The Long Shadow of American Slavery: Its Influence on the Affordable Care Act

Vinish Shrestha

Towson University

Introduction

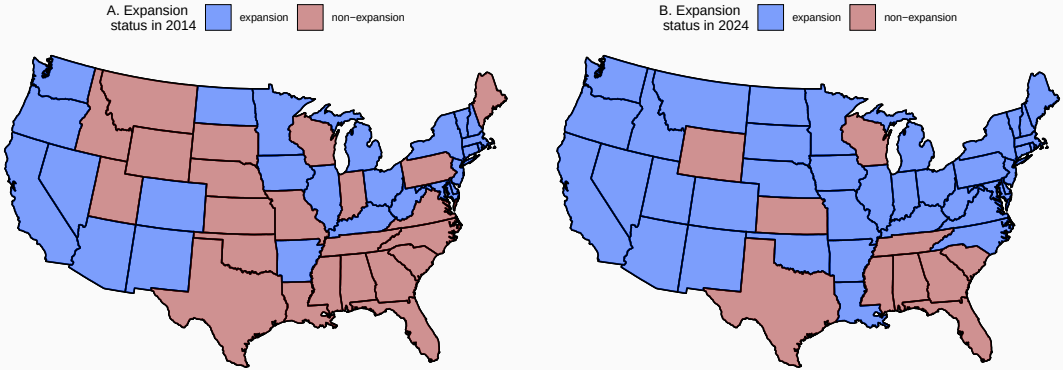
Patient Protection and the Affordable Care Act (ACA)

- Goal: To obtain a nearly universal health insurance coverageе (Gruber (2011))
- Some major provisions:

1. The individual mandate
2. Subsidies in the healthcare exchange markets
3. Employer mandate
4. Medicaid expansion *(eligibility: below 138% of FPL)*

- The 2012 Supreme Court ruling made Medicaid optional for states

Strongest opposition in the American South (Data from KFF)



Note: Out of the 10 non-expansion states, 7 fall in the South.

Objective

- *To investigate the relationship between slavery in the American South and institutional changes in the healthcare sector that are redistributive and equitable in nature by focusing on ACA – the most sweeping healthcare reform in the United States*

Conceptual Framework

1. Resistance towards redistributive programs

- White landowners had incentives to provide private provisions to public goods throughout the Jim Crow era (Alston and Ferrie (1985) and Alston and Ferrie (1993))
- Used paternalism as a medium of labor coercion
  - food, medical bills, legal payments
- Saw redistributive policies as a substitute for paternalism

The former culture of resistance can influence the implementation of ACA.

2. Racialization of ACA

- Despite President Obama's effort, ACA was racialized (Michener (2020))
- State level racial resentment negatively affects adoption of ACA-related Medicaid expansions (Lanford and Quadagno (2016))
- State's decision of whether to expand Medicaid depends on the level of support from the White populace, whereas the support from non-Whites tend to be impertinent (Grogan and Park (2017))

3. Intergeneration transfer

- Culture and attitude over generations (Boyd and Richerson (1996))
- Evidence on intergenerational transfer of political attitude and values (Bisin and Verdier (2011), Nunn and Wantchekon (2011), Voigtländer and Voth (2012), Charnysh (2015), Acharya, Blackwell, and Sen (2016))
- Acharya, Blackwell, and Sen (2016) document the legacy of American slavery in shaping current-day political preferences in the American South
  - *i*) increased probability of being Republican
  - *ii*) opposed to affirmative action
  - *iii*) express anti-Black sentiments

Persitence in political beliefs can spillover informing preferences regarding ACA

Data

Data (Outcome variables)

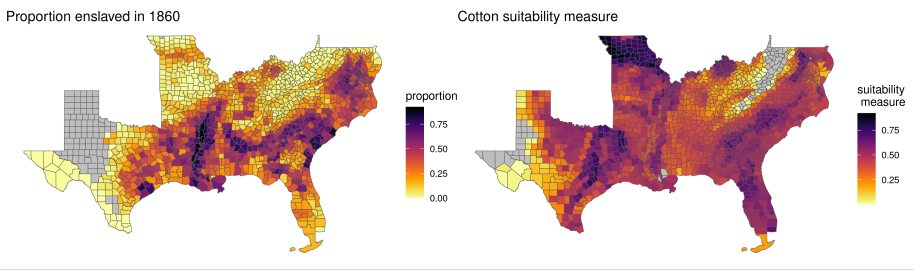
1. Small Area Health Insurance Estimates (SAHIE) – years 2010 to 2018
   - county level data on uninsured rate by income groups
   - focus on individuals below 138% of FPL

