Noncognitive Skills and the Racial Wage Gap

Charles Hokayem*

Poverty Statistics Branch

Housing and Household Economic Statistics

U.S. Census Bureau

March 2011

Abstract

This paper explores the role of a form of human capital, noncognitive skills, in explaining racial gaps in wages. Noncognitive skills describe a person's self-perception, work ethic, ethical orientation, and overall outlook on life. These skills have been linked to a variety of economic outcomes such as educational attainment, earnings, and work habits in the general population. Less well understood is the impact of these skills on subgroups of the general population. This paper adds two measures of noncognitive skills, locus of control and self-esteem, to a simple wage specification to determine the effect of noncognitive skills on the racial wage gap (white, black, and Hispanic) and the return to noncognitive skills across the wage distribution. The wage specifications are estimated using a pooled estimator, a between estimator, and a quantile estimator. Results using the National Longitudinal Survey of Youth 1979 (NLSY79) show these noncognitive skills account for differing portions of the racial wage gap depending on race and gender.

Keywords: Human capital, Noncognitive skills, Wage Gap, NLSY

JEL Codes: J15 (Economics of Minority and Races), J24 (Human Capital), J31 (Wage Level and Structure)

* Address correspondence to Charles Hokayem, U.S.Census Bureau, HHES, HQ-7H176, 4600 Silver Hill Rd, Washington, DC 20233-8500. E-mail: charles.hokayem@census.gov Phone: 301-763-5330. I would like to thank Jim Ziliak, Chris Bollinger, and Glenn Blomquist for helpful comments on this paper. All errors are my own. The views expressed in this paper are those of the author and not necessarily those of the U.S. Census Bureau.

NONCOGNITIVE SKILLS AND THE RACIAL WAGE GAP

1.1 Introduction

Economists have established the importance of cognitive ability and human capital in determining the returns to education and other behaviors. Sociologists and psychologists have focused on the role of noncognitive skills in social outcomes. Noncognitive skills refers to a type of human capital, or "psychological capital," describing a person's self-perception, work ethic, ethical orientation, and overall outlook on life.[1] Common sense suggests these noncognitive skills certainly influence an individual's productivity along with cognitive skills. Economists typically account for noncognitive skills in an error term of an estimating equation, claiming personality traits are difficult to measure or are just unobservable. They address these unobserved skills using an error component model on panel data that relies on fixed effects or random effects. Sociologists and psychologists have constructed measures of noncognitive skills that allow a researcher to control for some of the unobserved heterogeneity.

Much effort has been expended on studying the racial wage gap. Common explanations for the racial wage gap include employer and consumer discrimination, varying school quality, and differences in premarket factors. Neal and Johnson (1996) show the black-white wage gap shrinks after including a premarket factor, cognitive skills, in a parsimonious wage equation. While it is apparent that cognitive skills are an important premarket factor to consider, it seems natural that noncognitive skills may be an important factor as well. Economists are developing a better understanding of the

[1] ter Weel (2008) and Heckman (2007) expand the definition of noncognitive skills beyond psychological and behavioral traits to include time preference, risk aversion, and preference for leisure.

importance of these skills for educational attainment and economic success in the general population (Coleman and DeLeire, 2003; Heckman, Stixrud, and Urzua 2006). Less understood is the impact of these skills among subgroups of the general population, specifically racial groups.

This paper investigates the role of noncognitive skills in explaining racial gaps in wages. Noncognitive skills, measured by locus of control and self-esteem, are added to a simple wage regression from Neal and Johnson (1996) to examine their effect on the wage gap. The analysis extends the racial wage gap and noncognitive skills literatures by studying the effect of noncognitive skills on wage gaps across the entire wage distribution. Using data from the National Longitudinal Survey of Youth 1979 (NLSY79) spanning 1991-2006 this paper estimates wage regressions based on three estimators: a pooled estimator, a between estimator, and a quantile estimator. The wage regressions take advantage of the timing of when noncognitive skills and wages are measured in the NLSY79. The wage regressions relate cognitive and noncognitive skills measured at the beginning of the NLSY79 before individuals enter the labor market or begin post secondary schooling to wages measured later in life. The various model specifications capture the separate and simultaneous effects of cognitive and noncognitive skills on the wage gap.

Ordinary least squares results show noncognitive skills account for a small portion of the male black-white wage gap when measured at the mean of the wage distribution. Noncognitive skills have differing effects for black women. Ordinary least squares results show locus of control shrinks the gap, but self-esteem widens it. After controlling for cognitive and noncognitive skills, there still exists a significant return to

noncognitive skills. External individuals earn less, and individuals with higher self-esteem earn more. Quantile regressions controlling for cognitive and noncognitive skills suggest the black-white male wage gap persists at all points of the wage distribution while the black-white female wage gap exists at only the highest portion of the wage distribution. Hispanic men earn less than white men at lower quantiles but earn more at higher quantiles. After controlling for cognitive and noncognitive skills, Hispanic women always earn more than white women across the entire wage distribution. In addition, after controlling for cognitive skills and noncognitive skills, the return to cognitive skills exceeds the return to noncognitive skills across the entire wage distribution.

1.2 Noncognitive Literature and Racial Wage Gaps

Economists began studying the role of noncognitive skills over three decades ago. Bowles and Gintis (1976) find that low skill markets contain employers that place a higher value on noncognitive skills. Edwards (1976) finds blue-collar supervisors prefer these skills over cognitive skills, while Mueser (1979) shows noncognitive skills are just as important as cognitive skills in determining wages.

Andrisani (1977) specifically examines the effect of locus of control on wages and occupational attainment in black and white men. Locus of control, measured by the Rotter Scale, gauges the degree of internal or external control an individual has over their life. It describes the extent to which individuals believe they have control over their lives through self-motivation or self-determination (internal control) as opposed to the extent that the environment (chance, fate, luck) controls their lives (external control) (National Longitudinal Survey of Youth 2007). Andrisani uses a sample of young and middle aged

men taken from the National Longitudinal Survey in 1968 and 1969. He studies how locus of control relates to wages and occupation two years after they are measured to determine the subsequent effect of attitude. He includes locus of control in a standard earnings equation with common controls (education, tenure, experience, region, urban/rural, etc.). Locus of control among both racial groups has similar payoffs--more internal individuals have higher wages. Differences exist in occupational advancement. Younger white men experience a stronger effect of being internal on occupational advancement than younger black men.

Duncan and Morgan (1981) replicate Andrisani's work with data from the Panel Study of Income Dynamics (PSID). Since the PSID does not directly ask the Rotter Scale, Duncan and Morgan match answers to open ended questions coded by PSID staff in 1968 to components of the Rotter Scale and use the answers as a measure of self-efficacy. They examine the effects of self-efficacy on wages two and four years later. Unlike Andrisani, they find no significant effect on either young black or young white men two years later; however, they find a positive significant effect for white men four years later.

Goldsmith, Veum, and Darity (1997) recognize that wages and self-esteem are determined jointly, so they estimate two equations with locus of control and self-esteem data from the 1987 and 1980 NLSY79. In their specification, self-esteem directly enters the wage equation while locus of control directly enters the self-esteem equation, so locus of control only indirectly affects wages through self-esteem. Their equations are identified through strong exclusion restrictions. The wage equation leaves out locus of control, and the self-esteem equation leaves out local labor market conditions. Unlike

previous studies, Goldsmith, Veum, and Darity control for cognitive ability through the 1980 Armed Forces Qualifying Test (AFQT) score. Their findings suggest self-esteem has a stronger positive effect on wages than human capital, and locus of control significantly affects self-esteem. They interpret their findings as "psychological capital" affecting wages in two ways: directly through self-esteem and indirectly through locus of control. In addition, they find blacks earn less, and higher wages lead to better self-esteem.

Coleman and DeLeire (2003) develop a theoretical model connecting locus of control among teenagers to educational attainment through expectations on the return to education. Their model implies more internal teenagers, who believe their current actions influence future outcomes, are more likely to make investments in education. Their model offers a test of whether locus of control is just a proxy for ability. If locus of control simply proxies for ability, then internal teenagers, both high school dropouts and high school graduates, will expect better outcomes. Coleman and DeLeire test their theory with the National Educational Longitudinal Study (NELS) data by regressing educational attainment (high school or college completion) on locus of control measured in the eighth grade. While they show internal teenagers are more likely to graduate from high school, they do not explain any racial differences in this effect. Race variables only enter as additional controls in their estimation.

In a replication study with different data Cebi (2007) tests Coleman and DeLeire's model with educational attainment data from the NLSY79 and examines the effects of noncognitive skills on wages. Cebi uses locus of control measured in 1979 to explain the probability of graduating from high school and attending college in 1982. Her results

differ from Coleman and DeLeire. After controlling for AFQT score, she finds no evidence that locus of control predicts high school graduation or attending college. She also finds a small significant return to locus of control in year 2000 wages, so more internal individuals earn more later in life. Also, the black wage gap shrinks after accounting for AFQT and locus of control. Cebi's analysis focuses on a pooled sample of men and women and studies the effect of noncognitive skills at the mean of the wage distribution. Cebi only considers locus of control as the measure of noncognitive skills.

Carneiro, Heckman, and Masterov (2005) document differences in noncognitive skills among black, Hispanic, and white children as measured by the antisocial behavior index in the children of the NLSY79 cohort. They show environmental differences account for the majority of the minority-white gap in noncognitive skills. This work only addresses the differences in early childhood and does not relate these differences to wages.

Heckman, Stixrud, and Urzua (2006) provide an extensive treatment of noncognitive skills. They develop a statistical model to describe the importance of cognitive and noncognitive skills in determining schooling, work experience, wages, occupational choice, and a number of risky behavioral outcomes. Though they do not address differences among racial groups, they advance the economic noncognitive literature in two important ways. First, they consider the simultaneous effects of cognitive and noncognitive skills on a variety of outcomes beyond just the standard labor market and educational outcomes. Second, they develop a methodology that accounts for the endogeneity of schooling and measurement error in test scores. In this context schooling may cause higher test scores. Their methodology uses a common set of latent

cognitive and noncognitive factors to determine each outcome of interest. In addition, they estimate a test score equation for each cognitive and noncognitive measure that depends on the level of schooling at the time of the test and the appropriate latent factor. Allowing schooling to enter this equation controls for its influence on the test score. They utilize the AFQT score, Rotter Scale, and Rosenberg Self-Esteem score from the NLSY79 in estimating their model. They present evidence that schooling affects both measures of cognitive and noncognitive abilities, so it is important to control for this effect. They focus their analysis on the differences between men and women, not racial differences.

Urzua (2008) estimates a structural model of schooling choice, labor market behavior, and incarceration to examine the importance of unobserved cognitive and noncognitive abilities in explaining the black-white gaps in these outcomes. Specific labor market behavior includes wages, earnings, and hours worked. The model addresses the endogeneity of schooling choice because individuals make schooling decisions based on differences in returns to schooling. Measurement error in cognitive and noncognitive abilities is handled in a similar way as Heckman, Stixrud, and Urzua (2006), and the analysis uses the same measures of these skills in the NLSY79 as in Heckman, Stixrud, and Urzua (2006). Urzua finds black-white differences in the unobserved abilities for both cognitive and noncognitive distributions. For schooling choices, hours worked, and wages, noncognitive abilities matter more for blacks than for whites. Unobserved noncognitive abilities do not account for much of the black-white wage or earnings gap; however, unobserved noncognitive abilities do play a stronger role in explaining the gap in incarceration rates. Urzua simulates the effect of assigning blacks white characteristics

to study how the gaps in wages, earnings, schooling, and incarceration change. When blacks have the white distribution of unobserved cognitive abilities, they attain equal or better education levels as whites, and the gap in wages and earnings falls by about 40 percent, smaller than the literature which claims a 50-75 percent reduction when observed cognitive ability is controlled for. Urzua only studies the black-white wage and earnings gap at the mean and does not consider the gap at other points of the wage or earnings distributions. Giving blacks the white distribution of unobserved noncognitive abilities does not change the wage or earnings gap by much. So, it is unobserved cognitive ability that explains racial gaps in schooling attainment and labor market outcomes. When blacks have the white distribution of unobserved cognitive and noncognitive abilities, they achieve the lowest level of incarceration rates.

This paper presents wage regressions relating noncognitive skills measured during the teenage years before individuals enter the labor market or begin post secondary schooling to wages measured later in life. This paper extends the noncognitive literature in several ways. First, the analysis examines the effect of noncognitive skills on the wage gap for Hispanics, not just blacks. Second, the analysis considers the racial wage gap for each gender and race combination. The noncognitive literature has typically focused on differences between men and women without examining racial differences within gender. Third, the analysis extends the racial wage gap and noncognitive skills literatures by going beyond the wage gap measured at the mean of the wage distribution. The analysis studies the effect of noncognitive skills on wage gaps across the entire wage distribution.

1.3 Model Specification

The model specification for this paper draws from the literature on race differences in premarket human capital and wages (O'Neill 1990; Maxwell 1994; Carneiro, Heckman, and Masterov 2005). Neal and Johnson (1996) carefully test a theory in this literature that relates the black-white and Hispanic-white wage gap to differences in the skills measured by the Armed Forces Qualifying Test (AFQT) at labor market entry. The specification for this paper incorporates noncognitive skills as an additional premarket factor in the model presented by Neal and Johnson (1996). The simple specification is of the following form:

$$\ln wage_{i,t} = \beta_0 + \beta_1 Black_i + \beta_2 Hispanic_i + \beta_3 Age_{i,t} + \beta_4 AFQT_{i,1980} + \beta_5 AFQT_{i,1980}^2 + \beta_6 Noncog_{i,1979/1980} + \beta_7 Noncog_{i,1979/1980}^2 + \varepsilon_i$$

where $wage_{i,t}$ is the real wage of person i in year t in 2009 dollars, adjusted by the personal consumption expenditures price index. $Black_i$ and $Hispanic_i$ are dummy variables for black and Hispanic racial groups (white is the omitted category) while Age_i is the person's age. $AFQT_{i,1980}$ is the score from AFQT in 1980 and serves as a measure of cognitive skills. The AFQT is constructed from summing scores on sections 2-5 of the Armed Services Vocational Aptitude Battery Test (ASVAB): arithmetic reasoning, word knowledge, paragraph comprehension, and numerical operations. The raw AFQT score is then normalized to have a mean of zero and standard deviation of one.

$Noncog_i$ is a noncognitive measure in 1979 or 1980. The AFQT score is commonly used by economists, but the measures of noncognitive skills are less common and warrant further discussion. Two measures of noncognitive skills are used: the Rotter Scale and the Rosenberg Self-Esteem Scale. The Rotter Internal-External Locus of

Control Scale, administered in 1979, is a four item questionnaire designed to measure the degree to which a person has control over their life through self-motivation or self-determination (internal control) as opposed to the extent that the environment (i.e., chance, fate, luck) controls their life (external control) (NLSY documentation 2007). A higher score reflects a more external person. The four item questionnaire consists of these statement pairs listed below:

1. Rotter 1
    a. What happens to me is my own doing
    b. Sometimes I feel that I don't have enough control over the direction my life is taking
2. Rotter 2
    a. When I make plans, I am almost certain that I can make them work
    b. It is not always wise to plan too far ahead, because many things turn out to be a matter of good or bad fortune anyhow
3. Rotter 3
    a. Getting what I want has little or nothing to do with luck
    b. Many times we might just as well decide what to do by flipping a coin
4. Rotter 4
    a. Many times I feel that I have little influence over the things that happen to me
    b. It is impossible for me to believe that chance or luck plays an important role in my life

The first statement in each pair corresponds to an internal control item while the second statement corresponds to an external control item. A person chooses one of the paired statements and decides if the chosen statement is much closer or slightly closer to their opinion of themselves. Together these two answers generate a four point scale for each paired item. The Rotter score is the average over the four paired items (Rotter 1, Rotter 2, Rotter 3, and Rotter 4). The Rotter score is normalized in the same way as the AFQT score.[2]

The Rosenberg Self-Esteem Scale, administered in 1980, is a 10 item scale that measures the self-evaluation that an individual makes and characterizes the degree of approval or disapproval toward oneself (NLSY documentation 2007). A higher score corresponds to higher self-esteem. A person answers the following ten statements of approval or disapproval with strongly agree, agree, disagree, or strongly disagree:

1. I feel I'm a person of worth, at least on an equal basis with others
2. I feel that I have a number of good qualities
3. All in all, I am inclined to feel that I am a failure
4. I am able to do things as well as most other people
5. I feel I do not have much to be proud of
6. I take a positive attitude toward myself
7. On the whole, I am satisfied with myself
8. I wish I could have more respect for myself
9. I certainly feel useless at times

[2] This averaging of the paired item scores and normalization of the Rotter score follows Heckman, Stixrud, and Urzua (2006).

10. At times I think I am no good at all

The Rosenberg score averages the responses over the ten statements. This average is also normalized to have mean zero and standard deviation one.

Four variations of the specification are estimated:

1. Black, Hispanic, Age
2. Black, Hispanic, Age, AFQT, $AFQT^2$
3. Black, Hispanic, Age, Noncog, $Noncog^2$
4. Black, Hispanic, Age, AFQT, $AFQT^2$, Noncog, $Noncog^2$

These specifications are meant to capture the separate and simultaneous effects of cognitive and noncognitive abilities. As a robustness check, specifications that replace AFQT with components of AFQT are estimated. Specifications that interact race with cognitive skills and noncognitive skills to allow for differing returns by race are estimated. In addition, specifications that control for region (South and nonsouth) and interact region with cognitive and noncognitive skills are estimated.

The key idea from Neal and Johnson (1996) is these factors are measured *before* labor market entry to eliminate any effects due to worker choices or labor market discrimination. These specifications omit education, experience, and occupation, commonly included regressors in an earnings specification, because they are also endogenous. Including these common regressors biases the effect of race on wages if discrimination against blacks or Hispanics causes them to make occupation or education

choices different from whites. Following Neal and Johnson the sample is limited to individuals born after 1961 who are 18 or younger when they took the ASVAB test. Individuals in this group most likely have not entered the labor market or begun postsecondary schooling when they took the ASVAB test. Not including individuals who are over 18 eliminates any influence of schooling or the labor market on the AFQT score. In addition, following Neal and Johnson (1996) only individuals with wage observations between $1 and $75 are considered.

1.4 Estimation Methods

The variations of the simple model specification are estimated using a pooled estimator, a between estimator, and a quantile estimator. The pooled estimator includes annual time dummy variables for 1992-2006, so the specification becomes

$$\ln wage_{i,t} = \boldsymbol{x}_{\boldsymbol{i,t}}'\beta + \varepsilon_{i,t}$$

This specification is estimated using ordinary least squares with clustered standard errors to correct for the longitudinal structure of the NLSY. The standard errors account for repeated observations of individuals over time.

The between estimator is the ordinary least squares estimator on individual time means of the data, or

$$\overline{\ln wage_{\iota}} = \bar{\boldsymbol{x}}_{\boldsymbol{i}}'\beta + \bar{\varepsilon}_i$$

where $\ln wage_i = \frac{1}{T}\sum_{t=1}^{T} \ln wage_{i,t}$ and similarly for other variables. The between estimator averages the individual data over time, keeping one observation per individual. This smoothing offers the advantage of reducing any measurement error associated with

the wage and an improvement in efficiency. This specification is also estimated using ordinary least squares but with heteroskedastic robust standard errors.

Unlike the ordinary least squares estimator which estimates the conditional mean, the quantile estimator estimates the conditional quantile of the wage as a linear function of the observables. Formally, the quantile estimator solves the minimization problem

$$\min_{\beta} \sum \rho_{\tau}(\ln wage_{i,t} - \boldsymbol{x}_{\boldsymbol{i,t}}'\beta)$$

where $\rho_{\tau}(\cdot)$ represents the τ'th quantile "check" function, or absolute value function. Each specification is estimated for deciles $\tau = \{.10, .20, .30, .40, .50, .60, .70, .80, .90\}$ on the pooled data and the time-averaged data used for the between estimator. Standard errors are estimated using the nonparametric bootstrap with 100 replications.

1.5 Data

The data in the analysis come from the National Longitudinal Survey of Youth 1979 (NLSY79). The NLSY79 contains 12,686 individuals between the ages of 14 and 21 at the time of the first interview in 1979. The NLSY79 collects information on labor market outcomes as well as cognitive and noncognitive abilities. The interviews occur every year for 1979-1994 and every two years for 1996-2006. This analysis uses wage observations beginning with 1991 when sample ages were 26-29 and ending with 2006 when sample ages were 41-45. The NLSY79 reports an hourly wage if the individual is an hourly worker and reports an hourly wage; otherwise, the NLSY79 calculates an hourly wage rate from earnings and hours worked (NLSY documentation 2010). As mentioned before, the cognitive measure comes from the AFQT score calculated from the ASVAB taken in 1980. The noncognitive measures come from the Rotter Scale for locus

of control and Rosenberg Self-Esteem Scale administered in 1979 and 1980, respectively. Each specification is estimated for men and women separately and covers the years 1991-1994 (annually) and 1996-2006 (biennially).

Table 1 provides summary statistics for the entire analysis sample, and Table 2 shows summary statistics by gender and race. Relatively more men than women comprise the sample with the majority of the sample white (52%) followed by black (29%) and Hispanic (19%). Blacks earn an average hourly wage below the sample average hourly wage of $16.72 (2009 dollars) while whites earn an average wage above it. Figure 1 displays kernel density estimates of the standardized AFQT, Rotter, and Rosenberg scores by racial group and by gender. The horizontal and vertical scales are the same for ease of comparison. The white AFQT distribution is clearly shifted to the right when compared to the other distributions. On average whites scored highest on the AFQT test (standardized average .32), and blacks scored the lowest (standardized average -.45). The black and Hispanic Rotter distributions share a similar shape while the white Rotter distribution contains more mass less than zero, suggesting whites are more internal than the other groups. The Rosenberg Self-Esteem distributions reveal Hispanics have the lowest self-esteem while whites and blacks have similar self-esteem distributions. White men and women scored highest on the AFQT test followed by their Hispanic and black counterparts. Comparing locus of control for men shows Hispanic men are the most external with white men being the most internal. Black women are the most external followed by Hispanic and white women.

1.6 Results

1.6.1 Ordinary Least Squares Regression Results

Tables 3 and 4 present ordinary least squares regressions for the pooled data and the time-averaged data. These results cover the ten survey years for 1991-2006, corresponding to the sample age beginning at 26-29 and ending at 41-45. The four specifications are estimated by gender (columns 1-4, men; columns 5-8, women). Columns 1 and 5 show the specification without cognitive or noncognitive measures; columns 2 and 6 add the cognitive measure; columns 3 and 7 add the noncognitive measure; and columns 4 and 8 add both cognitive and noncognitive measures. The first subtable uses the Rotter Scale while the second subtable uses the Rosenberg Scale.

