Statistical Brief

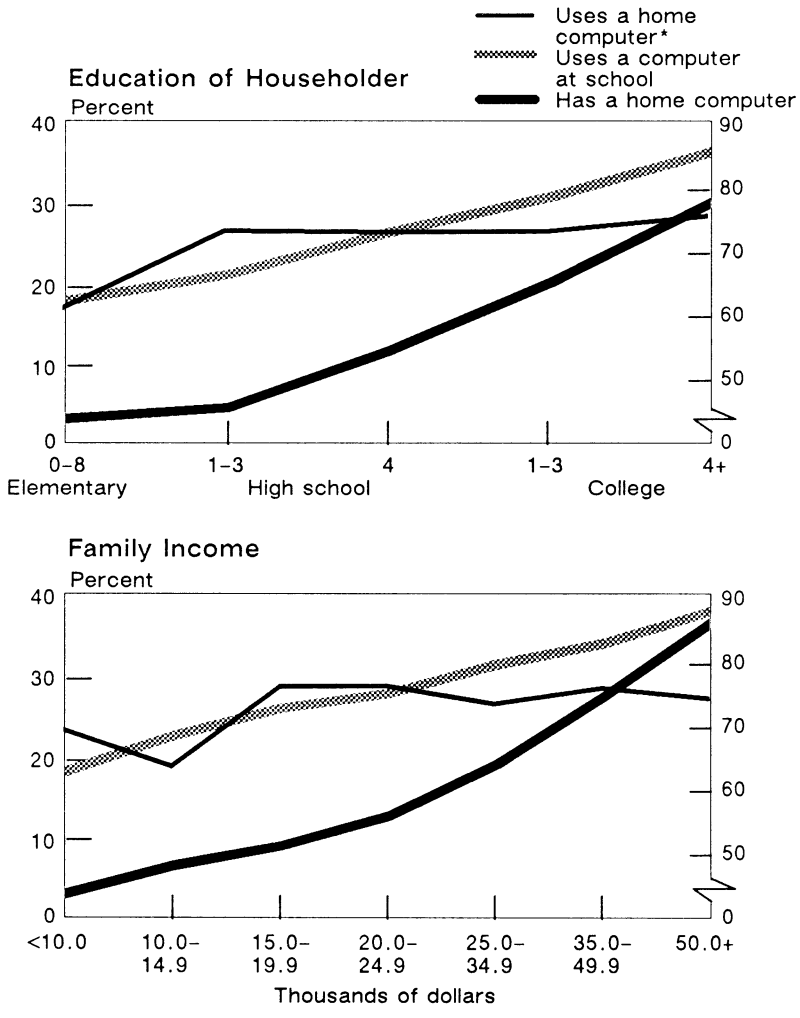
From the Current Population Survey

Who Uses a Computer?

One of the most important technological innovations of the 20th century has been the development and use of the high-speed computer. The introduction of microcomputers in the early 1970's resulted in the widespread dissemination of computers and knowledge of computer skills. For many of us, computers are an important part of our everyday lives, but until now, the extent of that involvement has been inferred only from sales data or personal observation. This Brief reports the results of the first national survey of computer access and use among children and adults, at school, at work, and at home. The information was collected in October 1984 in the Current Population Survey (CPS) under the sponsorship of the National Center for Education Statistics.

The data reported here serve as a reference point against which future changes in levels and patterns of computer use can be compared. One finding of this survey could portend a disturbing pattern. Access to computers among children was closely linked to family income, race, and education. For children at the lower end of the economic spectrum, lack of access to computers during their school years may further limit their employment opportunities as adults.

Children's Use of Computers, by Education of Householder and Family Income: 1984



*Base for percent is children who had a computer at home.

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How Home Computers are Used–

by Children:

Activity	Percent
Video games	78
Learning to use	71
School-related	35
Other uses	19

by Adults:

Activity	Percent
Video games	46
Learning to use	59
School-related	16
Household records	40
Job-related	37
Word processing	33

In the fall of 1984, 1 out of 5, or 47 million people, 3 years of age or older used a computer.

Children were more likely to have used a computer than were adults: 30 percent of all children aged 3 to 17 and 18 percent of adults used a computer at home, at school, or at work. Of those who had computers at home, three-quarters of children and one-half of adults used them. The current generation of children may well surpass their parents in computer skills. Even the youngest children are being exposed to computers: 8 percent of 3- to 5-year-olds and 26 percent of 6- and 7-year olds used a computer either at home or at school.

School and work are the primary places persons interact with computers. At school, 28 percent of students 3 to 17 years old and 31 percent of adult students used computers. At work, one-fourth of workers used them.

Owning a home computer is closely tied to a number of demographic and economic factors.

Since home computers are expensive, it is not surprising that economics play an important role in computer ownership. The probability of having a home computer increased with education of the householder, family income, and among families where the householder worked as a manager or professional. Black children and Hispanic children were far less likely to have a computer at home than were White or non-Hispanic children. But when a computer was available in the home, many of the differences became less clear or vanished altogether. Differences among racial and Hispanic categories disappeared and, with the exception of the lowest groups, differences by education and income of the householder ceased to exist. One way to correct differences in access due to economic factors is in the schools.

Differences among racial, ethnic, and income groups in computer access and use persist in schools.

While one might expect that students would have equal access to computers at school, this does not seem to be the case. Although students may have the same degree of access within any one school, schools serving poorer communities may not be as well-equipped as others. This may explain why low income and minority children were less likely than others to use computers at school. Whites and non-Hispanics reported higher levels of use than Blacks and Hispanics, and the higher the education or income of the parents, the greater the likelihood of the student using a computer at school.

Nevertheless, schools clearly do provide access to computers to students who otherwise would not encounter one. For example, 6 percent of children in households with family incomes under $20,000 a year had computers at home, but 22 percent of these children used computers at school. In contrast, 31 percent of children in households with annual incomes of $35,000 or more had home computers, and 36 percent of these children used computers at school.

Males consistently used computers more than females, except at work.

Boys were more likely to have and to use a home computer than were girls; they were also more likely to use a computer at school. Men were more likely to have and to use a home computer and to use a computer at college. But women used computers on the job more than men did: 29 percent vs. 21 percent. Varying levels of computer use by occupation and industry explain much of this difference. The two occupational groups in which most women worked were ones where computers were used the most: 68 percent of working women and 45 percent of working men were in technical, sales, and administrative support jobs or were managers or professionals. In these occupations, computer use was reported by 38 percent of women and 36 percent of men.

The data reported in this Brief suggest that large numbers of people are already exposed to computers on a routine basis. Presumably, as costs are reduced, a major barrier to near-universal use will be removed, not only at home, but in schools and in the workplace as well.

For Further Information on Computer Use

See: Current Population Reports, Series P-23, No. 155. *Computer Use in the United States: 1984.*

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This is one of a series of occasional reports providing timely data on specific policy-related issues. The Bureau of the Census conducts various demographic surveys of the U.S. population; this Brief presents data from one or more such surveys. The data are subject to various errors such as undercoverage of the population, processing errors, and respondent reporting errors. Certain measures, such as quality control programs, are implemented to reduce these errors. In addition, if each of the surveys was repeated with different samples of respondents, the results would vary from sample to sample. The results in this Brief have been tested to conform to the Bureau's statistical standards. Caution should be used when comparing these data to other data sets.