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The Modern and Historical Roots of Inequality

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This dissertation studies inequality in the access to opportunity in America over the past 150 years, including the impact of pivotal policies and institutions.

In Chapter 1, Hugo Reichardt and I study the long-run effects of anti-Black institutions – from slavery to Jim Crow – on Black Americans’ economic outcomes. I trace each family’s records from 1850 to 2000 to measure their exposure to those institutions. I show that Black families whose ancestors were enslaved until the Civil War have considerably lower education, income, and wealth today than families whose ancestors were free earlier. The disparities between the two groups have persisted because most families whose ancestors were enslaved until the Civil War lived in states with strict Jim Crow regimes after slavery. Those Jim Crow regimes sharply reduced Black families’ economic progress, largely by limiting their access to education.

In Chapter 2, I analyze the evolution of Black-white income gaps among women since 1950. I document that this gap narrowed substantially in the 1960s. At the same time, the Southern Black-white gap among women converged with that of other regions, ending the long period in which the South was the epicenter of racial inequality. Black women across the income distribution shared the improvements in the Black-white gap. However, only the best-earning Black women improved the rank they occupied in the national income distribution – Black women at lower parts of the distribution benefited from declines in national income inequality despite stagnating ranks.

In Chapter 3, Harriet Brookes Gray, Hugo Reichardt, and I study the contribution of American women to social mobility. I first overcome the empirical challenge of linking women’s census and administrative records over their lifetimes despite name changes after marriage. To do so, I leverage information from administrative records containing millions of women’s maiden and married names. Using this new data, I document that a person’s socioeconomic status is better predicted by their mother’s status than their father’s, highlighting mothers’ critical role in shaping their children’s outcomes. In addition, women’s intergenerational mobility tended to be higher than men’s. I provide suggestive evidence that intergenerational mobility was especially high when and where marriages across different socioeconomic backgrounds were more common.

Chapter 1. Jim Crow and Black Economic Progress after Slavery

The socioeconomic gap between Black and white Americans is one of the most persistent features of US society. For example, Black Americans today own over 80 percent less wealth than white Americans on average (Derenoncourt et al., 2022). Black Americans are also 40 percent less likely to hold a college degree than white Americans (US Department of Education, 2019), and their median incomes are 50 percent lower (Bayer and Charles, 2018). Although racial disparities have narrowed considerably over the past two centuries, the progress has been slow.

One possible explanation for the lower socioeconomic status of Black Americans is the US's particular history of institutionalized racial oppression. Throughout the country's early history, slavery was legal—until around 1800 in the North and until the end of the Civil War (1861–1865) in the South. However, slavery was not the end of institutionalized oppression. Soon after slavery, Southern state governments passed a mounting number of racially oppressive laws designed to limit the economic progress of newly freed Black families—a regime called Jim Crow. States' Jim Crow regimes instituted racial segregation (e.g., of schools and public transport), Black voter disenfranchisement (e.g., literacy requirements and poll taxes), and restricted the geographic mobility of Black Americans (e.g., vagrancy laws and enticement laws). After almost 100 years, the Civil Rights legislation of the 1960s outlawed racial discrimination and ended Jim Crow, making it “one of the most significant legislative achievements in American history” (U.S. Senate, 2019).

This chapter studies whether and to what extent Black families' historical exposure to slavery and Jim Crow continues to shape US racial inequality. In sum, we find that the socioeconomic status of black families today depends strongly on their historical exposure to racially oppressive institutions. Black families left slavery with little or no measurable physical or human capital. We show that after slavery, Black families' economic progress critically depended on the state in which they were freed. Most families enslaved until the Civil War were freed in the southernmost states. After slavery ended, those states implemented the most severe forms of Jim Crow institutions. Our results suggest that the economic progress of families enslaved until the Civil War would have been substantially faster between 1865 and today if it had not been for their high exposure to Jim Crow. We highlight the denial of equal access to education as a critical factor that made Jim Crow detrimental to Black economic progress.

