Group Differences in Economic Outcomes

David Autor

14.663 Spring 2009

Table 6. Percentage of Non-Hispanic Black and White Men, Born 1965–1969, Experiencing Life Events and Surviving to 1999

Life Event	White Men (%)	Black Men (%)
All Men		
Prison Incarceration	3.2	22.4
Bachelor's Degree	31.6	12.5
Military Service	14.0	17.4
Marriage	72.5	59.3
Noncollege Men		
Prison Incarceration	6.0	31.9
High School Diploma/GED	73.5	64.4
Military Service	13.0	13.7
Marriage	72.8	55.9

Note: The incidence of all life events except prison incarceration was calculated from the 2000 Census.

Western and Petit 2004

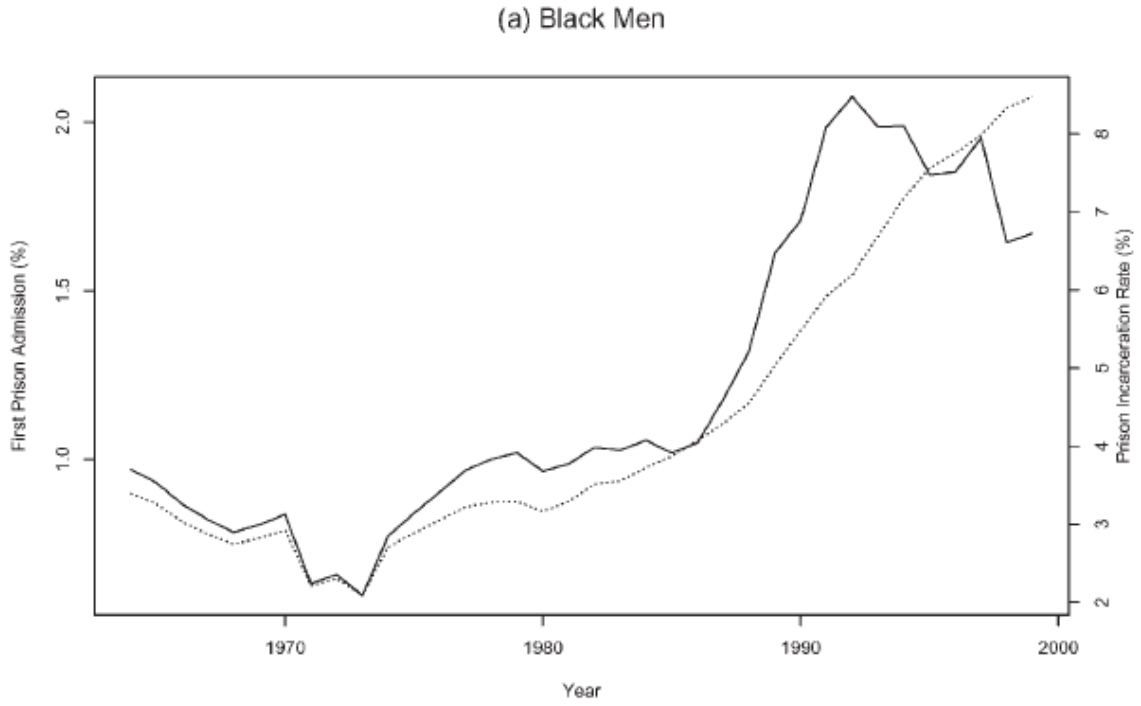
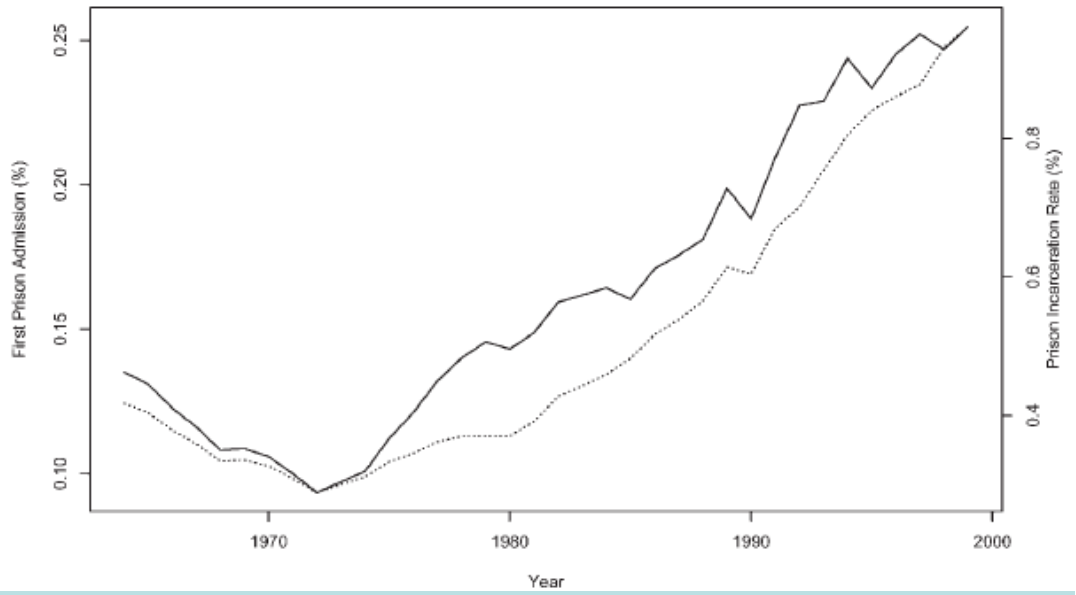


Figure 1. Percentage of Men Admitted to Prison for the First Time (solid line) and Incarcerated (broken line), Blacks and Whites, Aged 18 to 34, 1974 to 1999

(a) White Men



Western and Petit 2004

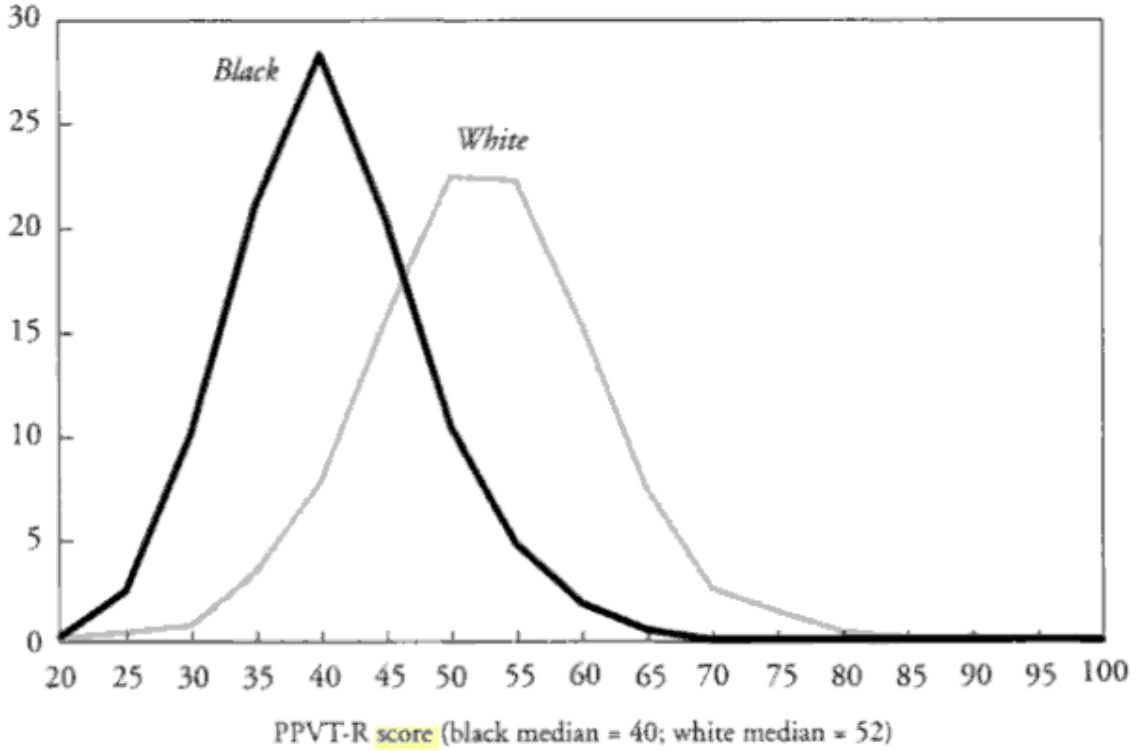
Table 4. Imprisonment Rate at Ages 20 to 34, and Cumulative Risk of Imprisonment, Death, or Imprisonment by Ages 30 to 34 by Educational Attainment, Non-Hispanic Men

	All (1)	Less than High School (2)	High School/ GED (3)	All Noncollege (4)	Some College (5)
Imprisonment Rate (%)					
White Men					
1979	.4	1.0	.4	.6	.1
1999	1.0	2.9	1.7	1.9	.2
Black Men					
1979	3.2	5.7	2.7	4.0	1.5
1999	8.5	21.0	9.4	12.7	1.7
Cumulative Risk of Imprisonment by Ages 30–34					
White Men					
BJS	3.0	—	—	—	—
NLSY	4.3	11.3	3.7	5.1	1.5
1979	1.4	4.0	1.0	2.1	.5
1999	2.9	11.2	3.6	5.3	.7
Black Men					
BJS	24.6	—	—	—	—
NLSY	18.7	30.9	18.8	19.3	7.2
1979	10.5	17.1	6.5	12.0	5.9
1999	20.5	58.9	18.4	30.2	4.9
Cumulative Risk of Death or Imprisonment by Ages 30–34					
White Men					
1979	3.8	7.8	3.5	4.9	1.5
1999	5.0	14.0	5.5	7.7	1.7
Black Men					
1979	15.6	23.8	11.6	17.8	8.7
1999	23.8	61.8	21.9	33.9	7.4

Western and Petit 2004

Neal and Johnson 1996

Figure 1-1. *Vocabulary Scores for Black and White Three- and Four-Year-Olds, 1986–94*



Source: National Longitudinal Survey of Youth Child Data, 1986–94. Black N = 1,134; white N = 2,071. Figure is based on black and white three- and four-year-olds in the Children of the National Longitudinal Survey of Youth (CNLSY) data set who took the Peabody Picture Vocabulary Test-Revised (PPVT-R). The test is the standardized residual, coded to a mean of 50 and a standard deviation of 10, from a weighted regression of children's raw scores on their age in months, age in months squared, and year-of-testing dummies. See chapter 4 for details on the CNLSY and the PPVT-R.

