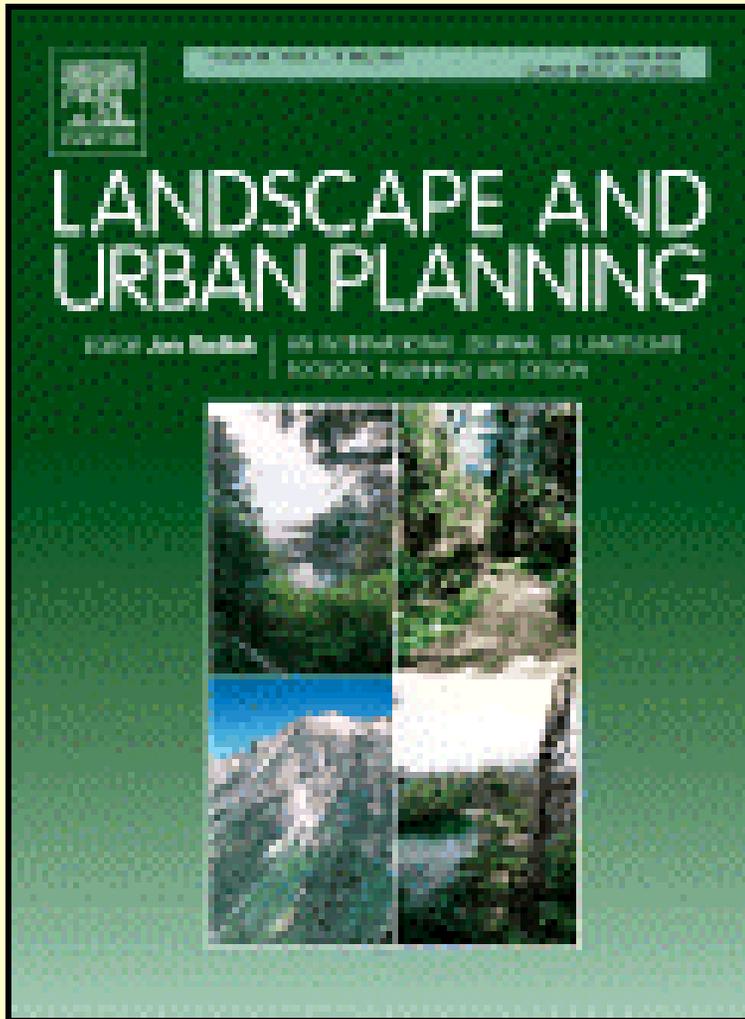




**The Economic Aspects of Landscape Change:
Protecting Natural Areas
in the Face of Urbanization
using Growth Management tools**

*Jenna Fletcher
Policy Analyst
MN Forest Resources Council*



***Public policies for
managing urban
growth and protecting
open space: policy
instruments and
lessons learned in the
United States***

Landscape and Urban Planning
August 15, 2004

David Bengston, USDA Forest Service
Jenna Fletcher, MN Forest Resources Council
Kristen Nelson, University of Minnesota

Sprawl is ...



- **relatively low-density,**
- **noncontiguous,**
- **automobile dependent,**
- **residential & nonresidential development,**
- **consumes relatively large amounts of farmland & natural areas**



Impacts of Sprawl:

- **Most significant factor affecting forest ecosystems in the southern U.S.**
- **Leading cause of habitat loss & species endangerment in mainland U.S.**
- **Removes significant amounts of agricultural land**

Growth Management is ...



The integrated use of the planning, regulatory, and fiscal authority of state & local governments to accommodate growth & development needs in a manner that:

- Preserves public goods
- Minimizes negative externalities
- Minimizes public fiscal costs
- Maximizes social equity
- Elevates quality of life

Objectives & Approach:



- Identify & classify the full range of growth management (GM) policies
- Assess the lessons learned from evaluations of these policies
- Approach: review & assess the GM evaluation literature

Growth Management Tools:

Preserving Open Space & Resource Lands

Regulatory Tools

- Cluster zoning
- Agricultural zoning
- Transfer of development rights

Easements & Deed Restrictions

- Purchase of development rights
- Conservation easements

Tax Incentives

- Use credits
- Donation credits

Land Acquisition

Growth Boundaries



Growth Management Tools:

Preserving Open Space & Resource Lands

Regulatory Tools

- Cluster zoning
- Agricultural zoning
- Transfer of development rights

Easements & Deed Restrictions

- Purchase of development rights
- Conservation easements

Tax Incentives

- Use credits
- Donation credits

Land Acquisition

Growth Boundaries



Changing Urban Development Patterns

Compact, Mixed-Use Development

- Traditional neighborhood developments
- Transit-oriented developments

Revitalizing Urban Areas

- Brownfield sites
- Greyfield sites



All Spatial Scales / Level of Government

- **National** (e.g., Coastal Zone Management)
- **Statewide** (more than a dozen states)
- **Substate Regions** (e.g., Chesapeake Bay Critical Area Commission)
- **Metropolitan Areas** (e.g., Twin Cities Metropolitan Council)
- **Individual Municipalities**

