Agricultural Preservation Programs: Are They Paying Too Much?

Lori Lynch
University of Maryland
Wayne Gray and Jacqueline Geoghegan,
Clark University

Preservation in Maryland

- 400,000 acres preserved by 2004
- MALPF (PDR)
  - Purchase development rights through auction and retire
  - Minimum eligibility criteria were recently changed to include 50 contiguous acres or contiguity to another preserved farm, at least 50% prime soils.
- TDR
  - Sell development rights to developers to use elsewhere
- PDR
  - County-level programs similar to MALPF with different payment schemes
- To get to more than 1 million acres need almost $5 billion more dollars– 686,000 acres

Previous work

- No papers are finding that the price of restricted parcels are lower :
  - Small sample size – not enough “arms-length sales/non-family sales”
  - No one really believes that the restrictions are permanent
    - Courts upheld thus far
  - Parcels wouldn’t have been developed anyways
    - Sample selection – voluntary decision so only those not affected enroll
- Puzzling result – But ? Is are we paying too much for development rights?

Land Values: A Bundle of Rights

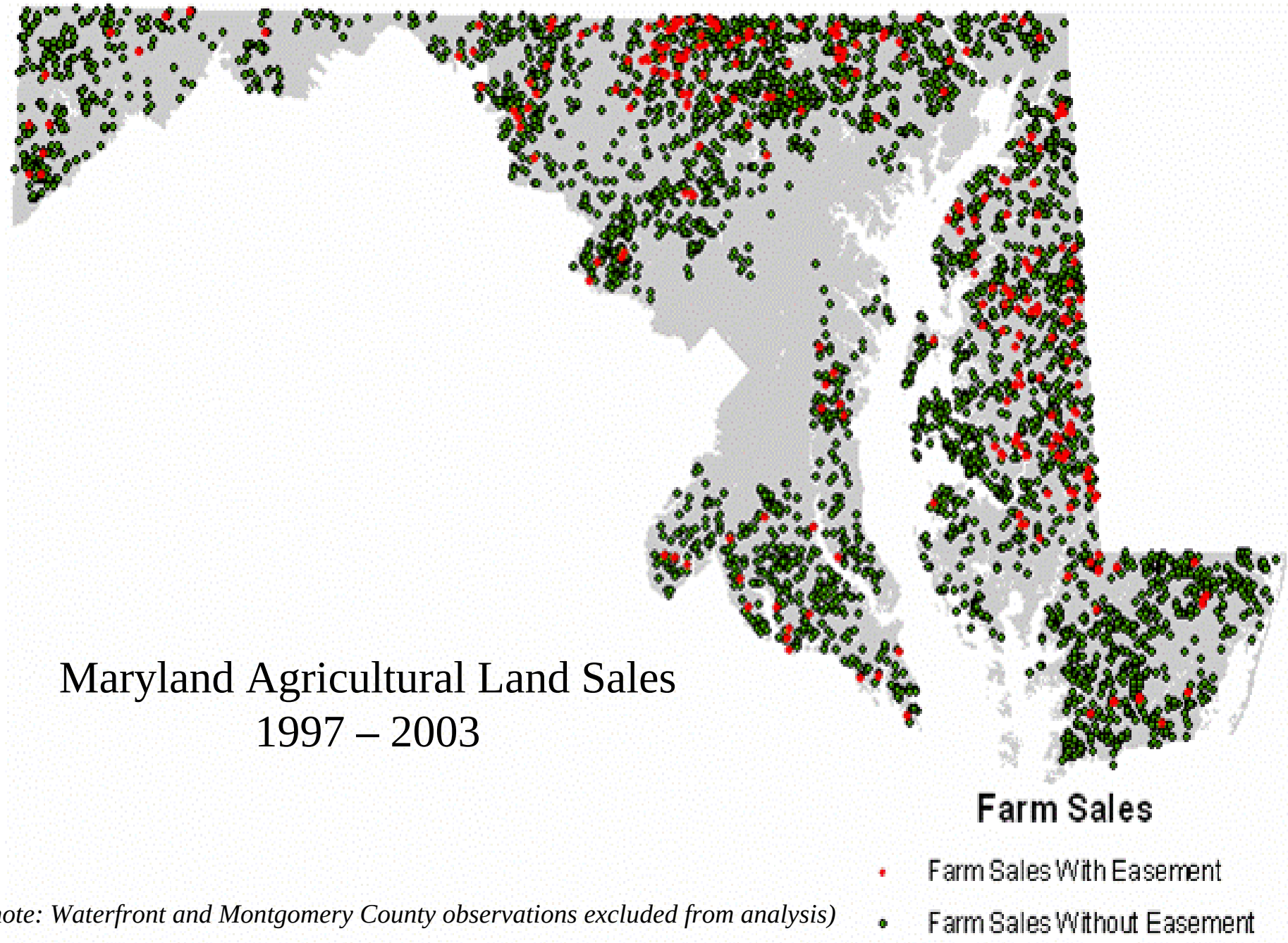
1. Agricultural Value:
   - Function of the present value of the stream of net farming returns (Ag Value)
2. Development Value:
   - Function of the option to convert the parcel to non-farm uses (Speculative value or value of development rights)
3. Easements compensate people for the development value of the property

If same price, what would you buy?

- Farm A and Farm B have similar
  - Parcel size
  - % of Prime Soils
  - Distance to D.C. or Baltimore
  - Population growth (1970-80; 80-90; 90-2000)
  - Zoning restrictions
  - Land-use
  - Preservation within neighborhood
- Farm A is enrolled in MALPF; Farm B isn't

Data

- County and State Preservation Offices: Parcels preserved, Easement Price, Year Preserved
- Tax Assessment Database: Sales price and dates (1997 - 2003), Geographic coordinates, Acres, Appraised Value of Structures
- Maryland Office of Planning GIS layers: Soil quality, Land use, Distances to city and other preserved parcels.



(note: Waterfront and Montgomery County observations excluded from analysis)

	Full Sample	Preserved	Not preserved	Unimproved Land
Variable Names	Mean N=3,157	Mean N=256	Mean N=2,901	Mean N=1534
Price ($/ acre, adjusted)	$5,477	$3,286	$5,671	$4,941
Preserved parcel (0/1)	8%			7%
Fraction of parcel with prime quality soil type	4%	60%	40%	39%
Fraction preserved within 1KM	5%	14%	4%	5%
Fraction preserved within 5KM	7%	12%	6%	6%

Impact of Easement Restrictions

- Clearly, preserved parcels have a lower per acre sales price but….
  - Have to control for all the characteristics that affect
    - –land value and
    - –enrollment decisions
  - such that we are comparing apples to apples

Sales prices are different

- For similar parcels within the full sample, per acre price decreases by 14-15%
- For similar parcels without structures, per acre price decreases by 17-20%

Conclusions

- Preserved parcels with easement seem to sell for 14% - 20% less than those without restrictions.
- But why so little - appraised values have development value at 50% - 90% of the land value not 20%?
- Average payment $2,717 per acre in 2002
- Preserved parcels get $2000 windfall

Policy implications

- Are we paying too much?
- Criticism of PDR programs – preserve too few acres
- Could we preserve more if paid the true lost “value” to the farmers?
- What are the benefits of removing rural lands from the “development pool”?
- If strong ag economy is one of the goals – programs are not helping to keep ag land affordable
- Ending up with privately-owned inaccessible open space regardless of zoning– high cost to taxpayers
  - Hobby farms