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The Racial Wage Gap: The Importance of Labor Force Attachment Differences Across Black, Mexican and White Men

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Abstract

Labor market attachment differs significantly across black, Mexican and white men; black and Mexican men are more likely to experience unemployment and out of the labor force spells than are white men. While it has long been agreed that potential experience is a poor proxy of actual experience for women, many view it as an acceptable approximation for men. Using the NLSY, this paper documents the substantial difference between potential and actual experience for both black and Mexican men. We show that the fraction of the black/white and Mexican/white wage gaps that are explained by differences in potential experience are very different than the fraction of the racial wage gaps that are explained by actual (real) experience differences. We further show that the fraction of the racial wage gap explained by education is substantially overstated when potential experience is used instead of actual experience.

Key Words: Discrimination and Wages
JEL Classification: J1 and J3

1. Introduction

It has long been established that black and Mexican men earn substantially lower wages on average than their white counterparts (see for example, Black, Haviland, Sanders and Taylor (2001), Trejo (1997, 1998), Grogger (1996), Neal and Johnson (1996), Card and Krueger (1992), Juhn, Murphy and Pierce (1991), Smith and Welch (1986, 1989), Cotton (1985), Reimers (1983), McManus, Gould and Welch (1983)). There are of course many possible reasons for different average wages across race groups. For example, white men may be more educated than black and Mexican men, or geographic locations, age structures, immigration rates, and occupational concentrations may differ across the three groups. In this paper we explore an alternative possibility – differences in labor force attachment across race groups. If black and Mexican men move in and out of the labor force more than white men then we would expect them to earn lower wages, as they will accumulate less experience and human capital and/or suffer more human capital depreciation.

While past studies have discussed the possible role of labor force attachment and experience, data limitations have prohibited the accurate measurement of actual experience. A proper accounting of lifetime experience requires a panel that follows individuals beginning at labor market entry. Since most studies use census or Current Population Survey (CPS) data, they are forced to use potential experience (age−education−6), which may be a relatively good approximation of true experience for men with high labor force attachment but is a poor proxy for less attached individuals.

There is substantial evidence that unemployment and out of the labor force spells constitute a significant fraction of time for many minority men. For example, D'Amico and Maxwell (1994) find that black youth work substantially less than white youth during the

transition period from school to the labor market. Moore (1992) finds that black workers who are displaced from a job take significantly longer to find new employment than do white workers. For example, 45.7 percent of displaced black male workers took more that a year to find a new job compared to only 24.7 percent of white men in 1986. DeFreitas (1986) similarly finds that minority unemployment rates are higher than white unemployment rates and that the disparity is magnified during recessions. In particular, the Hispanic male unemployment rate exceeds that of white men in booms (recessions) by 2.8 (4.5) percentage points while the black unemployment rate is 8.4 (10.9) percentage points higher in booms (recessions) compared to white men. The boom estimates are from July 1981 and the recession estimates are from November 1982. In addition, Baldwin and Johnson (1996) find that wage discrimination against black men reduced black male employment by approximately 7 percentage points in 1984. Western and Pettit (2000) further point out that the black unemployment rate is understated because incarcerated individuals are excluded. They find that correcting for incarceration rates reduces the employment-population ratio for men aged 20-35 from 83.4 to 81.6 percent for white men and from 66.6 to 58.5 percent for black men in 1996.

Using National Longitudinal Survey of Youth (NLSY) data from 1979-1998 we also find that labor force attachment differs significantly across black, Mexican and white men. For example, the average 30-year old black high school graduate has accumulated 9.7 years of actual labor force experience compared to 11.4 years for the average 30-year old white high school graduate. In contrast, the average Mexican high school graduate is more similar to his white counterpart, at least in terms of accumulated years of actual experience, with 10.5 years of accumulated experience by age 30. Of course, potential experience is 12 years for 30-year old

high school graduates regardless of race. Section 3 fully describes the differences in accumulated potential and actual experience across race groups.

To the extent that potential experience is an inaccurate proxy of actual experience, previous studies may have miscalculated the fraction of the minority/white wage gap attributable to experience versus other observable components such as education. This is particularly concerning for two related reasons. First, potential experience is systematically less accurate for less attached individuals. Since minority groups tend to suffer more unemployment and out of the labor force spells, potential experience may systematically overstate 'experience' for minority workers. Secondly, using potential experience previous studies have found that mean differences in relative youth are an important component of the Mexican/white wage gap but play no role in explaining the black/white wage gap (Trejo, 1997). At the same time, Trejo (1997) finds that, of the variables that have any explanatory power, education is the primary explanation for differences in average black, Mexican and white wages. The question is, do these results hold when actual experience is used in place of potential experience?

The longitudinal nature of the NLSY allows us to measure actual experience by following individuals from the point of labor market entry. With a measure of actual experience in hand we are able to answer the question posed above. The experience coefficients from wage regressions based on potential and actual experience render similar point estimates, particularly for black and Mexican men. For example, our point-estimates for experience (experience squared) using potential experience are 0.057 (-0.002), 0.051 (-0.001) and 0.083 (-0.002) for black, Mexican, and white men, respectively, and 0.057 (-0.002), 0.052 (-0.001) and 0.073

(-0.002) for black, Mexican, and white men, respectively, using actual experience.[1] Differences in average actual experience across race groups, however, lead to markedly different estimates of the fraction of the black/white and Mexican/white wage gaps that are explained by experience. Using potential experience, experience and experience squared explain none of either the black/white or Mexican/white wage gap. At the same time, education explains 21 (48) percent of the black/white (Mexican/white) wage gap. In contrast, using actual experience, experience, experience squared, non-working time and non-working time squared account for 33 (12) percent of the black/white (Mexican/white) gap. Interestingly, once real experience and non-working time are controlled for, the fraction of the wage gap explained by education falls from 21 to 14 percent of the black/white gap and from 48 to 32 percent of the Mexican/white gap. Overall, educational differences continue to explain more of the Mexican/white gap than do labor force attachment differences, but labor force attachment differences explain two times more of the black/white gap than do educational differences. Further, in the absence of real experience, educational differences appear to absorb some of the systematic differences in labor force attachment across race groups that we observe.

The remainder of the paper is as follows. Section 2 describes the data. Section 3 discusses the differences in accumulated potential experience and actual experience across race groups. Section 4 presents the two-stage fixed effects regression and decomposition results. Section 5 concludes.

[1] These results are for the model that measures potential experience as age minus years of education minus six, actual experience from age 16 forward, restricts panel entry to after age 22, includes AFQT and non-working time (for actual experience only). See Section 2 for a description of the variables and sample selection rules, and Tables 3 and 4 for the results based on potential and actual experience, respectively.

2. Data

We use the National Longitudinal Survey of Youth (NLSY), which contains longitudinal data from 1979-98 for a sample of men and women aged 14-22 in 1979. Two features of the NLSY are important for our purposes. First, the NLSY contains information that allows us to construct actual (rather than potential) work experience as well as non-working time (unemployment and time out of the labor market). This may be particularly important when studying minority labor market outcomes, especially for black men. Secondly, the NLSY allows us to identify non-immigrants and separate individuals into racial/ethnic origin groups.

Although the NLSY began in 1979, our panel does not begin until 1982 for two related reasons. First, the sample is limited to respondents who were under the age of 21 in 1979. This restriction is imposed because actual experience is measured as years of employment from the age of 16 forward and the earliest experience report in the NLSY is for 1976 (referring to the previous year). Stated somewhat differently, experience accumulated before age 16 is excluded. Secondly, respondents are not permitted to enter the sample until age 22 to ensure that the sample is not dominated by high school dropouts during adolescence. Section 4 provides extensive sensitivity analysis showing that the results are not sensitive to the sample entry or experience definitions described above.

The 1982-1998 panel is further restricted to non-immigrant black, Mexican and white men who work for pay, are not self-employed,[2] who report an hourly wage between $1 and $100 per hour and for whom we have at least two person-year observations on hourly wages. Hourly wages are calculated as annual wages and salaries divided by annual hours of work and are

[2] Self-employment status and working for pay are defined by current or most recent job. Respondents are excluded from the sample in years that they report being self-employed.

inflated to 1998 dollars.[3] Finally, a respondent is included in the panel only after they have completely finished their education. For example, if an individual was 22 in 1982 and had 12 years of education in 1982 and 1983, but then reported 13 years of education in 1984, and from 1985 onward had 14 years of education; the individual would not enter the panel until 1986. The aforementioned sample restrictions translate into 8070 (1037), 2363 (275) and 14,106 (1909) person-year (person) observations for blacks, Mexicans and whites, respectively.

Two measures of experience are employed in our analysis: potential and actual experience. Potential experience is simply age minus years of education minus 6. Actual experience is measured as weeks worked since the last NLSY interview and is converted into annual experience by dividing total weekly experience by 52. In both cases experience is accumulated over time. Non-working time, unemployment and out of the labor force, is similarly accumulated from the age of 16 forward and is calculated as weeks since last interview minus weeks spent working since last interview.

