

# Urban/Regional Economics and Rural Development

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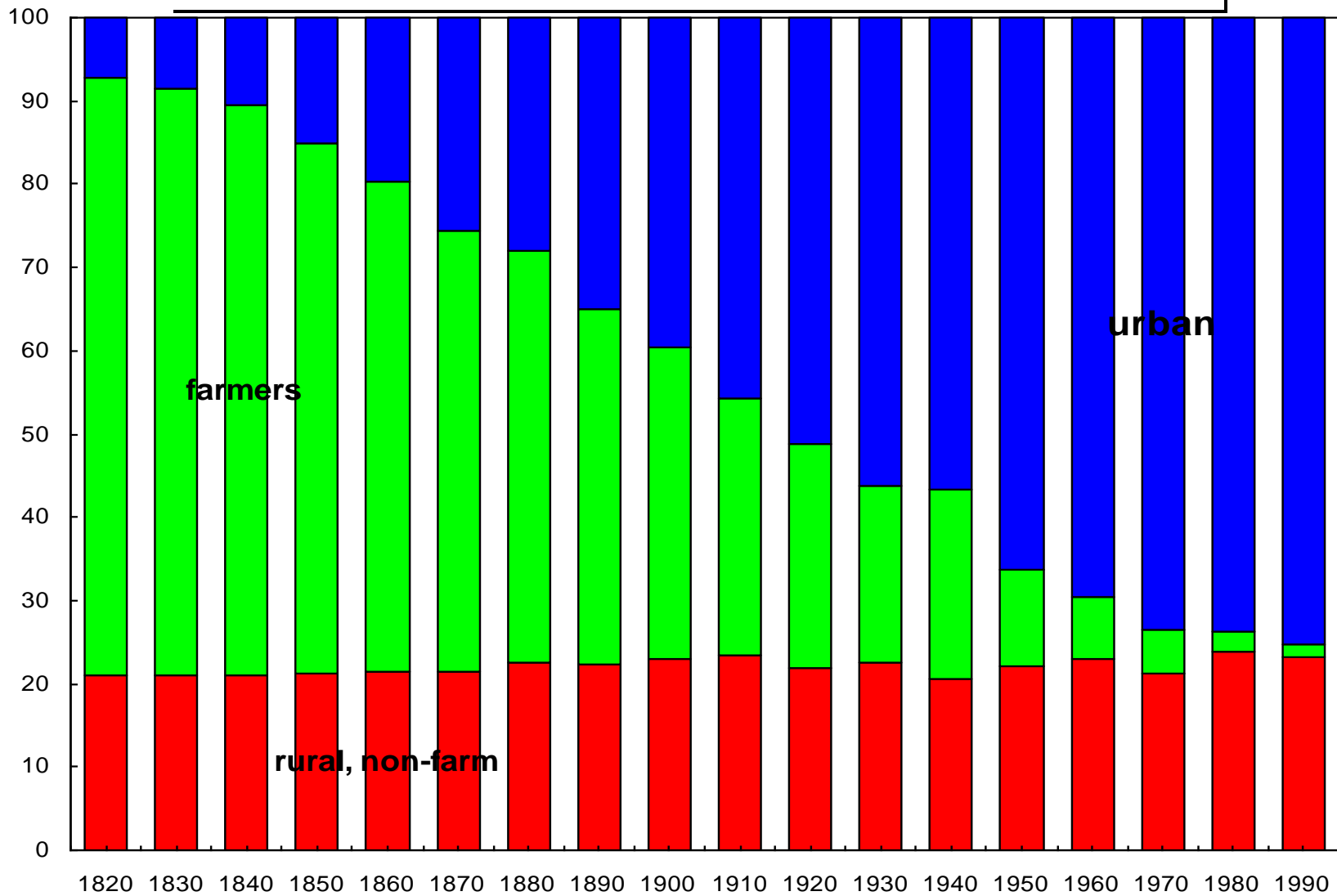
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# *RURAL = low density, remote, natural-resource abundant*

- 20-25% OECD country populations are *rural*
- Low “LQ” : only 25 articles in the JRS 1988-2008
- rural development research = public good
- many unresolved rural issues
- rural communities - too small to survive mistakes and too small to afford analytical capacity to avoid them.
- urban economies cannot achieve their full potential where rural areas lack vitality

# U.S. Population Shares

Data Source: <http://www.census.gov/population/www/documentation/twps0029/tab18.html>



Why is the non-farm rural share so stable? (also stable in France, Great Britain...)

