## Computer Use in the United States

Population Characteristics

October

1997

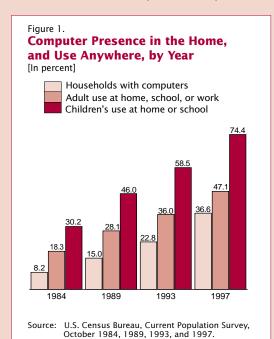
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At work, school, and home, the personal computer has become a basic tool. In October 1984, 1989, 1993, and 1997, the Census Bureau asked questions in the Current Population Survey (CPS), to assess ownership and use of computers. The 1997 survey, summarized in this report, also included questions on the Internet. Some data discussed here are not in the text tables but are available elsewhere. See "More Information" on page 11.

## More than one in three American households had computers.

In October 1997, 37.4 million American households, or 36.6 percent, had computers. This is up substantially from 22.8 percent in 1993, 15.0 percent in 1989, and 8.2 percent in 1984 (Figure 1). Half of households with a computer (49.1 percent)



had obtained it the year of the survey or the previous year, compared with 39.1 percent in 1993, and 28.6 percent in 1989.

Computer presence was most likely (75.9 percent) in households with yearly family incomes of \$75,000 or more, while only 15.6 percent of households with incomes below \$25,000 had a computer (Table A). Households with school age (6 to 17 years) children were far more likely than those without to have a computer (51.0 percent compared with 31.0 percent). Households with two or more people were twice as likely as one person households to have a computer (42.4 percent and 20.0 percent respectively). Computer presence in the home rose in general across many segments of society between 1993 and 1997.

## Almost three quarters of children used a computer someplace.

Children's access to a computer at home or at school has increased substantially in recent years. In 1993, only 31.9 percent of children had access to a computer at home, and 60.6 percent used a computer at school. In 1997, half of children (49.7 percent) had a computer available at home, while 70.8 percent of the 55.0 million enrolled children used a computer at school.

Despite these increases, access to and use of computers continued to vary depending

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<sup>&</sup>lt;sup>1</sup> While 62,000 children 15 to 17 years old or about 0.1 percent of all children used a computer at work, this did not contribute significantly to overall computer use by children.

Table A.

Households With Computers and Year of Purchase, by Presence of Children, Family Income, and Householder Characteristics: October 1997

Characteristics		Compu house		Year newest computer purchased		
	Total household	Number	Percent	1996 or 1997	Before 1996	
ALL HOUSEHOLDERS	102,158	37,410	36.6	18,386	19,024	
AGE OF HOUSEHOLDER  18 to 34 years.  35 to 54 years.  55 years and over	24,777	9,242	37.3	5,114	4,128	
	43,245	21,013	48.6	10,301	10,711	
	34,136	7,155	21.0	2,970	4,185	
GENDER OF HOUSEHOLDER  Male	60,467	25,439	42.1	12,646	12,794	
	41,691	11,970	28.7	5,740	6,230	
RACE OF HOUSEHOLDER  Non-Hispanic White  Non-Hispanic Black  Hispanic (of any race)	77,455	31,614	40.8	15,386	16,228	
	12,240	2,367	19.3	1,150	1,216	
	8,804	1,710	19.4	971	739	
EDUCATIONAL ATTAINMENT OF HOUSEHOLDER Less than high school diploma High school diploma/GED Some college Bachelor's degree or more.	17,991	1,639	9.1	870	770	
	32,488	8,360	25.7	3,952	4,409	
	26,461	11,482	43.4	5,747	5,735	
	25,217	15,928	63.2	7,817	8,111	
FAMILY INCOME Under \$25,000 25,000 to 49,999 50,000 to 74,999 75,000 and over Not reported	35,778	5,581	15.6	2,794	2,788	
	27,862	10,822	38.8	5,174	5,648	
	14,375	8,714	60.6	4,091	4,623	
	11,959	9,072	75.9	4,753	4,319	
	12,184	3,221	26.4	1,575	1,646	
HOUSEHOLD SIZE						
1 person	26,375	5,271	20.0	2,398	2,873	
	75,783	32,139	42.4	15,988	16,151	
CHILDREN IN HOUSEHOLD With children 6 to 17 years Without children 6 to 17 years	28,595	14,573	51.0	7,401	7,172	
	73,563	22,836	31.0	10,984	11,852	
REGION Northeast Midwest South West	19,887	6,999	35.2	3,340	3,660	
	24,075	8,796	36.5	4,227	4,570	
	36,319	12,115	33.4	6,092	6,023	
	21,878	9,498	43.4	4,727	4,771	

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

upon life circumstances and situations (Table B). Home computer access was more likely for children 12 to 17 years (55.1 percent) than for children 3 to 7 year old (42.9 percent). Home access by individual ages ranged between 38.6 percent and 56.7 percent for children 3 to 17 years. Non-Hispanic White children were more likely to have a computer at home (61.5 percent) than non-Hispanic Black children (24.2 percent), or Hispanic children (23.0

percent).<sup>2</sup> Children living in the South were less likely than those living elsewhere to have a computer at home (43.6 percent and 52.9 percent).

