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DIGITAL DIVIDE REPORT

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DIGITAL DIVIDE REPORT

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2. EXECUTIVE SUMMARY OF REPORT
3. PART 1: HOUSEHOLD ACCESS
4. PART 2: ACCESS TO THE INTERNET BY INDIVIDUALS
5. INTERNET ACCESS AND COMPUTER USE AMONG PEOPLE WITH DISABILITIES

AM|TAK|PD

Need to be clear on Sunday when this is to be released + our plan

GS 10/14/00

October 12, 2000

MEMORANDUM FOR GENE SPERLING

FROM: TOM KALIL

RE: DIGITAL DIVIDE REPORT

Summary: The Commerce Department is finalizing their report on the digital divide -- "Falling Through The Net: Toward Digital Inclusion." They were planning on having Secretary Mineta release this on Monday, but they would obviously be willing to have the President announce this instead.

Major findings

- Share of households with Internet access increased from 26.2 percent to 41.5 percent (December 1998 to August 2000)

- More than half of households have computers -- 51 percent, up from 42.1 percent.

- As of August 2000, 116.5 million Americans were online, 31.9 million more than 20 months ago.

- Rural households are beginning to approach the nationwide Internet penetration rate. In rural areas, 38.9 percent of households had Internet access, up from 22.2 percent in December 1998.

- Rural areas are lagging behind central cities in broadband penetration (7.3 percent vs. 12.2 percent).

- African-Americans and Hispanics, while they still lag behind other groups, have made significant gains. Black households are now more than twice as likely to have home access as they were 20 months ago - rising from 11.2 percent to 23.5 percent. Internet access has increased from 12.6 percent to 23.6 percent among Hispanic households. Differences in income and education levels account for about 1/2 of the gap between Black and Hispanic Internet access and the national average.

- Blacks are more likely to rely on locations outside the home, such as public libraries, for Internet access. [This shows the importance of CTCs.]

- Although low-income households are still much less likely to be connected, their access grew at faster than the national average. For example, Internet access among households with income between $15,000 and $25,000 increased from 11 percent to 21.3 percent, a 96 percent increase -- compared to the national average increase of 58 percent.

- People with disabilities are only half as likely to have access to the Internet as those without a disability - 21.6 percent compared to 42.1 percent. Only 20.9 percent of persons with disabilities reported regularly using a computer, compared to 51 percent of those without a disability. [This shows the importance of our disabilities initiative.]

- Individuals 50 years and older are among the least likely to be Internet users - Internet penetration rate in this group as only 29.6 percent.

Any imprvmt?

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Divider Title: **1**

Office of the Press Secretary

For Immediate Release Draft October 15, 2000

STATEMENT BY THE PRESIDENT

Today, I am pleased to release a report from the Commerce Department, which documents a sharp increase in the number of Americans that have access to computers and the Internet. Although much more remains to be done to bridge the digital divide and create digital opportunity for all Americans, I am especially pleased that many low-income, rural and minority households are beginning to "get connected" at rates that are faster than the national average.

Access to these Information Age tools is becoming increasingly important to full participation in America's economic, political and social life. Americans are using the Internet to vote, look for a job, acquire new skills, and communicate more frequently with their children's teachers. To ensure that we continue to make progress in bridging the digital divide, I urge the Congress to restore funding for the initiatives that I have proposed in my budget. These include my proposal to increase funding for Community Technology Centers, and for the Commerce Department's programs to bring information technology to low-income urban and rural communities.

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Divider Title: **2**

Falling Through the Net: Toward Digital Inclusion

EXECUTIVE SUMMARY

The Internet is becoming an increasingly vital tool in our information society. More Americans are going online to conduct such day-to-day activities as business transactions, personal correspondence, research and information-gathering, and shopping. Each year, being digitally connected becomes ever more critical to economic, educational, and social advancement. Now that a large number of Americans regularly use the Internet to conduct daily activities, people who lack access to those tools are at a growing disadvantage. Therefore, raising the level of *digital inclusion* -- by increasing the number of Americans using the technology tools of the digital age -- is a vitally important national goal.

This report, *Falling Through the Net: Toward Digital Inclusion,* is the fourth in the *Falling Through the Net* series. In this report, we measure the extent of digital inclusion by looking at households and individuals that have a computer and an Internet connection. We measure the digital divide, as we have before, by looking at the differences in the shares of each group that is digitally connected. For the first time, we also provide data on high-speed access to the Internet, as well as access to the Internet and computers by people with disabilities.

The data show that the overall level of U.S. digital inclusion is rapidly increasing:

* The share of households with Internet access soared by 58%, rising from 26.2% in December 1998 to 41.5% in August 2000.

* More than half of all households (51.0%) have computers, up from 42.1% in December 1998.

* There were 116.5 million Americans online at some location in August 2000, 31.9 million more than there were only 20 months earlier.

* The share of individuals using the Internet rose by 35.8%, from 32.7% in December 1998 to 44.4% in August 2000. If growth continues at that rate, more than half of all Americans will be using the Internet by the middle of 2001.

The rapid uptake of new technologies is occurring among most groups of Americans, regardless of income, education, race or ethnicity, location, age, or gender, suggesting that digital inclusion is a realizable goal. *Groups that have traditionally been digital "have nots" are now making dramatic gains:*

* The gap between households in rural areas and households nationwide that access the Internet has narrowed from 4.0 percentage points in 1998 to 2.6 percentage points in 2000. Rural households are much closer to the nationwide Internet penetration rate of 41.5%. In rural areas this year, 38.9% of the households had

Internet access, a 75% increase from 22.2% in December 1998.

- Americans at every income level are connecting at far higher rates from their homes, particularly at the middle income levels. Internet access among households earning $35,000 to $49,000 rose from 29.0% in December 1998 to 46.1% in August 2000. Today, more than two-thirds of all households earning more than $50,000 have Internet connections (60.9% for households earning $50,000 to $74,999 and 77.7% for households earning above $75,000).

- Access to the Internet is also expanding across every education level, particularly for those with some high school or college education. Households headed by someone with "some college experience" showed the greatest expansion in Internet penetration of all education levels, rising from 30.2% in December 1998 to 49.0% in August 2000.

- Blacks and Hispanics, while they still lag behind other groups, have shown impressive gains in Internet access. Black households are now more than twice as likely to have home access than they were 20 months ago, rising from 11.2% to 23.5%. Hispanic households have also experienced a tremendous growth rate during this period, rising from 12.6% to 23.6%.

- The disparity in Internet usage between men and women has largely disappeared. In December 1998, 34.2% of men and 31.4% of women were using the Internet. By August 2000, 44.6% of men and a statistically indistinguishable 44.2% of women were Internet users.

- Individuals 50 years of age and older -- while still less likely than younger Americans to use the Internet -- experienced the highest rates of growth in Internet usage of all age groups: 53% from December 1998 to August 2000, compared to a 35% growth rate for individual Internet usage nationwide.

Nonetheless, a digital divide remains or has expanded slightly in some cases, even while Internet access and computer ownership are rising rapidly for almost all groups. For example, the August 2000 data show that noticeable divides still exist between those with different levels of income and education, different racial and ethnic groups, old and young, single and dual-parent families, and those with and without disabilities.

* Persons with a disability are only half as likely to have access to the Internet as those without a disability: 21.6% compared to 42.1%. And while just under 25% of those without a disability have never used a personal computer, close to 60% of those with a disability fall into that category.

* Among those with a disability, people who have impaired vision and problems with manual dexterity have even lower rates of Internet access and are less likely

to use a computer regularly than people with hearing and mobility problems. This difference holds in the aggregate, as well as across age groups.

* Large gaps also remain regarding Internet penetration rates among households of different races and ethnic origins. Asian Americans and Pacific Islanders have maintained the highest level of home Internet access at 56.8%. Blacks and Hispanics, at the other end of the spectrum, continue to experience the lowest household Internet penetration rates at 23.5% and 23.6%, respectively.

* Large gaps for Blacks and Hispanics remain when measured against the national average Internet penetration rate.

  -- The divide between Internet access rates for Black households and the national average rate was 18.0 percentage points in August 2000 (a 23.5% penetration rate for Black households, compared to 41.5% for households nationally). That gap is 3.0 percentage points wider than the 15.0 percentage point gap that existed in December 1998.

  -- The Internet divide between Hispanic households and the national average rate was 17.9 percentage points in August 2000 (a 23.6% penetration rate for Hispanic households, compared to 41.5% for households nationally). That gap is 4.3 percentage points wider than the 13.6 percentage point gap that existed in December 1998.

  -- With respect to individuals, while about a third of the U.S. population uses the Internet at home, only 16.1% of Hispanics and 18.9% of Blacks use the Internet at home.

  -- Differences in income and education do not fully account for this facet of the digital divide. Estimates of what Internet access rates for Blacks and Hispanic households would have been if they had incomes and education levels as high as the nation as a whole show that these two factors account for about one-half of the differences.

* With regard to computer ownership, the divide appears to have stabilized, although it remains large.

  -- The August 2000 divide between Black households and the national average rate with regard to computer ownership was 18.4 percentage points (a 32.6% penetration rate for Black households, compared to 51.0% for households nationally). That gap is statistically no different from the gap that existed in December1998.

  -- Similarly, the 17.3 percentage point difference between the share of

Hispanic households with a computer (33.7%) and the national average (51.%) did not register a statistically significant change from the December 1998 computer divide.

* Individuals 50 years of age and older are among the least likely to be Internet users. The Internet use rate for this group was only 29.6% in 2000. However, individuals in this age group were almost three times as likely to be Internet users if they were in the labor force than if they were not.

* Two-parent households are nearly twice as likely to have Internet access as single-parent households (60.6% for dual-parent, compared to 35.7% for male-headed households and 30.0% for female-headed households). In central cities, only 22.8% of female-headed households have Internet access.

* Even with broadband services, a relatively new technology used by only 10.7% of online households, there are disparities. Rural areas, for example, are now lagging behind central cities and urban areas in broadband penetration at 7.3%, compared to 12.2% and 11.8%, respectively.

Americans are using the Internet in the following ways:

* E-mail remains the Internet's 'killer application'–79.9% of Internet users reported using e-mail.

* Online shopping and bill paying are seeing the fastest growth.

* Low income users were the most likely to report using the Internet to look for jobs.

* The August 2000 data show that schools, libraries, and other public access points continue to serve those groups that do not have access at home. For example, certain groups are far more likely to use public libraries to access the Internet, such as the unemployed, Blacks, and Asian Americans and Pacific Islanders.

Internet access is no longer a luxury item, but a resource used by many. Overall, the findings in this report show that there has been tremendous progress in just 20 months, but much work remains to be done. Computer ownership and Internet access rates are rapidly rising nationwide and for almost all groups. Nonetheless, there are still sectors of Americans that are not adequately digitally connected. Until everyone has access to new technology tools, we must continue to take steps to expand access to these information resources.

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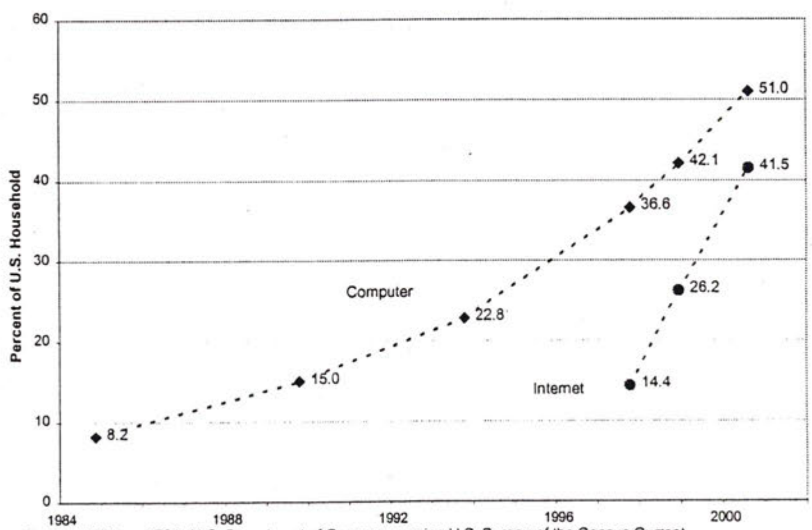
Divider Title: **3**

PART I: *HOUSEHOLD ACCESS*

Americans have bought home computers and hooked their homes up to the Internet at a remarkable rate between the last Census survey in December 1998 and the most recent one in August 2000. In just 20 months, the share of homes with Internet access soared by 58%, from 26.2% to 41.5%.[1] In part spurred by the desire to go online from home, the share of homes with computers rose from 42.1% to 51.0%. The fact that more than 80 percent of homes with computers also have Internet access today, up from little more than 60 percent in 1998, suggests the strong link between the Internet and home computers.

Figure I-1: Percent of U.S. Households with a Computer and Internet Access, Selected Years



Source: NTIA and ESA, U.S. Department of Commerce, using U.S. Bureau of the Census Current Population Survey supplements.

[1] The share of homes with computer and Internet access represents a widely-used gauge of electronic connectivity for a country's population. The three previous reports in the *Falling Through the Net* series beginning in 1995 have focused on this metric, as have reports done in Australia, Canada, Denmark, Finland, France, Germany, Italy, Japan, Norway, Sweden, and the United Kingdom. See Appendix_______. This metric has been a common metric because, in some cases, data on a household basis are the only data available. As more demographic data on persons' access become available, as those covered in the second part of this report, other metrics can be expected to become more common.

Virtually every group has participated in the sharp upward trend of Americans to connect their homes to the Internet. As reported in detail below, large gains were found at every income category, at all education levels, among all race groups, in both rural and urban America, and in every family type. As documented since 1997, certain groups are much further ahead than others in establishing Internet connections from home. This year, however, we have found that households in the middle income and education ranges are gaining ground in Internet connections as fast or faster than those at the top ranges.

The rapid growth in computer and Internet use among those in the middle income and education ranges and among relatively disadvantaged populations gives reason to believe that, in some cases, the digital divide has begun to narrow or will do so soon, and that we are entering a period of digital inclusion. In general, groups with very low adoption levels in 1998 experienced some of the highest expansion or growth rates over the last two years, even though they may not have experienced a high percentage point change. [See Tables 1 and 2, attached]

This section of the report examines the rates of home computers and Internet access on the basis of households by various demographic and geographic breakdowns, and also discusses reasons why some households choose not to go online. We also look at the penetration of higher speed Internet access. Although still modest – 11% of Internet users and 4% of all households – these broadband connectivity rates establish a benchmark for future comparisons.

I. OVERALL FINDINGS: THE NATION MOVES TOWARD DIGITAL INCLUSION

Between the recent U.S. Census Bureau August 2000 survey and the previous survey conducted in December 1998, U.S. households' access to computers and the Internet has grown dramatically. As of August 2000, there were an estimated 105 million households in the U.S. According to the latest survey, 43.6 million households (or 41.5% of all households) had Internet access. The percentage of homes with household Internet access registered an impressive 58% gain from the 26.2% penetration rate in December 1998.

Computer ownership has also continued to soar. The August 2000 Census survey determined that 53.7 million households had computers at home. The percentage of homes with computers rose by 21%, from 42.1% to 51.0%, from December 1998 to August 2000. Since 1997, computer penetration has risen by almost 40%, while Internet access has soared by 123%.

The rapid uptake of the Internet is perhaps best revealed by examining the growing percentage of households with computers or other devices that connect to the Internet. In 1997, approximately barely half (50.9%) of households with computers had Internet access. By 2000, that figure had surged to four out of five households.

II. DIGITAL INCLUSION PROCEEDS UNEVENLY

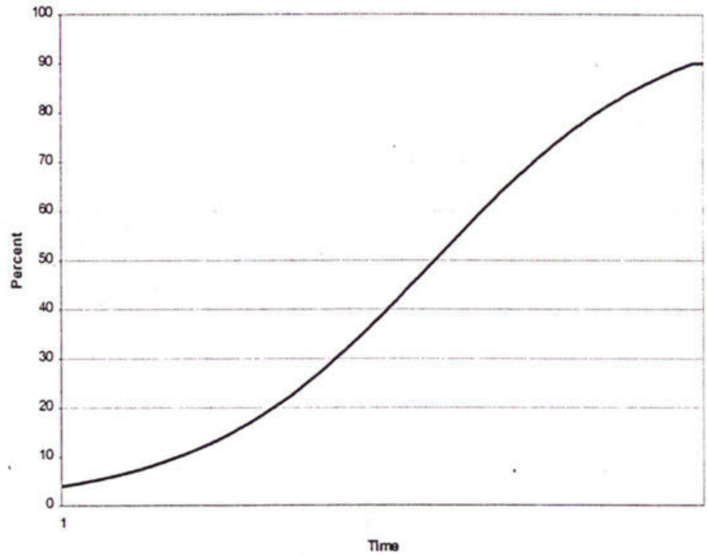
The tremendous growth in household computer and Internet use has occurred across all demographic groups, including income and education levels, races, locations, and household types. Nevertheless, some Americans are still connecting at far higher rates than others, creating a *digital divide* (*i.e.*, a difference in rates of access to computers and the Internet) among different demographic groups.

When looking at computer and Internet access, certain groups (such as Whites, Asian/Pacific Islanders, and those with higher income and education levels) have far higher levels of computer ownership and Internet access. These groups have generally exhibited greater percentage point changes (that is, the change in penetration rate from one survey to the next). On the other hand, they exhibit slower expansion or growth rates (*i.e.*, the change as a percentage of the initial base level). At the same time, groups with lower penetration rates (such as Blacks, Hispanics, and those with lower income and education levels) are exhibiting smaller percentage point changes but higher expansion rates because they are starting from a much lower base and have more opportunity for rapid, and greater, expansion. For example, a group which had a penetration rate of 10% in December 1998 and 20% in August 2000 would exhibit a 100% expansion rate but only a 10 percentage point change.

A case in point center on households with both high income and high education levels. These households made substantial percentage point gains in Internet access during the last 20 months. They had already achieved such high levels of penetration by December 1998. Their expansion rates since that date, however, have been surpassed by those with mid-range incomes and levels of education.

The pattern exhibited thus far by household access to both computers and the Internet accords with the standard "S-curve" pattern for adoption of new technologies. Historically, when a major new technology is first introduced, the number of users expands extremely rapidly but from a very low base. Over time, as a group reaches the middle range of the S-curve, the growth rate tends to slow while the point change continues to increase rapidly. Once the penetration nears 100% (or some lower saturation point at the higher end of the S-curve), both the percentage point change and the expansion rate begin to decrease.

Figure I-2: An Illustrative S Curve



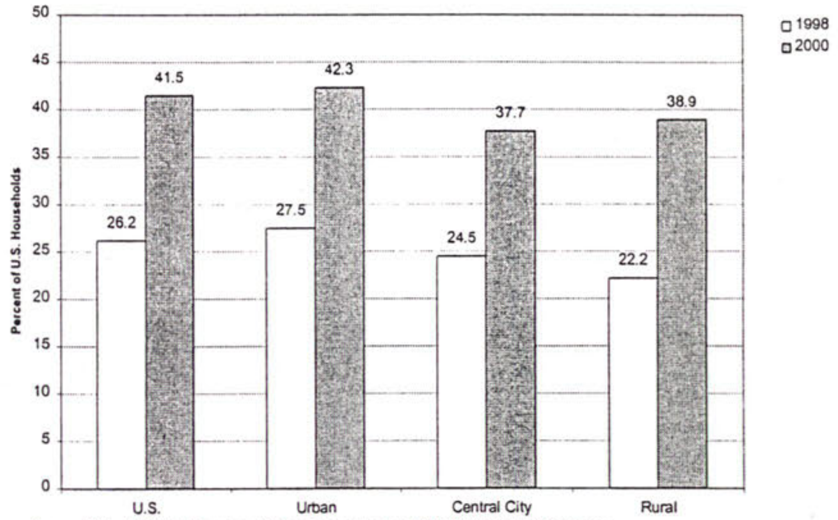
The adoption rates along these curves depend on a number of factors, including the awareness of a new technology, the affordability of that technology, adaptations to the technology to widen its potential market, and the attraction for people to use the technology as its usage becomes widespread. The purchase of computers for the home has been spurred not only by falling prices and more user-friendly software, but also by the policy decision to open up the Internet in the mid-1990s for use by the general public and commerce. For Internet access itself, the continuation of public policies to promote competition (that lowers prices and improves quality) and to make new technologies more accessible will substantially influence the uptake rates of the current groups of information "have-nots," and will help move these groups to greater digital inclusion.

Below we examine variations in household Internet and computer access, looking at differences in geography, income, race/ethnicity, education level, and household type.

A. Geography

One of the most dramatic shifts that has occurred since December 1998 has been the increase in Internet access by rural households. Rural areas narrowed the divide when compared to the national average. In contrast, central cities have had significant increases in access, but fell behind other parts of the country in terms of the gains in access. Urban areas, even though they include central cities, continue to have a greater percentage of households with Internet penetration than rural areas.[2] Data relating to the Internet access by geography can be found in the Appendix, **Charts _-_.**

Figure I-3: Percent of U.S. Households with Internet Access By U.S. Rural, Urban and Central Cities, 1998 and 2000



Source: NTIA and ESA, U.S. Department of Commerce, using August 2000 U.S. Bureau of the Census Current Population Survey.

Rural Households Narrow the Gap

Rural households, which traditionally trailed those in central cities and urban areas are showing significant gains in Internet access. The gap between households in rural areas and households nationwide that access the Internet has recently narrowed. There was a 4.0 percentage-point difference in 1998; a 2.6 point difference occurred in 2000.

In rural areas this year, 38.9% of households had Internet access, an increase of 75% from 1998's access rate of 22.2%. In October 1997, just 14.8% of the rural households had online access.

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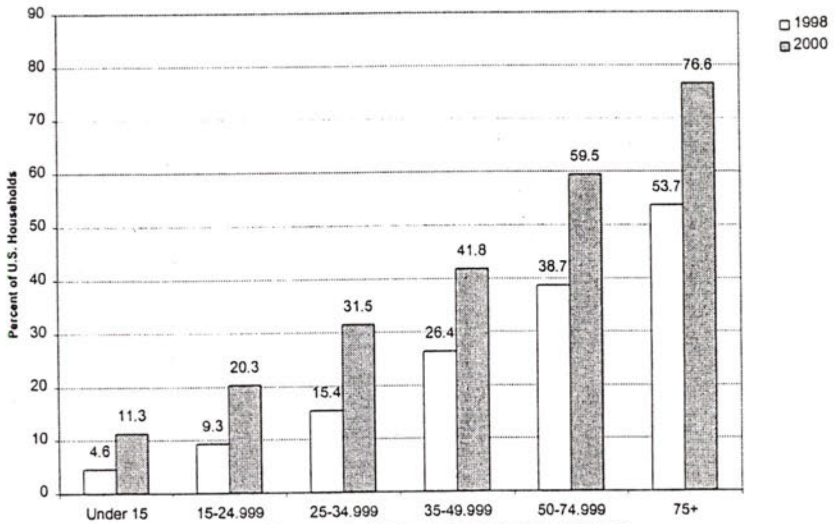
[2] The "urban" category includes those areas classified as being urbanized (having a population density of at least 1,000 persons per square mile and a total population of at least 50,000) as well as cities, villages, boroughs (except in Alaska and New York), towns (except in the six New England states, New York, and Wisconsin), and other designated census areas having 2,500 or more persons. A "central city" is the largest city within a "metropolitan" area, as defined by the Census Bureau. Additional cities within the metropolitan area can also be classified as central cities if they meet certain employment, population, and employment/residence ratio requirements. All areas not classified by the Census Bureau as urban are defined as rural and generally include places of less than 2,500 persons. About 1/4 of all households were in rural areas in August 2000.

Rural Black households, which have traditionally been near the bottom of Internet access, showed significant improvement. In December 1998, 7.1% of those households had Internet access. By 2000, the figure jumped to 19.9%.

The growth in rural Internet household access has come at all income levels, with the lowest levels showing some of the highest growth rates. As a result, the rates for rural household users now approximate those of households across the country.

Figure I-4: Percent of Rural Households with Internet Access By Income ($000s), 1998 and 2000



Source: NTIA and ESA, U.S. Department of Commerce, using U.S. Bureau of the Census Current Population Survey supplements.

In the lowest income category, households below $15,000, Internet access for rural households rose from 4.5% to 11.3%. At most of the other income levels, the rural households now come close to the nation-wide figures by doubling their access rates through the middle income levels. Growth rates have been slower at the highest income levels, but the access rates are only slightly below the national average.

Slower Growth in Central Cities

Contrasted with the strong growth in rural areas, households in central cities have experienced much lower rates of increase for their Internet penetration. Compared with the nation-wide rates of penetration, the digital divide widened, even as there were positive developments. In August 2000, 37.7% of central city households had Internet access, contrasted with the national figure of 41.5% -- a gap of 3.8 percentage points. In December 1998, central city households had a 24.0% access rate, 1.7 percentage points lower than the national rate. The gap therefore appears to be growing, rather than narrowing, and central cities have slipped below the rural areas in terms of household access.

Although households in central cities experienced double-digit growth in household Internet access, their access rate was below that of the national average. The increase for central city households from 1998 to 2000 was 13.2 percentage points (an expansion of 54%). This compares to an increase between 1997 and 1998 figure of 7.2 points (a growth rate of 17%).

Every income category for central city households showed double-digit percentage growth between 1998 and 2000, with the sole exception of the highest category of $75,000 per year or more. Individual income brackets showed some dramatic increases over the period. At the lowest income level, below $15,000, household Internet access nearly doubled, from 7.7% in 1998 to 13.5% in 2000 (an increase of 75%).

Black households in central cities registered a 20.1% access rate, about double the 1998 rate of 10.2%, but slightly below the national average for Blacks of 23.6%. The Hispanic households in central cities had a 21.5% access rate, a little more than double the 1998 figure of 10.2%, but slightly below the national average for Hispanic households of 23.6%. White central city households had a 47.1% Internet access rate, up from 32.3% in December 1998.

Urban Areas Continue Above -Average Internet Access

Urban areas continue to have the highest household Internet penetration rates. The rate of growth in household Internet access in urban areas between 1998-2000 was about the same as it was for central cities, about 54%. However, the level of access in urban areas started from a much higher level, and continue to exceed the national average.

In urban areas, 42.3% of households had Internet access, contrasted with 41.5% of households nationally in 2000. Urban households have seen a steady increase over the last three years. In 1997, the household access rate for online access in urban areas was 19.9%. At the end of 1998, the level was 27.5%. The lowest income levels saw a 72.3% increase from 1998-2000, which translated to a 5.5 percentage point increase to the current level of 13.2% access for households with incomes under $15,000. The $75,000+ category had a household access rate of 78.0%, the highest single category rate for the geographic regional breakdown.

Each racial and ethnic group had higher household Internet penetration rates in urban areas than in rural areas. Urban Black households registered a 24.0% access rate, up from 11.7% in December 1998, and contrasted with the rural figure of 19.9% for Black households. Hispanic households had a 23.9% rate, up from 12.9% in our last report, and above the 19.9% national rate for Hispanic households. The White household rate in urban areas was 48.3%, up from 32.4% in December 1998, and above the national average of 46.1%.

Snapshot from Geographical Regions

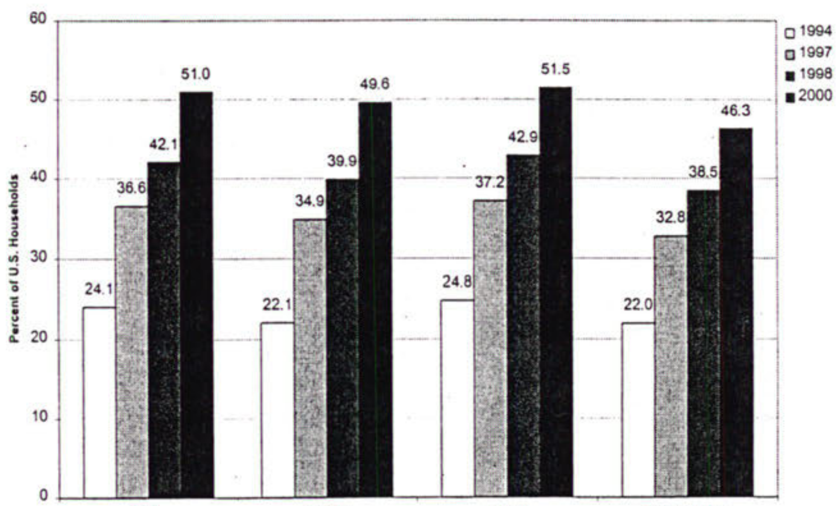
The West continues to be the most wired region of the country, with household Internet access of 46.6%, followed by the Northeast (43.0%), Midwest (40.9%), and South (37.9%).