Jencks and Phillips, 1998

TABLE A1

Descriptive Statistics

	Men			Women		
	Black	Hispanic	White	Black	Hispanic	White
Age-adjusted AFQT score	−.621	−.284	.422	−.524	−.298	.465
	(.815)	(.893)	(.895)	(.743)	(.825)	(.779)
High grade completed by 1991	12.458	12.156	13.248	12.873	12.328	13.347
	(1.954)	(2.238)	(2.511)	(1.984)	(2.239)	(2.388)
Mother high school graduate	.490	.336	.757	.457	.280	.714
Father high school graduate	.493	.369	.717	.474	.372	.717
Mother college graduate	.065	.041	.112	.063	.032	.110
Father college graduate	.062	.074	.210	.071	.067	.187
Mother professional	.076	.061	.106	.103	.064	.104
Father professional	.042	.090	.287	.066	.106	.270

Note.—These sample means pertain to persons who were born between 1962 and 1964 and have valid responses to the relevant questionnaire items. Blacks account for approximately 30 percent of the total observations. Hispanics account for 20 percent. The total sample size is roughly 3,400, but the total number of observations varies across survey items. Standard deviations are in parentheses.

Neal and Johnson, 1996

DETERMINANTS OF AFQT: MEN

	FULL SAMPLE (N = 1,873)			VALID RESPONSE TO SCHOOL SURVEY (N = 954)
	(1)	(2)	(3)	(4)
Black	−1.03	−.70	−.57	−.42
	(.05)	(.05)	(.05)	(.07)
Hispanic	−.70	−.31	−.22	−.02
	(.06)	(.05)	(.05)	(.08)
Mother high school graduate	...	.36	.26	.18
		(.04)	(.04)	(.06)
Mother college graduate	...	.21	.16	.09
		(.08)	(.08)	(.11)
Father high school graduate	...	.32	.25	.22
		(.05)	(.05)	(.06)
Father college graduate	...	.32	.30	.31
		(.07)	(.07)	(.09)
Mother professional	...	.20	.17	.08
		(.07)	(.07)	(.10)
Father professional	...	.26	.23	.21
		(.06)	(.06)	(.08)
Number of siblings	...	...	−.05	−.05
			(.01)	(.01)
No reading materials	...	...	−.19	−.31
			(.06)	(.09)
Numerous reading materials	...	...	.25	.27
			(.04)	(.06)
Student/teacher ratio	...	...	...	−.017
				(.006)
Disadvantaged student ratio	...	...	...	−.002
				(.001)
Dropout rate	...	...	...	−.004
				(.001)
Teacher turnover rate	...	...	...	−.005
				(.003)
R^2	.219	.382	.415	.392

NOTE.—The dependent variable is the age-adjusted AFQT score. In all specifications, the sample excludes respondents with invalid AFQT scores. In specification 4, the sample also excludes respondents with invalid re-

Neal and Johnson, 1996

DETERMINANTS OF AFQT: WOMEN

	FULL SAMPLE (N = 1,791)			VALID RESPONSE TO SCHOOL SURVEY (N = 926)
	(1)	(2)	(3)	(4)
Black	−.99	−.72	−.62	−.59
	(.04)	(.04)	(.04)	(.06)
Hispanic	−.77	−.45	−.37	−.30
	(.05)	(.05)	(.05)	(.07)
Mother high school graduate	...	.29	.20	.20
		(.04)	(.04)	(.06)
Mother college graduate	...	.33	.32	.24
		(.08)	(.08)	(.11)
Father high school graduate	...	.24	.18	.12
		(.04)	(.04)	(.06)
Father college graduate	...	.32	.29	.31
		(.07)	(.07)	(.09)
Mother professional	...	.15	.09	.16
		(.07)	(.07)	(.09)
Father professional	...	.15	.13	.07
		(.05)	(.05)	(.07)
Number of siblings	...	...	−.027	−.026
			(.007)	(.010)
No reading materials	...	...	−.29	−.21
			(.06)	(.08)
Numerous reading materials	...	...	.23	.23
			(.04)	(.05)
Student/teacher ratio	...	...	...	−.0043
				(.0025)
Disadvantaged student ratio	...	...	...	−.002
				(.001)
Dropout rate	...	...	...	−.003
				(.001)
Teacher turnover rate	...	...	...	−.003
				(.003)
R^2	.244	.390	.419	.431

Neal and Johnson, 1996

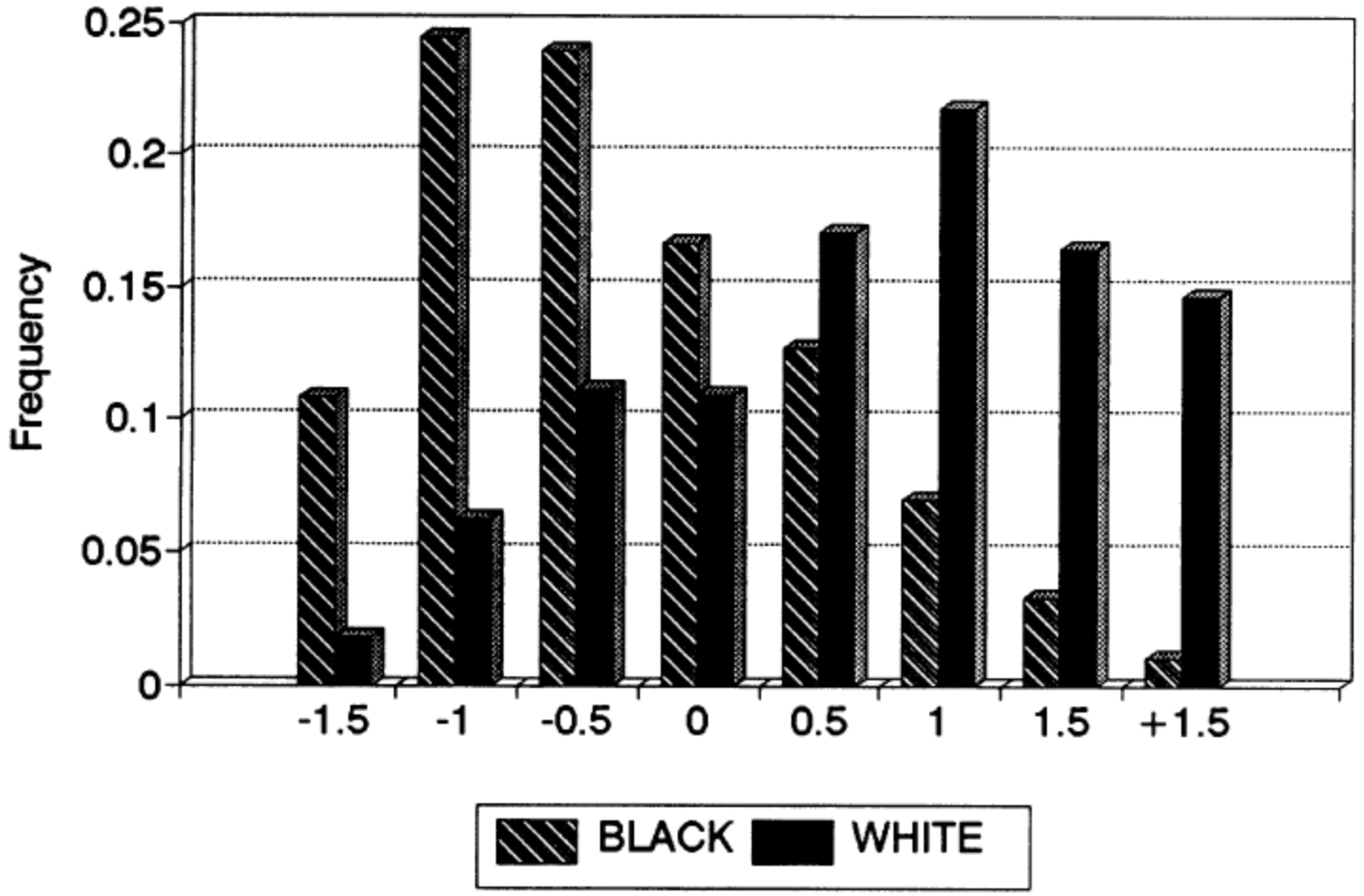


FIG. 2.—Age-adjusted AFQT scores: men

Neal and Johnson, 1996

TABLE 1

Log Wage Regressions by Sex

	Men (N = 1,593)			Women (N = 1,446)		
	(1)	(2)	(3)	(4)	(5)	(6)
Black	−.244	−.196	−.072	−.185	−.155	.035
	(.026)	(.025)	(.027)	(.029)	(.027)	(.031)
Hispanic	−.113	−.045	.005	−.028	.057	.145
	(.030)	(.029)	(.030)	(.033)	(.031)	(.032)
Age	.048	.046	.040	.010	.009	.023
	(.014)	(.013)	(.013)	(.015)	(.014)	(.015)
AFQT	...	...	.172	...	...	.228
			(.012)			(.015)
$AFQT^2$	...	...	−.013	...	...	.013
			(.011)			(.013)
High grade by 1991	...	.061	...	...	.088	...
		(.005)			(.005)	
R^2	.059	.155	.168	.029	.191	.165

Note.—The dependent variable is the log of hourly wages. The wage observations come from 1990 and 1991. All wages are measured in 1991 dollars. If a person works in both years, the wage is measured as the average of the two wage observations. Wage observations below $1.00 per hour or above $75 are eliminated from the data. The sample consists of the NLSY cross-section sample plus the supplemental samples of blacks and Hispanics. Respondents who did not take the ASVAB test are eliminated from the sample. Further, 163 respondents are eliminated because the records document a problem with their test. All respondents were born after 1961. Standard errors are in parentheses.

Neal and Johnson, 1996

TABLE 2

TESTING FOR RACIAL DIFFERENCES IN THE RETURN TO AFQT: MEN

	All Races (N = 1,593) (1)	White (N = 825) (2)	Black (N = 466) (3)	Hispanic (N = 302) (4)
Black	−.107	...	...	...
	(.033)			
Hispanic	.003	...	...	...
	(.029)			
Age	.038	.052	.047	−.014
	(.013)	(.017)	(.025)	(.035)
AFQT	.172	.183	.208	.124
	(.015)	(.017)	(.031)	(.031)
$AFQT^2$	−.023	−.018	.031	−.066
	(.013)	(.015)	(.025)	(.031)
Black × AFQT	.037	...	...	...
	(.031)			
Black × $AFQT^2$	.056	...	...	...
	(.028)			
R^2	.170	.155	.129	.074

NOTE.—The "all races" sample includes all men from the sample described in table 1. All respondents were born after 1961. Standard errors are in parentheses.

