

**Beyond Men and the Median:
Women's Black-White Earnings Gaps from 1960-2019**

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Beyond Men and the Median: *Women's Black-White Earnings Gaps from 1960-2019*

By Abigail Matthew

Abstract:

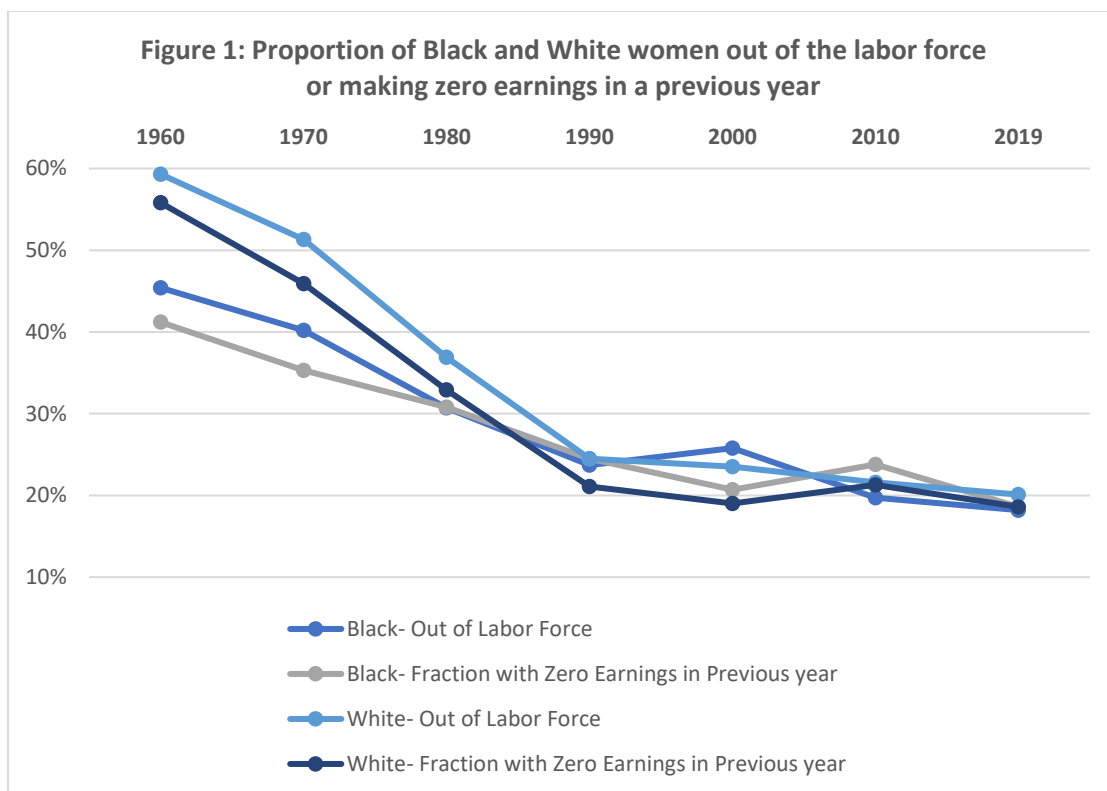
Using quantile regressions and measuring the earnings level and rank gaps across the earnings distribution, I evaluate the Black-White earnings gap for women at the 25th, 50th, 75th, and 90th percentiles. I find that the women's racial earning level gap shrank from 1960 to 1980 to zero and reversed at some percentiles, only to increase again in the past 40 years. The largest reversion by 2019 in the earnings level gap occurred at the 25th percentile, totaling 36 log points, while the largest reversion in the earnings rank gap occurred at the 75th percentile and totaled 9 percentage points. Utilizing the Oaxaca-Blinder Recentered Influence Function decomposition, estimates suggest that the unexplained gap in the earning level gap decreased from 1960 to 1980, then increased from 1990 to 2019. The male Black-White earnings gap has received relatively more attention in recent years than the female Black-White earnings gap, in part due to concerns about selection bias in labor force participation and employment for women over time. This analysis contributes to the literature by focusing on women and analyzing more than the median and mean. Comparisons of estimated trends in racial earnings gaps for men and women demonstrate that there are dramatic differences over time in the measured gaps within and across gender, as well as suggestive evidence that different forces are causing the increases for each group.

Introduction

In recent years, there has been increasing focus on the troubling diverging Black-White earnings gap for men. Bayer and Charles' (2018) paper provides insights about this gap and decomposes it over time. The dismal earning distribution they describe for Black earners relative to White earners is only one part of the labor market outcomes picture for Black and White men—the other being mass incarceration increasingly removing Black men from the labor force (Bayer and Charles 2018), only to return them with decreased earnings prospects as part and parcel of the U.S. carceral system.

While mass incarceration is a prominent part of the history of the racial earnings gap for men, women are less likely to be directly affected by the rise in mass incarceration than men, though women's households and marriage market decisions certainly can be indirectly affected by incarceration (Cox 2012). Additionally, historic trends in educational attainment differ across race and gender. These factors plausibly lend themselves to heterogeneous labor market outcomes for women versus men and necessitate a separate analysis of the racial earnings gap for Black and White women.

We would also expect the Black-White earnings gap for women to show important changes over time, particularly given fluctuations in labor force participation rates (Figure 1), the decline of marriage rates, and the rise of women as heads of households and breadwinners (Goodman, Choi, and Zhu 2021). The introduction and availability of oral contraception in the 1960s and 1970s is associated with plummeting fertility rates during that period (Bailey 2010), and legal abortion, gender-based anti-discrimination laws, and no-fault divorce laws likely had an impact on labor force participation and employment.



Given the importance of the “gendered earnings gap” and a dearth of literature about it in recent years, this paper aims to use methods introduced by Bayer and Charles in their 2018 paper to track how the Black-White earnings distribution, gap, and rank changed for women between 1960 and 2019.

Literature Review

The *Economic Status of Black Women* (Zalokar 1990), which was published by the United States Commission on Civil Rights, documented the economic outcomes of Black women since 1940. In addition to other metrics reported, they evaluated the Black-White wage gap using data from the 1940-1980 Decennial Census, March CPS 1984, and 1984 Survey of Income and Program Participation (SIPP) (Zalokar 1990). They found that Black women’s wages relative to White women’s had gone from 50% in 1940 to about 90% in the 1980s (Zalokar 1990). They argued that a gap in wages between Black and White women—

or lack thereof—could be indicative of the relative impacts of racial discrimination on Black women over time (Zalokar 1990). In many ways, the evidence of the convergence of the wage ratio was reason to laud economic and racial progress in the U.S. The takeaway was that remaining inequality between Black and White women was a function of dramatic differences in overall family or household income, driven by factors like high rates of single-parenthood and low average earnings of Black men (Neal 2004), and less so intra-gender wage inequality.

Prior to and contemporary to *The Economic Status of Black Women's* report, some researchers were looking at Black and White earnings ratios. Blau and Beller (1992) document in their paper using CPS data that the 1970s were a strong period of earnings growth for Black men and women relative to their White peers, though that progress stagnated in the 1980s. Black women, particularly women with more than 20 years of experience, started to outperform Black men in terms of earnings growth and their wages increased relative to White women's wages (Blau and Beller 1992). There is additional evidence that Black women started to earn more than their White peers in the 1970s and 1980s, as well as some research showing that this trend reversed at the median since the 1980s (Althoff 2023; Collins and Moody 2017; Pettit and Ewert 2009).

Nonetheless, the literature about the gendered earnings gap between Black and White women remains sparse. The complex issues of selection into the labor force are magnified for women, and the challenges of accounting for this has often influenced choices to evaluate only men in Black-White earnings gap research (Charles and Guryan 2011). It is typically assumed that the gap is larger for Black men than for Black women (Charles and Guryan 2011). Notably, Neal (2004) found that when he corrected for the selection bias in

which Black or Women are in the labor force, the Black-White wage gap for women is larger than previously thought—up to 60% larger than gaps previously measured using Current Population Survey.

Given these facts, several questions remain—did the strong estimates of earnings gap convergence in the 1970s and 1980s mean the gap closed permanently? Did the strong earnings growth for Black women continue relative to White women’s earnings? This analysis aims to address these questions.

While wage or earnings gap analyses often can seem aimed at understanding the labor market outcomes of a marginalized group relative to a more affluent benchmark group, the gap is dually affected by changes for the marginalized and the more affluent group. Since both Black and White women are affected by sexism, gender-based discrimination, and gender-wage gaps in the work force, changes in both distributions of earning are important to observe. This analysis aims to look at the what happened to the Black-White wage gap for women, particularly since the 1980s, using both the traditional metric of earning level gaps and Bayer and Charles’ “rank gap”, as well decomposing these gaps.

Methodology and Data

I evaluate earnings level and rank gaps using quantile regressions, similar to Bayer and Charles’ (2018) approach for Black and White men. Earnings level regressions evaluate the difference between the log earnings of a White woman and the log earnings of a Black woman at the same quantile, e.g. the 90th quantile (Bayer and Charles 2018). The rank gap regressions take the earnings of Black women and map that earnings level onto the corresponding portion of the White women’s earnings distribution, such that we might find,

e.g. that a median Black woman would be at the 40th percentile of the White women's earnings distribution (Bayer and Charles 2018). As described by Bayer and Charles (2018), this can be represented formally by the following equations:

$$(1) \text{Log}(\text{earnings}_{it}) = \alpha_t(\text{qth percentile}) + \beta_t(\text{qth percentile})r_i + \varepsilon_{it}(\text{qth percentile})$$

$$(2) \text{Rank}(e_{it}) = a_t(q) + b_t(q)r_i + u_{it}(q)$$

where r_i is a set of dummies for race and $\beta_t(q)$ and $b_t(q)$ measure the earnings and rank gaps respectively. Additionally, as was included in Bayer and Charles (2018), all quantile regressions include cohort controls for age bands of 5 years. The quantile regression approach is somewhat novel since previous literature often focused on average or median difference in wages, and the use of quantile regressions allows us to evaluate the gap at various points in each distribution and make use of annual earnings in lieu of hourly wages (Bayer and Charles 2018).