Rural areas in the Northeast registered the highest rate of access (49.9%), followed by urban areas in the West (47.2%). Northeast central city regions had the lowest household access rate, (33.1%), followed by rural regions in the South (33.8%).

Computer Ownership by Geography

Computer ownership is closely linked to Internet access. Nationally, just over half (51%) of households own computers, up from 42.1% in our December 1998 survey. Urban areas had the highest rate of ownership (51.5%), increasing 8.6 points in the last 20 months. Rural areas, tracking the growth in Internet access, had the largest single increase, 9.7 percentage points, to reach a household ownership level of 49.6%. Central cities had a 46.3% ownership rate, up 7.8 points since December 1998. All data relating to computer ownership by geography can be found in the Appendix, **Charts _-_.**

Figure I-5: Percent of U.S. Households with a Computer By U.S., Rural, Urban, and Central City Areas, 1994, 1997, 1998, 2000



Source: NTIA and ESA, U.S. Department of Commerce, using U.S. Bureau of the Census Current Population Survey supplements.

Households in all regions at all income levels also showed improvements in computer ownership. In both central cities and in urban areas, 20% of households with less than $15,000 income now own computers, contrasted with 17% of rural households in the same income bracket. Nationally, 19.2% of households with less than $15,000 own a computer, according to the 2000 survey. That figure is up from 14.5% in December 1998.

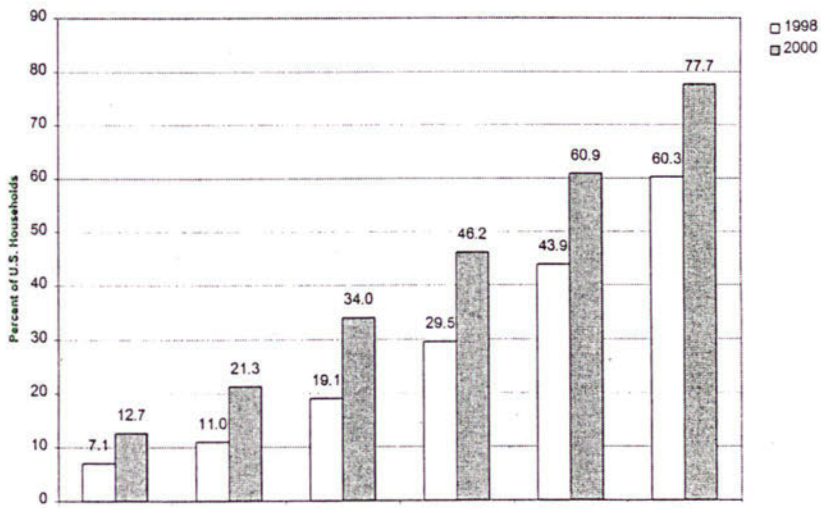
B. Income

Although computers and Internet access are coming down in price, they are still sufficiently expensive that household income remains an important factor in home Internet access. Nevertheless, households across all income levels and throughout the country have made significant gains in achieving Internet access since the last *Falling Through the Net* study was released. Some of the biggest gains have come at every income level in rural areas. In addition, gains have been made at all income levels as measured by different racial and ethnic communities. Data relating to the Internet access by income can be found in the Appendix, **Charts _-_.**

Internet Penetration Rises Across Income Levels

Household Internet access continues to correlate closely to income. Across the U.S., however, households in the lower income bands registered increases in Internet access much faster than the national 58% gain. Households with less than $15,000 in income had a 12.7% Internet penetration rate, 79% higher than in December 1998.[3] The rate of change is impressive. Between 1997 and 1998, the income band improved only 82%, from 3.9% penetration to 7.1%. At the $15,000-$24,999 income levels, 21.3% of households had Internet access. The rate of increase between 1998 and 2000 was 96%, as the penetration rate increased steadily from 6.4% in 1997, to 10.9% in 1998, to 21.3% in 2000. This year's penetration rate for households with incomes between $25,000 and $34,999 34.0%, an increase of 81% from the 18.8% penetration rate in 1998.

Figure I-6: Percent of U.S. Households with Internet Access By Income ($000s), 1998 and 2000



Source: NTIA and ESA, U.S. Department of Commerce, using U.S. Bureau of the Census Current Population Survey supplements.

[3]Although the Census Bureau collected data on household income in $5,000 increments up to $35,000, this report depicts changes in wider income bands. Since the latest ceiling for poverty income is $13,300 for a family of three and $17,000 for a family of four, it seemed appropriate to set the first breakpoint at $15,000.

All three income ranges starting at $35,000 had the same 17 point gain from 1998 to 2000. Households with income between $35,000 and $49,999 achieved a 46.1% Internet penetration rate in 2000, up from 29.0% in 1998. Households with incomes between $50,000 and $74,999 went from 43.3% to 60.9%, while those at $75,000 and above climbed from 60.3% to 77.7%. With the same point gain but starting from much lower initial levels, the $35,000-$49,999 and the $50,000-$74,999 income groups had larger expansion rates.

Geographic Areas Show Different Rates of Increase

Different areas of the country showed different rates of growth in household Internet penetration at incomes below $75,000. At the highest income level ($75,000 and higher) household penetration was relatively equal in all geographic areas at 77%.

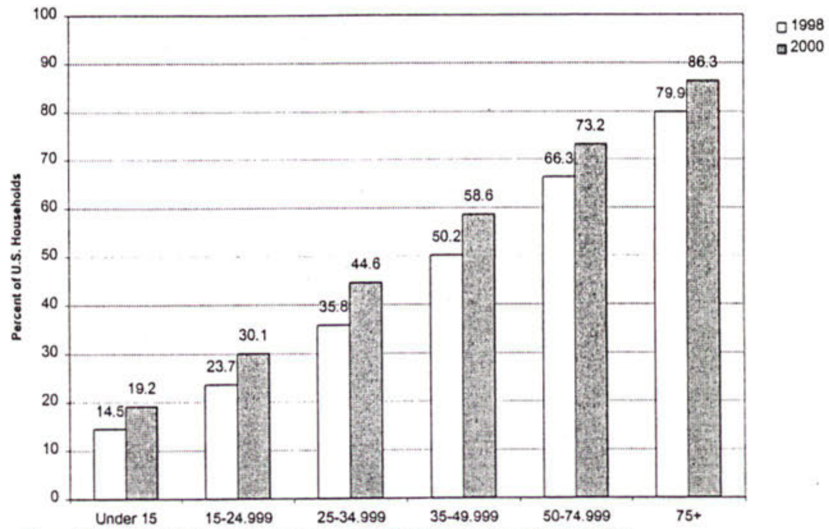
For households earning less than $15,000 annually, rural households had the lowest penetration rate at 11.3%. However, that rate is more than double what it was for the same group of households in 1998 (at 4.5%). In other locations, however, the household penetration rate for the lowest income group is higher, even if the rate of growth is lower. In urban areas, for example, 13.2% of lowest-income households had Internet access, an increase of 5.5 percentage points (72.3% higher than for 1998 levels). Central city households with incomes below $15,000 achieved a 13.5% penetration rate in 2000, a 75.3% increase from 1998.

CHECK Rural areas at all income levels showed the highest percentage increases. In addition to the 148.8% for the lowest income group, households with incomes between $15,000 and $34,999 achieved increases of more than 126% per year. Increases in Internet access across all income levels in other regions were less spectacular, but all showed improvement at varying rates. In urban areas, for example, households with incomes between $10,000 and $19,999 each achieved an increase of 92% in 2000 over their 1998 access rates. Central city households, however, had lower increases year-to-year. The household income brackets with the highest percentage increases were the group with less than $15,000 income, which achieved a 75% increase, to a 13.5% penetration level, and the group between $15,000 and $24,999, which had a 64% increase, achieving a 20.7% access level for 2000.

Low-Income Households Show Computer Ownership Gains

Almost one-fifth (19.2%) of households in the lowest income bracket (under $15,000 per year) now own computers, an increase of 4.7 percentage points from the 14.5% figure in December 1998. Overall, households at the lowest income levels increased their ownership of computers by approximately one-third in August 2000 over the December 1998 levels -- the greatest change registered by any income bracket.

Figure I-7: Percent of U.S. Households with a Computer By Income ($000s), 1998 and 2000



Source: NTIA and ESA, U.S. Department of Commerce, using U.S. Bureau of the Census Current Population Survey supplements.

At other income levels, 30.1% of households in the $15,000-$24,999 bracket owned computers in 2000, a 27% increase over 1998. The next fastest growing income bracket for computer ownership was in the $25,000-$34,999 category. In that group, 44.6% of households own a computer, an increase of 25% from the 35.8% penetration rate in 1998. Among geographic areas, 17.0% of rural households at the lowest income level own a computer, contrasted with 19.9% of households with less than $15,000 income in urban areas and in central cities.

At the highest income level of more than $75,000, 86.3% of households have a computer, up from 79.9% in 1998. The ownership rate in central cities (83.7%) trailed the national average at that income.

For all three income categories above $35,000, rural households were as likely as their urban peers to have a computer at home.

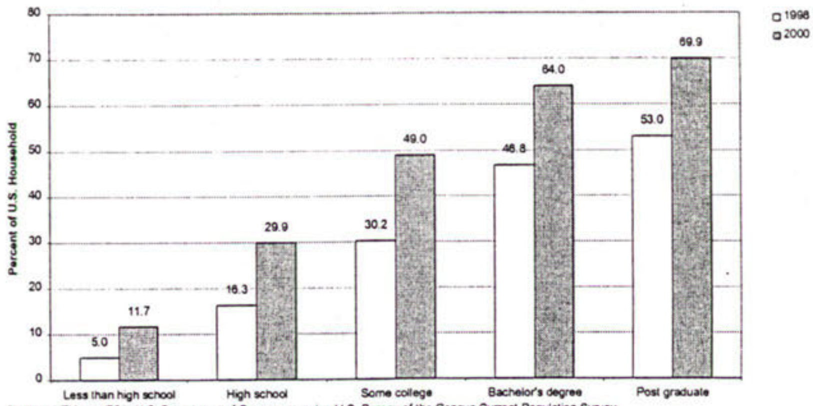
Data relating to computer ownership by income can be found in the Appendix, **Charts _-_.**

C. Education Level

The education level of the reference person or householder also helps to explain the difference in home computer and Internet access. Better educated adults are more likely to use and become familiar with computers and the Internet at work or through their school experiences. In December 1998, 53.1% of households headed by a person with education beyond college, had

Internet access. That surpassed the access rate for households headed by a person with a bachelor's degree (46.8%), those with some college experience (30.2%), those with some college experience (16.3%), and those with less than a high school diploma (5.0%).

Figure I-8: Percent of U.S. Households with Internet Access By Education 1998 and 2000



Source: NTIA and ESA, U.S. Department of Commerce, using U.S. Bureau of the Census Current Population Survey supplements.

The same patterns existed in August 2000, although rates have soared for all educational levels in the last 20 months. Of households headed by someone with post-college education, 69.9% had Internet access. That compares to households headed by someone with a college degree alone (66.0%), those with some college experience (49.0%), those educated beyond high school but no college degree (29.9%), and those with less than a high school degree (11.7%).

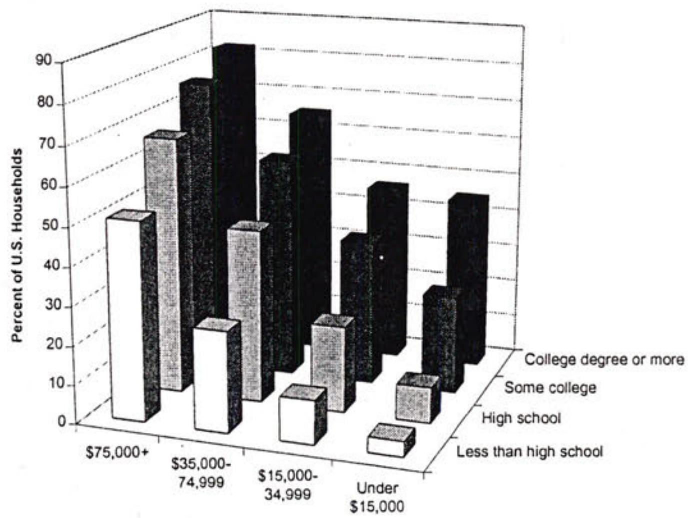
Once again, the 1998-2000 expansion rates were highest but point gains the lowest among those that started off with lower rates in 1998, that is the less educated. For example, Internet access expanded by 135% for those with less than a high school education, by 62% for those with some college, and by 32% for those with post college education.

The median level of education among adult family heads is some college. This group had a larger point gain over the last twenty months – 19 points – than households in the two higher education categories with 17 point gains each.

The interplay between education and income levels is worth examining more closely. Although both of these factors are linked to Internet access, as we have seen, they are also linked to each other. In terms of home Internet access rates, the ratio of the highest group to the lowest is more than five to one for both the income and education categories in Table 2. Since the two are so correlated, we have examined whether just one factor is dominant and the other represents a misleading correlation, or whether both are independently associated with Internet access.

Figure 8 indicates that both income and education are independently associated with Internet access. Although the average Internet access rate for incomes of $75,000 and greater is 77.7%, it ranges from 82% for those with college degree or more down to 51% for those with less than a high school education. Likewise, households with incomes between $15,000 and $34,999 had an average access rate of 28%, ranging from 46% for college or more down to 11% for less than high school. The same wide disparities occur within education categories. For example, among households in which a financially responsible adult had some schooling beyond high school but not a college degree, home Internet access reached 76% in the over $75,000 income group but only 26% in the under $15,000 income group. Among households with incomes below $15,000 and less than a high school education, only 4% had Internet access at home.

Figure I-9: Percent of Households with Home Internet Access By Income and Education, 2000



Source: NTIA and ESA, U.S. Department of Commerce, using U.S. Bureau of the Census Current Population Survey supplements.

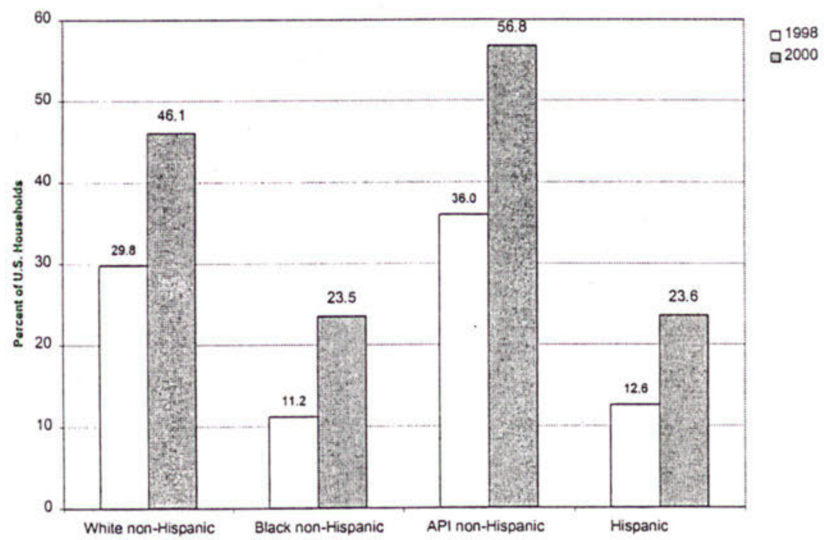
Once again, groups with higher initial adoptions rates generally had large point goins but lower than average expansion rates, as shown in Table 2. Those with the lowest incomes and education had much lower initial home Internet rates in 1998; however, they had the largest expansion rates. Although the expansion rate for the country was 58%, no group with post high school education and incomes above $35,000 had expansion rates that large. Among those with at least a college degree, only those with the lowest household incomes had expansion rates above the national average.

The largest point gains (from 20 to 22 points) were registered by those with incomes above $75,000 and less than a college degree and those with $35,000 to $74,999 in income and some college education. Indeed, households with incomes more than $75,000 and at least a college degree have reached the inevitable flattening stage of the "S-Curve." Their 16.3 point gain leaves that group more than four-fifth (83.6%) of the way to 100%.

4. Race/Ethnic Background

Between December 1998 and August 2000, there has also been a surge in uptake of Internet and computer access among households of different ethnic and racial origins.[4]

Figure I-10: Percent of U.S. Households with Internet Access By Race / Hispanic Origin, 1998 and 2000



Source: NTIA and ESA, U.S. Department of Commerce, using U.S. Bureau of the Census Current Population Survey supplements.

Households of Asian-Pacific Islander origin have maintained the greatest Internet penetration at 56.8% in 2000. This group has also experienced the most dramatic growth in home Internet access in the last two years: an increase of 20.8 percentage points (from 36.0% in 1998). White households continued to have the second highest rate of access at 46.1% and experienced a growth of 16.3 percentage points (from 29.8% in 1998).

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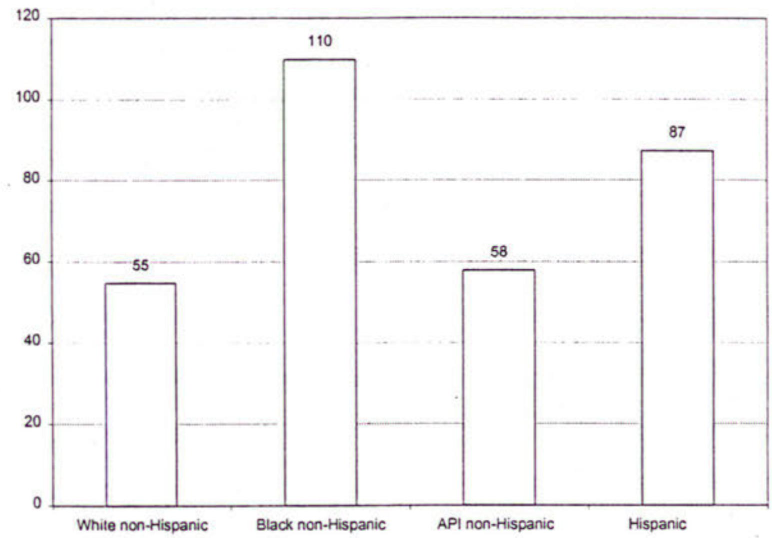
[4] Persons of Hispanic origin are determined through self-identification by origin or descent. Persons of Hispanic origin are those who indicated that their origin was Mexican-American, Chicano, Mexican, Puerto Rican, Cuban, Central or South American, or other Hispanic. People of Hispanic ethnicity can be of any race. In the tabulations throughout this analysis, people of Hispanic origin are grouped as Hispanic and excluded from the race categories; e.g., "Whites" should be read as "Whites, non-Hispanic" and "Black" should be read as "Black, non-Hispanic." We recognize that there is significant variation in Internet access and computer ownership within each of these categories.

At the other end of the spectrum, Black and Hispanic households continue to experience the lowest Internet penetration rates (at 23.5% and 23.6%, respectively).[5] Internet uptake by Black and Hispanic households has been strong in the last two years, however. Between December 1998 and August 2000, access among Black households doubled from 11.2% in 1998 to 23.5% in 2000, a gain of 12.3 percentage points. Hispanic households' access increased 11 percentage points (from 12.6% in 1998 to 23.6% in 2000).

Figure I-11: Rate of Growth of Internet Penetration By Race / Hispanic Origin, 1998 to 2000



Source: NTIA and ESA, U.S. Department of Commerce, using U.S. Bureau of the Census Current Population Survey supplements.

Revise several figures to reflect edits to accompanying paragraph

Although the percentage point change for Blacks and Hispanics was not as high as that for Asian-Pacific Islanders or Whites, their rates of growth between 1998 and 2000 were striking. Internet access among Black households more than doubled (a 110% increase) between 1998 and 2000, while Hispanic households' access grew 87% in the same period. This compares to a growth rate of 55% for White households and 58% for Asian-Pacific Islander households.

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[5]This report does not include separate data on American Indians, Aleuts, and Eskimos (AIAE) because the sampled population from that group is too small for credible results. Last month, for the first time in its long-running reports on poverty and income, the Census Bureau did include results for AIAE, but only by pooling the last three years of data collected. We do not have three years of data collected on a comparable basis to produce separate numbers for AIAE. Data for AIAE households can be found, however, in the public use file which can be found at www.ntia.doc.gov and at www.bls.census.gov/cps/cpsmain.htm.

Internet access among all households remains strongly affected by geography and income level. With regard to geography, almost all households have a slightly higher Internet penetration rate in urban areas (48.3% for Whites, 24.0% for Blacks, and 23.9% for Hispanics). Households in rural areas, on the other hand, have experienced significantly lower penetration rates (40.9% for Whites, and 19.9% for Blacks and Hispanics). The notable exception is Asian-Pacific Islander households, which have a far higher Internet penetration rate in rural areas (62.1%) than their national average (56.8%) or rate for urban areas (56.6%).

Income also affects whether households of different ethnic and racial backgrounds have Internet access. Households earning above $75,000 are highly likely to have Internet access (78.6% for Whites, 70.9% for Blacks, 63.7% for Hispanics, and 81.6% for Asian/Pacific Islanders). The rates of connectivity decline significantly as income declines, although less so for Asian-Pacific Islander households. While Hispanics and Blacks are particularly unlikely to have Internet access at incomes below $15,000 (5.2% and 6.4%, respectively), 33.2% of Asian-Pacific Islander households in that lowest income bracket have Internet access.

Because income and education are such important factors in whether households have Internet access, some have wondered whether those factors might fully explain the observed gaps between the national average and the rates for Blacks and Hispanics. Those two groups as a whole have lower incomes and lower education levels than the national average. Because lower incomes and lower education levels are associated with lower Internet access, Blacks and Hispanics would be expected to have lower rates of home Internet access.

Differences in overall income and educational levels of Blacks and Hispanics do not fully account, however, for their lower levels of home Internet access. After removing the effects of lower levels of income and educational attainment with shift-share analysis,[6] we observe that: (1) roughly half of the gap remains; (2) both groups made roughly the same gains over the last 20 months as the national average; and (3) both groups, on this adjusted basis for August 2000, had substantially surpassed the national average for December 1998. Figure 11 depicts the results of this shift-share analysis. In August 2000, both Blacks and Hispanics had home Internet access 18 points below the national average. The effects of having levels of income and education lower than the national average, however, accounted for 8 percentage points of the gap for Blacks and for 11 percentage points of the gap for Hispanics.

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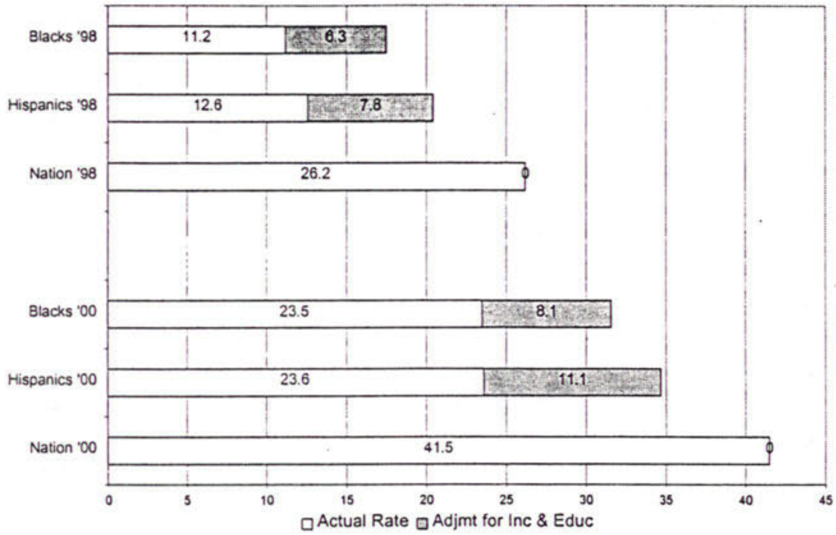
[6]In this shift-share analysis, we use the actual Internet access rates for each of the possible combinations of income and education levels provided in the Census data for Blacks and Hispanics separately. We then calculate what the Internet access rate among Blacks and Hispanics would have been if the share of Blacks and Hispanics in each of the income-education combinations had been the same as the national average.

Figure I-12: Income and Education Differences Account for Half of the Gap between Blacks and Hispanics and the National Average



Source: NTIA and ESA, U.S. Department of Commerce, using U.S. Bureau of the Census Current Population Survey supplements.

Over the 20 months from December 1998 to August 2000, the share of homes online rose by 12 points for Blacks, by 11 points for Hispanics and by 15 points for the country as a whole. However, on an income and education adjusted basis, Blacks and Hispanics each rose by 14 points, which is equivalent to the national gain on a statistical basis. The 32% penetration rates for Blacks and the 35% for Hispanics on an adjusted basis for August 2000, while far short of the national average of 42%, are both well above the national rate of 26% in December 1998.

The Internet Divide Continues

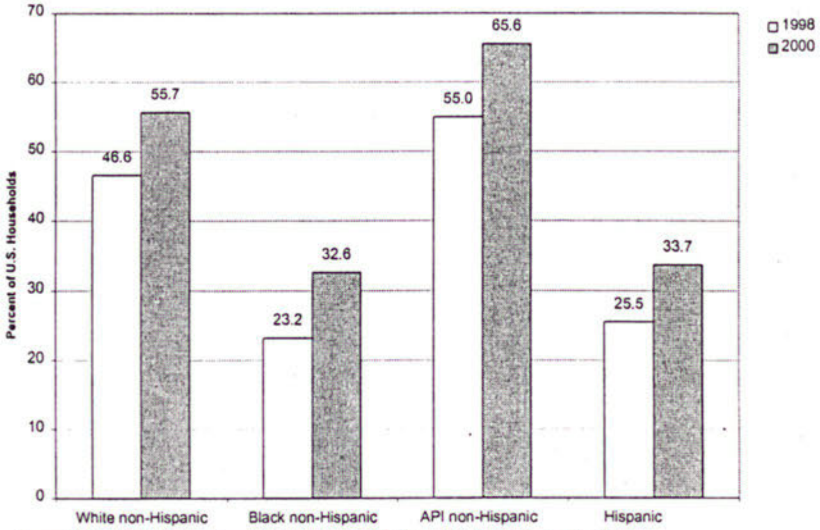
Significant discrepancies have continued to widen between most racial groups. Between October 1997 and December 1998, the gap between White and Black households grew 5.1 percentage points, from a 13.5 percentage point difference in 1997 to a 18.6 percentage point difference in 1998. In the 20 month period between December 1998 and August 2000, the divide between White and Black households increased 4 percentage points, resulting in a percentage point difference of 22.6 points between White and Black households. The gap between White and Hispanic households grew 4.7 percentage points between 1997 and 1998, and then continued to widen even further (by 5.3 percentage points) between 1998 and 2000.

Between Asian-Pacific Islanders and Whites, the gap grew from 6.2 percentage points in 1998 to 10.7 percentage points in 2000. Because there is no data for Asian-Pacific Islanders from 1997, we cannot determine if the gap has continued to widen over time.

While the growth in the Internet divide is troublesome, the high rates of growth for Blacks and Hispanics suggest that, in time, this widening will subside. If computer ownership provides any pattern, we may soon see some stabilization and perhaps even narrowing of the Internet divide.

The Computer Divide Has Stabilized

Figure I-13: Percent of U.S. Households with Computer By Race / Hispanic Origin, 1998 and 2000



Source: NTIA and ESA, U.S. Department of Commerce, using U.S. Bureau of the Census Current Population Survey supplements.

Households of different ethnic and racial backgrounds also had disparate rates of ownership of computers. As with Internet access, households of Asian-Pacific Islander descent continue to exhibit the highest penetration rates (65.6%), followed by White households (55.7%), Hispanics (33.7%), and Blacks (32.6%).[7]

[7]This report does not include separate data on American Indians, Aleuts, and Eskimos (AIAE) because the sampled population from that group is too small for credible results. Last month, for the first time in its long-running reports on poverty and income, the Census Bureau did include results for AIAE, but only by pooling the last three years of data collected. We do not have three years of data collected on a comparable basis to produce separate numbers for AIAE. Data for AIAE households can be found, however, in the public use file which can be found at www.ntia.doc.gov and at www.bls.census.gov/cps/cpsmain.htm.

