

Access Denied: Changes in Computer Ownership
and Use: 1984-1997

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This paper reports research and analysis undertaken by Census Bureau staff. It has undergone a more limited review than official Census Bureau publications. This report is released to inform interested parties of research, and to encourage discussions.

Introduction

There has been perhaps no single technological tool during the last half of this century that has touched so many lives and their social organization so quickly, than that of the personal computer. Derived from the development of large-scale computers, which became commonplace in the 1950's, the personal computer utilized advances in microelectronics to achieve immense reductions in the physical size and monetary cost of computing equipment. What filled entire buildings in the 1950's, costing millions of dollars, was reduced to the size of a single computer chip, manufactured for a few dollars, by the late 1980's. Advances in hardware and software technology took the computer from a cumbersome but dedicated unidimensional operating tool to an elegant complex task processor, capable of handling literally thousands of unique and individual operations simultaneously. In current Western society, virtually no life is left completely untouched by computer-driven technology. Computers and computing applications are tightly integrated into many aspects of daily life, and are becoming more so each day.

The transition of computing from an organizational to a personal level is in large part a technological triumph. But its acceptance and integration into daily life is a social phenomenon, one which is still not well-understood. In this paper we look at national survey data to create a picture of the diffusion and integration of computer technology into the personal lives of the U.S. population. Just as large-scale computing was initially controlled and owned by a small group of corporations, the spread of personal computing also can be shown to be highly variable across specific population subgroups.

The focus in this paper is on two distinct but related aspects of diffusion - access and use. The data utilized, collected over a 14-year period, allow us to examine the pace at which personal computing has spread across the population, and to identify those segments which are differentially affected and involved. Because the impact of computing technology has different significance for adults and children, we examine these groups separately. In the final section of the paper we examine use patterns in one area of computing that appears to have particular social significance - the growing use of the Internet.

Data

The data for this analysis comes from a series of questionnaire supplements conducted as part of the Current Population Survey (CPS). The CPS is a large nationally-representative survey of approximately 50,000 households, conducted each month by the U.S. Census Bureau. The survey has been conducted by the Census Bureau, for the Bureau of Labor Statistics, on a routine basis, since 1942. BLS's sponsorship stems from the fact that the CPS is the tool by which the government measures the monthly unemployment rate in the United States. As such, the CPS has been designed to investigate the employment circumstances of the members of U.S. households.

Over time, the CPS has come to be used as a tool for measuring a wide variety of economic, demographic and social conditions of the U.S. population on a recurring basis. Routine reporting on topics such as income, poverty, job searches, health insurance, family structure, migration patterns, educational attainment, school enrollment and voting turnout are but a few examples of the many issues CPS has routinely come to address. In most Octobers since the late 1940's, a special supplement has been added to the survey to determine the school-

going population and its' characteristics. The school enrollment supplement is cosponsored by the Census Bureau and the National Center for Education Statistics (NCES). Issues covered in this supplement touch not only on basic issues of school enrollment (part-time/full-time status; two-year/four-year college), but occasionally address other relevant issues on education. In developing the supplement for 1984, we discussed the possibility of including questions on computer ownership and use with NCES. The supplement developed for and administered as part of the October 1984 CPS has since been repeated in October 1989, 1993 and 1997. While each supplement has been modified slightly to reflect emerging topics regarding computers, the basic questions assessing ownership and use have remained fairly constant, thus providing a unique time-series of data points that allow us to examine changes over the 14-year period.

Questions in the supplement address both home ownership and use (see Attachment A.) Other items collect information about use at school and at work. Follow-up items focus on the degree of involvement, and the kinds of specific uses computers are used for. Census Bureau reports were issued for the 1984 and 1989 collections (U.S. Census Bureau, Robert Kominski, Current Population Reports, Series P23, No. 155, *Computer Use in the United States: 1984*, U.S. Government Printing Office, Washington, D.C., 1988., and U.S. Census Bureau, Current Population Reports, Series P-23, No. 171, *Computer Use in the United States: 1989*, U.S. Government Printing Office, Washington, D.C., 1991). Detailed tabulations only were issued for 1993 (PPL-22, *Computer Use in the United States*, <http://www.census.gov/population/www/socdemo/computer/comp1.txt>). A report for the 1997 data collection is in print preparation at this time. Public use data files of all four surveys are available from the Census Bureau.

The strategy of analysis in this paper is to focus on several of the basic dimensions in the data. First, we examine changes over time in the levels of home computer access (“who has them?”) and use. Then, because school and work constitute two other important access and use points, we examine the roles of these venues in facilitating use, for children and adults respectively. In each of these analyses we concentrate on critical factors underlying variation in access/use. Finally, we conclude by looking at data from our most recent data point to address a topic of most recent emerging interest - access to the Internet.

Analysis

Overview of the Trends

Table 1 and Figure 1 portray the dramatic growth of computer ownership and use during the period 1984-1997. In the fall of 1984, just 7.9 percent of U.S. households reported that they owned a home computer; by 1997 this had more than quadrupled to 36.6 percent. Patterns of access and use at the individual level reflect these general household patterns. About half of all children ages 3 to 17 had access to a computer at home by 1997, as did about 40 percent of all adults (ages 18+). Growth rates are even more impressive at school (for children) and work (for adults). About 71 percent of children in school had some use of a computer; while 50 percent of working adults report that they now use a computer in their job.

Considering all three venues (home, school and work), three-fourths of children reported they used a computer somewhere in 1997, up from just about a third, fourteen years earlier. For adults, there is also an impressive rate of growth, but at lower levels. While in 1984 just 18 percent of adults had reported they used a computer somewhere, by 1997 this level had risen to

47 percent. For the entire population ages 3 and older, in 1997 over 53 percent of all persons reported using a computer somewhere in their daily life.

Household Access

Table 2 details variation in the patterns of computer access in U.S. homes, and some changes that have occurred over time. It is clear from table 2 that at all four measurement points in time, computer ownership is strongly related to family income. That is, affordability is a serious hurdle for many households. Even in 1997, fewer than 1 in 4 households with family incomes below \$35,000 owned a computer, an income threshold which reaches far into the 3rd quintile of all households.

Other variations in household ownership are not quite as dramatic, but are still large, even in 1997. People of white and ‘other’ races have much higher levels of ownership than blacks or Hispanics. Education is also a strong correlate of ownership, with over 60 percent of households where the reference person has a Bachelor’s degree or higher. Age differences have flattened considerably; household with a reference person between the ages of 25 and 54 all have similar probabilities of ownership (in the 40-49 percent range). Householders either older or younger than this have significantly lower likelihoods. In general, the data indicate that while the *relative* level of difference has dampened over time, the *absolute* level of difference has in many cases actually increased.

Use by Children

Computer use by children has grown dramatically during the period of time covered by the four surveys. Where in 1984 just 30 percent of children ages 3-17 used a computer in some location, by 1997 this level had risen to about 75 percent. Both Table 3 and Figure 2 illustrate this growth, and the dimensions along which it has occurred. Across age groups for youths there is also a consistent level of use. Only at the very youngest ages (3-6) are usage levels substantially below the remainder of the youth population. Even for the very youngest children, however, there has been sizable growth over time. In the 1984 survey, just 8 percent of 3-5 year-olds used a computer someplace; today the level is nearly five times that at 38 percent. In 1984, white children were about twice as likely as blacks or Hispanics to use a computer; in 1997 while there were still real differences favoring whites, the *relative* difference was much smaller. Income differences still persist: in 1984 children from the lowest family income group had usage rates of about 16 percent, while those from the highest were around 50 percent. While usage has increased for all groups, there is still a sizable difference: in 1997 the lowest income children had a rate around 57 percent, while those from the highest incomes had a rate of 90 percent.

The role of schools in acting as an “equalizing” force for children should not be discounted. As Figure 2 indicates, through 1993 it appears that access and use for children in schools was rising at a faster rate than for children at home. Only since 1993 has the rate of growth for home use appeared to have risen to that of use in schools. Nevertheless, levels of school use for children are over 20 percentage points higher than those for children’s use at home.

Table 4 focuses on the use of computers in school for children. In schools alone, 70 percent of all children had some kind of use of computers in 1997, over twice the access level in 1984. While demographic and socioeconomic differentials exist, they are considerably dampened from what is observed for home use levels. For example, while there are racial differences, they are on the order of fewer than 10 percentage points when comparing whites, blacks and persons of other races. Most importantly, the effect of family income appears to be considerably less critical than at home. Differences in school use range from 62 percent for the children from the lowest family income group, to 75 percent for those from the highest income group. In short, schools provide at least some point of access for many people who would otherwise have no access, and do it in a more equitable fashion than in the home arena, as one might expect. Nevertheless, the data show that even after 15 years of computer dissemination, there are still some differences in usage levels even in schools.

Use by Adults

As with children, the levels of computer usage by adults have risen strongly over the four survey administrations we have conducted. Table 5 shows that in 1984 just 18 percent of the adult population said they were using a computer someplace - for many of these people, work was the primary - or sole - point of access. By 1997, 47 percent -- nearly half of adults -- said they used a computer someplace - at home, work or school. As with children's trends, we can see that growth has occurred across all segments of the population, and that some differentials have moderated over time. For example, in the 1984 survey, usage rates for persons 25-44 were about 25 percent; for older ages there was a serious drop off - just 1 percent of persons ages 65 and

older reported using a computer *anywhere*. By 1997 sizable growth and change had occurred - 58 percent of those 25-44 used a computer, but nearly 50 percent of those 45-64 did so as well. While use by the elderly was still low at 10 percent, this is a sizable relative increase from the level in 1984.

