

# Going Back in Time? Gender Differences in Trends and Sources of the Racial Pay Gap, 1970 to 2010

American Sociological Review 2016, Vol. 81(5) 1039–1068 © American Sociological Association 2016 DOI: 10.1177/0003122416662958 http://asr.sagepub.com



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#### Abstract

Using IPUMS data for five decennial years between 1970 and 2010, we delineate and compare the trends and sources of the racial pay gap among men and women in the U.S. labor force. Decomposition of the pay gap into components underscores the significance of the intersection between gender and race; we find meaningful gender differences in the composition of the gap and in the gross and the net earnings gaps—both are much larger among men than among women. Despite these differences, the over-time trend is strikingly similar for both genders. Racial gaps sharply declined between 1970 and 1980 and continued to decline, but at a slower rate, until 2000. However, at the turn of the millennium, the trend reversed for both gender groups. The growth of the racial pay gap at the turn of the millennium is attributable to the increase in overall income inequality, stagnation in occupational segregation, and an increase in the unexplained portion of the gap, a portion we attribute to economic discrimination.

#### Keywords

intersectionality, gender inequality, race inequality, pay gaps, racial discrimination, economic inequality

Segregation and earnings disparities between blacks and whites observed at the turn of the twenty-first century are considerably lower than those detected in the middle of the twentieth century. The rate of decline in racial disparities was quite rapid following the enactment of the Civil Rights Act, but it has generally slowed in recent decades (Semyonov and Lewin-Epstein 2009; Smith and Welch 1989; Stainback and Tomaskovic-Devey 2012). Despite the broad consensus that racial economic disparities are declining, researchers do not fully agree on the sources, causes, and trajectory of the decline. Nor do they agree on whether the sources of the gaps and temporal changes in the decline are similar across the two gender groups.

Although the literature on racial earnings disparities has grown and become substantial, the overwhelming majority of studies on the topic focus almost exclusively on the male population. The omission of women from most studies of trends in racial earnings inequality is unfortunate for several reasons. First, the intersection between gender and

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race produces divergent patterns of economic inequality (see Belkhir and Barnett 2001; Browne and Misra 2003). Thus, analysis based exclusively on men may lead to inaccurate, even misleading, conclusions regarding the process of racial stratification. Second, the divergent patterns are complex and yield, at times, unexpected findings. For example, the literature on intersectionality emphasizes diversity between women from different racial groups (Collins 2009; Glenn 1999; hooks 1984), but studies on racial inequality reveal a greater racial similarity among women than among men (e.g., Cancio, Evans, and Maume 1996; Greenman and Xie 2008; Kilbourne, England, and Beron 1994; Neal 2004; Thomas 1993). Thus, the expectation that black women will suffer a "double disadvantage" is contradicted by findings that underscore much larger racial earnings gaps among men than among women.

Furthermore, differences in racial disparities across the two gender groups are evident in the size of the earnings gap as well as in its sources and in the pace of its convergence over time. For example, racial discrimination is the prime source of racial pay gaps among men (Sidanius and Pratto 1999) but not among women. In a similar manner, overtime changes in the structure of the economy in the past four decades have not equally benefited women and men. Nor have they equally benefited blacks and whites (Bernhardt, Morris, and Handcock 1995; Blau and Beller 1992; Glenn 1992; McCall 2001). For example, the occupational distributions of black and white women have become more similar following the growth of the service sector. By contrast, service sector growth has followed the reduction in manufacturing jobs and the decline in unionization-economic changes that were more costly for black men than for black women. Thus, structural changes have resulted in a more pronounced and faster convergence in racial earnings gaps among women than among men.

In the present study we fill a lacuna in the literature by attending to the intersection between race and gender from a longitudinal perspective. We examine the extent to which the temporal decline in the racial pay gap over the past four decades was affected by different sources and assumed different trajectories for men and for women. In what follows, we develop a theoretical framework to establish a series of expectations regarding the intersection between gender and race in relation to wage gaps. We then empirically examine these expectations within a long-term framework.

In line with the intersectionality perspective, we expect different patterns of racial inequality among the two gender groups. We also expect structural changes in the economy to differently affect the racial pay gaps among men and women. Our expectations, however, do not follow the double disadvantage thesis; we expect smaller racial earnings disparities and faster convergence among women of different races than among men, mainly because negative stereotypes of black men are more pronounced than are the stereotypes of black women. We also suggest that in relation to economic achievements, women from different races have much more in common than men do, due to the universal tension between paid and unpaid work.

The analysis is based, for the most part, on IPUMS data for five decennial years between 1970 and 2010; a period that begins after implementation of the 1964 Civil Rights Act, coincides with the enactment of affirmative action policies, and extends past the 2008 economic recession. The findings lend firm support to the intersectionality perspective; the size of the racial pay gap, its pace of convergence, and its sources differ considerably across the two gender groups. Nevertheless, in line with our expectations and in contrast to expectations derived from the double disadvantage thesis, black women are not as disadvantaged relative to white women as black men are disadvantaged relative to white men.

Despite these differences, the findings reveal a striking similarity in the over-time trend of the racial pay gap across the two gender groups. At the turn of the new millennium, earnings gaps between blacks and whites had begun widening among both men and women, underscoring a reversal of the trend of declining racial disparities. Intrigued by this finding, we offer several alternative explanations for the reversal of the trend, and we examine their plausibility.

# INTERSECTIONALITY AND THE DOUBLE DISADVANTAGE THESIS

One of the most pronounced criticisms against second-wave feminism is its blindness to non-gender social divisions between women. This critique aligns with the notion of intersectionality, according to which the neglect of social divisions such as race or class limits feminist research, which is largely biased toward the experience of white, middle-class women (Collins 2009; Glenn 1992; hooks 1984). The notion of intersectionality suggests that additive assumptions regarding the effect of gender and race cannot capture the circumstances that characterize and shape the social and economic experience of black women (or other groups of women) as subordinate members of gender and racial groups (for a review, see Browne and Misra 2003). Although intersectionality is viewed as one of the most important theoretical contributions of women's studies, its translation into quantitative empirical research has remained undeveloped and quite limited (McCall 2005).<sup>1</sup> This is perhaps one of the reasons why the quantitative research on racial earnings inequality, despite the centrality of intersectionality in the feminist literature, commonly focuses on men (e.g., Chandra 2000; Grodsky and Pager 2001; Semyonov and Lewin-Epstein 2009).

The weak ties between the two bodies of literature have resulted in seemingly unexpected findings. For example, the literature on the intersection between race and gender emphasizes diversities between women of different races, but empirical comparative research reveals greater similarities in economic attainments among women than among men (e.g., Cancio et al. 1996; Greenman and Xie 2008). Likewise, one of the notions suggested in studies on the race/gender intersection is that women of color face a double disadvantage in the labor market (Bell and Nkomo 2001; Browne and Misra 2003; Settles 2006). This claim, however, has not gained empirical support in studies that compare economic and educational attainments of blacks and whites across the two gender groups (e.g., Neal 2004; Thomas 1993). These seemingly contradictory findings, we believe, derive from the different ways the double disadvantage thesis is interpreted and understood by the two disciplines.

Indeed, women of color tend to occupy the lowest positions in the labor market: they earn the lowest wages (Browne 1999), have the least authority in the workplace (Browne et al. 2001; Maume 1999), and are more concentrated in "bad jobs" than any other group (Spalter-Roth and Deitch 1999). Even the privileged among them, those who have broken through the glass ceiling, are disadvantaged relative to men and white women (Bell and Nkomo 2001). That said, racial differences in earnings among women are considerably smaller than those observed among men (see Cancio et al. 1996; Cotter, Hermsen, and Vanneman 1999; Greenman and Xie 2008; Neal 2004; Rosenfeld 1980; Thomas 1993).<sup>2</sup> Similarly, in relation to educational attainments, black women, in fact, are not disadvantaged on the basis of their gender. On the contrary, the black-white gap in college graduation is significantly larger among male students than among female students. Black male students are more vulnerable than black women and have the lowest likelihood of attaining a bachelor's degree (Alon 2007). Likewise, although women's relative advantage in attaining higher education in recent decades is evident for all racial groups, it is more evident among black women (DiPrete and Buchmann 2013). Because education is a prime determinant of earnings, black men's low educational levels are a major source of their inferiority in pay relative to white men.

In summary, in contrast to the implications yield from the double disadvantage thesis, the educational and economic disadvantages experienced by black women (compared to white women) are smaller than the economic disadvantages experienced by black men (compared to white men). This in not to say that black women are not the most disadvantaged group relative to men and white women, but that they are not as disadvantaged as black men are relative to white men.

# THE GENDERED NATURE OF RACIAL INEQUALITY

The core message of the intersectionality notion, which we embrace, leads us to expect substantial gender differences in causes and patterns of racial inequality. Nevertheless, based on previous empirical findings on race/ gender pay gaps, we do not expect black women to be more disadvantaged in pay than black men (relative to their white counterparts). Below we address what we believe to be the sources of the higher wage gaps among men and the lower gaps among women.