What rural development researchers actually do:

## Input-output “impact” analyses

No prices, wages, rents: no relative abundance

Marginal = average: no scale economies

Perfectly elastic supplies: no t-costs

## fiscal impact analyses

Rarely appears in refereed journals

*Insatiable demand from cities and counties for these...*

# Refereed research: rural labor supply, demand, and income determination...

title	journal	year	authors
What Causes Spatial Variations in Economic Development in the US?	AJAE	2008	Wu & Gopinath
The Geographic Diversity of U.S. Nonmetropolitan Growth Dynamics: A Geographically Weighted Regression Approach	Land	2008	Partridge, Rickman, Ali & Olfert
Distance from Urban Agglomeration Economies and Rural Poverty	JRS	2008	Partridge & Rickman
Local Amenities and Life-Cycle Migration: Do People Move for Jobs or Fun?	JUE	2008	Chen & Rosenthal
Measuring the Impact of Meat Packing and Processing Facilities in Nonmetropolitan Counties: A Difference-in-Differences Approach	AJAE	2007	Artz, Orazem & Otto
Why Is U.S. Poverty Higher in Nonmetropolitan than in Metropolitan Areas?	G&C	2007	Fisher
Proprietorship Formations and U.S. Job Growth	RRS	2007	Shrestha, Goetz & Rupasingha
Regional Innovation Systems: Implications for Nonmetropolitan Areas and Workers in the South	G&C	2006	Barkley, Henry, & Nair
Employment Growth and the Allocation of New Jobs: Evidence from the South	RRS	2006	Renkow
Food Industry Investment Flows: Implications for Rural Development	RRS	2006	Lambert, McNamara, & Garrett
A Time Series Analysis of U.S. Metropolitan and Non-metropolitan Income Divergence	ARS	2006	Hammond
Industry Agglomeration and Investment in Rural Businesses	RAgEc	2005	Gabe
The Returns to Education in Rural Areas	RRS	2004	Goetz & Rupasingha
Education and Nonmetropolitan Income Growth in the South	RRS	2004	Henry, Barkley, & Li
Employment Risk in U.S. Metro & Nonmetro Regions: The Influence of Industrial Specialization and Population Characteristics	JRS	2004	Hammond&Thompson
Agriculture and Rural Economic Growth	JAAE	2003	Deller, Gould & Jones
Employment Growth, Worker Mobility, & Rural Economic Development	AJAE	2003	Renkow
Rural/Urban Welfare Program and Labor Force Participation	AJAE	2003	Kilkenny & Huffman

# Consensus:

- 1) firms choose the rural locations that are **accessible** to their input or output markets and offer the **space and workforce** they desire at competitive costs (Blackley, 1986; Johnson, 1991; Henderson, 1994).
- 2) There are different scales or **critical mass**, in terms of both population and business counts and interdependencies, below which different types of establishments are not sustainable (Shonkwiler and Harris, 1996; Barkley, et al, 2000);
- 3) People **migrate into rural areas proximate** to metro areas to enjoy rural **amenities** (Deller, et al, 2001; Chen and Rosenthal, 2008).
- 4) People **migrate out of remote rural areas to capture higher returns** on their human capital (Mills and Hazarika, 2001; Goetz and Rupasingha, 2004).