Interestingly, there is no difference between adult men and women in the level of overall computer use. This has been true almost from the start of our measurements in 1984. However, as we shall see in the data on use at work, there are probably major differences across locales, which act to mask the estimates that consider use in all places. Race differences are still quite substantial. White and black usage levels have risen about three-fold, but this means that the relative difference between the groups is about the same, with whites about 40 percent more likely than blacks to use a computer.

Across education groupings, usage levels have risen for all persons. In 1984, individuals with a Bachelor's degree or more were about 8 times as likely as those with some high school to be using a computer - by 1997 this ratio has dropped to less than 5 times, a large improvement, until one recognizes that the current absolute levels of use are 76 and 16 percent for the two groups.

The pattern across income groupings is a bit less clear. While relative increases at the very lowest income groups indicate change in the neighborhood of 3 or 4 times the 1984 levels, for most middle income groups the increase is somewhat less than a doubling from the first time period, and for the highest income group it is about twice the original level.

Figure 3 shows the levels of use and access across time for adults in various contexts. The data indicate growth in all areas, with perhaps an additional increase in overall use since 1993,

coinciding perhaps with home ownership and use. School use affects only a small proportion of all adults. The trend line for use at work is perhaps most interesting. Still on the increase, but perhaps at a slower rate than in previous years, the gap between home use and work use levels among all adults has declined noticeably, separated now only by 3.8 percent, compared to a 9.6 percent difference in 1984.

While home use for adults does appear to be on a significant rise, it is clear that for many people, the main point of access is in the workplace. About a quarter of all workers in 1984, and about half in 1997, use a computer in their job. Gender differentials are quite sizable, and have been so during all four surveys, actually increasing over time, such that women currently have about a 12 percentage point advantage over men in computer use in the workplace.

Usage levels for workers across ages reveal an interesting pattern. The level of use for persons ages 25-64 are fairly high, exceeding 50 percent. But while usage levels for older workers exceeds that seen for the elderly in general (24 vs 10 percent), the level of use at work for young people (18-25) is substantially less than their level at home (37 vs 58 percent). These data probably tell us far more about the kinds of jobs held by persons in various age groups than the actual need or desire to use a computer in the job. As Table 6 shows, there are still very wide differences across various occupational categories in the levels of computer use. Most of the use, and most of the growth, occurs in occupation such as managerial, professional technical or administrative jobs. Positions in the service, craft, and laborer occupations require relatively little use of computers. A more thorough multivariate analysis is needed to disentangle the significant interactions at play between occupations and the characteristics of the people in these jobs.

Use of the Internet

Historically, most applications of computers have been dedicated, single-activity, single-user functions. Programming languages and application tools (such as word processors, spreadsheets) generally require a single user to “interact” with the functional capacity of the computer they are using to achieve some desired end result. The development of large-scale electronic mail systems, multi-user applications, and the interconnected wide-area network of computers for them to ride on, is the realization of the environment we have come to know simply as the Internet. In its current configuration, the Internet is host to literally millions of computers across the world, allowing users to access information on virtually any topic. During the past few years, use of the Internet has accelerated even faster, as a new use, focusing on the buying and selling of goods and services, has emerged. “E-commerce”, as this phenomenon has been tagged, could quite possibly be the leading form of financial transactions within the next decade. In short, the Internet has rapidly become a critical, not optional, tool for many people in their day-to-day activities.

In the 1997 survey we were able to ask questions about the Internet for the first time. (Previous surveys had asked about activities such as “email” in the uses questions, but not the Internet specifically.) Persons were asked about Internet use at home, work, and school. These data indicate that most of the differentials that exist in computer use are also present in Internet use. Table 7 shows that about 23 percent of all children used the Internet someplace - home or school. Home use levels (22 percent of those with computers) are not much higher than school use levels (17 percent of those in school). Strong differences are apparent in terms of both race

and family income; however, there is virtually no gender difference. Strong gradations in use across age groups reflect the nature of the Internet - high levels of interactive and searching activity are not likely to be something that small children can routinely undertake. Questions about specific Internet uses confirm this notion: the top two uses among children are “email” (58 percent) and “chatrooms” (32 percent).

The data for adults are equally as informative (Table 8). Overall, about 22 percent of all adults use the Internet somewhere - home, work or school. Interestingly, this is about the same level of use that children demonstrate. Unlike the actual use of computers, which is much higher among children (74 vs. 47 percent), it appears that at this point in time the Internet is more equally accessed by adults and children. Nevertheless, among adults there are sizable differences, much as there are for computer use itself. Men hold about a 5 percentage point advantage in use (25 vs 20 percent). Age data point to younger persons as much more likely users. Whites are twice as likely as blacks or Hispanics to be on the Internet. As with computer use, very strong differences across educational and income levels are clear. Perhaps most importantly, of those adults with computers at home, a third - 35 percent are using the Internet; work use remains relatively low - just 17 percent of those using a computer at work are also using the Internet. The “uses” question, while somewhat limited, also reveals one interesting result--perhaps a harbinger of things to come. Even in 1997, 15 percent of adults using the Internet at home said one of their uses was for “shopping”.

Summary

The impact of technology on human society can be far reaching and pervasive. Just a century ago, the automobile was in its infancy, and most major cities struggled to deal with the large number of horses and the waste they produced. Today, much of the U.S. social organization has been structured around, and presumes the presence of, automobiles for virtually everyone. Persons without automobiles are at the mercy of public transportation (or self-propulsion). In short, people without personal vehicles lead very different lives than those with them.

A different technology has taken central stage in the back half of this century. In less than two decades, personal computing devices have gone from being interesting playthings of the technically capable and financially able, to practical, useful and sometimes essential tools of the general public. The trend data discussed in this paper, and supported by many other data collections all point to this inevitable conclusion.

Nevertheless, the march forward into a “computer facile and literate” society is not one in which all persons participate equally. Despite sizable reductions in cost, and considerable improvements in technical efficiency, not all people have access to, or use of, computers. A piece of this ‘unequal’ access may be due to choice alone, an issue not examined in these data. However, despite improvements in differentials from our first survey measurement in 1984 there are still serious gaps in computer ownership and use, especially across racial, age, economic and educational levels. A multivariate analysis of these data might work well to clarify these differences. Only in terms of gender do gaps appear small or nonexistent. These gaps are closing, but not at an especially rapid pace. Gaps among children, while not as large, still remain. Finally,

in one “leading edge” indicator of technology - use of the Internet - it is clear that many of the gaps still exist.

The new and different of today may well become the routine of tomorrow. With regard to computing technology this seems to be somewhat likely to be the case. Those late starting the race will find it difficult to catch up; still others may not be given the opportunity to enter the race at all.

Table 1. Levels of Access and Use of Computers: 1984, 1989, 1993, 1997.

(In percent)

Access, use, and Age	1984	1989	1993	1997
Households with computers.....	7.9	14.4	22.8	36.6
3 to 17 years:				
Access to a home computer.....	15.3	24.2	31.9	49.7
Use home computer/1.....	74.2	71.1	74.7	82.4
Use computer at school/2.....	28.0	46.0	60.6	70.8
Use computer at home or school.....	30.2	46.0	58.5	74.4/4
18 years and over:				
Access to a home computer.....	9.1	17.3	25.6	40.7
Use home computer/1.....	53.3	58.4	65.6	70.9
Use computer at school/2.....	30.8	43.6	53.8	62.3
Use computer at work/3.....	24.6	36.8	45.8	49.8
Use computer at home, school, or work	18.3	28.1	36.0	47.1

1/Among people with a computer at home.

2/Among those enrolled in school.

3/Among employed individuals.

4/1997 figure includes 62,000 at work users.

Source: U.S. Census Bureau, Current Population Survey, October 1984, 1989, 1993, 1997.