I use the American Community Survey (from IPUMS) and Census data, restricting my time horizon to 1960 through 2019 (Ruggles et al 2021), with observations for only women aged 25 to 54, totaling 31,754,553. Specifically, I estimate regressions for data from the years 1960, 1970, 1980, 1990, 2000, 2010, and 2019. I restrict my analysis to evaluating the earnings of non-Hispanic white women and men, and non-Hispanic Black women and men. Ideally, future analyses would also include some consideration of ethnicity, however, given the long time horizon this analysis covers and the changing Census definitions of Hispanic as a racial or ethnic category over this period, it made most sense to focus on non-Hispanic Black and White individuals.

I employ quantile regressions for four different specifications: only those with positive earnings, native born women, weekly earnings, and only labor market earnings to better understand the potential differences and contributing factors in earnings inequality. The subsequent discussion of results primarily focuses on the results from the most expansive category, those with positive earnings. I also produce estimates by region. It is important to note that there is documentation that Black-White earnings gap calculation can be sensitive to the data source used, and there are non-trivial differences between some NLSY, CPS and Census analyses of wage gaps (Neal 2004). Others have noted that studies on wage differentials are also sensitive to sample choices (Heckman, Lyons, and Todd 2000). While this analysis is not equipped to compare estimates to other data sources, each of the quantile regressions are evaluated with differing specifications, and these specifications help ensure some internal validity and robustness.

Since the American Community Survey and Census data are top-coded for upper level earnings (“IPUMS USA | Top and Bottom Codes” n.d.), the data is sufficient for the quantiles of interest in this paper, but would not be appropriate for evaluating higher percentiles in the distribution of earnings. All earnings are adjusted to 2019 dollars.

To better understand the factors influencing the earnings level gaps for women, I employ a decomposition procedure. One of the traditional methods for decomposing wages is the Oaxaca-Blinder (OB) decomposition, which decomposes wage gaps between an “explained” portion which describes differences in the levels of chosen predictors, and an “unexplained” portion which can be understood as different returns to particular characteristics (Jann 2008). A modification of a simple linear model utilizing Oaxaca-Blinder is the following:

$$Y_{\text{white}} = \alpha_{\text{white}} + \beta_{\text{white}}X_{\text{white}}$$

$$Y_{\text{black}} = \alpha_{\text{black}} + \beta_{\text{black}}X_{\text{black}}$$

Where Y represents mean log earnings for each group and X is a vector containing the predictors. Therefore,

$$Y_{\text{white}} - Y_{\text{black}} = (\alpha_{\text{white}} - \alpha_{\text{black}}) + (\beta_{\text{white}}X_{\text{white}} - \beta_{\text{black}}X_{\text{black}})$$

To decompose the differences in mean values for the variables in X as well as the differences in the values of β , we add a term (Jann 2008; Rahimi and Nazari 2021):

$$Y_{\text{white}} - Y_{\text{black}} = (\alpha_{\text{white}} - \alpha_{\text{black}}) + (\beta_{\text{white}}X_{\text{white}} - \beta_{\text{black}}X_{\text{black}}) + (\beta_{\text{white}}X_{\text{black}} - \beta_{\text{black}}X_{\text{white}})$$

then rearrange to

$$Y_{\text{white}} - Y_{\text{black}} = [(X_{\text{white}} - X_{\text{black}}) \beta_{\text{black}}] + [(\alpha_{\text{white}} - \alpha_{\text{black}}) + (\beta_{\text{white}} - \beta_{\text{black}})X_{\text{white}}]$$

which is the standard format of the OB decomposition.

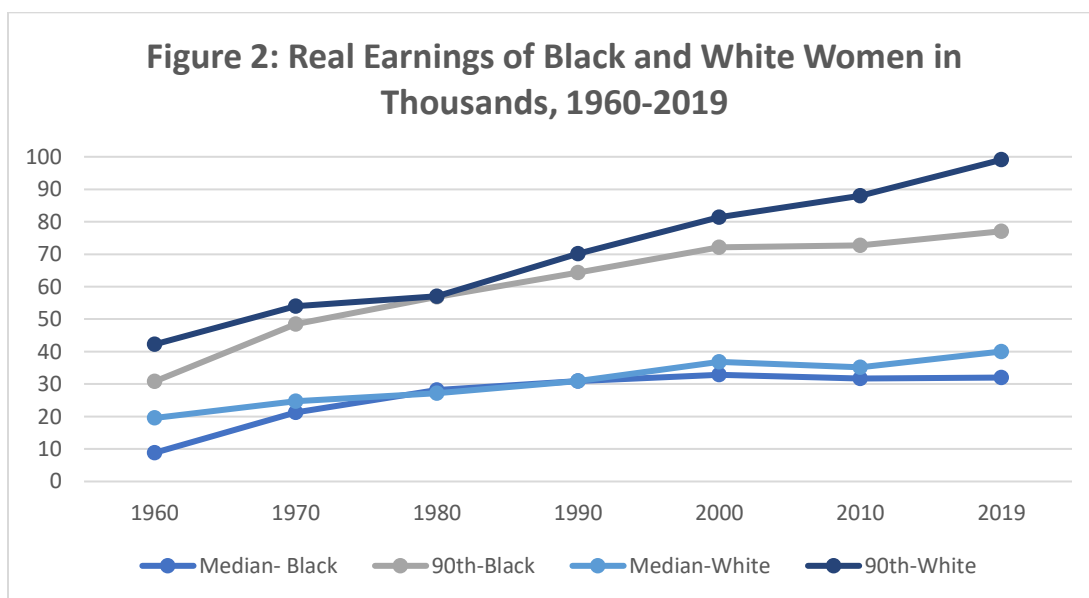
I utilize a variation of the Oaxaca-Blinder decomposition that is suited to quantile regressions. Specifically, I decompose the positive earnings level gap using the Oaxaca-Blinder Recentered Influence Function (OB-RIF) developed by Firpo, Fortin, and Lemieux (2018). As noted by Firpo, Fortin, and Lemieux (2018), the distinct advantage of OB-RIF is that it allows for decomposition of other distribution measures, whereas the traditional Oaxaca-Blinder procedure only allows for decomposition of means. In particular, OB-RIF is appropriate for application to quantile regressions at various points in the distribution (Firpo, Fortin, and Lemieux 2018).

Results

I discuss estimates for the Black-White women's earnings level and rank gaps, at the 25th, 50th, 75th, and 90th percentiles, primarily through discussion of positive earnings (calculated as log real income for women who report real income greater than zero in a given year) in order to focus in on women who were presumably concurrently participating in the labor force in a given year. Additional and alternative measures included in Appendix Tables VII, VIII, IX, and X provide insights about the robustness of these estimates in a given year and over time. Figures 2 and 3 and Tables I provide a side-by-side accounting of positive earnings across all percentiles, allowing us to analyze the trajectory of each slice of the income distribution over time.

I also discuss estimates from a regional analysis of the median earnings level gap for women, results from the decomposition of the earnings level gap for all women and within regions, and the results for men in comparison to the estimates for women.