2. Medicaid transfer funds (per capita) – years 2010 to 2018
   - county level data from the Bureau of Economic Analysis (BEA)

3. American Community Survey – years 2010 to 2018
   - uninsured, employer sponsored insurance, private insurance, Medicaid, Other types
   - PUMA level data (aggregated by Black-White race groups)

Data (Main explanatory variables)

- Proportion enslaved in 1860 (1860 U.S. Census)
- Cotton suitability measure (UN Food and Agriculture Organization (FAO))



Data (Features)

Some 1860 characteristics

a. Proportion of farms under 50 acres
b. Log of the total improved acreage
c. Log of total population
d. Access to water and railways
e. Gini coefficient of inequality
f. Proportion of free blacks in 1860

Geographial: latitude, longitude, ruggedness, elevation

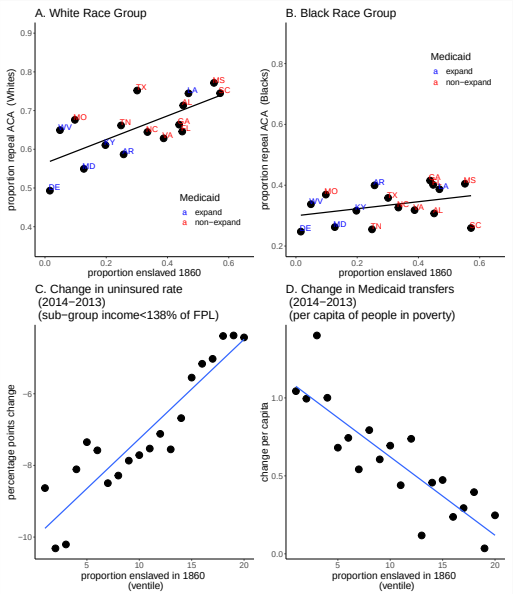
Historical climate: precipitation, temperature

Some contemporary characteristics

a. Proportion of Blacks/Whites (2010)
b. Estimated White vote share for Obama (2008)
c. Whites' household income (age 35)
d. Per capita income & poverty rate (2010)
e. PM 2.5 measure (2010)
f. Percent with college/high school degree (2010)
g. Unemployment rate in 2010

- *A complete list of features and their sources can be found in the paper.*

Descriptive Results (Cooperative Congressional Election Study 2014, 16, 18)



Methods

Three different tools

1. Causal Forest (Athey, Tibsharani, and Wager (2019)): evaluate heterogeneity of Medicaid expansion (CATE)
   - *Did areas with high cotton suitability measure experience lower reductions in uninsured rate following the Medicaid expansion?*

2. Event-study method (expansion and non-expansion states): Differential gap in uninsured rate by proportion enslaved in 1860.

$$Y_{cst} = \alpha + \underbrace{\sum_{k=-4}^{4}}_{k \neq -1} \gamma_k \times Enslaved1860_{cs} \times I(t = 2014 + k) + \sigma_c + \phi_t + \epsilon_{cst}$$

3. Matching using the predicted value of the proportion enslaved (skipped)

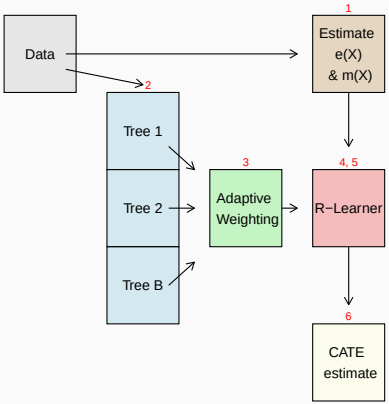
Causal Forest from GRF

- Generalized Random Forest (GRF) (Athey, Tibsharani, and Wager (2019))
- Based on the R-learner framework (Robinson (1988), Nie and Wager (2021))

$$Y_i - m(X_i) = \tau(X_i)(W_i - e(X_i)) + \epsilon_i$$

- residual-on-residual regression
  - $m(X_i)$: *main effect – conditional mean of Y*
  - W_i: *treatment (expand or not)*
  - $e(X_i)$: *propensity score*
  - $\tau(X_i)$: *CATE*

