# Online Appendices: Selected Fertility and Racial Inequality

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## Online Appendix A: Robustness and Extensions, General Fertility Rate Trends

*Results by Maternal Age*

Figure A1 reproduces Figure 1B of the main paper, but disaggregates by five-year maternal age groupings using data from print Vital Statistics books transcribed by the author. The figure shows that large-scale and unique reductions in the Black-white GFR gap occurred after 1964 among southern women in all age groups except 15-19. These patterns suggest that the post-1964 fertility rate reductions among southern Black women shown in Figure 1 did not solely reflect delaying parenthood or shifts in the timing of births, but also reflected a reduction in total childbearing, which is consistent with findings in Section 1.2 that use direct measures of completed fertility in the Decennial Censuses.

*Spatial Heterogeneity*

Figure A2 maps the changes in the Black-white fertility gap occurring between 1964 and 1969 across the 712 southern counties with available data.[1] The figure shows substantial spatial heterogeneity in the magnitude of post-CRA racial fertility convergence, with the strongest convergence occurring in counties along the Mississippi River Delta, selected counties in central Alabama and Georgia, and counties in the tobacco-growing regions of Virginia and North Carolina.

Perhaps the most visually obvious spatial pattern in Figure A2 is that fertility decline appears to have been strongest in counties in the so-called "Black belt" that had historically intensive use of enslaved labor and particularly severe implementations of Jim Crow statutes, and indeed the simple correlation between the fertility declines shown in Figure 3 and each county's 1860 share of enslaved African Americans is .24.[2] The patterns in Figure A2 are in this sense consistent with the possibility that some of the observed changes in fertility behavior were a response to the dismantling of the most overt forms of state-sponsored racism. However, these counties differ along many other dimensions as well, and county level results in general may be strongly affected by selective migration patterns, which makes it difficult to draw any strong conclusions from the spacial patterns shown in Figure A2.

*Alternative Regional Definitions*

The baseline results in Figure 1 defined the South as the 11 states of the former confederacy (Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas and Virginia) and the North as the balance of the lower 48 states. However, reasonable alternative regional definitions exist and could yield different results. This possibility is explored in Figure A3.

Panel A of Figure A3 reproduces the baseline results from Figure 1B for reference. Panel B of Figure A3 reports results where five "border states" (Delaware, Kentucky, Maryland, Oklahoma and West Virginia) are included in the South rather than the North. Panel C excludes these five border states entirely. Panel D follows Chay et al. (2009) and uses seven "Rust-Belt" states (Illinois, Indiana, Missouri, New York, Ohio, and Pennsylvania) as the northern control group, rather than all non-southern states, which may be preferable since the Rust Belt is geographically proximate to the South and has a large African American population. In all cases, the relative trends in Black-white GFR gaps are virtually identical to the baseline trends.

[1] A majority of counties with missing data in Figure A2 are due to race-specific natality data being suppressed in counties where non-whites constituted less than 10% of the population. Additionally, because the natality data classifies race only as white or non-white, the figure excludes 37 counties where more than 1% of the population in the 1970 census consisted of non-Black minorities, which ensures that non-whites consist almost exclusively of African Americans.

[2] Author's calculation using the historically consistent county boundaries created by Acharya, Blackwell & Sen (2016), who are gratefully acknowledged.

Figure A4 assesses heterogeneity *within* the 11 states of the former confederacy by plotting Black-white GFR gap trends on a state-by-state basis. While these state-level trends are unsurprisingly somewhat noisier than the trends at the regional level, all 11 states experience a clear post-1964 reduction in Black-white GFR differences.

*Exclusion of Counties with Substantial Non-Black Minority Populations*

Another robustness related issue is that Vital Statistics from the study period only disaggregate maternal race into white and non-white, such that non-Black racial minorities are combined with African Americans. While Blacks were in most cases the largest minority population in the studied context, there may be some concern that this rough aggregation of racial and ethnic identification affects the findings, particularly since Texas, Florida and many western states with substantial Hispanic populations are included in the analysis. Several southern states also have significant Native American populations that could plausibly impact the findings. To address this issue, Figure A5 reports the results of re-estimating Figure 1B while excluding counties where African Americans constituted less than 99% of the county's non-white population, such that the vast majority of non-whites in the utilized sample are African American.[3] The level GFR difference outside of the South is modestly higher after this restriction, but all relevant trends are virtually unchanged

*Triple-Difference Specifications*

The baseline findings in Figure 1 showed large declines in the Black-white fertility gap within the South, and also showed that no such change in the fertility gap occurred in the North. The choice to report the findings as trends in the Black-white gap disaggregated by region was made primarily for graphical and expositional clarity, and it is conceptually equivalent to consider southern Blacks to be the "treatment group" while using the other three race-by-region groups as control groups that jointly define counterfactual fertility trends for southern Blacks in a triple-difference framework.

In particular I have estimate regressions of the following form:

$$Fertility_{rjy} = \beta_1 Black + \beta_2 South + \gamma_{55} Y1955 + \gamma_{56} Y1956 + ... + \gamma_{75} Y1975 +$$

$$\beta_3(Black \times South) + \lambda_{55}(Black \times Y1956) + \lambda_{56}(Black \times Y1956) + ... + \lambda_{75}(Black \times Y1975) + \rho_{55}(South \times Y1956) + \rho_{56}(South \times Y1956) + ...\rho_{75}(South \times Y1975) +$$

$$\delta_{55}(Black \times South \times Y1956) + \delta_{56}(Black \times South \times Y1956) + ... + \delta_{75}(Black \times South \times Y1975) + \varepsilon_{rjy}$$

In this specification $Fertility_{rjy}$ is the GFR for racial group $r$ (either Black or white) region $j$ (either southern or northern) and year $y$ (ranging from 1955-1975 and omitting 1964). The independent variables are dummies indicating being Black (Black), southern residence (South) and year of observation (Y1955, Y1956,...,Y1975); all possible two way interactions of Black, South and the year dummies; and the three-way interactions of Black, South and the year dummies. The coefficients of interest are the triple-interactions of Black, South and year ($\delta_y$) which estimate the fertility rate of southern Blacks relative to the other groups in each year from 1955 to 1975 (with 1964 as the reference year), after flexibly controlling for independent effects of race, region and year.

The full set of results from estimating this specification are reported in the first column of Table A1, and the coefficients on the three-way interaction terms are plotted in Panel A of Figure A6.[4] As expected given the

[3] The reason this exclusion was not made in the baseline results is that race-specific natality data was suppressed in counties where non-whites constituted less than 10% of the population, so that state-level aggregations provide a more comprehensive measure.

[4] Note that because the regression specification is estimated with data at the race-region-year level, which is the same level as the interactions of interest, the $R^2$ of this regression is equal to 1 and the coefficient's standard errors are not estimable.

trends shown in Figure 1 of the main paper, Table A1 and Figure A6 find a clear trend break in 1964, with the GFR of southern Black women declining by approximately 20 births per thousand women of childbearing age between 1964 and 1970, relative to women in other race-by-region groups.

If the specification is instead estimated with data at the state or county level the coefficients on the triple-interaction terms are statistically significant at conventional levels, but these geographic disaggregation are arbitrary and the resulting standard errors are therefore difficult to interpret.

## Online Appendix B: Robustness and Extensions, Completed Fertility Trends

*Triple-Difference Specifications*

As was the case for the general fertility rate results, the completed fertility analysis can be implemented as a triple-difference specification that estimates completed fertility changes across cohorts among southern Blacks while differencing out a common region effect, a common race effect, and common cohort effects, effectively using the other three race-by-region groups as controls that jointly define a counterfactual completed fertility trend for southern Blacks.

To implement such analyses in a regression framework I estimate a specification very similar to the one from Online Appendix A, but replace the GFR with completed fertility as the dependent variable and replace year dummies with birth cohort dummies:

$$CompFertility_{irjc} = \beta_1 Black + \beta_2 South + \gamma_{20} C1920 + \gamma_{21} C1921 + ... + \gamma_{46} C1946 +$$

$$\beta_3(Black \times South) + \lambda_{20}(Black \times C1920) + \lambda_{21}(Black \times C1921) + ... + \lambda_{46}(Black \times C1946 + \rho_{20}(South \times C1920) + \rho_{21}(South \times C1921) + ...\rho_{46}(South \times C1946) +$$

$$\delta_{20}(Black \times South \times C1920) + \delta_{21}(Black \times South \times C1921) + ... + \delta_{46}(Black \times South \times C1946) + \varepsilon_{irjc}.$$

In this specification $CompFertility_{irjc}$ is the completed fertility of woman $i$ of racial group $r$ (either Black or white) region $j$ (either southern or northern) and cohort $c$ (ranging from 1920 to 1946 and omitting 1935). The independent variables are dummies indicating being Black (Black), southern residence (South) and birth cohort (C1920, C1921,...,C1946); all possible two way interactions of Black, South and the cohort dummies; and the three-way interaction of Black, South and the cohort dummies. The coefficients of interest are the triple-interactions of Black, South and cohort ($\delta_c$) which estimate the completed fertility of southern Black women relative to the other groups in each cohort from 1920 to 1946 (with 1935 as the reference year), after flexibly controlling for independent effects of race, region and cohort.

