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AFFIRMATIVE ACTION: THIRTY YEARS LATER[†]

Wage Disparities and Affirmative Action in the 1980's

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A prototypical test of wage discrimination is to estimate a wage equation as a function of factors that affect productivity and to determine whether the relationship differs by race, ethnicity, or sex. Productivity is not normally directly observed. If it were, much of the debate about affirmative action might evaporate. Much litigation contests the appropriate proxies for productivity. Typically productive inputs such as education and experience are used. Once productivity is properly controlled for, pay that systematically differs by race, sex, or ethnicity is taken as evidence of discrimination.

I extend this well-established method to estimates of wage equations by industry and city, using decennial Census of Population 5-Percent Public Use Micro Samples. In each of 41 industries and 113 cities (MSA's), I ask whether and how much the pay of women, blacks, Hispanics, Asians, and Native Americans falls systematically below that of non-Hispanic white males with similar productive characteristics. I ask how these wage gaps changed during the 1980's, how they relate to each other and to employment changes, and how they responded to federal antidiscrimination and affirmative-action enforcement, such as it was, during the 1980's.

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I. Methods

The samples used in this study include only individuals who were privately employed with positive usual hours and weeks worked in the year preceding the Census and who had average hourly earnings between 1 and 100 (1979) dollars per hour, with no Census imputation of data. Using parameters from the observed earnings distribution, I extrapolate the expected mean earnings above the Census (topcode) truncation point, assuming that earnings follow a Pareto distribution. I then calculate hourly wages as annual earnings in the preceding year divided by the product of weeks worked and typical weekly hours worked. The natural logarithm of the hourly wage is used as the dependent variable.

Education is coded with seven dummy variables for years of schooling completed. Potential work experience is calculated as age 6 minus highest grade completed. Quadratic, third-, and fourth-order terms in experience are included. Dichotomous variables control for being married with spouse present, for being U.S.-born or born to U.S. parents abroad, for having a mother tongue other than English, and for being disabled. Employment in each of 41 industries is controlled for either with a vector of dichotomous variables in the city wage equations, or with separate wage equations for each industry. Controls for the nine equal employment opportunity (EEO) occupational categories are also included. Following EEOC and OFCCP practice, the racial and ethnic groupings are exclusive. Census data are recoded so that Hispanics of any race are coded solely as Hispanics. Hispanics include those of Spanish origin (either respondent or parents from Puerto Rico, Spain, Portugal, Central America, or South America), those with Spanish surnames, or those speaking Spanish at home.

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Only MSA's with populations over 250,000 were considered. I estimate separate wage equations in each city. I also estimate separate equations in each industry pooling across MSA's and controlling for MSA residence. All of the empirical results discussed below are based on industry-demographic or MSA-demographic cells with at least 100 observations (to reduce the potential impact of sampling error).

II. Change in Wage Gaps During the 1980's

Between 1980 and 1990 the average wage gap decreased dramatically for women but increased for every other group. For women, the wage gap declined by 7.6 percentage points. This may reflect less discrimination or that women are achieving better positions within industry and occupation (Francine D. Blau and Lawrence M. Kahn, 1993). As James Smith and Michael Ward (1989) have argued, it may also reflect women's increased job tenure. Between 1980 and 1990, women's actual work experience increased, reducing the disparity between potential and actual work experience, as well as the disparity between men's and women's pay. The shift in women's education toward professional and technical fields has had a similar effect.

Wage gaps deteriorated by 2.5 percentage points for blacks, by 4.1 percentage points for Native Americans, and by less than 1 percentage point for Hispanics and Asians. For these groups, the battle against employment discrimination has not yet progressed far enough to outweigh other economic changes that have worked against them.

Changes in wage gaps vary greatly across cities. The standard deviation of the change ranges from 3.4 percentage points for women to 6.2 percentage points for Native Americans. This dispersion undercuts the role of economy-wide changes (including antidiscrimination policy, education, cyclical fluctuations, etc.) in accounting fully for changes in the wage gap.

Claims that some cities have reduced discrimination across the board, or that widespread industrial, educational, or social changes account for changes in wage gaps across groups within cities, are weakened by evidence that, in most cases, reductions in the wage gap for one group are not matched by similar reductions for other groups. Changes in the wage gap are positively correlated for blacks and Native Americans, and for blacks and Asians but are not significantly correlated for any other pair. If declines in the quality of urban schools accounted for a worsening wage gap for blacks in some cities, one would expect it to have had similar effects on Hispanics and Asians (unless offset by some other factor). We do not see these common effects.