In Table 3, first subtable (Rotter Scale) the black racial gap follows the same pattern discovered by Neal and Johnson (1996). Adding AFQT score dramatically reduces the magnitude of the negative coefficient on black men (column 2). For black women adding AFQT produces this effect too. The Hispanic coefficient on men falls and switches signs for women, qualitatively matching Neal and Johnson's results for Hispanics. Comparing the black and Hispanic coefficients for men in column 3 that includes the Rotter Score to column 1 shows very little change (about 1 percent reduction), so noncognitive skills cannot account for much of the wage gap. This agrees with Andrisani (1977) who could not find a large difference in the return to noncognitive skills between white and black men. The black coefficient for women after adding the Rotter Score (column 7) falls by about 2 percent, suggesting noncognitive skills account for a larger portion of the wage gap. After controlling for both sets of skills (columns 4 and 8), there still exists a return to cognitive skills for both men and women. For noncognitive skills men and women experience a significant return. The negative sign on

the Rotter coefficient implies more external individuals receive lower wages. This return to internal individuals is consistent with Andrisani's (1977) analysis of earlier NLS data and Cebi's (2007) analysis of 2000 NLSY79 data.[3]

Noncognitive skills, as measured by the Rosenberg Self-Esteem Scale in the second subtable, slightly widen the black wage gap for men (column 3) (1 percent) but for women the gap widens more (column 7) (3 percent). When including self-esteem, the Hispanic gap for men falls by 2 percent, but there is no significant effect on the Hispanic gap for women. When including AFQT and self-esteem, men and women receive a positive, significant return to self-esteem. The return to women is higher. The positive coefficient means higher self-esteem translates to higher wages later in life. This positive relationship agrees with Goldsmith, Veum, and Darity (1997) who conduct their analysis with NLSY79 data from 1987. Like locus of control self-esteem seems to only significantly affect wages in a linear way.

Table 4 presents the same analysis using time-averaged data. The between estimator produces coefficient estimates that are qualitatively similar to the estimates in Table 3. Noncognitive skills measured by either the Rotter Scale or Rosenberg Scale change the black wage gap for men (column 3) by a small amount (1 percent reduction). Locus of control changes the wage gap for Hispanic men by a 1 percent reduction, but self-esteem reduces the gap by 2 percent. Noncognitive skills have differing effects for black women. Locus of control shrinks the gap by 2 percent, but self-esteem widens it by 2 percent. The Hispanic coefficient for women remains insignificant whether including

[3] Cebi (2007) defines the Rotter Scale, so a higher score implies a more internal individual. This analysis follows the NLSY documentation which defines the Rotter Scale in the opposite way, so the coefficients in this analysis will have the opposite sign as those reported in Cebi (2007).

locus of control or self-esteem. After controlling for AFQT and locus of control, men and women experience a significant return to locus of control. After controlling for AFQT and self-esteem, men and women experience a significant return to self-esteem. Women now face a lower return to self-esteem than men.

1.6.2 Quantile Regression Results

Tables 3 and 4 corroborate the main finding of Urzua (2008) that noncognitive skills can not account for much of the black-white wage gap for men measured at the mean of the wage distribution. Tables 5-8 extend the analysis presented in Tables 3 and 4 to examine effects at various quantiles of the wage distribution. Tables 5 and 6 show quantile regressions with locus of control and self-esteem, respectively, estimated on the pooled data. Figure 2 shows the change in the wage gap after adding noncognitive skills. It plots the difference in the black and Hispanic coefficients between Specification 1 and Specification 3. Cognitive skills are mainly responsible for the reduction of the wage gap in Table 5 for men and women. Locus of control does not greatly affect the magnitude of the wage gap for black and Hispanic men at any quantile (reduction of 1-2 percent); however, locus of control does affect the gap for black and Hispanic women. For black women locus of control accounts for a portion of the wage gap at quantiles 20-40 (about 2 percent reduction). This portion grows for quantiles 50-80 to about 5 percent at the 80^{th} quantile and falls to about 3 percent at the 90^{th} quantile. For Hispanic women locus of control accounts for a portion of the wage gap (about 2 percent reduction) in the upper quantiles (60 -90) too. Self-esteem (Table 6) has differing effects on the wage gap for black men across the wage distribution. The wage gap for black men falls by 1-2 percent when including self-esteem at some quantiles but mostly widens or does not change. For Hispanic men self-esteem closes the gap at most quantiles with the greatest reduction at

the 10th and 70th quantiles (about 4 percent). The gap for black women grows by 4 percent at the 10th quantile, grows by 1-3 percent at quantiles 20-60, and grows by 4-5 percent at quantiles 70-90. Most of the estimates on the Hispanic coefficient for women are imprecisely estimated at quantiles at or below the median. For Hispanic women above the median the wage gap does not change or widens by 1-3 percent.

Tables 7 and 8 show quantile regressions estimated on the time-averaged data. Table 7 includes locus of control while Table 8 includes self-esteem. Still, cognitive skills are responsible for most of the reduction in the wage gap for men and women. Figure 3, like Figure 2, shows the change in the wage gap after adding noncognitive skills. At most quantiles locus of control influences the wage gap for black and Hispanic men usually by a reduction of 1-2 percent. For black women locus of control lowers the gap by 1-2 percent at lower quantiles (10-60) and by 3-6 percent at higher quantiles (70-90). Locus of control for Hispanic women has a negligible effect on the gap. Including self-esteem widens the wage gap at most quantiles for black men but lowers the gap at most quantiles for Hispanic men by 2-7 percent. Like black men black women experience a wider gap when including self-esteem at most quantiles with the largest differences at the upper quantiles (70-90) (3-10 percent). Self-esteem does not impact Hispanic women as most Hispanic coefficients are imprecisely estimated.

Figures 4 and 5 plot each quantile coefficient and its 95% confidence band for specifications 4 and 8 from Tables 5-8. These specifications control for both cognitive and noncognitive measures and give a sense of how the wage gaps and return to cognitive and noncognitive skills vary over the wage distribution. Figure 4 is based on pooled data, and Figure 5 is based on time-averaged data. Panels 1 (locus of control) and 2 (self-

esteem) of Figure 4 show the specifications for locus of control by gender. These panels show differing effects on the black wage gap. The gap remains relatively flat and persists across the wage distribution for men and locus of control. Black women earn more than white women at the lowest quantile of the distribution (9.0 percent more) and continue to earn more until they earn less at the 90th quantile (3.6 percent less). Hispanic men earn less than their white counterparts at the 10th quantile (about 7 percent less) until the 60th quantile when they earn more for the remaining portions of the wage distribution.[4] Hispanic women, on the other hand, always earn more than white women across the wage distribution.[5] The profiles for AFQT and Rotter indicate a larger return to cognitive skills than noncognitive skills.[6] Using self-esteem as the noncognitive measure does not qualitatively change the trends. The wage gap persists for black men. Black women earn more than white women at the lower quantiles of the distribution and earn less at higher quantiles. Hispanic men face an upward sloping wage gap profile, and Hispanic women always earn more. Similarly, the return to cognitive skills exceeds the return to self-esteem across the entire distribution. These trends do not change with time-averaged data (Figure 5).[7]

1.6.3 Robustness

Tables 9-14 offer specifications that replace AFQT with components of AFQT and interact race with cognitive skills and noncognitive skills to allow for differing returns by race. Tables 9-12 follow Table 3 in using pooled data but replace the

[4] A joint hypothesis test on the equality of the Hispanic coefficient for men across quantiles is rejected at the 1 percent significance level.
[5] A joint hypothesis test on the equality of the Hispanic coefficient for women across quantiles is rejected at the 5 percent significance level.
[6] A joint hypothesis test on the equality of AFQT and Rotter coefficients for each gender across quantiles is rejected at the 1 percent significance level.
[7] A joint hypothesis test on the equality of Hispanic coefficients for men and women cannot be rejected at the 10 percent significance level.

composite AFQT score with each section that comprises it: word knowledge (Table 9), arithmetic reasoning (Table 10), paragraph comprehension (Table 11), and numerical operations (Table 12).[8] Overall, replacing the AFQT score with its components still dramatically reduces the magnitude of the negative coefficient on black men (column 2). The largest reduction occurs with the Word Knowledge score, and the smallest reduction occurs with the Numerical Operations score. None of these reductions are greater than the reduction when including the AFQT score. For black women using components of the AFQT produces large reductions too. The Hispanic coefficient on men falls and switches signs for women, qualitatively matching the results when using AFQT. After controlling for each section of the AFQT and locus of control, there still exists a return to locus of control for men and women. More external individuals earn less with the largest effect for Numerical Operations and Paragraph Comprehension. After controlling for each section of the AFQT and self-esteem, men and women with higher self-esteem receive higher wages later in life. The largest return occurs with Arithmetic Reasoning and Numerical Operations for men and women. The return to self-esteem for women still exceeds the return for men when using the components.

Tables 13 and 14 report specifications that interact race with AFQT and noncognitive skills to allow for varying returns by race. Like Table 3 both tables use pooled data. Table 13 shows the specification with locus of control, and Table 14 shows the specification with self-esteem. When controlling for both sets of skills, these specifications suggest no differential returns in men by race for locus of control or self-esteem (column 4). The specifications do suggest differential returns for women only in

[8] Each section score is normalized to have a mean of zero and standard deviation of one.

self-esteem. When controlling for AFQT and self-esteem, black and Hispanic women earn more than their white counterparts (column 8).

Tables 15, 16, and 17 report specifications that control for region of residence where individuals lived as a teen in 1979. Table 15 adds a region dummy variable for South to each specification and controls for the large black population residing in the South. Individuals who lived in the South as teens earn lower wages later in life, regardless of which noncognitive skill is examined. The black coefficient in column 1 falls by about 3 percent compared to the black coefficient in column 1 of Table 3 which does not include a region control. Comparing the AFQT and locus of control coefficients in Table 15 and Table 3 shows very little change. Though the magnitudes of the black and Hispanic coefficients are smaller than in Table 3, the qualitative results do not change after controlling for region. Tables 16 and 17 interact the South dummy variable with cognitive and noncognitive skills to allow for differing returns by the region where individuals lived as a teen. Both tables show a higher return to AFQT for women living in the South in 1979. Table 17 shows a nonlinear effect on self-esteem for women living in the South.

1.7 Conclusion and Future Work

This paper investigates the role of noncognitive skills in explaining racial gaps in wages. Noncognitive skills are added to a parsimonious wage regression from Neal and Johnson (1996) to examine their effect on the wage gap. The analysis extends the wage gap and noncognitive skills literatures by studying the effect of noncognitive skills on wage gaps across the entire wage distribution. Using data from the National Longitudinal Survey of Youth 1979 spanning 1991-2006 this paper estimates wage regressions based

on three estimators: a pooled estimator, a between estimator, and a quantile estimator. The wage regressions take advantage of the timing of when noncognitive skills and wages are measured. The wage regressions relate cognitive and noncognitive skills measured at the beginning of the NLSY before individuals enter the labor market or begin post secondary schooling to wages measured later in life. The various model specifications capture the separate and simultaneous effects of cognitive and noncognitive skills on the wage gap.

Model estimates based on the pooled and between estimators confirm the finding in the wage gap literature that cognitive skills consistently account for much of the male black-white wage gap measured at the mean of the wage distribution. These model estimates also confirm a finding in the noncognitive literature that noncognitive skills cannot account for the male black-white wage gap measured at the mean of the wage distribution. While the pooled and between estimators suggest significant returns exist to noncognitive skills even after controlling for cognitive skills, the rank ordering of these returns between genders differs by estimator. Quantile regressions of the specification controlling for cognitive and noncognitive skills have different implications on the black-white wage gap. The black-white male wage gap persists at all points of the wage distribution. The black-white female wage gap exists at the highest portion of the wage distribution. The Hispanic-white wage gap profiles also differ by gender. After controlling for cognitive and noncognitive skills, Hispanic men earn less than white men at lower quantiles but earn more at higher quantiles. After controlling for cognitive and noncognitive skills, Hispanic women earn more than white women at all quantiles. The

return to cognitive skills is greater than the return to noncognitive skills at all quantiles after controlling for both sets of skills.

Noncognitive skills have generally been found to determine wage levels in the general population and across both genders (Heckman 2006). The noncognitive literature has emphasized the importance of connecting the development of these skills in early childhood to adult outcomes. In this context, the finding in this paper that noncognitive skills cannot affect or close some racial wage gaps presents a puzzle to the noncognitive literature. On one hand, these skills are important for wage levels; on the other hand, they do not seem to be important for wage gaps. It is possible that the specific noncognitive skills examined do not dramatically differ by race as depicted by their density functions. It is also possible that other noncognitive skills that are more direct measures of work ethic and motivation may be better determinants of relative wages.

Future work relating noncognitive skills to the racial wage gap should address a few issues, most notably an adjustment for sample selection, alternative measures of noncognitive skills, and an investigation into using the AFQT as a proxy variable for premarket human capital. Chandra (2003) and Neal (2004) show ignoring labor force withdrawal biases estimates of the racial wage gap. Chandra (2003) and Neal (2004) implement variations of a matching estimator to impute wages for individuals with missing wage data. Similar procedures should be implemented on the wage regressions in this paper to account for the influence of missing wages on the wage gap. Given the wide classification of a noncognitive skill, many alternative measures are available in the NLSY79. Weinberger (2008a and 2008b) and Rouse (2008) use sports and leadership participation as a measure of noncognitive skills which motivates an alternative measure

as participation in extracurricular activities. In 1984 the NLSY79 asked questions about high school participation in sports, student government, student publications, performing arts, and clubs. Krueger and Schkade (2008) develop a measure of gregariousness based on time diary information to gauge how sociability impacts selection into jobs. In 1985 individuals in the NLSY79 self report the degree to which he or she is shy or outgoing as a measure of sociability. Carneiro, Heckman, and Masterov (2005) use the behavior problems index to measure noncognitive skills in children of the NLSY79 cohort. A series of questions in 1980 surveying school discipline problems related to suspension and expulsion could serve as a similar measure for the NLSY79 cohort. A set of questions about risk and impatience in the most recent survey, 2006, can be used to determine degree of risk aversion. Bollinger (2003) shows the measurement error associated with using the AFQT as a proxy variable for human capital accumulation may bias the racial coefficients in the specification. Future work should investigate the severity of this bias in this context where proxy variables for cognitive and noncognitive skills are used.

Table 1: Sample Summary Statistics

Variable	Mean	Std. Dev.	Min.	Max.
Entire Sample (n=25,085)				
Male	0.53	0.50	0	1
Female	0.47	0.50	0	1
Black	0.29	0.45	0	1
Hispanic	0.19	0.39	0	1
White	0.52	0.50	0	1
AFQT	0.01	0.82	-2.33	1.65
Rotter	0.18	1.00	-2.32	3.37
Rosenberg	0.18	0.94	-2.49	1.90
Age	33.67	4.72	26.00	43.00
Wage (2009 dollars)	16.72	10.20	1.00	74.75
Black Sample (n=7,311)				
Male	0.52	0.50	0	1
Female	0.48	0.50	0	1
AFQT	-0.45	0.68	-2.33	1.50
Rotter	0.29	1.06	-2.32	3.37
Rosenberg	-0.06	0.92	-2.49	1.90
Age	33.77	4.72	26.00	43.00
Wage (2009 dollars)	13.99	8.50	1.02	73.07
Hispanic Sample (n=4,822)				
Male	0.50	0.50	0	1
Female	0.50	0.50	0	1
AFQT	-0.21	0.74	-2.33	1.50
Rotter	0.23	0.99	-2.32	3.37
Rosenberg	-0.30	0.93	-2.49	1.90
Age	33.62	4.72	26.00	43.00
Wage (2009 dollars)	16.42	9.93	1.00	74.75
White Sample (n=12,952)				
Male	0.54	0.50	0	1
Female	0.46	0.50	0	1
AFQT	0.32	0.77	-2.33	1.65
Rotter	0.10	-0.95	2.32	3.37
Rosenberg	-0.20	-0.95	2.23	1.90
Age	33.63	4.72	26.00	43.00
Wage (2009 dollars)	18.37	10.82	1.00	73.53

Table 2: Sample Summary Statistics By Gender and Race

Men

Variable	Mean	Std. Dev.	Min.	Max.
Black (n=3,772)				
AFQT	-0.53	0.69	-2.33	1.40
Rotter	0.22	1.12	-2.32	3.37
Rosenberg	-0.09	0.94	-2.23	1.90
Age	33.61	4.69	26.00	42.00
Wage (2009 dollars)	14.83	9.13	1.02	73.07
Hispanic (n=2,424)				
AFQT	-0.27	0.78	-2.33	1.37
Rotter	0.25	1.01	-2.32	3.37
Rosenberg	-0.32	0.90	-2.49	1.90
Age	33.46	4.72	26.00	43.00
Wage (2009 dollars)	17.51	10.48	1.10	74.12
White (n=7,039)				
AFQT	0.26	0.81	-2.33	1.65
Rotter	0.09	0.95	-2.32	3.37
Rosenberg	-0.16	0.93	-2.23	1.90
Age	33.61	4.71	26.00	42.00
Wage (2009 dollars)	20.35	11.30	1.08	73.12

Women

Variable	Mean	Std. Dev.	Min.	Max.
Black (n=3,539)				
AFQT	-0.37	0.65	-2.33	1.50
Rotter	0.38	1.00	-2.32	3.37
Rosenberg	-0.04	0.89	-2.49	1.90
Age	33.93	4.73	26.00	43.00
Wage (2009 dollars)	13.10	7.66	1.08	67.60
Hispanic (n=2,398)				
AFQT	-0.14	0.68	-2.33	1.50
Rotter	0.21	0.97	-2.32	3.37
Rosenberg	-0.28	0.96	-2.23	1.90
Age	33.78	4.72	26.00	42.00
Wage (2009 dollars)	15.33	9.22	1.00	74.75
White (n=5,913)				
AFQT	0.39	0.71	-2.33	1.62
Rotter	0.12	0.96	-2.32	3.37
Rosenberg	-0.23	0.98	-2.23	1.90
Age	33.65	4.72	26.00	43.00
Wage (2009 dollars)	16.01	9.71	1.00	73.53

Table 3: Log Wage Regression Using Pooled Data with Locus of Control and Self-Esteem

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.322***	-0.119***	-0.317***	-0.123***	-0.180***	0.0502*	-0.157***	0.0522**
	(0.024)	(0.025)	(0.024)	(0.025)	(0.027)	(0.027)	(0.026)	(0.026)
Hispanic	-0.155***	-0.0170	-0.148***	-0.0173	-0.0341	0.133***	-0.0250	0.131***
	(0.030)	(0.029)	(0.030)	(0.029)	(0.031)	(0.029)	(0.031)	(0.029)
Age	0.0305***	0.00289	0.0270**	0.00146	0.00244	-0.00493	-0.00533	-0.00876
	(0.011)	(0.011)	(0.011)	(0.011)	(0.013)	(0.011)	(0.013)	(0.011)
AFQT		0.259***		0.255***		0.294***		0.281***
		(0.014)		(0.014)		(0.016)		(0.016)
$AFQT^2$		0.0643***		0.0616***		0.0643***		0.0622***
		(0.014)		(0.014)		(0.015)		(0.015)
Rotter			-0.0522***	-0.0224**			-0.0812***	-0.0425***
			(0.011)	(0.010)			(0.014)	(0.012)
$Rotter^2$			0.00423	0.00737			0.00416	0.00355
			(0.0078)	(0.0069)			(0.0088)	(0.0079)
Observations	13163	13163	13137	13137	11819	11819	11765	11765
R^2	0.11	0.22	0.12	0.22	0.05	0.16	0.07	0.16

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.322***	-0.119***	-0.331***	-0.139***	-0.180***	0.0502*	-0.207***	0.0160
	(0.024)	(0.025)	(0.024)	(0.025)	(0.027)	(0.027)	(0.026)	(0.027)
Hispanic	-0.155***	-0.0170	-0.139***	-0.0203	-0.0341	0.133***	-0.0281	0.123***
	(0.030)	(0.029)	(0.029)	(0.028)	(0.031)	(0.029)	(0.030)	(0.029)
Age	0.0305***	0.00289	0.0149	-0.00247	0.00244	-0.00493	-0.00517	-0.00841
	(0.011)	(0.011)	(0.011)	(0.011)	(0.013)	(0.011)	(0.012)	(0.011)
AFQT		0.259***		0.240***		0.294***		0.269***
		(0.014)		(0.015)		(0.016)		(0.017)
$AFQT^2$		0.0643***		0.0600***		0.0643***		0.0605***
		(0.014)		(0.013)		(0.015)		(0.014)
Rosenberg			0.111***	0.0527***			0.114***	0.0611***
			(0.011)	(0.011)			(0.012)	(0.012)
$Rosenberg^2$			-0.00928	-0.00516			-0.0177	-0.0117
			(0.010)	(0.0097)			(0.012)	(0.011)
Observations	13163	13163	13153	13153	11819	11819	11809	11809
R^2	0.11	0.22	0.14	0.23	0.05	0.16	0.08	0.17

Regressions include annual time dummy variables. Standard errors in parentheses correct for the longitudinal structure of the NLSY by accounting for repeated observations of individuals over time. *** p<0.01, ** p<0.05, * p<0.1

Table 4: Log Wage Regression Using Time-Averaged Data with Locus of Control and Self-Esteem

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.367***	-0.151***	-0.361***	-0.157***	-0.163***	0.0624**	-0.139***	0.0659**
	(0.029)	(0.030)	(0.029)	(0.030)	(0.029)	(0.030)	(0.029)	(0.030)
Hispanic	-0.187***	-0.0333	-0.179***	-0.0343	-0.0424	0.120***	-0.0322	0.118***
	(0.034)	(0.033)	(0.034)	(0.033)	(0.035)	(0.034)	(0.034)	(0.034)
Age	0.0151*	0.00852	0.0148*	0.00849	-0.00773	-0.0154*	-0.0111	-0.0168*
	(0.0079)	(0.0074)	(0.0078)	(0.0074)	(0.0091)	(0.0086)	(0.0091)	(0.0086)
AFQT		0.279***		0.270***		0.287***		0.274***
		(0.016)		(0.016)		(0.020)		(0.020)
$AFQT^2$		0.0643***		0.0604***		0.0574***		0.0548***
		(0.015)		(0.015)		(0.018)		(0.018)
Rotter			-0.0662***	-0.0353***			-0.0777***	-0.0406***
			(0.013)	(0.012)			(0.015)	(0.014)
$Rotter^2$			0.00230	0.00510			-0.00333	-0.00505
			(0.010)	(0.0097)			(0.0100)	(0.0092)
Observations	1675	1675	1671	1671	1588	1588	1580	1580
R^2	0.09	0.23	0.11	0.23	0.02	0.15	0.04	0.16