The full set of results from estimating this specification are reported in Table A2, and the coefficients on the three-way interaction terms are plotted in Figure A7 Because completed fertility trends are estimated using individual level data, standard errors are estimable, and Table A2 reports standard errors clustered at the state level, while Figure A7 displays the 90% confidence intervals for the triple-interactions. As expected given the trends shown in Figure 2 of the main paper, Table A2 and Figure A7 find large relative reductions in the completed fertility of southern Black women from cohorts after 1935 relative to cohort trends among women in other race-by-region groups, with statistically significant relative reductions of approximately .7 live births between the 1935 cohort and the cohorts of the mid-1940s.

*CPS Replications*

As noted, the Census Bureau discontinued the completed fertility question after the 1990 Census, and in conjunction with the standard over-44 age restriction for completed fertility calculations, this data limitation does not allow completed fertility to be calculated beyond the 1946 cohort in Census data. However, completed fertility can be calculated for a broader range of cohorts using the June Fertility Supplements from the Current Population Survey, which was fielded 26 times between 1976 and 2018.

While the CPS allows for completed fertility to be observed across a wider range of cohorts, it produces much smaller working samples than the Census. Not only are the base sample sizes smaller, but in many years only women ages 18-44 or ages 14-49 were asked their total number of live births, greatly limiting the number of usable observations. As a result of these limitations, it is only possible to observe completed fertility for

405,785 CPS respondents over the relevant cohorts, compared to 2,659,622 in the Census analysis from the main paper. A final issue is that the CPS June Fertility Supplements used highly inconsistent top-coding of total births, ranging from 5 to 20, which makes the calculation of the mean births particularly erratic.

These data issues notwithstanding, it is useful to extend the series in Figure 2 of the main paper beyond the 1946 cohort, as well as to test whether the main completed fertility findings are replicable in a second, independently drawn sample. As such, Figure A8 replicates Figure 2 of the main paper using CPS data, and does so for the 1920-1960 cohorts in Panel A (rather than 1920-1946), while using the 1945-1950 cohorts as the "post" cohorts for the distributional analyses in Panel B (rather than 1941-1946).

As expected, the completed fertility series shown in Panel A is much more erratic than its Census-based counterpart in Figure 2 of the main paper, but the trends are qualitatively similar, with the Black-white gap in completed fertility among southern women falling from approximately 1.5 live births in the 1930 cohort to approximately .5 by the early 1940s, with no significant changes in the North. Panel A of Figure A8 additionally shows that there was little additional change in relative mean completed fertility through the cohorts of the mid-1950s, with some further declines in Black-white gaps in the South after 1955, although these declines are difficult to interpret given the large cross-cohort fluctuations in completed fertility throughout the series. Panel B finds changes in the completed fertility distributions of Black and white women in the South that are very similar to those in Figure 2, with a dramatic truncation of the right-tail of the completed fertility distribution but decreases in childlessness for southern Black women, and modest substitution from completed fertility levels of 3-4 children ever born into 2-3 children ever born for southern white women.

Overall, the results in Figure A8 indicate that the main paper's completed fertility results were not an artifact of any sampling or data construction issues unique to the Decennial Censuses, and that no large-sale and systematic additional fertility changes appear to have taken place after the 1946 cohort.

*Inter-Regional Migration*

While the baseline completed fertility results from Figure 2 excluded all individuals who were born in one region but resided in the other when they were surveyed at ages 44-70, the issue of inter-regional migration warrants additional attention given the large-scale and heavily selected northern migration occurring among African Americans in the studied cohorts.

Two natural alternatives are to retain inter-regional migrants but define southern status on the basis of either birth region or current region of residence. Replications of Figure 2 using these alternative definitions are respectively shown in Panels A and B of Figure A9. The most important feature of Figure A9 is that under either regional classification approach there is a clear reduction in the Black-white completed fertility gap in the South but not the North, indicating that the basic patterns are insensitive to the method of regional classification.

Beyond demonstrating this basic robustness, another notable feature of Figure A9 is that relative convergence is noticeably stronger when region is defined on the basis of residence (Panel B) than on the basis of birth (Panel A). Because the dominant migration pattern in this context was African Americans moving from South to North, the most quantitatively important difference between the samples used in Panels A and B is that the sample in Panel B classifies Black women who were born in the South but lived in the North when they were surveyed at ages 44-70 as northern. Specifically 29% of Black women in the sample were born in the South but lived in the North when surveyed, and are therefore classified as southern in Panel A but

northern in Panel B, whereas only 2% of Black women in the overall sample were born in the North but lived in the South when surveyed, and migration in both directions was similarly modest among white women. The differences in the patterns observed in Panels A and B therefore imply that decreases in fertility were relatively weak among northern-migrating Black women.

This is examined more directly in Panel C of Figure A9, which reports trends in completed fertility separately for southern-born Black women who had left for the North by the time they were surveyed ("leavers") versus southern-born Black women who had remained in the South at the time of survey ("stayers"). Panel C shows that completed fertility among stayers was higher than among leavers across all the studied cohorts, and that the completed fertility declines occurring among the post-1930 cohorts were especially strong for stayers, such that the difference between these two groups falls from .65 in the 1930 cohort to .35 in the 1946 cohort.

While informative, the causes and implications of these differences are difficult to interpret without additional information. On the one hand, the differences in completed fertility between stayers and leavers may simply reflect the greater difficulty of migrating with children, higher levels of socioeconomic status among migrants, or other forms of selection. An alternative (but not mutually exclusive) explanation for the differences shown in panel C is that exposure to post-1964 changes in environmental conditions affected fertility behavior more than exposure to any events occurring in childhood, leading to greater fertility impacts among stayers because they were more likely to have directly experienced the post-1964 social and economic changes occurring in the South. Unfortunately region of residence specifically in 1964 is not directly observed, since the year of migration among individuals not residing in their region of birth is not reported, which prevents a direct assessment of this conjecture.

It is also difficult to draw strong conclusions from Figure A9 about the contribution of inter-regional migration to the observed declines in general fertility rates after 1964. While the fact that southern Black women with lower fertility propensities were more likely to migrate would lower the overall GFR among African American women residing in the South, the effect of migration on year-specific GFR trends will depend on the magnitude of migration and the degree of selection on fertility-relevant characteristics among those migrants in the years surrounding 1964, which are not observed. Ultimately, the fact that strong relative fertility reductions are observed using both residence-based and birth-based regional definitions, as well as among both migrating and non-migrating southern born Blacks, strongly suggests that the observed GFR trends are not purely an artifact of selective inter-regional migration, but the precise impacts of migration are difficult to quantify.

## Online Appendix C: Extensions of Heterogeneity and Intergenerational Analyses

*Adjusting GFR Measures in the Census for Infant Mortality*

One potential explanation for the level differences in GFR estimates between the Vital Statistics and Census based measures is that some children under age one die before being enumerated by the Census, and to investigate this issue Table A3 adjusts the Census estimates from Table 1 of the main paper for infant mortality rates. Specifically, Columns 1-3 of Table A3 report infant mortality rates by race, region and year, while Columns 4-6 of Table A3 use these rates to adjust the Census GFR estimates. For example among southern Black children born in 1960 there were 47 infant deaths per thousand live births, or 4.7% (Column 1). This suggests that while Census records show that 126 out of every 1,000 southern Black women of childbearing age had an own-child living with them in 1960, an additional $126 \times .047 \approx 6$ women may have given birth to a child who died prior to enumeration. Column 4 of Table A3 simply adds 6 to the baseline GFR estimate of 126. This process is then repeated for each race, region and year. Table A3 finds that while some of the differences in estimated GFR levels between Vital Statistics and Census records can be attributed to infant mortality, the changes are typically quite modest, and the estimated changes between 1960 and 1970 are very similar after adjusting for infant mortality. This is primarily because while infant mortality in the study period was extremely high by normative and modern standards, infant deaths were still a relatively rare event, such that the impact of infant mortality of aggregate fertility estimates is modest.

*Tabular and Triple-Difference Estimates for Changes in Maternal and Family Background Characteristics*

Panels A and B of Table A4 show tabular results for the models presented in Figure 3 of the main paper. While Figure 3 showed the point estimates graphically, Panels A and B of Table A4 show the numerical point estimates to three decimal places and also report standard errors and sample sizes.

Panel C of Table A4 shows conceptually similar models that also incorporate Blacks and whites in the North as additional control groups. Specifically, the models shown in Panel C regress an indicator of having an own-child under age one currently in the household (multiplied by 1,000) onto a 1970 indicator, a Black indicator, a South indicator, all possible two way interactions of these three indicators, and their three way interaction. The coefficient on the three way interaction term is reported, and the results show that convergence between southern Blacks and this broader set of race-by-region control groups is similar to the Black-white convergence within the South that was the focus in the main body of the paper.

Table A5 presents a quadruple-difference version of the estimates of selective fertility's impact on family background from Table 2 of the main paper that again additionally incorporate Blacks and whites in the North as control groups. The table specifically reports the results of regressing the three utilized binary indicators of maternal and family background onto the four way interaction of indicators for having an own-child under age one currently in the household, southern residence, being observed in 1970, and being Black, as well as all main effects, two way interactions, and three way interactions of these indicators. The coefficients on the four way interactions re reported, and indicate fertility induced changes in family background qualitatively similar to those shown in Table 2 of the main paper.

*Details of NLSY79 Sample and Measures*

I include only non-Hispanic whites and Blacks in the working sample, excluding Hispanics and non-Black racial minorities. Additionally, the NLSY79 survey design included oversamples of minorities, economically

disadvantaged whites, and military members, but the economically disadvantaged white and military oversamples were dropped between 1984 and 1990 for budgetary reasons and are excluded from the current analysis.

