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ABSTRACT

Torn Apart? The Impact of Manufacturing Employment Decline on Black and White Americans*

This paper examines the impact of manufacturing employment decline on the socio-economic outcomes within and between black and white Americans from 1960 to 2010. Exploiting variation across cities and over time, the analysis shows that manufacturing decline negatively impacted blacks (men, women, and children) in terms of their wages, employment, marriage rates, house values, poverty rates, death rates, single parenthood, teen motherhood, child poverty, and child mortality. In addition, the decline in manufacturing increased inequality within the black community in terms of overall wages and the gaps between education groups in wages, employment, and marriage rates. Many of the same patterns are found for whites, but to a lesser degree – leading to larger gaps between whites and blacks in wages, marriage patterns, poverty, single-parenthood, and death rates. The results are robust to the inclusion or exclusion of several control variables, and the use of a "shift-share" instrument for the local manufacturing employment share. Overall, the decline in manufacturing is reducing socio-economic conditions in general while increasing inequality within and between racial groups – which is consistent with a stronger general equilibrium effect of the loss of highly-paid, lower-skilled jobs on the less-educated segments of the population.

JEL Classification: J10

Keywords: racial gaps, manufacturing decline

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I. Introduction

This paper examines the impact of manufacturing employment decline on the socio-economic outcomes within and between black and white Americans from 1960 to 2010. Historically, the manufacturing sector provided high-paying jobs to relatively less educated workers. The steady decline in the proportion of workers employed in this sector over the last five decades, therefore, represents a dramatic deterioration in work opportunities for individuals on the lower portion of the education distribution. Furthermore, due to potential general equilibrium effects, the disappearance of high paying manufacturing jobs could have ripple effects on the wages and employment prospects of similar workers in all sectors of the economy.

The goal of this paper is to examine the impact of manufacturing employment decline on a broad array of labor market and socio-economic outcomes for men, women, and children including: wages, employment rates, marriage rates, house values, poverty rates, death rates, single parenthood, teen motherhood, child poverty, and child mortality. Wilson (1996) has emphasized that declining job prospects, beyond their direct effects on income and employment, can have a wider impact on other measures of social organization like marriage, single parenthood, sexual norms, crime, and health. In particular, the lack of employment opportunities for men, who were disproportionately in the manufacturing sector relative to women, may significantly impact women by reducing their gains from marriage while increasing their incentives to work, be independent, and have children out of wedlock. The decline in marriageable men may also increase the bargaining power and incentives for certain men to avoid steady work and engage in casual sex and out-of-wedlock birth.

In this manner, the decline in manufacturing is likely to have a direct impact on men, as well as generating indirect effects on women and children through the marriage market, shifts in the local demand for labor – including wage spillovers onto other sectors, labor supply responses of women, changes in the tax base, the provision of public goods, and intergenerational impacts on children through changes in the quality of the family and childhood environment.

All of these mechanisms should be stronger for less-educated individuals, since they benefited the most from a robust manufacturing sector. Therefore, the

analysis will examine whether manufacturing affects overall outcomes within the white and black populations, and if so, whether these effects are more pronounced for less-skilled individuals within both groups. That is, the disappearance of manufacturing work may not have only lowered socio-economic outcomes within each racial group, but increased inequality within each group as well.

Given that the black population has historically been much less educated than the whites, the paper will focus particular attention on whether manufacturing employment decline has disproportionately affected the black community, and if so, whether it can help understand the trends in racial gaps that have been getting larger (or ceased converging during and after the 1970's) across a broad array of social outcomes like wages, employment, marriage rates, poverty, mortality, and single-parenthood. The lack of improvement of black outcomes during this time is especially puzzling given the legislative successes of the Civil Rights Movement in the 1960's and the steady improvement of education outcomes of blacks relative to whites in the aftermath. A disproportionate effect of manufacturing job loss on less educated individuals can potentially explain why socio-economic outcomes are deteriorating over time for both whites and blacks, while increasing inequality within and between both racial groups as well.

The empirical strategy exploits geographic variation over time (1960-2010) and space (cities or states) in the United States in manufacturing employment along with a broad array of socio-economic outcomes for black and white men, women, and children. A causal interpretation of the results is supported by showing that the results are robust to including or excluding other control variables that vary at the locality-year level, using cities or states as the geographic unit, including the share of workers in services or unions in the specification, using different time periods, and using a "shift-share" instrument for the local manufacturing employment share. Also, by examining numerous outcomes and showing a consistent pattern across many of them, the overall findings and conclusions are unlikely to be due to potential measurement issues specific to each one.

The analysis reveals that the decline in manufacturing had a significant and wide-ranging adverse impact on blacks. For black men, these outcomes include: wages (mean, median, 90^{th} percentile, and 10^{th} percentile), employment, marriage rates, poverty, receiving welfare payments, house values, death before the age of 65, overall wage inequality, and larger gaps between education groups in wages,

marriage, and employment. For black women, adverse effects are found for: marriage rates, poverty, single motherhood, teen motherhood, median wages, receiving welfare payments, house values, death before the age of 65, becoming a widow before the age of 45, and larger gaps between education groups in marriage.

For white men, manufacturing decline is found to have negative effects on: wages (mean, median, 90^{th} percentile, and 10^{th} percentile), employment (mainly for those without a college degree), poverty, receiving welfare payments, house values, death before the age of 65, overall wage inequality, and larger gaps between education groups in wages and marriage. For white women, significant impacts are found for: poverty, single motherhood, mean wages, house values, and larger gaps between education groups in marriage.

Regarding black and white children, the decline in manufacturing increased poverty, the percent raised in single-parent households, and mortality rates before the age of ten. These effects are likely to be indirect – caused by the impact of manufacturing on the outcomes of parents and the subsequent changes in childhood, neighborhood, and family conditions.

However, the results reveal a general pattern across outcomes whereby the effects are larger for blacks relative to whites, thus increasing the racial gaps along several dimensions. For men, these outcomes include mean wages, employment, marriage, poverty, welfare, mortality before age 65, home ownership, and house values. For women, stronger effects on blacks are found for: marriage, poverty, single motherhood, welfare, wages, home ownership, mortality before age 65, and house values. For children, the decline in manufacturing is increasing racial gaps in poverty, the chances of growing up without both parents, and mortality before the age of ten. Most of these findings are quite robust across times periods and using OLS or IV. Overall, a clear general pattern emerges that manufacturing decline has worsened many outcomes within both communities, increased inequality within each group, and widened the racial gaps in socio-economic conditions.

The estimates are not only statistically significant for many socio-economic outcomes, but are often quite large in magnitude. Using the OLS coefficients which tend to be a bit smaller in magnitude than the IV estimates, the decline in the manufacturing employment share since 1960 is predicted to lower outcomes for black men by 13.3 percent in wages, 5.6 percentage points in their employment rate, and 4.6 percentage points in their marriage rate. For black women, the predicted effects are a

reduction in the marriage rate by 5.1 percentage points, increased poverty by 8.0 percentage points, and an increase the rate of single motherhood by 2.9 percentage points. Black children are predicted to have an increase in the poverty rate of 9 percentage points and an increasing chance of living with only one parent of 4.0 percentage points. The manufacturing trend is also predicted to account for almost a third of the increase in wage inequality among black men.

Regarding the racial gaps, the downward trend in manufacturing is predicted to increase them by: 12 percent in male wages, 3.4 percentage points in male employment, 4.5 percentage points in male marriage rates, 5.0 percentage points in female marriage rates, 8.0 percentage points in female poverty rates, 5.4 percentage points in child poverty, and 3.1 percentage points in the rate of children living with only one parent. Some of these magnitudes are quite large compared to the trends in the racial gaps – most notably the outcomes regarding wages, employment, and poverty.

There is a large literature on the overall trends in employment and wage inequality.[1] Juhn (1992) links the two trends together, while others argue that the decline in employment rates for prime age men is influenced by social welfare and disability programs (Parsons (1980)), crime, and drug epidemics (Fryer et. al. (2013)).

Considerable attention has also been given to the employment outcomes for black men (Juhn (1992), Western and Petit (2005)) and to the racial gaps in wages.[2] In particular, there are several studies on how much the racial wage gap reflects differences in human capital and educational achievements versus discrimination (Carneiro et. al. (2006), Charles and Guryan (2008), Fryer (2011), Lang and Manove (2011)), and how much the trend is influenced by the increasing importance of social skills (Borghans et. al. (2014)) and the trends in the incarceration and employment rates of black men.[3] Manufacturing decline was linked to lower employment and wages for black men during the 1970's and 1980's by Bound and Freeman (1992) and Bound and Holzer (1993). These studies decompose wages and employment during

[1] See Juhn, Murphy, and Pierce (1993), Juhn (1992), Autor, Katz, and Kearney (2008), etc.

[2] See Smith and Welch (1977, 1989), Brown (1984), Bound and Freeman (1992), Jaynes (1990), Juhn, Murphy, and Pierce (1991), Margo (1995), Neal and Johnson (1996), Altonji and Blank (1999), Chandra (2000), Donohue and Heckman (1991), Western and Petit (2005), Black et. al. (2006), Carneiro, Heckman, and Masterov (2006), and Bayer and Charles (2018).

[3] The estimation of racial gaps over time, and whether they are converging, is significantly influenced by the selection of workers who are dropped out of the labor force or are incarcerated over time. See Chandra (2000), Juhn (2003), Western and Petit (2005), and Bayer and Charles (2018).

this period into contributions by industrial shifts caused by supply and demand factors. Overall, there are no studies on the wage inequality trends within blacks (or inequality in black marriage and employment outcomes), and there is no causal evidence on whether the wages, employment, or other socio-economic outcomes for whites and blacks – and the racial gaps between the two groups – have been influenced by the disappearance of manufacturing work over the last five decades.

In the sociology literature, William Julius Wilson (1996) has long argued that the decline of manufacturing in inner cities has led not only to joblessness for black men, but also to family dissolution, poverty, and social disorganization. Recently, Murray (2012) argued that a similar process occurred within the white community. In my previous work (Gould (2018)), the trend in manufacturing is found to explain a large portion of the "residual wage" inequality trend for white men, as well as the decline in employment for non-college white men. In contrast, this paper examines many more socio-economic outcomes (mean wages, marriage, poverty, house prices, single parenthood, mortality, etc.), looks at women and children in addition to men, and focuses on blacks and the racial gaps. Given that less-educated workers benefited the most from manufacturing jobs, and that blacks are much less educated than whites, a particular emphasis is given to examining whether the deindustrialization process increased inequality between education groups within each racial group, and whether this process disproportionately affected the black community relative to whites for a broad array of socio-economic measures.

Recent work has shown that increased import competition with China led the manufacturing sector to shrink since 1990, and consequently lowered the employment rates and wages of workers in other sectors (Autor, Dorn, and Hanson (2013, 2015), and Balsvik, Jensen, and Salvanes (2015)). Charles, Hurst, and Notowidigdo (2018) also show that manufacturing declines since 2000 are associated with higher unemployment and lower employment. Autor, Dorn, and Hanson (2018) show that increased trade competition with China since 1990 led to a decline in marriage rates for young adults, rising teenage and unwed motherhood, and an increase in the share of children living in poverty and single-headed households.

This paper makes three main contributions to this recent literature. First, this paper analyzes the deindustrialization process over the last five decades, and is not limited to the post-1990 period when trade with China began. Most of the trends in the socio-economic outcomes of blacks and whites, along with the trends in their

racial gaps, preceded the era of Chinese trade by decades. Second, in contrast to existing studies, this paper examines outcomes for blacks separately from whites, and also whether the decline in manufacturing jobs affected inequality within and between each racial group. Third, this paper analyzes a broad array of labor market and socio-economic outcomes for men, women, and children. Overall, this paper is the first to present evidence for a common cause behind the deterioration for over five decades of many of these outcomes within each racial group, higher inequality in outcomes within each race, and the growing disparities between racial groups over this period of time.

The paper is organized as follows. The next section presents the data and discusses the major labor market trends in the socio-economic outcomes of blacks and whites. Section III describes the empirical model and Section IV presents the results for the role of the manufacturing employment share on the outcomes of black men, women, and children. Section V performs a similar analysis for whites, while Section VI looks at the racial gaps in outcomes explicitly. Section VII examines mortality for blacks and whites and Section VIII estimates the effect of manufacturing decline on the educational decisions of black and white youths regarding the finishing of high school and their enrollment in college. Section IX concludes.

II. The Data

The analysis uses United States Census data from 1960, 1970, 1980, 1990, and 2000. In addition, the American Community Surveys (ACS) for 2009, 2010, and 2011 are combined and referred to as the "2010" period.[4] For blacks and whites, the male sample is restricted to natives between the ages of 25-55. The female samples include natives between the ages of 25 and 45 in order to focus on the period of life where marriage and fertility are the most relevant.[5] The wage variable is defined as the real annual wage income for the sample of native full-year workers that worked at least 35 hours per week, are not in group quarters, not in school, and not self-

[4] The data was downloaded from IPUMS (Ruggles et. al., 2010). The downloaded data sets include the ACS for 2009-2011, the 5 percent samples for 1990 and 2000, the 5 percent state file for 1980, the 1 percent fm1 and fm2 files for 1970, and the 5 percent file for 1960.

[5] Outcomes regarding fertility are inferred by survey questions regarding the number of children in the household. Women above the age of 45 may have children that already moved out of the house, and this probability is likely increasing for Census years more distant in the past.

employed. The main measure of wage inequality is the ratio between the 90th and 10th percentiles of the log wage distribution.

Figure 1 displays the familiar decline in the manufacturing employment share since 1960.[6] For both black and white men, the share of individuals in the manufacturing sector in 2010 is less than half of what it was in 1960 – going from 0.28 to 0.14 for white men and 0.21 to 0.10 for black men. The loss of these jobs represented a significant worsening of economic opportunities – Figure 2 shows that black workers in manufacturing in 1970 earned the third highest average wage of all sectors (out of thirteen). For white workers, manufacturing ranked as the fifth best paying sector in 1970. However, these rankings do not take into consideration that workers in the manufacturing sector are less educated on average. Adjusting for age and education in a wage regression, manufacturing is now the third best paying sector for black and white men in 1970 (Appendix Figures 1 and 2). Appendix Figures 3 and 4 demonstrate that workers in the manufacturing sector tended to be in the lower-middle part of the economic distribution for black and white men in 1970. So, the loss of manufacturing work since 1960 represents a steady decline in relatively high-paying jobs for less-educated workers.

Figure 4 displays the trends in wages for black and white men over time, and is consistent with the literature that has highlighted the convergence of the racial wage gap during the 1960's and 1970's, followed by a 30-year period of stagnation since 1980. Over the same period, Figure 5 shows that employment rates for black men declined steadily, especially after 1980 (81 percent to 72 percent). A similar trend, albeit less steep, occurred for white men (93 percent to 86 percent). For both blacks and whites, marriage rates dropped dramatically since the early 1970's (Figure 6 for men and Appendix Figure 5 for women). Quite noticeably, the racial gap in marriage for both men and women widened steadily over this time – a 3.6 percentage point racial gap in men who never married in 1960 rose to 17.8 percentage points. Figure 7 shows that the racial gaps in wages, marriage, and employment rates either ceased converging or got wider since 1960. This lack of progress is surprising given the dramatic convergence in education levels between blacks and whites during this time period, which can be seen by the descriptive statistics for all the main variables used

[6] The manufacturing employment share is computed as the percent of men working at least 20 hours a week in a manufacturing industry according to the 1990 industrial codes among the sample of native men between the ages of 25 and 55 who are not students and not in group quarters. The results throughout the analysis are robust to using alternative sample and work hours restrictions.

in the empirical analysis in Appendix Tables 1-3. For example, there was a 28 percentage point racial difference in men who dropped out of high school in 1960, and this was reduced to 5 percentage points in 2010. A roughly 2.5 years of schooling gap between black and white men in 1960 was reduced to about half of a year in 2010. This progress in educational attainment for blacks relative to whites stands in stark contrast to the trends in the racial gaps in many other socio-economic outcomes.

The last five decades also witnessed a dramatic increase in wage inequality, and Figure 5 shows that this was not unique to the majority, white population. In fact, male wage inequality increased faster for black men since 1970 than it did for whites, but much of this difference is explained by changes in the education rates over time (Appendix Figure 6). Although the sharp increase in inequality has received much attention, little attention has been given to the steep inequality trend within the black community.

In contrast, dramatic changes in the rate of single-parenthood and the percent of children growing up without both parents have been widely noted. Figures 9 and 10 display the upward trends in both outcomes for black and white females and children. However, these figures also show that the racial gap in each measure is increasing over time. In 1960, the racial gap in single motherhood was 13.2 percentage points, compared to 27.1 percentage points in 2010. The racial gap in the percent of children living without both parents was 25.3 in 1960, which increased to 38.4. It is worth noting that the racial gaps in both measures are increasing despite upward trends in both for white women and children.

Overall, the data reveal trends in several socio-economic measures that point to less-favorable outcomes over time, while inequality between and within (Appendix Table 3) racial gaps are increasing as well. Examining whether there is a causal link between these trends and the decline of well-paying jobs for less-educated workers in manufacturing is the goal of the rest of the paper. To do this, the empirical strategy will exploit variation across cities and over time. A preliminary analysis in Figure 11 shows that cities which experienced larger reductions in the manufacturing employment share had the lowest growth in mean wages for black men. A similar effect for white men is seen in Figure 12, but the slope is much lower. This finding suggests that the decline in manufacturing had a stronger negative impact on blacks relative to whites, despite affecting both significantly. Appendix Figures 7 to 18 demonstrate that this differential pattern is also found for marriage rates (men and

women), male employment rates, poverty rates, and the percent of children raised without both parents. These results come from a simple differences-in-differences model with no other controls, but suggest that the decline in manufacturing had a broad negative impact on both whites and blacks, but a stronger adverse effect on blacks. The rest of the paper examines the robustness and causal nature of these findings.

III. Empirical Strategy

The empirical strategy to identify the causal effect of the manufacturing employment share on the socio-economic outcomes of blacks or whites is to exploit variation across cities and over time with the following equation:

$$y_{it} = \alpha MFG_{it} + \beta X_{it} + \mu_i + \delta_t + \varepsilon_{it} \quad (1)$$

where y_{it} is a socio-economic measure for blacks or whites in city i in year t, MFG_{it} represents the percent of full-time male workers in the manufacturing sector in city i in year t, X_{it} is a vector of time-varying city-level characteristics (the education and age composition), μ_i is a fixed-effect unique to city i, and δ_t is an aggregate fixed-effect for each year t. Unobserved components of a city's socio-economic outcome are captured by the error term, ε_{it}. Cities are defined by metropolitan areas, and the sample sizes and means of the variables used in the analysis are displayed for each sample year in Appendix Tables 1-3.

The empirical strategy in equation (1) exploits variation across localities and over time, and relies on the idea that the effects of local labor market shocks are not dissipated by migration flows across areas. The empirical evidence shows that local labor market shocks have long-term effects that are not diffused over time and space.[7] This finding is particularly pronounced for less-educated individuals, who are the ones most likely to be adversely affected by an economic shock (Bound and Holzer (2000)). To the extent that migration decisions mitigate local labor market shocks,

[7] See Blanchard and Katz (1992), Autor, Dorn, and Hanson (2013), and Amior and Manning (2018).

this process will bias the results against finding an adverse effect of a shock to the local labor market supply or demand.

The main identifying assumption in equation (1) is that the employment share of workers in the manufacturing sector in city *i* and year *t* (MFG_{it}) is not correlated with unobserved determinants of the local level of the socio-economic outcome in year *t*. Support for this assumption is provided by showing that the results are robust to the inclusion or exclusion of various observed determinants of local economic conditions, as well as using an instrument for the local employment share in manufacturing over time based on the initial industrial composition of workers across cities and the aggregate trends of each industry. The main idea behind this strategy is that a national decline in a certain industry will affect areas where this industry was heavily concentrated in the initial period, relative to the rest of the country.

To be specific, the instrument predicts the local manufacturing employment share from two sources of information: (1) the initial composition of workers across industries within manufacturing in locality *i* (city or state) in the base year t_0 ; and (2) the aggregate employment shares of workers across industries over time for the whole United States. Formally, the predicted employment share is computed by:

$$\widehat{MFG_{it}} = \sum_{j=1}^{J} \pi_{j,i,t_0}\left(P_{j,t} - P_{j,t_0}\right) \quad (2)$$

where π_{j,i,t_0} is the employment share of industry *j* in city *i* in the base year t_0, and $P_{j,t}$ is the national employment share (excluding the workers in city *i*) of industry *j* in year *t* (including the base year t_0).

The national decline in any particular industry is considered to be exogenous to the local factors affecting a particular city's socio-economic trend. This instrument was developed in Bartik (1991) and Blanchard and Katz (1992), and has been used recently to instrument for the local level of manufacturing decline (Charles, Hurst, and Notowidigdo (2018)). Using this instrument is one strategy to support a causal interpretation of the results, in addition to showing robustness to the exclusion or inclusion of additional control variables, looking at alternative outcomes which do not share the same empirical and measurement issues, using different time frames, and performing the analysis at the state level of aggregation.

IV. The Impact of Manufacturing on the Socio-Economic Outcomes of Blacks

Table 1 shows the main OLS results of equation (1) for the core socio-economic outcomes of black men, women, and children. All of the regressions are weighted by the local population for the given racial group in 1990. Robust standard errors clustered at the metro area are reported in all tables.

The first column in Table 1 uses the mean log wage for black men as the outcome of interest. The significant, negative coefficient indicates that a decline in the manufacturing sector decreases the wages of black men. Manufacturing decline also reduces the employment rate (column (2)) and the marriage rate (column (3)) of black men. To understand the magnitude of these effects, a 15 percentage point decline in the manufacturing employment share reduces wages by 13.3 percent, the employment rate by 5.6 percentage points, and the marriage rate by 4.6 percentage points. So, the approximately 15 point decline in the manufacturing share over the last five decades had statistically and economically significant effects on the core outcomes of black men.

The other columns of Table 1 display negative impacts on black women and children in terms of the female marriage rate, female poverty rate, percent single mothers, and the percent of black children who are in poverty or living with only one parent. A 15 percentage point decline in the manufacturing share is predicted to reduce the female marriage rate by 5.1 percentage points, increase female poverty by 8.0 percentage points, increase the rate of single motherhood by 2.9 percentage points, increase the poverty rate of black children by 9 percentage points, and increase the number of black children living with one parent by 4.0 percentage points. Measured against the trend for each socio-economic outcome, the predicted effects account for only a small portion of the marriage and single motherhood trends (see Figures 6, 9, and 10, and also Appendix Tables 1-3). The predicted impacts are much larger in relation to their trends for male wages (which increased until 1980 and then stagnated), male employment rates (which declined 9 percentage points since 1980), and the poverty rates for black females and children (which actually declined over time at the national level).

Appendix Table 4 replicates the analysis in Table 1, and also shows that the results, both in magnitude and statistical significance, are similar if we drop the

demographic controls for the city's age and education distribution from the specification. This finding supports the identifying assumption that the results are not sensitive to the inclusion or exclusion of omitted variables.[8]

Appendix Table 5 tests whether the results are sensitive to the inclusion of factors which are likely to be correlated with manufacturing employment, such as the local concentration of unions -- which may be affecting wage levels through their bargaining power. Unions were prevalent in large manufacturing firms, so the decline in manufacturing may be picking up the decline in union power. However, Appendix Table 5 shows that the coefficient on manufacturing is not sensitive to the inclusion of union concentration at the local level, and union concentration is generally not significant across outcomes.

Another confounding factor which may be correlated with manufacturing employment is firm size. If the size of the firm affects it bargaining power versus workers and perhaps their unions, or if productivity at the firm level varies with size, the results on manufacturing employment may be picking up the effect of firms becoming larger over time. However, adding firm size to the specification in Appendix Table 5 yields similar results for the manufacturing employment share, and the coefficient on firm size is consistently pointing to better socio-economic outcomes for blacks in response to larger firms.

The fall in manufacturing employment coincided with the growth in services. The extent to how much of the estimated effect of manufacturing decline is picking up the growth in services is examined in Appendix Table 5. Adding the employment share in services to the specification has no effect on the estimated coefficients on the manufacturing share, leading to the conclusion that the main results are indeed picking up the effect of losing manufacturing jobs rather than shifting into services.

Appendix Table 5 also shows that the results on manufacturing employment are robust to including the employment share in blue-collar occupations. The loss of blue-collar occupations can also be considered a loss of good jobs for less-educated workers, however there is considerable overlap between workers in blue-collar occupations and manufacturing industries. So, while the results for manufacturing are not sensitive to controlling for the share in blue-collar work, it is worth noting that the

[8] The results are also robust to the inclusion of city-specific time trends, although the magnitudes are reduced – which is not surprising given that there are only six data points for each city (each decade from 1960 to 2010) to estimate the effect of several city-level variables (the manufacturing share, the age and education controls, etc.) as well as the city-specific time trend.

effect of blue-collar jobs is often in the same direction as manufacturing work. In Appendix Tables 8-11, the treatment variable is defined as working in blue-collar or manufacturing, and the overall findings are very similar to those found using only manufacturing employment as the treatment variable of interest. Again, this is likely due to the large overlap between these two categories.

Overall, the results for manufacturing are robust to the inclusion or exclusion of demographic controls, the share of employment in services or blue-collar occupations, local firm size, and local union concentration. The stability of the main findings to alternative specifications provides supporting evidence for a causal interpretation of the results.

