

Black Americans Reduce the IQ Gap: Evidence from Standardization Samples

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Forthcoming: Psychological Science

Cognitive Ability Predicts Achievement

- Individual scores on tests of cognitive ability are strongly correlated with
 - achievement test scores
 - grades
 - ultimate educational attainment
 - many important life outcomes including income and job status
- *It would be difficult to eliminate achievement gap if IQ wasn't malleable*

Black Americans have made notable gains in social and economic status in the last several decades

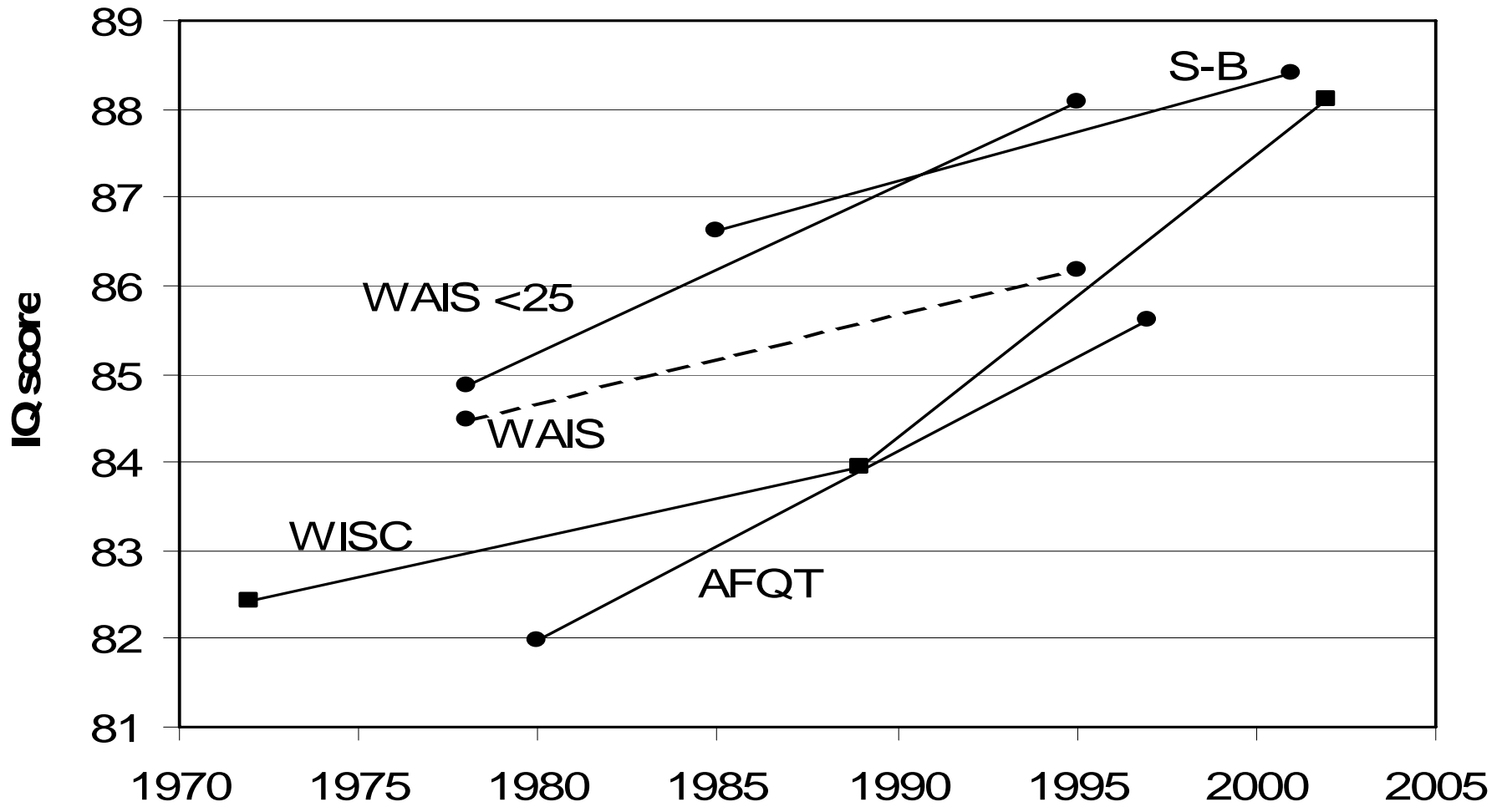
- **Wages and incomes:** Between 1940 and 2000, the average earnings of black men rose from 43% to 73% of the average earnings of white men.
- **Occupational status:** The ratio of black to white managerial and professional workers has doubled since 1960.
- **School quality:** Per pupil expenditures virtually equal now in urban areas.
- **Academic achievement:** Blacks have gained ground on whites in both math and reading on the NAEP.
- *Blacks have lost ground in some areas (incarceration rates, out-of-wedlock births), but overall SES has improved.*

