From Farm to Fortune: Understanding the Path to Upward Mobility in Rural America

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UNDER THE DIRECTION OF PROF. SEAN REARDON

Honors Program in Public Policy

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Rural-urban divide characterized by disparities

Average child poverty rates

5.1%

Higher in rural areas (2018)

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Bachelor degree completion rate

14%

Lower in rural areas (2015)

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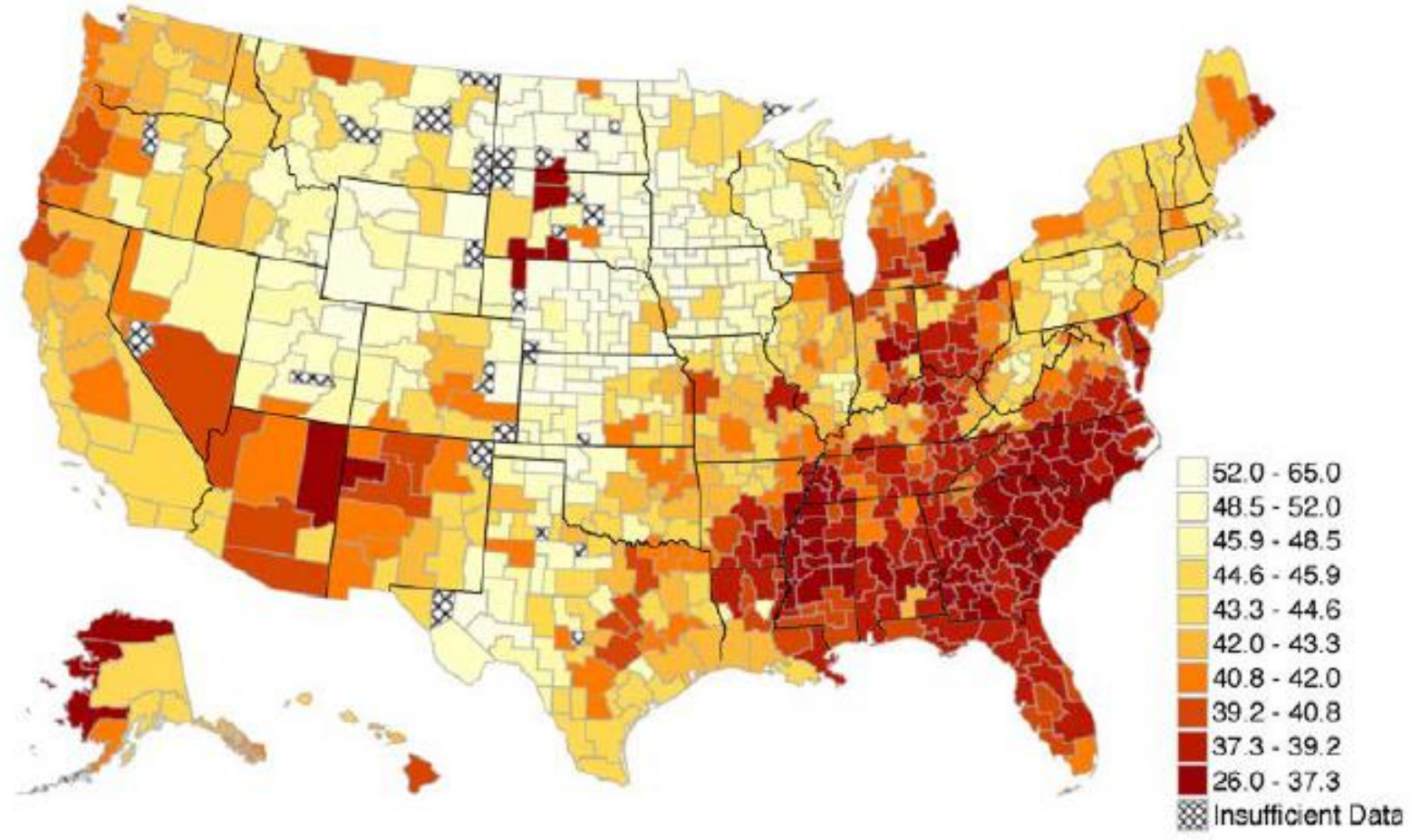
Lower in rural areas (2015)

Rural infant mortality

1.11

Deaths greater (2014)

Despite these disparities, upward mobility is higher in rural counties



Source: Chetty, Hendren, Kline, & Saez (2014)

Research Aims

1. Identify characteristics of rural places with greater upward mobility
2. Consider potential for policy to shape rural mobility

What is upward mobility?

