



# The Economic Effects of American Slavery: Tests at the Border

Hoyt Bleakley and Paul W. Rhode

2025

# The Antebellum : regional divergence

- States south of Mason-Dixon:
  - 50% of population (42% of free pop.) in 1790
- Slave states:
  - 38% of population (30% of free pop.) in 1860
- Rural pop. Even starker contrast for urban, manuf.

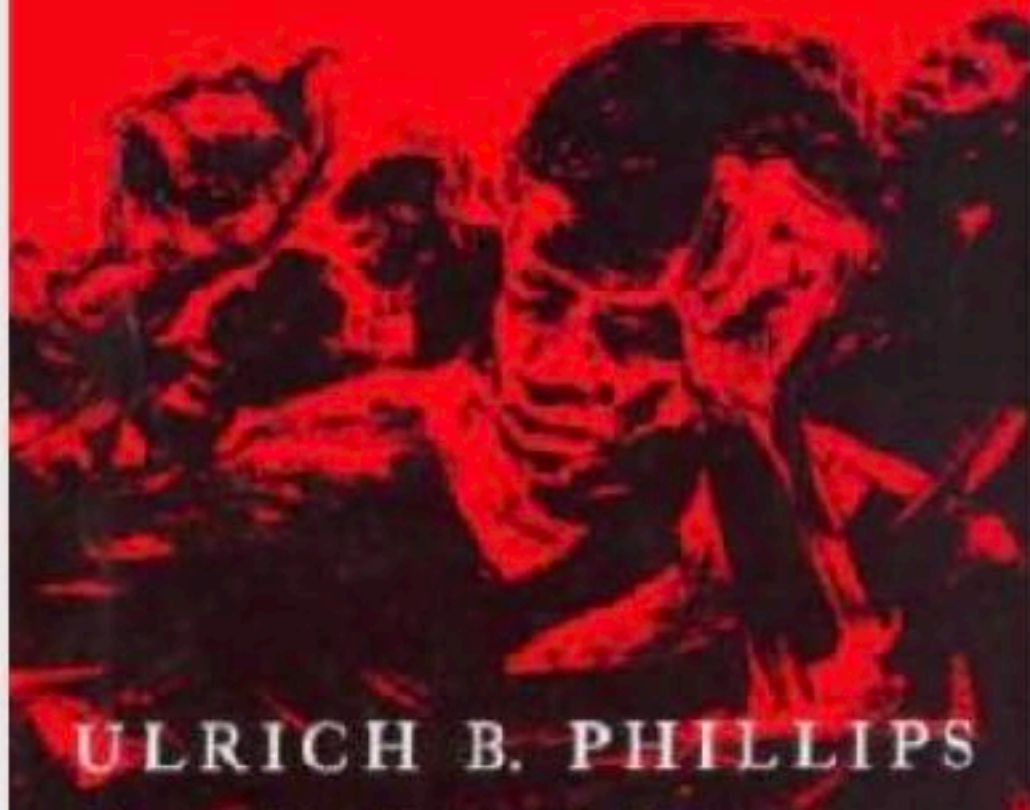
# AMERICAN NEGRO SLAVERY



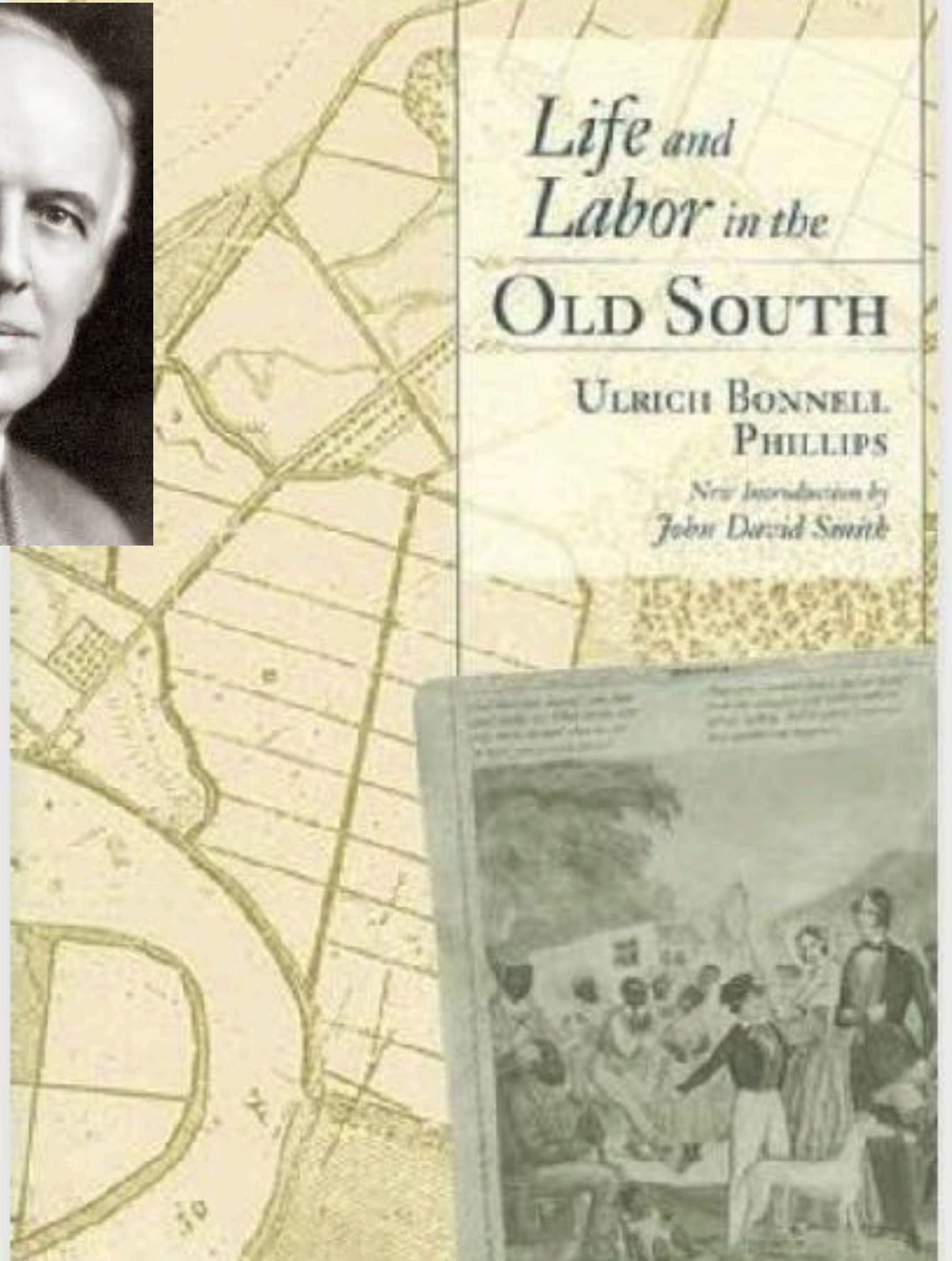
## *Life and Labor in the* **OLD SOUTH**

ULRICH BONNELL  
PHILLIPS

*New Introduction by  
John David Smith*



ULRICH B. PHILLIPS







**Robert William Fogel**  
NOBEL LAUREATE IN ECONOMIC SCIENCES  
and **Stanley L. Engerman**

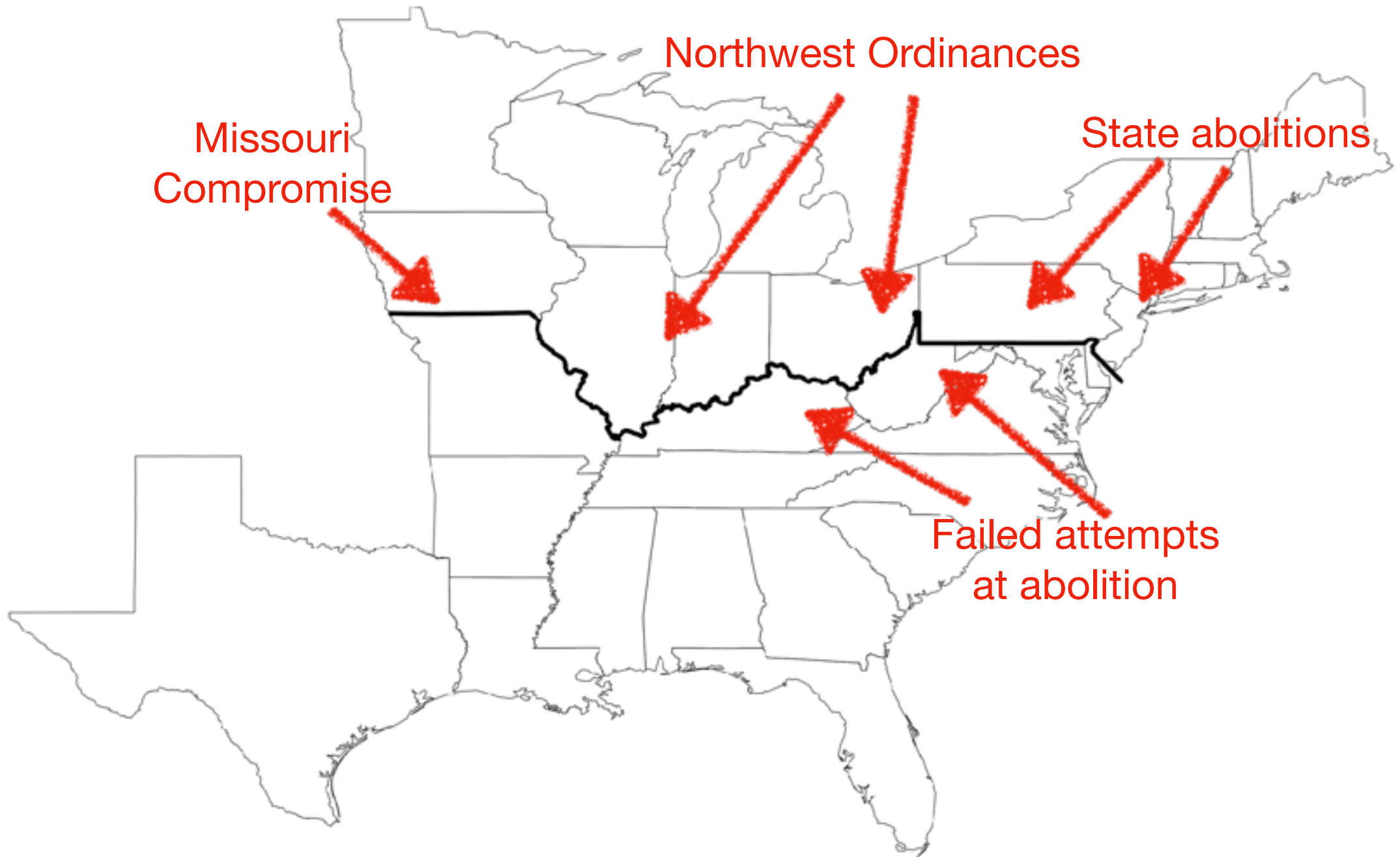
# TIME ON THE CROSS

The Economics of American Negro Slavery



	<b>Previous work by economists</b>	<b>Our work</b>
<b>Compare returns to factors that are...</b>	Mobile	Immobile
<b>Compare areas that are...</b>	Far apart	Close