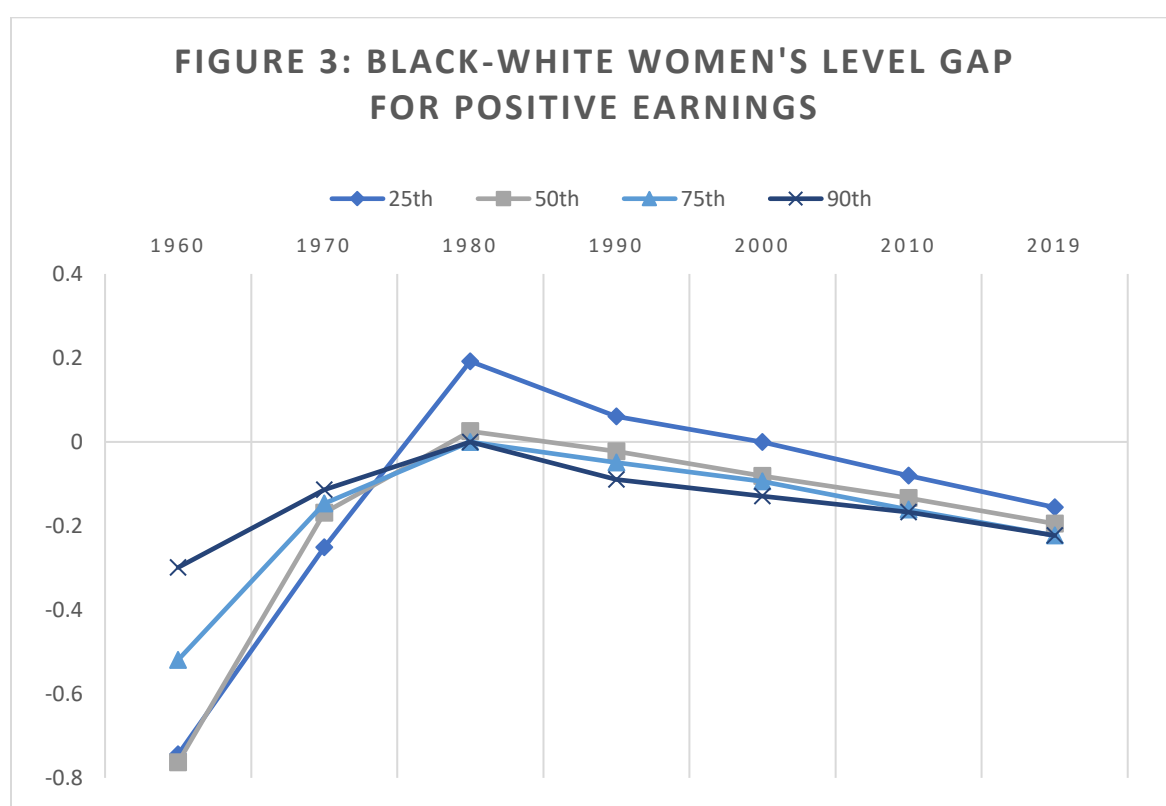
Earnings Level Gaps



The backdrop for the discussion of the earnings gap from the 1960s to the 2010s is an extraordinary expansion of women's earnings. Between 1960 and 2019, there was substantial growth in women's earnings, for both White and Black women. Figure 2 documents trends in real earnings specifically for women with positive earnings. As shown in Figure 2 and adjusted to 2019 dollars, in 1960, Black women at the median were earning less than \$9,000 annually, while White women at the median were earning more than twice that at \$19,500 annually. At the 90th percentile in 1960, annual earnings were approximately \$30,000 and \$42,000 for Black and White women respectively. In 1980, Black and White women at the median and 90th percentiles were commanding similar annual earnings, but as the decades progress, particularly White women's earnings pull away from the earnings of fellow White women at lower parts of the distribution, as well as Black women, suggesting a widening of the overall earnings distribution for White women that is not happening at the same scale for Black women. Between 1960 and 2019, earnings for Black women at the median and 90th percentiles have grown by 250% and 150% respectively. During the same time frame, earnings for White women at the median and 90th percentiles have more than doubled. Therefore, Black women make incredible strides in earnings growth between the end of the Jim Crow era and the new millennium, but after the 1980s are unable to keep up with the growth of White women's earnings, particularly at the upper parts of the income distribution.

The Black-White women's earnings level gap, calculated with the inclusion of age categories to control for cohort sizes, provides more in-depth insights regarding earnings inequality between Black and White women. Over the past sixty years, there has been both dramatic progress in earnings inequality between women from 1960 through 1980, and a moderate reversion in that progression in the following 40 years. Shown in Figure 3 and the

corresponding estimates in Panel A of Table I, at the 25th and 50th percentiles, the racial earnings level gap in 1960 for women making positive earnings was 74 log points and 76 points, respectively. In 1960 Black women at the 75th and 90th percentiles trailed White women in positive earnings by a respective 52 and 30 log points—both sizable gaps but relatively smaller than the gaps observed at the 25th and 50th percentiles. At nearly every measured percentile, there was a precipitous drop in the earnings level gap in just the decade between 1960 and 1970.



By 1980, this racial earnings gap had closed and even reversed for some. The largest reversion in the racial earnings gap occurred for the group which had the largest gap in 1960—women at the 25th percentile. Strikingly, in 1980 Black women at the 25th percentile of the Black earnings distribution would be earning about 21% more than White women at the 25th percentile of the White earnings distribution. At the median, Black women earned

about 3% more than White women, and at the 75th and 90th percentiles, Black and White women were at near parity in earnings. Considering the labor force participation rates in Figure 1, 1970 and 1980 are both years where labor force participation rates were not only increasing for both Black and White women, but these groups rates of non-participation were converging as well.

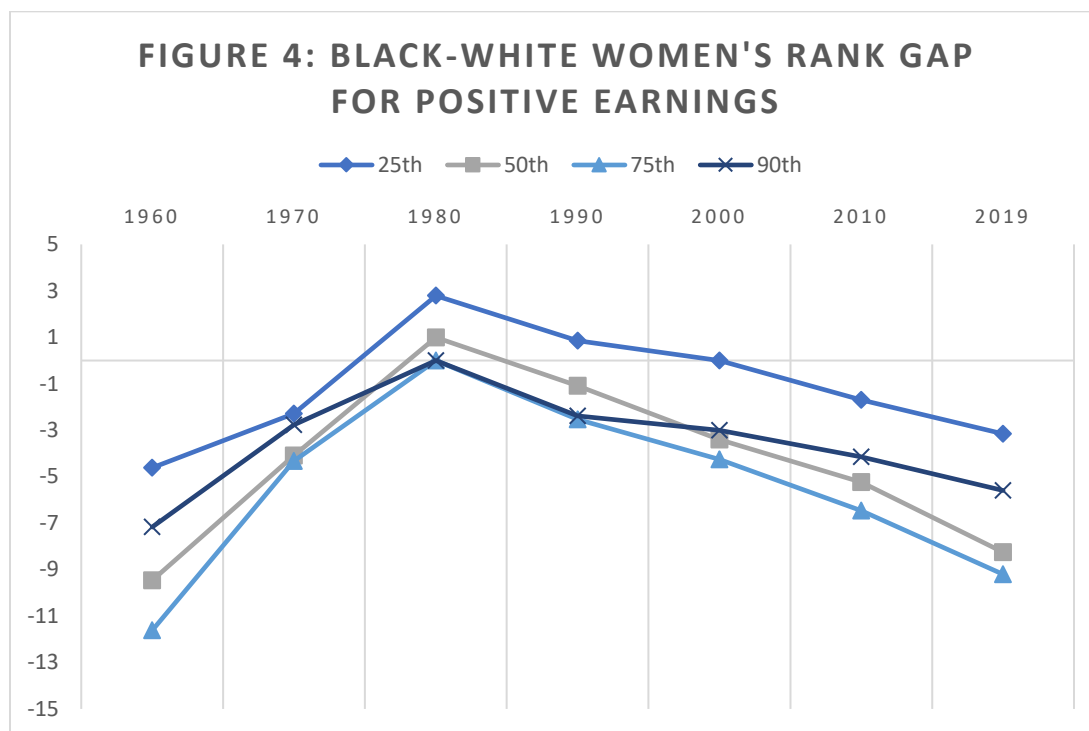
After 1980, there was a slow and steady divergence in the earnings of Black and White women at all percentiles. The biggest loss once again was for Black women at the 25th percentile, with an estimated 35 log point tumble (from 0.192 in 1980 to -0.156 in 2019) in their earnings relative to white women's earnings, over the course of 40 years. At the median, 75th, and 90th percentiles, the women's racial earnings level gap grew by about 22-23 log points. The earnings level gap at the 90th percentile changed less over the time horizon in absolute magnitude relative to 25th percentile. The absolute gap in 1960 at the 90th percentile was smaller in absolute magnitude than the gaps at the 25th, 50th, and 75th percentiles, and the earnings level gap at the 90th percentile in 2019 is 75% of the gap in positive earnings in 1960. Across these percentiles of the earnings distribution, the racial earnings gap increased by a minimum of 22 log points between 1980 and 2019, despite the convergence in the two decades before 1980.

Table I
Percentile Earnings Level and Rank Gaps for Women with Positive Earnings

	1960	1970	1980	1990	2000	2010	2019
Panel A: Positive earnings level gap							
25th	-0.744*** (0.00578)	-0.251*** (0.00730)	0.192*** (0.00492)	0.0606*** (0.00547)	0.00000 (0.00224)	-0.0800*** (0.00595)	-0.156*** (0.00607)
50th	-0.763*** (0.00545)	-0.169*** (0.00467)	0.0253*** (0.00191)	-0.0227*** (0.00192)	-0.0811*** (0.00249)	-0.134*** (0.00624)	-0.195*** (0.00610)
75th	-0.519*** (0.00424)	-0.147*** (0.00459)	0.00000 (0.01200)	-0.0488*** (0.00294)	-0.0943*** (0.00261)	-0.161*** (0.00427)	-0.223*** (0.00557)
90th	-0.299*** (0.00431)	-0.114*** (0.00318)	0.00000 (0.00180)	-0.0896*** (0.00220)	-0.129*** (0.00300)	-0.167*** (0.00849)	-0.223*** (0.00637)
Panel B: Positive earnings rank gap							
25th	-4.618*** (0.0275)	-2.284*** (0.0699)	2.790*** (0.0570)	0.859*** (0.0827)	0.00000 (0.0480)	-1.692*** (0.158)	-3.157*** (0.182)
50th	-9.467*** (0.0475)	-4.099*** (0.110)	0.993*** (0.0791)	-1.093*** (0.0964)	-3.411*** (0.0803)	-5.243*** (0.182)	-8.251*** (0.240)
75th	-11.62*** (0.0761)	-4.330*** (0.143)	0.00000 (0.159)	-2.530*** (0.0444)	-4.262*** (0.0607)	-6.469*** (0.208)	-9.205*** (0.211)
90th	-7.170*** (0.0848)	-2.774*** (0.0999)	0.00000 (0.0619)	-2.383*** (0.0556)	-3.008*** (0.0541)	-4.143*** (0.161)	-5.598*** (0.184)

*Standard errors in parentheses; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$*

Earnings Rank Gaps



The earnings rank gap—the percentage point difference between Black women’s position in the Black earnings distribution and her position in the White women’s earnings distribution—demonstrates similar trends to the earnings level gap. Overall, as shown in Figure 4 and Panel B of Table I, there was a decrease in the rank gap from 1960 to 1980, even reversing for some percentiles, and then from 1980 onwards, the gap grew again. For the rank gap at the median and the 75th percentiles, the gaps measured by positive earnings and alternative specifications (see Appendix I) differ in magnitude and seem sensitive to the earnings measure, particularly in 1960 and 1970.