Educational attainment of the householder continued to have a strong influence on the presence of a computer in household. While just 15.2 percent of children in households where the householder had

less than a high school education had a computer, 80.0 percent of the children in households where the householder had a bachelor's degree or more had a computer available to them.

Children's family income had a similarly strong relationship with computer presence in the household. Just 20.0 percent of children with family incomes under \$25,000 lived in a household with a computer, while 88.4 percent of

<sup>&</sup>lt;sup>2</sup>Hispanics may be of any race.

Table B.

People Ages 3 to 17 Years by Computer and Internet Use: October 1997

			Compute	r at home		Enr	olled in sch	Use		
Characteristics	Total people 3 to 17	Ye	es	Use computer at home	Use Internet at home	Yes	Use computer at school	Use Internet at school	computer any- where	Use Inter- net any- where
	years	Number	Percent <sup>1</sup>	Percent <sup>2</sup>	Percent <sup>2</sup>	Number	Percent <sup>3</sup>	Percent <sup>3</sup>	Percent <sup>1</sup>	Percent <sup>1</sup>
TOTAL	59,890	29,787	49.7	82.4	21.7	55,033	70.8	16.6	74.4	22.6
AGE 3 to 5 years 6 to 11 years 12 to 17 years	12,121	4,921	40.6	59.9	2.0	8,119	34.9	1.5	38.0	1.7
	24,175	11,874	49.1	84.2	16.4	23,907	79.1	13.4	83.4	18.9
	23,594	12,992	55.1	89.4	34.0	23,007	74.8	25.3	84.0	37.1
GENDER Male Female	30,630	15,355	50.1	82.3	22.4	28,120	71.3	17.0	74.6	23.0
	29,260	14,432	49.3	82.6	21.0	26,913	70.3	16.3	74.3	22.2
RACE Non-Hispanic White Non-Hispanic Black Hispanic (of any race)	38,560	23,717	61.5	84.0	23.2	35,725	74.2	19.0	80.5	27.1
	9,537	2,311	24.2	75.0	12.5	8,846	66.3	13.0	65.1	14.1
	8,758	2,012	23.0	74.7	16.4	7,649	61.8	10.3	58.1	12.1
EDUCATIONAL ATTAINMENT OF HOUSEHOLDER Less than high school diploma	10,188	1,550	15.2	69.6	12.2	8,951	61.5	11.3	56.2	11.3
	19,291	7,735	40.1	79.2	15.2	17,664	71.2	15.8	72.1	18.7
	16,669	9,511	57.1	82.4	20.1	15,458	72.8	18.0	78.0	24.6
	13,743	10,990	80.0	86.5	29.0	12,959	74.3	19.7	86.9	34.0
FAMILY INCOME Under \$25,000. 25,000 to 49,999. 50,000 to 74,999. 75,000 and over Not reported.	18,302	3,656	20.0	74.1	12.1	16,199	65.7	13.4	61.6	13.5
	17,223	8,859	51.4	80.0	15.6	15,800	72.2	17.2	75.6	21.4
	10,261	7,425	72.4	84.7	24.6	9,644	74.6	17.6	84.1	29.0
	8,662	7,655	88.4	88.0	30.9	8,322	75.0	20.9	90.0	38.2
	5,444	2,192	40.3	78.7	20.7	5,067	68.7	16.4	70.8	20.3
REGION Northeast Midwest. South West	11,214	6,058	54.0	82.9	24.6	10,438	69.3	16.4	74.3	24.3
	14,091	7,565	53.7	84.0	19.2	13,061	74.8	18.4	78.2	23.8
	20,317	8,856	43.6	81.2	21.1	18,654	71.9	15.8	73.9	20.7
	14,269	7,308	51.2	81.8	22.8	12,879	66.3	16.2	71.6	22.8

<sup>&</sup>lt;sup>1</sup>Among all children.

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

those with family incomes above \$75,000 had a computer at home. Also, as in previous years, children living with householders in managerial and professional positions were the most likely to live with a computer (77.5 percent).

# More than four out of five children living in a household with a computer used it.

Many of the differences apparent in access to a computer at home in 1997 also appeared in children's usage levels of these computers.