Table 2. Households With Computers by Selected Characteristics of the Reference Person: October 1984, 1989, 1993, 1997
(Numbers in thousands)

Characteristic	1997			1993			1989			1984		
	Total Households	Computer in Household		Total Households	Computer in Household		Total Households	Computer in Household		Total Households	Computer in Household	
	N	N	%	N	N	%	N	N	%	N	N	%
All Households	102,158	37,410	36.6	97,764	22,273	22.8	92,960	13,406	14.4	86,311	6,829	7.9
FAMILY INCOME												
Under \$5 000	4,417	729	16.5	5,337	364	6.8	7,509	438	5.8	9,512	154	1.6
5 000-9 999	8,369	830	9.9	10,833	549	5.1	10,704	396	3.7	12,709	218	1.7
10 000-14 999	8,921	1,149	12.9	10,777	864	8.0	10,973	496	4.5	12,429	415	3.3
15 000-19 999	6,414	1,113	17.4	7,738	909	11.7	7,484	598	8.0	9,774	519	5.3
20 000-24 999	7,658	1,760	23.0	8,384	1,255	15.0	8,099	782	9.7	8,541	692	8.1
25 000-34 999	13,557	4,295	31.7	14,076	2,930	20.8	14,206	2,070	14.6	12,932	1,518	11.7
35 000-49 999	14,305	6,527	45.6	14,220	4,381	30.8	12,899	2,899	22.5	9,221	1,570	17.0
50 000-74 999	14,375	8,714	60.6	11,342	5,131	45.2	8,772	2,770	31.6	4,484	1,006	22.4
75 000+	11,959	9,072	75.9	7,544	4,543	60.2	4,821	2,114	43.8	1,919	424	22.1
Not reported	12,184	3,221	26.4	7,512	1,348	17.9	7,493	844	11.3	4,790	314	6.6
AGE												
Under 25 years	5,599	1,565	28.0	4,976	907	18.2	5,165	439	8.5	5,723	291	5.1
25-34 years	19,178	7,677	40.0	19,629	4,598	23.4	20,864	3,018	14.5	19,630	1,852	9.4
35-44 years	23,855	11,700	49.0	22,432	7,164	31.9	20,049	4,714	23.5	16,951	2,620	15.5
45-54 years	19,391	9,313	48.0	16,988	5,693	33.5	14,394	3,164	22.0	12,589	1,279	10.2
55+ years	34,136	7,155	21.0	33,739	3,911	11.6	32,487	2,071	6.4	31,418	788	2.5
RACE												
White Not Hispanic	77,455	31,614	40.8	76,717	19,284	25.1	74,051	11,853	16.0	69,029	6,055	8.8
Black Not Hispanic	12,240	2,367	19.3	11,313	1,284	11.3	10,330	679	6.6	9,353	353	3.8
Other Not Hispanic	3,658	1,719	47.0	2,880	874	30.3	2,535	447	17.6	2,003	168	8.4
Hispanic	8,804	1,710	19.4	6,854	831	12.1	6,044	427	7.1	5,926	253	4.3
EDUCATIONAL ATTAINMENT												
Elementary: 0-8 years	7,740	526	6.8	8,712	265	3.0	10,008	189	1.9	11,687	108	0.9
Some H.S.: no diploma	10,251	1,113	10.9	10,499	567	5.4	12,092	548	4.5	12,056	282	2.3
H.S. Diploma/GED	32,488	8,360	25.7	32,737	4,415	13.5	30,613	2,783	9.1	27,800	1,643	5.9
Some College	26,461	11,482	43.4	23,258	6,438	27.7	19,462	3,516	18.1	16,851	1,908	11.3
Bachelors degree or more	25,217	15,928	63.2	22,557	10,588	46.9	20,785	6,370	30.6	17,543	2,880	16.4
Not Reported	0	0		0	0		0	0		375	8	2.1
HOUSEHOLDS:												
Married Couple with Children <18	26,250	15,018	57.2	22,325	7,945	35.6	22,325	5,295	23.7	25,270	3,904	15.4
Male Hholder with Children <18	2,005	612	30.5	1,608	290	18.0	1,165	188	16.1	975	67	6.9
Female Hholder with Children <18	8,819	2,208	25.0	7,193	870	12.1	6,595	600	9.1	6,419	432	6.7
Family Hhld without Children <18	32,970	12,010	36.4	36,650	8,874	24.2	35,374	5,223	14.8	29,800	1,534	5.1
Non-family Households	32,114	7,562	23.5	29,988	4,294	14.3	27,499	2,100	7.6	23,847	893	3.7
EMPLOYMENT												
Employed	68,278	31,068	45.5	64,885	18,919	29.2	63,127	11,856	18.8	58,334	6,197	10.6
Unemployed	2,488	632	25.4	3,252	644	19.8	2,251	209	9.3	3,035	152	5.0
Not in Labor force	31,392	5,709	18.2	29,627	2,710	9.1	27,581	1,341	4.9	24,941	480	1.9
REGION												
Northeast	19,887	6,999	35.2	19,892	4,474	22.5	19,358	2,993	15.5	18,455	1,571	8.5
Midwest	24,075	8,796	36.5	23,607	5,175	21.9	22,755	3,073	13.5	21,619	1,675	7.7
South	36,319	12,115	33.4	33,821	6,683	19.8	32,022	4,119	12.9	29,158	2,016	6.9
West	21,878	9,498	43.4	20,443	5,941	29.1	18,825	3,221	17.1	17,080	1,567	9.2

Source: U.S. Census Bureau, Current Population Survey, October 1984, 1989, 1993, 1997.

Table 3. Use of Computers at Home, School, and Work/1 by People 3 to 17 Years, October 1984, 1989, 1993, 1997
(Numbers in thousands. Civilian noninstitutional population.)

Characteristic	1997			1993			1989			1984		
	Total 3-17 years	Use computer in any locale	%	Total 3-17 years	Use computer in any locale	%	Total 3-17 years	Use computer in any locale	%	Total 3-17 years	Use computer in any locale	%
	N	N	%	N	N	%	N	N	%	N	N	%
TOTAL	59,890	44,577	74.4	55,827	33,659	58.5	52,667	24,216	46.0	51,482	15,542	30.2
GENDER												
Male	30,630	22,845	74.6	29,602	16,671	58.3	26,989	12,540	46.5	26,285	8,384	31.9
Female	29,260	21,732	74.3	27,224	15,897	58.7	25,678	11,676	45.5	25,197	7,157	28.4
AGE												
3 to 5 years	12,121	4,603	38.0	11,954	2,581	21.6	11,039	1,492	13.5	10,611	893	8.4
6 years	4,108	2,996	72.9	3,794	2,197	57.9	3,713	1,569	42.3	3,275	730	22.3
7 years	4,263	3,478	81.6	3,842	2,543	66.2	3,709	1,885	50.8	3,254	935	28.7
8 years	3,950	3,331	84.3	3,727	2,758	74.0	3,585	2,060	57.5	3,179	1,141	35.9
9 years	4,013	3,503	87.3	3,705	2,770	74.8	3,624	2,224	61.4	3,198	1,298	40.6
10 years	3,970	3,480	87.6	3,772	2,895	76.8	3,574	2,315	64.8	3,160	1,383	43.8
11 years	3,871	3,366	86.9	3,806	2,828	74.3	3,475	2,180	62.8	3,236	1,429	44.2
12 years	3,920	3,444	87.9	3,593	2,563	71.3	3,440	2,114	61.5	3,356	1,429	42.6
13 years	3,861	3,324	86.1	3,798	2,724	71.7	3,190	1,962	61.5	3,648	1,548	42.4
14 years	3,869	3,272	84.6	3,590	2,931	66.6	3,298	1,701	51.6	3,851	1,249	32.4
15 years	3,958	3,324	84.0	3,502	2,233	63.8	3,274	1,556	47.5	3,539	1,130	31.9
16 years	3,946	3,210	81.3	3,465	2,182	63.0	3,313	1,539	46.5	3,554	1,142	32.1
17 years	4,041	3,247	80.4	3,280	1,994	60.8	3,433	1,618	47.1	3,619	1,234	34.1
RACE												
White	46,946	35,941	76.6	44,242	27,178	61.4	42,262	20,662	48.9	41,915	13,782	32.9
Black	9,720	6,289	64.7	8,836	4,031	45.6	8,212	2,622	31.9	7,721	1,254	16.2
Other	3,225	2,346	72.7	2,749	1,450	52.7	2,193	932	42.5	1,846	505	27.4
HISPANIC ORIGIN												
Hispanic	8,758	5,087	58.1	6,569	2,991	45.5	5,734	1,853	32.3	4,266	717	16.8
Non-hispanic	51,133	39,490	77.2	49,257	29,668	60.2	46,933	22,363	47.7	47,216	14,825	31.4
HOUSEHOLDER EDUCATIONAL ATTAINMENT												
Elementary: 0-8 years	3,816	1,995	52.3	3,660	1,474	40.3	4,821	1,284	26.6	5,680	908	16.0
Some H.S.: no diploma	6,372	3,735	58.6	6,413	2,993	46.7	6,475	2,207	34.1	6,807	1,348	19.8
H.S. Diploma/GED	19,291	13,900	72.1	19,014	10,369	54.5	19,790	8,594	43.4	19,516	5,431	27.8
Some College	16,669	13,005	78.0	14,292	8,842	61.9	10,095	5,248	52.0	9,367	3,327	35.5
Bachelors degree or more	13,743	11,943	86.9	12,418	8,964	72.2	11,485	6,883	59.9	10,112	4,527	44.8
HOUSEHOLD SIZE												
1-3 people	12,749	9,373	73.5	11,791	6,528	55.4	11,034	4,840	43.9	10,396	2,858	27.5
4-5 people	36,338	27,837	76.6	33,805	20,608	61.0	32,044	15,450	48.2	30,413	9,963	32.8
6-7 people	8,457	5,975	70.6	8,104	4,561	56.3	7,837	3,342	42.7	8,244	2,201	26.7
8 or more people	2,346	1,392	59.4	2,127	962	45.2	1,752	584	33.3	2,429	520	21.4
FAMILY INCOME												
Under \$10,000	6,617	3,835	58.0	7,813	3,331	42.6	8,639	2,710	31.4	10,733	1,751	16.3
10,000-14,999	4,430	2,745	62.0	5,183	2,498	48.2	5,141	1,874	36.5	6,373	1,352	21.2
15,000-19,999	3,285	2,068	62.9	3,760	1,991	52.9	8,415	3,492	41.5	5,880	1,558	26.5
20,000-24,999	3,970	2,626	66.2	4,531	2,398	52.9	4,205	2,058	48.9	5,715	1,712	30.0
25,000-34,999	7,616	5,524	72.5	8,180	4,825	59.0	8,466	4,216	49.8	9,473	3,414	36.0
35,000-49,999	9,606	7,502	78.1	9,593	6,096	63.5	8,615	4,807	55.8	6,831	2,933	42.9
50,000-74,999	10,261	8,624	84.1	8,395	6,029	71.8	2,576	1,519	59.0	4,345	2,168	49.9
75,000+	8,662	7,795	90.0	5,136	3,922	76.4	3,236	2,219	68.6	NA	NA	NA
Not reported	5,444	3,857	70.8	3,236	1,569	48.5	3,374	1,322	39.2	2,133	654	30.7
REGION												
Northwest	11,214	8,331	74.3	10,377	6,067	58.5	9,586	4,707	49.1	9,970	3,383	33.9
Midwest	14,091	11,014	78.2	13,897	8,487	61.1	13,245	6,568	49.6	13,289	4,684	35.2
South	20,317	15,017	73.9	18,958	10,840	57.2	18,369	7,795	42.4	17,930	4,270	23.8
West	14,269	10,216	71.6	12,595	7,265	57.7	11,464	5,146	44.9	10,924	3,209	31.1

1/Includes people 15 to 17 years

'NA'=Not applicable. 1984 income figures have a maximum category of \$50,000+.

