# Supplemental online material

This appendix presents additional substantive results and results for robustness tests.

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# *A. Full results including control variables*

**Table A.1:** Impact on Intergenerational Mobility, including all covariates

| | *Dependent variable:* | |
|---|---|---|
| | *Intergenerational Mobility* | |
| | *(1)* | *(2)* |
| Lynch rate | $-0.022^{***}$ | $-0.030^{***}$ |
| | (0.006) | (0.007) |
| Prop. slave, 1860 | 0.030 | $0.052^{**}$ |
| | (0.024) | (0.026) |
| County Area, 2000 | $0.026^{***}$ | $0.021^{*}$ |
| | (0.006) | (0.012) |
| Latitude, 2000 | $-0.151^{***}$ | $-0.155^{***}$ |
| | (0.030) | (0.035) |
| Latitude squared, 2000 | $0.002^{***}$ | $0.002^{***}$ |
| | (0.0005) | (0.001) |
| Longitude, 2000 | $0.092^{***}$ | $0.057^{*}$ |
| | (0.029) | (0.032) |
| Longitude squared, 2000 | $0.001^{***}$ | $0.0003^{*}$ |
| | (0.0002) | (0.0002) |
| Ruggedness | 0.00000 | 0.00003 |
| | (0.0001) | (0.0001) |
| Gini coefficient, 1860 | $0.087^{**}$ | 0.054 |
| | (0.044) | (0.073) |
| Prop. small farms, 1860 | 0.017 | $-0.117^{***}$ |
| | (0.027) | (0.039) |
| Total population, 1860 | $-0.008$ | $0.050^{***}$ |
| | (0.006) | (0.014) |
| Farm value per capita, 1860 | $-0.011^{*}$ | $-0.015$ |
| | (0.007) | (0.011) |
| Total improved acreage, 1860 | $-0.001$ | $-0.053^{***}$ |
| | (0.006) | 0.012) |
| Prop. free black, 1860 | $0.524^{**}$ | 0.368 |
| | (0.203) | (0.226) |
| Rail access, 1860 | $-0.002$ | $-0.024^{***}$ |
| | (0.007) | (0.008) |
| Water access, 1860 | $-0.009$ | $-0.018^{**}$ |
| | (0.006) | (0.008) |
| Constant | $5.185^{***}$ | $3.858^{***}$ |
| | (1.277) | (1.414) |
| State fixed effects | Y | Y |
| Moran eigenvectors | N | Y |
| Observations | 930 | 799 |
| $R^2$ | 0.344 | 0.428 |
| Adjusted $R^2$ | 0.323 | 0.378 |
| Residual Std. Error | 0.396 (df = 900) | 0.385 (df = 734) |
| *Note:* | $^{*}$p<0.1; $^{**}$p<0.05; $^{***}$p<0.01 | |

**Table A.2:** Male and Female, including all covariates

| | *Dependent variable:* | |
|---|---|---|
| | *Intergenerational Mobility* | |
| | *Male* | *Female* |
| Lynch rate | −0.034*** | −0.012** |
| | (0.008) | (0.006) |
| Prop. slave, 1860 | 0.055* | 0.019 |
| | (0.032) | (0.024) |
| County Area, 2000 | 0.028*** | 0.020*** |
| | (0.009) | (0.007) |
| Latitude, 2000 | −0.191*** | −0.177*** |
| | (0.041) | (0.032) |
| Latitude squared, 2000 | 0.003*** | 0.003*** |
| | (0.001) | (0.0005) |
| Longitude, 2000 | 0.065* | 0.089*** |
| | (0.038) | (0.029) |
| Longitude squared, 2000 | 0.0004* | 0.001*** |
| | (0.0002) | (0.0002) |
| Ruggedness | 0.00004 | 0.00002 |
| | (0.0001) | (0.0001) |
| Gini coefficient, 1860 | 0.110* | 0.058 |
| | (0.059) | (0.045) |
| Prop. small farms, 1860 | 0.007 | 0.052* |
| | (0.036) | (0.027) |
| Total population, 1860 | −0.012 | −0.002 |
| | (0.008) | (0.006) |
| Farm value per capita, 1860 | −0.027*** | −0.0004 |
| | (0.009) | (0.007) |
| Total improved acreage, 1860 | −0.002 | 0.004 |
| | (0.008) | (0.006) |
| Prop. free black, 1860 | 0.480* | 0.556*** |
| | (0.269) | (0.203) |
| Rail access, 1860 | −0.004 | −0.005 |
| | (0.009) | (0.007) |
| Water access, 1860 | −0.002 | −0.012* |
| | (0.008) | (0.006) |
| Constant | 4.587*** | 5.440*** |
| | (1.700) | (1.293) |
| State fixed effects | Y | Y |
| Observations | 868 | 865 |
| $R^2$ | 0.313 | 0.336 |
| Adjusted $R^2$ | 0.289 | 0.313 |
| Residual Std. Error | 0.520 (df = 838) | 0.392 (df = 835) |
| *Note:* | *p<0.1; **p<0.05; ***p<0.01 | |

## *B. Matched and Weighted sample results*

### *Matching*

Figure B.1 shows the mean difference for the genetic matching sample with Mahalanobis distance, where the dichotomized treatment group is any county with a lynch rate greater than 0. The control group consists of cases with a rate equal to 0. I match on the same covariates used in the regressions: proportion of enslaved people, county area, latitude, longitude, ruggedness, Gini coefficient, proportion of small farms, total population, farm value per capita, total improved acreage, proportion of free Black, rail access, and water access. The figure shows that balance was improved on almost all variables after adjustment, bringing most below the threshold of .1 for absolute mean differences.[1]

Table B.1 confirms the main results using treatment and control covariate distributions that more closely resemble each other. The results provide further evidence of a historical correlation between lynching and intergenerational mobility.

### *Weighting*

This study dichotomizes the treatment variable in order to utilize more well-established propensity score techniques; however, this comes with the risk of losing important information and underestimating the variance. A possible solution for keeping information and making the treatment independent from the covariates is weighting[2]. Weighting methods for continuous treatments aim to make the treatment independent of the covariates in the weighted sample while retaining many of the well-known assessing and estimation techniques used by researchers conducting a matching analysis.

