Statistical Discrimination at the Extensive & Intensive Margin: Explaining Racial Employment & Wage Gap

Md Moshi Ul Alam [*] and Irina Shaorshadze [†]

September 15, 2018

Abstract

This paper provides evidence, the first of its kind on the existence of statistical discrimination in employment decisions (the extensive margin) in US labor market. The literature has usually used AFQT as the measure of productivity observable to the resarcher but unobservable to the employer. We extend this set by incorporating data on non-cognitive skills from the NLSY 79 and 97. Unlike existing literature which finds no evidence of statistical discrimination in wages,- after incorporating non-cognitive skills, our model provides evidence on statistical discrimination in wages (intensive margin). Our results also reverses those of learning models of productivity which finds no evidence of statistical discrimination in the long run.

1 Introduction

Most studies of racial differences in labor market outcomes focus on differences in wages. However differences in employment are even more dramatic than differences in wages. Black workers have higher unemployment duration and job turnover than whites. This is

[*]Department of Economics, University of Wisconsin-Madison
[†]The Bank of America

true even if we do not include the incarcerated, and is true for both men and women. It has been suggested that racial discrimination is important determinant of labor market outcomes, however most theoretical and empirical work on discrimination studies the effect of discrimination on wages, and not on unemployment. This paper analyses the effect of screening statistical discrimination on unemployment duration and job turnover gap between black and white workers in labor markets characterized search frictions.

Since unemployment differences between blacks and whites is even more dramatic than that of wages, a story of the inter-group labor market outcomes is not complete without grappling with the puzzle of differential unemployment outcomes. While frictionless world could explain unemployment through particularly high taste for leisure or high outside option, the magnitude of differences in unemployment between black and white men suggest that leisure-based explanations is at best a part of the story. The alternative way to explain the differential employment outcome of black and white workers is through search frictions combined with discrimination. In the current version of the paper we provide reduced for evidence for the existence of the unemployment gap between black and white workers. This evidence will serve as a motivation for the structural model that will use combination of search and employer learning to explain the unemployment gap between black and white workers.

1.1 Stylized Facts

The following stylized facts are from the survey by Lang and Lehmann (2012). We focus here on black and white men.

- There is a raw wage gap between blacks and whites. This gap almost disappears for the high skilled workers. The gap disappears if one controls for AFQT, but it re-emerges if one controls both for AFQT and education. This is because for a given AFQT blacks tend to get more years of schooling.
- From 2003 to 2008, the ratio of mean incomplete unemployment duration of black

men 16 and older relative to white men was between 1.28 and 1.33.

- Overall unemployment duration is about 30% longer for black men.
- There are clear differences in rates of entry into unemployment from employment. Mean employment duration of black men is 70% of that of white men.
- Unemployment and skills are negatively correlated. However while during last 30% years there was convergence in earnings, there was no convergence in unemployment.

2 Literature

There are two strands of models of discrimination. Taste-based discrimination explains inter-group labor-market differences through taste (prejudice) of employers or their customers. Canonical model of staistical discrimination is by Becker (2010). Meanwhile statistical discrimination does not rely on prejudice to explain the labor-market outcomes. Instead this literature focuses on imperfect information on productivity of the workers Phelps (1972), Arrow (1998). There are two types of models of statistical discrimination. Models of rational stereotyping assume that groups are ex-ante equally productive, however negative beliefs of employers about the group productivity are ex-post self-fulfilling . Screening discrimination models admit that there may be underlying differences productivity between the groups, but any given worker's actual productivity is imperfectly observed. Most of the studies of discrimination focus on wage differences.

To date there is a small literature that combines taste-based discrimination models with models of search. Black (1995) and Bowlus and Eckstein (2002) develop the model that combines random search and taste discrimination. Lang et al. (2005) present the model that combines taste based discrimination with directed search. Random search models can reproduce racial gaps in both unemployment and wages. The unsatisfactory feature of such models is that they rely on presence of a lot of employers that are strongly prejudiced. It is also unsatisfactory that black workers are not able to avoid the employers

that are discriminatory. Meanwhile, models of directed search (posted wages) produce counterfactual results that unemployment duration for blacks is shorter than that of whites.

Rosen (1997) develops search and matching model that does not rely on prejudice, but rather on private information about match quality. She shows that if whites have higher reservation productivity, the firms will know that the white applicants are more productive, and will only choose white applicants. While this model has elements reminiscent of statistical discrimination, the underlying factor in having blacks have lower reservation productivity and not the precision of signals. Therefore the underlying mechanism is in essence similar to low outside option-type story. Meanwhile the model is able to produce both plausible wage differentials and unemployment differentials.

Several papers have sought investigate the presence of statistical discrimination by postulating that there is a proxi for unobservable worker ability (such as AFQT test scores), and by looking if AFQT is revealed to employers overtime and thus reflected in wages. In a seminal paper that employes this approach to investigate presence of statistical discrimination against blacks and employer learning, Altonji and Pierret (2001) do not find evidence of statistical discrimination on wages. Meanwhile, using similar methods, Arcidiacono et al. (2010) find that the AFQT is revealed upon hiring for college graduate workers, but black high school graduates do experience statistical discrimination, as their AFQT scores are not reflected in wages.

Recent survey by Lang and Lehmann (2012) suggest that search models should be important part of explaining racial unemployment puzzle, and they suggest that combining them with statistical discrimination model would be an interesting avenue to pursue. That statistical discrimination can fruitfully applied to investigating racial differencials in hiring and unemployment were suggested by Altonji (2005) and Arrow (1998). However very few papers incorporate statistical discrimination in explaining unemployment.

Altonji (2005) sketches out a model that includes statistical discrimination, hiring and

minimum wages, but does not take the model to the data. Ahn et al. (2010) present the two-sided one-shot matching model that includes black and white workers, different ability levels, and noisy signals of the abilities. The authors find that the employers find it easier to screen based on race rather than age. As a result 18 year old blacks earn as much as 16 year old whites, but have much higher unemployment rates. Cavounidis and Lang (2015) develop the model that includes search and screening. In this model, black workers are monitored more once hired, and are fired more often than whites as a result. Because of differencial churning of white and black workers, a typical unemployed black worker is of lower quality than a typical unemployed white worker. Therefore in equlibrium unemploymet duration is longer for the black workers, while turnover is higher. However the model is stylized and the authors do not take it to the data. Fryer Jr et al. (2013) look at the evidence consistent with statistical discrimination in the data from Unemployment Insurance recipients in New Jersey. They find the supporting evidence for statistical discrimination in hiring.

The issue with learning models is that uncertainty often resolves quickly Lange (2007). However this does not have to be the case if search frictions are present. It is reasonable to start from model such as that of Rosen (1997), flash out stronger foundations based on statistical screening discrimination, incorporate learning about the productivity over time and take it to the data.

3 Data

This study uses NLSY79 data for the years 1979-2012. The selection criteria for the sample follows that of Arcidiacono et al. (2010). We keep the data for the white and black men. Actual experience is the weeks worked divided by 50, while the actual experience is the years since the respondent left school. Wages and earnings are not deflated.

Consistent with the literature (Altonji and Pierret, 2001), we take AFQT scores to

measure worker's ability.

4 Descriptive Evidence

In this section we review the descriptive evidence from NLSY79 on the differences in labor market experience between black and white workers.

Figure 1a shows the unconditional density of AFQT score for black and white workers. It is evidence that distribution of AFQT scores between black and white workers is very different. While AFQT density appears uniform across most of the AFQT range, AFQT scores for the black workers are concentrated at the lower tail. figures 1b, 1c, 1d show the distribution of AFQT scores by education levels. These figures confirm that for a given AFQT score, black workers get more education (Lang and Lehmann, 2012). It appears that out of there four education groups, high school dropout blacks and whites are relatively more similar in terms of AFQT scores. This suggests that in order to have the black and white workers similar in terms of AFQT, analysis might best consider low skill labor market of high school dropouts.

Figure 3 shows the transition rates between employment and unemployment. In order to generate these graphs we follow Arcidiacono et al. (2010) and consider that individuals enter the labor market in week 27th of the year of their highest completed education level. Quarterly transition rate out of unemployment (conditional on remaining in the labor force) is almost 0.15 higher for whites than for blacks at the time of labor market entry. The gap narrows only after a decade from the entry into the labor market. However even 20 years after the entry into the labor market, the 0.1 gap still remains.

Figure 3b shows that at the time of labor market entry there is close to 0.1 gap in the transition from employment into unemployment. However this gap narrows after around 5 years. This is consistent with the statistical discrimination story, where information about worker's skills is noisy when workers enter the labor market, and it is relatively more

noisy for black workers. After the workers get hired, their productivity is revealed. Those whose productivity is lower than some threshold, get terminated. If the productivity signal of black workers is more noisy, such termination will be more frequent for black workers in the beginning of their careers, before their true productivity is revealed. It would be interesting to look at the transition rates by the level of education.

Figure 4 shows the age profile of wages by education levels. In order to generate the weekly wages,wedivide the yearly labor earnings by weeks employed in a year. These graphs indicate that at the age 21, there is no gap in wages between the two races. However the gap emerges and widens through next 2 decades of life. It is important to note that actual labor market experience acquired is lower for blacks than whites for all education levels. This accumulated gap in experience likely plays role in explaining the diverging wage gap.

Figure 5 shows the weeks employed in a given year. the gap in weeks employed between the two races appears remarkably consistent during till the age of 40.