In general, the observed changes in wage gaps are uncorrelated with changes in the demographic composition of a city's work force. In Gary Becker's (1971) model of employment discrimination, an increase in the labor supply of a discriminated-against group is accommodated by an increase in measured wage discrimination. It is worth noting that, where the Asian or Hispanic share increased the most, women's share increased the least. But these increases in minority or female employment share were not accompanied by widening wage gaps.

Cities tended to maintain their position in the wage-gap distributions despite geographic mobility across cities, changes in experience and education across cities over time, and reversals of cities' economic success. Nearly half the cities in the lowest quartile with respect to gender-based disparity in 1990 were also in the lowest quartile in 1980. Similar persistence is observed for black and Asian wage gaps. In contrast, the Hispanic gap shows unusual volatility; wage gaps for Hispanics tended to widen more in cities that started out in 1980 with a greater proportion of Hispanics in the work force. This may reflect immigration into enclaves.

III. Geographic Patterns in 1990

Measured pay gaps for women tend to be smaller in larger cities, where opportunities for women appear to be broader. Larger cities' roles as trade and administrative centers tend to shift the industrial and occupational structure in ways that favor women. Since occupation and industry are directly controlled for in the wage equations, this is a spillover effect. Women also do relatively better in cities with

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a high proportion of women in the work force, suggesting the importance of demand-side factors.

Blacks appear best off relative to whites in smaller industrial cities and worse off in the Deep South. Hispanics do well in mid-sized industrial centers in the North Central region, and it does not hurt to be Hispanic in New Mexico, where Hispanics are the dominant group. Most of the Hispanic wage differentials are of borderline statistical significance.

The worst cities in terms of the Asian wage gap are in the Northeast. In places such as New York, some of this differential may reflect the separation of some Asians into an enclave isolated from the larger labor market. Recent immigrants, legal and illegal, may not have access to better-paying jobs outside the ethnic enclave in some entry-port cities. Note that the differentials reported here cannot be accounted for by differing fluency in English (mother tongue spoken at home), because this is directly controlled for in the wage equations.

IV. Prevalence of Wage Disparities Across Groups in 1990

A number of competing explanations have been offered for wage differentials of the type estimated here. One school of thought interprets them as evidence of discrimination in employment. The other explains them in terms of omitted human-capital variables correlated with race, ethnic group, or gender. The debate between the two positions continues in public discussions as well as in the courts.

Some versions of each approach carry implications for the correlation of wage differentials across different groups. For example, consider discrimination as a vice unique to white males, and directed against all others. Cities exhibiting great discrimination toward one group would then be expected to show the same bias toward all who were not white males. Some versions of the omitted-human-capital approach, such as the local-school-quality argument, make the same predictions. Any explanation of racial or ethnic wage differentials that point to a factor common to minorities within a city predicts positively correlated effects across minority groups.

However, discrimination is not so simple as white males against the rest of humanity. In particular, gender differentials are negatively, not positively, correlated with race or ethnicity differentials. Those cities that treat women the best tend to treat minorities the worst. In the case of blacks, this negative correlation with female differentials is statistically significant. While industry and broad occupation are controlled for in the underlying wage equations, industry/occupation spillovers must account for this result. This negative correlation is driven by cities with heavy industry in which blacks do relatively well and women do relatively poorly; and by larger administrative centers, in which the reverse holds true. Cities with a high proportion of manufacturing jobs may provide good job opportunities for men, regardless of race and ethnicity, but poor opportunities for women. Conversely, a shift in demand toward clerical jobs may increase women's wages but produce greater disparities among men. Other studies suggest that women and minorities may be substitutes in production. Women would then not do so poorly in those cities in which racial discrimination is stronger.

Hispanic and Asian differentials are positively correlated. This result is apparently driven by immigration entry ports, and by selective internal migration to smaller cities. Where black differentials are greatest, other differentials also tend to be higher—significantly so in the case of Asians. However, the absence of a correlation between black and Hispanic differentials undercuts both the simple undifferentiated discrimination story and the common omitted-human-capital or ''culture-of-poverty'' story.

V. Are There Generally Bad Industries?

I find modestly suggestive evidence that industries that treat one group poorly also tend to treat other groups poorly. Industry-specific wage gaps are positively and significantly correlated for Hispanics and Asians, and for blacks and women. If this is discrimination, or if it is omitted skill or preference, it is not undifferentiated across all groups, however. Industries that treat blacks poorly do the same to women, but not to other groups.

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This is one pattern that has changed over time. In 1980, industries that treated one group poorly were more likely to treat all protected groups poorly. The wage gaps for blacks, Hispanics, and Asians were positively correlated with that of women in 1980.