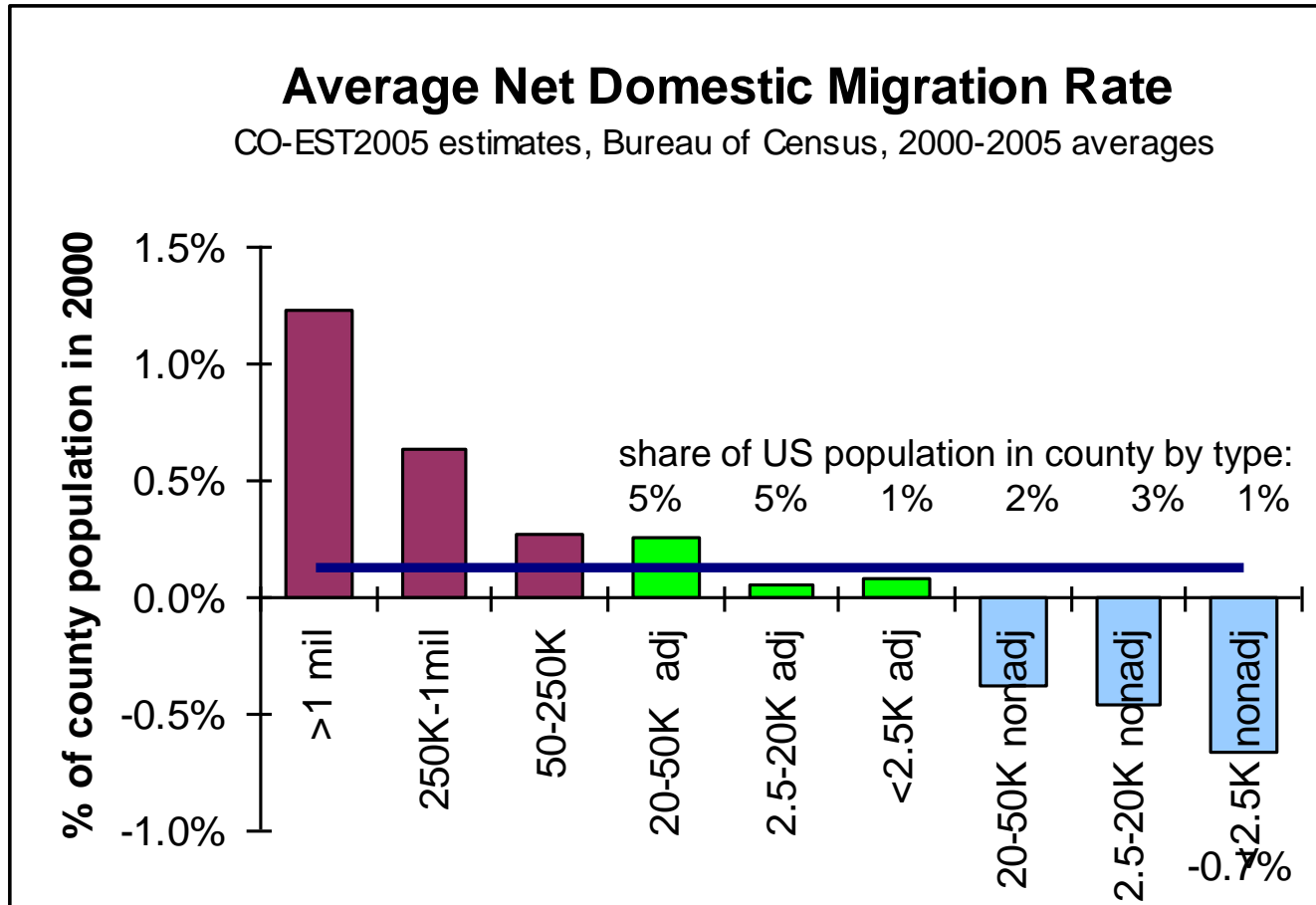
Huang, Orazem and Wohlgemuth (2002) have shown that although higher rural human capital is associated with higher rural incomes, the effect is “swamped” by the **rural brain-drain** to urban areas.

- 5) Rural labor demand growth is met by reduced rural out-commuting rather than in-migration (Renkow, 2003), while **excess rural labor supplies** are resolved by **reductions in the rural labor force**.

Khan, Orazem and Otto (2001) emphasize that **commuting is an alternative to rural out-migration**.