Next we investigate the reasons the employment spell ended. The motivation for this is to find evidence for for asymmetric information on worker productivity between workers and employers. For instance, if workers knew their own productivity when starting employment better than employers, then if the spell ended, this maybe more likely to be because due to being fired. If there is difference in the information about worker productivity that employer have between black and white workers, this difference may manifest in different patterns of employment termination. However Table 23 does not reveal any systematic differences in reasons the employment spell ended.

Table 24 shows the duration of the unemployment spells by the level of education. Blacks have lower duration of unemployment for low levels of education. On the other hand, for individuals with doctoral or professional degrees the duration unemployment for blacks is lower. However table 26 , shows that there are only 4 black individuals in this category.

Table 25 shows the mean duration of employment spells by education. Mean employment

spell duration is lower for black workers for all education levels other than professional and doctoral.

5 Reduced Form Evidence

5.1 Black and White Differences in Wages

I start by looking at the evidence of black and white wage gap. Following Altonji and Pierret (2001) and Arcidiacono et al. (2010), we formulate the simple econometric model of employer learning we estimate the log wage equation

$$\begin{aligned} w_i = \beta_0 + \beta_1 r_i + \beta_{AFQT} AFQT_i + \beta_{r,x}(r_i \times x_i) + \beta_{AFQT,x}(AFQT_i \times x_i) \\ + \beta_{AFQT,r}(AFQT_i \times r_i) + \beta_{AFQT,r,x}(AFQT_i \times r \times x_i) + f(x_i) + \beta'_\Phi \Phi_i + \epsilon_i \end{aligned} \tag{1}$$

In equation 1, r stands for race, x stands for experience, Phi stands for controls. If employers do not observe AFQT at the time of hire, but learn it over time, then coefficient on AFQT should be small initially, but should grow over time. If employers use race to statistically discriminate upon hiring, we should expect the coefficient on $Black$ to be negative at the time of hiring.

Dependent variable in Table 1 is the wage at the main job. [1] we do not see evidence of wage discrimination. After controlling for AFQT, coefficient on *black* is close to zero and not statistically significant. Furthermore, coefficient on AFQT is positive and significant, and there is evidence that there returns to AFQT increase in experience. When potential experience is used rather than actual experience, coefficient on $Black$ appears positive, but interaction of black and potential experience is negative. This is due to the fact that black workers spend longer in unemployed and non-participation states.

[1] Individual may hold more than one job at the time.

Lack of statistical discrimination in wages is corroborated by the evidence in tables 2 and 3. Dependent variable in Table 2 is the starting wage in the main job, while dependent variable in Table 3 is the first job after graduation.

5.2 Black and White Differences in Unemployment

This section extends the results by Altonji and Pierret (2001) and Arcidiacono et al. (2010) to analyse unemployment. In 2, U stands for either indicator of having unemployment spell or for number of weeks unemployed.

$$\begin{aligned} U_i = \beta_0 + \beta_1 r_i + \beta_{AFQT} AFQT_i + \beta_{r,x}(r_i \times x_i) + \beta_{AFQT,x}(AFQT_i \times x_i) \\ + \beta_{AFQT,r}(AFQT_i \times r_i) + \beta_{AFQT,r,x}(AFQT_i \times r \times x_i) + f(x_i) + \beta_\Phi' \Phi_i + \epsilon_i \end{aligned} \tag{2}$$

Table 13 estimates equation similar tot that in 1, except the dependent variable is the indicator for existence of unemployment spell is the previous year. Column 1 shows that black workers are 30% more likely to be unemployed in a given year, even if we control of AFQT. Further controlling for experience and interactions of experience and race or AFQT do not get rid of the significant black coefficient.

Table 14 estimates equation where the dependent variable is the indicator if the individual was unemployed at the time of interview. Evidence here is consistent with that in table 13 - coefficient on Black is positive and significant.

Table 19 estimates equation where the dependent variable is the number of weeks unemployed in the year. There is evidence that black workers spend longer time being unemployed, but the gap decreases over time. Table 20 presents the same evidence from a negative binomial regression where the dependent variable is the weeks unemployed in the calendar year.

Wage and unemployment regressions show that there is no gap in wages between black

and white workers. However there is gap in unemployment even when controlling for AFQT.

6 Non-Cognitive Skills

The results discussed above are all in line with AFQT being used as the variable which is a correlate of productivity, being unobservable to the employer but observed to the researcher. AFQT has widely been used in the literature, with its advent from Neal and Johnson (1996) In this section, we discuss results by incorporating non-cognitive skills as the correlates of productivity which affects wages and is unobservable to the employer. Figure 2 shows the distribution of coding speed (one of the measures of non-cognitive skills) by different levels of education across races. The figures reveal a difference in the distribution of this non-cognitive skill by race.

A growing branch of literature document significant returns to both cognitive and non-cognitive skills (Heckman (2000), Heckman and Kautz (2012) , Kautz et al. (2014), Heckman and Rubinstein (2001), Almlund et al. (2011), Borghans et al. (2008)). Heckman and Rubinstein (2001) document that although in the raw data GED earners earn more than high school dropouts,- hoowever once measured cognitive ability is controlled for, GED earners earn as much or less than high school dropouts. They attribute the difference in non-cognitive skill towards this gap,- GED earners although have better cognitive skills than high school dropouts, but have similar or worse non-cognitive skills than high school dropouts. Heckman et al. (2006), [2] document the that higher levels of cognitive and non-cognitive skills are associated with higher probabilities of graduating from high school and higher returns to schooling. The authors go on to show that increasing non-cognitive ability to the highest level reduces the probability of being a high school dropout to virtually zero for females with average cognitive ability and evidence for similar

[2]also see Urzua (2006)

patterns are documented in case of college attendance as well. [3] Non-cognitive skills have also been shown to affect measured ability on achievement tests, because non-cognitive skills affect schooling and schooling in turn affects success in achievement tests (Hansen et al. (2004), Heckman et al. (2004)). Cunha et al. (2006) presents a substantial overview of the literature on the importance of non-cognitive skills and its contribution towards economic success (graduation probabilities, returns to education, incarceration, health among others). The literature on early childhood development shows early childhood interventions having most of its effects through bolstering non-cognitive skills (Karoly and Levaux (1998), Blau and Currie (2006), Heckman (2000)).

Tables 9-11, 12-15 and 19-21 show evidence on existence of statistical discrimination at the extensive margin (dummy of being unemployed during the interview , dummy of being unemployed in the last year and number of weeks unemployed respectively) by incorporating different measures of non-cognitive skills like the locus of control measure and the self esteem measure.

In wages, tables 4-6 provide evidence of statistical discrimination in wages , overturning results in the literature which talked about non-existence of statistical discrimination in wages conditional on AFQT or models of learning too. The wage gap due to discrimination is as high as 12% in beginning wages when the employee enters the labor market, it however drops to 5.5% for wages in the main job at the time of survey

7 Description of Proposed Model

The model will explain differential employment outcomes, not just wage dispersion. There are two issues to explain: high unemployment duration and high turnover. Job destruction rate could not just be different between workers because they are blacks and whites

[3]Heckman et al. (2006) also document importance of both cognitive and non-cognitive skills on non-marital pregnancy for females.

– that would be illegal. If anything, firing black workers should be harder because of anti-discrimination laws. So either job destruction should be exogenously heterogeneous among firms and black workers disproportionately sort to such firms, or this destruction should be different in equilibrium for blacks and whites. Intuitively, because black workers have higher uncertainty on their productivity (either by themselves or by the employer or both), that makes them more risk loving. That could make such workers sort to more insecure jobs.

Belowwelist some of the model features

- The model will allow for ex-ante heterogeneity. In other words, it will allow for the possibility that ex-ante the distribution of abilities is different, and that the distribution of whites first order stochastically dominates the distribution of blacks, as in the data. It will take as distribution of human capital at the time of labor market entry as exogenous. Therefore it will explain only the part of discrimination that emerges after human capital investment have been made, but not the lack of human capital investment.
- The model will include only the low wage workers. Low and high skill jobs constitute separate labor markets. In the data the gap in employment and wages for college educated black and white workers is small.
- The model will be base on posted wages and directed search. Model with posted wages is preferable, as it will capture the legal constraint facing the firms that they can not legally condition the wages on the race of the applicant.
- the model will avoid the issues of asymmetric information by assuming that the ability is similarly noisy as viewed by the employer and the worker themselves.
- The model will includes three states (employment, unemployment and nonparticipation), since differences in nonparticipation are very large, and likely reflect the expectations on the condition of the labor market. Nonparticipation may be included as non-market activity, or can be modeled as crime

8 Further Work

In work in progress we build the structural model that will explain black and white unemployment gap and wage gap in terms of statistical discrimination. We plan to use the reduced form estimates as auxiliary parameters, to estimate model parameter using indirect inference. Target moments will be key moments of unemployment rates and wages, and their respective racial differentials. The counterfactual I am interested in is to how much does the wage gap and unemployment gap reduce, once employers have perfect information about the correlates of productivity, i.e. AFQT and non-cognitive skills.