Causal Forest and adaptive weights

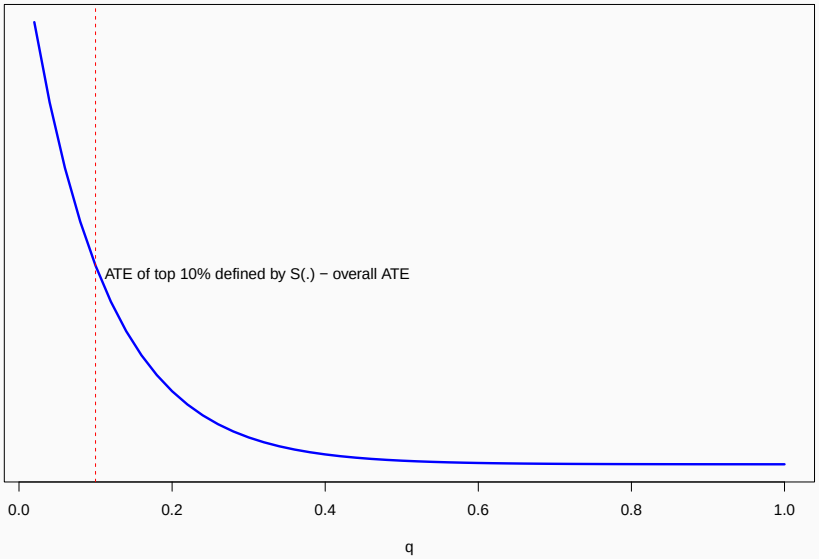


1. Estimate $e(X_i)$ and $m(X_i)$ using random forest (with cross-fitting).
2. Build B $(30,000)$ causal trees. Use clustered random sampling at state level. Use *subsampling* and *honesty*.
3. Calculate adaptive weights for each observations i. This tells us how similar i is to the test point x.
4. Use $e(\hat{X}_i)$ and $m(\hat{X}_i)$ to get the residual-on-residual form.
5. Run the residual-on-residual regression with weights obtained from Step 3.
6. Get the estimate on $\tau(X_i)$: (CATE).

Assumption: At a leaf, treatment is good as random.

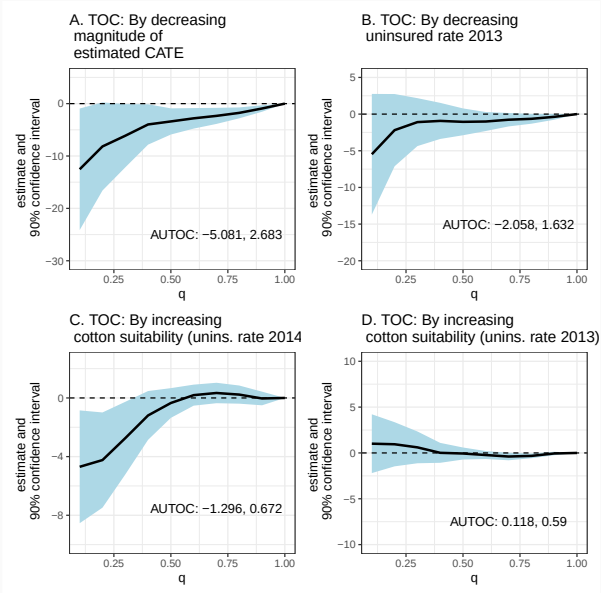
Evaluate heterogeneity using RATE

- Rank-Weighted Average Treatment Effects (RATE) (Yadlowsky et al. (2021))
- Takes a score measure – $S(.)$
  - can include CATE estimates
  - or other baseline characteristics (i.e., pre-reform uninsured rate, cotton suitability)
- Uses the Targeting Operator Characteristics (TOC) and area under the TOC (AUTOC) to characterize heterogeneity.
- Cut the data into groups defined by the prioritization score – $S(X_i)$
  - then compare the ATE in these groups with overall ATE