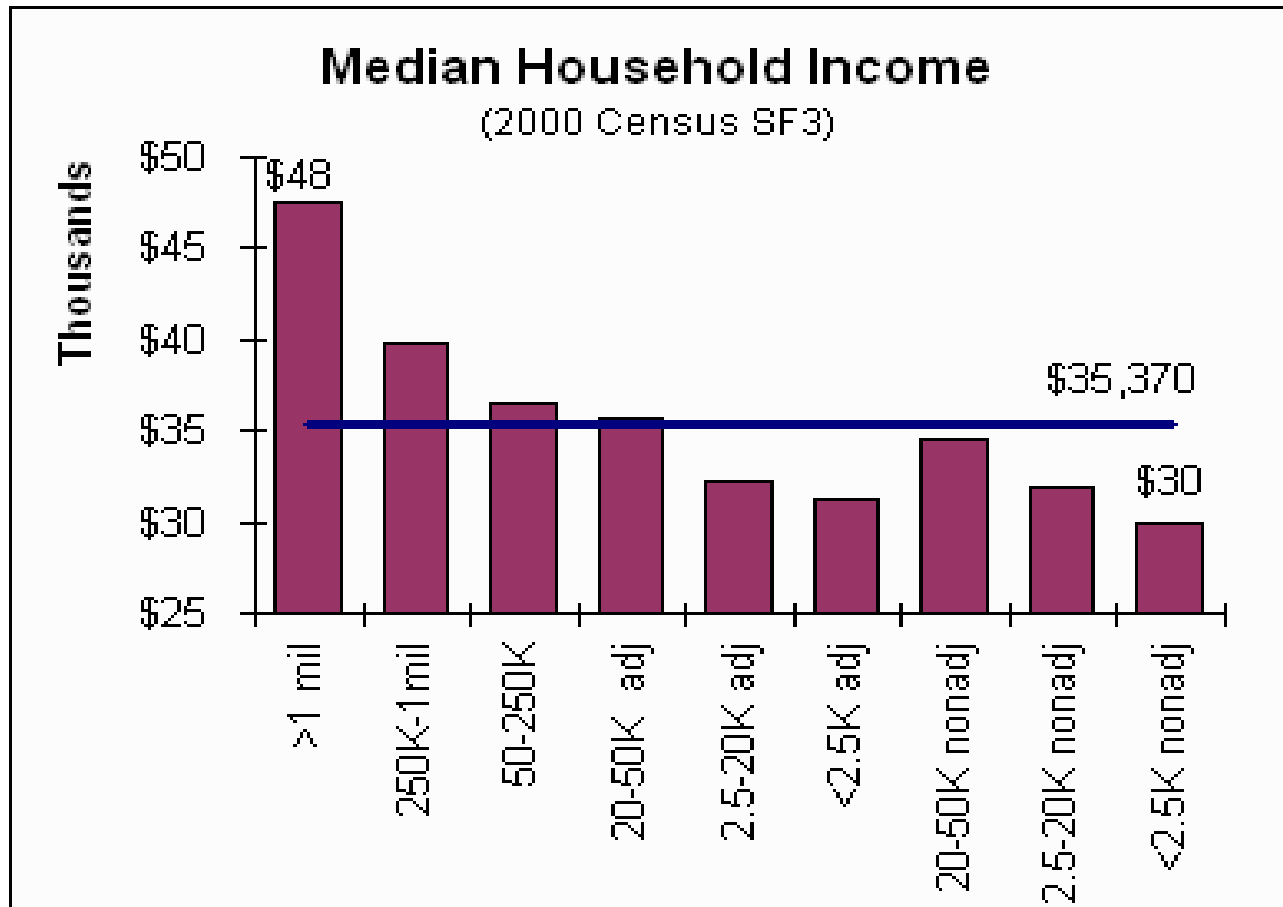
But So, Orazem and Otto (2001) note that rural **commuting costs can be prohibitively high**.

# Piecemeal *spatial rationalization*



Annual Net Domestic Migration rates by County Population and Adjacency to Urban areas  
Note: the horizontal line at 0.1% indicates the nationwide average net in-migration rate.