### High Racial Gaps among Men

Sidanius and Pratto (1999) suggest that black men's earnings disadvantage can be partly explained by the perceived threat that black men (but not black women) pose to whites. This threat is rooted in widespread stereotypes among whites in the United States that portray black men, especially young black men, as violent, criminal, hostile, unreliable, and lazy (Collins 2004). These negative stereotypes have also become widespread in the context of employment. In-depth interviews with employers reveal that the negative characteristics attributed to blacks are salient in the case of men but not for women (Kirschenman and Neckerman 1991; Moss and Tilly 2001; Pager and Karafin 2009; Shih 2002). Even when they hold high-status professional and managerial jobs, black men are not spared from negative stereotypes. Often viewed as tokens in these jobs, their credentials and abilities are frequently challenged by clients and colleagues (Wingfield 2013). In addition, black men may need to work harder and longer hours to avoid the stereotype of laziness. This, in turn, may strengthen the stereotype that they lack the intellectual knowledge needed for the job (Carbado and Gulati 2000; Wingfield 2013).

Whereas black men are perceived as lazy, hostile, and angry, black women are often viewed as "easier to get along with" (Shih 2002:111). Black women are also perceived as being more "stable" and more willing to take orders and to take the extra steps to learn the work, whereas black men are thought to "have pride and don't like to admit that they need help" (Shih 2002:111). The positive view of black women (relative to black men) in the workplace was most succinctly articulated by a manager as follows: "[Black] women are far more hardworking, loyal, and you count on them more. They are less argumentative, less tardy. A lot of the times it's because they are single mothers with families and have to support their kids" (Shih 2002:111).

As reflected in these examples, gender plays a crucial role in the creation of racial inequality. However, the intersection of gender and race (i.e., being black and being a woman [or a mother]) does not lead to a double disadvantage in relation to economic gains, but vice versa. This is also evident in the case of sexual orientation discrimination. Black gay men, like black women, benefit in the labor market due to counter-stereotypical attitudes that balance one another: the negative stereotypes associated with gay men counteract the negative stereotypes of black men as being threatening, criminal, and violent (Pedulla 2014). Interestingly, the effect of being gay differs by race precisely due to its gendered nature. For white men, being gay is stereotypically linked to being effeminate and weak (and thus reduces economic attainment); for black men, however, being gay mitigates the negative consequences of others' stereotypical perception of them as criminal and violent (and thus helps black gay men gain better positions in the labor market) (Pedulla 2014).

#### Low Racial Gaps among Women

Whereas the literature on stereotypes and discrimination leads us to expect substantial earnings gaps between black and white men,

the literature on the interplay between family and paid work leads us to expect relatively small racial earnings gaps among women: regardless of race or ethnicity, women share the universal tension between work and family responsibilities, and thus seek jobs that facilitate resolving the conflict between the two. Family responsibility is also a major concern for employers when hiring women and when allocating them to occupational positions, regardless of their race (Browne and Kennelly 1999).<sup>3</sup> Thus, the interplay between family and paid work limits women's occupational opportunities, which, in turn, results in a more condensed earnings distribution and depressed wage structure.

Women's limited occupational opportunities are evident in the overriding effect of gender on occupational segregation. Gender occupational segregation has long been singled out as one of the prime sources of women's low earnings, and it is considerably greater than racial occupational segregation. In fact, occupational sex segregation is almost twice the level of racial occupational segregation (Mintz and Krymkowski 2011).<sup>4</sup> Thus, women, regardless of their race or ethnicity, tend to be concentrated in a relatively small number of occupations, a concentration that is also related to the "glass ceiling effect"-a distinctively gendered, but not racial, phenomenon (Cotter et al. 2001).

The interplay between family and paid work is also associated with the tendency of both black and white women to be overconcentrated in the public sector. Employment in the public sector is conducive to minimizing the tension between paid and unpaid work due to this sector's occupational mix and more favorable working conditions. Because gender and racial pay differentials are much smaller in the public sector than in the private sector (Asher and Popkin 1984; Mandel and Semyonov 2014), and because women are more likely to be employed in the public sector, overall racial pay gaps should be smaller among women than among men.

The discussion above leads us to expect gender differences not only in the size of the

racial earnings gap, but also in the *sources* of the gap. Because black men are more likely to suffer from the detrimental consequences of negative stereotypes, we expect discrimination to be a major determinant of the pay gap between black and white men. In contrast, because attributes of femininity and motherhood mitigate the negative consequences of black stereotypes for women, we do not expect discrimination to be a significant determinant of the racial pay gap among women.

Furthermore, due to the tension between family obligations and paid work—a universal tension that black and white women share—we expect smaller racial pay gaps among women relative to men in both absolute and relative terms. Due to the large impact of occupational segregation on earnings, we expect pay gaps between white and black women to be small once occupational segregation between black and white women is mitigated. Finally, because educational differences are larger among men than among women, human capital resources should account for a greater portion of the racial pay gaps among men than among women.

# STRUCTURAL CHANGES AND RACIAL PAY GAPS ACROSS GENDER GROUPS: A HISTORICAL OVERVIEW

During the past four decades, institutional, political, and structural changes have significantly affected gender and racial inequality, as well as the intersection between the two. In the pre-capitalist period, patterns of employment were different across the two gender groups, so much so that patterns of employment among women were generally more similar to those of men belonging to the same racial-ethnic group than to those of women belonging to other racial-ethnic groups (Amott and Matthaei 1996). The ascendancy of the capitalist industrial economy and the transition of labor from nonwage agricultural employment to wage labor sharpened the division between paid and unpaid labor and,

consequently, the division of labor between the two gender groups. In both racial groups, the male breadwinner model was strengthened, and both black and white women devoted more time to unpaid work (Amott and Matthaei 1996).

The era that followed the Second World War brought new economic opportunities for white women as well as for black women. During the 1960s and 1970s, political and economic changes benefited both white and black women. In the 1960s-the decade of the second wave of feminism and the struggle for civil rights for African Americans-women's participation in paid work substantially increased regardless of race and ethnicity. This was followed by changes in the occupational structure-first and foremost the growth of the service sector-that benefited women. White women started joining professional and semiprofessional occupations, and hence experienced upward occupational mobility, whereas black women began shifting from domestic service employment to low-service occupations and public service jobs (Amott and Matthaei 1996; Glenn 1985, 1992).

The introduction of Title VII of the Civil Rights Act, followed by the Equal Employment Opportunity Commission's (EEOC) monitoring of hiring and pay discrimination, contributed to a decline in racial (as well as gender) inequality (see Wilson 1980). Blau and Beller (1992) found that black men and black women made progress from 1971 to 1988 (compared to white men and white women), but progress was more pronounced among women (mostly for older black women) than among men. This progress was, however, more rapid during the 1970s and stagnated in the 1980s (Blau and Beller 1992). In contrast to these findings, Cancio and colleagues (1996) found a rise in earnings differentials against young black men and women between 1976 and 1985, which they attributed to government retreat from antidiscrimination initiatives in the 1980s. Nevertheless, their findings show that while earnings discrimination between black and white men increased over time, earnings discrimination between black and white women decreased, and even changed direction to a wage premium in favor of black women (Cancio et al. 1996: Table 4, p. 550). Smith and Welch (1989) attribute black women's economic gains to their tendency to replace private sector employment with federal and state sector employment. They also point to a greater tendency among black women than among black men to enter EEOC-reporting firms (especially in occupations such as officials and managers and professionals and technical) (Smith and Welch 1989).

The growth of the service sector and the enactment of the Civil Rights Act were followed by a reduction in manufacturing jobs, a structural change that reduced men's relative earnings. Bernhardt and colleagues (1995) show that as a result of these changes, women's economic gains were greater than men's from 1967 to 1987. Nonetheless, the gains were, once again, most dramatic for black women—almost three times more than white women—a shift Bernhardt and colleagues (1995) attribute to black women's exit from private housework services, in the bottom wage decile, to public services in higher wage deciles during the 1960s and 1970s.

Declining demand for workers in manufacturing during the 1980s resulted in falling rates of unionization. This process, in turn, negatively affected the pay of blacks relative to whites, because blacks, in general, have higher unionization rates than do whites. Indeed, McCall (2001) found that manufacturing employment and unionization significantly raised the relative wages of black men and women across metropolitan labor markets. Although the reduction in relative pay was evident among black women (Bound and Dresser 1999) and black men (Bound and Freeman 1992), the detrimental impact of the declining demand for workers in manufacturing industries, coupled with the reduction in rates of unionization, was more consequential for black men's wages (Bound and Holzer 1996) than for black women's (Wilson 1996).

The discussion in the previous section leads us to expect smaller racial pay gaps among women than among men. The discussion in this section leads us to expect a more rapid convergence in racial pay gaps among women than among men. Yet not all the findings reported by previous studies are consistent with these expectations. Bound and Dresser (1999), for example, found that young African American women had advanced by the mid-1970s to a fairly small wage disadvantage (4 percent) relative to white women, but this advance reversed during the 1980s, and black women's wage disadvantage more than tripled, reaching 14 percent by 1991. Morris, Bernhardt, and Handcock (1994) found an upgrading of black women's earnings until the 1980s and then a decline to the bottom of the distribution during that decade.

Although most studies agree that net racial pay gaps are smaller among women than among men, and that structural changes have contributed to faster earnings convergence among women, several studies have reached different and even contradictory conclusions regarding the trends and trajectories of racial pay gaps among men and women. It is not clear, then, whether and to what extent the different conclusions reached by previous studies are due to differences in the period covered by each study, differences in the subpopulations included in each analysis (young or old), different methodologies, or some combination of these dimensions.<sup>5</sup> Thus, in the analysis that follows, not only do we cover all points in time utilized in previous studies, but we also extend the analysis into the twenty-first century. Our aim is to estimate changes in the racial pay gaps and changes in the impact of key factors-including occupational segregation, human capital resources, demographic characteristics, employment context, and economic discriminationon the racial pay gaps across the two gender groups.

