

# Farmland Rents and Values

November 27, 2012

Farmland Leases: Tales, Types, and Trends

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# Agenda

- Rents and values – the Indiana perspective
- Expectations
- Risks and the future

# Rents – Where are We At?

- Agriculture's history includes periods of remarkable boom and bust
- Agriculture is capital intensive
  - Large increases in profitability make fixed assets priced in less profitable times look cheap
  - MAJOR capital restructuring underway
  - Rents high relative to value from a historical perspective

## Key Questions:

- Will these times last or will we retreat to previous levels?
- Are rents catching up? Will they catch up?

# Value-to-Cash Rent Multiple for IA, IL, IN Cropland, 1967-2012

IL IA IN

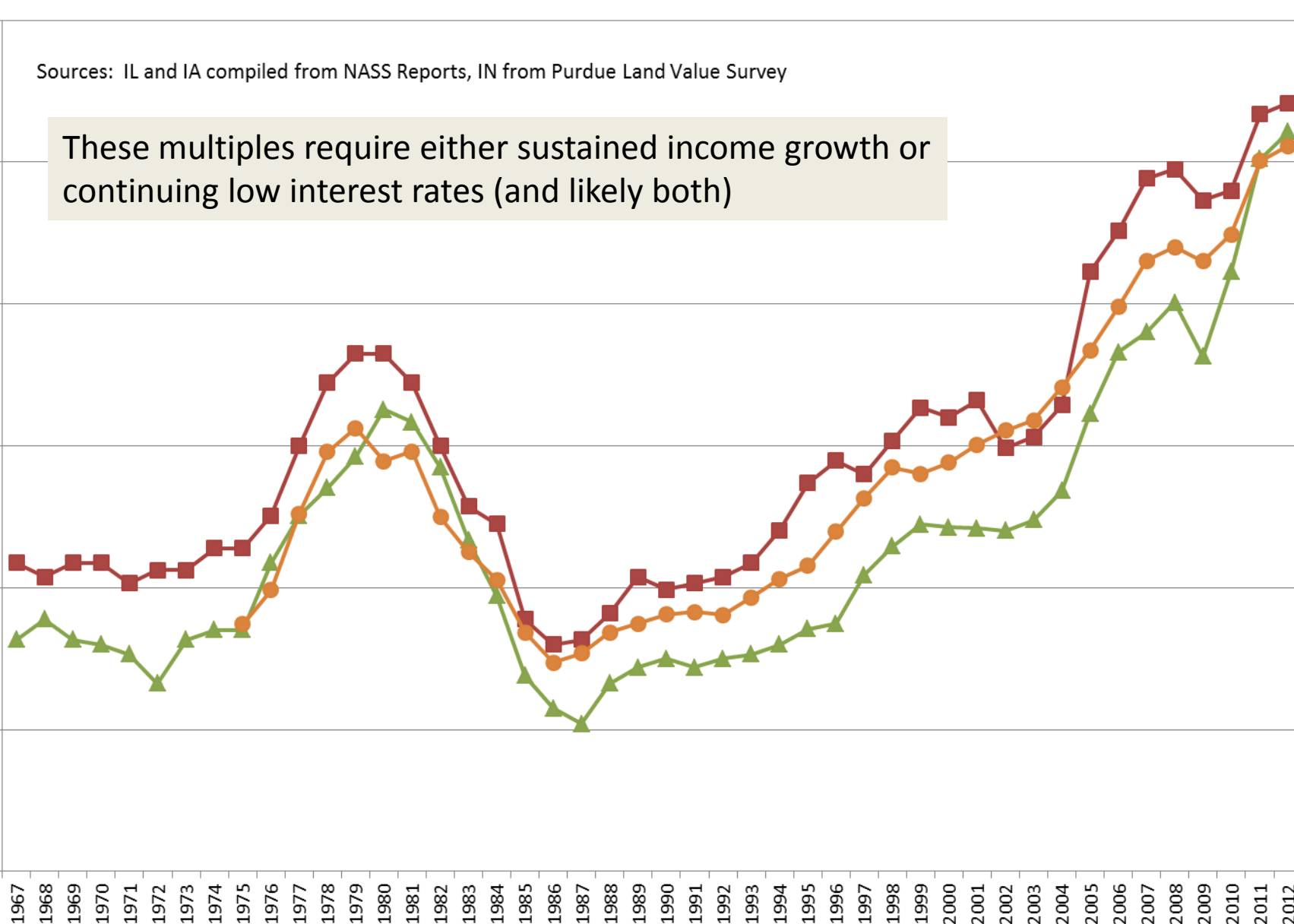
Sources: IL and IA compiled from NASS Reports, IN from Purdue Land Value Survey

These multiples require either sustained income growth or continuing low interest rates (and likely both)

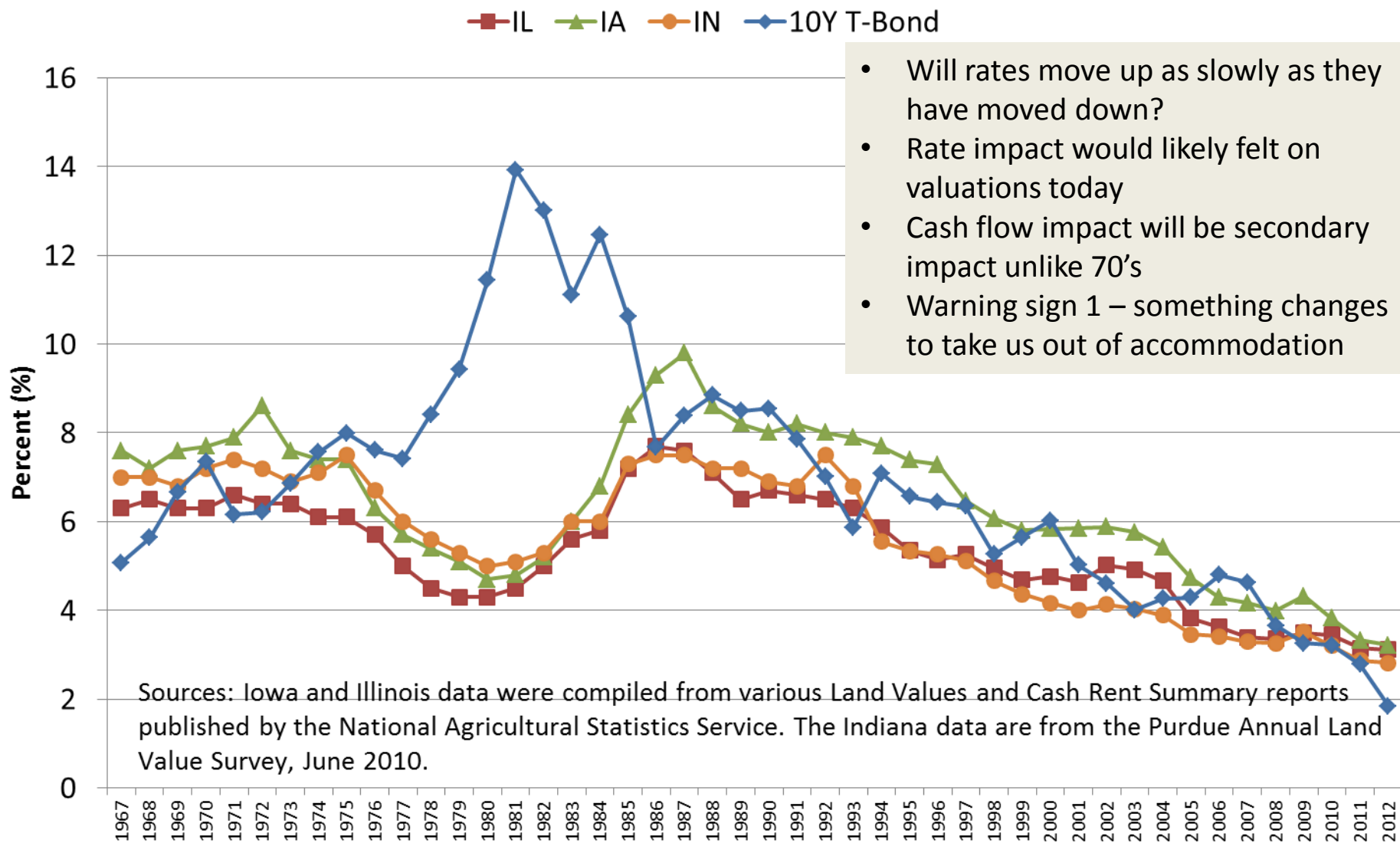
Value-to-Cash Rent Multiple

35  
30  
25  
20  
15  
10  
5

1967 1968 1969 1970 1971 1972 1973 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012