I measure educational attainment with the highest grade completed reported by respondents in any survey wave. I measure earnings in each survey wave as the total of all income from wages, salaries farms and business income in the previous calendar year, with zero-earners retained. I then convert these annual earnings observations to 2017 dollars using the CPI-U and take the mean of all earnings observations occurring after each respondent was last enrolled in school and use this as my primary earnings measure. I use AFQT scores that were adjusted for the age at which respondent's took the test by NLSY79 survey administrators, and convert them to z-scores.

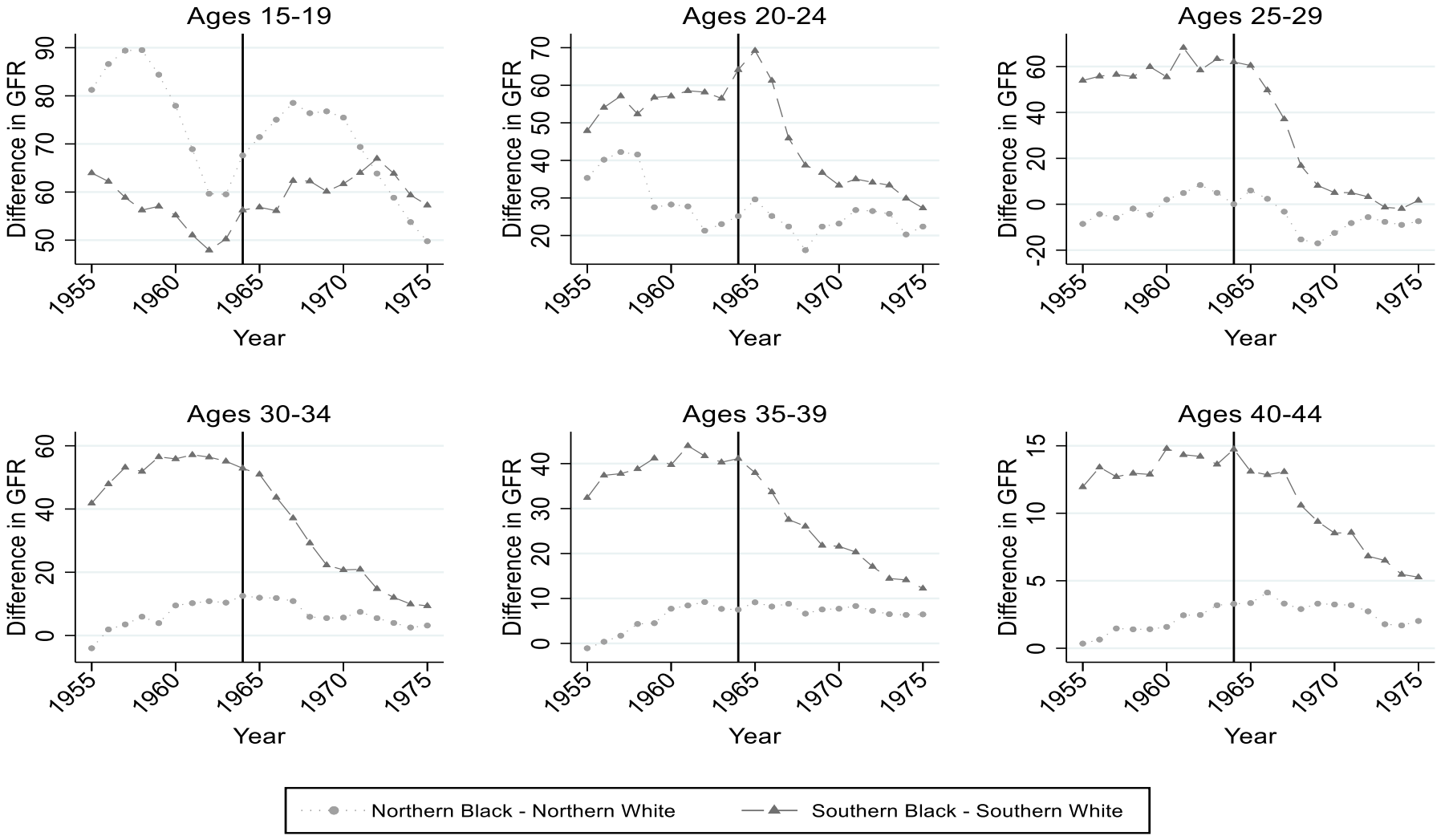
*Full DiNardo, Fortin & Lemieux (1996) Decompositions*

The reweighting exercise in Section 3.2 of the main paper focused on comparing baseline and reweighted *means*, but the approach suggested by DiNardo, Fortin & Lemieux (1996) is suitable for estimating full counterfactual distributions, and indeed this is the purpose for which it was originally developed. Figures A9 and A10 perform full distributional decompositions for earnings and AFQT scores. Specifically, I first compute the difference in the log annual earnings or AFQT score of the $n$th percentile white NLSY-79 respondent and the $n$th percentile Black respondent, and report the Black-white gap at each percentile. Next, I reweight the white sample such that it has family background characteristics similar as the Black sample. The Black-white differences in log earnings and AFQT scores at each percentile using the reweighted sample is shown alongside the unconditional gaps, and provides a counterfactual estimate of what the Black-white earnings gap at each percentile would have been if white and Black respondents had similar family background characteristics.[5]

In Figures A9 and A10 the solid lines show kernel-weighted local polynomial regressions of the unadjusted Black-white gaps in each outcome, the dashed lines show the counterfactual gaps that occur after applying the reweighting procedure, and the dotted lines show the reduction in the black-white gap at each percentile that occurred after the reweighting. The figures indicate that for both log earning and AFQT scores, the changes are concentrated in the lower half of the distribution.

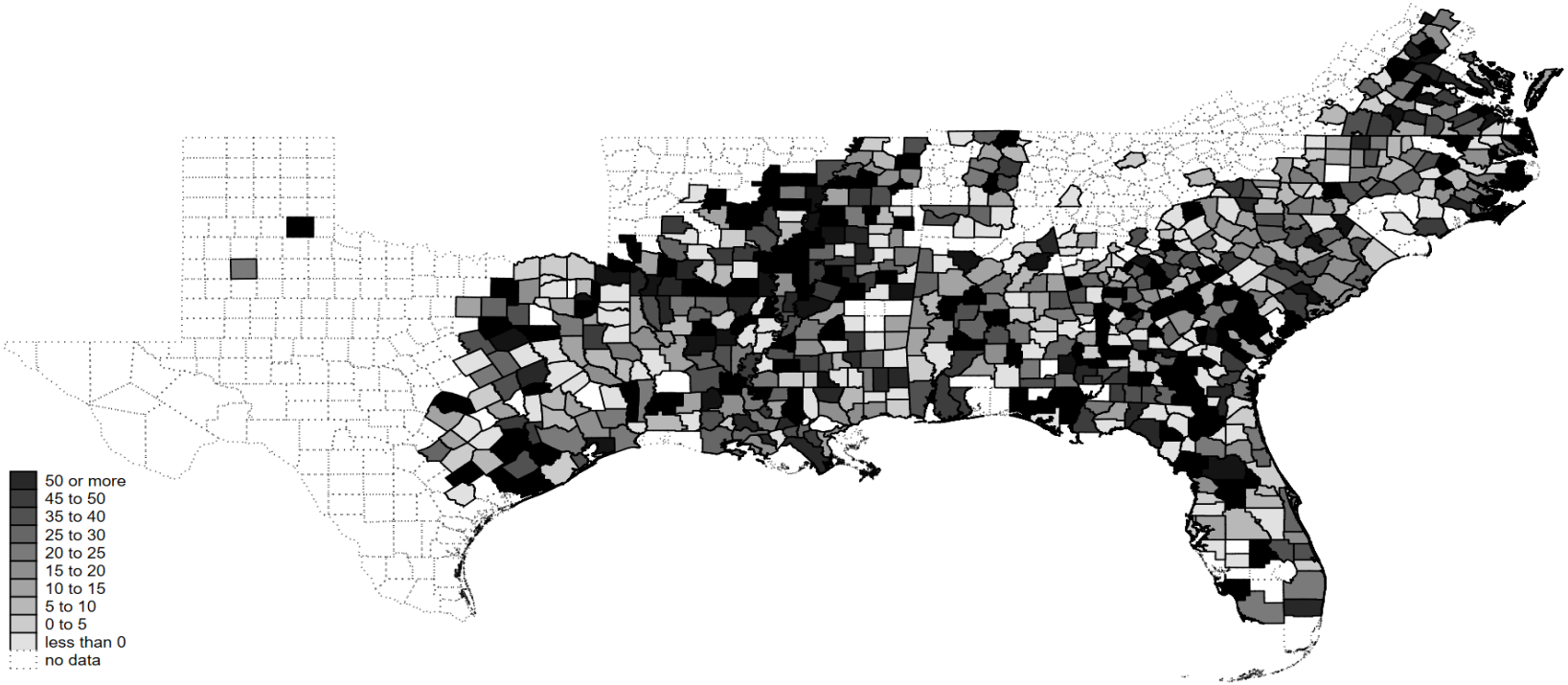
[5]Because educational attainment is a categorical outcome, it is not amenable to kernel density plots as in Figure A9 and A10.