Further support for a causal interpretation is given in Table 2 which displays the results for different starting years (starting the sample in 1960, 1970, 1980, or 1990) and also using the IV strategy outlined above. The first stage is quite strong using the "shift-share" instrument for the manufacturing employment share of black men – with F-statistics equal to 88.63, 97.88, 103.58, and 44.45 when starting the sample in years 1960, 1970, 1980, and 1990 respectively. The second stage estimates are very similar in magnitude and significance for IV versus OLS, and also for the different starting years. The results are also similar if we use state or state-of-birth as the geographic unit instead of metro areas (Appendix Tables 6 and 7). The purpose of using state of birth is to abstract from the endogenous moving of respondents between locations in response to shifts in the local demand for manufacturing workers – which should bias the results towards zero when using city or state of residence as the geographic unit. Using state-of-birth may also bias the results against finding an adverse effect of local labor market shocks on outcomes, but the robustness of the results using state or state-of-birth (Appendix Tables 6 and 7) lends further support for a causal interpretation of the evidence.[9]

[9] To the extent that individuals move in response to manufacturing decline, the main analysis, which uses a sample of individuals according to their current city of residence, will be biased towards zero – against finding an adverse effect on socio-economic outcomes of men, women, and children. This is because a person who loses their job or suffers a wage loss could move to another city, and therefore, this move will not show up as a decline in wages or loss of employment in the city which suffered the local labor market shock. Another option is to use a sample of individuals according to their state of birth. However, this will also lead to a bias against finding an adverse effect – a person born in state *i* who loses their job in state *i* due to manufacturing decline, can move and obtain employment in state *j*. This will lead to an overestimate of the employment rate of those born in state *i*, since this person would have not have been employed had they remained in their state-of-birth *i*.

Table 3 presents a similar analysis for nine other socio-economic outcomes for black men. Very significant negative effects are found for median wages, the median residual wage (after controlling individually for age and education), the employment rate of non-college men, the poverty rate, welfare participation, and housing values. Although less robust across different sample years, significant findings are also found for the probability of living in group quarters (which is a rough proxy for being in prison) and the home ownership rate. The decline in manufacturing has little impact on divorce rates for black men. Overall, these results follow up Table 1 by showing a robust negative impact of manufacturing decline on an array of socio-economic outcomes for black men. Given that the results are robust across so many different outcomes, the findings are unlikely to be due to specific measurement issues associated with any particular one.

Table 4 presents the results for additional outcomes for black women. The manufacturing employment share for black men is found to have an adverse effect on female wages, welfare participation, and house values. Although less robust, significant findings are also found for teen motherhood, home ownership, and the probability of being a widow – an indication that manufacturing decline is increasing mortality rates for black men. Similar to black men, no effects are found for divorce. However, unlike black men, there is no negative impact on the employment rates for black females. The coefficients on employment rates are generally insignificant – which is perhaps expected since manufacturing decline may negatively impact the overall labor market, but at the same time, may increase the supply of female labor if they are more likely to be single and independent.

The idea that manufacturing may affect inequality within black individuals, not just overall levels, is examined in Table 5. In addition to finding a negative impact on mean and median wages for black men (Tables 1, 2 and 3), Table 5 shows significant effects at both the upper (90^{th} percentile) and lower (10^{th} percentile) tail of the black male wage distribution. However, the negative impact appears stronger at the lower end of the wage spectrum. According to the OLS coefficient for the sample starting in 1960 (the IV coefficients are bigger), a 15 percent decline in manufacturing is predicted to lower wages at the bottom 10^{th} percentile by 18.5 percentage points, compared to a reduction of 9.0 percentage points at the top 90^{th} percentile.

The deindustrialization process is apparently lowering wages at all points of the distribution, but still managing to increase inequality within the local black

community. This is tested directly in column (3) which uses the ratio of the 90th and 10th percentiles as the outcome of interest. The negative coefficients in this column imply that manufacturing decline is raising wage inequality among black men. Similar effects appear for the 90/10 "residual" wage gap after controlling for individual characteristics such as age and education (column (4)). A 15 percentage point decline in the manufacturing share is predicted to increase residual inequality among black men by 7.8 log points, which is almost a third of the actual increase of 0.271 log points (see Appendix Figure 6).

Manufacturing decline increases housing price variation as well (all of the coefficients are negative), but this finding is not significant across samples with different starting years. Using the whole sample, the coefficient is significant and it implies that the process of deindustrialization is not only lowering outcomes and generating larger gaps between the richer and poorer black men, but also creating greater separation between the rich and poor blacks in terms of where they live and perhaps the quality of their neighborhoods and schools.

In columns (6)-(8), manufacturing decline is estimated to increase other measures of inequality within black men – the return to schooling in wages, marriage rates, and employment rates. Manufacturing decline is producing greater heterogeneity in labor market and marriage outcomes between black men of different education levels. A similar pattern is found for the return to education for black females in marriage rates, but not for the education gaps in the probability of being a single mother. The inequality results for black men and women using state or state-of-birth as the geographic unit of analysis are quite similar as well (Appendix Tables 12 and 13).

The results in this section show that manufacturing decline has had a significant and often large impact on many socio-economic outcomes for black, men, and children. In addition, manufacturing decline is increasing inequality with the black community in terms of male wages, male employment rates, marriage rates for black men and women, and possibly housing price variation as well. These findings are robust across OLS and IV specifications, across several different measured outcomes, using different time periods, the inclusion or exclusion of several metro-area control variables and confounding factors, and defining the geographic unit by cities, states, or state-of-birth. The next section presents a similar analysis within the white community.

V. The Impact of Manufacturing on the Socio-Economic Outcomes of Whites

Table 6 repeats the previous analysis on the core outcomes for white men, women, and children. Similar to the black population, manufacturing decline is found to have a negative impact across a broad array of outcomes. Specifically, the shrinking manufacturing sector reduces male wages and employment, while increasing the poverty rate for white women, the rate of single motherhood, and child poverty. The OLS results point to negative impacts from the manufacturing trend on marriage rates and the percent of white children in a single parent household, but the IV results for these outcomes are not robust.[10]

Appendix Table 14 shows that these results are robust to the inclusion or exclusion of the demographic controls for age and education, as well as adding the following variables as potential confounding factors: union concentration, firm size, the employment share of white men in services, and the employment share of white men in blue-collar occupations. In Appendix Tables 15 and 16, similar findings are found when using state or state-of-birth as the geographic unit of analysis instead of metro areas.

Table 7 extends the list of outcomes for white men, and shows that manufacturing decline has a robust negative impact on median wages, median residual wages (after controlling for age and education), the employment rate, poverty levels, welfare participation, and house values for white men. Negative, but less robust, impacts are found for the probability of being in group quarters (a proxy for the prison rate). Manufacturing decline has no impact, or perhaps even a positive effect, on divorce rates – which may be due to the positive selection of those that choose to get married as marriage rates decline in response to changes in the industrial structure, or possibly due to the lower opportunity costs of remaining married for those with declining labor market opportunities (i.e. their prospects on the secondary marriage market may not be high).

[10] The first stage is quite strong using the shift-share instrument for the manufacturing employment share of white men – with F-statistics equal to 77.49, 90.15, 156.70, and 91.92 when starting the sample in years 1960, 1970, 1980, and 1990 respectively.

For white women, Table 8 shows that the shrinking manufacturing employment share of white men is reducing their wages and house values. The coefficients suggest a negative impact on teen motherhood and welfare participation, but these findings are not robust across specifications. Similar to black women, the decline in the manufacturing sector had a positive impact on the employment rates of white women, most likely by lowering their marriage rates and causing them to be more self-reliant. A positive impact is seen for divorce rates, possibly for the reasons mentioned above for white men.

The effect of manufacturing on inequality within whites is examined in Table 9. The decline in manufacturing has a negative impact on wages at both ends of the distribution, but a stronger impact at the bottom tail – leading to higher male wage inequality (and residual wage inequality) for white men. These results are similar to those in Gould (2018). A smaller manufacturing sector is also found to increase housing price variation (although this finding is not robust to using IV), and the return to schooling for male wages, marriage rates, and employment (not robust to IV). Regarding white women, the trend in manufacturing employment increases the return to schooling for marriage rates and for the rate of single motherhood (although this latter finding is not robust across OLS and IV specifications with different time periods). Again, the general pattern pointing to a negative impact for so many socio-economic measures is unlikely to be due to measurement issues idiosyncratic to each individual outcome. Appendix Tables 17-18 show very similar results for all the inequality outcomes for whites using state or state-of-birth as the geographic unit of analysis.

Overall, the findings for whites are quite similar to those found for blacks – manufacturing decline is leading to worse socio-economic outcomes for white men, women, and children. In addition, the manufacturing trend is increasing inequality in outcomes as well. These results are robust to OLS and IV, using different time periods, using city or state-of-birth as the geographic unit, and including or excluding other controls and potentially confounding factors. The magnitudes of the coefficients are roughly comparable to those for blacks, but generally appear to be a bit smaller. The next section examines directly if the impact is larger for blacks versus whites.

VI. The Differential Impact of Manufacturing on Blacks Versus Whites

This section performs a similar analysis but uses the black-white gap in socio-economic outcomes instead of using the levels of the same outcomes for whites or blacks separately. The idea is to test whether manufacturing employment has a differential impact on blacks versus whites – which may be expected since blacks are much less educated than whites and the manufacturing sector in general provided high-wage jobs to workers who were on the lower to middle part of the education distribution. For this reason, it is possible that the disappearance of these types of job opportunities had a larger general equilibrium effect on blacks relative to whites, despite the employment share trends in manufacturing being quite similar across races (Figure 1). Evidence for a larger impact on the less-educated individuals was presented in previous tables looking within blacks and within whites, so this section examines whether this pattern extends to looking across racial groups with different levels of schooling.

The main treatment variable in this analysis is defined as the employment share of all men (white or black) in the manufacturing sector, as opposed to the race-specific measures used in previous tables. The instrument used in the IV analysis also refers to all men.[11]

Table 10 presents the OLS and IV results for the racial gap in core outcomes for men, women, and children. In columns (1)-(6), the black-white gaps for each city and year were estimated from regressions using individual-level data (after controlling for individual characteristics like age and education), while the black-white gaps in the remaining columns and tables are the differences in mean outcomes between the two races for each city and year. The results in Table 10 show that the decline in manufacturing significantly increases the black-white gaps in male wages, male employment rates, male marriage rates, female marriage rates, female poverty rates, child poverty rates, and the percent of children living with one parent. Less robust results are also found for the rate of single motherhood.

The magnitudes of these coefficients are substantial. A 15 percentage point decline in the manufacturing share is predicted to increase the racial gap by: 12

[11] In Table 10, the first stage is sufficiently strong using the shift-share instrument for the manufacturing employment share of all (black and white) men – with F-statistics equal to 54.64, 61.08, 65.19, and 44.26 when starting the sample in years 1960, 1970, 1980, and 1990 respectively.

percent in male wages, 3.4 percentage points in male employment, 4.5 percentage points in male marriage rates, 5.0 percentage points in female marriage rates, 8.0 percentage points in female poverty rates, 1.8 percentage points in single motherhood, 5.4 percentage points in child poverty, and 3.1 percentage points in the rate of children living with only one parent.[12] Some of these magnitudes are quite large compared to the trends in the racial gaps – most notably the outcomes regarding wages, employment, and poverty (see Figure 7 and Appendix Tables 1-3).

Table 11 presents the extended list of outcomes for men. Again, the manufacturing trend increases the racial gap in: median wages, the median residual wage adjusted for age and education, the employment rate of non-college men, poverty rates, welfare participation, home ownership, and house values. According to the OLS coefficient for the full sample (the IV coefficients tend to be larger), a 15 percentage point drop in the manufacturing share is predicted to increase racial gaps by: 9.6 percent in median wages, 3.4 percentage points in the employment rate of non-college men, 8.4 percentage points in the poverty rate, and 16.5 percent in house values. The results for the racial gap in group quarters are not significant for all starting years, but consistently point to an increasing gap in this proxy for the incarceration rate. No effect is found for the racial gap in divorce rates. These findings suggest that the deindustrialization process is not only lowering outcomes within each racial group, and increasing inequality within groups, but is making white and black men more dissimilar in their socio-economic conditions – including the value of their houses which could be indicative of greater overall segregation.

Table 12 presents the extended list of outcomes for the racial gaps among women. The findings in this table are not as robust and clear as in previous tables, but generally suggest that the decline in manufacturing increased the racial gap in female wages, welfare participation, and home ownership. Although Table 10 showed strong effects on the racial gap in female poverty and marriage rates, these findings are not as prominent and robust for other measures of female racial gaps in Table 12. This pattern may be consistent with the idea that the disproportionate effect of manufacturing decline on blacks relative to whites is most acute for the group directly affected by the deindustrialization trend.

[12] The coefficients vary across OLS and IV, and across time periods. To be consistent in these calculations, the OLS coefficients for the entire sample period (1960-2010) are used in the discussion.

Table 13 examines whether manufacturing shifts have a differential impact on black inequality relative to white inequality. In previous tables, the deindustrialization process is found to increase inequality within blacks and within whites. The estimates in Table 13 suggest that this impact is roughly similar within both groups. For most outcomes, the trend in manufacturing is not causing inequality to increase faster within blacks relative to whites. The one possible exception is the variation in housing prices –manufacturing declines increase housing price variation more for blacks. This finding suggests that spatial polarization induced by deindustrialization, inferred from the higher variation in housing prices, is larger for blacks relative to whites. Significant results are found for the return to education in male employment – manufacturing decline creates larger inequality in terms of employment rates within black men relative to white men. Overall, Table 13 suggests that the effects on inequality are similar for blacks and whites for most outcomes, but with some evidence that the effect on black inequality is larger for housing prices and employment rates.

VII. The Impact of Manufacturing on Child and Adult Mortality

This section analyzes the effect of manufacturing on mortality rates for whites and blacks using data from the Compressed Mortality File from the National Center for Health Statistics. The data contain mortality rates at the county level for several age groups (less than a year, 1-4, 5-9, 10-14, 15-19, 20-24, 25-34, 35-44, 45-54, 55-64, 65-74, 75-84, 85+) and by race. The data is available from 1970 onwards and contain population by race for each age group, county, and year. Mortality rates were constructed for each cell defined by race, gender, age group, county, and year – and this variable was matched to the variables constructed from the Census data at the metro area level. Cells with the number of deaths less than ten were defined as missing in certain years, so this truncation is performed for all years for the sake of comparability. (Results for the unadjusted rates are very similar, and are presented in Appendix Tables 19 and 20.) Since the main treatment variable, the manufacturing employment share, is defined at the metro area, all regressions are clustered at the metro area but include fixed-effects for each county, age group, and year. Regressions are run separately by gender.

Table 14 presents the estimates on premature mortality (between ages 10 and 64) for whites and blacks and for different starting years. The results reveal a very sharp difference between blacks and whites – a smaller manufacturing share increases mortality for blacks. This finding is robust to using OLS or IV, and for all starting years of the sample. The effect is similar for men and women as well. The OLS coefficient of -10.21 implies that a 15 percent drop in the manufacturing share increases the death rate by 1.53 individuals per one thousand black men. In contrast, the mortality rate of white men and women do not respond to changes in the manufacturing share. The coefficients are consistently negative, like those for blacks, but only one of twelve is significant.

The different pattern for blacks and whites is estimated explicitly in the last two columns which use the black-white difference in the mortality rate as the outcome of interest. The OLS and IV coefficients are similar to those obtained for blacks, which is consistent with the idea that there is no effect on the mortality rate for whites.

In Table 15, the analysis is repeated using the mortality rates of children (ages 0 to 9) as the outcome. The results for children are very different than those for adults. Compared to black adults, the effects on black children are much larger in magnitude. Even more striking, the effects are significant for black and white children – girls and boys. However, the estimates are larger for black children relative to white children, and this is generally confirmed in the black-white difference in mortality results in the last two columns (although the difference is significant only when using all available years in the sample).

A decline in manufacturing should not have a direct impact on children. However, given the results in previous tables, it is clear that there has been a large adverse impact on black and white adults in terms of their wages, marital status, single versus co-parenting status, income, employment, poverty status, housing values, etc. In short, the decline in manufacturing has had a strong impact on the family structure, family income, and neighborhood environment that children are facing. The results in Table 15 are consistent with the idea that the deindustrialization process is changing the quality of the family, parenting, neighborhood, and perhaps schools in ways that are leading to more deaths at a very young age.

VIII. The Impact of Manufacturing on the Educational Decisions of Teens

Previous sections have shown how the deindustrialization process has affected adults and children. This section analyzes the effect on the decisions of teenagers to drop out of high school and whether to enroll in college. The disappearance of high wage jobs for low-educated individuals would seemingly entice more people to obtain higher education. However, theoretically, the effect of manufacturing decline could produce two opposing incentives on the decisions to acquire human capital. As seen above, the decline of this sector has increased the return to education and the variance of income for blacks (Table 5) and whites (Table 9). A larger return to education increases incentives to stay in high school and pursue a college degree. But, if credit constraints exist for low wage families, an increase in inequality may lower the ability of individuals in the lower part of the income distribution to finance higher education. In addition, the disruption of the family structure, and perhaps the parenting and neighborhood quality that often accompanies family dissolution, may prevent the necessary accumulation of human capital throughout childhood that is needed to complete high school and succeed in college.

Table 16 analyzes the effect of manufacturing employment on the high school dropout rate and the college enrollment rate. The high school dropout rate is defined as the percent of 16 to 18 year olds that are not enrolled in school and do not have a high school degree. The college enrollment rate equals the percent of 19 to 24 year olds that are either enrolled in college or have already obtained a college degree.

The results are very different for blacks versus whites. For black males and females, manufacturing is not associated with changes in the decision to drop out or pursue a college degree. This zero effect is consistent with the opposing effects discussed above cancelling each other out. However, it is worth noting that, in the background, the black community underwent a massive increase in education rates and decrease in dropout rates (Appendix Tables 1 and 2). The dramatic increase in human capital does not appear to be stronger or weaker in areas witnessing industrial decline.

For white males and females, a different story emerges. Manufacturing decline increases the dropout rate and the college enrollment rate. These seemingly contradictory results are consistent with the opposing mechanisms outlined above. In particular, the increase in the return to education is enticing more white men and

women on the margin to pursue a college education. At the same time, higher levels of inequality and family dissolution may be increasing dropout rates due to the lack of human capital accumulation throughout childhood and the increasingly binding credit constraints for those at the low end of the parental income distribution. The black-white differences at the bottom panel of Table 16 do not point to significant differences, but the contrast between the estimates for blacks and whites is notable.

Overall, Table 16 paints a complex picture on how manufacturing decline effects the human capital decisions of young adults. One might guess that the disappearance of high-paying jobs for less-educated individuals would create strong incentives to obtain higher education. In that sense, the lack of any response by young black adults is quite surprising, and can be considered a negative outcome. However, this finding is consistent with the idea that the process of acquiring human capital, and learning how to accumulate human capital, starts young (Heckman (2006)). The lack of any positive effect on the educational obtainment for blacks in response to manufacturing decline could be interpreted as evidence for the important role played by family structure and background in the early childhood development process. The results in the previous section regarding child mortality are even more direct evidence for this hypothesis. However, the precise mechanisms behind the results in Table 16 cannot be differentiated without further analysis.

IX. Conclusion

The disappearance of high-paying jobs in the manufacturing sector over the last five decades represents a significant deterioration in the job prospects of less-educated men. This paper analyzed how this process affected a myriad of socio-economic indicators for white and black men, women, and children -- and whether the effect was bigger for less-educated individuals within the white and black communities, and whether this trend increased racial gaps.

The evidence shows that the decline in manufacturing employment is responsible for a significant deterioration in socio-economic outcomes for whites and blacks, higher inequality within each group, and larger racial gaps. As expected, the negative effects are larger for less-educated individuals – this is true within racial groups and across racial groups, since blacks have historically been much less

educated than whites. The stronger negative impact on blacks is consistent with the hypothesis in Wilson (1996) that the loss of high paying jobs for relatively less educated men can have wide-ranging repercussions on outcomes not directly related to the labor market – such as marriage rates, single parenthood, house values, poverty rates for adults and children, mortality rates for adults, and even mortality rates for children.

An extensive series of robustness checks are performed. In particular, the results are consistent with and without additional control variables at the locality level, as well as other alternative confounding factors (the size of the service sector, average firm size, and union concentration). The results are very similar with OLS or using the "shift-share" instrument for the local manufacturing. The coefficients are generally not sensitive to starting the sample in 1960 or later, and are consistently stronger for the less-educated group as predicted by the idea that they were the most directly affected by the loss of manufacturing jobs. Finally, it is notable that a very broad and consistent pattern emerges across many different socio-economic outcomes for men, women, and children for both races. This robust pattern indicates that the overall findings are not due to the potential measurement issues that are associated with any particular one. Moreover, for all these measures, there are no results pointing to a positive effect of manufacturing decline on the socio-economic levels for blacks or whites.

Overall, the shrinking of the manufacturing employment share is found to increase inequality within blacks and whites, while generating wider racial gaps for a myriad of socio-economic outcomes. This process is not only driving a wedge between the two races in outcomes, but the results on housing prices could be indicative of stronger racial segregation in terms of the types of houses and neighborhoods where they live.

Not only is manufacturing decline having a negative impact on the black and white adult population, it appears that there are negative intergenerational effects as well. Despite the larger incentives to go to college when high-wage jobs for less-educated workers disappear, black teenagers do not seem to be capitalizing on the larger returns to schooling. This finding, along with the child mortality results, suggests that manufacturing decline is disrupting the childhood environment and perhaps depriving children of the skills needed to succeed in school and take advantage of the larger returns to schooling. The ones that do take advantage of

educational opportunities will increasingly prosper in the future, but this process is likely to create even more inequality, within the black and white communities, in adult outcomes when those that do not go to college enter an economy with even fewer high-paying manufacturing jobs. At the same time, gaps between blacks and whites in many socio-economic outcomes are likely to expand as well. However, the adverse effect of manufacturing decline on racial gaps may be mitigated by the closing of the racial gap in schooling – as the education levels of whites and blacks converge, the disproportional effect on blacks versus whites could become less pronounced as well.

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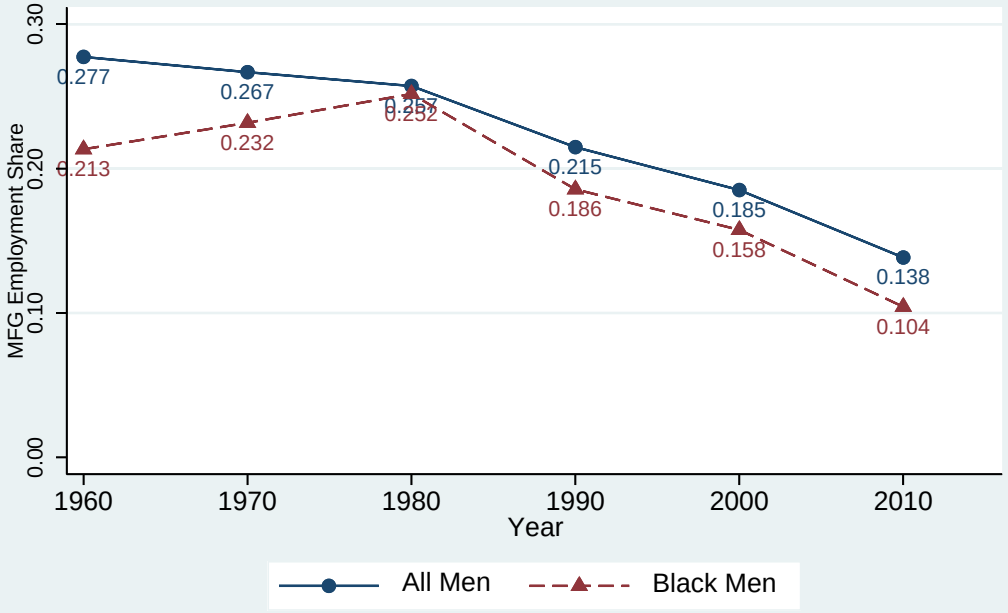
Figure 1: Employment Share in Manufacturing

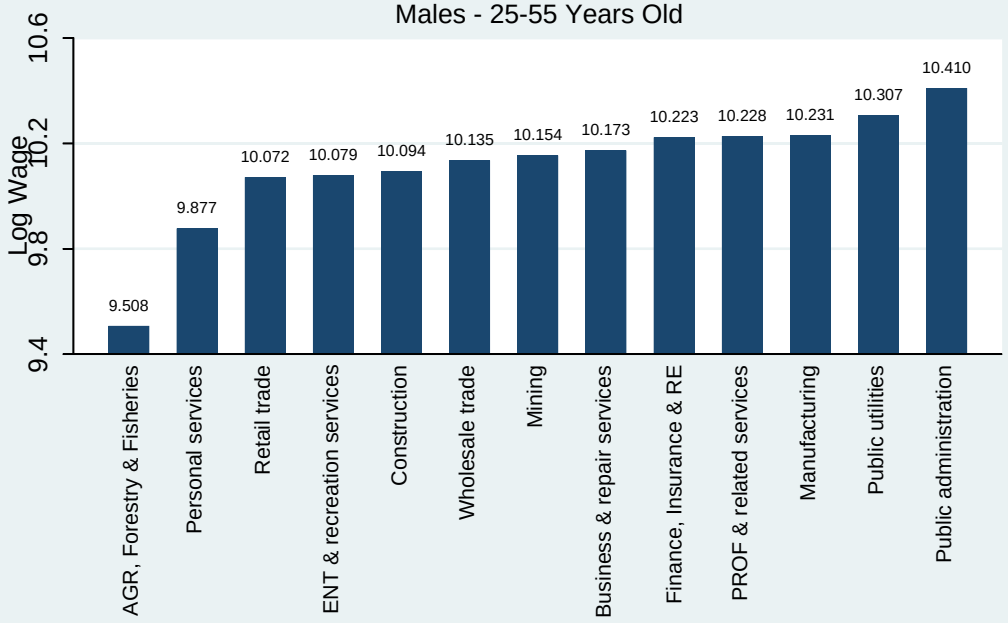
Males - 25-55 Years Old



Notes: The sample includes native born men between the ages of 25 and 55.