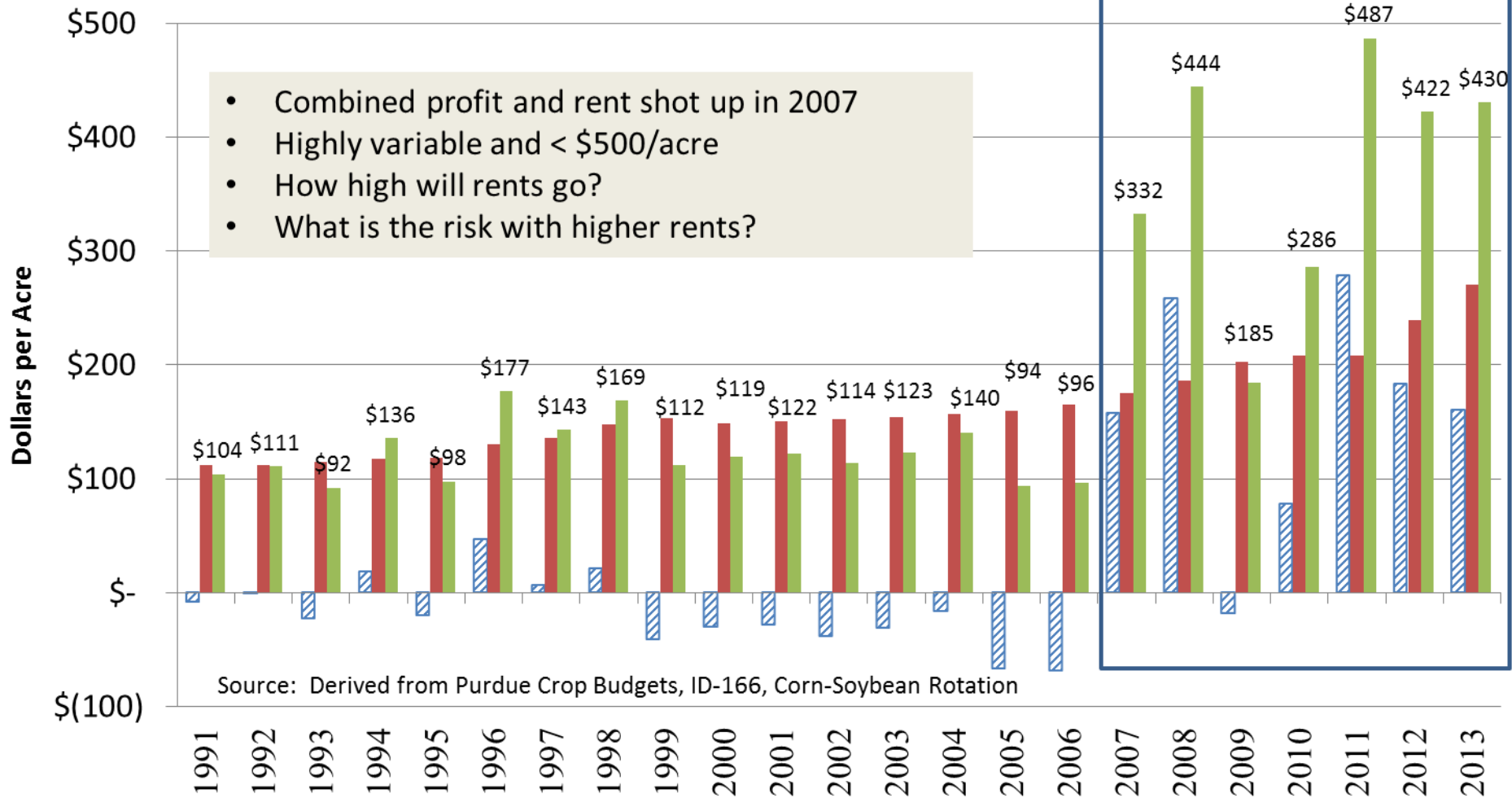


# Farmland Capitalization Rates and Interest Rates on 10 Year US Treasury Bonds, 1967-2012

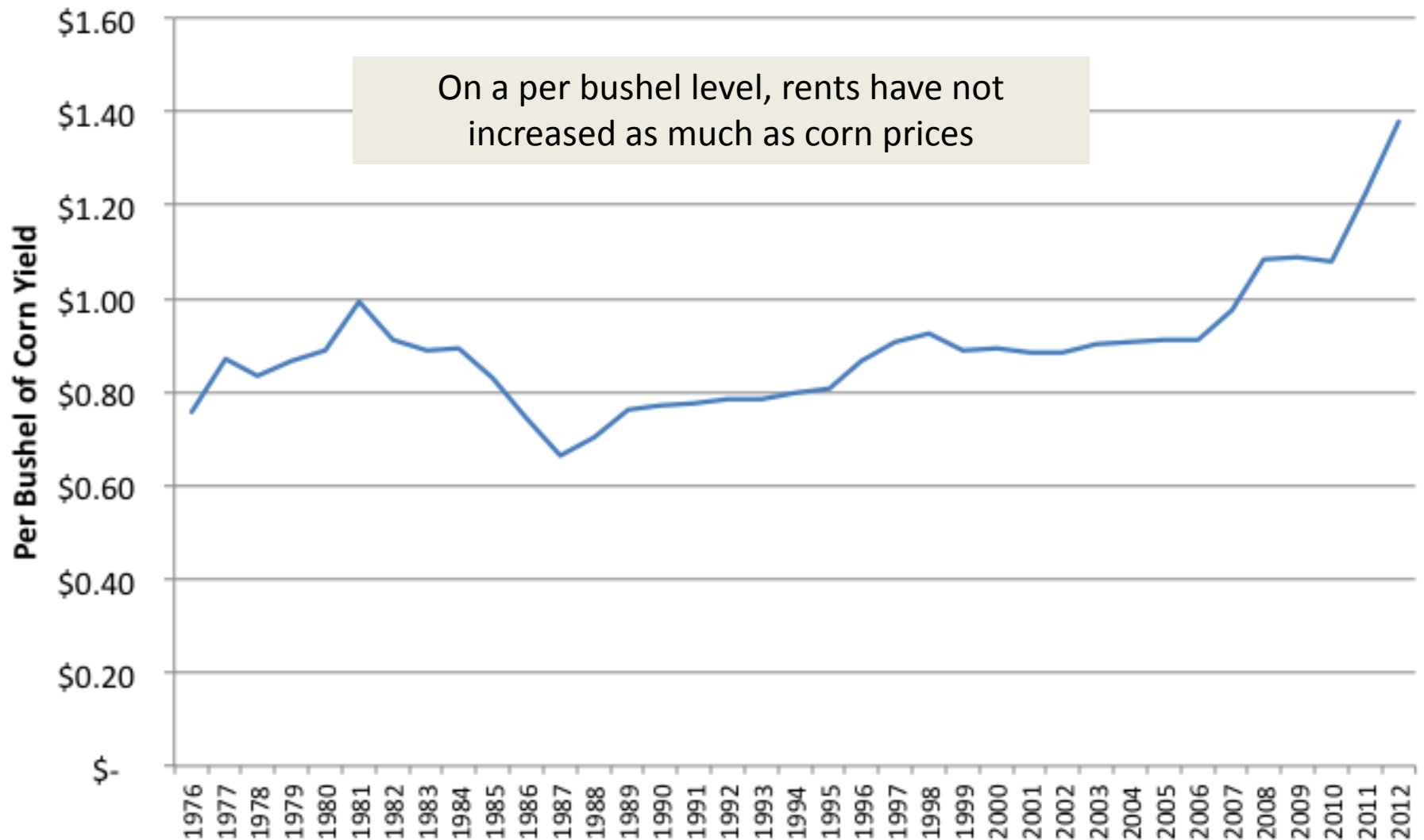


# Budgeted Profit/Loss and Cash Rent for High Quality Indiana Farmland, 1991-2013

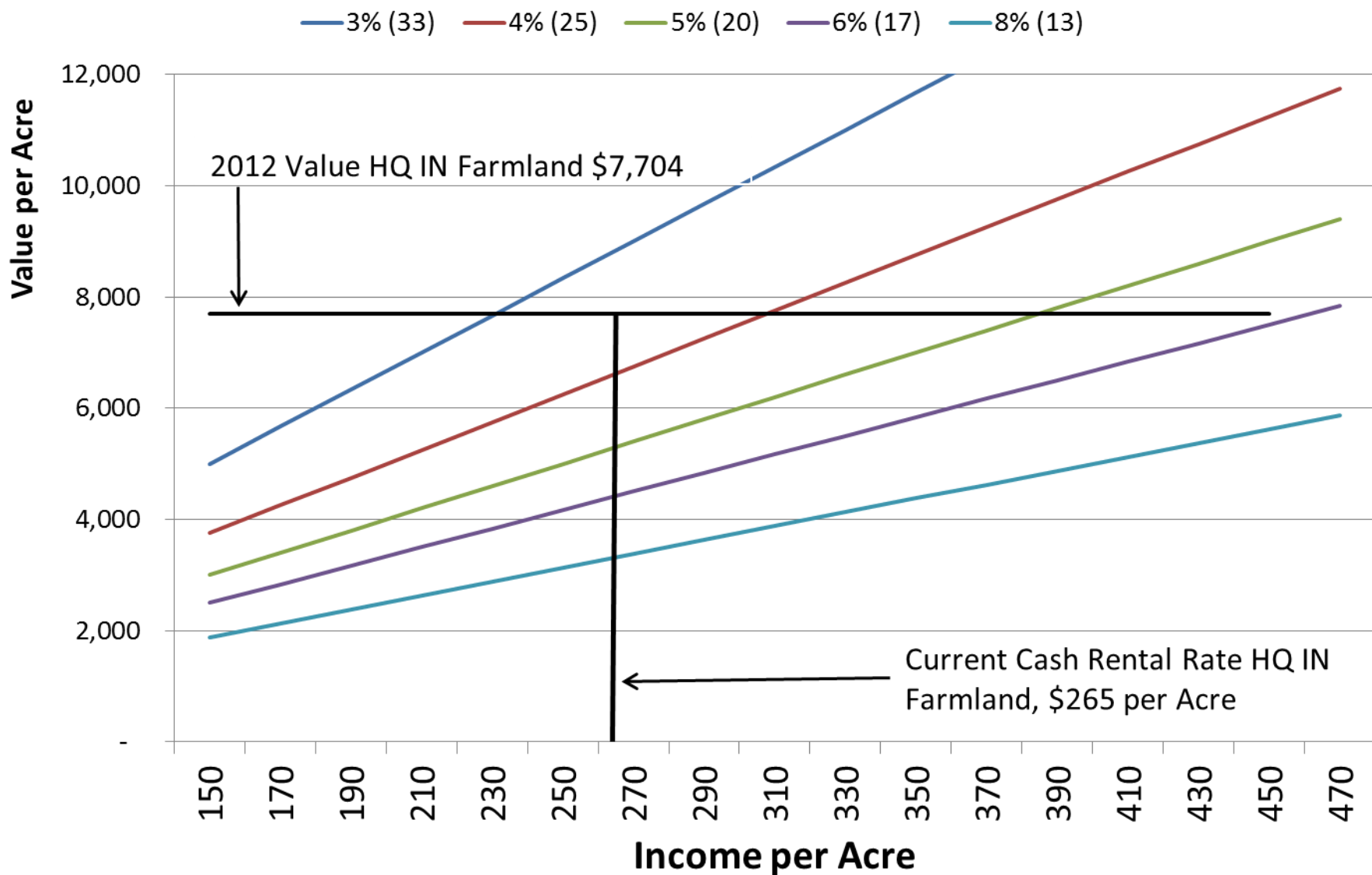