We overcome the challenge of measuring each individual family's historical exposure to slavery and Jim Crow by tracing their census and administrative records from 1850 to 2000 using automated record-linking methods (Abramitzky et al., 2019). First, to measure a family's exposure to slavery, we leverage that the 1850 and 1860 censuses did not record enslaved people. Therefore, we argue that we can identify families freed before the Civil War as those having ancestors recorded in the 1850 or 1860 census; others are classified

as enslaved until the Civil War. We validate this method by developing a new surname-based approach to determine how likely a family was to have been enslaved until the Civil War (Ager et al., 2021). Second, to measure a family’s exposure to Jim Crow, we use our linked sample to observe where a family’s ancestors were freed from slavery. Where a family was freed is a good reflection of their exposure to state-level Jim Crow institutions over the subsequent 75 years because Black Americans’ geographic mobility was low before 1940 (Boustan, 2016), especially for those under intense Jim Crow regimes. We measure a state’s Jim Crow intensity using a newly constructed dataset of 800 Jim Crow laws and a preexisting composite index of state-level racial oppression.

While exposure to oppression under slavery and Jim Crow was correlated, the two institutions’ different geographies allow us to disentangle their effects. As a result of the rapid southern expansion of the US plantation economy, the longer a family was enslaved, the more likely they were to be concentrated in the southernmost states – which would become the epicenter of Jim Crow. State-specific laws formed Jim Crow regimes; in contrast, slavery was an institution that transcended state borders. Jim Crow restrictions on geographic mobility made it difficult to escape those regimes, even in state border regions. Therefore, families who had been enslaved close to each other sometimes began to experience drastically different institutions of racial oppression under Jim Crow.

We proceed in three steps to assess and disentangle the long-run effects of slavery and Jim Crow. First, we divide our sample into two groups and document socioeconomic gaps between them: Black families who had higher exposure to both slavery *and* Jim Crow because they were enslaved until the Civil War (“Enslaved”); and families who were less exposed to both institutions because they were free before the Civil War (“Free”). Second, we assess the importance of state-specific factors – such as Jim Crow regimes – by decomposing this “Free-Enslaved gap” into variation in Black economic progress within and across ancestor states. Last, using a border discontinuity design, we isolate the effect that states’ Jim Crow regimes had on Black economic progress from other factors that may vary across states, such as economic activity, culture, or climate.

Our first key result is that today, Black families enslaved until the Civil War continue to have considerably lower education, income, and wealth than Black families freed before the Civil War. These Free-Enslaved gaps are almost half as large as the corresponding Black-white gaps. While immediately after slavery, the Free-Enslaved gaps were even larger, their narrowing has been much slower than one would expect under standard levels of intergenerational mobility.

Our second key result is that state-specific factors drive the long-run persistence of the Free-Enslaved gap. First, gaps due to direct exposure to slavery itself dissipated by 1940. In 1870, five years after the end of slavery, the socioeconomic status of recently freed families was far below that of families freed earlier, even for individuals from the same state. By 1940, those large Free-Enslaved gaps vanished conditional on the state

in which their ancestors lived during slavery. Second, families enslaved until the Civil War were concentrated in the states where Black Americans fared worse after slavery. The difference in the two groups' geographic distribution fully explains the persistently lower socioeconomic status of families enslaved until the Civil War. In sum, state-specific factors were the critical force that perpetuated the socioeconomic disparities that slavery had created among Black families in the long run.

To identify the likely mechanism behind the importance of state-specific factors—namely, the effect of Jim Crow regimes—we use a regression discontinuity design that compares the socioeconomic outcomes of Black families freed across state borders with more or less stringent Jim Crow regimes. By focusing on counties close to state borders, we isolate the role of institutions from factors that transcend those borders.