All ethnic groups experienced comparable increases in computer penetration since 1998: ownership in 2000 was 10.6 percentage points higher for Asian-Pacific Islanders, 9.4 percentage points higher for Blacks, 9.1 points higher for Whites, and 8.2 points higher for Hispanics.

As with Internet access, computer ownership is strongly influenced by income and geography. Households earning more than $75,000 are consistently likely to own computers: 87.0% for White households, 86.9% for those of Asian-Pacific Islander descent, 83.4% for Blacks, and 76.1% for Hispanics. The computer divide becomes more pronounced at lower income levels, although less so for households of Asian-Pacific Islander descent. At incomes less than $15,000, Black households and Hispanic households are particularly unlikely to have computers (11.5% and 12.5%), compared to White households (22.8%) and Asian-Pacific Islander households (39.4%).

Geography also plays a role in a household's likelihood of owning a computer. In general, those in rural areas are less likely to own computers (51.8% for Whites, 28.8% for Hispanics, and 27.5% for Blacks), while households in urban areas exceed the national average (57.3% for Whites, 34.2% for Hispanics, and 33.3% for Blacks). The sole exception to this trend is households of Asian-Pacific Islander descent, which have higher computer penetration rates in rural areas (70.3%) than in urban areas (65.3%).

Perhaps most significantly, the data show that computer penetration for White, Black, and Hispanic households have risen by comparable amounts so that the gaps in computer penetration between these households have stabilized. While the periods between 1994 and 1998 saw a widening gap between White and Black, and White and Hispanic, households, the computer divide has remained unchanged at 23 points for both 1998 and 2000. Nor do we have evidence of a change in the White-Hispanic gap in home computers. The marginal change in that gap from the 21.1 percentage point difference estimated for 1998 to the 22.0 percentage point difference for 2000 falls within the margin of error for such estimates.

Data relating to computer ownership among households of different races and ethnic origins can be found in the Appendix, **Charts _-_.**

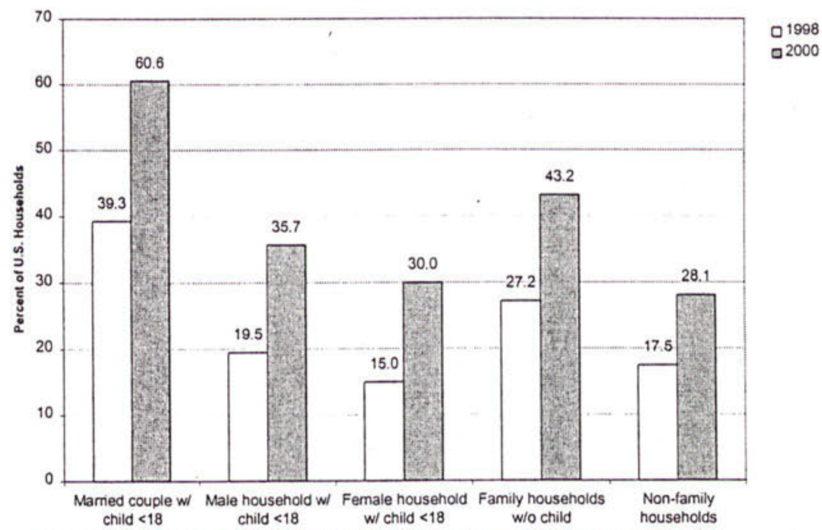
E. Household Type

The make-up of a household -- such as the presence or absence of children, and whether there are one or two parents -- significantly determines that household's likelihood of having Internet and computer access. The impact of this factor is most obvious with regard to Internet access. Even here, however, single-parent households have made great strides since December 1998, and at higher income levels are catching up to dual-parent households. All data relating to Internet access and computer ownership by household type can be found in the Appendix, **Charts _-_.**

Internet Access Is Still Highly Influenced by Children with Two Parents, Although Single Parents are Making Gains

Households with children and two parents have much higher rates of Internet access that other family types. As in 1998, married couples with children under 18 are far more likely to have Internet access (60.6%) than married couples without children (43.2%). This high connectivity rate for couples with children holds true regardless of whether they live in urban areas (61.5%), rural areas (58.3%), or central cities (55.1%). Those in "non-family households" (single or unmarried people), on the other hand, are the least likely to have Internet access (at 28.1%). Of all household types, non-family households in rural areas are the least likely to have Internet access (at 20.2%).

Figure I-14: Percent of U.S. Households with Computer By Family Type, 1998 and 2000



Source: NTIA and ESA, U.S. Department of Commerce, using U.S. Bureau of the Census Current Population Survey supplements.

Having one or two parents also makes a significant difference on whether a family has Internet access. Two-parent households are nearly twice as likely to have Internet access as single-parent households (60.6% for dual-parent, versus 35.7% for male-headed households with children less than 18 years of age, and 30.0% for female-headed households with children less than 18 years of age). Female-headed households in central cities are particularly unlikely to have Internet access (22.8%), as are male-headed households in rural areas (30.3%).

The differences among household types are most distinct at the middle income levels. At incomes below $15,000, on the other hand, the disparities diminish somewhat: 19.7% for dual-parent households; 14.5% for male-headed households; 12.6% for female-headed households; 13.5% for family households without children; and 11.4% for non-family households. Similarly, the gap narrows at incomes above $75,000: 84.4% for dual-parent households; 69.4% for male-headed households; 67.9% for female-headed households; 74.5% for family households without children; and 68.4% for non-family households.

While single parents trail significantly behind two-parents households in Internet access, they have shown the most change since 1998. Connectivity among female-headed households literally doubled between 1998 and 2000 (from 15.0% to 30.0%). Connectivity among male-headed households also grew substantially (by 83%) from 19.5% in 1998 to 35.7% in 2000. In time then, the gap between single and dual-parent households may close, as is already becoming apparent at the highest income level.

Computer Penetration Highest for Dual-Parent Households at Highest Income Level

As with Internet access, computers are far more likely to be in households with children and two parents. Married couples with children under 18 years og age own computers at much higher rates (73.2%) than married couples without children (52.5%), male-headed households (45.6%), female-headed households (42.9%), or "non-family" (single or unmarried) households (34.6%). Despite these differences, the discrepancies among these groups are less dramatic than with Internet access, perhaps because computers are more prevalent as an older and more widely-adopted technology. As with Internet access, single-parent families have also shown the greatest rate of growth in the last two years (30.3% for male-headed households, and 35.3% for female-headed households), suggesting that the gap between dual-parent and single-parent families may begin to close in time.

Again, location exacerbates existing differences. Female-headed households and male-headed households in central cities are much less likely to own computers (34.9% and 43.1%, respectively) than those in rural or urban areas. By contrast, computer penetration declines in rural areas for households *without* children (48.0% for family households without children, and 26.2% for single/unmarried households). Households without children may be experiencing higher computer rates in urban areas and central cities areas because they may be more likely to be urban professionals.

Income also has a significant effect on computer ownership. Particularly notable is the high penetration rate of computers in families earning $75,000 or more. Dual-parent families in this high-income bracket have a 93.1% penetration rate. That is, nearly every household falling into this group has a computer. Computer penetration is also high for other household types at this income level: 84.2% for male-headed households; 82.3% for female-headed households; 82.8% for households without children; and 76.6% for non-family households.

Computer penetration drops dramatically at the lowest income levels for almost all households types. The significant exception is for married couples with children: one-third (33.3%) of these families still own computers even at incomes below $15,000. This relatively high penetration rate suggests that computers are becoming an affordable and desirable staple for many families, even for those in the lowest income bracket.

III. HOUSEHOLDS WITH COMPUTERS AND INTERNET ACCESS BY STATE

All states experienced growth in household computer penetration and Internet access between December 1998 and August 2000. Particularly high expansion rates occurred for Delaware (18.1%), Connecticut (16.6%), and West Virginia (14.5%) in computers, and Delaware (25.6%), Wyoming (21.4%), and Connecticut (10.4%) for Internet.

Computer ownership and Internet access also vary significantly by state. Utah registers the highest level of households with computers (66.1%) while Mississippi is at the other end of the spectrum at 37.2% (See Table A). Internet access ranges from New Hampshire (56.0%) to Mississippi (26.3%) (See Table B). The state penetration rates are listed alphabetically rather than numerically from highest to lowest penetration levels because confidence intervals do not permit precise rankings.

Although there is significant variation in penetration rates among states, that variation has diminished somewhat in the last 20 months. The "gap" between the highest and lowest computer penetration by state has decreased between December 1998 (62.4% vs. 25.7%, or 36.7 percentage points) and August 2000 (66.1% vs. 37.2%, or 28.9 percentage points). Similarly, the Internet gap has decreased between December 1998 (44.1% vs. 13.6%, or 30.5 percentage points) and August 2000 (56.0% vs. 26.3%, or 29.7 percentage points).

Table 1. Percent of Households with Computers, by State: 2000
(Numbers in thousands.)

State	Total Households	Percent with Computers	90% Confidence Interval
Alabama	1,742	44.2	2.83
Alaska	219	64.8	2.96
Arizona	1,832	53.5	2.70
Arkansas	1,041	37.3	2.72
California	12,129	56.6	1.20
Colorado	1,636	62.6	2.73
Connecticut	1,235	60.4	3.29
Delaware	290	58.6	3.21
Florida	6,235	50.1	1.48
Georgia	3,066	47.1	2.52
Hawaii	386	52.4	3.61
Idaho	491	54.5	2.71
Illinois	4,566	50.2	1.74
Indiana	2,347	48.8	2.86
Iowa	1,136	53.6	2.95
Kansas	1,010	55.8	2.96
Kentucky	1,614	46.2	2.82
Louisiana	1,650	41.2	2.78
Maine	508	54.7	3.13
Maryland	2,076	53.7	3.04
Massachusetts	2,407	53.0	2.17
Michigan	3,709	51.5	1.86
Minnesota	1,799	57.0	2.91
Mississippi	1,059	37.2	2.81
Missouri	2,155	52.6	2.98
Montana	360	51.5	2.79
Nebraska	637	48.5	3.04
Nevada	690	48.8	2.99
New Jersey	3,091	54.3	1.92
New York	6,971	48.7	1.34
New Hampshire	474	63.7	3.22
New Mexico	667	47.6	2.89
North Carolina	3,047	45.3	2.07
North Dakota	246	47.5	3.01
Ohio	4,351	49.5	1.81
Oklahoma	1,338	41.5	2.69
Oregon	1,280	61.1	2.99
Pennsylvania	4,720	48.4	1.68
Rhode Island	402	47.9	3.23
South Carolina	1,557	43.3	2.98
South Dakota	289	50.4	2.87
Tennessee	2,220	45.7	2.90
Texas	7,353	47.9	1.52
Utah	707	66.1	2.76
Vermont	242	53.7	3.21
Virginia	2,722	53.9	2.74
Washington	2,323	60.7	2.93
Washington, DC	254	48.8	2.97
West Virginia	744	42.8	2.65
Wisconsin	2,031	50.9	2.86

Wyoming	193	58.2	2.91

Table 2. Percent of Households with Internet Access, by State: 2000
(Numbers in thousands.)

State	Total Households	Percent with Internet	90% Confidence Interval
Alabama	1,742	35.5	2.73
Alaska	219	55.6	3.08
Arizona	1,832	42.5	2.68
Arkansas	1,041	26.5	2.49
California	12,129	46.7	1.21
Colorado	1,636	51.8	2.82
Connecticut	1,235	51.2	3.37
Delaware	290	50.7	3.26
Florida	6,235	43.2	1.46
Georgia	3,066	38.3	2.46
Hawaii	386	43.0	3.58
Idaho	491	42.3	2.69
Illinois	4,566	40.1	1.71
Indiana	2,347	39.4	2.79
Iowa	1,136	39.0	2.88
Kansas	1,010	43.9	2.96
Kentucky	1,614	36.6	2.72
Louisiana	1,650	30.2	2.59
Maine	508	42.6	3.11
Maryland	2,076	43.8	3.03
Massachusetts	2,407	45.5	2.16
Michigan	3,709	42.1	1.84
Minnesota	1,799	43.0	2.91
Mississippi	1,059	26.3	2.56
Missouri	2,155	42.5	2.95
Montana	360	40.6	2.74
Nebraska	637	37.0	2.93
Nevada	690	41.0	2.94
New Hampshire	474	56.0	3.33
New York	6,971	39.8	1.31
New Jersey	3,091	47.8	1.92
New Mexico	667	35.7	2.78
North Carolina	3,047	35.3	1.99
North Dakota	246	37.7	2.93
Ohio	4,351	40.7	1.78
Oklahoma	1,338	34.3	2.59
Oregon	1,280	50.8	3.07
Pennsylvania	4,720	40.1	1.64
Rhode Island	402	38.8	3.15
South Carolina	1,557	32.0	2.81
South Dakota	289	37.9	2.78
Tennessee	2,220	36.3	2.80
Texas	7,353	38.3	1.48
Utah	707	48.4	2.92
Vermont	242	46.7	3.22
Virginia	2,722	44.3	2.73

Washington, DC	254	39.6	2.90
Washington	2,323	49.7	3.00
West Virginia	744	34.3	2.54
Wisconsin	2,031	40.6	2.81
Wyoming	193	44.1	2.93

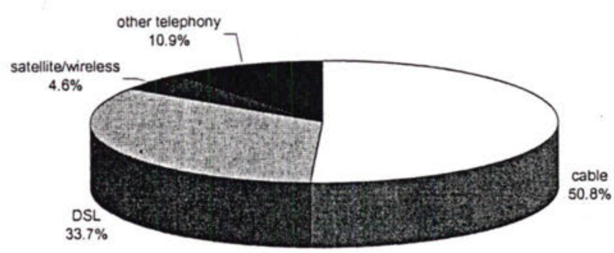
IV. A NEW DIMENSION: HIGH SPEED INTERNET ACCESS

One of the bonanzas of rapid technological change has been the development of infrastructure featuring wider bandwidth and faster transmission speeds. This diffusion of the higher-speed access services, generally classified as "broadband," has only just begun.[8] This year's report presents the results from the first systematic data collection on user access to high-speed broadband service that has been undertaken on a large scale.

Survey respondents who stated that they were online at home were asked whether they accessed the Internet through regular "dial-up" telephone lines or whether they had opted for a higher-speed form of connectivity. Where respondents indicated they had obtained a faster connection, they were also asked to identify the type of access used - - Digital Subscriber Lines (DSL), Integrated Services Digital Network (ISDN), cable modems, wireless, or other. Today a relatively small proportion of households access the Internet at higher speeds. This survey will serve as an empirical baseline for what is expected to be significant growth. Data relating to speed of Internet access can be found in the Appendix, **Charts _-_.**

Survey results indicate 10.7% of online households (about 4.5% of all U.S. households) have broadband-speed access. The remaining 89.3% of online households (37.0% of all U.S. households) connect to the Internet by regular dial-up phone service.

Figure I-15: High Speed Internet Access, 2000
Percent of U.S. Households with Internet Access

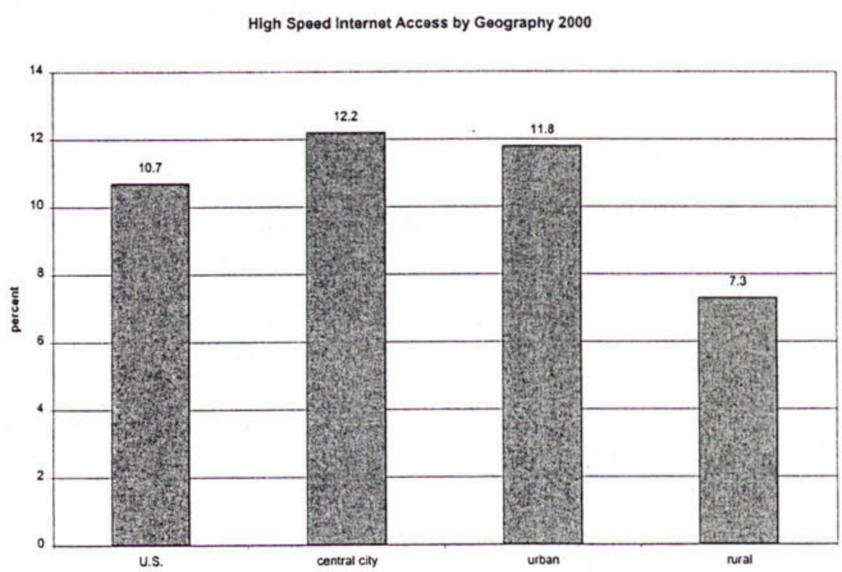


[8]The term "broadband" is used in this study to include the two most common technologies, Digital Subscriber Line (DSL) and cable modems, as well as such technologies as Integrated Services Digital Network (ISDN). These technologies usually feature broadband capabilities although some applications or connections may possess speeds lower than the 200 kilobits per second that the Federal Communications Commission defines as broadband. Although a technology that appears to be on the brink of widespread high-speed capabilities, wireless is more often narrowband in its current applications.

Among total broadband households, the overwhelming majority either procure cable modems (50.8%) or DSL (33.7%). Wireless and satellite (4.6%) and other telephone-based technologies such as ISDN (10.9%) account for much lower percentages. Broadband preferences can vary, however, by demographic characteristics. For example, youngest householders prefer DSL (50.1%) over cable modems (42.7%), whereas other age groups use relatively more cable modems than DSL. Location also matters: in central cities, DSL (38.2%) and cable modem (44.2%) penetrations are relatively close; this contrasts with urban broadband households (which includes central cities and the suburbs), where the cable modem rate (51.1%) significantly exceeds that for DSL (33.6%). Regions also produce some wide variations. For example, the West demonstrates a balance between its DSL (43.1%) and cable modem (41.9%) diffusion; this contrasts with the Northeast's clear preference for cable modems (62.3%) over DSL (24.5%).[9]

Broadband penetration differs by location: central city (12.2%) vs. urban (11.8%) vs. rural (7.3%) vs. U.S. (10.7%). Regional variations occur, as well: the West (11.9%) surpasses the Midwest (9.2%), while the Northeast (11.0%) and South (10.7%) rank between the two. Combining the two factors reveals that the West has both the nation's highest take rate in its central city areas (13.0%) and the lowest rate in its rural environs (5.9%).

Figure I-17:



The penetration rate generally rises as household income increases because broadband access costs more than regular dial-up Internet access. Among those online households with family income of $5,000 to $9,999, only 6.5% selected faster access modes, the lowest rate of any income bracket. Conversely, the most affluent households (with incomes $75,000 and greater) exhibit the highest proportion of broadband at 13.8%, or more than double the above low-income take rate. The lowest bracket (under $5,000) breaks the pattern, yielding one of the highest

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[9] A separate discussion of the roll out of broadband services is contained in the April, 2000, report *Advanced Telecommunications in Rural America: The Challenge of Bringing Broadband Service to All Americans* produced by the Commerce Department and the U.S. Department of Agriculture. That report found DSL and cable modem services are more readily available in urban areas.

percentages (9.9%); this may reflect the presence of students who desire higher transmission speeds for school or simply attach a higher priority to faster access.

Educational attainment above the level of high school also affects broadband percentages. Those with college degrees (12.5%) significantly exceed the national penetration rate for all households (10.7%). The households where education levels were high school or less trailed substantially with rates less than 9%. Householders with at least some college (9.9%) ranked in between the two extremes but below the national average.

Purchase of faster transmission rates tends to be inversely related to age. The youngest householders boast the highest broadband penetration (12.3%) - - perhaps reflecting the student factor - - while seniors rank the lowest (9.0%). Interestingly, the age group just below seniors (45-54 years) can claim one of the highest penetrations (11.2%). Internet access speeds vary by race and origins as well, with minorities registering both the highest and lowest diffusion rates. Asian-Pacific Islander households have the highest broadband rate (11.7%), followed by Whites (10.8%). Blacks (9.8%) and Hispanics (8.9%) rank lowest.

Both the number of parents and gender type act as important influences on broadband rates. Thus, male householders with children rank highest (12.6%), while female-headed families rank lowest (8.2%). Two-parent families and families without children both exhibit broadband penetrations (10.6%) approximating the national average; non-family households (11.7%) exceed this average by a full percentage point.

V. NON-INTERNET HOUSEHOLDS

As of August 2000, 41.5% of the nation's 105 million households, or 43.6 million homes, have Internet access. Thus, 58.5% of households - - or 61.6 million homes- - were *not* connected electronically. In contrast, in December 1998 there were 76.5 million unconnected households (73.8%). This movement represents a substantial *decline* in both the proportion (15.3 percentage points) and number (a drop of 14.9 million) of non-Internet households relative to 20 months earlier.

As of August 2000, the number of households that had computers but no Internet access was 10.8 million, down from 16.9 million in December 1998, a decline of 36%. During that time frame, the proportion of PC households without access fell from 38.6% to 19.8%.

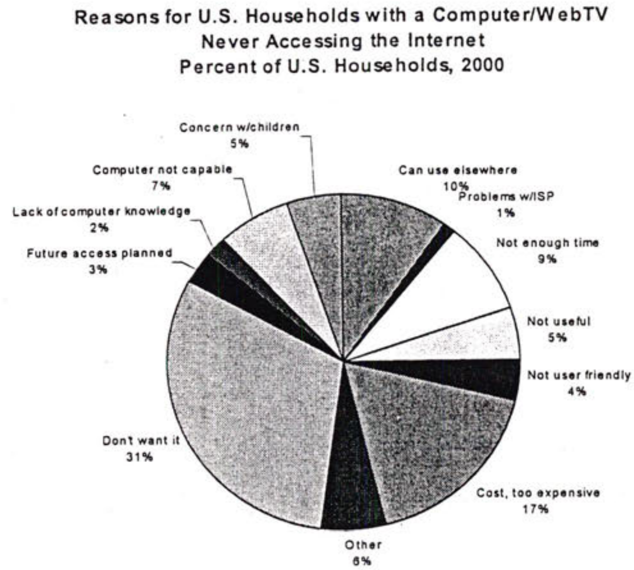
A household may not be connected to the Internet for a number of reasons. In terms of its historical experience, a household may have never been connected, or it may have decided to discontinue its Internet use. We address these situations below.

A. Why Households with Computers Have Never Had Internet Access

Within computer households, there are a number of households that have never had an Internet connection. In August 2000, these households totaled 8.7 million. This figure represents a sizeable decline from December 1998, when the count equaled 14.4 million, or 65.5% higher than the 2000 figure.

During the 2000 survey, "never-connected" households provided a number of reasons for not accessing the Internet at home. The most dominant reason was "don't want it" (30.8%). The second most common response: "cost, too expensive" (17.3%). Other leading reasons for non-access included "can use elsewhere" (10.4%), "not enough time" (9.1%), and "computer not capable" (6.7%). These data is similar to the breakdown reported from the December 1998 data, which found the reasons to be: don't want (25.7%) followed by reasons of cost (16.8%), use elsewhere (10%), and no time (8.7%). In fact, the proportions for these major categories remained basically the same, with the notable exception of the top (don't want it) category, which increased by five percentage points.

Figure I-18



Not surprisingly, for low-income households, cost prevails as the most important reason for never connecting. For those households under $15,000, one-third of respondents (32.6%) cited cost, and slightly more than one-quarter cited "don't want it" (26.6%). In contrast, the over-$75,000 bracket reversed the order of importance: "don't want it" (30.0%) surpassed cost (9.4%). The cost/don't-want-it nexus occurred at $20,000: those brackets below this threshold ranked cost number one, while those above placed "don't want it" first.

Cost affects other groups that have never had online access, as well. For example, more than one in four (26.1%) of the youngest householders (under 25 years of age) regard Internet connectivity as too expensive, rating it over "don't want it" as the primary reason for non-access in their households. Female householders with children also point to cost as the most important reason for non-access, with 29.9% of respondents citing this factor versus 22.5% stating that they "don't want it."

Unlike youngest householders, those in other age brackets regard "don't want it" as more important than cost; this is particularly true for seniors (55 years and older), where "don't want it" (40.4%) significantly outranks cost (14.5%). All major race/ethnic groups regard "don't want it" as more important than the cost factor. This pattern holds for Whites (31.5% vs. 16.4%), Asian-

Pacific Islanders (30.4% vs. 13.0%), and Blacks (31.4% vs. 18.2%); it also holds for Hispanics but the differential is much less (25.5% vs. 23.7%).

The same relative rankings occur when viewed by levels of educational attainment: the difference is most pronounced for those householders with college degrees (29.3%, 11.6%), some high school (36.9%, 20.4%), or a high-school diploma (32.9%, 17.4%), and least for some college (28.3%, 20.4%). All household types besides female-headed families embrace these rankings, with male householders with children (36.5%, 22.5%) dramatically reversing the order from the 1998 survey (18.7%, 23.2%). While employed households (27.8%, 17.7%) continued the pattern established in December 1998 (25.5%, 16.5%), unemployed households (30.9%, 28.9%) experienced a major swap of rankings compared to the previous survey (38.2%, 13.3%).

B. Why Households with Computers Have Discontinued Internet Access

Over the last 20 months, the number of Internet "drop-offs" (i.e, those households that once had but do not currently have electronic access) fell slightly, from 4.1 million to 4.0 million households, a reduction of 3.5%.

Respondents to the August 2000 survey cited several principal reasons for their households' decisions to discontinue their Internet access. (See Chart___.) The leading factor noted was "no longer owns computers" (17.0%). Next in importance were "can use anywhere" (12.8%) and "cost, too expensive" (12.0%). The other key reasons were "don't want it" (10.3%), "not enough time" (10.0%), and "computer requires repair" (9.7%). Also provided as reasons were "moved" (6.1%), "not useful" (4.2%), "problems with ISP" (2.9%), "concern with children" (2.3%), "not user friendly" (1.5%), and "computer capacity issues." "Other" reasons - - those that are too heterogeneous to be included elsewhere - - were also given by respondents **(9.8%).**

[INSERT PIE CHART]

These results reflect changes from the answers given in the December 1998 survey. In 1998, respondents identified "cost, too expensive" (15.0%) as the most important reason for dropping off the network. In 1998, the reason "no longer owns computer" ranked second (14.0%) and "can use anywhere" ranked fourth (9.0%). "Not enough time to use it" registered the same percentage (10.0%) in both surveys but slipped from third in 1998 to fourth in 2000. Respondents accorded "computer requires repair" about double the response rate from December 1998 (5.0%) to August 2000 but had the same ranking (sixth). "Don't want it" was the fifth most popular reason in 1998 (7.0%).

A more disaggregated look at the August 2000 survey results reveals additional insights. Data relating to discontinued Internet access can be found in the Appendix, Charts _-_.

As a reason for discontinuing Internet access, "no longer owns a computer" ranks number one and cost is the number to reason for all income brackets except the highest ($75,000+). The most affluent income category respondents led with "can use elsewhere," "computer requires repair," "don't want it," and "not enough time."

Looking at different race and ethnic groups, "no longer owns computer" ranked highest for White households, followed by "can use elsewhere" and "cost." For Blacks, the ranking was "cost," "no longer owns," and "use elsewhere." Hispanic households cited "elsewhere," "no longer owns," and "cost."

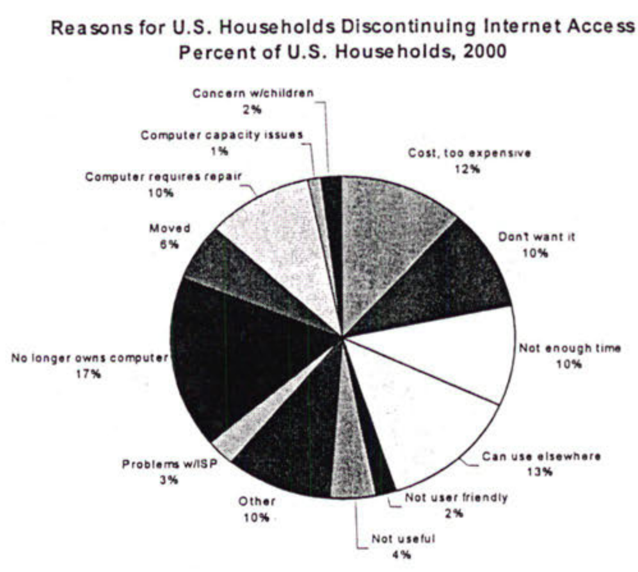
Focusing on the level of educational attainment, the elementary education, some high school education, and some college education groups all identified the same two top reasons: "no longer owns computer" and "cost." The diploma groups saw it differently. The high-school-degree group ranked cost first and "no longer owns" second. The college-degree group picked out "use elsewhere," followed by "no longer owns."

