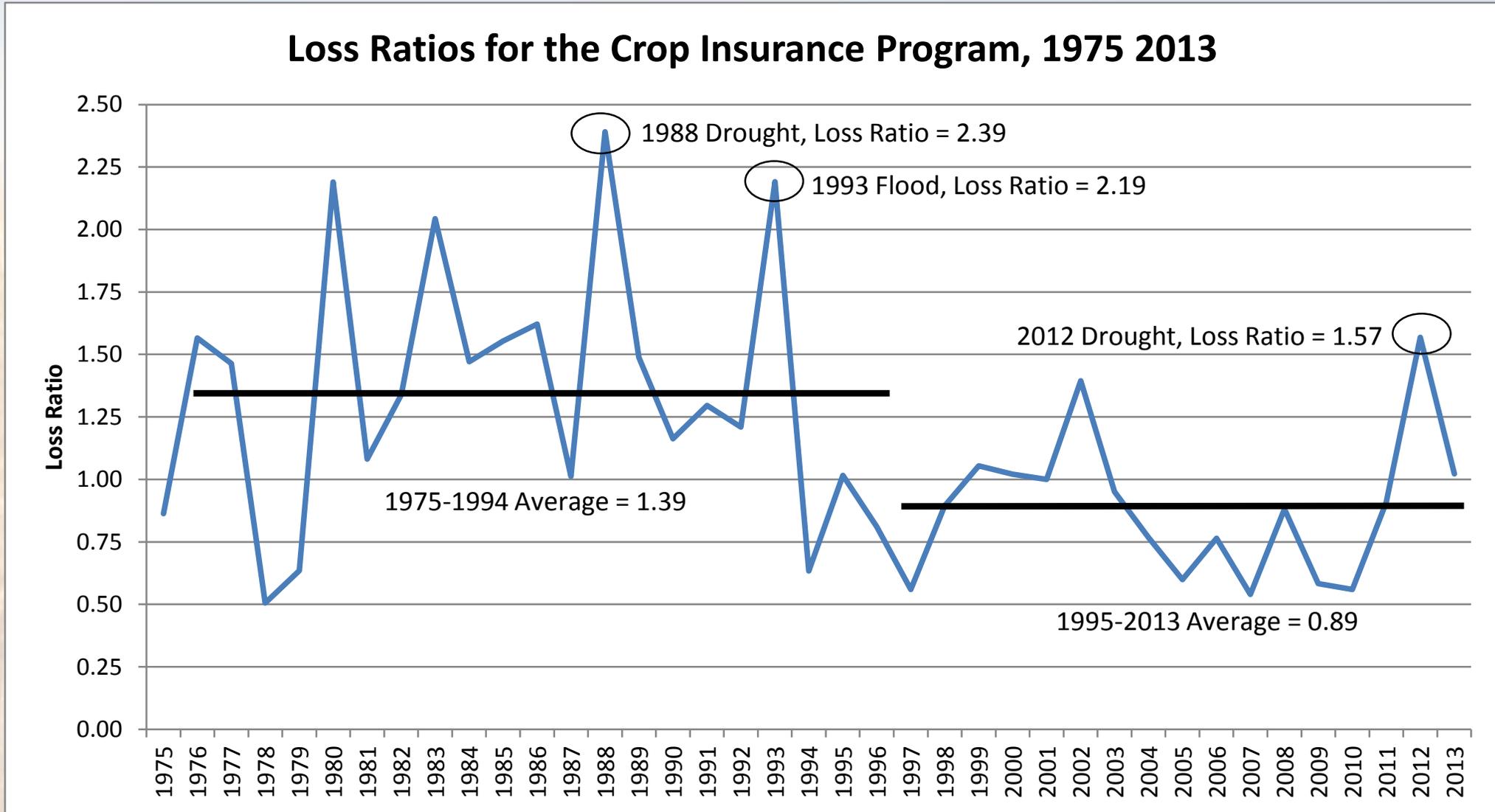


# Individual Rates

- Individualization of Rate
  - Coverage Level
  - Unit Choice
  - Yield Ratio
  - Revenue Coverage