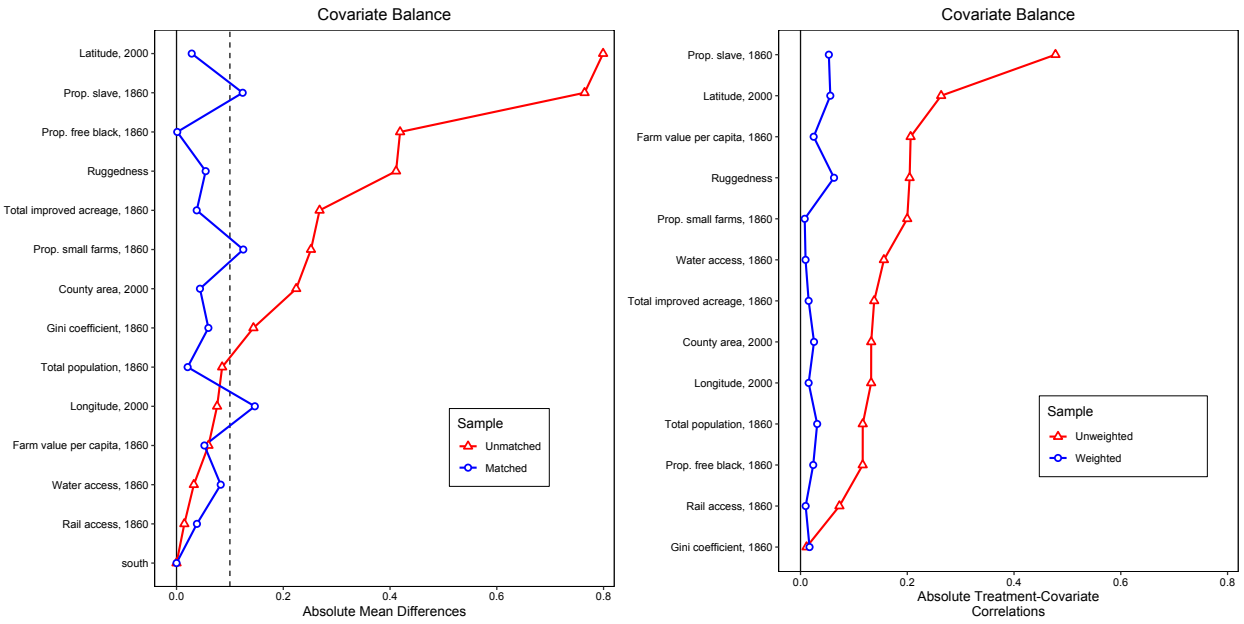
I use distance covariance optimal weights as suggested by Huling, Greifer, and Chen for continu-

[1] I also examine the Kolmogorov-Smirnov statistic for all match models, as recommended by Austin and Stuart (2015). The KS statistic is bounded at 0 and 1, with 0 indicating perfectly identical distributions and 1 indicating perfect separation between distributions; values closer to 0 indicate balance. All matched models have a KS statistic close to 0.

[2] Huling, Greifer, and Chen, "Independence Weights for Causal Inference with Continuous Treatments"

ous treatments and report the balance mean difference between treatment and control units in Figure B.1. A reduced mean difference between units suggests that weighting led to substantial balance improvement.

I regress the outcome variable on the lynch rate and the 1860 covariates. Column 2 of Table B.1 shows these results and confirms an association between lynchings and immobility when using a weighted sample.




**(a)** Matched sample mean difference

**(b)** Weighted sample mean difference

**Figure B.1:** Both figures show the mean difference before and after matching and weighting. To generate the matched sample for the lynch dummy treatment variable I use genetic matching with Mahalanobis distance. To generate the weighted sample for the continuous treatment variable I use distance covariance optimal weights.

**Table B.1:** Matched and Weighted sample results, including all covariates

| | Matched Sample 1 | Weighted Sample 2 |
|---|---|---|
| Lynch Dummy | $-0.010^{*}$ | |
| | (0.006) | |
| Lynch rate | | $-0.024^{***}$ |
| | | (0.006) |
| Prop. slave, 1860 | $0.033^{**}$ | $0.043^{*}$ |
| | (0.016) | (0.023) |
| County Area, 2000 | $0.016^{***}$ | 0.011 |
| | (0.006) | (0.007) |
| Latitude, 2000 | $-0.072^{***}$ | $-0.163^{***}$ |
| | (0.021) | (0.034) |
| Latitude squared, 2000 | $0.001^{***}$ | $0.002^{***}$ |
| | (0.0003) | (0.001) |
| Longitude, 2000 | $0.038^{**}$ | $0.155^{***}$ |
| | (0.018) | (0.031) |
| Longitude squared, 2000 | $0.0002^{**}$ | $0.001^{***}$ |
| | (0.0001) | (0.0002) |
| Ruggedness | $-0.00002$ | $0.0002^{***}$ |
| | (0.00004) | (0.0001) |
| Gini coefficient, 1860 | 0.031 | 0.063 |
| | (0.038) | (0.047) |
| Prop. small farms, 1860 | $-0.002$ | $-0.005$ |
| | (0.022) | (0.030) |
| Total population, 1860 | $-0.001$ | 0.012 |
| | (0.005) | (0.007) |
| Farm value per capita, 1860 | $-0.003$ | $-0.012^{*}$ |
| | (0.005) | (0.007) |
| Total improved acreage, 1860 | $-0.008$ | $-0.013^{*}$ |
| | (0.005) | (0.007) |
| Prop. free black, 1860 | $-0.031$ | 0.073 |
| | (0.144) | (0.159) |
| Rail access, 1860 | 0.003 | $-0.023^{***}$ |
| | (0.004) | (0.006) |
| Water access, 1860 | $-0.004$ | $-0.011^{*}$ |
| | (0.005) | (0.006) |
| Constant | $3.090^{***}$ | $8.309^{***}$ |
| | (0.804) | (1.334) |
| State fixed effects | Y | Y |
| Observations | 314 | 930 |
| $R^2$ | 0.282 | 0.311 |
| Adjusted $R^2$ | 0.209 | 0.289 |
| Residual Std. Error | 0.149 (df = 284) | 0.073 (df = 900) |

*Note:* $^{*}$p<0.1; $^{**}$p<0.05; $^{***}$p<0.01 Coefficients in model 1 are from a regression on the matched data with a dichotomized lynch rate dummy variable. Coefficients in model 2 are from a regression on the weighted data. Weights are generated using distance covariance optimal weights.