# DATA SOURCE AND VARIABLES

We obtained our data from the Integrated Public Use Microdata Series (IPUMS) for the decennial years between 1970 and 2010 (Ruggles et al. 2015). Data for 1980 and 2000 were derived from the 5 percent census samples; data for 1970 and 1990 were derived from the 1 percent census sample; and data for 2010 were derived from the American Community Survey (ACS). Because the analysis focuses on comparisons between blacks and whites, we excluded all other racial/ethnic groups (i.e., Hispanics, Asians, and other races) from the analysis.

Our analyses include the variables traditionally utilized in models for predicting earnings: level of education (four ordinal categories: less than high school, high school graduate, some college, and college graduate [the omitted category]), potential work experience and its squared term (age – years of schooling – 6),<sup>6</sup> weekly working hours, marital status (married = 1), nativity status (foreign-born = 1), number of children, presence of a child under age 5 (= 1), sector (public = 1), region (Midwest, South, West, Northeast [the omitted category]), metropolitan area (= 1), and occupation.<sup>7</sup>

Occupation is measured by OCC1990 (standardized according to 1990s coding), as recommended in the IPUMS manual, because it is more suitable for analyses of samples from 1980 onward.8 The OCC1990 variable was originally provided at the three-digit classification, but we aggregated it to the twodigit classification level for our analyses. The two-digit classification provides about 80 occupational categories that are comparable across decades. Although aggregation into the two-digit classification may conceal part of the impact of occupations on earnings disparities, it was necessary for estimation of the models, because it was technically impossible to estimate the models with 400 detailed occupational categories.9

Discrimination is measured by the unexplained portion of the earnings gap after controlling for a series of wage-related characteristics. Although this is the common measure for earnings discrimination (e.g., Cancio et al. 1996; Semyonov and Cohen 1990), it is not free of problems. On the one hand, this measure could overestimate discrimination because it does not control for *all* possible predictors of earnings and may preclude other possible explanations. For example, the unexplained gap could be partly due to unequal distributions of blacks and whites across more detailed occupational categories, or across different fields of study. On the other hand, using the unexplained portion of the gap as a proxy for economic discrimination could underestimate the level of discrimination: when controlling, for example, for education, working hours, or occupations, one ignores the possible effect of prior discrimination on the sorting process of blacks and whites into educational institutions, jobs that require more or less amounts of work, and into more or less attractive jobs and occupations (Bell 1998).

Several covariates, such as education, occupation, and the unexplained portion, are expected to differ by gender, as discussed earlier. Other covariates, such as demographic factors, labor context, and working hours, may or may not differ by gender, but their inclusion in the analysis is valuable for two reasons. First, their inclusion allows us to arrive at a better proxy for discrimination (as we eliminate their potential impact on earnings). Second, given the scant research in this field, estimation of the changing effects of as many as possible wage-related characteristics over time and across gender groups is one of this study's contributions.

We measure earnings, the dependent variable, by pretax wages and salary income earned in the year prior to the survey divided by the number of weeks that a person worked in the year prior to the survey, adjusted for inflation and converted to log. We restrict estimation of the earnings equation to the economically active black and white population age 25 to 59, after eliminating the top and bottom earning percentiles from the analysis.<sup>10</sup> The list of variables and their means, by race, gender, and decade, are displayed in Tables A1a and A1b in the Appendix.

Because the earnings variable in the censuses data refers to the year prior to the survey, it does not match the occupation reported in the data in cases when workers changed occupation. To check for possible bias, we reproduced our main analyses (Tables 1 and 2 and the respective figures) using the Current Population Survey Merged Outgoing Rotation Group (CPS MORG) data, where working status and occupation correspond with reported wages and usual weekly hours. The results, shown in Figure S1 in the online supplement (http://asr.sagepub.com/supplemental), are very similar to the results based on the censuses data. Although gross gap estimates are slightly larger using the CPS MORG data, we find only minor differences in the coefficients of the components, the over-time trends, and the differences between the gender groups.<sup>11</sup>

## METHODOLOGY

To decompose the pay gap into different components, we adopted the Oaxaca (1973) and Blinder (1973) decomposition procedure, one of the most prevalent techniques for decomposing pay gaps between groups. This technique uses separate linear regression models, one for each group (i.e., blacks and whites), to distinguish between two distinctive portions: (1) a portion explained by differences in work-related characteristics, such as education or work experience (the X's); and (2) the unexplained portion of the gap that cannot be accounted for by mean differences in wage determinants. The latter is attributed to differences in the intercepts and differences in returns to wage determinants (the  $\beta$ 's).

The analysis is formulated as follows:

$$\begin{split} \overline{Y}_{w} - \overline{Y}_{b} &= \sum \left( \overline{X}_{w} - \overline{X}_{b} \right) \beta_{w} \\ &+ \left[ \sum \overline{X}_{b} \left( \beta_{w} - \beta_{b} \right) + \left( \alpha_{w} - \alpha_{b} \right) \right] \end{split}$$

where  $\overline{Y}_w$  and  $\overline{Y}_b$  are log weekly wages of whites and blacks, respectively.  $\overline{X}_w$  and  $\overline{X}_b$ are means of all predictors, and  $\beta_w$  and  $\beta_b$ are the coefficients of these predictors for whites and blacks, respectively.  $\sum (\overline{X}_w - \overline{X}_b)\beta_w$  is the portion of the gap explained by racial differences in mean wage-related attributes.  $\sum \overline{X}_b (\beta_w - \beta_b) + (\alpha_w - \alpha_b)$  is the portion of the gap attributed to differences in returns to wage-related attributes (on the left side) and differences in intercepts (right side). This portion, which cannot be explained by wage-related attributes, is attributable to either unmeasured characteristics or economic discrimination.

In the analysis that follows, we first compare the explained and unexplained portions of the gap by decade, for men and women separately. Then we compare the contribution of each component (i.e., human capital, occupations, weekly working hours, demographic attributes, and labor market context) to explaining the race gap after distinguishing between the explained portion (e.g., racial differences in average educational levels) and the unexplained portion (e.g., racial differences in returns to education), by decade.

## ANALYSIS AND FINDINGS

Descriptive: Over-Time Comparison of the Gross Racial Earnings Gap

Figure 1 displays over-time trends in the average weekly earnings (in U.S. dollars, adjusted for inflation) for the four groups classified by race and gender. The figure shows a substantial earnings gap between white men-the most advantaged group-and all other groups throughout the period. In 1970, white men's average weekly earnings were more than double those of black women, and almost 150 percent those of black men. During the 1970s, however, the racial gap declined considerably for both men and women, mostly because the absolute earnings of black men and black women increased dramatically (by 15 and 23 percent, respectively, in only one decade), whereas the absolute earnings of white men and women remained stable. The substantial increase in blacks' earnings during the 1970s followed the Civil Rights Act. As suggested at the outset of this article, these changes have stimulated the convergence in attainments between white and blacks.

Among women, the racial earnings gap had diminished by 1980. Indeed, during the 1970s, not only did black women's education levels rise (an increase in college graduates from 8 to 14 percent in only one decade; see Table A1b in the Appendix), but their concentration in private household service dramatically declined (Glenn 1992).<sup>12</sup> The similar earnings level among black and white women was preserved during the 1980s and 1990s, when both groups' earnings rose dramatically and at a similar pace. In 2010, however, the gap between black and white women broadened in favor of white women, as black women's gross earnings declined after a continual increase of three decades. The reversal of the trend occurred simultaneously with a stagnation in segregation levels among women. Indeed, the decline in the index of dissimilarly between 1970 and 2000 stalled post-2000 (see Table A1b in the Appendix). The index of dissimilarity for occupational distributions indicates the percentage of either blacks or whites that would have to change occupation to reach equal occupational distributions. During the 1970s, this percentage declined from 35 to 24 percent in only one decade, which may indicate that a substantial portion of the racial pay gap among women before 1980 was related to occupational segregation.

A similar trend appears among men-a sharp decline from the 1970s to the 1990s and a reversal of the trend during the first decade of the twenty-first century. However, in line with previous findings and with theoretical expectations, unlike in the case of women, the earnings gap among black and white men remained substantial at all points in time. Likewise, the pace of convergence was faster among women than among men. Nevertheless, as for women, black men's education levels also improved, with more black men attaining an academic degree (an increase from 5 percent in 1970 to 23 percent in 2010) (see also DiPrete and Buchmann 2013). Likewise, occupational segregation between black and white men decreased considerably between 1970 and 2010, from 37 to 25 percent. As we saw with women, the sharp decline in occupational segregation occurred during the 1970s, followed by a mitigation of the process until 2000, and complete stagnation post-2000 (see also Stainback and Tomaskovic-Devey 2012).



Figure 1. Average Weekly Earnings (in Constant \$US) by Race and Gender, 1970 to 2010

Consistent with theoretical expectations, Figure 1 reveals the gendered nature of racial inequality. The findings suggest that earnings inequality is more gendered than racialized. The figure clearly shows that women of both races share a considerable earnings disadvantage relative to men, and racial earnings gaps among men are much more pronounced than among women. It is therefore crucial to distinguish between men and women when examining trends in racial inequality. The findings also show that post-2000 the pattern changed: white women's earnings in 2000 were no longer similar to those of black women. Rather, white women's earnings had become similar to the earnings of black men. This change is quite intriguing: despite sharp differences in the magnitude of the gaps between gender groups, the over-time trend is quite similar for black men and black women, especially the sharp decline in racial earnings gaps during the 1970s and the reversal of the trend post-2000.

