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# Intergenerational Immobility: A Legacy of Racial Violence

Adrian Arellano 

## ABSTRACT

What are the long-run consequences of racial violence on intergenerational mobility? Do its impacts extend to the broader community? Using newly available longitudinal data covering much of the US population from 1989–2015, this study documents two results. First, it establishes a statistical association between the severity of lynching of Black Americans and long-run economic outcomes across the Southern United States. Counties that experienced racial violence most intensely in the past have lower levels of Black upward mobility today. Second, although most lynch victims were Black males, their long-run consequences are equally observable for the current generation of both Black males and females. Living in counties that experienced lynchings in the 19th and 20th centuries reduces Black upwardly mobile in the 21st century. These findings demonstrate that collective violence may hinder long-term intergenerational mobility for the broader affected community, irrespective of temporal proximity or sex.


## Introduction

Elmore Bolling, a successful Black entrepreneur employing dozens of Black men and women, was lynched outside his general store in December 1947. The white mob in Lowndes County, Alabama had not accused him of a crime, nor even suspected him of one. He was murdered for being “too successful”. Decades later, one of the Bollings’ children, Josephine Bolling, the only one to graduate college, remarked that “there was no inheritance, nothing for my father to pass down because it was all taken away.”<sup>1</sup>

Across the United States between 1865 and 1940, a recorded 3,000 Black men, women, and children were lynched. Many more were threatened and fled for their lives. Countless communities experienced a traumatic murder

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<sup>1</sup>Trymaine Lee, “How America’s Vast Racial Wealth Gap Grew: By Plunder,” *New York Times*, August 14, 2019, 5.

marked by impunity. What are the enduring legacies of lynchings? How did the murder of Elmore Bolling impact his seven children, twenty-five grandchildren, and the broader Black community? Has past exposure to racial violence made these communities less upwardly mobile?

In this article, I empirically examine the association between lynching and Black intergenerational mobility in the Southern United States.<sup>2</sup> Using the latest available data on white mob lynchings of Blacks by Tolnay and Beck and anonymized longitudinal data covering almost the entire US population by Chetty, Hendren, Kline, and Saez, I show a persistent correlation between racial violence and Black upward mobility between 1989-2015.<sup>3</sup> Analyzing data on current income from the late 20th and early 21st century, my results indicate that Blacks currently living in counties that experienced more lynchings have significantly lower rates of upward mobility compared to those living in counties with little or no occurrences of lynchings.

Furthermore, the findings demonstrate that this statistical association is observable for both males and females, suggesting that the broader community may bear the burden of past violence. Overall, these results suggest a detrimental association between lynching and the income of the current Black generation. However, it is crucial to interpret this historical pattern with caution, as potentially unmeasured confounders may be present, such as the level of historic racism in a county, which may explain lynching and mobility.

While this study cannot rule out the possibility of confounding factors responsible for the correlation, the pattern is robust across different specifications. Using a matched and weighted sample, I provide further evidence for the association between racial violence and its long-run negative outcome on Black intergenerational mobility.<sup>4</sup> I also test potential alternative explanations. The US was subject to institutions conducive to lynching and immobility before and during the lynching era. Perhaps most important is the detrimental impact of slavery. Additionally, while the lynching era predates many of the restrictive covenants that are found to increase inequality, such as redlining, Jim Crow co-occurred with the rising use

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<sup>2</sup>I capitalize Black but not white. While there is a debate as to whether white should also be capitalized, I follow organizations such as the Associated Press and The New York Times, which argue that, in the context of race and culture, Black reflects a shared sense of identity and community.

<sup>3</sup>Stewart Emory Tolnay and Elwood M Beck, *A Festival of Violence: An Analysis of Southern Lynchings, 1882-1930*, (Champaign, Illinois: University of Illinois Press, 1995); Raj Chetty, Nathaniel Hendren, Patrick Kline, and Emmanuel Saez, "Where is the Land of Opportunity? The Geography of Intergenerational Mobility in the United States," *The Quarterly Journal of Economics*, 129, no. 4 (2014): 1553-1623.

<sup>4</sup>Daniel E. Ho, Kosuke Imai, Gary King, and Elizabeth A. Stuart, "Matching as Nonparametric Preprocessing for

Reducing Model Dependence in Parametric Causal Inference," *Political Analysis*, 15, no. 3 (2007): 199-236; Gary

King and Langche Zeng, "The Dangers of Extreme Counterfactuals," *Political Analysis*, 14, no. 2 (2006): 131-159; Huling, Jared D., Noah Greifer, and Guanhua Chen, "Independence Weights for Causal Inference with Continuous Treatments," *Journal of the American Statistical Association* (2023): 1-25.

of lynching.<sup>5</sup> These terrible institutions do not appear to confound the results. To separate the impact of lynching from the potential long-run impacts of slavery, I report results that rely only on comparing low-slaveholding counties, as well as results from regressions that control for the proportion of enslaved people. My results show that, even when these factors are controlled for, racial violence is still correlated with mobility.

I argue that the decline in intergenerational mobility is potentially attributable to a reduction in the allocation of resources to invest in future generations. We should view lynchings as a means of dampening the collective economic, political, and social independence of Blacks, a view supported by civil rights leader Ida B. Wells, white mobs disrupted investment in the exposed generation and transmitted it to subsequent Black generations. Black Americans living within the community and those who live in similar communities across the South may then develop expectations of the likelihood of violence based on their own economic activities, reproducing the disruptive effect. Where whites thwarted economic, political, and social advancement, Black communities transmit fewer resources and lower future upward mobility.

These findings make several broad contributions to research on the cost of contention, economic inequality, and historical legacies.<sup>6</sup> First, my results continue to inform findings on the detrimental consequences of political violence and suggest that symbolic impact of violence is as significant as its severity in understanding its impact.<sup>7</sup> Simmel perceived conflict as a dynamic process that influenced various forms of social organization.<sup>8</sup> These

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<sup>5</sup>The term "redlining" comes from the color-coded maps produced by federal agencies. Anywhere Blacks lived, or lived nearby were colored red to indicate to appraisers that these neighborhoods were too risky to insure mortgages.

<sup>6</sup>Stathis N. Kalyvas, *The Logic of Violence in Civil War*, (Cambridge: Cambridge University Press, 2006); Christian

Davenport, "State Repression and Political Order," *Annual Review of Political Science*, 10 (2007): 1-23; Cagatay Bircan, Tilman Brück, and Marc Vothknecht, "Violent Conflict and Inequality," *Oxford Development Studies*, 45, no. 2 (2010): 125-144; Solveig Hillesund, Karim Bahgat, Gray Barrett, Kendra Dupuy, Scott Gates, Haavard Morkeliv Nygaard, Siri Aas Rustad, Haavard Strand, Henrik Urdal, and Gudrun Østby, "Horizontal Inequality and Armed Conflict: A Comprehensive Literature Review," *Canadian Journal of Development Studies/Revue canadienne d'études du développement*, 39, no. 4 (2018): 463-480; Nathan Nunn and Leonard Wantchekon, "The Slave Trade and the Origins of Mistrust in Africa," *American Economic Review*, 101, no. 7 (2011): 3221-3252; Nico Voigtländer and Hans-Joachim Voth, "Persecution Perpetuated: The Medieval Origins of Anti-Semitic Violence in Nazi Germany," *The Quarterly Journal of Economics*, 127, no. 3 (2012): 1339-1392; Volha Charnysh and Evgeny Finkel, "The Death Camp Eldorado: Political and Economic Effects of Mass Violence," *American Political Science Review*, 111, no. 4 (2017): 801-818; Noam Lupu and Leonid Peisakhin, "The Legacy of Political Violence Across Generations," *American Journal of Political Science*, 61, no. 4 (2017): 836-851.

<sup>7</sup>Paul Collier, "On the Economic Consequences of Civil War," *Oxford Economic Papers*, 51, no. 1 (1999): 168-183; Christian Davenport, Haavard Morkeliv Nygaard, Hanne Fjelde, and David Armstrong, "The Consequences of Contention: Understanding the Aftereffects of Political Conflict and Violence," *Annual Review of Political Science*, 22 (2019): 361-377.