Individuals are assigned to a racial/ethnic origin group by reports of first, or only, racial/ethnic origin. An individual is considered Mexican if he claims to be Mexican or Mexican American. Similarly, an individual is considered black if he claims to be black. A respondent is considered white if he claims to be English, French, German, Greek, Irish, Italian, Polish, Portuguese, Russian, Scottish, Welsh, or American, and is not black or Mexican.

Place of birth is used to define immigrant status. An individual is considered a non-immigrant if they are American born. Restricting our analysis to non-immigrants reduces the potential influence of English proficiency, for which we have no measure. To control for other

[3] Alternatively, we could use the "key" variable for the hourly rate of pay in the current/most recent job created by the NLSY. However, this variable is problematic at extreme values (see Section 1.35 of the NLSY User's Guide). Further, in a panel it seems more reasonable to have all information corresponding with the past calendar year rather

factors that may affect wages, we also collect a variety of other demographic and geographic variables. These include marital status, number of children, residence in a SMSA, and region of residence.

Table 1 presents descriptive statistics for the main variables discussed above. Not surprisingly, white men earn higher wages than both black and Mexican men. However, the gap is substantially larger between white and black men; the black/white wage gap is 27.5 log points while the Mexican/white wage gap is 15.1 log points. Further, white men also have more years of schooling than black and Mexican men. The average white man has 12.9 years of education, while the average black man has 12.3 years of education and the average Mexican man has 12.0 years of education. Finally, black men are substantially less likely to be married than white and Mexican men, and the average Mexican man has more kids than the average black or white man.

Looking at experience, potential and actual experience are identical for white men. In particular, the average white man has 9.8 years of accumulated potential and actual experience. In contrast, the average black man has accumulated 10.5 years of potential experience but only 8.6 years of actual experience. Mexican men lie between the black and white extremes; the average Mexican man has accumulated 10.9 years of potential experience and 9.6 years of actual experience. The differences in accumulated potential and actual experience across racial groups are discussed in greater detail in the next section.

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than since last interview. For instance, some individuals have an hourly rate of pay but did not work during the past

3. Differences in Accumulated Potential and Actual Experience Across Race Groups

Panel A of Figure 1 graphs the mean difference between accumulated potential and actual experience for black, Mexican and white men, by age. This figure highlights the divergence between potential and actual experience for minority men. While accumulated potential and actual experience are fairly similar for whites, the average difference between accumulated potential experience and accumulated actual experience grows with age for black and Mexican men. By age 30, accumulated potential and actual experience differ by 2 years for black men and slightly more than 1 year for Mexican men. In contrast, the average difference between accumulated potential and actual experience hovers around 0 at every age for white men.

The lack of correspondence between potential and actual experience for minority men is not surprising given the systematic inaccuracy of potential experience for individuals who are less attached to the labor market. Panel B of Figure 1 clearly makes this point. At every age, black and Mexican men have accumulated more non-working time than have white men. Further, the average rate at which non-working time is accumulated is faster for minority men; this is particularly true for black men.

Taken together, the differences in accumulated experience and non-working time imply very different labor market attachment rates for black, Mexican and white men. White men are the most attached to the labor market; actual experience (non-working time) is accumulated at a faster (slower) rate for white men relative to minority men. In contrast, black men are the least attached to the labor market. Black men accumulate actual experience at a much slower rate and are more likely to experience non-working spells relative to white men. Again, Mexican men fall between the white and black extremes. The importance of properly accounting for

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calendar year. Having said this, the results are similar when hourly rate of pay is used (see Section 4).

differences in labor force attachment across racial groups is the focus of the remainder of the paper.

4. Two-Stage Fixed Effects Analysis of the Racial Wage Gap

To the best of our knowledge all existing studies of the racial wage gap among men use cross-sectional analysis.[4] In such a framework it is possible that time-invariant unobservable person-specific factors that systematically differ across racial lines may bias the estimates of the components of the racial wage gap. For example, preferences for work, or motivation may differ across races in ways that are difficult to measure directly. Stated somewhat differently, the decision to participate in the labor market is nonrandom and may differ across racial groups.

We address this issue using the two-stage fixed effects panel model proposed by Polachek and Kim (1994). This approach has the advantage of separating individual-specific characteristics that are constant over time from other factors that affect earnings. Following a given individual purges the estimates of time-invariant unobservable person-specific factors.

More concretely, we specify a log hourly wage regression of the following form:

$$w_{it}^{r} = X_{it}^{r}\beta^{r} + Z_{i}^{r}\gamma^{r} + \alpha_{i}^{r} + \varepsilon_{it}^{r} \qquad (1)$$

where w is the log hourly wage, r denotes race ($r = b,\ m,$ or w), i denotes individuals, t denotes time, X denotes time-varying characteristics (experience, marital status, number of children, region of residence, and SMSA), Z denotes time-invariant characteristics (education), α are

[4] Examples include, Black, Haviland, Sanders and Taylor (2001), Pendakur and Pendakur (2001), Heckman, Lyons and Todd (2000), Trejo (1997, 1998), Rodgers (1997), Neal and Johnson (1996), Cotton (1985), McManus, Gould and Welch (1983) and Reimers (1983). Bratsberg and Terrell (1998) and Wolpin (1992) are exceptions to this rule. However, these papers focus on the differential return to job tenure and general experience across black and white men. There is also a paper by Antecol and Bedard (2001) that examines minority/majority wage gaps for women in a panel framework.

unobservable individual fixed effects, and ε represents the usual residual, that is, it is mean zero, uncorrelated with itself, X, Z and α, and homoskedastic.

We estimate equation (1) using a fixed effect model (within estimator). The fixed effect model transforms equation (1) into its mean deviation form, that is, we subtract each individual's mean variable values from each observation. Although this transformation eliminates the unobserved individual fixed effects, it also eliminates all time-invariant factors making a second-stage analysis of residuals necessary to obtain estimates of the time invariant coefficients.

In particular, we obtain consistent estimates of β using OLS from the following first stage regression,

$$(w_{it}^r - \widetilde{w}_i^r) = (X_{it}^r - \widetilde{X}_i^r)\beta^r + (\varepsilon_{it}^r - \widetilde{\varepsilon}_i^r) \tag{2}$$

where tildas denote averages over *t*. The race-specific average fixed effects are given by $(1/n^r)\sum_{i=1}^{n^r}\hat{\alpha}_i^r = \overline{w^r} - \overline{X^r}\hat{\beta}^r$, where bars denote averages over *i* and *t* for time-varying variables and over *i* for time-invariant variables. To identify γ we substitute $\hat{\beta}^r$ from the first stage into the individual-specific averaged version of equation (1). In other words, equation (1) averaged for each individual over time to obtain

$$\widetilde{w}_i^r - \widetilde{X}_i^r\hat{\beta}^r = Z_i^r\gamma^r + \widetilde{X}_i^r(\beta^r - \hat{\beta}^r) + \alpha_i^r + \varepsilon_i^r = Z_i^r\gamma^r + \nu_i^r \tag{3}$$

where $\nu_i^r = \widetilde{X}_i^r(\beta^r - \hat{\beta}^r) + \alpha_i^r + \varepsilon_i^r$. Making the usual assumption that ν is uncorrelated with Z, equation (3) can be estimated using OLS. Z includes education and a constant.

Two-stage estimation makes decomposing the wage-gap between races somewhat more complicated. The race specific mean wage is $\overline{w^r} = (1/n^r)\sum_{i=1}^{n^r}\hat{\alpha}_i^r + \overline{X^r}\hat{\beta}^r$. Removing education

from the fixed-effects, $\hat{\hat{\alpha}}^r = (1/n^r)\sum_{i=1}^{n_r}\hat{\alpha}_i^r - \overline{Z}^r\hat{\gamma}^r$, allows us to write average wages as $\overline{w^r} = \hat{\hat{\alpha}}^r + \overline{X^r}\hat{\beta}^r + \overline{Z}^r\hat{\gamma}^r$. The Oaxaca (1973) decomposition for the white/minority (w/m) earnings gap is then given by:

$$\overline{w^w} - \overline{w^m} = (\overline{X^w} - \overline{X^m})\hat{\beta}^w + \overline{X^m}(\hat{\beta}^w - \hat{\beta}^m) + (\overline{Z^w} - \overline{Z^m})\hat{\gamma}^w + \overline{Z^m}(\hat{\gamma}^w - \hat{\gamma}^m) + (\hat{\hat{\alpha}}^w - \hat{\hat{\alpha}}^m). \quad (4)$$