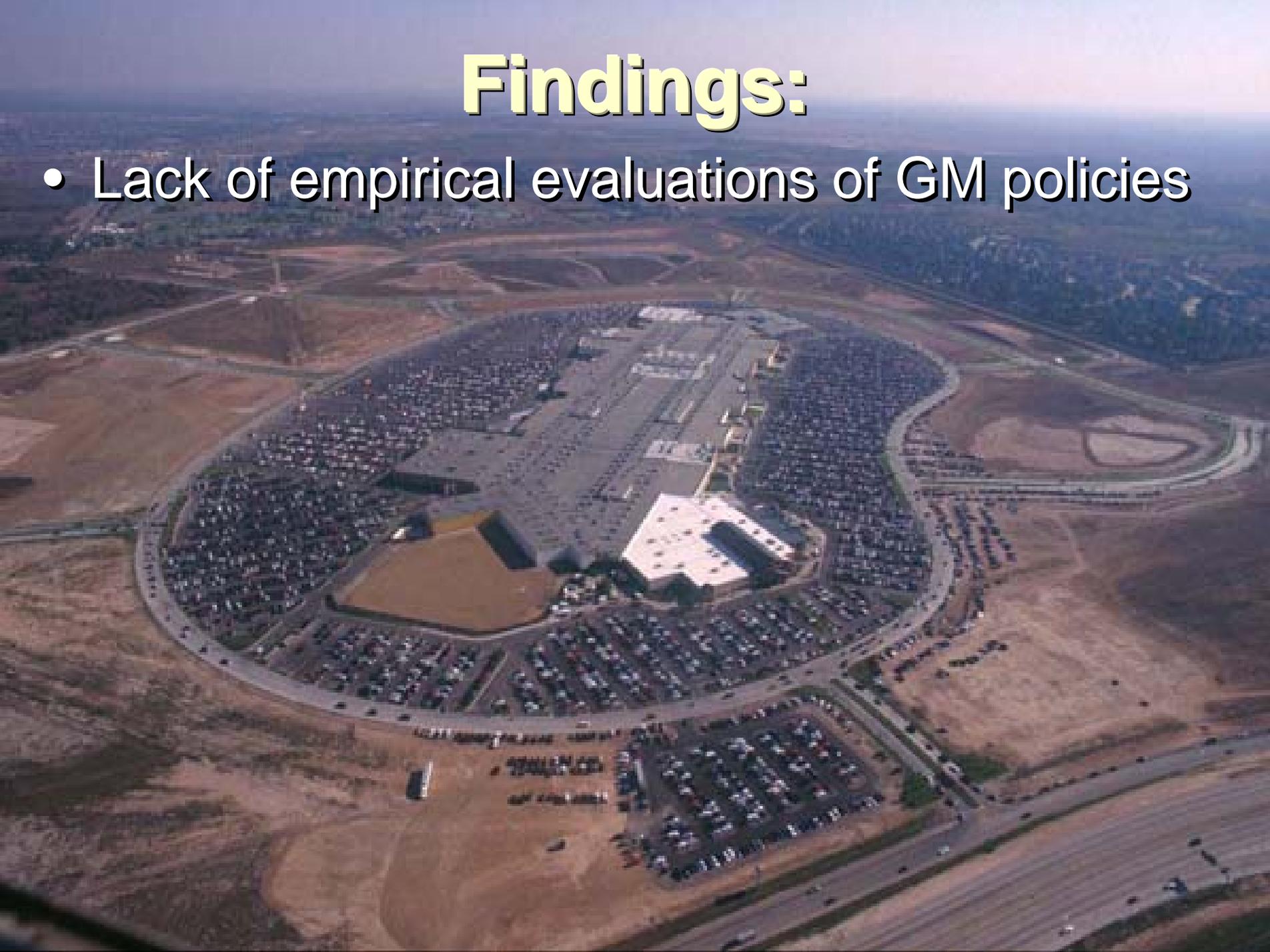


All Types of Policy Instruments

- **Incentive-based** (e.g., tax-credit programs to maintain intact forests)
- **Regulatory** (e.g., mandating compact development)
- **Land Acquisition** (e.g., fee simple public ownership of parks, recreation areas, etc.)
- **Educational** (e.g., educating stakeholders about impacts in order to change attitudes & behavior)

Findings:

- Lack of empirical evaluations of GM policies



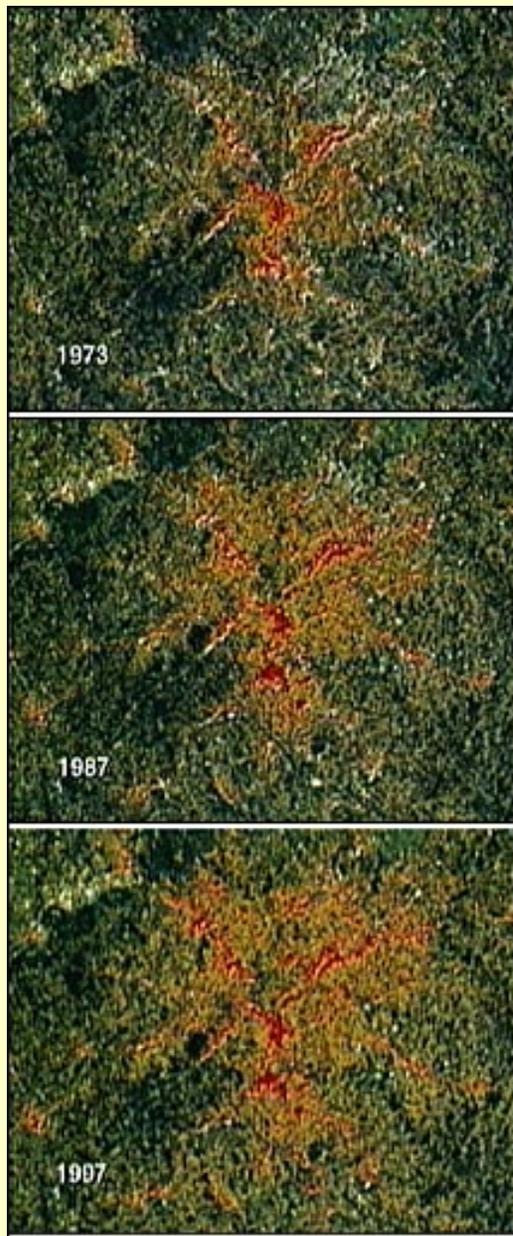


Lack of empirical evaluations of growth management policies

**“The existing literature focuses on describing the tools and techniques of growth management regimes, rather than empirically measuring their effect.”
(Hollis & Fulton 2002, p. 7)**

Why So Few Evaluations?

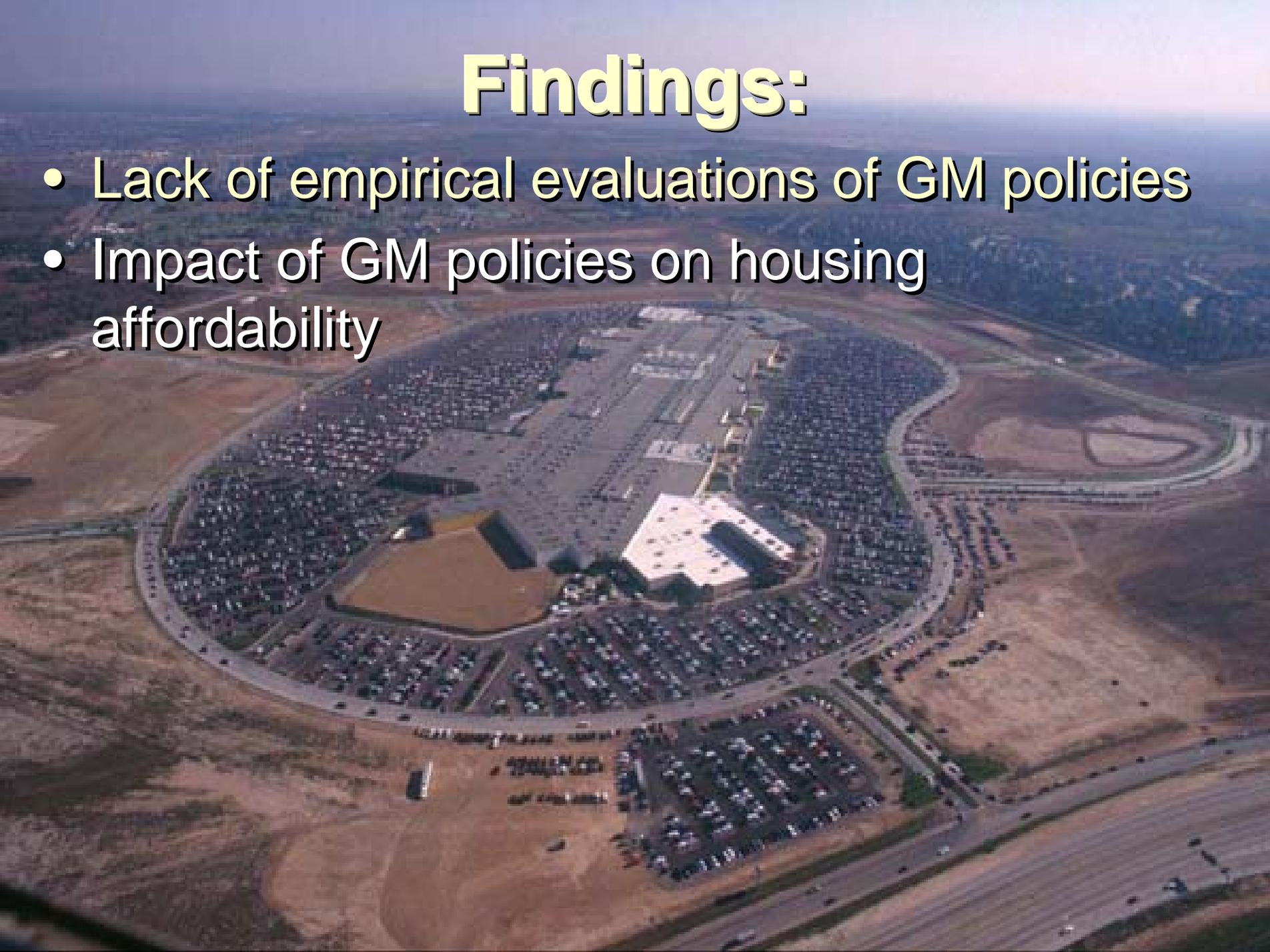
- **Long-term impacts:** Most policies have impacts over long periods of time; short-term evaluations may be unable to detect the effects.
- **Problem of the counterfactual:** In order to evaluate the effectiveness of a policy, something must be known about what would have happened in the absence of the policy.
- **Lack of targets:** Many policies & programs do not include effectiveness measures or targets, which makes evaluation difficult or impossible.