An examination of household types reveals some distinct differences. Married couples with children ranked "cost" and "not enough time" at the top of their list of major reasons. This contrasts with other household types, whose number one was "no longer owns computer": male householders with children, female householders with children, and non-family households.

All age categories rated "no longer owns computer" as the most important reason, ranging from 21.7% for under-25 householders to 13.0% for 35-44-year-old householders. The second-ranked reasons varied greatly: "can use elsewhere" for under-25 and 25-34 year olds; "cost" for 35-44 year olds; "computer requires repair" for 45-54 year olds; and don't want it for those householders at least 55 years old.

Thus, although variations exist for some specific demographic groups, August 2000 survey respondents generally identified an absence of a computer, reliance on other locations, and cost as the most important reasons for their households discontinuing their home Internet access. These reasons contrast with the responses of never-connected households, who cited "don't want it" as the most compelling reason for their non-access.

Figure I-19



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Part II
ACCESS TO THE INTERNET BY INDIVIDUALS

Introduction

As of August 2000, 116.5 million Americans were online—31.9 million more than there were only 20 months earlier. Internet users accounted for 44.4% of the U.S. population (age 3 and older), up from 32.7% in December 1998. This pattern of increase holds true at all income and education levels, for all age groups, for both men and women, for the employed and the unemployed, as well as across all race and ethnic groups.

Groups that have historically been digital "have nots"—individuals who come from low-income households, individuals with low levels of education, minority groups (particularly Blacks and Hispanics), and older people— have participated in this dramatic increase in Internet usage, however, they still lag behind the national average.

Individuals who are over 50 years old are among the least likely to be Internet users. The Internet penetration rate in this group was only 29.6% in 2000. Age, however, is only part of the story. In August 2000, individuals age 50 and older who are in the labor force were almost three times as likely to be Internet users if they were in the labor force.

In August 2000, Internet penetration rates were virtually identical for men and women in the aggregate.

Internet access from locations outside the home appears to be a factor in the increases in Internet penetration rates for some groups that are behind the national average. Nationwide, a greater share of people had Internet access from their homes in August 2000 than in December 1998. However, Black and Hispanic Internet users, however, were more likely than the other Internet users to rely exclusively on Internet access from outside their homes.

Most people who had access to the Internet from outside their homes reported getting access at work or at school. The unemployed individuals were more likely than the employed to report accessing the Internet from another person's computer, and libraries.

E-mail is still the Internet's "killer application"—79.9 % of internet users reported e-mail. Among other online activities online shopping and bill paying saw the fastest growth. The low income unemployed were the most likely to report using the internet to look for jobs.

These estimates are based on individual use data. Person-based data offer a more complete understanding of ways in individuals use the Internet. They offer the ability to examine demographic characteristics that are unique to individuals with no logical correspondence at the household level. These demographic variables include age, gender, level of educational attainment. These offer insight into where individuals have Internet access---at home, somewhere outside the home, or both. And, where individuals are accessing the Internet from a location away from their home we can get some insight into where they are getting that access. Finally, these data offer some information about the activities that individuals are undertaking while they are online. However, the person-based data and household-based data yield related, but not necessarily identical, rates of Internet penetration for factors that are common to the two data sets, such as income and race. Why these differences occur is explained in Box 1.

In the future person-based data are likely to become a critical complement to the household-based measures of Internet penetration. We are already seeing the emergence of a world were Internet access is mobile. It travels with the individual rather than being a function of the physical place where the individual is. For years, laptop computers have offered processing power and Internet access to individuals wherever they happened to be—at home, in the office, in hotels across the globe. Mobile devices, such as palm pilots and mobile phones, now offer Internet access anywhere via wireless connections. Car makers are rolling out prototypes of cars with Internet access. While one may argue that these devices will be targeted at the high income individuals, this same argument was true of computers just a short time ago. Furthermore, a number of countries (e.g., Japan, the Scandinavian countries) are seeing rapid increases in mobile Internet penetration among the young people in their countries.

The Relationship Between the Household- and Person-Based Measures

Household surveys provide information on both entire households and the individual persons within those households. The person data provides information on the number of people who have access to the Internet at home, how many are using that access, the extent of access at other locations, and the types of activities are they pursuing on the Internet.

As discussed in Part I, the number of households connected to the Internet rose from 26.2% in December 1998 to 41.5% in August 2000. (See Figure xx.)

INSERT FIGURE WITH 4 PAIRS OF BARS ON INTERNET '98-'00

Since households with Internet connections tend to have more people than households without them, the proportion of Americans living in homes with Internet access is somewhat larger than the proportion of households connected. As shown in the second pair of bars in Figure xx, the share of Americans in homes online has surged from 30.0% in December 1998 to 46.7% in August, a gain of almost a percentage point a month. At that rate, a majority of Americans will have Internet access at home by the end of the year.

Only about three quarters of the people living in homes where there was Internet access were actually using the Internet from home. As a result, the August survey found that only 35.7% of Americans were actually using the Internet at home, up from 22.3% in December 1998. (See third pair of bars in Figure xx.)

Another 8.7% of Americans in August were using the Internet but not from home. When they are added to those who using the Internet from home, the total share the population using the Internet from any location stood at 44.4% in August, up from 32.7% twenty months earlier (fourth pair of bars in Figure xx)

I. Internet Penetration Among Individuals

In August 2000, 116.5 million Americans were online—31.9 million more than there were only 20 months earlier. Internet users accounted for 44.4% of the U.S. population (age 3 and older), up from 32.7% in December 1998.

Age, and age combined with labor force participation for certain age groups, are key components in Internet use. However, as can be seen in Figure XX, between December 1998 and August 2000 Internet use increased across the age distribution.

{Insert Figure C}

Income

Individuals who live in high Income households have higher rates of Internet penetration. While individuals in all income groups were more likely to be Internet users in 2000 than in 1998, Internet penetration is greater in higher income brackets. (Figure XX.) Only 18.9% of individuals who lived in households with an annual incomes of less than $15,000 dollars were Internet users in August 2000. In contrast, 70.1% of people who lived in households where the annual income was greater than $75,000 reported using the Internet. Middle income groups saw the largest point gains while the lowest income groups had the fastest expansion rates.

{INSERT FIGURE X}

Race

Individuals with different racial and ethnic backgrounds still tend to use the Internet to differing degrees. (Figure XX.) In August 2000, Whites were still the most likely to use the Internet, followed by Asian/Pacific Islanders, Blacks, and Hispanics. During the 20 month period between the two surveys, Whites gained 12.7 percentage points and Asian/Pacific Islanders gained 13.6 percentage points in the share of their populations that had Internet access. In contrast, Blacks gained 10.3 percentage points, and Hispanics gained 7.1 percentage points. In December 1998, Blacks were 13.8 percentage points behind the national average and in August 2000 They were 15.1 percentage points behind. In December 1998, Hispanics were 16.2 percentage points behind the national average and in August 2000 they were 20.7 Percentage points behind.

{INSERT FIGURE S}

The fact that the share of households with Internet connections does not directly map into personal Internet use rates becomes clear in reviewing the data by race and Hispanic origin. Although 57 percent of Asian/Pacific Islander households had Internet access, only 49 percent of persons in that group were using the Internet. On the other hand, the rates of personal use were higher for Whites and Blacks than their household connection rates. Among Whites, 46 percent of their households had online connections but 50% of people were using the Internet somewhere. The gap was even larger for Blacks: only 23.5% of their homes were online, but 29.3% of Black persons were using the Internet. Only for Hispanics were the two percentages essentially the same at 23.6% and 23.7%.

INSERT 2 FIGURES ON HH ACCESS vs PERSONAL USE BY RACE/HISPANIC ORIGIN

Why do Whites have personal Internet usage rates at least as high as the rates for persons of Asian and Pacific Islander background despite having rates of household connections 11 points lower? Why do Blacks have comparable household rates to Hispanics but much higher personal use rates. Three factors come into play: relative family size on and off the Internet, the share of persons with home access who actually use the Internet at home, and the share of persons who find Internet connections only outside the home. For Whites, the difference in average household size online relative to those offline is much larger Whites also have the highest share of people who live in homes with Internet access who actually make use of that access, while Hispanics have the lowest share. Finally, Blacks have the highest share of people who access the Internet only outside the home 10.4%, followed by Whites at 8.6%. Only 7-1/2% of Hispanics and Asian/Pacific Islanders use the Internet exclusively outside the home.

Gender

In August 2000, Internet penetration rates were virtually identical for men and women in the aggregate. In December 1998, 34.2% of men and 31.4% of women were using the Internet. By August 2000, 44.6% of men and a statistically indistinguishable 44.2% of women were Internet users.

Underlying the closing aggregate gender gap are some widening gender gaps by age. (Figure XX.) For both surveys, in the early years of life boys and girls appear equally likely to be Internet users. A small gap in favor of females in college age years widened by 2000. During the years of prime labor force participation, men were more likely than women to be Internet users in 1998. Twenty months later the situation had reversed for this group—in August 2000 women in their prime years in the workforce were more likely than men to be Internet users. For older adults in both surveys, men were more likely than women to be online.

{INSERT FIGURE E}

In August 2000, males and females had very similar Internet penetration rates in all but one race/ethnic group—Asian/Pacific Islanders. Among Asian/Pacific Islanders, males had higher Internet penetration rates than females. (Figure XX)

{INSERT FIGURE F}

Educational Attainment

In both 1998 and 2000, Internet penetration is higher at higher levels of education.[1] Adults whose highest level of education is at an elementary level have Internet penetrations rates of less than 4%. People whose highest level of education is bachelors degree or more have the highest Internet penetration (74.5%). (Figure XX)

{INSERT FIGURE XX}

Age

For the purpose of this analysis we look at age categories that roughly correspond to important periods in peoples lives—Children (Age 3-8), Youth (Age 9-17), College/Early Work Force (Age 18-24), Work Force (Age 25-49), and Late Work Force/Retirement (Age 50+). There has been strong growth in the penetration rates for in all age categories, except children (Age 3-8). (Figure XX) People over the age of 50 have the next lowest rate of Internet penetration in 2000 (29.6%) with a 10.3 percentage point increase over 1998. The remaining three age categories have Internet penetration rates of higher than the national average (i.e., 44.4%).

{INSERT FIGURE D}

Age 3 to 8 Years

Children, not surprisingly, have the lowest Internet penetration rate in 2000 (15.3%) and the smallest increase in penetration since 1998 (4.3 percentage points). In 2000, 15.7% of girls and 14.9 percent of boys in this age groups were Internet users.

The race/ethnicity patterns track the national penetration rate patterns—Whites (18.5%), Asian/Pacific Islanders (14.4%), Blacks (10.2%), and Hispanics (8.7%).

Similarly, Internet penetration rates increase with household income. Children from households where income is less than $15,000 had Internet penetration rate of 5.4% in 2000 —9.9 percentage points behind the national average. At the other extreme, households with incomes greater than $75,000 had an Internet penetration rate of 21.8%. (Table 2.)

Age 9 to 17 Years

Internet penetration rates pick up among youths (age 9-17). The national average for this age groups was 43.0% in December 1998 and it increased to 53.4% in August 2000 (a 24 percent growth in the penetration rate). Thus, the average penetration rate for this group is above the national average in both December 1998 and August 2000.

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[1] Educational attainment refers to the highest level of education completed. Data shown exclude individuals age 3 to 24 because there is a high probability that individuals in these groups are still in school.

There was little difference in Internet penetration between boys (52.9%) and girls (53.9%) in 2000.

Again, race/ethnicity patterns are similar to the national average, with Whites (63.1%) and Asian/Pacific Islanders (58.6%) showing higher penetration rates than Blacks (34.2%) and Hispanics (31.4%). Blacks, however, saw relatively rapid growth in their penetration rate (63%) from December 1998 to August 2000 compared with Asian/Pacific Islanders (45%) Hispanics (33%) and Whites (20%).

Individuals who live in households where income is less than $15,000 (22.8%) and those who live in households where income is between $15,000 and $24,999 (36.3%) have Internet penetration rates below the national average. Individuals who live in households where income is $25,000 or more have Internet penetration rates greater than the national average. (Table 3)

Age 18 to 24 Years

Individuals age 18 to 24 also saw Internet penetration rates for both December 1998 (44.3%) and August 2000 (56.8%) that were above the national averages.

In this age group women (59.6%) had higher Internet penetration rates than men (54.1%) in 2000.

In August 2000, the Internet penetration rates for Black (41.5%) and Hispanics (32.4%) in this age group are considerably higher than penetration rates for these race/ethnicity groups in the population at large. However, these groups still lag Whites (65.0%) and Asian/Pacific Islanders (72.9%). Of these two lagging groups, Blacks appear to be gaining ground relatively rapidly with a growth in the penetration rate of 55% over the 20 month period. This compares to 30% growth for Asian/Pacific Islander, 28% for Hispanics, and 25% for Whites.

In this age group individuals at all household income levels had Internet penetration rates close to or above the Internet penetration rate for the population as a whole— Less than $15,000 (41.9%), $15,000 to $24,999 (43.5%), $25,000 to $34,999 (52.4%), $35,000 to $49,999 (59.9%), $50,000 to $74,999 (67.4%), and $75,000 and above (78.2). This flattening of the income gradient suggests that factors other than income drive Internet use among 18 to 24 year olds.

Age 25-49

Labor force participation appears to be an important component in Internet uptake for this groups and even more so for individuals age 50 and older. We have separated these two age brackets into two groups, those in the labor force and those outside the labor force.[2]

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[2]Labor force participation is a broader concept than employment status and is used here because it captures the same concept as employment status, but less as likely to fluctuate seasonally as the employment status measure in this data set. The Current Population Survey

into two groups, those in the labor force and those outside the labor force.[2]

In aggregate, the Internet penetration rate for 25 to 49 year olds was 55.4% up from 40.9% in December 1998. Those in the labor force were more likely to be Internet users. Their Internet penetration rate was 58.4% compared to 39.3% for those not in the labor force, in August 2000.

In both groups women were more likely than men to be Internet users, but the gap between the genders is larger for those not in the labor force. In 2000, 60.8% of women and 56.2% of men were Internet users among 25-49 year olds who were in the labor force. The penetration rate for women is 42.6% and the penetration rate for men is 28.6% in to 2000.

In both groups Blacks and Hispanics lag the national average in Internet penetration, but Blacks and Hispanics who are not in the labor force are farther behind. For those in the labor force, the penetration rates for Blacks was 40.3% but for those not in the labor force it was 18.9% in August 2000. Hispanics age 25 to 49 who were in the labor force had an Internet penetration rate of 29.8%, while those not in the labor force had a penetration rate of 16.5%. It is worth noting that Blacks had a 100% growth in their penetration rate over 1998 and Hispanics saw an 85% increase in their penetration rate. This is consistent with aggregate patterns of faster growth in the groups that lag behind.

As in the aggregate, Internet penetration rates increase with household income. For 25-49 year olds in the labor force, Internet penetration rates exceed the national average at lower levels of income. For example, in the aggregate Internet penetration rates exceed the national average (44.4) in August 2000 when an individual's household income exceeded $35,000. For individuals age 25-49 and in the labor force, Internet penetration exceeds the national average when a persons income exceeds $25,000.

A similar pattern in terms of occurs educational attainment for 25-49 years both in and outside the labor force. In aggregate Internet penetration levels exceed the national average for individuals with "some college," but in 25-49 year olds internet penetration rates exceed the national average for high school graduates.

Age 50 +

As in the previous age bracket we separate those age 50 and older into those in the labor force and those not in the labor force. For those age 50 and older the importance of labor force participation is even more striking than it was for those age 25 to 49.

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[2]Labor force participation is a broader concept than employment status and is used here because it captures the same concept as employment status, but less as likely to fluctuate seasonally as the employment status measure in this data set. The Current Population Survey data used to measure Internet penetration in this report are not seasonally adjusted and thus the narrower measure of employment status may capture seasonal variations in employment.

{INSERT FIGURE CC}

Individuals who are over 50 years old are among the least likely to be Internet users—the Internet penetration rate in this group was only 29.6% in 2000. In August 2000, however, individuals age 50 and older who are in the labor force were almost three times as likely to be Internet users if they were in the labor force. Figure XX reveals a wide gap in Internet use among those 50 and over between those in the labor force (46.4%) and those out of the labor force (16.7%). This indicates that it is not seniors as whole whose Internet penetration rates lag the rest of the country, but senior who have retired or otherwise left the workforce.

Labor force participation is also a factor in the gender differences evident for individuals age 50 and older. In August 2000, men (46.0%) and women (46.8%) who were still in the labor force were equally likely to be Internet users. However, men (18.1%) had higher Internet penetration rates than women (15.6%) for those not in the labor force. This gender difference likely results from higher labor force participation by men relative to women in those age group.

II. Location of Internet Access

Where an individual uses the Internet is another key factor in the Internet use equation. Whether a person uses the Internet—at home, away from home, or both—offers a rough measure of the quality of his or her Internet access. An individual who has Internet access at his or her home likely has an opportunity to use the technology more intensely than if he or she uses it only at a library or community center.

In August 2000, 25.0% of the population accessed the Internet only from home, an increase from 15.8% in December 1998. The share of the population accessing the Internet from both home and outside the home also increased— from 6.5% to 10.7%. In contrast, access from only outside the home declined from 10.5% to 8.7%.

{INSERT FIGURE A1}

The aggregate pattern of dominant and increasing access to the Internet from the home is not, however, consistent across demographic groups. (Figure XX.) Although only 8.7% of Internet users nationwide in August 2000 did not have access to the Internet at home, that is not the case for all groups. Among Blacks 10.4% did not have Internet access at home.

{INSERT FIGURE A2}

Locations of Internet Access Outside the Home

People who use the Internet from outside the home get access from a variety of locations. The most common non-home access site is an individual's place of work —12.3% of the population (and 23.9% of the people who held jobs) used the Internet at work in August 2000.[3] "Someone else's computer" (2.7 %) was another possible place of access as were public libraries (1.9%).[4]

Similarly, work was the most frequently reported site of outside the home Internet access for each of the race/ethnic groups . Asian/Pacific Islanders (15.4%) and Whites (14,1%) and Whites reported having access to the internet at work more often than Blacks (8.1%) and Hispanics (5.6%). On the other hand, Blacks (2.9%) and Asian/Pacific Islanders (2.3) were more likely to report having Internet access at public libraries than Whites (1.7%), Hispanics (1.7%).

Men (13.2%) were more likely than women (11.6%) to report having Internet access at work.

The likelihood of reporting work as place to access the Internet increase with household income. In August 2000, 2.1% of individuals whose household incomes are less than $15,000 reported accessing the Internet at work—this was 10.2 percentage points behind the national average of 12.3%. As household incomes rise, so does Internet access at work— 4.0% for individuals with house hold incomes between $15,000 and $24,999, 7.8% for individuals with household incomes of $25,000 to $34,999, and 11.1% for those with household incomes from $35,000 to $49,999. Individuals with household incomes between $50,000 to $74,999 (16.5%) and those with household incomes greater than $75,000 (29.6%) reported work assess at rates higher than the national average.

Internet access locations outside the home appear to be more important for unemployed than those who had jobs. In August 2000, 4.3 percent of unemployed individuals reported accessing the Internet from the public library compared to 1.8% of employed individuals and 1.7 percent of those who were not in the labor force.

III. Online Activities

The most frequent online activity among Internet users in August 2000 was e-mail. (Figure XX.) About 80% of people with Internet access reported regularly using e-mail. More than half of the people online also used the Internet regularly to search for information. Making phone calls was the least common online activity; less than 6% of Internet users reported regularly using the

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[3] Although schools, both "schools (K-12)" and "other schools" appear to be important locations of Internet access survey results are not shown. They rank second and third in most frequently reported locations of outside the home Internet access. However, reported Internet access from each of these locations appears to decline between 1998 and 2000. The authors believe this is a function of seasonal factors—i.e., students who were not in school in August when the 2000 survey was conducted—appear to be influencing the frequency with which "schools (K-12)" and "other schools" are reported as a locations of Internet access.

[4] Only August 2000 data are shown for schools in the location of access figures. The comparison between 1998 and 2000 is unreliable due to seasonal factors.

Internet to make calls.

{INSERT FIGURE Q}

Online shopping and bill paying was not the most common of online activities— only 30% of Internet users reported regularly shopping or paying bills online in 2000. Nonetheless, this activity saw the greatest increase (52.3%) between December 1998 and August 2000.

Internet Use at Home

E-mail continues to be the main use for the Internet at home.[5] The figures show that 84.8% of people using the Internet at home used it for e-mail in 2000, up from the 78% in the 1998 report. This year, one-third of Internet users shop and pay bills online (33.6%), up from the almost one-quarter of the Internet population in 1998 (24.5%). Most other uses are relatively unchanged from the previous survey. The percentage of those who go online to check news is about the same, at 46%, while those use the Internet to search online for information hovered around 59%, and those using the Internet for job-related tasks stayed around 28%.

As the near-universal application, e-mail use held relatively constant across income and education categories. The differences between those using the Internet for e-mail at the lowest income categories were within a percentage point or two of those using the Internet at the highest income categories, and all were above 82%. In 1998, for example, 74.6% of those earning $20,000-$24,999 per year used e-mail. That usage figure rose to 82% in 2000. In the $15,000-$19,999 bracket, e-mail was used by 75.1% of users in the 1998 report; that figure jumped to 83% in 2000. Looking at e-mail use from an educational level, about 90.1% of those with bachelor's degrees or higher used the Internet for e-mail, but 80% of those with an elementary-school education did as well. In 1998, only 68% of those with elementary educations used the Internet for e-mail. Those with some high-school courses but not a degree also increased their use of e-mail, from 71.4% in 1998 to 84.2% in 2000.

The 2000 data also found that more women (86.8%) use the Internet for e-mail than men (82.8%). Regardless of who is using e-mail, the predominant application is for communicating with friends and family, but again, more women (96.6%) use the Internet for that purpose than men (93.6%). More men (34.2%) use e-mail for job-related activities than women (24.7%) and more men (34.4%) use e-mail for hobbies and other special interests than women (28.8%). Racial differences play a small role in how e-mail is used. More Black (non-Hispanic) use e-mail at home for job-related activities than White users (32.5% vs. 29%), and for educational purposes, 38.1% for Black users, vs. 25.9% for White users.

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[5] Penetration rates shown in this section are represent a ratio of those individuals engaging in the respective online activities as a share of Internet users who have access to the Internet at home.

Among other at-home users for the Internet other than e-mail, men and women are roughly equal in their use for e-commerce activities. Men used the Internet 32.7% for e-commerce, women used it 34.5%. Men used the Internet more for job-related tasks, however, using it 30.2% for that purpose contrasted with 24.4% for women. Men used the Internet more to check news, (54.3%), than women (38.0%), but women went online more often to take courses, 34.6% contrasted with 31% for men. Men and women used the Internet equally in their searches for information, each about 58%.

E-commerce has caught on with the group 25-34 years old. Nearly half of that bracket, 47.7%, used the Internet for e-commerce, while the next ranking group was those 35-44 years old, 42.9%. Whites used the Internet for shopping and bill-paying more than Black users, 34.4% to 27.5%. In addition, 16.3% of Internet users in 2000 went online to look for jobs, up from 14.5% in 1998. There were minor increases at all income levels.

Internet Use Outside the Home

People use the Internet outside the home do so in different ways than at-home usage.[6] With one exception, all of the tasks measured for Internet usage are done so less outside the home than at home. The exception is for job-related activities. About half of Internet users are online for job-related tasks outside the home, an increase from the 44.6% in 1998. In contrast, 27.3% of Internet users went online for job-related tasks at home in 2000.

As Internet access at home as become more available, some of the tasks done outside the home have dropped or at least remained relatively constant. In 2000, 32.2% of people using the Internet did so to take courses. In 1998, that figure was 38.8%. In 2000, 44.7% of people using the Internet did so to search for information; in 1998, the figure was 50.1%. People using the Internet to check news also dropped slightly. On the other hand, e-mail use went up, 59.1% in 2000 vs. 53.6% in 1998, as did e-commerce, 10.4% in 2000 vs. 7.5% in 1998.

Outside the home, White users were more likely to go online for e-mail than Black users, 61% vs. 51%. Black users were more likely to use the Internet outside the home than White users to take course (41% vs. 29.7%), and were more likely to use the Internet to search for jobs (14.7% vs. 7.2%).

{INSERT FIGURE JOB SEARCH}

In August 2000, an estimated 4.3 million people used the Internet outside the home to search for jobs. This represented 8.4% of the 50.9 million people who used the Internet away from home. Those with lower incomes were much more likely to search for jobs using the Internet. Among

[6] Penetration rates shown in this section are represent a ratio of those individuals engaging in the respective online activities as a share of Internet users who have access to the Internet outside the home.

Tables

Table 1: Internet Penetration Individuals Age 3 and Older

	Dec. 1998		Aug. 2000		Internet Penetration		Percentage Point Difference	Growth in Penetration Rate
	Internet Users	Total	Internet Users	Total	Dec. 1998	Aug. 2000		
Total Population	84,795	258,453	116,480	262,620	32.8	44.4	11.5	35
Male	43,033	125,932	56,962	127,844	34.2	44.6	10.4	30
Female	41,555	132,521	59,518	134,776	31.4	44.2	12.8	41
White Non-Hisp.	69,470	184,980	93,714	186,439	37.6	50.3	12.7	34
Black Non-Hisp	6,111	32,123	9,624	32,850	19.0	29.3	10.3	54
Asian/Pacific Islanders	3,467	9,688	5,095	10,324	35.8	49.4	13.6	38
Hispanic	4,887	29,452	7,325	30,918	16.6	23.7	7.1	43
Employed*	56,790	133,516	77,507	136,756	42.5	56.7	14.2	33
Not Employed*	1,647	5,726	2,698	5,961	28.8	45.3	16.5	58
Not in the Labor Force	14,411	70,924	20,661	71,232	20.3	29.0	8.7	43
Less than $15,000	5,170	37,864	6,057	32,096	13.7	18.9	5.2	38
$15,000 - $24,999	5,623	30,581	7,063	27,727	18.4	25.5	7.1	38
$25,000 - $34,999	8,050	31,836	11,054	31,001	25.3	35.7	10.4	41
$35,000 - $49,999	13,528	39,026	16,690	35,867	34.7	46.5	11.9	34
$50,000 - $74,999	19,902	43,776	25,059	43,451	45.5	57.7	12.2	27
$75,000 and above	24,861	42,221	36,564	52,189	58.9	70.1	11.2	19
Elementary †	206	12,529	452	12,253	1.6	3.7	2.1	131
Not a High School Graduate †	1,022	16,510	2,030	16,002	6.2	12.7	6.5	105
High School Graduate †	10,961	57,103	17,425	56,889	19.2	30.6	11.4	59
Some College †	16,603	43,038	24,201	44,628	38.6	54.2	15.6	40
Bachelors Degree or Higher †	26,571	43,509	34,083	45,755	61.1	74.5	13.4	22
3 to 8	2,680	24,282	3,671	23,962	11.0	15.3	4.3	39

Table 1: Internet Penetration Individuals Age 3 and Older

	Dec. 1998		Aug. 2000		Internet Penetration		Percentage Point Difference	Growth in Penetration Rate
	Internet Users	Total	Internet Users	Total	Dec. 1998	Aug. 2000		
9 to 17	15,396	35,821	19,579	36,673	43.0	53.4	10.4	24
18 to 24	11,356	25,662	15,039	26,458	44.3	56.8	12.6	28
25 to 49	41,694	101,836	56,433	101,946	40.9	55.4	14.4	35
50 +	13,669	70,852	21,758	73,580	19.3	29.6	10.3	53

Source: U.S. Bureau of the Census, Current Population Survey, December 1998 and August 2000.
Notes: The sum of the components may not equal the total due to rounding. * Age 16 and older. † Age 25 and older.