## *C. Alternative measures of lynchings*

I test the sensitivity of the results by using different measurements of lynchings. The first alternative measurement is an absolute count of lynchings, similar to that of Tolnay and Beck. The second measurement is the total number of lynchings per 10,000 Black population in 1900, similar to Williams (2022). Model 1 and 2 in Table C.1 indicate that the findings are robust to different specifications of lynchings.

**Table C.1:** Association is robust to different measures of lynching

| | *Dependent variable:* | |
|---|---|---|
| | Intergenerational Mobility | |
| | (1) | (2) |
| Lynch count, 1865-1940 | −0.002*** | |
| | (0.001) | |
| Lynchings per 10,000 1920 Residents, 1882-1930 | | −0.007* |
| | | (0.004) |
| Prop. slave, 1860 | 0.031 | 0.017 |
| | (0.024) | (0.024) |
| County Area, 2000 | 0.026*** | 0.013* |
| | (0.007) | (0.007) |
| Latitude, 2000 | −0.160*** | −0.152*** |
| | (0.030) | (0.031) |
| Latitude squared, 2000 | 0.003*** | 0.002*** |
| | (0.0005) | (0.0005) |
| Longitude, 2000 | 0.093*** | 0.096*** |
| | (0.029) | (0.030) |
| Longitude squared, 2000 | 0.001*** | 0.001*** |
| | (0.0002) | (0.0002) |
| Ruggedness | 0.00001 | 0.00001 |
| | (0.0001) | (0.0001) |
| Gini coefficient, 1860 | 0.091** | 0.112** |
| | (0.044) | (0.046) |
| Prop. small farms, 1860 | 0.020 | 0.015 |
| | (0.027) | (0.027) |
| Total population, 1860 | −0.009 | −0.011* |
| | (0.006) | (0.006) |
| Farm value per capita, 1860 | −0.012* | −0.016** |
| | (0.007) | (0.007) |
| Total improved acreage, 1860 | −0.001 | −0.0004 |
| | (0.006) | (0.006) |
| Prop. free black, 1860 | 0.490** | 0.425** |
| | (0.204) | (0.213) |
| Rail access, 1860 | −0.004 | −0.003 |
| | (0.007) | (0.007) |
| Water access, 1860 | −0.010 | −0.006 |
| | (0.006) | (0.006) |
| Constant | 4.157*** | 4.222*** |
| | (1.296) | (1.313) |
| State fixed effects | Y | Y |
| Observations | 930 | 905 |
| $R^2$ | 0.343 | 0.351 |
| Adjusted $R^2$ | 0.322 | 0.329 |
| Residual Std. Error | 0.396 (df = 900) | 0.395 (df = 875) |
| *Note:* | *p<0.1; **p<0.05; ***p<0.01 | |

## *D. Alternative measures of the South*

Regional definitions of the South vary from source to source and are defined as much by geography as culture. To ensure that the results are not sensitive to definitions of the South, I use two additional measures. The first is the US Census definition of the South, which includes Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia. This definition excludes Kentucky and Missouri used in the original sample but includes Delaware and Maryland. The second definition is limited to the Deep South: Louisiana, Mississippi, Alabama, Georgia, and South Carolina. The results, reported in Table D.1, are similar to the main results. Model 1 is of note since it extends the analysis to include states thought of as the North (Delaware and Maryland) but with a lower proportion of enslaved people in 1860 (2% of the population in Delaware and 13% in Maryland, compared to 31% in the neighboring state of Virginia), indicating a robust association between lynching and immobility even in lower slaveholding counties.

**Table D.1:** Association is robust to different definitions of the South

| | *Dependent variable:* | |
|---|---|---|
| | Intergenerational Mobility | |
| | Census South | Deep South |
| | (1) | (2) |
| Lynch rate | $-0.022^{***}$ | $-0.021^{***}$ |
| | (0.006) | (0.006) |
| Prop. slave, 1860 | $0.046^{*}$ | $-0.030$ |
| | (0.024) | (0.034) |
| County Area, 2000 | $0.023^{***}$ | $-0.013$ |
| | (0.007) | (0.011) |
| Latitude, 2000 | $-0.220^{***}$ | $-0.049$ |
| | (0.034) | (0.147) |
| Latitude squared, 2000 | $0.004^{***}$ | 0.001 |
| | (0.001) | (0.002) |
| Longitude, 2000 | $0.083^{***}$ | 0.061 |
| | (0.028) | (0.088) |
| Longitude squared, 2000 | $0.0005^{***}$ | 0.0004 |
| | (0.0002) | (0.001) |
| Ruggedness | $-0.00001$ | $-0.0004^{**}$ |
| | (0.0001) | (0.0002) |
| Gini coefficient, 1860 | $0.100^{**}$ | $-0.023$ |
| | (0.044) | (0.089) |
| Prop. small farms, 1860 | 0.008 | 0.018 |
| | (0.028) | (0.047) |
| Total population, 1860 | $-0.003$ | $-0.0001$ |
| | (0.006) | (0.011) |
| Farm value per capita, 1860 | $-0.012^{*}$ | 0.007 |
| | (0.007) | (0.012) |
| Total improved acreage, 1860 | $-0.003$ | 0.019 |
| | (0.006) | (0.012) |
| Prop. free black, 1860 | $0.483^{**}$ | $0.887^{**}$ |
| | (0.197) | (0.411) |
| Rail access, 1860 | $-0.010$ | $-0.029^{***}$ |
| | (0.007) | (0.008) |
| Water access, 1860 | $-0.009$ | $-0.012$ |
| | (0.006) | (0.010) |
| Constant | $5.847^{***}$ | 2.154 |
| | (1.298) | (5.202) |
| State fixed effects | Y | Y |
| Observations | 875 | 335 |
| $R^2$ | 0.373 | 0.176 |
| Adjusted $R^2$ | 0.352 | 0.123 |
| Residual Std. Error | 0.379 (df = 846) | 0.280 (df = 314) |
| *Note:* | $^{*}$p<0.1; $^{**}$p<0.05; $^{***}$p<0.01 | |

## *E. Matched sample of low slaveholding and Northern counties*

A possible explanation for the main findings in Table **??** is that former large slaveholding counties tend to be more unequal today than counties with a lower proportion of enslaved people. In fact, studies examining the contemporary impact of slavery have found that it heightens racial resentment, exacerbates Black-White poverty, and reduces national and local economic development.