Neal and Johnson, 1996

TABLE 3

TESTING FOR RACIAL DIFFERENCES IN THE RETURN TO AFQT: WOMEN

	All Races (N = 1,446) (1)	White (N = 726) (2)	Black (N = 428) (3)	Hispanic (N = 292) (4)
Black	.079	...	...	...
	(.037)			
Hispanic	.137	...	...	...
	(.034)			
Age	.023	.017	.015	.055
	(.015)	(.022)	(.024)	(.030)
AFQT	.212	.189	.223	.202
	(.019)	(.030)	(.029)	(.030)
$AFQT^2$	.031	.059	−.039	−.025
	(.016)	(.025)	(.030)	(.029)
Black × AFQT	−.011	...	...	...
	(.038)			
Black × $AFQT^2$	−.071	...	...	...
	(.037)			
R^2	.168	.137	.166	.154

NOTE.—The "all races" sample includes all women from the sample described in table 1. All respondents were born after 1961. Standard errors are in parentheses.

Neal and Johnson, 1996

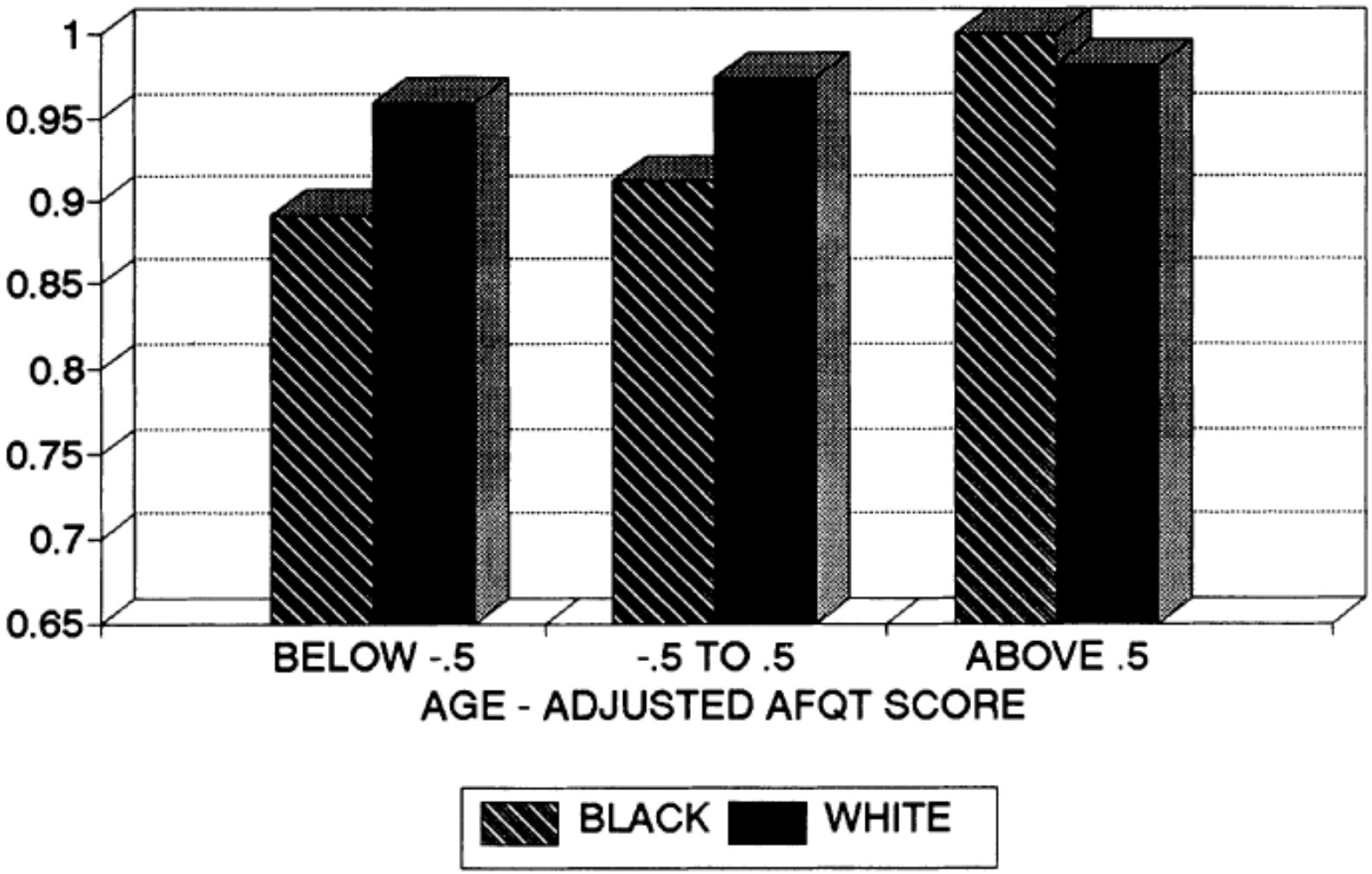


FIG. 1.—Male participation rates, 1990–91

Neal and Johnson, 1996

TABLE 4

MEDIAN LOG WAGE REGRESSIONS: MEN
(N = 1,674)

	(1)	(2)
Black	−.352	−.134
	(.029)	(.035)
Hispanic	−.180	−.007
	(.034)	(.038)
Age	.067	.055
	(.015)	(.017)
AFQT	...	.206
		(.015)
AFQT^2	...	−.010
		(.014)

NOTE.—The dependent variable is log hourly wages. The sample is the sample described in table 1 plus the sample of nonparticipants. Nonparticipants include workers who report not working between their 1989 and 1991 interviews. Nonparticipants also include workers who did not work between their 1989 and 1990 interviews and were not interviewed in 1991. Some respondents are excluded from the previous regression analyses solely because their wage observations are invalid. These respondents are also excluded from this analysis. All respondents were born after 1961. Standard errors are in parentheses.

Neal and Johnson, 1996

TABLE A3

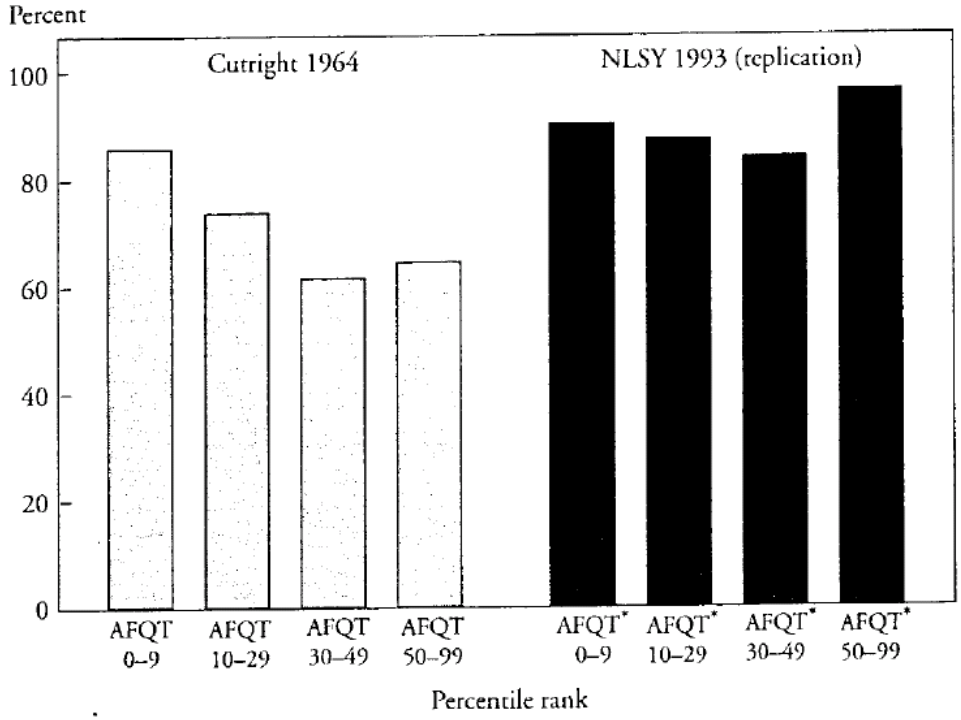
RACIAL GAPS IN STANDARD AFQT SCORES BY SEX AND COHORT

	MALES		FEMALES	
	Born 1962–64 (N = 1,882)	Born 1957–61 (N = 2,579)	Born 1962–64 (N = 1,806)	Born 1957–61 (N = 2,807)
Black	−39.25	−46.28	−37.52	−40.92
	(1.76)	(1.57)	(1.64)	(1.38)
Hispanic	−27.26	−31.82	−28.85	−35.85
	(2.10)	(1.84)	(1.87)	(1.63)
R^2	.23	.27	.25	.28

NOTE.—The dependent variable is the standard AFQT score. Scores range from 95 to 258. In the cross-section subsample of the NLSY, the mean score is 196.5 and the standard deviation is 36.65. Each regression includes dummies for year of birth.

Neal and Johnson, 1996

Figure 1-3. *Black Annual Earnings as a Percentage of White Earnings among Employed Men Aged 30 to 37 in 1964 or 31 to 36 in 1993, by Percentile Rank on a Military Test Taken When the Men Were Aged 18 to 23*

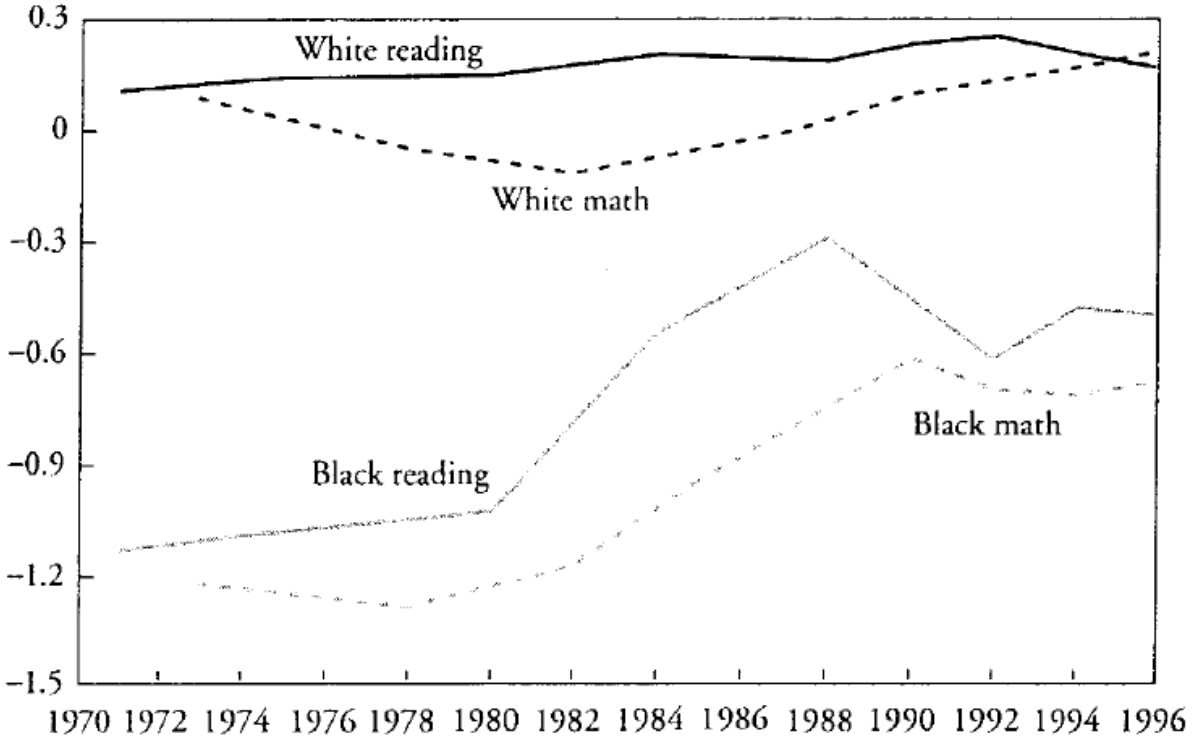


Sources: Cutright (1972) and authors' tabulations from the NLSY. Cutright's version of the AFQT included tests for vocabulary, arithmetic, and spatial relations. Our NLSY approximation of his AFQT included tests for word knowledge, numerical operations, and mechanical reasoning (AFQT*). See the notes in the text for details on the samples and standard errors.