Panel A of Table 2 reports the coefficient estimates for equations (2) and (3) and Panel B reports the decomposition results for equation (4). There are several noteworthy results in Panel A of Table 2. White men enjoy a larger return to actual experience than their black or Mexican counterparts. In particular, the coefficient estimates for actual experience (experience squared) for white men are 0.067 (-0.002) while for black and Mexican men they are 0.056 (-0.002) and 0.052 (-0.001). Furthermore, the return to experience is similar when potential experience is used compared to actual experience, particularly for minority groups. The coefficient estimates for potential experience (experience squared) are 0.060 (-0.002), 0.049 (-0.001) and 0.082 (-0.002) for black, Mexican and white men. Conversely, the return to education is 2.9, 2.5 and 3.7 percentage points higher when potential experience is used compared to actual experience for black, Mexican and white men. The estimated impact of marital status is positive and significant for all racial groups and the coefficients are of similar magnitude regardless of the experience measured used. Finally, children have no effect on log hourly wages for any race group.[5]

The decomposition results are reported in Panel B of Table 2. The first row reports the total log wage differential. The second block reports the proportion of the wage differential attributable to differences in average socioeconomic characteristics. Finally, the third block

[5] There is one exception. There is a statistically significant and negative relationship between number of children and wages for Mexican men when potential experience is used.

reports the proportion of the wage differential attributable to differences in the returns to socioeconomic characteristics.[6,7]

Using potential experience, differences in educational attainment explain 28 percent of the black/white gap and 63 percent of the Mexican/white gap, but differences in potential experience explain none of either wage gap. When actual experience is used, experience (education) differences explain 16 (19) percent of the black/white wage gap and 3 (42) percent of the Mexican/white gap.[8] Including actual experience greatly reduces the fraction of the wage gap explained by educational differences. This suggests that in the absence of an actual experience measure education absorbs some of the variation in actual experience, which is positively correlated with educational attainment.

While the fixed effects absorb the time-invariant differences in ability, one might like to quantify the fraction of the wage gap that is explained by it. Table 3 adds Armed Forces Qualifying Test (AFQT) scores to the list of time-invariant regressors (Z) in the two-stage fixed effects model. The AFQT score is one of the most widely used measures of ability. This exam tests students on word knowledge, paragraph comprehension, arithmetic and numeric operations.

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[6] As discussed in Section 2, we could have used the hourly rate of pay variable constructed by the NLSY. For the reasons discussed in footnote 3 we chose not to do this. However, the decomposition results are similar if the NLSY hourly rate of pay variable is used instead of our hourly wage measure. For the sake of completeness, Appendix Table 1 replicates Table 2 using log hourly rate of pay as the dependent variable.

[7] The model could also have been estimated using either a between effects model which transforms equation (1) into its mean form, or a random effects model which is a linear combination of the fixed effects model (within estimator) and the between effects model. However, the fixed effects model, which is consistent but inefficient, dominates the use of either of these models for the following reasons. The between effects model does not account for time-invariant individual effects and may therefore lead to biased estimates of the components of the racial wage gap. While the random effects model does incorporate time-invariant individual effects, the coefficient estimates are only consistent if the individual effects are independent of the error and if the time varying characteristics (X_{it}) are independent of the individual effects and the error term for all i and t. Using a Hausman (1978) test we reject the null hypothesis of no correlation between individual effects and X_{it}'s for all race groups. The fixed effects estimates are therefore consistent while random effects estimates are not. That being said, the results are similar using all three models. For completeness, Appendix Table 2 replicates Table 2 using both between effects and random effects instead of fixed effects.

Given the interaction between ability and school quality, it is of course possible that AFQT scores are measuring a combination of the two. It is also important to point out that the AFQT scores used in this paper are demeaned by age because the respondents ranged in age from 15-23 when they all took the test in 1980. In other words, the demeaned AFQT score is calculated as the respondent's AFQT score minus the average AFQT score of individuals in the respondent's age group in the base year.

Comparing Panel A of Tables 2 and 3, the returns to both potential and actual experience (experience squared) are very similar whether or not AFQT scores are included. In contrast, the returns to education are reduced when AFQT scores are included. For example, the point estimates for education, when actual experience is used and AFQT scores are excluded, are 0.09, 0.07 and 0.08 for black, Mexican and white men. In comparison, when actual experience is used and AFQT scores are included the point estimates for education are 0.07, 0.05 and 0.05 for black, Mexican and white men. Finally, for all race groups, regardless of which experience definition is used, AFQT scores have a positive and significant effect on log hourly wages, although the magnitude of the AFQT coefficient is slightly smaller for Mexican men (0.003) relative to white and black men (0.004).

Despite the similarity in the AFQT point estimates, there are substantial differences in average AFQT scores (demeaned by age) across race groups. The average AFQT scores are -19.4, -10.1 and 10.6 for black, Mexican and white men. This means that the average black man and the average Mexican man score below their age group average while the average white man scores above their age group average. Thus, relative to white men, black and Mexican men perform substantially worse on the AFQT test, although the difference is more acute for blacks.

[8] The fraction of the total wage gap explained by experience and education are very similar if minority weights are

Comparing Panel B of Tables 2 and 3, it can be seen that the inclusion of AFQT scores reduces the fraction of the gap explained by differences in educational attainment from 19 to 13 percent for the black/white gap and from 42 to 29 percent for the Mexican/white gap when actual experience is used. In contrast, the fraction of the gap explained by actual experience remains approximately constant. It is also interesting to note that AFQT scores account for 41 and 54 percent of the black/white and Mexican/white wage gaps, respectively, making AFQT score differences the largest explanatory component of the racial wage gap.

Table 4 expands the time-varying regressors (X) of Table 3 to include non-working time (unemployment and out of the labor force spells). The potential experience columns are omitted from Table 4 because there is no 'potential' equivalent for non-working time and hence the relevant comparison is the potential experience columns in Table 3. Adding non-working time allows for the possibility that human capital appreciates and depreciates at different rates. Non-working time and non-working time squared are jointly statistically significant in the Mexican and white regressions at the 5 percent level, but insignificant in the black regression. However, experience, experience squared, non-working time and non-working time squared are jointly statistically significant at the 1 percent level for all race groups. Interestingly, it is white men who face the largest penalty for non-employment. In particular, the point estimates for non-working time (non-working time squared) are -0.014 (0.000), -0.021 (0.004) and -0.030 (-0.001) for black, Mexican and white men. The large non-working time penalty faced by white men may exist because they are more likely to work in high skilled fields where both career advancement and skill depreciation are relatively fast. As a result, white men returning to work after an

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used instead of white weights. In an attempt to avoid overwhelmingly cluttered tables, these results are therefore not reported. However, all results are available from the authors upon request.

absence from the labor market may suffer greater skill losses and missed promotion opportunities compared to their black and Mexican counterparts.

In addition to the differences in the returns to non-working time, there exist large mean differences in non-working time across race groups (see Table 1). In particular, the average black man has accumulated 4.6 years of non-working time compared to 3.3 years for the average white man. In contrast, the average Mexican man is more similar to his white counterpart, at least in terms of accumulated years of non-working time, with 3.6 years of accumulated non-working time.

Panel B of Table 4 reveals that adding non-working time to the list of time-varying regressors has little impact on the fraction of the wage gap explained by experience, education and AFQT scores (see Panel B of Table 3 for comparative purposes). At the same time, racial differences in non-working time explains 16 percent of the black/white gap and 9 percent of the Mexican/white gap. Overall, differences in experience, non-working time, education and AFQT scores account for 83 percent of the black/white wage gap and 92 percent of the Mexican/white wage gap. In contrast, Trejo (1997) finds that potential experience, education and English proficiency differences explain 84 percent of the Mexican/white wage gap but only 30 percent of the black/white wage gap.

As a final check that the results are not driven by the sample entry restrictions or the experience definitions, we replicate Tables 2-4 defining actual experience in two ways: as years of employment from age 15 onward and from age 18 onward. In other words, these two new specifications exclude experience that is accumulated before age 15 and before age 18, respectively. In addition, we also replicate the analysis restricting entry into the panel until after age 24 under all three experience accruing definitions. These sample entry rules alter the length

of the panel: the panel runs from 1983-1998 (1985-1998) and includes respondents aged 14-19 in the base year when experience is accumulated from age 15 onwards and sample entry is restricted to those over the age of 22 (24); the panel runs from 1982-1998 (1984-1998) and includes respondents aged 14-20 in the base year when experience accumulates from age 16 onwards and sample entry is restricted to those over the age of 22 (24); and the panel runs from 1980-1998 (1982-1998) and includes respondents aged 14-22 in the base year when experience accumulates from age 18 onwards and sample entry is restricted to those over the age 22 (24). Finally, we also replicate the potential experience model based on the above age restrictions as well as reformulating potential experience to conform with the actual experience definitions. In other words, potential experience is replaced by age minus 15, 16 and 18 for respondents who drop out of high school before grades 10, 11 and 12 under the experience accruing from greater than the ages 15, 16 and 18 rules, respectively. For the remainder of the discussion we refer to the adjusted potential experience measure as the restricted potential experience measure and the unadjusted potential experience as the standard potential experience measure.

