
NATIONAL CENTER FOR EDUCATION STATISTICS

Findings from
THE CONDITION OF EDUCATION 1994

NO.

2

THE EDUCATIONAL PROGRESS OF BLACK STUDENTS



U.S. DEPARTMENT OF EDUCATION

Richard W. Riley

Secretary

OFFICE OF EDUCATIONAL RESEARCH AND IMPROVEMENT

Sharon P. Robinson

Assistant Secretary

NATIONAL CENTER FOR EDUCATION STATISTICS

Emerson J. Elliott

Commissioner

NATIONAL CENTER FOR EDUCATION STATISTICS

“The purpose of the Center shall be to collect, analyze, and disseminate statistics and other data related to education in the United States and in other nations.”—Section 406(b) of the General Education Provisions Act, as amended (20 U.S.C. 1221e-1).

May 1995

*The text in this booklet was written by Thomas M. Smith of the Data Development Division of NCES and appeared originally in the **Condition of Education, 1994**. Susan P. Choy of MPR Associates, Inc. adapted the content to this format, and Leslie Retallick and Lynn Sally designed the graphics and layout.*

THE EDUCATIONAL PROGRESS OF BLACK STUDENTS

Getting a high quality education has always been seen as one of the best ways to improve one's social and economic prospects, especially for someone who is socially or economically disadvantaged. Black children are at an educational disadvantage relative to white children for a number of reasons, including lower average levels of parental education, a greater likelihood of living with only one parent, fewer resources in their communities as a result of income-based residential segregation, and, especially, a greater likelihood of experiencing poverty. In 1992, 46 percent of black children, as opposed to 16 percent of white children, lived in a family with an income level below the poverty line.¹

Both blacks and whites have made important gains over the past two decades. See No. 1 in this series of *Findings from the Condition of Education*, "High School Students Ten Years After *A Nation at Risk*." More high school students are taking core courses, and more are taking high-level courses in those subjects. More high school students are taking advanced placement examinations, and fewer are dropping out between the 10th and 12th grades. Also, mathematics and science achievement has increased since the early 1980s. Finally, more students are aspiring to college after they graduate, and more are attending.

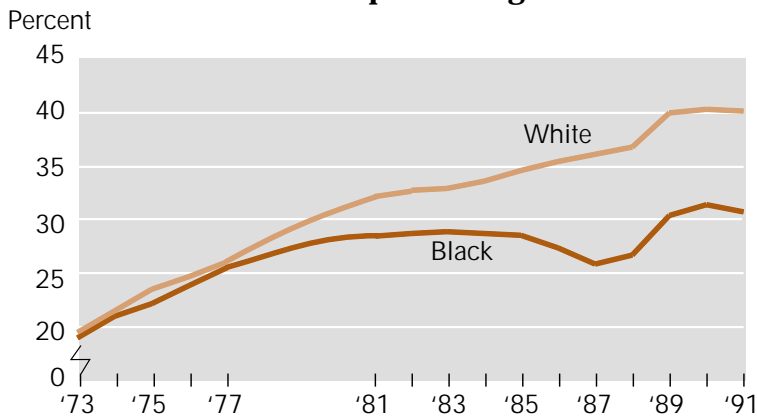
Despite these overall gains, blacks continue to trail whites in many areas. Outlined below are some examples of the educational differences between blacks and whites with respect to preschool attendance, achievement at the elementary and secondary school levels, progress in school, learning environment, curriculum, educational aspirations, college enrollment and completion, labor market outcomes, and adult literacy levels. Some of the gaps between blacks and whites have decreased over time, but many remain large. All black-white comparisons made here refer to black, non-Hispanics, and white, non-Hispanics.

PRESCHOOL ATTENDANCE

- Black children start elementary school with less preschool experience than white children, and a gap in preschool enrollment rates has developed.

Several federal programs for economically disadvantaged preschoolers (such as Head Start) were instituted to give children from low income families an early start in education. During the middle 1970s, the proportions of white and black 3- and 4-year-olds attending nursery school were similar (about 25 percent). Since then, enrollment rates have increased for both groups, but more slowly for blacks. In 1991, 31 percent of black 3- and 4-year-olds were enrolled, compared with 40 percent of whites. Black 3- and 4-year-olds, however, were more likely than whites of this age to be enrolled in kindergarten in 1991 (8 percent and 4 percent, respectively).