Measure of effect of one's background on one's economic life outcomes

In technical terms: Predicted household income rank for individual born to parents at 25th percentile of national income distribution

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0.41

median mobility

What is rural?

Lower population density

Geographic isolation

Unique economic base

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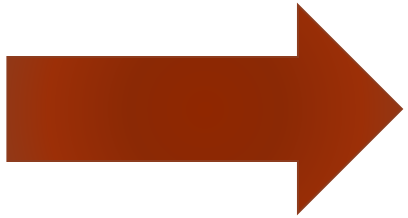

Dense social networks

Limited access to services
(healthcare, broadband)

Greater reliance upon key community institutions
(churches, schools)

Data

Opportunity Insights: Mobility and college completion outcomes; demographic, economic, social, and policy covariates

Stanford Education Data Archive: Education covariates (growth rates, achievement)

U.S. Department of Agriculture: Agricultural subsidies, economic dependency and rurality classifications

U.S. Census: State and division classifications

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Methodology

Cross-sectional regression

$$\hat{Y}_i = \beta_0 + \boldsymbol{X}_i\boldsymbol{B} + \epsilon_i,$$

where $\boldsymbol{X}_i$ is a vector of covariates describing rural county *i*

Within-county fixed effects regression

$$\hat{Y}_{si} = \beta_0 + \beta_1 Achievement_{si} + \beta_2 Growth_{si} + \boldsymbol{X}_{si}\boldsymbol{B} + \Lambda_s + \Gamma_i + \epsilon_{si},$$

where $\mathbf{X}_{si}$ is a vector of covariates describing subgroup *s* in county *i*, and Λ_s and Γ_i are subgroup and county fixed effects