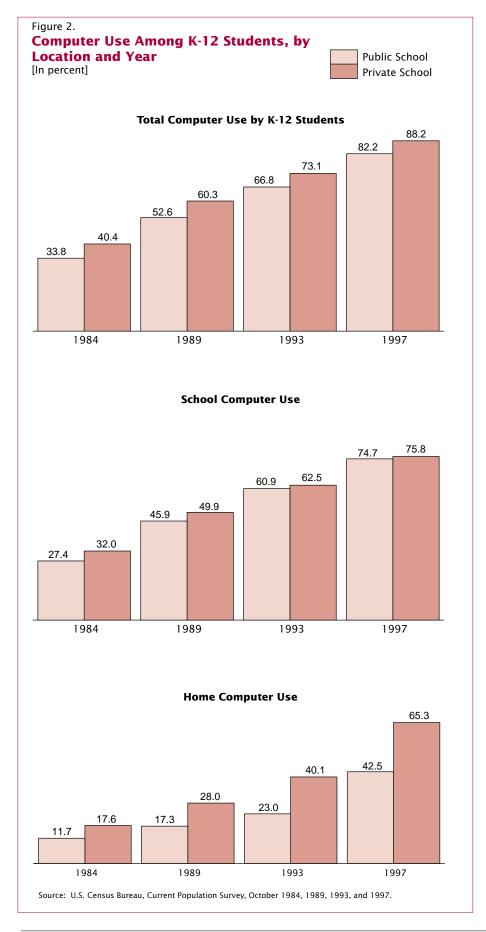
Use of available home computers by children increased, from 74.7 percent in 1993 to 82.4 percent in 1997. However, use was relatively low among the very young (59.9 percent for children 3 to 5 years living in a household with a computer), higher for those 6 to 11 years (84.2 percent), and highest for the oldest children 12 to 17 years (89.4 percent).

Rates of children's home computer use varied across race and ethnic groups as well. Rates of use for non-Hispanic Whites were higher than for non-Hispanic Blacks or Hispanics (84.0 percent, 75.0 percent, and 74.7 percent respectively). The rates for non-Hispanic Blacks and Hispanics were not significantly different.

Home computer use also varied strongly with the education of the householder. About 86.5 percent of children in homes where the householder had a bachelor's degree or more used an available home computer. Only 69.6 percent of children in households where the

<sup>&</sup>lt;sup>2</sup>Among children with a computer in the home.

<sup>&</sup>lt;sup>3</sup>Among those children enrolled in school.



householder did not have a high school diploma used the home computer.

Similar differences in available computer usage occurred across family income groups. Among children in families with less than \$25,000 income, 74.1 percent used a computer present in the home, but 88.0 percent of those with family incomes of \$75,000 or more used their home computer.

## Far more children used a computer at school than at home.

In 1997, 39.0 million children ages 3 to 17 years used a computer at school, compared with only 24.5 million at home. Additionally, as in previous years, levels of school computer use continued to differ across some social and demographic groups. Among school children 6 to 11 years old, 79.1 percent used a computer at school. Among school children 12 to 17 years old, 74.8 percent used a computer at school, while only 34.9 percent of those 3 to 5 years old used a computer at school. Across race and ethnic groups, non-Hispanic Whites experienced higher levels of school computer use (74.2 percent) than either non-Hispanic Blacks (66.3 percent) or Hispanics (61.8 percent).

### Private school students had no advantage over public school students in use of computers at school.

In 1984 and 1989, private school children in grades K-12 had significantly higher rates of computer use at school than students in public schools. But by 1993 the gap had closed (Figure 2).<sup>3</sup> Public schools

<sup>&</sup>lt;sup>3</sup>The estimates were not significantly different.

maintained parity with private schools in 1997 (74.7 percent and 75.8 percent). Yet, at home, public school children had much lower rates of computer use than private school children. This disparity had grown over time. In 1984, 17.6 percent of private school students had a computer at home and used it, compared with 11.7 percent of public school students. By 1997, 65.3 percent of private school children used a computer at home, compared with 42.5 percent of public school children. This difference probably reflects the various socio-economic differences present between public and private school students. However, because of the strong leveling effect our nation's public schools have in providing access to computers for children who otherwise would have none, the gap in overall computer use between public and private school students is much smaller than the gap in home computer use. Consequently, when considering both school use and home use together, 82.2 percent of public school students used a computer some place compared with 88.2 percent of private school students.

# Boys and girls use computers almost equally, but for different activities.

Boys were no more likely than girls to have a computer at home (50.1 percent and 49.3 percent) or to use it (82.3 percent and 82.6 percent). Very little difference existed between boys and girls in the level of use of school computers (71.3 percent and 70.3 percent). However, while 42.0 percent of girls used the household computer for word processing, only 36.0 percent of boys did. In addi-

tion, 79.4 percent of girls played games on the home computer compared with 86.5 percent of boys. In the other uses surveyed, boys and girls had similar levels of use.