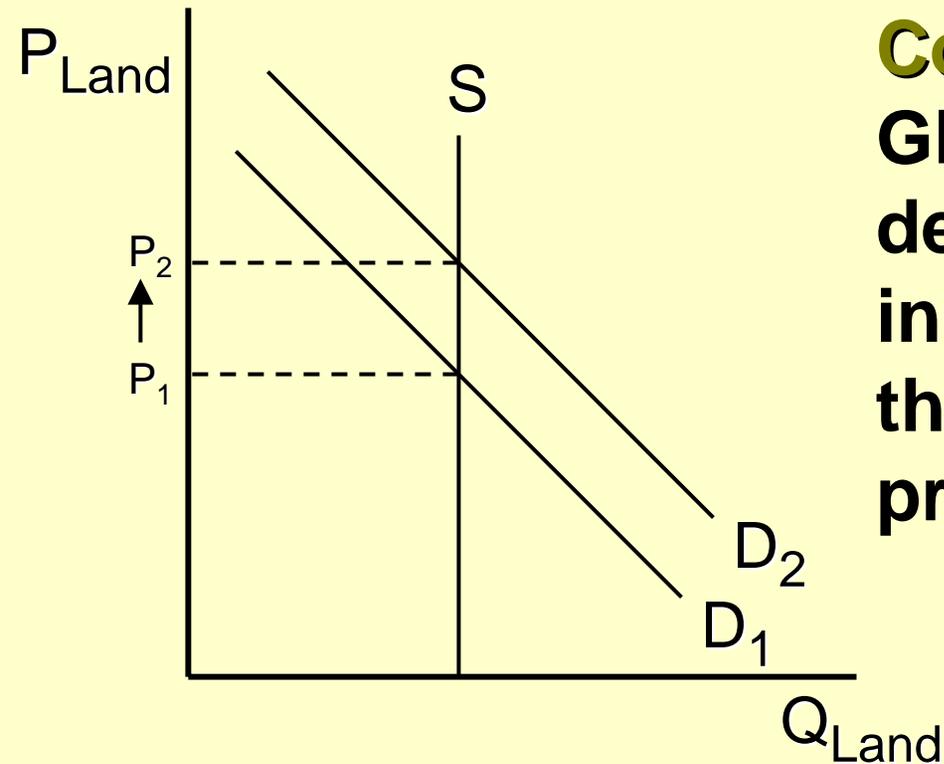
**Changes in Atlanta's
Landscape, 1973 - 1997**

Findings:

- Lack of empirical evaluations of GM policies
- Impact of GM policies on housing affordability



Effects of GM policies on housing affordability



Conventional wisdom:
GM limits supply of developable land, increases land prices & therefore increases the price of housing.