Source: U.S. Census Bureau, Current Population Survey, October 1984, 1989, 1993, 1997.

Table 4. Use of Computers at School by People 3 to 17 Years: October 1984, 1989, 1993, 1997
(Numbers in thousands. Civilian noninstitutional population.)

Characteristic	1997			1993			1989			1984		
	Total in school	Use computer in school		Total in school	Use computer in school		Total in school	Use computer in school		Total in school	Use computer in school	
	N	N	%	N	N	%	N	N	%	N	N	%
TOTAL	55,033	38,964	70.8	50,035	28,848	60.6	47,066	20,664	46.0	45,588	12,284	28.0
GENDER												
Male	28,120	20,046	71.3	25,726	14,766	60.3	24,118	10,607	46.0	23,225	6,485	29.0
Female	26,913	18,918	70.3	24,307	14,081	60.8	22,948	10,057	46.0	22,363	5,799	27.0
AGE												
3 to 5 years	8,118	2,833	34.9	6,817	1,671	24.5	6,235	868	14.4	5,711	354	6.4
6 years	4,039	2,726	67.5	3,756	1,974	54.9	3,653	1,386	39.2	3,229	532	16.9
7 years	4,210	3,276	77.8	3,817	2,368	64.9	3,667	1,711	48.1	3,231	757	24.0
8 years	3,884	3,127	80.5	3,706	2,619	72.7	3,564	1,884	54.2	3,143	922	30.1
9 years	3,989	3,339	83.7	3,687	2,625	73.8	3,601	2,075	59.5	3,166	1,120	36.4
10 years	3,931	3,325	84.6	3,784	2,757	76.9	3,552	2,142	62.4	3,134	1,207	39.7
11 years	3,854	3,126	81.1	3,792	2,652	72.9	3,456	1,974	59.0	3,220	1,237	39.5
12 years	3,903	3,142	80.5	3,584	2,345	67.9	3,413	1,847	56.1	3,338	1,189	36.4
13 years	3,829	3,050	79.7	3,775	2,412	66.5	3,177	1,669	54.0	3,623	1,270	36.0
14 years	3,824	2,879	75.3	3,569	2,044	60.7	3,279	1,381	43.7	3,778	905	25.7
15 years	3,917	2,840	72.5	3,443	1,904	59.4	3,214	1,218	42.8	3,451	823	25.5
16 years	3,776	2,649	70.1	3,336	1,813	58.9	3,179	1,192	41.2	3,374	919	29.1
17 years	3,757	2,652	70.6	3,004	1,864	60.6	3,075	1,316	47.2	3,190	1,040	35.3
RACE												
White	43,040	31,065	72.2	39,736	23,799	62.7	37,756	17,463	48.2	37,124	10,827	30.3
Black	9,016	5,933	65.8	7,882	3,786	50.9	7,387	2,416	35.1	6,838	1,032	15.9
Other	2,977	1,966	66.0	2,415	1,263	56.8	1,922	785	43.6	1,626	426	27.8
HISPANIC ORIGIN												
Hispanic	7,649	4,728	61.8	5,629	2,829	52.7	4,868	1,724	37.5	3,638	634	18.2
Non-hispanic	47,384	34,236	72.3	44,404	26,018	61.6	42,198	18,840	47.0	41,950	11,650	28.9
HOUSEHOLDER EDUCATIONAL ATTAINMENT												
Elementary: 0-8 years	3,341	1,901	56.9	3,157	1,438	48.3	4,090	1,250	32.8	4,860	842	18.2
Some H.S.: no diploma	5,610	3,606	64.3	5,472	2,870	55.6	5,641	2,071	38.5	5,818	1,194	21.5
H.S. Diploma/GED	17,664	12,585	71.2	16,825	9,579	59.1	17,597	7,691	45.7	17,169	4,432	26.7
Some College	15,458	11,248	72.8	12,917	7,670	62.2	8,168	4,355	49.8	8,419	2,529	31.1
Bachelors degree or more	12,959	9,624	74.3	11,542	7,274	66.6	10,571	5,281	52.1	9,323	3,286	36.7
HOUSEHOLD SIZE												
1-3 people	11,709	8,419	71.9	10,458	5,851	59.1	9,766	4,202	45.5	9,062	2,268	26.0
4-5 people	33,484	23,993	71.7	30,513	7,998	61.6	28,740	13,051	47.4	27,912	7,848	30.0
6-7 people	7,783	5,271	67.7	7,258	4,142	60.8	7,024	2,884	43.1	7,323	1,746	25.0
8 or more people	2,056	1,281	62.3	1,804	856	50.0	1,536	527	36.0	2,091	423	21.2
FAMILY INCOME												
Under \$10,000	5,815	3,664	63.0	6,573	3,272	52.3	7,410	2,586	36.8	8,927	1,581	18.5
10,000-14,999	3,934	2,630	66.8	4,478	2,419	56.6	4,447	1,763	41.4	5,419	1,200	23.0
15,000-19,999	2,944	1,971	67.0	3,293	1,890	60.3	7,297	3,150	44.9	5,107	1,304	26.4
20,000-24,999	3,505	2,381	67.9	3,980	2,210	57.0	3,756	1,793	49.2	5,046	1,373	28.2
25,000-34,999	6,934	4,971	71.7	7,259	4,331	62.1	7,626	3,592	48.8	8,540	2,640	31.8
35,000-49,999	8,866	6,432	72.5	8,778	5,289	62.5	7,977	3,861	50.3	6,426	2,152	34.4
50,000-74,999	9,644	7,192	74.6	7,843	4,892	65.0	2,431	1,163	50.1	NA	NA	NA
75,000+	8,322	6,242	75.0	4,924	3,142	67.7	3,083	1,660	55.9	4,147	1,521	38.4
Not reported	5,067	3,481	68.7	2,906	1,402	56.4	3,040	1,096	41.5	1,977	512	29.5
REGION												
Northeast	10,438	7,237	69.3	9,382	5,275	59.9	8,674	4,012	49.1	8,867	2,641	30.8
Midwest	13,061	9,772	74.8	12,491	7,608	63.8	11,859	5,710	50.0	11,788	3,845	33.9
South	13,654	13,415	71.9	16,974	9,779	60.2	16,516	6,651	42.1	15,840	3,238	21.3
West	12,879	8,541	66.3	11,186	6,187	57.9	10,018	4,291	45.0	8,993	2,539	28.4

'NA'=Not applicable. 1984 income figures have a maximum category of \$50,000+.

Source: U.S. Census Bureau, Current Population Survey, October 1984, 1989, 1993, 1997.

Table 5. Use of Computers at Home, School, and Work by People 18 Years and Older: October 1984, 1989, 1993, 1997
(Numbers in thousands. Civilian noninstitutional population.)