Overall, in a change from previous years, children most frequently used a home computer for educational programs (93.3 percent of home users), with games the second most common use (83.0 percent). In 1993, children used home computers most often for games (70.3 percent).

About 56.2 percent of all children used the home computer for school assignments, and 38.9 percent for word processing. One quarter of children (24.6 percent) used the computer for "learning to use computers." About 18.0 percent of children used the computer for graphics and design, and 14.7 percent used it for e-mail and communications. Only 1.7 percent used their home computer to connect to a school computer, and 2.0 percent reported other uses.

# Nearly half of American adults used a computer at home, work, or school.

About 92.2 million people age 18 and over (47.1 percent) used a computer in one or more places in 1997. These figures are up significantly from 1993 (67.4 million, or 36.0 percent), and nearly triple the number in 1984 (31.1 million, or 18.3 percent). The individual components of adult computer use also increased (Figure 3).

The proportion of adults with a computer at home rose to 40.7 percent, up from 25.6 percent in 1993, and more than a fourfold increase over the 1984 figure of 9.1 percent. The proportion of adults

Figure 3. Computer Use Among Adults. by Location and Year [In percent] Use by All Adults, Anywhere 28.1 18.3 1984 1989 1993 1997 Home Use Among Adults With a Computer at Home 70.9 65.6 58.4 53.3 1984 1989 1993 1997 Work Use Among Employed Adults 49.8 45.8 36.8 24.6 1984 1989 1993 1997 Source: U.S. Census Bureau, Current Population Survey, October 1984 1989 1993 and 1997

using these computers also rose. In 1984, more than half of adults (53.3 percent) living with a computer at home used it. In 1997, more than seven out of ten (70.9 percent) did so.

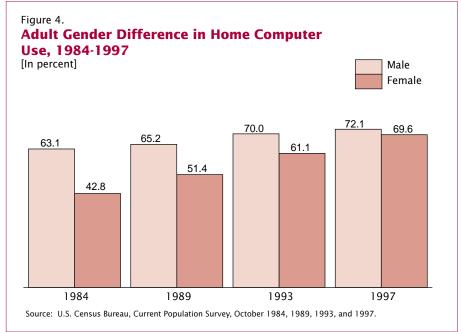
Half of employed adults (49.8 percent) used a computer on the job, a significant increase over 1993 (45.8 percent), and more than twice the proportion using computers at work in 1984 (24.6 percent). Adult school use also increased, to 62.3 percent of school enrolled adults, up from 53.8 percent in 1993, and twice the proportion using computers at school in 1984 (30.8 percent).