<sup>8</sup>George Simmel, *Conflict*, (New York: Free Press, 1964).

consequences vary depending on diverse characteristics of political violence, such as the symbolic and public display of the act and the exclusionary nature of group-based violence. Second, while past research has emphasized the negative economic nature of political violence, the findings here show that these effects may not dissipate within a few years but can be transmitted between generations.<sup>9</sup> This study is one of the first legacy studies on lynching, to the author's knowledge, to take an intergenerational perspective using an appropriate measurement rather than studying racial disparities within a single generation.<sup>10</sup> Third, unlike recent research on the legacy of racial violence, this study shows that both males and females are impacted, a previously unexamined dimension within this literature.<sup>11</sup>

### Violence and Economic Inequality

Political violence has devastatingly negative effects on economic growth, socioeconomic conditions, political participation, health, and education.<sup>12</sup> When discussing the long-term impact of conflict, one of the most researched types of political violence is that of civil war.<sup>13</sup> Findings from this literature suggest that internal conflicts do indeed augment vertical inequality—that is, between individuals. Collier and Gates, Hegre, Nygård, and Strand find that civil wars have a negative and substantial impact on growth.<sup>14</sup> Cerra and Saxena estimate that civil wars reduce GDP growth by more than 6% for each conflict year.<sup>15</sup> In addition to GDP, conflict impacts other aspects of economic development, such as poverty.<sup>16</sup>

Studies have also examined how mass repression and genocide continue to impact society. Studying the long-term economic consequences of the

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<sup>9</sup>Scott Gates, Ha'vard Hegre, Håvard Mokleiv Nygård, and Håvard Strand, "Development Consequences of Armed Conflict," *World Development*, 40, no. 9 (2012): 1713-1722

<sup>10</sup>An exception is Berger (2018), which examines slavery.

<sup>11</sup>Avidit Acharya, Matthew Blackwell, and Maya Sen, "The Political Legacy of American Slavery," *The Journal of Politics*, 78, no. 3 (2016): 621-641.

<sup>12</sup>Paul Collier, Elliott, V. L., Hegre, Håvard, Hoeffler, Anke, Reynal-Querol, Marta, Sambanis, Nicholas, *Breaking the Conflict Trap: Civil War and Development Policy*, Oxford: Oxford University Press; Håvard Hegre, Håvard Mokleiv Nygård, and Ranveig Flaten Røder, "Evaluating the Scope and Intensity of the Conflict Trap: A Dynamic Simulation Approach," *Journal of Peace Research* 54 no.2 (2017): 243-261. Timothy Besley and Marta Reynal-Querol, "The Legacy of Historical Conflict: Evidence from Africa," *American Political Science Review* 108 no.2 (2014): 319-336; Hazem Adam Ghobarah, Paul Huth, and Bruce Russett, "The Post-War Public Health Effects of Civil Conflict," *Social Science & Medicine* 59 no.4 (2004): 869-884; Andrea Ichino and Rudolf Winter-Ebmer, "The Long-Run Educational Cost of World War II," *Journal of Labor Economics* 22 no.1 (2004): 57-87.

<sup>13</sup>Davenport et al., "The Consequences of Contention: Understanding the Aftereffects of Political Conflict and Violence."

<sup>14</sup>Collier, "On the Economic Consequences of Civil War"; Gates et al., "Development Consequences of Armed Conflict."

<sup>15</sup>Valerie Cerra and Sweta Chaman Saxena, "Growth Dynamics: The Myth of Economic Recovery," *American Economic Review* 98 no.1 (2008): 439-457.

<sup>16</sup>Gates et al., "Development Consequences of Armed Conflict."

Holocaust, Acemoglu, Hassan, and Robinson find that cities in Russia today that suffered a greater level of mass murder have worse economic outcomes, measured by wages, population, and middle class.<sup>17</sup> Also studying the Holocaust but examining the impact its beyond those directly victimized, Charnysh and Finkel find greater present day support for anti-Semitic parties within communities formerly located near death camp.<sup>18</sup> Beyond civil war and mass repression, and particularly relevant for the US case, are the long-run consequences of repressive institutions like slavery. Slavery has been found to deeply influence economic, political, and social systems that continue into the present.<sup>19</sup> Economically, the legacy of slavery is related to contemporary Black poverty, regional economic development, and income.<sup>20</sup> O'Connell finds that in counties with a history of high slave concentration in 1860, Blacks have a higher level of poverty than whites.<sup>21</sup> Other studies have examined the long-term consequences of institutions like colonialism, authoritarianism, and communism.<sup>22</sup>

Do lynchings perform the same functions as these repressive institutions? Not all scholars view lynchings as forms of political violence. Some scholars have categorized them as crimes occurring in a context of popular justice, where the government is absent or too underdeveloped to provide a functioning criminal justice system. However, when considering lynchings in the US, a strong case can be made for viewing them as a form political violence. This is particularly evident when lynchings are viewed as a tool to establish a system of racial hierarchy.

Understanding lynchings of Blacks in this context aligns them with legacies of mass repression and oppressive institutions, rather than mere conflict. While lynchings share certain characteristics with some forms of

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<sup>17</sup>Acemoglu, Daron, Tarek A. Hassan, and James A. Robinson, "Social Structure and Development: A Legacy of the

Holocaust in Russia," *The Quarterly Journal of Economics* 126 no.2 (2011): 895-946.

<sup>18</sup>Charnysh and Finkel, "The Death Camp Eldorado: Political and Economic Effects of Mass Violence."

<sup>19</sup>Acharya et al., "The Political Legacy of American Slavery"; Heather A O'Connell, "The Impact of Slavery on Racial Inequality in Poverty in the Contemporary US South," *Social Forces* 90 no.3 (2012): 713-734; Stanley L. Engerman and Kenneth L Sokoloff, "Factor Endowments, Institutions, and Differential Paths of Growth among New World Economies: A View from Economic Historians of the United States," *National Bureau of Economic Research* 66 (1994); Nathan Nunn, "Slavery, Inequality, and Economic Development in the Americas," *Institutions and Economic Performance*, ed. by Elhanan Helpman, 148-180. (Cambridge: Harvard University Press, 2008).

<sup>20</sup>Bertocchi, Graziella, and Arcangelo Dimico, "The Racial Gap in Education and the Legacy of Slavery," *Journal of Comparative Economics* 40 no.4 (2012): 581-595.

<sup>21</sup>O'Connell, "The Impact of Slavery on Racial Inequality in Poverty in the Contemporary US South."

<sup>22</sup>Heldring, Leander, and James A. Robinson, "Colonialism and Economic Development in Africa". No. w18566. *National Bureau of Economic Research*, 2012; Falletti, Tullia G, "Varieties of Authoritarianism: The Organization of the Military State and Its Effects on Federalism in Argentina and Brazil," *Studies in Comparative International Development* 46 (2011): 137-162; Pop-Eleches, Grigore, and Joshua A. Tucker, *Communism's Shadow: Historical Legacies and Contemporary Political Attitudes* Princeton University Press, 2017.

political violence, their context may differ from other types of mass repression. For instance, lynching can be seen as violence committed by non-state actors, placing it alongside other forms of communal violence like anti-Jewish pogroms, sectarian violence in Northern Ireland, or anti-Muslim riots in India. Unlike these cases, however, U.S. lynching often occurred with the consent of local authorities and even the participation of local law enforcement.

The characteristics of different forms of political violence may account for varying findings.

Collier and Gates, Hegre, Nygård, and Strand provide one of the most comprehensive studies on the cost of conflict, revealing how civil wars detrimentally affect the United Nations' Millennium Development Goals.<sup>23</sup> However, they also find that post-conflict countries recover average income levels within a decade. This is in contrast to some studies related to the enduring effects of mass repression and institutions.<sup>24</sup> In the US context, there is a growing understanding that slavery and lynching continue to impact contemporary society more than a century later.<sup>25</sup>

Divergent findings on the aftereffects of civil war compared to oppressive institutions may be rooted in their respective long-term implications. Civil wars cause a general destruction of population and infrastructure whereas lynchings alters the composition of a population. The durability of consequences may depend on the dynamics of violence and its effect on the local social structure. If violence aims to reinforce the exclusion of a group to the benefit of others, disparities may be exacerbated in the long-term. This suggests that the relationship between outcomes and violence is contingent on its exclusionary nature, a framework traced back to Simmel and further examined here.<sup>26</sup>

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<sup>23</sup>Gates et al., "Development Consequences of Armed Conflict."

<sup>24</sup>Nunn et al., "The Slave Trade and the Origins of Mistrust in Africa"; Voigtländer et al., "Persecution Perpetuated: The Medieval Origins of Anti-Semitic Violence in Nazi Germany"; Charnysh et al., "The Death Camp Eldorado: Political and Economic Effects of Mass Violence."