Profit and Loss Cash Rent Rent + Profit



## Cash Rent per Bushel of Corn Yield, High Quality IN Farmland, 1976-2012



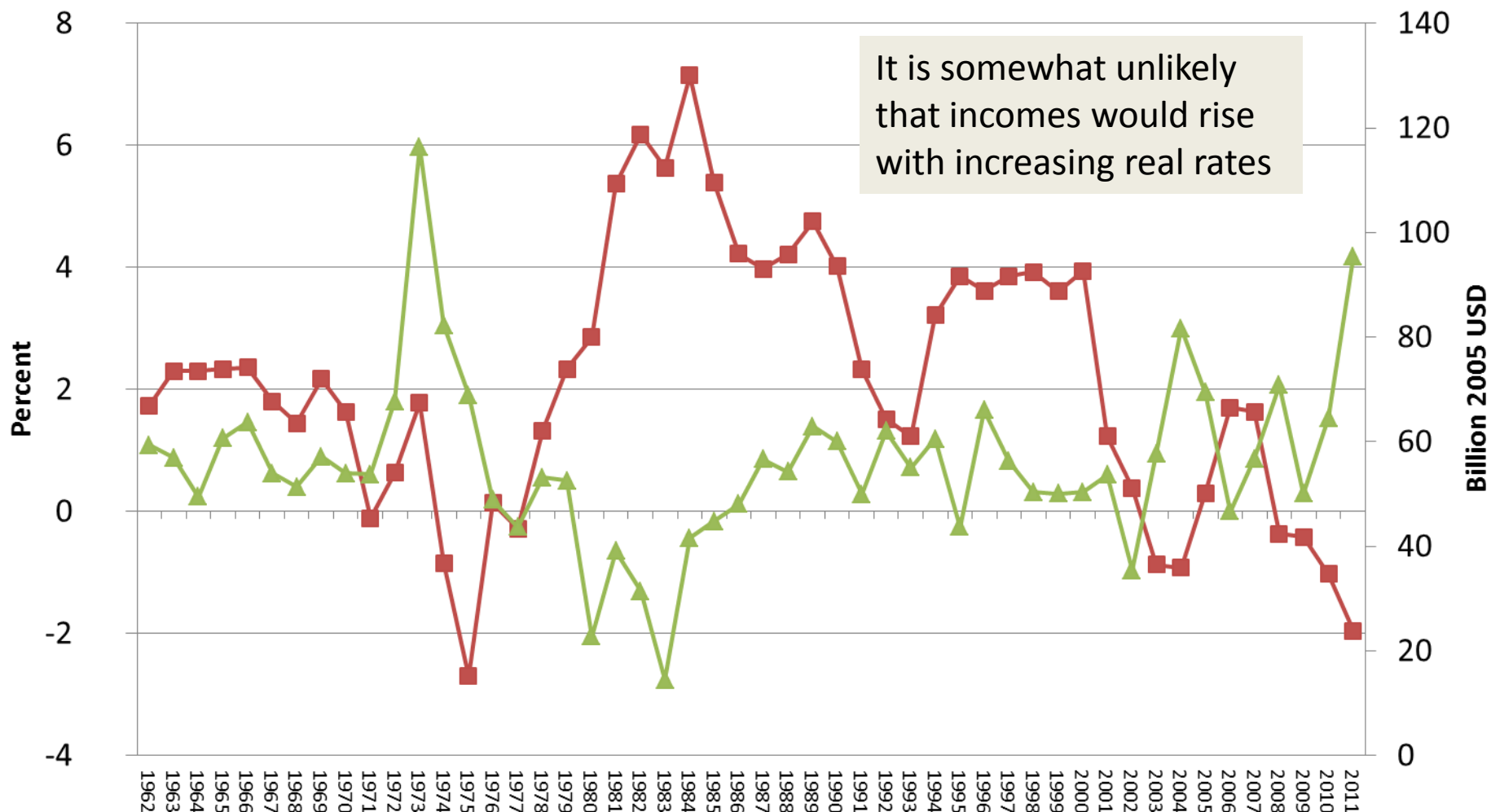
# Land Values Under Alternative Capitalization Rates (Multiples) and Income Levels





