



# **(Preserved) Farmland Affordability in New Jersey**

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**Presented at**

**Saving America's Farms and Farmland: Celebrating 40 Years of Farmland Preservation**

**Hershey, PA**

**May 12-13, 2014**

# Acknowledgements

Portions of this presentation are derived from research conducted collaboratively with:

Dr. Josh Duke (University of Delaware)

Dr. Witsanu Attavanich (Kasetsart University)

Kevin Sullivan (Rutgers University)

Lucas Marxen (Rutgers University)

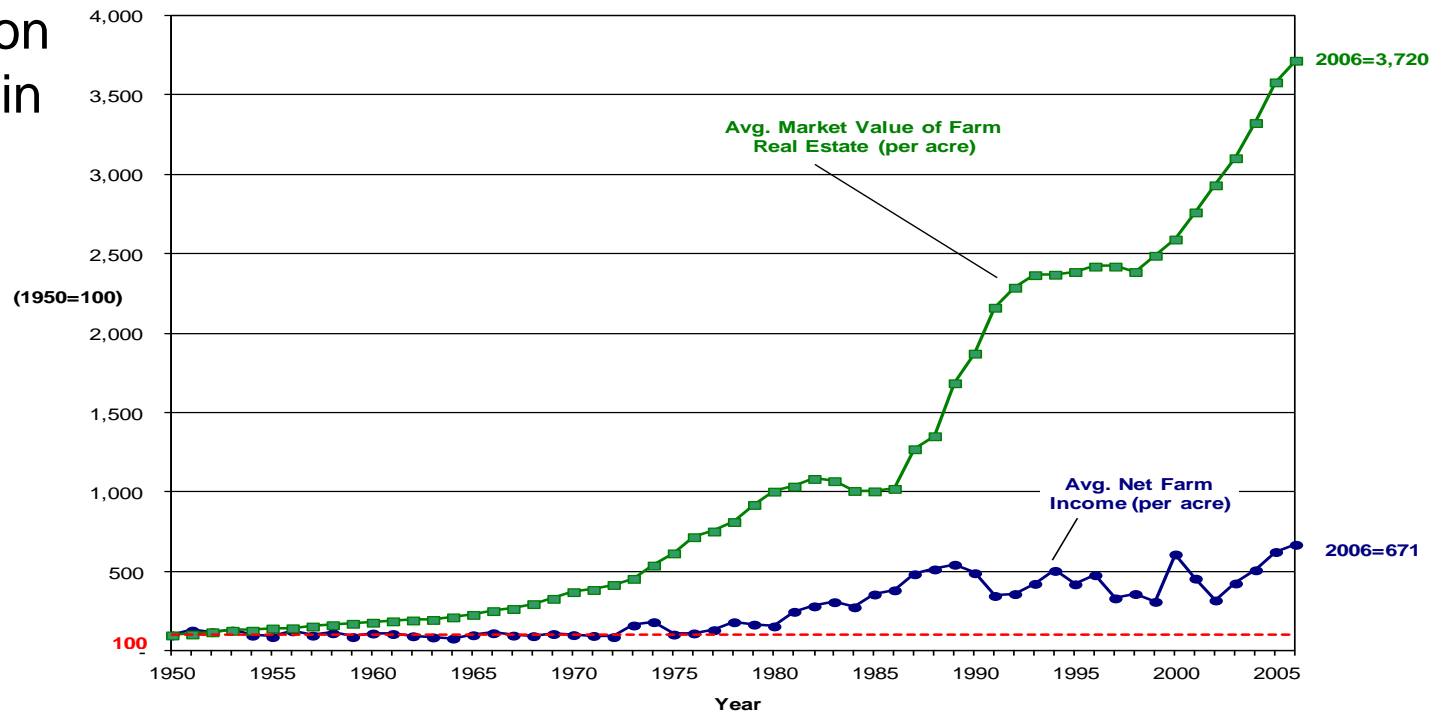
# What is “affordable” farmland?