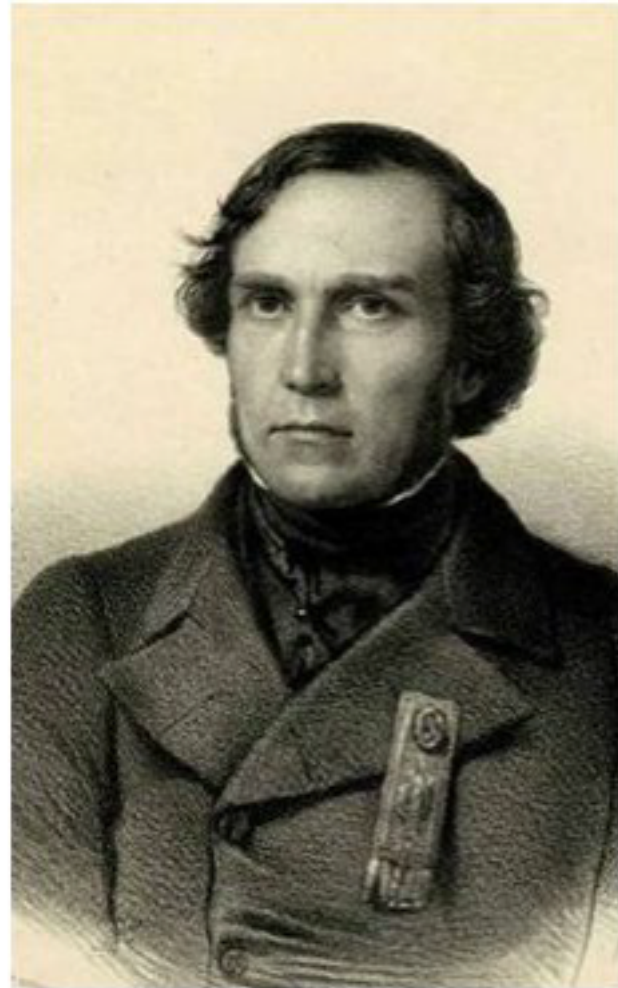
- Constraint on land use

$n$

$n+1$

- Institutions





Alexis De Tocqueville and Gustave Beaumont's 1831 trip

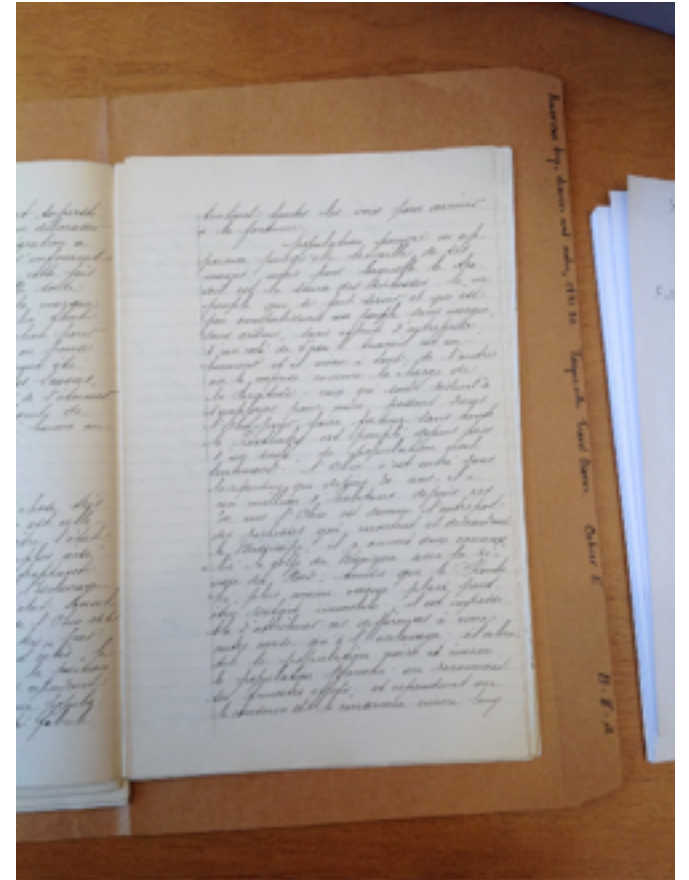
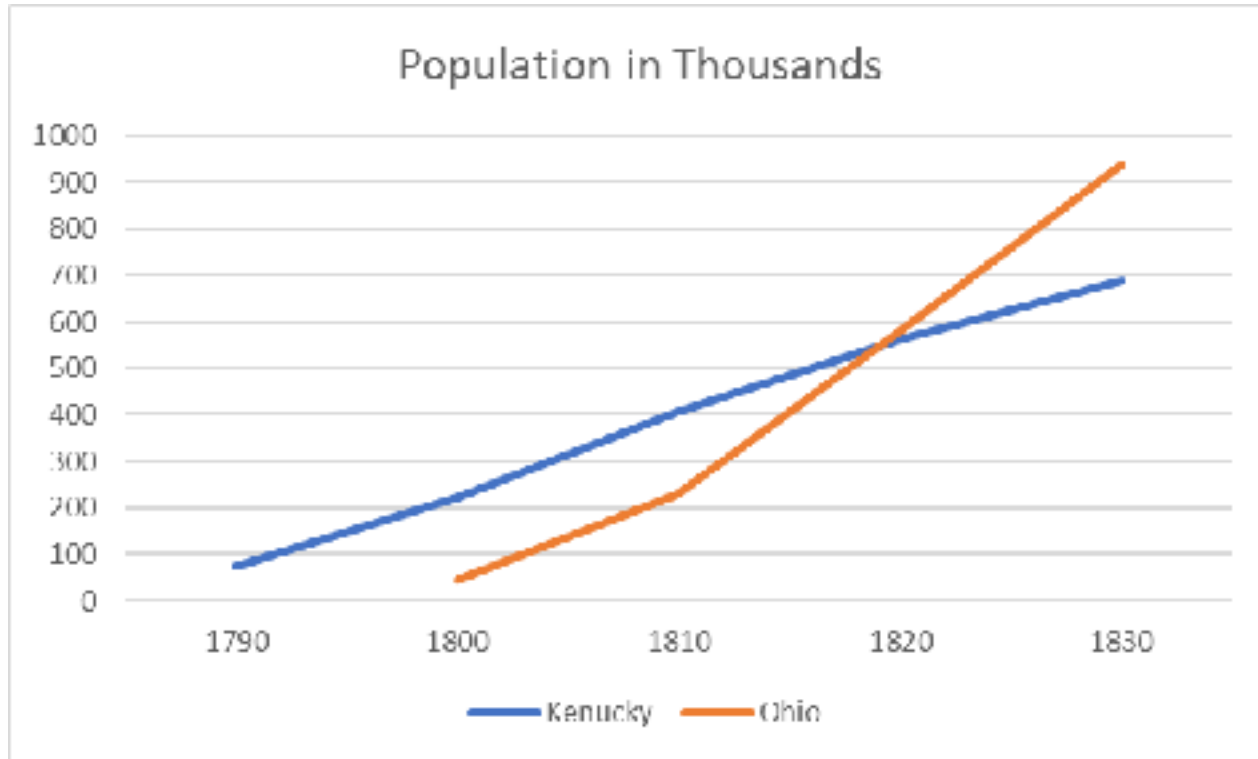


Portland Harbor, Maine, winter scene.

# Meet Cincinnati lawyer Timothy Walker

- Q: Is it true that a great difference exists between the aspect of Ohio and that of Kentucky?
- A: Prodigious. And yet Kentucky was settled twenty years before Ohio, its lands are as good, the climate more temperate, the country admirable. Nevertheless, Ohio has three times as many inhabitants as Kentucky; its business is ten times as great. The population of Kentucky is growing, but its prosperity is stationary. The only explanation that can be given is that slavery reigns in Kentucky but not in Ohio. There work is dishonorable, here held in esteem. There there is laziness, here activity without limit. Ohio attracts industrious inhabitants from all parts of the union. The South, which receives none, sends its inhabitants. The poor class of the South arrive in Ohio because they can work without shame. I see no reason why slavery should cease in Kentucky. The present population, while recognizing the evils it causes, cant learn to get on without it; and there is no emigration.

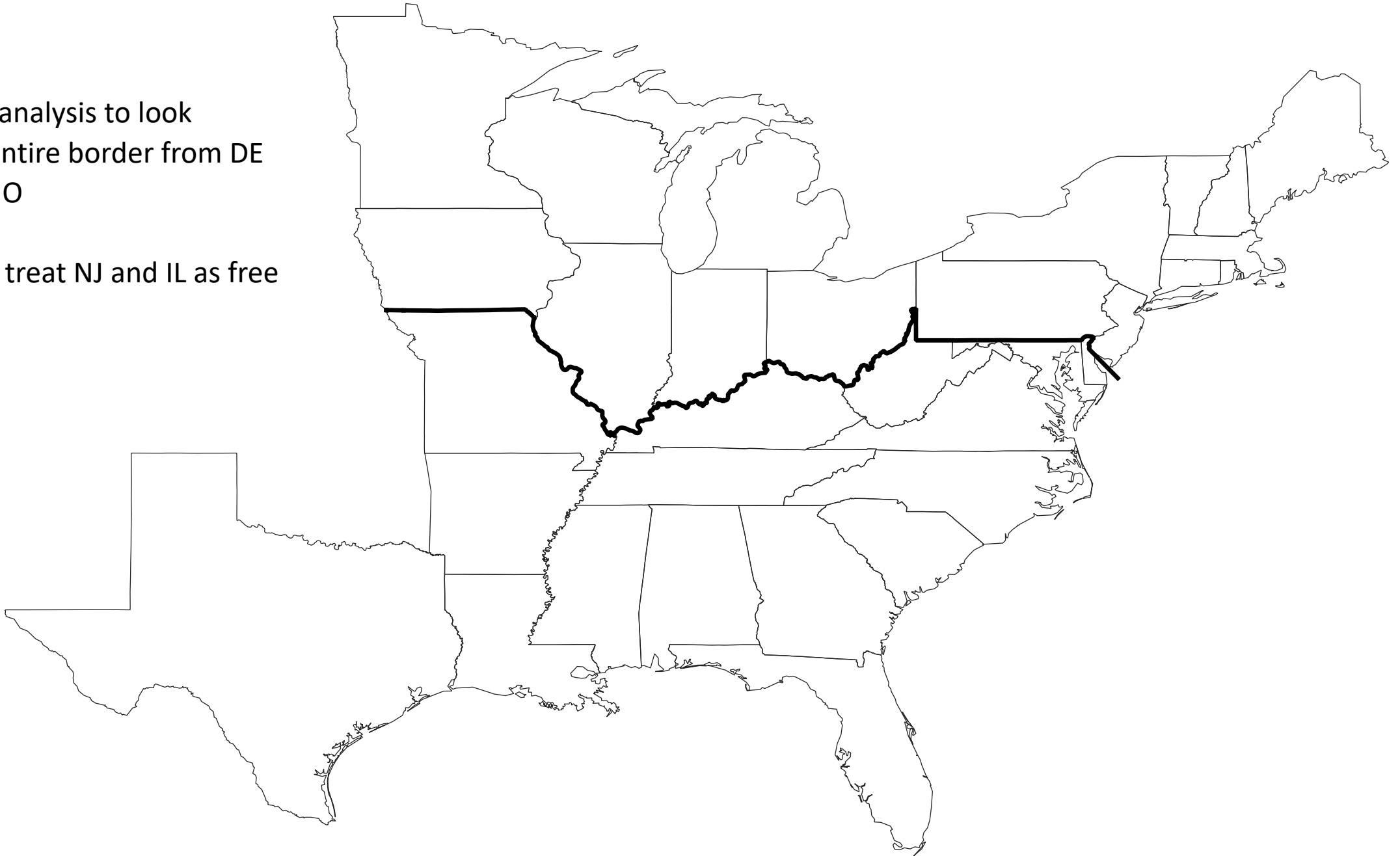
# Ohio vs Kentucky



DeToc Diary: “It is impossible to attribute those differences to any other cause than slavery. It brutalizes the black population and debilitates the white.... Man is not made for servitude.”

Extend analysis to look  
at the entire border from DE  
to IA/MO

Caveat: treat NJ and IL as free





# Specific mechanisms

- coercion should reduce labor costs --> should raise directly land values.
- slave areas can raise slaves for export --> should raise values
- consistent evidence: land values in slave states fall in period immediately after emancipation
- Civil War was destructive and institutional changes were disruptive
- So better comparison at the Antebellum free/slave border difference

# Specification

County data from various antebellum censuses

Outcomes (e.g. population, land values)

Normalization (e.g. per county or farm acre)

Dummy variable: slave state (as of 1860)

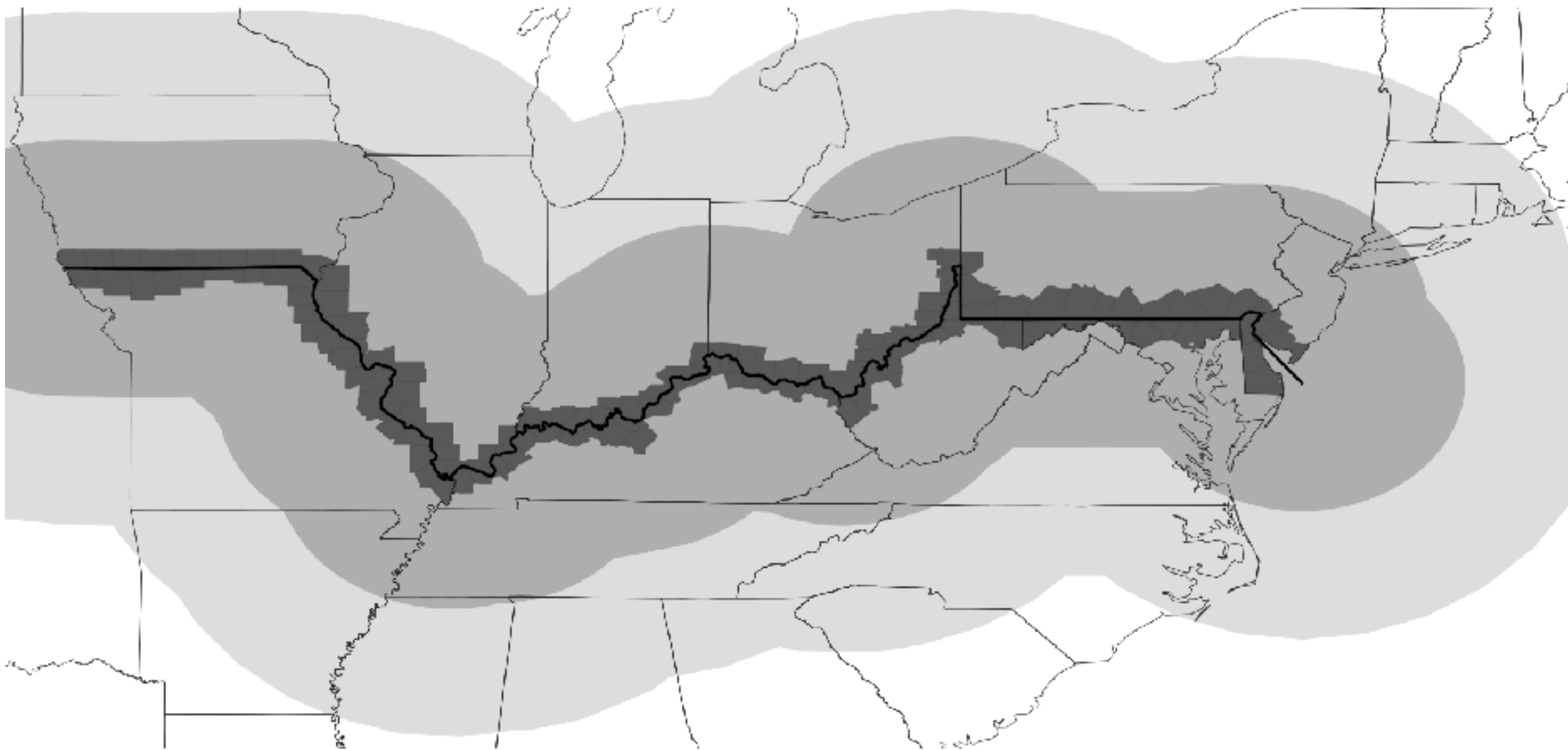
Years: 1860, mostly (results for select variables 1790–1860)

Weight by county land area

Cluster by 15 bins of longitude (check with Conley and Kelly as well)

Controls: cubic polynomial in longitude and in distance wrt the border

Samples: border, donut counties. 300- and 150-mile buffers

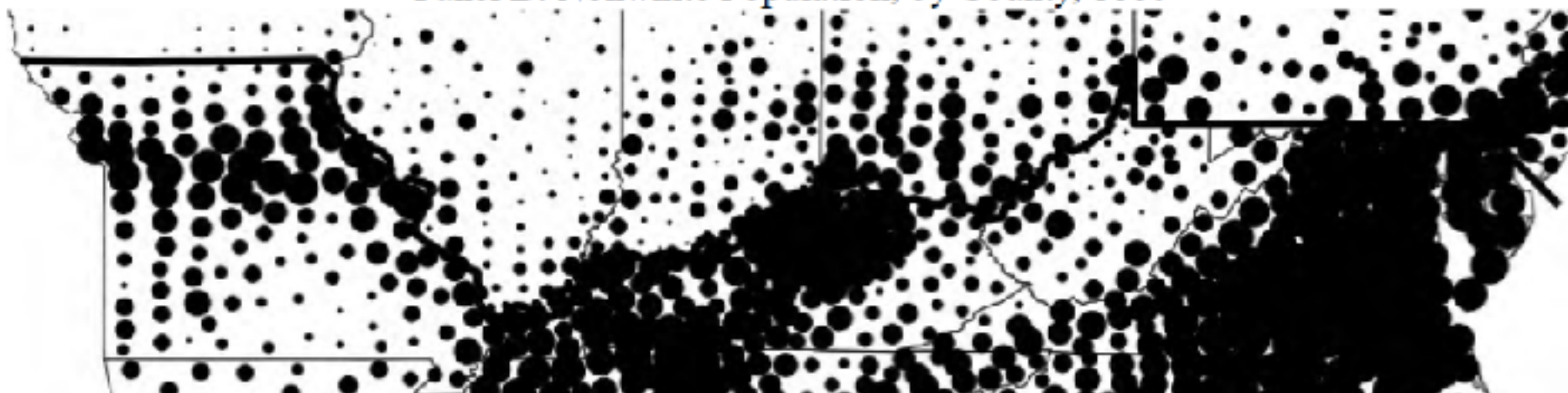


# Results

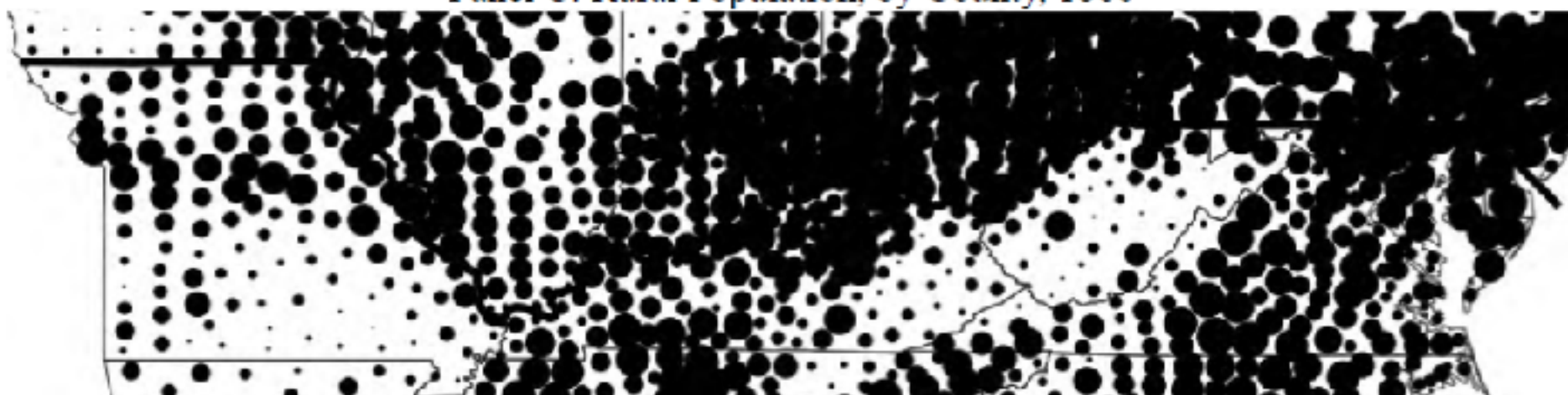
- Main results: population and land
- Environmental (pre-determined?) variables
- Robustness