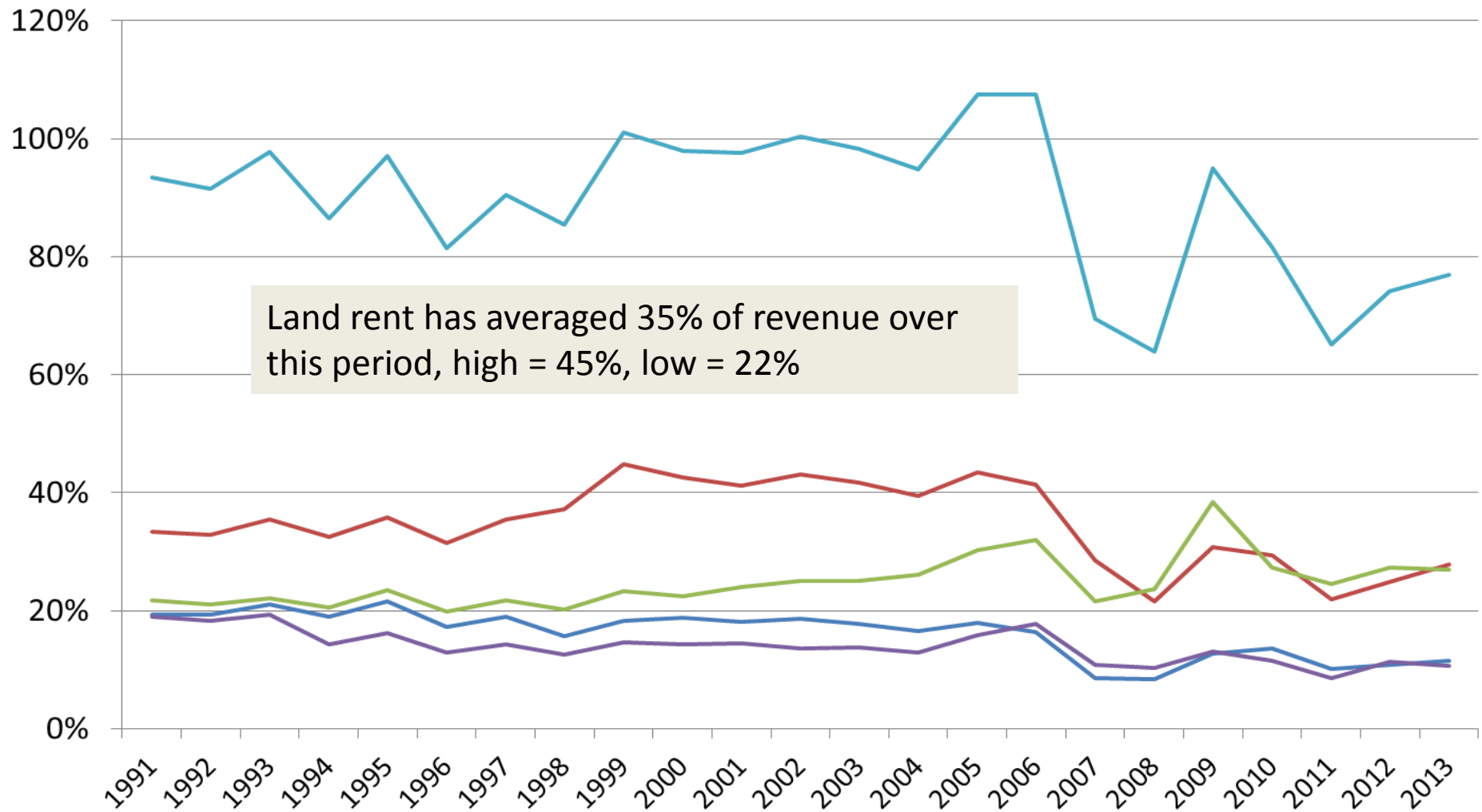
# Relationship Between Real Interest Rates and Returns to Operators, 1962-2011

■ Real Interest Rate on 1 Yr UST (Left Axis) ▲ Ret to Op (Right Axis)



# Percent of Revenue to Various Inputs, HQ IN Farmland, 1991-2013

Machinery Land Fert, Seed, Pest Oth Var Total



# So What About Corn Prices?

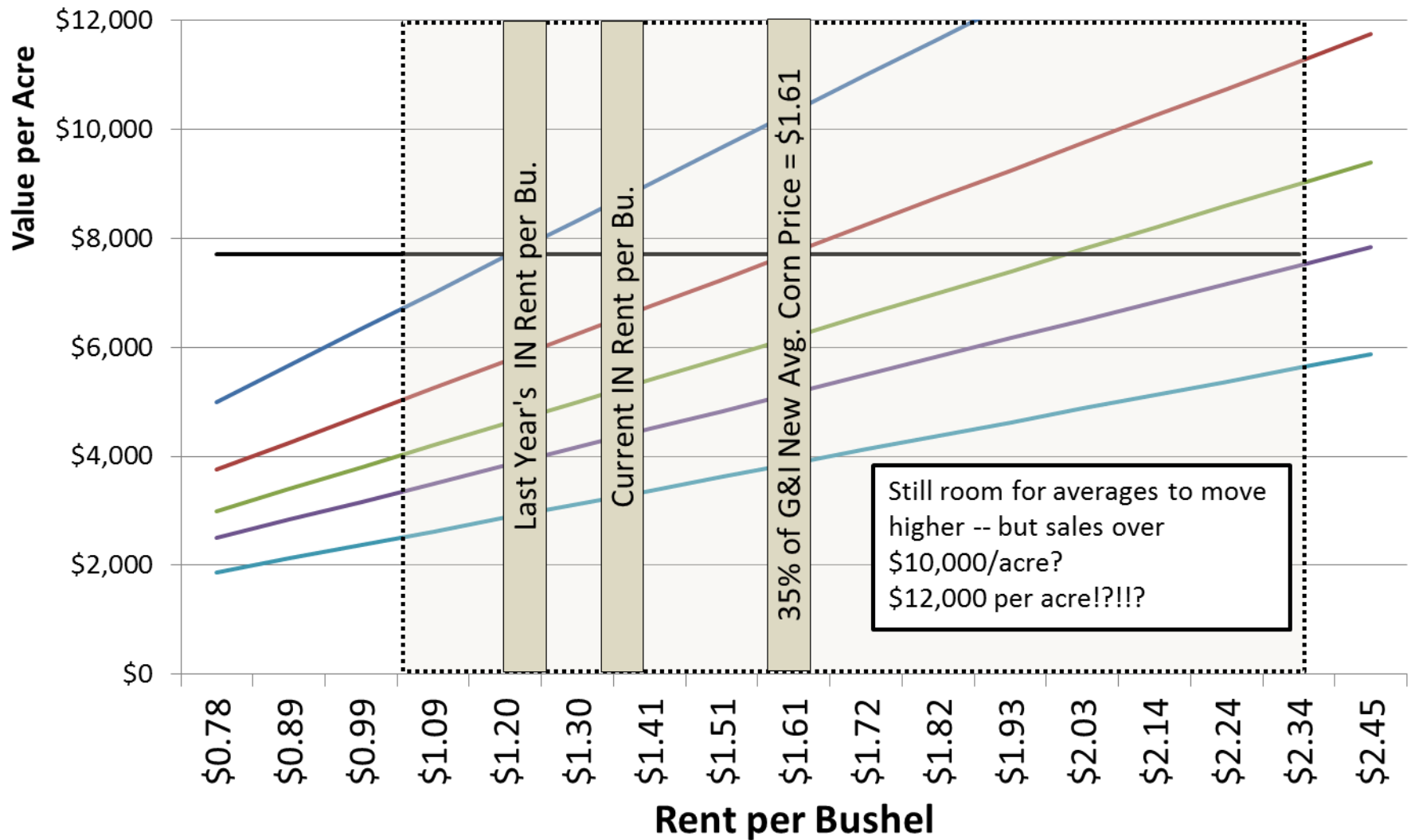
- Darrel Good and Scott Irwin forecast the new plateau prices as follows:

	Corn	Soybeans	Wheat
Post Dec 2006 Monthly Price	-----\$'s per Bushel-----		
Average	4.60	11.50	5.80
High	6.70	19.10	10.15
Low	3.00	8.20	3.30

SOURCE: Good, D. and S. Irwin. "The New Era of Corn, Soybean, and Wheat Prices." Marketing and Outlook Briefs, MOBR 08-04, September 2, 2008 Dept. of Agr. Cons. Econ, University of Illinois.

# Land Values Under Alternative Capitalization Rates (Multiples) and Rent per Bushel, HQ IN Farmland

3% (33) 4% (25) 5% (20) 6% (17) 8% (13)



Still room for averages to move higher -- but sales over \$10,000/acre? \$12,000 per acre!?!?