Table C. People 18 Years and Older by Computer and Internet Use: October 1997

			Compute	omputer at home		Employed			Enrolled in school				
Characteristics	Total people	Y	es	Use com- puter at home	Use Internet at home	Yes	Use com- puter at work	Use Internet at work	Yes	Use com- puter at school	Use Internet at school	Use com- puter any- where	Use Internet anywhere
	18 years and over	Number	Percent <sup>1</sup>	Percent <sup>2</sup>	Percent <sup>2</sup>	Number	Percent <sup>3</sup>	Percent <sup>3</sup>	Number	Percent <sup>4</sup>	Percent <sup>4</sup>	Percent <sup>1</sup>	Percent <sup>1</sup>
TOTAL	195,689	79,594	40.7	70.9	35.2	128,198	49.8	16.6	16,918	62.3	36.0	47.1	22.1
<b>AGE</b> 18 to 24 years	24,929	10.788	43.3	70.1	36.5	16.178	37.1	9.4	10,559	70.3	42.9	58.1	31.6
25 to 34 years	39,248	16,766	41.9	70.1	42.8	31,995	53.1	18.2	3,370	70.3 54.2	29.4	57.2	27.3
35 to 44 years	44,027	22,609	51.4	73.9	36.7	36,443	53.9	18.8	1.798	43.6	19.9	58.0	27.3
45 to 54 years	33,718	16,854	50.0	69.3	34.4	27,075	54.1	18.7	965	45.5	19.9	55.3	25.1
55 years and over	53,766	12,901	24.0	57.4	23.0	16,508	39.8	12.2	225	31.7	11.7	20.7	7.9
•	00,100	12,00		0	20.0	.0,000	00.0		220	0			
GENDER Male	93,897	39,646	42.2	72.1	39.5	68,801	44.1	17.5	7,706	65.6	40.3	47.0	24.8
Female	101,792	39,948	39.2	69.6	31.0	59,397	56.5	15.5	9,211	59.6	32.5	47.3	19.6
RACE													
Non-Hispanic White .	145,672	66,179	45.4	72.6	36.8	96,371	53.9	18.4	12,014	61.9	37.7	51.4	24.9
Non-Hispanic Black .	22,232	4,875	21.9	65.6	26.4	13,665	40.0	11.2	2,193	66.1	33.0	34.3	12.8
Hispanic (of any race)	19,459	4,313	22.2	59.6	25.9	12,733	30.2	7.7	1,554	59.3	26.1	28.9	10.5
race)	19,409	4,313	22.2	39.0	25.9	12,733	30.2	7.1	1,554	39.3	20.1	20.9	10.5
EDUCATIONAL ATTAINMENT Less than high school diploma	33,789	4,500	13.3	41.5	15.4	13,820	11.9	1.5	1,669	58.7	19.5	11.1	3.2
High school		,											
diploma/GED Some college	65,968 52,324	20,397 26,031	30.9 49.7	58.0 73.3	22.4 36.2	42,324 37,291	36.4 55.6	6.6 16.1	2,522 9,557	60.9 65.8	34.1 40.8	34.9 61.6	10.9 29.2
Bachelor's degree or	52,524	20,031	49.7	13.3	30.2	31,291	33.0	10.1	9,557	05.6	40.0	01.0	29.2
more	43,609	28,667	65.7	82.4	46.6	34,762	75.0	35.3	3,170	54.6	31.8	76.3	45.1
FAMILY INCOME													
Under \$25,000	58,312	10,024	17.2	68.1	29.2	28,457	29.0	6.4	4,896	62.9	36.8	23.9	9.2
25,000 to 49,999	54,727	22,017	40.2 60.9	68.5 72.2	30.5	39,083 25,501	47.6	13.3 21.7	4,203 3,063	59.9	32.1 35.7	48.9	19.7 33.4
50,000 to 74,999 75,000 and over	31,650 27,910	19,282 21,438	76.8	72.2 75.0	36.5 43.7	25,501	61.3 71.0	31.2	3,063	62.4 63.9	40.5	67.7 77.9	46.5
Not reported	23,090	6,832	29.6	66.0	29.2	12,821	43.4	13.4	1,534	63.2	35.5	36.2	15.2
·	20,000	0,002	25.0	00.0	25.2	12,021	40.4	10.4	1,004	00.2	33.3	30.2	10.2
HOUSEHOLD SIZE 1 person	26,350	5,279	20.0	89.4	46.6	13,950	54.5	21.0	1,303	57.8	36.0	36.0	17.0
2-3 people	103,165	39.681	38.5	71.9	36.3	65.987	51.0	17.0	7.762	60.0	34.8	46.0	21.4
4-5 people	55,250	30,014	54.3	68.3	33.4	41,292	49.3	15.7	6,601	65.5	38.0	56.4	26.8
6-7 people	8,754	3,889	44.4	58.8	26.2	5,650	35.0	10.1	1,013	63.5	32.8	40.4	17.6
8 or more people	2,170	731	33.7	52.4	18.2	1,318	23.1	5.7	239	67.7	36.4	31.1	12.0
REGION													
Northeast	38,340	15,308	39.9	68.2	34.7	24,337	49.7	15.9	3,112	65.2	38.0	45.6	21.3
Midwest	45,427	18,751	41.3	70.3	33.3	31,063	49.8	15.8	4,001	68.8	42.7	48.6	22.1
South	69,025	25,508	37.0	72.0	36.3	44,480	48.6	15.9	5,562	64.1	35.0	44.9	20.6
West	42,897	20,027	46.7	72.0	36.1	28,318	51.9	19.1	4,243	51.7	29.6	50.5	25.2
14												<u> </u>	Ц

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

<sup>&</sup>lt;sup>1</sup>Among all adults.
<sup>2</sup>Among adults with a computer in the home.
<sup>3</sup>Among employed adults.
<sup>4</sup>Among those adults enrolled in school.



Adult home computer ownership varied considerably with characteristics such as age, race, income. education, and region (Table C). Adults 35 to 44 years were the most likely to have a home computer (51.4 percent), and people 55 and older were the least likely (24.0 percent). About 76.8 percent of adults in households with yearly family incomes of \$75,000 or more had a computer at home, compared with only 17.2 percent of those with incomes below \$25,000. Similarly, 65.7 percent of people with a bachelor's degree or more lived in a household with a computer available, compared with 13.3 percent of those without a high school diploma. Across occupational categories, people who held managerial or professional positions were the most likely to have a computer at home (66.5 percent). Geographically, just as in 1993, adults living in the South were the least likely to have a computer in their home, at 37.0 percent, and those in the West the most likely, at 46.7 percent.