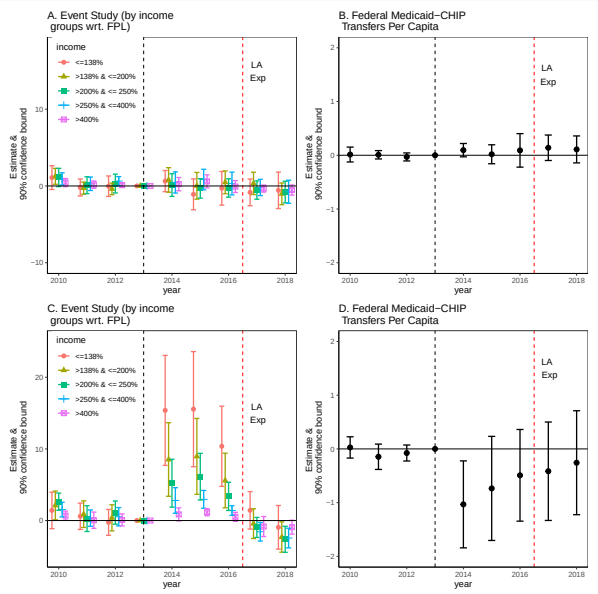

Targeting Operator Characteristics (TOC) curve demonstrating heterogeneity
ATE of top 10% defined by S(.) − overall ATE
0.0
0.2
0.4
0.6
0.8
1.0
q

Results

1. Causal Forest Results (outcome = uninsured rates year 2014)



2. Event Study Results (outcome = uninsured rates)



Potential channels

Did slavery affect ACA implementation through contemporary politics?

1. Working backwards

- Predict the proportion enslaved in 1860 using current political landscape

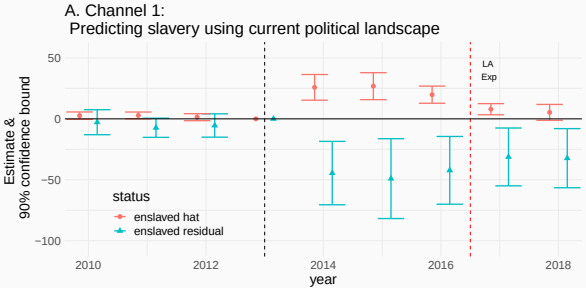
$$enslaved1860_c = f(contemporary\ politics_c, U_c)$$

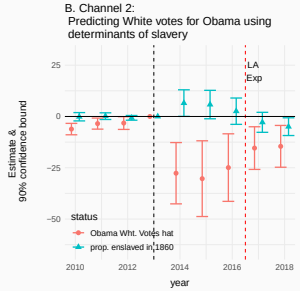
- contemporary politics: Trump votes in 2016, White votes for Obama in 2008, whether a county is Democrat
- explained ($\hat{Y}$) versus unexplained ($Y - \hat{Y}$) variations

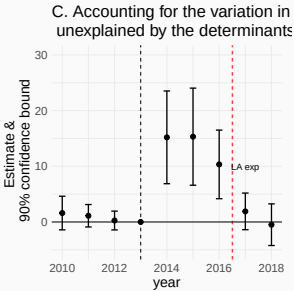
2. Use determinants of slavery to predict contemporary political outcome (proportion of White votes for Obama, 2008)

- explained ($\widehat{WhiteObamaVotes}$)
- observe the behavior of ES estimates after accounting for the variation in contemporary politics explained by the determinants of slavery

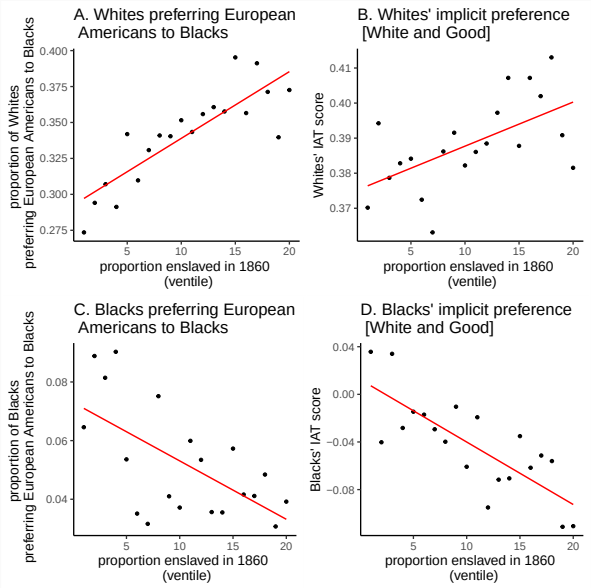
Results


A. Channel 1:
Predicting slavery using current political landscape
Estimate &
90% confidence bound
50
0
−50
−100
LA
Exp
status
enslaved hat
enslaved residual
2010
2012
2014
2016
2018
year


B. Channel 2:
Predicting White votes for Obama using
determinants of slavery
Estimate &
90% confidence bound
25
0
−25
−50
LA
Exp
status
Obama Wht. Votes hat
prop. enslaved in 1860
2010
2012
2014
2016
2018
year