<sup>25</sup>Acharya et al., "The Political Legacy of American Slavery"; O'Connell, "The Impact of Slavery on Racial Inequality in Poverty in the Contemporary US South."; Nunn, "Slavery, Inequality, and Economic Development in the Americas"; Lisa D. Cook, "Violence and Economic Activity: Evidence from African American Patents, 1870-1940," *Journal of Economic Growth* 19 no. 2 (2014): 221-257; Williams, Jhacova, "Historical lynchings and the contemporary voting behavior of blacks," *American Economic Journal: Applied Economics* 14 no. 3 (2022); Jhacova A. Williams, Trevon D. Logan, and Bradley L. Hardy, "The Persistence of Historical Racial Violence and Political Suppression: Implications for Contemporary Regional Inequality," *The ANNALS of the American Academy of Political and Social Science* 694 no. 1 (2021): 92-107; David Jacobs, Jason T. Carmichael, and Stephanie L. Kent, "Vigilantism, Current Racial Threat, and Death Sentences," *American Sociological Review* 70 no. 4 (2005): 656-677. King, Ryan D., Steven F. Messner, and Robert D. Baller, "Contemporary hate crimes, law enforcement, and the legacy of racial violence," *American Sociological Review* 74 no. 2 (2009): 291-315; Probst, Janice C., Saundra Glover, and Victor Kirksey, "Strange harvest: A cross-sectional ecological analysis of the association between historic lynching events and 2010-2014 county mortality rates," *Journal of Racial and Ethnic Health Disparities* 6 (2019): 143-152.

<sup>26</sup>Simmel, *Conflict*.

## Historical Background

To understand the potential detrimental impact of lynching, I first review its context and causes. I aim to establish that lynchings were used to maintain control over Black people. Rather than being a response to crime, the causes of lynchings were linked to the economic, political, and social subordination of African Americans. Additionally, I seek to highlight the public nature of lynchings. Often attended by the entire white community, collective violence sent a strong signal of white immunity and Black vulnerability. I will show that lynchings served to uphold and exclusionary social structure and thus transmitted inequality across generations.

Between 1865 and 1940, lynchings claimed the lives of over 3,000 Black men, women, and children. Rare before the American Civil War of 1861 due to the monetary value of enslaved people, lynchings spiked between 1880 and 1890.<sup>27</sup> Terrifying public and ritualistic spectacles, lynchings symbolized a violent subjection of the Black community by white society. The mob turned the act into a “symbolic rite in which the black victim became the representative of his race and, as such, was being disciplined for more than a single crime. The deadly act was a warning to black residents not to challenge the supremacy of the white race.”<sup>28</sup> This contradicts the common narrative that Black Americans were lynched for committing a crime, especially against white women. While rape was the usual and prime justification for lynching, it was regularly used against Blacks who had “bought land, opened schools, built thriving communities, tried to organize sharecroppers’ unions or opened their own businesses.”<sup>29</sup>

The damage of lynching was not limited to victims or their families. Lynching was a threat to the well-being of the broader Black community. The public nature of the murder reaffirmed white immunity and further emboldened community support for the continued upholding of a racial hierarchy.<sup>30</sup> Quillin observed that after lynchings in several towns in Ohio, prejudice was much stronger than before.<sup>31</sup> This took the form of whites forcing Blacks from middle-class jobs like postal carriers and locomotive firemen. In 1908, after a failed lynching and subsequent riot in Springfield, Illinois, some employers fired their black employees and many shopkeepers refused to serve Blacks.<sup>32</sup>

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<sup>27</sup>Ron Eyerman, *Cultural Trauma: Slavery and the Formation of African American Identity*, Cambridge: Cambridge University Press (2001)

<sup>28</sup>Howard Smead, *Blood Justice: The Lynching of Mack Charles Parker*, (Oxford: Oxford University Press 1988), 21

<sup>29</sup>Nikole Hannah-Jones, “What is Owed,” *NY Times Magazine* June 24, 2020, 20.

<sup>30</sup>Tolnay and Beck, *A Festival of Violence: An Analysis of Southern Lynchings, 1882-1930*

<sup>31</sup>Frank Uriah Quillin, *The Color Line in Ohio: A History of Race Prejudice in a Typical Northern State* (London: Forgotten Books, 2018)

<sup>32</sup>Nancy C Curtis, *Black Heritage Sites: An African American Odyssey and Finder’s Guide* (Chicago: American Library Association, 1996)



The aftermath of lynching also led to violent expulsion of entire communities. In Joplin, Missouri, after the 1903 lynching of Thomas Gilyard for allegedly murdering a police officer, several hundred white people ransacked the Black neighborhood, forcing more than half of Joplin's 700 Black residents to flee, leaving behind their possessions, homes, and businesses.<sup>33</sup> The case of the Tulsa Massacre demonstrates this to a devastating effect.<sup>34</sup>

Data on the underlying causes of individual lynchings are not widely available.<sup>35</sup> However, scholars attest to the economic, political, and social motives behind lynchings. Ida B Wells argues that lynching was an unofficial tool of the state to thwart Black economic advancement.<sup>36</sup> Supporting this view, Eyerman argues that the leading cause of lynching was fear of Black success, stressing that "successful black men, practicing that most common American virtue, defending their economic enterprise; too successfully, it would seem... were symbolically and ritually put to death."<sup>37</sup> Violence was used by whites to drive away tenant farmers from desirable land or to force off successful Black businessmen or landowners.<sup>38</sup> The economic threat felt by whites may have been a response to worsening economic conditions and increased job competition, at times due to decreases in cotton prices.<sup>39</sup>

Contested political authority may also explain lynching behavior. Based on Blalock's power threat hypothesis, violence perpetrated by the dominant group against subordinate racial groups is driven by a perception that the subordinate group is contesting the dominant group's political authority. Measuring the potential for Black political rivalry by the size of a county's Black population, Reed and Corzine, Creech, and Corzine found that political competition explained cross-county variation of Black lynchings.<sup>40</sup> Perhaps indicating the role of political competition, lynchings

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<sup>33</sup>James Loewen, *Sundown Towns: A Hidden Dimension of American Racism*, (New York: The New Press, 2005), 87

<sup>34</sup>Alex Albright, Jeremy A Cook, James J Feigenbaum, Laura Kincaide, Jason Long, and Nathan Nunn. "After the Burning: The Economic Effects of the 1921 Tulsa Race Massacre." Technical report. *National Bureau of Economic Research* 2021.

<sup>35</sup>This is in part due to biased reporting in newspapers. White communities justified lynchings as a punishment for crimes such as rape, murder, or assault. Reporting that a Black person was lynched due to economic, political, or social competition would undermine that accepted justification.

<sup>36</sup>Linda O. McMurry, *To Keep the Waters Troubled: The life of Ida B. Wells*, (Oxford: Oxford University Press, 2000).

<sup>37</sup>Eyerman, *Cultural Trauma: Slavery and the Formation of African American Identity*, 54

<sup>38</sup>Williamson, Joel, *The crucible of race: Black-white relations in the American South since emancipation*. Oxford University Press, 1984.; White, Walter, *Rope and Faggot: A Biography of Judge Lynch*. New York: Arno, 1929.

<sup>39</sup>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; Tolnay and Beck, *A Festival of Violence: An Analysis of Southern Lynchings, 1882-1930*

<sup>40</sup>Reed, John Shelton, "Percent Black and lynching: A test of Blalock's theory." *Social Forces* 50, no. 3 (1972): 356-360; Corzine, Jay, James Creech, and Lin Corzine, "Black concentration and lynchings in the South: Testing Blalock's power-threat hypothesis." *Social Forces* 61, no. 3 (1983): 774-796.

declined after the 1890s, in part due to restrictive voting statutes, which became more common after the turn of the century and curtailed the Black vote.<sup>41</sup>

Blacks were also lynched because they were viewed as a social threat. Cook, Logan, and Parman suggest that whites feared losing their social status to Blacks and used violence to maintain social order.<sup>42</sup> Tolnay, Deane and Beck provide evidence that lynchings were used to preserve white hegemony and the caste boundary by signaling a deadly threat to Blacks if they did not know their place.<sup>43</sup> Lynching thus functioned to maintain white dominance.

The fact that whites deliberately targeted Black individuals to prevent their economic, political, and social advancement may continue to shape present racial disparities. Furthermore, because lynchings served to uphold an exclusionary social structure in local communities, violence may have further engendered broader detrimental outcomes across generations. The analysis tests for these economic impacts, examining whether communities that experienced lynchings generations ago have a lower level of intergenerational mobility today.