Table 2: Internet Penetration Individuals Age 3-8 Years

	Dec. 1998		Aug. 2000		Internet Penetration		Percentage Point Difference	Growth In Penetration Rate
	Internet Users	Total	Internet Users	Total	Dec. 1998	Aug. 2000		
Total	2,680	24,282	3,671	23,962	11.0	15.3	4.3	39
Male	1,440	12,346	1,833	12,284	11.7	14.9	3.3	28
Female	1,240	11,936	1,838	11,677	10.4	15.7	5.4	52
White Non-Hisp.	2,058	15,089	2,739	14,837	13.6	18.5	4.8	35
Black Non-Hisp	271	3,881	374	3,654	7.0	10.2	3.3	47
Asian/Pacific Islanders	132	937	156	1,086	14.1	14.4	0.2	2
Hispanic	187	4,095	361	4,140	4.6	8.7	4.2	91
Less than $15,000	220	4,229	182	3,344	5.2	5.4	0.2	4
$15,000 - $24,999	223	3,126	275	2,800	7.1	9.8	2.7	38
$25,000 - $34,999	221	2,828	387	3,053	7.8	12.7	4.9	62
$35,000 - $49,999	456	3,781	581	3,409	12.1	17.1	5.0	41
$50,000 - $74,999	627	4,272	799	4,179	14.7	19.1	4.5	30
$75,000 and above	695	3,728	966	4,426	18.7	21.8	3.2	17

Source: U.S. Bureau of the Census, Current Population Survey, December 1998 and August 2000.
Notes: The sum of the components may not equal the total due to rounding.

Table 3: Internet Penetration Individuals Age 9-17

	Dec. 1998		Aug. 2000		Internet Penetration		Percentage Point Difference	Growth In Penetration Rate
	Internet Users	Total	Internet Users	Total	Dec. 1998	Aug. 2000		
Total	15,396	35,821	19,579	36,673	43.0	53.4	10.4	24
Male	7,886	18,355	9,925	18,771	43.0	52.9	9.9	23
Female	7,510	17,467	9,654	17,903	43.0	53.9	10.9	25
White Non-Hisp.	12,266	23,293	14,902	23,601	52.7	63.1	10.5	20
Black Non-Hisp	1,169	5,581	1,980	5,796	21.0	34.2	13.2	63
Asian/Pacific Islanders	612	1,516	837	1,428	40.4	58.6	18.3	45
Hispanic	1,185	5,006	1,706	5,427	23.7	31.4	7.8	33
Less than $15,000	1,121	5,062	1,244	4,326	22.2	28.8	6.6	30
$15,000 - $24,999	1,155	4,066	1,413	3,890	28.4	36.3	7.9	28
$25,000 - $34,999	1,514	4,408	1,889	4,132	34.3	45.7	11.4	33
$35,000 - $49,999	2,606	5,500	2,898	5,302	47.4	54.7	7.3	15
$50,000 - $74,999	3,553	6,686	4,082	6,370	53.1	64.1	10.9	21
$75,000 and above	4,215	6,176	5,827	7,801	68.2	74.7	6.4	9

Source: U.S. Bureau of the Census, Current Population Survey, December 1998 and August 2000.
Notes: The sum of the components may not equal the total due to rounding.

Table 4: Internet Penetration Individuals Age 18-25

	Dec. 1998		Aug. 2000		Internet Penetration		Percentage Point Difference	Growth In Penetration Rate
	Internet Users	Total	Internet Users	Total	Dec. 1998	Aug. 2000		
Total	11,356	25,662	15,039	26,458	44.3	56.8	12.6	28
Male	5,584	12,929	7,138	13,195	43.2	54.1	10.9	25
Female	5,772	12,732	7,901	13,264	45.3	59.6	14.2	31
White Non-Hisp.	8,693	16,772	11,234	17,290	51.8	65.0	13.1	25
Black Non-Hisp	982	3,679	1,575	3,797	26.7	41.5	14.8	55
Asian/Pacific Islanders	582	1,035	820	1,124	56.3	72.9	16.6	30
Hispanic	1,005	3,972	1,316	4,062	25.3	32.4	7.1	28
Less than $15,000	1,672	4,991	1,786	4,261	33.5	41.9	8.4	25
$15,000 - $24,999	1,183	3,401	1,371	3,153	34.8	43.5	8.7	25
$25,000 - $34,999	1,270	3,283	1,757	3,356	38.7	52.4	13.7	35
$35,000 - $49,999	1,656	3,459	2,046	3,449	47.9	59.3	11.5	24
$50,000 - $74,999	2,117	3,829	2,481	3,684	55.3	67.4	12.1	22
$75,000 and above	2,432	3,711	3,842	4,915	65.5	78.2	12.6	19

Source: U.S. Bureau of the Census, Current Population Survey, December 1998 and August 2000.
Notes: The sum of the components may not equal the total due to rounding.

Table 5: Internet Penetration Individuals Age 25-49 In the Labor Force

	Dec. 1998		Aug. 2000		Internet Penetration		Percentage Point Difference	Growth In Penetration Rate
	Internet Users	Total	Internet Users	Total	Dec. 1998	Aug. 2000		
Total	37,808	86,509	50,107	85,850	43.7	58.4	14.7	34
Male	20,084	46,270	25,979	46,194	43.4	56.2	12.8	30
Female	17,725	40,239	24,129	39,656	44.0	60.8	16.8	38
White Non-Hisp.	31,133	62,563	40,342	61,269	49.8	65.8	16.1	32
Black Non-Hisp	2,922	10,455	4,221	10,471	27.9	40.3	12.4	44
Asian/Pacific Islanders	1,492	3,335	2,339	3,692	44.7	63.3	18.6	42
Hispanic	1,994	9,464	2,920	9,808	21.1	29.8	8.7	41
Employed	37,077	83,508	48,841	82,939	44.4	58.9	14.5	33
Not Employed	731	3,002	1,267	2,911	24.4	43.5	19.2	79
Not in the Labor Force	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Less than $15,000	1,248	7,307	1,458	5,778	17.1	25.2	8.1	48
$15,000 - $24,999	2,060	8,780	2,461	7,425	23.5	33.1	9.7	41
$25,000 - $34,999	3,632	10,805	4,666	10,096	33.6	46.2	12.6	38
$35,000 - $49,999	6,398	15,333	7,546	13,227	41.7	57.0	15.3	37
$50,000 - $74,999	10,051	18,365	12,140	17,765	54.7	68.3	13.6	25
$75,000 and above	11,298	16,381	16,401	20,201	69.0	81.2	12.2	18
Elementary	702	8,646	1,327	8,502	8.1	15.6	7.5	92
Not a High School Graduate	7,273	27,511	11,058	26,601	26.4	41.6	15.1	57
High School Graduate	11,621	24,663	15,804	24,730	47.1	63.9	16.8	36
Some College	12,187	17,946	14,854	18,097	67.9	82.1	14.2	21
Bachelor's Degree or More	6,026	7,744	7,064	7,920	77.8	89.2	11.4	15

Source: U.S. Bureau of the Census, Current Population Survey, December 1998 and August 2000.
Notes: The sum of the components may not equal the total due to rounding.

Table 6: Internet Penetration Individuals Age 25-49 Not in the Labor Force

	Dec. 1998		Aug. 2000		Internet Penetration		Percentage Point Difference	Growth In Penetration Rate
	Internet Users	Total	Internet Users	Total	Dec. 1998	Aug. 2000		
Total	3,886	15,327	6,326	16,097	25.4	39.3	13.9	55
Male	805	3,784	1,099	3,840	21.3	28.6	7.3	35
Female	3,081	11,542	5,227	12,257	26.7	42.6	16.0	60
White Non-Hisp.	3,161	9,842	5,054	10,339	32.1	48.9	16.8	52
Black Non-Hisp	197	2,085	438	2,321	9.4	18.9	9.4	100
Asian/Pacific Islanders	292	882	394	859	33.1	45.9	12.8	39
Hispanic	205	2,308	398	2,416	8.9	16.5	7.6	85
Less than $15,000	450	3,774	619	3,397	11.9	18.2	6.3	53
$15,000 - $24,999	338	1,839	415	1,794	18.4	23.1	4.8	26
$25,000 - $34,999	381	1,674	599	1,814	22.8	33.0	10.3	45
$35,000 - $49,999	563	1,950	905	1,923	28.9	47.1	18.2	63
$50,000 - $74,999	742	1,779	1,187	1,978	41.7	60.0	18.3	44
$75,000 and above	1,043	1,959	1,771	2,482	53.3	71.4	18.1	34
Elementary	139	3,493	314	3,436	4.0	9.1	5.2	129
Not a High School Graduate	919	5,407	1,544	5,380	17.0	28.7	11.7	69
High School Graduate	1,327	3,542	2,134	4,053	37.5	52.7	15.2	41
Some College	1,158	2,294	1,698	2,385	50.5	71.2	20.7	41
Bachelor's Degree or More	343	591	636	843	58.1	75.5	17.4	30

Source: U.S. Bureau of the Census, Current Population Survey, December 1998 and August 2000.
Notes: The sum of the components may not equal the total due to rounding.

Table 7: Internet Penetration Individuals Age 50+ In the Labor Force

	Dec. 1998		Aug. 2000		Internet Penetration		Percentage Point Difference	Growth In Penetration Rate
	Internet Users	Total	Internet Users	Total	Dec. 1998	Aug. 2000		
Total	10,268	30,618	14,891	32,103	33.5	46.4	12.9	38
Male	5,838	16,546	8,104	17,605	35.3	46.0	10.7	30
Female	4,430	14,072	6,788	14,498	31.5	46.8	15.3	49
White Non-Hisp.	9,134	24,762	13,189	25,810	36.9	51.1	14.2	39
Black Non-Hisp	517	2,684	779	2,797	19.3	27.9	8.6	44
Asian/Pacific Islanders	300	1,028	402	1,036	29.2	38.8	9.6	33
Hispanic	280	1,985	464	2,299	14.1	20.2	6.1	43
Employed	10,075	29,849	14,558	31,278	33.8	46.5	12.8	38
Not Employed	193	769	333	825	25.1	40.4	15.3	61
Less than $15,000	234	2,354	334	2,021	9.9	16.5	6.6	66
$15,000 - $24,999	353	2,809	529	2,555	12.6	20.7	8.1	65
$25,000 - $34,999	595	3,282	1,033	3,475	18.1	29.7	11.6	64
$35,000 - $49,999	1,345	4,690	1,662	4,300	28.7	38.6	10.0	35
$50,000 - $74,999	2,255	5,737	3,200	5,883	39.3	54.4	15.1	38
$75,000 and above	4,449	7,531	6,193	8,618	59.1	71.9	12.8	22
Elementary	213	3,932	419	4,003	5.4	10.5	5.1	93
Not a High School Graduate	1,930	10,059	2,897	9,886	19.2	29.3	10.1	53
High School Graduate	2,616	7,367	4,350	8,315	35.5	52.3	16.8	47
Some College	2,803	5,013	3,873	5,583	55.9	69.4	13.5	24
Bachelor's Degree or More	2,706	4,247	3,352	4,316	63.7	77.7	13.9	22

Source: U.S. Bureau of the Census, Current Population Survey, December 1998 and August 2000.
Notes: The sum of the components may not equal the total due to rounding.

Table 8: Internet Penetration Individuals Age 50 + Not in the Labor Force

	Dec. 1998		Aug. 2000		Internet Penetration		Percentage Point Difference	Growth In Penetration Rate
	Internet	Total	Internet	Total	Dec. 1998	Aug. 2000		
Total	3,401	40,234	6,866	41,477	8.5	16.6	8.1	96
Male	1,518	15,702	2,885	15,956	9.7	18.1	8.4	87
Female	1,883	24,532	3,981	25,521	7.7	15.6	7.9	103
White Non-Hisp.	3,208	32,658	6,254	33,293	9.8	18.8	9.0	91
Black Non-Hisp	56	3,759	257	4,015	1.5	6.4	4.9	329
Asian/Pacific Islanders	70	955	148	1,099	7.3	13.5	6.1	84
Hispanic	41	2,622	159	2,765	1.6	5.8	4.2	267
Less than $15,000	226	10,147	434	8,968	2.2	4.8	2.6	118
$15,000 - $24,999	322	6,559	600	6,110	4.9	9.8	4.9	100
$25,000 - $34,999	462	5,556	724	5,075	8.3	14.3	5.9	71
$35,000 - $49,999	556	4,313	1,052	4,259	12.9	24.7	11.8	91
$50,000 - $74,999	610	3,109	1,169	3,591	19.6	32.6	12.9	66
$75,000 and above	779	2,736	1,563	3,745	28.5	41.7	13.3	47
Elementary	174	12,968	421	12,314	1.3	3.4	2.1	155
Not a High School Graduate	840	14,126	1,926	15,022	5.9	12.8	6.9	116
High School Graduate	1,038	7,466	1,913	7,530	13.9	25.4	11.5	83
Some College	789	3,737	1,554	4,264	21.1	36.4	15.3	73
Bachelor's Degree or More	560	1,937	1,052	2,347	28.9	44.8	15.9	55

Source: U.S. Bureau of the Census, Current Population Survey, December 1998 and August 2000.
Notes: The sum of the components may not equal the total due to rounding.

Table 9: Internet Access Location

	Dec. 1998					Aug. 2000					Internet Penetration at Home				Internet Penetration Only Outside the Home			
	Total Population	Any Use	At Home	Only Outside the Home	Both	Total Population	Any Use	At Home	Only Outside the Home	Both	Dec. 1998	Aug. 2000	Percentage Point Difference	Growth in Penetration Rate	Dec. 1998	Aug. 2000	Percentage Point Difference	Growth in Penetration Rate
Total	258,453	84,795	57,702	27,092	16,912	262,620	116,480	93,759	22,721	28,183	22.3	35.7	13.4	60	10.5	8.7	(1.8)	(17)
Male	125,932	43,033	29,921	13,112	9,889	127,844	56,962	46,635	10,327	15,361	23.8	36.5	12.7	54	10.4	8.1	(2.3)	(22)
Female	132,521	41,555	27,542	14,013	6,990	134,776	59,518	47,125	12,393	12,822	20.8	35.0	14.2	68	10.6	9.2	(1.4)	(13)
White Non-Hisp.	184,980	69,470	49,122	20,348	14,467	186,439	93,714	77,715	15,999	23,527	26.6	41.7	15.1	57	11.0	8.6	(2.4)	(22)
Black Non-Hisp	32,123	6,111	2,944	3,167	824	32,850	9,624	6,221	3,403	1,721	9.2	18.9	9.8	107	9.9	10.4	0.5	5
Asian/Pacific Islanders	9,688	3,467	2,470	997	878	10,324	5,095	4,322	773	1,575	25.5	41.9	16.4	64	10.3	7.5	(2.8)	(27)
Hispanic	29,452	4,887	2,545	2,342	588	30,918	7,325	4,968	2,357	1,237	8.6	16.1	7.4	86	8.0	7.6	(0.3)	(4)
Employed*	133,516	56,790	38,147	18,643	13,473	136,756	77,507	61,404	16,103	23,286	28.6	44.9	16.3	57	14.0	11.8	(2.2)	(16)
Not Employed*	5,726	1,647	1,001	646	149	5,961	2,698	2,042	656	348	17.5	34.3	16.8	96	11.3	11.0	(0.3)	(2)
Not in the Labor Force*	70,924	14,411	10,733	3,678	1,793	71,232	20,661	17,966	2,695	2,269	15.1	25.2	10.1	67	5.2	3.8	(1.4)	(27)
Less than $15,000	37,864	5,170	2,189	2,981	679	32,096	6,057	3,494	2,563	981	5.8	10.9	5.1	88	7.9	8.0	0.1	1
$15,000 - $24,999	30,581	5,623	2,713	2,910	568	27,727	7,063	4,597	2,466	912	8.9	16.6	7.7	87	9.5	8.9	(0.6)	(7)
$25,000 - $34,999	31,836	8,050	4,490	3,560	1,197	31,001	11,054	8,028	3,026	1,776	14.1	25.9	11.8	84	11.2	9.8	(1.4)	(13)

Table 9: Internet Access Location

	Dec. 1998					Aug. 2000					Internet Penetration at Home				Internet Penetration Only Outside the Home			
	Total Population	Any Use	At Home	Only Outside the Home	Both	Total Population	Any Use	At Home	Only Outside the Home	Both	Dec. 1998	Aug. 2000	Percentage Point Difference	Growth in Penetration Rate	Dec. 1998	Aug. 2000	Percentage Point Difference	Growth in Penetration Rate
$35,000 - $49,999	39,026	13,528	8,779	4,749	2,141	35,867	16,690	13,005	3,685	3,221	22.5	36.3	13.8	61	12.2	10.3	(1.9)	(16)
$50,000 - $74,999	43,776	19,902	14,484	5,418	4,074	43,451	25,059	20,995	4,064	6,227	33.1	48.3	15.2	46	12.4	9.4	(3.0)	(24)
$75,000 and above	42,221	24,861	20,156	4,705	7,104	52,189	36,564	32,760	3,804	12,435	47.7	62.8	15.0	31	11.1	7.3	(3.9)	(35)
Elementary†	12,529	206				12,253	452											
Not a High School Graduate†	16,510	1,022				16,002	2,030											
High School Graduate†	57,103	10,961				56,889	17,425											
Some College†	43,038	16,603				44,628	24,201											
Bachelor's Degree or More†	43,509	26,571				45,755	34,083											
3 to 8	24,282	2,680	1,777	903	176	23,962	3,671	2,880	791	303	7.3	12.0	4.7	64	3.7	3.3	(0.4)	(11)
9 to 17	35,821	15,396	9,920	5,476	2,323	36,673	19,579	15,557	4,022	3,589	27.7	42.4	14.7	53	15.3	11.0	(4.3)	(28)
18 to 24																		
25 49 In Labor Force	86,509	37,808	26,072	11,736	9,525	85,850	50,107	40,177	9,931	15,549	30.1	46.8	16.7	55	13.6	11.6	(2.0)	(15)
25 to 49 Not in Labor Force	15,327	3,886	3,231	655	274	16,097	6,326	5,652	674	443	21.1	35.1	14.0	67	4.3	4.2	(0.1)	(2)
50+ In the Labor	30,618	10,268	7,265	3,003	2,318	32,103	14,891	12,054	2,838	4,420	23.7	37.5	13.8	58	9.8	8.8	(1.0)	(10)

Table 9: Internet Access Location

	Dec. 1998					Aug. 2000					Internet Penetration at Home				Internet Penetration Only Outside the Home			
	Total Population	Any Use	At Home	Only Outside the Home	Both	Total Population	Any Use	At Home	Only Outside the Home	Both	Dec. 1998	Aug. 2000	Percentage Point Difference	Growth in Penetration Rate	Dec. 1998	Aug. 2000	Percentage Point Difference	Growth in Penetration Rate
Force																		
50+ Not In the Labor Force	40,234	3,401	3,036	365	102	41,477	6,866	6,456	410	331	7.5	15.6	8.0	106	0.9	1.0	0.1	9

Source: U.S. Bureau of the Census, Current Population Survey, December 1998 and August 2000.
Notes: The sum of the components may not equal the total due to rounding. Individuals age 3 and older unless otherwise noted. * Age 16 and older. † Age 25 and older.

Table 10: Places of Internet Access 2000

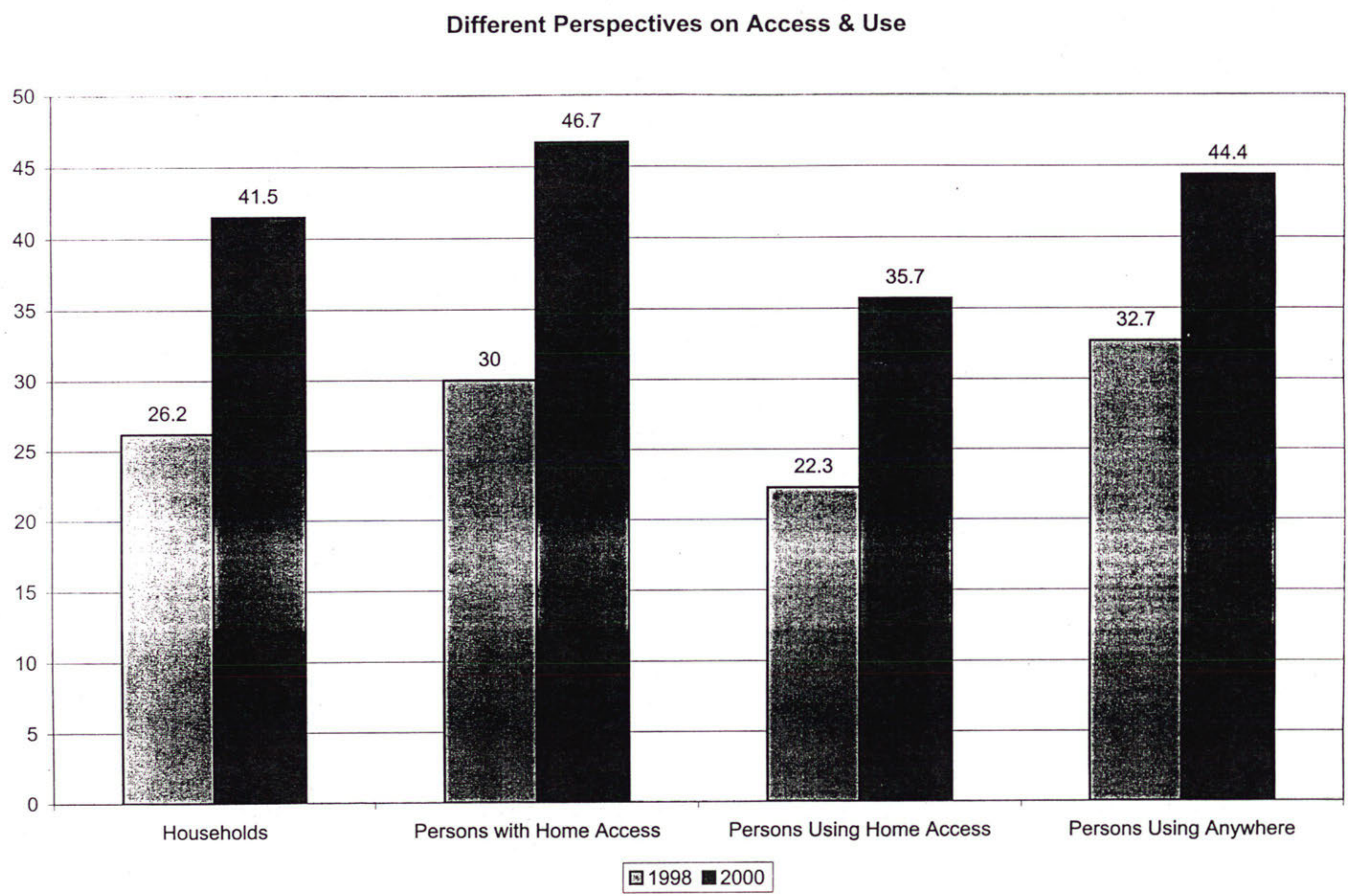
	Aug. 2000								Percent of the Population Reporting Access at a Location						
	Total Population	At Work	At School (K-12)	Other School	Public Library	Communit y Center	Someone Else's Computer	Other	At Work*	At School (K-12)	Other School	Public Library	Communit y Center	Someone Else's Computer	Other
Total	258,453	31895	9,637	4,205	4,896	261	7,009	1,451	12.3	3.7	1.6	1.9	0.1	2.7	0.6
Male	125,932	16,572	4,587	1,899	2,229	122	3,339	820	13.2	3.6	1.5	1.8	0.1	2.7	0.7
Female	132,521	15,324	5,050	2,306	2,667	139	3,670	631	11.6	3.8	1.7	2.0	0.1	2.8	0.5
White Non-Hisp.	184,980	25,994	6,682	2,859	3,234	135	5,360	1,211	14.1	3.6	1.5	1.7	0.1	2.9	0.7
Black Non-Hisp	32,123	2,616	1,347	566	919	68	740	102	8.1	4.2	1.8	2.9	0.2	2.3	0.3
Asian/Pacific Islanders	9,688	1,489	387	344	223	20	246	61	15.4	4.0	3.6	2.3	0.2	2.5	0.6
Hispanic	29,452	1,649	1,133	407	488	38	603	68	5.6	3.8	1.4	1.7	0.1	2.0	0.2
Employed*	133,516	31,895	2,844	2,576	2,448	124	4,110	894	23.9	2.1	1.9	1.8	0.1	3.1	0.7
Not Employed*	5,726	0	262	215	249	19	410	102	0.0	4.6	3.8	4.3	0.3	7.2	1.8
Not in the Labor Force*	70,924	0	1,874	1,238	1,182	75	1,492	346	0.0	2.6	1.7	1.7	0.1	2.1	0.5
Less than $15,000	37,864	790	1007	752	750	74	1031	149	2.1	2.7	2.0	2.0	0.2	2.7	0.4
$15,000 - $24,999	30,581	1226	963	407	517	34	975	85	4.0	3.1	1.3	1.7	0.1	3.2	0.3
$25,000 - $34,999	31,836	2,473	1,145	424	627	28	1,026	159	7.8	3.6	1.3	2.0	0.1	3.2	0.5
$35,000 - $49,999	39,026	4,350	1,309	446	689	27	1,149	198	11.1	3.4	1.1	1.8	0.1	2.9	0.5

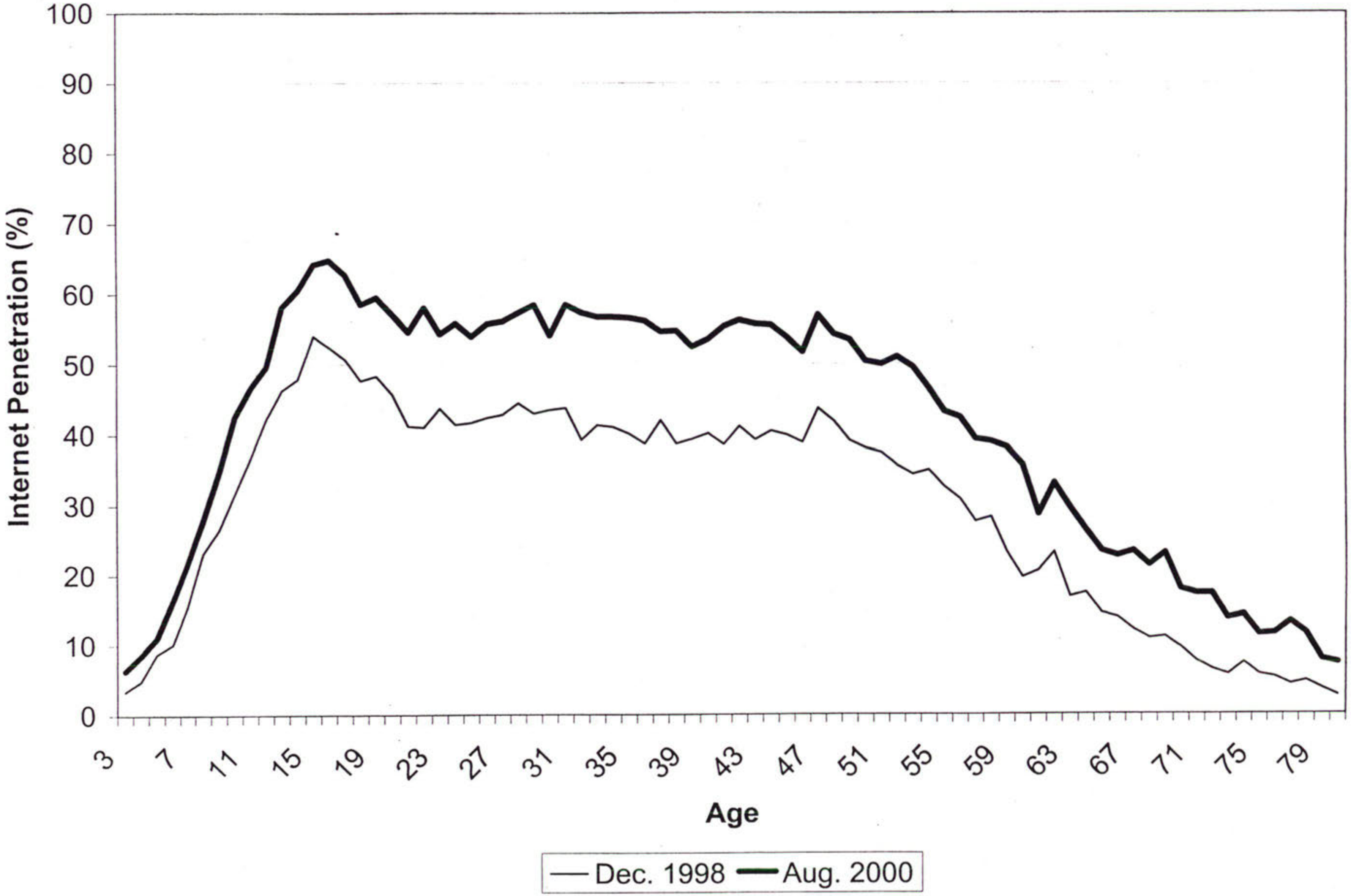
Table 10: Places of Internet Access 2000