Figure 2: Mean Log Income by Industry for Black Men in 1970

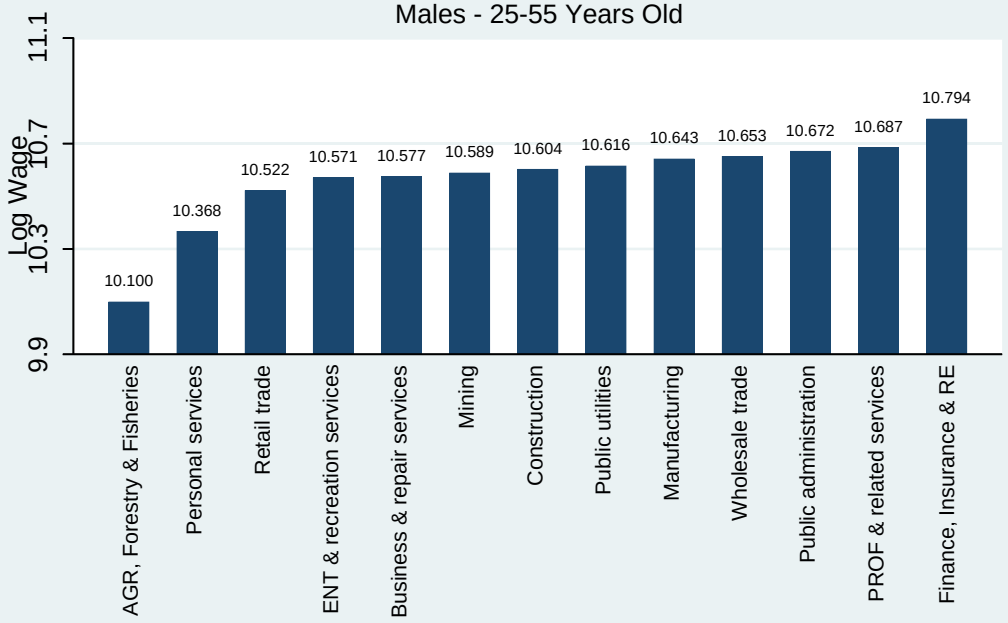
Males - 25-55 Years Old



Notes: The wage sample includes native born men between the ages of 25 and 55, working 50-52 weeks per year, at least 35 hours per week, not in group quarters, not a student, and not self-employed.

Figure 3: Mean Log Income by Industry for White Men in 1970

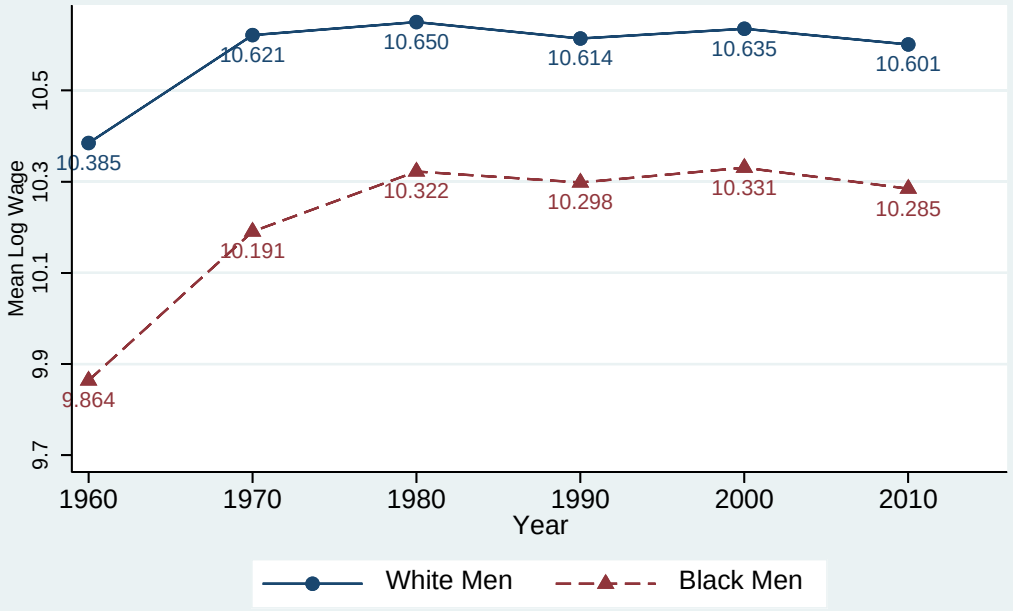
Males - 25-55 Years Old



Notes: The wage sample includes native born men between the ages of 25 and 55, working 50-52 weeks per year, at least 35 hours per week, not in group quarters, not a student, and not self-employed.

Figure 4: Mean Log Wage Income

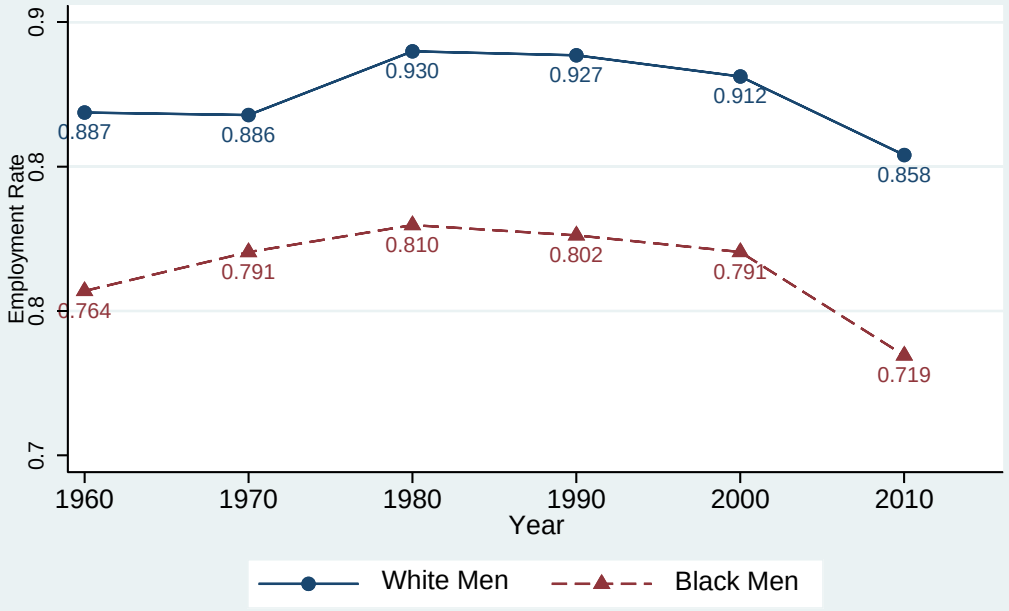
Males - 25-55 Years Old



Notes: The sample includes native born men between the ages of 25 and 55.

Figure 5: Employment Rates

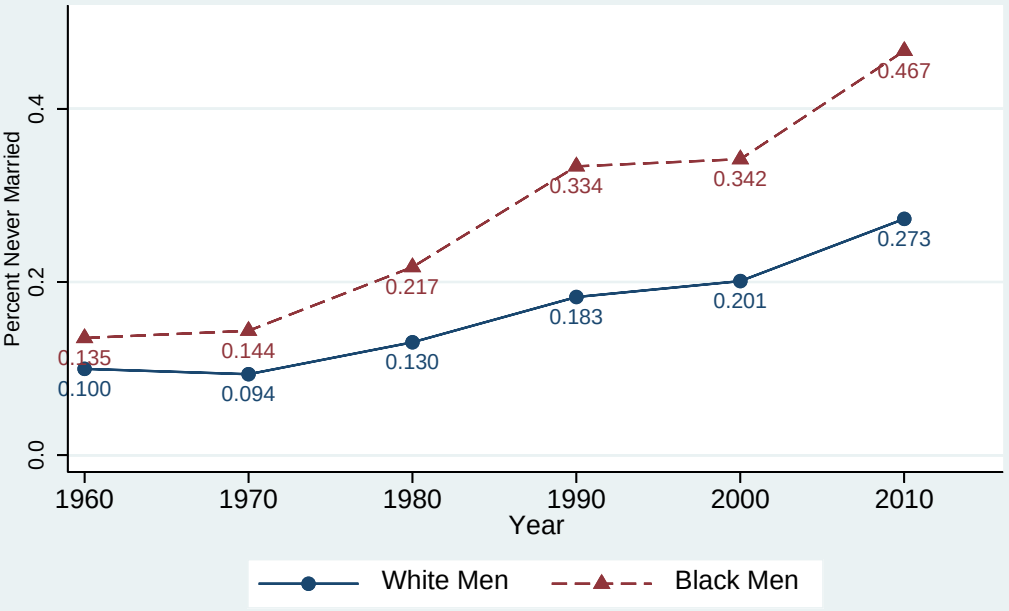
Males - 25-55 Years Old



Notes: The sample includes native born men between the ages of 25 and 55.

Figure 6: Percent Never Married for Men

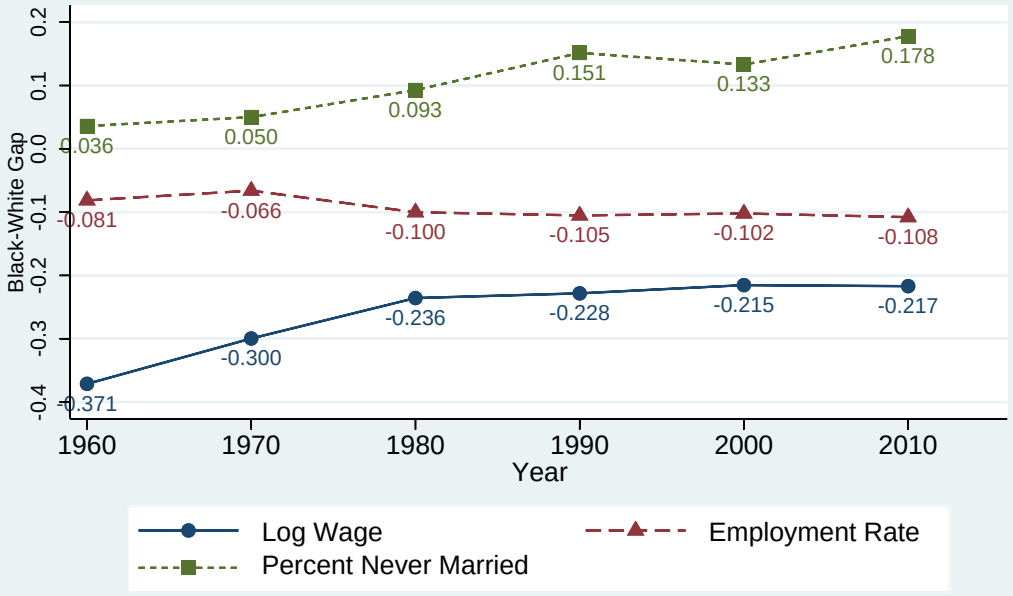
Males - 25-55 Years Old



Notes: The sample includes native born men between the ages of 25 and 55.

Figure 7: Black-White Gaps for Men

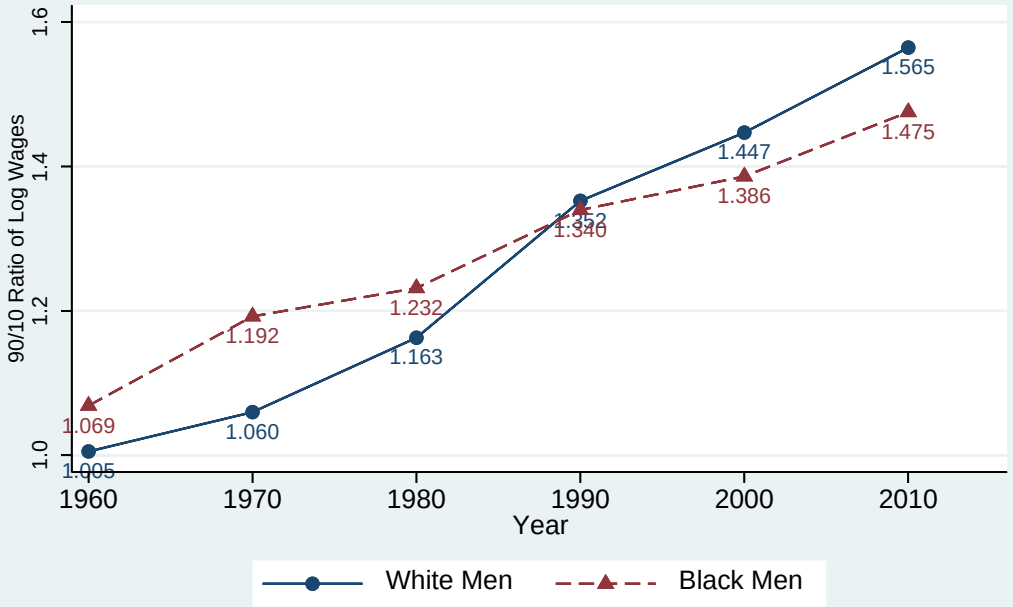
Males - 25-55 Years Old



Notes: The sample includes native born men between the ages of 25 and 55. The black-white gap is after controlling for age and education at the individual level.

Figure 8: 90/10 Wage Ratio for Men

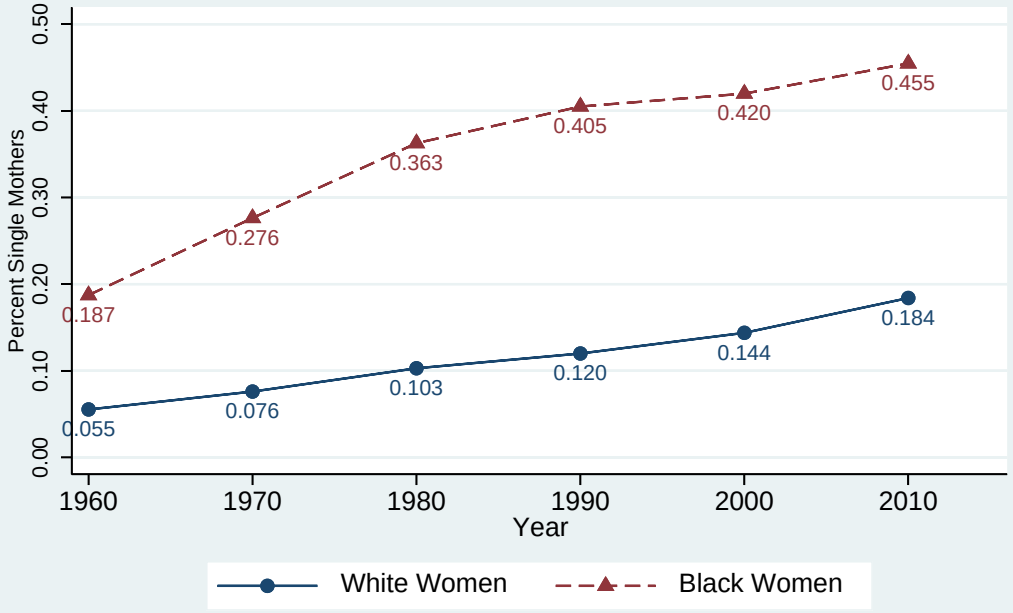
Males - 25-55 Years Old



Notes: The sample includes native born men between the ages of 25 and 55.

Figure 9: Percent Women who are Single Mothers

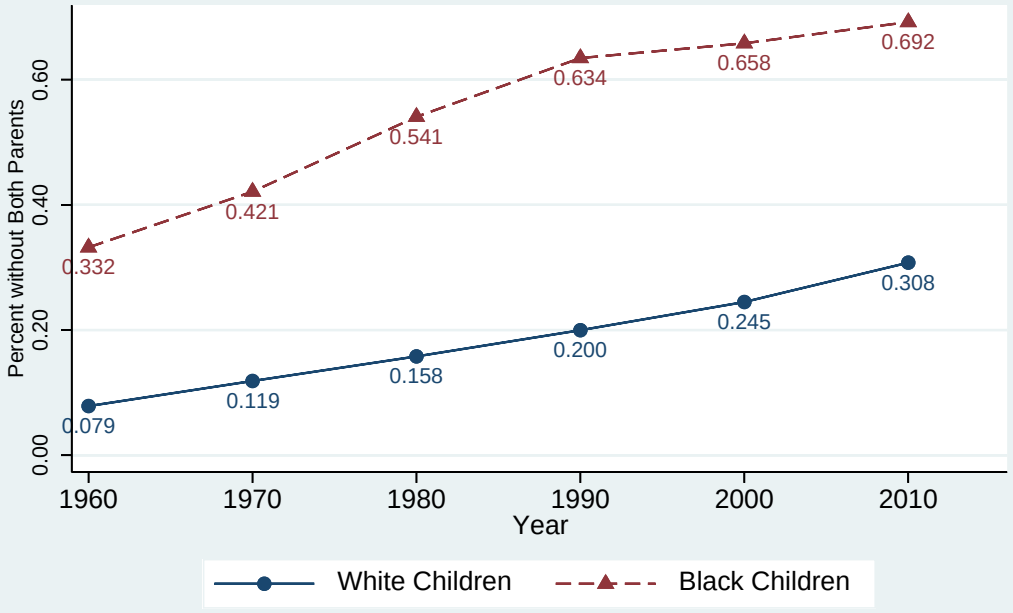
Females - 25-45 Years Old



Notes: The sample includes native born women between the ages of 25 and 45.

Figure 10: Percent Children without Both Parents

Children - 0-12 Years Old

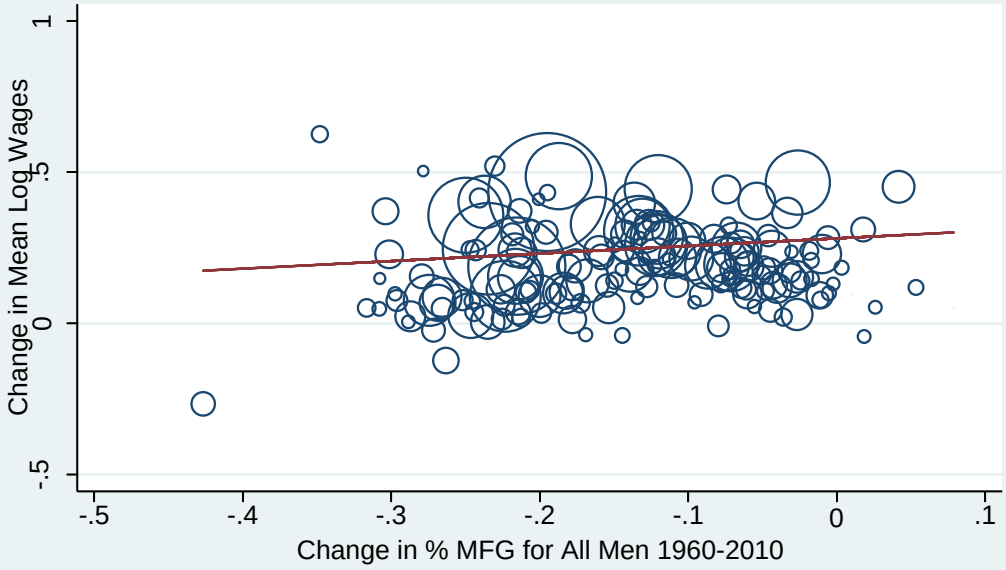


Notes: The sample includes native born children twelve years old and under.

Figure 11: Changes in Mean Wages for Black Men
Differences by Metro Area between 1960-2010

Notes: slope = 1.487 (tstat=9.19)
Regression is weighted by metro area sample size, represented by the size of each circle.
The sample is restricted to metro areas with at least 50 observations for male wages in the given racial group.
The male sample consistes of ages 25-55 who are not in the army.

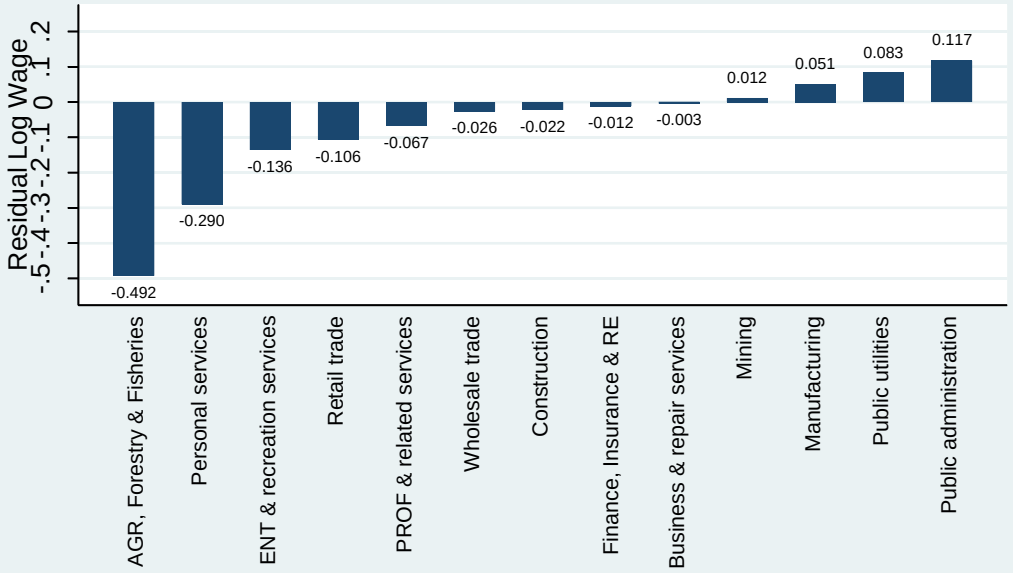
Figure 12: Changes in Mean Wages for White Men
Differences by Metro Area between 1960-2010



Notes: slope = .251 (tstat=1.84)
Regression is weighted by metro area sample size, represented by the size of each circle.
The sample is restricted to metro areas with at least 50 observations for male wages in the given racial group.
The male sample consistes of ages 25-55 who are not in the army.

Appendix Figure 1: Log Residual Income for Black Men in 1970

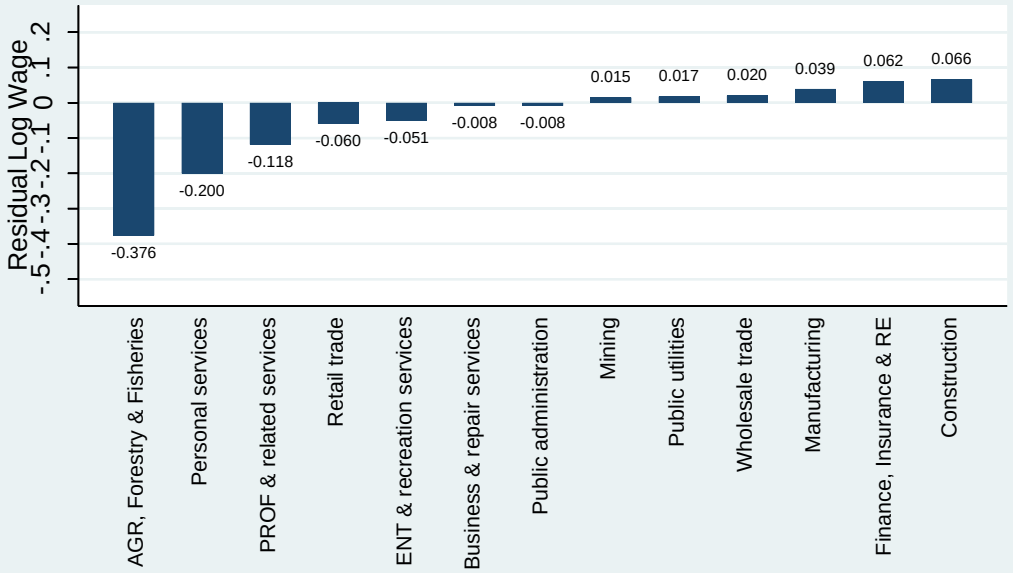
Males - 25-55 Years Old



Notes: The wage sample includes native born men between the ages of 25 and 55, working 50-52 weeks per year, at least 35 hours per week, not in group quarters, not a student, and not self-employed. The residual wage is computed after controlling for age and education

Appendix Figure 2: Residual Log Income for White Men in 1970

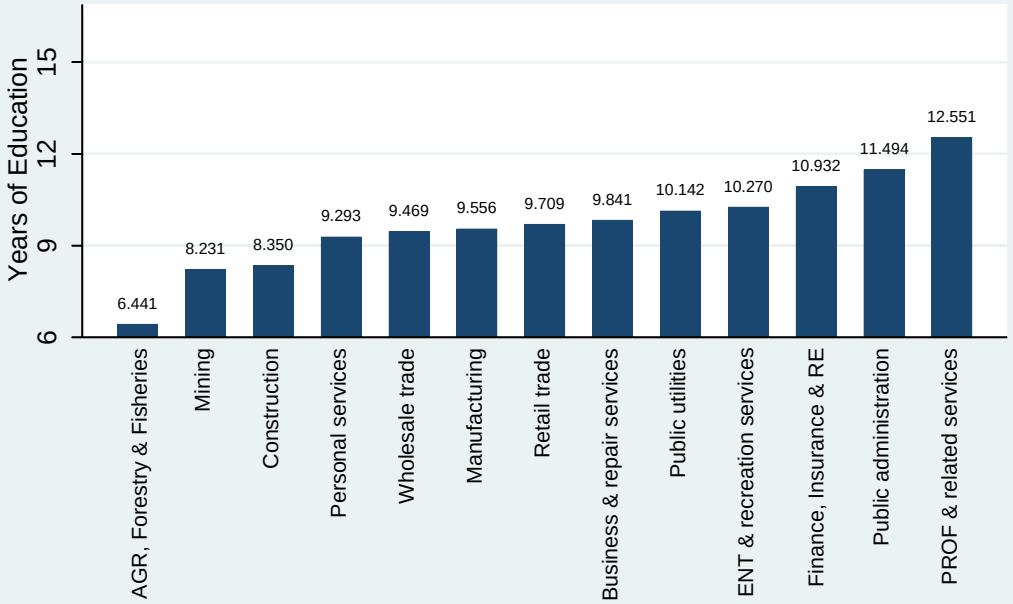
Males - 25-55 Years Old



Notes: The wage sample includes native born men between the ages of 25 and 55, working 50-52 weeks per year, at least 35 hours per week, not in group quarters, not a student, and not self-employed. The residual wage is computed after controlling for age and education

Appendix Figure 3: Mean Education for Black Men in 1970

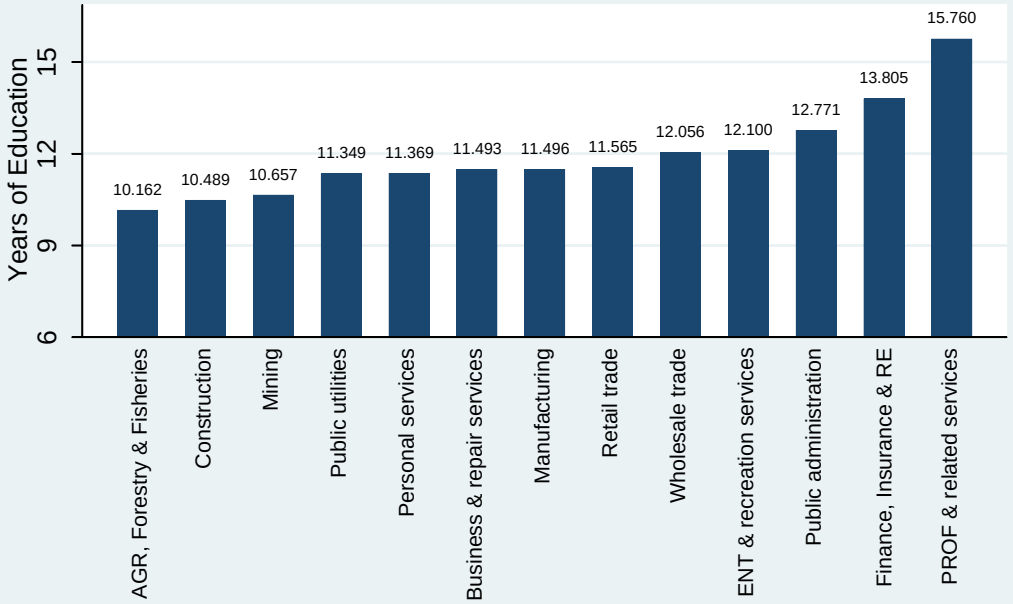
Males - 25-55 Years Old



Notes: The sample includes native born men between the ages of 25 and 55.