Effects of GM policies on housing affordability

- Housing prices determined by many factors
- Market demand is the main determinant of housing prices
- Urban Growth Boundaries (UGB): Portland's housing prices have risen at about the national average



**Central area, NJ
Cul-de-sac large homes**



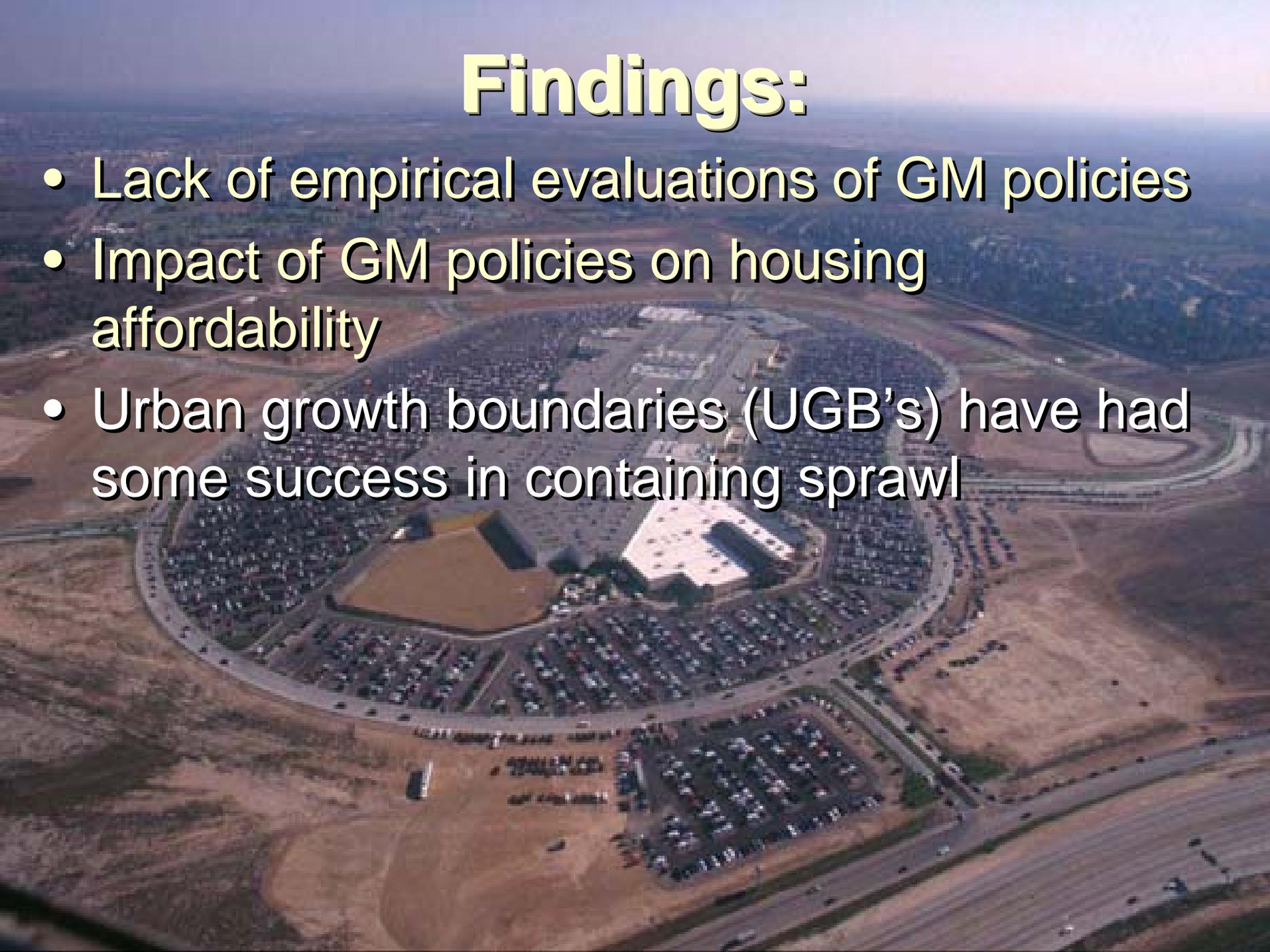
**San Francisco area, CA
Tightly spaced large homes**

GM policies often increase supply of affordable housing:

- More compact development lowers infrastructure costs
- Mandating a mix of housing types
- Promoting regional fair share housing
- Traditional zoning has policies specifically intended to make housing more expensive

Findings:

- Lack of empirical evaluations of GM policies
- Impact of GM policies on housing affordability
- Urban growth boundaries (UGB's) have had some success in containing sprawl