	Aug. 2000								Percent of the Population Reporting Access at a Location						
	Total Population	At Work	At School (K-12)	Other School	Public Library	Community Center	Someone Else's Computer	Other	At Work*	At School (K-12)	Other School	Public Library	Community Center	Someone Else's Computer	Other
$50,000 - $74,999	43,776	7,225	1,735	586	797	33	1,075	213	16.5	4.0	1.3	1.8	0.1	2.5	0.5
$75,000 and above	42,221	12,495	2,260	1,086	869	35	995	497	29.6	5.4	2.6	2.1	0.1	2.4	1.2
Elementary†	12,529														
Not a High School Graduate†	16,510														
High School Graduate†	57,103														
Some College†	43,038														
Bachelor's Degree or More†	43,509														
3 to 8	24,282														
9 to 17	35,821														
18 to 24															
25 49 In Labor Force	86,509														
25 to 49 Not in Labor Force	15,327														
50+ In the Labor Force	30,618														
50+ Not In the Labor Force	40,234														

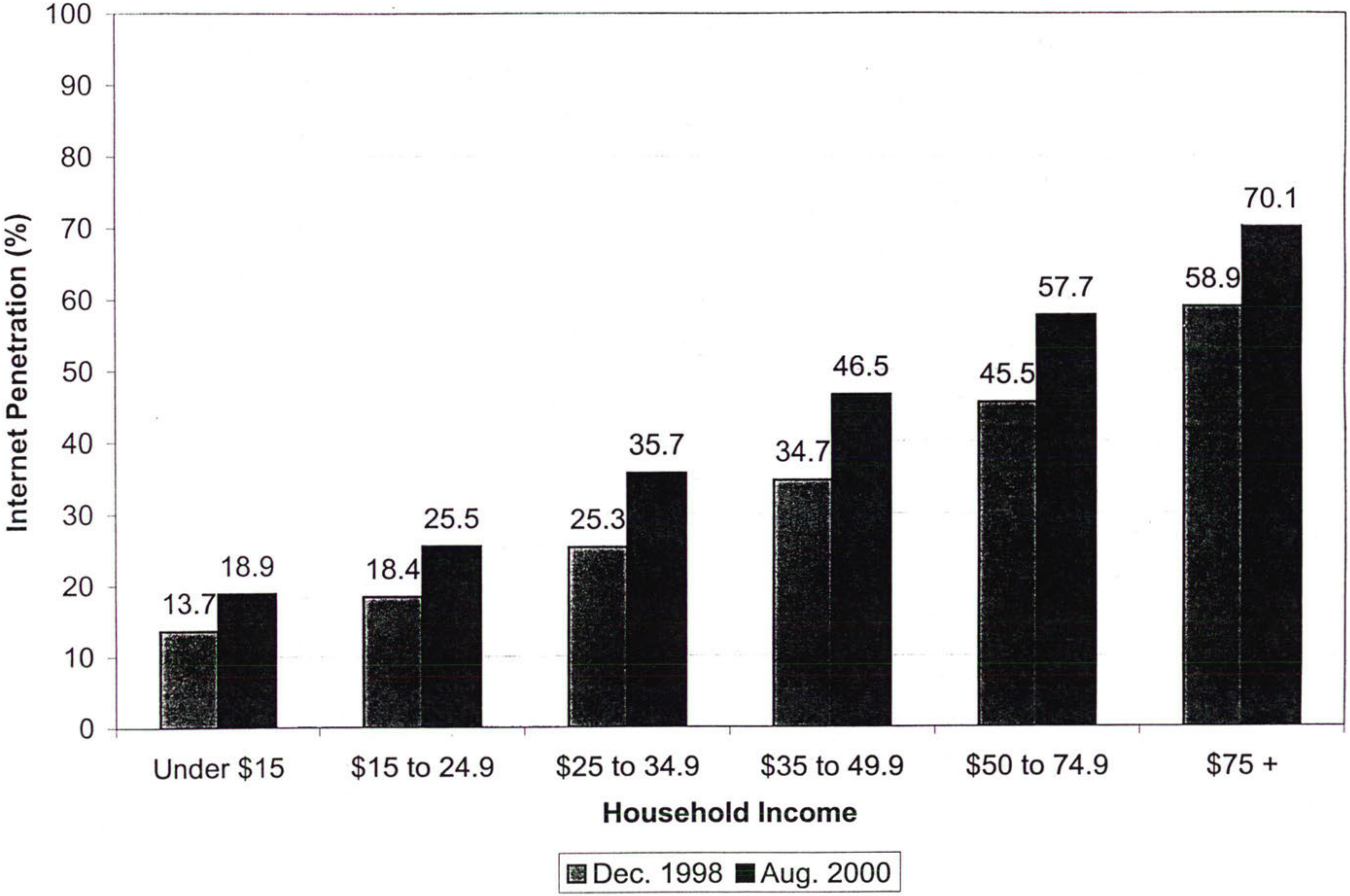
Table 10: Places of Internet Access 2000															
	Aug. 2000								Percent of the Population Reporting Access at a Location						
	Total Population	At Work	At School (K-12)	Other School	Public Library	Community Center	Someone Else's Computer	Other	At Work*	At School (K-12)	Other School	Public Library	Community Center	Someone Else's Computer	Other

Source: U.S. Bureau of the Census, Current Population Survey, December 1998 and August 2000.
Notes: The sum of the components may not equal the total due to rounding. Individuals age 3 and older unless otherwise noted. * Age 16 and older. † Age 25 and older.

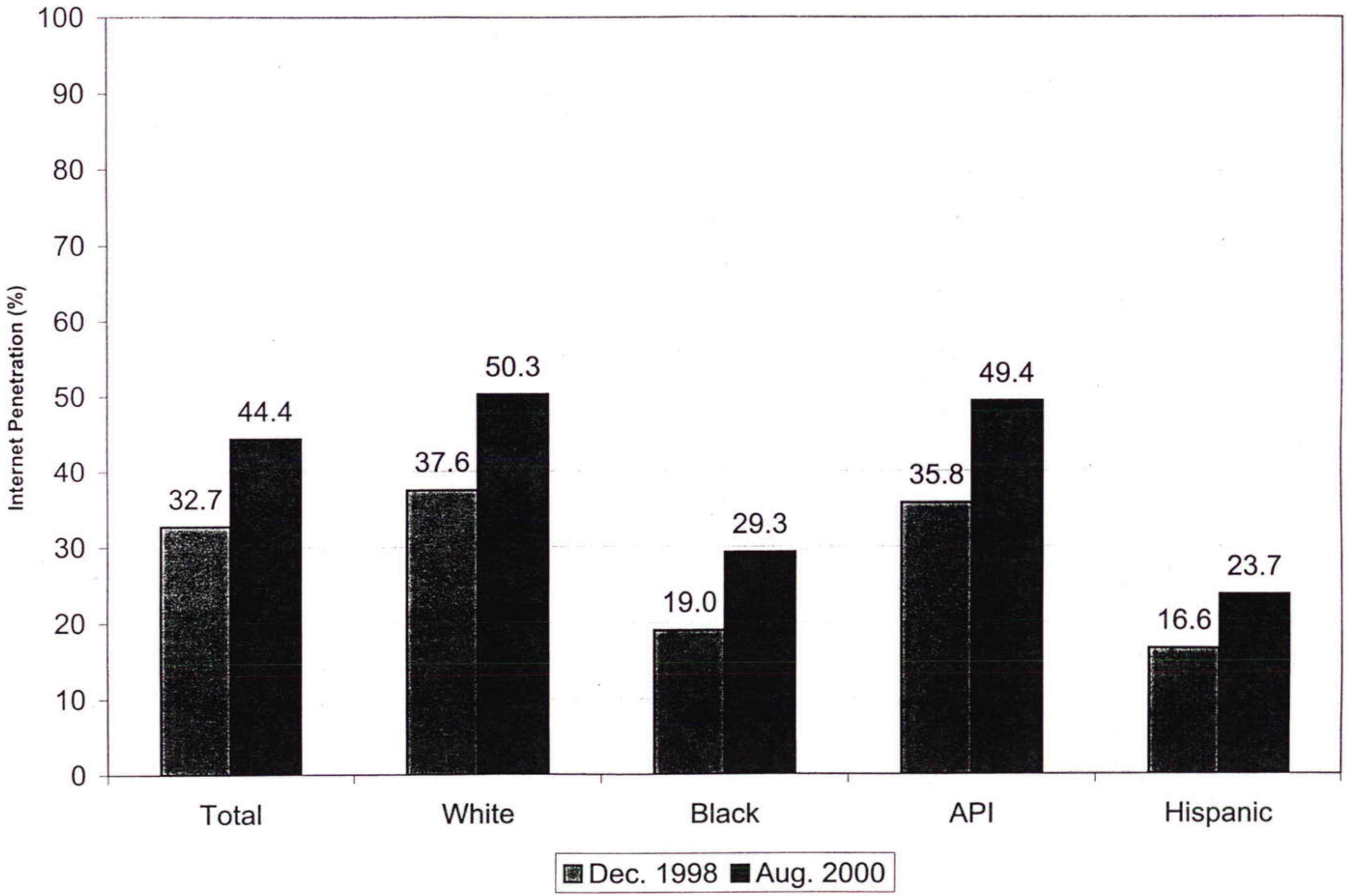

Different Perspectives on Access & Use
50
45
40
35
30
25
20
15
10
5
0
26.2
41.5
30
46.7
22.3
35.7
32.7
44.4
Households
Persons with Home Access
Persons Using Home Access
Persons Using Anywhere
1998
2000



Internet Penetration (%)
100
90
80
70
60
50
40
30
20
10
0
3
7
11
15
19
23
27
31
35
39
43
47
51
55
59
63
67
71
75
79
Age
Dec. 1998
Aug. 2000

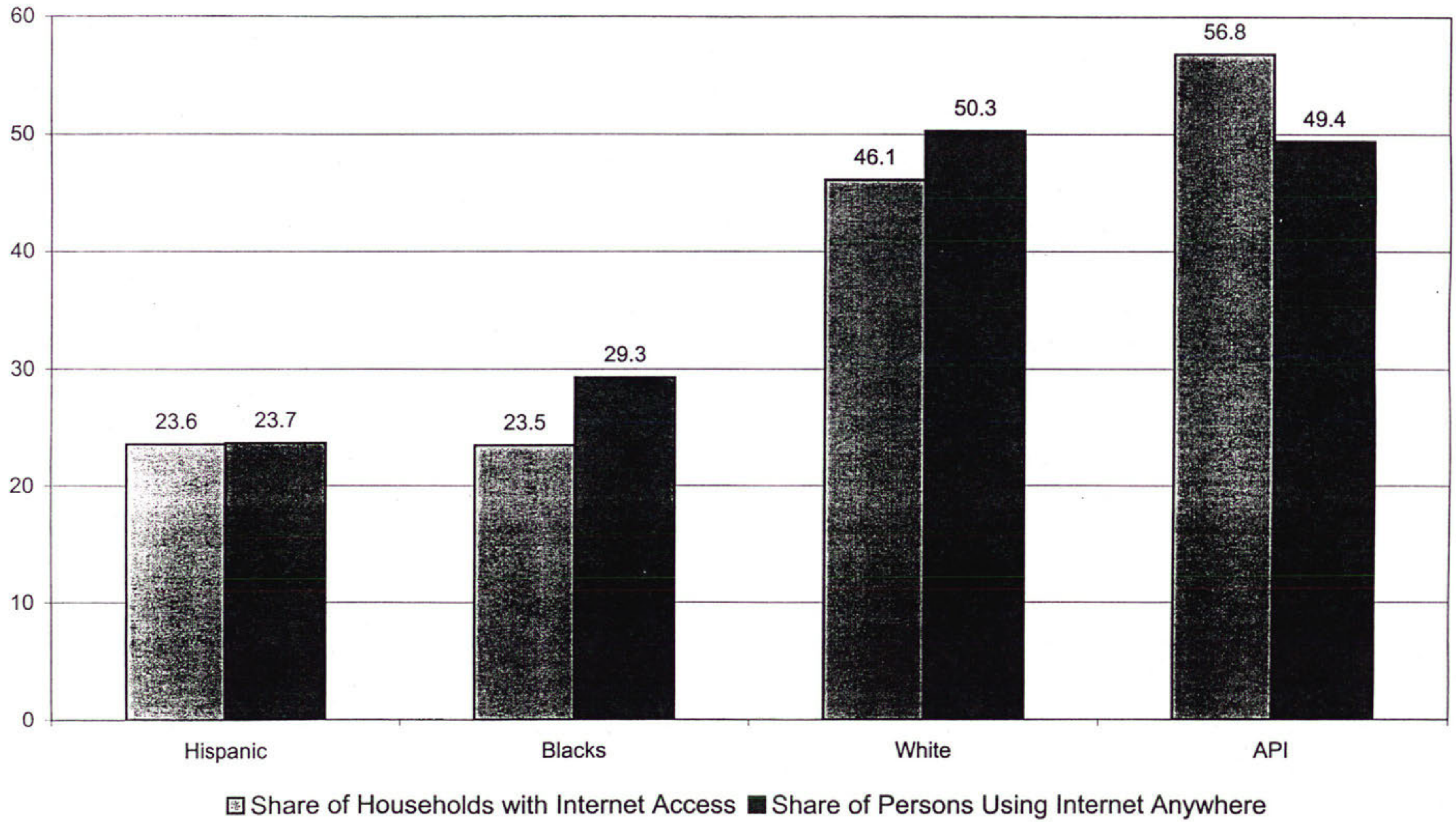


100
90
80
70
60
50
40
30
20
10
0
Internet Penetration (%)
13.7
18.9
18.4
25.5
25.3
35.7
34.7
46.5
45.5
57.7
58.9
70.1
Under $15
$15 to 24.9
$25 to 34.9
$35 to 49.9
$50 to 74.9
$75 +
Household Income
Dec. 1998
Aug. 2000

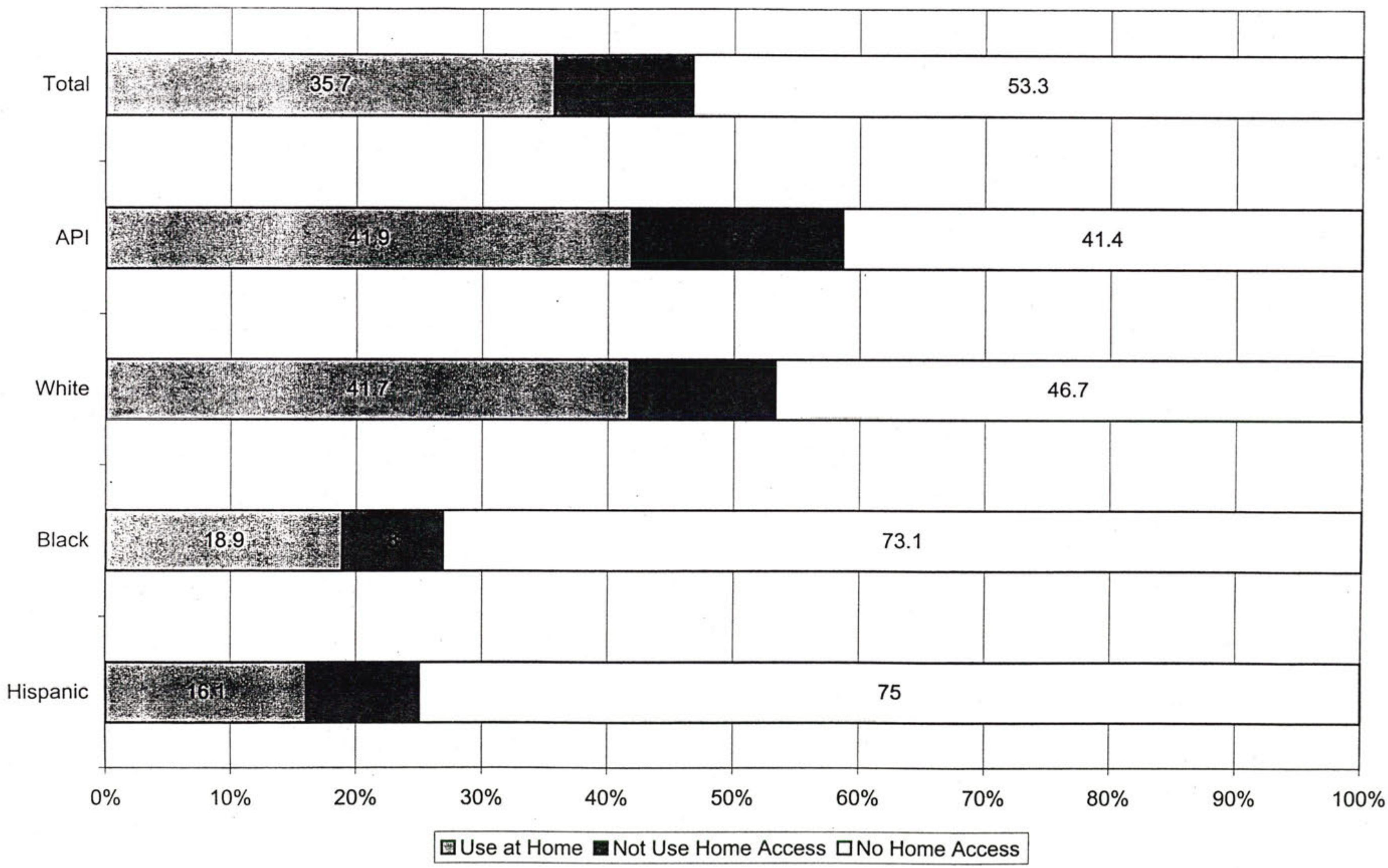


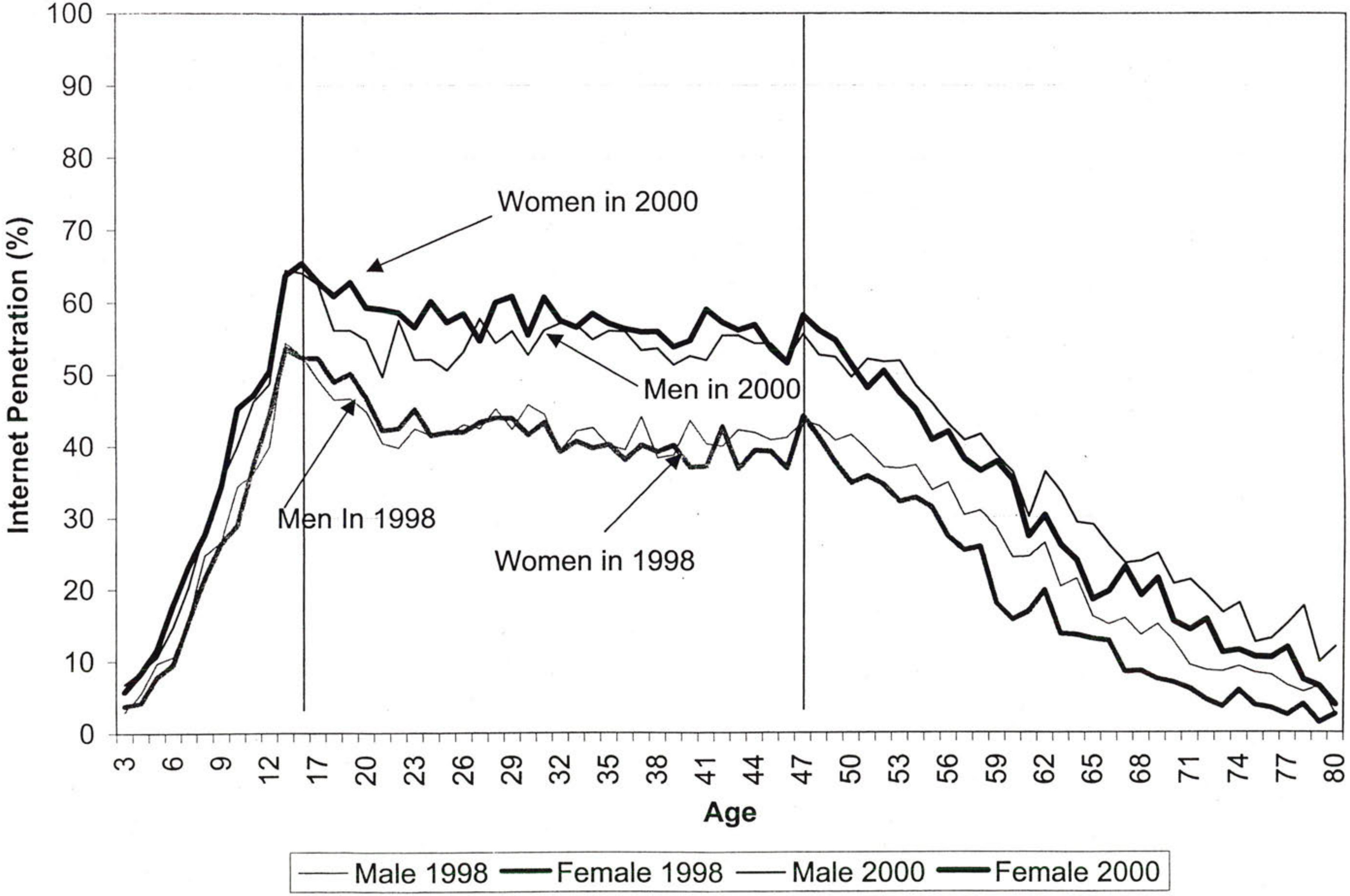
100
90
80
70
60
50
40
30
20
10
0
Internet Penetration (%)
32.7
44.4
37.6
50.3
19.0
29.3
35.8
49.4
16.6
23.7
Total
White
Black
API
Hispanic
Dec. 1998
Aug. 2000

Household Access Rates by Race & Hispanic Origin Do Not Closely Track Internet Use by Persons