Table 1: Wages in the Main (CPS) Job
Linear Regression Coefficients Shown

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	1	1	1	1	1	1
Black	0.007	0.006	0.004	0.003	0.078***	-0.009
	(0.006)	(0.006)	(0.006)	(0.010)	(0.011)	(0.010)
AFQT	0.205***	0.203***	0.160***	0.160***	0.170***	0.157***
	(0.003)	(0.003)	(0.004)	(0.005)	(0.005)	(0.005)
Ac.Expr		0.045***	0.050***	0.050***	0.050***	0.050***
		(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
AFQT x Ac.Expr.			0.005***	0.005***	0.004***	0.005***
			(0.000)	(0.000)	(0.000)	(0.000)
Black x Ac.Expr				0.000		0.001
				(0.001)		(0.001)
Black x Pot. Experience					-0.007***	
					(0.001)	
Highest Grade Attd.						0.003***
						(0.000)
Constant	6.133***	6.055***	6.058***	6.059***	6.039***	6.046***
	(0.010)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)
Observations	33,746	33,746	33,746	33,746	33,746	33,732
R-squared	0.458	0.461	0.464	0.464	0.465	0.465

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.10
a. Dependent Variable: Log wage in the CPI (main) job
b. Observations before completing finmal education are dropped
c. AFQT score is standadized within each birth year cohort
d. All specifications control for quadratic in actual experience

Table 2: Beginning Wages in the Main (CPS) Job
Linear Regression Coefficients Shown

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	1	1	1	1	1	1
Black	0.001	-0.000	-0.002	0.018	0.071***	0.010
	(0.010)	(0.010)	(0.010)	(0.016)	(0.017)	(0.016)
AFQT	0.199***	0.197***	0.138***	0.143***	0.148***	0.141***
	(0.005)	(0.005)	(0.007)	(0.007)	(0.007)	(0.007)
Ac.Expr		0.038***	0.048***	0.049***	0.048***	0.049***
		(0.005)	(0.005)	(0.006)	(0.005)	(0.006)
AFQT x Ac.Expr.			0.008***	0.007***	0.007***	0.007***
			(0.001)	(0.001)	(0.001)	(0.001)
Black x Ac.Expr				-0.003*		-0.003
				(0.002)		(0.002)
Black x Pot. Experience					-0.008***	
					(0.001)	
Highest Grade Attd.						0.002***
						(0.000)
Constant	6.080***	6.031***	6.032***	6.025***	6.011***	6.016***
	(0.016)	(0.017)	(0.017)	(0.018)	(0.018)	(0.018)
Observations	12,995	12,995	12,995	12,995	12,995	12,992
R-squared	0.482	0.484	0.490	0.490	0.491	0.490

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.10
a. Dependent Variable: Log wage in the CPI (main) job
b. Observations before completing finmal education are dropped
c. AFQT score is standadized within each birth year cohort
d. All specifications control for quadratic in actual experience

Table 3: First wage after education in the Main (CPS) Job
Linear Regression Coefficients Shown

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	1	1	1	1	1	1
Black	0.035	0.043	0.043	0.113***	0.036	0.111**
	(0.030)	(0.030)	(0.030)	(0.043)	(0.042)	(0.043)
AFQT	0.112***	0.107***	0.107***	0.125***	0.106***	0.124***
	(0.015)	(0.015)	(0.019)	(0.020)	(0.019)	(0.020)
Ac.Expr		0.093***	0.093***	0.108***	0.094***	0.108***
		(0.029)	(0.029)	(0.030)	(0.029)	(0.030)
AFQT x Ac.Expr.			0.000	-0.019	0.001	-0.019
			(0.011)	(0.013)	(0.011)	(0.013)
Black x Ac.Expr				-0.076**		-0.076**
				(0.033)		(0.033)
Black x Pot. Experience					0.003	
					(0.013)	
Highest Grade Attd.						0.001
						(0.001)
Constant	5.972***	5.909***	5.909***	5.893***	5.911***	5.890***
	(0.041)	(0.045)	(0.045)	(0.046)	(0.046)	(0.046)
Observations	1,042	1,042	1,042	1,042	1,042	1,042
R-squared	0.177	0.185	0.185	0.189	0.185	0.189

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.10

a. Dependent Variable: Log first wage in CPS(main) job after completing education
b. Observations before completing finmal education are dropped
c. AFQT score is standadized within each birth year cohort
d. All specifications control for quadratic in actual experience

Table 4: Wages in the Main (CPS) Job
Linear Regression Coefficients Shown

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	1	1	1	1	1	1
Black	0.013**	0.013**	-0.050***	-0.003	0.067***	0.056**
	(0.006)	(0.006)	(0.014)	(0.023)	(0.024)	(0.024)
AFQT	0.169***	0.164***	0.166***	0.132***	0.132***	0.130***
	(0.004)	(0.004)	(0.004)	(0.006)	(0.006)	(0.006)
Coding Speed	0.004***	0.004***	0.001**	0.003***	0.003***	0.003***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Ac.Expr		0.048***	0.038***	0.050***	0.047***	0.048***
		(0.003)	(0.003)	(0.004)	(0.004)	(0.004)
Coding x Black			0.002***	0.000	-0.000	-0.000
			(0.000)	(0.001)	(0.001)	(0.001)
Coding x Ac.Expr			0.000***	0.000**	0.000**	0.000**
			(0.000)	(0.000)	(0.000)	(0.000)
AFQT x Ac.Expr.				0.004***	0.004***	0.004***
				(0.001)	(0.001)	(0.001)
Coding x Ac.Expr x Bl			-0.000	0.000***	0.000***	0.000***
			(0.000)	(0.000)	(0.000)	(0.000)
Black x Ac.Expr				-0.006**	0.002	0.003
				(0.002)	(0.003)	(0.003)
AFQT x Ac.Expr. = o,				-	-	-
Black x Pot. Experience					-0.012***	-0.012***
					(0.001)	(0.001)
Highest Grade Attd.						0.002***
						(0.000)
Constant	5.989***	5.897***	6.017***	5.948***	5.933***	5.920***
	(0.013)	(0.015)	(0.018)	(0.021)	(0.021)	(0.021)
Observations	33,746	33,746	33,746	33,746	33,746	33,732
R-squared	0.463	0.466	0.469	0.470	0.471	0.472

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.10
a. Dependent Variable: Log wage in the CPI (main) job
b. Observations before completing finmal education are dropped
c. AFQT score is standadized within each birth year cohort
d. All specifications control for quadratic in actual experience

Table 5: Beginning Wages in the Main (CPS) Job
Linear Regression Coefficients Shown

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	1	1	1	1	1	1
Black	0.005	0.004	0.003	0.079**	0.133***	0.126***
	(0.010)	(0.010)	(0.022)	(0.034)	(0.035)	(0.035)
AFQT	0.171***	0.167***	0.166***	0.126***	0.127***	0.125***
	(0.006)	(0.006)	(0.006)	(0.009)	(0.009)	(0.009)
Coding Speed	0.003***	0.003***	-0.000	0.002***	0.002***	0.002***
	(0.000)	(0.000)	(0.001)	(0.001)	(0.001)	(0.001)
Ac.Expr		0.042***	0.029***	0.046***	0.043***	0.043***
		(0.005)	(0.006)	(0.006)	(0.006)	(0.006)
Coding x Black			0.001	-0.002**	-0.002**	-0.002**
			(0.001)	(0.001)	(0.001)	(0.001)
Coding x Ac.Expr			0.000***	0.000**	0.000**	0.000**
			(0.000)	(0.000)	(0.000)	(0.000)
AFQT x Ac.Expr.				0.005***	0.005***	0.005***
				(0.001)	(0.001)	(0.001)
Coding x Ac.Expr x Bl			-0.000**	0.000**	0.000**	0.000**
			(0.000)	(0.000)	(0.000)	(0.000)
Black x Ac.Expr				-0.011***	-0.003	-0.003
				(0.004)	(0.004)	(0.004)
AFQT x Ac.Expr. = o,				-	-	-
Black x Pot. Experience					-0.011***	-0.010***
					(0.002)	(0.002)
Highest Grade Attd.						0.002***
						(0.000)
Constant	5.969***	5.910***	6.034***	5.941***	5.932***	5.923***
	(0.021)	(0.023)	(0.027)	(0.031)	(0.031)	(0.031)
Observations	12,995	12,995	12,995	12,995	12,995	12,992
R-squared	0.485	0.487	0.492	0.494	0.495	0.495

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.10
a. Dependent Variable: Log wage in the CPI (main) job
b. Observations before completing finmal education are dropped
c. AFQT score is standadized within each birth year cohort
d. All specifications control for quadratic in actual experience

Table 6: First wage after education in the Main (CPS) Job
Linear Regression Coefficients Shown

VARIABLES	(1) 1	(2) 1	(3) 1	(4) 1	(5) 1	(6) 1
Black	0.037	0.045	0.132**	0.329***	0.304***	0.301***
	(0.031)	(0.030)	(0.066)	(0.093)	(0.097)	(0.097)
AFQT	0.095***	0.090***	0.085***	0.109***	0.108***	0.108***
	(0.019)	(0.019)	(0.019)	(0.026)	(0.026)	(0.026)
Coding Speed	0.002	0.002	0.002	0.003	0.003	0.003
	(0.001)	(0.001)	(0.001)	(0.002)	(0.002)	(0.002)
Ac.Expr		0.093***	0.093**	0.108**	0.112**	0.113**
		(0.029)	(0.037)	(0.044)	(0.044)	(0.044)
Coding x Black			-0.002	-0.007***	-0.007**	-0.007**
			(0.002)	(0.003)	(0.003)	(0.003)
Coding x Ac.Expr			0.000	-0.000	-0.000	-0.000
			(0.001)	(0.001)	(0.001)	(0.001)
AFQT x Ac.Expr.				-0.027	-0.027	-0.027
				(0.016)	(0.016)	(0.016)
Coding x Ac.Expr x Bl			-0.001	0.005**	0.005**	0.005**
			(0.001)	(0.002)	(0.002)	(0.002)
Black x Ac.Expr				-0.222***	-0.228***	-0.229***
				(0.073)	(0.073)	(0.073)
AFQT x Ac.Expr. = o,				-	-	-
Black x Pot. Experience					0.012	0.013
					(0.014)	(0.014)
Highest Grade Attd.						0.001
						(0.001)
Constant	5.908***	5.846***	5.809***	5.791***	5.797***	5.794***
	(0.060)	(0.063)	(0.073)	(0.079)	(0.079)	(0.080)
Observations	1,042	1,042	1,042	1,042	1,042	1,042
R-squared	0.178	0.187	0.189	0.197	0.198	0.198