Notably, the rank gap fluctuated the least across time for women in the 25th percentile. Measured for only women with positive earnings, Black women’s earnings at the 25th percentile would map to the 21st percentile of the White women’s earnings distribution. In 1980, the earning rank gap for positive earnings at the 25th percentile was a positive 2

percentage points, such that a Black woman earner at this point in the income distribution would map to the 27th percentile of the White women's earnings distribution. Across all percentiles, the rank gap grew between 1980 and 2019, and at the median and 75th percentiles, it stood at about -8 and -9 percentage points, respectively. At the 90th percentile, the positive earnings rank gap went from -7 percentage points in 1960, to 0 in 1980, to -6 percentage points in 2019. Focusing only on women with positive earnings, the reversion from 1980 to 2019 led to a rank gap that was at least 65% of the rank gap in 1960, with the rank gaps at the median, 75th, and 90th percentiles, approaching or exceed 80% of the measured gap in 1960. Considering the earnings level and rank gaps observed over the same period, both measures indicate a clear reversal in progress in closing the women's racial earnings gaps. In 2019 the absolute value of the increase in the rank gap was largest at the median and the 75th percentiles, the absolute value of the earnings level gap was greatest at the 75th and 90th percentiles.

The positive earnings level gap effect in 1980 and subsequent reversion for Black women are fairly robust to other specifications, shown in Tables VII, VIII, IX, and X in the appendix. Though the estimates from earlier years exhibit more sensitivity to specifications, estimates for 2019 are similar across specifications. This could be indicator of the sensitivity of women's earnings regressions to the composition of the female labor force and higher rates of labor market work performed by women over time.

Decomposing Women's Racial Earning Level Gaps

Using the *oaxaca_rif* Stata package to calculate a recentered influence function decomposition, I produce estimates of the explained and unexplained portions of the measured Black-White earnings gap, shown in Table II. Again, I use the positive earnings measure since it is the most expansive category of the included specifications. The included

independent variables are education (broken into the categories less than high school, high school diploma, and college degree); marital status (married or unmarried); geographic region dummies for the North, South, Midwest, and West; age; and age squared. For these estimates, I utilize log real positive earnings and estimate the gap at the 25th, 50th, 75th, and 90th percentiles between 1960 and 2019.

Black is the reference group and therefore the gap is calculated as White log earnings minus Black log earnings, showing the reverse sign of the gaps shown in Tables I. A positive signed gap means Black women make less than White women, whereas a negative signed gap means that Black women make more than White women. In years where the gap is very small or zero, such as 1980 at the 75th and 90th percentiles, these estimates are not informative since there is no way to decompose a gap that does not exist. However, in years where the gap is larger and statistically significant, the decomposition can be informative.

To interpret the decomposition, the values for each predictor in the explained portion can be understood as a difference in the levels of a certain characteristic between White women and Black women. A large explained portion of the total difference implies that the earnings gap is mostly attributable to differences in, e.g. educational attainment. For instance, we can understand a positive sign on high school diploma as, if Black and White women started attaining high school diplomas at the same rates, we might expect this to decrease the earnings gap. On the other hand, we can understand the unexplained gap as differences in the returns to certain characteristics for each group.

Table II: Oaxaca-Blinder Recentered Influence Function Decomposition (using positive earnings)

statistic	Effect of													Unexplained difference	Percent explained	Percent unexplained
	Total difference	Explained difference	High school diploma	College degree	Married	North	South	Midwest	Age	Age squared	Incarceration					
1960	25th	0.732	0.0554	0.103	0.0251	-0.115	0.0253	-0.00751	-0.0000131	0.0474	-0.0227	0.000204	0.676	7.57%	92.35%	
	50th	0.737	0.0858	0.0918	0.0241	-0.0689	0.00574	0.0246	-0.00213	0.0169	-0.00654	0.000189	0.651	11.64%	88.33%	
	90th	0.529	0.0867	0.0659	0.0246	-0.0434	0.00494	0.0446	-0.00674	0.0186	-0.0121	0.0000908	0.442	16.39%	83.55%	
1970	25th	0.303	0.0667	0.0410	0.0250	-0.0309	-0.00418	0.0347	-0.00650	0.0246	-0.0170	0.0000367	0.237	22.01%	78.22%	
	50th	0.251	-0.0372	0.0602	0.0338	-0.122	0.00742	-0.0509	0.00115	-0.0134	0.0456	0.000785	0.288	-14.82%	114.74%	
	90th	0.161	0.0224	0.0571	0.0330	-0.0763	0.00157	-0.00673	-0.000547	-0.0158	0.0298	0.000438	0.138	13.91%	85.71%	
1980	25th	0.125	0.0514	0.0423	0.0392	-0.0527	-0.00112	0.0169	-0.00185	0.000569	0.00784	0.000261	0.0733	41.12%	58.64%	
	50th	0.106	0.0488	0.0261	0.0415	-0.0426	-0.000919	0.0172	-0.00182	0.0280	-0.0197	0.000161	0.0573	46.04%	54.06%	
	90th	-0.178	-0.0859	0.0177	0.0556	-0.140	-0.000617	-0.0254	-0.00320	-0.0179	0.0269	0.000844	-0.0921	48.26%	51.74%	
1990	25th	-0.0602	-0.00493	0.0149	0.0508	-0.0747	-0.00101	0.00296	-0.00220	-0.00353	0.00762	0.000265	-0.0553	8.19%	91.86%	
	50th	-0.00533	0.0258	0.00910	0.0463	-0.0455	-0.00142	0.0169	-0.00310	0.0177	-0.0143	0.000126	-0.0312	-484.05%	585.37%	
	90th	0.000974	0.0303	0.00602	0.0409	-0.0382	-0.00179	0.0233	-0.00445	0.0287	-0.0243	0.0000792	-0.0293	3110.88%	-3008.21%	
2000	25th	-0.0787	-0.0453	-0.0387	0.104	-0.108	0.00165	-0.00527	-0.00615	0.00937	-0.00434	0.000239	-0.0354	57.56%	42.44%	
	50th	0.00826	0.0118	-0.0259	0.0850	-0.0570	0.000954	0.0111	-0.00667	0.0183	-0.0148	0.000905	-0.00354	142.86%	-42.86%	
	90th	0.0501	0.0382	-0.0139	0.0729	-0.0390	0.000300	0.0217	-0.00841	0.0311	-0.0268	0.000401	0.0118	76.25%	23.55%	
2010	25th	0.0831	0.0479	-0.00818	0.0650	-0.0319	0.000310	0.0266	-0.00948	0.0370	-0.0317	0.0000255	0.0352	57.64%	42.36%	
	50th	0.0247	0.00552	-0.0680	0.116	-0.0507	0.00124	-0.00612	0.00181	0.0192	-0.0114	0.000323	0.0192	22.35%	77.73%	
	90th	0.0676	0.0575	-0.0570	0.132	-0.0360	0.000839	0.0111	-0.00275	0.0419	-0.0335	0.000134	0.0101	85.06%	14.94%	
2019	25th	0.0846	0.0741	-0.0246	0.0949	-0.0215	0.000605	0.0193	-0.00510	0.0553	-0.0453	0.000484	0.0105	87.59%	12.41%	
	50th	0.0987	0.0817	-0.0121	0.0822	-0.0153	0.000754	0.0231	-0.00675	0.0589	-0.0491	0.000143	0.0170	82.78%	17.22%	
	90th	0.0168	0.0451	-0.101	0.151	-0.0139	0.00195	0.00209	0.000130	0.0243	-0.0202	0.000118	-0.0284	2684.5%	-160.05%	
2019	25th	0.0993	0.0813	-0.0683	0.137	-0.006647	0.000919	0.0121	-0.00341	0.0271	-0.0239	0.000426	0.0180	81.87%	18.13%	
	50th	0.140	0.0967	-0.0318	0.107	0.0000969	0.000886	0.0220	-0.00671	0.0336	-0.0290	0.000167	0.0430	69.07%	30.71%	
	90th	0.154	0.105	-0.0156	0.0943	0.000933	0.000613	0.0288	-0.00940	0.0399	-0.0351	0.0000639	0.0493	68.18%	32.01%	
2019	25th	0.0868	0.0744	-0.0877	0.145	-0.00390	0.000950	0.0161	-0.0000347	0.0187	-0.0145	0.000277	0.0124	85.71%	14.29%	
	50th	0.142	0.127	-0.0644	0.155	0.0107	0.000974	0.0204	-0.00237	0.0338	-0.0279	0.0000921	0.0154	89.44%	10.85%	
	90th	0.188	0.140	-0.0335	0.126	0.0121	0.00117	0.0326	-0.00599	0.0405	-0.0333	0.0000344	0.0480	74.47%	25.53%	
2019	90th	0.219	0.141	-0.0177	0.104	0.0177	0.000175	0.0385	-0.00952	0.0388	-0.0310	0.0000105	0.0779	64.38%	35.57%	

Note: These results are estimated using the `oaxaca_rif` package in Stata. The independent variables used for this analysis are education (broken into dummy variables for less than high school, high school diploma, and college degree), marriage (simplified to equal one if the respondent is currently married, and zero otherwise), regions (dummies created for each region described in the regional analysis section), incarceration (defined as one if incarcerated a time of data collection, and zero otherwise), age, and age squared. The omitted categories are less than high school and midwest.

Examining Table II, in 1960 the largest gaps across percentiles are almost entirely attributable to the unexplained portion, i.e. differences in the effects of education, marriage, geographic regions, and age on each group, and very little is attributable to the differences in explained portion, i.e. the composition of each of the covariates by group (Firpo, Fortin, and Lemieux 2018). Only 7.6% of the 73 log point gap in 1960 at the 25th percentile is explained. As the total gap decreases in 1970 and 1980, the unexplained portion decreases as well. Conversely, as the gap increases at the 50th, 75th, and 90th percentiles in the 1990s and 2000s, the unexplained portion increases as well. However, for similar gaps in earlier periods versus more recent periods, the unexplained portion accounts for less of the gap. The 12.5 log point gap at the 75th percentile in 1970 was 58.6% unexplained, while the 18.8 log point gap at the 75th percentile in 2019 is only 25.5% unexplained.