Much work has also examined the connection between slavery and lynching. Descriptive findings by Seguin and Rigby show that 97% of Black lynchings occurred in former slave states and accounted for 88% of total victims.[3] Within states that allowed slavery in 1860, those with higher rates of slavery tended to have higher rates of victimization. Acharya, Blackwell, and Sen support this finding, showing that areas previously more reliant on slave labor experienced more lynchings between 1882 and 1930.[4]. The practice of lynching itself often employed skills and infrastructure developed by slave patrols.[5] In a related study, Rigby and Seguin disentangle the legacy between lynching and slavery, finding that once slavery is accounted for, any relation between capital punishment and lynching disappears.[6] Taken together, it may mean that slavery could be the root cause of lynchings and contemporary outcomes.

It is undoubtable that as an institution, slavery had a deep influence on the economic, political, and repressive systems that continue into the present. This study does not negate the impact of slavery nor its connection to lynching, but it does argue that the relationship is perhaps more conditional than expected and that lynchings can also impact contemporary outcomes. For one, lynching occurred mostly in slave states since most of the Black population resided within those states, at least until the Great Migration. In 1910, 89% of all Blacks lived in former slave states. Supporting this condition, Beck and Tolnay (1990) find that the size of the Black population is related to the occurrence of

[3] Seguin and Rigby, "National Crimes: A New National Data Set of Lynchings in the United States, 1883 to 1941"

[4] Acharya et al., "The Political Legacy of American Slavery"

[5] Mattias Smångs, "Doing Violence, Making Race: Southern Lynching and White Racial Group Formation," *American Journal of Sociology* 121 no. 5 (2016): 1329-1374.

[6] Rigby and Seguin, "Capital punishment and the legacies of slavery and lynching in the United States." Rigby and Seguin account for slavery by including the 1860 population of enslaved people as a control variable. I conducted a similar test in the main analysis and found that even after accounting for slavery, lynching still is associated with inequality. Undertaking a similar test as Rigby and Seguin suggests that lynching is correlated with immobility, though they were examining capital punishment and, therefore, different mechanisms may be at play.

lynching. Although, as noted before, most lynchings tended to occur in places with a larger former slave population.

In addition, as Seguin and Rigby point out, about 40% of counties (648) in states permitting the enslavement of people did not witness any lynchings.[7] These include large parts of Missouri, North Carolina, Texas, and West Virginia. This may indicate different conditions across regions with counties relying greater on cotton agriculture — a potential indicator of some of the worst slavery conditions — seeing more lynchings. This stands in contrast to multiple Black victims in Northern counties with no history of institutionalized slavery.

Other underlying conditions may provide answers as to why variation at the county-level occurred. Religious composition may have played a role with counties that are more religiously diverse and have more racially segregated churches experiencing more lynchings.[8] Smångs finds that public lynchings were a function of white racial solidarity.[9] Differences in law enforcement may also explain variation, with areas more linked to the national economy being more responsive to violence.[10]

The timing of lynching may also provide answers as to why variation at the county-level occurred. Lynchings of Blacks peaked in the 1890s, with as many as 70 lynchings in 1893 alone. It is perhaps more difficult for slavery to explain the timing of lynchings, hinting at other potential underlying causes. To explain timing, scholars have often looked to other conditions. Raper found that violence against Blacks was linked to the value of Southern cotton crops, arguing that economic competition between marginal Black and white laborers increased as profits from crops fell.[11] Tolnay and Beck also found that lynchings were more common when the price of cotton declined.[12] Further highlighting the conditionality of economic conditions and violence, Tolnay and Beck (1992) find that counties with more out-migration tended to have fewer lynchings, attributing the decline to white elites attempting to maintain access to a cheap labor supply. Related, while Price, Darity, and

[7] Seguin and Rigby, "National Crimes: A New National Data Set of Lynchings in the United States, 1883 to 1941"
[8] Amy Kate Bailey and Karen A. Snedker, "Practicing What they Preach? Lynching and Religion in the American South, 1890-1929," *American Journal of Sociology* 117 no. 3 (2011): 844-887.
[9] Smångs, "Doing Violence, Making Race: Southern Lynching and White Racial Group Formation"
[10] Elwood M. Beck, Stewart E. Tolnay, and Amy Kate Bailey, "Contested Terrain: The State versus Threatened Lynch Mob Violence." *American Journal of Sociology* 121 no. 6 (2016): 1856-1884.
[11] Raper, Arthur F. *The tragedy of lynching*, Chapel Hill: University of North Carolina Press (1933).
[12] Tolnay and Beck, *A Festival of Violence: An Analysis of Southern Lynchings, 1882-1930*

Headen find that while former slave status explains some of the variation in lynching, they ultimately suggest that job competition is a more important explanatory factor.[13] There is also evidence that lynchings tended to occur around elections.[14]

Still, it could be argued that slavery is the root cause of lynchings and other forms of violence that perpetuated racist attitudes and institutions, but as this discussion shows, there are other conditions that should be taken into account when considering the causes of racial violence. At the very least, this should serve as a call, as argued by Pfeifer, for more research on the origins and extent of informal collective violence in slavery, which informed collective racial violence that followed emancipation.[15]

The following analysis attempts to account for the legacy of slavery. If the estimated effect is attributable to lynching, then there should still be an effect in Southern counties with lower numbers of enslaved people, as well as in Northern counties without an enslaved population in 1860. In other words, if no association between lynching and immobility is found in counties with fewer or no enslaved people in 1860, then the case for the legacy of slavery found in the main results would be stronger.