# Explained and Unexplained Portions of the Racial Gap

To gain a deeper understanding of the trends in racial earnings disparities across the two genders, Table 1 displays results of the decomposition procedure with a distinction between the two main components—the explained and unexplained portions of the racial gap—by decade and by gender. The unexplained portion of the gap is the portion remaining after all covariates (presented in Tables A1a, A1b, A2a, and A2b in the Appendix) are introduced into the model. Column 1 of Table 1 pertains to the total (gross) gap in terms of log earnings between the average earnings of blacks and whites, and columns 2 and 3 pertain to the explained and unexplained portions of the gap, respectively, obtained through the Oaxaca-Blinder decomposition procedure.

Consistent with the descriptive statistics displayed in Figure 1, the results for men show a decline in the pay gap throughout the period, from -.44 log units in 1970 to -.332 log units in 2010—a reduction of 25 percent over four decades. Almost all the decline, however, took place during the 1970s, when the pay gap was cut by over 28 percent. From 1980 to 2000, the decline was minimal, and by the turn of the new millennium the gap had widened, exceeding the level of the gap three decades earlier. The sharp decline during the 1970s and the moderate decline during the

		Men			Women	
	Gross Gap	Explained	Unexplained	Gross Gap	Explained	Unexplained
Year						
1970	.440	.216	.224	.266	.174	.092
1980	.317	.177	.140	.008	.059	051
1990	.289	.191	.098	.014	.035	021
2000	.279	.192	.087	.042	.049	007
2010	.332	.218	.114	.120	.077	.043
Percent change 1970 to 1980	-28%	18%	-38%	-97%	-66%	-155%
Percent change 1970 to 2000	-37%	11%	-61%	-84%	-72%	-108%
Percent change 1970 to 2010	-25%	1%	-49%	-55%	-56%	-53%

Table 1. Explained and Unexplained Portions of the Racial Pay Gaps, by Gender, 1970 to
2010 (Oaxaca-Blinder Decomposition)

1980s and 1990s, as well as the expansion of the gap during the 2000s, is mainly due to a decrease in the size of the unexplained portion of the gap—the portion that represents economic discrimination, among other unobserved factors. The decrease in the unexplained portion of the racial gap was especially pronounced during the 1970s (38 percent)—the decade that followed the Civil Rights Act. However, as in the case of the gross gap, the pace of the decline slowed from 1980 to 2000, and actually reversed during the first decade of the new century, mainly because of an increase in the unexplained portion of the gap.

Similar to the trend observed for men, the racial pay gap among women decreased dramatically during the 1970s and has increased during the new millennium. Nonetheless, the patterns among women are remarkably different from those detected among men. First and foremost, the gross racial earnings gap is substantially larger among men than among women at all points in time. In the extreme case, 1980, the pay gap between black and white men exceeded 30 percent, whereas among women it was less than 1 percent. These results correspond with theoretical expectations regarding similarities in attainment of economic outcomes among women belonging to different races. Also, the unexplained portion of the gap was considerably larger among men than among women, a finding consistent with the theoretical expectation that black men are the prime target of economic discrimination. In fact, throughout most of the period-as of 1980 and until 2000-not only was the racial gap among women negligible, but black women's earnings were actually higher compared to the earnings of white women with similar characteristics (as evidenced by the negative sign of the unexplained portion of the gap). During the 1970s, the unexplained portion of the racial pay gap among women declined by 150 percentfrom a net advantage for white women to an earnings advantage for black women. The slight net advantage among black women in earnings attainment was evident until 2000. However, as with men, the trend of declining disparities reversed in 2010 (as evidenced by the positive sign of the unexplained component).

#### Gender Differences and Similarities in Sources and Trends in the Racial Pay Gap

To uncover the sources of the gap at the five decennial time points, Table 2 presents results obtained from the Oaxaca-Blinder decomposition

TADIE 2. COMPONENTS OF UNE NACIAL FAY GAPS, DY GEMGET, 1970 10 2010 (DAXAGA-DIMAGE DECOMPOSITION)	I IO SILIALI	The Nacial	ray uap:	s, by Gena	er, 1970	וח הוח (ו	Jaxaca-b	arinaer De	composi	(IIOII)				
								Explained	vined					
	Gros	Gross Gap	Human	Human Capital	Demog	Demographics	Ho	Hours	Occuj	Occupation	Labor	Labor Context	Sub	Subtotal
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
Year 1970	.440	.266	.055	.027	.016	600.	600.	006	.113	.143	.021	.002	.216	.174
1980	.317	.008	.062	.026	.017	.010	.026	017	.056	.047	.015	007	.177	.059
1990	.289	.014	.059	.032	.022	.007	.041	034	.056	.037	.013	006	.191	.035
2000	.279	.042	.057	.043	.023	.006	.047	025	.061	.034	.003	009	.192	.049
2010	.332	.120	.055	.046	.027	.015	.060	021	.081	.048	005	011	.218	.077
Percent change 1970 to 2010	-24.4%	-54.7%	.1%	72.9%	63.8%	72.6%	536.0%	236.1%	-28.4%	-66.4%	-125.7%	-636.8%	1.1%	-55.6%
								Unexplained	lained					
	Cor	Constant	Human	Human Capital	Demog	Demographics	Ho	Hours	Occuj	Occupation	Labor	Labor Context	Sub	Subtotal
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
Year														
1970	.060	480	.164	.041	.039	069	013	609.	.004	.014	031	023	.224	.092
1980	486	-1.395	.117	003	.031	074	.527	1.435	.004	014	053	001	.140	051
1990	088	654	.032	098	.012	045	.164	.723	015	.031	007	.022	.098	021
2000	605	-1.038	.123	003	.023	013	.524	1.013	.002	.009	.021	.027	.087	007
2010	448	611	.114	.006	.036	003	.407	.614	.007	.033	001	.004	.114	.043

**Table 2**. Components of the Racial Pay Gaps. by Gender. 1970 to 2010 (Oaxaca-Blinder Decomposition)

procedure disaggregated by components, by gender and by period. The coefficients for the explained portions of the gap are displayed in the upper panel of the table, and coefficients for the unexplained portions of the gap are displayed in the lower panel.<sup>13</sup> Although each variable is introduced into the regression equations separately, for the purpose of the presentation we aggregated the coefficients of related variables and divided them into five groups: measured indicators of human capital resources (i.e., education and work experience), sociodemographic attributes (i.e., marital/parental status and nativity status), weekly working hours, labor market context (sector, region, metropolitan area), and occupations (at the two-digit classification level). The coefficients are presented in terms of log weekly wages of the gross racial pay gap. The bottom row of the upper panel of Table 2 displays changes in the coefficients throughout the period. Figure 2 also depicts results of the decomposition (listed in Table 2).14 Means and coefficients of the regressions on which the decomposition was based are presented in Tables A1a and A1b (means) and A2a and A2b (coefficients) in the Appendix.15

The data included in Table 2 and Figure 2 underscore apparent dissimilarities between the two gender groups. Among men, at the beginning of the period (1970) most of the explained portion of the racial pay gap was accounted for by two groups of variables: racial differences in occupational distributions and racial differences in human capital resources. The role played by occupational segregation sharply declined after 1970, as evidenced by the decrease in the size of the index of occupational dissimilarity (Appendix Table A1a). The findings also show that the growing similarity in the occupational distributions of black and white men was followed by a convergence in earnings for black and white men employed in the same occupation (i.e., the former is shown by the decrease in the explained portion of the gap, the latter by the decrease in the unexplained portion of the gap). However, the impact of declining

occupational segregation is much more dominant in explaining the declining pay gap than is the impact of racial convergence in earnings within occupations, as evidenced by the differences in the size of the coefficients for occupations in the upper versus lower parts of the table: in 1970, occupational segregation accounted for over one quarter (26 percent) of the gap (.113 out of .440), whereas withinoccupation inequality explained only 1 percent (.004/.440) of the gap. Four decades later, in 2010, occupational segregation still accounted for a relatively large portion of the gap (24 percent; .081/.332), whereas withinoccupation inequality accounted for only 2 percent (.007/.332) of the gap.

Human capital resources (e.g., education and experience) make up the second major component that accounts for racial disparities in earnings. Table 2 shows that the portion of the pay gap that can be attributed to differences in human capital resources between black and white men remained relatively stable over the decades in absolute as well as relative terms. The decline in the unexplained portion of the gap during the 1970s can be attributed to greater similarity in rewarding education and potential work experience; during this decade, the gap between workers with and without academic degrees widened, as did the gap between workers with more/less education (see Tables A2a and A2b in the Appendix). However, whereas the growth in rewards to education and to potential work experience was evident for both black and white workers, it was substantially larger among black men than among white men, and this may account for the sharp reduction in the unexplained portion of the gap during the 1970s.<sup>16</sup>

The other three components—weekly working hours, demographic characteristics, and labor context—account for only a small portion of the pay gap between black and white men. Note, however, that while the effects of demographic characteristics and labor context remained relatively small and stable throughout the entire period, working hours became a much more important determinant of pay over the years (see Tabe A2a in



Figure 2. Components of the Racial Pay Gap, by Gender, 1970 to 2010

the Appendix, and also Cha and Weeden 2014; Kuhn and Lozano 2008; Mandel and Semyonov 2014), thus exerting a greater influence on over-time change in pay disparities. The rewards for working hours were slightly higher for black men than for white men in 1970, but as of 1980, rewards for working hours had become higher among white men.<sup>17</sup> In general, two opposing forces drove the influence of working hours on earnings disparities: a small convergence in mean working hours of black and white men, and an increase in rewards to working hours for both races, but more so for white men. Because the latter was much more significant than the former, the change in the impact of working hours on

pay disparities among men was quite dramatic—from an insignificant determinant of the pay gap in 1970 to a variable that accounts for 18 percent of the gap in 2010 (second only to occupation in its significance).