## Population

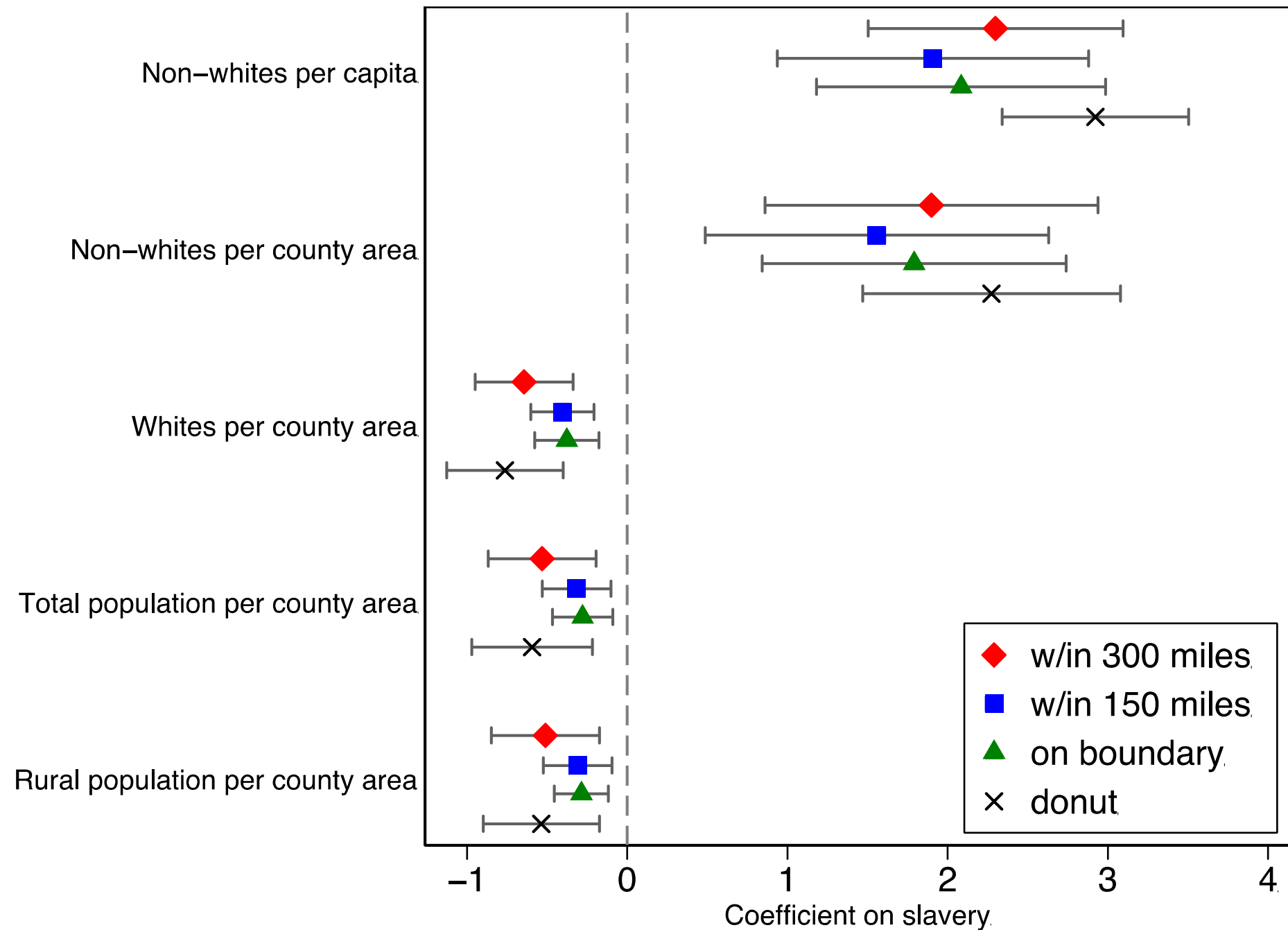
Panel B: Nonwhite Population, by County, 1860

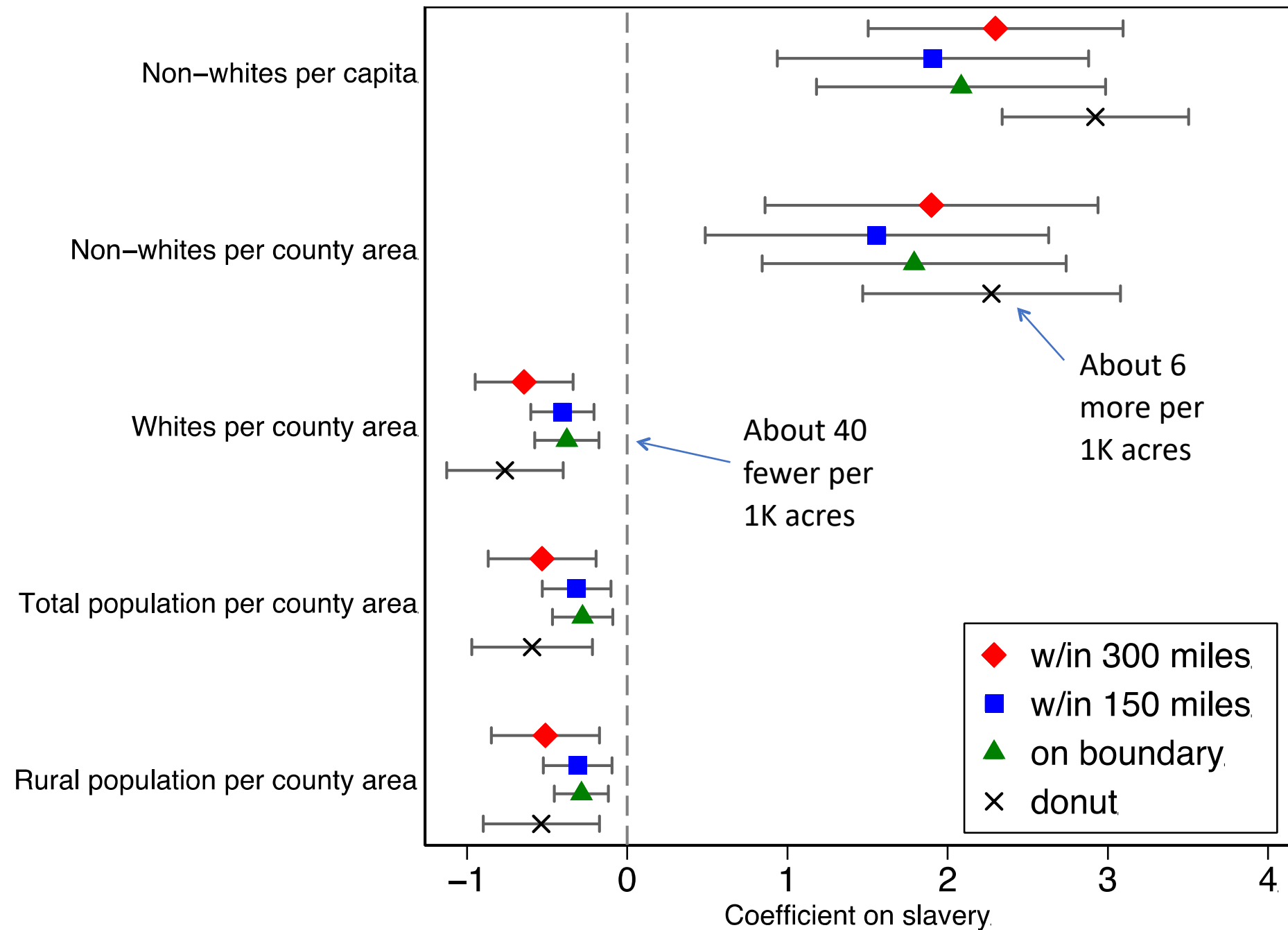


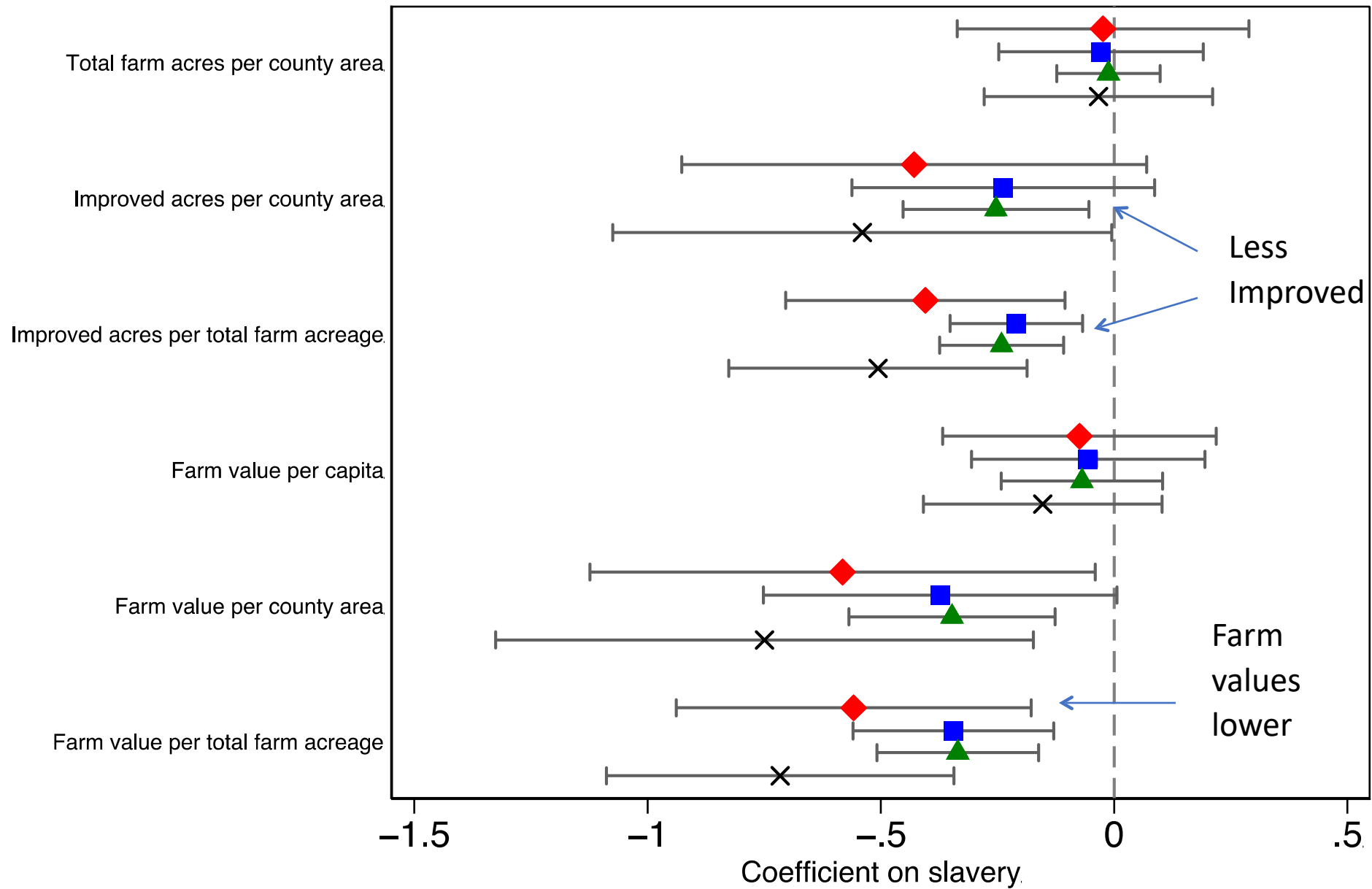
Panel C: Rural Population, by County, 1860