### Theoretical Expectations

A large literature focuses on the US racial inequality gap and its determinants, documenting the role of family structure, income, demographics, and inheritance.<sup>44</sup> Especially relevant to the research question addressed in this study is the reproduction of economic inequality. While there is disagreement about the transmission of inequality and its extent, there is strong evidence that there exists a high level of intergenerational transmission of economic position.<sup>45</sup>

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<sup>41</sup>Kousser, J. Morgan, *The Shaping of Southern Politics: Suffrage Restriction and the Establishment of the One-Party South, 1880-1910*, Yale University Press, 1974; Epperly, Brad, Christopher Witko, Ryan Strickler, and Paul White, "Rule by violence, rule by law: Lynching, Jim Crow, and the continuing evolution of voter suppression in the US," *Perspectives on Politics* 18, no. 3 (2020): 756-769.

<sup>42</sup>Cook, Lisa D., Trevon D. Logan, and John M. Parman, "Racial segregation and southern lynching," *Social Science History* 42, no. 4 (2018): 635-675.

<sup>43</sup>Tolnay, Stewart E., Glenn Deane, and Ellwood M. Beck, "Vicarious violence: Spatial effects on southern lynchings, 1890-1919," *American Journal of Sociology* 102, no. 3 (1996): 788-815.

<sup>44</sup>Fabian T Pfeffer, and Alexandra Killewald, "Intergenerational Wealth Mobility and Racial Inequality," *Socius: Sociological Research for a Dynamic World* 5 (2019): 1-2; Joseph G Altonji, and Thomas A Dunn, "An Intergenerational Model of Wages, Hours, and Earnings," *Journal of Human Resources* 35 no. 2 (2000): 221-258; Robert Barsky, John Bound, Kerwin Ko Charles, and Joseph P Lupton, "Accounting for the Black-White Wealth Gap: A Nonparametric Approach," *Journal of the American Statistical Association* 97 no. 459 (2002): 663-673; Paul L Menchik, and Nancy Ammon Jianakoplos, "Black-White Wealth Inequality: Is Inheritance the Reason?" *Economic Inquiry* 35 no. 2 (1997): 428-442

<sup>45</sup>Samuel Bowles, and Herbert Gintis, "Social Capital and Community Governance," *The Economic Journal* 112 no.

The theoretical model underpinning this perspective, and this study, is that families transmit attributes—socioeconomic (resources) and sociocultural (practices)—to their children, which, in turn, influence their economic welfare as adults. Families decide between devoting resources to everyday consumption, accumulation of assets, or investment in the future human capital of their children. The main resources for investment in their children are parental education and family income.<sup>46</sup> A disruption in the allocation of these resources can alter the economic welfare of adults. Many studies have found a positive and significant relationship between family background and adult economic status, an effect that disproportionately disadvantages Black families.<sup>47</sup> Racial inequality is found to be both a consequence of wealth inequality in previous generations and different levels of racial wealth transmission across generations.<sup>48</sup>

Studies indicate that transmission of economic inequality does occur from parents to children, leading to persistent disparities across generations and contributing to the racial gap. Yet, even though violence appears to be a relevant factor, scholars have not comprehensively studied how violence exacerbates the transmission of inequality. Scheidel suggests that mass, collective violence may be one of the few forces strong enough to fundamentally alter levels of inequality in society. If this is the case, then the impact of contention in terms of transmission appears to be large.<sup>49</sup>

Why should we expect to find evidence of income disparities across Black communities exposed to violence more than half a century ago? I argue that lynchings, at the individual and family level, may generate intergenerational disparities through the reduction of paternal income, human capital, wealth, and destabilizing of family structures, effectively redirecting needed resources away from communities.<sup>50</sup> At a structural level, lynching jeopardizes the long-term well-being of a community by creating multiple disadvantages that block access to opportunities and resources. This occurs by reaffirming institutions like segregation, generating social alienation, and disrupting aspirations.<sup>51</sup>

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<sup>483</sup> (2002): 419-436

<sup>46</sup>Gary S. Becker, *Human Capital: A Theoretical and Empirical Analysis* (Chicago: University of Chicago Press, 1994)

<sup>47</sup>Bowles, "Social Capital and Community Governance"; Raj Chetty, Nathaniel Hendren, Maggie R Jones, and Sonya

R Porter, "Race and Economic Opportunity in the United States: An Intergenerational Perspective," *The Quarterly Journal of Economics* 135 no. 2 (2020): 711-783.

<sup>48</sup>Pfeffer et al., "Intergenerational Wealth Mobility and Racial Inequality."

<sup>49</sup>Scheidel, *The Great Leveler: Violence and the History of Inequality from the Stone Age to the Twenty-First Century*.

<sup>50</sup>Katherine A. Magnuson, and Greg J. Duncan, "The Role of Family Socioeconomic Resources in the Black-White Test Score Gap among Young Children," *Developmental Review* 26 no. 4 (2006): 365-399; Melvin Oliver, and Thomas Shapiro, *Black Wealth/White Wealth: A New Perspective on Racial Inequality* (Milton Park: Routledge, 2013); Harriette P. McAdoo, "African American Parenting," in *Handbook of Parenting: Social Conditions and Applied Parenting*, ed. M. H. Bornstein (Milton Park: Routledge, 2002), 47-58.

<sup>51</sup>Douglas S. Massey, and Nancy A. Denton, *American Apartheid: Segregation and the Making of the Underclass*

Violence can generate and reproduce economic disparity through the reduction of family income. At a basic level, violence removes income earners. The death of a partner can trigger an increased likelihood of persistent poverty.<sup>52</sup> This is especially true for women. Losing a partner's income impacts women's household finances to a greater extent than the finances of men.<sup>53</sup> Loss of income earners and its effects are particularly relevant for lynching since most victims were male. Parental loss during childhood also seems to impact status attainment in young adults.<sup>54</sup>

Exposure to violence can also negatively influence human capital accumulation, specifically educational attainment, a prime driver of occupational mobility.<sup>55</sup> Numerous studies have shown substantial differences in lifetime earnings across levels of educational attainment.<sup>56</sup> There is an equally growing understanding that violence interrupts the learning process. Studying the effects of World War II on education and labor market outcomes for children, Ichino and Winter-Ebmer observe that, as adults, they experienced sizable earnings loss even decades after the conflict.<sup>57</sup> In addition, there is support for the claim that harmful early-life exposures, even in utero—such as the devastation that comes with losing a family or community member to lynching—can set in motion an accumulation of educational disadvantages.<sup>58</sup>

Violence may also disrupt and forestall the transfer of wealth across generations. Opportunities to accumulate wealth are contingent on the wealth positions of parents and grandparents. Inheritance is an especially important factor in determining differences between Black and white household wealth. Menchik and Jianakoplos suggest that intergenerational transfers might account for as much as 20% of the unexplained difference in racial wealth.<sup>59</sup> Violence can eliminate wealth and redistribute wealth

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(Milton Park: Routledge, 2019); Claude M. Steele, and Joshua Aronson, "Stereotype Threat and the Intellectual Test Performance of African Americans," *Journal of Personality and Social Psychology* 69 no. 5 (1995): 797-811; Roslyn Arlin Mickelson, "The Attitude-Achievement Paradox among Black Adolescents," *Sociology of Education* 63 no. 1 (1990): 44-61.

<sup>52</sup>Candace L. Kemp, Carolyn J. Rosenthal, and Margaret Denton, "Financial Planning in Later Life: Subjective Understandings of Catalysts and Constraints," *Journal of Aging Studies* 19 no. 3 (2005): 273-290.

<sup>53</sup>Anne Corden, Michael Hirst, and Katharine Nice, "Death of a Partner: Financial Implications and Experience of Loss," *Bereavement Care* 29 no. 1 (2010): 23-28.

<sup>54</sup>Matthias Rosenbaum-Feldbrügge, "The Impact of Parental Death in Childhood on Sons' and Daughters' Status Attainment in Young Adulthood in the Netherlands, 1850-1952," *Demography* 56 no. 5 (2019): 1827-1854.

<sup>55</sup>Becker, *Human Capital: A Theoretical and Empirical Analysis*.

<sup>56</sup>Christopher R. Tamborini, Chang Hwan Kim, and Arthur Sakamoto, "Education and Lifetime Earnings in the United States," *Demography* 52, no. 4 (2019): 1383-1407.

<sup>57</sup>Ichino and Rudolf Winter-Ebmer, "The Long-Run Educational Cost of World War II".

<sup>58</sup>C. Justin Cook, Jason M. Fletcher, and Angela Forgues, "Multigenerational Effects of Early-Life Health Shocks,"

*Demography* 56, no. 5 (2019): 1855-1874.

<sup>59</sup>Menchik, and Jianakoplos, "Black-White Wealth Inequality: Is Inheritance the Reason?"

towards perpetrators, stripping future generations of the capacity to accumulate wealth.<sup>60</sup>

Violence as a signal directed to the broader Black community may have significantly reduced aspirations to undertake occupations that whites would deem “too big for the breeches” of Blacks. A similar experience occurred in Black communities after the 1921 Tulsa massacre.<sup>61</sup> In the two decades following the massacre, the Black population of Tulsa showed declines in occupational status.