The size of the unexplained portion of the gap—the portion that serves as a proxy for economic discrimination—generally declined among men between 1970 and 2000, but it widened at the turn of the new millennium. Although the unexplained portion of the gap in 2010 was smaller than its 1970 level, it remained quite substantial throughout the entire period (ranging from less than a third to half of the gross gap) and was larger than any other single component.

The gaps observed among women differ considerably from those observed among men. The differences are evident in the size of the gap, the components that account for the gap, and the trend. In 1970, black women's average earnings were approximately 16 percent lower than those of white women. Most of the gap (54 percent = .143/.266) was attributable to a single component-occupational segregation. The rest of it was attributable to human capital resources (10 percent) or remained unexplained (35 percent). Only one decade later, in 1980, the earnings gap between the two groups had virtually disappeared (earnings disparity was at less than 1 percent). The convergence in the earnings of white and black women can be attributed, once again, to the sharp decline in occupational segregation, as evidenced by the decline in the value of the index of dissimilarity (see Table A1b in the Appendix). This finding supports the argument that changes in the economy and labor force (i.e., the increase in service sector jobs coupled with the exit of black women from private household service to public service) made the occupational distribution of black and white women more similar, thus contributing to a greater convergence in women's earnings than in men's earnings. Indeed, Table 2 shows that the earnings disparity between black and white women had practically vanished by 1980, and thereafter remained negligible for three decades. That said, although the gross gap has been negligible, the decomposition of the gap into its components reveals two opposite effects that offset each other.

Unlike in the case of men, the role played by human capital resources in explaining the racial pay gap among women increased over the years (the coefficients range between .027 and .046). This is somewhat curious in light of two contradictory processes: higher rewards to academic degrees for black women than for white women, meaning that black women benefit more from academic degrees relative to white women (as shown by the negative sign in the unexplained portion of the gap in Table 2 [also see Table A2b in the Appendix]), and a convergence in educational attainments of black and white women (from an odds ratio of .66 in 1970 to a ratio of .71 in 2010). However, despite the convergence, the gap between black and white women in attaining higher education remained substantial (around 30 percent in all periods). Because the importance of academic degrees for pay (see also Table A2b in the Appendix) grew substantially from 1980 onward (for both groups, but even more so for white women), the existing educational gap became more costly for black women.

In contrast to human capital resources, sociodemographic differences are almost of no relevance to earnings disparities between black and white women. This is not because there are no racial differences in sociodemographic attributes between the groups (see Table A1b in the Appendix), but because the effects of sociodemographic attributes on wages are relatively small (see Table A2b in the Appendix). The effect of the labor market context component is also very small, but it conceals the gap (i.e., the gap widens when we control for labor market context). This is so because black women are more likely to work in the public sector, in which women's earnings are higher (see Tables A1b and A2b in the Appendix).

Working hours further contribute to mitigating the racial earnings gap. Between 1980 and 2000, black women's earnings were similar to white women's earnings despite white women working fewer hours. Furthermore, although white women tended to work fewer hours than black women, their pay per working hour in all decades was higher than that of black women (see Table A2b in the Appendix). In 1990, black women worked an additional weekly hour (51 minutes) more than white women. Nevertheless, after 1990 the working hours of black and white women gradually converged (see Table A1b in the Appendix). Consequently, the effect of working hours on the pay gap has also been declining. In 2010, the racial difference in working hours was relatively small (around 19 minutes per week). Nevertheless, the effect of this variable on pay disparities was still substantial, as rewards to working hours had considerably increased; that is, the amount of working hours became more consequential for pay.

The last, and perhaps the most interesting and meaningful, component is the unexplained portion of the gap, that is, the portion attributable to economic discrimination and unmeasured factors. In 1970, black women were disadvantaged in earnings attainment compared to white women (the positive sign of the unexplained component). However, between 1980 and 2000, black women were actually advantaged in earnings attainment when compared to white women with similar characteristics (the negative sign of the unexplained component). That is, when wagerelated characteristics (first and foremost occupations and human capital characteristics) are controlled for, black women's earnings were higher than the earnings of comparable white women. The net advantage among black women was substantial in 1980, but it declined in 1990 and further declined in 2000. However, during the first decade of the new millennium the trend reversed. Although the earnings penalty associated with race in 2010 amounted to only one third of the penalty in 1970, the pay gap between black and white women widened in both absolute (gross gap) and net (unexplained component) terms compared to the previous decades.

# EXPLANATIONS FOR THE REVERSAL TREND IN THE NEW MILLENNIUM

In light of the substantial differences in the size of the racial pay gap across the gender groups, the uniform widening of the gap among both men and women at the turn of the new millennium is intriguing and requires further discussion and additional explanations. To evaluate potential sources of the reversal trend, the following sections advance several alternative explanations. These explanations are by no means contradictory or mutually exclusive but rather complementary.

#### Rising Income Inequality

A common explanation, usually advanced by economists, focuses on rising income inequality in the U.S. labor force as a possible cause of an increase in racial pay gaps. The logic embodied in the rise in inequality thesis contends that because blacks are overrepresented at the bottom of the wage hierarchy, and whites are overrepresented at the top of the income distribution, a rise in *overall* income inequality (which extends the entire distance between the top and bottom) could result in an increase in the racial wage gap (see Blau and Kahn 1994).

To test the possibility that an increase in pay inequality is one of the sources of the increase in racial pay gaps post-2000, we first computed the ratios between the top and bottom deciles of the (weekly) earnings distributions as an indicator of income inequality. The findings, displayed in Figure S2 in the online supplement, reveal that income inequality grew over the entire period, and the most significant rise in income inequality took place during the 2000s. These findings, although in line with the rise in inequality thesis, provide only indirect confirmation of the thesis that the increase in racial pay gaps is attributable to rising income inequality.

Therefore, to more directly examine the effect of the shift in income inequality on the racial gap, we eliminated differences in the shape of the income distributions across the years. Specifically, we standardized the income distributions by converting them into percentile distributions at all points in time to arrive at an ordinal rank-ordered scale. This procedure eliminates differences in the distributions that result from changes in levels of income inequality over the years (for the rationale of this analysis, see Mandel and Semyonov 2005). We then applied the Oaxaca-Blinder decomposition procedure to the standardized income distribution in each decade (as in the analysis presented in Table 2 and Figure 2). Figure 3 presents results of the re-analysis.<sup>18</sup>

The findings support the argument that rising inequality contributed to the increase in the racial pay gaps, but only in the case of men. In



Figure 3. Components of the Racial Pay Gap in Percentiles, by Gender, 1970 to 2010

general, the results for both men and women are very similar to those observed in Table 2 and Figure 2. There is, however, one solid exception—the trend between 2000 and 2010 for men is very different. In Table 2 and Figure 2, when the racial gap is measured in log earnings (i.e., not standardized), the increase in the gap during the 2000s is substantial (about 19 percent). However, after the income distribution is converted into percentiles, the increase in the gap among men is much smaller (only 5.5 percent). As noted, the trends observed from 1970 to 2000, as well as the trends for women during the entire period, are very similar in both the standardized and non-standardized analyses. This implies that the increase in earnings inequality had no effect on racial pay gaps until 2000, perhaps because it was much smaller in magnitude (see Figure S2 in the online supplement), hence its potential widening effect on the racial gap was offset by other countervailing forces (e.g., a reduction in racial occupational segregation or convergence in education levels). In contrast, the substantial rise in income inequality during the first decade of the new millennium contributed greatly to the rising racial pay inequality in the case of men but not in the case of women.

## Increasing Rewards to Education and Working Hours

Economists also point to rising rewards (returns) to skills and other wage determinants as potential contributors to rising inequality between groups (e.g., Juhn, Murphy, and Brooks 1993; Murphy and Welch 1993). According to this view, an increase in returns to education (i.e., an increase in the gap between highly educated and low-educated workers) is expected to benefit whites more than blacks due to whites' higher educational levels. Indeed, the data presented here show that rewards to academic degree increased and that-despite the convergence in educational levels-there are still substantial gaps between blacks and whites in the level of education for both gender groups (see Tables A1a, A1b, A2a, and A2b in the Appendix). This, however, cannot account for the reversal of the trend, because the portion of the gap that is attributable to human capital resources has not increased during the new millennium (see Figures 2 and 3). Among both gender groups, between 2000 and 2010, rewards to education remained stable for blacks but increased for whites (see Tables A2a and A2b in the Appendix). Therefore, if changes in rewards (returns) to higher education are responsible for the reversal of the trend, it is not due to an overall rise in rewards to education, but rather due to differential rewards for blacks and whites in favor of whites (which may result from either different quality of education or racial discrimination).

Similarly, the increase in rewards to working hours may also have contributed to the increase in racial pay gaps at the turn of the new millennium. The data provide support for such an explanation, but once again, only in the case of men. Working hours account for a relatively small portion of the pay gap between black and white men. Therefore, if such an effect exists, it cannot be large or consequential for the size of the racial gap. Nevertheless, because black men tend to work fewer hours than white men (around three weekly hours, see Table A1a in the Appendix), the existing gap in working hours becomes more costly to black men over time, other things being equal (regarding black men's lower amount of weekly work, see Bell 1998).