3- and 4-year-olds enrolled in prekindergarten



SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

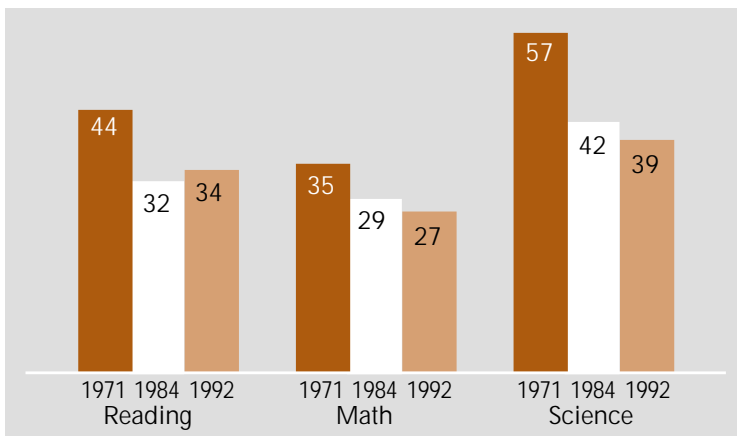
ELEMENTARY AND SECONDARY EDUCATION

ACHIEVEMENT

- Gaps in the academic performance of black and white students appear as early as age 9 and persist through age 17.

Academic proficiency in reading, mathematics, and science, as measured at age 9 by the National Assessment of Educational Progress (NAEP), is lower for black children than for white children. The black-white achievement gap narrowed in the 1970s and early 1980s, but has not narrowed further.

Black-white gaps in reading, mathematics, and science for 9-year olds (in scale points)



SOURCE: NCES, National Assessment of Educational Progress.

The black-white achievement gap remains large at age 13. For example, in 1992, the average reading proficiency scores of black 13-year-olds fell about midway between the average proficiency scores of white 9- and 13-year-olds. In other words, black children on average may be reading at a level as much as 2 years below their white peers when they enter high school.

At age 17, NAEP scores again indicate a large black-white achievement gap, although test scores for blacks have improved relative to those of whites in reading, mathematics, and science since the early 1970s. In 1971, average reading proficiency among 17-year-old blacks was well below that of 17-year-old whites and even well below that of 13-year-old whites; in 1992, the proficiency of 17-year-old blacks was about the same as that of 13-year-old whites.

The black-white achievement gap has closed somewhat over time, persisting, although not widening, with age. The black-white differences in mathematics at ages 9, 13, and 17 are remarkably similar.

Average proficiency scores

Subject and year	White			Black		
	Age 9	Age 13	Age 17	Age 9	Age 13	Age 17
Reading						
1971	214	261	291	170	222	239
1980	221	264	293	189	233	243
1992	218	266	297	184	238	261
Mathematics						
1973	225	274	310	190	228	270
1982	224	274	304	195	240	272
1992	235	279	312	208	250	286
Science						
1970	236	263	312	179	215	258
1973	231	259	304	177	205	250
1982	229	257	293	187	217	235
1992	239	267	304	200	224	256

SOURCE: NCES, National Assessment of Educational Progress.

- On another measure of achievement, the SAT, college-bound blacks have made substantial gains relative to whites, but a gap remains.

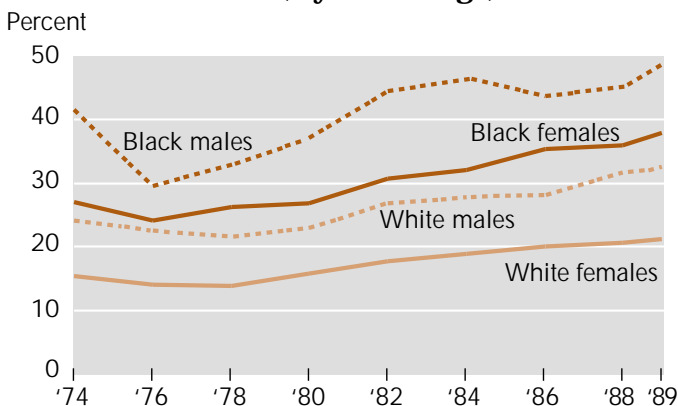
In 1993, average scores of blacks were 91 points lower than those of whites on the verbal component of the SAT and 106 points lower on the mathematics component. In 1976, the scores were 119 and 139 points lower, respectively.²

PROGRESS IN SCHOOL

- At age 13, black children are more likely than white children to be below the modal grade for their age.