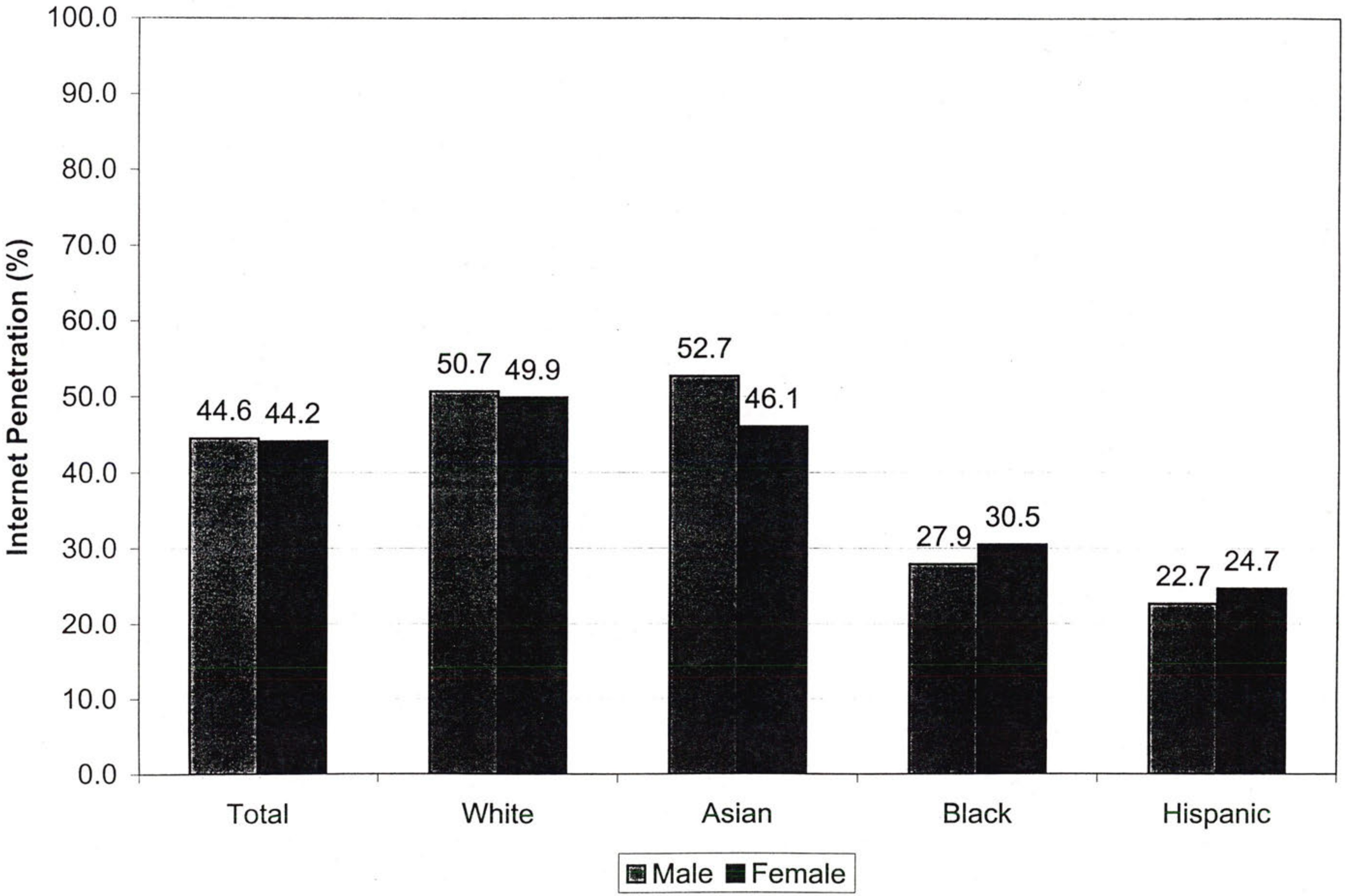


Internet at Home, Use & Access 2000

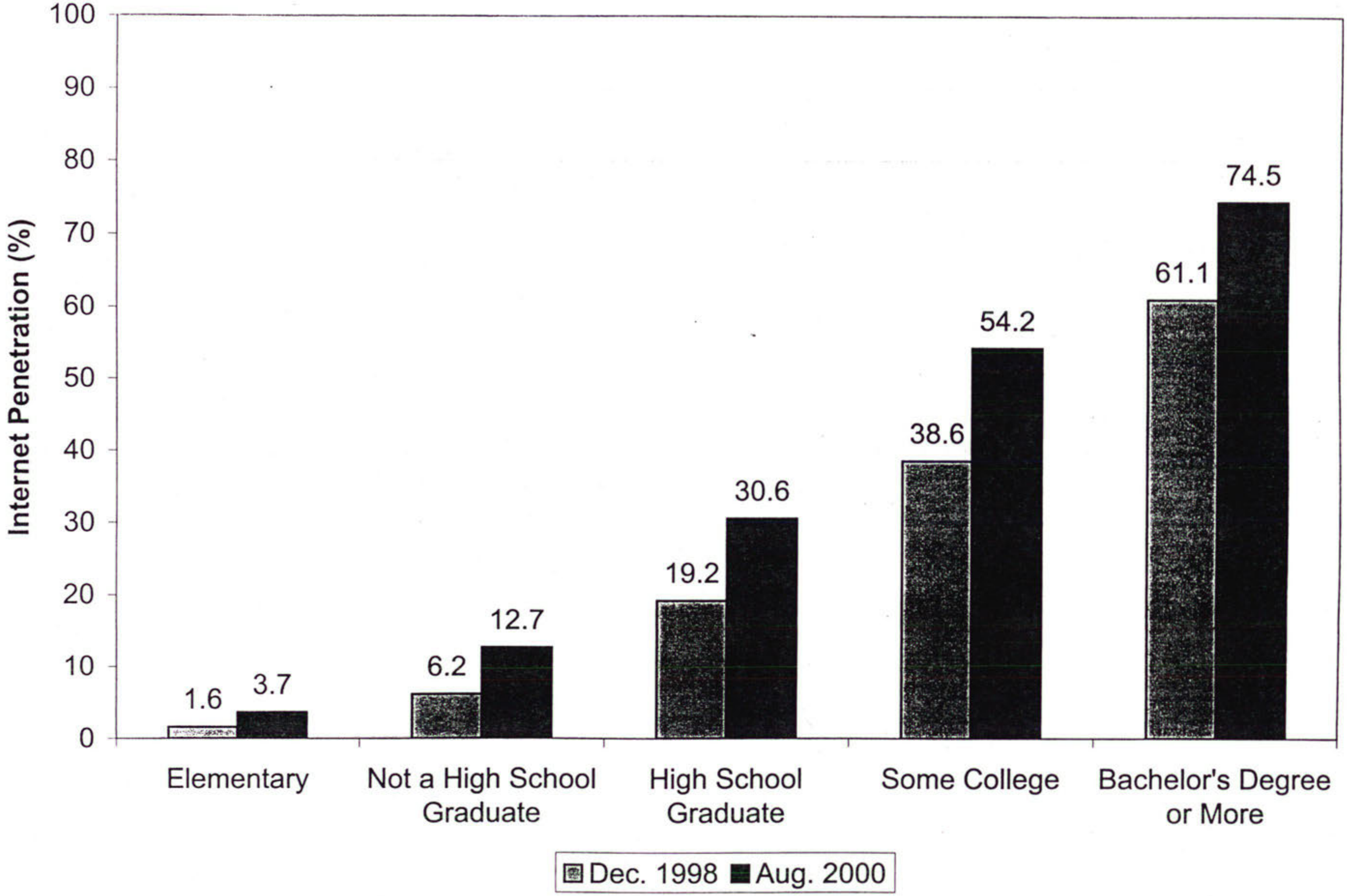




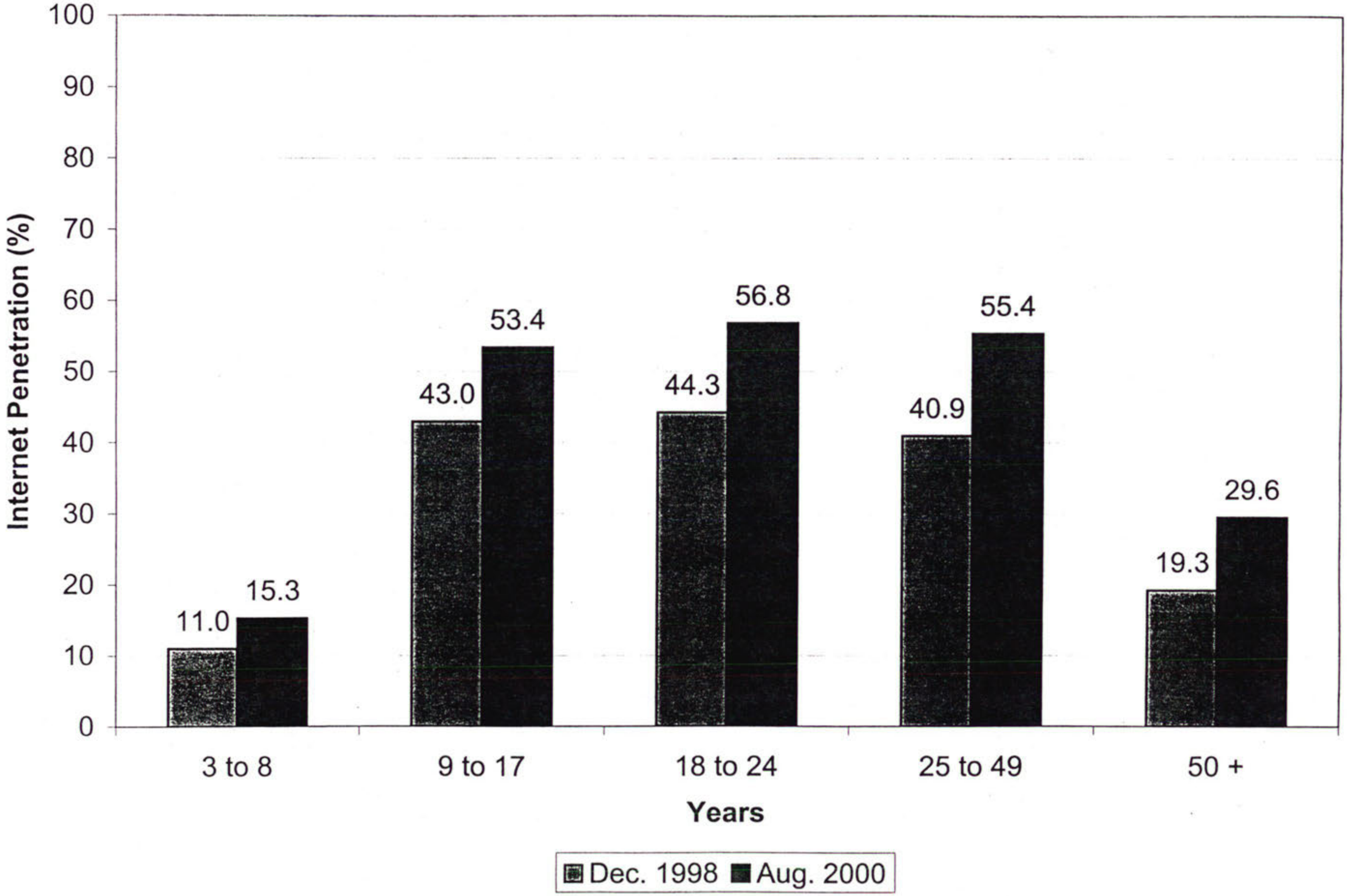
100
90
80
70
60
50
40
30
20
10
0
Internet Penetration (%)
Women in 2000
Men in 2000
Men In 1998
Women in 1998
3
6
9
12
17
20
23
26
29
32
35
38
41
44
47
50
53
56
59
62
65
68
71
74
77
80
Age
Male 1998
Female 1998
Male 2000
Female 2000



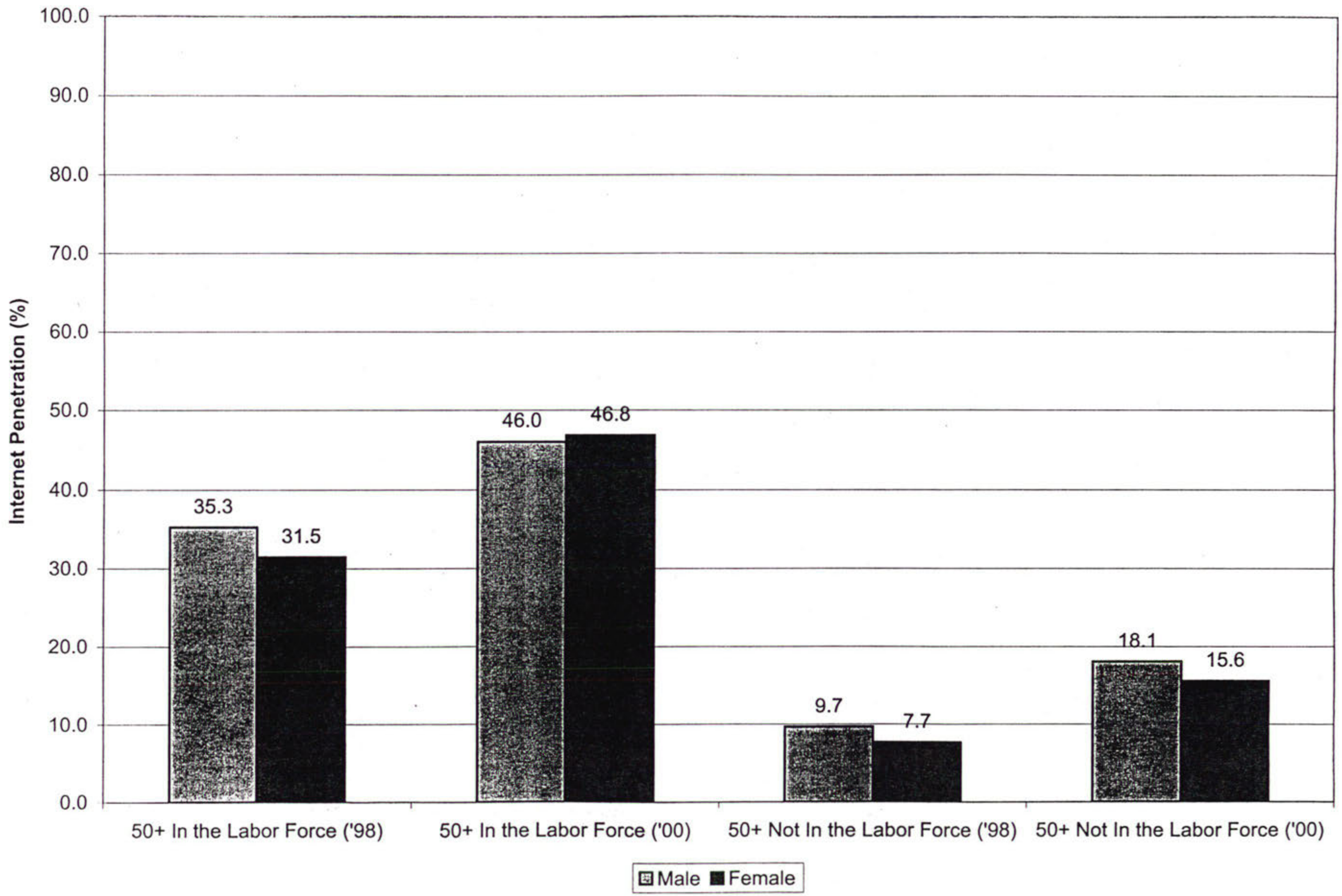
Internet Penetration (%)
100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
44.6
44.2
50.7
49.9
52.7
46.1
27.9
30.5
22.7
24.7
Total
White
Asian
Black
Hispanic
Male
Female



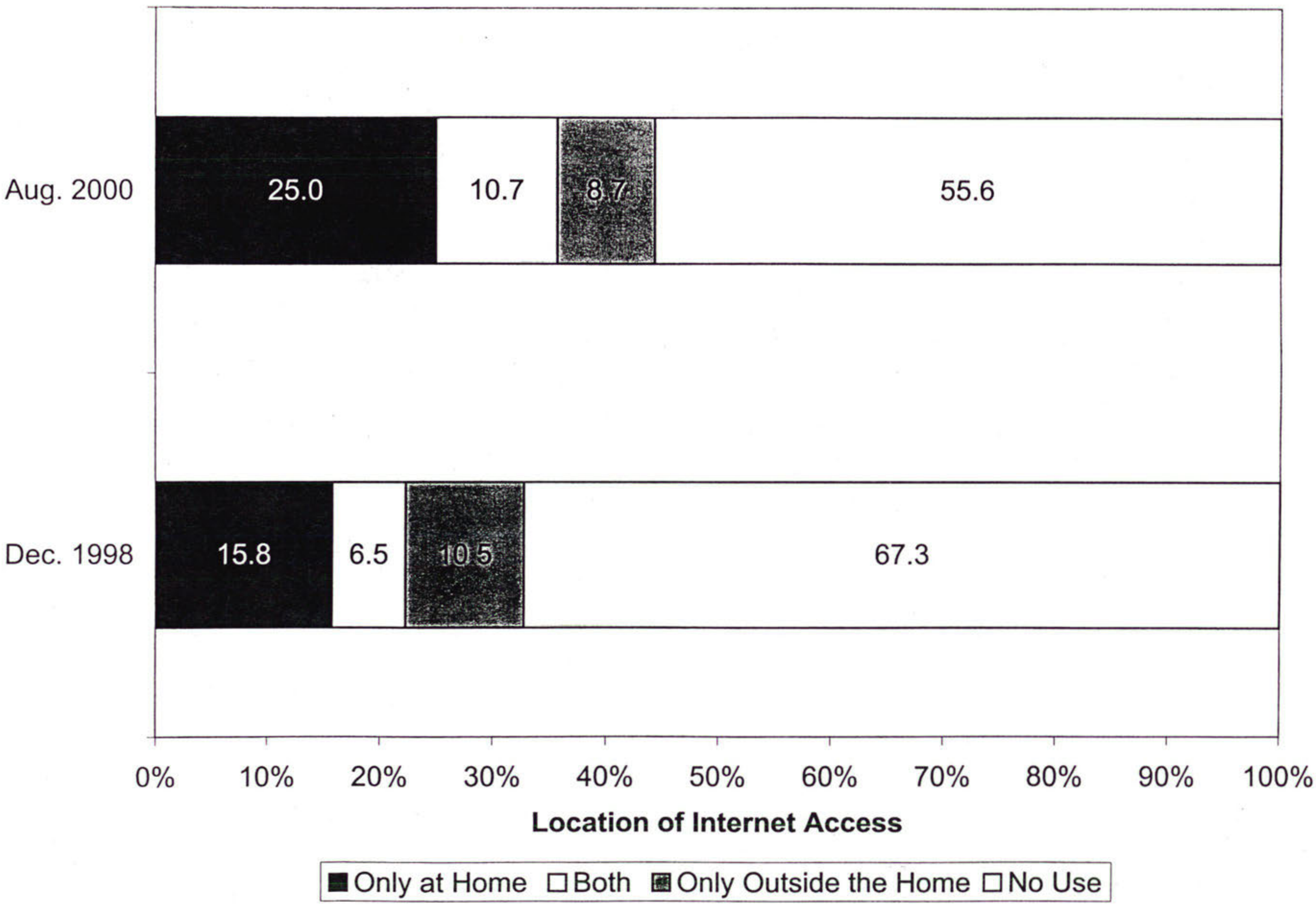
Internet Penetration (%)
100
90
80
70
60
50
40
30
20
10
0
1.6
3.7
6.2
12.7
19.2
30.6
38.6
54.2
61.1
74.5
Elementary
Not a High School Graduate
High School Graduate
Some College
Bachelor's Degree or More
Dec. 1998
Aug. 2000



Internet Penetration (%)
100
90
80
70
60
50
40
30
20
10
0
11.0
15.3
43.0
53.4
44.3
56.8
40.9
55.4
19.3
29.6
3 to 8
9 to 17
18 to 24
25 to 49
50 +
Years
Dec. 1998
Aug. 2000

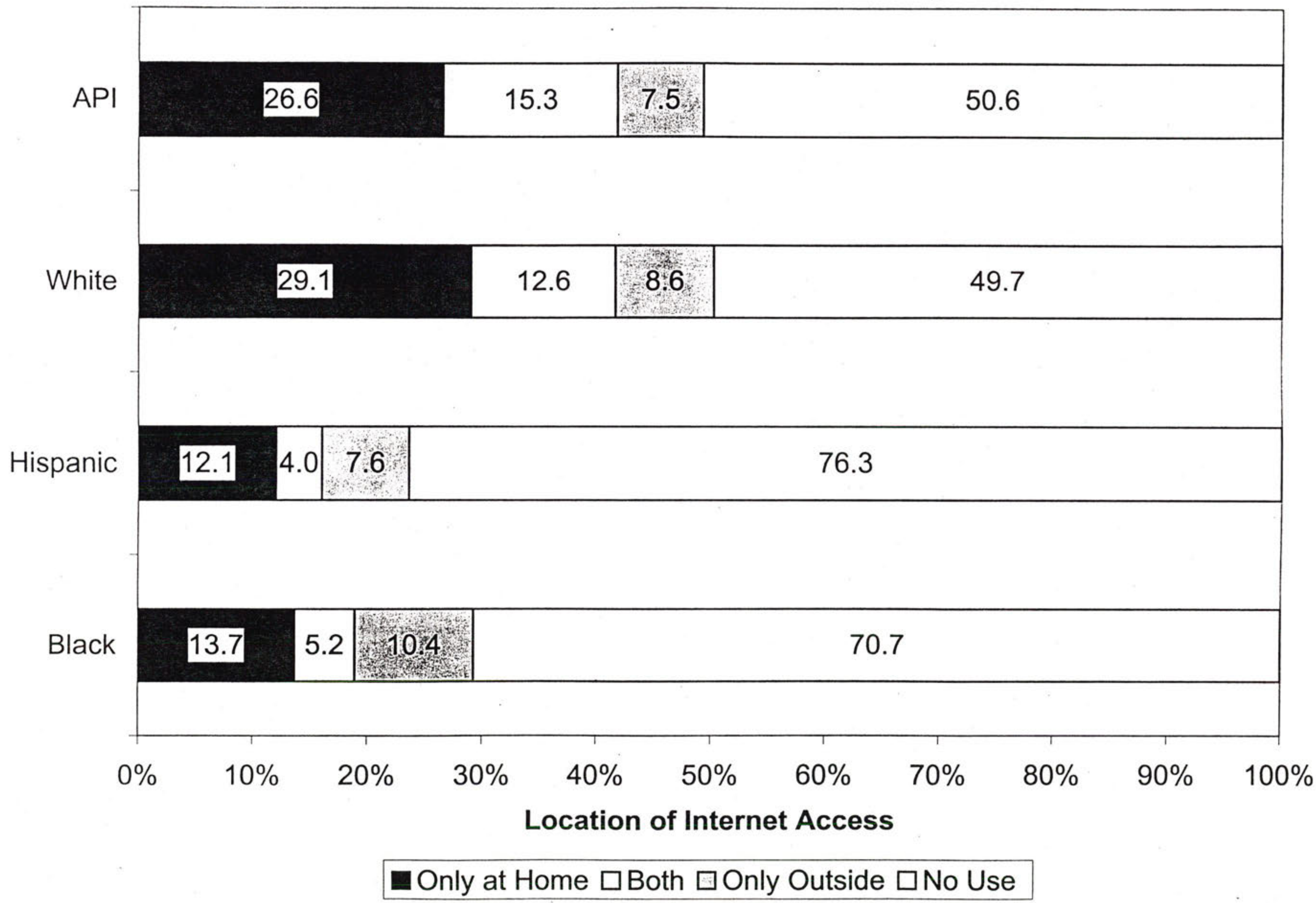


100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
Internet Penetration (%)
35.3
31.5
46.0
46.8
9.7
7.7
18.1
15.6
50+ In the Labor Force ('98)
50+ In the Labor Force ('00)
50+ Not In the Labor Force ('98)
50+ Not In the Labor Force ('00)
Male
Female



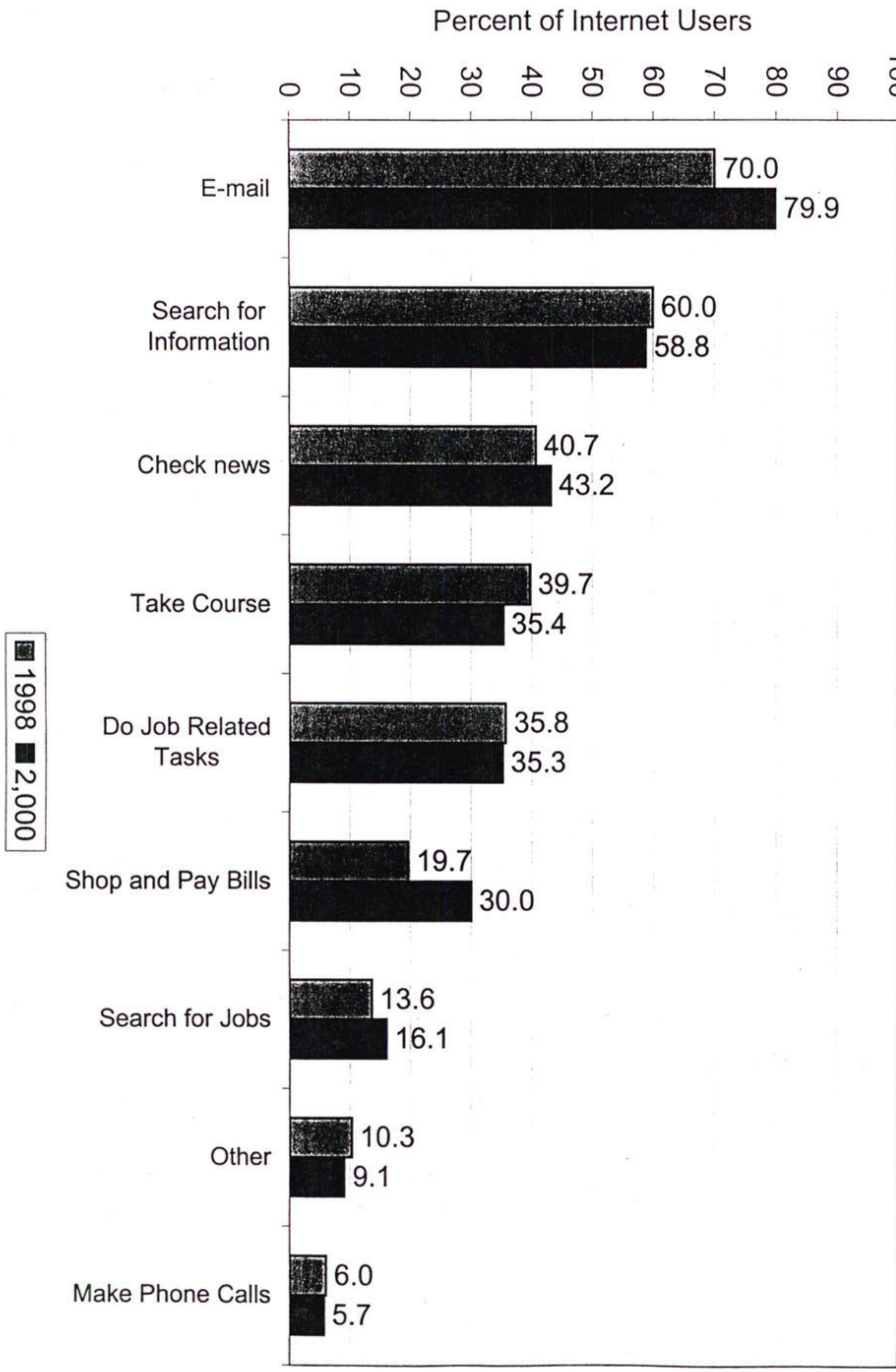
Aug. 2000
25.0
10.7
8.7
55.6
Dec. 1998
15.8
6.5
10.5
67.3
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
Location of Internet Access
Only at Home
Both
Only Outside the Home
No Use

Fig A1


API
White
Hispanic
Black
26.6
15.3
7.5
50.6
29.1
12.6
8.6
49.7
12.1
4.0
7.6
76.3
13.7
5.2
10.4
70.7
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
Location of Internet Access
Only at Home
Both
Only Outside
No Use

F. 12

Fig Q



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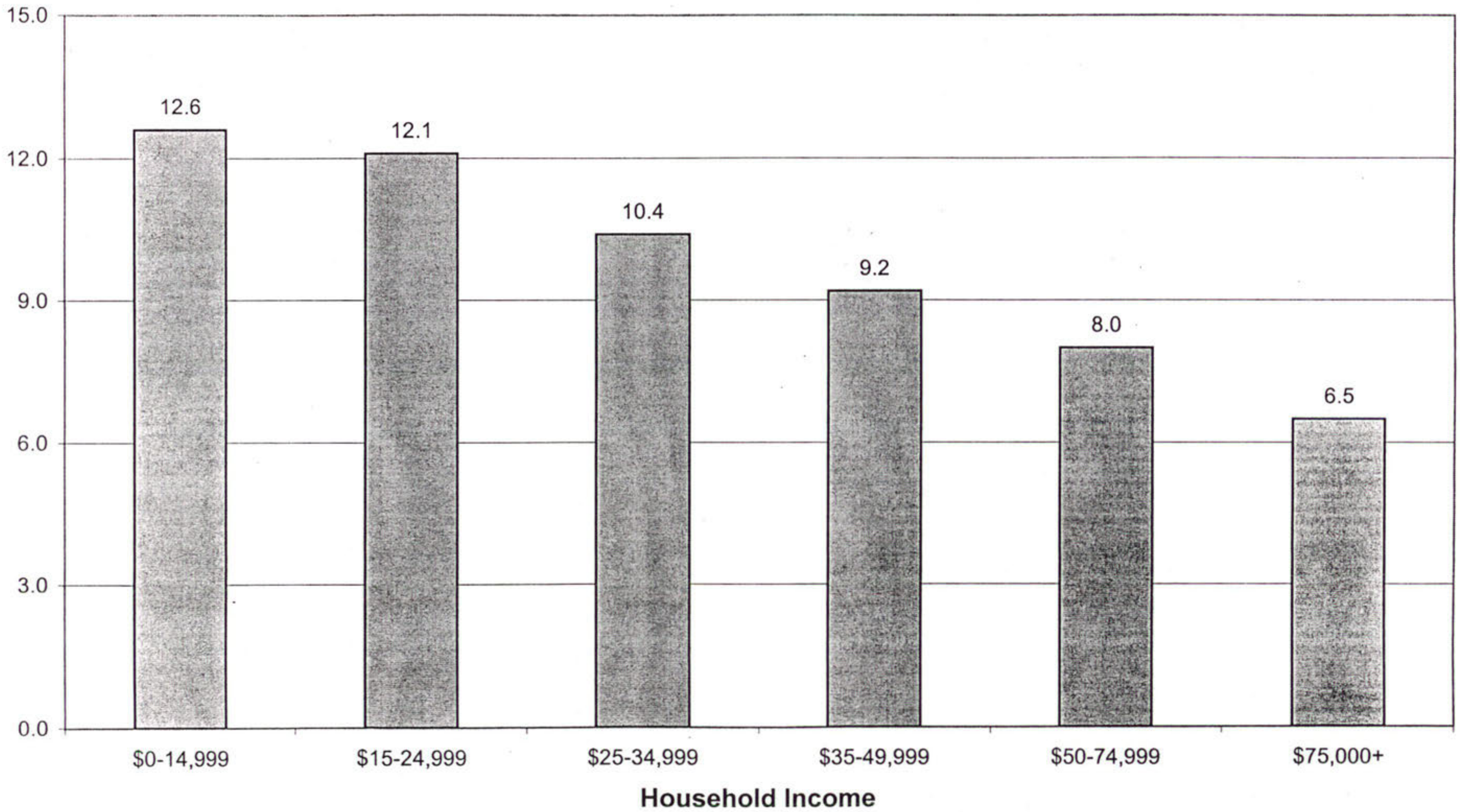
Figures2.xls

Searching for Jobs on the Internet as Percent of Internet Users, Activity Declines as Household Income Rises



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Divider Title: 5

Internet Access and Computer Use Among People With Disabilities

One source of variation in rates of Internet access and computer use not discussed previously in this report is the variation due to the presence or absence of physical or mental disabilities. The periodic supplements to the Current Population Survey, on which the analysis in the preceding sections are based, offer only a very limited basis from which to consider the issue of access to the Internet and computer use by people who have disabilities.[1] Fortunately, a new research data file derived from a different survey, the Survey on Income and Program Participation (SIPP), is now available to provide, for the first time, a detailed look at this subject.[2]

An advantage of the SIPP research data file is that it allows examination of Internet access and computer use rates by people with specific types of disabilities. This is an important advantage because one can reasonably assume that the type of disability has implications for whether and how a person uses computer and the Internet. For people with some types of disabilities, the computer and Internet may offer important improvements in their ability to communicate (*e.g.* people who have difficulty hearing or getting around). For people with other types of disabilities, however (*e.g.* people with poor vision or limited manual dexterity), the standard computer and Internet interfaces may prove to be an additional barrier.[3]

As the data presented below show, Internet access and computer use do vary by disability type. In addition, the data show that some of the variation that is apparent in the aggregate is the result of some fairly large differences in the economic and demographic distribution of the various populations with and without disabilities. Even after accounting for some of these factors,

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[1]The CPS contains one question on work disability; that is the survey asks respondents if they have a health problem or disability which prevents them from working or limits the amount or type of work they can perform. Using the December 1998 CPS supplement, a recent study compares computer and Internet use between the group that has a work disability with the rest of the population. See H. Stephen Kaye, "Computer and Internet Use Among People with Disabilities," *Disability Statistics Report (13)*, U.S. Department of Education, National Institute on Disability and Rehabilitation Research, 2000.