According to one New Jersey farmer –

“...[New Jersey] farmland has never been affordable, I just don’t think I’ll see the mortgage buster years that my father or grandfather saw on occasion”

# Why this issue matters...

- Farmland accounts for 82% of U.S. farm assets value (USDA)
- NJ farmland values historically among the highest in U.S.
  - USDA-ERS (2013): US avg. = \$2,900/ac vs. NJ avg. = \$12,700/ac NJ (#1)
- Farmland appreciation far outpaces growth in net farm income

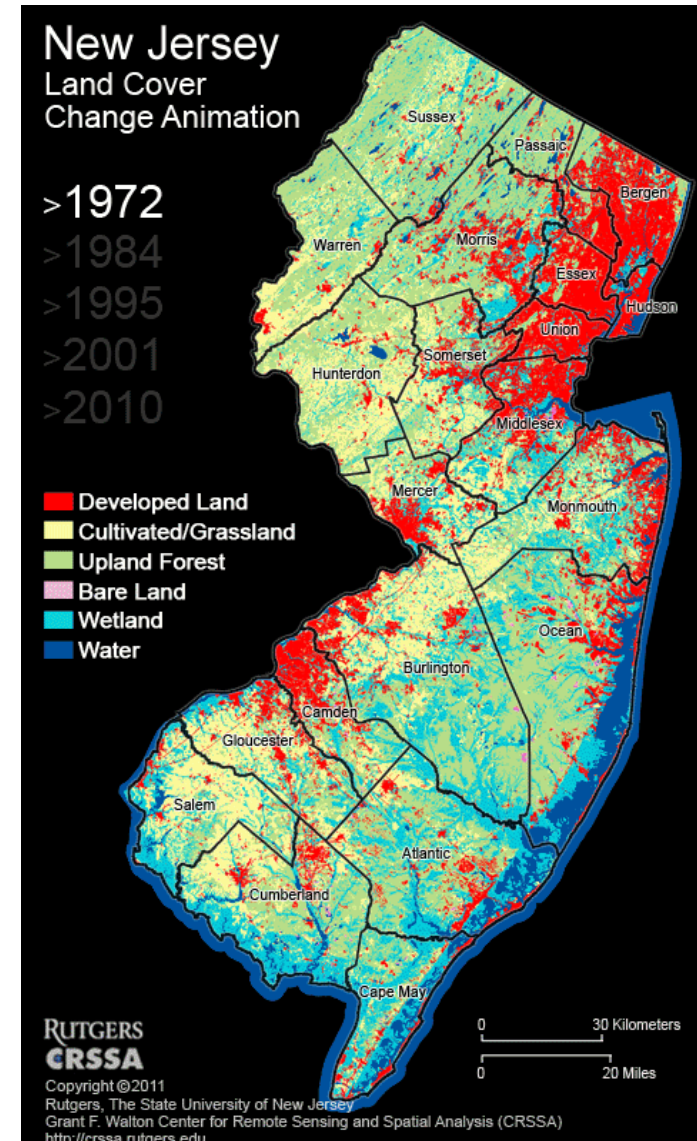


# Desired Industry Benefits of Farmland Preservation

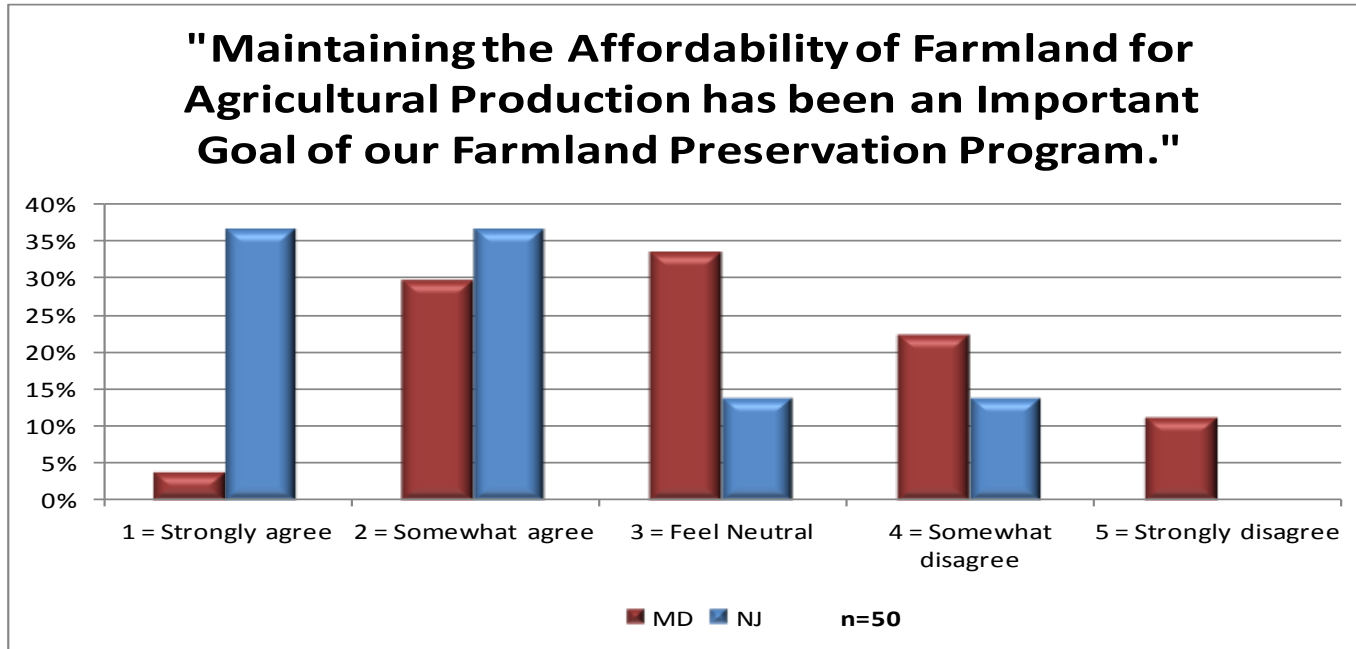
- Permanently preserve farmland from development into non-farm uses
  - Create geographic blocks of land in which agriculture is a preferred, long-term use
  - Reduce psychological burden of development pressure
  - Limit negative externalities of urbanization
  - Agglomeration economies
- Provide capital influx into farm operation
  - Facilitates estate transfer
  - Encourages farm investment/modernization (reverses the “impermanence syndrome”)
  - Retire debt
  - Meets other farm household financial objectives
- *Promote affordability of farmland*
  - Farm succession/intergenerational transfer
  - Access to land for farm expansion/new industry entrants