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.10
a. Dependent Variable: Log first wage in CPS(main) job after completing education
b. Observations before completing finmal education are dropped
c. AFQT score is standadized within each birth year cohort
d. All specifications control for quadratic in actual experience

Table 7: Unemployed During Last Year
Logistic Regression Coefficients Shown

VARIABLES	(1) 1	(2) 1	(3) 1	(4) 1	(5) 1	(6) 1
Black	0.129***	0.129***	0.129***	0.152***	0.117**	0.167***
	(0.033)	(0.034)	(0.034)	(0.049)	(0.055)	(0.050)
AFQT	-0.364***	-0.335***	-0.246***	-0.240***	-0.247***	-0.237***
	(0.017)	(0.017)	(0.023)	(0.025)	(0.024)	(0.025)
Ac.Expr		-0.300***	-0.314***	-0.313***	-0.314***	-0.312***
		(0.018)	(0.019)	(0.019)	(0.019)	(0.019)
AFQT x Ac.Expr			-0.017***	-0.018***	-0.017***	-0.018***
			(0.003)	(0.004)	(0.003)	(0.004)
Black x Ac.Expr				-0.004		-0.005
				(0.007)		(0.007)
Black x Pot. Experience					0.002	
					(0.005)	
Highest Grade Attd.						-0.004**
						(0.002)
Constant	-0.178***	0.271***	0.286***	0.278***	0.290***	0.293***
	(0.052)	(0.059)	(0.059)	(0.061)	(0.061)	(0.061)
Observations	32,356	32,356	32,356	32,356	32,356	32,342

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.10

a. Dependent Variable: Dummy for if one had unemployment spell during the past year
b. Observations before completing final education are dropped
c. AFQT score is standadized within each birth year cohort
d. All specifications control for quadratic in actual experience

Table 8: Unemployed During the Interview
Logistic Regression Coefficients Shown

VARIABLES	(1) 1	(2) 1	(3) 1	(4) 1	(5) 1	(6) 1
Black	0.423***	0.389***	0.389***	0.161	0.008	0.236**
	(0.074)	(0.076)	(0.076)	(0.102)	(0.114)	(0.104)
AFQT	-0.530***	-0.447***	-0.302***	-0.365***	-0.307***	-0.343***
	(0.043)	(0.044)	(0.056)	(0.059)	(0.056)	(0.059)
Ac.Expr		-1.384***	-1.449***	-1.494***	-1.445***	-1.493***
		(0.087)	(0.088)	(0.089)	(0.088)	(0.089)
AFQT x Ac.Expr			-0.090***	-0.050*	-0.087***	-0.052**
			(0.024)	(0.026)	(0.024)	(0.027)
Black x Ac.Expr				0.144***		0.143***
				(0.044)		(0.044)
Black x Pot. Experience					0.085***	
					(0.019)	
Highest Grade Attd.						-0.016***
						(0.004)
Constant	-1.593***	-0.352***	-0.262*	-0.168	-0.134	-0.100
	(0.112)	(0.134)	(0.135)	(0.138)	(0.137)	(0.139)
Observations	31,544	31,544	31,544	31,544	31,544	31,530

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.10
a. Dependent Variable: Dummy for if one was unemployed during the interview
b. Observations before completing final education are dropped
c. AFQT score is standadized within each birth year cohort
d. All specifications control for quadratic in actual experience

Table 9: Unemployed During Last Year
Logistic Regression Coefficients Shown

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	1	1	1	1	1	1
Black	0.113***	0.110***	-0.066	-0.206**	-0.228**	-0.212*
	(0.034)	(0.034)	(0.072)	(0.104)	(0.111)	(0.111)
AFQT	-0.259***	-0.221***	-0.210***	-0.058*	-0.059*	-0.056*
	(0.021)	(0.021)	(0.021)	(0.032)	(0.032)	(0.032)
Coding Speed	-0.010***	-0.011***	-0.011***	-0.019***	-0.019***	-0.019***
	(0.001)	(0.001)	(0.002)	(0.002)	(0.002)	(0.002)
Ac.Expr		-0.306***	-0.302***	-0.371***	-0.370***	-0.369***
		(0.018)	(0.019)	(0.023)	(0.023)	(0.023)
Coding x Black			0.005**	0.010***	0.011***	0.011***
			(0.002)	(0.003)	(0.003)	(0.003)
Coding x Ac.Expr			-0.000	0.001***	0.001***	0.001***
			(0.000)	(0.000)	(0.000)	(0.000)
AFQT x Ac.Expr				-0.029***	-0.029***	-0.029***
				(0.005)	(0.005)	(0.005)
Coding x Ac.Expr x Bl			0.000	-0.001**	-0.001**	-0.001**
			(0.000)	(0.000)	(0.000)	(0.000)
Black x Ac.Expr				0.027*	0.025	0.025
				(0.015)	(0.016)	(0.016)
AFQT x Ac.Expr = o,				-	-	-
Black x Pot. Experience					0.003	0.003
					(0.006)	(0.006)
Highest Grade Attd.						-0.003**
						(0.002)
Constant	0.210***	0.701***	0.750***	1.043***	1.047***	1.061***
	(0.071)	(0.077)	(0.091)	(0.106)	(0.106)	(0.106)
Observations	32,356	32,356	32,356	32,356	32,356	32,342

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.10

a. Dependent Variable: Dummy for if one had unemployment spell during the past year
b. Observations before completing final education are dropped
c. AFQT score is standadized within each birth year cohort
d. All specifications control for quadratic in actual experience

Table 10: Unemployed During the Interview
Logistic Regression Coefficients Shown

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	1	1	1	1	1	1
Black	0.393***	0.351***	0.123	-0.581***	-0.838***	-0.761***
	(0.074)	(0.077)	(0.158)	(0.220)	(0.233)	(0.235)
AFQT	-0.302***	-0.194***	-0.170***	0.060	0.058	0.074
	(0.054)	(0.055)	(0.056)	(0.077)	(0.077)	(0.077)
Coding Speed	-0.020***	-0.022***	-0.024***	-0.045***	-0.044***	-0.044***
	(0.003)	(0.003)	(0.004)	(0.005)	(0.005)	(0.005)
Ac.Expr		-1.401***	-1.418***	-1.968***	-1.946***	-1.941***
		(0.087)	(0.095)	(0.131)	(0.132)	(0.132)
Coding x Black			0.001	0.022***	0.022***	0.022***
			(0.005)	(0.006)	(0.006)	(0.006)
Coding x Ac.Expr			-0.001	0.012***	0.012***	0.012***
			(0.001)	(0.002)	(0.003)	(0.003)
AFQT x Ac.Expr				-0.142***	-0.143***	-0.145***
				(0.034)	(0.035)	(0.035)
Coding x Ac.Expr x Bl			0.004***	-0.009***	-0.009***	-0.009***
			(0.001)	(0.003)	(0.003)	(0.003)
Black x Ac.Expr				0.461***	0.433***	0.427***
				(0.105)	(0.107)	(0.107)
AFQT x Ac.Expr = o,				-	-	-
Black x Pot. Experience					0.066***	0.064***
					(0.019)	(0.019)
Highest Grade Attd.						-0.014***
						(0.004)
Constant	-0.824***	0.509***	0.700***	1.522***	1.577***	1.622***
	(0.156)	(0.177)	(0.201)	(0.242)	(0.244)	(0.244)
Observations	31,544	31,544	31,544	31,544	31,544	31,530

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.10
a. Dependent Variable: Dummy for if one was unemployed during the interview
b. Observations before completing final education are dropped
c. AFQT score is standadized within each birth year cohort
d. All specifications control for quadratic in actual experience

Table 11: Unemployed During Last Year
Logistic Regression Coefficients Shown

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	1	1	1	1	1	1
Black	0.163***	0.163***	-0.106	-0.134	-0.123	-0.124
	(0.034)	(0.035)	(0.165)	(0.240)	(0.175)	(0.240)
AFQT	-0.315***	-0.284***	-0.283***	-0.175***	-0.283***	-0.171***
	(0.018)	(0.018)	(0.018)	(0.027)	(0.018)	(0.027)
Self Esteme	-0.036***	-0.037***	-0.036***	-0.045***	-0.036***	-0.045***
	(0.004)	(0.004)	(0.006)	(0.007)	(0.006)	(0.007)
Ac.Expr		-0.306***	-0.292***	-0.334***	-0.292***	-0.334***
		(0.019)	(0.025)	(0.029)	(0.025)	(0.029)
Selfesteem x Black			0.009	0.015	0.010	0.015
			(0.007)	(0.011)	(0.008)	(0.011)
Selfesteem x Ac.Expr			-0.001	0.001	-0.001	0.001
			(0.001)	(0.001)	(0.001)	(0.001)
Selfesteem x Ac.Expr x Bl			0.001**	-0.000	0.001*	-0.000
			(0.000)	(0.002)	(0.000)	(0.002)
Black x Ac.Expr				0.002		0.002
				(0.034)		(0.034)
AFQT x Ac.Expr				-0.021***		-0.020***
				(0.004)		(0.004)
Black x Pot. Experience					0.002	
					(0.006)	
Highest Grade Attd.						-0.003**
						(0.002)
Constant	0.606***	1.081***	1.093***	1.270***	1.098***	1.287***
	(0.097)	(0.102)	(0.146)	(0.165)	(0.147)	(0.165)
Observations	31,647	31,647	31,647	31,647	31,647	31,633