Since the mid-1970s, the percentage of 8- and 13-year-old children who were 1 or more years below the modal (most common) grade for their age has risen for all children. While most 8-year-olds are in the third grade, about 27 percent of both black and white males were in a lower grade in 1989.³ At age 13, however, black children were more likely to be behind. While most 13-year-olds are in the eighth grade, 49 percent of black males at this age were in a lower grade, compared with 32 percent of white males.

**13-year-olds below modal grade for their age
(3-year average)**



SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

- **Students who repeat grades are at greater risk of dropping out of school.**

In 1992, black and white 16- to 24-year-olds who had been retained were about equally likely to drop out of school. However, black young adults were much more likely to have repeated one or more grades.

**Retention and dropout rates for
16- to 24-year olds in 1992**

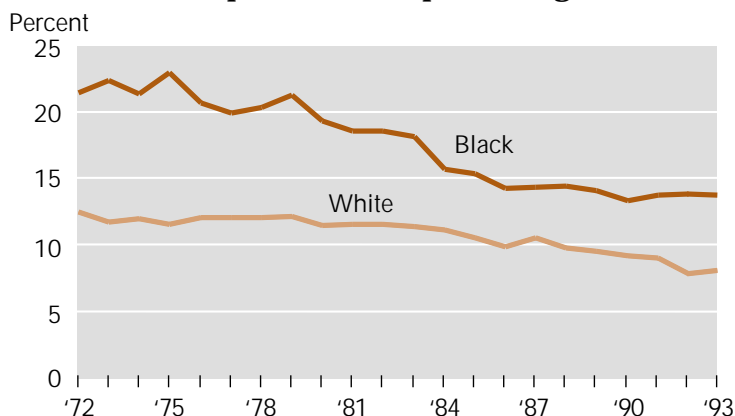
Race-ethnicity	Percent retained in one or more grades	Dropout rate		
		Total	Never retained	Retained
White	10.5	7.7	6.0	18.8
Black	18.1	13.7	12.0	20.1

SOURCE: U.S. Department of Commerce, Bureau of the Census, Current Population Survey, October 1992.

- **Fewer black students are dropping out of school than a decade ago. While black students are still more likely to drop out than whites, the gap has been closing over time.**

The dropout rate is still considered too high by many educators, but the percentage of blacks ages 16–24 who are high school dropouts has declined substantially since the early 1970s (from 21 percent in 1972 to 14 percent in 1993). The dropout rate for whites has decreased less during this period (from 12 percent to 8 percent).

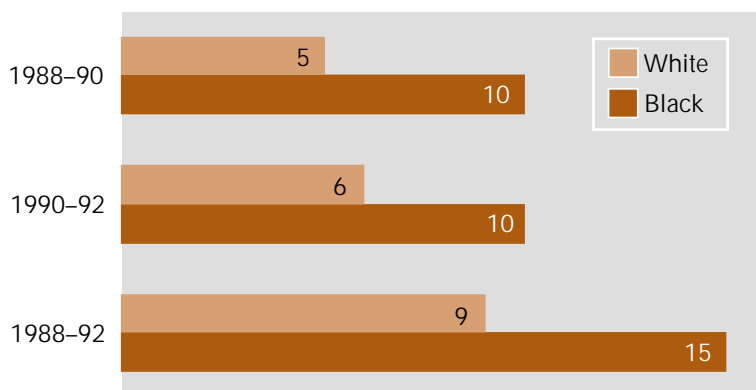
Status dropout rates for persons ages 16–24



SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

The black-white difference in dropout rates early in high school is large. Blacks in the 8th-grade class of 1988 were almost twice as likely as their white classmates to drop out between the 8th- and 10th-grades.