Closely examining the explained gap throughout this period, differences in education levels are the main driver of inequality. Interestingly, differential attainment of high school diplomas was a large portion of the explained gap in the 1960s, 70s, and 80s, but by 1990 the sign on high school diploma flips to negative. Starting during this same period, college education becomes an increasingly large contributor to the earning gap overall and the explained portion. By 2019, college education is the leading contributor to the gap at all percentiles. Interestingly, in 2019, college education levels are a smaller portion of the explained gap for women at the 75th and 90th percentiles, and overall, the unexplained portion of the earnings gap is larger at these percentiles than at the median and 25th percentile.

Regional Analysis at the Median

To evaluate whether there were differences across regions in measured Black-White earnings gaps, I evaluated the median gap across four regions: North, South, Midwest, and West. The IPUMS ACS variable description (Ruggles et al 2021) defines each of these regions:

- Northeast (which I call “North”): Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont, and Mid-Atlantic states, New Jersey, New York, and Pennsylvania
- South: Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia, Alabama, Kentucky, Mississippi, Tennessee, Arkansas, Louisiana, Oklahoma/Indian Territory, and Texas
- Midwest: Illinois, Indiana, Michigan, Ohio, Wisconsin, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota
- West: Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming, Alaska, California, Hawaii, Oregon, and Washington

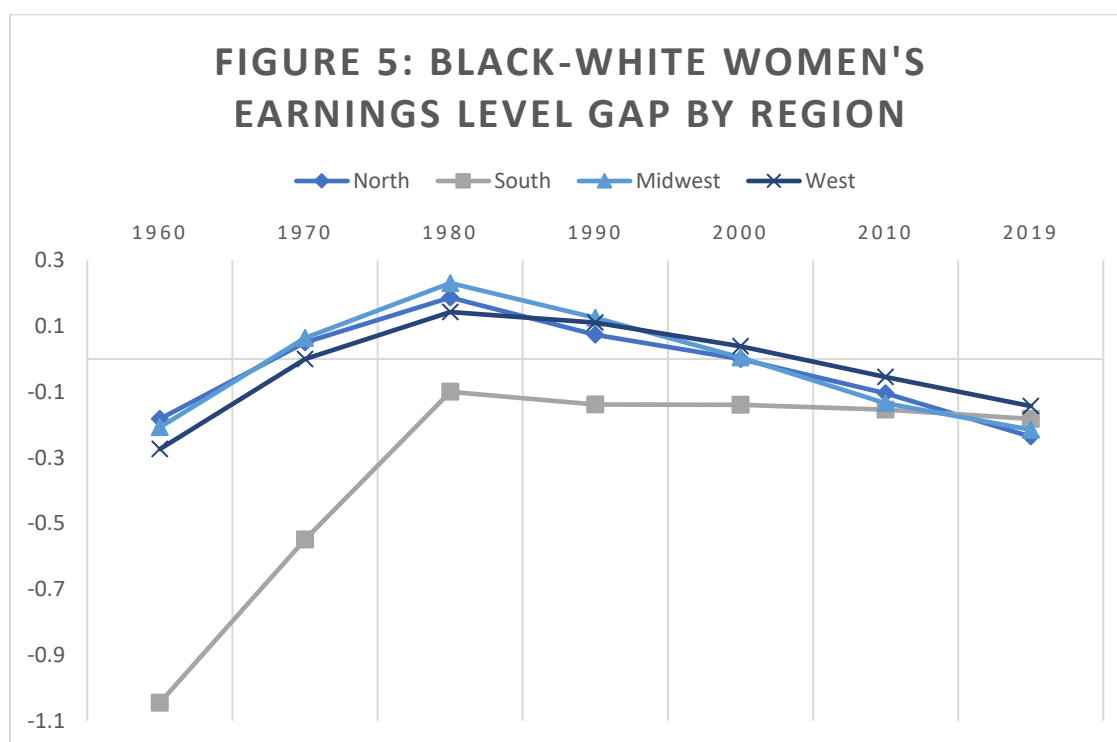
As shown in Table III in 1960, it is perhaps unsurprising that the gap of -104 log points at the median in the South post-Brown v. Board of Education (1954), pre-Civil Rights Act of 1964, far exceeds the gap in other regions by more than 70 log points. By 1970, in all regions except the South, Black women are out-earning White women by up to 6 log points. In 1980, once again, the South lags behind other regions, but the gap has fallen to the lowest level it would fall to between 1960 and 2019—just under 10 log points. Meanwhile, in 1980, Black women at the median in the Midwest are out-earning White women at the

Table III
Percentile Earnings Level and Rank Gaps at the Median by Region

	1960	1970	1980	1990	2000	2010	2019
Panel A: Positive earnings level gap within regions							
North	-0.182*** (0.00379)	0.0506*** (0.00785)	0.187*** (0.00487)	0.0742*** (0.00429)	0.0000 (0.00325)	-0.104*** (0.01520)	-0.236*** (0.01170)
South	-1.045*** (0.00612)	-0.549*** (0.00483)	-0.0998*** (0.00319)	-0.138*** (0.00440)	-0.139*** (0.00213)	-0.154*** (0.00826)	-0.182*** (0.00697)
Midwest	-0.207*** (0.00919)	0.0637*** (0.00934)	0.231*** (0.00549)	0.125*** (0.00436)	0.0043 (0.00320)	-0.134*** (0.01240)	-0.215*** (0.01240)
West	-0.274*** (0.01470)	0.0000 (0.02250)	0.143*** (0.00635)	0.111*** (0.00683)	0.0392*** (0.00610)	-0.0543*** (0.01840)	-0.143*** (0.01250)

*Standard errors in parentheses; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$*

median by 23 log points. Yet, in 2010, every region reports a negative earnings gap again of between 5-15 log points. By 2019, the level gap exceeds -14 log points in every region, and the South has the second smallest gap while the North reports the largest gap at -24 log points.



Throughout this period, the South never reaches parity between Black and White women's earnings, but by the 2000s this region is no longer an extreme outlier. Together, these estimates suggest that while the South's earnings level gap exceeded all other regions' gaps in the earlier periods, the possible forces causing the reversion of the median earnings gap post-1980 may have been less impactful in the South. Notably, the North's level gap of -24 log points in 2019 is the largest gap measured for this region between 1960 and 2019, the largest gap reported in all regions post-1970, and it exceeds the measured gap in the South in 1980, 1990, 2000, 2010, and 2019.

Table IV: OB-RIF Decomposition of Earnings Gaps in the North (using positive earnings)

<i>statistic</i>	<i>Effect of</i>											Unexplained difference	Percent explained	Percent unexplained			
	Total difference	Explained difference	High school diploma	College degree	Married	Age	Age squared	Incarceration	Unexplained difference	Percent explained	Percent unexplained						
1960																	
25th	0.0398	-0.0500	0.0232	0.0151	-0.130	0.0165	0.0248	0.000448	0.0898	-125.63%	225.63%						
50th	0.145	-0.000864	0.0387	0.0241	-0.0805	-0.00810	0.0246	0.000323	0.146	-0.60%	100.69%						
75th	0.197	0.0258	0.0331	0.0305	-0.0489	0.00287	0.00810	0.000133	0.171	13.10%	86.80%						
90th	0.220	0.0426	0.0246	0.0374	-0.0349	0.0320	-0.0165	0.0000446	0.177	19.36%	80.45%						
1970																	
25th	-0.284	-0.0366	0.0160	0.0308	-0.147	-0.122	0.185	0.000919	-0.248	12.89%	87.32%						
50th	-0.0795	-0.00498	0.0243	0.0401	-0.0941	-0.0827	0.107	0.000309	-0.0745	6.26%	93.71%						
75th	0.0771	0.0225	0.0233	0.0567	-0.0695	-0.0354	0.0472	0.000211	0.0546	29.18%	70.82%						
90th	0.116	0.0473	0.0149	0.0703	-0.0531	0.0540	-0.0389	0.000205	0.0691	40.78%	59.57%						
1980																	
25th	-0.394	-0.0822	-0.00212	0.0637	-0.159	-0.0200	0.0344	0.000629	-0.312	20.86%	79.19%						
50th	-0.177	-0.0175	-0.00268	0.0698	-0.0911	-0.00919	0.0155	0.000193	-0.160	9.89%	90.40%						
75th	-0.0612	0.0154	-0.00198	0.0759	-0.0588	0.00338	-0.00322	0.000111	-0.0765	-25.16%	125.00%						
90th	-0.0319	0.0196	-0.00129	0.0701	-0.0462	0.0124	-0.0155	0.0000619	-0.0515	-61.44%	161.44%						
1990																	
25th	-0.277	-0.0617	-0.0545	0.136	-0.143	0.00286	-0.00431	0.00156	-0.215	22.27%	77.62%						
50th	-0.0923	0.000175	-0.0409	0.119	-0.0778	-0.000868	0.000434	0.000535	-0.0925	-0.19%	100.22%						
75th	0.00443	0.0318	-0.0207	0.0977	-0.0455	-0.00469	0.00477	0.000223	-0.0274	717.83%	-618.51%						
90th	0.0328	0.0382	-0.0121	0.0864	-0.0363	-0.00650	0.00655	0.000185	-0.00542	116.46%	-16.52%						
2000																	
25th	-0.151	0.0328	-0.101	0.196	-0.0740	-0.00343	0.0123	0.00275	-0.184	-21.72%	121.85%						
50th	-0.0265	0.0646	-0.0570	0.151	-0.0368	0.0208	-0.0141	0.000987	-0.0911	-243.77%	343.77%						
75th	0.0754	0.0845	-0.0244	0.120	-0.0206	0.0464	-0.0378	0.000458	-0.00909	112.07%	-12.06%						
90th	0.110	0.0925	-0.0116	0.110	-0.0158	0.0615	-0.0521	0.000231	0.0178	84.09%	16.18%						
2010																	
25th	-0.0860	0.0811	-0.141	0.244	-0.0274	0.0157	-0.0108	0.00101	-0.167	-94.30%	194.19%						
50th	0.0728	0.115	-0.0807	0.204	-0.0120	0.0333	-0.0300	0.000427	-0.0418	157.97%	-57.42%						
75th	0.110	0.119	-0.0293	0.146	-0.00222	0.0451	-0.0409	0.000184	-0.00882	108.18%	-8.02%						
90th	0.134	0.105	-0.00913	0.109	-0.000334	0.0432	-0.0379	0.0000770	0.0287	78.36%	21.42%						
2019																	
25th	0.0791	0.112	-0.139	0.249	-0.00262	0.0147	-0.0101	0.000328	-0.0333	141.59%	-42.10%						
50th	0.139	0.158	-0.0674	0.210	0.00903	0.0304	-0.0238	0.000128	-0.0188	113.67%	-13.53%						
75th	0.191	0.147	-0.0227	0.147	0.0143	0.0380	-0.0298	0.0000524	0.0439	76.96%	22.98%						
90th	0.222	0.128	-0.0118	0.116	0.0143	0.0382	-0.0294	0.0000237	0.0945	57.66%	42.57%						