### Women's computer use approached men's.

Of all adults with access to a computer at home, men continued to exhibit marginally higher rates of use than women (72.1 percent and 69.6 percent). However, this home computer use "gender gap" shrank considerably over the four surveys, beginning in 1984, when men's home computer use was 20.3 percentage points higher than that of women's (Figure 4). Considering computer use at any location, there is no gender gap, as men and women have statistically similar rates of use (47.0 percent of men, and 47.3 percent of women).

Home use also varied among adults of different ages and ethnic backgrounds. While four-fifths (79.4 percent) of people 25 to 34 years used an available home computer, only 57.4 percent of those 55 or older did so. Non-Hispanic Whites (72.6 percent) had higher rates of home computer use than non-Hispanic Blacks (65.6 percent) or

Hispanics (59.6 percent). Home computer use increased with the educational attainment of the individual, from 41.5 percent among those without a high school diploma to 82.4 percent among those with a bachelor's degree or more. Among adults with family incomes below \$25,000, 68.1 percent used their home computers, while 75.0 percent of people with family incomes of \$75,000 and above used them. People who used a computer at work had very high rates of home computer use (82.5 percent), as did people who held managerial or professional positions (82.3 percent).

Among adult users of home computers, 70.5 percent used them for word processing, the most common use. Other common uses included games (53.6 percent), e-mail and communications (44.5 percent), bookkeeping/finances/taxes/house-hold records (43.6 percent), working at home (34.3 percent), and connecting to a computer at work or school (14.5 percent).

### More adults used a computer at work than at home or school.

Of the 92.2 million adult computer users, over 63.9 million used a computer at work, compared with 56.4 million at home users, and 10.5 million adult school computer users. Some overlap exists, that is, people using a computer at work might also use a computer at home, school, or both.

Individuals with more education more often used a computer at work, with 75.0 percent of people with a bachelor's degree or more using a computer on the job, compared with 11.9 percent of those without a high school diploma. Among general occupational

Table D.

Use of Computers at Work by People 18 Years and Older by Gender: October 1997

Employment		Ма	ale		Female				
	Emplo	oyed	Use co at w		Empl	oyed	Use computer at work		
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
TOTAL	68,801	100.0	30,332	44.1	59,397	100.0	33,544	56.5	
OCCUPATION									
Managerial & professional	19,403	28.2	14,586	75.2	18,708	31.5	13,837	74.0	
support	13,617	19.8	8,657	63.6	24,106	40.6	17,078	70.8	
Services	6,702	9.7	1,384	20.7	10,056	16.9	1,367	13.6	
Precision prod., craft, repair	12,746	18.5	3,163	24.8	1,269	2.1	338	26.6	
Operators, laborers, fabricators	13,637	19.8	2,317	17.0	4,615	7.8	838	18.2	
Farm, forestry, fisheries	2,695	3.9	225	8.4	644	1.1	86	13.3	
INDUSTRY									
Agriculture/forestry/fisheries	2,488	3.6	305	12.3	845	1.4	255	30.2	
Mining	556	0.8	213	38.3	86	0.1	79	91.9	
Construction	7,507	10.9	1,186	15.8	797	1.3	519	65.2	
Manufacturing	14,087	20.5	6,467	45.9	6,570	11.1	3,234	49.2	
Transport/communication/utilities	6,559	9.5	2,733	41.7	2,828	4.8	2,088	73.8	
Wholesale/retail trade	13,421	19.5	5,280	39.3	11,772	19.8	4,956	42.1	
Finance/insurance/real estate	3,430	5.0	2,484	72.4	4,778	8.0	4,188	87.6	
Services	17,590	25.6	9,492	54.0	29,234	49.2	16,175	55.3	
Public administration	3,164	4.6	2,171	68.6	2,487	4.2	2,049	82.4	

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

categories, people in managerial and professional positions and technical, sales, and administrative support positions had by far the highest rates of computer use at work (74.6 percent and 68.2 percent, respectively).

Women more often used computers on the job than men (56.5 percent compared with 44.1 percent) (Table D). The higher rate of on-the-job computer use among women (which was not mirrored for overall computer use) may be determined in part by the types of jobs they held. "Technical, sales, and administrative support" occupations use computers extensively and accounted for 40.6 percent of all working women but only 19.8 percent of all working men. This category includes such specific occupations as sales clerks, secretaries, and administrative

clerical workers. Within this category, 70.8 percent of women used a computer at work, compared with only 63.6 percent of men. While "technical, sales, and administrative support" accounted for only 28.5 percent of all men using computers on the job, this category accounted for fully half (50.9 percent) of all women using computers at work.