The potential detrimental effect of lynchings may transcend the town in which it occurred to impact similar communities across the South. The Savannah Tribune, a Black weekly newspaper in Georgia, ran a story of a lynching in April 1919. In that case, a white mob had shot Joe Ruffin, a wealthy black landowner, and had murdered his sons, John and Henry Ruffin, after an incident occurred during a church celebration in which two police officers were killed. After the mob killed and threw the bodies of John and Henry into the flames, they spread out and burned down Black churches, lodges, and cars. Coverage by the Savannah Tribune and other newspapers triggered a spillover effect leading to the killing of several other people across the county by justifying violence and falsely accusing Black people of crimes.<sup>62</sup> Front-page headlines would act as a clearly communicated warning to Blacks across a county or state.

Intergenerational transmission of proscribed economic status results in Black children having less wealthy parents, on average. These children, in turn, are more likely to be downwardly mobile in terms of income.<sup>63</sup> This fits well within the historic trauma model that scholars have proposed as a source of racial-ethnic disparities.<sup>64</sup> Descendants who did not directly experience an event can inherit trauma-related symptoms.<sup>65</sup> Trauma experienced by one generation is passed down, creating distrust of institutions, with adverse effects on social outcomes.<sup>66</sup>

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<sup>60</sup>C. Justin Cook, Jason M. Fletcher, and Angela Forgues, “Multigenerational Effects of Early-Life Health Shocks,” *Demography* 56, no. 5 (2019): 1855-1874.

<sup>61</sup>Albright et al., “After the Burning: The Economic Effects of the 1921 Tulsa Race Massacre”.

<sup>62</sup>Cameron McWhirter, *Red Summer: The Summer of 1919 and the Awakening of Black America*, New York: MacMillan Publishers, 2011.

<sup>63</sup>Pfeffer and Killewald, “Intergenerational Wealth Mobility and Racial Inequality.”

<sup>64</sup>Michelle Sotero, “A Conceptual Model of Historical Trauma: Implications for Public Health Practice and Research,” *Journal of Health Disparities Research and Practice* 1, no. 1 (2006): 93-108.

<sup>65</sup>Maria Yellow Horse Brave Heart, “The Historical Trauma Response among Natives and its Relationship with Substance Abuse: A Lakota Illustration,” *Journal of Psychoactive Drugs* 35, no. 1 (2003): 7-13; Gilda Graff, “The Intergenerational Trauma of Slavery and its Aftermath,” *The Journal of Psychohistory* 41, no. 3 (2014): 181-197.

<sup>66</sup>Thema Bryant-Davis, Tyonna Adams, Adriana Alejandre, and Anthea A Gray, “The Trauma lens of Police Violence against Racial and Ethnic Minorities,” *Journal of Social Issues* 73, no. 4 (2017): 852-871.

Racial violence can impact both males and females. On the one hand, it may be possible that Black males are more deeply impacted than Black females because most lynching victims are male. The lynching of Black males could be a particularly strong influence through the aspirational channel, or their orientation towards a desired future. Seeing or knowing about a lynching may have a detrimental impact on Black males and their aspiration for a better future, particularly if the event occurs at a young age.<sup>67</sup> On the other hand, women bear the consequences of violence even if they are not the main victims.<sup>68</sup>

Disparities are transmitted from parents to children through the reduction in the allocation of resources to invest in future generations. Violence engenders disparities through the eradication of income and human and financial capital. It also ensnares a community within a socioeconomic structure that prevents recovery.

## Research Design

To estimate the statistical association between racial violence and intergenerational mobility, I rely on anonymized census data for almost the entire US population from 1989-2015, which links parents and children. Created by Chetty et al., the dataset links census data (specifically the 2000 and 2010 American Community Survey) to federal income tax returns from 1989-2015.<sup>69</sup> Children and parents are matched by linking them to parents who first claimed them as dependents on tax returns. By targeting children born between 1978-1983 in the US or authorized immigrants who arrived in the US during childhood, they were able to analyze 20 million children, covering approximately 94% of the target sample.

Chetty et al. measure intergenerational mobility through income percentile ranks.<sup>70</sup> They rank children against other children within their birth cohort and parents against other parents. For parents, they use pre-tax household incomes, specifically the mean adjusted gross income from 1994-2000. For children, born between 1978 and 1983, they use pre-tax incomes measured in 2014-2015. Household income is defined as the combined income of an individual and their spouse. In this study, I examine the pooled outcome for Black individuals, as well as separate analyses for males and females. Intergenerational mobility is measured as

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<sup>67</sup>Marilyn Metzler, Melissa T. Merrick, Joanne Klevens, Katie A. Ports, and Derek C. Ford, "Adverse Childhood Experiences and Life Opportunities: Shifting the Narrative," *Children and Youth Services Review* 72 (2017): 141-149.

<sup>68</sup>Eran Bendavid, Ties Boerma, Nadia Akseer, Ana Langer, Espoir Bwenge Malembaka, Emelda A. Okiro, Paul H. Wise, Sam Heft-Neal, Robert E Black, Zulfiqar A Bhutta, "The Effects of Armed Conflict on the Health of Women and Children," *The Lancet* 397, no. 10273 (2021): 522-532.

<sup>69</sup>Chetty et al., "Where is the Land of Opportunity? The Geography of Intergenerational Mobility in the United States."

<sup>70</sup>ibid

the differences in upward mobility across counties, captured by the mean household income rank of children whose parents were at the 25th percentile of the national income distribution. It confirms to the notion of “exceeding” or “falling behind” relative to one’s peers from one generation to the next.

While Chetty et al. provide different ranks, I use the mean predicted outcome for children with parents earning \$25,000 (or the 25th percentile).<sup>71</sup> I do so because it captures what they term “absolute upward mobility” or the mean income rank of children with parents in the bottom half of the income distribution. This offers an opportunity to see outcomes for children from low-income families.

To measure the severity of racial violence, I use Tolnay and Beck’s dataset, which is regarded as the most comprehensive database on US lynchings.<sup>72</sup> They define a lynching as an unlawful killing, motivated by a need for justice or upholding tradition, and carried out by three or more individuals. The main explanatory variable, the lynching rate, is the rate of Blacks lynched within a county between 1865 and 1940, based on the Black population in 1900.<sup>73</sup> Events are recorded at the county level between 1865 and 1940 across 17 states.<sup>74</sup> The newest iteration of their data ensures that most of the South is covered within this analysis, a feature missing in previous legacy studies.

Figure 1 shows the county-level distribution of lynching and Black upward mobility. There are two patterns worth noting. First, while a negative correlation between the maps is visible in areas such as the Mississippi Delta and Northern Florida, it is important to consider that other factors may be at play. For this reason, I include several control variables. Second, there is variation within states, with contiguous counties in some areas observing varying levels of lynching and mobility. This enables the study to identify the link between racial violence and mobility at the county level. One concern with using county data as the unit of analysis is changes to boundaries over time, with some counties being created, dissolved, or merged. To account for this, an area-weighting method is used to map historic 1860 Census data onto modern 2000 county boundaries. This

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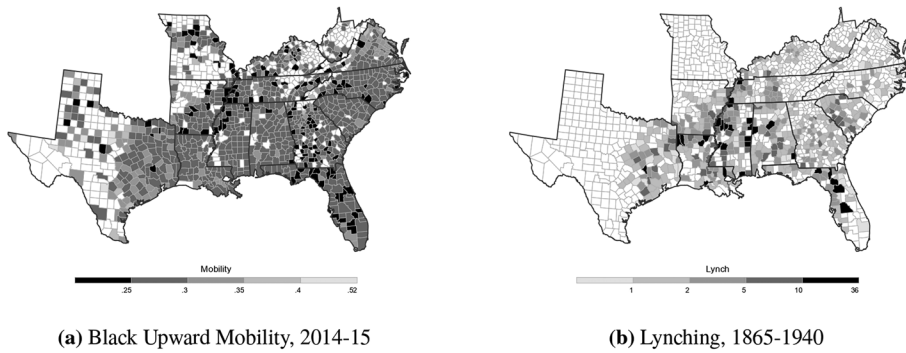
<sup>71</sup>ibid

<sup>72</sup>Tolnay and Beck, *A Festival of Violence: An Analysis of Southern Lynchings, 1882-1930*; Lisa D. Cook, “Converging to a National Lynching Database: Recent Developments and the Way Forward,” *Historical Methods: A Journal of Quantitative and Interdisciplinary History* 45, no. 2 (2012): 55-63.