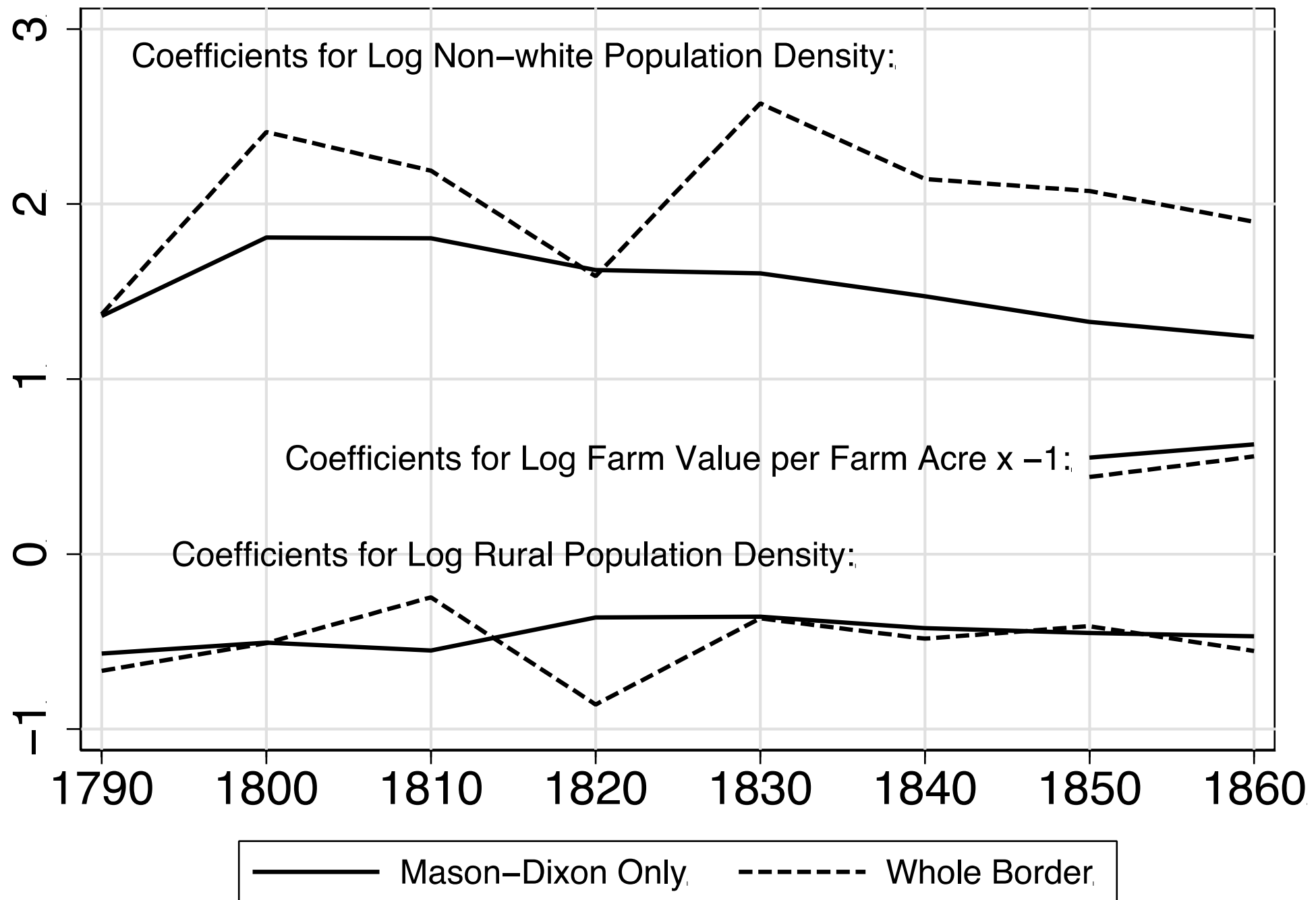








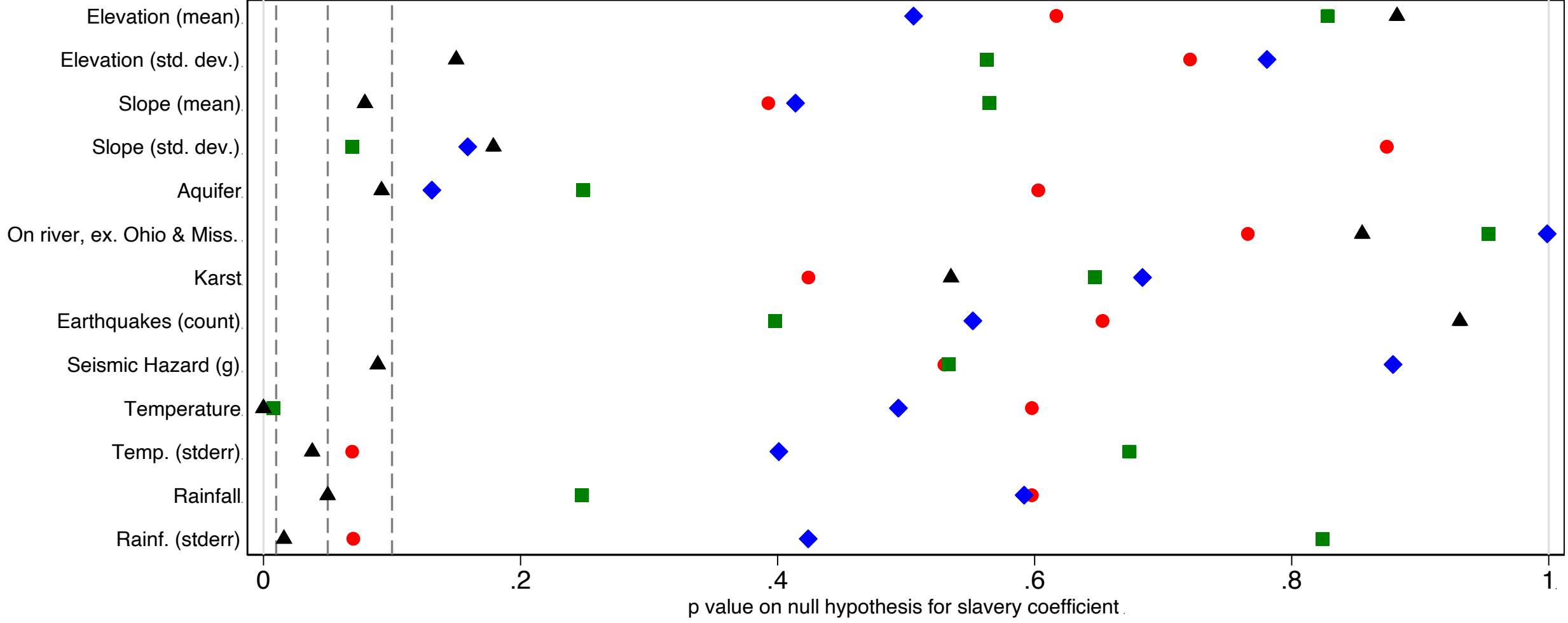




# Results

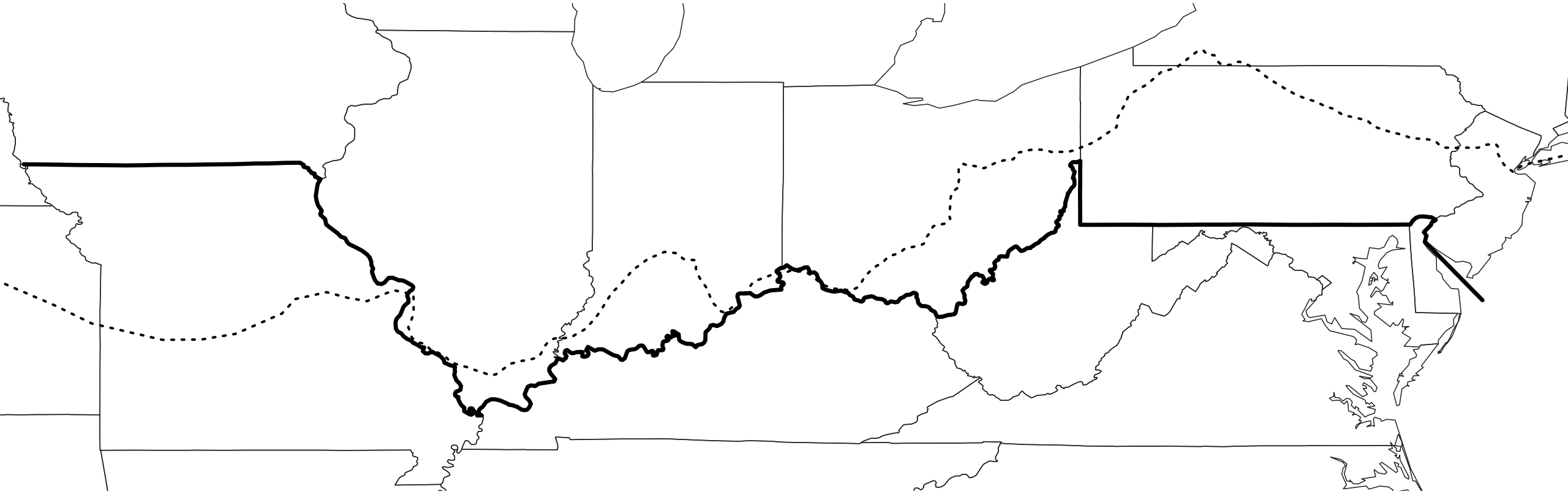
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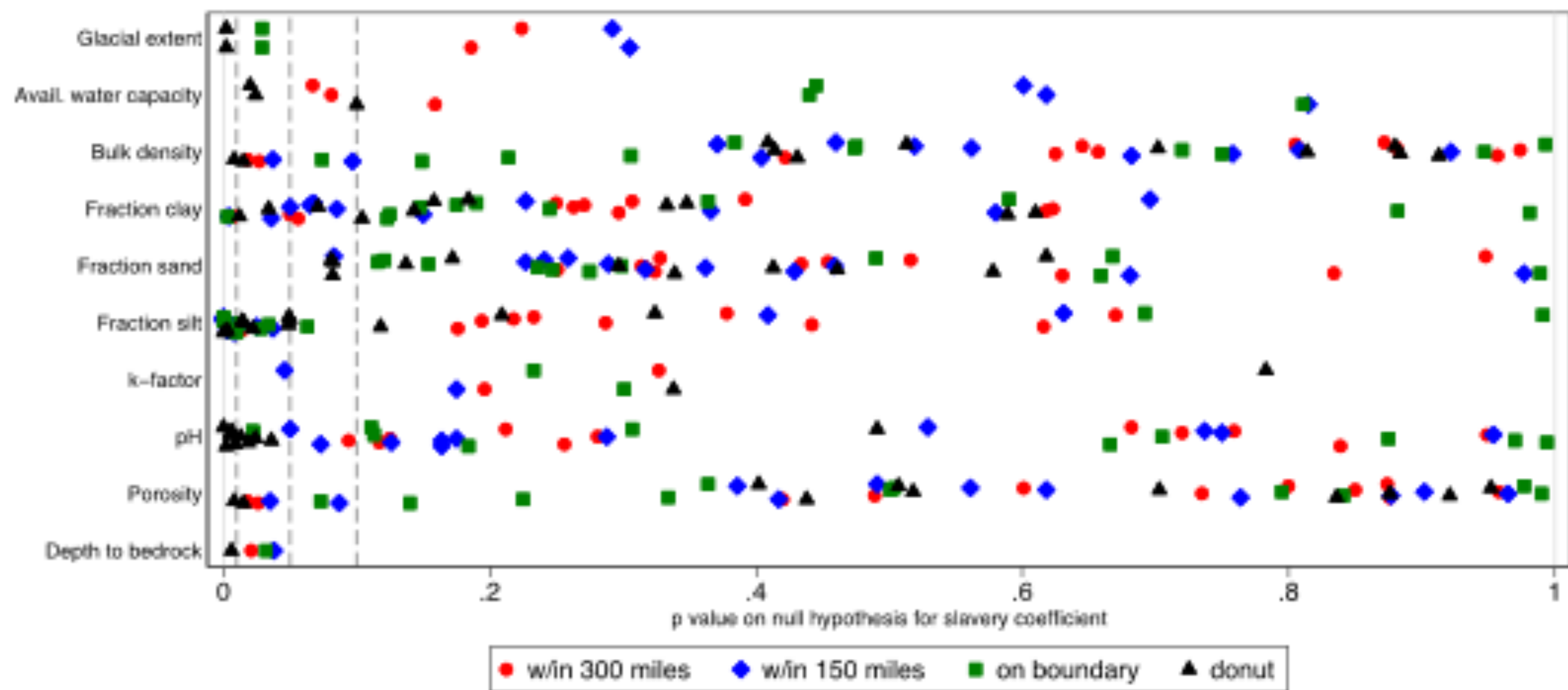




● w/in 300 miles    ◆ w/in 150 miles    ■ on boundary    ▲ donut

# Compare with terminal moraine





# Soil exhaustion

- Time of settlement
- “k-factor” of soil

# Zooming out

- Question of external validity
- Northern edge of slavery region suitable as 'free soil'

A. Expand the buffer

B. Jump or kink?

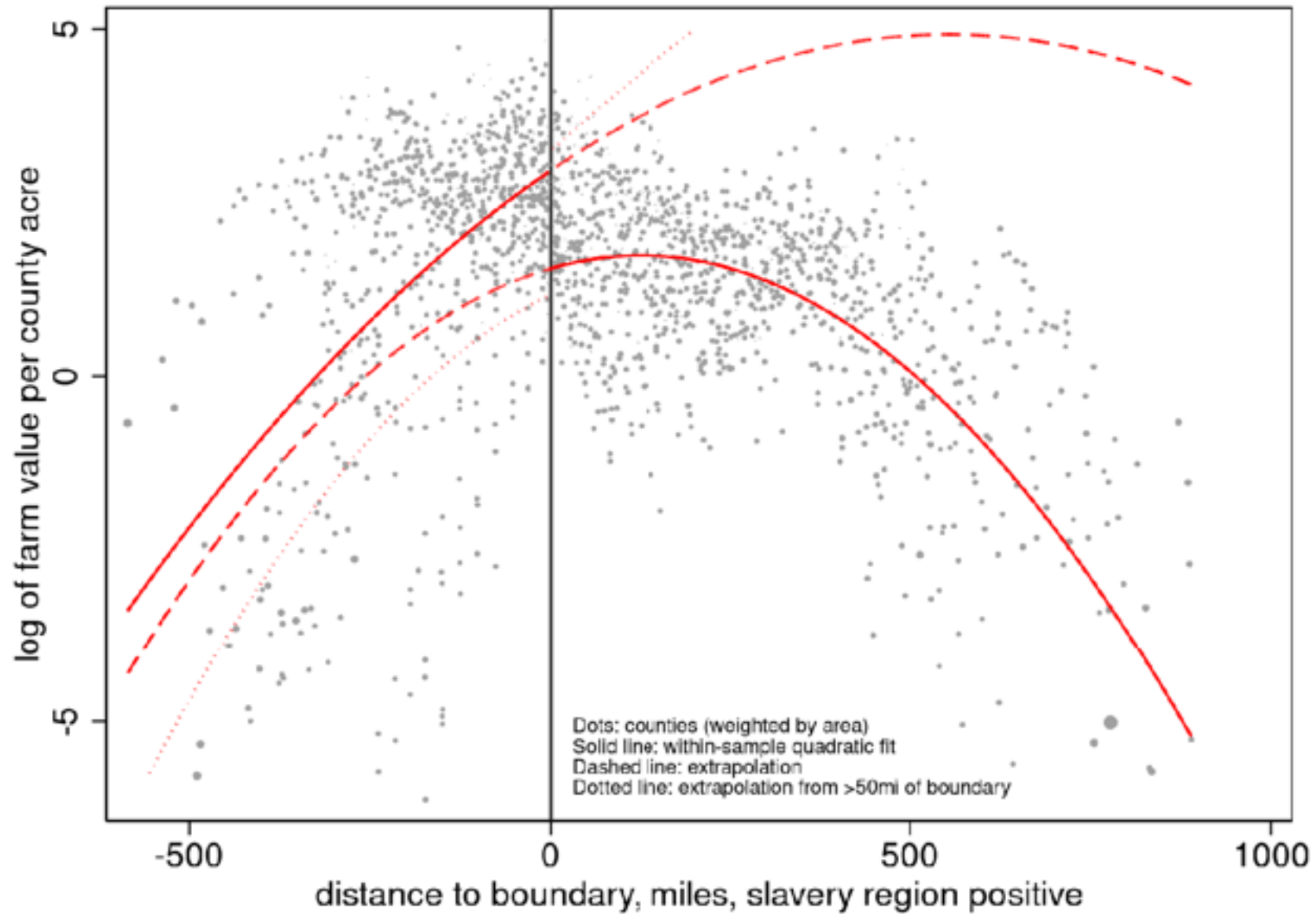
Motivate with factor model:

- $x$  distance 'through' the boundary:  $x < 0$  free soil,  $x \geq 0$  slavery
- Vector of factors  $z(x)$ , smooth w.r.t.  $x$ . Mode-specific weights:  $w_s, w_f$