Jencks and Phillips, 1998

Figure 1-2. *NAEP Reading and Mathematics Scores for Black and White Seventeen-Year-Olds, 1971–96*

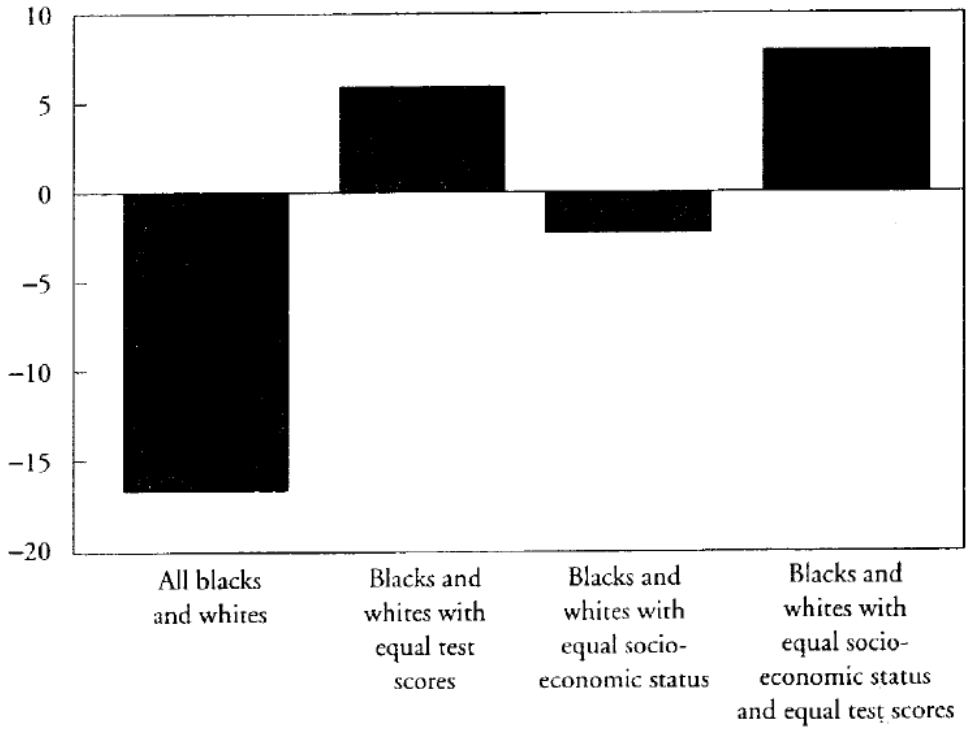
Standardized score using 1996 mean and SD



Source: National Assessment of Educational Progress. Tests in all years are in a common metric and have been rescaled so that the 1996 population mean is zero and the 1996 standard deviation is 1.00.

Jencks and Phillips, 1998

Figure 1-4. *Gap in Eventual College Graduation Rates among Blacks and Whites Who Were in Twelfth Grade in 1982, Controlling Socioeconomic Status and Test Scores, 1992*



Source: Authors' tabulations from High School and Beyond 1992 followup. Test score is the sum of vocabulary, reading, and math scores. Socioeconomic status includes parents' income, occupation, schooling, possessions in the home, marital status, number of siblings, urbanism, and region. The standard error for black-white gap is about 2.5 percentage points.

Jencks and Phillips, 1998

The Flynn Effect

Table 15

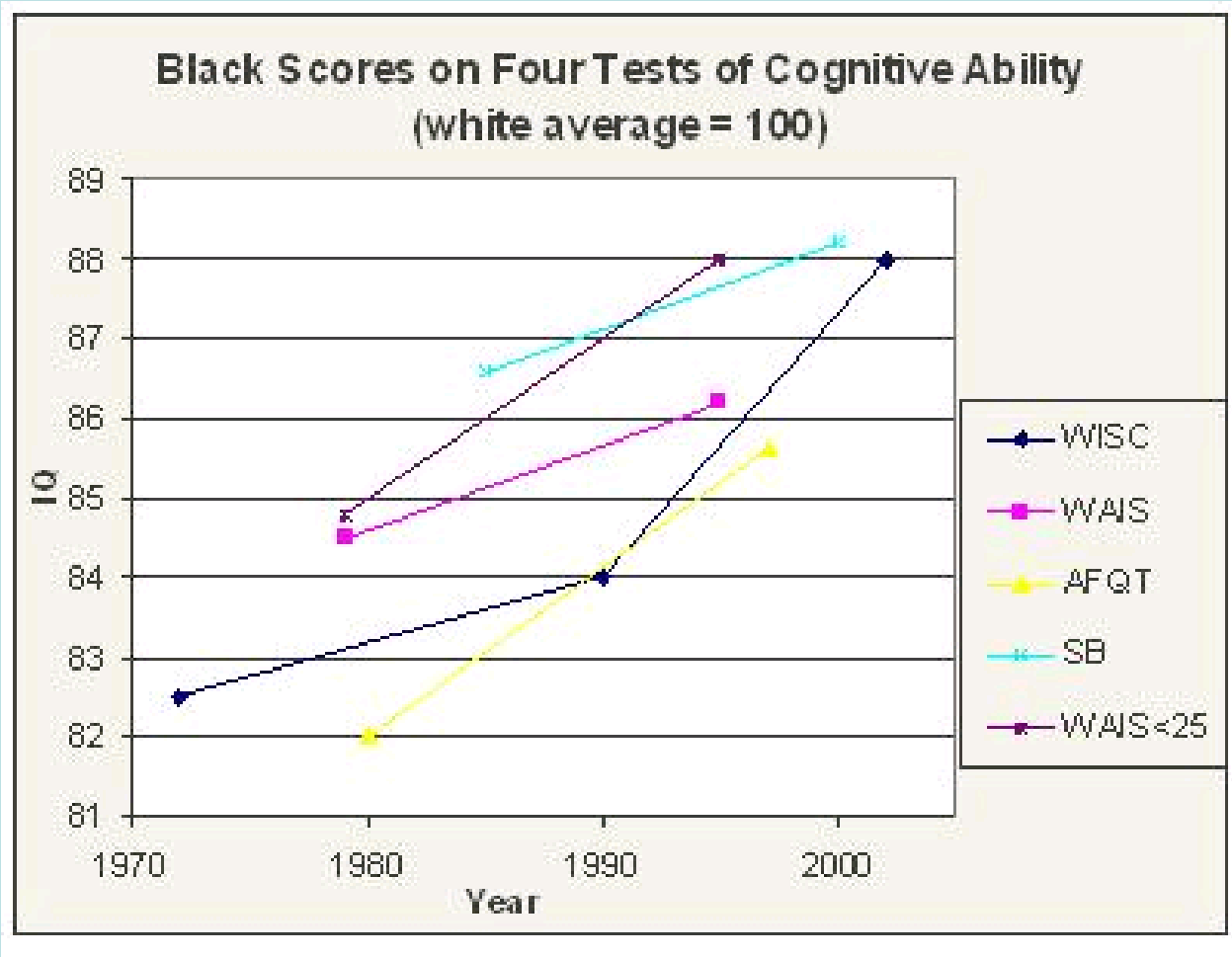
Recent IQ Gains: Locations Grouped by Test and Ranked by Rate of Gain

Location	Test	Rate[b]	Age (years)	Period	IQ gain (points)	Status[c]
Leipzig	Ravens	1.250	11–16	1968–1978	10–15	3/2
France	Ravens	1.005	18	1949–1974	25.12	3
Belgium	Ravens	0.794	18	1958–1967	7.15	1
Belgium	Shapes	0.716	18	1958–1967	6.45	1
Netherlands	Ravens	0.667	18	1952–1982	20.00	1
Norway	Matrices	0.629	19	1954–1968	8.80	1
West Germany	Horn-Ravens[a]	0.588	12–16	1961–1978	10.00	4
Australia	Jenkins	0.490	10–14	1949–1981	15.67	3
Edmonton	Ravens	0.402	9	1956–1977	8.44	1
Australia	Ravens	0.337	10–16	1950–1976	8.76	4
Norway	Matrices	0.217	19	1968–1980	2.60	1
Great Britain	Ravens	0.189	8–14	1938–1979	7.75	3
Great Britain	Ravens	0.181	20–30	1940–1979	7.07	3
Japan	Wechsler[a]	0.835	6–15	1951–1975	20.03	3/4
Vienna	Wechsler	0.824	6–15	1962–1979	12–16	4
West Germany	Wechsler[a]	0.741	7–15	1954–1981	20.00	3/4
Zurich	Wechsler	0.652	9 and 12	1954–1977	10–20	4
Edmonton	CTMM	0.525	9	1956–1977	11.03	1
France	Wechsler[a]	0.380	6–15	1955–1979	9.12	4
United States	Wechsler-Binet[a]	0.300	2–18	1932–1972	12.00	2
United States	Wechsler[a]	0.243	16–75	1954–1978	5.95	3
Solothurn	Wechsler	0.186	8–9	1977–1984	1.30	4
Saskatchewan	Otis[a]	0.628	10	1958–1978	12.55	2/3
Norway	Verbal-Math	0.582	19	1954–1968	8.15	1
Belgium	Verbal-Math	0.408	18	1958–1967	3.67	1
France	Verbal-Math	0.374	18	1949–1974	9.35	3
Saskatchewan	Otis[a]	0.348	13	1958–1978	6.95	2/3
New Zealand	Otis	0.242	10–13	1936–1968	7.73	1
Norway	Verbal-Math	−0.133	19	1968–1980	−1.60	1

Note. Data from Tables 1–14; see these tables for full test names.