To examine this, I analyze the difference between counties that experienced lynchings and counties that did not, using a sub-sample of Southern counties with a lower proportion of enslaved people and Northern counties with no enslaved people in 1860. I restrict the sample to Southern counties with a lower proportion of slaves in 1860 by dropping the top ten percentile of all counties in terms of the proportion of enslaved people. Then, I match these counties to similar non-slave Northern counties based on the propensity of a lynching occurring. This includes factors such as geography (latitude/longitude and elevation), county size, farm value per capita, Gini coefficient, mixed-race population, total county population, total improved acres, and rail and water access.

Tolnay and Beck's data does not cover the North. To measure lynchings in Northern states, I

[13] Gregory N. Price, William A. Darity Jr, and Alvin E. Headen Jr, "Does the Stigma of Slavery Explain the Maltreatment of Blacks by Whites?: The Case of Lynchings," *The Journal of Socio-Economics* 37 no. 1 (2008): 167-193.

[14] Jones, Daniel B., Werner Troesken, and Randall Walsh, "Political participation in a violent society: The impact of lynching on voter turnout in the post-Reconstruction South." *Journal of Development Economics* 129 (2017): 29-46.

[15] Michael J Pfeifer, "At the Hands of Parties Unknown? The State of the Field of Lynching Scholarship," *The Journal of American History* 101 no. 3 (2014): 832-846.

use Seguin and Rigby's dataset to extend Tolnay and Beck.[16] While Seguin and Rigby use similar methods and data sources as Tolnay and Beck, there are differences (Seguin and Rigby did not use hard copies of newspapers, did not have access to the Tuskegee database, and only searched for specific lynching events). Therefore, caution should be used when interpreting results. With these limitations in mind, I include their data since it is the closest measure to that of Tolnay and Beck that covers the whole United States.

Lynching in the North was not as common as in the South. According to Seguin and Rigby's dataset, the North witnessed about 70 lynchings of Blacks between 1883 and 1941.[17] Lynchings occurred across 10 Northern states and 50 counties. The majority of these occurred in Illinois, Indiana, Maryland, and Ohio (61 in total).

I use genetic matching with Mahalanobis distance to generate a sub-sample for which the dichotomized treatment group is equal to 1 for any county with a lynching rate greater than 0. In total, 452 cases are matched, half of which are treated counties. Of the 226 treated counties, 34 are found in the North, while 56 are control cases. The remaining cases are Southern counties with a lower proportion of enslaved people in 1860. See Table E.2 for a list of Southern and Northern counties included within the matched sub-sample.

I assess balance by examining the mean differences between treated and control cases. The test reveals that balance improves after matching, as all mean differences improve after pairing observations. This suggests a minimizing difference across these samples. The balance summary for the matched sample is available in Figure E.1. A closer distribution enables the study to conduct an analysis using a balanced sub-sample of treated and control comparison cases, where the legacy of slavery should be more limited.

OLS results from the matched sample using a dichotomized version of the continuous treatment variable, shown in Model 1 of Table E.1, demonstrate that the findings are robust when restricting the analysis to comparable low and non-slaveholding counties. This suggests that the results are

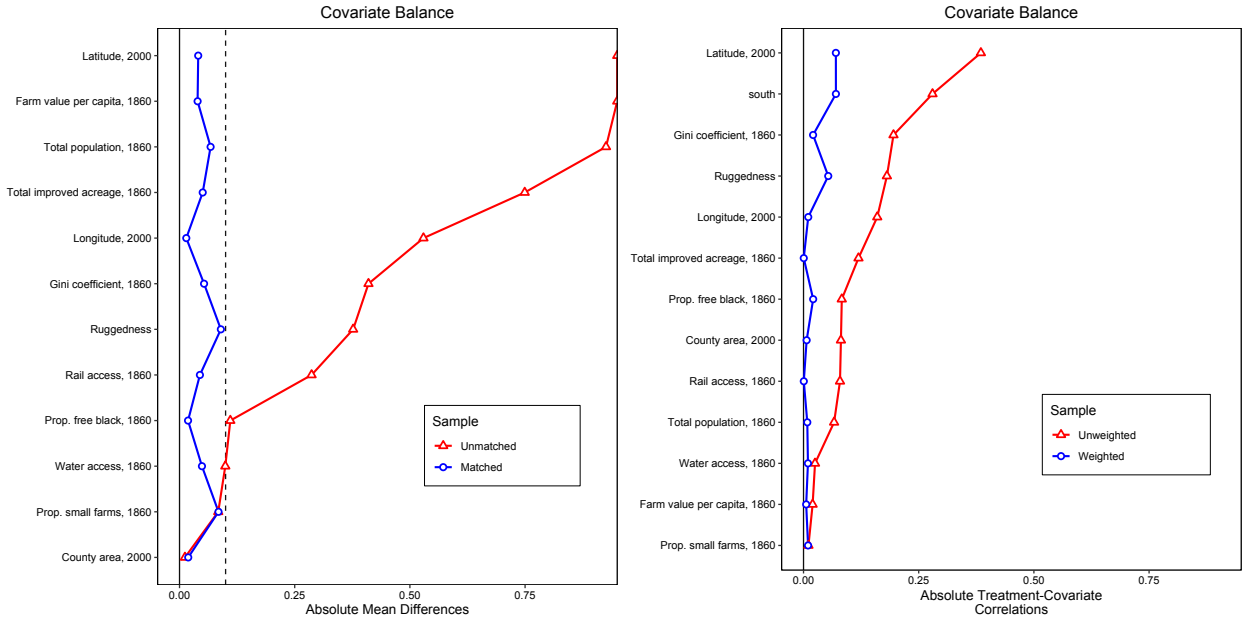
[16] Seguin and Rigby, "National Crimes: A New National Data Set of Lynchings in the United States, 1883 to 1941."

[17] Northern states include Delaware, Illinois, Indiana, Iowa, Maryland, New Jersey, New York, Ohio, Pennsylvania. Northern states are selected based whether they Southern states. I include New York due to large number of Black residents in 1870, results hold without its inclusion.

unlikely to be solely attributable to the legacy of slavery. Additionally, the results in Model 2 of Table E.1 are robust to the use of a weighted sample using the original continuous treatment variable and all counties in the South and North as defined here.