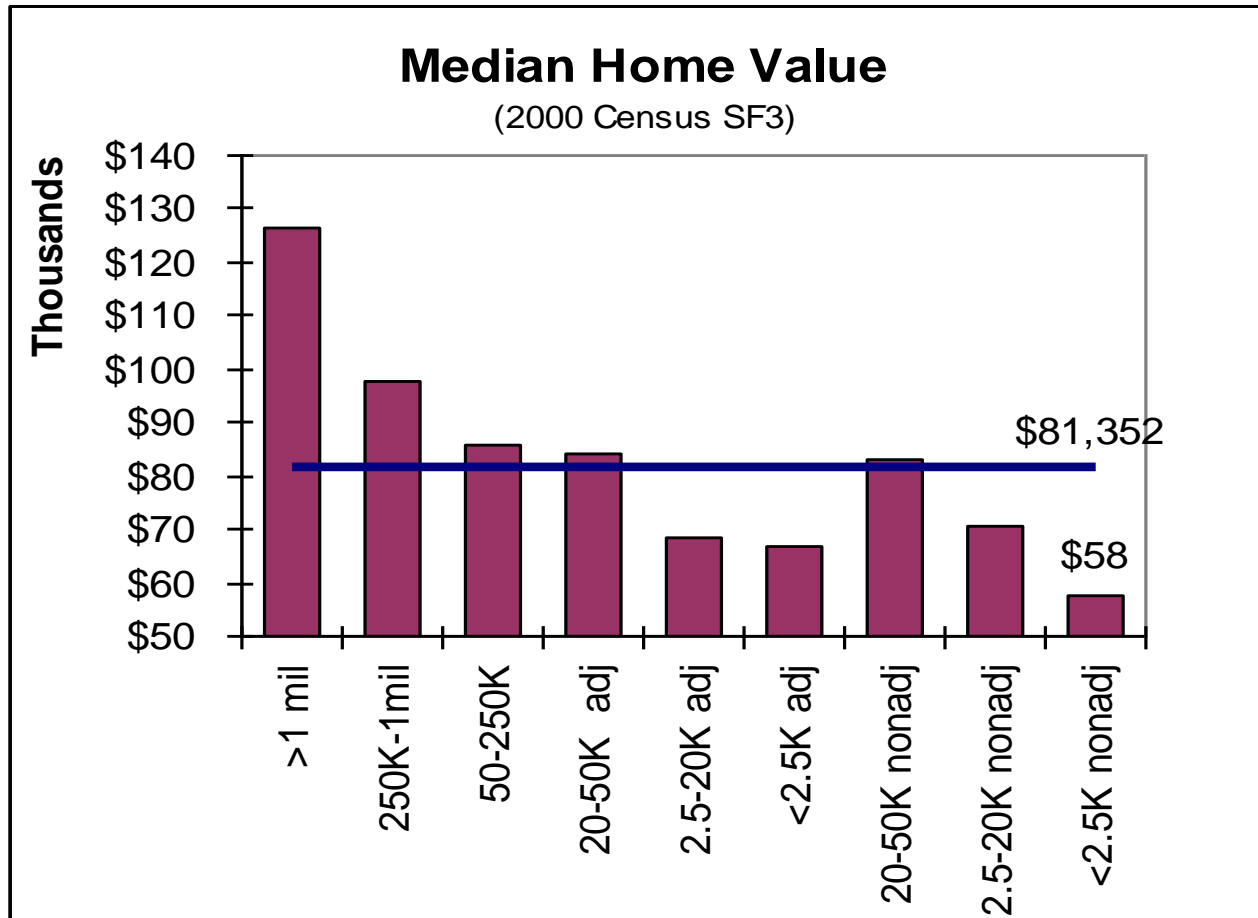
**Piecemeal mobility** of rural people **dampens economic opportunity**, reduces rural property values, and worsens the dependence of rural communities on intergovernmental funds.



Median Household Income, by County Population size and Proximity to Urban Areas  
Note: \$35,370 was the nationwide median household income in 2000.