The relative wages of women, blacks, and Native Americans move in tandem with their respective employment shares across industry. Industries with a high proportion of employees in any of these groups also tend to have significantly lower pay disparities for that group. Presumably this reflects differences in the structure of labor demand across industries. Supply differences would be expected to yield the opposite result. If some industries faced a relatively greater supply of women, who were imperfect substitutes for men (as under discrimination), then their relative wages would be expected to fall.

To some extent, industries improved their treatment of protected groups in parallel. Improvements for blacks and for women are positively correlated, as are improvements for Hispanics and Asians, and for Hispanics and Native Americans. Reductions in the wage gap are not, however, correlated with changes in industry demographics. The exceptions are that the gap for blacks widens significantly more in industries with larger increases in Hispanic and Asian employment shares. This may reflect substitution pressure from an increased labor supply in low-level positions. The female gap shrinks less with increases in black employment share, but more with increases in Hispanic share.

VI. The Impact of Federal Policy on Wage Gaps

The second stage of this research asks whether federal antidiscrimination policy (as implemented under Title VII and Executive Order 11246) reduced discrimination, as measured by these wage gaps, during the 1980's.

The effects of legal and regulatory restrictions are difficult to measure for a number of reasons. First, a law that applies to almost all employees offers few control or comparison groups, and the exceptions (at small employers) may differ systematically in ways that bias the comparison. Second, the threat of enforcement may have larger effects than enforcement itself. Third, the worst or most recalcitrant employers may be preferentially targeted for enforcement. These last two factors may mean that comparisons will underestimate the true impact of enforcement. Fourth, labor supply may be elastic across the units observed here (cities and industries), so that shifts in demand induced by government policy may not cause wage gains. Fifth, other contemporaneous changes may offset the impact of policy. For example, the collapse of defense expenditures during the 1980's clearly reduced employment within this largest single group of government contractors. At the same time, state and local government employment increased during the 1980's, which may have affected private-sector wage gaps in ways not controlled for here. Sixth, the wage gap may not capture all relevant dimensions of discrimination. In particular, because it does not control for tenure, successful efforts at increasing minority and female hiring may well appear here as the introduction of a group of low-wage workers to a sector, but this may reflect their low tenure (and a successful policy rather than an unsuccessful policy). Seventh, the administration of Ronald Reagan will not go down in history as a time in which the federal government aggressively fought discrimination (U.S. House Committee on Education and Labor, 1987), and the administration of George Bush, while less strident, marked little improvement.

The measures of government enforcement used here include both threat and direct enforcement measures. Title VII applies only to employers engaged in interstate commerce and so excludes the smallest employers (although in most states these are covered by state fair-employment-practice laws). For each city and industry, I calculate the proportion of employment covered by Title VII as the ratio of EEO-1 reported employment to the total private employment reported in the Census of Population. I also use measures of the proportion of employment in federal-contractor establishments subject to affirmative-action regulation, and the proportion in establishments that have undergone compliance reviews in the last three years. I find no consistent pattern of success in the fight against employment discrimination due

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to the government's efforts, such as they were, during the 1980's.

To claim that all of the differences in employment between white males and others is the result of discrimination that can be corrected by government is to oversell these programs and set them up for failure. While most recognize that discrimination plays a part, few would claim that it is the sole cause of differences in group outcomes. The baseline against which program success should be measured itself changes over time with changes elsewhere in the economy.

Both increasing international trade and rapid technological change have been blamed for increasing earnings inequity. While the causes are not yet entirely clear, some of the consequences for minorities and women are. Demand shifts across industry and occupation have slowed black economic progress (Chinhui Juhn et al., 1991). The overall shifts in demand have benefited women relative to men at low skill levels, but men relative to women at high skill levels (Lawrence Katz and Kevin Murphy, 1992). Blau and Kahn (1993) also find this and offer two possible explanations: (i) an unfavorable twist in labor demand involving higher-level jobs with high female representation, or (ii) a glass ceiling limiting highly skilled women.

Employment has also shifted slightly toward smaller establishments. Employers with fewer than 15 employees are generally not covered by federal antidiscrimination laws, so the shift toward smaller establishments has removed more workers from federal protection. Women and Hispanics tend to be better represented among small employers. Over time, female and minority employment shares have increased more in large enterprises than in small ones. Smith and Finis Welch (1984) interpret this as a result of Title VII, which, they argue, encourages large covered firms to bid minority and female employees away from small uncovered firms.

During the 1980's the gender wage gap narrowed as women's work experience increased. At the same time, the minority wage gap widened, as federal enforcement of affirmative action and antidiscrimination laws and regulations weakened, and as demand shifted adversely with respect to minorities.

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