This finding suggests that it is more likely that lynching has a separate and independent effect outside of slavery. Most lynchings occurred during a period in which many Black Americans were becoming economically more self-sufficient in their communities.[18] Even if marginally more self-sufficient, freedom held out the prospect for a better life for the next generation. When Blacks took this opportunity, their lives, bodies, and wealth were destroyed. This finding provides further evidence that lynchings may continue to haunt the Black community today.

[18] William Du Bois, *Black Reconstruction in America: Toward a History of the Part which Black Folk Played in the Attempt to Reconstruct Democracy in America, 1860-1880* (Milton Park: Routledge, 2017).




**(a)** Matched sample mean difference

**(b)** Weighted sample mean difference

**Figure E.1:** Both figures show the mean difference before and after matching and weighting. To generate the matched sample for the lynch dummy treatment variable I use genetic matching with Mahalanobis distance. To generate the weighted sample for the continuous treatment variable I use distance covariance optimal weights.

**Table E.1:** Association is robust to restricting sample to low-slaveholding counties

| | Matched Sample | Weighted Sample |
|---|---|---|
| | 1 | 2 |
| Lynch Dummy | −0.008* | |
| | (0.004) | |
| Lynch Rate | | −0.023** |
| | | (0.010) |
| County Area, 2000 | 0.006 | 0.001 |
| | (0.005) | (0.008) |
| Latitude, 2000 | −0.011 | −0.023 |
| | (0.012) | (0.025) |
| Latitude squared, 2000 | 0.0002 | 0.0003 |
| | (0.0002) | (0.0004) |
| Longitude, 2000 | 0.050*** | 0.194*** |
| | (0.016) | (0.032) |
| Longitude squared, 2000 | 0.0003*** | 0.001*** |
| | (0.0001) | (0.0002) |
| Ruggedness | 0.00000 | 0.0001 |
| | (0.00004) | (0.001) |
| Gini coefficient, 1860 | −0.025 | −0.013 |
| | (0.033) | (0.058) |
| Prop. small farms, 1860 | 0.004 | 0.028 |
| | (0.017) | (0.032) |
| Total population, 1860 | −0.004 | −0.014* |
| | (0.004) | (0.008) |
| Farm value per capita, 1860 | −0.001 | −0.005 |
| | (0.005) | (0.009) |
| Total improved acreage, 1860 | −0.003 | 0.006 |
| | (0.004) | (0.008) |
| Prop. free black, 1860 | 0.085 | −0.587*** |
| | (0.113) | (0.156) |
| Rail access, 1860 | 0.007 | 0.001 |
| | (0.005) | (0.008) |
| Water access, 1860 | −0.007** | −0.007 |
| | (0.004) | (0.007) |
| Constant | 2.698*** | 7.601*** |
| | (0.662) | (1.392) |
| State fixed effects | Y | Y |
| Observations | 452 | 1,161 |
| $R^2$ | 0.328 | 0.248 |
| Adjusted $R^2$ | 0.269 | 0.223 |
| Residual Std. Error | 0.188 (df = 415) | 0.099 (df = 1123) |

*Note:* *p<0.1; **p<0.05; ***p<0.01 Coefficients in model 1 are from a regression on the matched data with a dichotomized lynch rate dummy variable. Coefficients in model 2 are from a regression on the weighted data using a continuous lynch rate variable. Weights are generated using distance covariance optimal weights.

**Table E.2:** States and counties included in the matched sample by region

| | State | County | | State | County |
|---|---|---|---|---|---|
| ***South*** | | | ***North*** | | |
| | AL | Baldwin | | IL | Bond |
| | | Clay | | | Bureau |
| | | Conecuh | | | Coles |
| | | Cullman | | | Jefferson |
| | | De Kalb | | | McHenry |
| | | Etowah | | | Macon |
| | | Fayette | | | Macoupin |
| | | Jackson | | | Marion |
| | | Lamar | | | Perry |
| | | Marion | | | Pulaski |
| | | Marshall | | | St. Clair |
| | | Randolph | | | Saline |
| | | Russell | | | Sangamon |
| | AR | Benton | | | Tazewell |
| | | Clark | | | Vermilion |
| | | Conway | | IN | Clark |
| | | Crawford | | | Fayette |
| | | Cross | | | Grant |
| | | Drew | | | Harrison |
| | | Garland | | | Hendricks |
| | | Howard | | | Henry |
| | | Independence | | | Jackson |
| | | Jackson | | | Jefferson |
| | | Lincoln | | | Johnson |
| | | Logan | | | Knox |
| | | Mississippi | | | Kosciusko |
| | | Ouachita | | | Lake |
| | | Perry | | | La Porte |
| | | Pike | | | Lawrence |
| | | Pope | | | Monroe |
| | | Pulaski | | | Morgan |
| | | St. Francis | | | Posey |
| | | Saline | | | Putnam |
| | | Sebastian | | | Shelby |
| | | Washington | | | Vigo |
| | | White | | | Warrick |
| | | Yell | | | Wayne |
| | FL | Alachua | | IA | Des Moines |
| | | Bradford | | | Henry |
| | | Gadsden | | | Linn |
| | | Lake | | MD | Allegany |
| | | Madison | | | Carroll |
| | | Manatee | | | Prince George's |
| | | Nassau | | | Queen Anne's |
| | | Polk | | | St. Mary's |
| | | St. Johns | | | Somerset |
| | | Wakulla | | | Talbot |
| | GA | Baldwin | | | Washington |
| | | Bibb | | | Worcester |
| | | Charlton | | NJ | Middlesex |
| | | Chattahoochee | | | Monmouth |
| | | Cherokee | | NY | Dutchess |
| | | Clarke | | | Orange |
| | | Clay | | | Rensselaer |
| | | Cobb | | | Tioga |
| | | Decatur | | | Wyoming |
| | | Floyd | | OH | Brown |
| | | Forsyth | | | Butler |
| | | Gordon | | | Carroll |
| | | Hall | | | Champaign |
| | | Hart | | | Clark |
| | | Heard | | | Clermont |
| | | Henry | | | Coshocton |
| | | Laurens | | | Cuyahoga |
| | | Lumpkin | | | Darke |
| | | Mitchell | | | Fayette |
| | | Paulding | | | Greene |
| | | Pickens | | | Harrison |
| | | Quitman | | | Jackson |
| | | Richmond | | | Jefferson |
| | | Rockdale | | | Lake |
| | | Schley | | | Lawrence |
| | | Thomas | | | Logan |
| | | Upson | | | Miami |
| | | Walker | | | Morgan |
| | | Washington | | | Muskingum |
| | | White | | | Pike |
| | | Whitfield | | | Tuscarawas |