Characteristic	1997			1993			1989			1984		
	Total 18+ years	Use computer in any locale	%	Total 18+ years	Use computer in any locale	%	Total 18+ years	Use computer in any locale	%	Total 18+ years	Use computer in any locale	%
	N	N	%	N	N	%	N	N	%	N	N	%
TOTAL	195,689	92,240	47.1	187,405	67,397	36.0	180,123	50,668	28.1	169,786	31,099	18.3
GENDER												
Male	93,897	44,089	47.0	89,484	32,367	36.2	85,543	24,266	28.4	80,240	15,605	19.4
Female	101,792	48,151	47.3	97,921	35,031	35.8	94,581	26,402	27.9	89,846	15,494	17.3
AGE												
Under 25 years	24,929	14,496	58.1	24,100	10,790	44.8	25,261	9,029	35.7	28,031	6,482	23.1
25-44 years	83,275	48,000	57.6	81,754	37,212	45.5	79,233	29,684	37.5	70,850	18,412	26.0
45-64 years	55,369	26,545	47.9	50,259	17,867	35.5	46,324	11,181	24.1	44,298	5,947	13.4
65+ years	32,115	3,199	10.0	31,292	1,529	4.9	29,306	774	2.6	26,607	259	1.0
RACE												
White	164,121	80,161	48.8	158,927	59,532	37.5	154,236	45,264	29.4	146,693	27,940	19.0
Black	22,805	7,819	34.3	21,361	5,335	25.0	20,007	3,673	18.4	18,403	2,259	12.3
Other	8,764	4,260	48.6	7,117	2,531	35.6	5,881	1,732	29.5	4,690	900	12.3
HISPANIC ORIGIN												
Hispanic	19,459	5,625	28.9	15,103	3,322	22.0	13,301	2,246	16.9	9,362	1,091	11.7
Non-hispanic	176,231	86,615	49.1	172,302	64,075	37.2	166,823	48,422	29.0	160,424	30,008	18.7
EDUCATIONAL ATTAINMENT												
Elementary: 0-8 years	13,415	529	3.9	14,609	221	1.5	18,249	212	1.2	20,655	183	0.9
Some H.S.: no diploma	20,374	3,220	15.8	20,044	1,964	9.8	21,141	1,572	7.4	21,888	1,015	4.6
H.S. Diploma/GED	65,968	22,998	34.9	66,278	16,607	25.1	70,204	15,509	22.1	67,440	10,102	15.9
Some College	52,324	32,222	61.6	48,152	24,316	50.5	35,617	15,078	42.3	30,952	9,130	29.5
Bachelors degree or more	43,609	33,271	76.3	38,322	24,289	69.4	34,913	18,298	52.4	28,851	10,669	37.0
HOUSEHOLD SIZE												
1-3 people	129,515	56,887	43.9	124,765	42,035	33.7	118,759	31,553	26.6	108,407	18,714	17.3
4-5 people	55,250	31,138	56.4	51,999	22,328	43.1	50,948	16,820	33.0	49,270	10,658	21.6
6-7 people	8,754	3,540	40.4	8,637	2,622	30.4	8,613	2,040	23.7	9,589	1,458	15.2
8 or more people	2,170	675	31.1	2,004	352	17.6	1,803	255	14.2	2,519	269	10.7
REGION												
Northeast	38,340	17,478	45.6	38,368	13,348	34.3	38,138	10,305	27.0	36,367	6,230	18.5
Midwest	45,427	22,097	48.6	44,597	16,612	37.2	43,785	12,555	28.7	42,063	7,639	18.2
South	69,025	31,010	44.9	64,601	21,862	33.8	61,691	16,489	26.7	57,531	9,547	16.6
West	42,897	21,654	50.5	39,840	15,775	39.6	36,510	11,319	31.0	33,325	7,083	21.3
FAMILY INCOME												
Under \$10,000	18,776	3,690	19.7	23,976	2,728	11.4	28,163	2,915	10.4	35,358	1,968	5.6
10,000-14,999	14,373	2,841	19.8	18,716	2,851	15.2	19,572	2,385	12.2	23,105	2,227	9.6
15,000-19,999	11,213	2,847	25.4	13,960	3,212	23.0	29,171	6,250	21.4	19,208	2,910	15.1
20,000-24,999	13,949	4,568	32.7	15,842	4,385	27.7	14,781	4,367	29.5	17,393	3,182	18.3
25,000-34,999	25,557	10,831	42.4	27,724	10,106	36.5	26,316	8,845	33.6	27,906	6,926	24.8
35,000-49,999	29,170	15,938	54.6	29,987	13,888	46.3	27,196	12,186	44.8	21,432	6,716	31.3
50,000-74,999	31,650	21,419	67.7	25,382	15,296	60.3	8,963	4,607	51.4	NA	NA	NA
75,000+	27,910	21,747	77.9	17,511	11,447	65.4	11,608	6,023	51.9	15,831	5,841	36.9
Not reported	23,090	8,358	36.2	14,306	3,485	24.4	14,352	3,091	21.5	9,553	1,330	13.9
EMPLOYMENT												
Employed	128,198	78,469	61.2	118,400	59,012	49.8	115,669	45,825	39.6	103,980	28,059	27.0
Unemployed	5,601	1,474	26.3	7,571	1,322	17.5	5,734	548	9.6	7,463	393	5.3
N.I.L.F.	61,890	12,297	19.9	61,434	7,063	11.5	58,721	4,295	7.3	58,343	2,649	4.5

'NA'=Not applicable. 1984 income figures have a maximum category of \$50,000+.

Source: U.S. Census Bureau, Current Population Survey, October 1984, 1989, 1993, 1997.

Table 6. Use of Computers at Work by People 18 Years and Older: October 1984, 1989, 1993, 1997
(Numbers in thousands. Civilian noninstitutional population.)

Characteristic	1997			1993			1989			1984		
	With a job	Use computer at work	%	With a job	Use computer at work	%	With a job	Use computer at work	%	With a job	Use computer at work	%
	N	N	%	N	N	%	N	N	%	N	N	%
TOTAL	128,198	63,876	49.8	118,400	51,106	45.8	115,669	40,245	36.8	103,980	24,172	24.6
GENDER												
Male	68,801	30,332	44.1	64,279	24,414	40.3	63,416	18,960	31.6	58,563	11,715	21.2
Female	59,397	33,544	56.5	54,121	26,692	52.4	52,253	21,285	43.0	45,417	12,457	29.0
AGE												
Under 25 years	16,178	6,007	37.1	15,366	4,965	32.3	16,699	4,720	28.3	18,091	3,521	19.5
25-44 years	68,438	36,649	53.6	65,101	30,768	47.3	64,421	25,476	39.6	55,257	15,248	27.6
45-64 years	39,751	20,313	51.1	34,357	14,707	42.8	31,171	9,626	30.4	27,656	5,245	19.0
65+ years	3,832	908	23.7	3,576	667	20.3	3,378	421	13.6	2,976	159	5.9
RACE												
White	108,463	55,508	51.2	101,767	45,326	47.1	100,074	35,977	37.8	90,826	21,795	25.3
Black	14,011	5,599	40.0	12,258	4,072	36.1	11,767	2,990	27.6	10,212	1,724	18.3
Other	5,724	2,769	48.4	4,375	1,708	42.3	3,828	1,278	36.4	2,942	653	23.9
HISPANIC ORIGIN												
Hispanic	12,733	3,843	30.2	9,208	2,492	29.3	8,449	1,779	22.5	5,643	863	16.4
Non-hispanic	115,465	60,033	52.0	109,192	48,614	47.2	107,219	38,466	37.9	98,337	23,310	25.0
EDUCATIONAL ATTAINMENT												
Elementary: 0-8 years	4,430	236	5.3	4,309	158	4.0	5,829	165	3.1	6,211	148	2.6
Some H.S.: no diploma	9,391	1,409	15.0	8,627	1,031	13.0	10,112	929	9.8	10,239	599	6.3
H.S. Diploma/GED	42,324	15,395	36.4	41,538	13,307	34.2	46,243	12,665	29.0	43,331	8,002	19.6
Some College	37,291	20,749	55.6	33,646	16,821	52.6	25,539	11,048	45.5	21,452	6,356	31.1
Bachelors degree or more	34,762	26,088	75.0	30,280	19,789	69.1	27,947	15,438	57.8	22,746	9,068	41.7
HOUSEHOLD SIZE												
1-3 people	79,937	41,253	51.6	74,279	33,234	47.5	72,083	26,337	38.7	62,757	15,581	26.3
4-5 people	41,292	20,343	49.3	37,723	16,018	45.0	37,033	12,434	35.2	34,054	7,524	23.3
6-7 people	5,650	1,975	35.0	5,306	1,659	33.7	5,548	1,321	25.2	5,800	924	16.9
8 or more people	1,318	304	23.1	1,092	195	19.5	1,005	152	15.7	1,368	143	11.5
REGION												
Northeast	24,337	12,097	49.7	23,422	9,922	46.0	23,845	8,138	36.9	22,187	5,168	24.9
Midwest	31,063	15,472	49.8	29,247	12,757	45.8	28,578	9,746	35.8	25,638	5,776	23.7
South	44,480	21,622	48.6	40,604	16,990	44.3	39,180	13,446	36.0	35,134	7,626	22.7
West	28,318	14,686	51.9	25,126	11,438	48.2	24,066	8,916	39.1	21,021	5,603	28.4
FAMILY INCOME												
Under \$10,000	7,186	1,789	24.9	8,139	1,393	18.3	10,498	1,765	18.0	12,714	1,144	9.7
10,000-14,999	6,638	1,646	24.8	8,548	1,917	23.7	9,816	1,865	20.2	12,592	1,771	14.9
15,000-19,999	6,109	1,821	29.8	7,994	2,396	31.7	18,607	5,029	28.3	12,177	2,331	20.3
20,000-24,999	8,524	2,983	35.0	9,796	3,325	36.0	10,640	3,534	34.7	12,050	2,550	22.2
25,000-34,999	17,220	7,484	43.5	19,241	7,865	42.8	19,733	7,367	38.8	20,499	5,544	28.1
35,000-49,999	21,863	11,116	50.8	22,642	10,909	50.6	21,710	10,050	48.1	16,566	5,352	33.5
50,000-74,999	25,501	15,622	61.3	20,472	12,093	61.5	7,260	3,673	52.1	11,985	4,494	39.0
75,000+	22,335	15,850	71.0	13,677	8,647	67.0	8,989	4,503	52.5	NA	NA	NA
Not reported	12,821	5,565	43.4	7,891	2,563	39.5	8,416	2,459	34.8	5,396	987	21.9
OCCUPATION												
Manag. and Proff	38,111	28,422	74.6	32,860	21,044	67.7	31,230	16,696	56.2	25,236	9,418	39.0
Tech., Sales, Admin.	37,722	25,735	68.2	36,011	22,317	65.5	35,183	18,461	55.1	31,815	11,728	38.7
Service	16,758	2,752	16.4	15,593	2,126	14.7	14,356	1,368	10.2	13,429	774	6.2
Prod., Craft, Repair	14,015	3,501	25.0	13,663	2,976	23.2	13,895	2,016	15.3	13,170	1,289	10.3
Oper., Labor., Fab,	18,252	3,154	17.3	17,010	2,382	14.9	17,654	1,563	9.5	16,920	877	5.5
Farm, Forest, Fish.,	3,340	311	9.3	3,264	262	8.5	3,350	140	4.4	3,490	87	2.7

'NA'=Not applicable. 1984 income figures have a maximum category of \$50,000+.