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.10

a. Dependent Variable: Dummy for if one had unemployment spell during the past year
b. Observations before completing final education are dropped
c. AFQT score is standadized within each birth year cohort
d. All specifications control for quadratic in actual experience

Table 12: Unemployed During the Interview
Logistic Regression Coefficients Shown

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	1	1	1	1	1	1
Black	0.462***	0.435***	-0.139	-1.001**	-0.516	-0.923*
	(0.076)	(0.079)	(0.377)	(0.505)	(0.388)	(0.507)
AFQT	-0.475***	-0.392***	-0.380***	-0.278***	-0.379***	-0.260***
	(0.046)	(0.047)	(0.047)	(0.064)	(0.047)	(0.064)
Self Esteme	-0.038***	-0.037***	-0.046***	-0.077***	-0.047***	-0.076***
	(0.009)	(0.009)	(0.014)	(0.017)	(0.014)	(0.018)
Ac.Expr		-1.342***	-1.351***	-1.834***	-1.344***	-1.832***
		(0.088)	(0.133)	(0.198)	(0.133)	(0.198)
Selfesteem x Black			0.014	0.057**	0.017	0.056**
			(0.017)	(0.023)	(0.017)	(0.023)
Selfesteem x Ac.Expr			-0.004	0.017**	-0.004	0.017**
			(0.005)	(0.008)	(0.005)	(0.008)
Selfesteem x Ac.Expr x Bl			0.008***	-0.019*	0.007***	-0.019*
			(0.002)	(0.010)	(0.002)	(0.010)
Black x Ac.Expr				0.542**		0.545**
				(0.216)		(0.216)
AFQT x Ac.Expr				-0.063**		-0.065**
				(0.029)		(0.029)
Black x Pot. Experience					0.077***	
					(0.020)	
Highest Grade Attd.						-0.015***
						(0.004)
Constant	-0.766***	0.427*	0.765**	1.482***	0.889***	1.526***
	(0.221)	(0.239)	(0.336)	(0.401)	(0.337)	(0.402)
Observations	30,850	30,850	30,850	30,850	30,850	30,836

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.10
a. Dependent Variable: Dummy for if one was unemployed during the interview
b. Observations before completing final education are dropped
c. AFQT score is standadized within each birth year cohort
d. All specifications control for quadratic in actual experience

Table 13: Unemployed During Last Year
Logistic Regression Coefficients Shown

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	1	1	1	1	1	1
Black	0.135***	0.134***	0.247**	0.350**	0.215*	0.371**
	(0.034)	(0.034)	(0.118)	(0.171)	(0.126)	(0.172)
AFQT	-0.356***	-0.328***	-0.326***	-0.217***	-0.327***	-0.213***
	(0.017)	(0.017)	(0.017)	(0.026)	(0.017)	(0.026)
Locus of Control	0.022***	0.022***	0.035***	0.045***	0.034***	0.046***
	(0.006)	(0.006)	(0.010)	(0.011)	(0.010)	(0.011)
Ac.Expr		-0.304***	-0.297***	-0.288***	-0.298***	-0.288***
		(0.019)	(0.022)	(0.024)	(0.022)	(0.024)
Control x Black			-0.021	-0.022	-0.020	-0.022
			(0.013)	(0.018)	(0.013)	(0.018)
Control x Ac.Expr			-0.002	-0.003**	-0.002	-0.003**
			(0.001)	(0.002)	(0.001)	(0.002)
Control x Ac.Expr x Bl			0.002**	0.002	0.001*	0.002
			(0.001)	(0.003)	(0.001)	(0.003)
Black x Ac.Expr				-0.019		-0.020
				(0.024)		(0.024)
AFQT x Ac.Expr				-0.021***		-0.021***
				(0.004)		(0.004)
Black x Pot. Experience					0.004	
					(0.006)	
Highest Grade Attd.						-0.004**
						(0.002)
Constant	-0.380***	0.077	-0.009	-0.116	0.002	-0.104
	(0.074)	(0.079)	(0.105)	(0.116)	(0.106)	(0.116)
Observations	32,059	32,059	32,059	32,059	32,059	32,045

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.10

a. Dependent Variable: Dummy for if one had unemployment spell during the past year
b. Observations before completing final education are dropped
c. AFQT score is standadized within each birth year cohort
d. All specifications control for quadratic in actual experience

Table 14: Unemployed During the Interview
Logistic Regression Coefficients Shown

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	1	1	1	1	1	1
Black	0.415***	0.382***	0.179	-0.368	-0.158	-0.320
	(0.074)	(0.077)	(0.272)	(0.375)	(0.284)	(0.377)
AFQT	-0.542***	-0.467***	-0.460***	-0.356***	-0.460***	-0.334***
	(0.045)	(0.045)	(0.046)	(0.063)	(0.046)	(0.063)
Locus of Control	0.011	0.004	0.047*	0.014	0.045*	0.013
	(0.014)	(0.015)	(0.025)	(0.031)	(0.025)	(0.031)
Ac.Expr		-1.378***	-1.168***	-1.378***	-1.168***	-1.390***
		(0.088)	(0.118)	(0.152)	(0.119)	(0.153)
Control x Black			-0.010	0.057	-0.009	0.060
			(0.029)	(0.040)	(0.029)	(0.040)
Control x Ac.Expr			-0.034***	-0.012	-0.032***	-0.010
			(0.009)	(0.014)	(0.009)	(0.014)
Control x Ac.Expr x Bl			0.021***	-0.020	0.019***	-0.022
			(0.005)	(0.017)	(0.005)	(0.017)
Black x Ac.Expr				0.323**		0.340**
				(0.156)		(0.157)
AFQT x Ac.Expr				-0.067**		-0.069**
				(0.028)		(0.028)
Black x Pot. Experience					0.080***	
					(0.019)	
Highest Grade Attd.						-0.016***
						(0.004)
Constant	-1.689***	-0.404**	-0.622**	-0.300	-0.493*	-0.217
	(0.164)	(0.185)	(0.257)	(0.298)	(0.258)	(0.300)
Observations	31,266	31,266	31,266	31,266	31,266	31,252

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.10
a. Dependent Variable: Dummy for if one was unemployed during the interview
b. Observations before completing final education are dropped
c. AFQT score is standadized within each birth year cohort
d. All specifications control for quadratic in actual experience

Table 15: Number of Weeks Unemployed in Calendar Year
Linear Regression Coefficients Shown

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	1	1	1	1	1	1
Black	1.308***	1.325***	1.291***	1.933***	1.627***	1.989***
	(0.123)	(0.121)	(0.121)	(0.190)	(0.215)	(0.192)
AFQT	-1.045***	-0.915***	-1.561***	-1.414***	-1.521***	-1.404***
	(0.056)	(0.056)	(0.085)	(0.092)	(0.088)	(0.092)
Ac.Expr		-1.367***	-1.258***	-1.234***	-1.256***	-1.231***
		(0.060)	(0.061)	(0.061)	(0.061)	(0.061)
AFQT x Ac.Expr			0.081***	0.062***	0.076***	0.062***
			(0.008)	(0.009)	(0.008)	(0.009)
Black x Ac.Expr				-0.087***		-0.089***
				(0.020)		(0.020)
Black x Pot. Experience					-0.033*	
					(0.017)	
Highest Grade Attd.						-0.013**
						(0.006)
Constant	6.146***	8.403***	8.378***	8.161***	8.275***	8.207***
	(0.200)	(0.222)	(0.221)	(0.227)	(0.228)	(0.228)
Observations	30,791	30,791	30,791	30,791	30,791	30,777
R-squared	0.073	0.089	0.092	0.092	0.092	0.092

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.10
a. Dependent Variable: Number of weeks unemployed in calendar Year
b. Observations before completing final education are dropped
c. AFQT score is standadized within each birth year cohort
d. All specifications control for quadratic in actual experience

Table 16: Number of Weeks Unemployed in Calendar Year
Negative Binomial Regression Coefficients Shown

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	1	1	1	1	1	1
Black	0.293***	0.294***	0.294***	0.266***	0.326***	0.286***
	(0.050)	(0.050)	(0.050)	(0.078)	(0.091)	(0.079)
AFQT	-0.332***	-0.306***	-0.295***	-0.301***	-0.290***	-0.296***
	(0.023)	(0.023)	(0.035)	(0.037)	(0.037)	(0.038)
Ac.Expr		-0.236***	-0.238***	-0.239***	-0.238***	-0.239***
		(0.028)	(0.028)	(0.028)	(0.028)	(0.028)
AFQT x Ac.Expr			-0.002	-0.001	-0.002	-0.001
			(0.004)	(0.004)	(0.004)	(0.004)
Black x Ac.Expr				0.004		0.003
				(0.009)		(0.009)
Black x Pot. Experience					-0.003	
					(0.008)	
Highest Grade Attd.						-0.004*
						(0.003)
Constant	1.893***	2.063***	2.062***	2.071***	2.504***	2.083***
	(0.084)	(0.087)	(0.087)	(0.089)	(0.015)	(0.015)
Constant	2.512***	2.504***	2.504***	2.504***	2.051***	2.504***
	(0.014)	(0.015)	(0.015)	(0.015)	(0.090)	(0.089)
Observations	30,791	30,791	30,791	30,791	30,791	30,777