# NJ's Farmland Preservation (PDR) Program

- Well supported public policy
- Since being established in 1983:
  - 2,233 preserved farms
  - 207,722 acres preserved (~29%)
  - Total expenditure: \$1.6 billion
- 17 county farmland preservation plans
  - 4,629 targeted properties
  - 220,034 targeted acres
    - Plus, approx. 31,000 additional acres targeted across 46 municipal-level plans
  - Estimated cost = \$2.9 billion (incl. municipality-targeted farms)



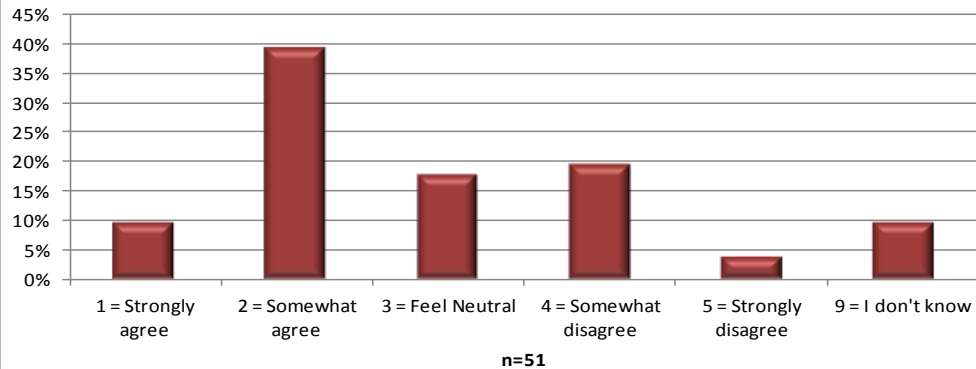
# 2010 Survey of PDR Program Administrators New Jersey and Maryland



73% of New Jersey program administrators (and 33% of those in Maryland) agreed that “maintaining the affordability of farmland for agricultural production has been an important goal of [farmland preservation].”

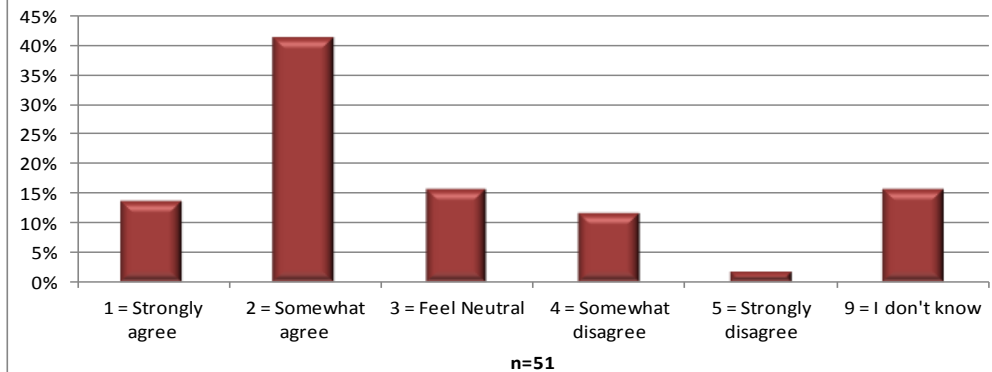
# 2010 Survey of PDR Program Administrators New Jersey and Maryland

**"The Market Value of Preserved Farmland has Risen to Levels that are Not Affordable to the Majority of Commercial Farmers."**



Approximately 50% of administrators agreed that, in the decade leading up to the 2007 recession, the market value of preserved farmland rose to levels not affordable to the majority of commercial farmers.