# Figure A1: Age-Specific General Fertility Rate Differences



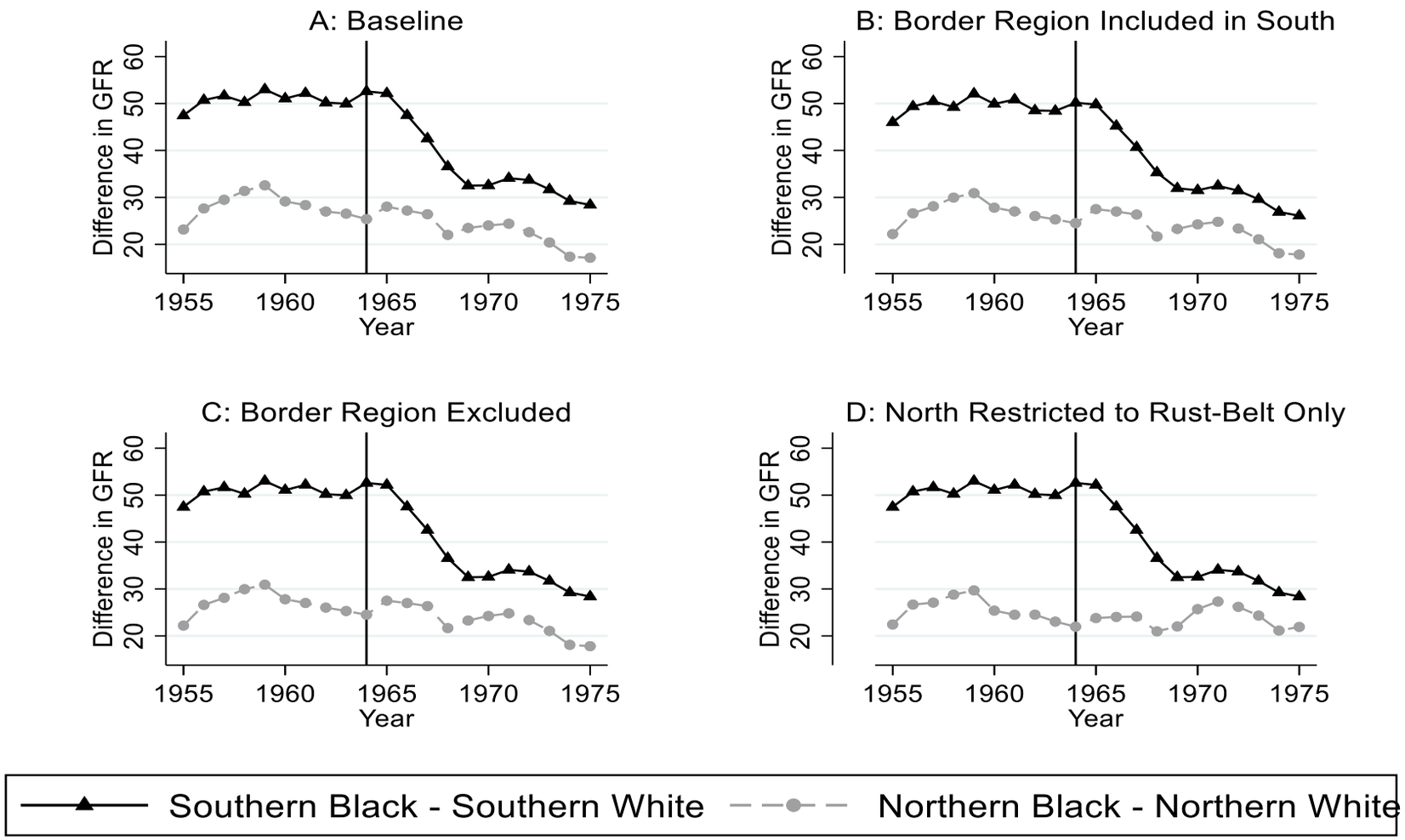

Notes: Figure displays trends in the black-white general fertility rate gap by region and maternal age. Note that the scale of the vertical axes differ by age group. General Fertility Rates are calculated as the ratio of total live births to women in the specified age range to the population of females in that age range, expressed in thousands. The South consists of Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas and Virginia, and the North consists of the balance of the lower 48 states.

Figure A2: County-Level Convergence in Black-White GFR Differential



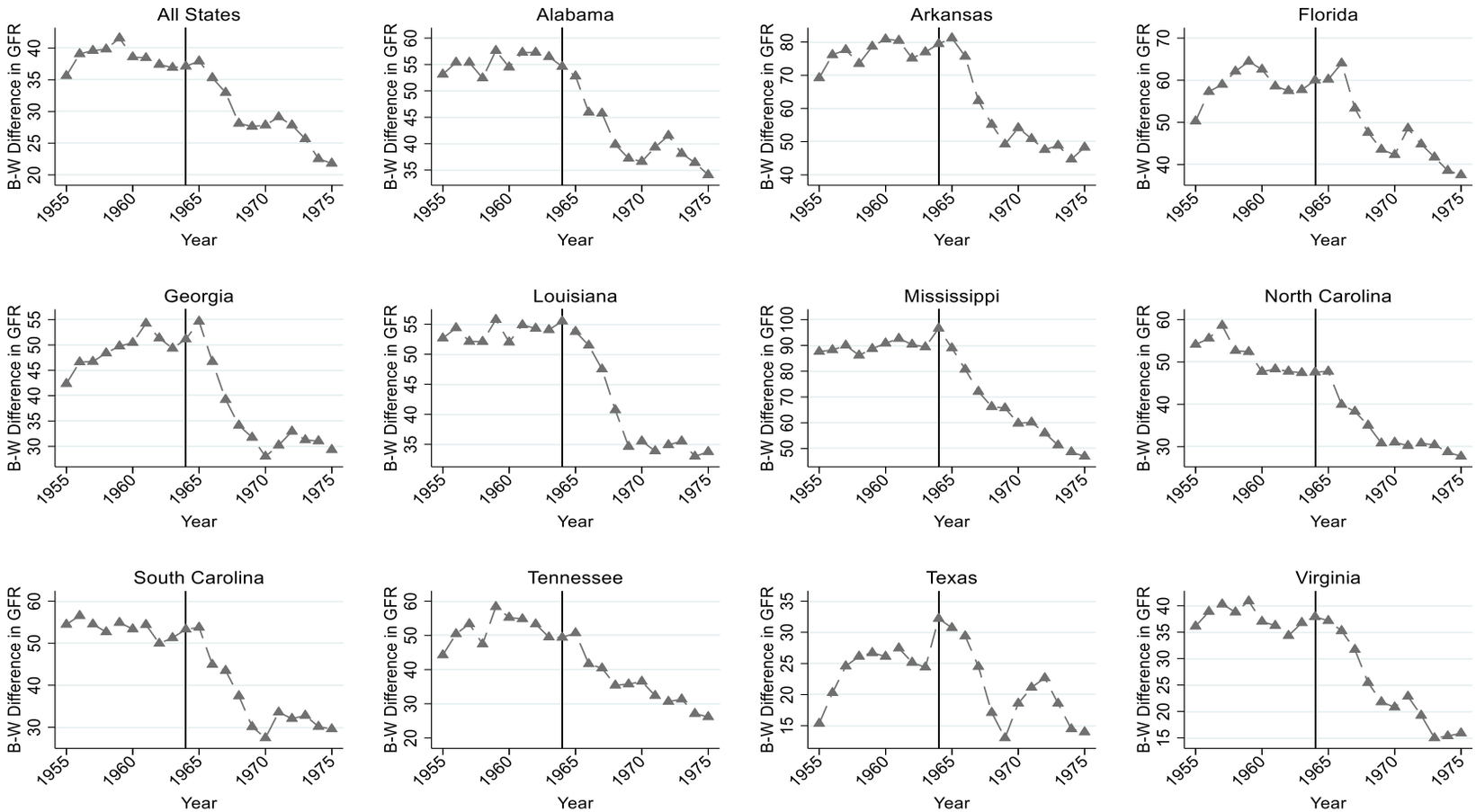

Notes: Figure displays the change in the difference between the general fertility rates of non-whites and whites that occurred in each county between 1964 and 1969. Counties where African Americans constituted less than 99% of non-whites are excluded.