Box captures I&G's price range if land receives 35% of gross revenue  
Current yield = 192bpa, current rent = \$265/acre

# What Do Landowners Think?

- Current values are dependent upon continuation of low interest rates and high farm returns over variable costs
- Conducted an internet survey in Spring 2012
  - What do farmland investors think about future
    - Farmland prices
    - Cash rents
    - Crop prices

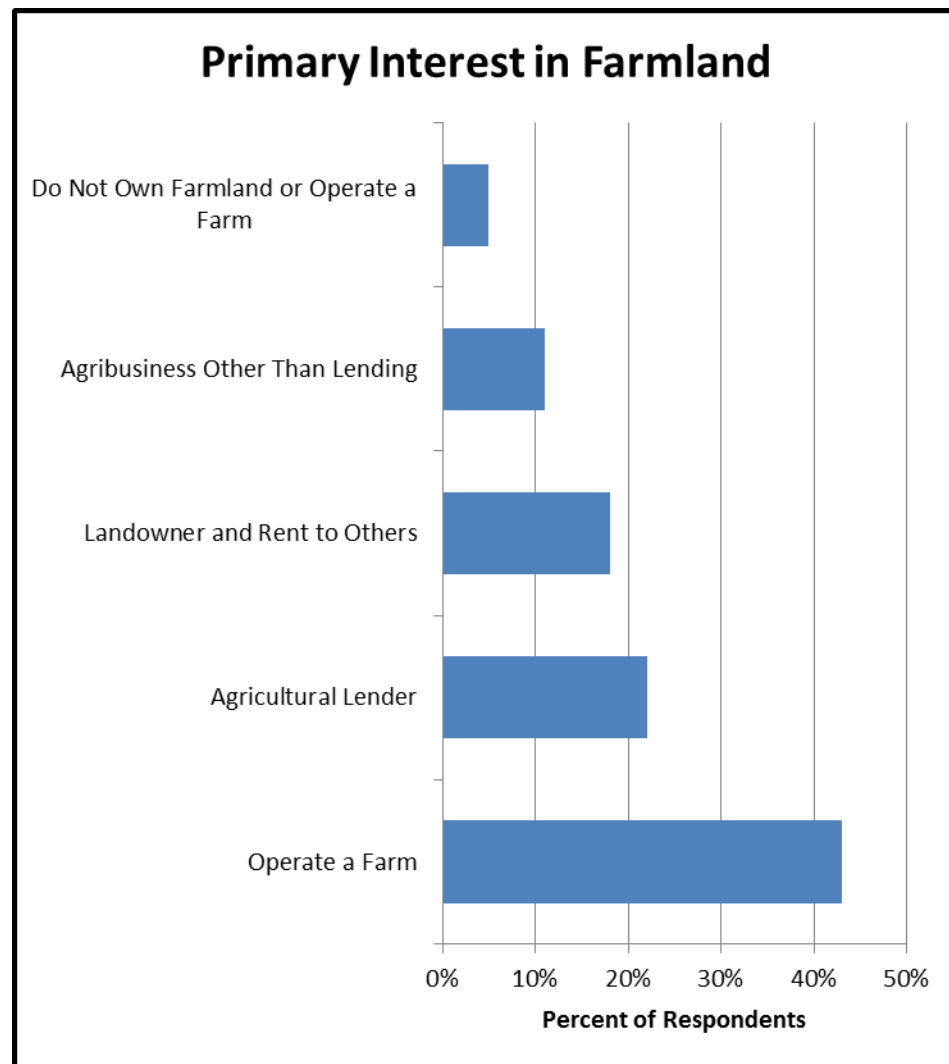
# Conducted an Internet Based Survey in Spring 2012

Objectives were to determine:

1. Expectations for returns to crop production and farmland ownership over a 1-5 year time frame
2. Current market conditions for farmland and the factors that are the most important in determining the values of farmland
3. How a variety of factors such as experience, earnings expectations, market characteristics, and interest rates influence the perception of farmland value

# The Respondents

- Individuals in CCA database with interest in farmland and farming
- 246 complete responses (28%)
- 73% owned farmland
- 74% want to purchase more farmland in the next 5 years
- Median acres
  - owned = 500
  - rented from others = 1,200
  - rented to others = 240



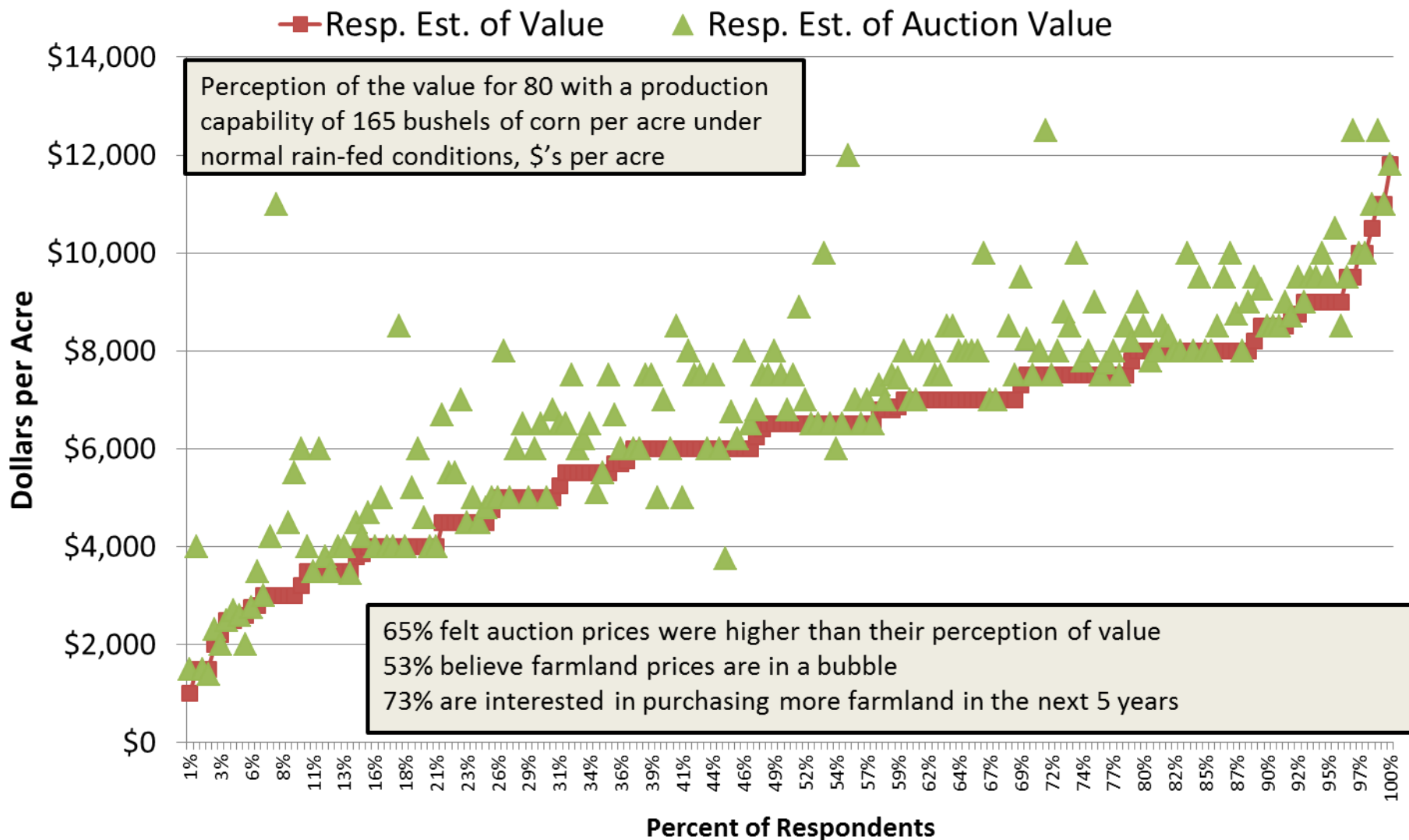
Respondents asked to consider:  
80 Acres of Farmland with a  
production capability of 165  
bushels of corn per acre under  
normal rain-fed conditions