Table 5 presents summary statistics for experience under the different experience and sample entry definitions. Not surprisingly, regardless of the experience and the sample entry definitions used, the standard potential experience measure overestimates accumulated actual experience for minority groups, and is a particularly bad proxy for black men. Furthermore, the restricted potential experience measure is similar in magnitude to the standard potential experience measure under all specifications, except when experience accumulates from age 18. In this case, the restricted potential experience measure falls approximately halfway between the standard potential experience measure and actual experience for white and Mexican men. This makes sense since the age restriction binds potential experience for a larger proportion of the

sample. Finally, relative to white men, Mexican and black men have lower levels of actual accumulated experience regardless of the sample entry or experience definition used, although the experience gap is larger for black men.

Table 6a reports the results using the standard potential experience definition both excluding and including AFQT scores. The estimates differ across experience accruing rules due to sample size differences only; potential experience is calculated as age minus education minus 6 and is therefore unaffected by experience accruing rules. The returns to experience and education are similar under all specifications for all race groups. The decomposition results are also similar under all specifications; experience explains none of the wage gap for either black or Mexican men while education differences account for approximately 25 percent of the black/white gap and about half of the Mexican/white gap.

Table 6b presents the results for the restricted potential experience definitions both excluding and including AFQT scores. Again, regardless of the experience accruing rule, the age at entry into the panel restriction or the inclusion of AFQT scores, the regression and decomposition results are broadly similar to those obtained from the standard potential experience definition. Thus, the differences across results based on the standard potential experience measure and those based on actual experience are not driven by the experience accruing rule utilized for actual experience.

Table 6c reports the results for actual experience excluding and including AFQT. The results allowing experience to accrue from age 15 are nearly identical to those allowing experience to accrue from age 16. In general, the coefficient estimates are slightly larger for experience and smaller for education when experience is only allowed to accrue from age 18

instead of from age 16. However, the fraction of the wage gap explained by experience and education are similar under both experience accruing rules.

Table 6d reports the results for actual experience when non-working time and AFQT are included. While the fraction of the wage gap explained by experience and non-working time differences are fairly similar across all experience accruing and sample entry rules, the fraction explained by educational differences is slightly higher when sample entry is restricted to age 24. As a result, the fraction of the gap explained by education, experience and non-working time differences taken together is approximately 10 percentage points higher when sample entry is restricted to age 24.

5. Conclusion

Using the NLSY, we find a black/white wage gap of 28 percent and a Mexican/white wage gap of 15 percent. However, almost all of the differences in mean wages observed across race groups can be explained by observable factors. In particular, the substantial differences in average (actual) experience and non-working time across race groups explain 33 percent of the black/white wage gap and 12 percent of the Mexican/white wage gap. At the same time, differences in educational attainment and ability (measured by AFQT scores) account for 50 of the black/white wage gap and 79 percent of the Mexican/white wage gap.

The second important finding in this paper is the reduced role of education in explaining the wage gap once actual labor market attachment differences are included. Moving from potential experience to a specification that includes both actual experience and non-working time reduces the fraction of the wage gap explained by educational differences by one-third. In

particular, the fraction of the gap explained by education is reduced from approximately 21 to 14 percent for the black/white gap and 48 to 32 percent for the Mexican/white gap.

Overall, these results suggest that the black wage assimilation requires greater labor force attachment and casts doubt on the notion that educational improvements, at least in terms of school quantity,[9] will level the playing field. In contrast, U.S. born Mexican men continue to suffer from low levels of education, although the fraction of the wage gap explained by schooling may be substantially lower than previously believed.

[9] A number of recent studies examine the impact of school quality on the black/white wage differential (see for example, Grogger (1996), Maxwell (1994) and Card and Krueger (1992)). The results are somewhat mixed. Card and Krueger (1992) find that improvements in black school quality explain approximately 15-20 percent of black wage growth during the 1960s and 1970s. Maxwell (1994) finds that she can explain approximately 66 percent of the black-white wage gap in the 1980s, although her school quality measure could also be interpreted as family background or ability. Finally, Grogger (1996) finds little evidence that measurable school inputs affect wages and hence finds little room for school quality to explain recent black-white wage trends.

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Figure 1. Potential – Real Experience and Non-Working Time by Age and Race

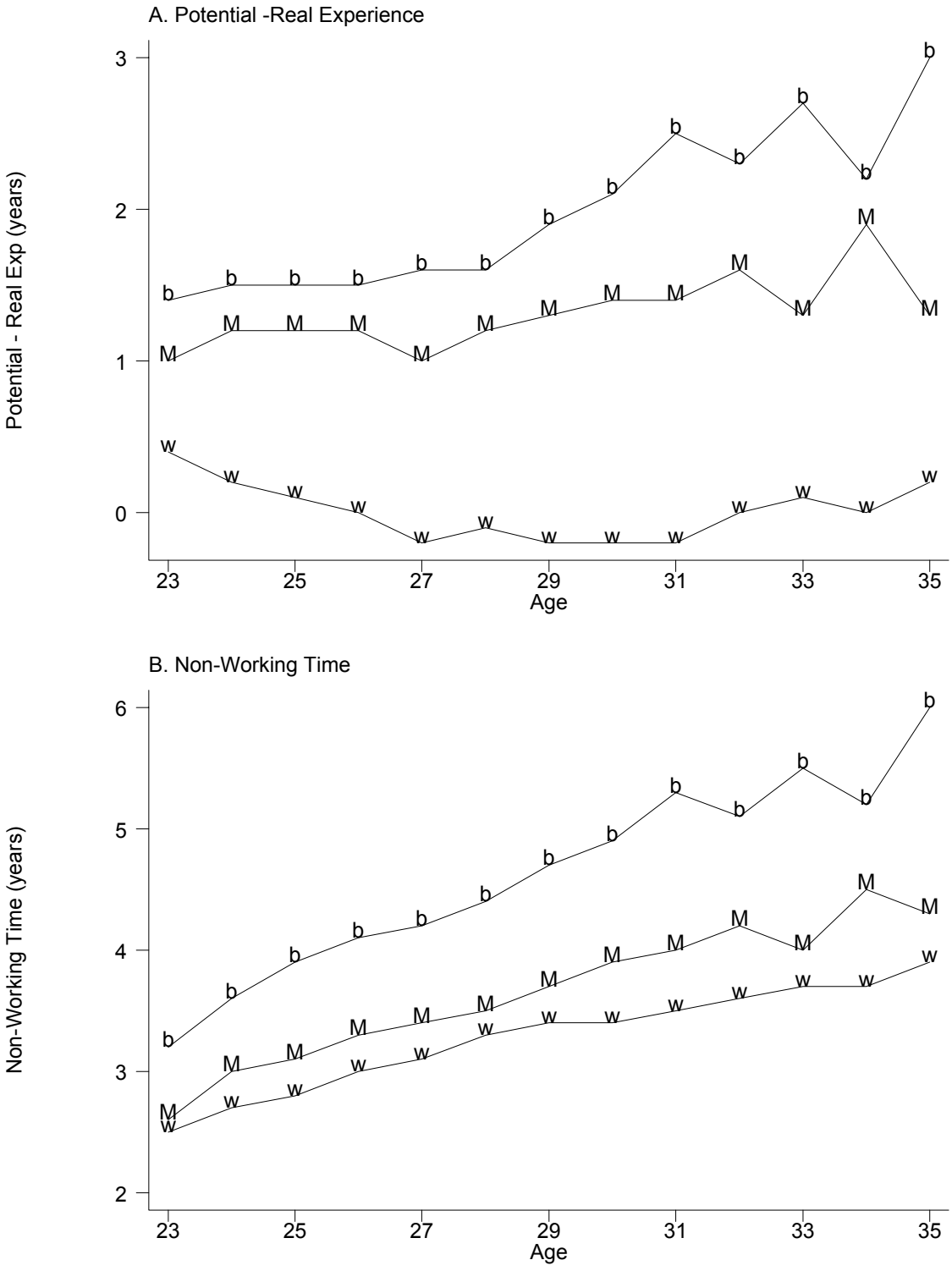

Table 1. Sample Means (1982-1998 Panel)

	Black	Mexican	White
Log Hourly Wage	2.2077	2.3316	2.4830
	(0.6328)	(0.5943)	(0.5837)
Potential Experience	10.5481	10.9348	9.7916
	(4.2051)	(4.2216)	(4.3089)
Actual Experience	8.5995	9.6083	9.7688
	(4.0799)	(4.1504)	(4.2019)
Non-Working Time	4.5796	3.6462	3.2532
	(2.6009)	(2.3077)	(2.2198)
Years of Education	12.3112	12.0110	12.9143
	(2.0273)	(2.0217)	(2.4415)
Married	0.3379	0.5353	0.5613
	(0.4730)	(0.4989)	(0.4962)
Number of Children	1.2068	1.3322	0.8809
	(1.2721)	(1.3584)	(1.0655)
Person-Year Observations	8070	2363	14106
Person Observations	1037	275	1909

Averaged over i and t. All experience and non-working time variables are reported in years. Standard deviations in parentheses.