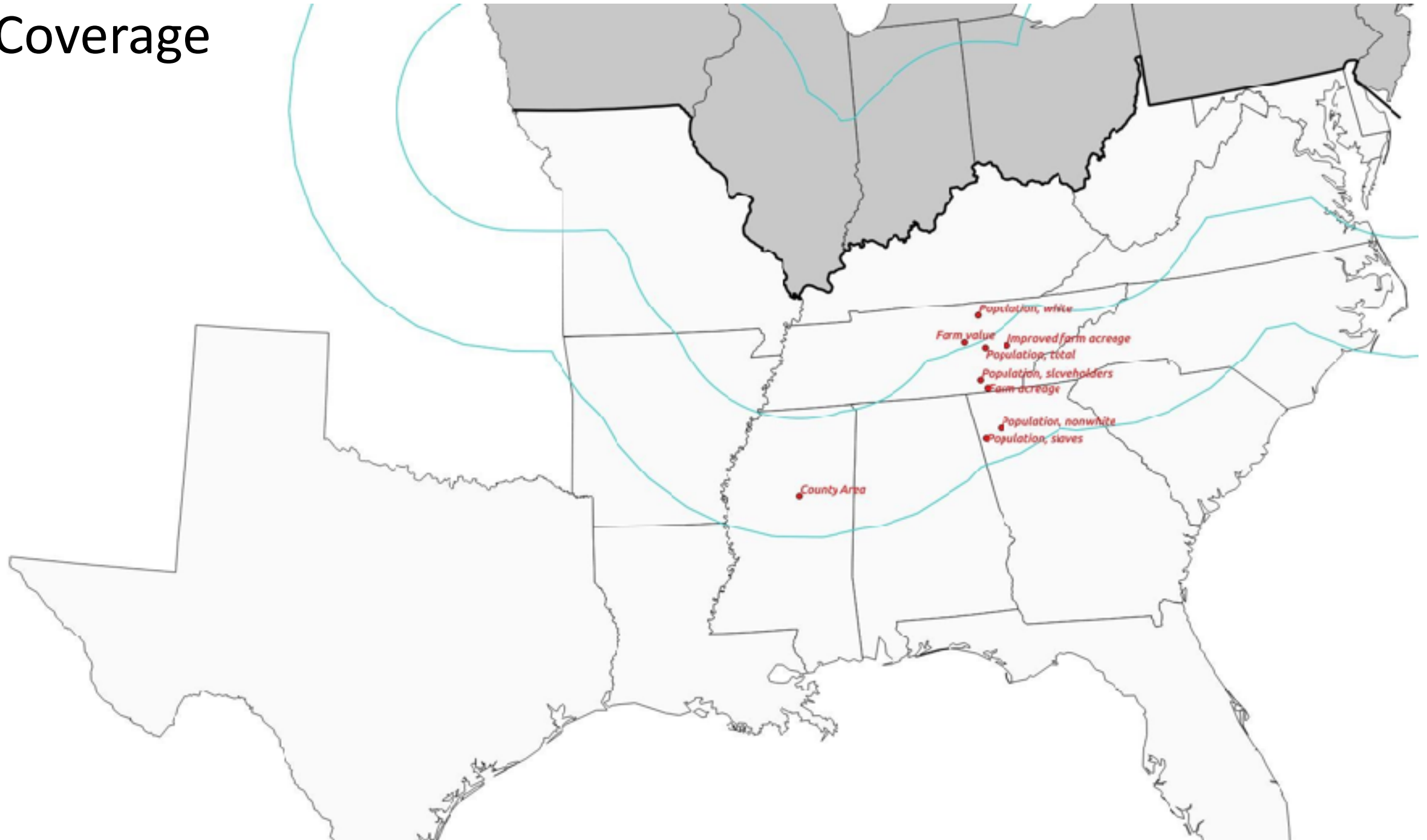
$$Y = I(x < 0) A_f w_f \cdot z(x) + I(x \geq 0) A_s w_s \cdot z(x)$$



## More than a Jump



# Coverage

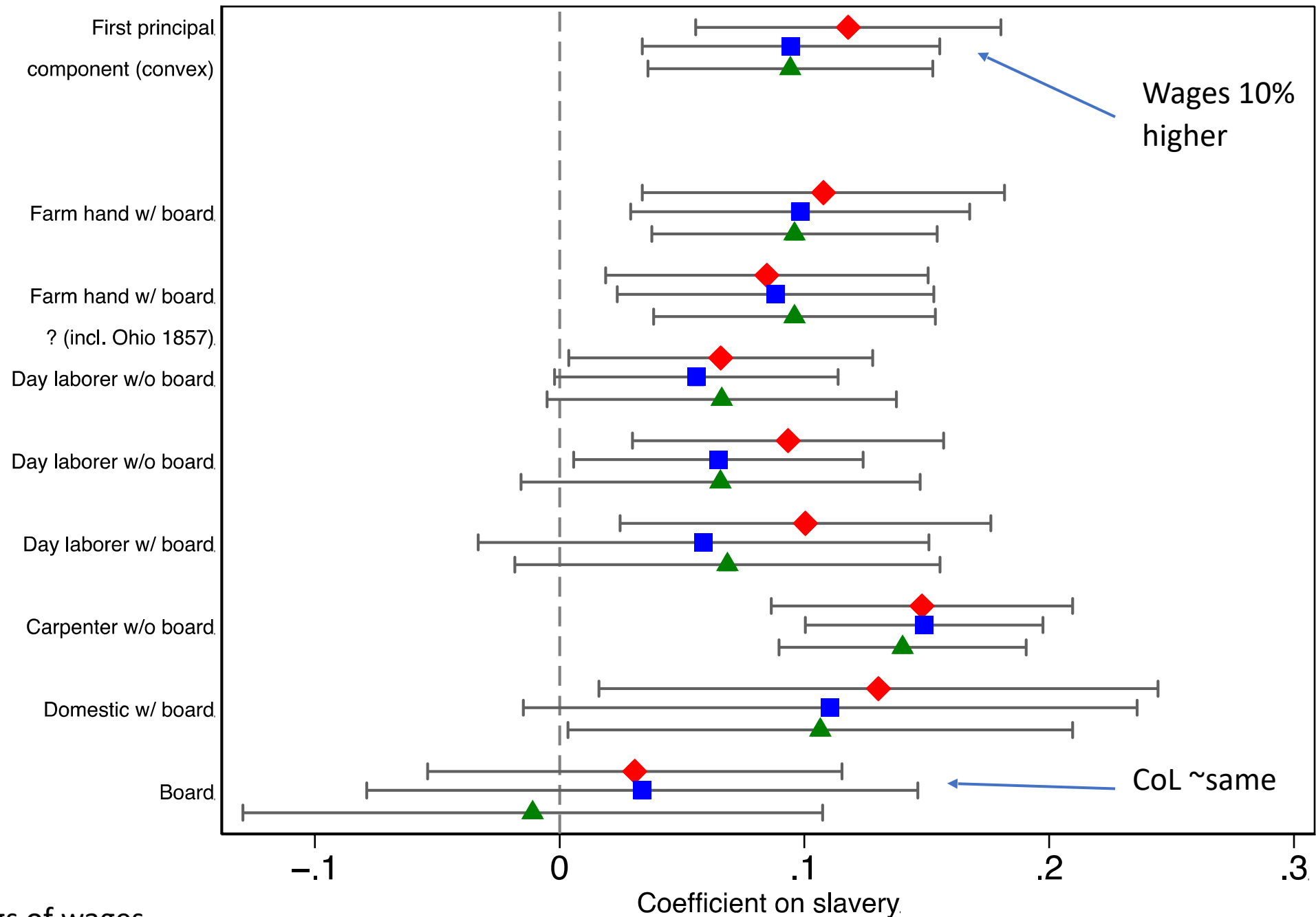


a puzzle?

# Wages, by County, from Census of Social Statistics, 1850-70

- Address problems with data and sample (need to supplement scanty Ohio data)
- Focus on first principal component of log wages

WAGES.					
Average monthly wages to a farm-hand with board.	Average to a day-laborer with board.	Average to a day-laborer without board.	Average day wages of a carpenter without board.	Weekly wages to a female domestic with board.	Price of board to laboring men per week.
39	40	41	42	43	44
1.300	1.00	1.25	1.50	1.00	1.75



Natural logs of wages

# Rosen-Roback Spatial Equilibrium

		Land value of location	
		High	Low
Wages at location	High	productivity is higher (labor demand must have shifted out)	amenity is lower (labor supply must have shifted in) ← Border South
	Low	amenity is higher (labor supply must have shifted out)	productivity is lower (labor demand must have shifted in)

↑ Border North

# Migration Flows:

Weak flows of Free Heads of Households born in Free states (esp. N Engl- NY) to Slave states; even greater aversion than for Immigrants.

Strong flows of Free HH born in Border South to Free States. VA->OH, IN, IL

In 1850: 29% HH born in Border South reside in Free States;  
< 5% reside in Deep South

Long distance to Border counties favor North— even from Deep South

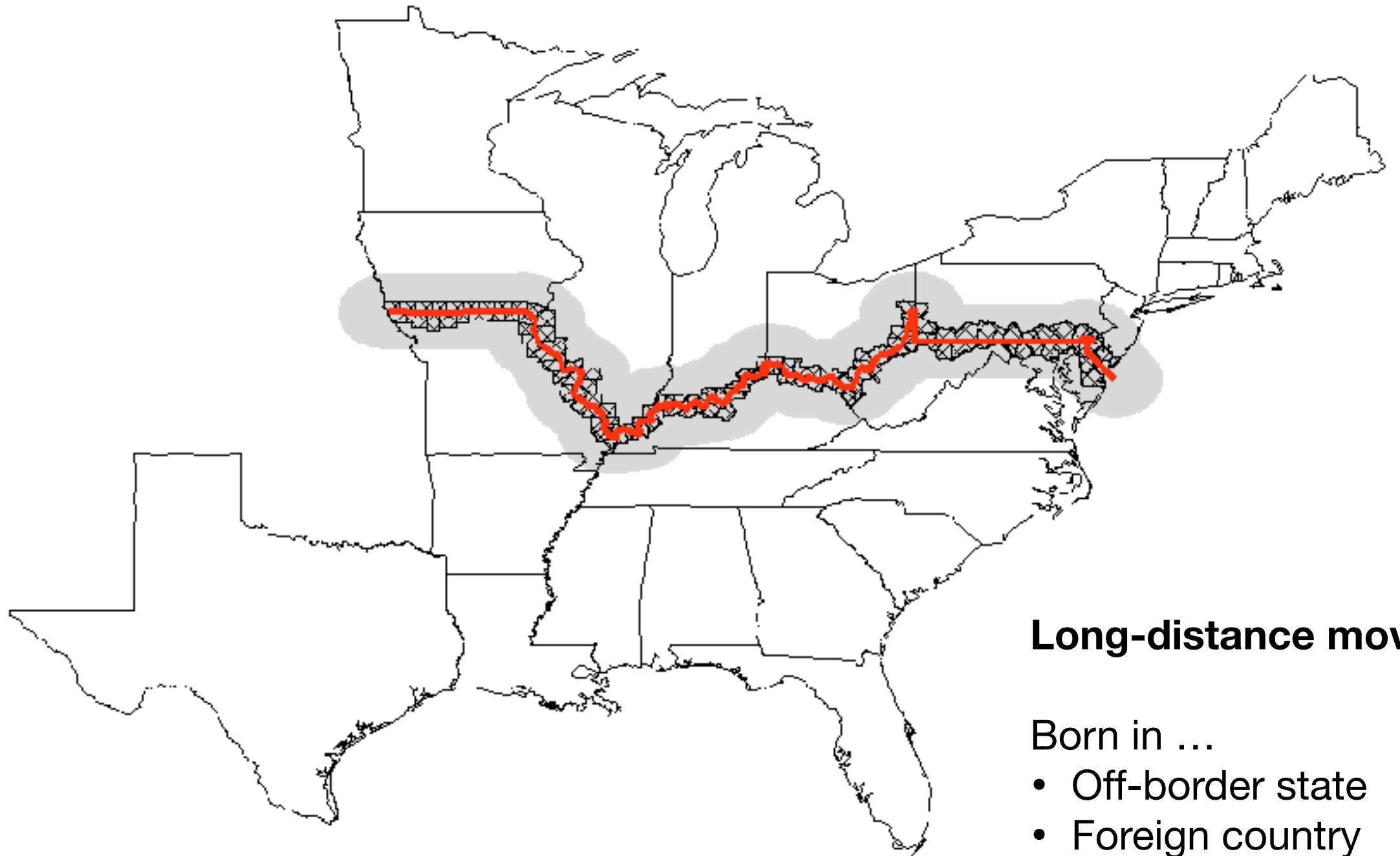
Patterns **starker** if examine Free HH (Adults) rather than Free Pop

# George Tucker

1843 *Progress of the United States in  
Population and Wealth in Fifty Years*, p. 116

"The swarms from the New England hive prefer,  
at present, migrating to States where there are no slaves"