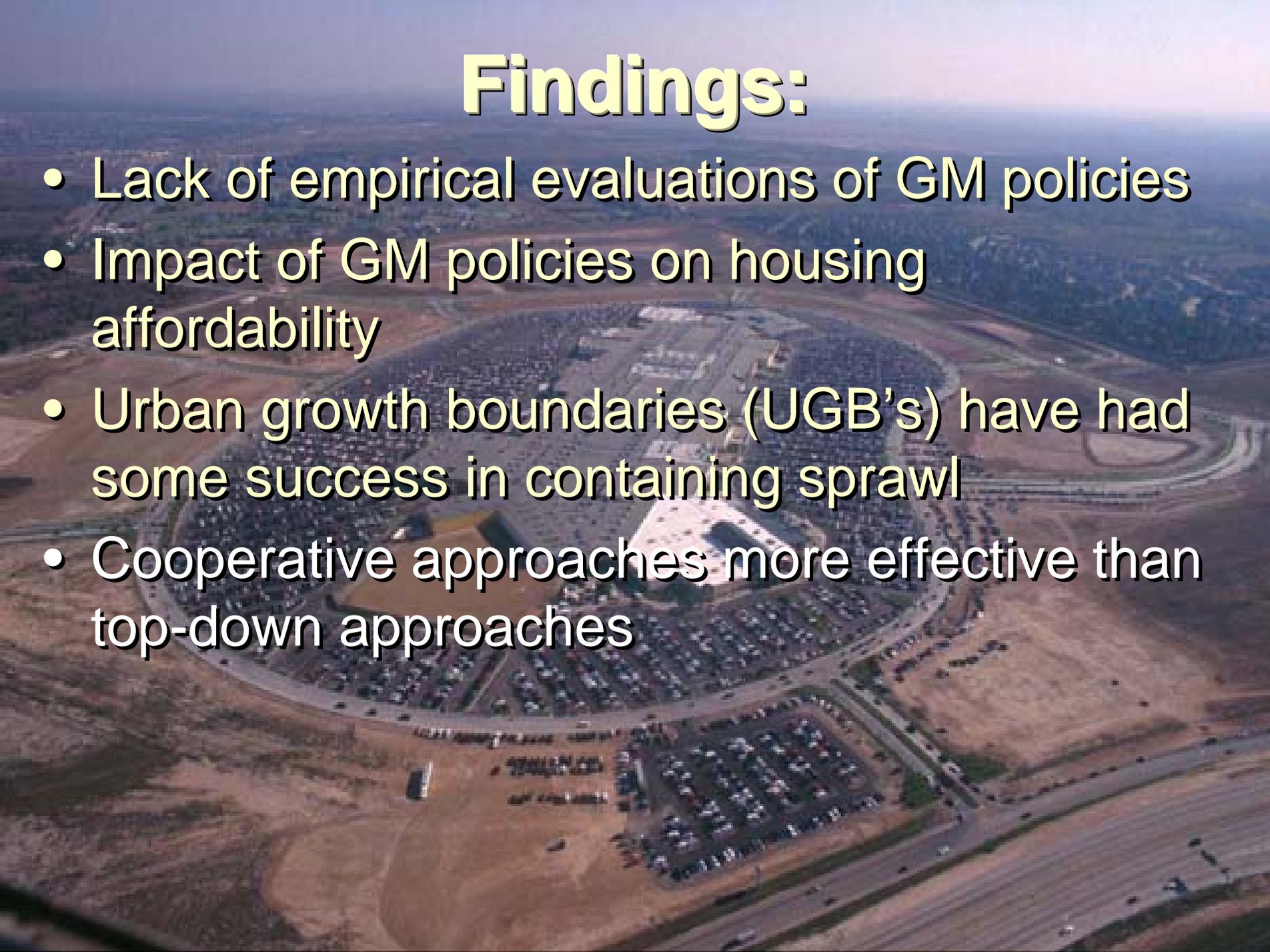
**Urban Growth Boundary
Portland, OR**

UGB's: Some success in containing sprawl

- Idea: A mapped boundary line with urban services within
- UGB's generally effective at promoting contiguous development, containing sprawl
- Size of the UGB is critical for effectiveness
- UGB's that cover more than a single municipality more effective

Findings:

- Lack of empirical evaluations of GM policies
- Impact of GM policies on housing affordability
- Urban growth boundaries (UGB's) have had some success in containing sprawl
- Cooperative approaches more effective than top-down approaches





Cooperative approaches more effective than top-down approaches

- **Top-down approaches:** Emphasize planning mandates, monitoring & penalties for not complying
- **Cooperative approaches:** Seek to enhance local planning & implementation through financial & technical assistance
- Trend away from state-mandated or “top-down” GM policies
- Cooperative approaches produce more carefully considered local policies

Findings:

- Lack of empirical evaluations of GM policies
- Impact of GM policies on housing affordability
- Urban growth boundaries (UGB's) have had some success in containing sprawl
- Cooperative approaches more effective than top-down approaches
- Multiple policy instruments more effective than single techniques



Multiple policy instruments more effective than single techniques

Example: Oregon's farmland protection program:

- Exclusive farm zones
- Growth boundaries
- Farm tax deferral
- Right-to-farm laws