## Figure A3: Alternative Regional Definitions

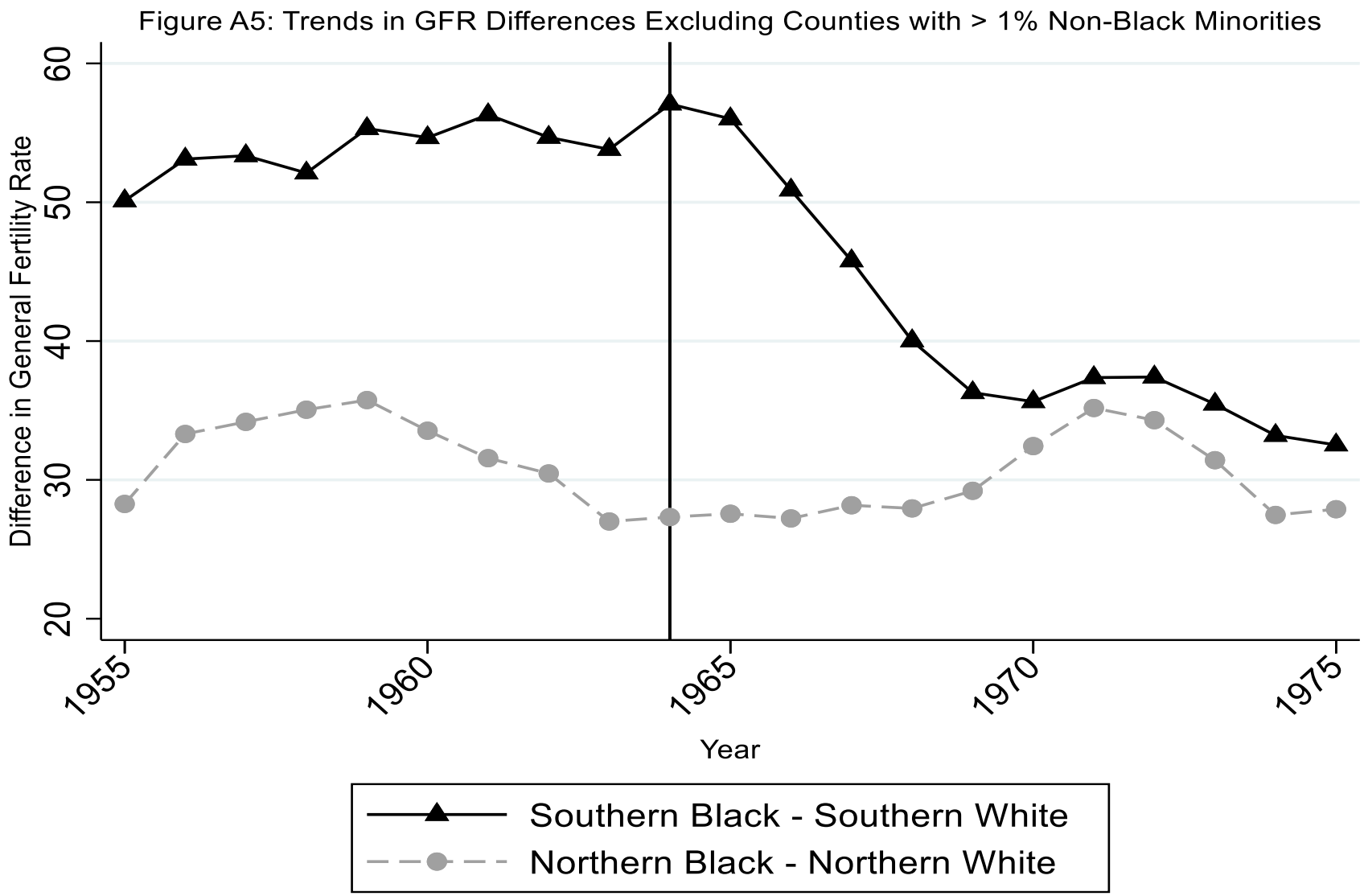



Notes: Panel A reproduces the baseline results from Figure 1B for reference. Panel B includes the five "border states" (Delaware, Kentucky, Maryland, Oklahoma and West Virginia) as part of the South. Panel C excludes these five border states entirely. Panel D defines the North as seven "Rust-Belt" states (Illinois, Indiana, Missouri, New York, Ohio, and Pennsylvania).

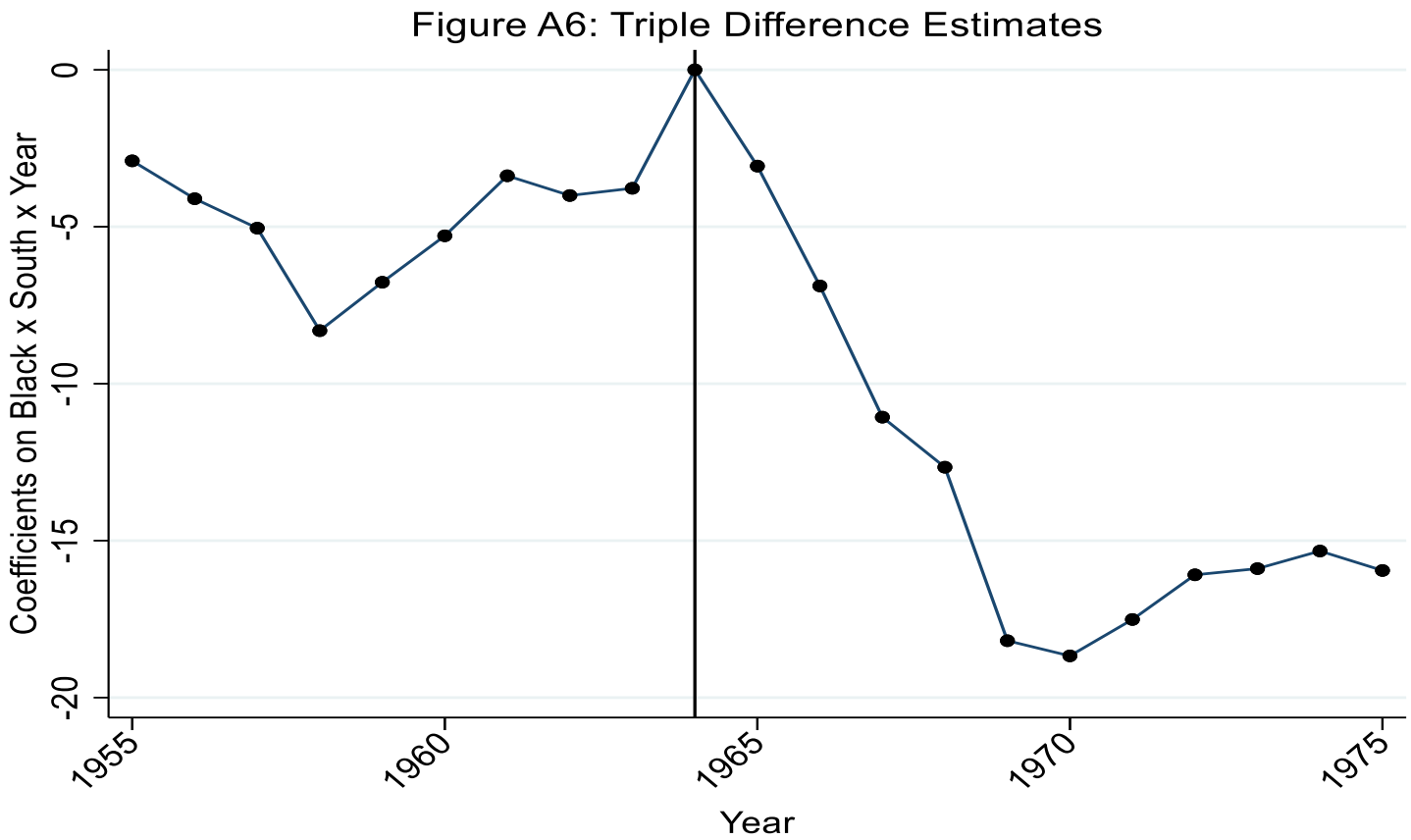
# Figure A4: State Level Results




Notes: Figure displays black-white difference in the General Fertility Rate by year in the specified state. Note that the scale of the vertical axis differs by state.




Notes: This figure replicates Figure 1B of the main paper, but excludes counties where African Americans constituted less than 99% of the non-white population.

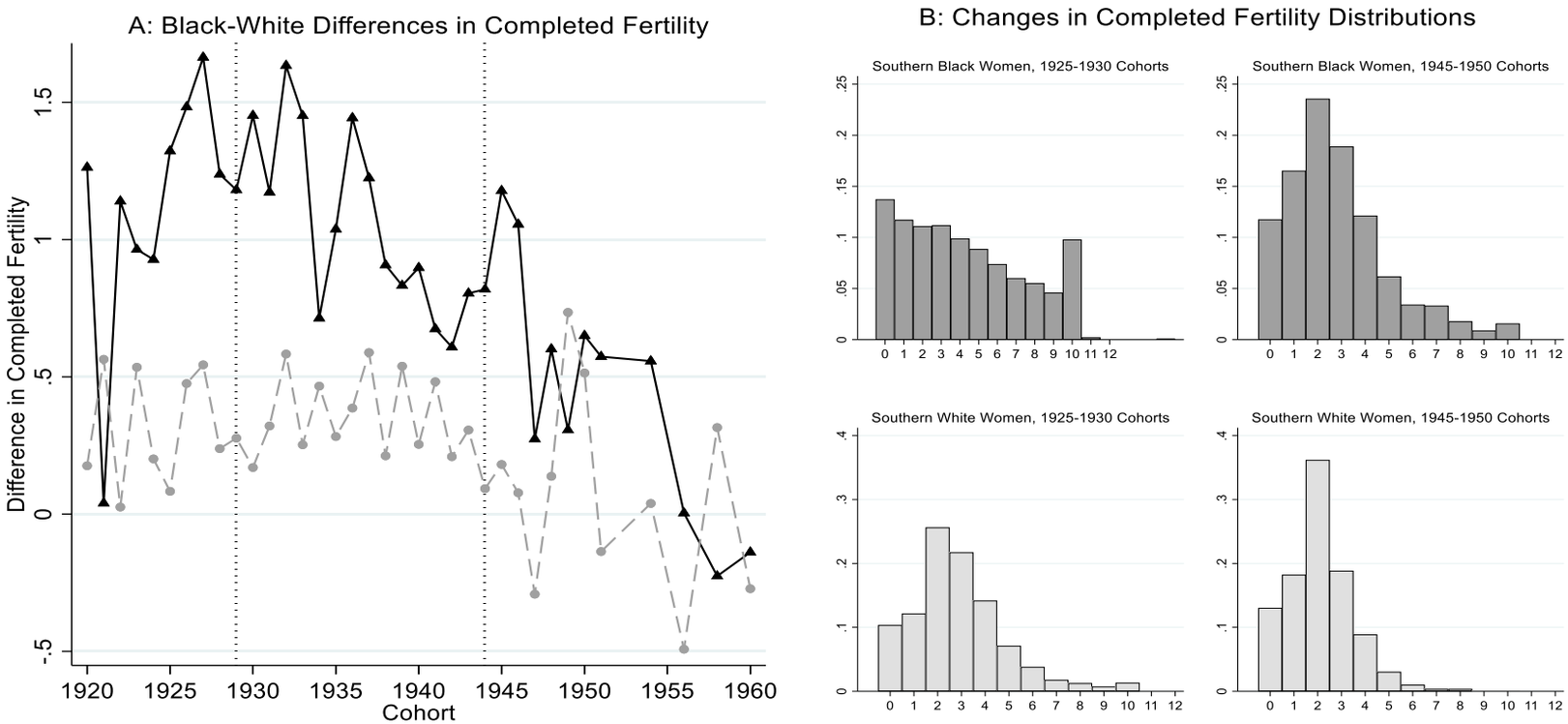



Notes: Figures plot coefficients on the triple-interaction of year dummies with black and South indicators, which estimate the fertility rate of southern blacks relative to the other groups in each year, with 1964 serving as the reference year. See Appendix A for full estimating equation.