Source: U.S. Census Bureau, Current Population Survey, October 1984, 1989, 1993, 1997.

Table 7. Use of Internet at Home, School, and Work by People 3 to 17 Years: October 1997
(Numbers in thousands. Civilian noninstitutional population.)

	Total	Use Internet		Total	Use Internet	
	people 3 to 17 years	anywhere Number	Pct	Enrolled in School	at school Number	Pct
TOTAL	59,890	13,536	22.6	55,033	9,157	16.6
USES INTERNET AT HOME						
Yes	6,471	6,471	100.0	6,418	2,119	33.0
No	23,316	3,489	15.0	21,825	3,478	15.9
No computer at home	30,103	3,576	11.9	26,789	3,560	13.3
GENDER						
Male	30,630	7,037	23.0	28,120	4,768	17.0
Female	29,260	6,498	22.2	26,913	4,389	16.3
AGE						
3 years	3,947	13	0.3	1,528	1	0.1
4 years	4,033	44	1.1	2,665	14	0.5
5 years	4,141	152	3.7	3,925	108	2.7
6 years	4,108	346	8.4	4,039	256	6.3
7 years	4,263	557	13.1	4,210	420	10.0
8 years	3,950	636	16.1	3,884	443	11.4
9 years	4,013	832	20.7	3,989	594	14.9
10 years	3,970	1,021	25.7	3,931	671	17.1
11 years	3,871	1,189	30.7	3,854	821	21.3
12 years	3,920	1,397	35.6	3,903	981	25.1
13 years	3,861	1,364	35.3	3,829	922	24.1
14 years	3,869	1,383	35.8	3,824	875	22.9
15 years	3,958	1,572	39.7	3,917	1,031	26.3
16 years	3,946	1,526	38.7	3,776	1,010	26.8
17 years	4,041	1,504	37.2	3,757	1,011	26.9
RACE						
White Not Hispanic	38,560	10,439	27.1	35,725	6,784	19.0
Black Not Hispanic	9,537	1,346	14.1	8,846	1,151	13.0
Hispanic	8,758	1,056	12.1	7,649	789	10.3
HOUSEHOLDER EDUCATIONAL ATTAINMENT						
Elementary: 0-8 years	3,816	361	9.5	3,341	317	9.5
Some H.S.: no diploma	6,372	791	12.4	5,610	698	12.4
H.S. Diploma/GED	19,291	3,615	18.7	17,664	2,798	15.8
Some College	16,669	4,100	24.6	15,458	2,788	18.0
Bachelors degree or more	13,743	4,669	34.0	12,959	2,555	19.7
HOUSEHOLD SIZE						
1-3 people	12,749	2,818	22.1	11,709	1,990	17.0
4-5 people	36,338	8,698	23.9	33,484	5,619	16.8
6-7 people	8,457	1,617	19.1	7,783	1,211	15.6
8 or more people	2,346	403	17.2	2,056	337	16.4
FAMILY INCOME						
Under \$5,000	2,660	358	13.4	2,314	295	12.7
5,000-9,999	3,957	429	10.8	3,501	412	11.8
10,000-14,999	4,430	550	12.4	3,934	503	12.8
15,000-19,999	3,285	474	14.4	2,944	422	14.3
20,000-24,999	3,970	656	16.5	3,505	540	15.4
25,000-34,999	7,616	1,536	20.2	6,934	1,215	17.5
35,000-49,999	9,606	2,147	22.4	8,866	1,505	17.0
50,000-74,999	10,261	2,972	29.0	9,644	1,698	17.6
75,000+	8,662	3,306	38.2	8,322	1,736	20.9
Not reported	5,444	1,107	20.3	5,067	831	16.4
REGION						
Northeast	11,214	2,725	24.3	10,438	1,710	16.4
Midwest	14,091	3,358	23.8	13,061	2,408	18.4
South	20,317	4,198	20.7	18,654	2,946	15.8
West	14,269	3,254	22.8	12,879	2,092	16.2

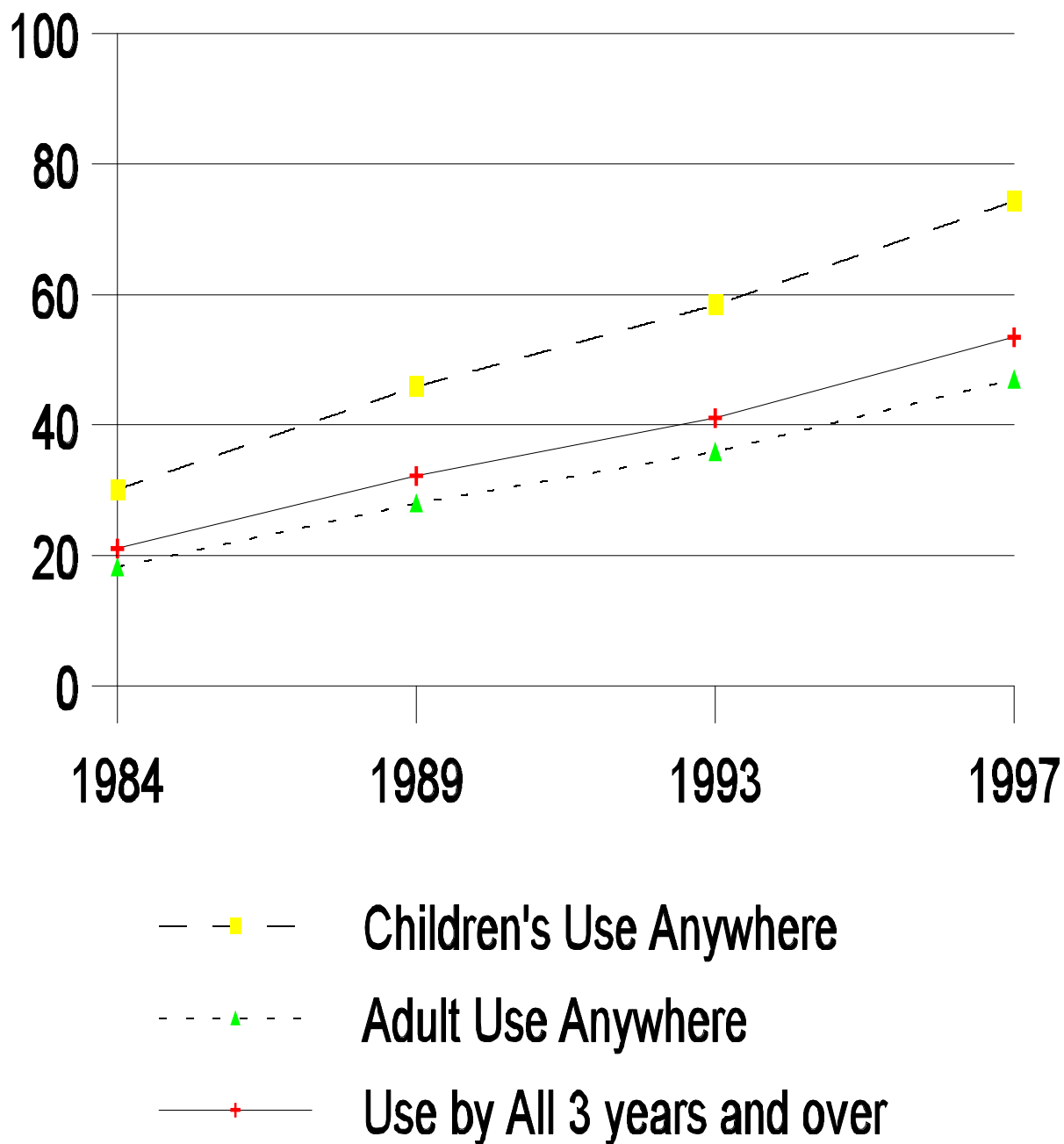
Source: U.S. Census Bureau, Current Population Survey, October 1997.

Table 8. Use of Internet at Home, School, and Work by People 18 Years and Older: October 1997
(Numbers in thousands. Civilian noninstitutional population.)