Table 2. Two-Stage Fixed Effects Regressions and Decompositions (Dependent Variable: Log Hourly Wage)

	Potential Experience			Actual Experience		
	Black	**Mexican**	**White**	**Black**	**Mexican**	**White**
Panel A - Two-Stage Fixed Effects Regression Results						
Experience	**0.0600**	**0.0488**	**0.0817**	**0.0562**	**0.0520**	**0.0666**
	(0.0062)	(0.0102)	(0.0034)	(0.0061)	(0.0098)	(0.0038)
Experience^2	**-0.0017**	**-0.0011**	**-0.0023**	**-0.0016**	**-0.0013**	**-0.0015**
	(0.0003)	(0.0004)	(0.0001)	(0.0003)	(0.0004)	(0.0002)
Education	**0.1150**	**0.0966**	**0.1124**	**0.0862**	**0.0715**	**0.0757**
	(0.0059)	(0.0121)	(0.0037)	(0.0057)	(0.0114)	(0.0036)
Married	**0.0551**	**0.0757**	**0.0655**	**0.0552**	**0.0801**	**0.0784**
	(0.0173)	(0.0273)	(0.0100)	(0.0173)	(0.0270)	(0.0099)
Number of Children	0.0150	**-0.0271**	-0.0017	0.0074	-0.0208	0.0012
	(0.0110)	(0.0161)	(0.0066)	(0.0111)	(0.0159)	(0.0067)
Person-Year Observations	8070	2363	14106	8070	2363	14106
P-Value for the Joint Significance of Experience	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Panel B - Decomposition Results (relative to white - white weights)						
Total Log Wage Differential	0.2753	0.1514		0.2753	0.1514	
Attributable to Differences in Characteristics						
Experience	-0.0283	-0.0404		0.0432	0.0052	
Education	0.0773	0.0948		0.0520	0.0638	
Married	0.0146	0.0017		0.0175	0.0020	
Children	0.0006	0.0008		-0.0004	-0.0005	
Other	-0.0080	-0.0249		-0.0070	-0.0254	
Total	0.0562	0.0320		0.1053	0.0452	
Attributable to Differences in Coefficients						
Experience	0.1485	0.1888		0.0908	0.1191	
Education	-0.0320	0.1915		-0.1290	0.0505	
Married	0.0035	-0.0055		0.0078	-0.0009	
Children	-0.0201	0.0339		-0.0076	0.0292	
Fixed Effects	0.1135	-0.3046		0.2040	-0.0952	
Other	0.0057	0.0153		0.0039	0.0035	
Total	0.2191	0.1194		0.1700	0.1062	

Absolute value of heteroskedastic consistent standard errors in parentheses. All regressions also include region of residence and SMSA. Bold coefficients are statistically significant at the 10% level or better.

Table 3. Two-Stage Fixed Effects Regressions and Decompositions (Dependent Variable: Log Hourly Wage)

	Potential Experience			Actual Experience		
	Black	**Mexican**	**White**	**Black**	**Mexican**	**White**
Panel A - Two-Stage Fixed Effects Regression Results						
Experience	**0.0568**	**0.0513**	**0.0828**	0.0531	**0.0580**	**0.0661**
	(0.0063)	(0.0103)	(0.0034)	(0.0062)	(0.0100)	(0.0038)
Experience^2	**-0.0015**	**-0.0011**	**-0.0024**	**-0.0014**	**-0.0015**	**-0.0015**
	(0.0003)	(0.0004)	(0.0001)	(0.0003)	(0.0004)	(0.0002)
Education	**0.0944**	**0.0705**	**0.0820**	**0.0654**	**0.0493**	**0.0486**
	(0.0071)	(0.0157)	(0.0052)	(0.0069)	(0.0149)	(0.0050)
AFQT	**0.0040**	**0.0036**	**0.0044**	**0.0040**	**0.0027**	**0.0039**
	(0.0007)	(0.0015)	(0.0005)	(0.0007)	(0.0015)	(0.0005)
Married	**0.0628**	**0.0694**	**0.0648**	**0.0620**	**0.0726**	**0.0791**
	(0.0175)	(0.0279)	(0.0102)	(0.0175)	(0.0276)	(0.0101)
Number of Children	0.0075	**-0.0310**	-0.0025	0.0003	-0.0248	0.0001
	(0.0114)	(0.0163)	(0.0068)	(0.0114)	(0.0161)	(0.0068)
Person-Year Observations	7772	2258	13503	7772	2258	13503
P-Value for the Joint Significance of Experience	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Panel B - Decomposition Results (relative to white - white weights)						
Total Log Wage Differential	0.2818	0.1456		0.2818	0.1456	
Attributable to Differences in Characteristics						
Experience	-0.0290	-0.0413		0.0439	0.0051	
Education	0.0599	0.0705		0.0354	0.0417	
AFQT	0.1324	0.0891		0.1166	0.0785	
Married	0.0144	0.0016		0.0176	0.0020	
Children	0.0008	0.0011		0.0000	-0.0001	
Other	-0.0081	-0.0254		-0.0072	-0.0259	
Total	0.1703	0.0957		0.2063	0.1013	
Attributable to Differences in Coefficients						
Experience	0.1689	0.1719		0.1005	0.0820	
Education	-0.1524	0.1400		-0.2064	-0.0085	
AFQT	-0.0083	-0.0080		0.0022	-0.0115	
Married	0.0007	-0.0024		0.0058	0.0035	
Children	-0.0119	0.0380		-0.0002	0.0332	
Fixed Effects	0.1077	-0.3109		0.1677	-0.0632	
Other	0.0068	0.0212		0.0058	0.0088	
Total	0.1115	0.0498		0.0755	0.0442	

Absolute value of heteroskedastic consistent standard errors in parentheses. All regressions also include region of residence and SMSA. Bold coefficients are statistically significant at the 10% level or better.

Table 4. Two-Stage Fixed Effects Regressions and Decompositions (Dependent Variable: Log Hourly Wage)

	Actual Experience		
	Black	**Mexican**	**White**
Panel A - Two-Stage Fixed Effects Regression Results			
Experience	**0.0573**	**0.0517**	**0.0734**
	(0.0066)	(0.0107)	(0.0041)
Experience^2	**-0.0015**	**-0.0013**	**-0.0017**
	(0.0003)	(0.0005)	(0.0002)
Non-Working Time	-0.0143	-0.0208	**-0.0301**
	(0.0190)	(0.0330)	(0.0164)
Non-Working Time^2	0.0001	0.0035	-0.0005
	(0.0012)	(0.0022)	(0.0012)
Education	**0.0644**	**0.0467**	**0.0546**
	(0.0068)	(0.0152)	(0.0051)
AFQT	**0.0040**	**0.0031**	**0.0034**
	(0.0007)	(0.0015)	(0.0005)
Married	**0.0601**	**0.0723**	**0.0742**
	(0.0175)	(0.0277)	(0.0102)
Number of Children	0.0018	**-0.0300**	0.0007
	(0.0115)	(0.0164)	(0.0068)
Person-Year Observations	7772	2258	13503
P-Value for the Joint Significance of Experience	0.0000	0.0000	0.0000
P-Value for the Joint Significance of OLF	0.2013	0.0482	0.0000
Panel B - Decomposition Results (relative to white - white weights)			
Total Log Wage Differential	0.2818	0.1456	
Attributable to Differences in Characteristics			
Experience	0.0469	0.0054	
Non-Working Time	0.0452	0.0127	
Education	0.0398	0.0469	
AFQT	0.1023	0.0688	
Married	0.0165	0.0019	
Children	-0.0002	-0.0003	
Other	-0.0072	-0.0244	
Total	0.2433	0.1110	
Attributable to Differences in Coefficients			
Experience	0.1179	0.1540	
Non-Working Time	-0.0878	-0.1078	
Education	-0.1204	0.0952	
AFQT	0.0119	-0.0033	
Married	0.0048	0.0010	
Children	-0.0013	0.0409	
Fixed Effects	0.1042	-0.1622	
Other	0.0092	0.0166	
Total	0.0385	0.0345	

Absolute value of heteroskedastic consistent standard errors in parentheses. All regressions also include region of residence and SMSA. Bold coefficients are statistically significant at the 10% level or better.