Percentage of the 8th-grade class of 1988 who dropped out of high school

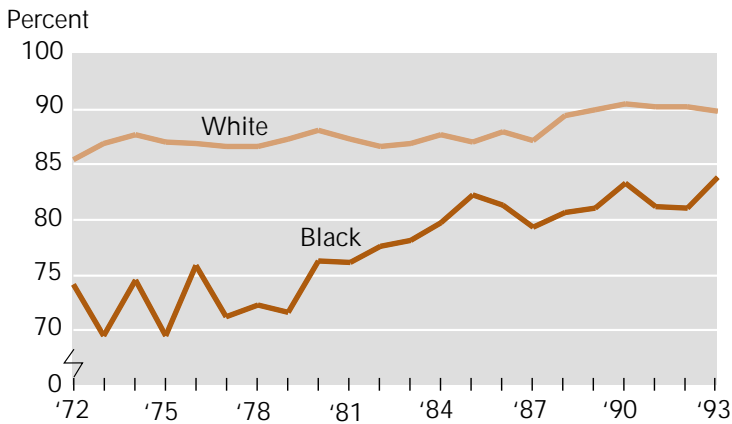


SOURCE: NCES, National Education Longitudinal Study of 1988.

Many dropouts later earn a diploma or obtain a GED. Although blacks in the sophomore class of 1980 were less likely than their white classmates to complete high school by June 1982 (79 percent compared with 86 percent), they were just as likely to have earned a high school diploma or to have obtained a GED by 1992.⁴

With fewer black students dropping out and many dropouts later completing, the high school completion rate for blacks has increased over the past two decades. The completion rate for whites is still higher than for blacks, but has increased less during this period.

**High school completion rates
for 21- and 22-year-olds**



SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

LEARNING ENVIRONMENT

- **Black students are more likely than their white peers to face a disorderly learning environment, but black and white students have similar attitudes about teaching quality in their schools.**

A student's achievement can be affected by the degree to which a safe and orderly environment is maintained in school. In 1990, black sophomores were more likely than their white peers to report that other students often disrupted their classes and that disruptions by other students interfered with their learning. Blacks were less likely than whites to feel that students got along well with teachers at their school and were almost twice as likely as whites to report that they did not feel safe at their school.

On the other hand, black 10th graders were as likely as their white classmates to think that the teaching was good and that teachers were interested in the students. Blacks were more likely than whites to think that teachers praised their work, and listened to what they had to say.

Tenth graders' attitudes about school climate: 1990

Statement about school climate	Percent agreeing or strongly agreeing with statement	
	White	Black
Teaching is good	81.1	83.1
Teachers are interested in students	75.6	76.0
Teachers praise my efforts when I work hard	54.4	64.6
Teachers listen to what I have to say	68.8	74.8
Students get along well with teachers	77.0	62.8
Other students often disrupt class	69.9	76.3
Disruptions by other students interfere with my learning	36.7	51.1
I don't feel safe at this school	6.7	12.8

SOURCE: NCES, National Education Longitudinal Study of 1988.

Between 1976 and 1991, black high school seniors were more likely than white seniors to be threatened or injured with a weapon at school. In 1991, black seniors were about twice as likely as white seniors to be injured with a weapon (10 percent

compared with 5 percent).⁵ However, there were few other differences in the in-school victimization rates for black and white high school seniors over this period.

- **Black students are no less likely than white students to have their parents involved in their schooling.**

The degree to which parents are involved in their children’s education is another factor linked to effective schooling. In 1988, the vast majority of 8th-grade students reported that they talked to their parents about school, although black 8th-graders were slightly less likely than their white peers to talk with their parents about selecting their courses. With respect to other types of involvement, black students were just as likely as their white classmates to have their parents check their homework, restrict their television viewing, and limit their going out with friends. And black 8th-graders were more likely than their white counterparts to report that their parents had spoken with a teacher or guidance counselor and had visited their classes.

**Percentage of eighth graders
reporting parent involvement: 1988**

Type of involvement	White	Black
Talked about		
selecting classes	87	80
school activities	92	91
class studies	89	88
Checked homework	90	93
Limited TV viewing	63	60
Limited going out with friends	89	86
Spoke with teacher or counselor	59	68
Visited classes	26	36

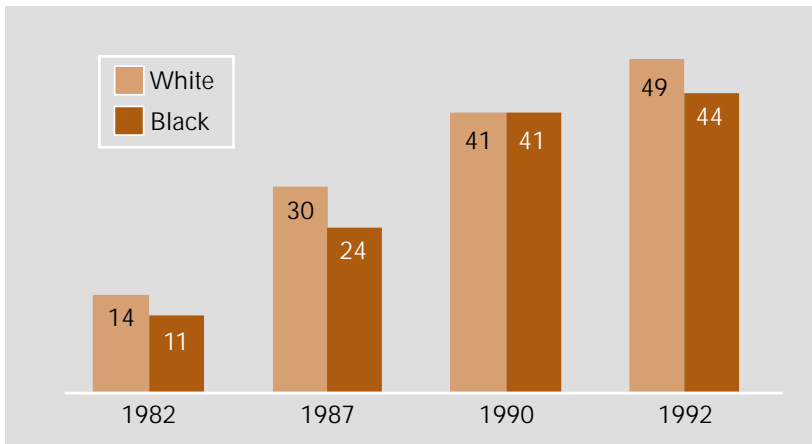
SOURCE: NCES, National Education Longitudinal Study of 1988.