To further investigate the regional differences, I decomposed the earnings gaps in the North and South separately to see how observable factors may be impacting this gap. Looking first at the North shown in Table IV, consider the negative total difference at every percentile in 1980. At every percentile, the majority of the gap is unexplained, and this is true in 1990 when the gaps are still small or reversed. In 2000, the gap begins to open, first at the 75th and 90th percentiles, and then all percentiles by 2019. These more recent gaps are almost entirely attributable to the explained portion, and in particular, differences in college education become prominent, particularly at lower percentiles.

Examining Table V which centers on the South, the fluctuating gap is decreasingly unexplained. In 1990, 78% of the gap at the median was unexplained, while in 2019, only 4% of the gap at the median is unexplained. College education is still a prominent feature of the explained gap in the South particularly after 1980, but not to the same extent that college education is a large part of the explained gap in the North during the same period.

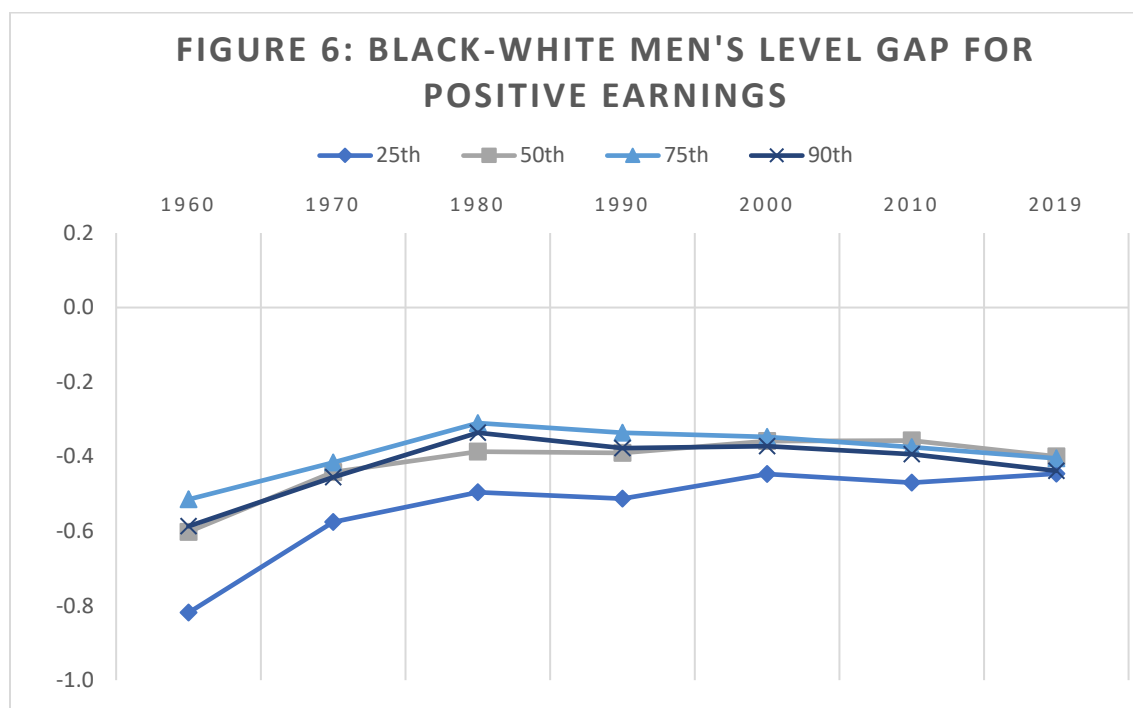
Taken together, different trends in the earnings gap are taking place in the North and South, and while the South seems to shake its status as an extreme outlier on the dimension of earnings inequality, the North's earnings inequality between Black and White women steadily increases, and largely due to differences in college education.

Table V: OB-RIF Decomposition of Earnings Gaps in the South
(using positive earnings)

<i>statistic</i>	<i>Effect of</i>										Unexplained difference	Percent explained	Percent unexplained
	Total difference	Explained difference	High school diploma	College degree	Married	Age squared	Age	Incarceration	Unexplained difference	Percent explained			
1960	25th	0.936	0.134	0.189	0.0374	-0.0948	0.0163	-0.0135	0.000161	0.802	14.32%	85.68%	
	50th	1.056	0.103	0.122	0.0255	-0.0448	0.00816	-0.00711	0.000154	0.953	9.75%	90.25%	
	75th	0.819	0.0891	0.0972	0.0281	-0.0373	0.00619	-0.00518	0.0000756	0.730	10.88%	89.13%	
	90th	0.509	0.0569	0.0649	0.0232	-0.0328	0.00766	-0.00607	0.0000395	0.452	11.18%	88.80%	
1970	25th	0.569	0.0397	0.0965	0.0288	-0.0960	0.0109	-0.00133	0.000823	0.529	6.98%	92.97%	
	50th	0.452	0.0483	0.0689	0.0218	-0.0460	0.00517	-0.00196	0.000412	0.404	10.69%	89.38%	
	75th	0.312	0.0474	0.0549	0.0271	-0.0379	0.00589	-0.00281	0.000245	0.265	15.19%	84.94%	
	90th	0.179	0.0355	0.0434	0.0282	-0.0403	0.00898	-0.00492	0.000132	0.143	19.83%	79.89%	
1980	25th	0.00307	-0.0205	0.0284	0.0412	-0.0997	-0.00616	0.0151	0.000620	0.0236	-667.75%	768.73%	
	50th	0.0737	0.0127	0.0234	0.0399	-0.0559	0.00517	-0.0000407	0.000212	0.0610	17.23%	82.77%	
	75th	0.107	0.0232	0.0162	0.0405	-0.0403	0.0267	-0.0200	0.000109	0.0835	21.68%	78.04%	
	90th	0.0618	0.0153	0.0119	0.0330	-0.0385	0.0386	-0.0298	0.0000798	0.0465	24.76%	75.24%	
1990	25th	0.0346	-0.00782	-0.0293	0.1000	-0.0886	0.0297	-0.0214	0.00183	0.0424	-22.60%	122.54%	
	50th	0.112	0.0248	-0.0186	0.0837	-0.0466	0.0412	-0.0355	0.000626	0.0872	22.14%	77.86%	
	75th	0.0938	0.0336	-0.0101	0.0717	-0.0356	0.0576	-0.0503	0.000241	0.0603	35.82%	64.29%	
	90th	0.106	0.0249	-0.00561	0.0542	-0.0308	0.0560	-0.0489	0.000142	0.0815	23.49%	76.89%	
2000	25th	0.0185	0.0135	-0.0654	0.112	-0.0431	0.0237	-0.0162	0.00299	0.00493	72.97%	26.65%	
	50th	0.0869	0.0499	-0.0516	0.122	-0.0296	0.0433	-0.0355	0.000985	0.0370	57.42%	42.58%	
	75th	0.103	0.0549	-0.0235	0.0894	-0.0208	0.0569	-0.0476	0.000366	0.0478	53.30%	46.41%	
	90th	0.144	0.0579	-0.0123	0.0780	-0.0170	0.0602	-0.0511	0.0000711	0.0864	40.21%	60.00%	
2010	25th	0.0188	0.0417	-0.0979	0.139	-0.00589	0.0270	-0.0216	0.00100	-0.0229	221.81%	-121.81%	
	50th	0.0729	0.0716	-0.0673	0.131	0.00281	0.0291	-0.0246	0.000380	0.00125	98.22%	1.71%	
	75th	0.112	0.0695	-0.0297	0.0944	-0.00101	0.0320	-0.0264	0.000134	0.0426	62.05%	38.04%	
	90th	0.126	0.0777	-0.0148	0.0870	-0.00122	0.0421	-0.0354	0.0000832	0.0482	61.67%	38.25%	
2019	25th	0.00648	0.0513	-0.0858	0.130	0.00258	0.0176	-0.0135	0.0000998	-0.0448	791.67%	-691.36%	
	50th	0.0948	0.0914	-0.0612	0.132	0.0160	0.0324	-0.0276	0.0000376	0.00333	96.41%	3.51%	
	75th	0.109	0.0873	-0.0265	0.0935	0.0144	0.0362	-0.0303	0.00000944	0.0218	80.09%	20.00%	
	90th	0.160	0.103	-0.0164	0.0914	0.0201	0.0405	-0.0328	0.00000434	0.0570	64.38%	35.63%	