# Figure A7: Completed Fertility Triple-Difference Results

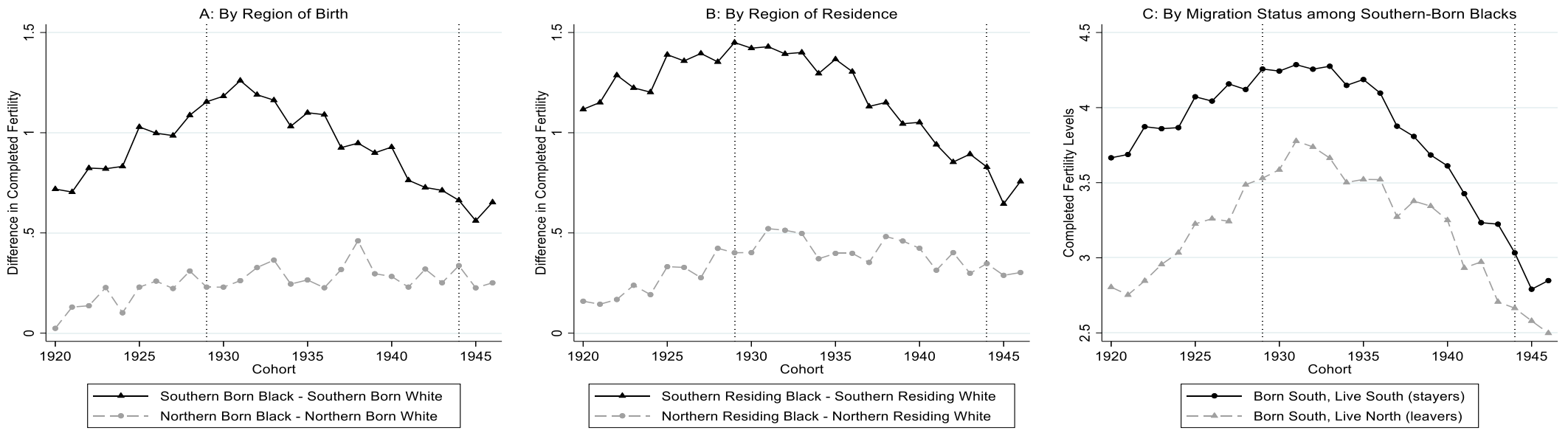

Notes: Figure plots coefficients on the triple-interaction of cohort dummies with black and South indicators, which estimate the average completed fertility of southern blacks relative to the other groups in each cohort, with 1935 serving as the reference year. See Appendix B for full estimating equation. 90% confidence intervals, calculated with standard errors clustered at the state level, are shows in grey.

# Figure A8: CPS Replication of Completed Fertility Trends




Notes: Figure is identical to Figure 3 of the main paper, but uses CPS June Fertility Suppliments rather than Decennial Census data. Specifically, Panel A displays trends in black-white differences in the mean number of children ever born among female CPS respondents ages 44-70, disaggregated by region. Panel B displays histograms of children ever born among women from the indicated race, region and cohorts.

Figure A9: Completed Fertility and Inter-Regional Migration




Notes: Figure displays trends in the black-white difference in the mean number of children ever born or the level completed fertility rate among female Census respondents ages 44-70 within the specified populations. In particular Panel A disaggregates by region using state of birth, Panel B disaggregates by region using state of residence at the time of Census enumeration, and Panel C uses only southern-born black women, and disaggregates by region of residence at the time of Census enumeration.

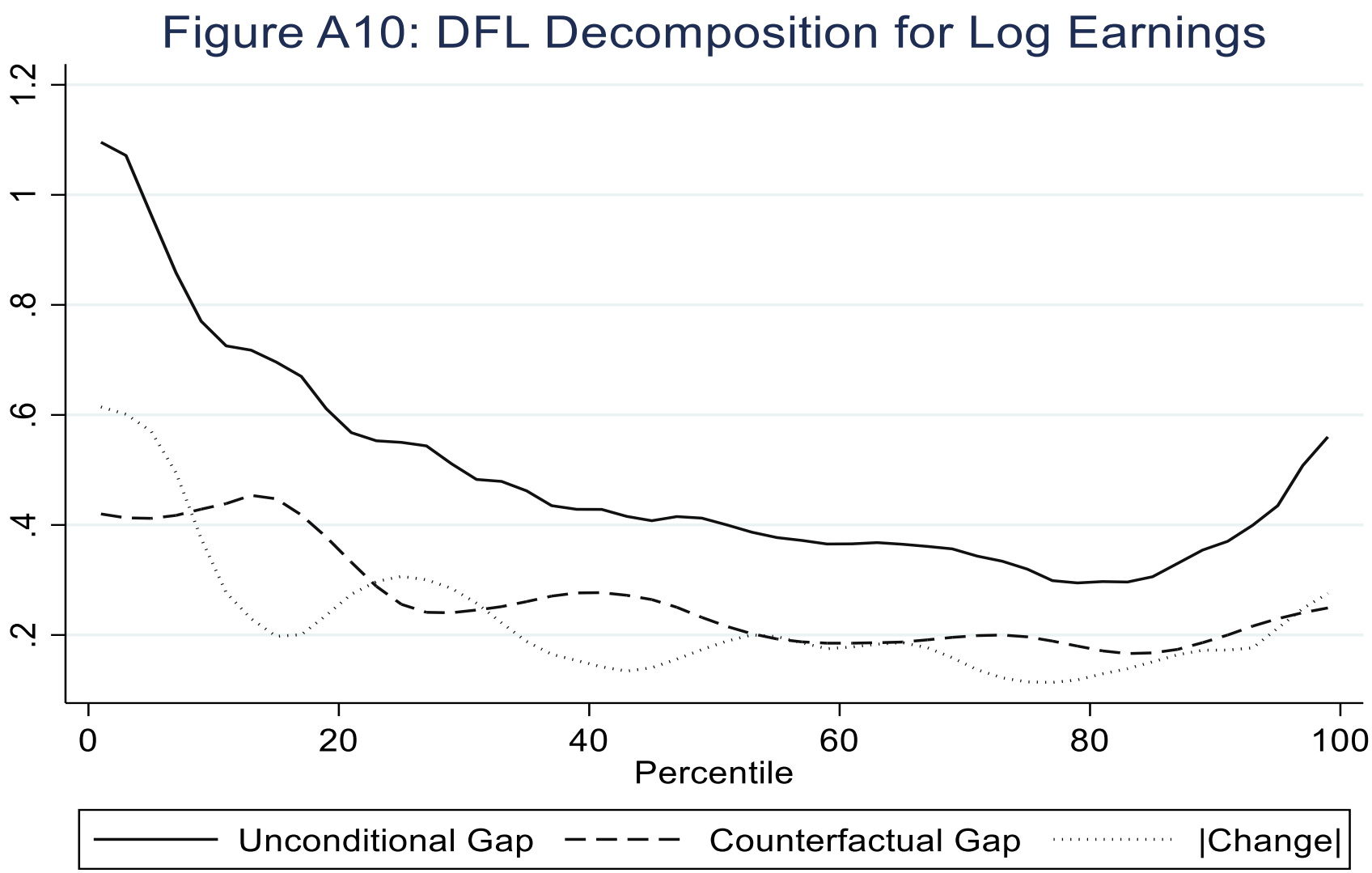
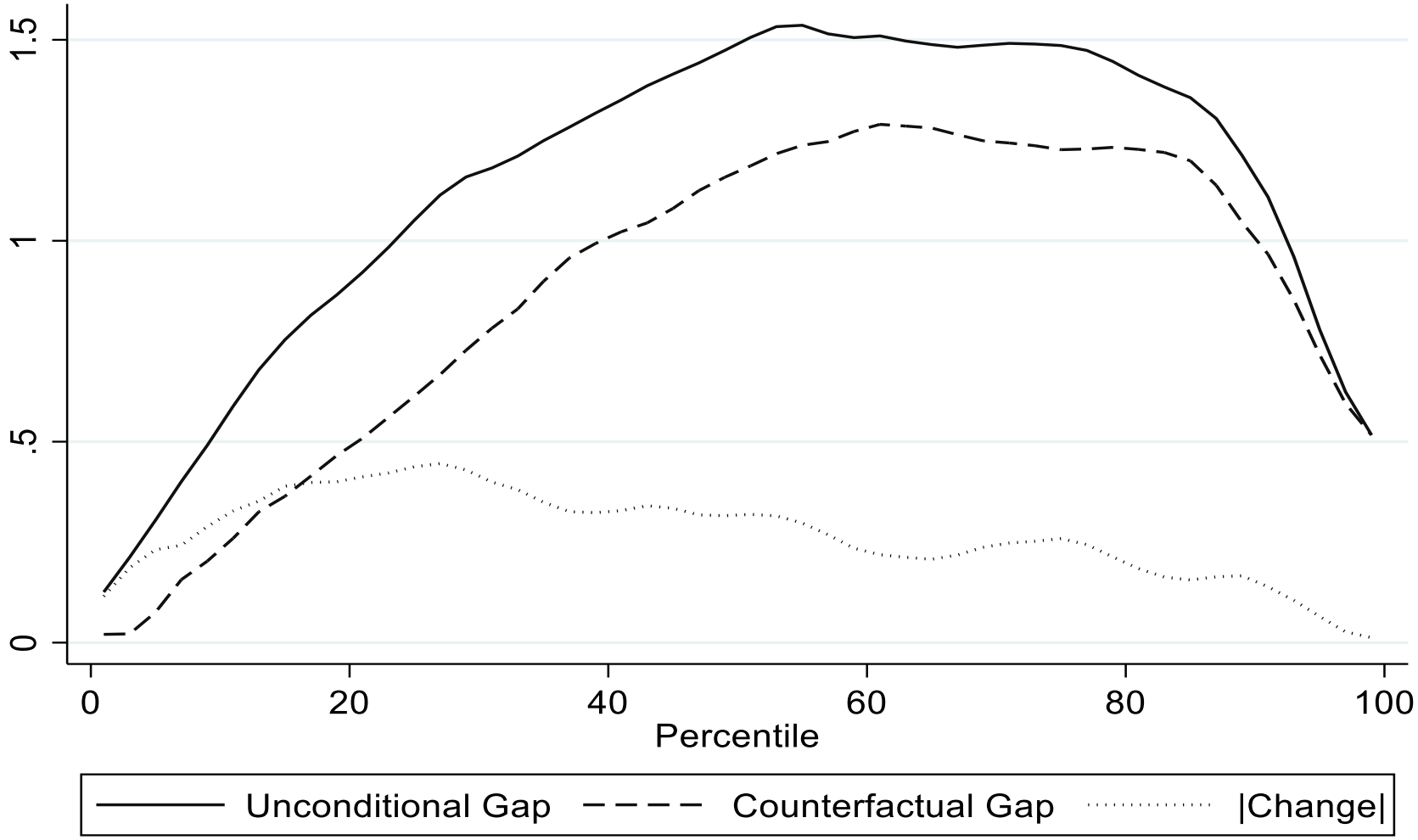