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.367***	-0.151***	-0.378***	-0.182***	-0.163***	0.0624**	-0.185***	0.0343
	(0.029)	(0.030)	(0.028)	(0.031)	(0.029)	(0.030)	(0.029)	(0.031)
Hispanic	-0.187***	-0.0333	-0.163***	-0.0374	-0.0424	0.120***	-0.0346	0.111***
	(0.034)	(0.033)	(0.033)	(0.033)	(0.035)	(0.034)	(0.034)	(0.034)
Age	0.0151*	0.00852	0.0120	0.00757	-0.00773	-0.0154*	-0.0109	-0.0165*
	(0.0079)	(0.0074)	(0.0077)	(0.0074)	(0.0091)	(0.0086)	(0.0090)	(0.0086)
AFQT		0.279***		0.248***		0.287***		0.266***
		(0.016)		(0.017)		(0.020)		(0.020)
$AFQT^2$		0.0643***		0.0566***		0.0574***		0.0538***
		(0.015)		(0.015)		(0.018)		(0.018)
Rosenberg			0.138***	0.0767***			0.105***	0.0514***
			(0.013)	(0.013)			(0.014)	(0.014)
$Rosenberg^2$			-0.0114	-0.00655			-0.0158	-0.0112
			(0.012)	(0.011)			(0.014)	(0.013)
Observations	1675	1675	1674	1674	1588	1588	1587	1587
R^2	0.09	0.23	0.15	0.25	0.02	0.15	0.06	0.16

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 5: Quantile Wage Regression Using Pooled Data with Locus of Control

Quantile Wage Regression With Rotter Locus of Control, 1991-2006 (10th Quantile)

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.238***	-0.116***	-0.246***	-0.121***	-0.0572***	0.0882***	-0.0619***	0.0904***
	(0.0159)	(0.0149)	(0.0139)	(0.0189)	(0.0163)	(0.0197)	(0.0150)	(0.0181)
Hispanic	-0.156***	-0.0661***	-0.164***	-0.0697***	-0.0179	0.0935***	-0.0356*	0.0902***
	(0.0221)	(0.0180)	(0.0186)	(0.0195)	(0.0196)	(0.0201)	(0.0184)	(0.0224)
Age	0.0157*	-0.00477	0.0134*	-0.00651	-0.00153	-0.00826	-0.00644	-0.00809
	(0.00898)	(0.00796)	(0.00737)	(0.00884)	(0.00636)	(0.0103)	(0.00775)	(0.00992)
AFQT		0.187***		0.186***		0.211***		0.206***
		(0.0118)		(0.0133)		(0.0146)		(0.0145)
$AFQT^2$		0.0232**		0.0224*		0.0449***		0.0478***
		(0.0111)		(0.0120)		(0.0130)		(0.0119)
Rotter			-0.0317***	-0.00511			-0.0445***	-0.0245***
			(0.00681)	(0.00818)			(0.00594)	(0.00916)
$Rotter^2$			0.000910	0.00484			0.00664	0.00865
			(0.00454)	(0.00445)			(0.00424)	(0.00591)
Observations	13163	13163	13137	13137	11819	11819	11765	11765

Regressions include annual time dummy variables. Standard errors in parentheses are based on 100 bootstrap replications. *** p<0.01, ** p<0.05, * p<0.1

Quantile Wage Regression With Rotter Locus of Control, 1991-2006 (20th Quantile)

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.322***	-0.144***	-0.316***	-0.149***	-0.138***	0.0622***	-0.124***	0.0665***
	(0.0144)	(0.0130)	(0.0154)	(0.0148)	(0.0130)	(0.0160)	(0.0121)	(0.0141)
Hispanic	-0.176***	-0.0793***	-0.177***	-0.0822***	-0.0242	0.110***	-0.0334*	0.105***
	(0.0193)	(0.0202)	(0.0176)	(0.0205)	(0.0198)	(0.0152)	(0.0180)	(0.0181)
Age	0.0249***	-0.000352	0.0273***	-0.000181	0.00374	-0.0119*	0.00246	-0.0122*
	(0.00760)	(0.00683)	(0.00718)	(0.00673)	(0.00695)	(0.00687)	(0.00761)	(0.00646)
AFQT		0.249***		0.246***		0.257***		0.253***
		(0.00891)		(0.0102)		(0.0101)		(0.0108)
$AFQT^2$		0.0505***		0.0500***		0.0680***		0.0709***
		(0.00942)		(0.00943)		(0.00798)		(0.00729)
Rotter			-0.0280***	-0.0156**			-0.0618***	-0.0350***
			(0.00769)	(0.00687)			(0.00835)	(0.00796)
$Rotter^2$			-0.000995	0.0123***			0.0111*	0.0108**
			(0.00443)	(0.00394)			(0.00566)	(0.00421)
Observations	13163	13163	13137	13137	11819	11819	11765	11765

Regressions include annual time dummy variables. Standard errors in parentheses are based on 100 bootstrap replications. *** p<0.01, ** p<0.05, * p<0.1

Table 5 (continued)

Quantile Wage Regression With Rotter Locus of Control, 1991-2006 (30th Quantile)

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.371***	-0.157***	-0.375***	-0.163***	-0.167***	0.0705***	-0.148***	0.0736***
	(0.0122)	(0.0151)	(0.0147)	(0.0136)	(0.0129)	(0.0135)	(0.0131)	(0.0138)
Hispanic	-0.205***	-0.0551***	-0.209***	-0.0614***	-0.0100	0.148***	-0.00749	0.149***
	(0.0164)	(0.0174)	(0.0184)	(0.0172)	(0.0192)	(0.0142)	(0.0270)	(0.0161)
Age	0.0263***	0.00379	0.0226***	0.00275	-0.00444	-0.0164***	-0.0121*	-0.0162**
	(0.00651)	(0.00596)	(0.00672)	(0.00588)	(0.00711)	(0.00558)	(0.00707)	(0.00654)
AFQT		0.272***		0.269***		0.301***		0.289***
		(0.00876)		(0.00808)		(0.00901)		(0.00972)
$AFQT^2$		0.0536***		0.0529***		0.0770***		0.0752***
		(0.00835)		(0.00741)		(0.00610)		(0.00844)
Rotter			-0.0419***	-0.0222***			-0.0719***	-0.0341***
			(0.00649)	(0.00543)			(0.00828)	(0.00752)
$Rotter^2$			0.00843*	0.00986***			0.0113*	0.00303
			(0.00470)	(0.00350)			(0.00627)	(0.00422)
Observations	13163	13163	13137	13137	11819	11819	11765	11765

Regressions include annual time dummy variables. Standard errors in parentheses are based on 100 bootstrap replications. *** p<0.01, ** p<0.05, * p<0.1

Quantile Wage Regression With Rotter Locus of Control, 1991-2006 (40th Quantile)

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.374***	-0.137***	-0.369***	-0.144***	-0.170***	0.0611***	-0.150***	0.0623***
	(0.0127)	(0.0126)	(0.0124)	(0.0149)	(0.0136)	(0.0135)	(0.0148)	(0.0172)
Hispanic	-0.170***	-0.0238	-0.163***	-0.0182	0.00447	0.144***	0.0105	0.143***
	(0.0158)	(0.0152)	(0.0185)	(0.0122)	(0.0165)	(0.0154)	(0.0176)	(0.0160)
Age	0.0345***	0.00700	0.0316***	0.00692	-0.00447	-0.00777	-0.00883	-0.0131*
	(0.00688)	(0.00631)	(0.00635)	(0.00516)	(0.00693)	(0.00646)	(0.00703)	(0.00715)
AFQT		0.283***		0.278***		0.319***		0.306***
		(0.00716)		(0.00682)		(0.00864)		(0.00878)
$AFQT^2$		0.0553***		0.0493***		0.0771***		0.0747***
		(0.00613)		(0.00701)		(0.00660)		(0.00631)
Rotter			-0.0499***	-0.0226***			-0.0833***	-0.0365***
			(0.00634)	(0.00590)			(0.00905)	(0.00819)
$Rotter^2$			0.0123***	0.0106**			0.0104*	0.00325
			(0.00428)	(0.00465)			(0.00584)	(0.00511)
Observations	13163	13163	13137	13137	11819	11819	11765	11765

Regressions include annual time dummy variables. Standard errors in parentheses are based on 100 bootstrap replications. *** p<0.01, ** p<0.05, * p<0.1

Table 5 (continued)

Quantile Wage Regression With Rotter Locus of Control, 1991-2006 (50th Quantile)

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.362***	-0.132***	-0.356***	-0.132***	-0.194***	0.0482***	-0.168***	0.0551***
	(0.0114)	(0.0132)	(0.0150)	(0.0138)	(0.0151)	(0.0143)	(0.0151)	(0.0136)
Hispanic	-0.172***	-0.00920	-0.167***	-0.00751	-0.0192	0.135***	-0.0115	0.134***
	(0.0149)	(0.0146)	(0.0244)	(0.0149)	(0.0165)	(0.0153)	(0.0180)	(0.0148)
Age	0.0440***	0.0146***	0.0382***	0.0119*	-0	0.00126	-0.0152**	-0.00316
	(0.00580)	(0.00548)	(0.0119)	(0.00632)	(0.00712)	(0.00587)	(0.00773)	(0.00557)
AFQT		0.283***		0.282***		0.331***		0.317***
		(0.00678)		(0.00724)		(0.00748)		(0.00864)
$AFQT^2$		0.0556***		0.0504***		0.0754***		0.0711***
		(0.00583)		(0.00691)		(0.00688)		(0.00723)
Rotter			-0.0516***	-0.0247***			-0.0998***	-0.0453***
			(0.00677)	(0.00494)			(0.00764)	(0.00703)
$Rotter^2$			0.00825	0.0106***			0.0149***	0.00454
			(0.0100)	(0.00362)			(0.00469)	(0.00455)
Observations	13163	13163	13137	13137	11819	11819	11765	11765

Regressions include annual time dummy variables. Standard errors in parentheses are based on 100 bootstrap replications. *** p<0.01, ** p<0.05, * p<0.1

Quantile Wage Regression With Rotter Locus of Control, 1991-2006 (60th Quantile)

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.360***	-0.114***	-0.348***	-0.118***	-0.241***	0.0536***	-0.202***	0.0622***
	(0.0151)	(0.0136)	(0.0196)	(0.0134)	(0.0174)	(0.0127)	(0.0167)	(0.0198)
Hispanic	-0.166***	-0.000908	-0.159***	0.00463	-0.0583***	0.130***	-0.0347**	0.124***
	(0.0133)	(0.0147)	(0.0286)	(0.0143)	(0.0191)	(0.0173)	(0.0155)	(0.0157)
Age	0.0410***	0.0152**	0.0392**	0.0113**	0.00122	-0.000428	-0.00458	0.000442
	(0.00518)	(0.00597)	(0.0190)	(0.00525)	(0.00825)	(0.00646)	(0.00772)	(0.00628)
AFQT		0.287***		0.286***		0.341***		0.328***
		(0.00706)		(0.00744)		(0.00777)		(0.0155)
$AFQT^2$		0.0628***		0.0581***		0.0713***		0.0687***
		(0.00688)		(0.00743)		(0.00696)		(0.0157)
Rotter			-0.0580***	-0.0264***			-0.112***	-0.0575***
			(0.00660)	(0.00536)			(0.00771)	(0.0123)
$Rotter^2$			0.00814	0.0117***			0.0160***	0.0113*
			(0.00839)	(0.00373)			(0.00436)	(0.00669)
Observations	13163	13163	13137	13137	11819	11819	11765	11765

Regressions include annual time dummy variables. Standard errors in parentheses are based on 100 bootstrap replications. *** p<0.01, ** p<0.05, * p<0.1

Table 5 (continued)

Quantile Wage Regression With Rotter Locus of Control, 1991-2006 (70th Quantile)

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.354***	-0.0972***	-0.333***	-0.0972***	-0.264***	0.0379**	-0.218***	0.0471***
	(0.0153)	(0.0128)	(0.0153)	(0.0142)	(0.0148)	(0.0174)	(0.0148)	(0.0169)
Hispanic	-0.173***	0.0189	-0.158***	0.0197	-0.0808***	0.136***	-0.0667***	0.138***
	(0.0163)	(0.0145)	(0.0161)	(0.0157)	(0.0174)	(0.0186)	(0.0167)	(0.0203)
Age	0.0426***	0.0114**	0.0369***	0.0104	0.0157**	0.0106	0.00911	-0.00112
	(0.00674)	(0.00570)	(0.00658)	(0.00676)	(0.00725)	(0.00763)	(0.00725)	(0.00686)
AFQT		0.296***		0.291***		0.335***		0.323***
		(0.00699)		(0.00743)		(0.00905)		(0.00820)
$AFQT^2$		0.0697***		0.0676***		0.0617***		0.0624***
		(0.00755)		(0.00661)		(0.00740)		(0.00771)
Rotter			-0.0656***	-0.0243***			-0.0956***	-0.0694***
			(0.00673)	(0.00555)			(0.00830)	(0.00677)
$Rotter^2$			0.00352	0.00790*			0.00404	0.0112***
			(0.00387)	(0.00415)			(0.00549)	(0.00430)
Observations	13163	13163	13137	13137	11819	11819	11765	11765

Regressions include annual time dummy variables. Standard errors in parentheses are based on 100 bootstrap replications. *** p<0.01, ** p<0.05, * p<0.1

Quantile Wage Regression With Rotter Locus of Control, 1991-2006 (80th Quantile)

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.336***	-0.0899***	-0.328***	-0.0921***	-0.267***	0.0132	-0.216***	0.0231
	(0.0146)	(0.0147)	(0.0147)	(0.0142)	(0.0222)	(0.0194)	(0.0182)	(0.0181)
Hispanic	-0.163***	0.0230	-0.146***	0.0278	-0.0905***	0.129***	-0.0631***	0.125***
	(0.0208)	(0.0170)	(0.0214)	(0.0171)	(0.0192)	(0.0177)	(0.0225)	(0.0199)
Age	0.0404***	0.00294	0.0329***	0.00540	0.0136	0.00981	0.00356	0.00599
	(0.00655)	(0.00643)	(0.00755)	(0.00759)	(0.00905)	(0.00763)	(0.00733)	(0.00755)
AFQT		0.287***		0.280***		0.332***		0.316***
		(0.00866)		(0.00785)		(0.0114)		(0.0103)
$AFQT^2$		0.0829***		0.0788***		0.0569***		0.0583***
		(0.00900)		(0.00908)		(0.00903)		(0.00806)
Rotter			-0.0706***	-0.0256***			-0.0927***	-0.0592***
			(0.00785)	(0.00532)			(0.00683)	(0.00631)
$Rotter^2$			0.00189	0.00605**			-0.00203	0.00153
			(0.00516)	(0.00244)			(0.00461)	(0.00402)
Observations	13163	13163	13137	13137	11819	11819	11765	11765

Regressions include annual time dummy variables. Standard errors in parentheses are based on 100 bootstrap replications. *** p<0.01, ** p<0.05, * p<0.1

Table 5 (continued)

Quantile Wage Regression With Rotter Locus of Control, 1991-2006 (90th Quantile)

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.300***	-0.0946***	-0.291***	-0.101***	-0.237***	-0.0324*	-0.211***	-0.0364*
	(0.0191)	(0.0240)	(0.0202)	(0.0199)	(0.0168)	(0.0182)	(0.0168)	(0.0200)
Hispanic	-0.0947***	0.0353	-0.0834***	0.0404*	-0.0616***	0.0956***	-0.0383	0.0944***
	(0.0216)	(0.0254)	(0.0197)	(0.0212)	(0.0232)	(0.0189)	(0.0274)	(0.0232)
Age	0.0408***	-0.00684	0.0320***	-0.000755	0.0210**	0.00946	0.0106	0.000189
	(0.0101)	(0.00777)	(0.00808)	(0.00925)	(0.00825)	(0.00920)	(0.0117)	(0.0108)
AFQT		0.243***		0.233***		0.300***		0.272***
		(0.0114)		(0.00935)		(0.0132)		(0.0169)
$AFQT^2$		0.0932***		0.0841***		0.0748***		0.0696***
		(0.0112)		(0.00999)		(0.0125)		(0.0141)
Rotter			-0.0787***	-0.0415***			-0.0821***	-0.0392***
			(0.00841)	(0.0101)			(0.00959)	(0.00780)
$Rotter^2$			0.00501	0.00271			-0.0105**	-0.00908*
			(0.00555)	(0.00621)			(0.00525)	(0.00478)
Observations	13163	13163	13137	13137	11819	11819	11765	11765

Regressions include annual time dummy variables. Standard errors in parentheses are based on 100 bootstrap replications. *** p<0.01, ** p<0.05, * p<0.1

Table 6: Quantile Wage Regression Using Pooled Data with Self-Esteem

Quantile Wage Regression With Rosenberg Self-Esteem, 1991-2006 (10th Quantile)

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.238***	-0.116***	-0.258***	-0.137***	-0.0572***	0.0882***	-0.0963***	0.0648***
	(0.0166)	(0.0167)	(0.0172)	(0.0170)	(0.0160)	(0.0180)	(0.0134)	(0.0198)
Hispanic	-0.156***	-0.0661***	-0.118***	-0.0772***	-0.0179	0.0935***	-0.00648	0.0958***
	(0.0204)	(0.0180)	(0.0225)	(0.0155)	(0.0194)	(0.0216)	(0.0154)	(0.0224)
Age	0.0157*	-0.00477	0.00432	-0.00890	-0.00153	-0.00826	-0.00415	-0.00694
	(0.00868)	(0.00851)	(0.00860)	(0.00800)	(0.00747)	(0.00880)	(0.00749)	(0.00824)
AFQT		0.187***		0.177***		0.211***		0.196***
		(0.0124)		(0.0121)		(0.0137)		(0.0139)
$AFQT^2$		0.0232**		0.0228**		0.0449***		0.0431***
		(0.0106)		(0.0105)		(0.0122)		(0.0124)
Rosenberg			0.0782***	0.0297***			0.0638***	0.0400***
			(0.00781)	(0.00879)			(0.00766)	(0.00701)
$Rosenberg^2$			-0.00584	-0.00350			-0.0266***	-0.0172**
			(0.00846)	(0.00764)			(0.00800)	(0.00837)
Observations	13163	13163	13153	13153	11819	11819	11809	11809

Regressions include annual time dummy variables. Standard errors in parentheses are based on 100 bootstrap replications. *** p<0.01, ** p<0.05, * p<0.1

Quantile Wage Regression With Rosenberg Self-Esteem, 1991-2006 (20th Quantile)

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.322***	-0.144***	-0.326***	-0.161***	-0.138***	0.0622***	-0.146***	0.0377***
	(0.0115)	(0.0140)	(0.0142)	(0.0149)	(0.00987)	(0.0164)	(0.0119)	(0.0142)
Hispanic	-0.176***	-0.0793***	-0.168***	-0.0854***	-0.0242	0.110***	0.00370	0.104***
	(0.0191)	(0.0186)	(0.0177)	(0.0206)	(0.0193)	(0.0146)	(0.0166)	(0.0175)
Age	0.0249***	-0.000352	0.0216***	-0.00151	0.00374	-0.0119*	-0.00447	-0.0143**
	(0.00720)	(0.00769)	(0.00770)	(0.00793)	(0.00713)	(0.00640)	(0.00683)	(0.00660)
AFQT		0.249***		0.230***		0.257***		0.239***
		(0.00982)		(0.0110)		(0.0111)		(0.0101)
$AFQT^2$		0.0505***		0.0453***		0.0680***		0.0682***
		(0.00894)		(0.00914)		(0.00938)		(0.00739)
Rosenberg			0.0886***	0.0393***			0.0866***	0.0491***
			(0.00748)	(0.00714)			(0.00704)	(0.00715)
$Rosenberg^2$			0.00307	0.00285			-0.0209***	-0.0149**
			(0.00704)	(0.00645)			(0.00650)	(0.00670)
Observations	13163	13163	13153	13153	11819	11819	11809	11809

Regressions include annual time dummy variables. Standard errors in parentheses are based on 100 bootstrap replications. *** p<0.01, ** p<0.05, * p<0.1

Table 6 (continued)

Quantile Wage Regression With Rosenberg Self-Esteem, 1991-2006 (30th Quantile)

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.371***	-0.157***	-0.374***	-0.173***	-0.167***	0.0705***	-0.174***	0.0450***
	(0.0129)	(0.0147)	(0.0123)	(0.0158)	(0.0122)	(0.0118)	(0.0128)	(0.0152)
Hispanic	-0.205***	-0.0551***	-0.174***	-0.0572***	-0.0100	0.148***	0.000640	0.146***
	(0.0169)	(0.0184)	(0.0155)	(0.0204)	(0.0184)	(0.0137)	(0.0162)	(0.0159)
Age	0.0263***	0.00379	0.0184***	0.00128	-0.00444	-0.0164***	-0.00805	-0.0154**
	(0.00711)	(0.00655)	(0.00507)	(0.00607)	(0.00779)	(0.00634)	(0.00529)	(0.00629)
AFQT		0.272***		0.256***		0.301***		0.279***
		(0.00843)		(0.00994)		(0.00790)		(0.0102)
$AFQT^2$		0.0536***		0.0523***		0.0770***		0.0744***
		(0.00789)		(0.00710)		(0.00641)		(0.00703)
Rosenberg			0.104***	0.0410***			0.110***	0.0578***
			(0.00611)	(0.00634)			(0.00672)	(0.00669)
$Rosenberg^2$			0.00615	0.00241			-0.0259***	-0.0138**
			(0.00681)	(0.00546)			(0.00558)	(0.00542)
Observations	13163	13163	13153	13153	11819	11819	11809	11809

Regressions include annual time dummy variables. Standard errors in parentheses are based on 100 bootstrap replications. *** p<0.01, ** p<0.05, * p<0.1

Quantile Wage Regression With Rosenberg Self-Esteem, 1991-2006 (40th Quantile)