[a] The content of these tests was substantially altered. [b] IQ points per year. [c] Key: 1 = verified, 2 = probable, 3 = tentative, and 4= speculative.

Flynn 1987



Dickens and Flynn 2006

Bjorklund, Lindahl and Plug, 2006

- Swedish Register Data
  - All persons born between 1962 and 1966.
  - Children's outcomes measured at ages 33-37 years of age.
  - 2,125 adopted children.
  - Adoptive parents appear substantially better off than birth parents of adopted children.

MEANS AND STANDARD DEVIATIONS OF VARIABLES FOR CHILDREN AND PARENTS

	Own-birth children		*Adopted children*	
		Children		
Years of schooling	12.07	*2.07*	11.67	*1.89*
University education	0.32	*0.47*	0.24	*0.43*
Log earnings in 1999	7.54	*0.67*	7.43	*0.72*
Log income in 1999	7.62	*0.56*	7.53	*0.58*
Male	0.51	*0.50*	0.52	*0.50*
Age in 1999	35.29	*1.42*	35.49	*1.42*
		Birth parents		
Years of schooling, father	9.63	*3.12*	8.90	*2.51*
Years of schooling, mother	9.65	*2.83*	9.12	*2.43*
University education, father	0.16	*0.36*	0.07	*0.26*
University education, mother	0.16	*0.37*	0.08	*0.28*
Average log earnings 1970–1990, father	7.67	*0.44*	7.38	*0.51*
Average log income 1970–1990, father	7.69	*0.43*	7.40	*0.46*
Age when child is born, father	30.37	*6.58*	26.88	*6.96*
Age when child is born, mother	27.09	*5.73*	23.35	*5.80*
Teenage mother	0.09	*0.29*	0.32	*0.47*
Teenage father	0.02	*0.14*	0.12	*0.33*
		Adoptive parents		
Years of schooling, father			10.20	*3.31*
Years of schooling, mother			9.67	*2.99*
University education, father			0.20	*0.40*
University education, mother			0.18	*0.39*
Average log earnings 1970–1990, father			7.77	*0.47*
Average log income 1970–1990, father			7.81	*0.44*
Age when child is born, father			35.66	*5.36*
Age when child is born, mother			32.96	*4.93*
Number of observations	94,079		2,125	

Standard deviations are shown in italics. The exceptions to the stated number of observations are for log earnings in 1999: 87,490 for own-birth children and 1,827 for adopted children, for log income in 1999: 92,168 for own-birth children and 1,998 for adopted children. For average log earnings 1970–1999: 93,627 for birth fathers of own-birth children, 2,078 for birth fathers of adopted children, and 1,981 for adoptive fathers of adopted children. For average log income 1970–1999: 93,831 for birth fathers of own-birth children, 2,107 for birth fathers of adopted children, and 2,120 for adoptive fathers of adopted children.

TABLE II

ESTIMATED TRANSMISSION COEFFICIENTS IN LINEAR MODELS

	Years of schooling			University			Earnings	Income
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Own-birth children								
Bio father	.240**		.170**	.339**		.237**	.235**	.241**
	(.002)		(.002)	(.004)		(.004)	(.005)	(.004)
Bio mother		.243**	.158**		.337**	.246**		
		(.002)	(.002)		(.004)	(.004)		
Adopted children								
Bio father	.113**		.094**	.184**		.148**	.047	.059*
	(.016)		(.016)	(.036)		(.036)	(.034)	(.028)
Bio mother		.132**	.101**		.261**	.229**		
		(.017)	(.017)		(.034)	(.034)		
Adoptive father	.114**		.094**	.165**		.102**	.098**	.172**
	(.013)		(.014)	(.024)		(.026)	(.038)	(.031)
Adoptive mother		.074**	.021		.145**	.097**		
		(.014)	(.015)		(.024)	(.026)		
Sum of estimates for bio and adoptive fathers	.227**		.188**	.349**		.249**	.145**	.231**
	(.019)		(.029)	(.040)		(.059)	(.049)	(.040)
Sum of estimates for bio and adoptive mothers		.207**	.122**		.406**	.326**		
		(.021)	(.016)		(.039)	(.029)		

Standard errors are shown in parentheses; * indicates significance at 5 percent level, and ** at 1 percent level. All specifications include controls for the child's gender, 4 birth cohort dummies for the child, 8 birth cohort dummies for biological/adoptive father/mother, and 25 region dummies of where the biological/adoptive family lived in 1965. The numbers of observations in the second panel for own-birth and adopted children are 94,079/2,125 in columns (1)–(6), 87,079/1,780 in column (7) and 91,932/1,976 in column (8).

TABLE III

SENSITIVITY ANALYSES: ALTERNATIVE SAMPLES AND SPECIFICATIONS

	Years of schooling				Earnings	
	Fathers		Mothers		Fathers	
	Bio	Adopt	Bio	Adopt	Bio	Adopt
Own-birth children						
(9) **Baseline results:** (N = 94,079, 87,079)	.240** (.002)		.243** (.002)		.235** (.005)	
Other samples:						
(10) raised with adopted siblings (N = 412, 381)	.285** (.031)		.251** (.035)		.280** (.080)	
(11) with bio siblings adopted out (N = 193, 160)	.180** (.056)		.106 (.067)		.216 (.113)	
Matched samples:						
(12) on adoptees, rearing parents (N = 84,358, 78,229)	.248** (.003)		.254** (.004)		.217** (.008)	
(13) on adoptees' bio background (N = 93,655, 86,703)	.199** (.008)		.196** (.009)		.182** (.021)	

TABLE IV

ESTIMATED TRANSMISSION COEFFICIENTS IN NONLINEAR MODELS WITH INTERACTIONS

	Years of schooling				University		Earnings		Income	
	Fathers		Mothers		Fathers	Mothers	Fathers		Fathers	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Own-birth children										
Bio parent		−.009		−.058**				−.807**		−.938**
		(.015)		(.017)				(.075)		(.064)
Bio parent squared		.011**		.014**				.069**		.077**
		(.001)		(.001)				(.005)		(.004)
Adopted children										
Bio parent	.050	−.222	−.055	−.472**	.199**	.166**	−.187	−.403	−1.164*	−1.342*
	(.051)	(.127)	(.055)	(.139)	(.045)	(.041)	(.108)	(.502)	(.525)	(.670)
Bio parent squared		.015*		.023**				.017		.015
		(.006)		(.006)				(.037)		(.034)
Adoptive parent	.061	−.003	−.097	−.310**	.170**	.108**	−.293*	−.076	−.995*	−.998
	(.043)	(.090)	(.050)	(.121)	(.025)	(.026)	(.125)	(.648)	(.501)	(.710)
Adoptive parent squared		.004		.012*				−.003		.003
		(.004)		(.005)				(.043)		(.035)
Bio parent * Adoptive parent	.006	.003	.018**	.013*	−.041	.286**	.043**	.034**	.156*	.151*
	(.004)	(.005)	(.005)	(.005)	(.074)	(.071)	(.015)	(.010)	(.067)	(.068)

Standard errors are shown in parentheses; * indicates significance at 5 percent level, and ** at 1 percent level. All specifications include controls for the child's gender, 4 birth cohort dummies for the child, 8 birth cohort dummies for biological/adoptive father/mother, and 25 region dummies of where the biological/adoptive family lived in 1965. The numbers of observations in the second panel for own-birth and adopted children are 94,079/2,125 in columns (1)–(6), 87,079/1,780 in column (7), and 91,932/1,976 in column (8).

TABLE V

PROPORTION OF OUTCOME VARIANCE EXPLAINED BY HERITABILITY, SHARED FAMILY ENVIRONMENT, AND NON-SHARED ENVIRONMENT USING A SIMPLE BEHAVIORAL GENETICS MODEL

Outcome	Proportion explained by nurture (shared family environment)	Proportion explained by nature (heritability)	Unexplained portion (non-shared environment)
Has 4 years of college	0.135	0.406	0.459
Highest grade completed	0.157	0.443	0.400
Family income	0.110	0.334	0.556
Log (family income)	0.139	0.324	0.537
Drinks	0.336	0.055	0.609
Smokes	0.152	0.273	0.575
Height	0.014	0.858	0.128
Weight	0.044	0.458	0.498
BMI	0.115	0.308	0.577
Overweight	0.087	0.172	0.741
Attended US News ranked school	0.249	0.335	0.417
Acceptance rate of school	0.337	0.245	0.418
Married	0.076	−0.056	0.979
Number of children	0.105	0.196	0.699

I use the simple BG model described in the text to decompose the variance in each outcome into the portions attributable to genes (heritability), shared family environment, and non-shared family environment (i.e., the unexplained portion). See equations (2), (2A), and the paragraph that follows.

Sacerdote 2007

Sacerdote, 2007

TABLE VIII

TRANSMISSION COEFFICIENTS FROM PARENTS TO CHILDREN FOR ADOPTEES AND NONADOPTEES

	(1)	(2)
	Adoptees' Transmission coefficient	Nonadoptees' transmission coefficient
Years of education (mother to child)	0.089 (0.029)a**	0.315 (0.038)**
Has 4+ years college (mother to child)	0.102 (0.034)**	0.302 (0.037)**
Log household income (parents to child)	0.186 (0.111)	0.246 (0.080)**
Height inches (mother to child)	−0.004 (0.034)	0.491 (0.049)**
Is obese (mother to child)	0.003 (0.020)	0.108 (0.034)**
Is overweight (mother to child)	−0.026 (0.029)	0.174 (0.037)**
BMI (mother to child)	0.002 (0.025)	0.221 (0.045)**
Smokes (0–1) (mother to child)	0.132 (0.088)	0.108 (0.115)
Drinks (0–1) (mother to child)	0.210 (0.033)**	0.244 (0.038)**

I regress the child's outcome on the corresponding outcome for the mother (or in the case of income, the parents). Each cell is from a separate regression which also includes age dummies, dummies for year of admission to Holt, and a dummy for the child being male. For income and education regressions I restrict the sample to children ages 25+. For log (income), I attempt to correct for measurement error in parents' income by instrumenting for the survey measure of parents' income using the parents' income measure reported in Holt records.