<sup>73</sup>There is no standard measurement for lynchings. Some studies, such as Acharya, Blackwell, and Sen (2016) and

Williams (2022), measure it as a rate, either as the number of lynchings per 100,000 total number of residents or Black residents. Others, such as Tolnay and Beck, measure the total count of lynchings. In Table C.1 in the appendix, I use different measurements of lynching to ensure that the findings are not sensitive to measurement choices.

<sup>74</sup>The 17 states are Alabama, Arkansas, Florida, Georgia, Indiana, Kentucky, Louisiana, Maryland, Mississippi, Missouri, North Carolina, Oklahoma, South Carolina, Tennessee, Virginia, Texas, and West Virginia.



**Figure 1.** Historical lynching and Black intergenerational mobility in Southern US. The figure on the left shows the mean predicted outcome for Black children with parents at the 25th percentile in the national household income distribution. Darker areas are those of lower social mobility. The right panel shows the count of lynched Blacks. Counties in white have insufficient data for mobility or no recorded lynching.

allows for estimating the rate of Blacks murdered within contemporary counties.

To ensure that the compared units are geographically proximate and similar on many dimensions, the sample is restricted to Southern counties of the United States.<sup>75</sup> The US exhibits significant variation in income inequality, with observable distinct regional patterns often tied to the legacy of slavery. The South has the highest poverty rate among all four regions, standing at 14.1% in 2016.<sup>76</sup> The South accounts for nearly 80% of persistent poverty counties across the US, defined as having 20% or more of the population living in poverty for the last 30 years.<sup>77</sup> The South contains some of the most continuously economically depressed areas in the US.<sup>78</sup> By restricting the sample to former Confederate states plus the border states of Missouri and Kentucky, we ensure that any variation in current inequality patterns cannot be attributed to the legacy of slavery, which distinguishes the South from other regions.<sup>79</sup> Remaining intra-regional differences within the South,

<sup>75</sup>The sample consists of 14 states: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, Missouri, North Carolina, South Carolina, Tennessee, Texas, Virginia, and West Virginia. Oklahoma is excluded since it was not a state in 1860.

<sup>76</sup>Jessica L. Semega, Kayla R. Fontenot, and Melissa A. Kollar, "Income and Poverty in the United States: 2016," *Current Population Reports*: 10-11.

<sup>77</sup>U.S. Department of Agriculture. Economic Research Service, "Geography of Poverty," 2017. Retrieved from <https://www.ers.usda.gov/topics/rural-economy-population/rural-poverty-well-being/geography-of-poverty.aspx>

<sup>78</sup>Ronald C. Wimberley, "It's Our Most Rural Region; It's the Poorest; It's the Black Belt South; and it Needs Our Attention," *Journal of Rural Social Sciences* 25 no. 7 (2010).

<sup>79</sup>To ensure that results are not sensitive to the definition of the South, I expand and restrict the states considered part of the South. See Table D.1 in the appendix.



such as those between the Black Belt, Mississippi Delta, and Appalachia regions, are accounted for through state-level fixed effects.

Pretreatment control variables that could have influenced lynching and may impact the outcome of interest through different paths other than lynching are also included. These variables encompass economic and demographic factors (proportion of enslaved population, total county population, Gini coefficient, total farm value, acres of improved farmland, and water and rail access), norms (proportion of free Blacks in 1860), and spatial variation indicators (county acreage, ruggedness, and latitude and longitude). [Table 1](#) presents the descriptive statistics for the main variables.

For this study, it is particularly important to control for the proportion of enslaved people and the Great Migration. Previous studies have found that slavery not only influences poverty but may also affect contemporary racial resentment, which is a potentially important confounder, though only one of many factors that influence racism today.<sup>80</sup> Rigby and Seguin, in a study that disentangles the legacy between lynching and slavery, account for slavery by including the 1860 population of enslaved people as a control variable.<sup>81</sup> I undertake a similar approach. During the Great

**Table 1.** Descriptive Statistics.

Statistic	N	Mean	St. Dev.	Min	Max
<b>Dependent Variable</b>					
Intergenerational Mobility	1,065	0.326	0.034	0.186	0.527
<b>Independent Variable</b>					
Lynch rate (per 100,000 Black residents in 1900)	1,327	0.727	1.629	0	14.223
<b>Covariates</b>					
Prop. slave, 1860	1,242	0.284	0.214	0.000	0.925
County area, 2000	1,326	0.151	0.090	0	1.497
Latitude, 2000	1,326	34.528	3.068	24.850	40.521
Longitude, 2000	1,326	-87.297	6.675	-106.235	-75.685
Ruggedness	1,244	43.4	48.3	2.1	335
Gini coefficient, 1860	1,222	0.481	0.084	0	0.789
Prop. small farms, 1860	1,226	0.466	0.215	0.019	1.000
Total population, 1860	1,257	8695.4	9394	42	174491
Farm value per capita, 1860	1,226	36.47	25.78	4.81	226.30
Total improved acreage, 1860	1,257	53323.4	48114.2	0	299862
Prop. free black, 1860	1,242	0.010	0.022	0.000	0.246
Rail access, 1860	1,326	0.245	0.430	0	1
Water access, 1860	1,326	0.407	0.492	0	1

<sup>80</sup>O'Connell, "The Impact of Slavery on Racial Inequality in Poverty in the Contemporary US South"; Acharya et al.,

"The Political Legacy of American Slavery."

<sup>81</sup>Rigby, David, and Charles Seguin, "Capital punishment and the legacies of slavery and lynching in the United States," *The ANNALS of the American Academy of Political and Social Science* 694, no. 1 (2021): 205-219.

Migration between 1910 and 1970, six million Blacks defected from the rural South, with lynching being a motivating factor.<sup>82</sup> A noticeable shift may have occurred in counties where Blacks fled due to violence, producing a divergent impact due to the self-selection of those who stayed and those who migrated. Instead of including a post-treatment measure of out-migration, I include economic “push” covariates. Prior studies have found that variables such as inequality and availability of farmland contributed to the Great Migration.<sup>83</sup> Farmland is especially relevant as it may be tied to the Southern boll weevil infestation of the late 19th and early 20th century, which devastated cotton-growing regions in the US and may have pushed Southern Blacks to seek a better life in urban centers.<sup>84</sup>

## Results

To estimate the statistical association between past lynching and present-day intergenerational mobility in the United States, I employ two strategies. First, I analyze Black intergenerational mobility across Southern counties using ordinary least squares (OLS). Second, I analyze intergenerational mobility at the county level with a nonparametric matching and weighting method.

### OLS Analysis

The baseline regression equation used throughout the analysis is the following:

$$\log Y_{i,j} = \alpha + \log \beta x_{i,j} + \tau M_{i,j} + \lambda L_j + v_{i,j} + \varepsilon_{i,j} \quad (1)$$

The dependent variable in [Equation \(1\)](#) is the logged income of Black children born to parents at the 25th percentile in county  $i$ , located in state  $j$ . My independent variable is racial violence ( $x_{i,j}$ ), measured as the logged rate of lynched Blacks per county between 1865 and 1940. The term  $M_{i,j}$  is a vector of control variables. In addition to the control variables, [Equation \(1\)](#) also includes a vector of regional state fixed-effects  $L_j$ . I also control for spatial dependence by including Moran eigenvectors,  $v_{i,j}$ .<sup>85</sup> The last variable is  $\varepsilon_{i,j}$ , an independent and identically distributed error term.

<sup>82</sup>Tolnay and Beck, *A Festival of Violence: An Analysis of Southern Lynchings, 1882-1930*; Isabel Wilkerson, *The Warmth of Other Suns: The Epic Story of America's Great Migration* (London: Penguin, 2020).

<sup>83</sup>Higgs, Robert, “The Boll Weevil, the Cotton Economy, and Black Migration, 1910-1930,” *Agricultural History* 50 (1976): 335-50; Mandle, Jay R, *The Roots of Black Poverty: The Southern Plantation Economy After the Civil War* (Durham: Duke University Press, 1978).

<sup>84</sup>Higgs, Robert, “The Boll Weevil, the Cotton Economy, and Black Migration, 1910-1930.”