C. Accounting for the variation in
unexplained by the determinants
Estimate &
90% confidence bound
30
20
10
0
LA exp
2010
2012
2014
2016
2018
year

Additional channel (Racial resentment using data from Project Implicit)



Additional channel (shown in paper)

- Alston and Ferrie (1985) and Alston and Ferrie (1993) argue that cotton mechanization ended paternalism in South

- The influence of slavery is more concentrated in counties that underwent slower mechanization in the mid-1990s

Conclusion

Discussion

- The passage of the ACA in March 2010 took America several steps closer to the direction of universal healthcare
- The reform has been met with turbulent opposition on several grounds.
  - exorbitant costs,
  - increased government involvement,
  - inefficiency,
  - lower quality of health care
- *This study argues that despite the vulnerability in the American South, institutional legacy of American slavery in the South has helped shape ACA-related preferences and also affected its efficacy in the southern landscape.*

Appendix

- TOC is defined as:

$$TOC(q) = E[Y_i(1) - Y_i(0) | S(X_i) > F^{-1}_{S(X_i)}(1-q)] - E[Y_i(1) - Y_i(0)]$$

- $TOC(q)$ for $0 \leq q \leq 1$ is defined as the difference in ATE among units above the q^{th} percentile of $S(X_i)$ and the overall ATE.

References i

Acharya, Avidit, Matthew Blackwell, and Maya Sen. 2016. "The Political Legacy of American Slavery." *The Journal of Politics* 78 (3): 621–41.

Alston, Lee J, and Joseph P Ferrie. 1985. "Labor Costs, Paternalism, and Loyalty in Southern Agriculture: A Constraint on the Growth of the Welfare State." *The Journal of Economic History* 45 (1): 95–117.

———. 1993. "Paternalism in Agricultural Labor Contracts in the US South: Implications for the Growth of the Welfare State." *The American Economic Review*, 852–76.

Athey, Susan, Julie Tibsharani, and Stefan Wager. 2019. "Generalized Random Forests." *The Annals of Statistics* 47 (2): 1148–78.

Bisin, Alberto, and Thierry Verdier. 2011. "The Economics of Cultural Transmission and Socialization." In *Handbook of Social Economics*, 1:339–416. Elsevier.

References ii

Boyd, Robert, and Peter J Richerson. 1996. “Why Culture Is Common, but Cultural Evolution Is Rare.” In *Proceedings-British Academy*, 88:77–94. Oxford University Press Inc.

Charnysh, Volha. 2015. “Historical Legacies of Interethnic Competition: Anti-Semitism and the EU Referendum in Poland.” *Comparative Political Studies* 48 (13): 1711–45.

Grogan, Colleen M, and Sunggeun Park. 2017. “The Racial Divide in State Medicaid Expansions.” *Journal of Health Politics, Policy and Law* 42 (3): 539–72.

Gruber, Jonathan. 2011. “The Impacts of the Affordable Care Act: How Reasonable Are the Projections?” National Bureau of Economic Research.

References iii

Lanford, Daniel, and Jill Quadagno. 2016. "Implementing ObamaCare: The Politics of Medicaid Expansion Under the Affordable Care Act of 2010." *Sociological Perspectives* 59 (3): 619–39.

Michener, Jamila. 2020. "Race, Politics, and the Affordable Care Act." *Journal of Health Politics, Policy and Law* 45 (4): 547–66.

Nie, Xinkun, and Stefan Wager. 2021. "Quasi-Oracle Estimation of Heterogeneous Treatment Effects." *Biometrika* 108 (2): 299–319.

Nunn, Nathan, and Leonard Wantchekon. 2011. "The slave trade and the origins of mistrust in Africa." *American Economic Review* 101 (7): 3221–52.

Robinson, Peter M. 1988. "Root-n-Consistent Semiparametric Regression." *Econometrica: Journal of the Econometric Society*, 931–54.

Voigtländer, Nico, and Hans-Joachim Voth. 2012. "Persecution Perpetuated: The Medieval Origins of Anti-Semitic Violence in Nazi Germany." *The Quarterly Journal of Economics* 127 (3): 1339–92.

Yadlowsky, Steve, Scott Fleming, Nigam Shah, Emma Brunskill, and Stefan Wager. 2021. "Evaluating Treatment Prioritization Rules via Rank-Weighted Average Treatment Effects." *arXiv Preprint arXiv:2111.07966*.