Sacerdote 2007

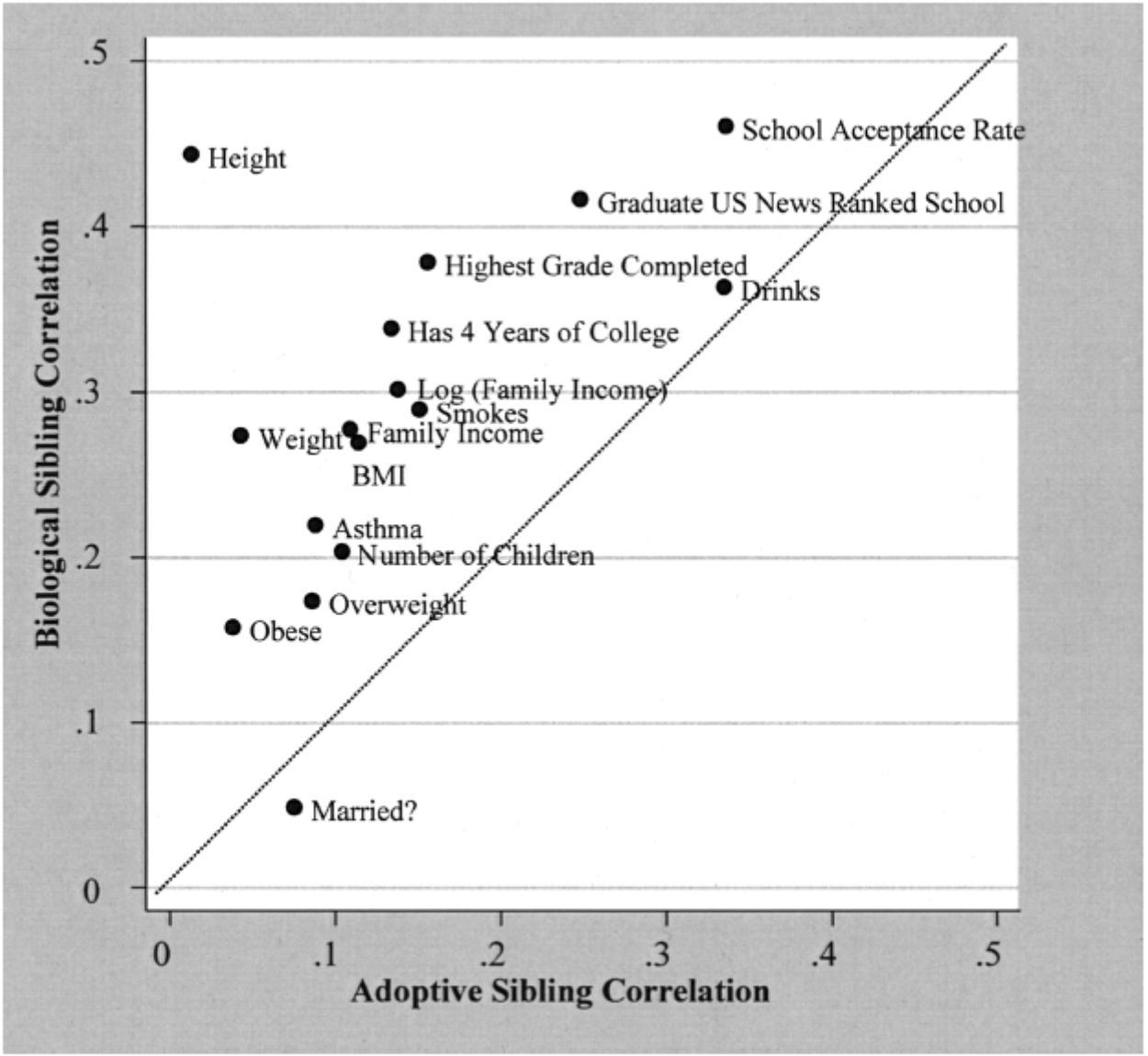


FIGURE IV
Comparison of Adoptive and Nonadoptive Sibling Correlations for Various Outcomes
This graph displays the results in Table IV.

TABLE VII

TREATMENT EFFECTS FROM ASSIGNMENT TO HIGH EDUCATION, SMALL FAMILY

	Treatment effect "middle group" of families vs. large, less educated	Treatment effect high education small family vs. large, less educated	Nonadoptees: High education small family vs. large, less educated	Effect from a 1 standard deviation change in family environment index
Child's years of education	0.314 (0.226)	0.749 (0.245)**	2.157 (0.264)**	0.845
Child has 4+ years college	0.060 (0.056)	0.161 (0.057)**	0.317 (0.031)**	0.179
Log child's household income	0.071 (0.081)	0.113 (0.089)	0.210 (0.089)*	0.263
Child four-year college ranked by US News	0.082 (0.052)	0.231 (0.060)**	0.365 (0.052)**	0.224
Acceptance rate of child's college	−0.007 (0.035)	0.016 (0.036)	−0.053 (0.032)	0.098
Child drinks (yes/no)	0.099 (0.050)*	0.178 (0.049)**	0.229 (0.041)**	0.280
Child smokes (yes/no)	0.013 (0.044)	−0.006 (0.048)	−0.075 (0.024)**	0.162
Child's BMI	−0.509 (0.460)	−0.941 (0.468)*	−0.929 (0.498)	1.224
Child overweight	−0.030 (0.047)	−0.077 (0.045)	−0.088 (0.048)	0.121
Child obese	−0.020 (0.023)	−0.044 (0.018)*	−0.037 (0.018)*	0.047
Child has asthma	−0.005 (0.028)	0.013 (0.031)	−0.005 (0.034)	0.085
Number of children	−0.070 (0.099)	−0.199 (0.103)*	−0.580 (0.132)**	0.267
Child is married	0.014 (0.050)	0.000 (0.056)	−0.092 (0.053)	0.123

I split the sample into three groups: High education small families are defined as those with three or fewer children in which both the mother and father have a college degree (Type 1). Twenty-seven percent of adoptees are assigned to such a family. Large lesser educated families are defined as those with four or more children and where neither parent has a college degree (Type 3). Thirteen percent of adoptees are assigned to such a family. The remaining families (which are either small or have a parent with a college degree) are Type 2. Column (1) shows the coefficient on the dummy for assignment to Type 2 relative to Group 3. Column (2) shows the coefficient on the dummy for assignment to Type 1 (small high education) relative to Type 3 (large less educated).

Column (3) shows this Type 1 versus 3 "effect" for the non-adoptees. In a each row, the effects in Columns (1) and (2) are estimated together with a single regression while Column (3) uses a separate regression. Column (4) shows the effect for the adoptees from a one standard deviation move in an index of shared family environment. This is calculated by taking the square root of the variance share explained by shared family environment in the previous table and multiplying by the standard deviation of the outcome variable: that is, $R \times \sigma_y = \sigma_{yhat}$ = predicted effect on the outcome from a one standard deviation change in an index of family environment. Standard errors are corrected for within family correlation (1 cluster by family).