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.10
a. Dependent Variable: Number of weeks unemployed in calendar Year
b. Observations before completing final education are dropped
c. AFQT score is standadized within each birth year cohort
d. All specifications control for quadratic in actual experience

Table 17: Number of Weeks Unemployed in Calendar Year
Linear Regression Coefficients Shown

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	1	1	1	1	1	1
Black	1.325***	1.337***	0.920**	0.903	0.791*	0.993
	(0.123)	(0.122)	(0.417)	(0.654)	(0.465)	(0.655)
AFQT	-1.007***	-0.882***	-0.894***	-1.347***	-0.895***	-1.332***
	(0.058)	(0.057)	(0.057)	(0.095)	(0.058)	(0.095)
Locus of Control	0.090***	0.086***	0.143***	0.116***	0.140***	0.121***
	(0.022)	(0.021)	(0.037)	(0.041)	(0.038)	(0.041)
Ac.Expr		-1.374***	-1.198***	-1.182***	-1.200***	-1.179***
		(0.060)	(0.068)	(0.071)	(0.068)	(0.071)
Control x Black			0.157***	0.114	0.163***	0.112
			(0.047)	(0.070)	(0.048)	(0.070)
Control x Ac.Expr			-0.010***	-0.007*	-0.009***	-0.007*
			(0.003)	(0.004)	(0.004)	(0.004)
Control x Ac.Expr x Bl			-0.015***	-0.009	-0.016***	-0.009
			(0.002)	(0.007)	(0.003)	(0.007)
Black x Ac.Expr				-0.006		-0.009
				(0.068)		(0.068)
AFQT x Ac.Expr				0.057***		0.057***
				(0.009)		(0.009)
Black x Pot. Experience					0.013	
					(0.021)	
Highest Grade Attd.						-0.015**
						(0.006)
Constant	5.341***	7.636***	6.799***	7.148***	6.842***	7.166***
	(0.271)	(0.287)	(0.386)	(0.421)	(0.392)	(0.422)
Observations	30,497	30,497	30,497	30,497	30,497	30,483
R-squared	0.075	0.090	0.093	0.094	0.093	0.094

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.10
a. Dependent Variable: Number of weeks unemployed in calendar Year
b. Observations before completing final education are dropped
c. AFQT score is standadized within each birth year cohort
d. All specifications control for quadratic in actual experience

Table 18: Number of Weeks Unemployed in Calendar Year
Negative Binomial Regression Coefficients Shown

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	1	1	1	1	1	1
Black	0.300***	0.302***	0.522***	0.519*	0.686***	0.565**
	(0.050)	(0.050)	(0.183)	(0.283)	(0.219)	(0.284)
AFQT	-0.332***	-0.306***	-0.305***	-0.271***	-0.302***	-0.266***
	(0.024)	(0.024)	(0.024)	(0.039)	(0.024)	(0.039)
Locus of Control	0.018*	0.017*	0.049***	0.051***	0.054***	0.053***
	(0.009)	(0.009)	(0.016)	(0.018)	(0.017)	(0.018)
Ac.Expr		-0.238***	-0.213***	-0.213***	-0.210***	-0.212***
		(0.028)	(0.031)	(0.032)	(0.031)	(0.032)
Control x Black			-0.032	-0.028	-0.043*	-0.031
			(0.021)	(0.031)	(0.022)	(0.031)
Control x Ac.Expr			-0.003**	-0.004*	-0.004**	-0.004*
			(0.002)	(0.002)	(0.002)	(0.002)
Control x Ac.Expr x Bl			0.001	0.000	0.003*	0.000
			(0.001)	(0.003)	(0.002)	(0.003)
Black x Ac.Expr				0.001		-0.001
				(0.030)		(0.030)
AFQT x Ac.Expr				-0.005		-0.005
				(0.004)		(0.004)
Black x Pot. Experience					-0.018	
					(0.013)	
Highest Grade Attd.						-0.005*
						(0.003)
Constant	2.511***	1.888***	1.638***	1.609***	2.502***	1.607***
	(0.119)	(0.015)	(0.015)	(0.176)	(0.165)	(0.015)
Constant	1.707***	2.503***	2.502***	2.502***	1.581***	2.501***
	(0.015)	(0.121)	(0.160)	(0.015)	(0.015)	(0.176)
Observations	30,497	30,497	30,497	30,497	30,497	30,483

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.10

a. Dependent Variable: Number of weeks unemployed in calendar Year
b. Observations before completing final education are dropped
c. AFQT score is standadized within each birth year cohort
d. All specifications control for quadratic in actual experience

Table 19: Number of Weeks Unemployed in Calendar Year
Linear Regression Coefficients Shown

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	1	1	1	1	1	1
Black	1.405***	1.427***	0.485	-0.472	0.231	-0.430
	(0.125)	(0.124)	(0.593)	(0.921)	(0.646)	(0.921)
AFQT	-0.901***	-0.764***	-0.766***	-1.154***	-0.767***	-1.143***
	(0.060)	(0.059)	(0.059)	(0.098)	(0.059)	(0.098)
Self Esteme	-0.105***	-0.106***	-0.217***	-0.201***	-0.219***	-0.201***
	(0.013)	(0.013)	(0.022)	(0.025)	(0.022)	(0.025)
Ac.Expr		-1.374***	-1.554***	-1.484***	-1.556***	-1.482***
		(0.061)	(0.074)	(0.083)	(0.074)	(0.083)
Selfesteem x Black			0.091***	0.116***	0.098***	0.117***
			(0.027)	(0.041)	(0.028)	(0.041)
Selfesteem x Ac.Expr			0.012***	0.011***	0.013***	0.011***
			(0.002)	(0.002)	(0.002)	(0.002)
Selfesteem x Ac.Expr x Bl			-0.007***	-0.011**	-0.007***	-0.011**
			(0.001)	(0.004)	(0.001)	(0.004)
Black x Ac.Expr				0.144		0.146
				(0.097)		(0.097)
AFQT x Ac.Expr				0.049***		0.049***
				(0.010)		(0.010)
Black x Pot. Experience					0.022	
					(0.022)	
Highest Grade Attd.						-0.013**
						(0.006)
Constant	8.420***	10.722***	12.828***	12.586***	12.906***	12.643***
	(0.345)	(0.357)	(0.534)	(0.595)	(0.540)	(0.596)
Observations	30,084	30,084	30,084	30,084	30,084	30,070
R-squared	0.076	0.091	0.094	0.095	0.094	0.095

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.10
a. Dependent Variable: Number of weeks unemployed in calendar Year
b. Observations before completing final education are dropped
c. AFQT score is standadized within each birth year cohort
d. All specifications control for quadratic in actual experience

Table 20: Number of Weeks Unemployed in Calendar Year
Negative Binomial Regression Coefficients Shown

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	1	1	1	1	1	1
Black	0.346***	0.349***	-0.356	-0.577	-0.243	-0.560
	(0.051)	(0.051)	(0.251)	(0.396)	(0.298)	(0.396)
AFQT	-0.290***	-0.263***	-0.266***	-0.239***	-0.265***	-0.235***
	(0.024)	(0.024)	(0.025)	(0.040)	(0.025)	(0.040)
Self Esteme	-0.040***	-0.040***	-0.039***	-0.043***	-0.038***	-0.043***
	(0.005)	(0.005)	(0.009)	(0.010)	(0.009)	(0.010)
Ac.Expr		-0.241***	-0.212***	-0.226***	-0.211***	-0.224***
		(0.028)	(0.033)	(0.036)	(0.033)	(0.036)
Selfesteem x Black			0.030***	0.040**	0.026**	0.040**
			(0.011)	(0.017)	(0.012)	(0.017)
Selfesteem x Ac.Expr			-0.002*	-0.001	-0.002*	-0.001
			(0.001)	(0.001)	(0.001)	(0.001)
Selfesteem x Ac.Expr x Bl			0.000	-0.001	0.001	-0.001
			(0.000)	(0.002)	(0.001)	(0.002)
Black x Ac.Expr				0.030		0.028
				(0.043)		(0.043)
AFQT x Ac.Expr				-0.004		-0.003
				(0.004)		(0.004)
Black x Pot. Experience					-0.010	
					(0.014)	
Highest Grade Attd.						-0.004*
						(0.003)
Constant	2.720***	2.500***	2.499***	2.955***	2.820***	2.957***
	(0.015)	(0.015)	(0.015)	(0.246)	(0.015)	(0.246)
Constant	2.509***	2.907***	2.854***	2.499***	2.499***	2.499***
	(0.142)	(0.144)	(0.223)	(0.015)	(0.228)	(0.015)
Observations	30,084	30,084	30,084	30,084	30,084	30,070

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.10

a. Dependent Variable: Number of weeks unemployed in calendar Year
b. Observations before completing final education are dropped
c. AFQT score is standadized within each birth year cohort
d. All specifications control for quadratic in actual experience