CURRICULUM

- Both black and white high school graduates are following a more rigorous curriculum than a decade ago.

In 1992, black and white high school graduates on average had earned a similar number of total course units (23 and 24, respectively) and academic units (17 and 18, respectively). And there was no measurable difference in 1992 between the percentage of black and white graduates who had taken the 4 units of English, 3 units of science, 3 units of social studies, and 3 units of mathematics recommended in *A Nation at Risk*.

Percentage of high school graduates taking the number of courses in English, science, social studies, and mathematics recommended in *A Nation at Risk*



SOURCE: NCES, High School and Beyond Transcript Study, 1987 and 1990 NAEP High School Transcript Studies, and National Education Longitudinal Study Transcripts, 1992.

- Black high school graduates are still less likely than white graduates to take advanced science and mathematics courses or study a foreign language.

In 1992, black high school graduates were twice as likely as white graduates to have taken remedial mathematics and were less likely to have taken higher level mathematics courses. They were also less likely to have taken chemistry, physics, or the combination of biology, chemistry, and physics. Furthermore, black college-bound graduates were far less likely than white graduates to have taken at least 2 years of a foreign language in high school (59 percent and 75 percent, respectively), which could affect their chances of attending a selective college.⁶

**Percentage of high school graduates
taking selected courses**

Mathematics and science courses	1982		1992	
	White	Black	White	Black
Any mathematics	99.1	99.6	99.7	99.1
Remedial mathematics	27.0	54.4	14.6	30.9
Algebra II	40.5	26.2	59.2	40.9
Geometry	53.9	30.3	72.6	60.4
Trigonometry	13.8	6.3	22.5	13.0
Algebra II, geometry, and trigonometry	8.5	2.9	15.9	6.8
Calculus	5.0	1.4	10.7	6.9
Any science	97.7	98.6	99.5	100.0
Biology	80.1	75.3	93.5	92.2
AP/honors biology	7.5	4.5	6.5	3.2
Chemistry	34.7	22.5	58.0	45.9
AP/honors chemistry	2.9	1.6	4.2	2.3
Physics	15.3	6.8	25.9	17.6
AP/honors physics	0.9	0.8	2.9	1.4
Biology, chemistry, and physics	11.2	4.7	22.6	15.5

SOURCE: NCES, 1987 and 1990 NAEP High School Transcript Studies, High School and Beyond Transcript Study, and National Education Longitudinal Study Transcripts, 1992.

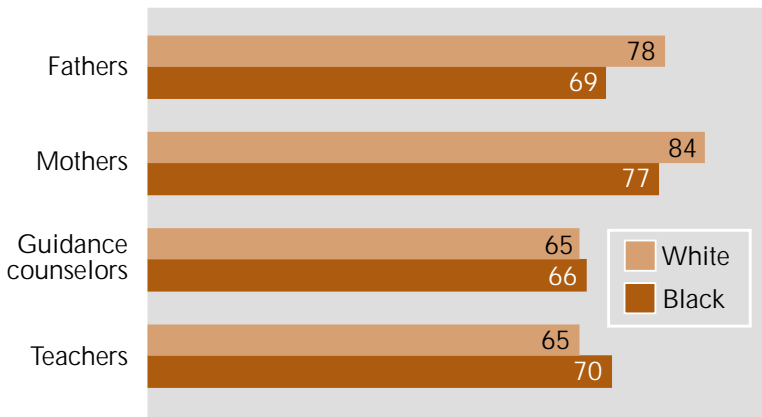
EDUCATIONAL ASPIRATIONS

- The educational aspirations of black and white students are similar.

In 1990, 11 percent of black sophomores and 9 percent of white sophomores aspired to a high school diploma or less. Fifty-nine percent of black sophomores aspired to a bachelor's degree or higher, along with 61 percent of whites.⁷

Among high school sophomores, blacks were more likely than whites to have teachers recommend college attendance, and just as likely as whites to receive advice on college attendance from guidance counselors. However, black sophomores were less likely than their white peers to be advised by their parents to attend college.