We would therefore be very pessimistic about about prospects for equality if after 40 years of this sort of progress the black-white gap in cognitive test scores was unchanged.

What We Look At

- Scores on nationally representative standardization samples for four of the most widely administered tests of cognitive ability
- We present average “IQ” scores for blacks with non-Hispanic white mean set to 100 with a standard deviation of 15 points (50% of whites will score below 100 and about 10% at 80 or below).

Black Scores on Four Tests of Cognitive Ability (white average = 100)



Aggregating Across Tests

- We have data for each test broken down by age group and regress the black IQ by age on explanatory variables
- We find that we can reject that black white gap is the same on all tests and at all ages, but we cannot reject that rate of black gain is constant across time
- *Thus we control for age and test in our regressions of test score by age on year.*

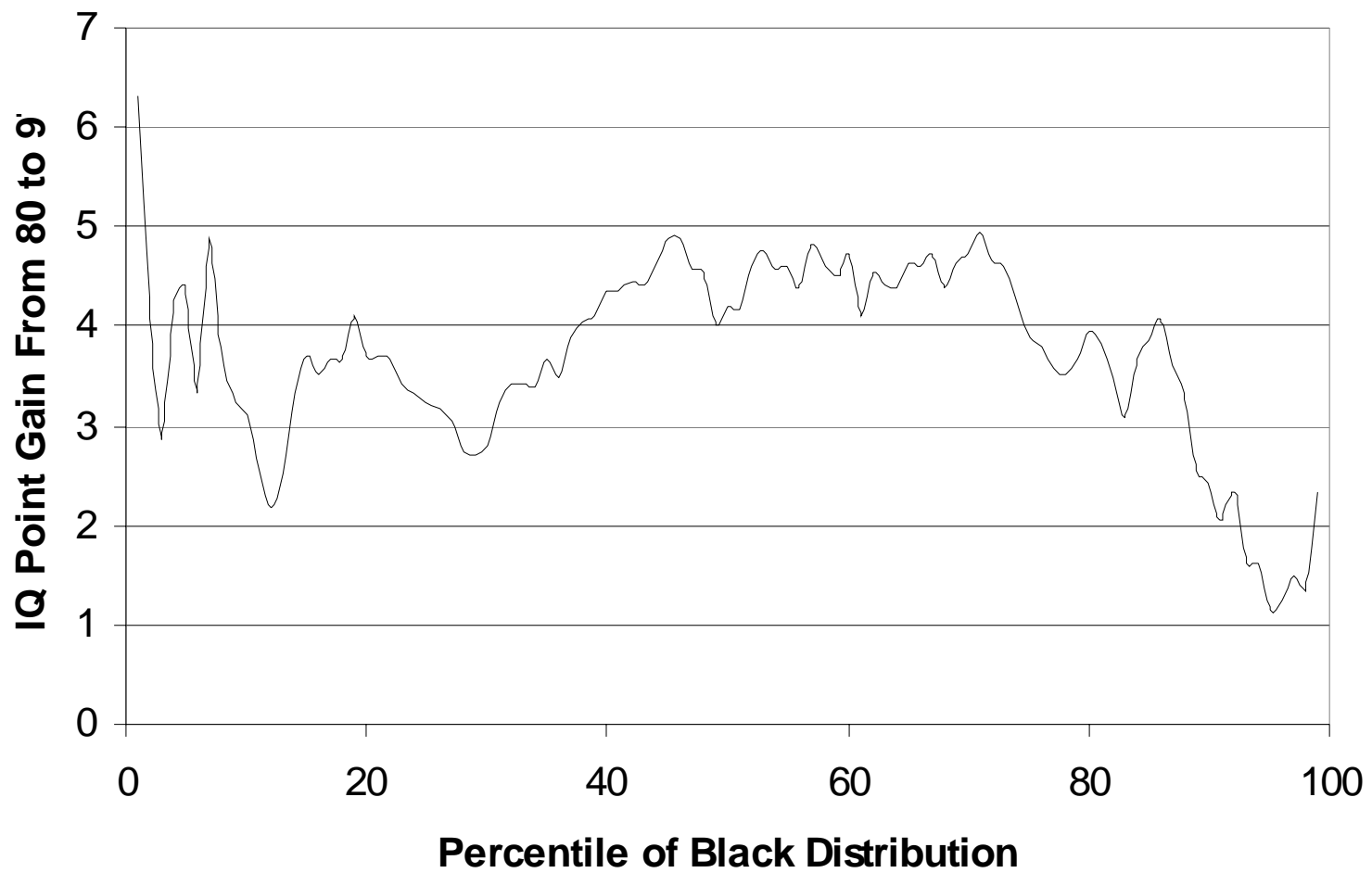
TABLE 1

Annual Rate of Black Gain in IQ Points

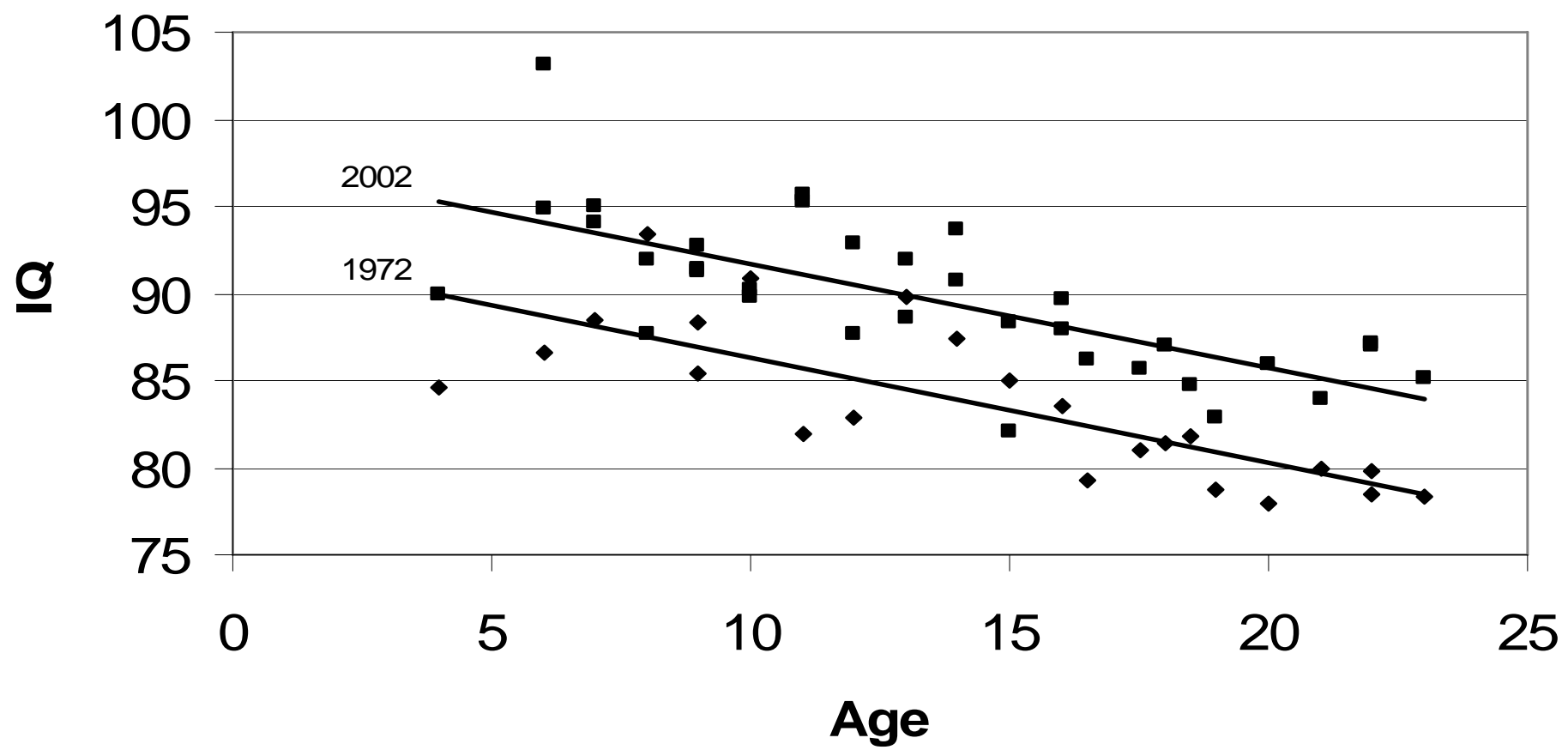
Controls

Sample	None	Age	Test	Test and Age
All Ages	.195 (.046)	.187 (.025)	.183 (.031)	.188 (.021)