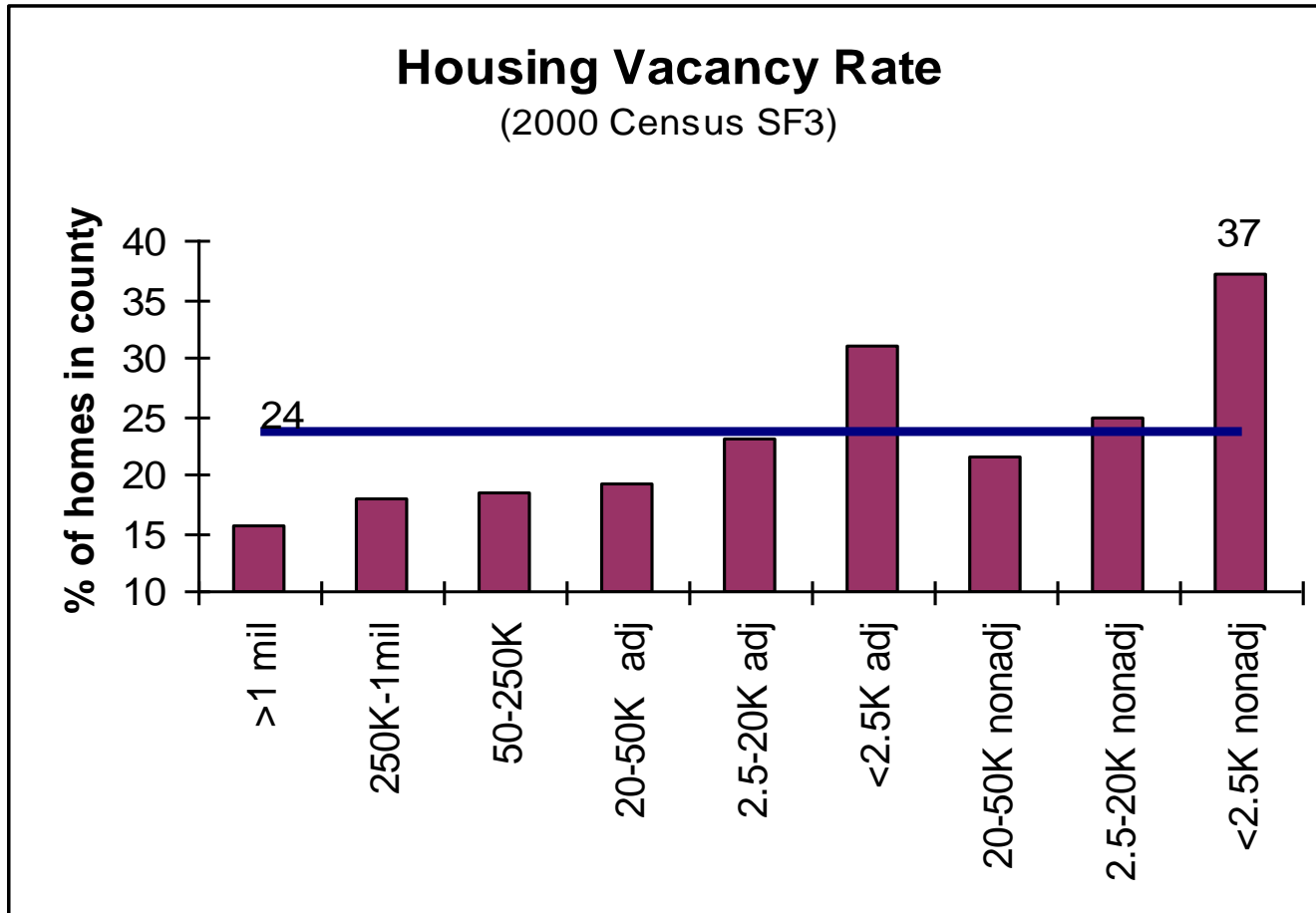


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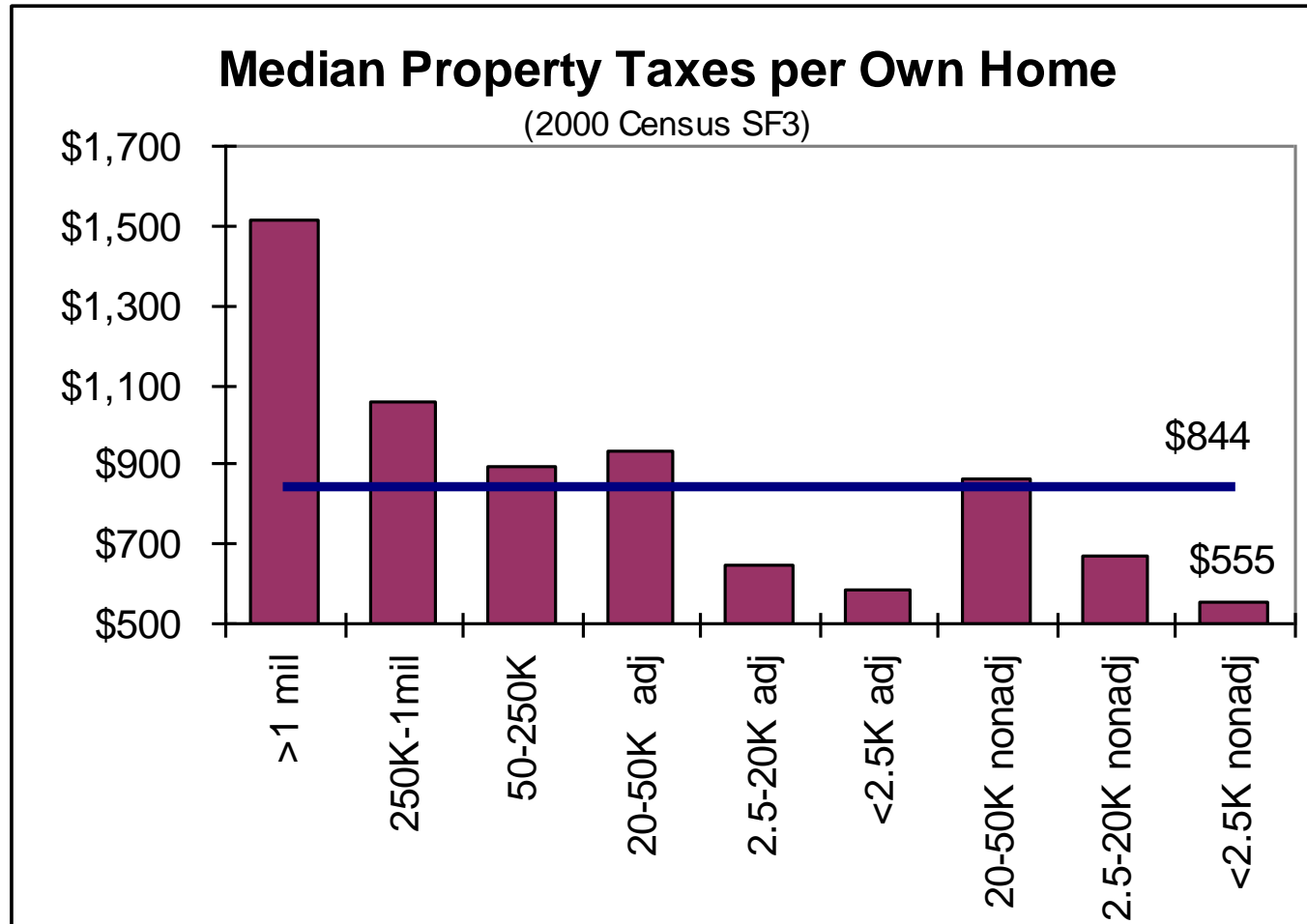
Median Home Value, by County Population Size and Proximity to Urban Areas  
Note:: \$81,352 was the nationwide median home value in 2000.

**Piecemeal mobility of rural people** reduces rural property values, dampens economic opportunity, and worsens the dependence of rural communities on intergovernmental funds.



Housing Vacancy Rate, by County Population Size and Proximity to Urban Areas  
Note: the line at 24% indicates the nationwide average housing vacancy rate in 2000.

**Piecemeal mobility** of rural people reduces rural property values, dampens economic opportunity, and **worsens the dependence of rural communities on intergovernmental funds.**



Median property taxes paid per owner-occupied home, by county Beale Code  
Note: \$844 was the nationwide median property taxes paid per home in 2000.

## Deleterious market forces; some market failures:

- 1) Negative feedback
- 2) Lack of agglomeration economies
- 3) Prohibitively high cost of remoteness
- 4) Endogenous sorting of low human capital persons into rural communities
- 5) Low cost of rural living undermines migration incentives
- 6) Illiquidity of rural housing = 'spatial' financial lock-in

# Market failures → need for rural policy?

- 1) Rural fixed assets often not liquidatable at opportunity values (price  $\neq$  value)
  - 2) Simply replacing one rural family or business with another does not accomplish *spatial rationalization*
  - 3) Rural business can't unilaterally expand; there are no alternative upstream and downstream-linked businesses; all must expand simultaneously; high risk; (price fails to signal or coordinate rural adjustments)
- Achieving rural economic efficiency is a coordination / planning challenge

# A few research challenges:

- 1) location choice (entry and exit) affect other rural people and businesses: inframarginality assumptions are inappropriate
- 2) cannot ignore short vs. long run: operating below minimum efficient scale
- 3) cannot ignore that space imparts market power
- 4) cannot ignore small market size as a barrier to entry
- 5) cannot ignore that rural firms compete with urban firms who enjoy the benefits of agglomeration

# rural policy?

Not to provide incentives for spatial rationalization,  
but to

- mitigate the negative externalities and negative feedback,
- address market failures,
- correct inefficiencies,
- compensate the immobile-- inadvertent losers in a world of increasing returns to scale

# *nationwide policies?*

e.g., sector policies, income safety net policies, education...