Appendix Figure 4: Mean Education for White Men in 1970

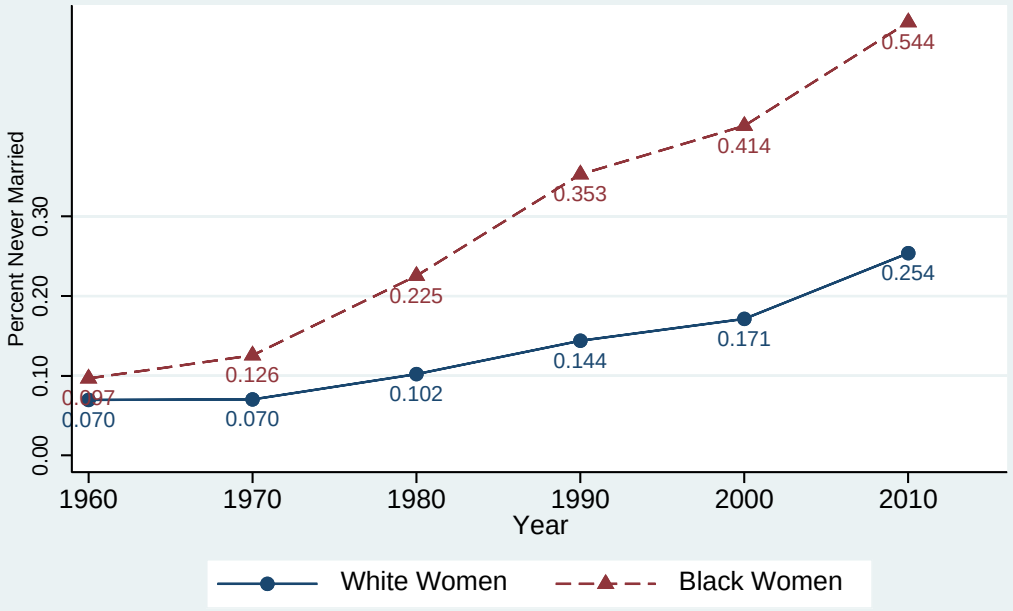
Males - 25-55 Years Old



Notes: The sample includes native born men between the ages of 25 and 55.

Appendix Figure 5: Percent Women who are Never Married

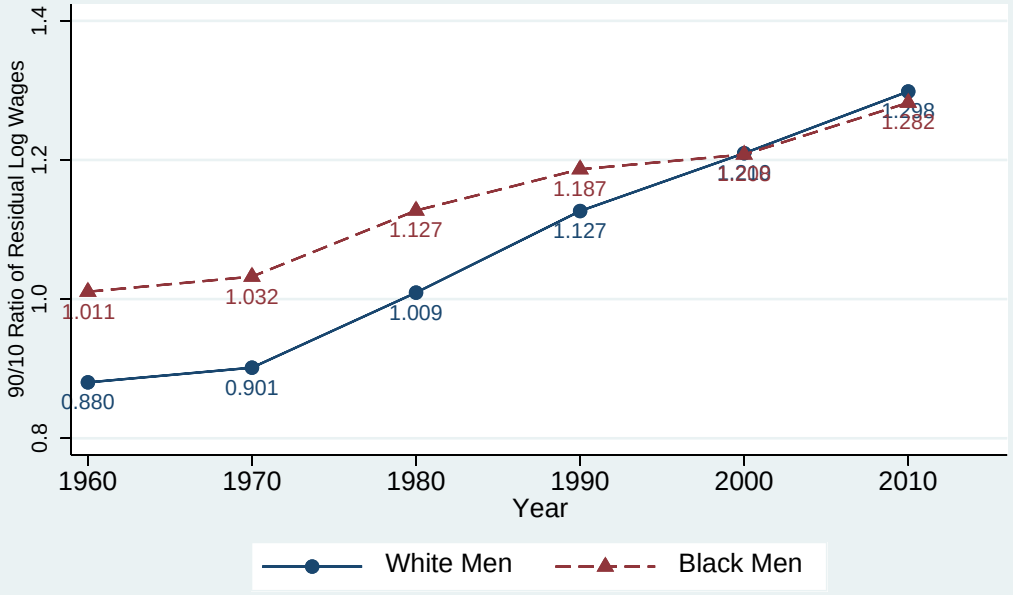
Females - 25-45 Years Old



Notes: The sample includes native born women between the ages of 25 and 45.

Appendix Figure 6: Residual 90/10 Wage Inequality Men

Males - 25-55 Years Old

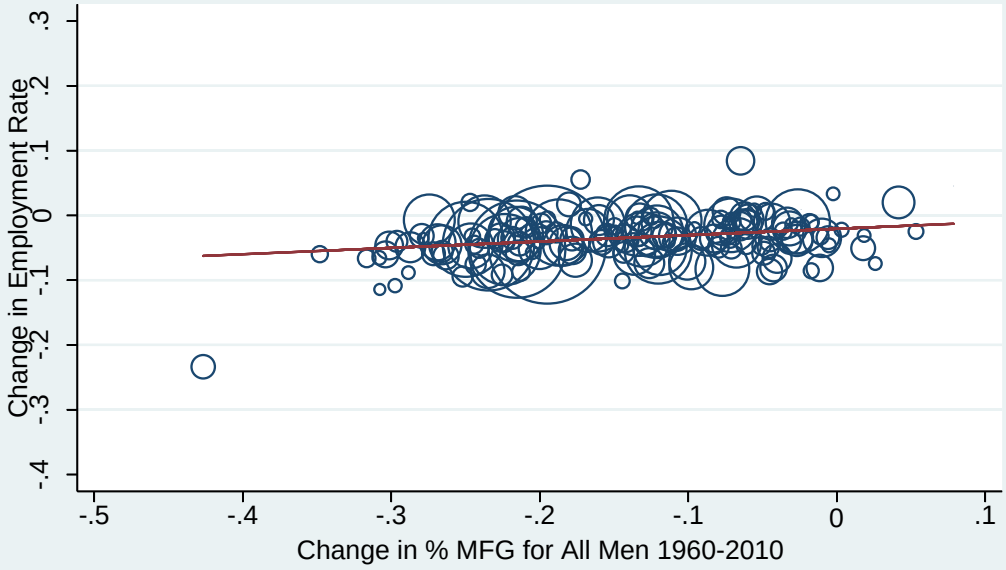


Notes: The sample includes native born men between the ages of 25 and 55. The residual wage is after controlling for age and education at the individual level.

Appendix Figure 7: Changes in the Employment for Black Men
Differences by Metro Area between 1960-2010

Notes: slope = .383 (tstat=6.67)
Regression is weighted by metro area sample size, represented by the size of each circle.
The sample is restricted to metro areas with at least 50 observations for male wages in the given racial group.
The male sample consistes of ages 25-55 who are not in the army.

Appendix Figure 8: Changes in the Employment for White Men
Differences by Metro Area between 1960-2010



Notes: slope = .098 (tstat=3.89)
Regression is weighted by metro area sample size, represented by the size of each circle.
The sample is restricted to metro areas with at least 50 observations for male wages in the given racial group.
The male sample consistes of ages 25-55 who are not in the army.

Appendix Figure 9: Changes in Percent Never Married for Black Men
Differences by Metro Area between 1960-2010

Notes: slope = -.431 (tstat=-6.83)
Regression is weighted by metro area sample size, represented by the size of each circle.
The sample is restricted to metro areas with at least 50 observations for male wages in the given racial group.
The male sample consistes of ages 25-55 who are not in the army.

Appendix Figure 10: Changes in Percent Never Married for White Men
Differences by Metro Area between 1960-2010

Notes: slope = .017 (tstat=.35)
Regression is weighted by metro area sample size, represented by the size of each circle.
The sample is restricted to metro areas with at least 50 observations for male wages in the given racial group.
The male sample consistes of ages 25-55 who are not in the army.

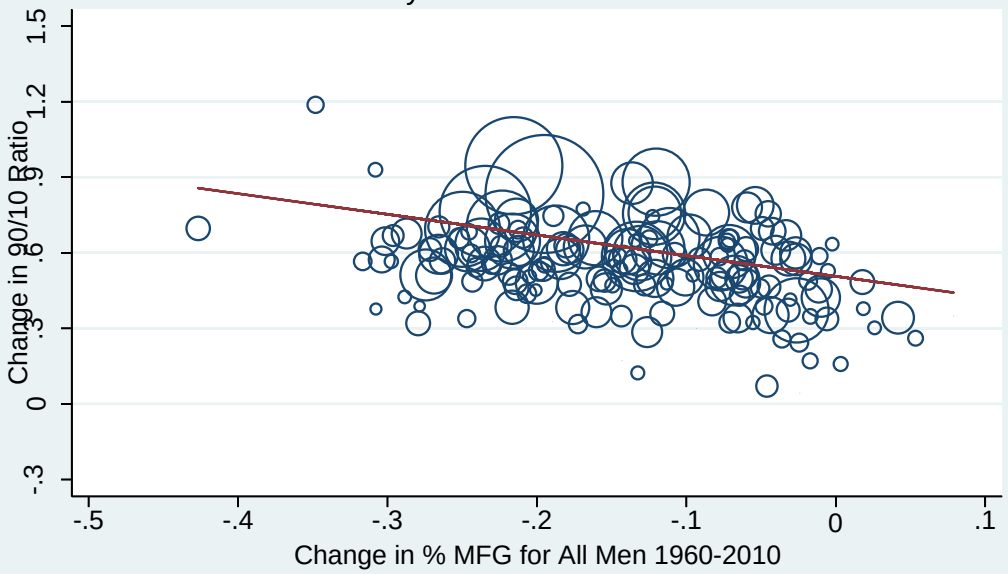
Appendix Figure 11: Changes in the 90/10 Log Wage Ratio for Black Men

Differences by Metro Area between 1960-2010

Notes: slope = -.688 (tstat=-3.78)
Regression is weighted by metro area sample size, represented by the size of each circle.
The sample is restricted to metro areas with at least 50 observations for male wages in the given racial group.
The male sample consistes of ages 25-55 who are not in the army.

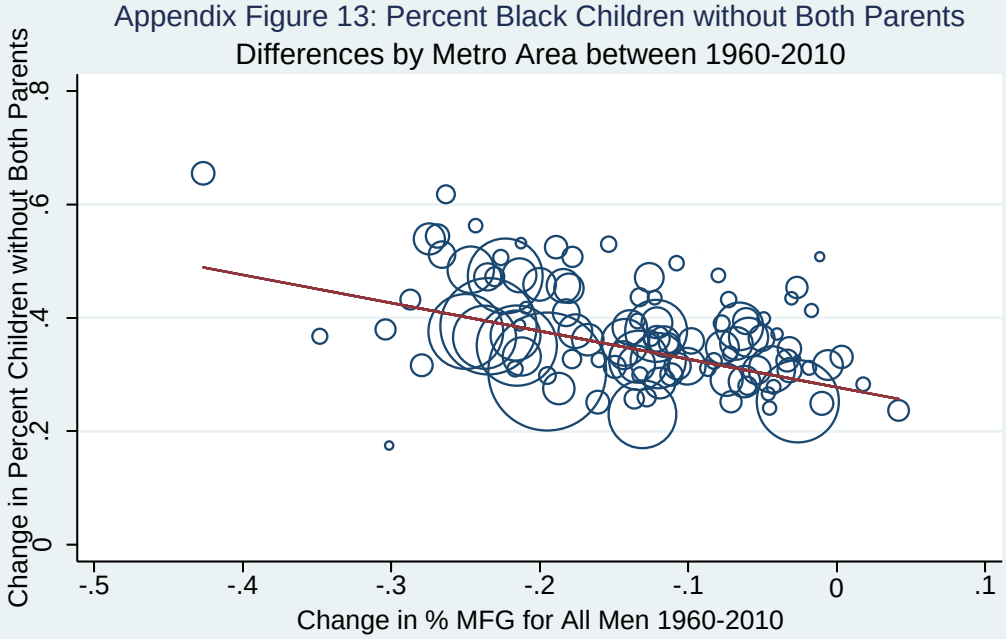
Appendix Figure 12: Changes in the 90/10 Log Wage Ratio for White Men

Differences by Metro Area between 1960-2010



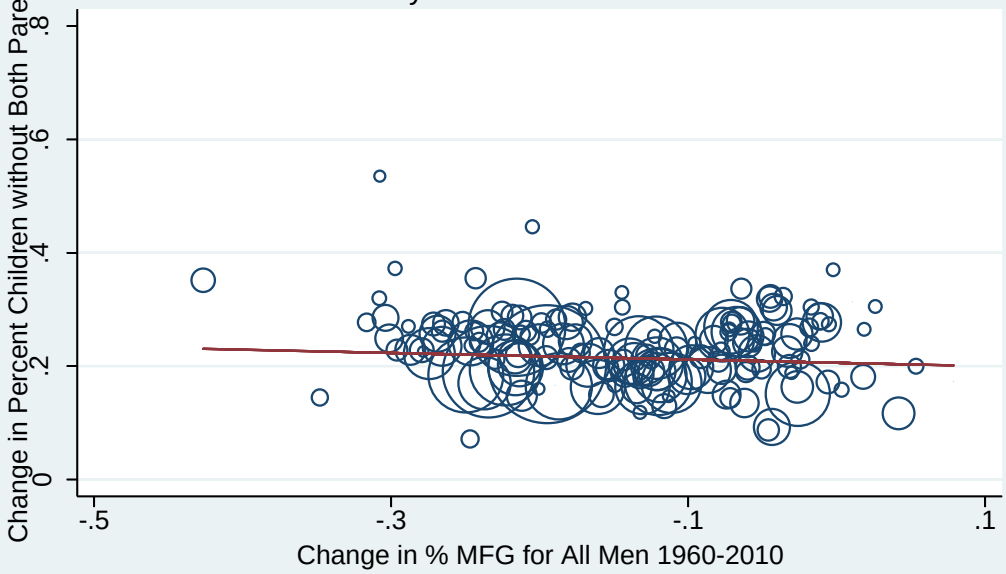
Notes: slope = -.821 (tstat=-5.38)
Regression is weighted by metro area sample size, represented by the size of each circle.
The sample is restricted to metro areas with at least 50 observations for male wages in the given racial group.
The male sample consistes of ages 25-55 who are not in the army.

Appendix Figure 13: Percent Black Children without Both Parents Differences by Metro Area between 1960-2010



Notes: slope = -.496 (tstat=-6.22)
Regression is weighted by metro area sample size, represented by the size of each circle.
The sample is restricted to metro areas with at least 50 observations for male wages in the given racial group.
The male sample consistes of ages 25-55 who are not in the army.

Appendix Figure 14: Percent White Children without Both Parents Differences by Metro Area between 1960-2010

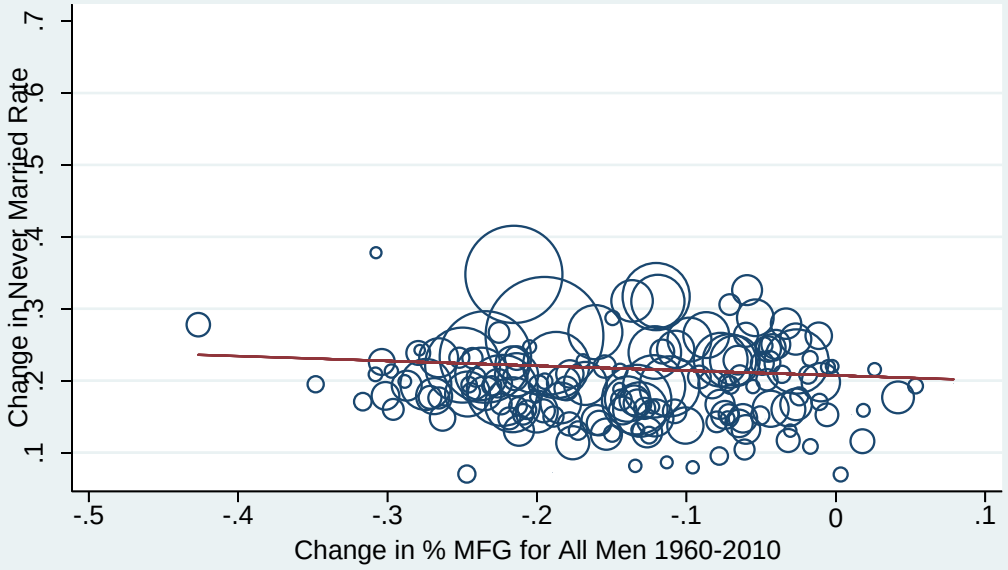


Notes: slope = -.058 (tstat=-1.25)
Regression is weighted by metro area sample size, represented by the size of each circle.
The sample is restricted to metro areas with at least 50 observations for male wages in the given racial group.
The male sample consistes of ages 25-55 who are not in the army.

Appendix Figure 15: Changes in Percent Never Married for Black Women
Differences by Metro Area between 1960-2010

Notes: slope = -.51 (tstat=-7.31)
Regression is weighted by metro area sample size, represented by the size of each circle.
The sample is restricted to metro areas with at least 50 observations for male wages in the given racial group.
The male sample consistes of ages 25-55 who are not in the army.

Appendix Figure 16: Changes in Percent Never Married for White Women
Differences by Metro Area between 1960-2010

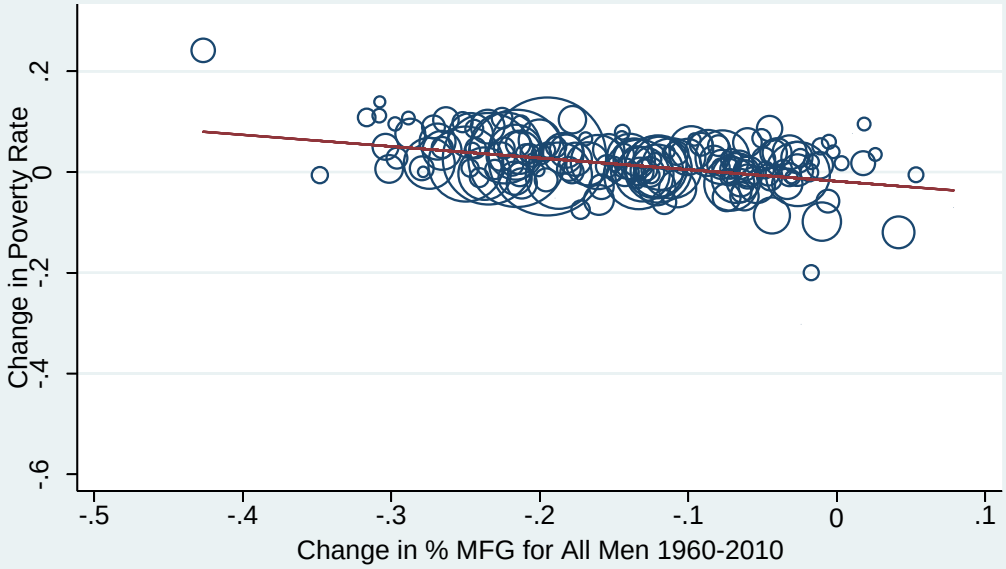


Notes: slope = -.067 (tstat=-1.17)
Regression is weighted by metro area sample size, represented by the size of each circle.
The sample is restricted to metro areas with at least 50 observations for male wages in the given racial group.
The male sample consistes of ages 25-55 who are not in the army.

Appendix Figure 17: Changes in the Poverty Rate for Black Women
Differences by Metro Area between 1960-2010

Notes: slope = -.952 (tstat=-7.03)
Regression is weighted by metro area sample size, represented by the size of each circle.
The sample is restricted to metro areas with at least 50 observations for male wages in the given racial group.
The male sample consistes of ages 25-55 who are not in the army.

Appendix Figure 18: Changes in the Poverty Rate for White Women
Differences by Metro Area between 1960-2010



Notes: slope = -.23 (tstat=-7.23)
Regression is weighted by metro area sample size, represented by the size of each circle.
The sample is restricted to metro areas with at least 50 observations for male wages in the given racial group.
The male sample consistes of ages 25-55 who are not in the army.

Table 1: OLS Results by Metro Area for Core Outcomes of Blacks (1960-2010)

	Black Men			Black Women			Black Children	
	Mean Log Wage	Emloyment Rate	Percent Never Married	Percent Never Married	Percent Poor	Percent Single Mothers	Percent Poor	Percent with One Parent
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
% Manufacturing (Black Men)	0.887***	0.375***	-0.304***	-0.337***	-0.533***	-0.194***	-0.600***	-0.264***
	(0.092)	(0.040)	(0.041)	(0.035)	(0.074)	(0.029)	(0.071)	(0.040)
% High School Dropouts	-1.525***	-0.238***	0.074	0.247***	0.996***	0.505***	1.249***	0.785***
	(0.233)	(0.070)	(0.100)	(0.092)	(0.132)	(0.085)	(0.151)	(0.104)
% High School Graduates	-0.982***	-0.194**	-0.119	-0.077	0.211*	0.498***	0.517***	0.655***
	(0.186)	(0.076)	(0.102)	(0.086)	(0.108)	(0.058)	(0.107)	(0.077)
% College Dropouts	-1.415***	-0.068	-0.145	-0.126	0.321**	0.490***	0.777***	0.754***
	(0.228)	(0.096)	(0.100)	(0.077)	(0.128)	(0.061)	(0.130)	(0.091)
% between 35 and 44 Years of Age	0.223*	0.144***	0.211***	-0.194	-0.219	-0.112	-0.348	-0.482***
	(0.118)	(0.046)	(0.071)	(0.202)	(0.289)	(0.150)	(0.305)	(0.165)
% between 45 and 55 Years of Age	-0.010	0.084	-0.177***	-0.450**	-0.054	-0.025	-0.072	-0.355**
	(0.180)	(0.073)	(0.054)	(0.202)	(0.297)	(0.149)	(0.325)	(0.175)
Observations	718	718	718	718	718	718	718	718
Number of metarea	164	164	164	164	164	164	164	164
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Metro Area Fixed-Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Each column represents a separate regression using the dependent variable indicated in the column heading. Robust standard errors clustered by geographic area (metro area) are in parentheses. Significance levels are indicated by: *** for the 1% level, ** for the 5% level, and * for the 10% level. The age and education demographics are for adult males (ages 25-55) for the male sample, and adult females (ages 25-45) for the female and child samples. Observations are weighted by the local population size (men and women between the ages of 25 and 55) in 1990 for the race used in the sample.