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.374***	-0.137***	-0.386***	-0.150***	-0.170***	0.0611***	-0.195***	0.0371***
	(0.0111)	(0.0157)	(0.0139)	(0.0166)	(0.0153)	(0.0128)	(0.0148)	(0.0142)
Hispanic	-0.170***	-0.0238	-0.159***	-0.0181	0.00447	0.144***	0.0157	0.144***
	(0.0166)	(0.0153)	(0.0167)	(0.0147)	(0.0152)	(0.0160)	(0.0160)	(0.0146)
Age	0.0345***	0.00700	0.0238***	0.00399	-0.00447	-0.00777	-0.00746	-0.00929
	(0.00573)	(0.00530)	(0.00602)	(0.00584)	(0.00637)	(0.00538)	(0.00683)	(0.00574)
AFQT		0.283***		0.268***		0.319***		0.294***
		(0.00622)		(0.00882)		(0.00803)		(0.00845)
$AFQT^2$		0.0553***		0.0529***		0.0771***		0.0784***
		(0.00635)		(0.00718)		(0.00666)		(0.00596)
Rosenberg			0.105***	0.0416***			0.123***	0.0675***
			(0.00556)	(0.00583)			(0.00650)	(0.00540)
$Rosenberg^2$			-0.000434	0.00136			-0.0207***	-0.0159***
			(0.00558)	(0.00513)			(0.00706)	(0.00591)
Observations	13163	13163	13153	13153	11819	11819	11809	11809

Regressions include annual time dummy variables. Standard errors in parentheses are based on 100 bootstrap replications. *** p<0.01, ** p<0.05, * p<0.1

Table 6 (continued)

Quantile Wage Regression With Rosenberg Self-Esteem, 1991-2006 (50th Quantile)

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.362***	-0.132***	-0.378***	-0.142***	-0.194***	0.0482***	-0.227***	0.0154
	(0.0155)	(0.0137)	(0.0171)	(0.0131)	(0.0157)	(0.0134)	(0.0140)	(0.0150)
Hispanic	-0.172***	-0.00920	-0.163***	-0.0122	-0.0192	0.135***	-0.0232	0.127***
	(0.0133)	(0.0148)	(0.0297)	(0.0127)	(0.0163)	(0.0183)	(0.0151)	(0.0142)
Age	0.0440***	0.0146***	0.0242*	0.00688	-0	0.00126	-0.00315	-0.00404
	(0.00657)	(0.00540)	(0.0136)	(0.00556)	(0.00757)	(0.00636)	(0.00697)	(0.00568)
AFQT		0.283***		0.266***		0.331***		0.307***
		(0.00679)		(0.00744)		(0.00798)		(0.00800)
$AFQT^2$		0.0556***		0.0518***		0.0754***		0.0723***
		(0.00553)		(0.00559)		(0.00734)		(0.00572)
Rosenberg			0.117***	0.0473***			0.140***	0.0693***
			(0.00599)	(0.00540)			(0.00712)	(0.00643)
$Rosenberg^2$			-0.00121	-0.00595			-0.0214***	-0.0103
			(0.00919)	(0.00526)			(0.00600)	(0.00627)
Observations	13163	13163	13153	13153	11819	11819	11809	11809

Regressions include annual time dummy variables. Standard errors in parentheses are based on 100 bootstrap replications. *** p<0.01, ** p<0.05, * p<0.1

Quantile Wage Regression With Rosenberg Self-Esteem, 1991-2006 (60th Quantile)

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.360***	-0.114***	-0.354***	-0.134***	-0.241***	0.0536***	-0.265***	-0.00900
	(0.0140)	(0.0134)	(0.0376)	(0.0132)	(0.0173)	(0.0143)	(0.0155)	(0.0151)
Hispanic	-0.166***	-0.000908	-0.145***	-0.00382	-0.0583***	0.130***	-0.0549***	0.101***
	(0.0126)	(0.0142)	(0.0329)	(0.0131)	(0.0212)	(0.0171)	(0.0180)	(0.0169)
Age	0.0410***	0.0152**	0.0274	0.00758	0.00122	-0.000428	0.00107	0.00253
	(0.00532)	(0.00665)	(0.225)	(0.00567)	(0.00772)	(0.00618)	(0.00711)	(0.00653)
AFQT		0.287***		0.267***		0.341***		0.302***
		(0.00708)		(0.00825)		(0.00756)		(0.00911)
$AFQT^2$		0.0628***		0.0603***		0.0713***		0.0635***
		(0.00620)		(0.00640)		(0.00613)		(0.00666)
Rosenberg			0.123	0.0534***			0.151***	0.0816***
			(0.652)	(0.00720)			(0.00714)	(0.00706)
$Rosenberg^2$			-0.00115	-0.00166			-0.0166**	-0.0107*
			(0.806)	(0.00582)			(0.00739)	(0.00638)
Observations	13163	13163	13153	13153	11819	11819	11809	11809

Regressions include annual time dummy variables. Standard errors in parentheses are based on 100 bootstrap replications. *** p<0.01, ** p<0.05, * p<0.1

Table 6 (continued)

Quantile Wage Regression With Rosenberg Self-Esteem, 1991-2006 (70th Quantile)

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.354***	-0.0972***	-0.348***	-0.125***	-0.264***	0.0379**	-0.303***	-0.0317*
	(0.0172)	(0.0124)	(0.0160)	(0.0155)	(0.0160)	(0.0176)	(0.0176)	(0.0168)
Hispanic	-0.173***	0.0189	-0.138***	0.00617	-0.0808***	0.136***	-0.0795***	0.102***
	(0.0164)	(0.0148)	(0.0203)	(0.0148)	(0.0167)	(0.0174)	(0.0182)	(0.0181)
Age	0.0426***	0.0114*	0.0216***	0.00529	0.0157**	0.0106	0.00606	0.00516
	(0.00632)	(0.00597)	(0.00737)	(0.00718)	(0.00665)	(0.00753)	(0.00809)	(0.00661)
AFQT		0.296***		0.269***		0.335***		0.292***
		(0.00725)		(0.00704)		(0.00771)		(0.0101)
$AFQT^2$		0.0697***		0.0640***		0.0617***		0.0554***
		(0.00761)		(0.00860)		(0.00860)		(0.00759)
Rosenberg			0.128***	0.0605***			0.152***	0.0934***
			(0.00624)	(0.00666)			(0.00710)	(0.00843)
$Rosenberg^2$			-0.0127**	-0.000641			-0.0221***	-0.00645
			(0.00643)	(0.00556)			(0.00771)	(0.00635)
Observations	13163	13163	13153	13153	11819	11819	11809	11809

Regressions include annual time dummy variables. Standard errors in parentheses are based on 100 bootstrap replications. *** p<0.01, ** p<0.05, * p<0.1

Quantile Wage Regression With Rosenberg Self-Esteem, 1991-2006 (80th Quantile)

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.336***	-0.0899***	-0.344***	-0.115***	-0.267***	0.0132	-0.320***	-0.0547***
	(0.0146)	(0.0143)	(0.0158)	(0.0125)	(0.0225)	(0.0179)	(0.0147)	(0.0176)
Hispanic	-0.163***	0.0230	-0.150***	0.0182	-0.0905***	0.129***	-0.0970***	0.0917***
	(0.0211)	(0.0180)	(0.0166)	(0.0161)	(0.0186)	(0.0165)	(0.0193)	(0.0175)
Age	0.0404***	0.00294	0.0181***	-0.00551	0.0136	0.00981	0.00692	-0.00210
	(0.00623)	(0.00736)	(0.00691)	(0.00746)	(0.00997)	(0.00833)	(0.00768)	(0.00720)
AFQT		0.287***		0.259***		0.332***		0.290***
		(0.00791)		(0.00786)		(0.0104)		(0.0119)
$AFQT^2$		0.0829***		0.0749***		0.0569***		0.0486***
		(0.00933)		(0.00872)		(0.00819)		(0.00804)
Rosenberg			0.131***	0.0657***			0.138***	0.0879***
			(0.00729)	(0.00653)			(0.00838)	(0.00799)
$Rosenberg^2$			-0.0191***	-0.00979			-0.00868	-0.00434
			(0.00606)	(0.00599)			(0.00732)	(0.00606)
Observations	13163	13163	13153	13153	11819	11819	11809	11809

Regressions include annual time dummy variables. Standard errors in parentheses are based on 100 bootstrap replications. *** p<0.01, ** p<0.05, * p<0.1

Table 6 (continued)

Quantile Wage Regression With Rosenberg Self-Esteem, 1991-2006 (90th Quantile)

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.300***	-0.0946***	-0.290***	-0.121***	-0.237***	-0.0324*	-0.290***	-0.0696***
	(0.0193)	(0.0183)	(0.0200)	(0.0204)	(0.0165)	(0.0181)	(0.0212)	(0.0210)
Hispanic	-0.0947***	0.0353	-0.106***	0.0226	-0.0616***	0.0956***	-0.0937***	0.0911***
	(0.0216)	(0.0229)	(0.0229)	(0.0242)	(0.0226)	(0.0191)	(0.0172)	(0.0228)
Age	0.0408***	-0.00684	0.0176**	-0.0186*	0.0210**	0.00946	-1.59e-05	0.00213
	(0.00947)	(0.00827)	(0.00883)	(0.0102)	(0.00972)	(0.00882)	(0.0105)	(0.00953)
AFQT		0.243***		0.220***		0.300***		0.278***
		(0.0104)		(0.0117)		(0.0153)		(0.0130)
$AFQT^2$		0.0932***		0.0868***		0.0748***		0.0736***
		(0.0114)		(0.00943)		(0.0149)		(0.0132)
Rosenberg			0.124***	0.0796***			0.123***	0.0564***
			(0.00667)	(0.00898)			(0.00873)	(0.00851)
$Rosenberg^2$			-0.0366***	-0.0196***			0.00314	-0.00411
			(0.00598)	(0.00679)			(0.00923)	(0.00907)
Observations	13163	13163	13153	13153	11819	11819	11809	11809

Regressions include annual time dummy variables. Standard errors in parentheses are based on 100 bootstrap replications. *** p<0.01, ** p<0.05, * p<0.1

Table 7: Quantile Wage Regression Using Time-Averaged Data with Locus of Control

Quantile Wage Regression With Rotter Locus of Control, Between Estimator 1991-2006 (10th Quantile)

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.282***	-0.162***	-0.273***	-0.199***	-0.0635	0.0893	-0.0842	0.0675
	(0.0365)	(0.0418)	(0.0351)	(0.0445)	(0.0414)	(0.0583)	(0.0553)	(0.0632)
Hispanic	-0.189***	-0.117**	-0.192***	-0.117**	-0.0742	-0.0184	-0.0685	-0.0194
	(0.0568)	(0.0491)	(0.0488)	(0.0518)	(0.0787)	(0.0829)	(0.0656)	(0.0817)
Age	0.0125	0.0120	0.0129	0.0164	0.00426	0.00873	0.00187	0.00495
	(0.0156)	(0.0133)	(0.0152)	(0.0132)	(0.0179)	(0.0139)	(0.0200)	(0.0169)
AFQT		0.209***		0.207***		0.177***		0.171***
		(0.0319)		(0.0358)		(0.0482)		(0.0518)
$AFQT^2$		0.0109		0.0271		-0.0129		-0.00576
		(0.0316)		(0.0303)		(0.0631)		(0.0721)
Rotter			-0.0597***	-0.0402**			-0.0406	-0.0281
			(0.0219)	(0.0174)			(0.0291)	(0.0341)
$Rotter^2$			0.00425	0.00923			4.20e-05	0.00306
			(0.0191)	(0.0136)			(0.0225)	(0.0172)
Observations	1675	1675	1671	1671	1588	1588	1580	1580

Standard errors in parentheses are based on 100 bootstrap replications. *** p<0.01, ** p<0.05, * p<0.1

Quantile Wage Regression With Rotter Locus of Control, Between Estimator 1991-2006 (20th Quantile)

	Men				Women			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.319***	-0.149***	-0.321***	-0.160***	-0.0748**	0.0947*	-0.0585	0.0715
	(0.0461)	(0.0324)	(0.0382)	(0.0388)	(0.0379)	(0.0539)	(0.0397)	(0.0465)
Hispanic	-0.209***	-0.0678	-0.203***	-0.0858	-0.0173	0.109*	-0.0103	0.128*
	(0.0520)	(0.0539)	(0.0417)	(0.0615)	(0.0475)	(0.0631)	(0.0495)	(0.0652)
Age	0.0164	0.0135*	0.0162	0.0124	-0.00267	-0.0143	-0.00403	-0.0110
	(0.0107)	(0.00815)	(0.0104)	(0.0107)	(0.0146)	(0.0131)	(0.0152)	(0.0135)
AFQT		0.260***		0.252***		0.251***		0.230***
		(0.0195)		(0.0186)		(0.0340)		(0.0366)
$AFQT^2$		0.0444**		0.0498***		0.0596**		0.0579**
		(0.0174)		(0.0184)		(0.0283)		(0.0230)
Rotter			-0.0561***	-0.0250			-0.0528**	-0.0326**
			(0.0156)	(0.0156)			(0.0206)	(0.0166)
$Rotter^2$			0.00249	0.00848			-0.00566	0.00102
			(0.0110)	(0.0116)			(0.0136)	(0.0103)
Observations	1675	1675	1671	1671	1588	1588	1580	1580

Standard errors in parentheses are based on 100 bootstrap replications. *** p<0.01, ** p<0.05, * p<0.1

Table 7 (continued)

Quantile Wage Regression With Rotter Locus of Control, Between Estimator 1991-2006 (30th Quantile)

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.382***	-0.142***	-0.373***	-0.158***	-0.117***	0.0790**	-0.110***	0.0639**
	(0.0326)	(0.0354)	(0.0337)	(0.0364)	(0.0348)	(0.0343)	(0.0282)	(0.0309)
Hispanic	-0.220***	-0.0680	-0.215***	-0.0737*	0.0107	0.144***	-0.00146	0.136***
	(0.0500)	(0.0464)	(0.0517)	(0.0397)	(0.0486)	(0.0404)	(0.0372)	(0.0341)
Age	0.0143	0.0218**	0.0111	0.0174**	-0.0134	-0.0175	-0.0115	-0.0219*
	(0.00970)	(0.00899)	(0.0103)	(0.00853)	(0.0130)	(0.0115)	(0.0114)	(0.0116)
AFQT		0.271***		0.260***		0.263***		0.245***
		(0.0243)		(0.0252)		(0.0215)		(0.0218)
$AFQT^2$		0.0482***		0.0418**		0.0651***		0.0601***
		(0.0186)		(0.0171)		(0.0209)		(0.0192)
Rotter			-0.0531***	-0.0295**			-0.0607***	-0.0356**
			(0.0154)	(0.0141)			(0.0184)	(0.0156)
$Rotter^2$			0.00353	0.00180			-0.00409	-0.00559
			(0.0132)	(0.0113)			(0.0156)	(0.0106)
Observations	1675	1675	1671	1671	1588	1588	1580	1580

Standard errors in parentheses are based on 100 bootstrap replications. *** p<0.01, ** p<0.05, * p<0.1

Quantile Wage Regression With Rotter Locus of Control, Between Estimator 1991-2006 (40th Quantile)

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.412***	-0.144***	-0.420***	-0.144***	-0.142***	0.0646**	-0.120***	0.0717**
	(0.0302)	(0.0395)	(0.0264)	(0.0424)	(0.0312)	(0.0317)	(0.0291)	(0.0286)
Hispanic	-0.214***	-0.0515	-0.206***	-0.0547	0.000327	0.127***	0.00292	0.130***
	(0.0392)	(0.0409)	(0.0402)	(0.0396)	(0.0386)	(0.0284)	(0.0449)	(0.0378)
Age	0.00963	0.0132	0.00931	0.0126	-0.0145	-0.0181**	-0.0134	-0.0201**
	(0.00854)	(0.00984)	(0.00790)	(0.00839)	(0.00909)	(0.00862)	(0.0106)	(0.00992)
AFQT		0.289***		0.285***		0.277***		0.271***
		(0.0239)		(0.0224)		(0.0211)		(0.0196)
$AFQT^2$		0.0479**		0.0474**		0.0727***		0.0683***
		(0.0210)		(0.0185)		(0.0147)		(0.0133)
Rotter			-0.0516***	-0.0258			-0.0545***	-0.0325*
			(0.0134)	(0.0164)			(0.0176)	(0.0170)
$Rotter^2$			0.00482	0.0117			-0.00177	-0.00447
			(0.0119)	(0.0132)			(0.0153)	(0.0118)
Observations	1675	1675	1671	1671	1588	1588	1580	1580

Standard errors in parentheses are based on 100 bootstrap replications. *** p<0.01, ** p<0.05, * p<0.1

Table 7 (continued)

Quantile Wage Regression With Rotter Locus of Control, Between Estimator 1991-2006 (50th Quantile)

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.415***	-0.131***	-0.404***	-0.128***	-0.159***	0.0469	-0.137***	0.0745**
	(0.0300)	(0.0385)	(0.0340)	(0.0414)	(0.0336)	(0.0356)	(0.0330)	(0.0376)
Hispanic	-0.188***	-0.0311	-0.180***	-0.0313	0.0283	0.121***	0.0204	0.118***
	(0.0376)	(0.0383)	(0.0319)	(0.0392)	(0.0435)	(0.0356)	(0.0441)	(0.0348)
Age	0.0134*	0.0119	0.0113	0.0104	-0.0171	-0.0199*	-0.0203*	-0.0167
	(0.00701)	(0.00826)	(0.00834)	(0.00805)	(0.0108)	(0.0107)	(0.0116)	(0.0124)
AFQT		0.296***		0.304***		0.309***		0.299***
		(0.0204)		(0.0202)		(0.0249)		(0.0223)
$AFQT^2$		0.0579***		0.0545***		0.0743***		0.0712***
		(0.0173)		(0.0153)		(0.0154)		(0.0166)
Rotter			-0.0491***	-0.0267*			-0.0836***	-0.0398**
			(0.0132)	(0.0161)			(0.0174)	(0.0172)
$Rotter^2$			0.0121	0.0169			0.00460	-0.0113
			(0.0112)	(0.0120)			(0.0118)	(0.0112)
Observations	1675	1675	1671	1671	1588	1588	1580	1580

Standard errors in parentheses are based on 100 bootstrap replications. *** p<0.01, ** p<0.05, * p<0.1

Quantile Wage Regression With Rotter Locus of Control, Between Estimator 1991-2006 (60th Quantile)

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.415***	-0.127***	-0.384***	-0.147***	-0.196***	0.0586*	-0.183***	0.0805***
	(0.0375)	(0.0395)	(0.0452)	(0.0394)	(0.0354)	(0.0352)	(0.0467)	(0.0306)
Hispanic	-0.190***	0.0124	-0.178***	-0.00840	-0.00351	0.176***	-0.00537	0.165***
	(0.0369)	(0.0497)	(0.0377)	(0.0487)	(0.0453)	(0.0576)	(0.0532)	(0.0474)
Age	0.0186**	0.0128*	0.0167*	0.0118	-0.0173*	-0.0161	-0.0218*	-0.0198
	(0.00903)	(0.00770)	(0.00903)	(0.00808)	(0.0105)	(0.0126)	(0.0113)	(0.0131)
AFQT		0.306***		0.295***		0.336***		0.331***
		(0.0173)		(0.0216)		(0.0180)		(0.0271)
$AFQT^2$		0.0559***		0.0552***		0.0883***		0.0824***
		(0.0162)		(0.0177)		(0.0175)		(0.0230)
Rotter			-0.0605***	-0.0181			-0.0976***	-0.0400
			(0.0169)	(0.0150)			(0.0297)	(0.0324)
$Rotter^2$			0.0149	0.0102			0.0124	-0.00764
			(0.0133)	(0.0108)			(0.0164)	(0.0135)
Observations	1675	1675	1671	1671	1588	1588	1580	1580

Standard errors in parentheses are based on 100 bootstrap replications. *** p<0.01, ** p<0.05, * p<0.1

Table 7 (continued)

Quantile Wage Regression With Rotter Locus of Control, Between Estimator 1991-2006 (70th Quantile)

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.376***	-0.116***	-0.374***	-0.125***	-0.275***	0.0564	-0.211***	0.0580
	(0.0396)	(0.0357)	(0.0428)	(0.0371)	(0.0501)	(0.0343)	(0.0488)	(0.0377)
Hispanic	-0.205***	0.0173	-0.168***	0.00968	-0.0649	0.182***	-0.0465	0.157***
	(0.0393)	(0.0340)	(0.0462)	(0.0384)	(0.0541)	(0.0419)	(0.0429)	(0.0449)
Age	0.0124	0.0126	0.00777	0.0153*	-0.0118	-0.0270**	-0.0184*	-0.0288***
	(0.00979)	(0.00929)	(0.00908)	(0.00842)	(0.0119)	(0.0107)	(0.0108)	(0.0101)
AFQT		0.306***		0.299***		0.354***		0.347***
		(0.0220)		(0.0195)		(0.0202)		(0.0232)
$AFQT^2$		0.0630***		0.0582***		0.0916***		0.0855***
		(0.0151)		(0.0193)		(0.0188)		(0.0190)
Rotter			-0.0723***	-0.0263**			-0.108***	-0.0486**
			(0.0151)	(0.0127)			(0.0181)	(0.0221)
$Rotter^2$			0.0121	0.00885			0.0145	-0.000528
			(0.00936)	(0.00885)			(0.0114)	(0.0109)
Observations	1675	1675	1671	1671	1588	1588	1580	1580

Standard errors in parentheses are based on 100 bootstrap replications. *** p<0.01, ** p<0.05, * p<0.1

Quantile Wage Regression With Rotter Locus of Control, Between Estimator 1991-2006 (80th Quantile)

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.330***	-0.122***	-0.366***	-0.129***	-0.272***	0.0523	-0.242***	0.0748*
	(0.0437)	(0.0306)	(0.0394)	(0.0370)	(0.0422)	(0.0436)	(0.0546)	(0.0383)
Hispanic	-0.170***	0.0244	-0.172***	0.00331	-0.107**	0.148***	-0.113**	0.174***
	(0.0572)	(0.0476)	(0.0503)	(0.0465)	(0.0447)	(0.0470)	(0.0459)	(0.0480)
Age	0.0108	0.00326	0.0143	0.00467	-0.0112	-0.0251**	-0.0130	-0.0238**
	(0.0120)	(0.00874)	(0.0101)	(0.0102)	(0.0114)	(0.0108)	(0.0135)	(0.0121)
AFQT		0.302***		0.296***		0.376***		0.345***
		(0.0211)		(0.0210)		(0.0246)		(0.0225)
$AFQT^2$		0.0792***		0.0733***		0.0766***		0.0768***
		(0.0218)		(0.0200)		(0.0221)		(0.0242)
Rotter			-0.0746***	-0.0361**			-0.0911***	-0.0615***
			(0.0191)	(0.0176)			(0.0192)	(0.0171)
$Rotter^2$			0.00342	0.0119			-0.00487	-0.00669
			(0.0119)	(0.00799)			(0.00986)	(0.0105)
Observations	1675	1675	1671	1671	1588	1588	1580	1580

Standard errors in parentheses are based on 100 bootstrap replications. *** p<0.01, ** p<0.05, * p<0.1

Table 7 (continued)

