

# Internet Access Opens Opportunity to the Disadvantaged

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**Abstract:** The 2000 Federal Census reveals that Hispanics and African Americans have increased access to computers and to the Internet over the past ten years at home and at school at a faster rate than white Americans. Both state and federal efforts to hook up every American school to the Internet unexpectedly have been strikingly successful in democratizing American education, and could well pave the way to greater equality of opportunity for all Americans.

In 1900, Dr. W.E.B. DuBois, the Harvard-trained African American journalist and statesman wrote that the story of the 20<sup>th</sup> century would be the story of the color line. Then, at the height of Jim Crow laws that discriminated against Americans of African ancestry, less than 8% of Black Americans had completed high school. A century later, that figure had climbed to 76%, a whopping 920% increase. Similar increases in schooling rates are evident among Hispanic Americans, especially since World War II. In 1940, only 11% of Americans of Hispanic ancestry had a high school diploma, while at the end of the 20<sup>th</sup> century, that figure had climbed seven-fold. Over the course of the 20<sup>th</sup> century, by contrast, the high school graduation rate for white Americans increased just 29% to 89%. The steepest rise in all three of these increases came about in the period between 1975 and 2000 (see Table 1).

Table 1  
Increases in high school graduation rates by decade

Ethnic Group	1910	1920	1930	1940	1950	1960	1970	1980	1990	2000
Whites	4.10%	4.80%	5.10%	2.20%	7.10%	8.10%	5.60%	3.10%	2.10%	1.60%
African Americans	5.90%	9.20%	3.30%	-4.50%	19.40%	26.30%	28.20%	18.60%	11.90%	13.50%
Hispanics	2.20%	8.40%	4.70%	-0.50%	22.60%	19.20%	22.40%	11.40%	12.50%	11.70%

The sharp increase in the rate of high school graduation for minority Americans parallels precisely both increasing access to computers in schools and more recently to the Internet (See Table 2).

Table 2  
Increase (%) in five-year increments in selected rates

Variable	1970	1975	1980	1985	1990	1995	2000
African American High School Graduation Rates	14.30%	9.10%	8.50%	6.20%	5.80%	7.10%	6.40%
Computers Installed in Public Schools	0.20%	11.10%	9.90%	10.30%	9.10%	9.80%	7.90%
Internet Connections in Schools	0.00%	0.00%	0.00%	0.00%	0.10%	59.00%	269.00 %

While critics have charged that federal programs that provide block grants to states to underwrite the cost of acquiring and maintaining state-of-the-art computer technology in our nation's schools represent a case of mistaken educational priorities, it has now become clear that the key beneficiaries of these programs have been those populations most discriminated against in the past.

In 1974, President Nixon called for federal support for the acquisition of computers in every school in the country. In retrospect this appears to be a rather unremarkable statement; yet at that time, just as the war in Viet Nam was winding down, his call was considered an 'unrealistic pipe dream' (Tom Wicker, *The New York Times*). Albert Shanker, the President of the American Federation of Teachers, considered Nixon's planned program a 'perversion of the nation's real educational needs.' At that time of course, very few schools or businesses possessed or used computers. Those that were available were very large machines, and were used in our own bureau, the Social Security Administration, the Internal Revenue Service, the Pentagon, and in university-based research. Yet, manufacturing advances in integrated solid state circuitry, reliable power supply technology, and in nanotechnological design in the decade of the 1970s opened the way to the personal or desktop computer. By 1980, fully one-third of the nation's schools had at least one computer, and largely as a consequence of a very successful marketing effort by the Apple Computer Corporation, more than 60% of all of America's public schools had at least one Apple IIe personal computer just three years later. By the time President Clinton moved into the White House in January 1993, there were three times as many personal computers in schools as there were schools in America! (See table 3)

Table 3  
Computers per Public School Per Five-year Period

Year	Number of Computers per Public School
1970	0.001
1975	0.04
1980	0.2
1985	0.6
1990	0.9
1995	1.9
2000	3.6

The second transformation in school computing concerns the accelerating access to the Internet, especially over the past decade since the previous federal census was completed. Vice President Al Gore, in a speech to the National Education Association's annual meeting in Houston in 1993 declared that the "Clinton Administration over the next seven years aims to

wire up every school in America to the Information Superhighway of the Internet.” With support in Congress from both Democrats and Republicans, this goal was largely achieved by mid-1999. Between 1995 and 2000, the rate of installation of new computers in poor school districts, districts where a majority of Americans are either African American or Hispanic, actually outpaced the rate of installation of such computers in predominantly white school districts (See Table 4).

Table 4  
Rate of Annual Increase of Installation  
of Personal Computers in Public Schools

Social Strata	1995	1996	1997	1998	1999	2000
Wealthy school districts (see Note 1)	15.10%	22.60%	24.10%	18.10%	15.10%	8.10%
Middle class school districts (See Note 2)	26.30%	29.80%	16.30%	28.70%	31.70%	29.40%
Poor school districts (See Note 3)	12.20%	16.50%	29.80%	39.40%	43.20%	56.10%

Note 1: Median per capita income exceeds \$34,200 in 1995.

Note 2: Median per capita income between \$18,200 and \$34,200 in 1995.

Note 3: Median per capita income less than \$18,200 in 1995.

It is now clear that the gap of educational opportunity between the white majority and Hispanic and Black Americans has closed considerably, thanks to a visionary commitment by the federal government in cooperation with departments of education in every state and with local school committees to level the playing field of technological access in our nation’s schools. We can now see, a century after Dr. Dubois uttered his haunting challenge, that technological access is the key to educational opportunity, and that America has risen to and has met this challenge.

In the suburban Chicago enclave of Oak Park this past June, the *Chicago Tribune* reported the story of 56-year old Bettylou Johnson, an African American grandmother of four, who completed her high school diploma requirements on the same day that her grandson, Gerald Rivaldi, received his high school diploma. Their happy families celebrated their accomplishment with fitting graduation gifts: personal computers, each with 500 free hours of AOL Internet access.