**"Farmers have often been Out-bid in Sales of Preserved Farms by Individuals for Whom Farming is Not a Primary Occupation."**



The majority (55%) of program administrators agreed that, in the 10 years prior to the 2007 recession, farmers have often been out-bid in sales of preserved farms by individuals for whom farming is not a primary occupation.



# Is Preserved NJ Farmland Affordable? (...and if it isn't what should we do about it?)

- 2004: SADC Task Force formed to examine the issue
- 2007-2008: farmer listening sessions held in most NJ counties
- Policy discussions at New Jersey's agricultural conventions

# Some Policy Questions

- Should the appreciation of preserved land be capped?
- Should there be restrictions on buyers (e.g., limit bids at auctions to “bona fide” farmers)?
  - Related question of keeping land “in” agriculture, versus “available for” agriculture
- Should the state hold more land fee simple (e.g., lease land to new/beginning farmers)?
- Should easement holders limit housing (and other future development) opportunities?
- Should house size limitations be implemented?

# Study 1 – Factors Affecting Preserved Farmland Values

- **Question:** *What are the effects of housing and future development flexibilities (i.e., SADC policies on RDSO's & exceptions) on preserved farm values?*
- Hedonic pricing study (325 preserved farms sold in NJ between 1985 & early 2007)
- Parcel level data (SADC scoring sheets and appraisal records, local property tax record cards, GIS data layers, Census and other secondary sources)

\* Schilling, B., Sullivan, K. & Duke, J. (2013). "Do residual development options increase preserved farmland values?" *Journal of Agricultural and Resource Economics* 38(3):327-343.

# An Affordability Gap?

Sales of Preserved Farms in New Jersey			
Period	No. of sales	Acres	Avg. Price/Acre
1985-1989 <sup>a</sup>	9	1,070	\$2,493
1990-1994	22	3,210	\$3,113
1995-1999	89	10,891	\$3,064
2000-2004	152	15,076	\$5,857
2005 to 2/07	52	4,172	<b>\$10,111</b>
<b>Total</b>	<b>325</b>	<b>34,419</b>	

Avg. NJ NFI (2007)\* = \$342/ac

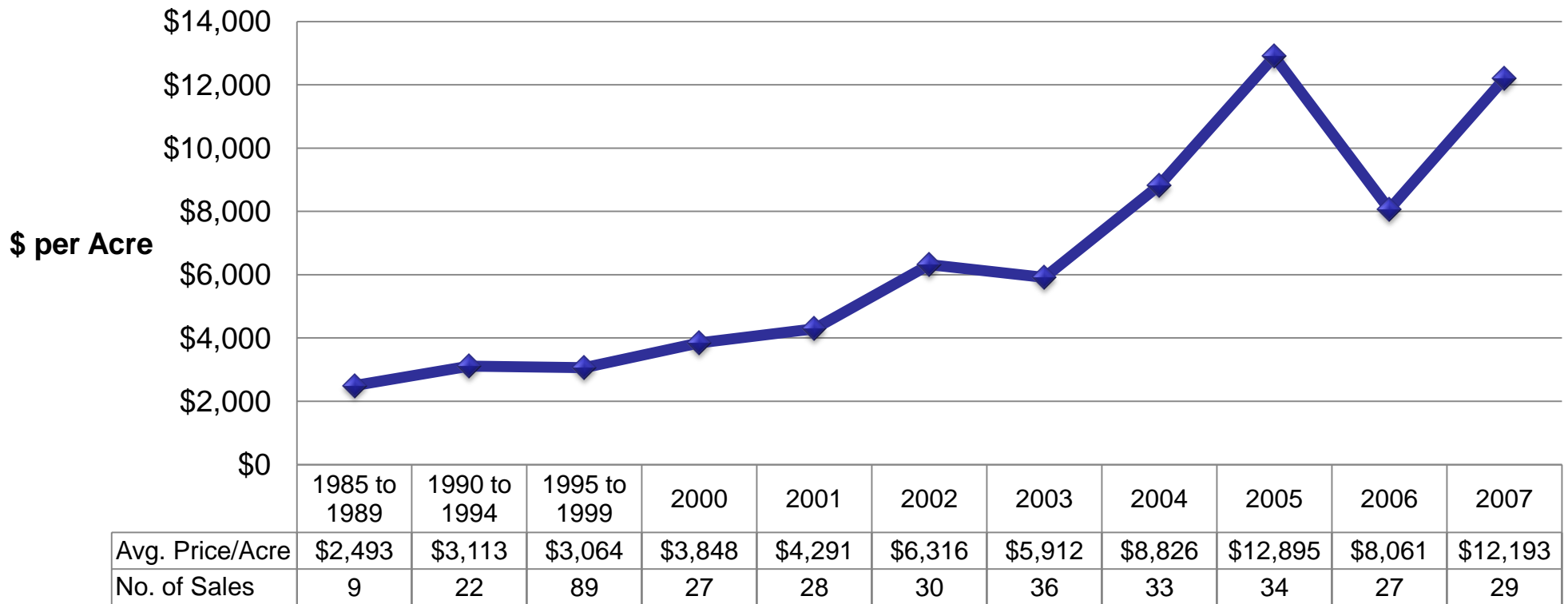
Assuming 8% discount rate, an average farmer could cash flow land valued at \$4,288/ac