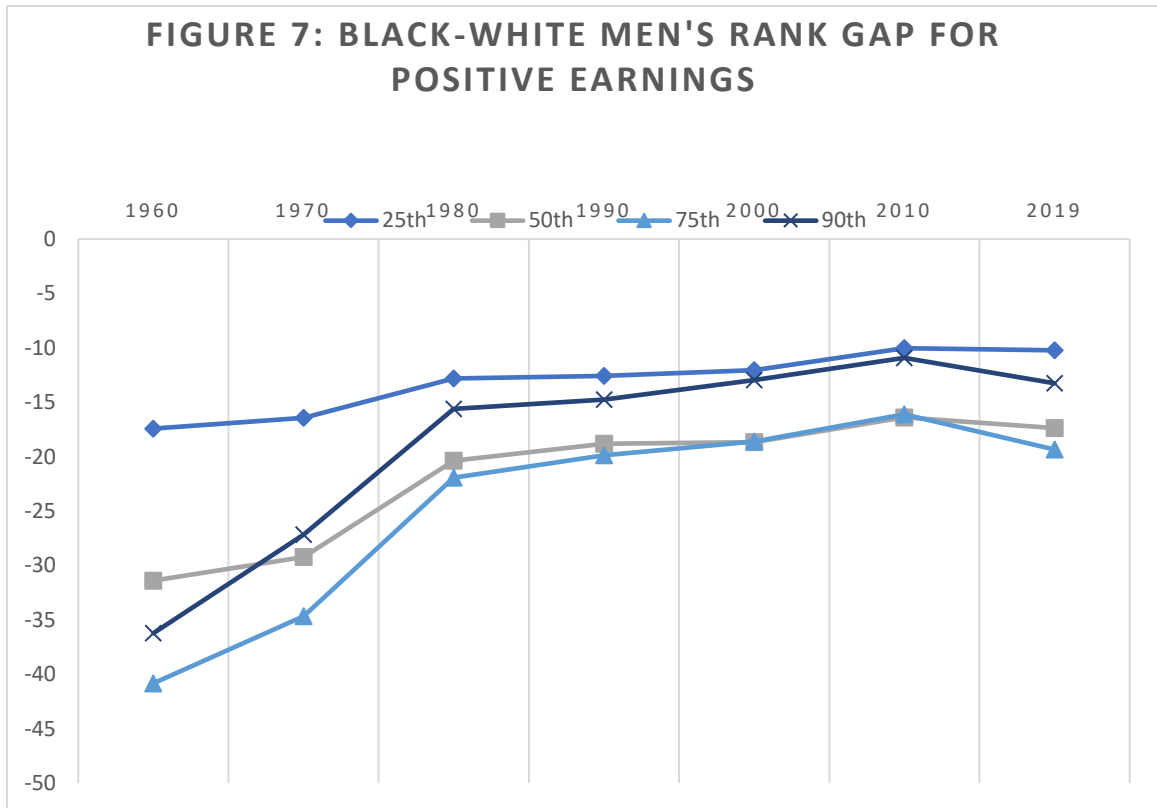
Comparison to Men's Black-White Earnings Gaps

Bayer and Charles (2018) focus their analysis solely on the median and 90th percentile earnings level and rank gaps. To facilitate comparisons to the results for women presented above, I reproduce estimates for positive earnings at the 50th and 90th percentiles, as well as new estimates for the 25th and 75th percentiles for men.



In 1960, the earnings gap for men at the 25th percentile, -82 log points, exceeded the earnings gap for women at the same percentile by 8 log points. At the median, the earnings gap for women exceeded the earnings level gap for men in 1960 by 16 log points, while the gap is almost the same (-51 log points) at the 75th percentile. From 1970 through 2019, the men's earnings level gap maximums and minimums in log points at the 25th, 50th, 75th, and 90th percentiles are -58 (1970) and -45 (2019), -44 (1970) and -36 (2000), -42 (1970) and -31 (1980), and -46 (1970) and -33 (1980), respectively. There is no clear upside-down V as seen for the women's gap, and post 1960, the men's racial earnings level gap exceeds the women's gap at every

percentile. In 2019, the earnings level gap for men is nearly double the women's gap at every level.



The rank gap is little different. The rank gap in every year, across every percentile is larger for men than for women. There is a drop in the rank gap through 2010, after which the rank gap holds constant or increases by no more than 3 log points. The smallest observed rank gap across all percentiles and years was at the 25th percentile in 2010, measuring -10 log points, such that Black men at X percentile map to a minimum of X-10 percentile on the White men's earning distribution.

Table VI
Percentile Earnings Level and Rank Gaps for Men with Positive Earnings

	1960	1970	1980	1990	2000	2010	2019
Panel A: Positive earnings level gap							
25th	-0.819*** (0.00708)	-0.576*** (0.00336)	-0.496*** (0.00308)	-0.513*** (0.00196)	-0.447*** (0.00164)	-0.470*** (0.0693)	-0.446*** (0.00417)
50th	-0.602*** (0.00219)	-0.442*** (0.00184)	-0.387*** (0.00133)	-0.390*** (0.00253)	-0.358*** (0.00192)	-0.357*** (0.00600)	-0.400*** (0.00491)
75th	-0.515*** (0.00388)	-0.416*** (0.00510)	-0.310*** (0.00176)	-0.336*** (0.00115)	-0.347*** (0.00439)	-0.375*** (0.00608)	-0.405*** (0.00179)
90th	-0.587*** (0.0118)	-0.455*** (0.00506)	-0.336*** (0.00135)	-0.377*** (0.00553)	-0.372*** (0.00312)	-0.394*** (0.00688)	-0.438*** (0.00739)
Panel B: Positive earnings rank gap							
25th	-17.42*** (0.0353)	-16.44*** (0.0938)	-12.81*** (0.0590)	-12.58*** (0.0503)	-12.04*** (0.0375)	-10.03*** (0.117)	-10.24*** (0.141)
50th	-31.39*** (0.0546)	-29.23*** (0.0706)	-20.38*** (0.0947)	-18.80*** (0.0275)	-18.68*** (0.0996)	-16.39*** (0.214)	-17.37*** (0.239)
75th	-40.83*** (0.108)	-34.67*** (0.231)	-21.92*** (0.0567)	-19.87*** (0.119)	-18.62*** (0.117)	-16.11*** (0.218)	-19.33*** (0.335)
90th	-36.23*** (1.001)	-27.17*** (0.265)	-15.62*** (0.0821)	-14.76*** (0.291)	-12.97*** (0.135)	-10.92*** (0.185)	-13.27*** (0.420)

*Standard errors in parentheses; * p<0.05, ** p<0.01, *** p<0.001*

The racial earnings gaps for men are often largest at the tails of the distribution (the 25th and the 90th percentiles), while for women the gap in recent years is often largest in absolute magnitude at higher points of the income distribution. In 2019, the largest earnings level gaps for women were observed at the 75th and 90th percentiles, while the largest earnings level gaps for men were at the 25th and the 90th. This suggests, in a naïve sense, that racial earnings inequality is greater at the tails of the income distribution for men, while earnings inequality is greater in the upper half of the income distribution for women.

Discussion

. In 1980, Black women at the 25th percentile and at median made more than White women at the same percentiles and were at parity with White women at the 75th and 90th percentiles. During the 1960-2019 period of rapid convergence and then divergence in the Black-White women's earnings gaps, the labor force participation of White and Black women converged. Consider that though in 1960 less than 40% of White women participated in the labor force, at the 25th, 50th, 75th, and 90th percentiles, they made significantly more than their Black women counterparts in 1960. In the span of 60 years, there was an apparent closing of the earnings level and rank gaps at the 25th, 50th, 75th, and 90th percentiles by 1980, and then it opened again.

The results of the level and rank quantile regressions, regional analysis, and the Oaxaca Blinder Recentered Influence Function decompositions for all women and by region come together to provide insights about how this Black-White earnings gap for women evolved in recent decades. These estimates may also provide suggestive evidence about how and why earnings gaps evolved in this way. After the racial earnings level gap closed in 1980 at all percentiles, earnings for white women at upper percentiles exploded and Black women's earnings post 1980 failed to keep up, despite tripling and doubling at the median

and 90th percentiles respectively. It was “too little, too late” compared to the steady upward growth in earnings for White women. Unsurprisingly, the earnings level gaps increase heading into 2019, and the rank gaps at the median, 75th, and 90th percentiles in 2019 rival the rank gaps in the 1960s.

The decompositions demonstrate that the racial earnings gaps for women are driven by different forces heading into the 2000s. The unexplained portion of the gap falls over time, and college education levels as a portion of the explained gap becomes a driving force, though less so at the 75th and 90th percentiles. At the highest percentiles, the unexplained portion of the gap grew in the 2000s.

Regional differences also prove to be salient, and the South is the only region to never reach parity in Black and White women’s earnings during this period. Nonetheless, by 2019 the South is no longer an extreme outlier on the dimension of earnings inequality, suggesting that the forces driving increasing gaps in other regions post 1980 are relatively less important in the South. The North simultaneously shows an increase in the explained portion of the earnings gap, particularly driven by college education, while the South’s unexplained gap fell to its lowest levels in the 60 year time frame.

Throughout this analysis, it becomes clear how distinct the trajectory of the Black-White earnings gaps for women is from the earnings gaps for men. The racial earnings gap for men never converges to zero and is consistent and large across percentiles. The largest gaps for men occur at the tails of their earning distributions, while the largest gaps for women are observed at the 75th and 90th percentiles.

The results of this analysis likely leave more questions than it can conclusively answer. Is the contemporaneous rise in the college wage premium starting in the 1980s and

1990s (James 2012) possibly at fault for the growing Black-White earnings gap for women? The results from the decompositions provide some support for this hypothesis, but leave questions about how this would apply to Black women at the 75th and 90th percentiles, where the unexplained gap has grown and differences in levels of college education are smaller. If we indulge an interpretation of the unexplained gap as discrimination, is it possible that higher income, college-educated Black women are experiencing more discrimination in recent years than in the past, and differential returns to education compared to their White female peers?