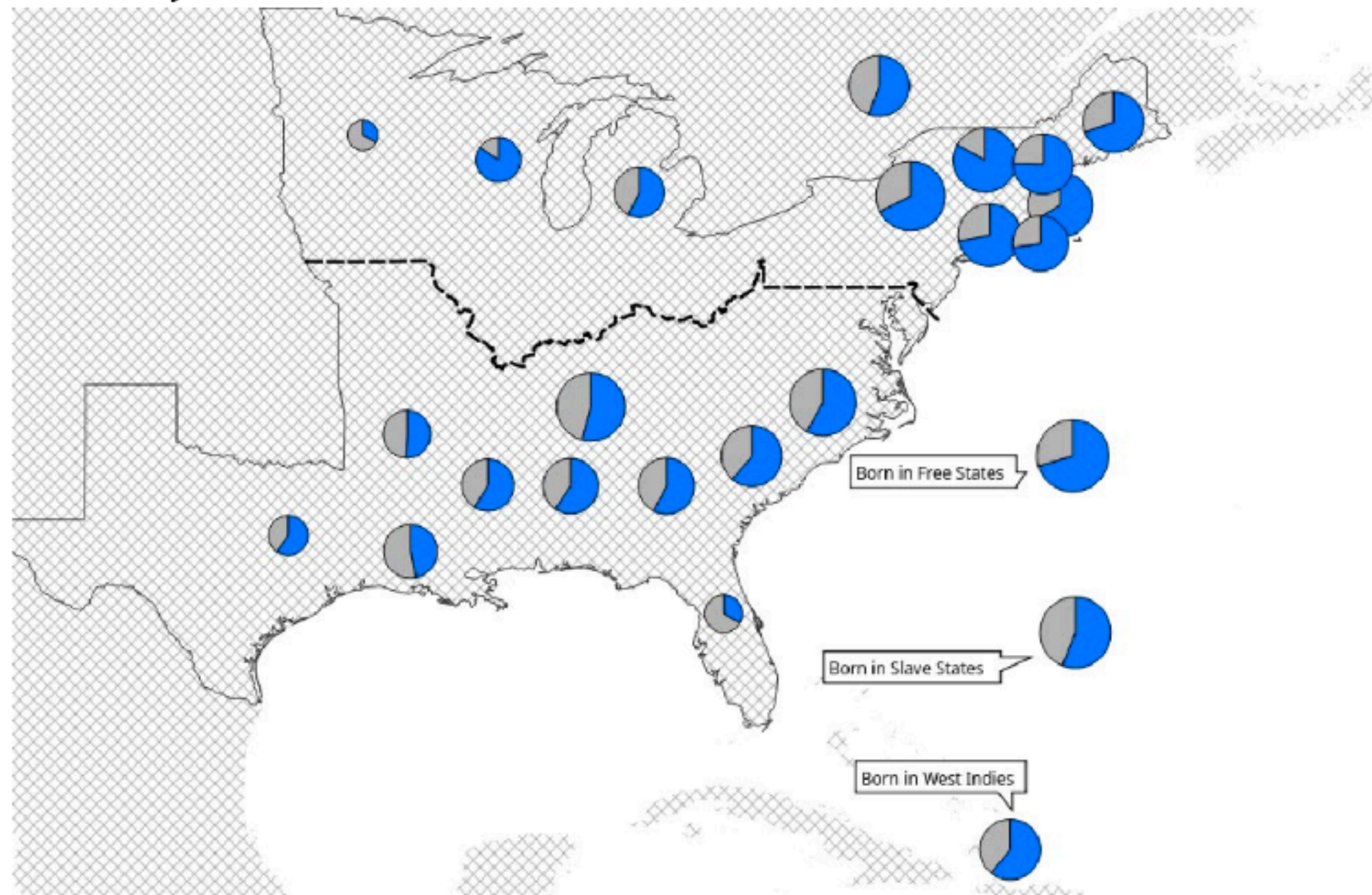


## Long-distance movers

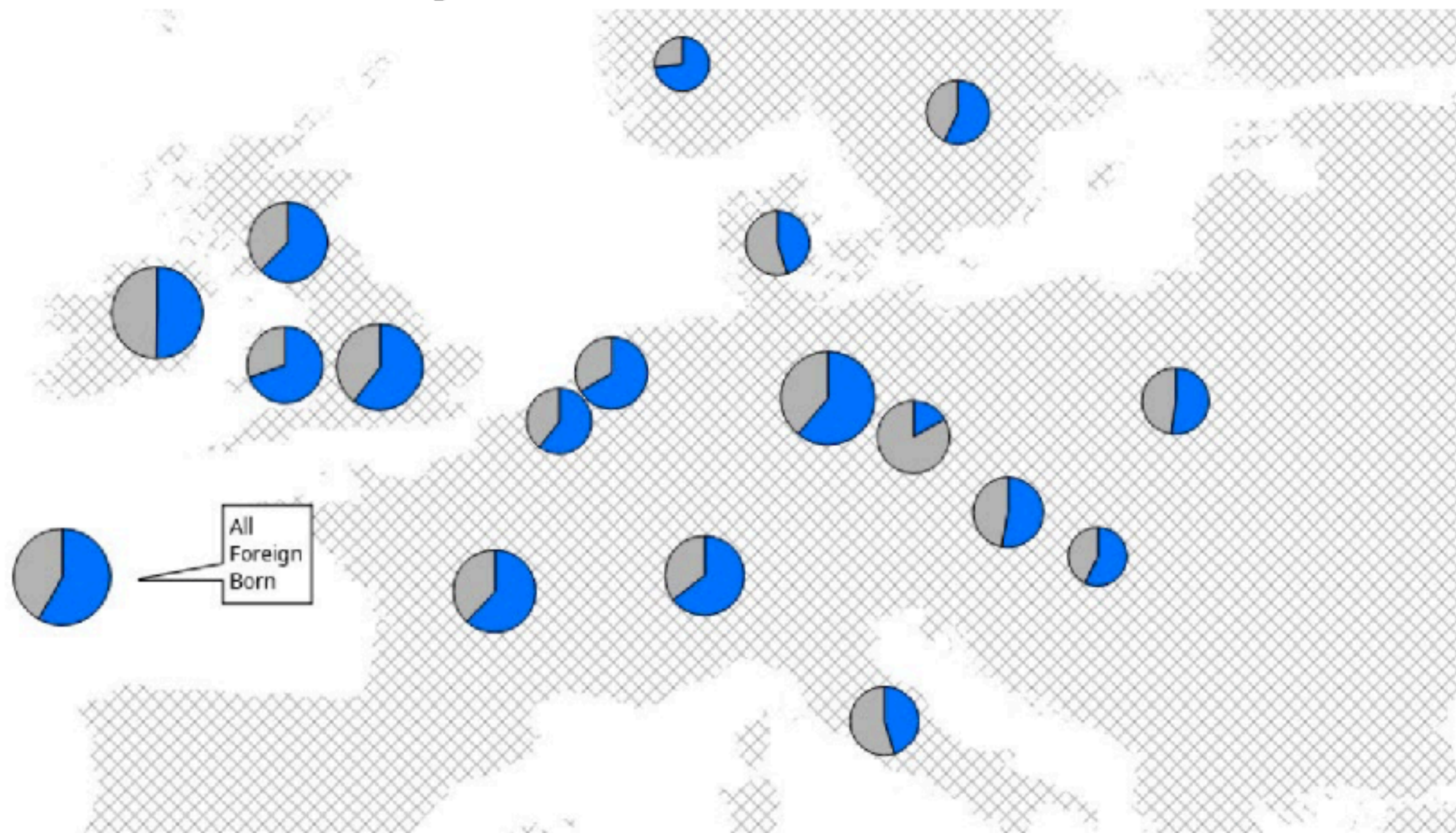
Born in ...

- Off-border state
- Foreign country

Panel A: By Places of Birth in North America

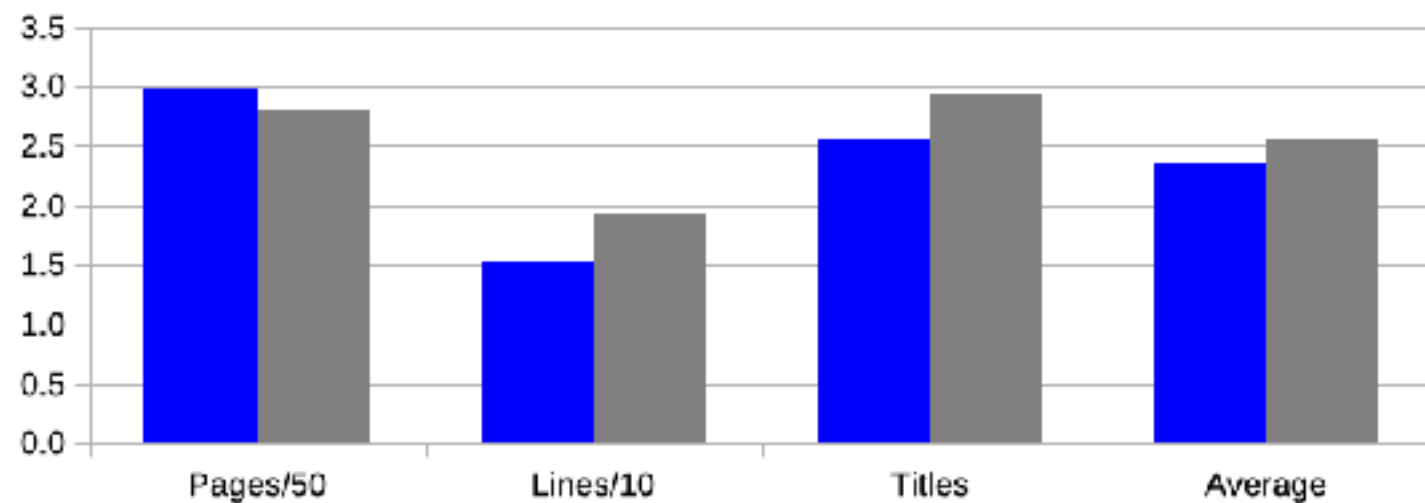
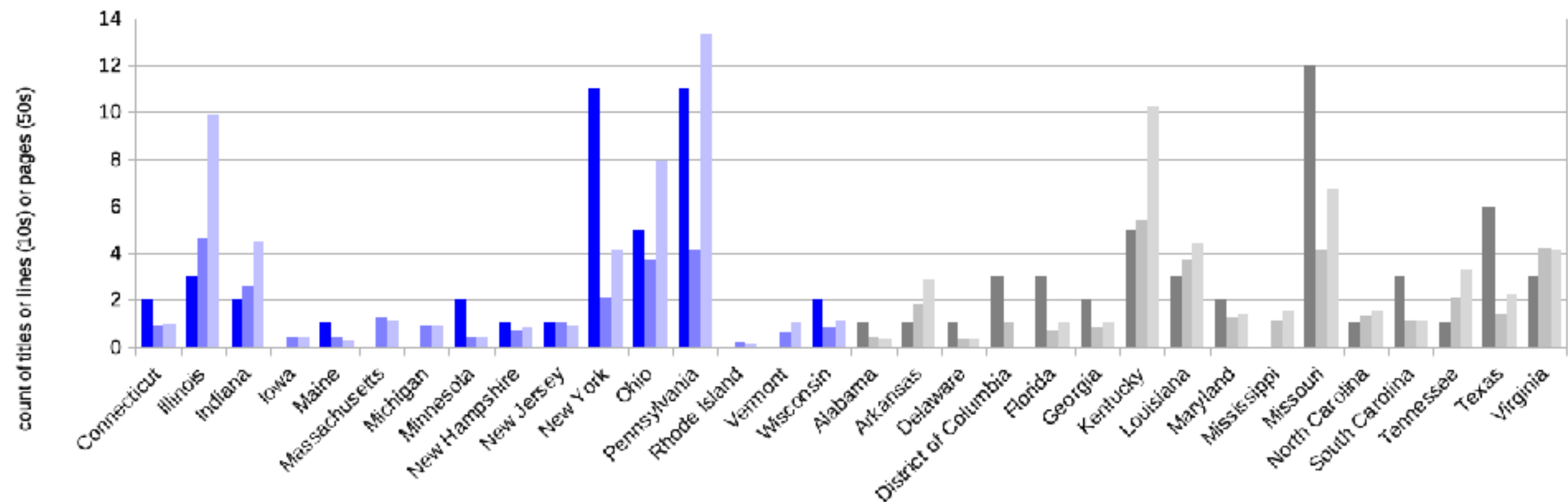


Panel B: By Places of Birth in Europe



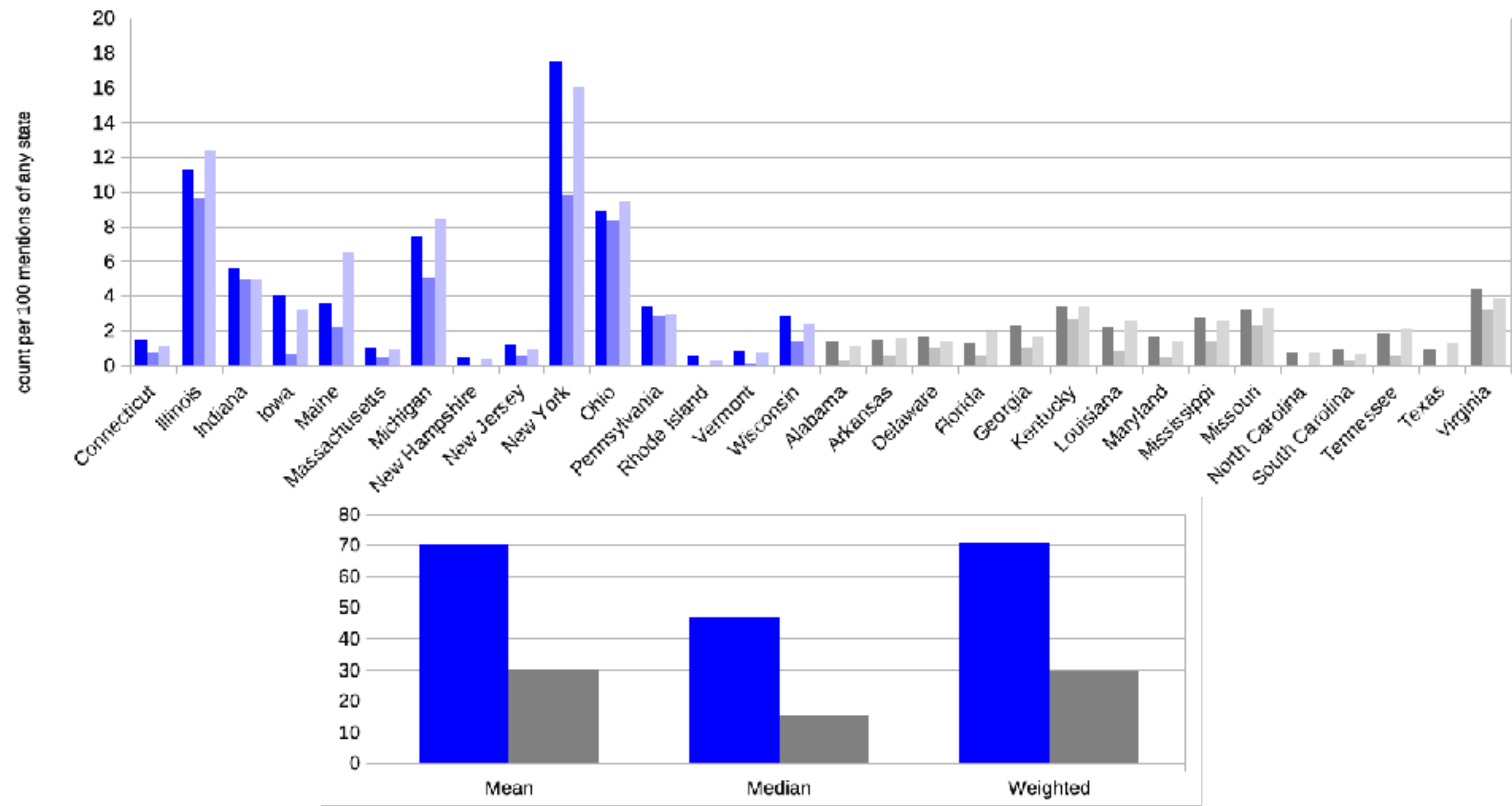
- Travelogues
- Emigrants' guides
- Migration decisions