Figure A10: DFL Decomposition for Log Earnings
1.2
1
.8
.6
.4
.2
0
20
40
60
80
100
Percentile
Unconditional Gap
Counterfactual Gap
|Change|

Figure A11: DFL Decomposition for AFQT Scores



## Table A1: GFR Triple-Difference Model

| | GFR |
|---|---|
| Black | 25.4 |
| South | -0.9 |
| Black × South | 27.2 |
| Y1955 | 11.8 |
| Y1956 | 14.3 |
| Y1957 | 16.8 |
| Y1958 | 14.7 |
| Y1959 | 14.9 |
| Y1960 | 13.3 |
| Y1961 | 11.9 |
| Y1962 | 7.4 |
| Y1963 | 3.9 |
| Y1965 | -8.0 |
| Y1966 | -12.9 |
| Y1967 | -16.3 |
| Y1968 | -18.0 |
| Y1969 | -17.3 |
| Y1970 | -16.1 |
| Y1971 | -22.8 |
| Y1972 | -31.1 |
| Y1973 | -35.1 |
| Y1974 | -35.3 |
| Y1975 | -36.8 |
| Black × Y1955 | -2.2 |
| Black × Y1956 | 2.3 |
| Black × Y1957 | 4.1 |
| Black × Y1958 | 6.0 |
| Black × Y1959 | 7.2 |
| Black × Y1960 | 3.8 |
| Black × Y1961 | 3.0 |
| Black × Y1962 | 1.6 |
| Black × Y1963 | 1.1 |
| Black × Y1965 | 2.7 |
| Black × Y1966 | 1.8 |
| Black × Y1967 | 1.0 |
| Black × Y1968 | -0.1 |
| Black × Y1969 | 1.4 |
| Black × Y1970 | 2.5 |
| Black × Y1971 | 3.3 |
| Black × Y1972 | 1.6 |
| Black × Y1973 | -0.6 |
| Black × Y1974 | -3.6 |
| Black × Y1975 | -3.2 |

| | |
|---|---|
| South × Y1955 | 1.1 |
| South × Y1956 | 0.4 |
| South × Y1957 | -2.1 |
| South × Y1958 | -1.8 |
| South × Y1959 | -2.1 |
| South × Y1960 | -2.5 |
| South × Y1961 | -2.9 |
| South × Y1962 | -1.0 |
| South × Y1963 | -1.0 |
| South × Y1965 | -1.7 |
| South × Y1966 | -1.8 |
| South × Y1967 | -0.2 |
| South × Y1968 | 1.5 |
| South × Y1969 | 3.6 |
| South × Y1970 | 3.0 |
| South × Y1971 | 5.8 |
| South × Y1972 | 5.7 |
| South × Y1973 | 5.4 |
| South × Y1974 | 3.5 |
| South × Y1975 | 2.1 |
| Black × South × Y1955 | -2.9 |
| Black × South × Y1956 | -4.1 |
| Black × South × Y1957 | -5.0 |
| Black × South × Y1958 | -8.3 |
| Black × South × Y1959 | -6.8 |
| Black × South × Y1960 | -5.3 |
| Black × South × Y1961 | -3.4 |
| Black × South × Y1962 | -4.0 |
| Black × South × Y1963 | -3.8 |
| Black × South × Y1965 | -3.1 |
| Black × South × Y1966 | -6.9 |
| Black × South × Y1967 | -11.1 |
| Black × South × Y1968 | -15.7 |
| Black × South × Y1969 | -20.8 |
| Black × South × Y1970 | -21.8 |
| Black × South × Y1971 | -21.2 |
| Black × South × Y1972 | -19.8 |
| Black × South × Y1973 | -19.6 |
| Black × South × Y1974 | -18.9 |
| Black × South × Y1975 | -19.9 |
| Constant | 99.0 |
| Observations | 84 |

Notes: Dependent variable is the General Fertility Rate. See Appendix A for full estimating equation.

## Table A2: Completed Fertility Triple-Difference Models

| | Children Ever Born |
|---|---|
| Black | 0.211 |
| | (0.130) |
| South | -0.237*** |
| | (0.064) |
| Black × South | 1.218*** |
| | (0.167) |
| C1920 | -0.494*** |
| | (0.020) |
| C1921 | -0.441*** |
| | (0.018) |
| C1922 | -0.394*** |
| | (0.015) |
| C1923 | -0.323*** |
| | (0.013) |
| C1924 | -0.279*** |
| | (0.019) |
| C1925 | -0.252*** |
| | (0.021) |
| C1926 | -0.183*** |
| | (0.018) |
| C1927 | -0.127*** |
| | (0.012) |
| C1928 | -0.059*** |
| | (0.018) |
| C1929 | -0.040*** |
| | (0.013) |
| C1930 | -0.003 |
| | (0.018) |
| C1932 | 0.050*** |
| | (0.011) |
| C1933 | 0.042*** |
| | (0.014) |
| C1934 | 0.010 |
| | (0.013) |
| C1936 | -0.054*** |
| | (0.014) |
| C1937 | -0.137*** |
| | (0.013) |
| C1938 | -0.188*** |
| | (0.016) |
| C1939 | -0.257*** |
| | (0.013) |
| C1940 | -0.337*** |
| | (0.018) |

| | |
|---|---|
| C1941 | -0.460*** |
| | (0.018) |
| C1942 | -0.540*** |
| | (0.021) |
| C1943 | -0.645*** |
| | (0.018) |
| C1944 | -0.738*** |
| | (0.027) |
| C1945 | -0.811*** |
| | (0.021) |
| C1946 | -0.897*** |
| | (0.021) |
| Black × C1920 | -0.227* |
| | (0.135) |
| Black × C1921 | -0.133 |
| | (0.121) |
| Black × C1922 | -0.127 |
| | (0.101) |
| Black × C1923 | -0.022 |
| | (0.112) |
| Black × C1924 | -0.147 |
| | (0.136) |
| Black × C1925 | -0.041 |
| | (0.136) |
| Black × C1926 | -0.018 |
| | (0.116) |
| Black × C1927 | -0.043 |
| | (0.109) |
| Black × C1928 | 0.069 |
| | (0.111) |
| Black × C1929 | -0.019 |
| | (0.070) |
| Black × C1930 | -0.016 |
| | (0.119) |
| Black × C1931 | 0.067 |
| | (0.090) |
| Black × C1932 | 0.089 |
| | (0.067) |
| Black × C1933 | 0.133 |
| | (0.098) |
| Black × C1934 | -0.004 |
| | (0.093) |
| Black × C1936 | -0.038 |
| | (0.098) |
| Black × C1937 | 0.078 |
| | (0.071) |
| Black × C1938 | 0.174 |