While there are no certain answers to these questions from this analysis, several things are clear. Firstly, the strong relative earnings growth for Black women spoken about in *The Economic Status of Black Women* (1990) report did not persist. The most dramatic reversion in the earnings level gap since the 1980s has been at the lower part of the earnings distribution, the 25th percentile, totaling 36 log points, while the largest reversion in the earnings rank gap occurred at the 75th percentile, with a 75th percentile Black woman's earnings mapping to the 66th percentile of the White women's earnings distribution in 2019.

Also, while the earnings gaps for women may not be as large as they are for men in Bayer and Charles (2018), they certainly are not non-existent, and the results of the decompositions suggest that these gaps may be influenced by different factors. Given this evidence, it is not enough to solely look at men's racial earning gaps and extrapolate the trends there to women. Additionally, examining the gaps for both men and women beyond the mean and the median provide unique insights about where earnings inequality is highly concentrated. Overall, this analysis tells a nuanced story about Black-White earnings gaps for

women and demonstrates that progress is certainly not guaranteed nor linear, and the closing earnings gaps seen in the 1980s and 1990s were unfortunately fleeting.

Appendix I: Alternative specifications

Table VII
25th Percentile Earnings Level and Rank Gaps

	1960	1970	1980	1990	2000	2010	2019
Panel A: Earnings level gap							
Only those with positive earnings	-0.744*** (0.00578)	-0.251*** (0.00730)	0.192*** (0.00492)	0.0606*** (0.00547)	0.00000 (0.00224)	-0.0800*** (0.00595)	-0.156*** (0.00607)
Native born women	-0.683*** (0.00524)	-0.236*** (0.00644)	0.0135** (0.00424)	0.0129** (0.00494)	0.00000 (0.0182)	-0.105*** (0.0110)	-0.134*** (0.00717)
Weekly earnings	-0.767*** (0.00345)	-0.335*** (0.00565)	0.0153*** (0.00323)	0.0194*** (0.00152)	0.00000 (0.00259)	-0.0688*** (0.00348)	-0.127*** (0.00847)
Only labor market earnings	-0.580*** (0.00741)	-0.125*** (0.00782)	0.0952** (0.0357)	0.136*** (0.00261)	0.0715*** (0.00340)	0.00000 (0.00741)	-0.0488*** (0.00862)
Panel B: Earnings rank gap							
Only those with positive earnings	-4.618*** (0.0275)	-2.284*** (0.0699)	2.790*** (0.0570)	0.859*** (0.0827)	0.00000 (0.0480)	-1.692*** (0.158)	-3.157*** (0.182)
Native born women	-3.374*** (0.0277)	-1.774*** (0.0484)	0.272*** (0.0573)	0.0892 (0.0774)	-0.458*** (0.0572)	-1.302*** (0.120)	-1.955*** (0.139)
Weekly earnings	-11.98*** (0.0542)	-8.009*** (0.123)	0.482*** (0.0903)	0.721*** (0.0677)	0.00 (0.0816)	-1.674*** (0.162)	-3.026*** (0.155)
Only labor market earnings	-2.484*** (0.0240)	-0.916*** (0.109)	1.104** (0.410)	1.372*** (0.0515)	0.948*** (0.0586)	0.0191 (0.131)	-0.463 (0.249)

*Standard errors in parentheses. * p<0.05, ** p<0.01, *** p<0.001*

Table VIII
Median Earnings Level and Rank Gaps

	1960	1970	1980	1990	2000	2010	2019
Panel A: Earnings level gap							
Only those with positive earnings	-0.763*** (0.00545)	-0.169*** (0.00467)	0.0253*** (0.00191)	-0.0224*** (0.00191)	-0.0811*** (0.00249)	-0.134*** (0.00624)	-0.195*** (0.00610)
Native born women	-0.786*** (0.00461)	-0.240*** (0.00511)	-0.00893** (0.00272)	-0.0447*** (0.00394)	-0.0870*** (0.00276)	-0.156*** (0.00576)	-0.216*** (0.00502)
Weekly earnings	-0.665*** (0.00361)	-0.209*** (0.00260)	-0.0151*** (0.00194)	-0.0169*** (0.00151)	-0.0561*** (0.00142)	-0.140*** (0.00224)	-0.182*** (0.00334)
Only labor market earnings	-0.763*** (0.00783)	-0.213*** (0.00616)	0.0270*** (0.00179)	0.00000 (0.00244)	-0.0465*** (0.00219)	-0.129*** (0.00469)	-0.176*** (0.00676)
Panel B: Earnings rank gap							
Only those with positive earnings	-9.467*** (0.0475)	-4.099*** (0.110)	0.993*** (0.0791)	-1.093*** (0.0964)	-3.411*** (0.0803)	-5.243*** (0.182)	-8.251*** (0.240)
Native born women	-8.409*** (0.0524)	-4.271*** (0.0752)	-0.152* (0.0645)	-1.701*** (0.101)	-3.246*** (0.0572)	-5.035*** (0.175)	-6.825*** (0.197)
Weekly earnings	-25.75*** (0.0994)	-11.30*** (0.132)	-0.763*** (0.108)	-1.023*** (0.0891)	-2.685*** (0.0926)	-6.385*** (0.177)	-8.714*** (0.235)
Only labor market earnings	-7.494*** (0.0435)	-3.704*** (0.0724)	0.579*** (0.0535)	0.00000 (0.0907)	-1.623*** (0.0749)	-4.265*** (0.124)	-5.811*** (0.179)

*Standard errors in parentheses; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$*

Table IX
75th Percentile Earnings Level and Rank Gaps

	1960	1970	1980	1990	2000	2010	2019
Panel A: Earnings level gap							
Only those with positive earnings	-0.519*** (0.00424)	-0.147*** (0.00459)	0.00000 (0.01200)	-0.0488*** (0.00294)	-0.0943*** (0.00261)	-0.161*** (0.00427)	-0.223*** (0.00557)
Native born women	-0.559*** (0.00300)	-0.180*** (0.00323)	-0.0210*** (0.00417)	-0.0660*** (0.00386)	-0.102*** (0.00261)	-0.182*** (0.00711)	-0.234*** (0.00698)
Weekly earnings	-0.445*** (0.00388)	-0.146*** (0.00342)	-0.000864 (0.00130)	-0.0465*** (0.00128)	-0.0808*** (0.00134)	-0.154*** (0.00489)	-0.226*** (0.00568)
Only labor market earnings	-0.556*** (0.00194)	-0.180*** (0.00207)	-0.0213*** (0.00397)	-0.0445*** (0.00499)	-0.0905*** (0.00228)	-0.164*** (0.00485)	-0.223*** (0.00551)
Panel B: Earnings rank gap							
Only those with positive earnings	-11.62*** (0.0761)	-4.330*** (0.143)	0.00000 (0.159)	-2.530*** (0.0444)	-4.262*** (0.0607)	-6.469*** (0.208)	-9.205*** (0.211)
Native born women	-11.59*** (0.0661)	-4.924*** (0.0845)	-1.122*** (0.123)	-2.674*** (0.194)	-4.293*** (0.0841)	-7.185*** (0.222)	-9.809*** (0.189)
Weekly earnings	-27.84*** (0.199)	-8.990*** (0.257)	-0.263*** (0.0759)	-2.447*** (0.0883)	-4.408*** (0.0853)	-8.155*** (0.219)	-11.46*** (0.349)
Only labor market earnings	-11.02*** (0.0466)	-4.828*** (0.0691)	-0.680*** (0.0660)	-1.901*** (0.0599)	-3.681*** (0.0464)	-6.474*** (0.227)	-8.969*** (0.282)

*Standard errors in parentheses; * p<0.05, ** p<0.01, *** p<0.001*

Table X
90th Percentile Earnings Level and Rank Gaps

	1960	1970	1980	1990	2000	2010	2019
Panel A: Earnings level gap							
Only those with positive earnings	-0.299*** (0.00431)	-0.114*** (0.00318)	0.00000 (0.00180)	-0.0896*** (0.00220)	-0.129*** (0.00300)	-0.167*** (0.00849)	-0.223*** (0.00637)
Native born women	-0.336*** (0.00142)	-0.124*** (0.00233)	-0.0281*** (0.00130)	-0.0825*** (0.000654)	-0.129*** (0.00173)	-0.182*** (0.00400)	-0.236*** (0.00540)
Weekly earnings	-0.270*** (0.00190)	-0.0947*** (0.00424)	0.00834*** (0.00238)	-0.0526*** (0.00226)	-0.0880*** (0.00298)	-0.170*** (0.00625)	-0.245*** (0.00598)
Only labor market earnings	-0.312*** (0.00486)	-0.109*** (0.00218)	-0.00154 (0.00137)	-0.0641*** (0.00343)	-0.108*** (0.00126)	-0.163*** (0.00545)	-0.223*** (0.00147)
Panel B: Earnings rank gap							
Only those with positive earnings	-7.170*** (0.0848)	-2.774*** (0.0999)	0.00000 (0.0619)	-2.383*** (0.0556)	-3.008*** (0.0541)	-4.143*** (0.161)	-5.598*** (0.184)
Native born women	-8.339*** (0.0963)	-3.186*** (0.0790)	-0.850*** (0.0472)	-2.589*** (0.129)	-3.283*** (0.0607)	-4.552*** (0.207)	-6.699*** (0.213)
Weekly earnings	-14.80*** (0.1720)	-3.654*** (0.1180)	0.174** (0.0640)	-1.672*** (0.0820)	-2.597*** (0.0876)	-5.080*** (0.161)	-7.446*** (0.293)
Only labor market earnings	-7.936*** (0.0576)	-2.877*** (0.0305)	-0.261*** (0.0321)	-2.016*** (0.0732)	-3.020*** (0.0547)	-4.730*** (0.143)	-6.063*** (0.183)

*Standard errors in parentheses; * p<0.05, ** p<0.01, *** p<0.001*

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