Quantile Wage Regression With Rotter Locus of Control, Between Estimator 1991-2006 (90th Quantile)

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.352***	-0.116**	-0.348***	-0.115**	-0.210***	0.0282	-0.179***	0.0366
	(0.0490)	(0.0503)	(0.0583)	(0.0501)	(0.0554)	(0.0509)	(0.0555)	(0.0643)
Hispanic	-0.140**	0.0267	-0.122	0.0344	-0.132**	0.146***	-0.0875	0.106
	(0.0668)	(0.0578)	(0.0873)	(0.0490)	(0.0560)	(0.0474)	(0.0738)	(0.0657)
Age	0.0209*	-0.00372	0.0134	0.000833	-0.000870	-0.0143	-0.0152	-0.0160
	(0.0127)	(0.0136)	(0.0119)	(0.0128)	(0.0138)	(0.00966)	(0.0151)	(0.0119)
AFQT		0.277***		0.274***		0.362***		0.338***
		(0.0278)		(0.0258)		(0.0343)		(0.0349)
$AFQT^2$		0.108***		0.0946***		0.0754**		0.0588*
		(0.0290)		(0.0259)		(0.0362)		(0.0344)
Rotter			-0.0634***	-0.0481**			-0.0705**	-0.0507**
			(0.0243)	(0.0214)			(0.0289)	(0.0243)
$Rotter^2$			0.00508	0.00244			-0.0207	-0.0160
			(0.0176)	(0.0117)			(0.0139)	(0.0122)
Observations	1675	1675	1671	1671	1588	1588	1580	1580

Standard errors in parentheses are based on 100 bootstrap replications. *** p<0.01, ** p<0.05, * p<0.1

Table 8: Quantile Wage Regression Using Time-Averaged Data with Self-Esteem

Quantile Wage Regression With Rosenberg Self-Esteem, Between Estimator 1991-2006 (10th Quantile)

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.282***	-0.162***	-0.291***	-0.199***	-0.0635	0.0893	-0.0588	0.0616
	(0.0386)	(0.0401)	(0.0489)	(0.0499)	(0.0444)	(0.0647)	(0.0506)	(0.0659)
Hispanic	-0.189***	-0.117**	-0.116**	-0.109*	-0.0742	-0.0184	-0.0367	0.0119
	(0.0567)	(0.0516)	(0.0520)	(0.0578)	(0.0662)	(0.0952)	(0.0866)	(0.0887)
Age	0.0125	0.0120	0.00675	0.0127	0.00426	0.00873	0.000963	0.00590
	(0.0159)	(0.0117)	(0.0137)	(0.0150)	(0.0154)	(0.0165)	(0.0186)	(0.0160)
AFQT		0.209***		0.185***		0.177***		0.167***
		(0.0307)		(0.0455)		(0.0576)		(0.0528)
$AFQT^2$		0.0109		0.0164		-0.0129		0.00135
		(0.0288)		(0.0326)		(0.0613)		(0.0573)
Rosenberg			0.120***	0.0510**			0.0415	0.0200
			(0.0209)	(0.0247)			(0.0282)	(0.0231)
$Rosenberg^2$			-0.00584	-0.0131			-0.0365	-0.0300
			(0.0185)	(0.0206)			(0.0240)	(0.0234)
Observations	1675	1675	1674	1674	1588	1588	1587	1587

Standard errors in parentheses are based on 100 bootstrap replications. *** p<0.01, ** p<0.05, * p<0.1

Quantile Wage Regression With Rosenberg Self-Esteem, Between Estimator 1991-2006 (20th Quantile)

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.319***	-0.149***	-0.336***	-0.168***	-0.0748*	0.0947**	-0.0917***	0.0329
	(0.0439)	(0.0350)	(0.0379)	(0.0380)	(0.0390)	(0.0476)	(0.0319)	(0.0449)
Hispanic	-0.209***	-0.0678	-0.171***	-0.0693	-0.0173	0.109*	0.0400	0.0856
	(0.0569)	(0.0475)	(0.0477)	(0.0492)	(0.0452)	(0.0627)	(0.0502)	(0.0562)
Age	0.0164	0.0135	0.0182*	0.0144	-0.00267	-0.0143	-0.00282	-0.00502
	(0.0111)	(0.00838)	(0.00949)	(0.00979)	(0.0130)	(0.0143)	(0.0131)	(0.0108)
AFQT		0.260***		0.249***		0.251***		0.210***
		(0.0204)		(0.0253)		(0.0332)		(0.0284)
$AFQT^2$		0.0444***		0.0554***		0.0596**		0.0547***
		(0.0171)		(0.0171)		(0.0234)		(0.0200)
Rosenberg			0.113***	0.0496**			0.0703***	0.0484***
			(0.0207)	(0.0198)			(0.0175)	(0.0149)
$Rosenberg^2$			0.000855	-0.00124			-0.0297**	-0.0308**
			(0.0196)	(0.0175)			(0.0143)	(0.0141)
Observations	1675	1675	1674	1674	1588	1588	1587	1587

Standard errors in parentheses are based on 100 bootstrap replications. *** p<0.01, ** p<0.05, * p<0.1

Table 8 (continued)

Quantile Wage Regression With Rosenberg Self-Esteem, Between Estimator 1991-2006 (30th Quantile)

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.382***	-0.142***	-0.396***	-0.178***	-0.117***	0.0790**	-0.156***	0.0450
	(0.0356)	(0.0390)	(0.0305)	(0.0378)	(0.0319)	(0.0330)	(0.0268)	(0.0339)
Hispanic	-0.220***	-0.0680	-0.180***	-0.0497	0.0107	0.144***	0.00478	0.137***
	(0.0496)	(0.0440)	(0.0452)	(0.0425)	(0.0450)	(0.0356)	(0.0494)	(0.0427)
Age	0.0143	0.0218**	0.0179	0.0164	-0.0134	-0.0175	-0.0156	-0.0134
	(0.0104)	(0.00918)	(0.0112)	(0.0106)	(0.0123)	(0.0122)	(0.0112)	(0.0109)
AFQT		0.271***		0.257***		0.263***		0.247***
		(0.0236)		(0.0245)		(0.0228)		(0.0236)
$AFQT^2$		0.0482**		0.0522**		0.0651***		0.0612***
		(0.0214)		(0.0230)		(0.0176)		(0.0217)
Rosenberg			0.116***	0.0534***			0.0849***	0.0429***
			(0.0154)	(0.0121)			(0.0168)	(0.0138)
$Rosenberg^2$			-0.00970	-0.0112			-0.0352**	-0.0326**
			(0.0171)	(0.0127)			(0.0143)	(0.0143)
Observations	1675	1675	1674	1674	1588	1588	1587	1587

Standard errors in parentheses are based on 100 bootstrap replications. *** p<0.01, ** p<0.05, * p<0.1

Quantile Wage Regression With Rosenberg Self-Esteem, Between Estimator 1991-2006 (40th Quantile)

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.412***	-0.144***	-0.395***	-0.160***	-0.142***	0.0646**	-0.154***	0.0364
	(0.0301)	(0.0417)	(0.0284)	(0.0371)	(0.0312)	(0.0322)	(0.0339)	(0.0327)
Hispanic	-0.214***	-0.0515	-0.185***	-0.0249	0.000327	0.127***	0.0249	0.132***
	(0.0491)	(0.0388)	(0.0413)	(0.0435)	(0.0403)	(0.0317)	(0.0382)	(0.0329)
Age	0.00963	0.0132	0.00986	0.0123	-0.0145	-0.0181**	-0.0161	-0.0186**
	(0.00981)	(0.00922)	(0.00798)	(0.00848)	(0.00954)	(0.00800)	(0.0119)	(0.00896)
AFQT		0.289***		0.269***		0.277***		0.261***
		(0.0257)		(0.0208)		(0.0218)		(0.0208)
$AFQT^2$		0.0479**		0.0458***		0.0727***		0.0700***
		(0.0196)		(0.0156)		(0.0165)		(0.0163)
Rosenberg			0.122***	0.0650***			0.0983***	0.0445**
			(0.0166)	(0.0147)			(0.0185)	(0.0190)
$Rosenberg^2$			-0.00468	-0.00323			-0.0270	-0.0228
			(0.0148)	(0.0145)			(0.0177)	(0.0168)
Observations	1675	1675	1674	1674	1588	1588	1587	1587

Standard errors in parentheses are based on 100 bootstrap replications. *** p<0.01, ** p<0.05, * p<0.1

Table 8 (continued)

Quantile Wage Regression With Rosenberg Self-Esteem, Between Estimator 1991-2006 (50th Quantile)

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.415***	-0.131***	-0.440***	-0.156***	-0.159***	0.0469	-0.155***	0.0706*
	(0.0277)	(0.0369)	(0.0298)	(0.0359)	(0.0367)	(0.0403)	(0.0321)	(0.0383)
Hispanic	-0.188***	-0.0311	-0.184***	-0.0258	0.0283	0.121***	0.0399	0.134***
	(0.0372)	(0.0416)	(0.0383)	(0.0367)	(0.0484)	(0.0392)	(0.0352)	(0.0359)
Age	0.0134	0.0119	0.0124	0.00878	-0.0171*	-0.0199**	-0.0214*	-0.0170
	(0.00841)	(0.00872)	(0.0109)	(0.00757)	(0.0101)	(0.00976)	(0.0115)	(0.0108)
AFQT		0.296***		0.275***		0.309***		0.301***
		(0.0183)		(0.0219)		(0.0246)		(0.0287)
$AFQT^2$		0.0579***		0.0564***		0.0743***		0.0817***
		(0.0152)		(0.0156)		(0.0188)		(0.0206)
Rosenberg			0.119***	0.0634***			0.121***	0.0488***
			(0.0152)	(0.0152)			(0.0173)	(0.0178)
$Rosenberg^2$			0.00285	0.00815			-0.0294**	-0.0151
			(0.0146)	(0.0160)			(0.0150)	(0.0160)
Observations	1675	1675	1674	1674	1588	1588	1587	1587

Standard errors in parentheses are based on 100 bootstrap replications. *** p<0.01, ** p<0.05, * p<0.1

Quantile Wage Regression With Rosenberg Self-Esteem, Between Estimator 1991-2006 (60th Quantile)

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.415***	-0.127***	-0.403***	-0.199***	-0.196***	0.0586**	-0.213***	0.00926
	(0.0364)	(0.0353)	(0.0313)	(0.0416)	(0.0314)	(0.0283)	(0.0391)	(0.0287)
Hispanic	-0.190***	0.0124	-0.171***	-0.0284	-0.00351	0.176***	0.00480	0.142***
	(0.0411)	(0.0493)	(0.0460)	(0.0440)	(0.0414)	(0.0499)	(0.0417)	(0.0381)
Age	0.0186*	0.0128	0.0148	0.00792	-0.0173	-0.0161	-0.0185*	-0.0159
	(0.00981)	(0.00807)	(0.00925)	(0.00789)	(0.0119)	(0.0112)	(0.0102)	(0.0109)
AFQT		0.306***		0.266***		0.336***		0.302***
		(0.0185)		(0.0211)		(0.0194)		(0.0229)
$AFQT^2$		0.0559***		0.0518***		0.0883***		0.0857***
		(0.0168)		(0.0169)		(0.0175)		(0.0162)
Rosenberg			0.136***	0.0728***			0.143***	0.0732***
			(0.0174)	(0.0205)			(0.0172)	(0.0168)
$Rosenberg^2$			0.0119	0.00200			-0.0279*	-0.0196
			(0.0179)	(0.0154)			(0.0151)	(0.0158)
Observations	1675	1675	1674	1674	1588	1588	1587	1587

Standard errors in parentheses are based on 100 bootstrap replications. *** p<0.01, ** p<0.05, * p<0.1

Table 8 (continued)

Quantile Wage Regression With Rosenberg Self-Esteem, Between Estimator 1991-2006 (70th Quantile)

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.376***	-0.116***	-0.387***	-0.143***	-0.275***	0.0564	-0.302***	0.00467
	(0.0426)	(0.0364)	(0.0353)	(0.0335)	(0.0486)	(0.0370)	(0.0413)	(0.0425)
Hispanic	-0.205***	0.0173	-0.160***	-0.0120	-0.0649	0.182***	-0.0689	0.140***
	(0.0504)	(0.0339)	(0.0464)	(0.0369)	(0.0490)	(0.0436)	(0.0441)	(0.0386)
Age	0.0124	0.0126	0.0143	0.0183**	-0.0118	-0.0270**	-0.00893	-0.0241*
	(0.0114)	(0.00803)	(0.00874)	(0.00723)	(0.0126)	(0.0110)	(0.00952)	(0.0128)
AFQT		0.306***		0.281***		0.354***		0.324***
		(0.0197)		(0.0213)		(0.0190)		(0.0260)
$AFQT^2$		0.0630***		0.0533***		0.0916***		0.0813***
		(0.0188)		(0.0153)		(0.0192)		(0.0161)
Rosenberg			0.143***	0.0606***			0.159***	0.0660***
			(0.0163)	(0.0141)			(0.0194)	(0.0178)
$Rosenberg^2$			0.00609	-0.00212			-0.00481	-0.00583
			(0.0154)	(0.0119)			(0.0218)	(0.0186)
Observations	1675	1675	1674	1674	1588	1588	1587	1587

Standard errors in parentheses are based on 100 bootstrap replications. *** p<0.01, ** p<0.05, * p<0.1

Quantile Wage Regression With Rosenberg Self-Esteem, Between Estimator 1991-2006 (80th Quantile)

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.330***	-0.122***	-0.346***	-0.147***	-0.272***	0.0523	-0.342***	-0.0205
	(0.0417)	(0.0326)	(0.0396)	(0.0314)	(0.0468)	(0.0398)	(0.0534)	(0.0482)
Hispanic	-0.170***	0.0244	-0.150***	0.0116	-0.107**	0.148***	-0.131***	0.123**
	(0.0449)	(0.0495)	(0.0475)	(0.0403)	(0.0440)	(0.0404)	(0.0447)	(0.0496)
Age	0.0108	0.00326	0.0110	0.00531	-0.0112	-0.0251**	-0.0179	-0.0212**
	(0.0126)	(0.00952)	(0.00938)	(0.0107)	(0.0104)	(0.0114)	(0.0116)	(0.0105)
AFQT		0.302***		0.274***		0.376***		0.338***
		(0.0189)		(0.0198)		(0.0233)		(0.0309)
$AFQT^2$		0.0792***		0.0655***		0.0766***		0.0757***
		(0.0222)		(0.0230)		(0.0214)		(0.0232)
Rosenberg			0.161***	0.0762***			0.156***	0.0810***
			(0.0167)	(0.0198)			(0.0201)	(0.0211)
$Rosenberg^2$			-0.0105	-0.00697			-0.0201	0.00570
			(0.0160)	(0.0137)			(0.0210)	(0.0204)
Observations	1675	1675	1674	1674	1588	1588	1587	1587

Standard errors in parentheses are based on 100 bootstrap replications. *** p<0.01, ** p<0.05, * p<0.1

Table 8 (continued)

Quantile Wage Regression With Rosenberg Self-Esteem, Between Estimator 1991-2006 (90th Quantile)

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.352***	-0.116**	-0.359***	-0.161***	-0.210***	0.0282	-0.311***	-0.0306
	(0.0528)	(0.0489)	(0.0384)	(0.0511)	(0.0533)	(0.0552)	(0.0551)	(0.0698)
Hispanic	-0.140**	0.0267	-0.169***	-0.00113	-0.132***	0.146***	-0.136***	0.0923
	(0.0689)	(0.0544)	(0.0564)	(0.0468)	(0.0410)	(0.0531)	(0.0492)	(0.0600)
Age	0.0209**	-0.00372	0.0258**	-0.00156	-0.000870	-0.0143	-0.0102	-0.0173
	(0.0103)	(0.0114)	(0.0108)	(0.0129)	(0.0155)	(0.0112)	(0.0136)	(0.0137)
AFQT		0.277***		0.231***		0.362***		0.320***
		(0.0286)		(0.0299)		(0.0359)		(0.0379)
$AFQT^2$		0.108***		0.0827***		0.0754**		0.0688*
		(0.0265)		(0.0215)		(0.0311)		(0.0361)
Rosenberg			0.153***	0.0980***			0.135***	0.0695***
			(0.0156)	(0.0166)			(0.0249)	(0.0236)
$Rosenberg^2$			-0.0327*	-0.0207			0.00976	0.00500
			(0.0168)	(0.0193)			(0.0240)	(0.0225)
Observations	1675	1675	1674	1674	1588	1588	1587	1587

Standard errors in parentheses are based on 100 bootstrap replications. *** p<0.01, ** p<0.05, * p<0.1

Table 9: Log Wage Regression Using Pooled Data with Word Knowledge, Locus of Control, and Self-Esteem

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.322***	-0.130***	-0.317***	-0.135***	-0.180***	0.0243	-0.157***	0.0261
	(0.0241)	(0.0257)	(0.0243)	(0.0258)	(0.0266)	(0.0273)	(0.0265)	(0.0271)
Hispanic	-0.155***	-0.0376	-0.148***	-0.0379	-0.0341	0.111***	-0.0250	0.109***
	(0.0298)	(0.0290)	(0.0299)	(0.0290)	(0.0310)	(0.0303)	(0.0307)	(0.0302)
Age	0.0305***	0.0135	0.0270**	0.0116	0.00244	-0.00840	-0.00533	-0.0124
	(0.0115)	(0.0107)	(0.0115)	(0.0108)	(0.0127)	(0.0116)	(0.0126)	(0.0116)
Word Know		0.203***		0.198***		0.222***		0.211***
		(0.0148)		(0.0149)		(0.0164)		(0.0164)
Word Know^2		0.0120		0.00971		-0.0122		-0.0144
		(0.0104)		(0.0104)		(0.0122)		(0.0125)
Rotter			-0.0522***	-0.0280***			-0.0812***	-0.0472***
			(0.0113)	(0.0107)			(0.0136)	(0.0129)
Rotter^2			0.00423	0.00979			0.00416	0.00709
			(0.00777)	(0.00731)			(0.00880)	(0.00815)
Observations	13163	12981	13137	12955	11819	11640	11765	11586
R^2	0.111	0.200	0.119	0.203	0.048	0.142	0.065	0.146

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.322***	-0.130***	-0.331***	-0.154***	-0.180***	0.0243	-0.207***	-0.0144
	(0.0241)	(0.0257)	(0.0235)	(0.0260)	(0.0266)	(0.0273)	(0.0261)	(0.0279)
Hispanic	-0.155***	-0.0376	-0.139***	-0.0413	-0.0341	0.111***	-0.0281	0.0985***
	(0.0298)	(0.0290)	(0.0287)	(0.0287)	(0.0310)	(0.0303)	(0.0295)	(0.0297)
Age	0.0305***	0.0135	0.0149	0.00718	0.00244	-0.00840	-0.00517	-0.0116
	(0.0115)	(0.0107)	(0.0111)	(0.0106)	(0.0127)	(0.0116)	(0.0121)	(0.0113)
Word Know		0.203***		0.184***		0.222***		0.198***
		(0.0148)		(0.0153)		(0.0164)		(0.0166)
Word Know^2		0.0120		0.0119		-0.0122		-0.0113
		(0.0104)		(0.0105)		(0.0122)		(0.0120)
Rosenberg			0.111***	0.0567***			0.114***	0.0663***
			(0.0111)	(0.0111)			(0.0125)	(0.0125)
Rosenberg^2			-0.00928	-0.00535			-0.0177	-0.0136
			(0.0104)	(0.00991)			(0.0121)	(0.0117)
Observations	13163	12981	13153	12971	11819	11640	11809	11630
R^2	0.111	0.200	0.144	0.209	0.048	0.142	0.084	0.153

Regressions include annual time dummy variables. Standard errors in parentheses correct for the longitudinal structure of the NLSY by accounting for repeated observations of individuals over time. *** p<0.01, ** p<0.05, * p<0.1

Table 10: Log Wage Regression Using Pooled Data with Arithmetic Reasoning, Locus of Control, and Self-Esteem

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.322***	-0.143***	-0.317***	-0.147***	-0.180***	0.0105	-0.157***	0.0141
	(0.0241)	(0.0252)	(0.0243)	(0.0254)	(0.0266)	(0.0285)	(0.0265)	(0.0285)
Hispanic	-0.155***	-0.0369	-0.148***	-0.0370	-0.0341	0.0962***	-0.0250	0.0938***
	(0.0298)	(0.0291)	(0.0299)	(0.0291)	(0.0310)	(0.0304)	(0.0307)	(0.0303)
Age	0.0305***	0.0113	0.0270**	0.00940	0.00244	0.000564	-0.00533	-0.00422
	(0.0115)	(0.0110)	(0.0115)	(0.0110)	(0.0127)	(0.0118)	(0.0126)	(0.0118)
Arith Reason		0.189***		0.185***		0.216***		0.203***
		(0.0121)		(0.0123)		(0.0147)		(0.0147)
Arith Reason^2		-0.00296		-0.00224		-0.00349		-0.00285
		(0.0107)		(0.0108)		(0.0139)		(0.0138)
Rotter			-0.0522***	-0.0286***			-0.0812***	-0.0505***
			(0.0113)	(0.0103)			(0.0136)	(0.0126)
Rotter^2			0.00423	0.0101			0.00416	0.00511
			(0.00777)	(0.00713)			(0.00880)	(0.00817)
Observations	13163	12981	13137	12955	11819	11640	11765	11586
R^2	0.111	0.200	0.119	0.203	0.048	0.131	0.065	0.136

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.322***	-0.143***	-0.331***	-0.166***	-0.180***	0.0105	-0.207***	-0.0286
	(0.0241)	(0.0252)	(0.0235)	(0.0253)	(0.0266)	(0.0285)	(0.0261)	(0.0286)
Hispanic	-0.155***	-0.0369	-0.139***	-0.0387	-0.0341	0.0962***	-0.0281	0.0868***
	(0.0298)	(0.0291)	(0.0287)	(0.0286)	(0.0310)	(0.0304)	(0.0295)	(0.0295)
Age	0.0305***	0.0113	0.0149	0.00402	0.00244	0.000564	-0.00517	-0.00448
	(0.0115)	(0.0110)	(0.0111)	(0.0107)	(0.0127)	(0.0118)	(0.0121)	(0.0115)
Arith Reason		0.189***		0.170***		0.216***		0.193***
		(0.0121)		(0.0124)		(0.0147)		(0.0147)
Arith Reason^2		-0.00296		0.000900		-0.00349		-0.00187
		(0.0107)		(0.0107)		(0.0139)		(0.0135)
Rosenberg			0.111***	0.0654***			0.114***	0.0807***
			(0.0111)	(0.0111)			(0.0125)	(0.0121)
Rosenberg^2			-0.00928	-0.00705			-0.0177	-0.0103
			(0.0104)	(0.00996)			(0.0121)	(0.0115)
Observations	13163	12981	13153	12971	11819	11640	11809	11630
R^2	0.111	0.200	0.144	0.211	0.048	0.131	0.084	0.148