Our third key result is that Black families freed in states with more oppressive regimes experienced sharply lower rates of economic progress starting in the Jim Crow era (1877–1964). The resulting differences in socioeconomic status are increasing in the differences in Jim Crow intensity across a border. For example, consistent with Louisiana's Jim Crow legislation being far more extensive than Texas's, we find that families freed in Louisiana attained 1.2 fewer years of education by 1940 than families freed only a few miles away in Texas. The magnitudes of those border discontinuities are virtually identical to the general state differences in how families fared after slavery, suggesting that Jim Crow single-handedly shaped the geography of Black economic progress.

To understand how Jim Crow regimes slowed Black economic progress, we classify Jim Crow laws by topic and find that the largest number pertain to education. Education is the target of 227 laws—over one-quarter of all Jim Crow laws passed throughout the South. Those laws racially segregated schools, reduced educational resources allocated to Black children, shortened term lengths for Black schools, and prevented Black Americans from participating in the local bodies that governed education. Our analysis of the content of these laws suggests that Jim Crow directly restricted Black Americans' *access* to education, motivating our exploration of access to education as an essential mechanism in the persistent effect of Jim Crow.

We assess whether access to education mediated the effect of Jim Crow on outcomes in the long run by leveraging a natural experiment in school provision in the early 20th century. Specifically, we compare the education of children depending on whether their ancestors were freed in a county that would receive one of 5,000 schools built by the Rosenwald program (1914–1931) by the time the children were of school age (Aaronson and Mazumder, 2011). We find that the supply of schools had persistent positive effects on the economic progress of Black families, especially in the most oppressive states. Gaining access to a Rosenwald school closed 80 percent of the education gap caused by exposure to an intense Jim Crow regime. We find that the schools not only increased the education of those who had access but also improved the economic conditions of their

children in the long run—for example, college completion increased by 40 percent.

This chapter contributes to our understanding of whether and how historical institutions affect economic outcomes in the long run. Acemoglu et al. (2002), Dell (2010), Donaldson (2018), and Dell and Olken (2019) show that institutions can lastingly transform regions. In this chapter, we develop innovative methods to study the impact of institutions on *individual families* rather than regions and apply them in the context of US historical racial oppression. Such individual-level evidence allows for the geographic mobility of families, which attenuates regional differences in the long run. Tracing the effect of institutions on families can also generate novel insights into the mechanisms that drive various forms of persistence. We leverage quasi-experimental variation in school construction in the South to show that mere access to a school closes 80 percent of the education gap caused by Jim Crow.

This chapter further contributes to the evidence of the long-run effects that oppressive institutions can have on racial inequality. Within and outside of the US, regions that relied on slave labor continue to have lower and more unequally distributed incomes (Nunn, 2008), lower upward mobility (Berger, 2018), larger racial disparities (O’Connell, 2012; Bertocchi and Dimico, 2014), and higher levels of racial resentment against the formerly enslaved (Acharya et al., 2018). Evidence of how racially oppressive institutions affect individual Black families in the long run is scarce. Sacerdote (2005) uses Southern place of birth as a proxy for being enslaved until the Civil War and shows that Black descendants of this group continued to have lower socioeconomic status than those freed earlier. By combining newly available linked records, exogenous variation in ancestor location, and new details on state institutions, we assess why Black families whose ancestors were enslaved until the Civil War still experience lower socioeconomic outcomes. We show that after 1940, the single reason those differences persist is that the most strict Jim Crow regimes arose in the states where Black families enslaved until the Civil War were concentrated. This result implies that systemic discrimination—the higher exposure to ongoing discrimination *because of past discrimination* (Bohren et al., 2022)—is at the core of slavery’s persisting legacy.

Lastly, this chapter contributes to the historical literature on the evolution of Black economic progress after the end of slavery in the US. Margo (1991) argues that beyond market forces such as the supply of and demand for educated Black workers, one of the main reasons for the persistence of Black-white gaps in education was the barriers faced by Black parents, which in turn diminished the economic opportunities of their children. Our results show that this “intergenerational drag” of slavery itself was quantitatively important for around three generations but diminished over time. We extend Margo’s model of Black economic progress to encompass the racially oppressive institutions after slavery, which we show to be decisive in the long run. The dependence of Black economic progress on institutional factors is consistent with the seminal work of Du Bois (1935),

Woodward (1955), Ransom and Sutch (2001), and Wright (2013), who highlight that when and where their environment allowed for it, Black families did make rapid progress—such as in the Reconstruction era (1865–1877). Consistent with that, our evidence from the Rosenwald schools suggests that it was not a lack of demand for education among Black children in the Jim Crow South but a lack of *access* to education that slowed their human capital accumulation (see also Aaronson and Mazumder, 2011).