Characteristic	People 18+ years	Use Internet anyplace		With a Job	Use Internet at work	
		Number	Pct		Number	Pct
TOTAL	195,689	43,208	22.1	128,198	21,265	16.6
USES INTERNET AT HOME						
Yes	28,042	28,042	100.0	22,950	9,752	42.5
No	51,552	7,754	15.0	38,416	5,848	15.2
No computer at home	116,096	7,412	6.4	66,832	5,666	8.5
GENDER						
Male	93,897	23,255	24.8	68,801	12,064	17.5
Female	101,792	19,953	19.6	59,397	9,202	15.5
AGE						
18-24 years	24,929	7,870	31.6	16,178	1,526	9.4
25-34 years	39,248	10,727	27.3	31,995	5,834	18.2
35-44 years	44,027	11,932	27.1	36,443	6,834	18.8
45-54 years	33,718	8,456	25.1	27,075	5,057	18.7
55+ years	53,766	4,224	7.9	16,508	2,015	12.2
RACE						
White Not Hispanic	145,672	36,215	24.9	96,371	17,774	18.4
Black Not Hispanic	22,232	2,852	12.8	13,665	1,525	11.2
Hispanic	19,459	2,040	10.5	12,733	975	7.7
EDUCATIONAL ATTAINMENT						
Elementary: 0-8 years	13,415	115	0.9	4,430	30	0.7
Some H.S.: no diploma	20,374	967	4.7	9,391	176	1.9
H.S. Diploma/GED	65,968	7,191	10.9	42,324	2,806	6.6
Some College	52,324	15,285	29.2	37,291	5,993	16.1
Bachelors degree or more	43,609	19,649	45.1	34,762	12,260	35.3
HOUSEHOLD SIZE						
1 person	26,350	4,486	17.0	13,950	2,926	21.0
2-3 people	103,165	22,115	21.4	65,987	11,204	17.0
4-5 people	55,250	14,802	26.8	41,292	6,487	15.7
6-7 people	8,754	1,545	17.6	5,650	573	10.1
8 or more people	2,170	261	12.0	1,318	75	5.7
REGION						
Northeast	38,340	8,162	21.3	24,337	3,873	15.9
Midwest	45,427	10,037	22.1	31,063	4,904	15.8
South	69,025	14,220	20.6	44,480	7,080	15.9
West	42,897	10,789	25.2	28,318	5,408	19.1
FAMILY INCOME						
Under \$5,000	6,774	889	13.1	2,877	238	8.3
5,000-9,999	12,002	857	7.1	4,309	220	5.1
10,000-14,999	14,373	965	6.7	6,638	299	4.5
15,000-19,999	11,213	1,012	9.0	6,109	406	6.6
20,000-24,999	13,949	1,614	11.6	8,524	667	7.8
25,000-34,999	25,557	4,127	16.1	17,220	1,893	11.0
35,000-49,999	29,170	6,676	22.9	21,863	3,318	15.2
50,000-74,999	31,650	10,579	33.4	25,501	5,535	21.7
75,000+	27,910	12,971	46.5	22,335	6,972	31.2
Not reported	23,090	3,518	15.2	12,821	1,716	13.4
EMPLOYMENT						
Employed	128,198	36,120	28.2	128,198	21,265	16.6
Unemployed	5,601	786	14.0	na	na	na
Not in Labor force	61,890	6,301	10.2	na	na	na

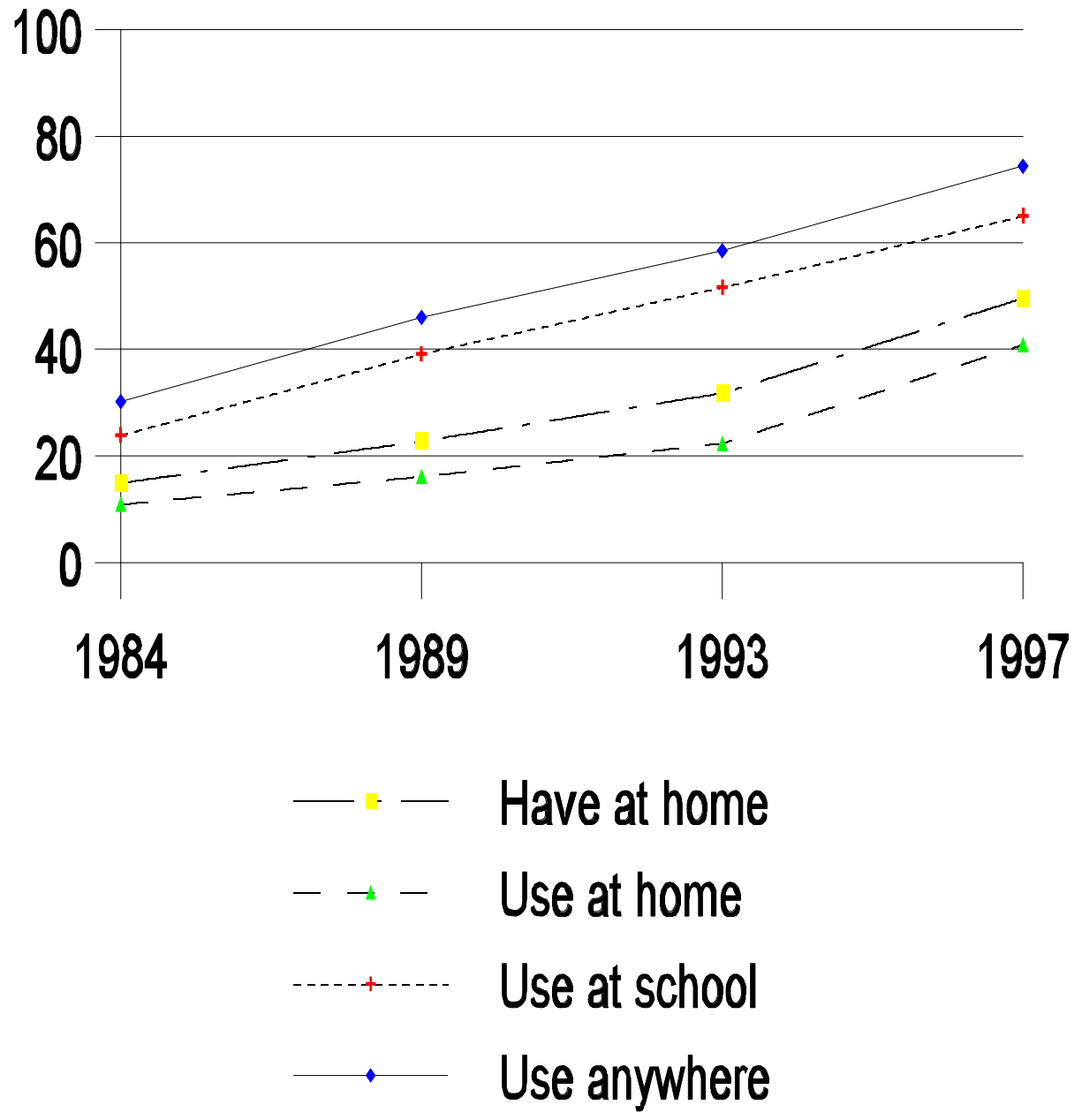
Source: U.S. Census Bureau, Current Population Survey, October 1997.

Figure 1: Computer Use In Any Locale



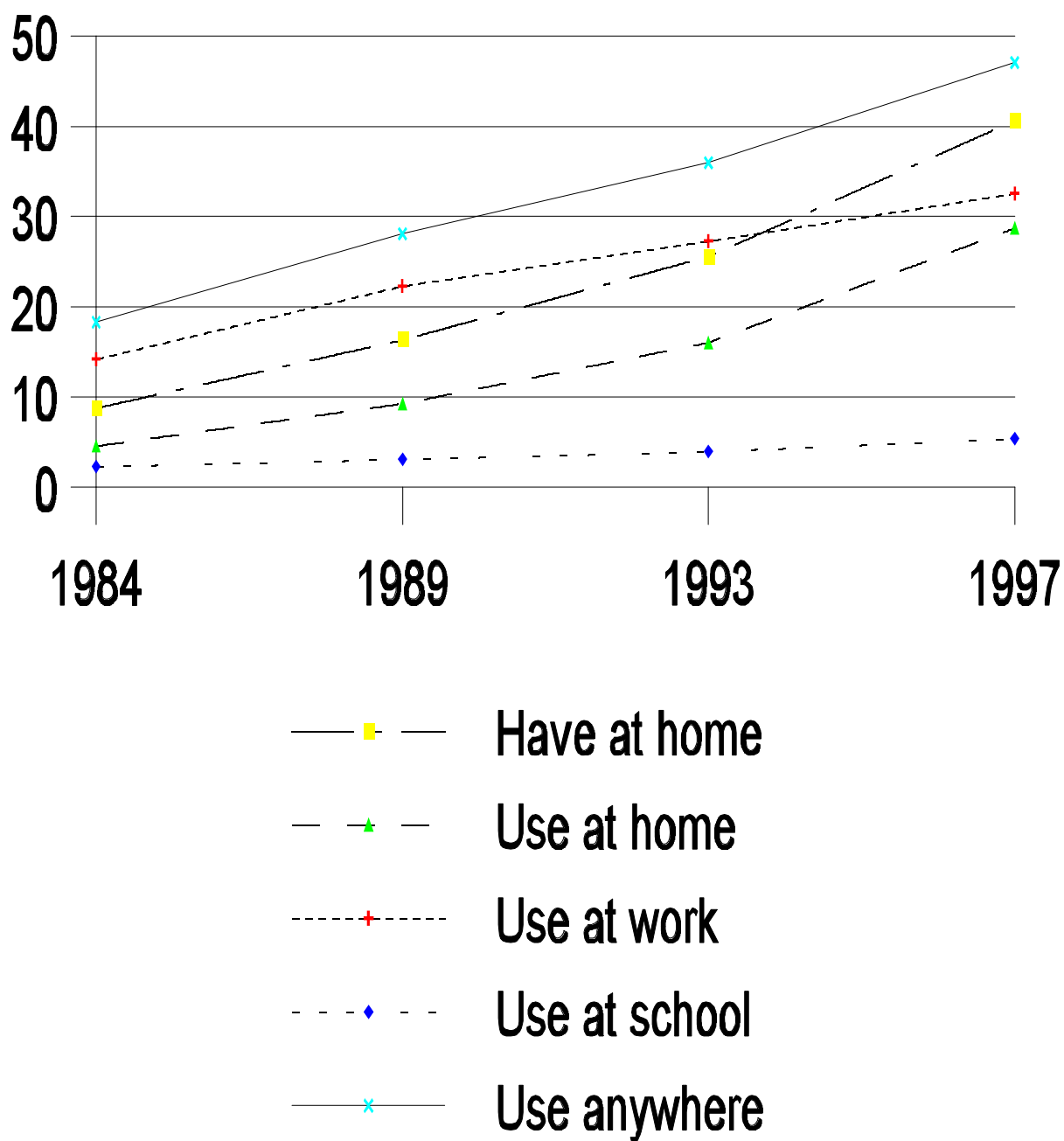
Source: U.S. Census Bureau, Current Population Survey, October 1984, 1989, 1993, 1997.