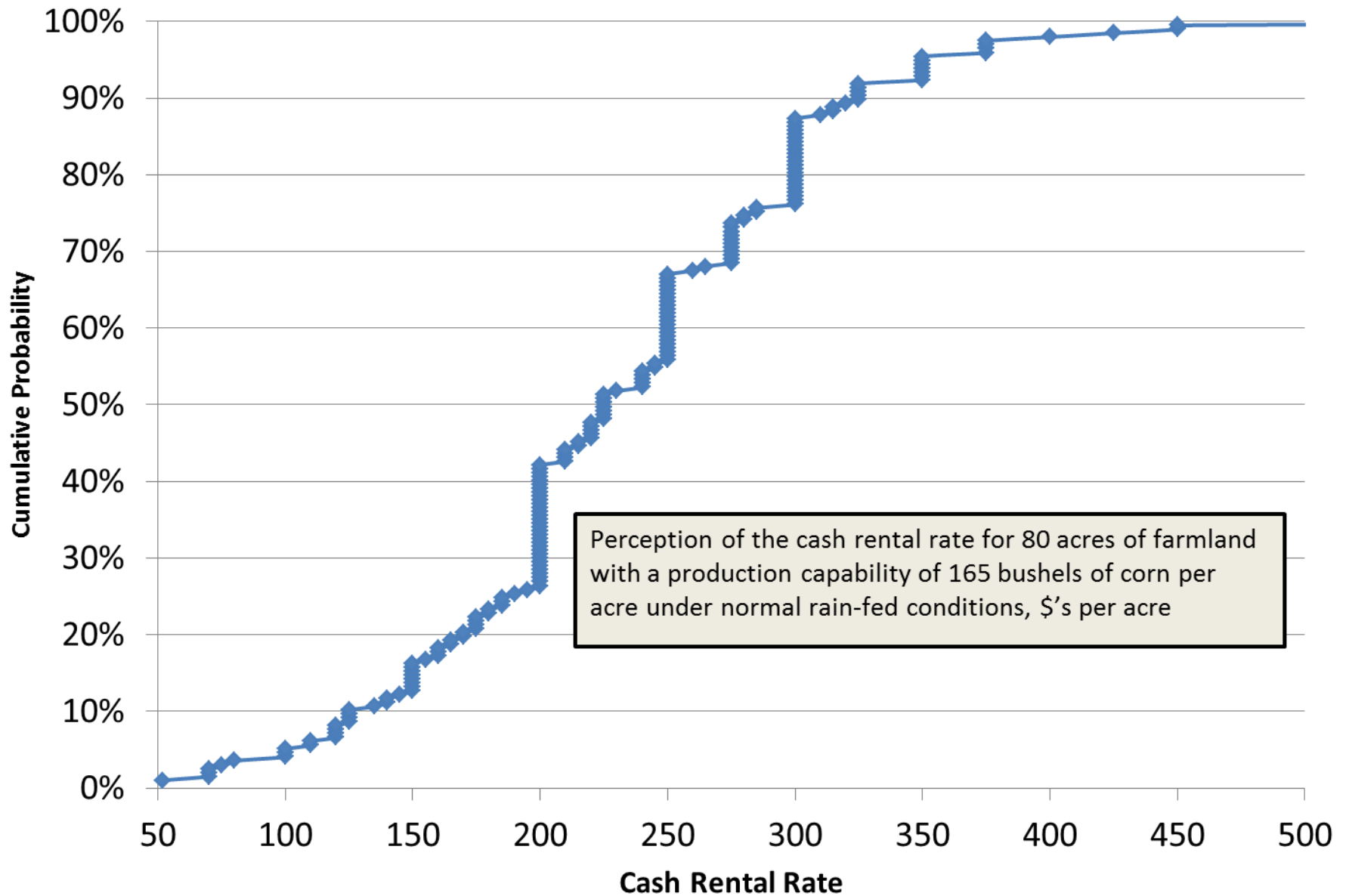
# Respondents' Perception of the Value and Earnings, \$'s per acre.

Estimate of:	N	Average	Standard Deviation	Median
Farmland value	194	6,179	2,008	6,500
Expected cash rental rate	197	233	86	225
Expected profit from operating	161	201	135	175
Expected price at auction today	197	6,979	2,207	7,450

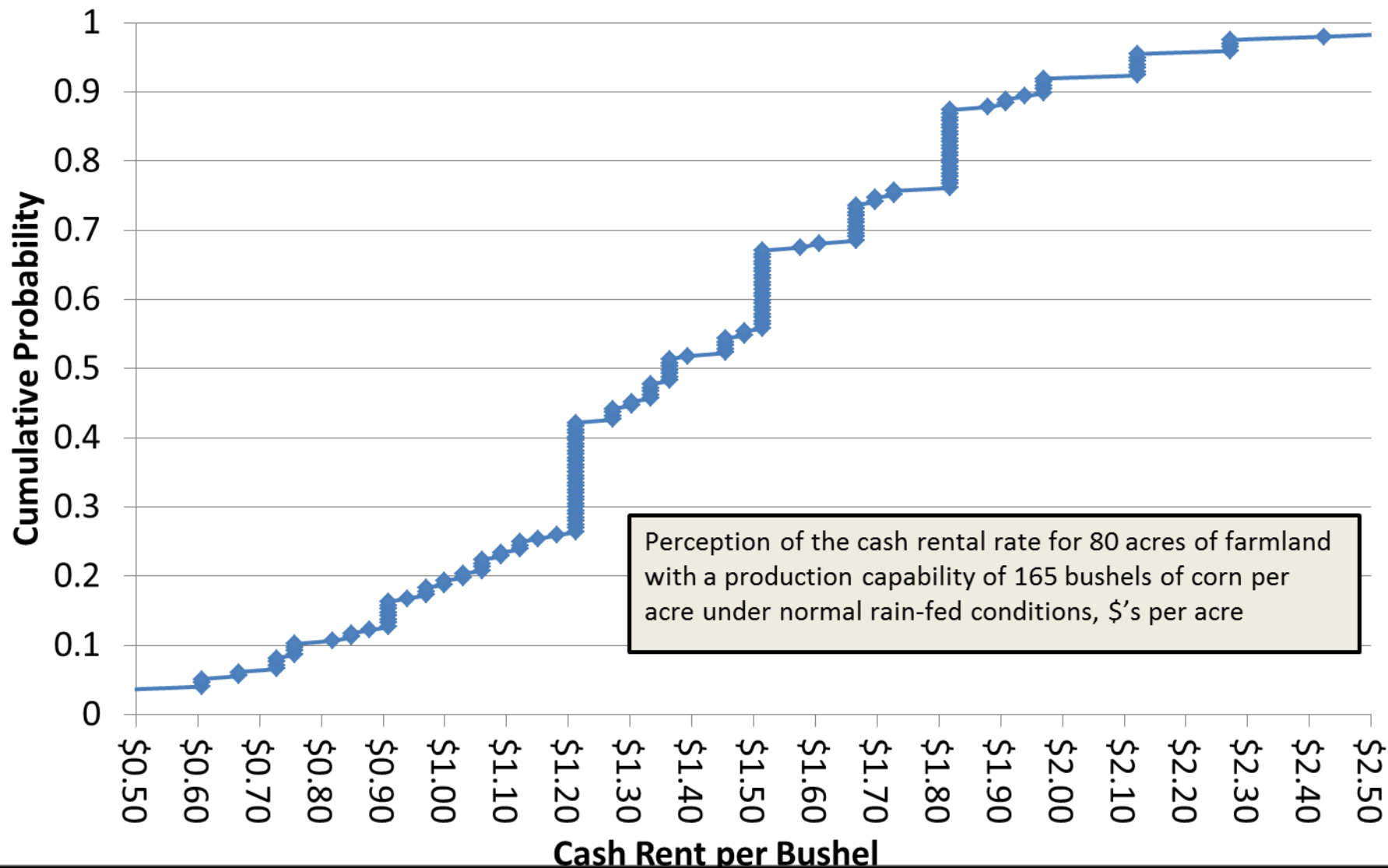
# Estimates of Farmland Value and Price at Auction, 196 Respondents, Spring 2012