Table 2: OLS and IV Results by Metro Area for Core Outcomes of Blacks

	Coefficient on % Manufacturing (Black Men)							
	Black Men			Black Women			Black Children	
	Mean Log Wage	Emloyment Rate	Percent Never Married	Percent Never Married	Percent Poor	Percent Single Mothers	Percent Poor	Percent with One Parent
Starting Year	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
				OLS with Different Starting Years				
1960	0.887***	0.375***	-0.304***	-0.337***	-0.533***	-0.194***	-0.600***	-0.264***
	(0.092)	(0.040)	(0.041)	(0.035)	(0.074)	(0.029)	(0.071)	(0.040)
1970	0.891***	0.437***	-0.306***	-0.341***	-0.408***	-0.146***	-0.480***	-0.233***
	(0.108)	(0.040)	(0.049)	(0.037)	(0.045)	(0.033)	(0.055)	(0.046)
1980	0.867***	0.434***	-0.281***	-0.293***	-0.309***	-0.101***	-0.363***	-0.184***
	(0.126)	(0.033)	(0.044)	(0.037)	(0.045)	(0.036)	(0.055)	(0.044)
1990	0.862***	0.572***	-0.220***	-0.158***	-0.335***	-0.124**	-0.328***	-0.110
	(0.228)	(0.074)	(0.064)	(0.058)	(0.099)	(0.063)	(0.107)	(0.079)
				IV with Different Starting Years				
1960	1.449***	0.229***	-0.281***	-0.407***	-0.507***	-0.207***	-0.640***	-0.366***
	(0.192)	(0.079)	(0.098)	(0.079)	(0.142)	(0.046)	(0.131)	(0.067)
1970	1.247***	0.338***	-0.295***	-0.380***	-0.424***	-0.159***	-0.515***	-0.279***
	(0.172)	(0.081)	(0.105)	(0.074)	(0.089)	(0.054)	(0.092)	(0.068)
1980	1.207***	0.335***	-0.326***	-0.409***	-0.298***	-0.146***	-0.390***	-0.286***
	(0.200)	(0.060)	(0.062)	(0.055)	(0.079)	(0.045)	(0.093)	(0.081)
1990	1.350***	0.371**	-0.493***	-0.366***	-0.203	-0.129	-0.278	-0.180
	(0.377)	(0.155)	(0.174)	(0.117)	(0.186)	(0.096)	(0.223)	(0.191)

Notes: Each coefficient represents a separate regression using the dependent variable indicated in the column heading and using a sample with the starting year indicated in the row heading. Robust standard errors clustered by geographic area (metro area) are in parentheses. Significance levels are indicated by: *** for the 1% level, ** for the 5% level, and * for the 10% level. Observations are weighted by the local population size (men and women between the ages of 25 and 55) in 1990 for the race used in the sample. All regressions include fixed-effects for each year and geographic area (metro area), as well as demographic controls for education and age for the corresponding gender and race (see Table 1). The age and education demographics are for adult males (ages 25-55) for the male sample, and adult females (ages 25-45) for the female and child samples. The instrument for percent manufacturing for each race is the "shift-share" variable described in equation (2) in the text. The base year for the construction of the instrument is equal to the starting year of the sample.

Table 3: OLS and IV Results by Metro Area for More Outcomes of Black Men

	Coefficient on % Manufacturing (Black Men)								
Starting Year	Median Log Wage (1)	Median Residual Log Wage (adjusted for education and age) (2)	Employment Rate of Non-College (3)	Poverty (4)	Welfare Recipients (5)	Divorced (6)	Group Quarters (7)	Home Owner (8)	Log House Value (9)
				OLS with Different Starting Years					
1960	0.913***	0.951***	0.390***	-0.616***	-0.108***	-0.082***	-0.095***	0.078	1.639***
	(0.086)	(0.084)	(0.042)	(0.067)	(0.016)	(0.030)	(0.035)	(0.143)	(0.336)
1970	0.943***	0.981***	0.452***	-0.502***	-0.108***	-0.076*	-0.064	0.119	1.554***
	(0.094)	(0.093)	(0.042)	(0.046)	(0.016)	(0.041)	(0.042)	(0.138)	(0.368)
1980	0.950***	0.990***	0.454***	-0.408***	-0.058*	-0.031	-0.069	0.236***	1.031***
	(0.139)	(0.126)	(0.034)	(0.035)	(0.031)	(0.052)	(0.044)	(0.082)	(0.276)
1990	1.080***	1.000***	0.600***	-0.459***	-0.017	0.016	-0.182***	0.376***	1.247***
	(0.280)	(0.242)	(0.078)	(0.065)	(0.054)	(0.059)	(0.055)	(0.094)	(0.365)
				IV with Different Starting Years					
1960	1.651***	1.543***	0.240***	-0.711***	-0.059***	-0.064	-0.076	0.135	2.245***
	(0.208)	(0.205)	(0.089)	(0.126)	(0.018)	(0.068)	(0.063)	(0.273)	(0.623)
1970	1.487***	1.398***	0.355***	-0.514***	-0.066***	-0.054	-0.026	0.233	1.887***
	(0.170)	(0.163)	(0.092)	(0.077)	(0.021)	(0.081)	(0.063)	(0.253)	(0.495)
1980	1.409***	1.412***	0.359***	-0.421***	0.046	-0.114	-0.049	0.422***	1.315***
	(0.251)	(0.209)	(0.070)	(0.050)	(0.042)	(0.082)	(0.061)	(0.158)	(0.497)
1990	1.820***	1.767***	0.363**	-0.490***	0.395**	0.000	-0.258**	0.875***	0.908
	(0.397)	(0.411)	(0.177)	(0.135)	(0.169)	(0.146)	(0.103)	(0.239)	(0.603)

Notes: Each coefficient represents a separate regression using the dependent variable indicated in the column heading and using a sample with the starting year indicated in the row heading. Robust standard errors clustered by geographic area (metro area) are in parentheses. Significance levels are indicated by: *** for the 1% level, ** for the 5% level, and * for the 10% level. Observations are weighted by the local population size (men and women between the ages of 25 and 55) in 1990 for the race used in the sample. All regressions include fixed-effects for each year and geographic area (metro area), as well as demographic controls for education and age for the corresponding gender and race (see Table 1). The age and education demographics are for adult males (ages 25-55) for the male sample, and adult females (ages 25-45) for the female and child samples. The instrument for percent manufacturing for each race is the "shift-share" variable described in equation (2) in the text. The base year for the construction of the instrument is equal to the starting year of the sample.

Table 4: OLS and IV Results by Metro Area for More Outcomes of Black Women

	Coefficient on % Manufacturing (Black Men)							
	Teen Motherhood	Mean Log Wage	Employment Rate	Welfare Recipients	Divorced	Widowed	Home Owner	Log House Value
Starting Year	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
				OLS with Different Starting Years				
1960	-0.070**	0.667***	0.115*	-0.023	0.027	-0.035***	-0.033	1.457***
	(0.028)	(0.121)	(0.068)	(0.054)	(0.038)	(0.012)	(0.133)	(0.309)
1970	-0.027	0.652***	0.012	-0.023	0.062	-0.023*	0.040	1.128***
	(0.034)	(0.106)	(0.052)	(0.054)	(0.049)	(0.012)	(0.151)	(0.347)
1980	-0.020	0.580***	0.051	0.047	0.059	-0.006	0.205*	0.568**
	(0.031)	(0.110)	(0.057)	(0.079)	(0.067)	(0.013)	(0.111)	(0.258)
1990	-0.044	0.412**	0.113	-0.007	0.019	0.003	0.363***	1.143***
	(0.059)	(0.168)	(0.090)	(0.136)	(0.113)	(0.024)	(0.096)	(0.428)
				IV with Different Starting Years				
1960	-0.104**	0.902***	-0.237**	0.148**	0.088	-0.056***	-0.070	1.611***
	(0.042)	(0.258)	(0.108)	(0.065)	(0.072)	(0.021)	(0.230)	(0.597)
1970	-0.115**	0.764***	-0.086	0.125*	0.132*	-0.034*	0.143	1.210**
	(0.055)	(0.185)	(0.083)	(0.071)	(0.080)	(0.019)	(0.246)	(0.476)
1980	-0.050	0.918***	-0.080	0.311***	0.092	-0.013	0.318	0.744
	(0.054)	(0.140)	(0.074)	(0.094)	(0.079)	(0.021)	(0.200)	(0.461)
1990	0.074	1.197***	-0.229	0.739**	0.087	0.018	0.754***	0.719
	(0.126)	(0.348)	(0.184)	(0.325)	(0.177)	(0.053)	(0.207)	(0.683)

Notes: Each coefficient represents a separate regression using the dependent variable indicated in the column heading and using a sample with the starting year indicated in the row heading. Robust standard errors clustered by geographic area (metro area) are in parentheses. Significance levels are indicated by: *** for the 1% level, ** for the 5% level, and * for the 10% level. Observations are weighted by the local population size (men and women between the ages of 25 and 55) in 1990 for the race used in the sample. All regressions include fixed-effects for each year and geographic area (metro area), as well as demographic controls for education and age for the corresponding gender and race (see Table 1). The age and education demographics are for adult males (ages 25-55) for the male sample, and adult females (ages 25-45) for the female and child samples. The instrument for percent manufacturing for each race is the "shift-share" variable described in equation (2) in the text. The base year for the construction of the instrument is equal to the starting year of the sample.

Table 5: Inequality within Black Men and Women by Metro Area

	Coefficient on % Manufacturing (Black Men)									
	Black Men								Black Women	
						Return to Education			Return to Education	
Starting Year	Log Wage 90th Percentile	Log Wage 10th Percentile	90/10 Ratio in Log Wage	90/10 Ratio in Residual Wages (adjusted for educ and age)	Standard Deviation of Log House Values	Log Wages	Never Married	Employment Rates	Never Married	Single Mother
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
					OLS with Different Starting Years					
1960	0.598***	1.237***	-0.638***	-0.522***	-0.415***	-0.029*	0.034***	-0.076***	0.035***	-0.007
	(0.075)	(0.158)	(0.123)	(0.115)	(0.137)	(0.017)	(0.009)	(0.011)	(0.008)	(0.009)
1970	0.571***	1.321***	-0.750***	-0.560***	-0.380**	-0.045**	0.036***	-0.078***	0.044***	-0.018
	(0.092)	(0.186)	(0.136)	(0.150)	(0.176)	(0.020)	(0.011)	(0.012)	(0.009)	(0.012)
1980	0.490***	1.240***	-0.749***	-0.509***	-0.253	-0.073***	0.028**	-0.061***	0.035***	-0.008
	(0.115)	(0.186)	(0.124)	(0.148)	(0.196)	(0.024)	(0.013)	(0.012)	(0.012)	(0.014)
1990	0.638***	0.847***	-0.209	0.114	-0.004	-0.101**	0.037	-0.050**	-0.008	-0.013
	(0.231)	(0.208)	(0.237)	(0.207)	(0.171)	(0.048)	(0.024)	(0.023)	(0.023)	(0.029)
					IV with Different Starting Years					
1960	0.966***	1.732***	-0.766***	-0.503***	-0.420**	-0.086**	0.055***	-0.063**	0.066***	0.005
	(0.148)	(0.270)	(0.226)	(0.183)	(0.197)	(0.034)	(0.017)	(0.025)	(0.013)	(0.017)
1970	0.778***	1.487***	-0.709***	-0.491***	-0.196	-0.077**	0.049***	-0.071***	0.073***	0.016
	(0.147)	(0.277)	(0.230)	(0.180)	(0.250)	(0.036)	(0.016)	(0.022)	(0.014)	(0.022)
1980	0.625***	1.464***	-0.839***	-0.490**	-0.118	-0.134***	0.046**	-0.035	0.079***	0.025
	(0.168)	(0.273)	(0.245)	(0.192)	(0.252)	(0.043)	(0.019)	(0.024)	(0.019)	(0.020)
1990	0.946*	0.611	0.336	0.753	-0.023	-0.242*	0.120**	0.027	0.065	0.083
	(0.517)	(0.497)	(0.780)	(0.604)	(0.396)	(0.140)	(0.052)	(0.051)	(0.049)	(0.057)

Notes: Each coefficient represents a separate regression using the dependent variable indicated in the column heading and using a sample with the starting year indicated in the row heading. Robust standard errors clustered by geographic area (metro area) are in parentheses. Significance levels are indicated by: *** for the 1% level, ** for the 5% level, and * for the 10% level. Observations are weighted by the local population size (men and women between the ages of 25 and 55) in 1990 for the race used in the sample. All regressions include fixed-effects for each year and geographic area (metro area), as well as demographic controls for education and age for the corresponding gender and race (see Table 1). The age and education demographics are for adult males (ages 25-55) for the male sample, and adult females (ages 25-45) for the female and child samples. The instrument for percent manufacturing for each race is the "shift-share" variable described in equation (2) in the text. The base year for the construction of the instrument is equal to the starting year of the sample.

Table 6: OLS and IV Results by Metro Area for Core Outcomes of Whites

	Coefficient on % Manufacturing (White Men)							
	White Men			White Women			White Children	
Starting Year	Mean Log Wage (1)	Emloyment Rate (2)	Percent Never Married (3)	Percent Never Married (4)	Percent Poor (5)	Percent Single Mothers (6)	Percent Poor (7)	Percent with One Parent (8)
				OLS with Different Starting Years				
1960	0.566***	0.159***	-0.110*	-0.109	-0.247***	-0.093***	-0.441***	-0.140***
	(0.079)	(0.026)	(0.060)	(0.066)	(0.031)	(0.020)	(0.059)	(0.040)
1970	0.567***	0.170***	-0.108**	-0.074	-0.173***	-0.094***	-0.294***	-0.117***
	(0.098)	(0.032)	(0.052)	(0.062)	(0.028)	(0.020)	(0.047)	(0.035)
1980	0.693***	0.227***	-0.108**	-0.109*	-0.173***	-0.083***	-0.243***	-0.089**
	(0.119)	(0.037)	(0.046)	(0.059)	(0.030)	(0.020)	(0.055)	(0.039)
1990	0.816***	0.305***	-0.125**	-0.135**	-0.265***	-0.113***	-0.271***	-0.030
	(0.164)	(0.055)	(0.054)	(0.065)	(0.043)	(0.028)	(0.073)	(0.054)
				IV with Different Starting Years				
1960	0.906***	0.060	-0.044	-0.003	-0.150***	-0.061	-0.230**	-0.005
	(0.201)	(0.038)	(0.087)	(0.086)	(0.055)	(0.038)	(0.100)	(0.065)
1970	0.816***	0.054	-0.073	0.034	-0.120***	-0.098**	-0.270***	-0.077
	(0.221)	(0.041)	(0.084)	(0.093)	(0.044)	(0.040)	(0.071)	(0.052)
1980	1.199***	0.176***	-0.074	0.029	-0.144***	-0.160***	-0.296***	-0.201***
	(0.225)	(0.033)	(0.073)	(0.081)	(0.031)	(0.036)	(0.074)	(0.061)
1990	1.065***	0.109*	-0.077	0.049	-0.222***	-0.188***	-0.261**	-0.178
	(0.292)	(0.063)	(0.101)	(0.113)	(0.047)	(0.055)	(0.110)	(0.126)

Notes: Each coefficient represents a separate regression using the dependent variable indicated in the column heading and using a sample with the starting year indicated in the row heading. Robust standard errors clustered by geographic area (metro area) are in parentheses. Significance levels are indicated by: *** for the 1% level, ** for the 5% level, and * for the 10% level. Observations are weighted by the local population size (men and women between the ages of 25 and 55) in 1990 for the race used in the sample. All regressions include fixed-effects for each year and geographic area (metro area), as well as demographic controls for education and age for the corresponding gender and race (see Table 1). The age and education demographics are for adult males (ages 25-55) for the male sample, and adult females (ages 25-45) for the female and child samples. The instrument for percent manufacturing for each race is the "shift-share" variable described in equation (2) in the text. The base year for the construction of the instrument is equal to the starting year of the sample.

Table 7: OLS and IV Results by Metro Area for More Outcomes of White Men

	Coefficient on % Manufacturing (White Men)								
Starting Year	Median Log Wage (1)	Median Residual Log Wage (adjusted for education and age) (2)	Employment Rate of Non-College (3)	Poverty (4)	Welfare Recipients (5)	Divorced (6)	Group Quarters (7)	Home Owner (8)	Log House Value (9)
				OLS with Different Starting Years					
1960	0.434***	0.495***	0.172***	-0.208***	-0.039***	0.019	-0.051***	0.124	0.822**
	(0.076)	(0.074)	(0.027)	(0.023)	(0.008)	(0.027)	(0.018)	(0.082)	(0.340)
1970	0.482***	0.541***	0.187***	-0.141***	-0.039***	0.016	-0.013	0.040	0.912***
	(0.097)	(0.094)	(0.034)	(0.026)	(0.008)	(0.035)	(0.012)	(0.071)	(0.312)
1980	0.617***	0.660***	0.239***	-0.165***	-0.039***	-0.016	-0.016	0.090	1.036***
	(0.125)	(0.113)	(0.039)	(0.029)	(0.008)	(0.046)	(0.011)	(0.055)	(0.346)
1990	0.801***	0.801***	0.302***	-0.231***	-0.054***	-0.099	-0.023*	0.234***	1.587***
	(0.193)	(0.152)	(0.062)	(0.043)	(0.013)	(0.068)	(0.012)	(0.056)	(0.490)
				IV with Different Starting Years					
1960	0.771***	0.854***	0.084*	-0.141***	-0.030**	0.124***	-0.039*	0.159	1.007
	(0.223)	(0.189)	(0.047)	(0.041)	(0.013)	(0.046)	(0.023)	(0.171)	(0.696)
1970	0.718***	0.782***	0.074	-0.082**	-0.023*	0.123**	-0.009	0.038	1.407**
	(0.254)	(0.209)	(0.050)	(0.033)	(0.014)	(0.058)	(0.018)	(0.165)	(0.709)
1980	1.109***	1.078***	0.179***	-0.109***	-0.029**	-0.070	-0.020	0.085	2.076***
	(0.241)	(0.220)	(0.037)	(0.026)	(0.012)	(0.062)	(0.017)	(0.100)	(0.670)
1990	1.102***	0.994***	0.062	-0.118**	-0.012	-0.153	-0.040*	0.048	0.510
	(0.367)	(0.281)	(0.078)	(0.049)	(0.023)	(0.107)	(0.023)	(0.109)	(0.588)

Notes: Each coefficient represents a separate regression using the dependent variable indicated in the column heading and using a sample with the starting year indicated in the row heading. Robust standard errors clustered by geographic area (metro area) are in parentheses. Significance levels are indicated by: *** for the 1% level, ** for the 5% level, and * for the 10% level. Observations are weighted by the local population size (men and women between the ages of 25 and 55) in 1990 for the race used in the sample. All regressions include fixed-effects for each year and geographic area (metro area), as well as demographic controls for education and age for the corresponding gender and race (see Table 1). The age and education demographics are for adult males (ages 25-55) for the male sample, and adult females (ages 25-45) for the female and child samples. The instrument for percent manufacturing for each race is the "shift-share" variable described in equation (2) in the text. The base year for the construction of the instrument is equal to the starting year of the sample.

Table 8: OLS and IV Results by Metro Area for More Outcomes of White Women

	Coefficient on % Manufacturing (White Men)							
Starting Year	Teen Motherhood (1)	Mean Log Wage (2)	Employment Rate (3)	Welfare Recipients (4)	Divorced (5)	Widowed (6)	Home Owner (7)	Log House Value (8)
				OLS with Different Starting Years				
1960	-0.062***	0.287***	-0.029	-0.025*	0.055**	-0.006*	0.075	0.830**
	(0.021)	(0.079)	(0.036)	(0.015)	(0.021)	(0.004)	(0.086)	(0.345)
1970	-0.029*	0.280***	-0.101**	-0.025*	0.055*	-0.002	0.017	0.931***
	(0.015)	(0.086)	(0.040)	(0.015)	(0.031)	(0.004)	(0.071)	(0.320)
1980	-0.013	0.338***	-0.103**	-0.016	0.032	0.005	0.070	0.708**
	(0.014)	(0.102)	(0.049)	(0.015)	(0.041)	(0.003)	(0.063)	(0.355)
1990	0.021	0.196	0.086	-0.063***	-0.021	0.008	0.235***	1.672***
	(0.025)	(0.148)	(0.065)	(0.021)	(0.047)	(0.006)	(0.071)	(0.536)
				IV with Different Starting Years				
1960	-0.053	0.534***	-0.223***	-0.010	0.177***	-0.007	0.010	1.083*
	(0.041)	(0.167)	(0.063)	(0.023)	(0.043)	(0.006)	(0.139)	(0.638)
1970	-0.050*	0.498***	-0.246***	-0.013	0.141**	-0.009	-0.027	1.480**
	(0.030)	(0.179)	(0.065)	(0.024)	(0.056)	(0.007)	(0.137)	(0.640)
1980	-0.008	0.804***	-0.349***	0.023	-0.068	0.002	0.002	1.786***
	(0.024)	(0.180)	(0.089)	(0.024)	(0.060)	(0.006)	(0.091)	(0.658)
1990	0.039	0.111	-0.075	-0.022	-0.132	0.005	-0.061	0.511
	(0.050)	(0.268)	(0.127)	(0.037)	(0.104)	(0.012)	(0.164)	(0.607)

Notes: Each coefficient represents a separate regression using the dependent variable indicated in the column heading and using a sample with the starting year indicated in the row heading. Robust standard errors clustered by geographic area (metro area) are in parentheses. Significance levels are indicated by: *** for the 1% level, ** for the 5% level, and * for the 10% level. Observations are weighted by the local population size (men and women between the ages of 25 and 55) in 1990 for the race used in the sample. All regressions include fixed-effects for each year and geographic area (metro area), as well as demographic controls for education and age for the corresponding gender and race (see Table 1). The age and education demographics are for adult males (ages 25-55) for the male sample, and adult females (ages 25-45) for the female and child samples. The instrument for percent manufacturing for each race is the "shift-share" variable described in equation (2) in the text. The base year for the construction of the instrument is equal to the starting year of the sample.

Table 9: Inequality within White Men and Women by Metro Area

	Coefficient on % Manufacturing (White Men)									
	White Men								White Women	
						Return to Education			Return to Education	
Starting Year	Log Wage 90th Percentile (1)	Log Wage 10th Percentile (2)	90/10 Ratio in Log Wage (3)	90/10 Ratio in Residual Wages (adjusted for educ and age) (4)	Standard Deviation of Log House Values (5)	Log Wages (6)	Never Married (7)	Employment Rates (8)	Never Married (9)	Single Mother (10)
					OLS with Different Starting Years					
1960	0.284**	1.054***	-0.770***	-0.531***	-0.312***	-0.037**	0.014**	-0.022***	0.034***	0.012***
	(0.137)	(0.121)	(0.185)	(0.085)	(0.082)	(0.017)	(0.006)	(0.008)	(0.006)	(0.004)
1970	0.300**	1.001***	-0.702***	-0.477***	-0.206**	-0.040**	0.022***	-0.026**	0.043***	0.008*
	(0.142)	(0.133)	(0.168)	(0.086)	(0.103)	(0.019)	(0.008)	(0.010)	(0.006)	(0.005)
1980	0.414***	1.115***	-0.701***	-0.460***	-0.251***	-0.070***	0.027***	-0.031***	0.043***	0.008
	(0.136)	(0.148)	(0.149)	(0.086)	(0.095)	(0.019)	(0.008)	(0.012)	(0.008)	(0.006)
1990	0.635***	1.144***	-0.510**	-0.340***	-0.343***	-0.052**	0.023*	-0.046***	0.027**	0.020*
	(0.187)	(0.230)	(0.231)	(0.129)	(0.099)	(0.025)	(0.012)	(0.017)	(0.014)	(0.011)
					IV with Different Starting Years					
1960	0.604**	1.558***	-0.954***	-0.562***	-0.154	-0.075***	0.029**	-0.007	0.062***	0.008
	(0.301)	(0.188)	(0.257)	(0.165)	(0.141)	(0.023)	(0.012)	(0.010)	(0.011)	(0.008)
1970	0.295	1.573***	-1.277***	-0.686***	-0.108	-0.094***	0.038***	-0.007	0.063***	0.013
	(0.301)	(0.208)	(0.243)	(0.195)	(0.168)	(0.027)	(0.014)	(0.009)	(0.011)	(0.009)
1980	0.857***	1.742***	-0.885***	-0.370*	-0.310**	-0.148***	0.057***	-0.023**	0.061***	0.016
	(0.270)	(0.232)	(0.207)	(0.201)	(0.137)	(0.030)	(0.017)	(0.010)	(0.013)	(0.010)
1990	1.104***	1.270***	-0.167	0.153	-0.275	-0.051	0.069**	0.007	0.058**	0.050**
	(0.405)	(0.385)	(0.502)	(0.384)	(0.170)	(0.069)	(0.032)	(0.021)	(0.023)	(0.020)

Notes: Each coefficient represents a separate regression using the dependent variable indicated in the column heading and using a sample with the starting year indicated in the row heading. Robust standard errors clustered by geographic area (metro area) are in parentheses. Significance levels are indicated by: *** for the 1% level, ** for the 5% level, and * for the 10% level. Observations are weighted by the local population size (men and women between the ages of 25 and 55) in 1990 for the race used in the sample. All regressions include fixed-effects for each year and geographic area (metro area), as well as demographic controls for education and age for the corresponding gender and race (see Table 1). The age and education demographics are for adult males (ages 25-55) for the male sample, and adult females (ages 25-45) for the female and child samples. The instrument for percent manufacturing for each race is the "shift-share" variable described in equation (2) in the text. The base year for the construction of the instrument is equal to the starting year of the sample.