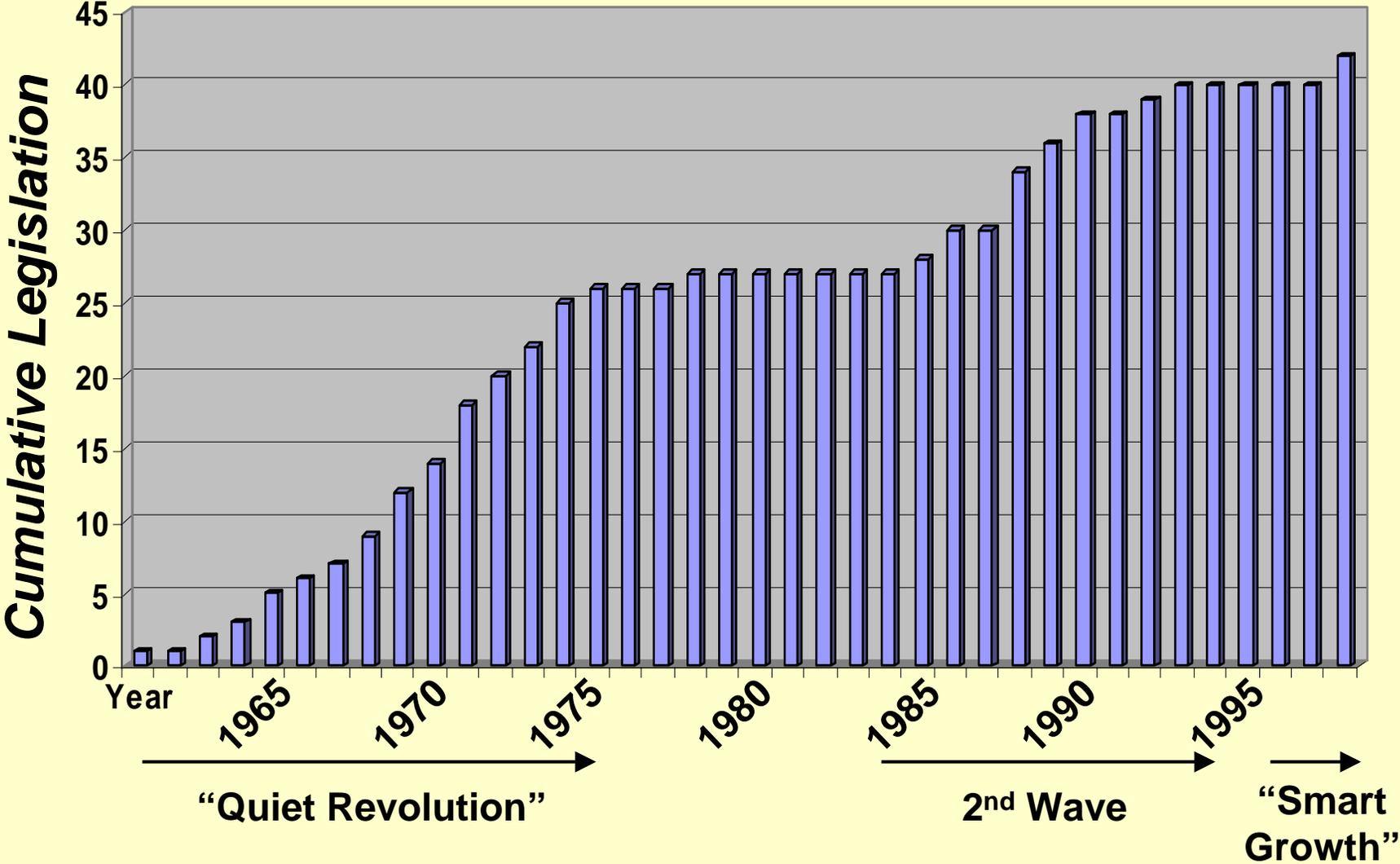
Successful farmland protection relies on a combination of techniques that reinforce each other

Concluding Comments ...