Under 25	.212 (.057)	.161 (.033)	.190 (.033)	.184 (.025)

Black IQ Gain by Percentile on AFQT 1980-1997



Projected Black IQ by Age in 1972 and 2002



◆ 1972 ■ 2002

Possible Objections

- **The tests changed to become easier for blacks**
 - Test designers assure us that no such change was made deliberately
 - g loadings of all test barely change
 - blacks and whites taking both versions of AFQT at same time show negligible differences in average scores on the two different versions
- **Samples changed due to institutionalization or who is identified as black**
 - Most subjects are young people still in school (and therefore samples are probably comparable)
 - Reasonable estimates of magnitude of changes can't explain more than a fraction of decline
 - Profile of American Youth (AFQT sample) is carefully constructed (with appropriate sample weights) to be representative of US population including very disadvantaged minorities.

More Objections

- **Did we “cherry pick” only tests with gains?**
 - We report all nationally representative samples we could find
 - In an appendix we report all studies using same tests with comparable samples (not nationally representative) at multiple points in time
 - most show little or no gain, but ...
 - most are from later in period and show black-white gap considerably smaller than 16.5 points
 - terminal values for black IQ are very similar to our estimates for same point in time
 - some evidence suggesting little or no gain for adults
 - *Thus at worst these studies raise questions about the timing of gains, but not the magnitude for children and young adults.*

Test	Reason Excluded	Black Gains	Final Black IQ
K-ABC	According to Jensen early sample contained overly diverse group diminishing B-W gap. Also tests designed to minimize black-white gap.	1983-2004 -1 point	92
Raven's	Early test given to residents of one Houston housing project, later to residents from single town in Alabama	1985-2000 9 points, but adjust for age dif. -1 point	93 for 9 year olds
Wonderlic	Samples are job applicants to employers willing to share race information. Not representative of population of same age.	1970-2001 no gain ages 16-24 2.4 points	all ages 85 16-24 87
Woodcock Johnson	Full standardization sample OK but not available. Our source is sub-sample of research sample with IQ. Whites over educated and data non-randomly missing.	1987-1999 no gain < 25 -1.3 points	all ages 88 <25 89