Table 10: Black-White Gaps within Metro Area for Core Outcomes

	Coefficient on % Manufacturing (All Men)							
	Black-White Gap for Men			Black-White Gap for Women			Black-White Gap for Children	
	Log Wage	Employed	Never Married	Never Married	Poor	Single Mother	Percent Poor	Percent with One Parent
Starting Year	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
				OLS with Different Starting Years				
1960	0.801***	0.229***	-0.303***	-0.339***	-0.538***	-0.123***	-0.360***	-0.210***
	(0.105)	(0.037)	(0.055)	(0.047)	(0.141)	(0.033)	(0.094)	(0.065)
1970	0.678***	0.321***	-0.307***	-0.333***	-0.369***	-0.068*	-0.362***	-0.189***
	(0.108)	(0.057)	(0.061)	(0.056)	(0.120)	(0.038)	(0.105)	(0.071)
1980	0.348***	0.241***	-0.156***	-0.256***	-0.198**	-0.019	-0.213**	-0.173**
	(0.080)	(0.039)	(0.057)	(0.057)	(0.099)	(0.037)	(0.100)	(0.080)
1990	0.276*	0.284***	0.032	-0.033	-0.107	-0.017	-0.138	-0.173
	(0.155)	(0.071)	(0.081)	(0.098)	(0.169)	(0.078)	(0.156)	(0.128)
				IV with Different Starting Years				
1960	0.913***	0.184***	-0.331***	-0.473***	-0.589***	-0.144***	-0.606***	-0.478***
	(0.171)	(0.059)	(0.106)	(0.085)	(0.214)	(0.055)	(0.192)	(0.172)
1970	0.805***	0.340***	-0.346***	-0.456***	-0.524***	-0.080	-0.528***	-0.328**
	(0.170)	(0.089)	(0.125)	(0.088)	(0.183)	(0.077)	(0.178)	(0.129)
1980	0.479***	0.219***	-0.210*	-0.433***	-0.316*	-0.024	-0.335**	-0.297***
	(0.132)	(0.067)	(0.109)	(0.078)	(0.162)	(0.068)	(0.160)	(0.093)
1990	0.212	0.232**	-0.003	-0.264*	0.026	0.128	0.048	-0.193
	(0.261)	(0.107)	(0.171)	(0.145)	(0.211)	(0.102)	(0.281)	(0.221)

Notes: Each coefficient represents a separate regression using the dependent variable indicated in the column heading and using a sample with the starting year indicated in the row heading. Robust standard errors clustered by geographic area (metro area) are in parentheses. Significance levels are indicated by: *** for the 1% level, ** for the 5% level, and * for the 10% level. Observations are weighted by the local black population size (men and women between the ages of 25 and 55) in 1990. All regressions include fixed-effects for each year and geographic area (metro area). In columns 1-6, the Black-White Gap for each Metro Area and year is estimated from individual level data with demographic controls for age and education. In columns 7-8, the Black-White Gap is estimated as the mean difference between whites and blacks within a Metro Area for each year. The regressions in columns 7-8 include controls for the differences in mean demographics between blacks and whites. The instrument for percent manufacturing for each race is the "shift-share" variable described in equation (2) in the text. The base year for the construction of the instrument is equal to the starting year of the sample.

Table 11: Black-White Gaps for Men in Other Outcomes by Metro Area

	Coefficient on % Manufacturing (All Men)								
	Black-White Gap within Metro Area for Men								
Starting Year	Median Log Wage (1)	Median Residual Log Wage (adjusted for education and age) (2)	Employment Rate of Non-College (3)	Poverty (4)	Welfare Recipient (5)	Divorced (6)	Group Quarters (7)	Home Owner (8)	Log House Value (9)
				OLS with Different Starting Years					
1960	0.640***	0.740***	0.227***	-0.557***	-0.071**	-0.073*	-0.032	0.088	1.100***
	(0.164)	(0.086)	(0.044)	(0.101)	(0.028)	(0.037)	(0.041)	(0.082)	(0.301)
1970	0.598***	0.736***	0.332***	-0.429***	-0.071**	-0.050	-0.056	0.261***	0.570*
	(0.211)	(0.100)	(0.056)	(0.091)	(0.028)	(0.049)	(0.048)	(0.096)	(0.294)
1980	0.431*	0.578***	0.283***	-0.329***	-0.034	0.003	-0.052	0.263**	0.008
	(0.251)	(0.115)	(0.049)	(0.073)	(0.038)	(0.065)	(0.056)	(0.103)	(0.298)
1990	0.470	0.413	0.323***	-0.256**	0.026	0.061	-0.146*	0.377**	-0.215
	(0.402)	(0.276)	(0.100)	(0.119)	(0.076)	(0.113)	(0.075)	(0.182)	(0.349)
				IV with Different Starting Years					
1960	1.048***	1.037***	0.156*	-0.633***	-0.076*	-0.146	-0.037	-0.004	1.731***
	(0.318)	(0.169)	(0.090)	(0.173)	(0.043)	(0.089)	(0.085)	(0.168)	(0.437)
1970	0.963**	1.067***	0.373***	-0.547***	-0.081*	-0.136	-0.028	0.343**	1.264***
	(0.392)	(0.174)	(0.101)	(0.147)	(0.043)	(0.102)	(0.095)	(0.163)	(0.380)
1980	0.699*	1.044***	0.281***	-0.454***	0.046	-0.160	-0.084	0.622***	0.345
	(0.410)	(0.177)	(0.093)	(0.104)	(0.047)	(0.103)	(0.094)	(0.171)	(0.380)
1990	0.462	0.682**	0.133	-0.281*	0.433**	-0.036	-0.360***	1.432***	0.543
	(0.647)	(0.346)	(0.179)	(0.156)	(0.191)	(0.174)	(0.130)	(0.431)	(0.418)

Notes: The Black-White Gap is estimated as the mean difference between whites and blacks within a Metro Area for each year. All regressions include controls for the differences in mean demographics between blacks and whites (for the relevant gender). Each coefficient represents a separate regression using the dependent variable indicated in the column heading and using a sample with the starting year indicated in the row heading. Robust standard errors clustered by geographic area (metro area) are in parentheses. Significance levels are indicated by: *** for the 1% level, ** for the 5% level, and * for the 10% level. Observations are weighted by the local black population size (men and women between the ages of 25 and 55) in 1990. All regressions include fixed-effects for each year and geographic area (metro area). The instrument for percent manufacturing for each race is the "shift-share" variable described in equation (2) in the text. The base year for the construction of the instrument is equal to the starting year of the sample.

Table 12: Black-White Gaps for Women in Other Outcomes by Metro Area

	Coefficient on % Manufacturing (All Men)							
	Black-White Gap within Metro Area for Women							
Starting Year	Teen Motherhood (1)	Mean Log Wage (2)	Employment Rate (3)	Welfare Recipients (4)	Divorced (5)	Widowed (6)	Home Owner (7)	Log House Value (8)
	OLS with Different Starting Years							
1960	0.014	0.461***	0.111	0.025	-0.003	-0.025	-0.021	0.975***
	(0.051)	(0.153)	(0.087)	(0.080)	(0.041)	(0.016)	(0.099)	(0.272)
1970	0.010	0.381**	0.107	0.025	0.064	-0.029	0.180	0.495*
	(0.045)	(0.146)	(0.111)	(0.080)	(0.052)	(0.019)	(0.125)	(0.274)
1980	-0.026	0.230***	0.167*	0.053	0.090	-0.024	0.284*	-0.127
	(0.047)	(0.085)	(0.092)	(0.090)	(0.074)	(0.021)	(0.151)	(0.281)
1990	-0.095	0.194	0.108	0.003	0.038	-0.026	0.398*	-0.449
	(0.088)	(0.137)	(0.127)	(0.168)	(0.117)	(0.037)	(0.228)	(0.430)
	IV with Different Starting Years							
1960	-0.058	0.434	-0.117	0.147*	-0.030	-0.037	-0.121	1.031**
	(0.084)	(0.350)	(0.172)	(0.084)	(0.085)	(0.025)	(0.180)	(0.405)
1970	-0.063	0.439	0.188	0.115	0.043	-0.031	0.295	0.847**
	(0.081)	(0.317)	(0.186)	(0.088)	(0.076)	(0.023)	(0.191)	(0.329)
1980	-0.002	0.556***	0.224	0.298***	0.130	-0.018	0.582**	0.085
	(0.081)	(0.194)	(0.148)	(0.101)	(0.088)	(0.032)	(0.251)	(0.371)
1990	0.084	1.013**	-0.158	0.770**	0.113	-0.020	1.317***	0.335
	(0.147)	(0.395)	(0.280)	(0.313)	(0.175)	(0.071)	(0.451)	(0.622)

Notes: The Black-White Gap is estimated as the mean difference between whites and blacks within a Metro Area for each year. All regressions include controls for the differences in mean demographics between blacks and whites (for the relevant gender). Each coefficient represents a separate regression using the dependent variable indicated in the column heading and using a sample with the starting year indicated in the row heading. Robust standard errors clustered by geographic area (metro area) are in parentheses. Significance levels are indicated by: *** for the 1% level, ** for the 5% level, and * for the 10% level. Observations are weighted by the local black population size (men and women between the ages of 25 and 55) in 1990. All regressions include fixed-effects for each year and geographic area (metro area). The instrument for percent manufacturing for each race is the "shift-share" variable described in equation (2) in the text. The base year for the construction of the instrument is equal to the starting year of the sample.

Table 13: Black-White Gap in Inequality Measures by Metro Area

	Coefficient on % Manufacturing (All Men)							
	Black-White Gap for Men						Black-White Gap for Women	
				College Gap			College Gap	
Starting Year	90/10 Ratio in Log Wage (1)	90/10 Ratio in Residual Wages (adjusted for educ and age) (2)	Standard Deviation of Log House Values (3)	Log Wages (4)	Never Married (5)	Employment Rates (6)	Never Married (7)	Single Mother (8)
				OLS with Different Starting Years				
1960	0.174	-0.052	-0.406**	0.001	0.022	-0.069***	0.011	-0.012
	(0.272)	(0.157)	(0.177)	(0.020)	(0.015)	(0.014)	(0.013)	(0.016)
1970	-0.003	-0.124	-0.445**	-0.009	0.029	-0.074***	0.012	-0.025
	(0.356)	(0.224)	(0.202)	(0.026)	(0.018)	(0.017)	(0.015)	(0.020)
1980	-0.010	-0.089	-0.173	0.005	0.009	-0.049**	0.010	-0.027
	(0.275)	(0.230)	(0.230)	(0.033)	(0.020)	(0.020)	(0.020)	(0.024)
1990	0.256	0.531	0.263	-0.019	0.020	0.002	-0.027	-0.029
	(0.286)	(0.337)	(0.251)	(0.063)	(0.033)	(0.033)	(0.027)	(0.045)
				IV with Different Starting Years				
1960	-0.202	-0.293	-0.618**	-0.070	0.037	-0.089**	0.028	-0.016
	(0.513)	(0.295)	(0.287)	(0.044)	(0.024)	(0.037)	(0.020)	(0.024)
1970	0.036	-0.294	-0.356	-0.026	0.040	-0.112***	0.033	-0.019
	(0.561)	(0.380)	(0.413)	(0.054)	(0.025)	(0.032)	(0.020)	(0.024)
1980	-0.304	-0.393	-0.127	-0.051	0.016	-0.051	0.052*	-0.014
	(0.437)	(0.273)	(0.364)	(0.057)	(0.028)	(0.032)	(0.028)	(0.027)
1990	0.784	0.377	-0.527	-0.090	0.010	0.074	0.020	-0.022
	(0.725)	(0.578)	(0.538)	(0.134)	(0.073)	(0.067)	(0.050)	(0.059)

Notes: The Black-White Gap is estimated as the difference between whites and blacks within a Metro Area for each year. All regressions include controls for the differences in mean demographics between blacks and whites (for the relevant gender). Each coefficient represents a separate regression using the dependent variable indicated in the column heading and using a sample with the starting year indicated in the row heading. Robust standard errors clustered by geographic area (metro area) are in parentheses. Significance levels are indicated by: *** for the 1% level, ** for the 5% level, and * for the 10% level. Observations are weighted by the local black population size (men and women between the ages of 25 and 55) in 1990. All regressions include fixed-effects for each year and geographic area (metro area). The instrument for percent manufacturing for each race is the "shift-share" variable described in equation (2) in the text. The base year for the construction of the instrument is equal to the starting year of the sample.

Table 14: Effect of MFG on the County Mortality Rate (Adjusted) for Ages 10-64

	Coefficient on % Manufacturing (Black, White, or All Men) at the Metro Area Level					
	Blacks		Whites		Black-White Gap	
	OLS	IV	OLS	IV	OLS	IV
Starting Year	(1)	(2)	(3)	(4)	(5)	(6)
			Men			
1970	-10.205***	-18.903***	-0.988	-0.752	-9.667**	-29.693***
	(2.289)	(4.596)	(0.702)	(1.188)	(3.895)	(9.161)
1980	-9.455***	-13.148***	-0.425	-0.265	-9.000**	-16.909**
	(2.854)	(5.063)	(0.615)	(1.023)	(4.029)	(7.477)
1990	-1.375	-14.468*	-1.701	-6.055*	-0.106	-8.799
	(3.118)	(7.451)	(1.193)	(3.577)	(4.235)	(8.859)
			Women			
1970	-7.156***	-10.055***	-0.320	0.173	-7.737***	-15.112***
	(1.641)	(2.944)	(0.455)	(0.695)	(2.610)	(4.679)
1980	-5.110***	-8.434**	-0.513	-0.639	-5.445**	-12.338**
	(1.885)	(3.394)	(0.546)	(0.889)	(2.614)	(5.138)
1990	-1.347	-14.524***	-0.574	-2.606	-5.506*	-16.998***
	(2.941)	(5.234)	(0.719)	(1.856)	(3.111)	(5.294)

Notes: Each coefficient comes from a separate regression. The treatment variable is defined as the percent of men in manufacturing for each respective race, with both races used in the "black-white" regressions. Robust standard errors clustered by geographic area (metro area) are in parentheses. Significance levels are indicated by: *** for the 1% level, ** for the 5% level, and * for the 10% level. The unit of observation is at the age-group and county level, and each observation is matched to the employment share in manufacturing (for black men for the black sample, white men for the white sample, and all men for the "black-white" gap samples) at the metro area by year level. Each regression specification includes fixed-effects for each year, age group (ages 10-14, 15-19, 20-24, 25-34, 35-44, 45-54, and 55-64) and county, along with age and education demographic controls at the metro area level. The age and education demographics are for adults between the ages of 25-55 in the corresponding race and gender group, and the differences between the two racial groups for the "black-white" regressions for the respective gender. Observations are weighted by the county population size in 1990 for the race used in the sample, and for the black population in the "black-white" gap regressions. The mortality rates are adjusted be consistent over time by dropping any observation with less than 10 fatalities. The mortality data for each year was taken from the "Centers for Disease Control and Prevention, National Center for Health Statistics. Compressed Mortality File on the CDC WONDER Online Database."

Table 15: Effect of MFG on the County Mortality Rate (Adjusted) for Ages 0-9

	Coefficient on % Manufacturing (Black, White, or All Men) at the Metro Area Level					
	Blacks		Whites		Black-White Gap	
	OLS	IV	OLS	IV	OLS	IV
Starting Year	(1)	(2)	(3)	(4)	(5)	(6)
			Boys			
1970	-28.432***	-31.395***	-8.126**	-15.690**	-21.038**	-41.082**
	(6.896)	(10.251)	(3.995)	(6.705)	(9.417)	(18.263)
1980	-21.286***	-31.833***	-3.781	-8.914*	-11.723	-27.012
	(7.394)	(9.767)	(3.248)	(5.133)	(11.191)	(19.864)
1990	-8.929	-58.312***	-1.177	-11.101	3.824	-27.915
	(13.031)	(22.346)	(4.551)	(8.149)	(15.739)	(41.976)
			Girls			
1970	-35.702***	-49.353***	-11.551***	-12.982**	-31.346***	-54.131***
	(9.690)	(12.875)	(3.674)	(5.778)	(10.677)	(19.573)
1980	-16.575**	-30.968***	-9.205**	-19.209**	0.381	-9.251
	(7.692)	(10.145)	(3.858)	(7.681)	(10.259)	(17.297)
1990	6.577	-12.909	-4.741	-9.049	-3.799	-28.016
	(11.639)	(17.962)	(3.898)	(8.527)	(16.501)	(28.916)

Notes: Each coefficient comes from a separate regression. The treatment variable is defined as the percent of men in manufacturing for each respective race, with both races used in the "black-white" regressions. Robust standard errors clustered by geographic area (metro area) are in parentheses. Significance levels are indicated by: *** for the 1% level, ** for the 5% level, and * for the 10% level. The unit of observation is at the age-group and county level, and each observation is matched to the employment share in manufacturing (for black men for the black sample, white men for the white sample, and all men for the "black-white" gap samples) at the metro area by year level. Each regression specification includes fixed-effects for each year, age group (ages less than one and between 1 and 9) and county, along with age and education demographic controls at the metro area level. The age and education demographics are for adults between the ages of 25-55 in the corresponding race and gender group, and the differences between the two racial groups for the "black-white" regressions for the respective gender. Observations are weighted by the county population size in 1990 for the race used in the sample, and for the black population in the "black-white" gap regressions. The mortality rates are adjusted be consistent over time by dropping any observation with less than 10 fatalities. The mortality data for each year was taken from the "Centers for Disease Control and Prevention, National Center for Health Statistics. Compressed Mortality File on the CDC WONDER Online Database."

Table 16: OLS and IV Results by Metro Area for Youth Education Outcomes (1960-2010)

	Coefficient on % MFG (Black, White, or All Men)			
	Boys HS Dropout Rate	Girls HS Dropout Rate	Boys College Enrollment Rate	Girls College Enrollment Rate
	(1)	(2)	(3)	(4)
			Blacks	
OLS	-0.038	-0.015	-0.033	-0.087*
	(0.051)	(0.042)	(0.052)	(0.051)
IV	-0.123	-0.055	0.035	0.003
	(0.092)	(0.076)	(0.091)	(0.110)
			Whites	
OLS	-0.175***	-0.160***	-0.262***	-0.254***
	(0.047)	(0.048)	(0.071)	(0.056)
IV	-0.265**	-0.259***	-0.326**	-0.343***
	(0.109)	(0.078)	(0.129)	(0.114)
			Black-White Gap	
OLS	-0.001	0.061	0.141	0.124
	(0.097)	(0.084)	(0.113)	(0.086)
IV	-0.220	-0.031	0.353*	0.293*
	(0.201)	(0.185)	(0.206)	(0.175)

Notes: The treatment variable is defined as the percent of men in manufacturing for each respective race, with both races used in the "black-white" regressions. The HS Dropout Rate is defined as the percent of 16 to 18 year olds that are not enrolled in school and do not have a high school degree. The college enrollment rate is defined as the percent of 19 to 24 year olds that are either enrolled in college or have already obtained a college degree. Each coefficient represents a separate regression using the dependent variable indicated in the column heading and using the specification indicated in the row heading. Robust standard errors clustered by geographic area (metro area) are in parentheses. Significance levels are indicated by: *** for the 1% level, ** for the 5% level, and * for the 10% level. Observations are weighted by the local population size (men and women between the ages of 25 and 55) in 1990 for the race used in the sample, and the black population in the "black-white" regressions. All regressions include fixed-effects for each year and geographic area (metro area), as well as demographic controls for education and age for the corresponding gender and race (see Table 1), or the difference in mean demographics between blacks and whites (for the relevant gender).

Appendix Table 1: Descriptive Statistics for Black and White Men between the ages of 25-55

	Means for Black Men across Metro Areas						Means for White Men across Metro Areas					
	1960	1970	1980	1990	2000	2010	1960	1970	1980	1990	2000	2010
Log Wage	9.97	10.30	10.38	10.36	10.37	10.31	10.45	10.70	10.70	10.68	10.71	10.68
Employment Rate	0.78	0.80	0.81	0.80	0.80	0.73	0.90	0.89	0.93	0.93	0.92	0.86
Never Married	0.13	0.14	0.22	0.34	0.35	0.46	0.10	0.10	0.15	0.21	0.23	0.30
Median Log Wage	10.00	10.33	10.43	10.39	10.37	10.31	10.43	10.69	10.72	10.69	10.69	10.66
Median Residual Wage	0.03	0.04	0.04	0.03	0.02	0.01	-0.01	0.01	0.02	0.01	0.01	0.00
Non-College Employment Rate	0.78	0.80	0.80	0.79	0.78	0.70	0.89	0.89	0.92	0.92	0.90	0.83
Poor	0.27	0.12	0.14	0.16	0.15	0.18	0.07	0.03	0.04	0.05	0.05	0.08
Welfare (recipient)		0.04	0.06	0.06	0.06	0.07		0.01	0.02	0.02	0.02	0.03
Divorced	0.14	0.16	0.25	0.30	0.28	0.31	0.04	0.06	0.12	0.16	0.17	0.19
Group Quarters	0.05	0.03	0.03	0.06	0.08	0.07	0.02	0.01	0.01	0.02	0.02	0.02
Home Owner	0.37	0.44	0.51	0.48	0.49	0.47	0.67	0.71	0.72	0.70	0.72	0.70
Log House Value	10.86	11.10	11.28	11.37	11.40	11.55	11.26	11.48	11.83	11.82	11.87	11.97
% MFG	0.22	0.22	0.24	0.16	0.14	0.09	0.29	0.27	0.25	0.21	0.17	0.13
% Blue Collar	0.44	0.47	0.41	0.34	0.31	0.25	0.38	0.37	0.35	0.32	0.30	0.25
% Services	0.25	0.26	0.31	0.36	0.38	0.38	0.26	0.30	0.35	0.38	0.41	0.41
High School Dropout	0.72	0.58	0.36	0.19	0.13	0.11	0.44	0.31	0.17	0.09	0.07	0.06
High School Graduate	0.17	0.27	0.35	0.39	0.48	0.44	0.28	0.33	0.33	0.29	0.35	0.34
College Dropout	0.06	0.08	0.19	0.28	0.24	0.27	0.13	0.15	0.21	0.30	0.24	0.24
College Graduate	0.05	0.06	0.11	0.14	0.15	0.17	0.16	0.21	0.29	0.32	0.35	0.35
Years of Education	8.76	10.13	11.71	12.51	12.73	12.95	11.30	12.18	13.22	13.50	13.50	13.47
Sample Size	97	65	145	143	180	146	161	119	226	249	238	238

Notes: Means are population-weighted means across the means (or median if indicated) for all metro areas with non-missing data. The sample is restricted to native born individuals, and the means are taken for metro areas with at least fifty male wage observations per metro area for each given sample. The "residual wage" is computed for each year in separate regressions which control flexibly for education and age. The male samples are restricted to individuals between the ages of 25 and 55.

Appendix Table 2: Descriptive Statistics for Black and White Women (ages 25-45) and Children

	Means for Black Women across Metro Areas						Means for White Women across Metro Areas					
	1960	1970	1980	1990	2000	2010	1960	1970	1980	1990	2000	2010
Never Married	0.10	0.13	0.23	0.36	0.42	0.55	0.07	0.08	0.12	0.17	0.20	0.29
Poor	0.38	0.25	0.25	0.25	0.22	0.26	0.09	0.06	0.07	0.07	0.07	0.11
% Single Mom	0.19	0.28	0.37	0.40	0.42	0.45	0.06	0.08	0.11	0.12	0.14	0.17
Teen Motherhood	0.13	0.12	0.09	0.10	0.09	0.05	0.08	0.05	0.04	0.04	0.04	0.02
Log Wage	9.50	9.90	10.07	10.14	10.16	10.15	9.93	10.13	10.16	10.27	10.36	10.36
Employment Rate	0.40	0.49	0.66	0.73	0.78	0.75	0.31	0.35	0.59	0.70	0.72	0.71
Welfare (recipient)		0.13	0.18	0.16	0.12	0.10		0.02	0.04	0.04	0.03	0.04
Divorced	0.23	0.29	0.39	0.41	0.37	0.38	0.06	0.09	0.17	0.19	0.19	0.20
Widowed	0.05	0.05	0.04	0.03	0.03	0.02	0.02	0.02	0.01	0.01	0.01	0.01
Home Owner	0.35	0.39	0.44	0.40	0.43	0.38	0.68	0.70	0.70	0.67	0.70	0.65
Log House Value	10.91	11.12	11.29	11.37	11.39	11.57	11.27	11.49	11.84	11.82	11.86	11.97
% MFG	0.06	0.07	0.12	0.09	0.07	0.04	0.08	0.07	0.10	0.09	0.08	0.05
% Blue Collar	0.09	0.10	0.12	0.08	0.08	0.05	0.05	0.06	0.07	0.06	0.05	0.03
% Services	0.27	0.28	0.39	0.47	0.52	0.53	0.14	0.19	0.36	0.46	0.50	0.52
High School Dropout	0.64	0.49	0.27	0.13	0.10	0.08	0.36	0.26	0.13	0.07	0.05	0.04
High School Graduate	0.24	0.35	0.41	0.36	0.44	0.34	0.43	0.47	0.43	0.31	0.35	0.27
College Dropout	0.07	0.09	0.20	0.35	0.28	0.34	0.12	0.14	0.22	0.34	0.26	0.27
College Graduate	0.05	0.07	0.12	0.16	0.18	0.24	0.09	0.13	0.22	0.29	0.34	0.42
Years of Education	9.74	10.88	12.20	12.87	12.99	13.44	11.41	12.10	13.11	13.61	13.82	14.29
	Means for Black Children across Metro Areas						Means for White Children across Metro Areas					
	1960	1970	1980	1990	2000	2010	1960	1970	1980	1990	2000	2010
Poor	0.55	0.36	0.37	0.39	0.33	0.38	0.14	0.09	0.11	0.12	0.12	0.18
Single Parent	0.33	0.43	0.56	0.64	0.66	0.68	0.08	0.12	0.17	0.20	0.24	0.30
Sample Size	97	65	145	143	180	146	161	119	226	249	238	238

Notes: Means are population-weighted means across the means for all metro areas with non-missing data. The sample is restricted to native born individuals, and the means are taken for metro areas with at least fifty male wage observations per metro area for each given sample. The "residual wage" is computed for each year in separate regressions which control flexibly for education and age. The female samples are restricted to individuals between the ages of 25 and 45. The child samples are restricted to childdren between the ages of 0 and 12.