Percentage of 1990 high school sophomores for whom college was recommended



SOURCE: NCES, High School and Beyond and National Education Longitudinal Study of 1988.

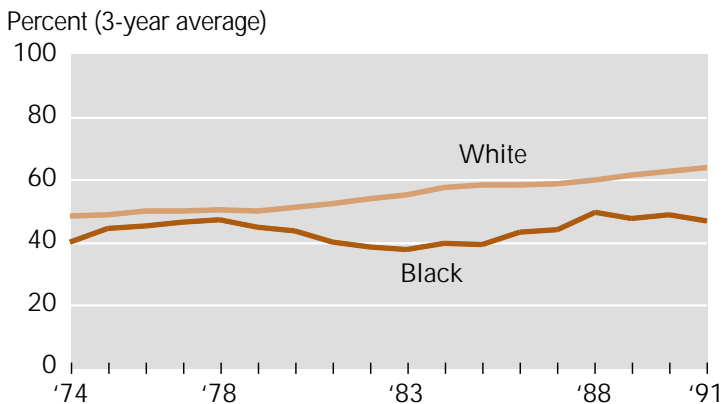
POSTSECONDARY EDUCATION

ENROLLMENT

- Blacks are less likely than whites to make an immediate transition from high school to college.

Gains made by blacks in higher education are not as dramatic as those in elementary and secondary education. After a period of decline in the early 1980s, the percentage of blacks enrolling in college immediately after high school rose again until the late 1980s, when it appears to have leveled off. Meanwhile, the enrollment rate for white high school graduates has been rising, increasing the white-black enrollment gap in recent years. Some of the difference in enrollment rates may be made up later through delayed entry, which is more common among blacks than whites.

High school graduates enrolled in college the October following high school graduation



SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Overall, about 30 percent of black high school graduates 16–24 years old were enrolled in college as undergraduates during the late 1980s, about the same as a decade earlier. In contrast, about 38 percent of their white peers were enrolled in college in 1990, up from 30 percent a decade earlier.⁸

- **Black and white college students have tended to major in different fields of study at both the associate’s and bachelor’s degree levels, but some of the differences have lessened over time.**

In 1991, at the associate’s degree level, black men were less likely than white men to major in the trade and industrial fields, and more likely to major in business. Black women were more likely than white women to earn an associate’s degree in business, and less likely to earn a degree in a health-related field. Differences in the fields studied at the associate’s degree level by black and white men narrowed between 1987 and 1991; the differences between black and white women remained about the same.⁹

In 1991, at the bachelor’s degree level, blacks were more likely than whites to major in business and management and in computer and information sciences, and less likely to major in engineering, the humanities, education, and health sciences. Overall, differences have lessened since 1977.¹⁰

COMPLETION

- **In 1971, black 25- to 29-year-olds were only about half as likely as their white peers to have completed 4 years of college, and this gap has not diminished.**

Among those who enrolled in postsecondary education for the first time in 1989–90, 2-year persistence rates for those pursuing vocational certificates, associate’s degrees, and bachelor’s degrees were generally similar for blacks and whites. However, attainment among 25- to 29-year-old blacks is far lower than it is among whites. During the 1970s, the percentage of both white and black high school graduates completing 1 or more or 4 or more years of college grew; during the 1980s, however, there was little change in college attainment rates for either group.

Percentage of 25- to 29-year-old high school graduates completing 1 or more or 4 or more years of college

Year	1 or more years		4 or more years	
	White	Black	White	Black
1971	44.9	24.6	23.1	12.5
1975	51.2	37.2	27.5	15.1
1980	53.8	40.9	28.0	15.4
1985	51.8	41.1	27.3	14.8
1991	54.9	42.5	29.7	13.6

SOURCE: U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

- **Blacks take longer than whites to complete college on average.**

Of 1990 college graduates, 65 percent of blacks completed in 5 or fewer years compared with 72 percent of whites. Taking longer to graduate may result from changing schools or majors, stopping out, or taking a reduced course load for financial, academic, or personal reasons. The additional time in college can be costly to the individual by delaying entrance into the full-time labor market.