Sacerdote 2007

Coate and Loury, 1993

Sequence of Actions

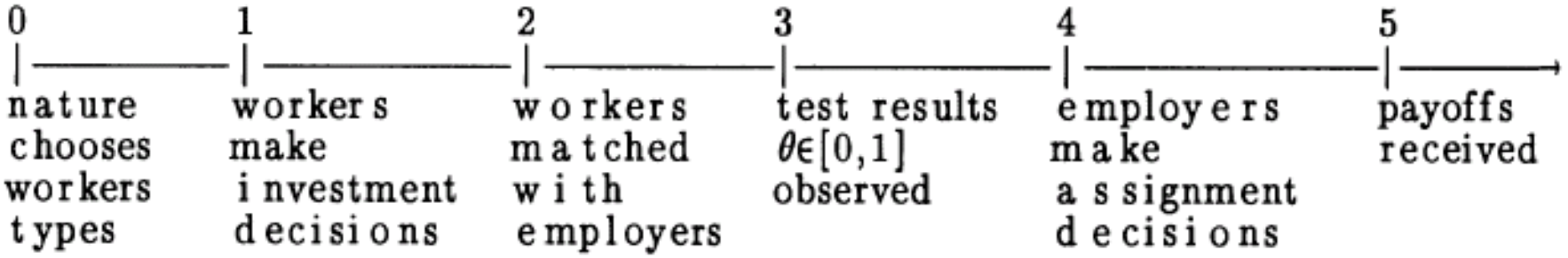


FIGURE 1. SEQUENCE OF ACTIONS

Coate and Loury 1993

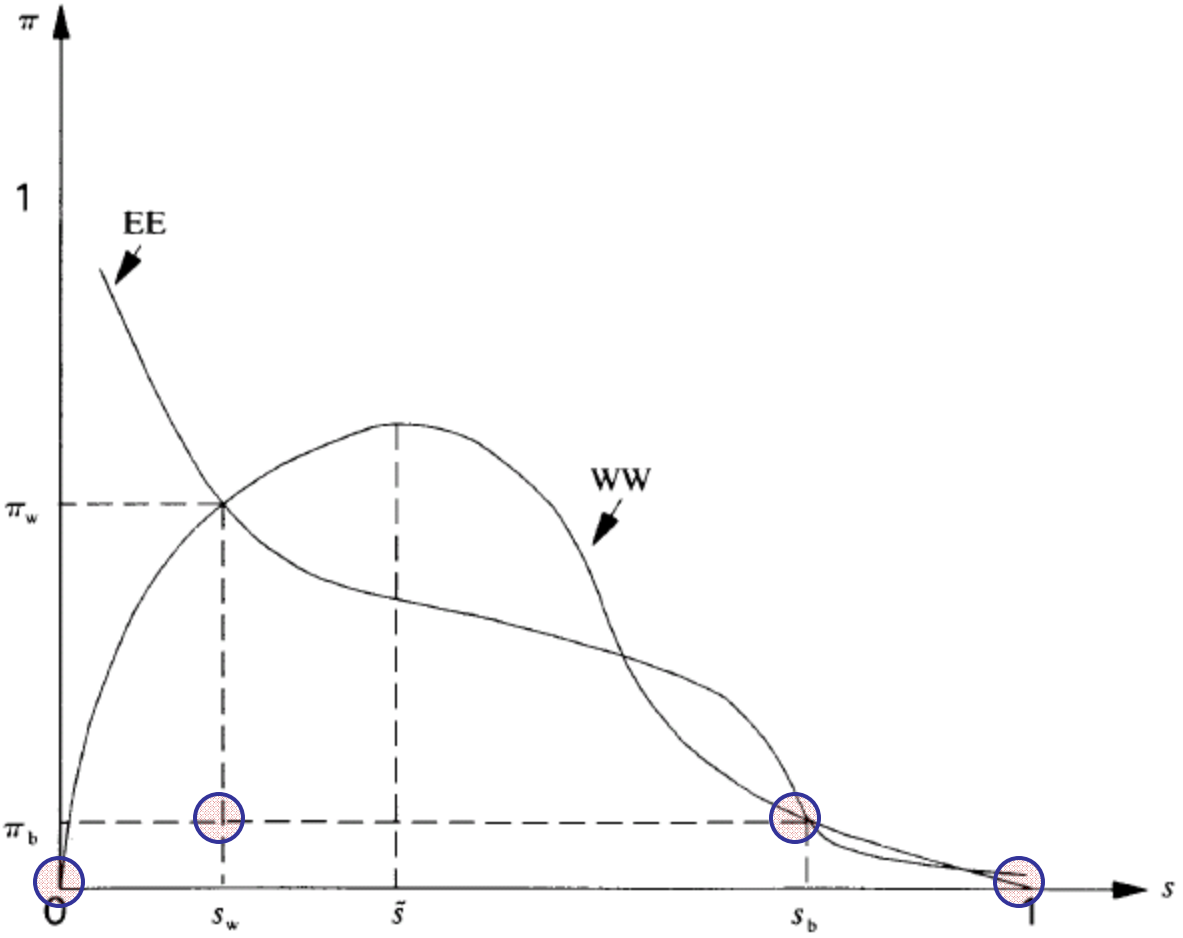


FIGURE 2. AN EQUILIBRIUM WITH NEGATIVE STEREOTYPES AGAINST B'S

Coate and Loury 1993

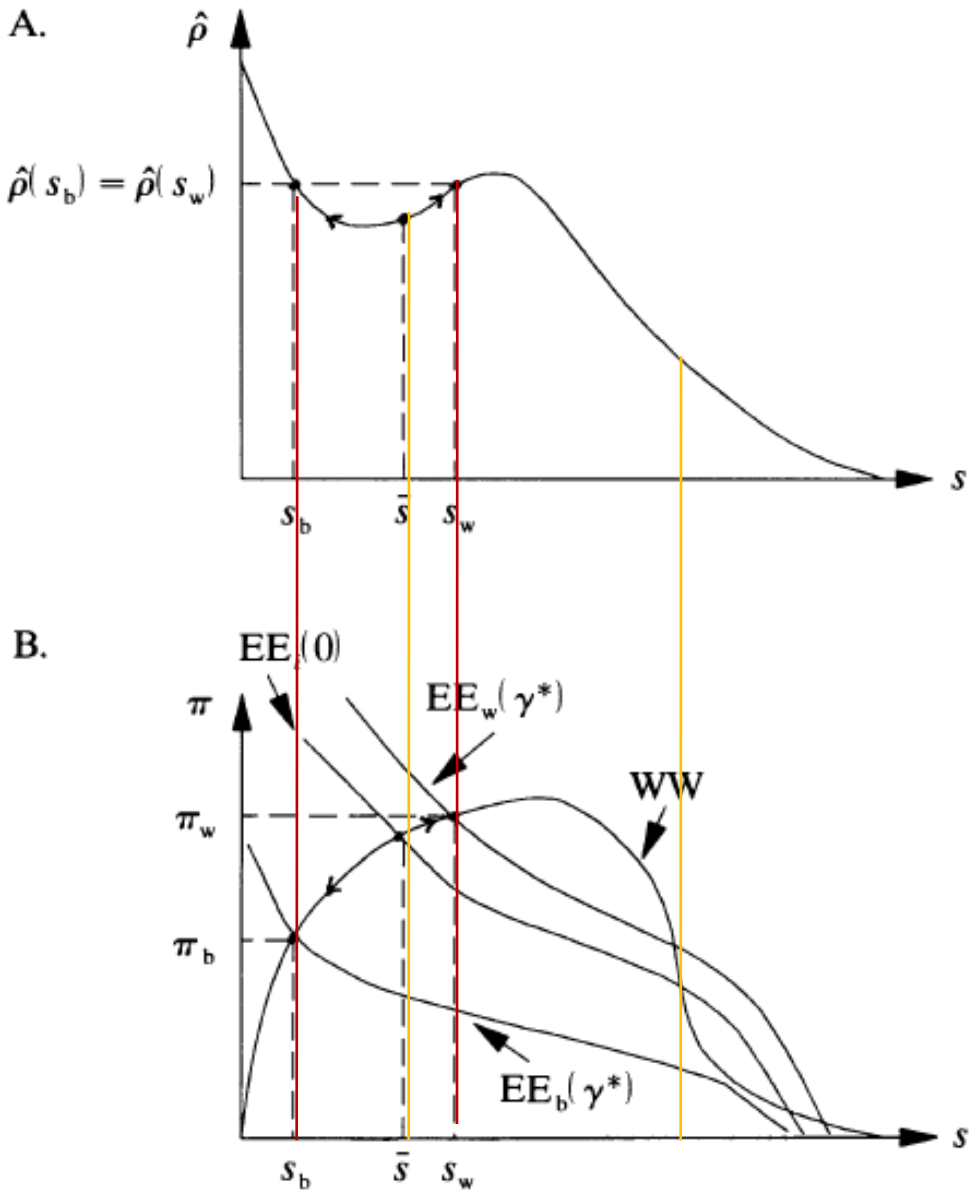


FIGURE 4. AN EQUILIBRIUM UNDER AFFIRMATIVE ACTION WITH NEGATIVE STEREOTYPE ABOUT B'S

Coate and Loury 1993

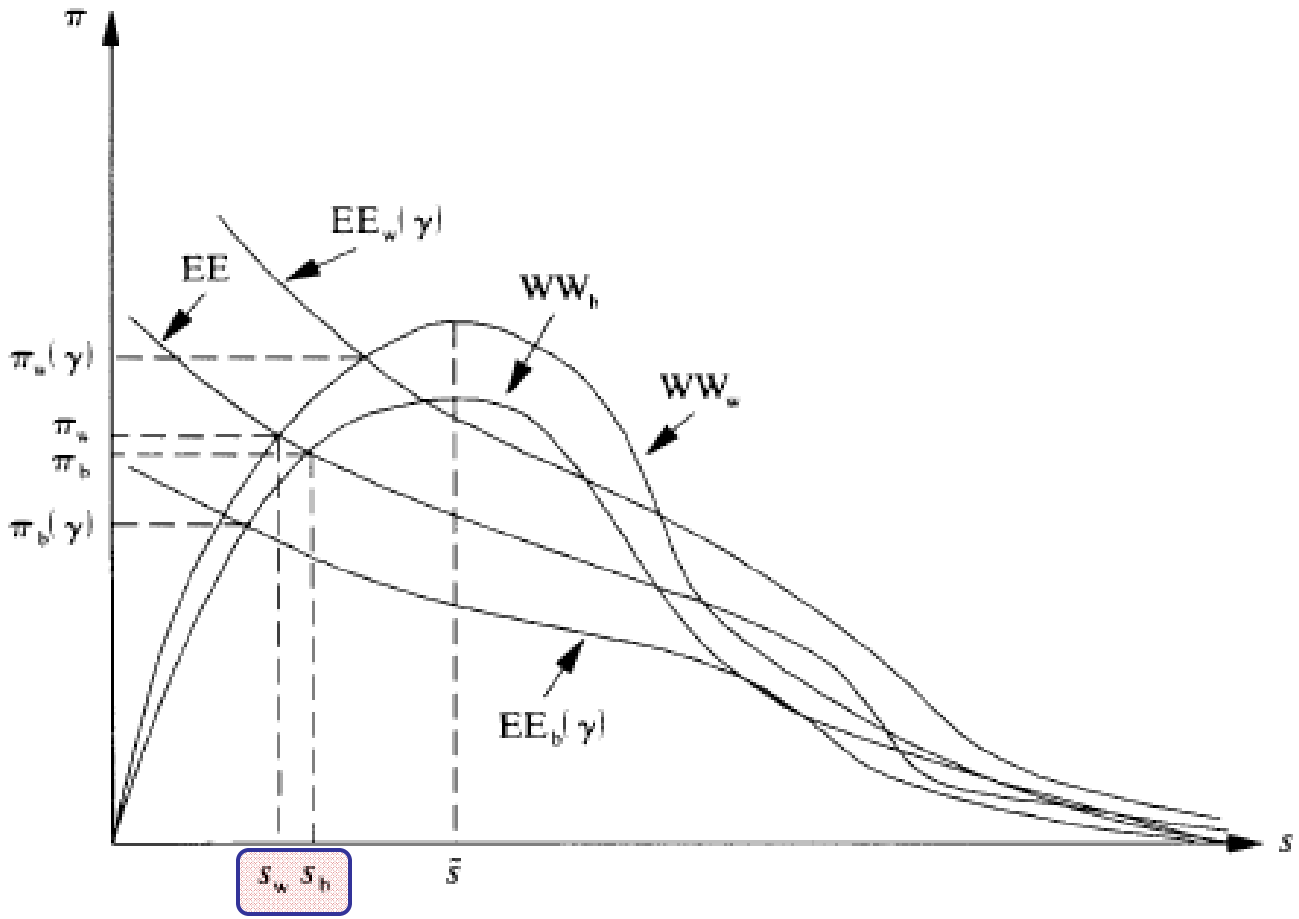


FIGURE 5. AFFIRMATIVE ACTION INCREASES SKILL DISPARITY IN THE ABSENCE OF STEREOTYPES

Coate and Loury 1993

Steele and Aronson, JPSP 1995

Protocol: Experiment 2

- Participants in the diagnostic condition were told that the study was concerned with "various personal factors involved in performance on problems requiring reading and verbal reasoning abilities.“
- In the non-diagnostic condition, the description of the study made no reference to verbal ability. Instead, participants were told that the purpose of the research was to better understand the "psychological factors involved in solving verbal problems.. . .”
- Test instrument: A 30-min test composed of items from the verbal Graduate Record Examination (GRE) that were difficult enough to be at the limits of most participants’ skills

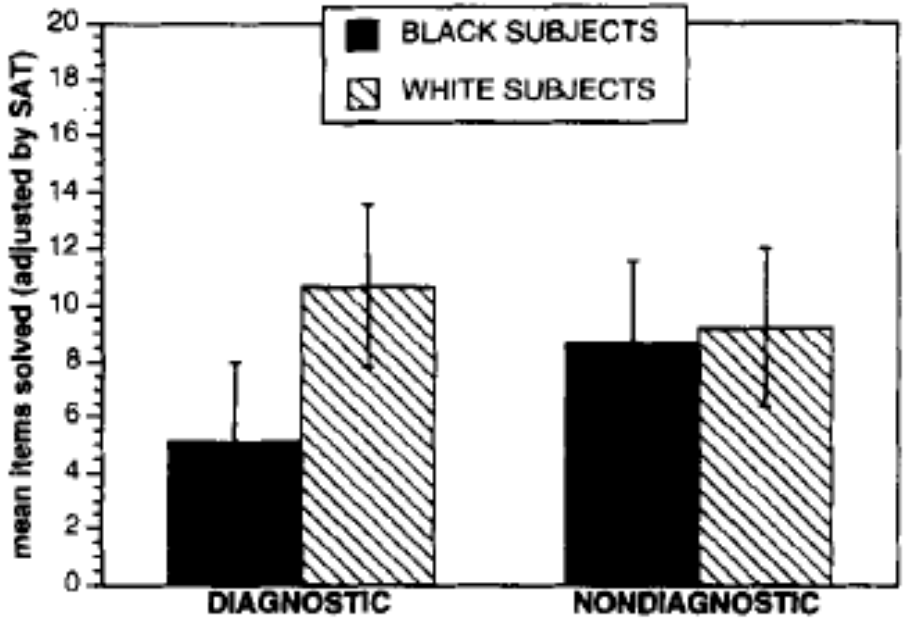


Figure 2. Mean test performance Study 2.