The status of rural mobility

Mean rural mobility

0.41

Mean nonrural mobility

0.40

The status of rural mobility

Mean rural mobility

0.41

$1,075 more in annual income

Mean nonrural mobility

0.40

The status of rural mobility

Shannon County, SD

0.25

Harding County, SD

0.69

The status of rural mobility

Shannon County, SD

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Harding County, SD

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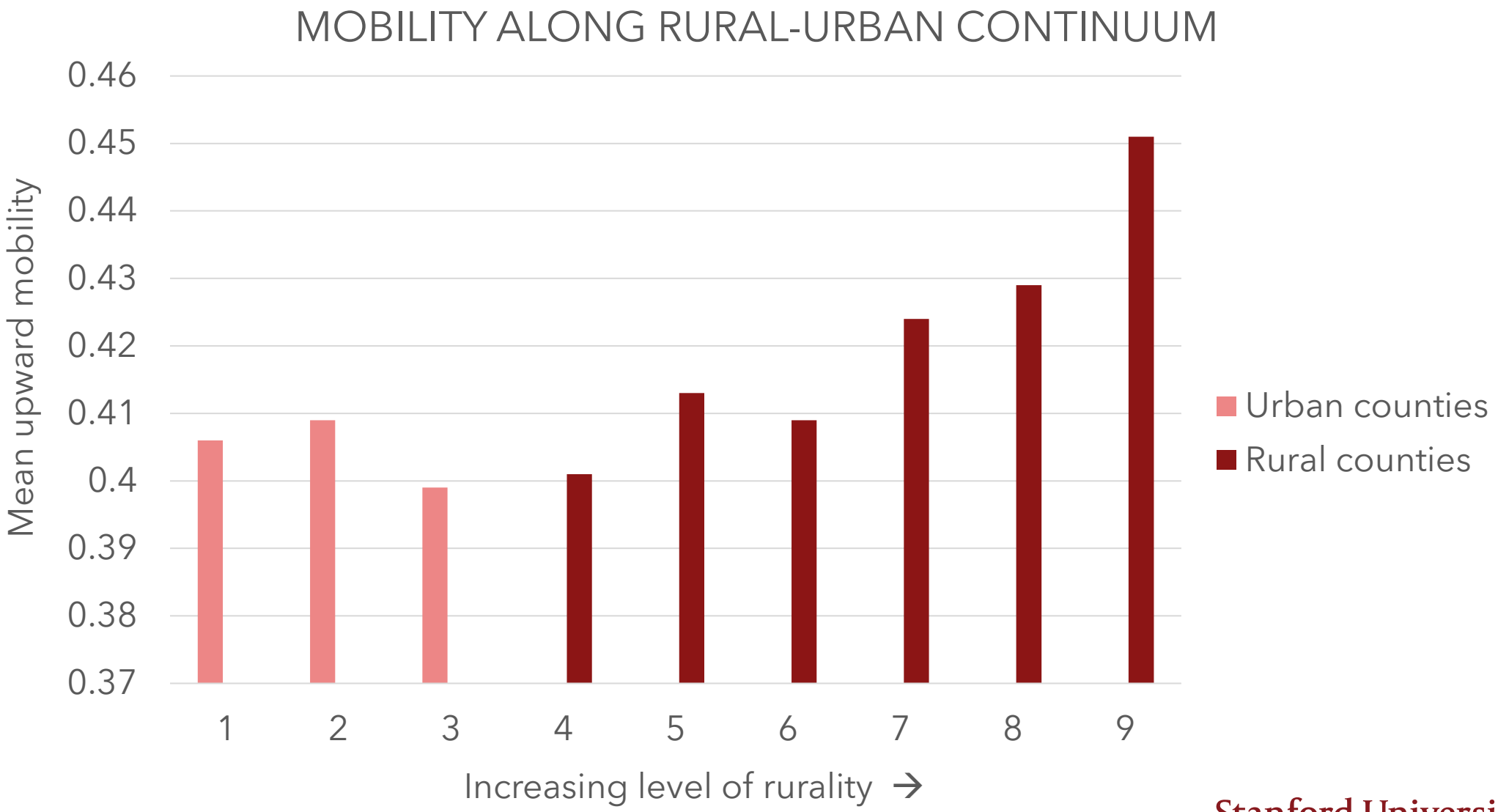
$55,760 difference in annual income

The status of rural mobility



Select results from fixed effects models

	Rural mobility		
Grade 3 achievement	0.011*** (0.002)	0.008*** (0.002)	
Grade 8 achievement			0.009*** (0.002)
Growth	0.002 (0.002)	0.006*** (0.002)	0.000 (0.002)
4-year college completion		0.005*** (0.001)	0.005*** (0.001)
Socioeconomic status	0.010*** (0.001)	0.012*** (0.001)	0.012*** (0.001)
Race fixed effects	✓	✓	✓
R-squared (within)	0.65	0.89	0.89

** $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, standard errors shown in parentheses*
Variables standardized to have mean of 0 and standard deviation of 1

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Select results from cross-sectional models

	Rural mobility	
4-year college completion		0.010*** (0.001)
Fraction black		0.013*** (0.001)
Fraction single-mother households		-0.034*** (0.002)
In-migration		-0.005** (0.002)
Social capital		0.006*** (0.001)
State EITC exposure		0.003*** (0.001)
Regional dimensions	✓	✓
All covariate controls		✓
R-squared	**0.60**	0.84

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	Rural mobility
Agricultural subsidies	**0.000 (0.001)**
Fraction single-mother households	-0.034*** (0.002)
Local gov't expenditures per capita	**0.002 (0.001)**
Local tax rate per capita	**0.002 (0.002)**
School expenditures per pupil	**0.002 (0.001)**
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Policy implications: EITC

Greater obstacles facing rural single mothers

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States with EITC exposure (1980-2001)	
Colorado	Minnesota
Iowa	New Jersey
Illinois	New York
Kansas	Oregon
Massachusetts	Rhode Island
Maryland	Vermont
Maine	Wisconsin

Policy implications: EITC

Greater obstacles facing rural single mothers

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States with highest poverty rates	
Mississippi	Arkansas
Louisiana	Kentucky
New Mexico	Texas
West Virginia	Oklahoma
Alabama	Montana

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Takeaways

1. Rural mobility merits additional analysis
2. Correlation =/= causation
3. Demographic factors > policy factors
4. Implementation challenges
5. Looking forward

Thank you!

Questions welcome

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