Chapter 3. Two Steps Forward, One Step Back: Racial Income Gaps among Women since 1950

The seeming intractability of differences in economic well-being between Black and white Americans constitutes one of the great challenges in the United States’ modern history. An enormous and insightful literature tracks the evolution of these differences, but the vast majority of existing studies focuses exclusively on Black-white gaps for males. The few exceptions seem to suggest that Black women have faced no or small income gaps to their white counterparts since 1980. This stands in stark contrast with the overwhelming evidence that suggests immense Black-white gaps in women’s economic well-being as measured in poverty status, unemployment, and eviction.

This chapter fills this important gap in the literature by providing empirical evidence on the evolution of Black-white disparities in women’s economic well-being at different parts of the distribution between 1950 and 2019. First, I document trends in the Black-white gap for women using the literature’s standard measures of wage income. I show that this and other standard measures miss key aspects of Black-white disparities by failing to account for non-employment, household structure, and non-wage income. Third, I revisit the evidence using per-capita household incomes as a more complete measure of economic well-being, accounting for all the aforementioned factors. Finally, I use decomposition approaches from the literature to statistically account for those gaps.

My results show that Black women across the income distribution have made significant progress in narrowing the income gap to their white peers, but large gaps persist throughout the period of 1950 to 2019. In recent years, single Black women across all tiers of the distribution have relied on 30 percent less income than what was available to their white peers. Much of the historical progress was made before 1980, coinciding with the Civil Rights Movement and the Great Migration. Since then, the narrowing has almost come to a halt. The remaining gaps are increasingly difficult to statistically account for. If Black women were to be observationally equal to white women, they would still earn almost 20 percent less than their white peers at the bottom, middle, and top.

Despite the imperfect but substantial narrowing in income gaps, Black women’s positions within the white income distribution have hardly improved since 1950. The median single Black woman’s income placed her at the 30th percentile within the white distribu-

tion in 1950 and at the 35th percentile in 2019, while the positions of Black women at the bottom have worsened. In contrast, the households of Black women at the top have made substantial improvements in their position within the white distribution, therefore forming a bright exception to the otherwise sobering lack of progress.

I show that pre-1980, the compression at lower parts of the income distribution narrowed income gaps at and below the median, absent any changes in the positions that individuals occupy in the distribution. Conversely, rising income inequality at the top implies that while Black women with the highest incomes have climbed up the ranks of the distribution, even small remaining gaps translate into large differences in income levels. Together, my results accentuate that focusing on the average or median incomes of female workers drastically misrepresents the evolution in women's economic well-being at different parts of the income distribution.

This chapter is closely related to the large body of literature studying Black-white income disparities since World War II. The Black-white gap rapidly narrowed between 1940 and 1980 (Freeman, 1973; Brown, 1984; Smith and Welch, 1989; Donohue and Heckman, 1991; Blau and Beller, 1992; Card and Krueger, 1992; Card and Lemieux, 1996; Derenoncourt and Montialoux, 2020). The key drivers that emerge from this rich palette of empirical evidence include the Civil Rights Movement and its achievements in making institutions more equitable, the Great Migration from the rural South to the urban North, and narrowing educational gaps. Since 1980, the narrowing of Black-white gaps has come to a halt (Juhn et al., 1991; Bound and Freeman, 1992; Neal and Johnson, 1996; Altonji and Blank, 1999; Neal, 2004; Neal and Rick, 2014). Drivers are weakening affirmative action efforts under the Reagan administration: rising skill premiums (punishing Black Americans who face reduced but persistent gaps in education), mass incarceration, rising non-employment among Black men, and eroding institutional support through minimum wages and unions.