# Loss Ratio History



# Premium Pricing

- *How are the pricing policies determined for premiums?*
- *Who sets the pricing policy for the premiums?*
  - Actuarial Branch identifies specific issues
    - Address internally/contract with external party
  - Periodic Rate review
    - Contract with external party
  - Annual premium rating strategy memo
    - Studies and implementation
    - Generated and approved within RMA

# Timing of Revenue Recognition

- *When does your program bill for premiums and recognize revenue/unearned revenue?*
  - Premium Revenue is recognized each month as acreage reports are submitted. The acreage report is the basis for determining the amount of insurance provided and the premium charged.
  - The acreage report shows:
    - crops planted
    - acreage prevented from planting
    - where crops are located
    - number of acres planted
    - dates planted

# Components of Revenue

- Premium Revenue is comprised of two pieces
  - Producer Paid Premium
  - Premium Subsidy
- Recognized at the time acreage report is accepted
- FCIC receives an appropriation for premium subsidy.
- An Appropriations Used entry is recorded to recognize the benefit of the premium subsidy

Unexpended Appropriations – Used (SGL 3107)  
Expended Appropriations (SGL 5700)

# Unearned Revenue/ Premium Deficiency Reserve

At fiscal year end, liabilities are established for a portion of revenue deferred into the next fiscal year to pay the losses incurred in the next year. The amount is based on the average number of days between planting date to billing and planting date to end of insurance period compared to the days after the end of fiscal year.