# The Role of Segregation

Changes in blacks' and whites' occupational distributions can affect the pay gaps between the groups. An increase in the concentration of whites in high-paid occupations, or an increase in the concentration of blacks in low-paid occupations, may heighten racial pay disparities (Kilbourne et al. 1994; Kletzer 1991). Our findings show, for example, that the largest reduction in racial pay gaps (during the 1970s) took place at the same time as the largest reduction in occupational segregation (see Tables A1a and A1b in the Appendix). These findings, however, do not provide sufficient evidence to firmly support the expectation that the rise in occupational inequality is responsible for the reversal of the trend for two main reasons: first, because the analysis measures occupational segregation and not occupational inequality, and second, because segregation levels did not increase during the past decade. The findings do reveal that the decline in occupational segregation between blacks and whites between 1970 and 2000 completely halted during the last decade (among both men and women), and the role of occupations in explaining the pay gap increased over the last decade. Therefore, we cannot reject the possibility that differential concentrations of blacks and whites in occupations might have contributed to the reversal of the trend.

#### Increased Economic Discrimination

The findings presented here imply a rise in market discrimination against blacks during the 2000s, as indicated by the growing size of the unexplained portion of the racial pay gap during this decade. Part of the unexplained portion of the gap results from structural changes that favor whites (i.e., growing income inequality and an increase in rewards to working hours), but some of it might be

attributable to economic discrimination. Discrimination is not measured directly, but by differences between the constants and the rewards to wage-related characteristics among blacks and whites. Higher rewards to education<sup>19</sup> and working hours for whites relative to blacks may indicate economic discrimination against blacks, although they may also reflect differences in quality of education or differences in the kinds of occupations that blacks and whites hold. Previous studies have demonstrated that longer weekly working hours are more common among highly educated, professional, and managerial workers (Kuhn and Lozano 2008), and that workers in such lucrative occupations experienced the greatest wage growth (Cha and Weeden 2014). Although the analysis conducted here disaggregates the unexplained portion of the gap into components, it can only indirectly point to growing discrimination. Future studies are required to more fully distinguish between allocative discrimination, pay discrimination, and other sources for the gap.

#### Post-Recession Effect

The Great Recession, which officially started in December 2007 and officially ended in June 2009, had detrimental consequences for the economic well-being of many Americans. Not only did unemployment and poverty rates grow substantially, but the economic security of many workers also declined due to the slow pace of job growth (Jacobsen and Mather 2011). The detrimental consequences of the recession were unequally distributed across racial groups. Low-income workers, in particular, black and Latino men, as well as loweducated and young workers, bore the greatest cost (Hoynes, Miller, and Schaller 2012).

To examine whether the increase in inequality is, indeed, a post-recession phenomenon, we conducted an additional analysis focusing on specific separate years, based on the ACS yearly data for the years 2001 to 2013. The results, displayed in Figure 4 (and Table S1 in the online supplement), are striking and consistent. Generally speaking, with some fluctuations for both men and women, racial gaps gradually widened over the years, finally peaking in 2013. Racial gaps widened not only in the size of the total gross gap but also in the size of the unexplained portion of the gap. Because no dramatic fluctuations occurred either before or after the recession period, the trends displayed in the figure lead us to conclude that the reversal of the trend is a continual process rather than a post-recession effect. Nevertheless, although the recession officially ended in 2009, we cannot flatly reject the possibility that its lingering effects persist after 2013.

# CONCLUSIONS AND DISCUSSION

Using data for five decennial years, we decomposed the racial pay gap into components to compare the sources of the gap among men and women in the U.S. labor force between 1970 and 2010. From the abundance of findings arising from the race/gender/time point comparisons, four significant points deserve special attention. First, comparison of the racial pay gap between gender groups underscores the significance of the intersection between gender and race; differences between gender groups in gross and net racial pay gaps were highly pronounced. The differences are so pronounced that it is difficult, if not impossible, to reach conclusions regarding racial pay gaps based on data for only one of the two gender groups. Our findings thus provide empirical support for the intersectionality thesis, showing the importance of the intersection between gender and race in determination of pay (Collins 2009; Glenn 1999).

Second, racial pay gaps were substantially larger among men than among women at all time points. In addition, the unexplained portion of the gap—the indicator we used as a proxy for racial discrimination—was much larger among men than among women. In fact, from 1980 until 2000, there were virtually no racial pay gaps among women (and the net gaps in these years were actually in favor of black women). Although pointing to the



Figure 4. Components of the Racial Pay Gap in the Years Pre and Post the 2008 Recession, by Gender, 2001 to 2013

intersection of gender and race, these findings do not support the double disadvantage hypothesis. Rather, they show that black men, and not black women, are the prime target of economic discrimination, supporting the argument that black men, more than black women, are subject to negative stereotypes (Pager and Karafin 2009; Shih 2002; Sidanius and Pratto 1999; Wingfield 2013). Our findings are also in line with the argument that women of different races have much more in common than men do; an argument based on the universal tension between family obligations and paid work that black and white women share, and the impact this has on occupational opportunities and earnings inequality. Indeed, these data show that between 1980 and 2000, black women's economic subordination was mainly due to gender and not to race.

Third, the findings suggest that earnings inequality is more gendered than racialized; women of both races share a considerable earnings disadvantage relative to men. Thus, the "racial advantage" of black women (compared to black men) should be understood within the context of their "gender disadvantage." As Figure 1 shows, up until 2000, white as well as black women were disadvantaged in relation to men, first and foremost white men. Therefore, it is crucial to distinguish between men and women when examining trends in racial inequality, but also to acknowledge that the relative equality among black and white women is an "equality of the disadvantaged."

Fourth, despite the gender differences, the over-time trend of the racial gaps is strikingly similar for men and women. Furthermore, the trend of declining racial earnings gaps observed throughout the second half of the twentieth century changed at the turn of the millennium among both gender groups. In 2010-for the first time since 1980-white women's earnings became more similar to the earnings of black men than to those of black women. Similarly, among men, for the first time since 1970, the gross and net racial earnings gap widened. In light of the gender differences in the size of the gap and in the components that account for it, this uniform change is intriguing. Especially intriguing are the similar trends during the 1970s (a sharp narrowing of the gaps) and the reversal of the trend in the new millennium among both men and women. The former-the post-1970 decline in the gap-can be understood as resulting from the enactment of the Civil Rights Act and implementation of affirmative action policies. The latter-the reversal of the trend at the turn of the millenniumdeserves further examination.

Inquiring into the sources of the reversal of the trend post-2000, we entertain several potential explanations. One important explanation relates the widening racial gaps to the sharp increase in overall income inequality during the 2000s. The findings show that, in the case of men (but not women), once we control for variations in income inequality across decades, the increase in the racial pay gap during the 2000s is much smaller among men. This finding implies that in addition to changes that are directly related to race, shifts in income distribution during the first decade of the millennium were more detrimental to the earnings of blacks, especially black men, than to those of whites.

Some of the evidence may suggest an increase in market discrimination against blacks at the beginning of the new millennium. During the 2000s, rewards to academic degree increased for whites more than for blacks; that is, whites benefited more from high education relative to blacks. This was followed by stagnation in the processes of desegregation, which may also indirectly indicate a rise in economic discrimination against blacks. Although different rewards to education for blacks and whites, as well as stagnation in desegregation, are only implicit indicators for discrimination, the simultaneous changes in the two trends-that is, the reversal trend among the two gender groups and the change in government reforms-may indicate growing discrimination.

We are not the only ones to relate pay discrimination and stagnation in the processes of desegregation to government reforms. Stainback and Tomaskovic-Devey (2012), for example, show that from 1980 to 2005 (a period they call the "Neoliberal era"), the pace of improvement in blacks' access to good jobs and the decrease in racial occupational segregation largely declined, and the economic gains of blacks and women became more limited. What can explain such a change after a steady and consistent decline in segregation and pay gaps? One may speculate that the cumulative effects of the processes of racial desegregation and upward occupational mobility may have increased the "threat" to majority groups. From a social closure perspective, when a threat is apparent, members of the advantaged group are more likely to practice collective action to exclude members of the disadvantaged group from (attractive) occupations (Parkin 1979; Tilly 2004; Weber, Roth, and Wittich 1978). Although the analysis presented here cannot provide direct empirical support for this theoretical speculation, it does point to the fact that post-2000, occupations became a more significant determinant of racial pay gaps among the two gender groups.

Stainback and Tomaskovic-Devey (2012) relate government reforms to inequality, showing that the period following the 1964 Civil

Rights Act produced widespread equal-opportunity progress for women and blacks, and that the pace of improvement slowed in the Neoliberal era after 1980, when the regulatory environment switched to advancing diversity programs rather than affirmative action policy. Such a switch is also described by Cancio and colleagues (1996), who attribute the rise in economic discrimination against blacks after 1980 to government retreat from enforcement of antidiscrimination policies during the Reagan and George H. W. Bush presidential administrations. Wilson, Roscigno, and Huffman (2013, 2015) show that after the reform period (2002 to 2007), racial pay gaps in the public sector widened substantially. They argue that the adoption of a "new government business model" (i.e., privatization of employment practices) contributed to downward occupational mobility of blacks relative to whites. Our findings lend support for this argument, but only indirectly, by revealing once again the affinity between government reforms and fluctuations in racial gaps after the Civil Rights Act and in the new millennium.