Appendix Table 3: Descriptive Statistics for Inequality within Blacks and Whites

		Means for Blacks across Metro Areas						Means for Whites across Metro Areas					
		1960	1970	1980	1990	2000	2010	1960	1970	1980	1990	2000	2010
Men													
	90th Percentile of Log Wage	10.37	10.74	10.92	10.96	11.02	11.01	10.93	11.21	11.24	11.31	11.41	11.45
	10th Percentile of Log Wage	9.53	9.83	9.80	9.69	9.71	9.59	10.00	10.24	10.14	10.03	10.01	9.90
	90/10 Ratio of Log Wages	0.84	0.91	1.12	1.27	1.31	1.42	0.93	0.97	1.10	1.28	1.40	1.55
	Residual 90/10 Ratio of Log Wages	0.81	0.87	1.04	1.13	1.18	1.25	0.82	0.83	0.96	1.09	1.20	1.28
	Std. Deviation of Log House Values	0.51	0.46	0.58	0.61	0.64	0.74	0.55	0.51	0.53	0.65	0.68	0.74
	Return to Schooling for:												
	Log Wages	0.02	0.04	0.05	0.08	0.10	0.11	0.05	0.05	0.05	0.08	0.10	0.12
	Never Married	-0.00	-0.00	-0.01	-0.02	-0.02	-0.03	0.00	0.00	0.01	0.00	-0.00	-0.02
	Employment Rate	0.01	0.01	0.02	0.04	0.04	0.06	0.01	0.01	0.01	0.01	0.02	0.03
Women													
	Return to Schooling for:												
	Never Married	0.00	-0.00	-0.00	-0.01	-0.01	-0.02	0.01	0.01	0.02	0.02	0.01	-0.00
	Single Mother	-0.01	-0.02	-0.03	-0.04	-0.04	-0.05	-0.00	-0.01	-0.01	-0.02	-0.02	-0.03
	Sample Size	97	65	145	143	180	146	161	119	226	249	238	238

Notes: Means are population-weighted means across each measure calculated for each metro area with non-missing data. The sample is restricted to native born individuals, and the means are taken for metro areas with at least fifty male wage observations per metro area for whites or blacks. The "residual wage" controls for education and age (coefficients vary by year). The male samples are restricted to individuals between the ages of 25 and 55. The female samples are restricted to individuals between the ages of 25 and 45.

Appendix Table 4: OLS Sensitivity Analysis by Metro Area for Core Outcomes of Blacks (1960-2010)

	Coefficient on % Manufacturing (Black Men)							
	Black Men			Black Women			Black Children	
	Mean Log Wage	Emloyment Rate	Percent Never Married	Percent Never Married	Percent Poor	Percent Single Mothers	Percent Poor	Percent with One Parent
Specification	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Age and Education Controls	0.887***	0.375***	-0.304***	-0.337***	-0.533***	-0.194***	-0.600***	-0.264***
	(0.092)	(0.040)	(0.041)	(0.035)	(0.074)	(0.029)	(0.071)	(0.040)
Age Controls	0.982***	0.399***	-0.315***	-0.376***	-0.668***	-0.234***	-0.758***	-0.340***
	(0.110)	(0.041)	(0.039)	(0.041)	(0.096)	(0.038)	(0.091)	(0.057)
No Additional Controls	0.993***	0.406***	-0.318***	-0.371***	-0.682***	-0.237***	-0.775***	-0.346***
	(0.111)	(0.044)	(0.037)	(0.041)	(0.103)	(0.037)	(0.100)	(0.055)
Age and Education Controls plus Metro-specific Time Trends	0.388***	0.499***	-0.088*	-0.127***	-0.451***	-0.120*	-0.478***	-0.121
	(0.090)	(0.049)	(0.046)	(0.042)	(0.113)	(0.063)	(0.136)	(0.093)
Observations	718	718	718	718	718	718	718	718
Number of metarea	164	164	164	164	164	164	164	164
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Metro Area Fixed-Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Each coefficient represents a separate regression using the dependent variable indicated in the column heading and using the specification indicated in the row heading. Robust standard errors clustered by geographic area (metro area) are in parentheses. Significance levels are indicated by: *** for the 1% level, ** for the 5% level, and * for the 10% level. Observations are weighted by the local population size (men and women between the ages of 25 and 55) in 1990 for the race used in the sample. All regressions include fixed-effects for each year and geographic area (metro area), as well as demographic controls for education and age for the corresponding gender and race (see Table 1). The age and education demographics are for adult males (ages 25-55) for the male sample, and adult females (ages 25-45) for the female and child samples.

Appendix Table 5: Extended Sensitivity Analysis by Metro Area for Core Outcomes of Blacks (1960-2010)

	Black Men			Black Women			Black Children	
	Mean Log Wage	Emloyment Rate	Percent Never Married	Percent Never Married	Percent Poor	Percent Single Mothers	Percent Poor	Percent with One Parent
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
% MFG (Black Men)	0.887***	0.375***	-0.304***	-0.337***	-0.533***	-0.194***	-0.600***	-0.264***
	(0.092)	(0.040)	(0.041)	(0.035)	(0.074)	(0.029)	(0.071)	(0.040)
% MFG (Black Men)	0.667***	0.459***	-0.296***	-0.343***	-0.371***	-0.135***	-0.417***	-0.220***
	(0.095)	(0.044)	(0.053)	(0.043)	(0.054)	(0.036)	(0.060)	(0.050)
% Union Member (State-Level)	0.009***	-0.001	-0.000	0.000	-0.002	-0.000	-0.003**	-0.001
	(0.002)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
% MFG (Black Men)	0.871***	0.420***	-0.293***	-0.328***	-0.379***	-0.139***	-0.456***	-0.226***
	(0.110)	(0.038)	(0.048)	(0.036)	(0.045)	(0.033)	(0.056)	(0.046)
% Firms > 50 Workers (State-Level)	3.109**	2.682***	-2.096**	-1.487**	-3.251***	-0.841*	-2.654***	-0.770
	(1.237)	(0.762)	(0.886)	(0.624)	(0.816)	(0.436)	(0.796)	(0.669)
% MFG (Black Men)	0.862***	0.443***	-0.334***	-0.333***	-0.526***	-0.206***	-0.595***	-0.281***
	(0.099)	(0.044)	(0.042)	(0.034)	(0.080)	(0.029)	(0.077)	(0.041)
% Services (Black Men)	-0.105	0.291***	-0.128*	0.020	0.032	-0.058	0.024	-0.080
	(0.126)	(0.063)	(0.075)	(0.060)	(0.103)	(0.040)	(0.100)	(0.059)
% MFG (Black Men)	0.823***	0.136***	-0.226***	-0.283***	-0.339***	-0.154***	-0.385***	-0.208***
	(0.124)	(0.040)	(0.067)	(0.064)	(0.088)	(0.038)	(0.090)	(0.050)
% Blue-Collar (Black Men)	0.117	0.437***	-0.142*	-0.100	-0.359***	-0.074*	-0.399***	-0.105*
	(0.125)	(0.055)	(0.075)	(0.074)	(0.090)	(0.039)	(0.096)	(0.055)
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Metro Area Fixed-Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: The panel in each column represents a separate regression using the dependent variable indicated in the column heading and using the specification indicated in the row heading. Robust standard errors clustered by geographic area (metro area) are in parentheses. Significance levels are indicated by: *** for the 1% level, ** for the 5% level, and * for the 10% level. Observations are weighted by the local population size (men and women between the ages of 25 and 55) in 1990 for the race used in the sample. All regressions include fixed-effects for each year and geographic area (metro area), as well as demographic controls for education and age for the corresponding gender and race (see Table 1). The age and education demographics are for adult males (ages 25-55) for the male sample, and adult females (ages 25-45) for the female and child samples.

Appendix Table 6: OLS and IV Results by State for Core Outcomes of Blacks

	Coefficient on % Manufacturing (Black Men)							
	Black Men			Black Women			Black Children	
	Mean Log Wage	Emloyment Rate	Percent Never Married	Percent Never Married	Percent Poor	Percent Single Mothers	Percent Poor	Percent with One Parent
Starting Year	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
				OLS with Different Starting Years				
1960	0.967***	0.353***	-0.218**	-0.270***	-0.811***	-0.258***	-0.806***	-0.263***
	(0.208)	(0.080)	(0.083)	(0.064)	(0.157)	(0.060)	(0.175)	(0.072)
1970	1.007***	0.411***	-0.241**	-0.280***	-0.504***	-0.201***	-0.581***	-0.190**
	(0.212)	(0.088)	(0.099)	(0.072)	(0.111)	(0.063)	(0.156)	(0.081)
1980	0.787***	0.388***	-0.134	-0.243***	-0.341***	-0.096	-0.358***	-0.112
	(0.259)	(0.072)	(0.108)	(0.063)	(0.082)	(0.061)	(0.113)	(0.081)
1990	0.612	0.720***	0.124	0.086	-0.526**	-0.251***	-0.627***	-0.273**
	(0.372)	(0.183)	(0.103)	(0.077)	(0.209)	(0.087)	(0.194)	(0.132)
				IV with Different Starting Years				
1960	1.936***	0.288**	-0.290*	-0.380**	-0.702**	-0.197*	-0.823**	-0.114
	(0.401)	(0.141)	(0.151)	(0.186)	(0.340)	(0.117)	(0.357)	(0.217)
1970	1.827***	0.443***	-0.327*	-0.337*	-0.695**	-0.193*	-0.745**	-0.078
	(0.490)	(0.151)	(0.173)	(0.197)	(0.281)	(0.108)	(0.340)	(0.215)
1980	1.444***	0.322***	-0.247**	-0.368***	-0.381**	-0.175	-0.333	-0.133
	(0.399)	(0.105)	(0.124)	(0.134)	(0.161)	(0.113)	(0.227)	(0.158)
1990	2.126***	0.932**	-0.271	-0.101	-0.517	-0.458**	-0.547	-0.555*
	(0.778)	(0.375)	(0.233)	(0.147)	(0.478)	(0.184)	(0.527)	(0.311)

Notes: Each coefficient represents a separate regression using the dependent variable indicated in the column heading and using a sample with the starting year indicated in the row heading. Robust standard errors clustered by geographic area (metro area) are in parentheses. Significance levels are indicated by: *** for the 1% level, ** for the 5% level, and * for the 10% level. Observations are weighted by the local population size (men and women between the ages of 25 and 55) in 1990 for the race used in the sample. All regressions include fixed-effects for each year and geographic area (state), as well as demographic controls for education and age for the corresponding gender and race (see Table 1). The age and education demographics are for adult males (ages 25-55) for the male sample, and adult females (ages 25-45) for the female and child samples. The instrument for percent manufacturing for each race is the "shift-share" variable described in equation (2) in the text. The base year for the construction of the instrument is equal to the starting year of the sample.

Appendix Table 7: OLS and IV Results by State of Birth for Core Outcomes of Blacks

	Coefficient on % Manufacturing (Black Men)							
	Black Men			Black Women			Black Children	
Starting Year	Mean Log Wage (1)	Emloyment Rate (2)	Percent Never Married (3)	Percent Never Married (4)	Percent Poor (5)	Percent Single Mothers (6)	Percent Poor (7)	Percent with One Parent (8)
				OLS with Different Starting Years				
1960	0.771***	0.387***	-0.203***	-0.181***	-0.608***	-0.167***	-0.733***	-0.269**
	(0.112)	(0.074)	(0.055)	(0.064)	(0.137)	(0.056)	(0.187)	(0.103)
1970	1.025***	0.333***	-0.165***	-0.187**	-0.499***	-0.204***	-0.603***	-0.342**
	(0.137)	(0.080)	(0.055)	(0.079)	(0.083)	(0.058)	(0.182)	(0.147)
1980	1.086***	0.531***	-0.127	-0.199***	-0.490***	-0.206***	-0.567***	-0.476***
	(0.170)	(0.100)	(0.086)	(0.070)	(0.081)	(0.067)	(0.187)	(0.155)
1990	0.712**	0.778***	0.094	0.190	-0.534**	-0.193	-0.670**	-0.404*
	(0.322)	(0.279)	(0.164)	(0.114)	(0.236)	(0.126)	(0.326)	(0.225)
				IV with Different Starting Years				
1960	1.240***	0.085	-0.089	-0.299	-0.430*	-0.223	-0.815**	-0.040
	(0.358)	(0.183)	(0.150)	(0.232)	(0.257)	(0.140)	(0.408)	(0.288)
1970	1.293***	0.323**	-0.093	-0.231	-0.742***	-0.277**	-0.819**	-0.211
	(0.299)	(0.155)	(0.126)	(0.184)	(0.190)	(0.125)	(0.376)	(0.233)
1980	1.443***	0.527***	-0.151	-0.443*	-0.691***	-0.407**	-0.933**	-0.752**
	(0.415)	(0.188)	(0.151)	(0.237)	(0.162)	(0.168)	(0.390)	(0.328)
1990	1.545***	1.405*	-0.215	-0.183	-1.451**	-0.702*	-1.947**	-1.553**
	(0.444)	(0.754)	(0.360)	(0.285)	(0.614)	(0.400)	(0.934)	(0.790)

Notes: Each coefficient represents a separate regression using the dependent variable indicated in the column heading and using a sample with the starting year indicated in the row heading. Robust standard errors clustered by geographic area (state of birth) are in parentheses. Significance levels are indicated by: *** for the 1% level, ** for the 5% level, and * for the 10% level. Observations are weighted by the local population size (men and women between the ages of 25 and 55) in 1990 for the race used in the sample. All regressions include fixed-effects for each year and geographic area (state of birth), as well as demographic controls for education and age for the corresponding gender and race (see Table 1). The age and education demographics are for adult males (ages 25-55) for the male sample, and adult females (ages 25-45) for the female and child samples. The instrument for percent manufacturing for each race is the "shift-share" variable described in equation (2) in the text. The base year for the construction of the instrument is equal to the starting year of the sample.

Appendix Table 8: OLS and IV Results by Metro Area for Core Outcomes -- Blue Collar as treatment variable (1960-2010)

	Coefficient on % Blue-Collar (Black, White, or All Men)							
	Men			Women			Children	
	Mean Log Wage	Emloyment Rate	Percent Never Married	Percent Never Married	Percent Poor	Percent Single Mothers	Percent Poor	Percent with One Parent
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
				Blacks				
OLS	0.784***	0.547***	-0.325***	-0.326***	-0.630***	-0.197***	-0.706***	-0.271***
	(0.112)	(0.051)	(0.042)	(0.039)	(0.078)	(0.031)	(0.078)	(0.048)
IV	3.632***	0.674***	-0.951***	-1.289***	-2.039***	-1.092***	-2.787***	-1.573***
	(0.836)	(0.148)	(0.208)	(0.243)	(0.483)	(0.242)	(0.594)	(0.367)
				Whites				
OLS	0.700***	0.300***	-0.315***	-0.325***	-0.314***	-0.102***	-0.702***	-0.249***
	(0.130)	(0.039)	(0.071)	(0.080)	(0.043)	(0.028)	(0.091)	(0.057)
IV	2.020***	0.183**	0.125	0.119	-0.899***	-0.355***	-1.337***	-0.315*
	(0.520)	(0.091)	(0.259)	(0.209)	(0.187)	(0.110)	(0.232)	(0.171)
				Black-White Gap				
OLS	1.023***	0.364***	-0.220**	-0.303***	-0.788***	-0.149***	-0.306***	-0.141
	(0.149)	(0.051)	(0.086)	(0.068)	(0.152)	(0.050)	(0.113)	(0.099)
IV	2.587***	0.513***	-1.404***	-1.526***	-1.671***	-0.676***	-2.292***	-1.768***
	(0.478)	(0.114)	(0.292)	(0.320)	(0.580)	(0.189)	(0.828)	(0.570)

Notes: The treatment variable is defined as the percent of men in manufacturing for each respective race, with both races used in the "black-white" regressions. Each coefficient represents a separate regression using the dependent variable indicated in the column heading and using the specification indicated in the row heading. Robust standard errors clustered by geographic area (metro area) are in parentheses. Significance levels are indicated by: *** for the 1% level, ** for the 5% level, and * for the 10% level. Observations are weighted by the local population size (men and women between the ages of 25 and 55) in 1990 for the race used in the sample, and the black population in the "black-white" regressions. All regressions include fixed-effects for each year and geographic area (metro area), as well as demographic controls for education and age for the corresponding gender and race (see Table 1), or the difference in mean demographics between blacks and whites (for the relevant gender).

Appendix Table 9: Inequality at Metro Level -- Blue Collar as treatment variable (1960-2010)

	Coefficient on % Blue-Collar (Black, White, or All Men)							
	Men			College Gap within Men			College Gap within Women	
	90/10 Ratio in Log Wage	90/10 Ratio in Residual Wages (adjusted for educ and age)	Standard Deviation of Log House Values	Log Wages	Never Married	Employment Rates	Never Married	Single Mother
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
				Blacks				
OLS	-0.616***	-0.467***	-0.425***	-0.062***	0.016	-0.104***	0.020**	0.004
	(0.127)	(0.127)	(0.129)	(0.021)	(0.010)	(0.010)	(0.009)	(0.012)
IV	-1.663***	-1.514***	-1.940***	-0.141**	0.138***	-0.251***	0.168***	0.019
	(0.561)	(0.501)	(0.733)	(0.071)	(0.050)	(0.056)	(0.049)	(0.033)
				Whites				
OLS	-1.334***	-0.599***	-0.423***	-0.137***	0.023**	-0.061***	0.011	0.019***
	(0.268)	(0.198)	(0.117)	(0.023)	(0.010)	(0.010)	(0.010)	(0.007)
IV	-3.125***	-2.385***	-0.983**	-0.080	0.096***	-0.011	0.220***	0.055***
	(0.635)	(0.463)	(0.413)	(0.069)	(0.034)	(0.024)	(0.045)	(0.016)
				Black-White Gap				
OLS	0.709***	0.227	-0.364	0.040	-0.001	-0.084***	-0.000	0.003
	(0.254)	(0.200)	(0.225)	(0.034)	(0.017)	(0.020)	(0.018)	(0.024)
IV	0.819	0.032	-1.506**	-0.199**	0.191***	-0.379***	0.081	-0.080*
	(1.198)	(0.739)	(0.722)	(0.090)	(0.068)	(0.080)	(0.050)	(0.048)

Notes: The treatment variable is defined as the percent of men in manufacturing for each respective race, with both races used in the "black-white" regressions. Each coefficient represents a separate regression using the dependent variable indicated in the column heading and using the specification indicated in the row heading. Robust standard errors clustered by geographic area (metro area) are in parentheses. Significance levels are indicated by: *** for the 1% level, ** for the 5% level, and * for the 10% level. Observations are weighted by the local population size (men and women between the ages of 25 and 55) in 1990 for the race used in the sample, and the black population in the "black-white" regressions. All regressions include fixed-effects for each year and geographic area (metro area), as well as demographic controls for education and age for the corresponding gender and race (see Table 1), or the difference in mean demographics between blacks and whites (for the relevant gender).

Appendix Table 10: OLS and IV Results by Metro Area for Core Outcomes -- MFG or Blue Collar as treatment variable (1960-2010)

	Coefficient on % MFG or Blue-Collar (Black, White, or All Men)							
	Men			Women			Children	
	Mean Log Wage	Emloyment Rate	Percent Never Married	Percent Never Married	Percent Poor	Percent Single Mothers	Percent Poor	Percent with One Parent
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
				Blacks				
OLS	0.760***	0.524***	-0.317***	-0.329***	-0.613***	-0.198***	-0.680***	-0.259***
	(0.102)	(0.048)	(0.038)	(0.032)	(0.074)	(0.028)	(0.069)	(0.045)
IV	2.893***	0.489***	-0.640***	-0.905***	-1.277***	-0.611***	-1.687***	-0.958***
	(0.516)	(0.098)	(0.142)	(0.142)	(0.263)	(0.108)	(0.282)	(0.165)
				Whites				
OLS	0.655***	0.246***	-0.227***	-0.244***	-0.299***	-0.112***	-0.629***	-0.230***
	(0.088)	(0.032)	(0.062)	(0.072)	(0.041)	(0.024)	(0.069)	(0.043)
IV	1.357***	0.109**	0.024	0.043	-0.433***	-0.172***	-0.648***	-0.121
	(0.304)	(0.046)	(0.144)	(0.121)	(0.091)	(0.058)	(0.126)	(0.095)
				Black-White Gap				
OLS	0.858***	0.300***	-0.231***	-0.263***	-0.639***	-0.107**	-0.251**	-0.070
	(0.117)	(0.037)	(0.067)	(0.053)	(0.131)	(0.043)	(0.097)	(0.093)
IV	1.568***	0.313***	-0.732***	-0.877***	-1.012***	-0.342***	-1.202***	-0.935***
	(0.291)	(0.071)	(0.166)	(0.184)	(0.371)	(0.097)	(0.406)	(0.286)

Notes: The treatment variable is defined as the percent of men in manufacturing for each respective race, with both races used in the "black-white" regressions. Each coefficient represents a separate regression using the dependent variable indicated in the column heading and using the specification indicated in the row heading. Robust standard errors clustered by geographic area (metro area) are in parentheses. Significance levels are indicated by: *** for the 1% level, ** for the 5% level, and * for the 10% level. Observations are weighted by the local population size (men and women between the ages of 25 and 55) in 1990 for the race used in the sample, and the black population in the "black-white" regressions. All regressions include fixed-effects for each year and geographic area (metro area), as well as demographic controls for education and age for the corresponding gender and race (see Table 1), or the difference in mean demographics between blacks and whites (for the relevant gender).

Appendix Table 11: Inequality at Metro Level -- MFG or Blue Collar as treatment variable (1960-2010)

	Coefficient on % MFG or Blue-Collar (Black, White, or All Men)							
	Men			College Gap within Men			College Gap within Women	
	90/10 Ratio in Log Wage	90/10 Ratio in Residual Wages (adjusted for educ and age)	Standard Deviation of Log House Values	Log Wages	Never Married	Employment Rates	Never Married	Single Mother
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
				Blacks				
OLS	-0.614***	-0.462***	-0.388***	-0.054***	0.015*	-0.095***	0.022***	0.003
	(0.112)	(0.103)	(0.116)	(0.019)	(0.009)	(0.009)	(0.008)	(0.011)
IV	-1.448***	-1.085***	-1.122***	-0.148***	0.110***	-0.156***	0.133***	0.013
	(0.440)	(0.348)	(0.419)	(0.057)	(0.037)	(0.041)	(0.028)	(0.027)
				Whites				
OLS	-1.139***	-0.628***	-0.376***	-0.089***	0.014*	-0.041***	0.019**	0.017***
	(0.209)	(0.106)	(0.099)	(0.019)	(0.008)	(0.008)	(0.008)	(0.005)
IV	-1.833***	-1.300***	-0.490**	-0.075**	0.056***	-0.008	0.123***	0.026***
	(0.344)	(0.210)	(0.216)	(0.036)	(0.020)	(0.012)	(0.023)	(0.010)
				Black-White Gap				
OLS	0.592**	0.231	-0.343**	0.029	0.006	-0.069***	-0.001	0.000
	(0.255)	(0.143)	(0.167)	(0.025)	(0.015)	(0.016)	(0.015)	(0.019)
IV	0.162	-0.186	-0.966**	-0.120**	0.094***	-0.198***	0.047*	-0.039
	(0.732)	(0.431)	(0.424)	(0.054)	(0.035)	(0.047)	(0.025)	(0.028)

Notes: The treatment variable is defined as the percent of men in manufacturing for each respective race, with both races used in the "black-white" regressions. Each coefficient represents a separate regression using the dependent variable indicated in the column heading and using the specification indicated in the row heading. Robust standard errors clustered by geographic area (metro area) are in parentheses. Significance levels are indicated by: *** for the 1% level, ** for the 5% level, and * for the 10% level. Observations are weighted by the local population size (men and women between the ages of 25 and 55) in 1990 for the race used in the sample, and the black population in the "black-white" regressions. All regressions include fixed-effects for each year and geographic area (metro area), as well as demographic controls for education and age for the corresponding gender and race (see Table 1), or the difference in mean demographics between blacks and whites (for the relevant gender).

Appendix Table 12: Inequality within Black Men and Women by State

	Coefficient on % Manufacturing (Black Men)									
	Black Men								Black Women	
						College Gap			College Gap	
Starting Year	Log Wage 90th Percentile	Log Wage 10th Percentile	90/10 Ratio in Log Wage	90/10 Ratio in Residual Wages (adjusted for educ and age)	Standard Deviation of Log House Values	Log Wages	Never Married	Employment Rates	Never Married	Single Mother
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
					OLS with Different Starting Years					
1960	0.504***	1.554***	-1.050***	-0.822***	-0.058	-0.061***	0.047***	-0.057***	0.046***	0.015
	(0.156)	(0.310)	(0.213)	(0.196)	(0.340)	(0.021)	(0.013)	(0.014)	(0.012)	(0.009)
1970	0.571***	1.668***	-1.097***	-0.780***	-0.251	-0.069**	0.046**	-0.067***	0.057***	-0.008
	(0.159)	(0.314)	(0.211)	(0.206)	(0.402)	(0.031)	(0.019)	(0.016)	(0.013)	(0.012)
1980	0.347*	1.289***	-0.942***	-0.742***	-0.113	-0.105***	0.051***	-0.059***	0.060***	-0.010
	(0.188)	(0.346)	(0.208)	(0.135)	(0.365)	(0.035)	(0.019)	(0.014)	(0.016)	(0.013)
1990	0.447	0.722**	-0.275	-0.039	0.149	-0.211***	0.060*	-0.120***	0.013	-0.016
	(0.342)	(0.328)	(0.355)	(0.389)	(0.187)	(0.067)	(0.032)	(0.031)	(0.032)	(0.024)
					IV with Different Starting Years					
1960	1.334***	2.464***	-1.130***	-0.888***	-0.108	-0.031	0.068***	-0.057**	0.096***	-0.022
	(0.314)	(0.515)	(0.370)	(0.252)	(0.448)	(0.046)	(0.021)	(0.023)	(0.020)	(0.021)
1970	1.264***	2.519***	-1.255***	-0.891***	-0.285	-0.046	0.055**	-0.071**	0.103***	-0.034
	(0.399)	(0.591)	(0.318)	(0.176)	(0.423)	(0.057)	(0.022)	(0.029)	(0.027)	(0.025)
1980	0.900***	1.768***	-0.868**	-0.527**	-0.191	-0.100	0.062**	-0.015	0.141***	-0.024
	(0.344)	(0.490)	(0.340)	(0.222)	(0.369)	(0.067)	(0.024)	(0.025)	(0.035)	(0.029)
1990	1.906**	1.249*	0.657	1.274	-0.386	-0.405**	0.154**	-0.079	0.170**	0.021
	(0.773)	(0.705)	(0.768)	(0.827)	(0.437)	(0.174)	(0.063)	(0.059)	(0.067)	(0.052)

Notes: Each coefficient represents a separate regression using the dependent variable indicated in the column heading and using a sample with the starting year indicated in the row heading. Robust standard errors clustered by geographic area (state) are in parentheses. Significance levels are indicated by: *** for the 1% level, ** for the 5% level, and * for the 10% level. Observations are weighted by the local population size (men and women between the ages of 25 and 55) in 1990 for the race used in the sample. All regressions include fixed-effects for each year and geographic area (state), as well as demographic controls for education and age for the corresponding gender and race (see Table 1). The age and education demographics are for adult males (ages 25-55) for the male sample, and adult females (ages 25-45) for the female and child samples. The instrument for percent manufacturing for each race is the "shift-share" variable described in equation (2) in the text. The base year for the construction of the instrument is equal to the starting year of the sample.