Growing Season

Insurance Period



Final  
Planting  
Date  
6/30/14

Billing  
Date  
8/30/14

Fiscal  
Year End  
9/30/14

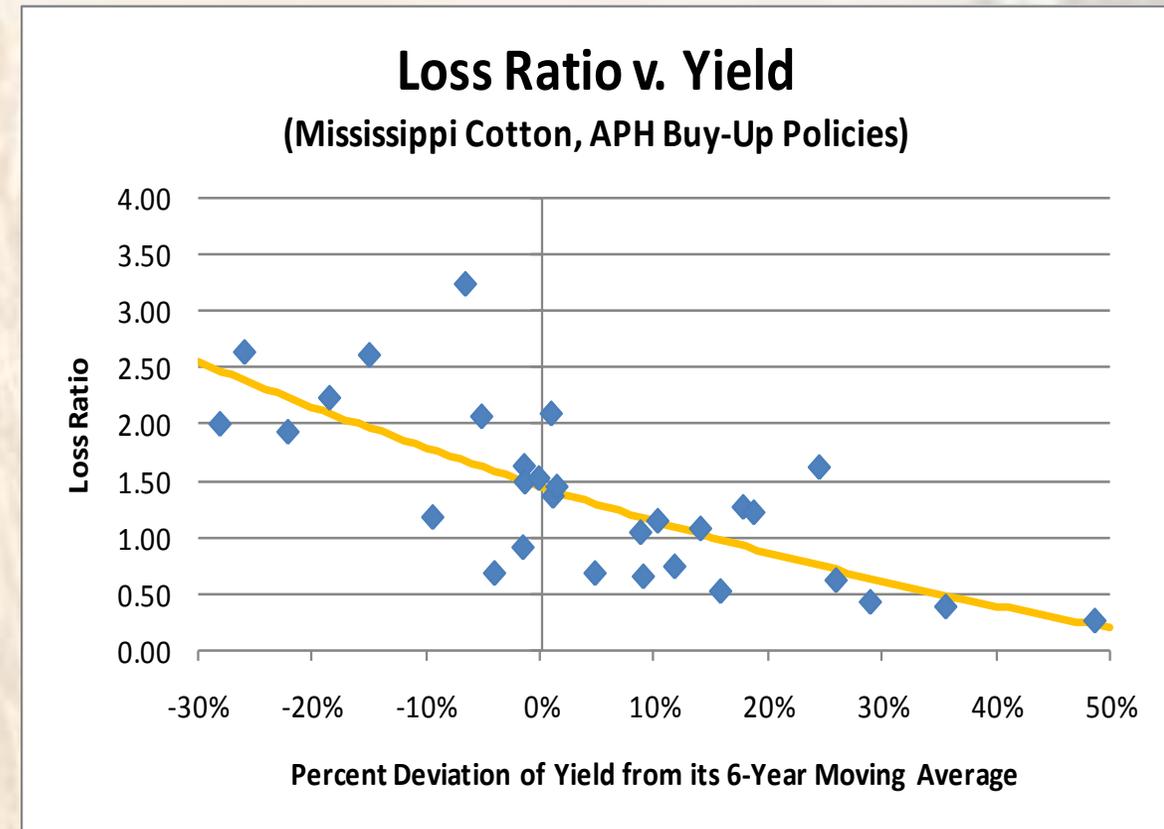
Average  
10/30/14

End of  
Insurance  
Period  
12/30/14

# Estimating Claims

- *Does your program estimate claims for the remaining open policy period following the end of the reporting period? If yes, how?*

- Limited data – major crops
- NASS yield projections
- Commodity Market Prices



# Challenges in Estimating Claims

- Growing season for 93% of premium extends past September 30
  - Final yield is not known as of September 30
- Damage is not a one-time event
  - Decline in yield occurs over time
  - Pinpointing loss date is difficult
  - Currently, RMA uses the same percentage of time as the earned revenue to determine incurred losses
- Fluctuation in market prices
- Over 75% of insurance policies are based on revenue
- Revenue products based on market prices as of October/November are not known at September 30

# Incurred But Not Reported Claims

- FCIC uses model to estimate Total Losses for all policies in force.
- Incurred Losses in current fiscal year = Total Losses - Unearned Premium and PDR
- IBNR = Incurred Losses less Recorded Losses

# Example of Accounting Impact

## Assumptions:

- 1 policy with total premium of \$100
- Producer Premium = \$40
- Premium Subsidy = \$60
- 75% of growing season from crop is in FY 14 and 25% in FY 15
- Expected Loss ratio at September 30 is 1.0
- Indemnity payment is \$100

# Scenario Example: FY 2014

Event	Accounting Transaction	Amount	Debit	Credit
Apportionment	Receive Appropriation for Premium Subsidy	\$60	Cash (1010)	Unexpended Appropriation - Received (3101)
Acreage Report	Producer Premium recognized	\$40	Accounts Receivable (1310)	Premium Revenue (5500)
Acreage Report	Premium Subsidy recognized	\$60	Unexpended Appropriations - Used (3107)	Expended Appropriations (5700)
Billing	Producer Premium Collected	\$40	Cash (1010)	Accounts Receivable (1310)
Year-End	Record Unearned Producer Premium	\$10	Premium Revenue (5500)	Deferred Revenue (2320)
Year-End	Record Premium Deficiency Reserve (PDR)	\$15	Future Funded Expense (6800)	Estimated Losses for Insurance (2660)
Year-End	Record Incurred But Not Reported (IBNR)	\$75	Future Funded Expense (6800)	Estimated Losses for Insurance (2660)

# Scenario Example: FY 2015

Event	Accounting Transaction	Amount	Debit	Credit
Reverse Year-end accruals		\$10	Deferred Revenue (2320)	Premium Revenue (5500)
Reverse Year-end accruals		\$15	Estimated Losses for Insurance (2660)	Future Funded Expense (6800)
Reverse Year-end accruals		\$75	Estimated Losses for Insurance (2660)	Future Funded Expense (6800)
Loss Adjustment	Pay Claims	\$100	Operating Expense (6100)	Cash (1010)

# Scenario Example: Financial Statement Impact

Balance Sheet Liabilities	FY 2014	FY 2015
Estimated Losses on Insurance Claims:		
IBNR	\$75	-
PDR	\$15	-
Total Estimates Losses	\$90	-
Unearned Revenue	\$10	-
Total Liabilities	\$100	-

Statement of Net Cost	FY 2014	FY 2015
Claims Incurred	\$75	\$25
PDR	\$15	(\$15)
Total Cost	\$90	\$10
Less Revenue	\$90	\$10
Net Cost	\$0	\$0

# FCIC Reports

*What reports (other than your financial statements) are available that provide information about premium pricing, unearned revenue, future estimated losses, and projections of future fiscal year results?*

- The premium prices and actuarial methodology is available on RMA's public website at: <http://www.rma.usda.gov/>
- Whitepaper on Loss Projection Methodology is available upon request.

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