Regressions include annual time dummy variables. Standard errors in parentheses correct for the longitudinal structure of the NLSY by accounting for repeated observations of individuals over time. *** p<0.01, ** p<0.05, * p<0.1

Table 11: Log Wage Regression Using Pooled Data with Paragraph Comprehension, Locus of Control, and Self-Esteem

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.322***	-0.163***	-0.317***	-0.167***	-0.180***	0.0101	-0.157***	0.0146
	(0.0241)	(0.0251)	(0.0243)	(0.0252)	(0.0266)	(0.0268)	(0.0265)	(0.0267)
Hispanic	-0.155***	-0.0444	-0.148***	-0.0442	-0.0341	0.100***	-0.0250	0.0986***
	(0.0298)	(0.0295)	(0.0299)	(0.0295)	(0.0310)	(0.0295)	(0.0307)	(0.0293)
Age	0.0305***	0.0107	0.0270**	0.00843	0.00244	-0.00330	-0.00533	-0.00811
	(0.0115)	(0.0108)	(0.0115)	(0.0108)	(0.0127)	(0.0116)	(0.0126)	(0.0115)
Parag Comp		0.186***		0.182***		0.225***		0.213***
		(0.0138)		(0.0139)		(0.0147)		(0.0147)
Parag Comp ^{2}		0.0134		0.0125		0.0191		0.0151
		(0.00987)		(0.00989)		(0.0123)		(0.0124)
Rotter			-0.0522***	-0.0318***			-0.0812***	-0.0523***
			(0.0113)	(0.0106)			(0.0136)	(0.0128)
Rotter^2			0.00423	0.0127*			0.00416	0.00409
			(0.00777)	(0.00718)			(0.00880)	(0.00836)
Observations	13163	12981	13137	12955	11819	11640	11765	11586
R^2	0.111	0.197	0.119	0.200	0.048	0.146	0.065	0.151

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.322***	-0.163***	-0.331***	-0.185***	-0.180***	0.0101	-0.207***	-0.0251
	(0.0241)	(0.0251)	(0.0235)	(0.0252)	(0.0266)	(0.0268)	(0.0261)	(0.0272)
Hispanic	-0.155***	-0.0444	-0.139***	-0.0470	-0.0341	0.100***	-0.0281	0.0910***
	(0.0298)	(0.0295)	(0.0287)	(0.0292)	(0.0310)	(0.0295)	(0.0295)	(0.0289)
Age	0.0305***	0.0107	0.0149	0.00418	0.00244	-0.00330	-0.00517	-0.00734
	(0.0115)	(0.0108)	(0.0111)	(0.0107)	(0.0127)	(0.0116)	(0.0121)	(0.0113)
Parag Comp		0.186***		0.169***		0.225***		0.204***
		(0.0138)		(0.0143)		(0.0147)		(0.0148)
Parag Comp ^{2}		0.0134		0.0139		0.0191		0.0209*
		(0.00987)		(0.00986)		(0.0123)		(0.0122)
Rosenberg			0.111***	0.0607***			0.114***	0.0708***
			(0.0111)	(0.0112)			(0.0125)	(0.0123)
Rosenberg^2			-0.00928	-0.00650			-0.0177	-0.00913
			(0.0104)	(0.0100)			(0.0121)	(0.0115)
Observations	13163	12981	13153	12971	11819	11640	11809	11630
R^2	0.111	0.197	0.144	0.206	0.048	0.146	0.084	0.159

Regressions include annual time dummy variables. Standard errors in parentheses correct for the longitudinal structure of the NLSY by accounting for repeated observations of individuals over time. *** p<0.01, ** p<0.05, * p<0.1

Table 12: Log Wage Regression Using Pooled Data with Numerical Operations, Locus of Control, and Self-Esteem

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.322***	-0.188***	-0.317***	-0.190***	-0.180***	-0.0577**	-0.157***	-0.0468*
	(0.0241)	(0.0246)	(0.0243)	(0.0247)	(0.0266)	(0.0267)	(0.0265)	(0.0267)
Hispanic	-0.155***	-0.0689**	-0.148***	-0.0672**	-0.0341	0.0388	-0.0250	0.0409
	(0.0298)	(0.0285)	(0.0299)	(0.0285)	(0.0310)	(0.0297)	(0.0307)	(0.0295)
Age	0.0305***	0.00944	0.0270**	0.00753	0.00244	-0.00316	-0.00533	-0.00943
	(0.0115)	(0.0108)	(0.0115)	(0.0108)	(0.0127)	(0.0120)	(0.0126)	(0.0119)
Num Oper		0.181***		0.176***		0.176***		0.168***
		(0.0123)		(0.0123)		(0.0125)		(0.0124)
Num Oper^2		-0.0106		-0.0113		-0.0249**		-0.0247**
		(0.00902)		(0.00902)		(0.0107)		(0.0106)
Rotter			-0.0522***	-0.0321***			-0.0812***	-0.0637***
			(0.0113)	(0.0105)			(0.0136)	(0.0130)
Rotter^2			0.00423	0.00606			0.00416	0.00152
			(0.00777)	(0.00728)			(0.00880)	(0.00831)
Observations	13163	12981	13137	12955	11819	11640	11765	11586
R^2	0.111	0.200	0.119	0.203	0.048	0.120	0.065	0.129

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.322***	-0.188***	-0.331***	-0.207***	-0.180***	-0.0577**	-0.207***	-0.0913***
	(0.0241)	(0.0246)	(0.0235)	(0.0246)	(0.0266)	(0.0267)	(0.0261)	(0.0266)
Hispanic	-0.155***	-0.0689**	-0.139***	-0.0684**	-0.0341	0.0388	-0.0281	0.0358
	(0.0298)	(0.0285)	(0.0287)	(0.0281)	(0.0310)	(0.0297)	(0.0295)	(0.0287)
Age	0.0305***	0.00944	0.0149	0.00248	0.00244	-0.00316	-0.00517	-0.00819
	(0.0115)	(0.0108)	(0.0111)	(0.0107)	(0.0127)	(0.0120)	(0.0121)	(0.0116)
Num Oper		0.181***		0.164***		0.176***		0.157***
		(0.0123)		(0.0127)		(0.0125)		(0.0124)
Num Oper^2		-0.0106		-0.00867		-0.0249**		-0.0219**
		(0.00902)		(0.00898)		(0.0107)		(0.0106)
Rosenberg			0.111***	0.0635***			0.114***	0.0866***
			(0.0111)	(0.0111)			(0.0125)	(0.0121)
Rosenberg^2			-0.00928	-0.00534			-0.0177	-0.0141
			(0.0104)	(0.00995)			(0.0121)	(0.0116)
Observations	13163	12981	13153	12971	11819	11640	11809	11630
R^2	0.111	0.200	0.144	0.211	0.048	0.120	0.084	0.140

Regressions include annual time dummy variables. Standard errors in parentheses correct for the longitudinal structure of the NLSY by accounting for repeated observations of individuals over time. *** p<0.01, ** p<0.05, * p<0.1

Table 13: Log Wage Regression Using Pooled Data with Locus of Control and Race Interactions

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.322***	-0.0806**	-0.306***	-0.0732**	-0.180***	0.0602*	-0.170***	0.0521
	(0.0241)	(0.0317)	(0.0300)	(0.0348)	(0.0266)	(0.0310)	(0.0325)	(0.0350)
Hispanic	-0.155***	0.00592	-0.177***	-0.0162	-0.0341	0.0974***	-0.0278	0.100**
	(0.0298)	(0.0359)	(0.0374)	(0.0415)	(0.0310)	(0.0363)	(0.0372)	(0.0404)
Age	0.0305***	0.00259	0.0274**	0.00173	0.00244	-0.00688	-0.00496	-0.00999
	(0.0115)	(0.0106)	(0.0115)	(0.0107)	(0.0127)	(0.0112)	(0.0126)	(0.0112)
AFQT		0.248***		0.243***		0.258***		0.248***
		(0.0168)		(0.0172)		(0.0207)		(0.0207)
AFQT x Black		0.0529		0.0499		0.111***		0.0996**
		(0.0486)		(0.0487)		(0.0413)		(0.0425)
AFQT x Hispanic		-0.0210		-0.0151		0.0718*		0.0732*
		(0.0421)		(0.0426)		(0.0412)		(0.0411)
$AFQT^2$		0.0836***		0.0799***		0.0659***		0.0622***
		(0.0167)		(0.0171)		(0.0167)		(0.0162)
$AFQT^2$ x Black		-0.0272		-0.0269		0.00659		0.00677
		(0.0434)		(0.0431)		(0.0350)		(0.0358)
$AFQT^2$ x Hispanic		-0.0500		-0.0442		0.0560		0.0576
		(0.0415)		(0.0413)		(0.0477)		(0.0477)
Rotter			-0.0667***	-0.0255*			-0.0778***	-0.0414**
			(0.0160)	(0.0138)			(0.0191)	(0.0174)
Rotter x Black			0.0235	0.00643			-0.0272	-0.00475
			(0.0238)	(0.0212)			(0.0328)	(0.0311)
Rotter x Hispanic			0.0327	0.00936			0.0137	0.00450
			(0.0375)	(0.0347)			(0.0339)	(0.0302)
$Rotter^2$			0.00302	0.00807			-0.00151	0.00216
			(0.0120)	(0.0101)			(0.0132)	(0.0119)
$Rotter^2$ x Black			-0.0106	-0.0111			0.0213	0.00794
			(0.0163)	(0.0147)			(0.0211)	(0.0192)
$Rotter^2$ x Hispanic			0.0222	0.0160			2.42e-05	-0.00583
			(0.0264)	(0.0245)			(0.0216)	(0.0200)
Observations	13163	13163	13137	13137	11819	11819	11765	11765
R^2	0.111	0.224	0.121	0.226	0.048	0.166	0.066	0.168

Regressions include annual time dummy variables. Standard errors in parentheses correct for the longitudinal structure of the NLSY by accounting for repeated observations of individuals over time. *** p<0.01, ** p<0.05, * p<0.1

Table 14: Log Wage Regression Using Pooled Data with Self-Esteem and Race Interactions

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.322***	-0.0806**	-0.335***	-0.103***	-0.180***	0.0602*	-0.226***	0.0208
	(0.0241)	(0.0317)	(0.0320)	(0.0374)	(0.0266)	(0.0310)	(0.0363)	(0.0395)
Hispanic	-0.155***	0.00592	-0.0859**	0.0580	-0.0341	0.0974***	-0.0366	0.0845*
	(0.0298)	(0.0359)	(0.0406)	(0.0425)	(0.0310)	(0.0363)	(0.0406)	(0.0437)
Age	0.0305***	0.00259	0.0152	-0.00231	0.00244	-0.00688	-0.00715	-0.0118
	(0.0115)	(0.0106)	(0.0111)	(0.0105)	(0.0127)	(0.0112)	(0.0121)	(0.0109)
AFQT		0.248***		0.238***		0.258***		0.246***
		(0.0168)		(0.0175)		(0.0207)		(0.0213)
AFQT x Black		0.0529		0.0360		0.111***		0.0902**
		(0.0486)		(0.0504)		(0.0413)		(0.0419)
AFQT x Hispanic		-0.0210		-0.0698		0.0718*		0.0259
		(0.0421)		(0.0461)		(0.0412)		(0.0412)
$AFQT^2$		0.0836***		0.0787***		0.0659***		0.0640***
		(0.0167)		(0.0167)		(0.0167)		(0.0168)
$AFQT^2$ x Black		-0.0272		-0.0299		0.00659		0.0101
		(0.0434)		(0.0422)		(0.0350)		(0.0343)
$AFQT^2$ x Hispanic		-0.0500		-0.0645*		0.0560		0.0488
		(0.0415)		(0.0391)		(0.0477)		(0.0444)
Rosenberg			0.0989***	0.0421***			0.0739***	0.0246
			(0.0150)	(0.0144)			(0.0183)	(0.0171)
Rosenberg x Black			0.00713	-0.00165			0.0719***	0.0624**
			(0.0252)	(0.0251)			(0.0277)	(0.0264)
Rosenberg x Hispanic			0.0441	0.0498			0.0957***	0.0921***
			(0.0318)	(0.0337)			(0.0323)	(0.0309)
$Rosenberg^2$			-0.000698	0.00273			-0.0364**	-0.0272*
			(0.0147)	(0.0134)			(0.0175)	(0.0161)
$Rosenberg^2$ x Black			0.00643	0.00379			0.0327	0.0154
			(0.0231)	(0.0222)			(0.0280)	(0.0261)
$Rosenberg^2$ x Hispanic			-0.0451	-0.0434			0.0337	0.0311
			(0.0288)	(0.0273)			(0.0294)	(0.0272)
Observations	13163	13163	13153	13153	11819	11819	11809	11809
R^2	0.111	0.224	0.146	0.233	0.048	0.166	0.090	0.179

Regressions include annual time dummy variables. Standard errors in parentheses correct for the longitudinal structure of the NLSY by accounting for repeated observations of individuals over time. *** p<0.01, ** p<0.05, * p<0.1

Table 15: Log Wage Regression Using Pooled Data with Locus of Control, Self-Esteem, and South

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.292***	-0.107***	-0.287***	-0.111***	-0.145***	0.0724***	-0.122***	0.0744***
	(0.0257)	(0.0256)	(0.0258)	(0.0257)	(0.0282)	(0.0273)	(0.0278)	(0.0272)
Hispanic	-0.158***	-0.0199	-0.151***	-0.0201	-0.0315	0.133***	-0.0222	0.131***
	(0.0298)	(0.0286)	(0.0298)	(0.0286)	(0.0308)	(0.0291)	(0.0306)	(0.0289)
Age	0.0303***	0.00311	0.0268**	0.00168	0.00230	-0.00495	-0.00541	-0.00878
	(0.0114)	(0.0107)	(0.0114)	(0.0107)	(0.0126)	(0.0111)	(0.0125)	(0.0111)
South	-0.0892***	-0.0420**	-0.0888***	-0.0424**	-0.105***	-0.0756***	-0.104***	-0.0765***
	(0.0236)	(0.0208)	(0.0234)	(0.0208)	(0.0258)	(0.0229)	(0.0252)	(0.0227)
AFQT		0.256***		0.252***		0.290***		0.277***
		(0.0139)		(0.0141)		(0.0162)		(0.0162)
$AFQT^2$		0.0641***		0.0613***		0.0639***		0.0618***
		(0.0137)		(0.0137)		(0.0146)		(0.0145)
Rotter			-0.0518***	-0.0225**			-0.0814***	-0.0432***
			(0.0113)	(0.0100)			(0.0135)	(0.0123)
$Rotter^2$			0.00349	0.00697			0.00486	0.00408
			(0.00773)	(0.00693)			(0.00875)	(0.00793)
Observations	13163	13163	13137	13137	11819	11819	11765	11765
R^2	0.116	0.223	0.124	0.225	0.055	0.166	0.072	0.169

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.292***	-0.107***	-0.304***	-0.127***	-0.145***	0.0724***	-0.176***	0.0375
	(0.0257)	(0.0256)	(0.0250)	(0.0258)	(0.0282)	(0.0273)	(0.0279)	(0.0280)
Hispanic	-0.158***	-0.0199	-0.142***	-0.0232	-0.0315	0.133***	-0.0260	0.123***
	(0.0298)	(0.0286)	(0.0287)	(0.0283)	(0.0308)	(0.0291)	(0.0295)	(0.0285)
Age	0.0303***	0.00311	0.0149	-0.00224	0.00230	-0.00495	-0.00510	-0.00834
	(0.0114)	(0.0107)	(0.0111)	(0.0106)	(0.0126)	(0.0111)	(0.0120)	(0.0108)
South	-0.0892***	-0.0420**	-0.0794***	-0.0413**	-0.105***	-0.0756***	-0.0883***	-0.0691***
	(0.0236)	(0.0208)	(0.0228)	(0.0207)	(0.0258)	(0.0229)	(0.0252)	(0.0227)
AFQT		0.256***		0.237***		0.290***		0.266***
		(0.0139)		(0.0147)		(0.0162)		(0.0166)
$AFQT^2$		0.0641***		0.0598***		0.0639***		0.0602***
		(0.0137)		(0.0133)		(0.0146)		(0.0144)
Rosenberg			0.109***	0.0525***			0.111***	0.0594***
			(0.0110)	(0.0110)			(0.0125)	(0.0118)
$Rosenberg^2$			-0.00836	-0.00478			-0.0155	-0.0101
			(0.0103)	(0.00971)			(0.0120)	(0.0111)
Observations	13163	13163	13153	13153	11819	11819	11809	11809
R^2	0.116	0.223	0.148	0.231	0.055	0.166	0.089	0.175

Regressions include annual time dummy variables. Standard errors in parentheses correct for the longitudinal structure of the NLSY by accounting for repeated observations of individuals over time.
*** p<0.01, ** p<0.05, * p<0.1

Table 16: Log Wage Regression Using Pooled Data with Locus of Control and South Interactions

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.292***	-0.116***	-0.303***	-0.115***	-0.145***	0.0576**	-0.146***	0.0650**
	(0.0257)	(0.0254)	(0.0249)	(0.0256)	(0.0282)	(0.0273)	(0.0275)	(0.0274)
Hispanic	-0.158***	-0.0189	-0.148***	-0.0195	-0.0315	0.126***	-0.0246	0.125***
	(0.0298)	(0.0289)	(0.0299)	(0.0288)	(0.0308)	(0.0290)	(0.0306)	(0.0289)
Age	0.0303***	0.00267	0.0258**	0.000826	0.00230	-0.00515	-0.00639	-0.00949
	(0.0114)	(0.0107)	(0.0115)	(0.0107)	(0.0126)	(0.0111)	(0.0126)	(0.0111)
South	-0.0892***				-0.105***			
	(0.0236)				(0.0258)			
AFQT		0.253***		0.249***		0.258***		0.249***
		(0.0165)		(0.0167)		(0.0205)		(0.0206)
AFQT x South		0.0204		0.0183		0.0947***		0.0859***
		(0.0266)		(0.0271)		(0.0296)		(0.0304)
$AFQT^2$		0.0661***		0.0602***		0.0692***		0.0634***
		(0.0148)		(0.0154)		(0.0174)		(0.0177)
$AFQT^2$ x South		-0.00214		0.00832		-0.00440		0.00762
		(0.0236)		(0.0252)		(0.0236)		(0.0244)
Rotter			-0.0532***	-0.0230*			-0.0663***	-0.0335**
			(0.0146)	(0.0129)			(0.0179)	(0.0167)
Rotter x South			0.00530	0.00324			-0.0366	-0.0194
			(0.0224)	(0.0203)			(0.0269)	(0.0246)
$Rotter^2$			0.0165*	0.0144			0.0102	0.00928
			(0.00959)	(0.00881)			(0.0111)	(0.0105)
$Rotter^2$ x South			-0.0350***	-0.0197			-0.0158	-0.0165
			(0.0132)	(0.0127)			(0.0155)	(0.0146)
Observations	13163	13163	13137	13137	11819	11819	11765	11765
R^2	0.116	0.222	0.122	0.224	0.055	0.166	0.067	0.169

Regressions include annual time dummy variables. Standard errors in parentheses correct for the longitudinal structure of the NLSY by accounting for repeated observations of individuals over time. *** p<0.01, ** p<0.05, * p<0.1

Table 17: Log Wage Regression Using Pooled Data with Self-Esteem and South Interactions

	Men (1-4)				Women (5-8)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black	-0.292***	-0.116***	-0.318***	-0.134***	-0.145***	0.0576**	-0.190***	0.0354
	(0.0257)	(0.0254)	(0.0242)	(0.0256)	(0.0282)	(0.0273)	(0.0265)	(0.0277)
Hispanic	-0.158***	-0.0189	-0.141***	-0.0225	-0.0315	0.126***	-0.0245	0.119***
	(0.0298)	(0.0289)	(0.0287)	(0.0285)	(0.0308)	(0.0290)	(0.0294)	(0.0282)
Age	0.0303***	0.00267	0.0150	-0.00237	0.00230	-0.00515	-0.00467	-0.00812
	(0.0114)	(0.0107)	(0.0111)	(0.0106)	(0.0126)	(0.0111)	(0.0120)	(0.0108)
South	-0.0892***				-0.105***			
	(0.0236)				(0.0258)			
AFQT		0.253***		0.235***		0.258***		0.232***
		(0.0165)		(0.0173)		(0.0205)		(0.0208)
AFQT x South		0.0204		0.0166		0.0947***		0.102***
		(0.0266)		(0.0275)		(0.0296)		(0.0298)
$AFQT^2$		0.0661***		0.0573***		0.0692***		0.0525***
		(0.0148)		(0.0150)		(0.0174)		(0.0181)
$AFQT^2$ x South		-0.00214		0.0107		-0.00440		0.0311
		(0.0236)		(0.0261)		(0.0236)		(0.0247)
Rosenberg			0.108***	0.0557***			0.1000***	0.0559***
			(0.0138)	(0.0136)			(0.0160)	(0.0153)
Rosenberg x South			0.00146	-0.0102			0.0309	0.00608
			(0.0226)	(0.0226)			(0.0253)	(0.0231)
$Rosenberg^2$			0.00440	0.00177			0.00566	0.0145
			(0.0119)	(0.0114)			(0.0144)	(0.0140)
$Rosenberg^2$ x South			-0.0370**	-0.0195			-0.0521***	-0.0616***
			(0.0167)	(0.0181)			(0.0185)	(0.0178)
Observations	13163	13163	13153	13153	11819	11819	11809	11809
R^2	0.116	0.222	0.146	0.230	0.055	0.166	0.089	0.180

Regressions include annual time dummy variables. Standard errors in parentheses correct for the longitudinal structure of the NLSY by accounting for repeated observations of individuals over time. *** p<0.01, ** p<0.05, * p<0.1