<sup>85</sup>Daniel A. Griffith and Pedro R. Peres-Neto, “Spatial Modeling in Ecology: The Flexibility of Eigenfunction Spatial

**Table 2.** Impact of lynching on Intergenerational Mobility.

	<i>Intergenerational Mobility</i>		
	(1)	(2)	(3)
Lynch rate	-0.032*** (0.006)	-0.022*** (0.007)	-0.030*** (0.007)
Constant	-1.121*** (0.012)	5.185*** (1.277)	3.858*** (1.414)
State fixed effects	Y	Y	Y
Covariates	N	Y	Y
Moran eigenvectors	N	N	Y
Observations	1,064	930	799
R2	0.241	0.344	0.428
Adjusted R2	0.231	0.323	0.378
Residual Std. Error	0.422 (df = 1049)	0.396 (df = 900)	0.385 (df = 734)

Note: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01 Models 1-3 are weighted least squares at the county level, adjusted by sampling weights. Standard errors are in parentheses.

My results align closely with theoretical expectations. First, the OLS results in Table 2 show that Black intergenerational mobility is lower in counties with a high level of Black lynchings. Model 1 is a bivariate model, Model 2 introduces control variables, and Model 3 includes Moran eigenvectors.<sup>86</sup> All models show that, in counties where whites lynched more Blacks, upward mobility is lower for Blacks today. Model 2, taking into account control variables, shows that communities more exposed to lynchings are significantly associated with lower levels of intergenerational mobility.<sup>87</sup> The coefficient estimate in model 2 (-0.022, s.e. = 0.007) suggests that a 1 standard deviation rise in the rate of lynching (1.16) is associated with a 2.5 average percentile reduction in adult income in 2015.

This result, suggesting that past lynching is correlated with contemporary Black upward mobility, is supported by anecdotal evidence of how racial violence thwarted Black economic advancement. For example, Elmore Bolling was lynched in 1947. A successful businessman, he ran a general store with a gas station, a catering business, grew crops, owned a fleet of trucks, and employed up to 40 Black people.<sup>88</sup> It all ended when a white mob lynched him. The consequences are still felt seventy years later by his children, their children, and the broader community. Bertha Mae, the wife of Elmore Bolling, helped run the catering business but was forced to find work at a dry cleaner after his murder.<sup>89</sup> Within two years, she fled with her children fearing for their lives, leaving behind what little they managed to hold on to. Before his death, Elmore, mindful of the

Analyses," *Ecology* 87, no. 10 (2006): 2603-2613.

<sup>86</sup>Full results for all models presented in this study, including estimates for covariates, can be found in the appendix. I report the main results in Table A.1.

<sup>87</sup>In the appendix, I report results based on different measures of the main independent variable. Table C.1 shows that results do not change when lynchings are measured as a rate per 10,000 Black residents or as a count. I also report results from different definitions of the South and find that the results are still significant. See Table D.1.

<sup>88</sup>Lee, "How America's Vast Racial Wealth Gap Grew: By Plunder."

<sup>89</sup>ibid

importance of education, placed his oldest children, Louis and Elmore Jr., in schools open year-round. After the lynching of their father, the older children dropped out to help support the family. Of the seven siblings, only one graduated

from college. Among the 25 grandchildren of Elmore and Bertha Mae, only six graduated from college.<sup>90</sup> In the Bolling case, his murder affected the expectations, aspirations, and economic decisions of his children. Most worked primarily as low-paid laborers.<sup>91</sup>

It is possible that unobserved characteristics shared by counties are influencing the results. For example, it may be the case that locations with lower rates of upward mobility tend to cluster together, and the models do not take this into account. [Figure 1](#) confirms that this is a possibility. To control for spatial dependence, I re-estimated Model 2 by including Moran eigenvectors that act as synthetic covariates capturing residual autocorrelation.<sup>92</sup> My results, reported in Model 3, show that mobility is consistently lower in counties that experienced more lynchings.

Having established a historical correlation between past lynching and contemporary intergenerational mobility, I turn to examining the gendered dimensions of racial violence. As I report in [Table 3](#), both Black males and females living in counties that experienced lynchings in the 19th and 20<sup>th</sup> centuries became less upwardly mobile in the 21st century. The magnitude of the coefficient for males ( $-0.034$ , s.e. =  $0.008$ ) implies that a one standard deviation rise in lynch rate is associated with a 3.9 percentile decrease in upward mobility in 2015. For females the quantitative effects implied by the estimates are smaller. The estimate in

**Table 3.** Impact of lynching on Males and Females.

	<i>Intergenerational Mobility</i>	
	Male (1)	Female (2)
Lynch rate	$-0.034^{***}$ (0.008)	$-0.012^{**}$ (0.006)
Constant	$4.587^{***}$ (1.700)	$5.440^{***}$ (1.293)
Covariates	Y	Y
State fixed effects	Y	Y
Observations	868	865
R2	0.313	0.336
Adjusted R2	0.289	0.313
Residual Std. Error	0.520 (df = 838)	0.392 (df = 835)

Note: \* $p < 0.1$ ; \*\* $p < 0.05$ ; \*\*\* $p < 0.01$  Models 1-2 are weighted least squares at the county level, adjusted by sampling weights. Standard errors are in parentheses.

<sup>90</sup>ibid

<sup>91</sup>ibid

<sup>92</sup>Stéphane Dray, Pierre Legendre, and Pedro R. Peres-Neto, "Spatial Modelling: A Comprehensive Framework for Principal Coordinate Analysis of Neighbour Matrices (PCNM)," *Ecological Modelling* 196, no. 3-4 (2006): 483-493.

column 2 ( $-0.012$ ,  $s.e. = 0.006$ ) suggests that a 1 standard deviation rise in the rate of lynching is associated with a 1.4 percentile reduction in adult income today.

More than 90% of lynching victims were Black men and boys. When women and girls were lynched, it was often because their male relatives could not be found or because women attempted to intervene in the lynchings of men. While there are differences in both the number and immediate reasons for the lynching of Black men and women, the finding that both are impacted decades later is significant evidence of the devastating legacy of violence across the broader Black community.

### ***Matching and Weighting Analysis***

One potential problem with the analysis above is that of model dependence, or that different models can lead to different conclusions about the same data and thereby call into question its validity. I undertake a non-parametric matching method analysis to improve balance between treatment and covariate distribution, which makes estimates based on analyses less dependent on modeling specifications.<sup>93</sup> Treatment refers to a dichotomized version of the continuous lynch rate measurement, where 1 indicates a county lynch rate greater than 0 between 1865 and 1940. Control counties have no record of a lynching during the same time frame.<sup>94</sup> Matching, as a method of data

preprocessing, pairs treated cases with similar control cases to separate the effect from shared background covariates.<sup>95</sup> This has the advantage of reducing estimate bias and model dependency by removing control observations with no comparable case among treated cases.<sup>96</sup> I used genetic matching to create a sample of counties in which lynching was about equally likely to occur.<sup>97</sup> Model 1 in Table 4 reports results of the matched data sample. The findings provide further evidence of an association between past violence and lower future Black upward mobility.

I also generate balancing weights for the continuous treatment. Dichotomizing a continuous treatment may lead to a loss of information

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<sup>93</sup>Ho et al., "Matching as Nonparametric Preprocessing for Reducing Model Dependence in Parametric Causal Inference." A more detailed discussion on the matched sample is available in Appendix B.

<sup>94</sup>I dichotomize the lynch rate variable to utilize more well-established propensity score techniques that are not as well suited to continuous treatments.

<sup>95</sup>Ho et al., "Matching as Nonparametric Preprocessing for Reducing Model Dependence in Parametric Causal Inference."

<sup>96</sup>King and Zeng, "The Dangers of Extreme Counterfactuals."

<sup>97</sup>I report mean differences before and after matching in Figure B.1 in the appendix.

**Table 4.** Impact when using a matched and weighted sample.

	<i>Intergenerational Mobility</i>	
	Matched Sample (1)	Weighted Sample (2)
Lynch Dummy	-0.010* (0.006)	
Lynch Rate		-0.024*** (0.006)
Constant	3.09*** (0.804)	8.309*** (1.334)
Covariates	Y	Y
State fixed effects	Y	Y
Observations	314	930
R2	0.282	0.311
Adjusted R2	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 Models 1-2 are weighted least squares at the county level, adjusted by weights. Model 1 uses a genetic matched sample with Mahalanobis distance for which the lynch rate is dichotomized. Model 2 uses distance covariance optimal weights from a weighted sample. Standard errors are in parentheses.

and subsequent decrease in power when conducting outcome analyses.<sup>98</sup> Results, shown in Table 4, remain unchanged.<sup>99</sup>

### Alternative Explanations

The results presented above indicate a strong and consistent relationship between the legacy of lynching and Black intergenerational mobility today. However, there are several alternative explanations for these findings. In this section I address potential explanations.