This chapter also contributes to a literature on differences between the socioeconomic status of Black and white women. Goldin (2006) describes the decades after 1970 as a turning point for women in the labor market, enabling them to plan for personal careers and make fruitful educational investments, increase their independence from potential spouses, and narrow occupational and pay gaps to men. Goldin and Mitchell (2017) add that the increased ability to control the timing of childbirth reduced the impact of motherhood on women's careers. Goldin (1977) and Boustan and Collins (2014) study the Black-white convergence in female labor force participation rates, which tended to be higher for Black women in the decades after emancipation in 1865. Cunningham and Zalokar (1992) and Sundstrom (2000) study the occupational shift among Black women from service jobs to clerical work between 1940 and 1980. I add to this literature by showing how the changing Black-white gaps in labor force participation, education, and occupation have translated into changing income gaps among women throughout the

income distribution.

Chapter 3. Intergenerational Mobility and Assortative Mating

Throughout history, the US has been considered the land of opportunity. Intergenerational mobility – one’s propensity to attain a social status different from their parents – is at the center equal opportunity. To empirically assess historical levels of intergenerational mobility, researchers typically rely on tracing families’ records over long time spans. Recent advances in the automated linking of historical records have overcome key difficulties in quantitatively assessing intergenerational mobility, documenting the intergenerational mobility of Americans over the 19th and 20th centuries (Abramitzky et al., 2019; Ward, 2021).

Virtually all long-run estimates of intergenerational mobility exclude women. Incorporating women into the analysis has been challenging because name changes after marriage make it impossible to trace their records from childhood to adulthood without information on name changes. Recently, substantial progress has been made in linking women’s historical records by using the information of name changes from marriage certificates in some states (Craig et al., 2019), or estimating mobility directly from survey data that asks women about their socioeconomic status and that of their parents (Jácome et al., 2021). However, this data is often sparse, making it difficult to zero in on minorities or study heterogeneity across space, and some sources cover only a selected part of the population, such as married individuals.

In this chapter, we link women’s historical census records to study intergenerational mobility among *all* Americans from 1850 to 1940 and one of its main drivers – assortative mating. We combine two data sources, full-count census records and information from 41 million Social Security Number (SSN) applications, to trace millions of men and women over time. SSN applications cover the near universe of applicants who died between 1980 and 2007 and include information on applicants’ names and their maiden names. Importantly, they also contain the maiden names of applicants’ parents, massively expanding the sample, extending the coverage back in time, and increasing representativeness by including people who never applied for an SSN.

Our new data ranges from 1850 to 1940 and consists of 36 million total links, half of which are women. Our data is highly representative along all dimensions, including income, race, and geography. We link an unprecedented 18 million women from before to after marriage, uniquely equipping us to study the long-run evolution of intergenerational mobility and assortative mating. This data will become publicly available, opening many new opportunities to study women’s role in the US economy.

Based on our new panel, we document the evolution of intergenerational mobility for all Americans – including men and women – between 1850 and 1940, suggesting that

mobility was similar to what it is today. Based on proxies for household income for parents and children, we find rank-rank elasticities of 0.3 to 0.4. Existing estimates for more recent decades that include men and women are similar, ranging between 0.25 and 0.4 (Jácome et al., 2021; Chetty et al., 2014). Our estimates suggest that women tended to be more socially mobile than men, especially among cohorts born after 1870. Women born in the 1900s, for example, have a rank-rank elasticity in household income of 0.32 – significantly lower persistence than 0.39 among men.

While father-child comparisons are the literature’s standard measure of intergenerational mobility, they offer an incomplete picture of how interrelated a child’s socioeconomic status is with that of their parents. In particular, unless mothers do not separately contribute to the future socioeconomic status of their children, father-child comparisons understate the persistence of socioeconomic status across generations. We extend the standard model of intergenerational mobility to flexibly allow fathers and mothers to co-determine the socioeconomic status of their children. When estimating the relationship between the socioeconomic status of a single parent and their child, one elasticity can capture intergenerational mobility. Multiple elasticities become relevant when considering both parents and their potential complementarity. As a result, it is harder to compare intergenerational mobility across time, space, and subgroups of the population.