Government support is critical for minimizing inequality and mitigating economic discrimination against minorities, especially during times of economic crisis (Hoynes et al. 2012; Jacobsen and Mather 2011). During times of economic decline, economically vulnerable populations are more likely than other groups to become a target of economic discrimination. Growing income inequality can further deteriorate the relative economic standing of disadvantaged groups, as we show in the case of black men. Although the results show no dramatic fluctuations before or after the recession, a lingering effect of the recession may possibly still persist after 2013. At this time, we have no direct way to examine whether the reversal of the trend indicates a one-time deviation from the general trend of declining racial earnings disparities or a real and consistent change. It is our hope that future research will provide further direct tests of the explanations entertained in this article and clear answers to the questions that remain.

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Tab]

	1970	20	1980	0	1990	06	2000	00	2010	10
Variable	White	Black	White	Black	White	Black	White	Black	White	Black
Weekly wage	862.2	580.3	873.7	668.8	856.7	655.6	917.5	707.2	905.9	653.6
Weekly wage (logged)	6.65	6.21	6.63	6.30	6.58	6.28	6.62	6.33	6.59	6.25
Weekly working hours	43.5	40.8	42.7	40.0	43.8	41.3	44.6	42.1	43.4	41.0
Weekly working hours (logged)	3.74	3.68	3.73	3.65	3.76	3.70	3.77	3.71	3.75	3.68
Public sector (= 1)	.17	.21	.20	.28	.19	.27	.17	.24	.19	.25
College graduate (= 1)	.17	.05	.27	.12	.27	.14	.30	.17	.36	.23
Some college (= 1)	.13	.08	.20	.19	.30	.29	.24	.26	.25	.29
High school graduate (= 1)	.35	.26	.36	.35	.34	.39	.40	.47	.36	.42
Less than high school (= 1)	.35	.61	.18	.34	.10	.18	.06	.10	.04	.06
Potential work experience	23.0	24.6	20.2	20.9	19.8	20.1	21.5	21.2	22.9	23.0
Potential work experience sq.	651.3	733.6	530.8	562.7	490.2	502.5	551.6	535.8	629.3	625.9
Married (= 1)	.87	.77	.79	.67	.74	.59	.70	.55	.68	.53
Number of children	1.64	1.78	1.22	1.32	1.06	1.04	.96	.91	.92	.83
Child under age 5 (= 1)	.25	.24	.19	.20	.19	.16	.16	.15	.15	.12
Foreign born (= 1)	.04	.02	.04	.05	.04	.08	.04	.10	.05	.15
Northeast region (= 1)	.27	.22	.22	.20	.22	.16	.20	.15	.20	.16
Midwest region (= 1)	.32	.23	.28	.20	.27	.15	.28	.16	.27	.14
South region (= 1)	.26	.47	.30	.50	.32	.58	.32	.58	.34	.60
West region $(= 1)$	.15	.08	.20	.10	.20	.11	.19	.10	.19	.10
Lives in metropolitan area (= 1)	.74	.80	.79	.86	.72	.81	.76	.86	.77	.89
Index of dissimilarity (N)	.37 (N	37 (N = 75)	.29 (N = 80)	= 80)	.27 (N	.27 (N = 80)	.25 (N	.25 (N= 79)	.25 (N=	= 79)
Ν	429,115	46,694	1,246,589	146,484	293,404	29,857	1,446,271	171,000	275, 239	33,215

Table A1b. Mean of Variables Included in the Regression Analysis, by Race and Decade, among Women

	1970	20	1980	30	1990	00	2000	00	2010	10
Variable	White	Black	White	Black	White	Black	White	Black	White	Black
Weekly wage	474.5	395.0	476.8	485.3	530.6	529.8	620.3	595.4	635.3	556.8
Weekly wage (logged)	5.98	5.72	5.97	5.96	6.05	6.03	6.18	6.14	6.19	6.07
Weekly working hours	36.0	36.3	36.0	36.8	37.5	38.3	38.6	39.1	38.1	38.4
Weekly working hours (logged)	3.52	3.53	3.53	3.55	3.58	3.61	3.61	3.63	3.59	3.61
Public sector (= 1)	.21	.27	.23	.34	.23	.33	.23	.31	.26	.32
College graduate (= 1)	.13	.08	.21	.14	.24	.17	.30	.21	.39	.28
Some college (= 1)	.12	60.	.20	.20	.32	.33	.26	.29	.27	.32
High school graduate (= 1)	.44	.31	.44	.38	.37	.37	.40	.43	.32	.34
Less than high school (= 1)	.31	.52	.15	.28	.07	.13	.04	.07	.02	.05
Potential work experience	24.4	23.7	20.5	20.2	20.0	19.9	21.8	20.9	23.1	22.7
Potential work experience sq.	711.3	681.5	544.5	525.6	497.2	489.4	567.6	523.1	641.8	614.7
Married (= 1)	.70	.56	.67	.50	.68	.44	.65	.40	.65	.37
Number of children	1.23	1.69	1.09	1.51	1.00	1.29	.94	1.18	.89	1.06
Child under age 5 (= 1)	60.	.16	.11	.16	.14	.15	.12	.14	.12	.12
Foreign born (= 1)	.05	.02	.04	.05	.04	.07	.04	60.	.05	.13
Northeast region (= 1)	.27	.22	.23	.21	.23	.17	.21	.16	.20	.16
Midwest region $(= 1)$	.30	.21	.28	.20	.26	.15	.27	.16	.28	.14
South region $(= 1)$	.28	.49	.30	.50	.32	.59	.33	.59	.34	.63
West region $(= 1)$	.15	.07	.20	60'	.19	60.	.19	60.	.19	.08
Lives in metropolitan area (= 1)	.73	.80	.80	.87	.73	.82	.75	.86	.76	.88
Index of dissimilarity (N)	.35 (N=	= 75)	.24 (N = 80)	= 80)	.21 ( <i>N</i> =	= 80)	.18 ( <i>N</i> =	= 79)	.18 ( <i>N</i> =	= 78)
Ν	243,840	37,929	918,755	148,692	238,629	33,124	1,238,366	201,671	252,114	43,430

			DEET		2000	0	2010	0
mt       5.943       5.816         sxperience       .026       .012         experience squared       .0005      0002         experience squared      0005      0002         experience squared      0005      0002         exposition      352      352         an high school      348      352         chool      239      342         chool      239      342         chool      239      342         chool      181      188         chool      181      188         erof own children in household       .015       .005         d [not married]       .07       .179       .178         d [not married]       .179       .179       .146         ual working hours)       .147       .199       .061       .062         east region]       .014       .030       .071       .062         sett region]       .014       .030       .071       .071		Black	White	Black	White	Black	White	Black
xyperience       .026       .012         xyperience squared      0005      0005       .0002         am high school      348      352       .0002         an high school      348      352       .0002         chool      348      352       .0005         chool      348      352       .242         chool      181      181       .183       .242         chool      339      242       .242         chool      181      181      188       .242         chool      181      181      188       .242         chool       0.01       0.05       .005       .005         d loot married]       .015       .002       .014         d loot married]       .179       .179       .158         ual working hours)       .147       .199       .162         asetor [private]       .024       .062       .062         set       .014       .030       .071       .030         set       .014       .030       .271       .071         or       .014       .030       .071       .071       .071     <		5.398	3.787	3.766	3.502	3.991	2.718	3.027
xyperience squared $0005$ $0002$ mic degree] $348$ $352$ an high school $348$ $352$ chool $348$ $352$ chool $348$ $352$ chool $242$ $242$ chool $181$ $181$ $188$ so of own children in household $0.15$ $.005$ $014$ d [not married] $.072$ $014$ $.002$ $014$ d [not married] $.071$ $.072$ $014$ ual working hours) $.179$ $.179$ $.158$ n flocal] $.071$ $051$ $.002$ ual working hours) $.147$ $.199$ sector [private] $024$ $.062$ east region] $.014$ $.030$ set $130$ $271$		.028	.037	.033	.031	.019	.039	.031
smic degree]      348      352         an high school      348      352         chool      239      242         college      181      188         sr of own children in household       .015       .005         as under age 5 [no kids]       .017       .005         d [not married]       .179       .158         n [local]       .001      051         ual working hours)       .142       .146         n metropolitan area [not]       .147       .199         sector [private]      024       .062         east region]       .014       .030         or      130      271		0004	0005	0005	0004	0002	0006	0005
an high school      348      352         chool      239      242         college      181      188         ar of own children in household       .015       .005         as under age 5 [no kids]       .017       .005         ad [not married]       .0179       .158         n [local]       .002      014         n [local]       .001       .051         n ual working hours)       .179       .146         n metropolitan area [not]       .147       .199         sector [private]      024       .062         east region]       .014       .030         or      130      271								
chool239242 - college181188 - sr of own children in household .015 .005 ds under age 5 [no kids] .002014 d [not married] .179 .158 - .001051 - .146 .146 n metropolitan area [not] .142 .146 n metropolitan area [not] .147 .199 sector [private] .024 .062 - east region] .014 .030 set region] .014 .030		485	553	550	561	560	627	535
college      181      188       -         ar of own children in household       .015       .005       .005         ds under age 5 [no kids]       .002      014       .005         d [not married]       .179       .158       -         n [local]       .001      051       -         n [local]       .001      051       -         n ual working hours)       .142       .146       -         n metropolitan area [not]       .147       .199       -         sector [private]      024       .062       -         east region]       .014       .030       -       -		332	372	379	372	388	432	402
ar of own children in household       .015       .005         ds under age 5 [no kids]       .002      014         d [not married]       .179       .158         n [local]       .179       .166         n [local]       .179       .051         n [local]       .179       .168         n [local]       .014       .051         n [local]       .142       .146         ual working hours)       .142       .146         n metropolitan area [not]       .147       .199         sector [private]      024       .062       -         east region]       .014       .030      130      271		236	269	260	268	264	304	275
ds under age 5 [no kids] .002014 d [not married] .179 .158 n [local] .179 .158 n llocal] .142 .146 .142 .146 n metropolitan area [not] .147 .199 sector [private]024 .062 - east region] .014 .030 set region] .1130271 -		.008	.019	.007	.020	.011	.026	.015
d [not married]       .179       .158         n [local]       .001      051       -         utal working hours)       .142       .146       -         un etropolitan area [not]       .147       .199       -         sector [private]      024       .062       -         east region]       .014       .030      271       -		.007	.011	.008	.016	.010	.013	005
n [local]051051 - ual working hours) .142 .146 n metropolitan area [not] .147 .199 sector [private]024 .062 - east region] .014 .030 st130271 -		.138	.141	.155	.142	.126	.142	.108
utal working hours)       .142       .146         n metropolitan area [not]       .147       .199         sector [private]      024       .062       -         east region]       .014       .030       .031         set      130      271       -		114	.007	099	013	064	023	066
n metropolitan area [not] .147 .199 sector [private]024 .062 - east region] .014 .030 st130271 -		.179	.654	.610	.752	.611	.948	.837
sector [private]024 .062 - east region] .014 .030 st130271 -		.193	.172	.172	.162	.125	.146	.129
east region] .014 .030 st130271 -		.013	074	.029	051	.056	.003	.122
est								
130271 - 0.01 0.08		.101	071	073	036	056	100	144
021 008		120	130	212	086	145	101	162
000. 170.	.008 .030	.009	043	081	009	034	018	036
Adjusted $R^2$ .297 .228		.176	.331	.331	.340	.284	.445	.395
N 429,115 46,694 1,246,589		146,484	293,404	29,857	1,446,271	171,000	275, 239	33,215