Perhaps the strongest alternative explanation is that of another legacy: slavery. Slavery heightens racial resentment, exacerbates Black poverty compared to whites, and reduces national and local economic development, all factors that could impact contemporary upward mobility.<sup>100</sup> While it is possible that slavery may act as a confounder, the OLS models and matching analysis account for the proportion of the population enslaved, providing greater assurance that slavery is less likely to explain the findings. Additionally, I hold the impact of the institutional legality of slaveholding constant since only Southern states are included in the sample.

To provide further evidence, I drop the top ten percentile of all original sample counties with the highest proportion of enslaved people in 1860 and then match these counties to non-slaveholding Northern counties

<sup>98</sup>Huling, Greifer, and Chen, "Independence Weights for Causal Inference with Continuous Treatments."

<sup>99</sup>Balancing statistics and full model results, as well as a brief description of weighting, can be found in Appendix B.

<sup>100</sup>Acharya et al., "The Political Legacy of American Slavery"; O'Connell, "The Impact of Slavery on Racial Inequality in Poverty in the Contemporary US South"; Stanley L. Engerman, and Kenneth L. Sokoloff. "Factor Endowments: Institutions, and Differential Paths of Growth among New World Economies: A View from Economic Historians of the United States," *National Bureau of Economic Research* 66 (1994); Nathan Nunn, "Slavery, Inequality, and Economic Development in the Americas," *In Institutions and Economic Performance*, ed. by Elhanan Helpman, 148-180. (Cambridge: Harvard University Press, 2008)

based on the propensity of a lynching occurring.<sup>101</sup> If no difference exists between counties that experienced lynchings and those that did not in low or non-slaveholding counties, then that would provide evidence that slavery, rather than lynching, may be driving the results.

Tolnay and Beck's data does not cover Northern states. I include Seguin and Rigby's data set of lynching in the US, which follows a data generating process similar to that of Tolnay and Beck.<sup>102</sup> OLS results from the matched sample using an expanded measure of lynchings, available in [Table E.1](#) in the online appendix, show that findings are robust to restricting the analysis to comparable low and non-slaveholding counties.<sup>103</sup> This suggests that results are unlikely to be solely attributable to the legacy of slavery.

Another possible explanation for the main results is the institution of Jim Crow. It was one of the most severe institutional forms of discrimination in the US during the 19th and 20th century. As soon as the Civil War ended, former Confederate states passed laws to severely limit the rights of Black Americans. Between 1890 and 1910, Southern states devised numerous ways to confine Blacks politically and economically.<sup>104</sup>

This could affect the analysis by potentially confounding the results in [Table 2](#). Southern whites controlled Black life through Jim Crow until 1965. Furthermore, the effects of institutional discrimination can increase economic inequality.<sup>105</sup> To test the robustness of the results, I restrict the temporal scope of lynchings from 1865 to 1877, or the end of Reconstruction. This enables the study to estimate the effects of lynching prior to many of the restrictive covenants that increased inequality, including Jim Crow, as well as other institutional forms of discrimination such as redlining. Restricting the temporal frame of lynching does not change its estimated effect, as shown in [Table F.1](#) in the appendix. Therefore, results in [Table 2](#) are unlikely to be solely attributable to Jim Crow.

I also examine lynchings during different periods. It is possible that violence during different eras has more or less impact on mobility. For example, violence immediately following the Civil War may have a larger influence, damping future Black mobility at a critical moment for formerly enslaved people. It could also be the case that recent lynchings are more

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<sup>101</sup>See Appendix E for a fuller discussion of the legacy of slavery, assessment of balance, and full results.

<sup>102</sup>Charles Seguin and David Rigby, "National Crimes: A New National Data Set of Lynchings in the United States, 1883 to 1941," *Socius* 5 (2019). In Appendix E, I include a brief discussion of key differences between both data sets.

<sup>103</sup>I also generate a weighted sample to reduce the risk associated with dichotomizing a continuous treatment variable. Assessment of balance and results can be found in Appendix E.

<sup>104</sup>Christopher Sebastian Parker and Christopher C. Towler, "Race and Authoritarianism in American Politics," *Annual Review of Political Science* 22 (2019): 503-519.

<sup>105</sup>Oliver and Shapiro, *Black Wealth/White Wealth: A New Perspective on Racial Inequality*.

relevant since they occurred within living memory. Findings, reported in [Table F.1](#) in the appendix, show that lynchings reduce Black upward mobility for each of the selected time periods: Reconstruction (1865-1877), before the Great Migration/rise of Jim Crow (1877-1910), and during the first phase of the Great Migration (1910-1940). While it is possible to divide 80 years into different periods, these time frames seem fitting as important and distinct within American history. This also serves as a call for future research to further examine the role and impact of racial violence across time periods.

It is possible that the findings are due to a rural/urban divide. Lynchings tended to occur in rural counties, and these counties may remain more rural today than counties with little or no incidents. At the same time, rural counties tend to be less wealthy than more urban ones.<sup>106</sup> To test this plausible explanation, I drop counties with the highest population density in 1860. Removing the top ten percentile of historically urban counties does not change the estimated effect of lynching. Results, reported in [Table G.1](#) in the appendix, suggest that the findings are unlikely to be due to the low population density of violent counties.

## Conclusion

Using contemporary mobility and historical lynching data, this article documents a statistical association between past violence and generational economic outcomes in the United States. My results suggest that counties that experienced lynchings have lower levels of Black intergenerational mobility today. This finding is supported through OLS analysis as well as a matched and weighted sample. Additionally, I find that lynching impacts later generations regardless of sex, providing further evidence that lynching affected the broader Black community.

While there may be other factors at play, I can confirm the overall negative pattern between lynching and upward mobility even after considering other possible alternative explanations such as slavery and Jim Crow. Detecting a statistical relationship should be particularly difficult when it comes to identifying why Black Americans are significantly and consistently less upwardly mobile than white Americans, considering the multitude of potential contributing causes. Twelve generations of institutionalized enslavement eradicated wealth from one generation to the next, and new forms of discrimination propagated disadvantages. Whether it was disenfranchisement, redlining, or land dispossession,

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<sup>106</sup>Ann R. Tickamyer and Cynthia M. Duncan, "Poverty and Opportunity Structure in Rural America," *Annual Review of Sociology* 16, no. 1 (1990): 67-86.



enduring structural barriers continue to prevent Black economic equality. Violence played a significant and persistent role in producing this robust pattern.

The findings have important implications for research on how violence shapes inequality in the long run. Firstly, the results suggest that violence can exacerbate not only vertical but also horizontal levels of inequality, impacting communities over a generational timescale. Even less severe cases of violence, compared to Stalin's repression or the Holocaust, may lead to enduring consequences, prompting scholars to consider symbolic and economic impact of violence as well as its severity. Of particular significance is the exclusionary nature of violence perpetrated by one group against another. Beyond the US, sectarian violence in Northern Ireland offers a potential case study. Today, Belfast's Catholic community faces greater deprivation compared to Protestants, a possible legacy of the Troubles.<sup>107</sup> Secondly, the findings advance our understanding of the theoretical mechanisms behind transmission, suggesting that violence can influence the amount, timing, and nature of a community's investment in the next generation.

There are limitations to the findings. I cannot completely rule out the possibility that these statistical associations are caused by other factors. While the overall pattern appears to be robust to alternative variations, there remain unmeasured plausible explanations, such as racism. The study only examines contemporary economic disparity, which limits its ability to speak to the short-term effects of violence. The effect closer to the event remains unknown and is a subject for future research. The theory and analysis suggest a compounding effect, particularly since racial violence and its trauma often go unaddressed in any meaningful way. Examining short-term effects could also help reduce the risk of potential confounding variables when studying consequences. Lastly, I excluded other types of racial violence from consideration, potentially omitting contributing sources. Outside of lynching, the US has a long history of racial violence, including race massacres such as those that took place in Chicago during the Red Summer of 1919, and the forced removal of Blacks through violence or threat of violence from towns across the US. If the effect of lynching is consistent with other types of racial violence, the reported historical correlation may be an underestimation.

The results suggest a greater need to broaden how we address inequality. In the US, most policies focus on alleviating hardships stemming from inequality. These programs are undoubtedly part of the solution, but addressing past violence must be a point of discussion. Part of this process

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<sup>107</sup>David Capener. "Belfast's housing policy still reflects religious and economic division." *The Guardian* (2017).

is remembrance. Remembrance adds to a more complete picture of the Black struggle for equality in the US but also suggests a path for addressing one of its most endemic problems. Remembrance, public discourse, and reconciliation can move the past out of history and towards addressing its legacy.

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### **Data Availability Statement**

The data and materials that support the findings of this study are available in the Harvard Dataverse at <https://doi.org/10.7910/DVN/4VO8XT>