Figure 2: Children's Computer Use



Source: U.S. Census Bureau, Current Population Survey, October 1984, 1989, 1993, 1997.

Figure 3: Adult Computer Use



Source: U.S. Census Bureau, Current Population Survey, October 1984, 1989, 1993, 1997.

The next set of questions has to do with your direct or hands on use of computers. These computers may be personal or home computers, laptops, mini computers or mainframe computers. These questions do not refer to hand-held calculators or games, electronic video games, notepads, WebTV, or systems which do not use a typewriter-like keyboard.

ENTER <P> TO PROCEED

ENTER <I> FOR IMPORTANCE OF RESPONDING

====>_

>COMP-I<

The information you provide is very important. These questions will provide valuable information about the quantity and quality of computer use at home, school, and work. This information is used to do research into expanding computer ownership and use, some of which did not even exist 4 years ago.

ENTER <P> TO PROCEED

====>_

>SCU1<

Is there a computer in this household?

<1> Yes

<2> No

<D>

<R>

====>_

>SCU2<

How many computers are there in this household?

<1> 1

<2> 2

<3> 3 or more

<D>

<R>

====>_

>SCU3<

In what year was the (newest) computer purchased or obtained?

<1> 1997

- <2> 1996
- <3> 1995
- <4> 1994
- <5> 1993
- <6> 1992
- <7> before 1992
- <D>
- <R>

====>_

>SCU4<

Which of the following items does the (newest) computer have?

READ CATEGORIES ENTER ALL THAT APPLY ENTER <N> FOR NO MORE

- <1> Floppy disk drive
- <2> Hard disk drive
- <3> CD-ROM drive
- <4> Color Monitor
- <5> Mouse control
- <6> Printer
- <7> Modem
- <8> Fax capability
- <9> Joystick control
- <10> Scanner
- <11> Zip Drive or Tape Storage Device
- <12> Internet connection

====>_ ====>_ ====>_ ====>_ ====>_ ====>_

====>_ ====>_ ====>_ ====>_ ====>_ ====>_

>SAWAY1<

Is he/she living here or away at school?

- <1> Here
- <2> Away at school
- <D>
- <R>

====>_

>SAWAY2<

Does he/she have a computer at his/her residence at school?

<1> Yes
<2> No
<D>
<R>

====>_

>SCU5<

Do you directly use a computer at home?

<1> Yes
<2> No
<D>
<R>

====>_

>SCU6<

At home, what do you use the computer for?

READ CATEGORIES
ENTER ALL THAT APPLY
ENTER <N> FOR NO MORE

- <1> Word processing
- <2> Bookkeeping/finances/taxes/ household records
- <3> E-mail and communications
- <4> Desktop publishing/Newsletters
- <5> Games
- <6> Graphics and design
- <7> Databases
- <8> Spread sheets
- <9> Connect to Internet or on-line service
- <10> Connect to computer at work or at school
- <11> Work at home
- <12> School assignments
- <13> Learning to use the computer
- <14> Other

====>_ ====>_ ====>_ ====>_ ====>_ ====>_ ====>_

====>_ ====>_ ====>_ ====>_ ====>_ ====>_ ====>_

>SCU6A1<

ENTER VERBATIM RESPONSE FOR "OTHER" RESPONSE IN PREVIOUS QUESTION

====>_____

>SCU7<

During the last month, on average, how many days per week did you use the computer at home?

- <1> 1 day
- <2> 2 days
- <3> 3 days
- <4> 4 days
- <5> 5 days
- <6> 6 days
- <7> 7 days
- <8> Less than once a week
- <9> Not used in last month
- <D>
- <R>

====>_

>SCU8<

Do you directly use a computer at work?

- <1> Yes
- <2> No
- <D>
- <R>

====>_

>SCU9<

At work, what do you use the computer for?

READ CATEGORIES
ENTER ALL THAT APPLY
ENTER <N> FOR NO MORE

- <1> Word processing
- <2> Calender/scheduling
- <3> E-mail and communications
- <4> Bookkeeping
- <5> Customer records and accounts
- <6> Inventory control
- <7> Invoicing
- <8> Sales and marketing
- <9> Desktop publishing/Newsletters

- <10> Graphics and design
- <11> Analysis
- <12> Programming
- <13> Spread sheets
- <14> Databases
- <15> Other

====>_

====>_

====>_

>SCU9A1<

ENTER VERBATIM RESPONSE FOR "OTHER" RESPONSE IN PREVIOUS QUESTION

====>_____

>SCU10<

Do you directly use a computer at school?

- <1> Yes
- <2> No
- <D>
- <R>

====>_

>SCU11<

How frequently do you use the computer at school?

- <1> Every day
- <2> Several days a week
- <3> Once a week
- <4> Less than once a week
- <D>
- <R>

====>_

>SCU12A<

Do you use the INTERNET (or another on-line service) at home?

<1> Yes

<2> No

<D>

<R>

====>_

>SCU12B<

Do you use the INTERNET (or another on-line service) at work?

<1> Yes

<2> No

<D>

<R>

====>_

>SCU12C<

Do you use the INTERNET (or another on-line service) at school?

<1> Yes

<2> No

<D>

<R>

====>_

>SCU13<

What do you use the Internet for at home?

READ CATEGORIES

ENTER ALL THAT APPLY

ENTER <N> FOR NO MORE

<1> E-mail

<2> News, Weather, Sports

<3> Search for information such as government, business, health, education

<4> Checking schedules, buying tickets, or making reservations

<5> Shopping

<6> Taking courses

<7> Chat rooms

- <8> Newsgroups
- <9> Other

====>_====>_====>_====>_====>_====>_

====>_====>_====>_

>SCU14< ****DO NOT READ****
Who reported for this person?

- <1> Self
- <2> Parent
- <3> Spouse
- <4> Other relative
- <5> Nonrelative
- <D>
- <R>

====>_

>SCHCU1<
Do you use a computer at school?

- <1> Yes
- <2> No
- <D>
- <R>

====>_

>SCHCU2<
How frequently do you use the computer at school?

- <1> Every day
- <2> Several days a week
- <3> Once a week
- <4> Less than once a week
- <D>
- <R>

====>_

>SCHCU3<

Do you directly use a computer at home?

<1> Yes

<2> No

<D>

<R>

====>_

>SCCU4<

At home, what do you use the computer for?

READ CATEGORIES

ENTER ALL THAT APPLY

ENTER <N> FOR NO MORE

<1> Word processing

<2> E-mail and communications

<3> Games

<4> Graphics and design

<5> Educational programs

<6> School assignments

<7> Learning to use the computer

<8> Connect to Internet or on-line service

<9> Connect to computer at school

<10> Other

====>_ ====>_ ====>_ ====>_ ====>_ ====>_

====>_ ====>_ ====>_ ====>_

>SCHCU5<

During the last month, on average, how many days per week did you use the computer at home?

<1> 1 day

<2> 2 days

<3> 3 days

<4> 4 days

<5> 5 days

<6> 6 days

<7> 7 days

- <8> Less than once a week
- <9> Not used in last month
- <D>
- <R>

====>_

>SCHCU6<

Do you use the INTERNET (or another on-line service) at home?

- <1> Yes
- <2> No
- <D>
- <R>

====>_

>SCHCU7<

Do you use the INTERNET (or another on-line service) at school?

- <1> Yes
- <2> No
- <D>
- <R>

====>_

>SCCU8<

What do you use the Internet for at home?

READ CATEGORIES
ENTER ALL THAT APPLY
ENTER <N> FOR NO MORE

- <1> E-mail
- <2> News, Weather, Sports
- <3> Search for information such as government, business, health, education
- <4> Taking courses
- <5> Chat rooms
- <6> Newsgroups
- <7> Other

====>_ ====>_ ====>_ ====>_ ====>_ ====>_ ====>_