| | |
|---|---|
| KY | Adair |
| | Allen |
| | Anderson |
| | Bell |
| | Boone |
| | Boyle |
| | Bullitt |
| | Calloway |
| | Daviess |
| | Fleming |
| | Franklin |
| | Grant |
| | Greenup |
| | Hardin |
| | Harlan |
| | Harrison |
| | Henderson |
| | Henry |
| | Jessamine |
| | Knox |
| | McCracken |
| | Marion |
| | Montgomery |
| | Muhlenberg |
| | Nelson |
| | Oldham |
| | Pulaski |
| | Scott |
| | Simpson |
| | Todd |
| | Union |
| | Warren |
| | Washington |
| LA | Jefferson |
| | Lafayette |
| | Lincoln |
| | St. Helena |
| | Terrebonne |
| | Union |
| | Vermilion |
| | Vernon |
| MS | Choctaw |
| | Covington |
| | Itawamba |
| | Jasper |
| | Lawrence |
| | Leake |
| | Montgomery |
| | Tippah |
| MO | Boone |
| | Buchanan |
| | Butler |
| | Callaway |
| | Cape Girardeau |
| | Cass |
| | Christian |
| | Clinton |
| | Dunklin |
| | Franklin |
| | Greene |
| | Henry |
| | Jackson |
| | Johnson |
| | Laclede |
| | Lincoln |
| | Macon |
| | Marion |
| | Mississippi |
| | New Madrid |
| | Newton |
| | Pemiscot |
| | Pettis |
| | Randolph |
| | Ray |
| | St. Charles |
| | St. Louis |
| | Scott |
| NC | Alexander |
| | Bertie |
| | Brunswick |
| | Burke |
| | Caldwell |
| | Carteret |
| | Catawba |
| | Cherokee |
| | Union |
| | Warren |
| PA | Allegheny |
| | Beaver |
| | Clinton |
| | Delaware |
| | Greene |
| | Huntingdon |
| | Mifflin |
| | Monroe |
| | Snyder |
| | Somerset |

| | |
|---|---|
| | Chowan |
| | Columbus |
| | Craven |
| | Cumberland |
| | Currituck |
| | Dare |
| | Davie |
| | Duplin |
| | Durham |
| | Forsyth |
| | Franklin |
| | Gates |
| | Granville |
| | Halifax |
| | Haywood |
| | Henderson |
| | Iredell |
| | Johnston |
| | Lincoln |
| | McDowell |
| | Macon |
| | Martin |
| | Mecklenburg |
| | Montgomery |
| | Nash |
| | New Hanover |
| | Orange |
| | Pamlico |
| | Pender |
| | Perquimans |
| | Pitt |
| | Polk |
| | Randolph |
| | Rockingham |
| | Scotland |
| | Stanly |
| | Surry |
| | Transylvania |
| | Vance |
| | Wake |
| | Washington |
| | Wayne |
| | Wilkes |
| | Wilson |
| | Yadkin |
| SC | Aiken |
| | Bamberg |
| | Barnwell |
| | Berkeley |
| | Charleston |
| | Greenville |
| | Horry |
| | Marlboro |
| | Spartanburg |
| | Union |
| TN | Anderson |
| | Bedford |
| | Benton |
| | Blount |
| | Cannon |
| | Carter |
| | Chester |
| | Cocke |
| | Decatur |
| | Dickson |
| | Gibson |
| | Greene |
| | Hamblen |
| | Hardin |
| | Hawkins |
| | Hickman |
| | Humphreys |
| | Jefferson |
| | Knox |
| | Lake |
| | Lauderdale |
| | Lawrence |
| | Lewis |
| | McNairy |
| | Marion |
| | Monroe |
| | Obion |
| | Putnam |
| | Rhea |
| | Sevier |

| | |
|---|---|
| | Stewart |
| | Sumner |
| | Tipton |
| | Trousdale |
| | Warren |
| | Washington |
| | White |
| TX | Aransas |
| | Atascosa |
| | Bee |
| | Bexar |
| | Burnet |
| | Calhoun |
| | Cameron |
| | Camp |
| | Chambers |
| | Colorado |
| | Cooke |
| | Coryell |
| | Dallas |
| | Denton |
| | De Witt |
| | Erath |
| | Franklin |
| | Galveston |
| | Goliad |
| | Grayson |
| | Guadalupe |
| | Hidalgo |
| | Hood |
| | Hunt |
| | Jackson |
| | Johnson |
| | Kerr |
| | Lampasas |
| | Medina |
| | Montgomery |
| | Nueces |
| | Palo Pinto |
| | Panola |
| | Parker |
| | Rains |
| | San Jacinto |
| | San Patricio |
| | Stephens |
| | Travis |
| | Van Zandt |
| | Victoria |
| | Washington |
| | Webb |
| | Wise |
| | Young |
| VA | Albemarle |
| | Alleghany |
| | Amherst |
| | Appomattox |
| | Bedford |
| | Botetourt |
| | Buckingham |
| | Campbell |
| | Caroline |
| | Chesterfield |
| | Clarke |
| | Culpeper |
| | Fairfax |
| | Fauquier |
| | Fluvanna |
| | Frederick |
| | Goochland |
| | Grayson |
| | Hanover |
| | Henry |
| | Isle of Wight |
| | King George |
| | Lancaster |
| | Madison |
| | Mathews |
| | Middlesex |
| | Montgomery |
| | Nelson |
| | New Kent |
| | Northumberland |
| | Orange |
| | Page |
| | Patrick |

| | |
|---|---|
| | Pittsylvania |
| | Pulaski |
| | Roanoke |
| | Rockingham |
| | Shenandoah |
| | Southampton |
| | Spotsylvania |
| | Stafford |
| | Tazewell |
| | Warren |
| | Washington |
| | Wise |
| | Wythe |
| | Roanoke |
| WV | Berkeley |
| | Cabell |
| | Fayette |
| | Greenbrier |
| | Harrison |
| | Jefferson |
| | Kanawha |
| | Logan |
| | McDowell |
| | Mercer |
| | Mingo |
| | Monongalia |
| | Putnam |
| | Raleigh |
| | Summers |

## *F. Results for different time periods*

To examine whether the legacy of Jim Crow is driving the results, I subset the data to only include violence that took place before the end of Reconstruction in 1877. Even though many Jim Crow laws did not go into effect until the 1890s, the end of Reconstruction signaled the start of mandated racial segregation and voting restrictions that came to define the era. If no difference exists between counties that experienced lynchings and those that did not before 1877, then that would provide evidence that the legacy of Jim Crow, rather than lynchings, may be driving the results. The results in Model 1 of Table F.1 show that lynchings before the start of Jim Crow are correlated with contemporary Black immobility.