Table 5. Summary Statistics for Experience Under Various Experience Accruing and Sample Rules

	Sample Entry > 22			Sample Entry > 24		
	B	**M**	**W**	**B**	**M**	**W**
Experience>15						
Standard Potential Experience	10.3777	10.7524	9.5994	11.2603	11.6213	10.4816
	(4.0886)	(4.1255)	(4.1895)	(3.7885)	(3.8264)	(3.9756)
Restricted Potential Experience	10.3447	10.6860	9.5586	11.2297	11.5568	10.4467
	(4.0627)	(4.0681)	(4.1538)	(3.7609)	(3.7624)	(3.9394)
Actual Experience	8.5920	9.6699	9.8202	9.3864	10.5249	10.7660
	(3.9675)	(4.0800)	(4.0639)	(3.7580)	(3.8035)	(3.7630)
Person Year Observations	6823	2003	11671	5733	1690	9603
Experience>16						
Standard Potential Experience	10.5481	10.9348	9.7916	11.4337	11.8166	10.6973
	(4.2051)	(4.2216)	(4.3089)	(3.9015)	(3.8975)	(4.0941)
Restricted Potential Experience	10.4421	10.7867	9.6933	11.3328	11.6745	10.6100
	(4.1359)	(4.1329)	(4.2448)	(3.8254)	(3.7967)	(4.0253)
Actual Experience	8.5995	9.6083	9.7688	9.4069	10.4603	10.7611
	(4.0799)	(4.1504)	(4.2019)	(3.8678)	(3.8696)	(3.8745)
Person Year Observations	8070	2363	14106	6814	2006	11640
Experience>18						
Standard Potential Experience	10.8428	11.1313	10.0014	11.7365	12.0219	10.9206
	(4.4025)	(4.4015)	(4.4964)	(4.0937)	(4.0801)	(4.2859)
Restricted Potential Experience	10.3435	10.4343	9.6111	11.2541	11.3470	10.5621
	(4.2426)	(4.1887)	(4.3481)	(3.9064)	(3.8220)	(4.1075)
Actual Experience	8.2583	9.1658	9.1484	9.0653	10.0164	10.1522
	(4.1938)	(4.1931)	(4.3282)	(3.9847)	(3.9164)	(4.0104)
Person Year Observations	9684	2726	17376	8244	2326	14433

Standard deviations in parentheses. All experience measures are reported in years.

Table 6a. Two-Stage Fixed Effects Regressions and Decompositions based on Standard Potential Experience
(Dependent Variable: Log Hourly Wage)

	Base Model						Including AFQT					
	Sample Entry > 22			Sample Entry > 24			Sample Entry > 22			Sample Entry > 24		
	B	**M**	**W**	**B**	**M**	**W**	**B**	**M**	**W**	**B**	**M**	**W**
Experience>15												
Regression:												
Experience	**0.063**	**0.036**	**0.084**	**0.050**	**0.049**	**0.071**	**0.061**	**0.039**	**0.085**	**0.048**	**0.053**	**0.071**
	(0.007)	(0.011)	(0.004)	(0.009)	(0.014)	(0.005)	(0.007)	(0.011)	(0.004)	(0.009)	(0.014)	(0.005)
Experience^2	**-0.002**	**-0.001**	**-0.003**	**-0.001**	**-0.001**	**-0.002**	**-0.002**	**-0.001**	**-0.003**	**-0.001**	**-0.001**	**-0.002**
	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)
Education	**0.113**	**0.092**	**0.114**	**0.107**	**0.095**	**0.111**	**0.093**	**0.071**	**0.084**	**0.086**	**0.077**	**0.081**
	(0.006)	(0.012)	(0.004)	(0.007)	(0.013)	(0.004)	(0.008)	(0.016)	(0.006)	(0.008)	(0.017)	(0.006)
Decomposition:												
Wage Gap	0.275	0.155		0.288	0.188		0.281	0.149		0.294	0.180	
Experience	-0.029	-0.039		-0.024	-0.033		-0.030	-0.040		-0.026	-0.034	
Education	0.076	0.096		0.083	0.105		0.060	0.072		0.064	0.077	
Experience>16												
Regression:												
Experience	**0.060**	**0.049**	**0.082**	**0.053**	**0.061**	**0.071**	**0.057**	**0.051**	**0.083**	**0.048**	**0.064**	**0.073**
	(0.006)	(0.010)	(0.003)	(0.008)	(0.013)	(0.004)	(0.006)	(0.010)	(0.003)	(0.008)	(0.013)	(0.004)
Experience^2	**-0.002**	**-0.001**	**-0.002**	**-0.002**	**-0.001**	**-0.002**	**-0.002**	**-0.001**	**-0.002**	**-0.001**	**-0.002**	**-0.002**
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Education	**0.115**	**0.097**	**0.112**	**0.110**	**0.099**	**0.111**	**0.094**	**0.071**	**0.082**	**0.090**	**0.078**	**0.080**
	(0.006)	(0.012)	(0.004)	(0.006)	(0.012)	(0.004)	(0.007)	(0.016)	(0.005)	(0.008)	(0.016)	(0.006)
Decomposition:												
Wage Gap	0.275	0.151		0.288	0.182		0.282	0.146		0.296	0.174	
Experience	-0.028	-0.040		-0.024	-0.035		-0.029	-0.041		-0.025	-0.036	
Education	0.077	0.095		0.087	0.107		0.060	0.070		0.067	0.079	
Experience>18												
Regression:												
Experience	**0.060**	**0.054**	**0.080**	**0.056**	**0.057**	**0.073**	**0.058**	**0.056**	**0.082**	**0.053**	**0.060**	**0.075**
	(0.005)	(0.009)	(0.003)	(0.007)	(0.011)	(0.004)	(0.005)	(0.009)	(0.003)	(0.007)	(0.011)	(0.004)
Experience^2	**-0.002**	**-0.001**	**-0.002**	**-0.002**	**-0.001**	**-0.002**	**-0.002**	**-0.001**	**-0.002**	**-0.001**	**-0.001**	**-0.002**
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Education	**0.114**	**0.092**	**0.110**	**0.110**	**0.095**	**0.109**	**0.088**	**0.067**	**0.082**	**0.084**	**0.074**	**0.081**
	(0.006)	(0.011)	(0.003)	(0.006)	(0.012)	(0.004)	(0.007)	(0.015)	(0.005)	(0.007)	(0.015)	(0.005)
Decomposition:												
Wage Gap	0.277	0.159		0.292	0.190		0.282	0.158		0.297	0.187	
Experience	-0.031	-0.040		-0.027	-0.036		-0.032	-0.041		-0.029	-0.037	
Education	0.075	0.097		0.084	0.109		0.060	0.074		0.066	0.083	

Absolute value of heteroskedastic consistent standard errors in parentheses. All regressions also include region of residence, SMSA, married and number of children. Bold coefficients are statistically significant at the 10% level or better. Wage gaps are relative to whites. Experience and experience squared are jointly significant at the 1% level for all specifications.

Table 6b. Two-Stage Fixed Effects Regressions and Decompositions based on Restricted Potential Experience
(Dependent Variable: Log Hourly Wage)

	Base Model						Including AFQT					
	Sample Entry > 22			Sample Entry > 24			Sample Entry > 22			Sample Entry > 24		
	B	M	W	B	M	W	B	M	W	B	M	W
Experience>15												
Regression:												
Experience	**0.063**	**0.038**	**0.086**	**0.049**	**0.051**	**0.072**	**0.061**	**0.041**	**0.086**	**0.048**	**0.055**	**0.072**
	(0.007)	(0.012)	(0.004)	(0.009)	(0.015)	(0.005)	(0.007)	(0.012)	(0.004)	(0.009)	(0.015)	(0.005)
Experience^2	**-0.002**	**-0.001**	**-0.003**	**-0.001**	**-0.001**	**-0.002**	**-0.002**	**-0.001**	**-0.003**	**-0.001**	**-0.001**	**-0.002**
	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)
Education	**0.112**	**0.092**	**0.113**	**0.106**	**0.094**	**0.111**	**0.092**	**0.070**	**0.084**	**0.085**	**0.076**	**0.081**
	(0.006)	(0.012)	(0.004)	(0.007)	(0.013)	(0.004)	(0.008)	(0.016)	(0.006)	(0.008)	(0.017)	(0.006)
Decomposition:												
Wage Gap	0.275	0.155		0.288	0.188		0.281	0.149		0.294	0.180	
Experience	-0.029	-0.039		-0.024	-0.033		-0.030	-0.040		-0.025	-0.034	
Education	0.075	0.095		0.082	0.104		0.059	0.071		0.064	0.077	
Experience>16												
Regression:												
Experience	**0.062**	**0.055**	**0.083**	**0.052**	**0.066**	**0.073**	**0.059**	**0.058**	**0.084**	**0.048**	**0.070**	**0.074**
	(0.006)	(0.011)	(0.003)	(0.008)	(0.013)	(0.004)	(0.006)	(0.011)	(0.004)	(0.008)	(0.014)	(0.004)
Experience^2	**-0.002**	**-0.001**	**-0.002**	**-0.002**	**-0.002**	**-0.002**	**-0.002**	**-0.001**	**-0.002**	**-0.001**	**-0.002**	**-0.002**
	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)
Education	**0.113**	**0.094**	**0.110**	**0.109**	**0.097**	**0.109**	**0.092**	**0.068**	**0.080**	**0.088**	**0.076**	**0.079**
	(0.006)	(0.012)	(0.004)	(0.006)	(0.012)	(0.004)	(0.007)	(0.016)	(0.005)	(0.008)	(0.016)	(0.006)
Decomposition:												
Wage Gap	0.275	0.151		0.288	0.182		0.282	0.146		0.296	0.174	
Experience	-0.028	-0.040		-0.024	-0.034		-0.029	-0.040		-0.025	-0.035	
Education	0.076	0.093		0.086	0.106		0.058	0.068		0.066	0.078	
Experience>18												
Regression:												
Experience	**0.067**	**0.064**	**0.083**	**0.059**	**0.069**	**0.077**	**0.065**	**0.067**	**0.084**	**0.057**	**0.073**	**0.079**
	(0.006)	(0.009)	(0.003)	(0.007)	(0.012)	(0.004)	(0.006)	(0.010)	(0.003)	(0.007)	(0.013)	(0.004)
Experience^2	**-0.002**	**-0.002**	**-0.002**	**-0.002**	**-0.002**	**-0.002**	**-0.002**	**-0.002**	**-0.002**	**-0.002**	**-0.002**	**-0.002**
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Education	**0.107**	**0.082**	**0.101**	**0.105**	**0.085**	**0.103**	**0.081**	**0.056**	**0.074**	**0.079**	**0.064**	**0.075**
	(0.006)	(0.011)	(0.003)	(0.006)	(0.012)	(0.004)	(0.007)	(0.015)	(0.005)	(0.007)	(0.015)	(0.005)
Decomposition:												
Wage Gap	0.277	0.159		0.292	0.190		0.282	0.158		0.297	0.187	
Experience	-0.028	-0.032		-0.025	-0.029		-0.029	-0.033		-0.026	-0.030	
Education	0.069	0.089		0.080	0.103		0.054	0.067		0.062	0.077	