Table 21: Quit Job, Given the Spell Ended, Remained in LF
Logistic Regression Coefficients Shown

	(1)	(2)	(3)	(4)	(5)
VARIABLES	1	1	1	1	1
Black	-0.014	-0.028	-0.039	0.081**	0.067*
	(0.029)	(0.029)	(0.029)	(0.034)	(0.035)
AFQT	0.106***	0.089***	0.083***	0.081***	0.075***
	(0.012)	(0.013)	(0.013)	(0.013)	(0.013)
Job Duration		0.003***	0.008***	0.009***	0.009***
		(0.000)	(0.000)	(0.000)	(0.000)
Job Duration Sq.			-0.000***	-0.000***	-0.000***
			(0.000)	(0.000)	(0.000)
Job Duration x Black				-0.002***	-0.002***
				(0.000)	(0.000)
Highest Grade Attd.					0.004**
					(0.001)
Constant	-0.553***	-0.730***	-0.898***	-0.937***	-0.956***
	(0.015)	(0.017)	(0.019)	(0.020)	(0.021)
Observations	30,560	30,560	30,560	30,560	30,524

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.10

a. Dependent Variable: Dummy if quit job given the job spell ended (but remained in LF)
b. AFQT score is standadized within each birth year cohort
c. All specifications control for quadratic in actual experience

Table 22: Layed-off, Given that the Spell Ended
Logistic Regression Coefficients Shown

	(1)	(2)	(3)	(4)	(5)
VARIABLES	1	1	1	1	1
Black	0.014	0.028	0.039	-0.081**	-0.067*
	(0.029)	(0.029)	(0.029)	(0.034)	(0.035)
AFQT	-0.106***	-0.089***	-0.083***	-0.081***	-0.075***
	(0.012)	(0.013)	(0.013)	(0.013)	(0.013)
Job Duration		-0.003***	-0.008***	-0.009***	-0.009***
		(0.000)	(0.000)	(0.000)	(0.000)
Job Duration Sq.			0.000***	0.000***	0.000***
			(0.000)	(0.000)	(0.000)
Job Duration x Black				0.002***	0.002***
				(0.000)	(0.000)
Highest Grade Attd.					-0.004**
					(0.001)
Constant	0.553***	0.730***	0.898***	0.937***	0.956***
	(0.015)	(0.017)	(0.019)	(0.020)	(0.021)
Observations	30,560	30,560	30,560	30,560	30,524

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.10
a. Dependent Variable: Dummy if layed off given the job spell ended
b. AFQT score is standadized within each birth year cohort
c. All specifications control for quadratic in actual experience

Table 23: Reasons Left Work - by Race

Reason Left Job - End of Temp Jobs Considered as Layeoffs	**Race**					
	Black		**NBNH**		**Total**	
	Freq	%	Freq	%	Freq	%
Layoff, job eliminated	5556	48.35	11915	50.28	17471	49.65
Discharged or fired	772	6.72	1184	5.00	1956	5.56
Quit for pregnancy, childbirth or adoption of a child	164	1.43	356	1.50	520	1.48
Quit to look for another job	2358	20.52	5492	23.17	7850	22.31
Quit to take another job	970	8.44	2313	9.76	3283	9.33
Other (SPECIFY)	1248	10.86	1844	7.78	3092	8.79
Quit because Rs ill health, disability, or medical problems	95	0.83	101	0.43	196	0.56
Moved to another geographic area	53	0.46	75	0.32	128	0.36
Quit to be with children or other family members	17	0.15	31	0.13	48	0.14
Quit because didn't like job, boss, coworkers, pay or benefits	100	0.87	125	0.53	225	0.64
Quit to attend school or traning	59	0.51	170	0.72	229	0.65
Went to jail, prison, had legal problems	38	0.33	19	0.08	57	0.16
Transportation problems	22	0.19	13	0.05	35	0.10
Retired	11	0.10	21	0.09	32	0.09
No desirable assignments available	9	0.08	11	0.05	20	0.06
Temporary job became permanent	3	0.03	6	0.03	9	0.03
Dissatisfied with job matching service	1	0.01	3	0.01	4	0.01
Business failed or bankruptcy	1	0.01	6	0.03	7	0.02
Sold business to another person or firm	5	0.04	7	0.03	12	0.03
Business temporarily inactive	2	0.02	0	0.00	2	0.01
Closed business down or dissolved partnership	7	0.06	7	0.03	14	0.04
Total	11491	100.00	23699	100.00	35190	100.00

Source: NLSY79

Table 24: Unemployment Duration by Highest Degree Attained

Highest Degree Cmptd.	**Race**		
	Black	**White**	**Total**
	Mean duration	Mean duration	Mean duration
High school diploma (or equivalent)	86	59	71
Associate/Junior College (AA)	69	53	58
Bachelor of Arts Degree (BA)	56	52	53
Bachelor of Science (BS)	54	45	47
Master's Degree (MA, MBA, MS, MSW)	68	44	49
Doctoral Degree (PhD)	40	56	53
Professional Degree (MD, LLD, DDS)	48	61	60
Other (SPECIFY)	118	55	66
Total	80	55	63

Source: NLSY79

Table 25: Employment Duration by Highest Degree Attained

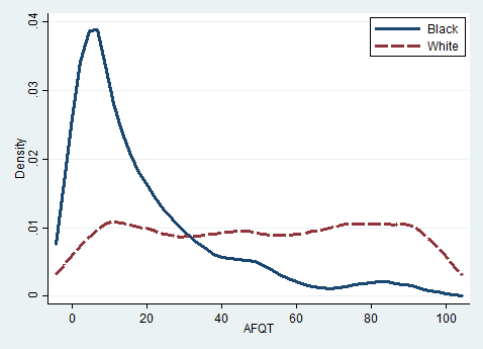
Highest Degree Cmptd.	**Race**		
	Black	**White**	**Total**
	Mean duration	Mean duration	Mean duration
High school diploma (or equivalent)	94	123	111
Associate/Junior College (AA)	99	125	117
Bachelor of Arts Degree (BA)	105	123	117
Bachelor of Science (BS)	116	134	130
Master's Degree (MA, MBA, MS, MSW)	117	128	125
Doctoral Degree (PhD)	112	107	108
Professional Degree (MD, LLD, DDS)	119	122	122
Other (SPECIFY)	80	116	111
Total	98	125	115

Source: NLSY79

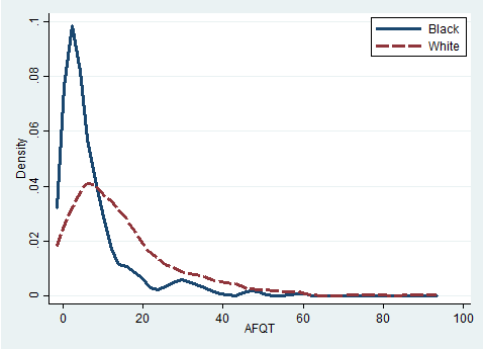
Table 26: Distribution of Highest Degree Attained - by Race

Highest Degree Cmptd.	**Race**		
	Black	**White**	**Total**
	Count CASE	Count CASE	Count CASE
High school diploma (or equivalent)	480	710	1190
Associate/Junior College (AA)	52	120	172
Bachelor of Arts Degree (BA)	36	89	125
Bachelor of Science (BS)	53	200	253
Master's Degree (MA, MBA, MS, MSW)	31	98	129
Doctoral Degree (PhD)	4	15	19
Professional Degree (MD, LLD, DDS)	1	18	19
Other (SPECIFY)	8	42	50
Total	665	1292	1957

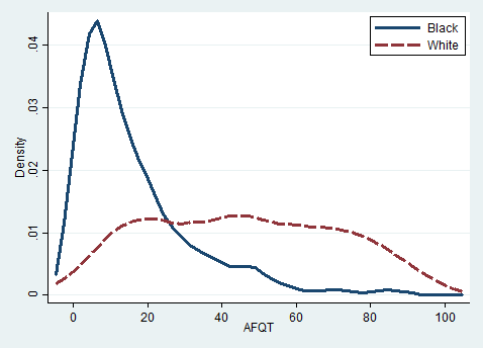
Source: NLSY79



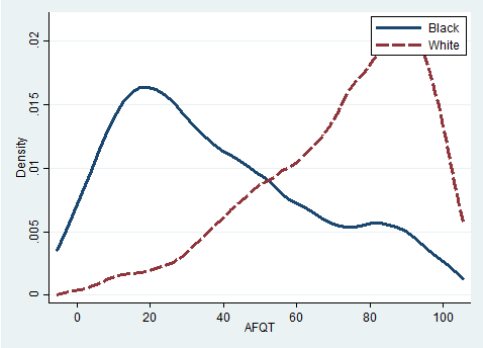
(a) All Education Levels



(b) High School Dropouts

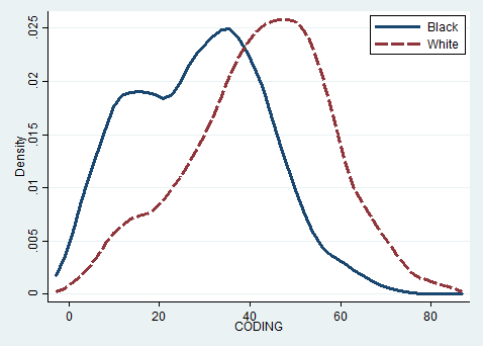


(c) High School Graduates

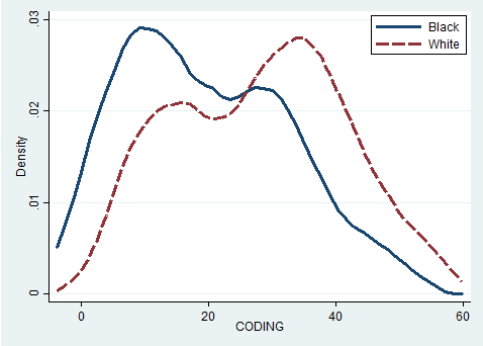


(d) Some College

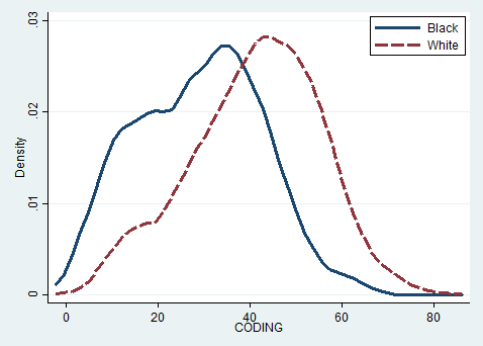
Figure 1: AFQT Distribution by Education Level