I also test whether different periods within the lynching era are driving the results. It is possible that earlier or later lynchings have a greater impact on generational mobility. However, the results across Models 1-3 in Table F.1 suggest that lynchings, regardless of the time period, have an impact on mobility.

**Table F.1:** Association remains after restricting sample to different time periods

| | *Dependent variable:* | | |
|---|---|---|---|
| | Intergenerational Mobility | | |
| | Reconstruction 1865-1877 (1) | Before great migration 1877-1910 (2) | During great migration 1910-1940 (3) |
| Lynch rate | $-0.028^{**}$ | $-0.027^{***}$ | $-0.026^{**}$ |
| | (0.013) | (0.007) | (0.011) |
| Prop. slave, 1860 | 0.023 | 0.026 | 0.027 |
| | (0.024) | (0.024) | (0.024) |
| County Area, 2000 | $0.023^{***}$ | $0.025^{***}$ | $0.025^{***}$ |
| | (0.006) | (0.006) | (0.006) |
| Latitude, 2000 | $-0.155^{***}$ | $-0.152^{***}$ | $-0.154^{***}$ |
| | (0.030) | (0.030) | (0.030) |
| Latitude squared, 2000 | $0.003^{***}$ | $0.002^{***}$ | $0.003^{***}$ |
| | (0.0005) | (0.0005) | (0.0005) |
| Longitude, 2000 | $0.104^{***}$ | $0.095^{***}$ | $0.101^{***}$ |
| | (0.029) | (0.029) | (0.029) |
| Longitude squared, 2000 | $0.001^{***}$ | $0.001^{***}$ | $0.001^{***}$ |
| | (0.0002) | (0.0002) | (0.0002) |
| Ruggedness | 0.00002 | 0.00000 | 0.00003 |
| | (0.0001) | (0.0001) | (0.0001) |
| Gini coefficient, 1860 | $0.075^{*}$ | $0.087^{**}$ | $0.091^{**}$ |
| | (0.045) | (0.044) | (0.044) |
| Prop. small farms, 1860 | 0.027 | 0.017 | 0.019 |
| | (0.027) | (0.027) | (0.027) |
| Total population, 1860 | $-0.010^{*}$ | $-0.008$ | $-0.009$ |
| | (0.006) | (0.006) | (0.006) |
| Farm value per capita, 1860 | $-0.011^{*}$ | $-0.011^{*}$ | $-0.012^{*}$ |
| | (0.007) | (0.007) | (0.007) |
| Total improved acreage, 1860 | 0.001 | $-0.001$ | $-0.001$ |
| | (0.006) | (0.006) | (0.006) |
| Prop. free black, 1860 | $0.511^{**}$ | $0.498^{**}$ | $0.499^{**}$ |
| | (0.204) | (0.203) | (0.204) |
| Rail access, 1860 | $-0.003$ | $-0.003$ | $-0.002$ |
| | (0.007) | (0.006) | (0.007) |
| Water access, 1860 | $-0.007$ | $-0.009$ | $-0.008$ |
| | (0.006) | (0.006) | (0.006) |
| Constant | $5.735^{***}$ | $5.317^{***}$ | $5.614^{***}$ |
| | (1.271) | (1.271) | (1.273) |
| State fixed effects | Y | Y | Y |
| Observations | 929 | 930 | 930 |
| $R^2$ | 0.338 | 0.345 | 0.339 |
| Adjusted $R^2$ | 0.317 | 0.324 | 0.317 |
| Residual Std. Error | 0.398 (df = 899) | 0.395 (df = 900) | 0.397 (df = 900) |

*Note:* $^{*}$p<0.1; $^{**}$p<0.05; $^{***}$p<0.01

# *G. Results when limited to historically rural counties*

**Table G.1:** Association remains after restricting sample to rural counties

| | *Dependent variable:* |
|---|---|
| | Intergenerational Mobility |
| Lynch rate | $-0.018^{***}$ |
| | (0.007) |
| Prop. slave, 1860 | 0.001 |
| | (0.025) |
| County Area, 2000 | 0.005 |
| | (0.008) |
| Latitude, 2000 | $-0.158^{***}$ |
| | (0.032) |
| Latitude squared, 2000 | $0.003^{***}$ |
| | (0.0005) |
| Longitude, 2000 | $0.135^{***}$ |
| | (0.030) |
| Longitude squared, 2000 | $0.001^{***}$ |
| | (0.0002) |
| Ruggedness | $-0.00004$ |
| | (0.0001) |
| Gini coefficient, 1860 | $0.120^{**}$ |
| | (0.047) |
| Prop. small farms, 1860 | $-0.0001$ |
| | (0.028) |
| Total population, 1860 | $-0.0004$ |
| | (0.006) |
| Farm value per capita, 1860 | $-0.014^{**}$ |
| | (0.007) |
| Total improved acreage, 1860 | $-0.004$ |
| | (0.006) |
| Prop. free black, 1860 | 0.351 |
| | (0.221) |
| Rail access, 1860 | 0.001 |
| | (0.007) |
| Water access, 1860 | 0.0001 |
| | (0.007) |
| Constant | $7.076^{***}$ |
| | (1.329) |
| State fixed effects | Y |
| Observations | 861 |
| $R^2$ | 0.365 |
| Adjusted $R^2$ | 0.343 |
| Residual Std. Error | 0.386 (df = 831) |
| *Note:* | $^{*}$p<0.1; $^{**}$p<0.05; $^{***}$p<0.01 |