## Distribution of Cash Rental Rates, 193 Respondents Spring 2012

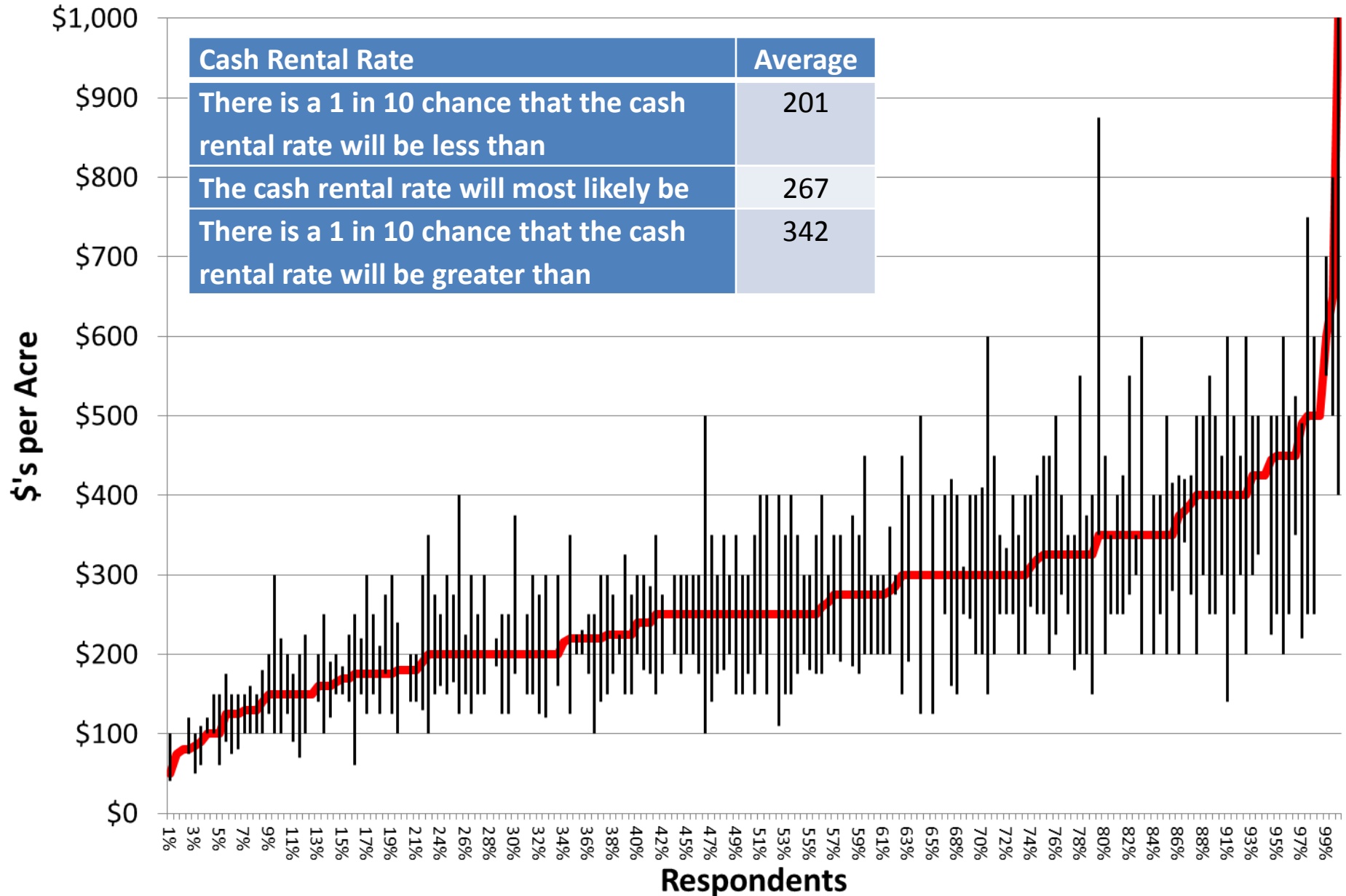


# Distribution of Cash Rent Per Bushel, 193 Respondents Spring 2012



# Distribution of Expected Cash Rental Rates Over the Next 5 Years, 191 Farmland Value Survey Respondents

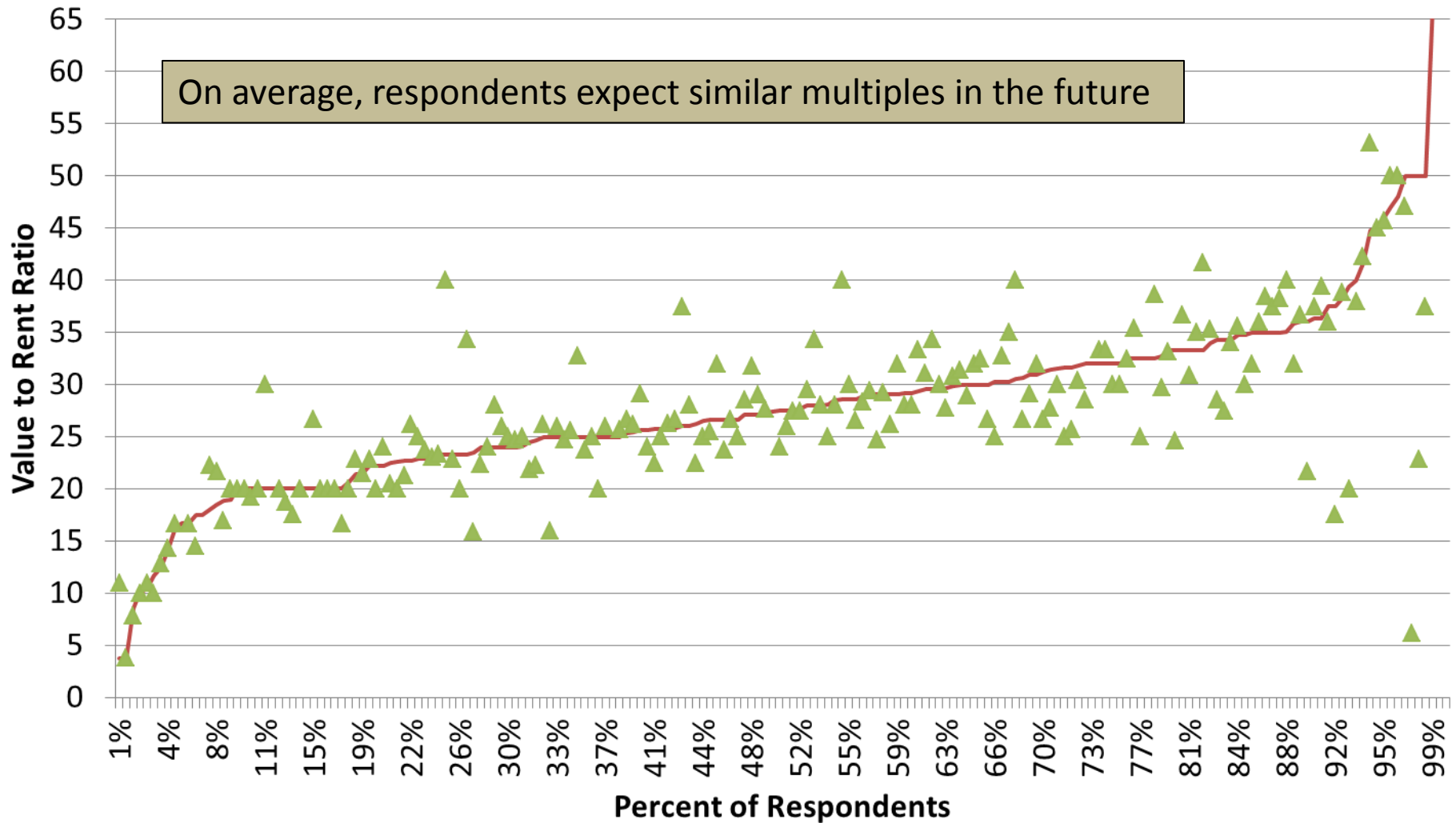
Cash Rental Rate	Average
There is a 1 in 10 chance that the cash rental rate will be less than	201
The cash rental rate will most likely be	267
There is a 1 in 10 chance that the cash rental rate will be greater than	342