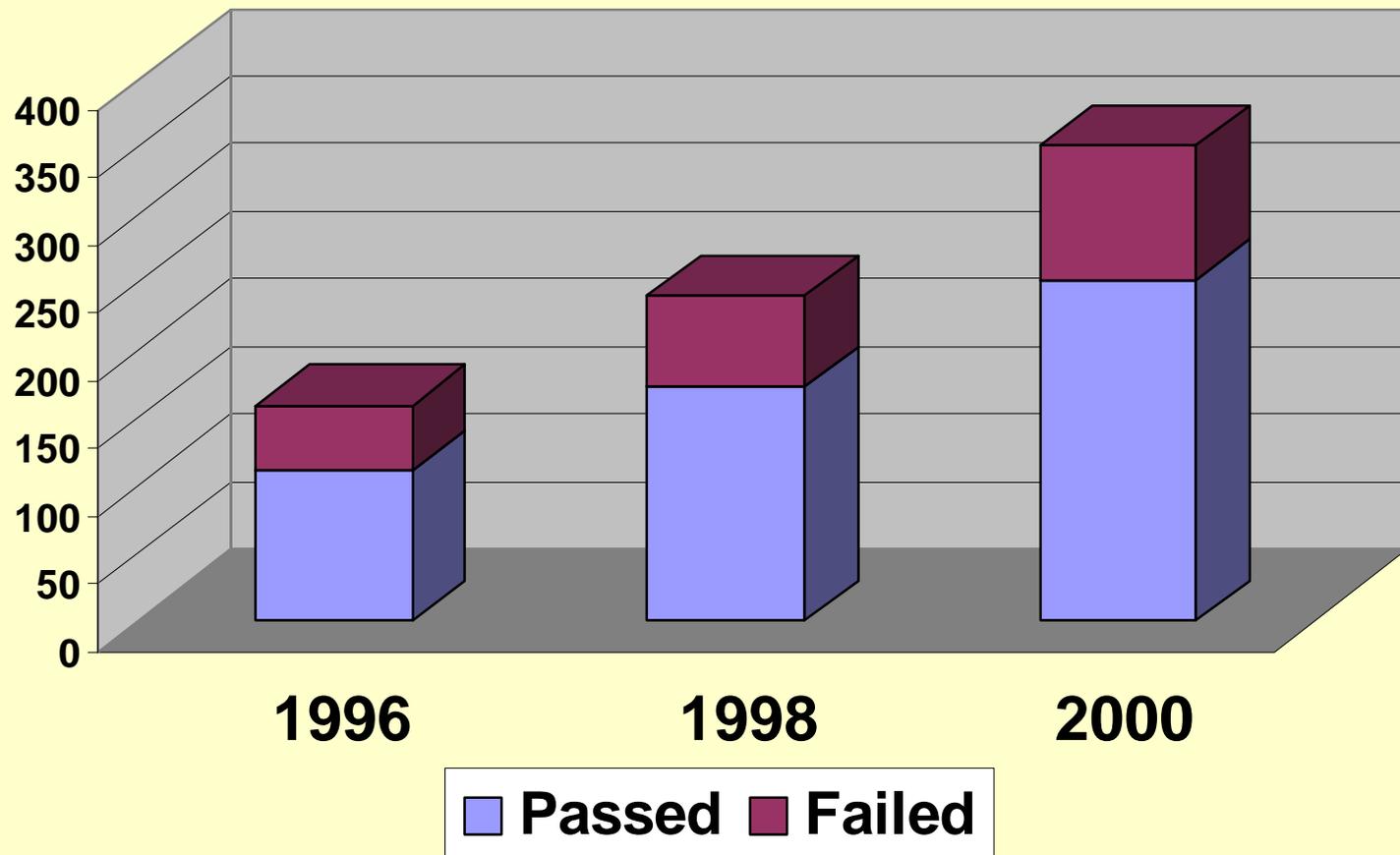


Indicator of Concern:

Increase in State growth management legislation



Indicator of Concern: Growth of Referenda on Open Space Preservation & Growth Management



Source: The Brookings Institution

Straight Talk From Americans - 2000



Indicator of Concern: Poll Results

Pew Center for Civic Journalism

Straight Talk From Americans - 2000

“Concerns about sprawl and growth are now edging out more traditional issues, such as crime, according to a series of five new polls commissioned by the Pew Center.”

Smart Growth Principles:

1. Mix land uses
2. Take advantage of compact building design
3. Create a range of housing opportunities and choices
4. Create walkable neighborhoods
5. Foster distinctive, attractive communities with a strong sense of place
6. Preserve open space, farmland, natural beauty, and critical environmental areas
7. Strengthen and direct development towards existing communities
8. Provide a variety of transportation choices
9. Make development decisions predictable, fair, and cost effective
10. Encourage community and stakeholder collaboration in development decisions

Organizations that have adopted or endorse Smart Growth principles include:

- U.S. Environmental Protection Agency
- Various State Governments
- National Association of Counties
- National Governors Association
- National Association of Realtors
- National Trust for Historic Preservation
- American Farmland Trust
- National Association of Home Builders (NAHB)
- National Association of Industrial and Office Properties (NAIOP)
- Sierra Club
- Natural Resources Defense Council (NRDC)
- Urban Land Institute
- Many more...

Additional Resources:

- Pre-press copies of our paper – available today
- Smart Growth Network – “Getting to Smart Growth II: 100 More Policies for Implementation” <http://www.lgean.org/html/whatsnew.cmf?id=673>

U.S. Environmental Protection Agency - <http://www.epa.gov/smartgrowth/>