Absolute value of heteroskedastic consistent standard errors in parentheses. All regressions also include region of residence, SMSA, married and number of children. Bold coefficients are statistically significant at the 10% level or better. Wage gaps are relative to whites. Experience and experience squared are jointly significant at the 1% level for all specifications.

Table 6c. Two-Stage Fixed Effects Regressions and Decompositions based on Actual Experience
(Dependent Variable: Log Hourly Wage)

	Base Model						Including AFQT					
	Sample Entry > 22			Sample Entry > 24			Sample Entry > 22			Sample Entry > 24		
	B	M	W	B	M	W	B	M	W	B	M	W
Experience>15												
Regression:												
Experience	**0.057**	**0.039**	**0.062**	**0.032**	**0.044**	**0.039**	**0.055**	**0.045**	**0.061**	**0.029**	**0.051**	**0.038**
	(0.007)	(0.011)	(0.004)	(0.008)	(0.014)	(0.006)	(0.007)	(0.011)	(0.004)	(0.009)	(0.014)	(0.006)
Experience^2	**-0.002**	**-0.001**	**-0.001**	0.000	**-0.001**	**-0.001**	**-0.001**	**-0.001**	**-0.001**	0.000	**-0.001**	**0.000**
	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)
Education	**0.081**	**0.073**	**0.078**	**0.083**	**0.074**	**0.082**	**0.063**	**0.054**	**0.051**	**0.063**	**0.058**	**0.055**
	(0.006)	(0.012)	(0.004)	(0.007)	(0.012)	(0.004)	(0.007)	(0.015)	(0.005)	(0.008)	(0.016)	(0.006)
Decomposition:												
Wage Gap	0.275	0.155		0.288	0.188		0.281	0.149		0.294	0.180	
Experience	0.045	0.006		0.040	0.007		0.045	0.005		0.040	0.007	
Education	0.052	0.065		0.061	0.077		0.036	0.044		0.043	0.052	
Experience>16												
Regression:												
Experience	**0.056**	**0.052**	**0.067**	**0.034**	**0.058**	**0.052**	**0.053**	**0.058**	**0.066**	**0.030**	**0.065**	**0.051**
	(0.006)	(0.010)	(0.004)	(0.008)	(0.012)	(0.005)	(0.006)	(0.010)	(0.004)	(0.008)	(0.013)	(0.005)
Experience^2	**-0.002**	**-0.001**	**-0.002**	**-0.001**	**-0.002**	**-0.001**	**-0.001**	**-0.002**	**-0.002**	0.000	**-0.002**	**-0.001**
	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)
Education	**0.086**	**0.072**	**0.076**	**0.088**	**0.073**	**0.081**	**0.065**	**0.049**	**0.049**	**0.068**	**0.056**	**0.053**
	(0.006)	(0.011)	(0.004)	(0.006)	(0.012)	(0.004)	(0.007)	(0.015)	(0.005)	(0.007)	(0.015)	(0.005)
Decomposition:												
Wage Gap	0.275	0.151		0.288	0.182		0.282	0.146		0.296	0.174	
Experience	0.043	0.005		0.043	0.009		0.044	0.005		0.043	0.009	
Education	0.052	0.064		0.063	0.078		0.035	0.042		0.044	0.052	
Experience>18												
Regression:												
Experience	**0.057**	**0.061**	**0.063**	**0.041**	**0.071**	**0.052**	**0.056**	**0.067**	**0.062**	**0.039**	**0.078**	**0.052**
	(0.005)	(0.009)	(0.003)	(0.006)	(0.011)	(0.004)	(0.005)	(0.009)	(0.003)	(0.006)	(0.011)	(0.004)
Experience^2	**-0.002**	**-0.002**	**-0.001**	**-0.001**	**-0.002**	**-0.001**	**-0.002**	**-0.002**	**-0.001**	**-0.001**	**-0.002**	**-0.001**
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Education	**0.087**	**0.063**	**0.074**	**0.088**	**0.066**	**0.078**	**0.061**	**0.042**	**0.048**	**0.062**	**0.049**	**0.051**
	(0.005)	(0.011)	(0.003)	(0.006)	(0.011)	(0.003)	(0.006)	(0.014)	(0.005)	(0.007)	(0.015)	(0.005)
Decomposition:												
Wage Gap	0.277	0.159		0.292	0.190		0.282	0.158		0.297	0.187	
Experience	0.032	-0.002		0.035	0.003		0.031	-0.003		0.034	0.003	
Education	0.051	0.065		0.060	0.078		0.035	0.043		0.042	0.052	

Absolute value of heteroskedastic consistent standard errors in parentheses. All regressions also include region of residence, SMSA, married and number of children. Bold coefficients are statistically significant at the 10% level or better. Wage gaps are relative to whites. Experience and experience squared are jointly significant at the 1% level for all specifications.

Table 6d. Two-Stage Fixed Effects Regressions and Decompositions based on Actual Experience
(Dependent Variable: Log Hourly Wage)

	Including AFQT & OLF					
	Sample Entry > 22			Sample Entry > 24		
	B	M	W	B	M	W
Experience>15						
Regression:						
Experience	**0.058**	**0.047**	**0.070**	**0.033**	**0.042**	**0.048**
	(0.007)	(0.012)	(0.005)	(0.009)	(0.015)	(0.006)
Experience^2	**-0.002**	**-0.001**	**-0.002**	-0.001	-0.001	**-0.001**
	(0.000)	(0.001)	(0.000)	(0.000)	(0.001)	(0.000)
Non-Working Time	-0.008	-0.033	-0.020	-0.010	-0.033	**-0.059**
	(0.023)	(0.039)	(0.019)	(0.026)	(0.046)	(0.024)
Non-Working Time^2	0.000	0.002	-0.002	0.000	0.004	0.001
	(0.001)	(0.002)	(0.001)	(0.001)	(0.003)	(0.002)
Education	**0.062**	**0.056**	**0.057**	**0.062**	**0.057**	**0.064**
	(0.007)	(0.015)	(0.006)	(0.008)	(0.016)	(0.006)
Decomposition:						
Wage Gap	0.281	0.149		0.294	0.180	
Experience	0.048	0.006		0.045	0.008	
Non-Working Time	0.051	0.012		0.079	0.019	
Education	0.040	0.048		0.050	0.061	
Experience>16						
Regression:						
Experience	**0.057**	**0.052**	**0.073**	**0.037**	**0.049**	**0.059**
	(0.007)	(0.011)	(0.004)	(0.008)	(0.014)	(0.005)
Experience^2	**-0.002**	**-0.001**	**-0.002**	**-0.001**	**-0.001**	**-0.001**
	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)
Non-Working Time	-0.014	-0.021	**-0.030**	-0.021	-0.021	**-0.061**
	(0.019)	(0.004)	(0.016)	(0.022)	(0.039)	(0.020)
Non-Working Time^2	0.000	0.004	0.000	0.000	**0.005**	0.001
	(0.001)	(0.002)	(0.001)	(0.001)	(0.003)	(0.001)
Education	**0.064**	**0.047**	**0.055**	**0.066**	**0.051**	**0.063**
	(0.007)	(0.015)	(0.005)	(0.007)	(0.016)	(0.005)
Decomposition:						
Wage Gap	0.282	0.146		0.296	0.174	
Experience	0.047	0.005		0.048	0.010	
Non-Working Time	0.045	0.013		0.067	0.020	
Education	0.040	0.047		0.053	0.062	

Table 6d. Two-Stage Fixed Effects Regressions and Decompositions based on Actual Experience
(Dependent Variable: Log Hourly Wage)