Figure 1: Kernel Density Estimation of AFQT, Rotter, and Rosenberg Scores

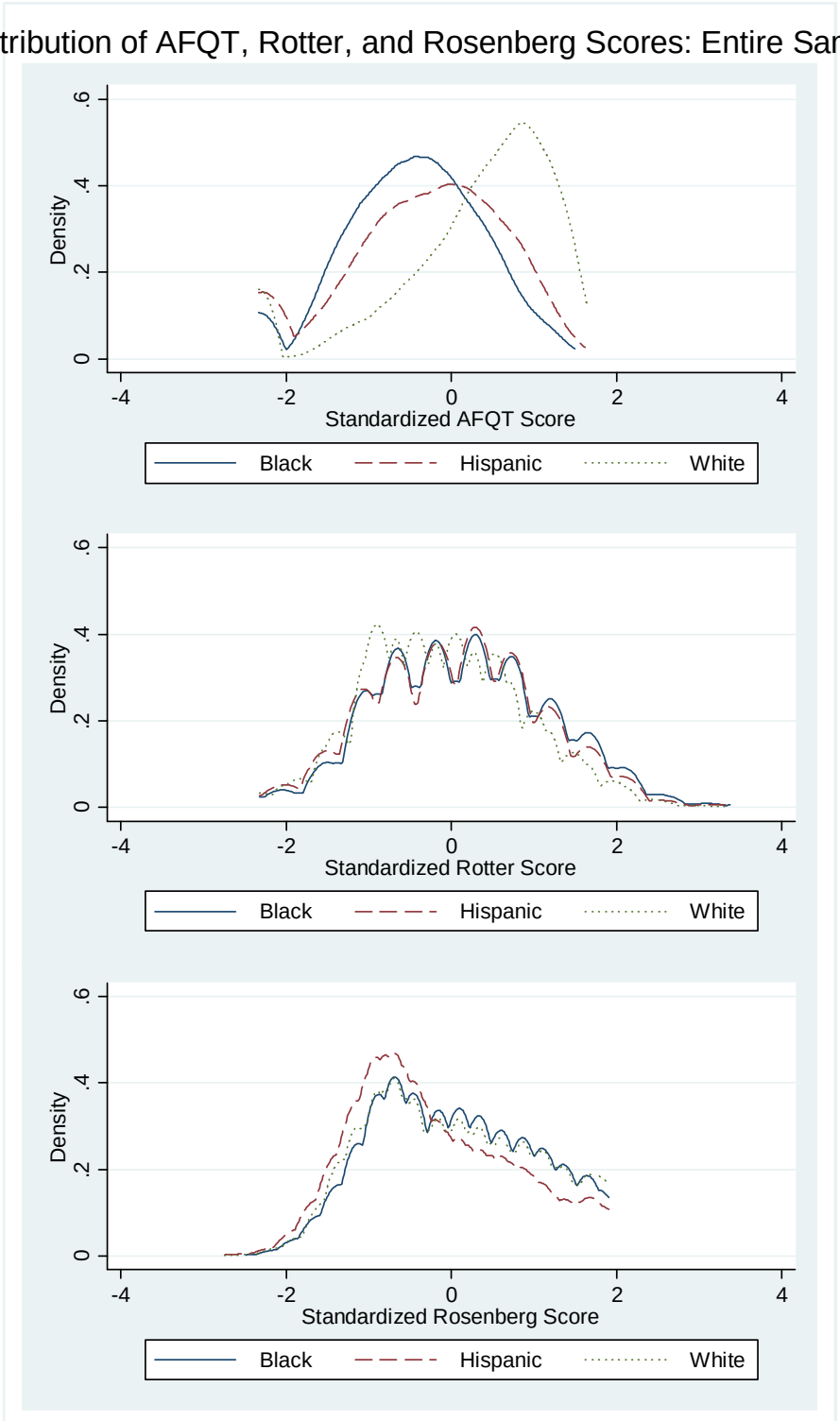


Figure 1 (continued)

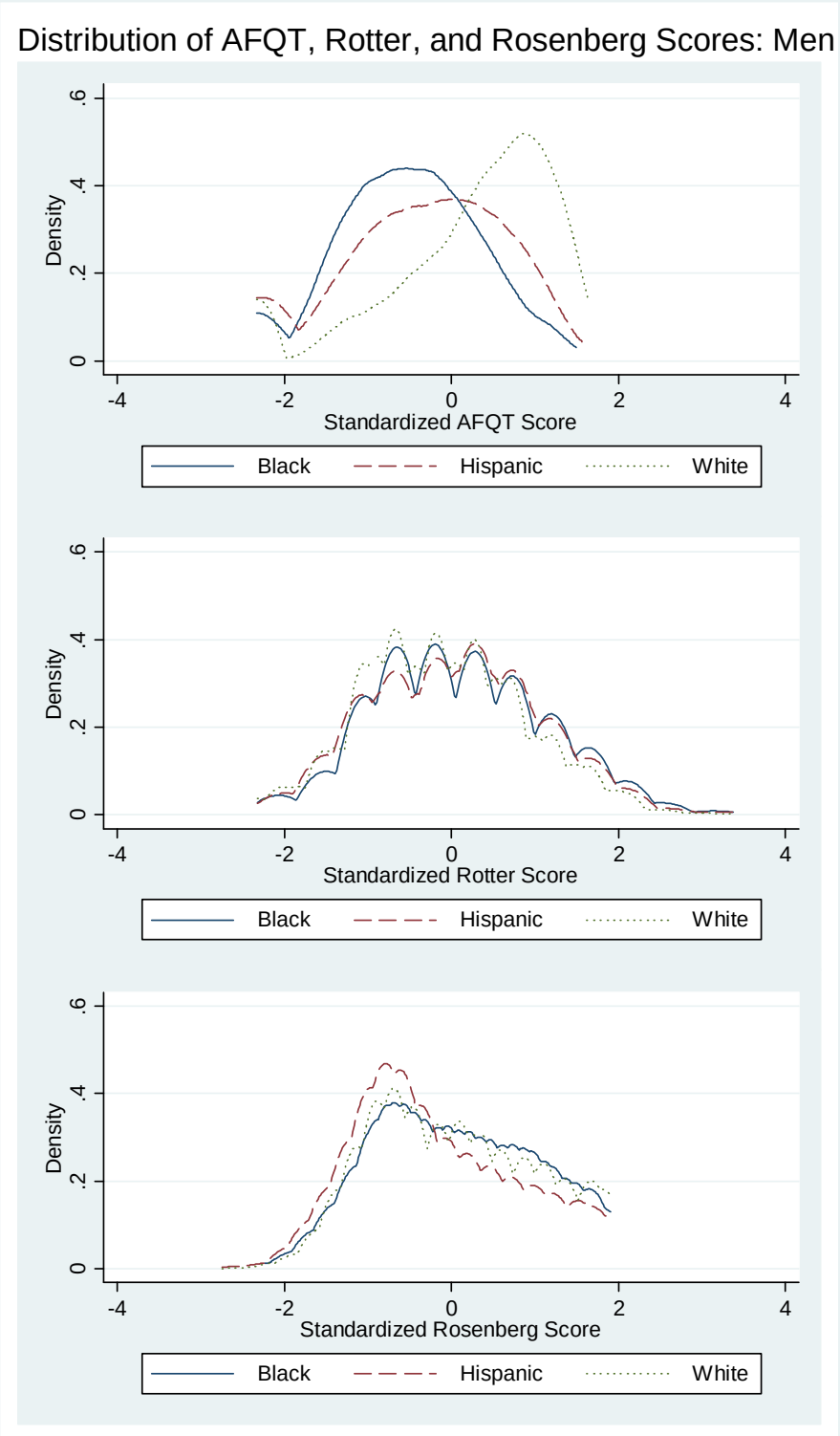


Figure 1 (continued)

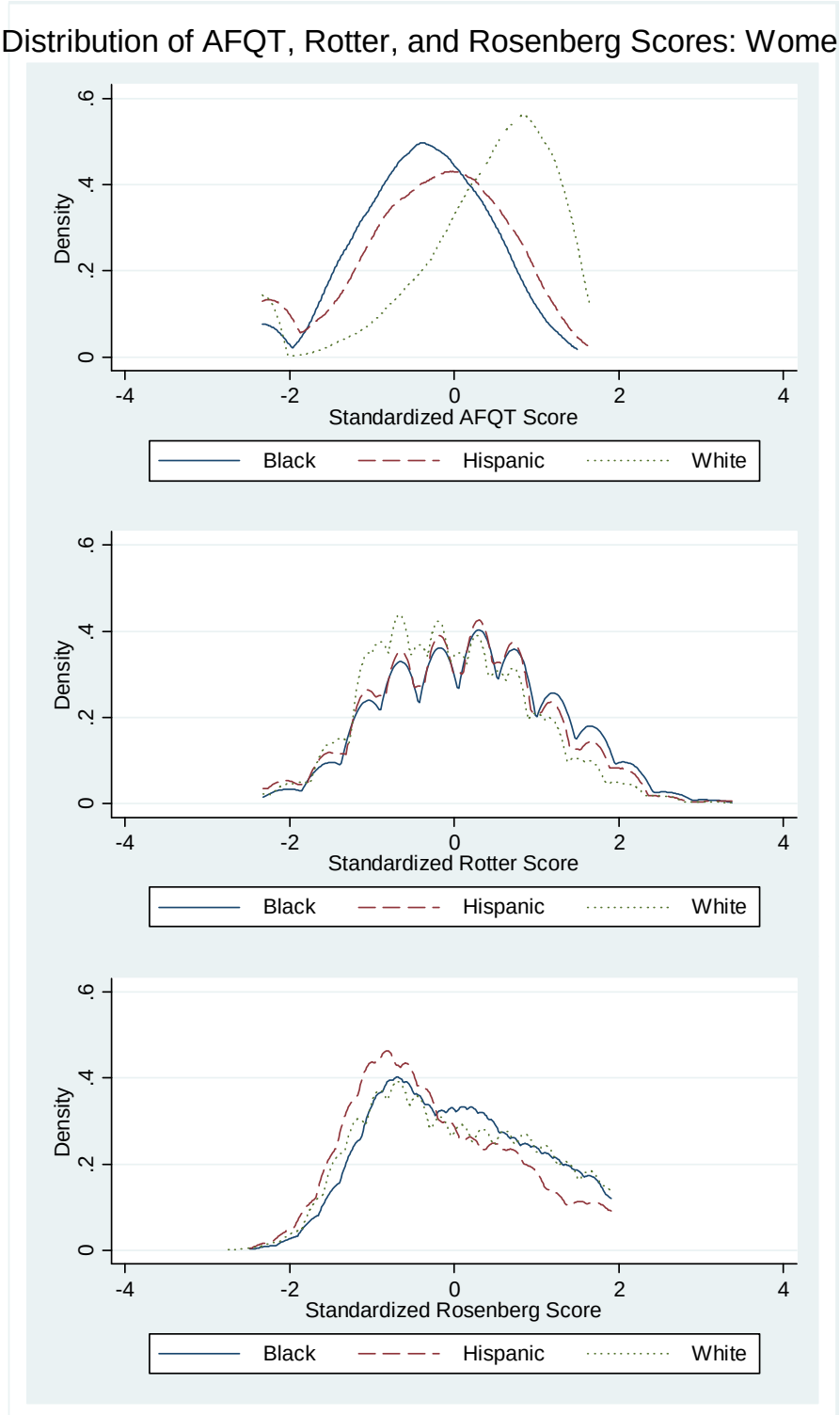
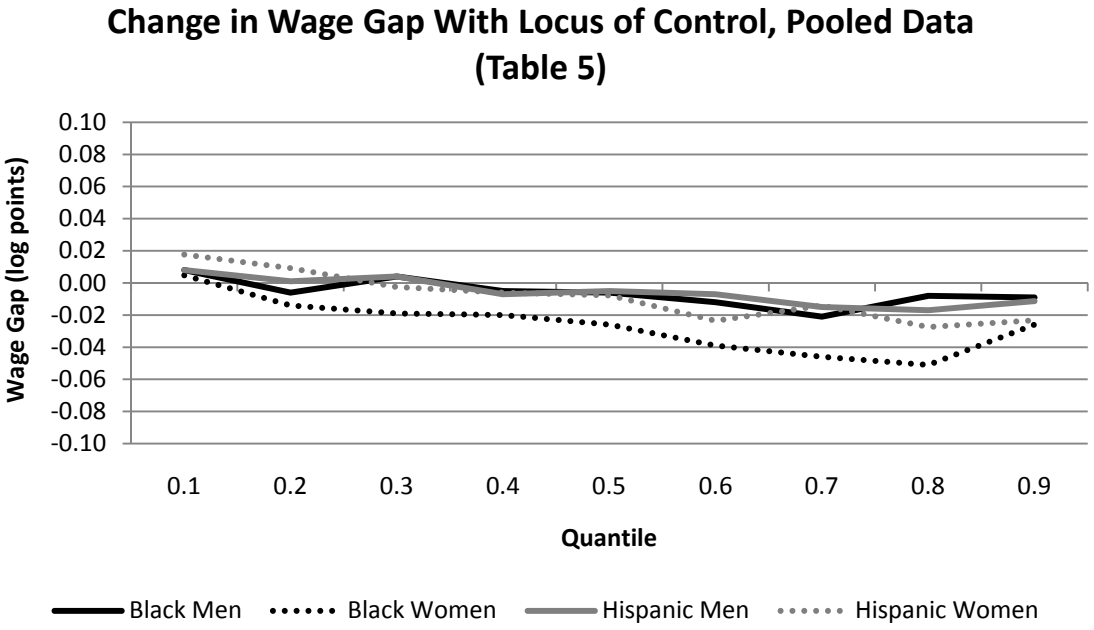


Figure 2: Change in Wage Gap, Pooled Data



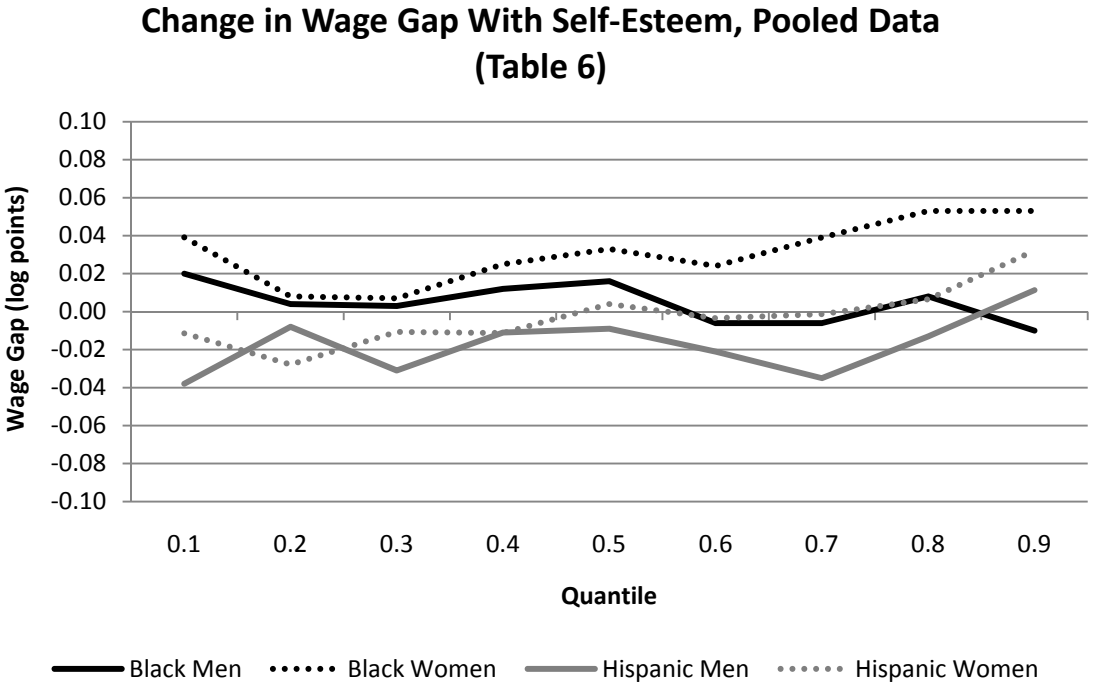
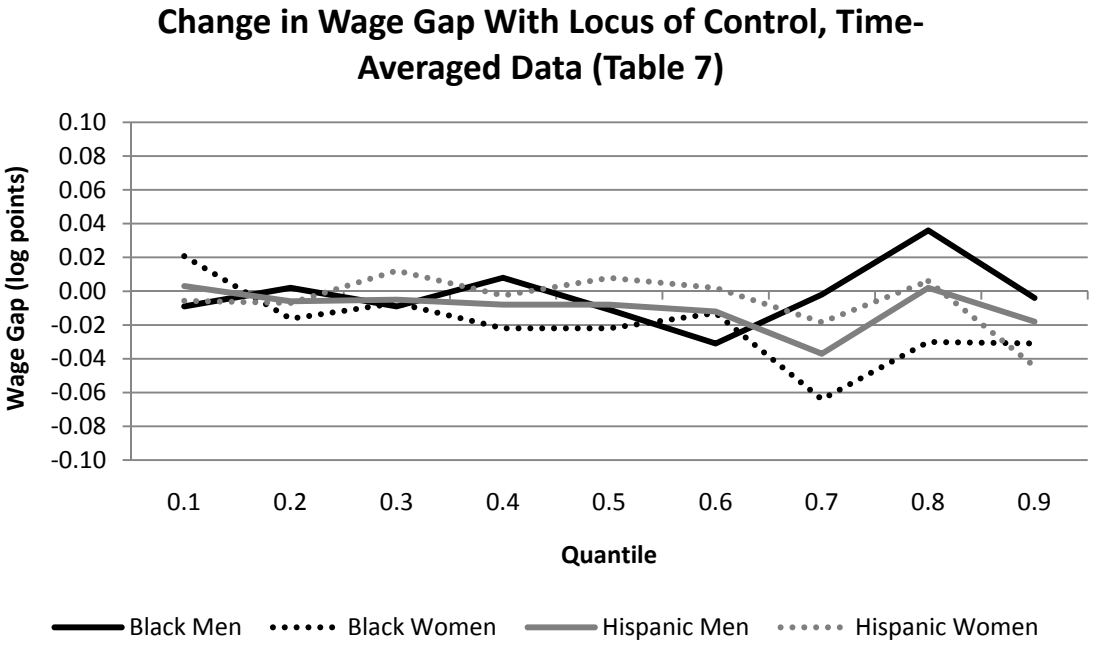


Figure 3: Change in Wage Gap, Time-Averaged Data



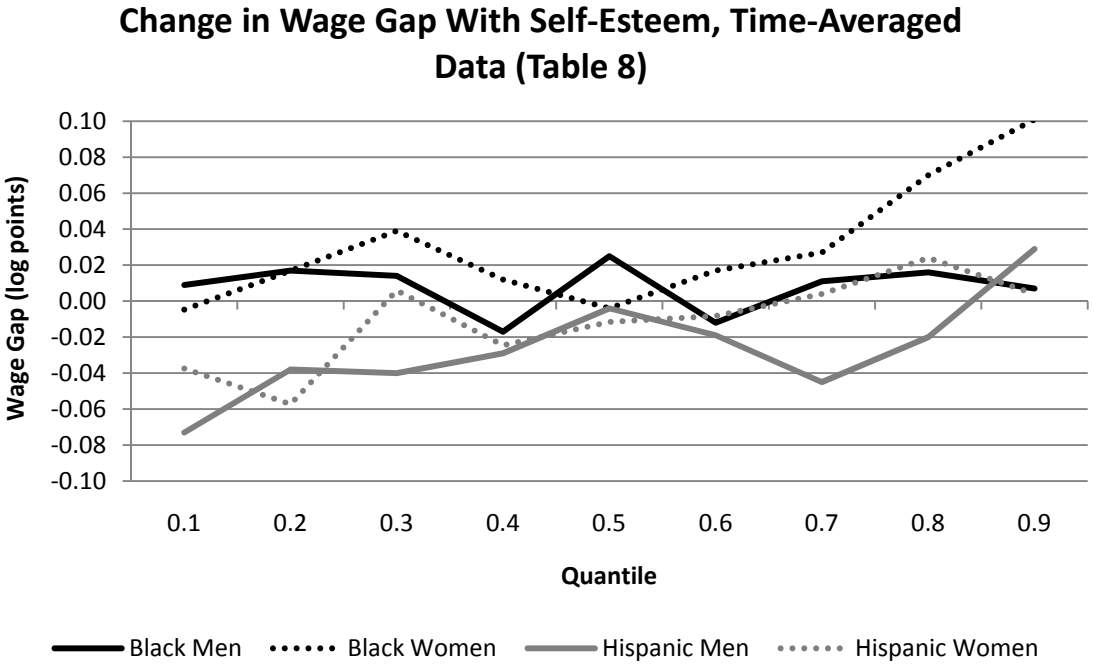
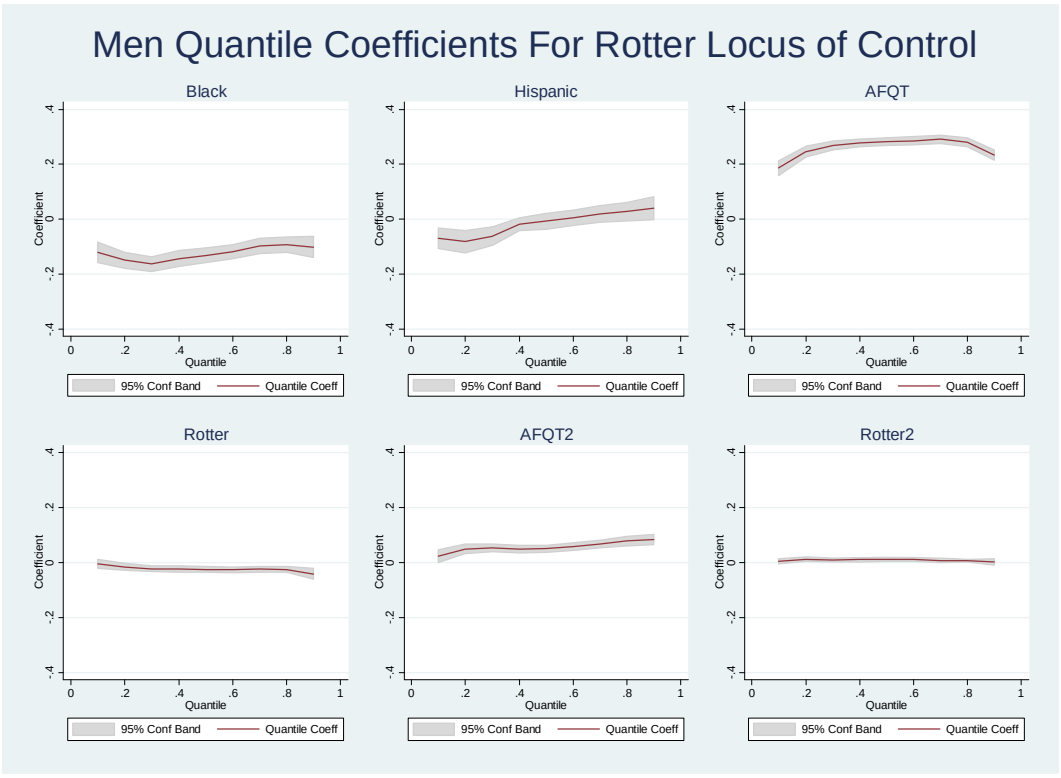