| | |
|---|---|
| | (0.115) |
| Black × C1939 | 0.079 |
| | (0.094) |
| Black × C1940 | 0.017 |
| | (0.099) |
| Black × C1941 | -0.000 |
| | (0.100) |
| Black × C1942 | 0.083 |
| | (0.128) |
| Black × C1943 | 0.029 |
| | (0.113) |
| Black × C1944 | 0.080 |
| | (0.128) |
| Black × C1945 | -0.030 |
| | (0.093) |
| Black × C1946 | 0.021 |
| | (0.129) |
| South × C1920 | 0.330*** |
| | (0.059) |
| South × C1921 | 0.261*** |
| | (0.053) |
| South × C1922 | 0.242*** |
| | (0.048) |
| South × C1923 | 0.197*** |
| | (0.050) |
| South × C1924 | 0.175*** |
| | (0.047) |
| South × C1925 | 0.159*** |
| | (0.042) |
| South × C1926 | 0.122*** |
| | (0.042) |
| South × C1927 | 0.135*** |
| | (0.031) |
| South × C1928 | 0.045 |
| | (0.036) |
| South × C1929 | 0.057* |
| | (0.033) |
| South × C1930 | 0.013 |
| | (0.028) |
| South × C1931 | 0.020 |
| | (0.026) |
| South × C1932 | 0.013 |
| | (0.022) |
| South × C1933 | 0.022 |
| | (0.027) |
| South × C1934 | 0.044* |
| | (0.024) |

| | |
|---|---|
| South × C1936 | 0.045* |
| | (0.024) |
| South × C1937 | 0.045 |
| | (0.032) |
| South × C1938 | 0.079** |
| | (0.031) |
| South × C1939 | 0.102*** |
| | (0.031) |
| South × C1940 | 0.104*** |
| | (0.026) |
| South × C1941 | 0.151*** |
| | (0.041) |
| South × C1942 | 0.154*** |
| | (0.034) |
| South × C1943 | 0.184*** |
| | (0.033) |
| South × C1944 | 0.195*** |
| | (0.035) |
| South × C1945 | 0.223*** |
| | (0.042) |
| South × C1946 | 0.213*** |
| | (0.038) |
| Black × South × C1920 | -0.129 |
| | (0.182) |
| Black × South × C1921 | -0.186 |
| | (0.185) |
| Black × South × C1922 | -0.036 |
| | (0.185) |
| Black × South × C1923 | -0.178 |
| | (0.164) |
| Black × South × C1924 | -0.070 |
| | (0.185) |
| Black × South × C1925 | 0.018 |
| | (0.181) |
| Black × South × C1926 | -0.064 |
| | (0.162) |
| Black × South × C1927 | 0.006 |
| | (0.171) |
| Black × South × C1928 | -0.121 |
| | (0.165) |
| Black × South × C1929 | 0.072 |
| | (0.133) |
| Black × South × C1930 | 0.062 |
| | (0.143) |
| Black × South × C1931 | 0.012 |
| | (0.121) |
| Black × South × C1932 | -0.082 |

| | |
|---|---|
| | (0.097) |
| Black × South × C1933 | -0.109 |
| | (0.134) |
| Black × South × C1934 | -0.089 |
| | (0.122) |
| Black × South × C1936 | -0.044 |
| | (0.141) |
| Black × South × C1937 | -0.297** |
| | (0.124) |
| Black × South × C1938 | -0.444*** |
| | (0.131) |
| Black × South × C1939 | -0.427*** |
| | (0.130) |
| Black × South × C1940 | -0.360** |
| | (0.144) |
| Black × South × C1941 | -0.451*** |
| | (0.150) |
| Black × South × C1942 | -0.650*** |
| | (0.141) |
| Black × South × C1943 | -0.532*** |
| | (0.147) |
| Black × South × C1944 | -0.691*** |
| | (0.161) |
| Black × South × C1945 | -0.778*** |
| | (0.121) |
| Black × South × C1946 | -0.677*** |
| | (0.163) |
| | |
| Constant | 2.996*** |
| | (0.054) |
| Observations | 2,659,501 |
| R-Squared | 0.031 |

Notes: Sample consists of female black and white respondents to the 1960 and 1970 Census who were ages 44-70 at the time of enumeration. Inter-regional migrants are excluded. Dependent variable is the total number of children ever born. See Appendix B for full estimating equation. Standard errors, clustered by state, are reported in parentheses. *, ** and *** denote statistical significance at the 10%, 5% and 1% levels, respectively.

**Table A3: Census Share of Women with Child under One with IMR Adjustments**

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| | Infant Mortality Rates | | | Adjusted Census Share of Women with Child <1 | | |
| | 1960 | 1970 | \|Change\| | 1960 | 1970 | \|Change\| |
| Southern Black | 47.2 | 34.1 | 13.0 | 132 | 89 | 43 |
| Southern White | 23.8 | 18.1 | 5.7 | 104 | 76 | 28 |
| Northern Black | 40.4 | 29.8 | 10.6 | 118 | 84 | 33 |
| Northern White | 22.1 | 16.9 | 5.2 | 109 | 77 | 32 |

Notes: Columns 1-3 report infant mortality rates in the specified population and year, measured as the ratio of deaths occurring before age one to the total number of live births, multiplied by 1,000. Columns 4-6 use these infant mortality rates to adjust the Census-based GFR estimates from Table 1 of the main by adding the estimated number of infant deaths to the estimated number of total births.

## Table A4: Heterogeneous Fertility Decline and Convergence

| | Full Sample | 8 or Fewer Years of Maternal Education | 9-12 Years of Maternal Education | 13 or More Years of Maternal Education | 1 Own-Child in Household | 2 Own-Children in Household | 3 Own-Children in Household | 4+ Own-Children in Household | Non-Farm Household | Farm-Household | Tenant Farm Household |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Panel A: Declines among Southern Blacks | | | | | | | | | | |
| Y1970 | -38.327*** | -53.447*** | -36.022*** | -25.725*** | 27.291*** | -24.717** | -67.426*** | -147.189*** | -37.924*** | -46.310*** | -54.501*** |
| | (2.148) | (3.440) | (3.055) | (7.940) | (7.106) | (8.200) | (8.135) | (4.359) | (2.155) | (10.766) | (14.203) |
| Observations | 145,398 | 64,141 | 71,550 | 9,707 | 18,841 | 15,877 | 12,959 | 31,461 | 126,928 | 18,470 | 13,121 |
| | Panel B: Convergence between Southern Blacks and Southern Whites | | | | | | | | | | |
| Black x Y1970 | -13.150*** | -22.342*** | -8.821** | 0.437 | 22.276** | -10.597 | -12.569 | -50.242*** | -10.331*** | -23.876* | -38.850** |
| | (1.323) | (2.961) | (2.910) | (8.591) | (7.856) | (8.826) | (8.376) | (4.411) | (0.981) | (11.019) | (12.828) |
| Observations | 580,982 | 168,749 | 344,760 | 67,473 | 100,362 | 108,263 | 67,699 | 74,905 | 517,067 | 63,915 | 27,749 |
| | Panel C: Convergence between Southern Blacks and all other Race-by-Region Groups | | | | | | | | | | |
| Y1970 x Black x South | -14.693*** | -19.131*** | -12.382** | -1.486 | 6.281 | 6.570 | -2.797 | -31.881* | -11.068*** | -68.731*** | -124.636*** |
| | (3.913) | (5.862) | (4.966) | (11.199) | (11.409) | (11.640) | (3.277) | (16.835) | (3.793) | (22.738) | (27.543) |
| Observations | 2,517,043 | 478,236 | 1,658,253 | 380,554 | 404,501 | 498,290 | 2,382,196 | 134,847 | 2,327,891 | 189,152 | 65,833 |

Notes: Each table entry is from a separate regression that uses an indicator of having an own-child under age one currently in the household (multiplied by 1,000) as the dependent variable, and either a 1970 indicator (Panel A), the interaction of a Black indicator and a 1970 indicator (Panel B), or the three-way interaction of Black, South, and 1970 indicators (Panel C) as the independent variable of interest. Models in Panel A are estimated with the sample of southern Black women only, models in Panel B are estimated with the sample of southern women from both races, and models in Panel C are estimated with the sample of women from both races and regions. In all cases, the sample is restricted to females ages 14-44 from the 1960 and 1970 Decennial Censuses. In Panels B and C all relevant main effects and two-way interactions of Black, South and 1970 indicators are included as well. The South consists of Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas and Virginia, the North consists of the balance of the lower 48 states, and individuals who were born in one region but resided in the other at the time of survey are excluded. Individual level sampling weights are applied. Standard errors are clustered by state of residence and reported in parentheses. *, ** and *** denote statistical significance at the 10%, 5% and 1% levels, respectively.

**Table A5: Changes between 1960 and 1970 in Mother and Family Characteristics by Recent Birth Status, Race and Region**

| | *(1)* Less than 8 Years of Education | *(2)* Four or More Own-Children | *(3)* Tenant Farm Household |
|---|---|---|---|
| Y1970 x Black x South x Own Child <1 | -0.032** | -0.032* | -0.027*** |
| | (0.014) | (0.018) | (0.006) |
| Observations | 2,517,043 | 2,517,043 | 2,517,043 |

Notes: Each entry comes from a separate regression of the characteristic indicated in the row onto the four way interaction of indicators for having an own-child under age one currently in the household, southern residence, being observed in 1970, and being Black, as well as all main effects, two way interactions, and three way interactions of these indicators. Individual level sampling weights are applied. Standard errors clustered by state of residence are reported in parentheses. ** and *** denote statistical significance at the 10%, 5% and 1% levels, respectively.