We find that mothers are as predictive of their children’s outcomes as fathers. A mother’s status is *more* predictive of their children’s literacy status, but *less* predictive of their children’s income. This result is consistent with mothers influencing their children’s future socioeconomic status through direct human capital transmission, whereas fathers may tend to affect their children’s socioeconomic status through transmission of occupation-specific skills or employment networks. To measure intergenerational mobility in the presence of proxies for the socioeconomic status of both parents, we propose using the variance in children’s outcomes explained by both parents’ socioeconomic status (adjusted R-squared).

We next explore a key potential driver of intergenerational mobility: assortative mating. Historically, women tended not to participate in the labor market, so that their economic status in adulthood was often determined by whom they married. Consistent with the importance of marriage markets, we document that intergenerational mobility and assortative mating levels are highly correlated over time and across space. In states with highly assortative marriages – i.e., where wives come from a very similar socioeconomic background as their husbands – intergenerational mobility is low. Across time, birth cohorts that tend to be more assortatively mated are less mobile, too. These results suggest that the marriage market may play a key role in shaping the economic opportunities available to men and women.

This chapter contributes to our understanding of intergenerational mobility throughout American history. For recent decades, intergenerational mobility has been well docu-

mented for men and women using administrative data containing unique identifiers. For example, Chetty et al. (2014) found that intergenerational mobility was relatively stable for people born between 1971 and 1982 (rank-rank elasticities around 0.3). Longer-run estimates typically include only men due to the difficulty of linking historical records of women in the absence of unique identifiers. For example, Abramitzky et al. (2021) documented lower intergenerational mobility for American men born around 80 years earlier, between 1880 and 1910 (rank-rank elasticities around 0.4). Based on a synthetic panel using men's and women's first names, Olivetti and Paserman (2015) document trends but not levels of intergenerational mobility. They find relatively stable mobility between 1870 and 1900, followed by a sharp decrease from 1900 to 1920 and another mild decline until 1940. Jácome et al. (2021) made substantial progress in documenting intergenerational mobility at the individual level for both men and women historically. They found that mobility increased from the 1910 to 1940 birth cohorts before plateauing compared to the 1970 cohorts. Black women's changing economic status was a critical driver of increasing mobility over this period. Craig et al. (2019) found that women's mobility was higher than men's in the late 1800s but this gap disappeared by 1900. Our sample is unprecedented in scope and representativeness in the historical context, providing new insights into the intergenerational mobility of women across time, space, and race.

We contribute to the literature on assortative mating, particularly historical patterns of assortative mating in the US during the 19th and 20th centuries. Eika et al. (2019) find that marriages in the US have been increasingly assortative from the start of their sample period in 1940 until today. We document trends in assortative mating from 1850 to 1940, showing that marriages have become increasingly assortative since at least 1850, suggesting these trends are not purely a recent phenomenon. Clark and Cummins (2022) show that in England, assortative mating has been high since the 18th century. The authors show that both fathers and mothers predict the socioeconomic status of their children, suggesting that the high levels of assortative mating they observe lead to lower intergenerational mobility. We confirm the negative correlation between a generation's degree of assortative mating and its levels of intergenerational mobility across time and space in the US.

This chapter also advances our understanding of women's role in the development of America's economy in the 19th and 20th century. Our sample covers the decades before the rapid rise in female labor force participation that began in the 1940s (Goldin, 1990, 1991; Goldin and Olivetti, 2013). Consistent with mothers thus likely spending more time with their children than fathers, our evidence suggests that human capital transmission was particularly strong from mothers to children. In contrast to human capital, occupation and income seem to be more influenced by fathers: a person's earnings are better predicted by their paternal than their maternal grandfather's earnings.

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