	Including AFQT & OLF					
	Sample Entry > 22			Sample Entry > 24		
	B	**M**	**W**	**B**	**M**	**W**
Experience>18						
Regression:						
Experience	**0.064**	**0.063**	**0.071**	**0.048**	**0.066**	**0.061**
	(0.006)	(0.010)	(0.003)	(0.007)	(0.012)	(0.004)
Experience^2	**-0.002**	**-0.002**	**-0.002**	**-0.001**	**-0.002**	**-0.001**
	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)
Non-Working Time	-0.021	-0.038	**-0.036**	**-0.029**	**-0.055**	**-0.051**
	(0.014)	(0.026)	(0.012)	(0.017)	(0.030)	(0.014)
Non-Working Time^2	0.000	**0.005**	-0.001	0.000	**0.008**	0.000
	(0.001)	(0.002)	(0.001)	(0.001)	(0.002)	(0.001)
Education	**0.059**	**0.042**	**0.054**	**0.060**	**0.049**	**0.059**
	(0.006)	(0.014)	(0.005)	(0.007)	(0.015)	(0.005)
Decomposition:						
Wage Gap	0.282	0.158		0.297	0.187	
Experience	0.034	-0.003		0.038	0.003	
Non-Working Time	0.047	0.008		0.063	0.012	
Education	0.039	0.049		0.049	0.061	

Absolute value of heteroskedastic consistent standard errors in parentheses. All regressions also include region of residence, SMSA, married and number of children. Bold coefficients are statistically significant at the 10% level or better. Wage gaps are relative to whites. Experience and experience squared are jointly significant at the 1% level for all specifications.

Appendix Table 1. Two-Stage Fixed Effects Regressions and Decompositions
(Dependent Variable: Log Hourly Rate of Pay)

	Potential Experience			Actual Experience		
	Black	**Mexican**	**White**	**Black**	**Mexican**	**White**
Panel A - Two-Stage Fixed Effects Regression Results						
Experience	**0.0396**	**0.0526**	**0.0690**	**0.0337**	**0.0406**	**0.0550**
	(0.0037)	(0.0071)	(0.0026)	(0.0037)	(0.0069)	(0.0028)
Experience^2	**-0.0011**	**-0.0015**	**-0.0020**	**-0.0007**	**-0.0010**	**-0.0012**
	(0.0002)	(0.0003)	(0.0001)	(0.0002)	(0.0003)	(0.0001)
Education	**0.1023**	**0.0849**	**0.1018**	**0.0816**	**0.0634**	**0.0707**
	(0.0047)	(0.0106)	(0.0032)	(0.0045)	(0.0101)	(0.0030)
Married	**0.0739**	**0.0462**	**0.0511**	**0.0709**	**0.0535**	**0.0608**
	(0.0106)	(0.0193)	(0.0075)	(0.0106)	(0.0190)	(0.0075)
Number of Children	0.0054	-0.0181	0.0008	-0.0062	**-0.0245**	0.0000
	(0.0067)	(0.0114)	(0.0051)	(0.0067)	(0.0111)	(0.0051)
Person-Year Observations	8929	2495	14544	8929	2495	14544
P-Value for the Joint Significance of Experience	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Panel B - Decomposition Results (relative to white - white weights)						
Total Log Wage Differential	0.2668	0.1559		0.2668	0.1559	
Attributable to Differences in Characteristics						
Experience	-0.0254	-0.0341		0.0412	0.0048	
Education	0.0729	0.0843		0.0506	0.0585	
Married	0.0120	0.0018		0.0143	0.0022	
Children	-0.0003	-0.0004		0.0000	0.0000	
Other	0.0034	-0.0283		0.0039	-0.0283	
Total	0.0626	0.0234		0.1100	0.0372	
Attributable to Differences in Coefficients						
Experience	0.1968	0.1200		0.1318	0.1107	
Education	-0.0064	0.2053		-0.1339	0.0876	
Married	-0.0073	0.0025		-0.0032	0.0038	
Children	-0.0055	0.0256		0.0075	0.0331	
Fixed Effects	0.0236	-0.2399		0.1456	-0.1306	
Other	0.0029	0.0189		0.0090	0.0142	
Total	0.2042	0.1325		0.1568	0.1187	

Absolute value of heteroskedastic consistent standard errors in parentheses. All regressions also include region of residence and SMSA. Bold coefficients are statistically significant at the 10% level or better.

Appendix Table 2. Between Effects and Random Effects Regressions and Decompositions (Dependent Variable: Log Hourly Wage)

	Between Effects						Random Effects					
	Potential Experience			Actual Experience			Potential Experience			Actual Experience		
	Black	**Mexican**	**White**	**Black**	**Mexican**	**White**	**Black**	**Mexican**	**White**	**Black**	**Mexican**	**White**
Panel A - Regression Results												
Experience	0.0416	0.0218	0.0073	**0.0541**	**0.0984**	**0.0570**	**0.0581**	**0.0402**	**0.0751**	**0.0599**	**0.0538**	**0.0662**
	(0.0296)	(0.0607)	(0.0184)	(0.0212)	(0.0495)	(0.0142)	(0.0063)	(0.0104)	(0.0035)	(0.0059)	(0.0099)	(0.0038)
Experience^2	-0.0010	-0.0008	0.0007	-0.0008	-0.0028	-0.0011	**-0.0016**	**-0.0009**	**-0.0021**	**-0.0017**	**-0.0014**	**-0.0016**
	(0.0013)	(0.0026)	(0.0008)	(0.0012)	(0.0025)	(0.0007)	(0.0003)	(0.0004)	(0.0002)	(0.0003)	(0.0005)	(0.0002)
Education	**0.0974**	**0.0772**	**0.0930**	**0.0710**	**0.0571**	**0.0696**	**0.1112**	**0.0948**	**0.1086**	**0.0829**	**0.0706**	**0.0741**
	(0.0081)	(0.0148)	(0.0050)	(0.0060)	(0.0115)	(0.0040)	(0.0060)	(0.0113)	(0.0037)	(0.0058)	(0.0109)	(0.0035)
Married	**0.3325**	**0.3363**	**0.2730**	**0.2765**	**0.2803**	**0.2239**	**0.1120**	**0.1190**	**0.0978**	**0.1045**	**0.1164**	**0.1006**
	(0.0348)	(0.0606)	(0.0271)	(0.0351)	(0.0595)	(0.0264)	(0.0165)	(0.0265)	(0.0099)	(0.0164)	(0.0261)	(0.0098)
Number of Children	**-0.0212**	-0.0180	0.0009	-0.0169	-0.0282	0.0021	0.0057	-0.0069	0.0094	-0.0017	-0.0129	0.0068
	(0.0121)	(0.0223)	(0.0124)	(0.0112)	(0.0218)	(0.0117)	(0.0081)	(0.0135)	(0.0060)	(0.0078)	(0.0131)	(0.0059)
Person-Year Observations	1037	275	1909	1037	275	1909	8070	2363	14106	8070	2363	14106
P-Value for the Joint Significance of Exp.	0.0172	0.9122	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Panel B - Decomposition Results (relative to white - white weights)												
Total Log Wage Differential	0.2639	0.1274		0.2639	0.1274		0.2672	0.1434		0.2676	0.1501	
Attributable to Differences in Characteristics												
Experience	-0.0231	-0.0298		0.0413	-0.0107		-0.0262	-0.0374		0.0424	0.0051	
Education	0.0639	0.0784		0.0478	0.0587		0.0655	0.0981		0.0447	0.0669	
Married	0.0597	0.0055		0.0490	0.0045		0.0219	0.0025		0.0225	0.0026	
Children	-0.0003	-0.0004		-0.0007	-0.0010		-0.0031	-0.0042		-0.0022	-0.0031	
Other	0.0354	0.0089		0.0245	0.0072		0.0121	-0.0005		0.0110	-0.0023	
Total	0.1355	0.0626		0.1619	0.0586		0.0702	0.0585		0.1183	0.0692	
Attributable to Differences in Coefficients												
Intercept	0.1507	-0.3317		-0.0770	-0.0431		0.0330	-0.4210		0.0982	-0.1946	
Experience	-0.1376	0.0426		0.0042	-0.2087		0.1164	0.2103		0.0630	0.1048	
Education	-0.0545	0.1913		-0.0174	0.1517		-0.0316	0.1652		-0.1090	0.0414	
Married	-0.0185	-0.0323		-0.0164	-0.0287		-0.0048	-0.0113		-0.0013	-0.0084	
Children	0.0260	0.0247		0.0225	0.0397		0.0044	0.0217		0.0103	0.0263	
Other	0.1623	0.1701		0.1862	0.1580		0.0795	0.1198		0.0881	0.1115	
Total	0.1284	0.0648		0.1020	0.0688		0.1969	0.0848		0.1492	0.0809	

Absolute value of heteroskedastic consistent standard errors in parentheses. All regressions also include region of residence and SMSA. Bold coefficients are statistically significant at the 10% level or better.