Appendix Table 13: Inequality within Black Men and Women by State of Birth

	Coefficient on % Manufacturing (Black Men)									
	Black Men								Black Women	
						College Gap			College Gap	
Starting Year	Log Wage 90th Percentile (1)	Log Wage 10th Percentile (2)	90/10 Ratio in Log Wage (3)	90/10 Ratio in Residual Wages (adjusted for educ and age) (4)	Standard Deviation of Log House Values (5)	Log Wages (6)	Never Married (7)	Employment Rates (8)	Never Married (9)	Single Mother (10)
					OLS with Different Starting Years					
1960	0.501***	0.992***	-0.491*	-0.513**	-0.413	-0.072**	0.049**	-0.077***	0.034**	0.020
	(0.114)	(0.261)	(0.248)	(0.242)	(0.319)	(0.029)	(0.021)	(0.019)	(0.014)	(0.014)
1970	0.699***	1.337***	-0.638**	-0.627**	-0.552	-0.084**	0.048*	-0.081***	0.042**	0.017
	(0.140)	(0.293)	(0.260)	(0.244)	(0.348)	(0.034)	(0.027)	(0.023)	(0.016)	(0.019)
1980	0.759***	0.963***	-0.204	-0.344*	-0.304	-0.138***	0.036	-0.114***	0.047**	0.023
	(0.197)	(0.221)	(0.166)	(0.173)	(0.323)	(0.035)	(0.031)	(0.021)	(0.022)	(0.019)
1990	0.414	0.564	-0.150	-0.457	-0.534	-0.247***	0.072	-0.143**	0.007	-0.018
	(0.336)	(0.377)	(0.380)	(0.471)	(0.380)	(0.065)	(0.049)	(0.053)	(0.026)	(0.042)
					IV with Different Starting Years					
1960	0.854**	1.454***	-0.601	-0.902*	-0.174	-0.078	0.038	-0.038	0.069	0.009
	(0.350)	(0.513)	(0.406)	(0.477)	(0.477)	(0.064)	(0.043)	(0.035)	(0.042)	(0.034)
1970	0.769**	1.774***	-1.005***	-0.977**	-0.170	-0.070	0.002	-0.036	0.065	0.042
	(0.326)	(0.483)	(0.344)	(0.383)	(0.419)	(0.052)	(0.038)	(0.036)	(0.045)	(0.030)
1980	0.998**	1.481**	-0.484	-0.509	-0.031	-0.232***	0.044	-0.044	0.107	0.034
	(0.471)	(0.600)	(0.523)	(0.366)	(0.580)	(0.081)	(0.058)	(0.057)	(0.068)	(0.047)
1990	0.780	1.468*	-0.688	0.339	-0.691	-0.648***	0.198*	-0.176	0.170*	0.063
	(0.689)	(0.754)	(1.114)	(1.302)	(0.720)	(0.168)	(0.112)	(0.148)	(0.102)	(0.092)

Notes: Each coefficient represents a separate regression using the dependent variable indicated in the column heading and using a sample with the starting year indicated in the row heading. Robust standard errors clustered by geographic area (state of birth) are in parentheses. Significance levels are indicated by: *** for the 1% level, ** for the 5% level, and * for the 10% level. Observations are weighted by the local population size (men and women between the ages of 25 and 55) in 1990 for the race used in the sample. All regressions include fixed-effects for each year and geographic area (state of birth), as well as demographic controls for education and age for the corresponding gender and race (see Table 1). The age and education demographics are for adult males (ages 25-55) for the male sample, and adult females (ages 25-45) for the female and child samples. The instrument for percent manufacturing for each race is the "shift-share" variable described in equation (2) in the text. The base year for the construction of the instrument is equal to the starting year of the sample.

Appendix Table 14: Sensitivity Analysis by Metro Area for Core Outcomes of Whites (1960-2010)

	White Men			White Women			White Children	
	Mean Log Wage	Emloyment Rate	Percent Never Married	Percent Never Married	Percent Poor	Percent Single Mothers	Percent Poor	Percent with One Parent
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
% MFG (White Men)	0.566***	0.159***	-0.110*	-0.109	-0.247***	-0.093***	-0.441***	-0.140***
	(0.079)	(0.026)	(0.060)	(0.066)	(0.031)	(0.020)	(0.059)	(0.040)
% MFG (White Men)	0.471***	0.191***	-0.131**	-0.108*	-0.167***	-0.094***	-0.311***	-0.140***
	(0.092)	(0.034)	(0.052)	(0.063)	(0.029)	(0.021)	(0.049)	(0.034)
% Union Member (State-Level)	0.004***	-0.001**	0.001***	0.002***	-0.000	0.000	0.001	0.001**
	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)
% MFG (White Men)	0.557***	0.159***	-0.108**	-0.070	-0.162***	-0.092***	-0.285***	-0.115***
	(0.099)	(0.031)	(0.053)	(0.064)	(0.027)	(0.021)	(0.051)	(0.035)
% Firms > 50 Workers (State-Level)	1.224	1.417***	-0.020	-0.341	-0.924***	-0.144	-0.743	-0.157
	(0.879)	(0.220)	(0.294)	(0.380)	(0.214)	(0.173)	(0.510)	(0.256)
% MFG (White Men)	0.647***	0.179***	-0.084	-0.064	-0.281***	-0.102***	-0.435***	-0.120***
	(0.084)	(0.029)	(0.059)	(0.054)	(0.036)	(0.023)	(0.056)	(0.042)
% Services (White Men)	0.323***	0.078**	0.104	0.183*	-0.140***	-0.041	0.025	0.082
	(0.119)	(0.037)	(0.090)	(0.101)	(0.047)	(0.035)	(0.095)	(0.057)
% MFG (White Men)	0.463***	0.080***	-0.003	0.014	-0.194***	-0.081***	-0.271***	-0.073*
	(0.102)	(0.024)	(0.049)	(0.051)	(0.031)	(0.022)	(0.049)	(0.041)
% Blue-Collar (White Men)	0.298*	0.231***	-0.313***	-0.337***	-0.146***	-0.032	-0.467***	-0.186***
	(0.166)	(0.034)	(0.054)	(0.059)	(0.035)	(0.030)	(0.079)	(0.061)
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Metro Area Fixed-Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: The panel in each column represents a separate regression using the dependent variable indicated in the column heading and using the specification indicated in the row heading. Robust standard errors clustered by geographic area (metro area) are in parentheses. Significance levels are indicated by: *** for the 1% level, ** for the 5% level, and * for the 10% level. Observations are weighted by the local population size (men and women between the ages of 25 and 55) in 1990 for the race used in the sample. All regressions include fixed-effects for each year and geographic area (metro area), as well as demographic controls for education and age for the corresponding gender and race (see Table 1). The age and education demographics are for adult males (ages 25-55) for the male sample, and adult females (ages 25-45) for the female and child samples.

Appendix Table 15: OLS and IV Results by State of Core Outcomes of Whites

	Coefficient on % Manufacturing (White Men)							
	White Men			White Women			White Children	
	Mean Log Wage	Emloyment Rate	Percent Never Married	Percent Never Married	Percent Poor	Percent Single Mothers	Percent Poor	Percent with One Parent
Starting Year	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
				OLS with Different Starting Years				
1960	0.293	0.185***	-0.167***	-0.154**	-0.511***	-0.031	-0.728***	-0.069*
	(0.188)	(0.028)	(0.050)	(0.073)	(0.043)	(0.027)	(0.072)	(0.041)
1970	0.326	0.204***	-0.158***	-0.138*	-0.242***	-0.008	-0.331***	-0.013
	(0.229)	(0.033)	(0.058)	(0.071)	(0.034)	(0.037)	(0.062)	(0.053)
1980	0.285	0.224***	-0.118**	-0.154**	-0.189***	0.027	-0.228***	0.080
	(0.268)	(0.051)	(0.051)	(0.060)	(0.031)	(0.037)	(0.064)	(0.060)
1990	0.880**	0.415***	-0.039	-0.078	-0.530***	0.019	-0.621***	0.175**
	(0.341)	(0.123)	(0.089)	(0.101)	(0.086)	(0.044)	(0.141)	(0.068)
				IV with Different Starting Years				
1960	0.892***	0.117**	0.002	0.042	-0.315***	-0.026	-0.385***	0.052
	(0.233)	(0.047)	(0.072)	(0.082)	(0.066)	(0.049)	(0.100)	(0.067)
1970	0.952***	0.156***	0.037	0.078	-0.212***	-0.052	-0.223**	0.046
	(0.253)	(0.048)	(0.073)	(0.081)	(0.052)	(0.043)	(0.091)	(0.058)
1980	1.310***	0.200***	-0.008	-0.003	-0.195***	-0.051	-0.222**	0.044
	(0.393)	(0.072)	(0.074)	(0.090)	(0.053)	(0.041)	(0.101)	(0.063)
1990	2.241***	0.300	-0.006	0.245	-0.460***	0.029	-0.442*	0.106
	(0.634)	(0.182)	(0.186)	(0.198)	(0.174)	(0.096)	(0.250)	(0.129)

Notes: Each coefficient represents a separate regression using the dependent variable indicated in the column heading and using a sample with the starting year indicated in the row heading. Robust standard errors clustered by geographic area (state) are in parentheses. Significance levels are indicated by: *** for the 1% level, ** for the 5% level, and * for the 10% level. Observations are weighted by the local population size (men and women between the ages of 25 and 55) in 1990 for the race used in the sample. All regressions include fixed-effects for each year and geographic area (state), as well as demographic controls for education and age for the corresponding gender and race (see Table 1). The age and education demographics are for adult males (ages 25-55) for the male sample, and adult females (ages 25-45) for the female and child samples. The instrument for percent manufacturing for each race is the "shift-share" variable described in equation (2) in the text. The base year for the construction of the instrument is equal to the starting year of the sample.

Appendix Table 16: OLS and IV Results by State of Birth for Core Outcomes of Whites

	Coefficient on % Manufacturing (White Men)							
	White Men			White Women			White Children	
Starting Year	Mean Log Wage (1)	Emloyment Rate (2)	Percent Never Married (3)	Percent Never Married (4)	Percent Poor (5)	Percent Single Mothers (6)	Percent Poor (7)	Percent with One Parent (8)
				OLS with Different Starting Years				
1960	0.113	0.201***	-0.155***	-0.089	-0.523***	-0.061**	-0.813***	-0.102**
	(0.163)	(0.037)	(0.051)	(0.065)	(0.062)	(0.024)	(0.106)	(0.042)
1970	0.229	0.241***	-0.121*	-0.066	-0.280***	-0.053*	-0.367***	-0.068
	(0.184)	(0.035)	(0.061)	(0.070)	(0.045)	(0.028)	(0.072)	(0.055)
1980	0.162	0.246***	-0.043	-0.011	-0.220***	-0.016	-0.168**	0.078
	(0.255)	(0.045)	(0.052)	(0.061)	(0.040)	(0.038)	(0.073)	(0.085)
1990	0.887***	0.481***	0.016	0.099	-0.612***	-0.018	-0.647***	0.190*
	(0.280)	(0.090)	(0.070)	(0.108)	(0.074)	(0.057)	(0.162)	(0.108)
				IV with Different Starting Years				
1960	0.918***	0.054	0.111	0.164	-0.230**	-0.026	-0.228	-0.013
	(0.272)	(0.082)	(0.089)	(0.101)	(0.107)	(0.050)	(0.194)	(0.085)
1970	1.082***	0.137*	0.129	0.216**	-0.217***	-0.071*	-0.185	-0.083
	(0.277)	(0.075)	(0.085)	(0.106)	(0.078)	(0.041)	(0.114)	(0.071)
1980	1.765***	0.212**	0.078	0.191	-0.265***	-0.105*	-0.290**	-0.151
	(0.492)	(0.083)	(0.094)	(0.134)	(0.076)	(0.060)	(0.122)	(0.124)
1990	3.070***	0.316	0.120	0.518**	-0.650***	0.032	-0.922**	-0.391
	(0.720)	(0.207)	(0.254)	(0.252)	(0.184)	(0.156)	(0.360)	(0.322)

Notes: Each coefficient represents a separate regression using the dependent variable indicated in the column heading and using a sample with the starting year indicated in the row heading. Robust standard errors clustered by geographic area (state of birth) are in parentheses. Significance levels are indicated by: *** for the 1% level, ** for the 5% level, and * for the 10% level. Observations are weighted by the local population size (men and women between the ages of 25 and 55) in 1990 for the race used in the sample. All regressions include fixed-effects for each year and geographic area (state of birth), as well as demographic controls for education and age for the corresponding gender and race (see Table 1). The age and education demographics are for adult males (ages 25-55) for the male sample, and adult females (ages 25-45) for the female and child samples. The instrument for percent manufacturing for each race is the "shift-share" variable described in equation (2) in the text. The base year for the construction of the instrument is equal to the starting year of the sample.

Appendix Table 17: Inequality within White Men and Women by State

	Coefficient on % Manufacturing (White Men)									
	White Men								White Women	
						College Gap			College Gap	
Starting Year	Log Wage 90th Percentile (1)	Log Wage 10th Percentile (2)	90/10 Ratio in Log Wage (3)	90/10 Ratio in Residual Wages (adjusted for educ and age) (4)	Standard Deviation of Log House Values (5)	Log Wages (6)	Never Married (7)	Employment Rates (8)	Never Married (9)	Single Mother (10)
					OLS with Different Starting Years					
1960	0.077	0.953***	-0.877***	-0.755***	-0.317**	-0.055**	0.021	-0.020**	0.029**	0.010**
	(0.212)	(0.208)	(0.127)	(0.107)	(0.142)	(0.021)	(0.013)	(0.010)	(0.013)	(0.005)
1970	-0.015	0.891***	-0.907***	-0.632***	-0.162	-0.070**	0.034***	-0.031***	0.047***	-0.003
	(0.260)	(0.254)	(0.163)	(0.123)	(0.166)	(0.026)	(0.013)	(0.011)	(0.011)	(0.009)
1980	0.056	0.719**	-0.663***	-0.490***	-0.049	-0.085**	0.029**	-0.025*	0.037***	-0.007
	(0.280)	(0.299)	(0.195)	(0.150)	(0.155)	(0.034)	(0.013)	(0.015)	(0.014)	(0.010)
1990	0.392	1.643***	-1.251***	-0.338	-0.487**	-0.171***	-0.016	-0.060*	0.018	0.007
	(0.441)	(0.340)	(0.384)	(0.368)	(0.231)	(0.055)	(0.017)	(0.033)	(0.022)	(0.018)
					IV with Different Starting Years					
1960	0.667**	1.488***	-0.821***	-0.555***	-0.102	-0.065*	0.050***	0.003	0.079***	-0.011
	(0.279)	(0.271)	(0.187)	(0.155)	(0.210)	(0.037)	(0.013)	(0.016)	(0.015)	(0.010)
1970	0.600**	1.475***	-0.875***	-0.388**	0.111	-0.089**	0.053***	-0.004	0.091***	-0.025*
	(0.299)	(0.305)	(0.221)	(0.185)	(0.260)	(0.043)	(0.014)	(0.016)	(0.015)	(0.013)
1980	0.973**	1.820***	-0.846***	-0.120	0.317	-0.183***	0.044**	-0.007	0.092***	-0.011
	(0.390)	(0.505)	(0.311)	(0.255)	(0.319)	(0.060)	(0.018)	(0.020)	(0.018)	(0.013)
1990	1.903**	2.094***	-0.190	1.604	0.208	-0.332***	0.008	0.004	0.134***	0.041
	(0.823)	(0.626)	(0.842)	(1.058)	(0.651)	(0.121)	(0.041)	(0.046)	(0.038)	(0.029)

Notes: Each coefficient represents a separate regression using the dependent variable indicated in the column heading and using a sample with the starting year indicated in the row heading. Robust standard errors clustered by geographic area (state) are in parentheses. Significance levels are indicated by: *** for the 1% level, ** for the 5% level, and * for the 10% level. Observations are weighted by the local population size (men and women between the ages of 25 and 55) in 1990 for the race used in the sample. All regressions include fixed-effects for each year and geographic area (state), as well as demographic controls for education and age for the corresponding gender and race (see Table 1). The age and education demographics are for adult males (ages 25-55) for the male sample, and adult females (ages 25-45) for the female and child samples. The instrument for percent manufacturing for each race is the "shift-share" variable described in equation (2) in the text. The base year for the construction of the instrument is equal to the starting year of the sample.

Appendix Table 18: Inequality within White Men and Women by State of Birth

	Coefficient on % Manufacturing (White Men)									
	White Men								White Women	
						College Gap			College Gap	
Starting Year	Log Wage 90th Percentile	Log Wage 10th Percentile	90/10 Ratio in Log Wage	90/10 Ratio in Residual Wages (adjusted for educ and age)	Standard Deviation of Log House Values	Log Wages	Never Married	Employment Rates	Never Married	Single Mother
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
					OLS with Different Starting Years					
1960	-0.050	0.912***	-0.963***	-0.671***	-0.256**	-0.053**	0.012	-0.025**	0.009	0.006
	(0.144)	(0.203)	(0.138)	(0.136)	(0.099)	(0.023)	(0.011)	(0.010)	(0.009)	(0.007)
1970	-0.094	1.096***	-1.190***	-0.636***	-0.091	-0.068**	0.019	-0.050***	0.016	-0.005
	(0.174)	(0.232)	(0.162)	(0.168)	(0.118)	(0.027)	(0.016)	(0.012)	(0.011)	(0.010)
1980	-0.195	0.905***	-1.101***	-0.547***	-0.158	-0.099***	0.011	-0.044***	0.008	-0.008
	(0.268)	(0.336)	(0.228)	(0.198)	(0.150)	(0.033)	(0.020)	(0.016)	(0.014)	(0.011)
1990	0.518	1.662***	-1.143***	-0.745*	-1.073***	-0.174**	0.007	-0.106***	-0.017	0.014
	(0.356)	(0.342)	(0.365)	(0.381)	(0.225)	(0.070)	(0.024)	(0.032)	(0.023)	(0.023)
					IV with Different Starting Years					
1960	0.564	1.688***	-1.123***	-0.215	0.289	-0.112***	0.008	0.009	0.028**	-0.025
	(0.347)	(0.277)	(0.291)	(0.299)	(0.284)	(0.032)	(0.017)	(0.025)	(0.014)	(0.016)
1970	0.648*	2.109***	-1.462***	-0.089	0.348	-0.147***	-0.001	-0.018	0.027*	-0.041**
	(0.355)	(0.318)	(0.277)	(0.349)	(0.277)	(0.038)	(0.021)	(0.025)	(0.016)	(0.019)
1980	1.174**	2.586***	-1.412***	0.251	0.344	-0.256***	-0.005	-0.022	0.033	-0.039*
	(0.598)	(0.546)	(0.461)	(0.427)	(0.275)	(0.065)	(0.029)	(0.029)	(0.028)	(0.023)
1990	3.118***	1.546**	1.572	3.024**	-0.165	-0.446**	-0.002	-0.002	0.041	0.020
	(1.131)	(0.610)	(1.311)	(1.443)	(0.689)	(0.193)	(0.071)	(0.084)	(0.063)	(0.058)

Notes: Each coefficient represents a separate regression using the dependent variable indicated in the column heading and using a sample with the starting year indicated in the row heading. Robust standard errors clustered by geographic area (state of birth) are in parentheses. Significance levels are indicated by: *** for the 1% level, ** for the 5% level, and * for the 10% level. Observations are weighted by the local population size (men and women between the ages of 25 and 55) in 1990 for the race used in the sample. All regressions include fixed-effects for each year and geographic area (state of birth), as well as demographic controls for education and age for the corresponding gender and race (see Table 1). The age and education demographics are for adult males (ages 25-55) for the male sample, and adult females (ages 25-45) for the female and child samples. The instrument for percent manufacturing for each race is the "shift-share" variable described in equation (2) in the text. The base year for the construction of the instrument is equal to the starting year of the sample.

Appendix Table 19: Effect of MFG on the County Mortality Rate (Unadjusted) for Ages 10-64

	Coefficient on % Manufacturing (Black, White, or All Men) at the Metro Area Level					
	Blacks		Whites		Black-White Gap	
	OLS	IV	OLS	IV	OLS	IV
Starting Year	(1)	(2)	(3)	(4)	(5)	(6)
			Men			
1970	-7.055***	-13.333***	-0.563	0.525	-6.682**	-21.894***
	(1.699)	(3.456)	(0.561)	(0.959)	(2.841)	(7.355)
1980	-7.167***	-10.451***	-0.053	0.634	-6.928**	-15.474***
	(1.930)	(3.311)	(0.572)	(0.954)	(2.980)	(5.296)
1990	-1.375	-14.468*	-1.701	-6.055*	-0.106	-8.799
	(3.118)	(7.451)	(1.193)	(3.577)	(4.235)	(8.859)
			Women			
1970	-3.948***	-5.802***	-0.214	0.310	-4.409***	-10.631***
	(1.046)	(1.820)	(0.373)	(0.571)	(1.563)	(2.844)
1980	-3.158***	-5.511***	-0.529	-0.548	-2.782	-9.012***
	(1.202)	(2.061)	(0.472)	(0.708)	(1.743)	(3.145)
1990	-1.347	-14.524***	-0.574	-2.606	-5.506*	-16.998***
	(2.941)	(5.234)	(0.719)	(1.856)	(3.111)	(5.294)

Notes: Each coefficient comes from a separate regression. The treatment variable is defined as the percent of men in manufacturing for each respective race, with both races used in the "black-white" regressions. Robust standard errors clustered by geographic area (metro area) are in parentheses. Significance levels are indicated by: *** for the 1% level, ** for the 5% level, and * for the 10% level. The unit of observation is at the age-group and county level, and each observation is matched to the employment share in manufacturing (for black men for the black sample, white men for the white sample, and all men for the "black-white" gap samples) at the metro area level. Each regression specification includes fixed-effects for each year, age group (ages 10-14, 15-19, 20-24, 25-34, 35-44, 45-54, and 55-64) and county, along with age and education demographic controls at the metro area level. The age and education demographics are for adults between the ages of 25-55 in the corresponding race and gender group, and the differences between the two racial groups for the "black-white" regressions for the respective gender. Observations are weighted by the county population size in 1990 for the race used in the sample, and for the black population in the "black-white" gap regressions. The mortality data for each year was taken from the "Centers for Disease Control and Prevention, National Center for Health Statistics. Compressed Mortality File on the CDC WONDER Online Database."

Appendix Table 20: Effect of MFG on the County Mortality Rate (Unadjusted) for Ages 0-9

	Coefficient on % Manufacturing (Black, White, or All Men) at the Metro Area Level					
	Blacks		Whites		Black-White Gap	
	OLS	IV	OLS	IV	OLS	IV
Starting Year	(1)	(2)	(3)	(4)	(5)	(6)
			Boys			
1970	-19.063***	-24.650***	-4.513	-11.407**	-15.345**	-35.409**
	(5.097)	(8.112)	(3.271)	(5.472)	(6.279)	(14.269)
1980	-13.321**	-22.388***	-2.810	-7.934*	-11.153	-27.354**
	(5.579)	(7.532)	(2.679)	(4.362)	(7.041)	(12.102)
1990	-8.929	-58.312***	-1.177	-11.101	3.824	-27.915
	(13.031)	(22.346)	(4.551)	(8.149)	(15.739)	(41.976)
			Girls			
1970	-19.090***	-32.329***	-7.131**	-9.937**	-13.197**	-36.925***
	(6.811)	(9.985)	(2.761)	(4.476)	(5.328)	(11.460)
1980	-11.087	-24.662***	-6.465**	-11.312**	-3.642	-19.628
	(6.818)	(9.540)	(2.658)	(4.662)	(7.484)	(12.602)
1990	6.577	-12.909	-4.741	-9.049	-3.799	-28.016
	(11.639)	(17.962)	(3.898)	(8.527)	(16.501)	(28.916)

Notes: Each coefficient comes from a separate regression. The treatment variable is defined as the percent of men in manufacturing for each respective race, with both races used in the "black-white" regressions. Robust standard errors clustered by geographic area (metro area) are in parentheses. Significance levels are indicated by: *** for the 1% level, ** for the 5% level, and * for the 10% level. The unit of observation is at the age-group and county level, and each observation is matched to the employment share in manufacturing (for black men for the black sample, white men for the white sample, and all men for the "black-white" gap samples) at the metro area level. Each regression specification includes fixed-effects for each year, age group (ages less than one and between 1 and 9) and county, along with age and education demographic controls at the metro area level. The age and education demographics are for adults between the ages of 25-55 in the corresponding race and gender group, and the differences between the two racial groups for the "black-white" regressions for the respective gender. Observations are weighted by the county population size in 1990 for the race used in the sample, and for the black population in the "black-white" gap regressions. The mortality data for each year was taken from the "Centers for Disease Control and Prevention, National Center for Health Statistics. Compressed Mortality File on the CDC WONDER Online Database."