Steele and Aronson, JPSP 1995

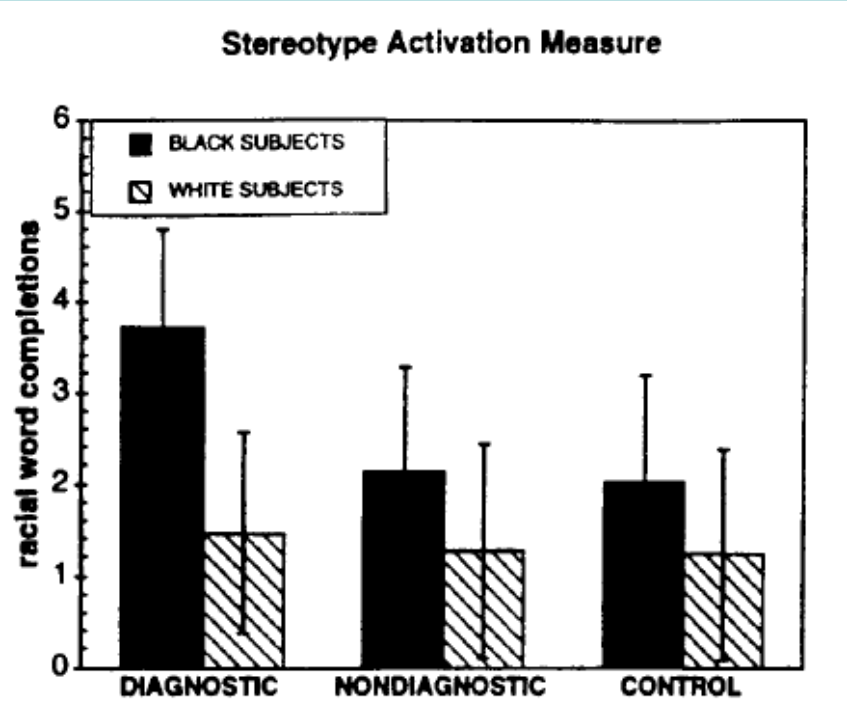
Protocol: Experiment 3

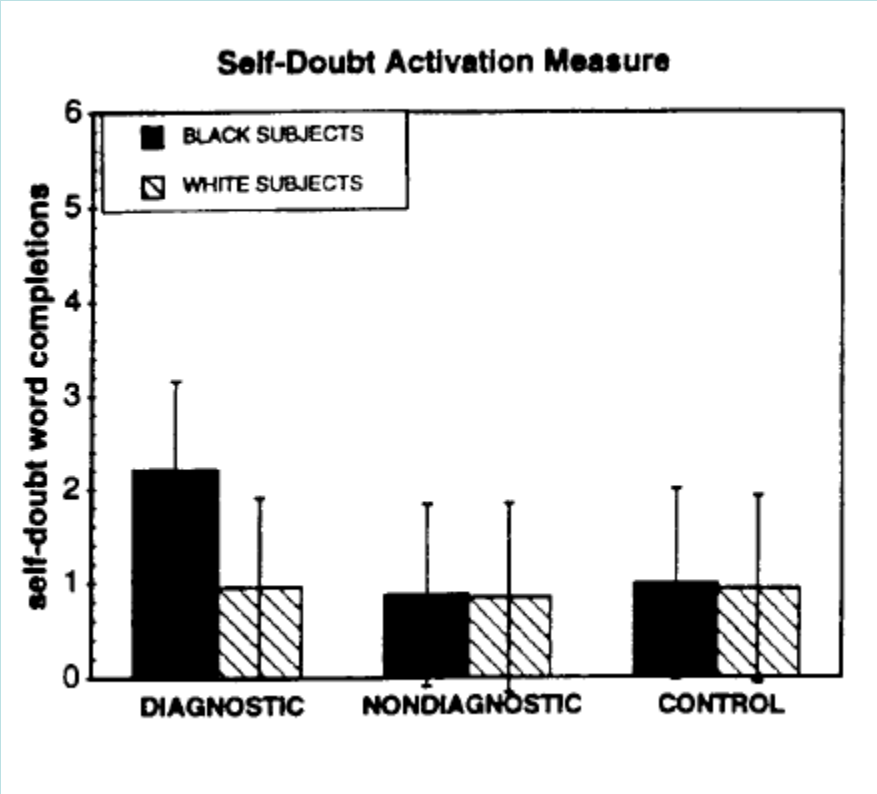
- We would like some evidence that the mechanism for lower performance of Blacks in the experimental condition is due to anxiety caused by priming.
- Idea: After giving same instructions as prior experiments, look for evidence of 'stereotype activation' and self-doubt activation:

1. Stereotype activation – How many race-related completions:
   - _ _ CE (RACE) LA _ _ (LAZY) _ _ _ A C K (BLACK)

2. Self-doubt activation – How many self-doubt indicate completions:
   - LO _ _ _ (LOSER) FL _ _ _ (FLUNK) _ _ _ ERIOR (INFERIOR)

3. Stereotype avoidance:
   - Rate your enjoyment of a set of activities (jazz, rap music, classical music), (baseball, basketball, boxing)
   - Do Blacks avoid identifying with stereotypes in the diagnostic treatment?





Steele and Aronson, JPSP 1995

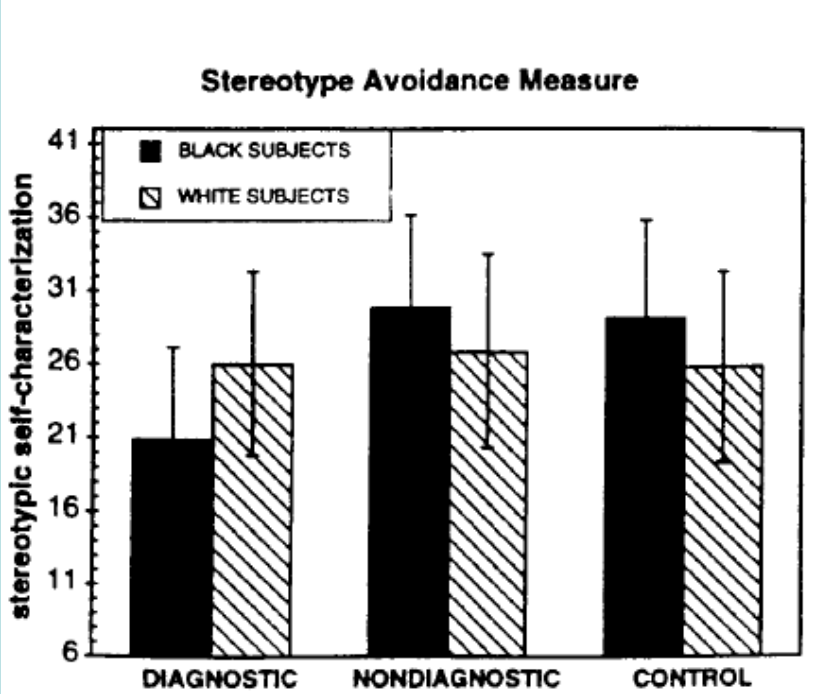


Figure 3. Indicators of stereotype threat.

Steele and Aronson, JPSP 1995

Study 4

- Prior experiments manipulated potential anxiety levels, but these manipulations were not necessarily directly tied to race.
- Is race the key factor?
- Format:
  - Same GRE test as Study 2 above
  - Race prime condition: subjects are now asked to record their race, gender and age prior to taking the test. *That's it*. No other deliberately anxiety producing manipulations

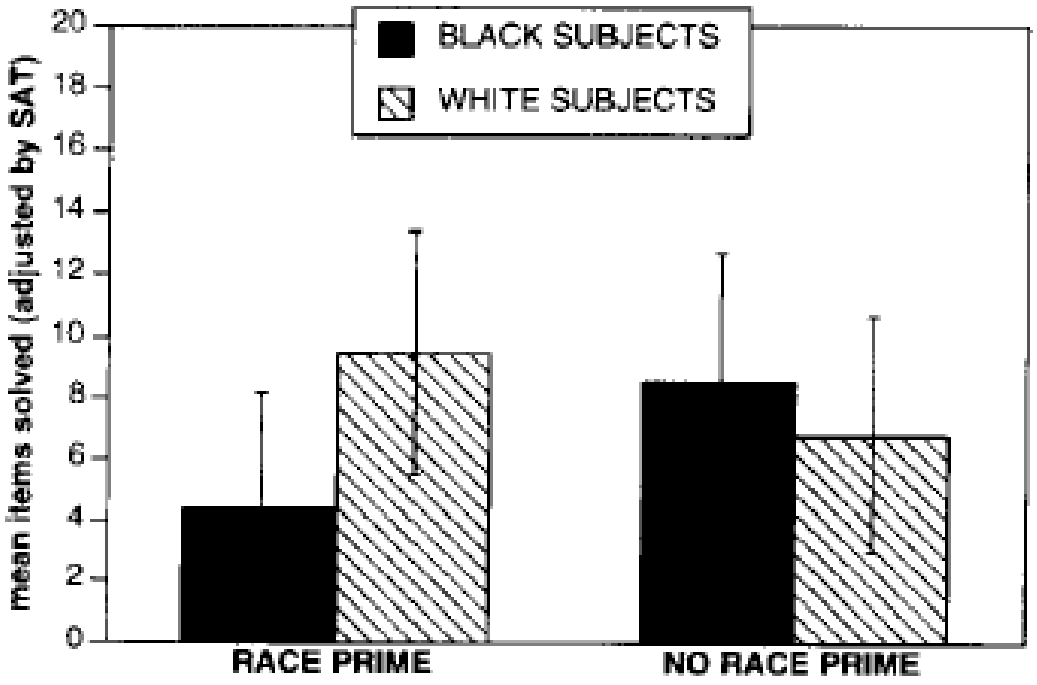


Figure 4. Mean test performance Study 4.

Steele and Aronson, JPSP 1995