### Women in every industry had higher levels of computer use at work than men.

Within a given industry, many women hold technical or administrative jobs, which tend to have high levels of computer use. In mining and construction, for example, men are more likely to be machine operators or craft workers, and women, office workers. This accounts for the very sizable gender

differences in computer use. Among men in mining and construction, 38.3 percent and 15.8 percent, respectively, used a computer at work. Among women the rates were 91.9 percent and 65.2 percent, a sizable difference.

## Men and women used computers at work for different tasks.

A higher proportion of women computer users employed the computer for word processing at work than men (59.8 percent compared with 53.9 percent). A higher proportion of women kept customer records and accounts with a computer (54.0 percent compared with 47.2 percent) or used the computer for bookkeeping (31.6 percent compared with 28.7 percent).

However, a higher proportion of men used the computer for doing analysis (34.3 percent of men and 20.1 percent of women), programming (20.0 percent and 10.5 percent), inventory control (34.0 percent and 24.1 percent), e-mail (51.3 percent and 43.1 percent), graphics and design (24.3 percent and 17.0 percent), sales and marketing (24.6 percent and 19.9 percent), spreadsheets (35.7 percent and 29.4 percent), databases (36.8 percent and 31.6 percent), and calendar/ scheduling (39.2 percent and 36.0 percent).

Among all at-work computer users, people in managerial and professional positions had some of the highest rates for specific uses. For example, 42.8 percent of managers used spreadsheets, 42.6 percent used databases, 45.2 percent used the computer for calendar/scheduling, and 58.6 percent used e-mail and communications.

The finance, insurance, and real estate industry had the highest overall rate of computer use among its workers, with 81.3 percent using a computer on the job. This includes high levels for many specific uses, such as word processing (65.5 percent), keeping customer records and accounts (69.8 percent), e-mail and communications (53.0 percent), and calendar/scheduling (40.1 percent).

Among all at-work computer users, word processing remained the most common use of computers on the job, at 57.0 percent. Other common work uses were keeping customer records and accounts (50.7 percent), e-mail and communications (47.0 percent), calendar/scheduling (37.5 percent), databases (34.1 percent), spreadsheets (32.4 percent), and

bookkeeping (30.2 percent). Less commonly, workers used computers for inventory control (28.8 percent), analysis (26.8 percent), invoicing (24.1 percent), sales and marketing (22.1 percent), graphics and design (20.4 percent), desktop publishing and newsletters (15.3 percent), programming (15.0 percent), and other uses (12.6 percent).

## One in five Americans used the Internet.

One major use of computers that has grown rapidly in the past decade is accessing the Internet. At school, home, and work, the three major places where people access the Internet, 56.7 million Americans 3 years and above (22.2 percent) used the Internet in 1997. Home was the most common place for people to access the Internet, with 34.5 million users, followed by the workplace, with 21.3 million users. About 15.3 million people accessed the Internet at school. Overlap exists in that people who used the Internet at home may also have used it at school, work, or both.

Unlike computer use in general, where children were more likely to be users, the overall proportions of Internet use among children and adults did not differ significantly. Among children 3 to 17 years, 22.6 percent used the Internet compared with 22.1 percent of adults 18 years and over. However, children and adults have very different patterns of Internet use.

# One fifth of children with home computers used them to access the Internet.

Even among those with a computer in the household, differences in levels of Internet use existed among various socio-economic groups. In

general, these differences magnified the differences attributable to the presence of a computer, described earlier in this report.

Children used the Internet at home for a variety of reasons, most often to find government, business, health, or education information (76.1 percent). The next most common uses were e-mail (57.5 percent); chat rooms (32.1 percent); looking for news, weather, sports (28.0 percent); news groups (5.1 percent); taking courses (3.1 percent); and other uses (10.9 percent).

Though boys had slightly higher rates of home Internet use than girls (22.4 percent and 21.0 percent), boys and girls used the Internet for many of the same reasons. However, boys more often looked up news/sports/weather information than girls (35.4 percent compared with 19.7 percent). In addition, girls were more likely to use the Internet to send and receive e-mail (61.1 percent of girls compared with 54.4 percent of boys).

Overall, boys' and girls' school Internet use did not differ significantly (17.0 percent of boys compared with 16.3 percent of girls).

# School was the most common place for children to access the Internet.

Of the 13.5 million children using the Internet, 9.1 million did so at school. About 6.5 million children used the Internet at home. While 2.1 million children used the Internet both at school and at home, more than half of all children used the Internet only at school (7.0 million).