# Current and Implied Cash Rent Multiples

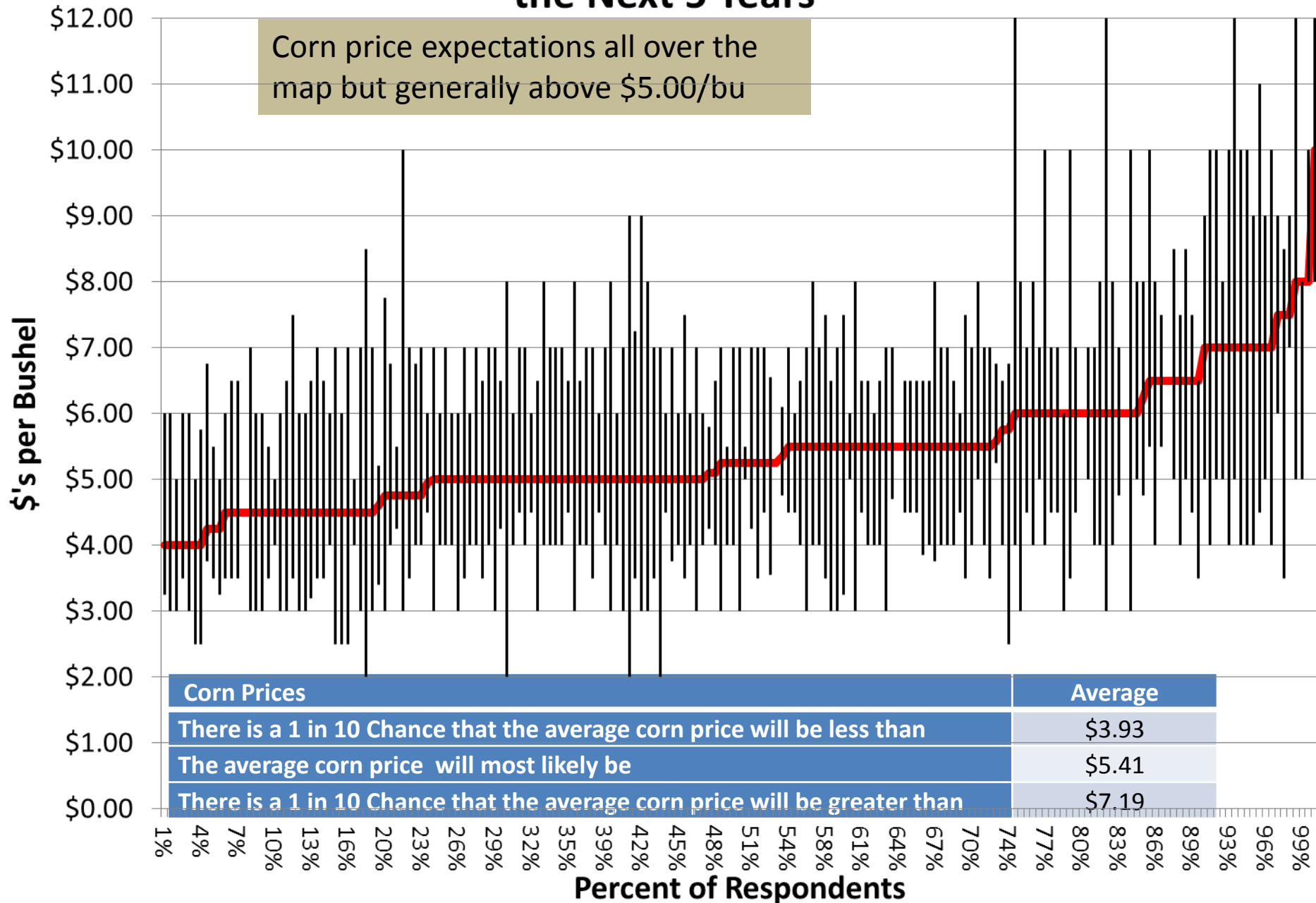
— Value-to-Rent Today

▲ Implied Value-to-Rent in 5 Years

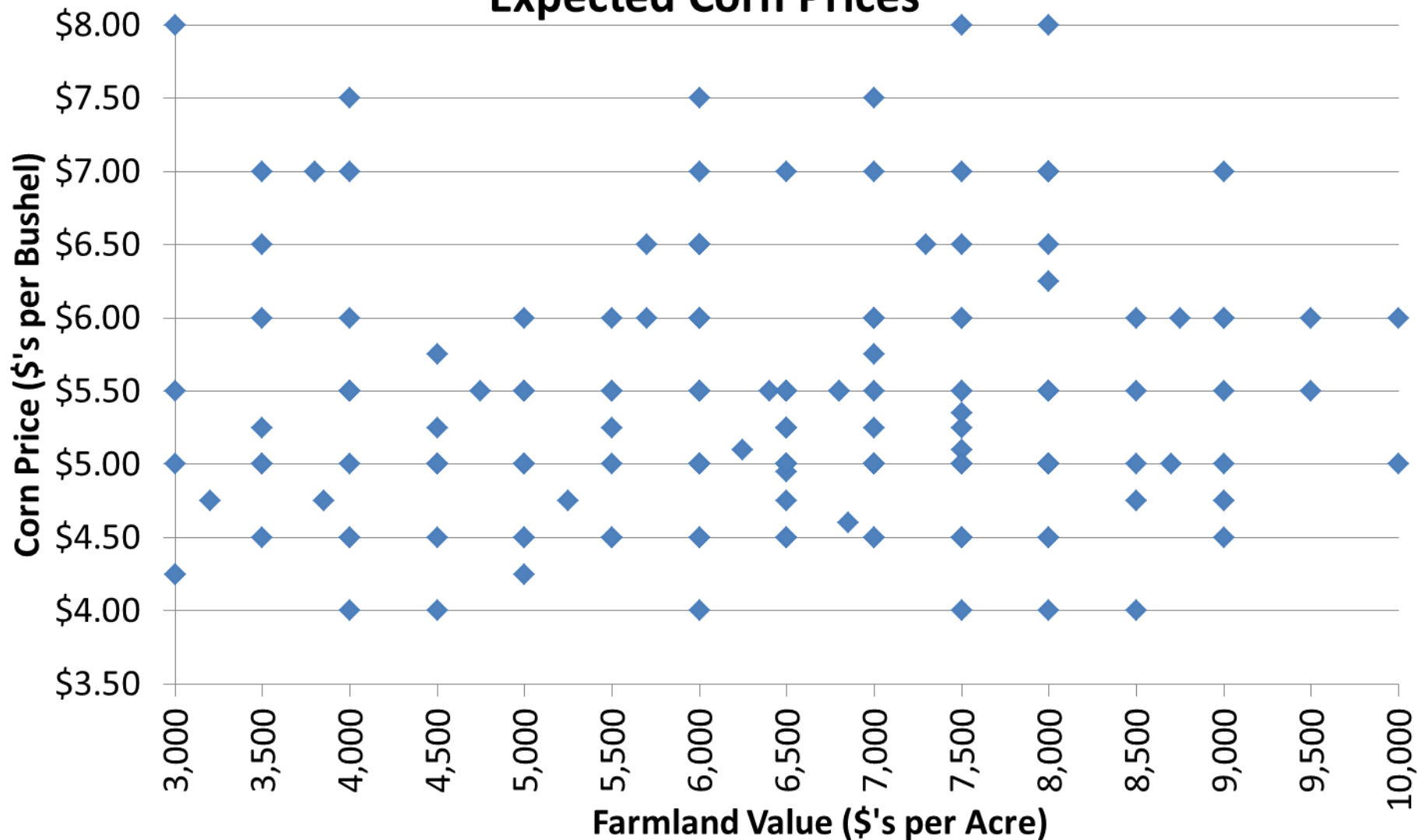


# Distribution of Expected Average Cash Corn Prices Over the Next 5 Years

Corn price expectations all over the map but generally above \$5.00/bu



# Relationship Between Current Farmland Values and Expected Corn Prices



Almost no systematic relationship between perception of land value and expected corn prices



# Final Thoughts

- Rents are heading higher in response to higher incomes
- Higher rents bring about considerable risk
- Bidding likely to remain strong in the near future
- How will market respond when crop prices moderate?
- How many long-term leases have been signed?

# Final Thoughts

- The credit cycle will start to heat up – there will be significant pressure to finance rising land values
  - Many farmers have spectacular equity positions
  - Watch out for modified terms
  - Many new entrants and expansions will take place
- Land market should start to level off – if rates/fundamentals change watch the market closely
- Do you have a handle of off-balance sheet exposure?
- Monitor operating lines carefully – will be the first to show signs of stress

# Final Thoughts

- Tremendous volatility in the ag marketplace
- For crop farmers it has been all favorable
  - How good are they at managing risk? (It has been easy so far)
  - How exposed are they to other's risk management activities? Volatility creates winners and losers
  - How are they managing costs?
  - What about non-land capital investment?
  - When need for operating capital comes it will be substantial and much larger than before the boom

# Final Thoughts

- Times in row-crop are very good
  - It is conceivable they could get better
  - It is also conceivable they could be worse
  - It is very difficult to predict what takes us out of this cycle, but credit can magnify the outcome either way
- How favorable is the current risk/return tradeoff for farmland?