**Table A2a**. Coefficients Included in the Oaxaca-Blinder Decomposition, by Decade, among Men

*Note:* Non-significant coefficients are marked in italics (p < .05).

	1970	0	1980	08	1990	0	2000	0	2010	0
Variables	White	Black	White	Black	White	Black	White	Black	White	Black
Constant	4.801	5.461	3.542	5.028	2.872	3.525	2.871	3.877	2.501	3.080
Work experience	.008	.010	.018	.022	.025	.033	.027	.025	.029	.028
Work experience squared	0002	0002	0003	0004	0004	0006	0005	0004	0005	0004
[Academic degree]										
Less than high school	321	470	318	466	495	544	550	576	584	558
High school	263	395	236	373	384	455	413	442	425	417
Some college	213	318	175	291	272	336	305	333	322	332
Number of own children in Household	035	013	052	019	049	022	032	024	023	014
Has kids under age 5 [no kids]	.012	.008	.042	.007	960.	.008	.093	.022	.110	.007
Married [not married]	055	.002	056	.004	022	.030	002	.032	.036	.047
Foreign [local]	.037	.067	.027	.024	.014	.031	005	.004	025	002
LN (usual working hours)	.425	.253	.712	.307	.915	.715	.933	.654	1.029	.859
Lives in metropolitan area [not]	.133	.188	.130	.152	.186	.188	.184	.169	.176	.175
Public sector [private]	.116	.177	.080	.079	.056	.074	.053	.076	.072	.117
[Northeast region]										
Midwest	022	062	004	.021	110	136	074	086	113	169
South	081	290	042	134	119	222	092	171	111	187
West	.028	039	.035	003	033	053	006	040	016	047
		101	000	000	001		1			017
Adjusted A <sup>2</sup>	.330	.421	.388	787.	.480	614.	.4/4	105.	150.	.4/2
Ν	243,840	37,929	918, 755	148,692	238,629	33,124	1,238,366	201,671	252,114	43, 430
Note: Non-significant coefficients are marked in italics $(p < .05)$	d in italics ( <i>p</i>	< .05).								

Table A2b. Coefficients Included in the Oaxaca-Blinder Decomposition, by Decade, among Women

#### Acknowledgments and Funding

We thank Amit Lazarus for valuable assistance in the analysis of the data, and the Israel Science Foundations (ISF Grant No. 491/13) for generously supporting this project.

#### Notes

- 1. As a notion that underscores complexity and contingent and non-distinct identity categories (Brown 1997; hooks 1984), intersectionality is more commonly studied using methodologies that deconstruct categories or focus on a unique social group (i.e., ethnography) than by a methodology that analytically distinguishes between them (i.e., quantitative research methods) (McCall 2005). In this regard, McCall's (2005) distinction between the intercategorical (or categorical) approach, the anticategori*cal* approach, and *the intracategorical* approach is particularity important. The latter two challenge or interrogate categorical boundaries, whereas the former assumes analytically distinct boundaries between multiple social groups (while attending to the relationships among and between them).
- African Americans and other disadvantaged ethnic groups have a lot in common but also significant differences. Because the analyses presented here are complicated—including time, gender, and race comparisons—we chose to focus on the black/white split. See also Concoran's (1999) comment on this issue.
- Among white employers, 42 percent associate female workers with parenthood and family, compared to only 7 percent of employers with regard to male workers (Browne and Kennelly 1999).
- 4. The index of occupational dissimilarity between men and women is similar among blacks and among whites at D = .52. Racial segregation is much lower, and it is lowest among women (among black and white women D = .28, among black and white men D = .32) (Mintz and Krymkowski 2011).
- 5. For example, the inconsistency of trends in declining/widening pay gaps among black and white women may, at least in part, be related to age or potential work experience. Whereas Bound and Dresser (1999) document erosion in the relative wages of black women with up to 10 years of potential experience, Blau and Beller (1992) found the improvement in blacks' relative wage to be most pronounced among older black women (with more than 20 years work experience).
- 6. Age minus years of education minus six is a prevalent but poor proxy for experience, especially in the case of women, as it assumes continuous work experience post education. To check the possible bias of this measure, we reproduced our analyses using as an alternative measure, "number of years the respondent has worked in his/her current job" from the biennial January "job tenure" supplement. We then estimated regression models with the two

measurements (one based on age and education, and the other on "years working in current job") for the years 2000 and 2010 (because data are available only from 1996). The two analyses yield very similar results for men and women in 2000 and 2010. Although the measure based on age and education may underestimate the effect of human capital attributes, and thus enlarges the unexplained portions of the wage gap, there is a great deal of similarity between the two analyses, an indication of the robustness of the results. Results based on the "job tenure" supplement data are available upon request.

- 7. Union membership is not available in census and ACS files administered by IPUMS. However, in an attempt to understand the possible effect of this variable, we reproduced the analysis using CPS MORG data for the years where all other data were available (1990, 2000, and 2010). We found that among both men and women, union membership acts as a suppressor, meaning that gross income of whites is higher despite union membership being less prevalent among them. Nevertheless, adding union membership to the regression did not alter the results.
- More details are available online (http://usa.ipums .org/usa-action/variables/OCC1990#description tab).
- 9. On the other hand, the use of 80 (instead of 400) categories improves the comparison between occupations over time, because the two-digit classification is less affected by over-time modification than is the three-digit classification.
- 10. Because extreme cases may affect each subgroup differently, we eliminated the top and bottom earning percentiles. This ensures comparability across gender by racial subgroups as well as across decades. An analysis without elimination of extreme cases resulted in findings highly similar to those reported here and led to virtually the same conclusions (results are available upon request). That said, we prefer the original results because they are more conservative (i.e., the exclusion of extreme cases produces net and gross gaps that are a bit smaller than the gaps when all cases are included).
- 11. Due to limitations of the data in the CPS MORG, we were able to reproduce analyses only from 1990 onward.
- 12. The data reveal that the share of black women in private household service declined from 20 percent to less than 7 percent in only one decade.
- 13. The unexplained portion is composed of differences between the intercepts plus differences between coefficients, which are not mutually exclusive, as the intercept is derived from the size of the coefficients (see Methodology section).
- 14. Table 2 shows the disaggregated coefficients of both the explained and unexplained portions of the gap. However, Figure 2 displays only the disaggregated components of the explained portion. The disaggregated components of the unexplained portion cannot be presented visually because the positive

and negative values of the intercept and the coefficients conceal one another.

- 15. The coefficients of occupations (about 80 in each decade) are not presented.
- 16. Because academic degree is the reference group, this is shown by the wage penalty for a nonacademic education. For example, between 1970 and 1980, the penalty for nonacademic education (shown by the negative sign of the coefficient of academic degree) increased from -.77 to -.96 for white men and from -.78 to -1.05 for black men.
- 17. It is possible that the higher rewards for working hours for white men from 1980 on reflect, to some extent, the effect of occupations: white men had higher representation in professional and managerial jobs, where longer weekly working hours are more common (Kuhn and Lozano 2008). Although we introduced occupations into the model, we controlled for them using only two-digit classifications.
- For the sake of parsimony and space, we present these results only graphically. The table is available from the authors upon request.
- 19. Recall that rewards (returns) to academic degree were higher for blacks between 1980 and 2000, but this changed in 2010 in both gender groups (see Tables A2a and A2b in the Appendix).

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