Panel A: References to States in Travel Accounts listed in Thwaites and Handley





Panel B: References to States in Emigrants' Guides for US listed in Miller



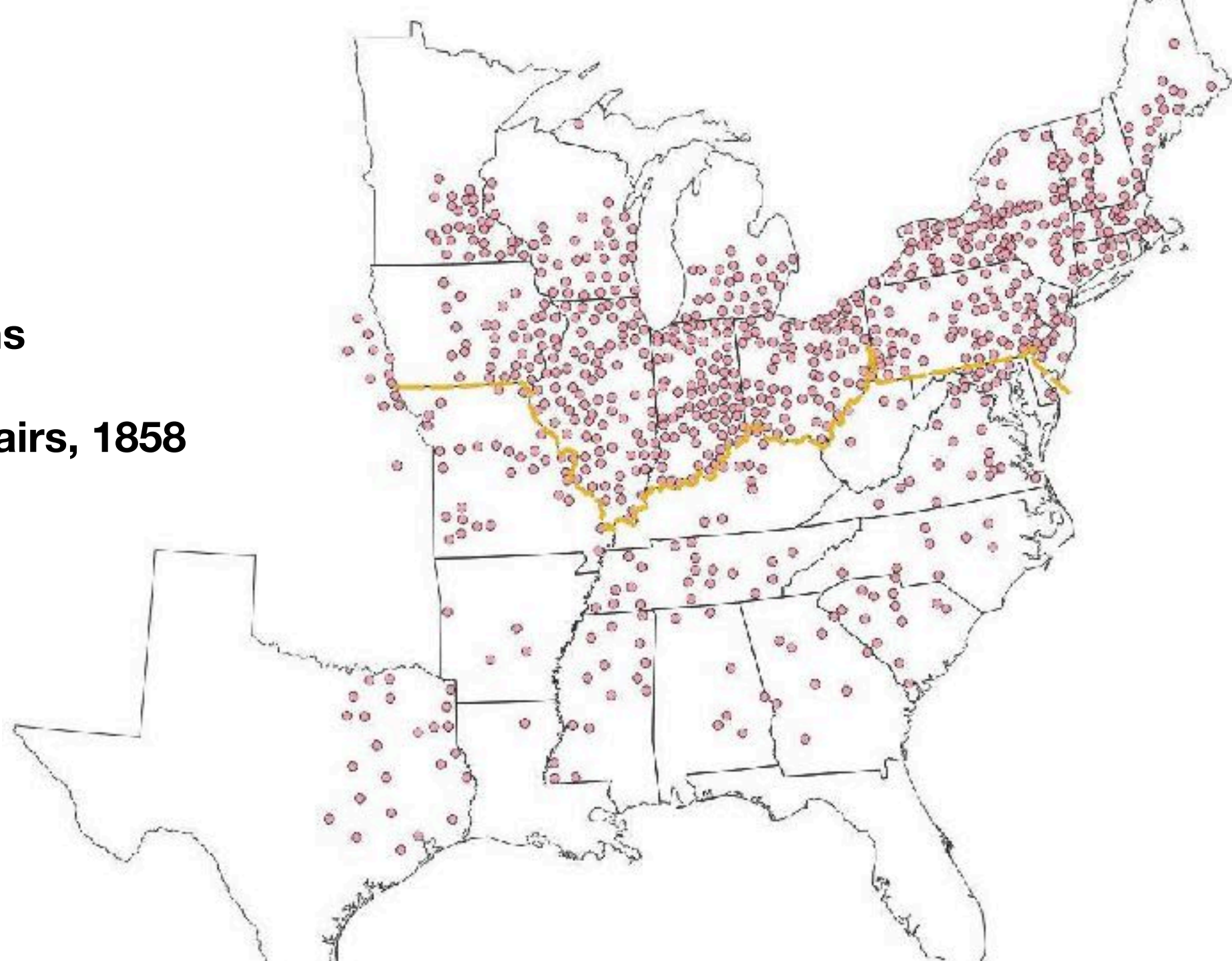
# A few quotes

- 1820 William Kingdom, *America and the British colonies*. He observed (p. 27) that Kentucky "is extremely fertile; but slavery being allowed, such white people as work are looked upon with contempt; any description, therefore, would be useless; being totally unfit for the English emigrant."
- 1821 Adlard Welby, *Visit to North America*. Welby called slavery "an institution hateful to English ears (p. 155)." He (p. 80) had more "favorable" impressions of Kentucky than of Ohio but noted its "advantages...will hardly compensate with most people" for being a slave state (p. 98).
- 1823 Isaac Holmes, *Account of the United States*. (p. 142): "there are very few English persons who would wish to fix their abode either in a slave-holding state, or in the more northern states, where they would have five months' winter".

**Open to innovations**

**Example: county fairs, 1858**

Source: Kniffen (1951)





# Reasons to Avoid Slave-Legal Region

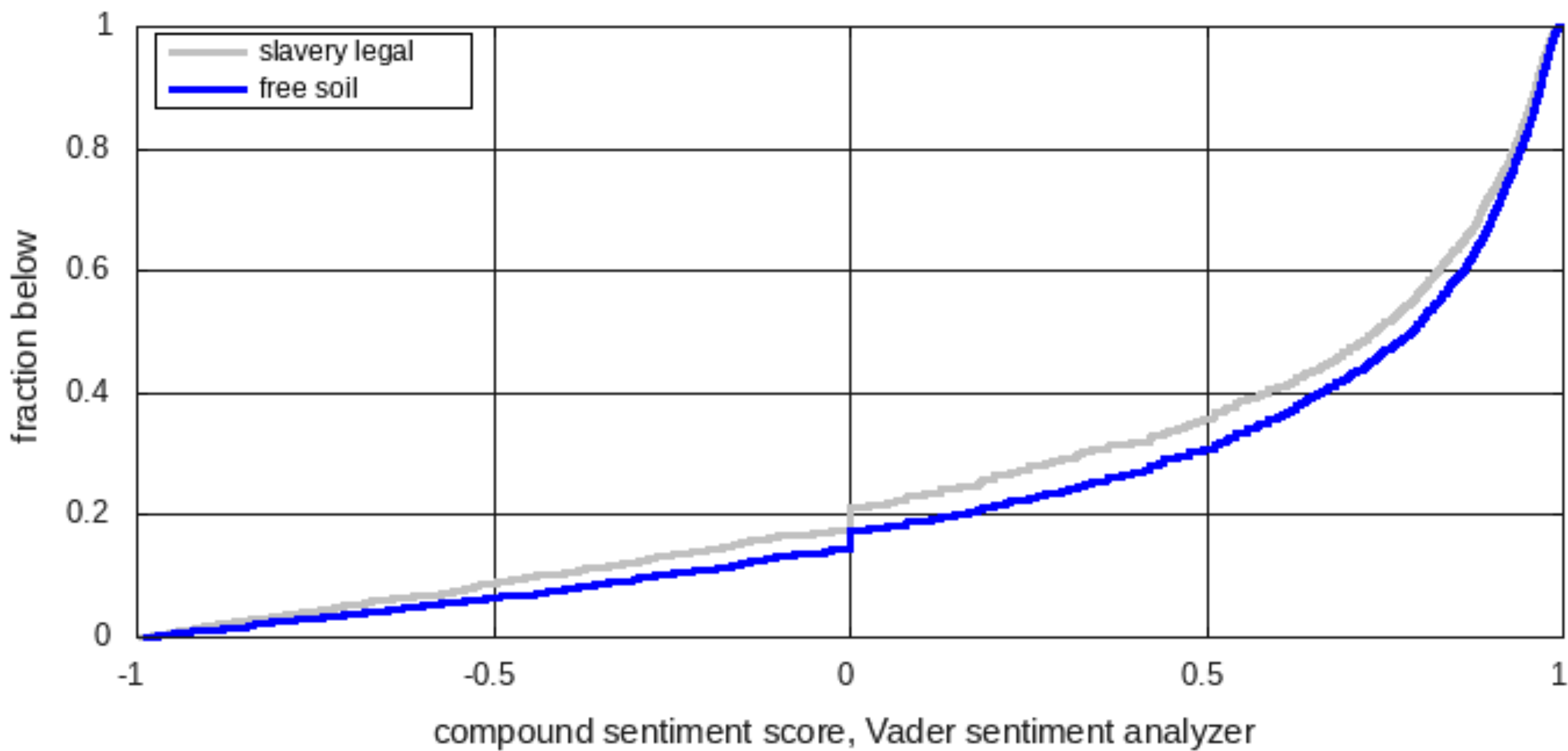
- Work degraded
- Climate
- Limits to attractiveness to others
- Complicity with slave system
- Fear of insurrections/violence associated with slave system
- Planters' social control
- Planters' monopoly of best lands
- Racism towards African-Americans

# Reasons to Avoid Slave-Legal Region

- Work degraded ✓
- Climate ✓ (but far north also considered problematic)
- Limits to attractiveness to others ✓
- Complicity with slave system ✓
- Fear of insurrections/violence associated with slave system ~
- Planters' social control
- Planters' monopoly of best lands
- Racism towards African-Americans

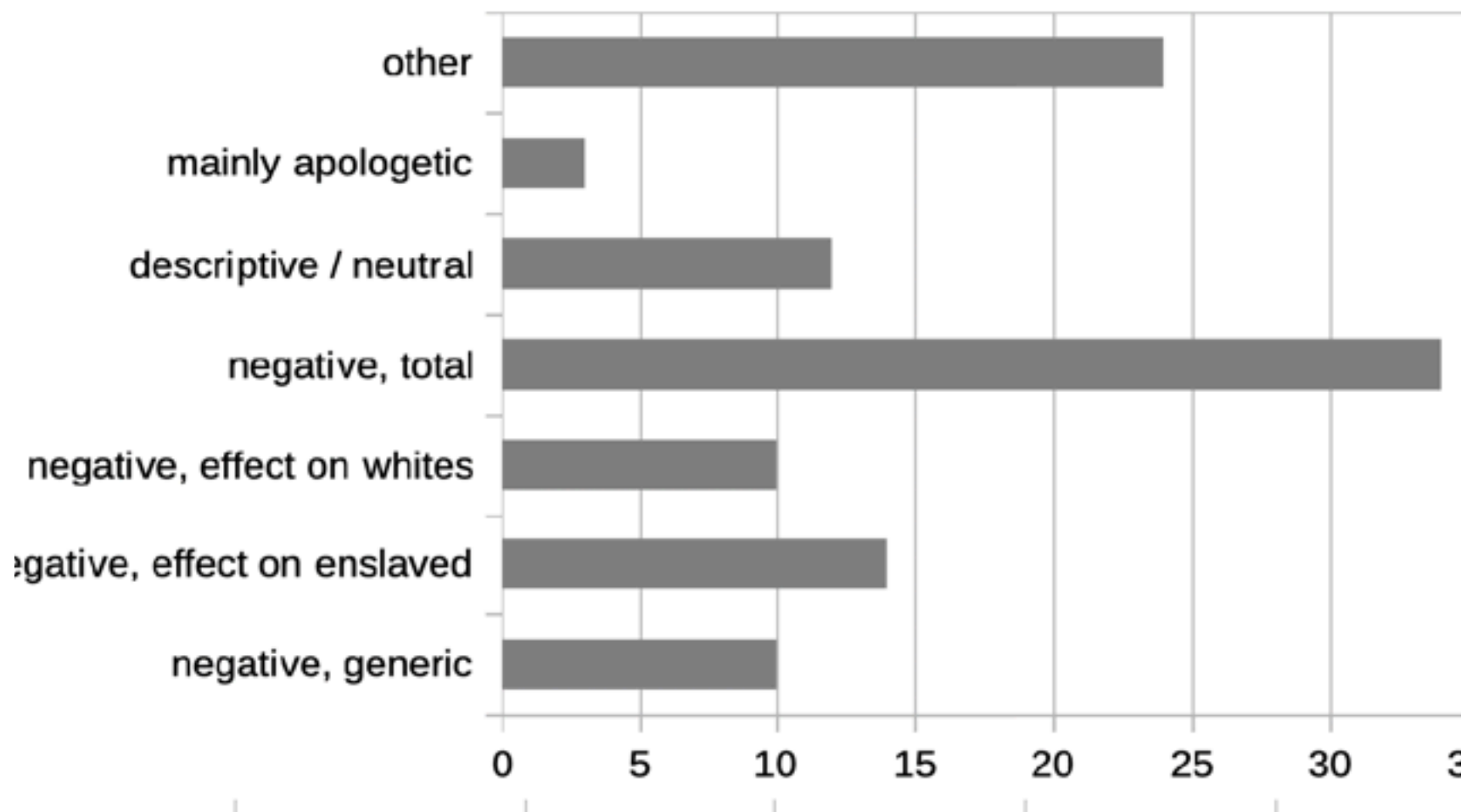
# Sentiment

- Quantitative analysis of qualitative data
- Dictionary with scores
- 'Vader' lexicon (remove handful of words)
- Use Emigrants' Guides
- Find instances of each state, extract +/- 50 words.
- CDF of scores



# Our coding of content in references

- Bibliography : Clark's *Travels in the Old South*
- Index refs to slavery
- We read and classify



# Proximate determinants of land price differences

- TFP (most existing 'micro' lit)... diff < +/- 5%
- Wage (0.1 log) ratio of factor share: 2-3
- Land improvement (0.13ppt) & Buildings: (-0.5 log rural pop)  
→ Raw land with 2 I/U ¼ of gap
- Not pecuniary taxes or interest rates

# Institutions: what did slavery do?

- Acemoglu and Robinson would define slavery as an exclusive institution, if we consider the population to include the enslaved. That said, institutions might be inclusive among the free population.
- Engerman and Sokoloff : returns to scale and distribution
- Slave owners were notoriously protective of their property rights (over slaves). How did this spill over into other institutions? Were they pro-property-rights in other cases? Were they pro-market?

# Examples

Hinton Helper:

*the lords of the lash are not only absolute masters of the blacks, but they are also the oracle and arbiters of all non-slaveholding whites, whose freedom is merely nominal, and whose unparalleled illiteracy and degradation is purposely and fiendishly perpetuated.*

Example: Militia Service

- *Slave Patrols: Law and Violence in Virginia and the Carolinas*, Sally E. Hadden, 2001. Hadden (2009): 18th-C Norfolk County, Virginia: 55% of the tax-paying households had no slaves, and 40% of the militia members had no slaves. So they were under-represented, but still had to serve in significant measure

Insurrections (Haiti, Nat Turner)



# *Masterless Men*, Keri Leigh Merritt, 2017.

- “The master class had a long-established, effective, and well-planned system of social control. They kept a poor white uneducated and illiterate on purpose. Refusing to invest in a system of public education, slaveholders used public money to fund law-enforcement departments, creating an intricate and bureaucratic criminal justice system. The system allowed masters to incarcerate (at will) whites who fail to follow their social dictates. The owners of flesh understood that preserving slavery necessitated a society with Near near-constant surveillance, a harsh legal code, and vigilante groups ready to meet out ‘justice’ whenever courts in jail is failed.”
- “...the master class paternalistic spirit readily extend beyond the black-white relationship and impinged upon the relationship of rich to poor whites.”
- Summary by Victoria Bynum: “legal and extra-legal harassment by the state, were not mere by-products of slavery, but the result of policies that enriched slaveholders while muting dissent by poor whites.”

## OTHERS: William H. Seward

Journal 1835:

“It was necessary that I should travel in Virginia to have any idea of a slave State... An exhausted soil, old and decaying towns, wretchedly-neglected roads, in every respect, an absence of enterprise and improvement, distinguish the region through which we have come, in contrast to that in which we live. Such has been the effect of slavery.”

1858:

“the two systems have existed in different States, but side by side within the American Union.... It is an irrepressible conflict between opposing and enduring forces, and it means that the United States must and will, sooner or later, become either entirely a slaveholding nation, or entirely a free-labor nation.”