**Percentage of 1990 college graduates
completing the baccalaureate degree
within various years of starting college**

Race	4 or fewer years	5 or fewer years	6 or fewer years	More than 6 years
White	44.4	71.6	81.5	18.5
Black	37.0	65.1	77.6	22.4

SOURCE: NCES, Recent College Graduate Surveys.

- Bachelor's degree attainment varies by both race and gender.

Black women earn substantially more bachelor's degrees than black men, and the difference doubled between 1977 and 1991. Following a period of slight decline in the 1980s, the number of bachelor's degrees earned by black men increased between 1989 and 1991, approaching the level attained a decade earlier. Between 1977 and 1991, the number of bachelor's degrees earned by white women increased more than the number earned by black women (32 percent compared with 22 percent).

**Bachelor's degrees conferred
(numbers in thousands)**

Year	Men		Women	
	White	Black	White	Black
1977	438.2	25.1	369.5	33.5
1981	406.2	24.5	401.1	36.2
1985	405.0	23.0	421.0	34.5
1987	406.8	22.5	435.1	34.5
1989	407.1	22.4	452.6	35.7
1991	415.5	24.3	488.6	41.0

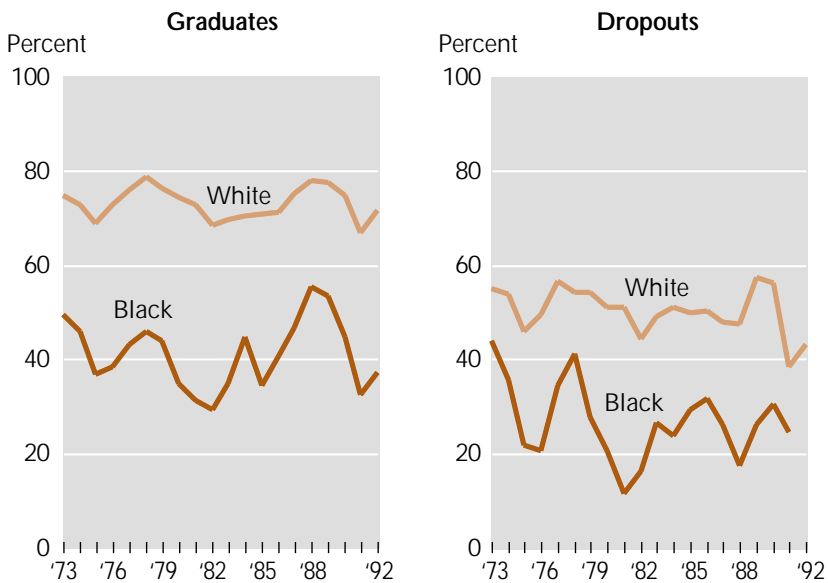
SOURCE: NCES, IPEDS/HEGIS surveys of degrees conferred.

LABOR MARKET OUTCOMES

- Employment and earnings rates rise with educational attainment for both blacks and whites, but are lower for blacks than for whites with the same amount of education.

In 1991, only one-quarter of the blacks who dropped out of high school between 1990 and 1991 were employed. Among black recent high school graduates who did not enroll in college, about one-third were employed. Between 1973 and 1992, white high school dropouts were more likely than black high school graduates not enrolled in college to be employed.

Employment rates for recent high school graduates not enrolled in college and for recent high school dropouts



SOURCE: U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.

Earnings among 25- to 34-year-old blacks, particularly black women, show a sizable payoff for additional education. In 1992, black males with 9 to 11 years of schooling earned 35 percent less than their counterparts who were high school graduates; black males with a bachelor's degree earned 83 percent more. Black females with 9 to 11 years of schooling earned 32 percent less than their counterparts with a high school diploma; black females with a bachelor's degree earned 113 percent more.