School Internet use varied by socioeconomic characteristics, but much less dramatically than home Internet

use. This difference demonstrated the leveling effect of schools in Internet access and use. For example, among all children regardless of computer ownership, those in households with family incomes above \$75,000 were eleven times as likely as children in households with family incomes below \$25,000 to have used the Internet from home (27.3 percent compared with 2.4 percent). But children from the highest income households were only about 1.7 times as likely as those from the lowest income households to have used the Internet from school (20.0 percent compared with 11.9 percent). Non-Hispanic White children were nearly five times as likely as non-Hispanic Black children, and nearly four times as likely as Hispanic children, to have used the Internet at home (14.2 percent of non-Hispanic Whites compared with 3.0 percent of non-Hispanic Blacks, and 3.8 percent of Hispanics). But non-Hispanic White children were less than one and a half times as likely as non-Hispanic Black children, and only about twice as likely as Hispanic children, to have used the Internet from school (17.6 percent of non-Hispanic Whites compared with 12.1 percent of non-Hispanic Blacks, and 9.0 percent of Hispanics).4

# More adults used the Internet from home than anywhere else.

Of the 43.2 million adults who used the Internet at home, school, or

work, 28.0 million did so from home. The next most common place was work, where approximately 21.3 million people used the Internet. Finally, 6.1 million adults used the Internet at school. Some overlap exists because people using the Internet at work might also use it at home or at school.

Overall levels of adult Internet use varied across socio-economic groups in a pattern similar to adult computer use. Non-Hispanic Whites, individuals from higher family income households, and those with bachelor's degrees or more, had the highest rates of use. However, adult Internet use levels varied more noticeably by gender, with many more men using the Internet than women (24.8 percent compared with 19.6 percent). Adult Internet use varied with age. While 31.6 percent of those 18 to 24 years used the Internet someplace, only 7.9 percent of those 55 years and over did.

Adults used the Internet at home most often for e-mail or finding government, business, health, or education information (80.6 percent and 80.5 percent). The next most common uses were looking for news, weather, sports (50.5 percent); checking schedules, buying tickets, or making reservations (24.9 percent); chat rooms (19.4 percent); news groups (16.9 percent); shopping (14.6 percent); taking courses (4.2 percent); and other uses (8.5 percent).

In a pattern similar to that between boys and girls, men were more likely than women to use the Internet at home to look for news, weather, sports (57.8 percent and 41.3 percent). Men also looked at news groups more than women (20.5 percent and 12.5 percent) and checked schedules, bought tickets, or made reservations somewhat more frequently (26.5 percent compared with 22.9 percent). In other areas, men and women used the Internet more similarly.

#### Source of the Data

Most estimates in this report come from data obtained in October 1997 from the Current Population Survey (CPS). Some estimates are based on data obtained from the CPS in earlier years. The Census Bureau conducts the CPS every month, although this report uses only data from the October survey.

## Accuracy and reliability of the data

Statistics from sample surveys are subject to sampling and nonsampling error. All comparisons presented in this report have taken sampling error into account and meet Census Bureau standards for statistical significance. Nonsampling errors in surveys may be attributed to a variety of sources, such as how the survey was designed, how respondents interpret questions, how able and willing respondents are to provide correct answers, and how accurately answers are coded and classified. The Census Bureau employs quality control procedures throughout the production process including the overall design of surveys, testing the wording of questions, review of the work of interviewers and coders, and statistical review of reports.

<sup>&</sup>lt;sup>4</sup>Percents based on all children, including those without computers at home, and those not enrolled in school.

The CPS employs ratio estimation, whereby sample estimates are adjusted to independent estimates of the national population by age, race, gender, and Hispanic origin. This weighting partially corrects for bias due to undercoverage, but how it affects different variables in the survey is not precisely known. Moreover, biases may also be present when people who are missed in the survey differ from those interviewed in ways other than the categories used in weighting (age, race, gender, and Hispanic origin). All of these considerations affect comparisons across different surveys or data sources.

For further information on statistical standards and the computation and use of standard errors, contact Martha Jones, Demographic Statistical Methods Division at 301-457-4183 or via Internet e-mail (martha.l.jones @ccmail.census.gov).

### **More Information**

Detailed tables with characteristics of households, children, and adults, by computer presence in the home, computer use, Internet use, and other variables are available on the Internet (http://www.census.gov); search by clicking on 'C' for 'Computer Use' under the 'Subjects A-Z' heading on the Census Bureau home page.

To receive a paper copy of these tables, send your request for "PPL-114, Computer Use in the United States: October 1997" along with a check or money order in the amount of \$25.00 payable to Commerce-Census-88-00-9010, to U.S. Department of Commerce, U.S. Census Bureau, P.O. Box 277943, Atlanta, GA 30384-7943, or call our Statistical Information Office on 301-457-2422. A copy of these tabulations will be made available to any existing CPR P20

subscriber without charge, provided that the request is made within 3 months of the issue date of this report. Contact our Statistical Information Office on 301-457-2422.

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### **User Comments**

The Census Bureau welcomes the comments and advice of users of its data and reports. If you have any suggestions or comments, please write to:

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