Between 2005 and early 2007, preserved farmland sold for nearly 2.5 x more...

<sup>a</sup> Excluded from analysis.

Source: SADC administrative records.

## Preserved Farmland Sales (Avg. Price per Acre) 1985-2007



# Most Significant Findings

Based on sales of preserved New Jersey farms from 1990-2007:

- Preserved farmland appreciated in value by 10.6% annually (all other factors considered)
- The **presence of an existing residence** increased the per acre price of a preserved farm by 31.5%
  - Each 1,000 sq. ft. of house size, increased the per acre price by 4.9%
- The **existence of an exception or RDSO** increased the per acre price of a preserved farm by 43.5%

# Policy Implications – A Discussion of Tradeoffs

- Require houses to be subdivided off?
  - But....will this limit desirability of preserved farms for certain types of production?
- Limit exceptions?
  - But...what effects will this have on the economic viability of farms (e.g., use of barns for non-agricultural businesses)?
  - ...or on farms' efforts to avoid uncertainty over how deed of easement provisions may be interpreted in the future?

# Study 2 – Farmland Preservation & Farm Profitability

- **Question:** *Does participation in a PDR program improve farm profitability?*
- Comparison of preserved farms with “observationally equivalent” unpreserved farms
  - Propensity score matching technique to control for selection bias (e.g., do only the “best” (or “worst”) farms decide to enter farmland preservation?
  - We expected that “not all farms are the same” – hence, we looked at profit effects across different farm types/scales
- Respondent-level Census of Agriculture records & SADC administrative records, other secondary data sources

\* Schilling, B., Attavanich, W., Sullivan, K., and Marxen, L. (forthcoming). “Measuring the effect of farmland preservation on farm profitability.” *Land Use Policy*.



# Sub-Samples Based on ERS Farm Types

## Small Family Farms (<\$250,000 gross sales)

### Operator's primary occupation is not farming

Residential/Lifestyle Farms

Retirement Farms

} “Rural Residence Farms”

### Operator's primary occupation is farming

Low Sales (<\$100,000 gross sales)

High Sales (\$100,000 to \$249,999 gross sales)

} “Intermediate Farms”

## Large-Scale Family Farms (\$250,000 + gross sales)

Large Farms (\$250,000 to \$499,999 gross sales)

Very Large Farms (\$500,000+ gross sales)

Farm Type	Profit Impact	
<b>Full Sample</b>	Not significant	} Not surprising - consistent with expectations
<b>Rural Residence Farms</b>		
Residential/lifestyle	<b>Weak positive effects</b>	
Retirement	Not significant	
<b>Intermediate</b>		
Low sales	<b>Positive</b> (\$311-\$568 more per acre)	} Surprising!
High sales	<b>Negative</b>	
<b>Large-Scale Family Farms</b>		} Expectations were ambiguous. Wrong metric??
Large	Not significant	
Very large	Not significant	

# Observations

- Likely mixed effects among residential/retirement scale farms?
  - For some, easement payments may dampen an already low profit motive
  - For others, PDR may enable scaling up
    - “Lifestyle” designation under ERS typology does not equate to the absence of a profit motive
- Exit strategy for retirement-age farmers?
  - Implications for planning for succession of preserved farmland
- Positive news regarding small “commercial” farm economic impacts
- Unexpected findings – intermediate “high sales”
- Wrong unit of analysis for large farms?
  - Expansion vs. intensification

## Contact Information

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