Figure 4: Coefficients From Quantile Wage Regression, Pooled Data



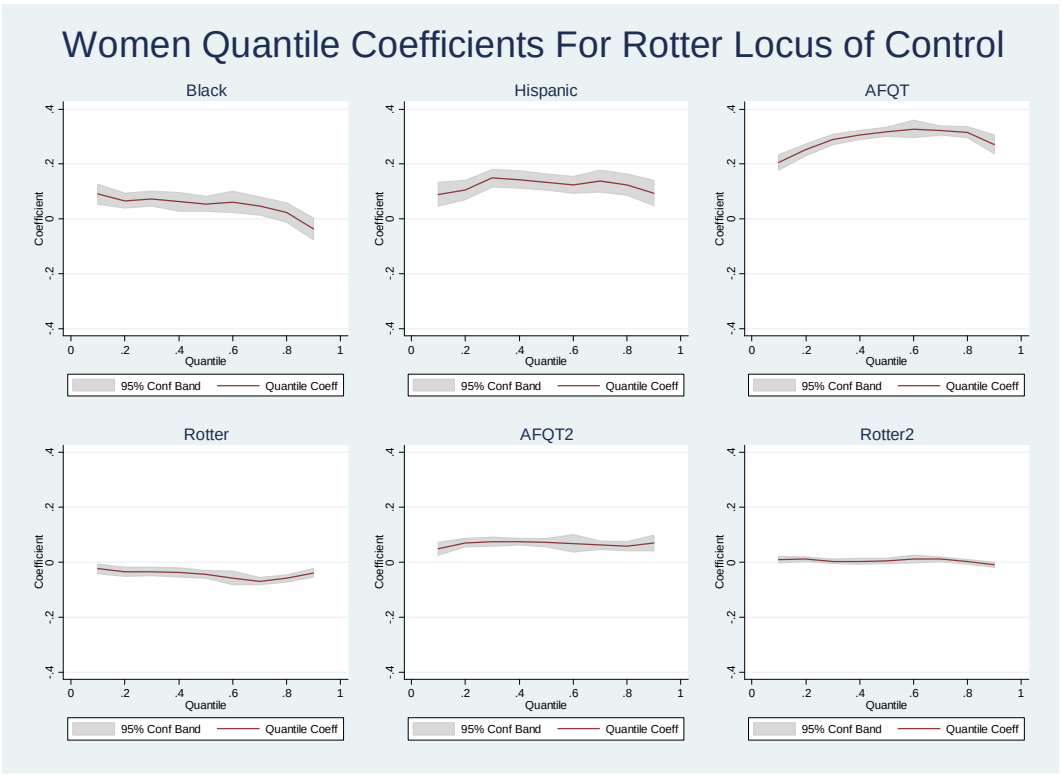
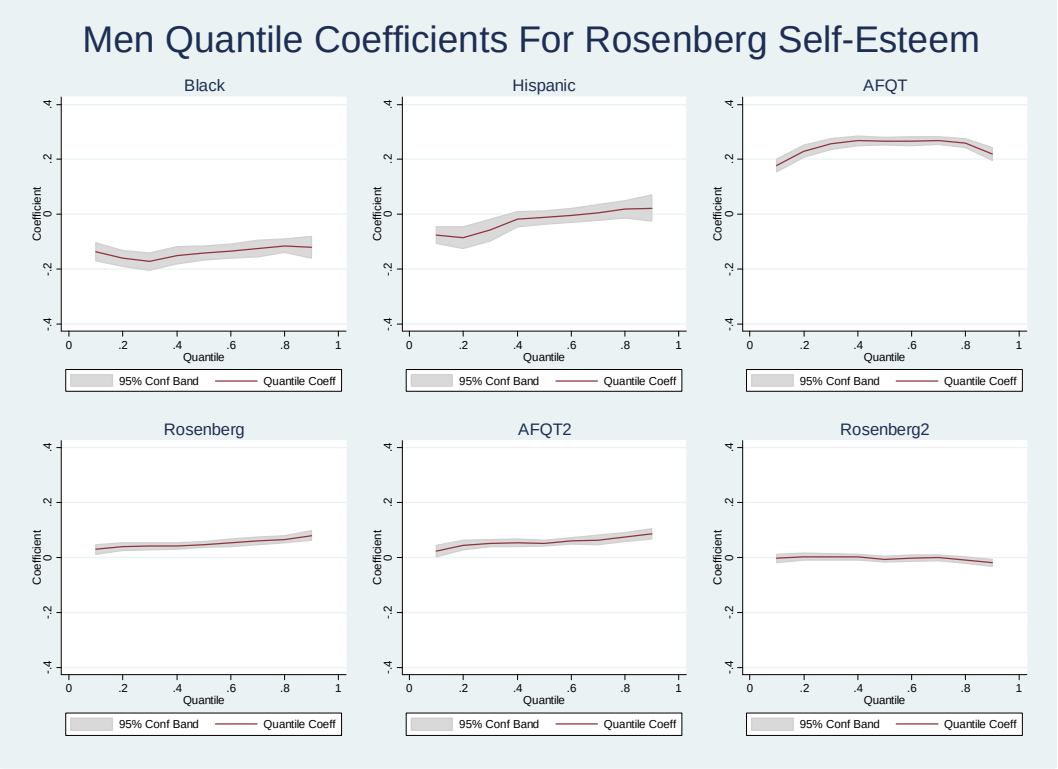


Figure 4 (continued)



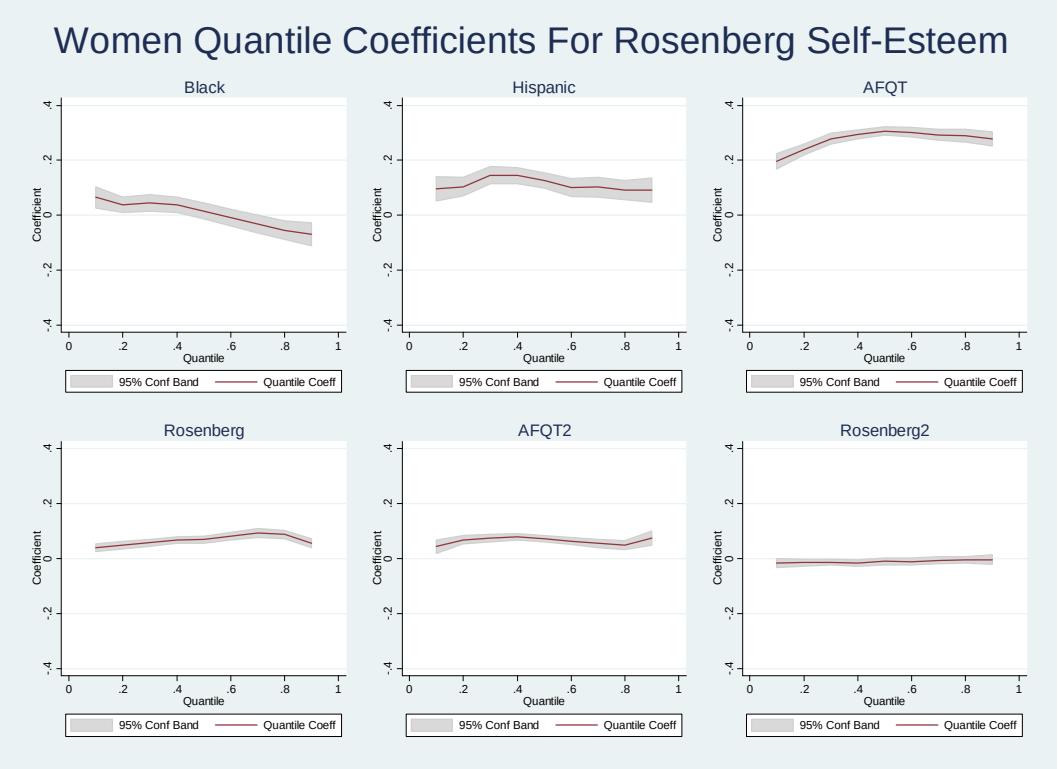
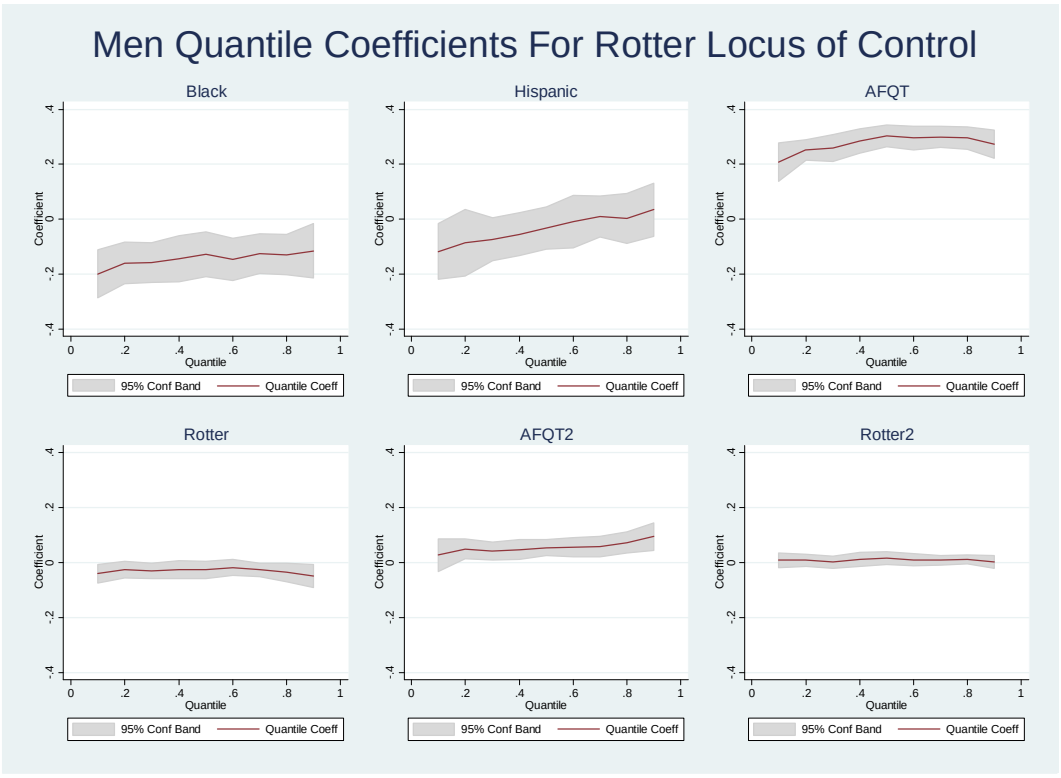


Figure 5: Coefficients From Quantile Wage Regression, Time-Averaged Data



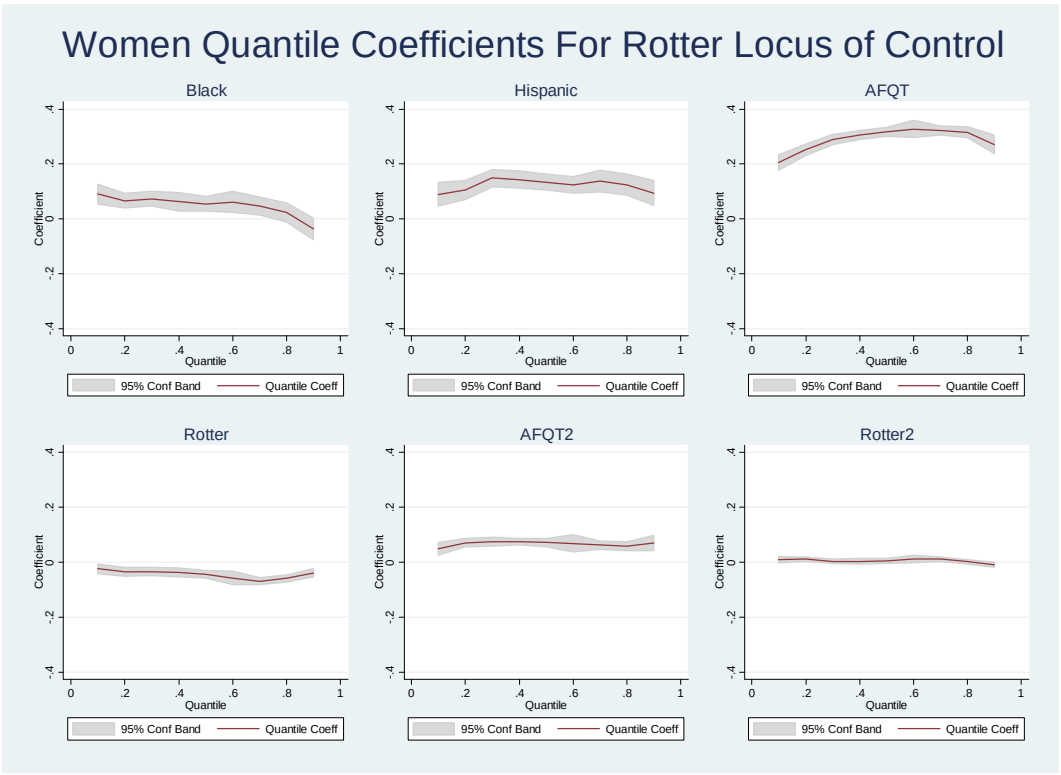
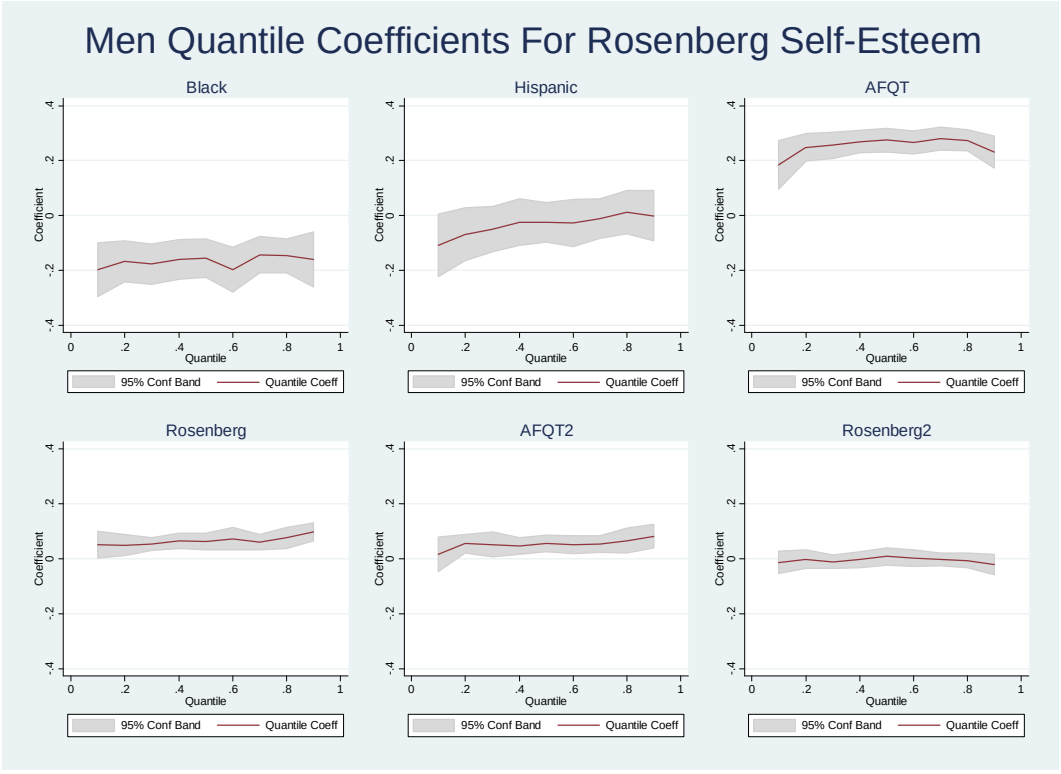
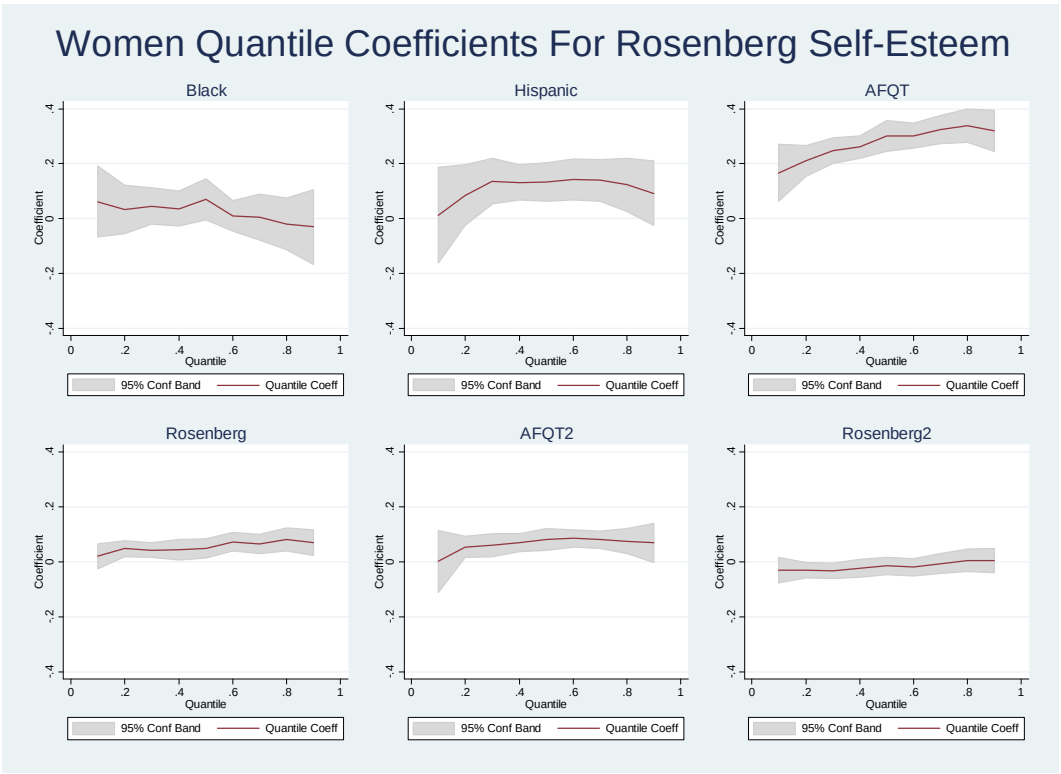


Figure 5 (continued)





References

Andrisani, Paul. 1977. Internal-External Attitudes, Personal Initiative, and the Labor Market Experience of White and Black Men. *Journal of Human Resources* 12, no. 3:308-28.

Bollinger, Christopher. 2003. Measurement Error in Human Capital and the Black-White Wage Gap. *Review of Economics and Statistics* 85, no.3, 578-585.

Bowles, Samuel, and Herbert Gintis. 1976. Schooling in capitalist America:Educational reform and the contradictions of economic life. New York: Basic Books.

Carneiro, Pedro, James J. Heckman, and Dimitriy V. Masterov. 2005. Labor market discrimination and racial differences in pre-market factors. *Journal of Law and Economics* 48, no.1, 1–39.

Cebi, Merve. 2007. Locus of Control and Human Capital Investment Revisited. *Journal of Human Resources* 42, no. 4, 919-932.

Chandra, Amitabh. 2003. Is the Convergence in the Racial Wage Gap Illusory? NBER Working Paper 9476.

Coleman, Margo, and Thomas DeLeire. 2003. An Economic Model of Locus of Control and the Human Capital Investment Decision. *Journal of Human Resources* 38, no. 3, 701-721.

Duncan, Greg, and James Morgan. 1981. Sense of Efficacy and Changes in Economic Status—A Comment on Andrisani. *Journal of Human Resources* 16, no. 4, 649-57.

Edwards, Richard C. 1976. Individual traits and organizational incentives:What makes a "good" worker? *Journal of Human Resources* 11, no. 1, 51–68.

Goldsmith, Arthur, William A.Darity, and Jonathan Veum. 1997. The impact of psychological and human capital on wages. *Economic Inquiry* 35, no. 4, 818–29.

Heckman, James. 2007. The Economics, Technology, and Neuroscience of Human Capability Formation. *Proceedings of the National Academy of Sciences* 104, no. 33, 13250-13255.

Heckman, James, Jora Stixrud, and Sergio Urzua. 2006. The Effects of Cognitive and Noncognitive Abilities on Labor Market Outcomes and Social Behavior. *Journal of Labor Economics* 24, no. 3, 411-482.

Krueger, Alan, and David Schkade. 2008. Sorting in the Labor Market: Do Gregarious Workers Flock to Interactive Jobs? *Journal of Human Resources* 43, no. 4, 859–883.

Maxwell, Nan. 1994. The Effect on Black-White Wage Differences in the Quantity and Quality of Education. *Industrial and Labor Relations Review* 47, no. 2, 249-264.

Mueser, Peter. 1979. The Effects of Noncognitive Traits. Chapter 5 in Who Gets Ahead? The Determinants of Economic Success in America. by Christopher Jencks et. al. New York: Basic Books.

National Longitudinal Survey of Youth. 2010. Wages. Online documentation. Section 4.40, Accessed December 2010.

National Longitudinal Survey of Youth. 2007. Attitudes and Expectations. Online documentation Section 4.5, Accessed December 2007.

Neal, Derek. 2004. The Measured Black-White Wage Gap among Women is Too Small. *Journal of Political Economy* 112, no. 1, pt. 2, S1-S28.

Neal, Derek, and William Johnson. 1996. The Role of Premarket Factors in Black-White Wage Differences. *Journal of Political Economy* 104, no. 5, 869-895.

O'Neill, June. 1990. The Role of Human Capital in Earnings Differences Between Black and White Men. *Journal of Economic Perspectives* 4, no. 4, 25-45.

Rouse, Katy. 2008. The Impact of High School Leadership on Subsequent Educational Attainment. University of North Carolina-Chapel Hill Department of Economics Working Paper.

ter Weel, Bas. 2008. The Noncognitive Determinants of Labor Market and BehavioralOutcomes. *Journal of Human Resources* 43, no. 4, 729–737.

Urzua, Sergio. 2008. Racial Labor Market Gaps: The Role of Abilities and Schooling Choices. *Journal of Human Resources*. 43, no. 4, 919–971.

Weinberger, Catherine. 2008a. Who Do You Want on Your Team? Sports Skills, Math Skills, and Outcomes over the Life Cycle. American Economic Association Meetings, January 2008.

Weinberger, Catherine. 2008b. Quantifying the Growing Importance of "Soft Skills" in the Labor Market. American Economic Association Meetings, January 2008.