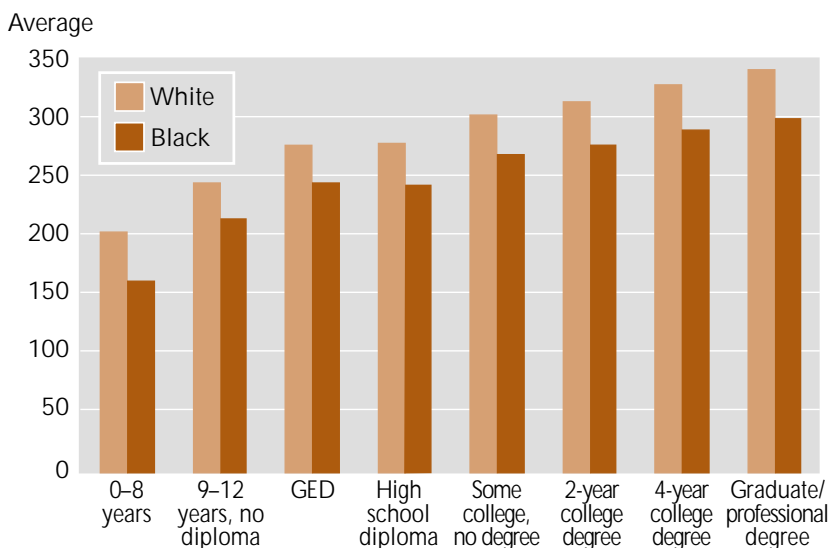
Between 1974 and 1992, the earnings advantage of completing college increased for both blacks and whites regardless of gender. However, black-white earnings differentials exist at each level of educational attainment. For example, white college graduates 25–34 years old earned 23 percent more in 1992 than black college graduates of the same age.¹¹

ADULT LITERACY

- Blacks have lower literacy levels than whites overall and for similar levels of education, but the gaps are smaller for younger adults than for older ones.

Large gaps exist between the literacy skills of blacks and whites both within and across levels of education. For example, blacks with a high school diploma or a GED had literacy levels similar to those of whites who completed 9 to 12 years of school but did not receive a high school diploma. However, the gap in literacy between blacks and whites is less for 16- to 24-year-olds than for 40- to 64-year-olds. The differences in the labor market opportunities of blacks relative to whites noted above may be related to the differences in the literacy levels of blacks and whites at similar levels of educational attainment.

Prose literacy scores of adults in 1992



SOURCE: NCES, National Adult Literacy Survey, 1993.

SUMMARY

In summary, black children are less likely to be enrolled in preprimary education and are more likely to be below modal grade for their age. Gaps in reading, mathematics, and science achievement appear as early as age 9, and do not narrow with age. Black students are more likely than whites to drop out of school, although this gap has closed over time. Black students are no less likely than whites to have their parents involved in their schooling, although black students are more likely to face a disorderly school environment than their white peers. Both black and white high school graduates follow a more rigorous curriculum than they did a decade ago, but blacks are still less likely than whites to take advanced science and mathematics courses or to study a foreign language.

Even though they have similar educational aspirations and take a similar number of academic courses as whites, blacks are less likely to make the immediate transition from high school to college. Educational attainment is positively associated with employment and earnings for blacks, although earnings and employment rates are lower for blacks than for whites with the same amount of education. Blacks have lower literacy levels than whites, both in general and at similar levels of educational attainment.

REFERENCES

- ¹U.S. Department of Commerce, Bureau of the Census, *Current Population Reports, Series P-60*, "Poverty in the United States: 1992."
- ²College Entrance Examination Board, *National Report: College-Bound Seniors, 1972-1993*.
- ³U.S. Department of Commerce, Bureau of the Census, October Current Population Survey.
- ⁴*The Condition of Education, 1994*, 34, based on High School and Beyond and National Education Longitudinal Study of 1988.
- ⁵University of Michigan, Survey Research Center, Institute for Social Research, *Monitoring the Future*, unpublished tabulations.
- ⁶National Education Longitudinal Study Transcripts, 1992.
- ⁷National Education Longitudinal Study of 1988.
- ⁸U.S. Department of Commerce, Bureau of the Census, October Current Population Surveys.
- ⁹*The Condition of Education, 1994*, 84, based on IPEDS/HEGIS surveys of degrees conferred.
- ¹⁰*The Condition of Education, 1994*, 86, based on IPEDS/HEGIS surveys of degrees conferred.
- ¹¹U.S. Department of Commerce, Bureau of the Census, March Current Population Surveys.

For more information, see the following NCES publications:

The Condition of Education, 1994. Washington, D.C.: 1994.
Digest of Education Statistics, 1994. Washington, D.C.: 1994.
Dropout Rates in the United States: 1993. Washington, D.C.: 1994.
America's High School Sophomores: A Ten Year Comparison. Washington, D.C.: 1993.

Forthcoming ***Findings from the Condition of Education:***

- No. 4: *The Educational Progress of Hispanic Students*
- No. 5: *The Educational Progress of Women*
- No. 6: *The Cost of Higher Education*