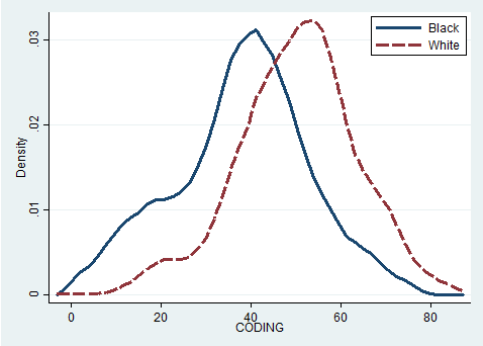
(a) All Education Levels



(b) High School Dropouts

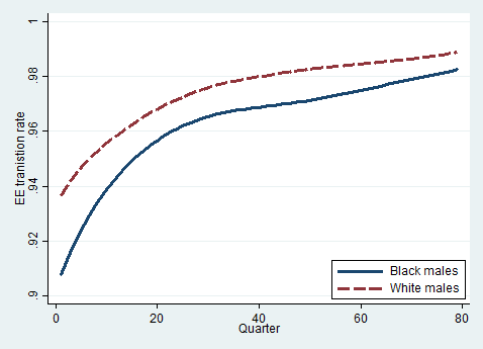


(c) High School Graduates

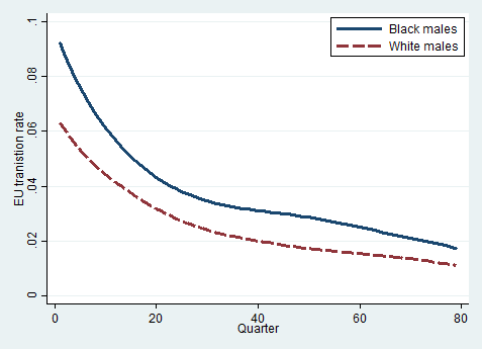


(d) Some College

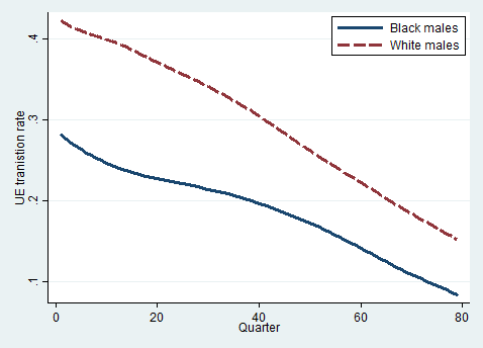
Figure 2: Coding Speed Distribution by Education Level



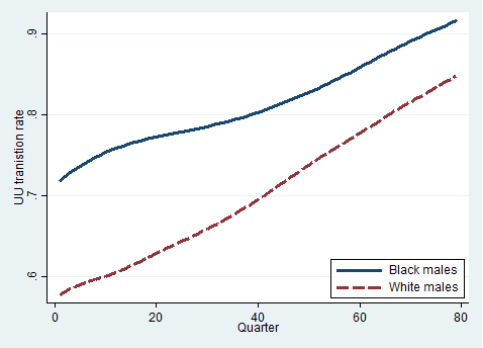
(a) EE Transition Rate



(b) EU Transition Rate

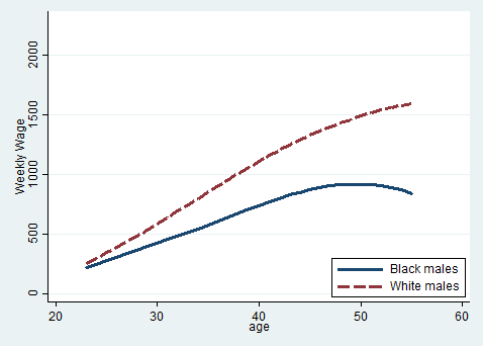


(c) UE Transition Rate

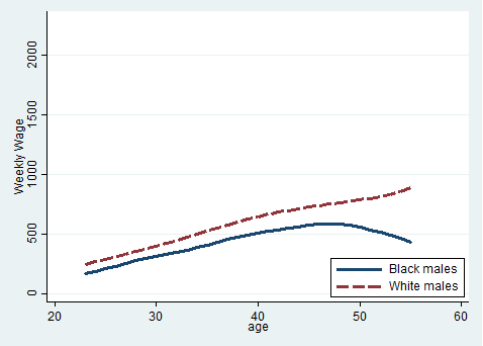


(d) UU Transition Rate

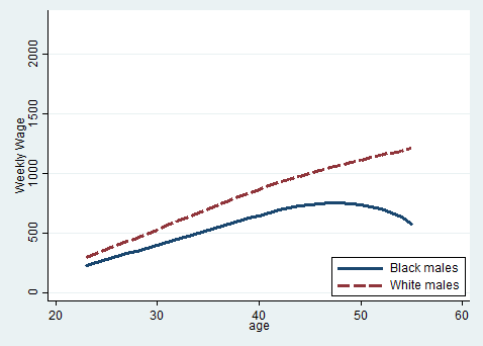
Figure 3: Quarterly Transition Rates



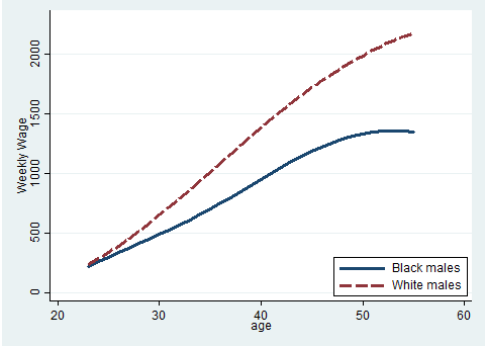
(a) All Education Levels



(b) Highschool Dropouts

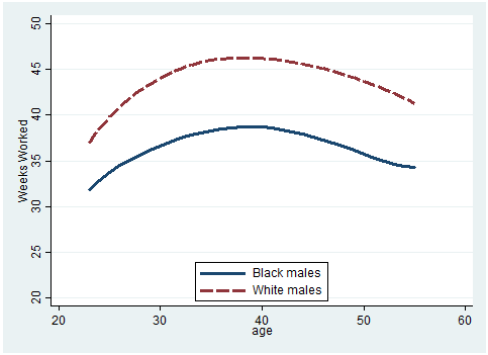


(c) Highschool Graduates

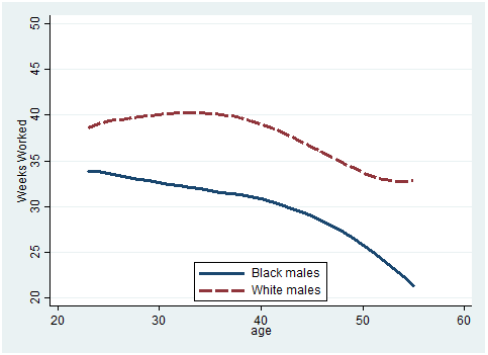


(d) Some College

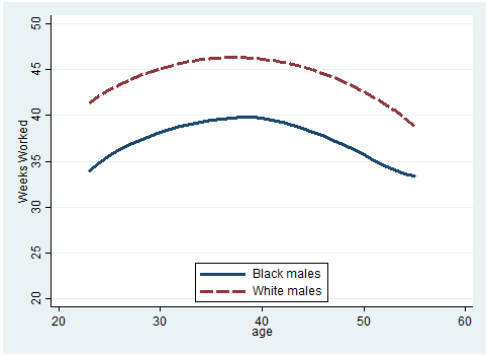
Figure 4: Age Profile of Weekly Wages



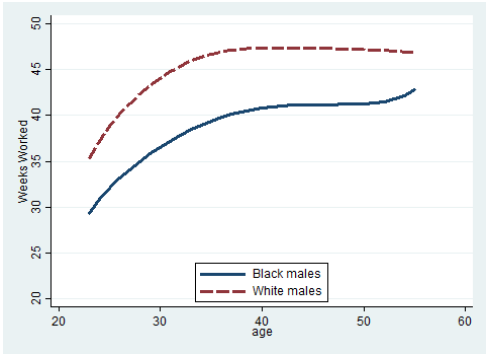
(a) All Education Levels



(b) Highschool Dropouts



(c) Highschool Graduates



(d) Some College

Figure 5: Age Profile of Weeks Worked

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