# More

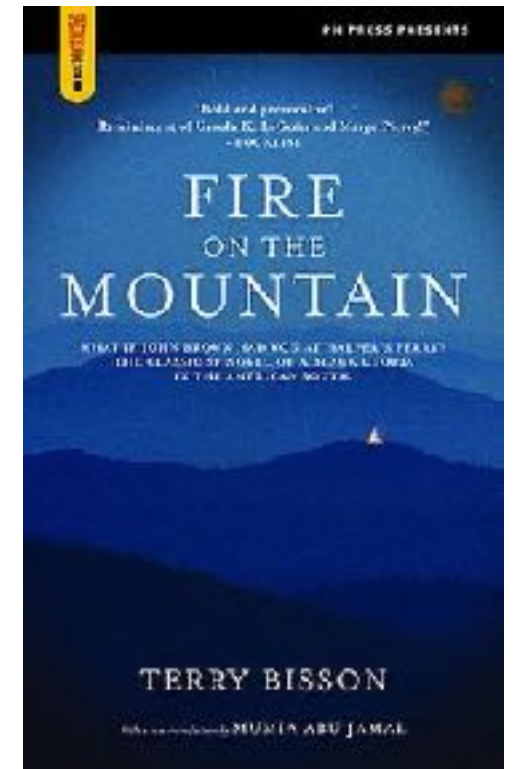
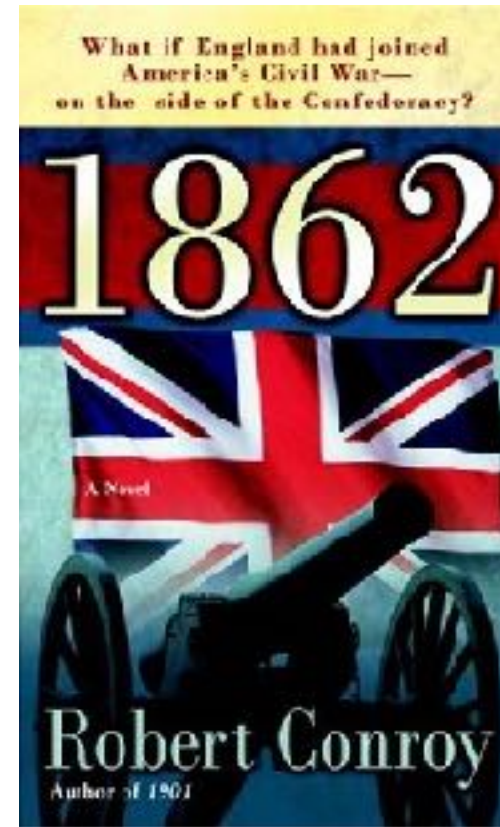
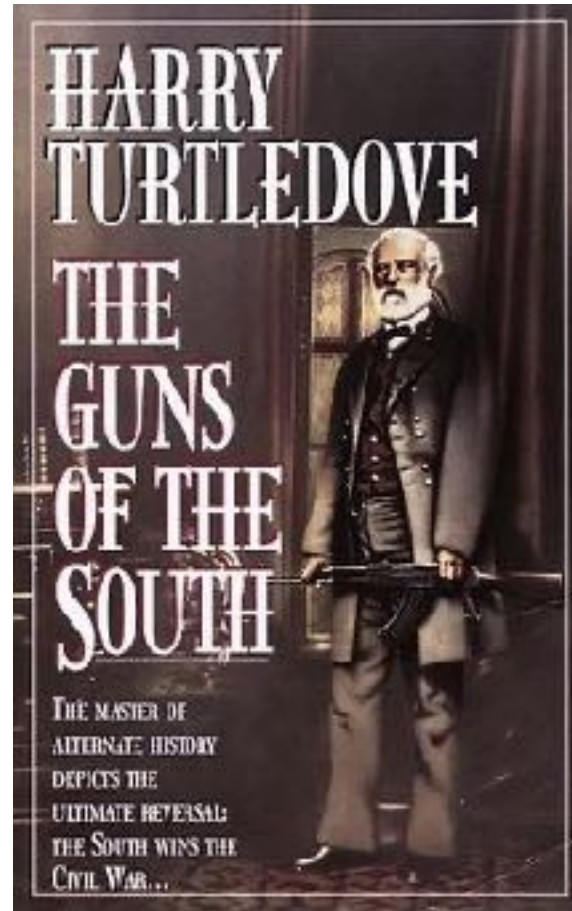
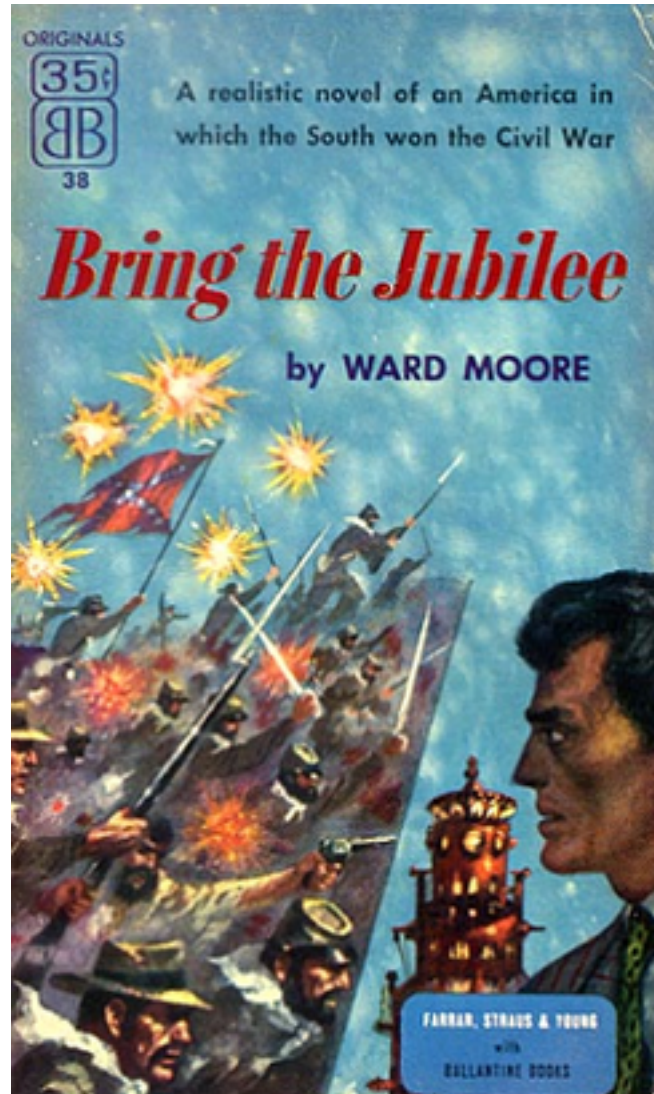
Ralph W Emerson:

“Slavery is no scholar, no improver; it does not love the whistle of the railroad; it does not love the newspaper, the mailbag, a college, a book or preacher who has the absurd whim of saying what he thinks; it does not increase the white population; it does not improve the soil; everything goes to decay.”

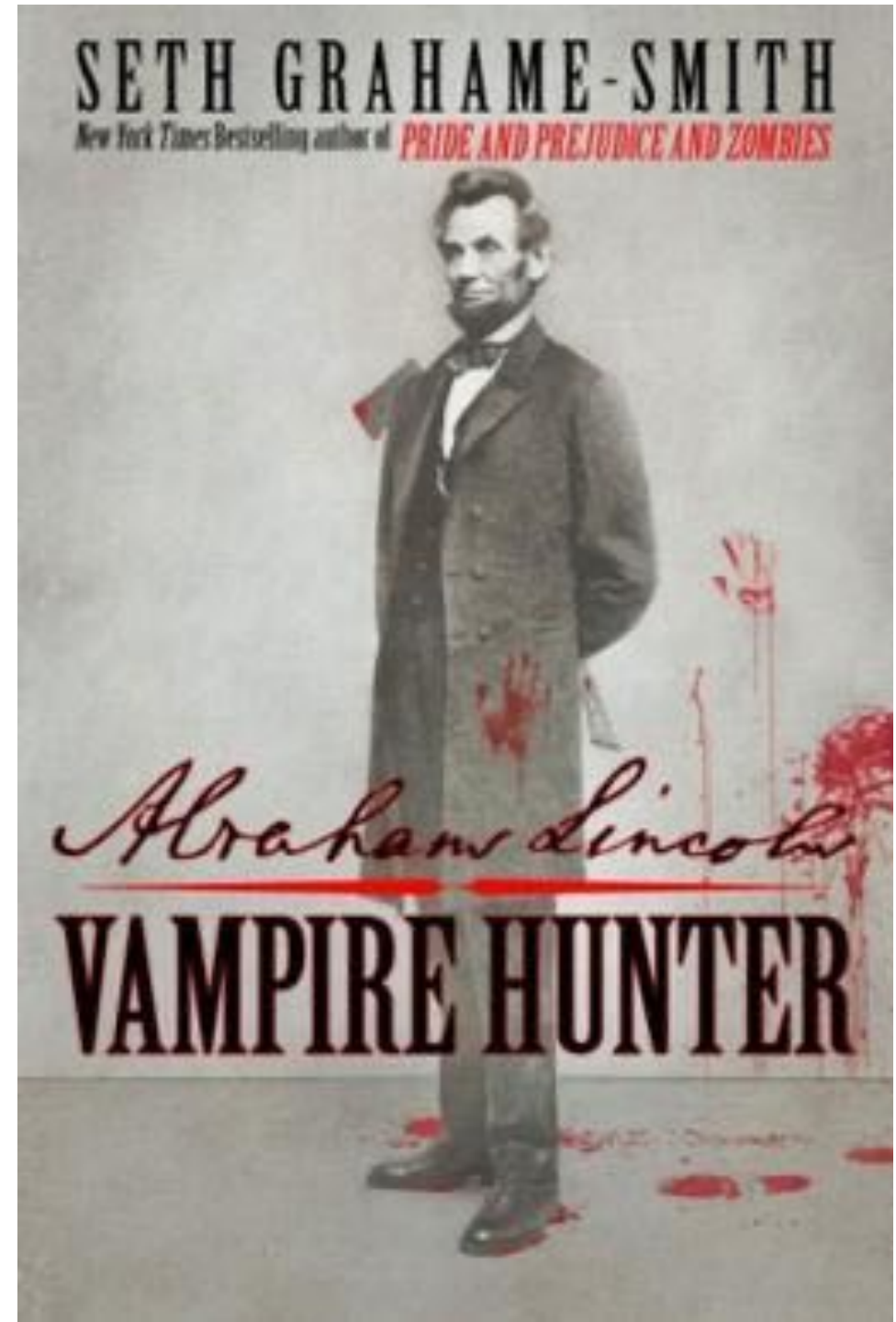
James W Grimes, Iowa Politician, 1854::

“Shall populous, thriving villages and cities spring up all over the face of Nebraska, or shall unthrift and sparseness, stand-still and decay, ever characterize that State? Shall unpaid, unwilling toil, inspired by no hope and impelled by no affection, drag its weary, indolent limbs over that State, hurrying the soil to barrenness and leaving the wilderness a wilderness still, or shall it be thrown open to the hardy and adventurous freemen of our own country, and to the constantly-increasing tide of foreign exiles?”

# Counterfactuals



Counterfactuals:  
crazy extrapolations



# Cassius Clay's Counterfactual



“I shall ask nothing in return but the enhanced value of my land which must ensure gradually from the day that we become indeed a free and independent state.”

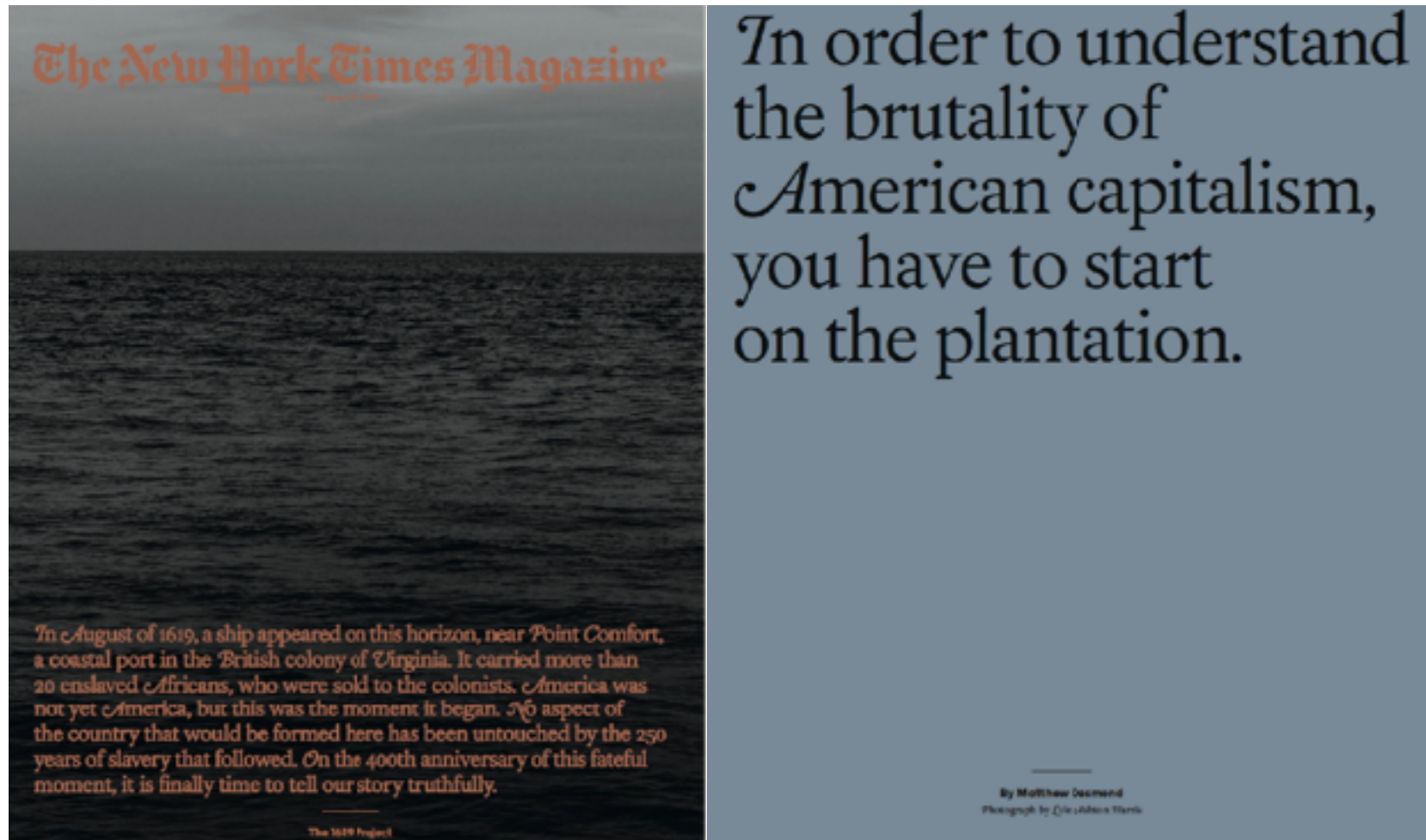
At the border: estimate \$1450 land appreciation per slave.

>50% had  $(0.55 * \text{real estate}) > \text{personal property}$ .

Timing



# The 'New History of Capitalism'



*NY Times'*  
1619  
Project

	<b>Previous work by economists</b>	<b>Our work</b>	<b>NHC</b>
<b>Methodology viz. economic outcomes</b>	Quant.	Quant.	
<b>Counterfactual</b>	Alternate investment at micro level	Slightly different border	



	Previous work by economists	Our work	NHC
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	<b>Previous work by economists</b>	<b>Our work</b>	<b>NHC</b>
<b>Methodology viz. economic outcomes</b>	Quant.	Quant.	Taint?
<b>Counterfactual</b>	Alternate investment at micro level	Slightly different border	??

# Summary

- Land as a sufficient statistic for policy impact
- Compare similar border counties, with or without slavery.
- Restriction on land use (abolition) surprisingly associated with higher land value and usage. Higher pop. density on the free side.
- Puzzle: why didn't the cheaper land and higher wages on the slave side attract yeomen farms?
- Working solution: political economy of slave system impinged on the success of the non-slaveholding whites.



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