## **4 shortcomings:**

- 1) spatial heterogeneity → different outcomes (Hurter & Martinich '89; Kilkenny and Huffman '03; Blank '05).
- 2) cost heterogeneity → expensive to provide every person everywhere with the same level of public goods
- 3) scale economies, tastes differ → equal spending per capita  $\neq$  equal marginal social benefits
- 4) negative dynamic feedback: the smaller a community gets, the faster it shrinks and the higher the cost of public good provision per capita



# *people-based policies?*

such as “every child everywhere should have a **good school** within 30 minutes by bus”

may **help mobilize people out** of low-income,  
low vitality rural areas;  
but in doing so,  
they **push** those rural communities **further  
below critical mass.**

*Negative feedback*

# *place-based* policies?

in which the location or **spatial category** of the beneficiary is a key **criterion for eligibility**

## **shortcomings**

- 1) may generate nothing but rents for the owners (potentially absentee) of property in targeted places;
- 2) attract, retain, or trap poor people in poor areas;
- 3) distort business as well as human migration decisions;
- 4) enable the postponement of necessary adjustments;
- 5) create dependencies;
- 6) are subject to abuse by place-based elected officials.

*Moral hazard*



Committed to the future  
of rural communities.

Georgia

## Water, Waste Water, and Solid Waste Programs

### Description:

Funding is provided for the financing of small municipal and rural water, wastewater, and solid waste systems. This is a loan and grant program available to rural communities and small incorporated towns/cities not larger than 10,000 in population.

### Loan Purposes:

Funds can be used for construction, land acquisition, legal fees, engineering fees, capitalized interest, equipment, etc.

### Loan/Grant Amount:

Funding may be obtained for 100 percent of eligible project costs, subject to adequate security, ability to repay, applicant's authority to borrow, and availability of funds. Grants cannot exceed 75 percent of eligible projects costs and are limited to a maximum of \$4,000,000 per project.

The interest rates (effective October 1 - December 30) are:

Market - 4.375%  
Intermediate - 4.375%  
Poverty - 4.5%  
Intermediate - 4.5/0%  
Poverty - 4.5%

Funding for FY '06 was:

- Direct Loans - \$33,262,000
- Guaranteed Loans - \$1,696,000
- Grants - \$11,243,000

***Moral hazard: As long as you make sure your community doesn't grow too big, and make sure you don't tax yourselves enough – you can depend on Uncle Sam...***

# Rural policies – counterproductive?

- 1) farm subsidy – Farmer out-migration
- 2) rural schools – rural brain-drain
- 3) welfare – moral hazard
- 4) rural housing – delayed adjustment
- 5) rural water & waste subsidy – moral hazard
- 6) rural direct loans & re-lending – undermines rural commercial banking sector

## In sum:

- There are significant spatial gradients in the returns to labor and property.
- Stagflation is a spatial phenomenon.
- Unfair? Rural people do vote with their feet.
- BUT piecemeal *spatial rationalization* is costly.
- Rural communities can't afford planning or policy mistakes or the research to avoid them.
- Rural policy inconsistent, counter productive.  
*Where are the scientists? Where is the research?*
- Fewer, larger rural communities?

***A feast of rural issues require & should inspire innovations in urban/regional/spatial economics:***

- Critical mass
- Minimum efficient scale
- Endogenous fiscal capacity and effort
- Moral hazard
- Endogenous sorting
- Spatial monopoly and monopsony
- Spatial gradients/stagflation
- financial lock-in
- Spatial heterogeneity

And when we have completed all this  
“structural” research, can we package it  
all into user-friendly decision-support  
tools to serve the public good?

That’s the challenge.