[2]The CPS and SIPP have different purposes and very different survey designs (see Methodology Section in the first part of this report). SIPP is a multi-panel longitudinal survey of adults, measuring their economic and demographic characteristics once every 4 months over a period of four years. Thus, SIPP provides cross-sectional views of respondents' lives at discrete points in time, as well as a longitudinal history of changes in their economic circumstances and household relationships. The current panel started in 1996 and will finish this year. Similar to the CPS, the SIPP asks sets of questions in addition to the core set on a rotating basis. In the case of the SIPP these rotating sets are called topical modules. The SIPP wave conducted between August and November 1999 (Wave 11) added several computer and Internet use questions to the scheduled topical module on adult disability. The addition of the questions to this particular module gives us our first opportunity to look at computer and Internet use among the disabled community in detail. These data are, however, preliminary and subject to revision. For more information on the SIPP see http://www.sipp.census.gov/sipp/

[3]Technology solutions, while far from perfect, are constantly improving, holding out the hope that computers will increasingly come to be viewed as assistive devices and Web page providers will be able to produce content that is accessible by anyone.

however, differences remain in the rates of Internet access and computer use between those who have a disability and those that do not.[4]

There are no generally accepted standards for deciding who are "the disabled." In fact, people with similar conditions may disagree as to whether or not they have a disability. One approach is to adopt a concept similar to the one set out in the Americans with Disabilities Act (ADA). While the Act does not specify all the possible conditions to which ADA protection applies, it does define a person with a disability to be one who has a physical or mental impairment that substantially limits one or more major life activities.[5] Because information on many types of disabilities are collected in the SIPP, it is possible to construct a group that approximates the class protected under the ADA. The group designated in the disabled category for the purposes of this study is defined in Box III-1.[6]

It is obvious that any categorization of the disabled, including the one detailed here, will encompass a very diverse group of individuals who will differ from each other in almost as many ways as they differ from those outside the group. Even given this extreme heterogeneity, it may be useful to explore how the class protected by the ADA varies from the rest of the population in its members' use of technologies such as computers and the Internet. This aggregate, however, masks the possible differences that may exist among people with different types of disabilities. Therefore, in order to explore the rates at which individuals with different types of disabilities have access to the Internet and use computers, this section also considers populations with five specific disabilities: difficulty walking (*i.e.*, uses a cane, crutches, or wheelchair), vision problems, hearing problems, difficulty using hands, and learning disabilities.

The SIPP data relating to Internet and computer use were asked of persons age 16 and above. During the August to November 1999 time frame when the disability and Internet and computer use questions were asked, the U.S. population for those 16 and over was estimated to be approximately 209 million with 45 million, or 21.8% having at least one of the disabilities in Box III-1. Although the proportion of persons with any of the specific disabilities considered is

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[4] As with the discussion in earlier sections, the present analysis is very simplistic, looking as it does only at cross-tabulations of survey data. No attempt has been made here to disentangle the complex interactions, for example, that exist between disability status, income, and employment or to discern causality. Further research is needed.

[5] This Act, which celebrated its tenth anniversary on July 26, 2000, prohibits discrimination on the basis of disability in employment, State and local government, public accommodations, commercial facilities, transportation, and telecommunications. The Act also includes in its definition any individuals with a disability, people with a history or record of such an impairment and people who are perceived by others as having such an impairment.

[6] This concept of disability was developed by John McNeil, Bureau of the Census, U.S. Department of Commerce. For additional information on developing an appropriate definition of disability in the context of the SIPP survey see John M. McNeil, "Employment, Earnings, and Disability," presented at 75th Annual Conference of the Western Economic Association International meetings, June 29-July 3, 2000. (www.census.gov/hhes/www/disability.html).

Box III-1: Building a Disability Category

There are many types of disabilities including:

- **Trouble walking**, which includes those who use a cane, crutches, walker, wheelchair, electric scooter, or similar aid for getting around
- **Vision difficulties**, which includes those who have difficulty seeing the words and letters in ordinary newspaper print even when wearing glasses or contact lenses if they usually wear them, in addition to the blind
- **Hearing difficulties**, which includes those who have difficulty hearing what is said in a normal conversation with another person even when wearing hearing aid, in addition to the deaf
- **Difficulties using hands and fingers** to do things such as picking up a glass or grasping a pencil
- **Learning disabilities**, such as dyslexia

These five disabilities, however, are not nearly inclusive enough to approach the ADA concept of any "physical or mental impairment that substantially limits one or more major life activities." Therefore, in order to view the disabled community broadly, a category consisting of people with any of the above disabilities, *plus* any of the following disabilities was constructed:

- Has difficulty having their speech understood
- Has difficulty lifting and carrying something as heavy as 10 pounds–such as a bag of groceries
- Has difficulty walking up a flight of 10 stairs or walking a quarter of a mile
- Has difficulty using an ordinary telephone
- Because of a physical or mental health condition, has trouble doing any of the following by themselves:
  - Getting around INSIDE the home
  - Going OUTSIDE the home, for example, to shop or visit a doctor's office
  - Getting in and out of bed or a chair
  - Taking a bath or shower
  - Dressing
  - Eating
  - Using or getting to the toilet
  - Keeping track of money or bills
  - Preparing meals
  - Doing light housework such as washing dishes or sweeping a floor
  - Taking the right amount of prescribed medicine at the right time
- Is mentally retarded
- Has a developmental disability such as autism or cerebral palsy
- Has Alzheimer's disease or any other serious problem with confusion or forgetfulness
- Has some other mental or emotional condition
- During the past 12 months, reported that problems with people skills, concentration, or stress seriously interfered with their ability to manage everyday activities
- Has a long-lasting physical or mental condition that has made it difficult to remain employed, to find a job, or to do work around the house

not large on a proportional basis, even the smallest group, those with a learning disability, has close to 3 million people (Table III-1).[7]

Table III-1
Disability Status of Persons 16 and Above

	Number in Thousands	Percent of Population
Total Population 16 and over	208,783	
Has any Disability	45,416	21.8%
Has Difficulty with Walking	9,209	4.4%
Has Vision Problems	7,310	3.5%
Has Hearing Problems	6,961	3.3%
Has Difficulty using Hands	6,272	3.0%
Has a Learning Disability	2,945	1.4%

Source: Survey on Income and Program Participation, research data file (August -November 1999, Wave 11), U.S. Bureau of the Census, U.S. Department of Commerce.

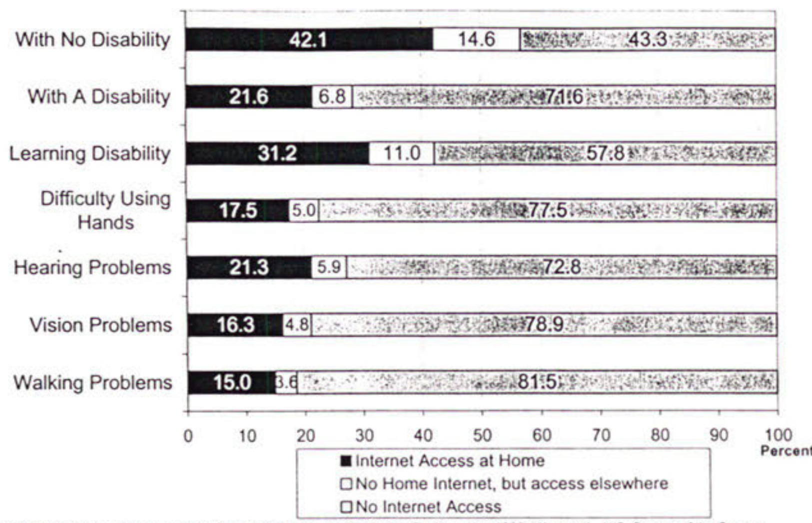
Respondents to the SIPP survey were asked whether they currently had Internet access from home and if they did not have access from home, they were asked if they had access to the Internet "from work or somewhere else"[8] As shown in Figure III-1, persons with a disability were only half as likely to have Internet access either from home or some other location than those without any disability. There were, however, differences in rates of access for specific disabilities. Those with a learning disability, for example, are more like the population with no disability than are those with vision problems in having access to the Internet.[9]

[7] An individual may have more than one type of disability.

[8] Respondents were asked only if they had access to the Internet from home or elsewhere, not if they actually used the Internet. Therefore a person with a disability would answer "yes" to Internet access at home, even if they never used it themselves. This means that actual use of the Internet by various groups of people with disabilities is less than would be indicated by the Internet access rates reported here.

[9] The SIPP data from which these descriptive statistics are drawn are research data for which the analysis required to construct confidence intervals has not yet been undertaken. Therefore it is not possible to judge with accuracy which differences among groups are "real" in the statistical sense. All results and inferences contained in this section should be consider preliminary pending development of testing criteria.

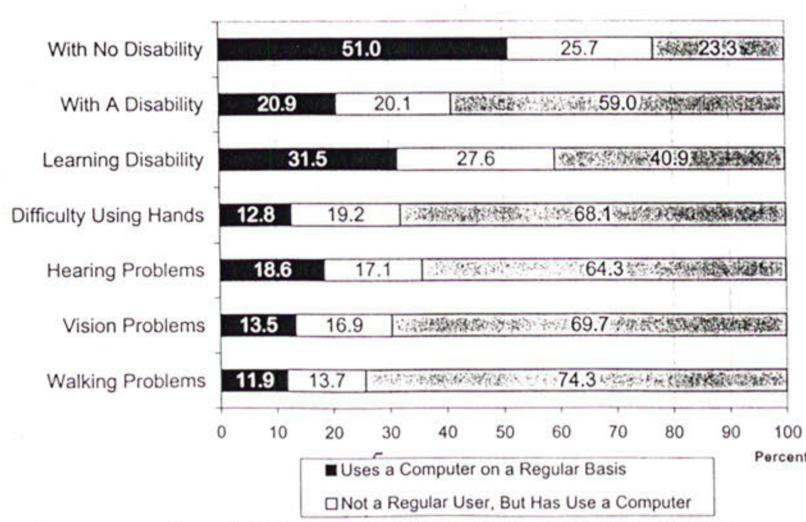
Figure III-1: Internet Access by Disability Status 1999



Source: Survey on Income and Program Partipation, research data file (Aug-Nov 1999, Wave 11). U.S. Bureau of the Census, U.S. Department of Commerce.

While the SIPP does not question all respondent about computer ownership, respondents are asked about their experience with personal computers. As shown in Figure III-2, one half (51%) of those without a disability use "a personal computer on a regular basis" and an additional quarter of this group responded that they have "used a personal computer, but do[es] not now use one on a regular basis." Therefore only 25% of the group without disabilities, has never used a personal computer. The situation is quite different for those who have a disability. Those with learning disabilities are the only group with a disability where at least half of the population has any experience using a PC.

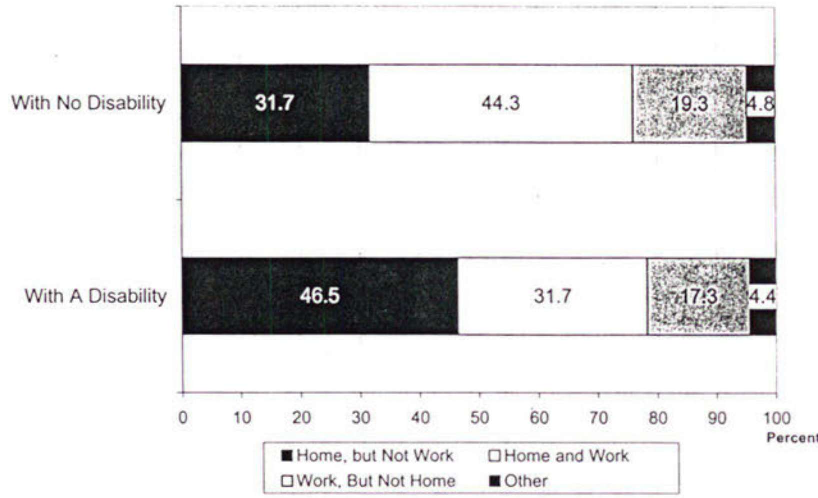
Figure III-2: Personal Computer Use Experience by Disability Status 1999



Source: Survey on Income and Program Partipation, research data file (Aug-Nov 1999, Wave 11). U.S. Bureau of the Census, U.S. Department of Commerce.

Among those who said they regularly used a personal computer (51.0% of those with no disability and 20.9% of those with a disability), those with a disability more often noted "at home" to be the place where they used a computer, rather than the "work and home" category most often claimed by the group with no disabilities (see Figure III-3).

Figure III-3: Regular Users of PCs by Location and Disability Status 1999



Source: Survey on Income and Program Paritipation, research data file (Aug-Nov 1999, Wave 11), U.S. Bureau of the Census, U.S. Department of Commerce.

Exploring the Populations with Disabilities

While plausible explanations for some of the results presented above, others offer more questions than answers. One could hypothesize, for example, that the lower rates of PC use at work by those with a disability reflects lower employment among that group or that those with vision problems or difficulty using their hands have conditions that make computer or Internet use difficult. Why, then, do those who use crutches, canes, or wheelchairs have a similarly low proportions of people accessing the Internet or using a PC regularly as those in vision problems? In order to better understand the use of computers and the Internet by those with disabilities, further examination of the composition of the various groups is necessary.

People with a disability (again using the criteria set in Box III-1) are somewhat more likely to be female than the population without disabilities, and there are some relatively minor differences in race and ethnicity distributions between the two groups (see Appendix Table AIII-1). There are striking differences, however, in income, age, and employment distributions: the disabled group has lower income, is older, and is less likely to be employed than the group without disabilities (see Figures III-4-III-9). The previous sections of this report show these three variables to be associated with substantial variations in computer and Internet use. And, indeed, some interesting variations are found in rates of Internet access and regular computer use between the disabled and the nondisabled populations when considered over these dimensions, as well as gender and race/ethnicity.

Those w/ a Disabilty
by Income

Those No Disablity
by Incom

Figure III-4

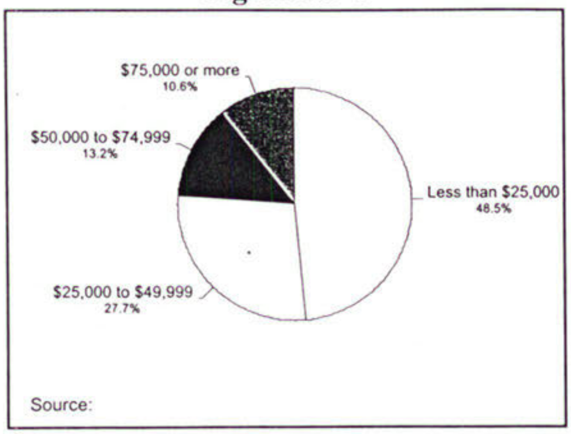


Figure III-5

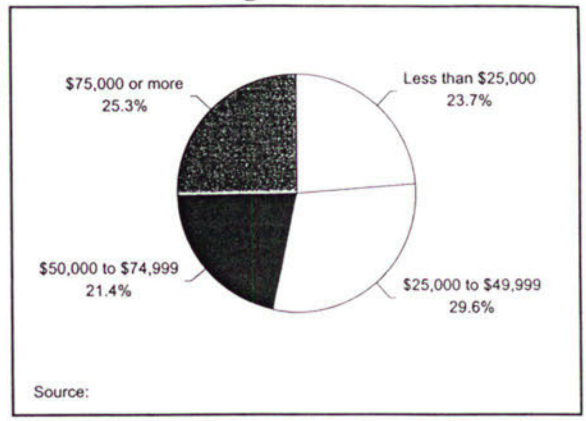


Figure III-6 Age

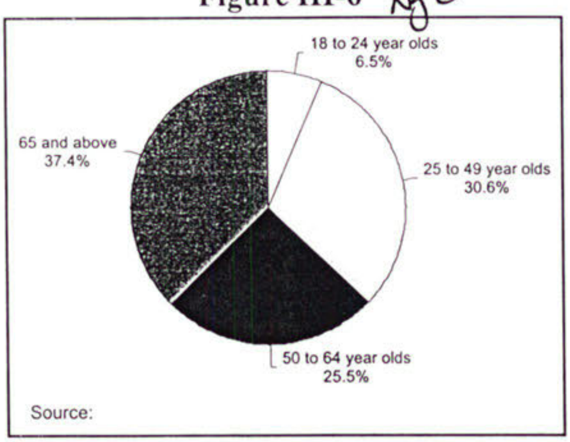
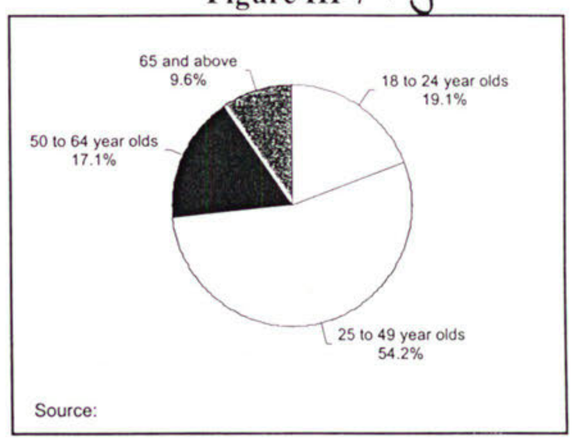
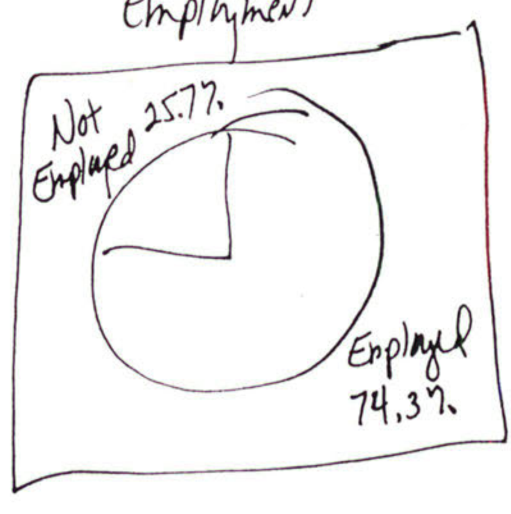


Figure III-7 Age



Employment

Employment



Income–As shown in Figure III-10, people with a disability are less likely to have access to the Internet than people without a disability at all income levels. This disparity, however, between the two groups declines as income rises. For example, a person with a disability is less than half as likely to have home Internet access if household income is less than $25,000, while there is less than a 20% differential in access rates where household income is in the $75,000 and above range. Similarly, Figure III-11 shows that the difference between the percent of people with disabilities who regularly use a PC and the percent of people without a disability who regularly use a PC narrows as incomes rise.[10]

Figure III-10: Internet Access at Home by Income and Disability Status, 1999

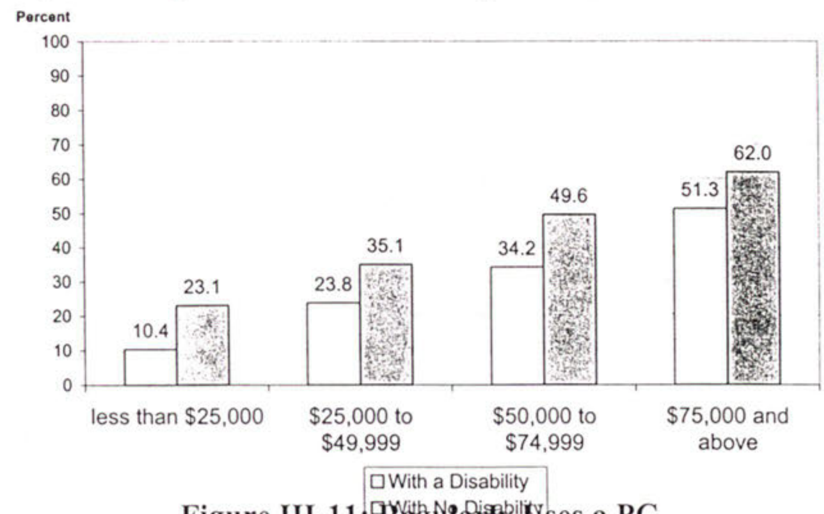
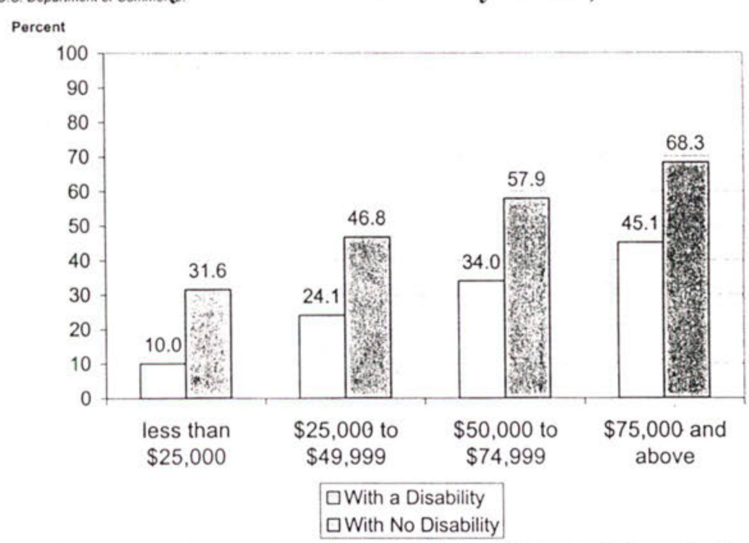


Figure III-11: Regularly Uses a PC by Income and Disability Status, 1999



Source: Survey on Income and Program Paritipation, research data file (Aug-Nov 1999, Wave 11), U.S. Bureau of the Census, U.S. Department of Commerce.

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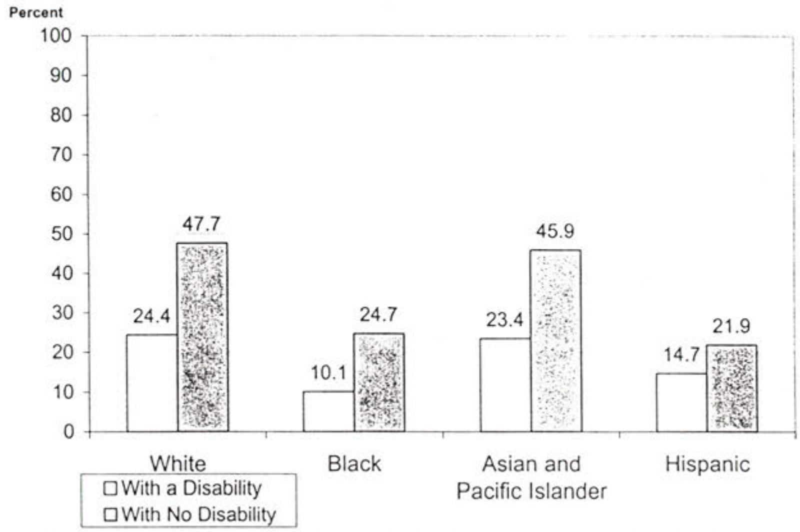
[10] The companion figures of "No Internet Access at Home, But Elsewhere" and "Never Used a PC" appear in the Appendix Table AIII-2.

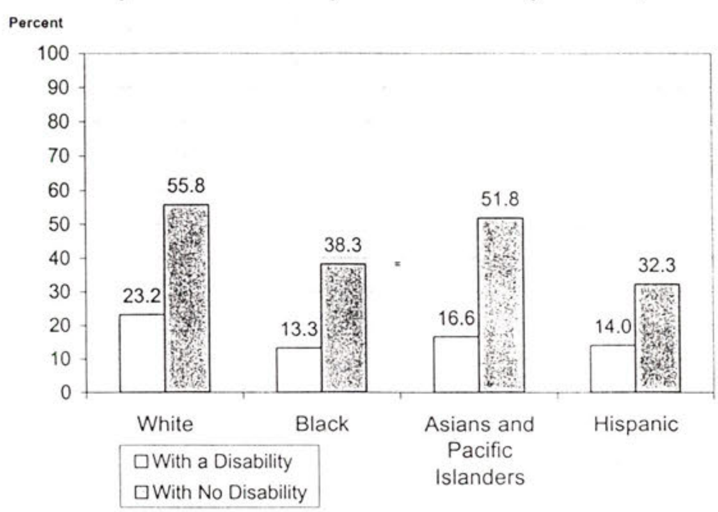
Race and Ethnicity– As regards home Internet access, Hispanics with a disability are the most like their comparative nondisabled group, with the disabled rate being 67% of the nondisabled rate (see Figure III-12). When considering differences in the proportion of each group that uses a PC regularly (see Figure III-13), Blacks and Asians have the greatest disparity between their disabled and nondisabled populations on a percentage basis.

Figure III-12: Internet Access at Home by Race/Ethnicity and Disability Status, 1999



Source: Survey on Income and Program Paritipation, research data file (Aug-Nov 1999, Wave 11), U.S. Bureau of the Census, U.S. Department of Commerce.

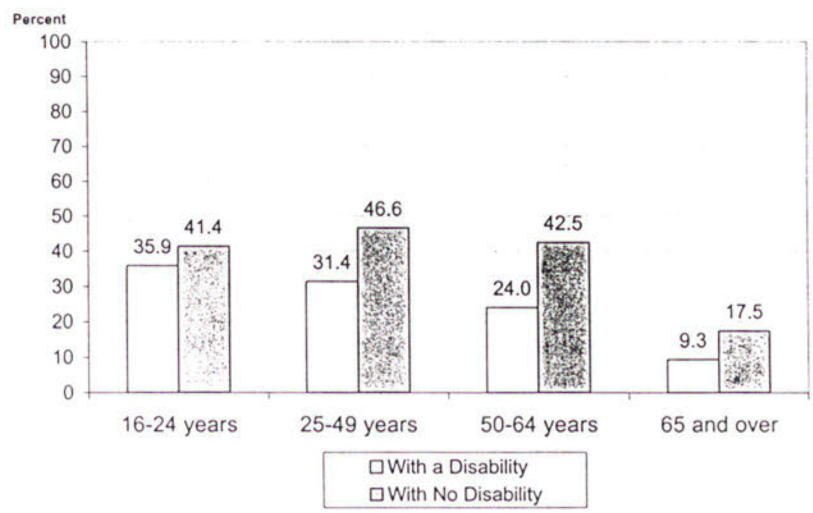
Figure III-13: Regularly Uses a PC by Race/Ethnicity and Disability Status, 1999



Source: Survey on Income and Program Paritipation, research data file (Aug-Nov 1999, Wave 11), U.S. Bureau of the Census, U.S. Department of Commerce.

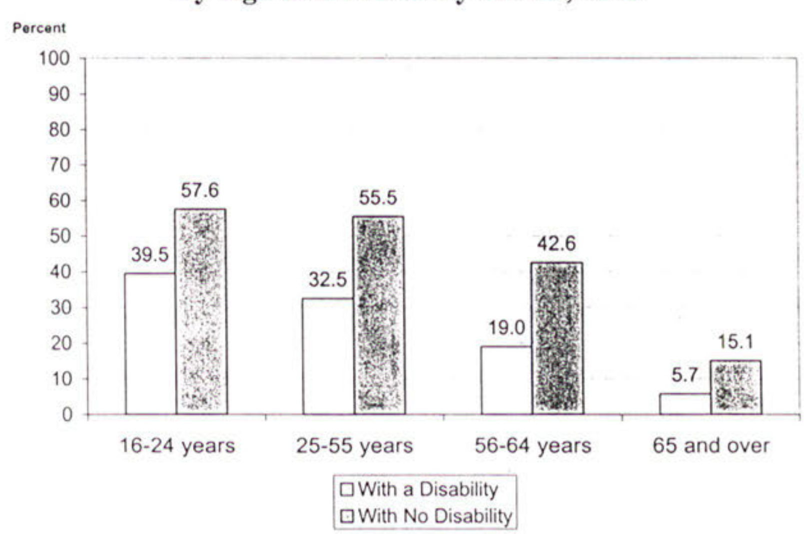
Age– Individuals in younger age groups are more similar in their degree of home Internet access whether or not a disability is present, but the disparity rises as age increases. Figure III-14 shows that those with a disability in the 16-24 year old age range have Internet access at a rate that is 90% of the rate of those without a disability. The disparity between the two groups increases with age, reaching almost 50% in the 65 and over age group. A similar type of pattern holds when considering the differences that exist between the disabled and nondisabled populations in their experience with personal computers across age groups (see Figure III-15).

Figure III-14: Internet Access at Home by Age and Disability Status, 1999



Source: Survey on Income and Program Partipation, research data file (Aug-Nov 1999, Wave 11), U.S. Bureau of the Census, U.S. Department of Commerce.

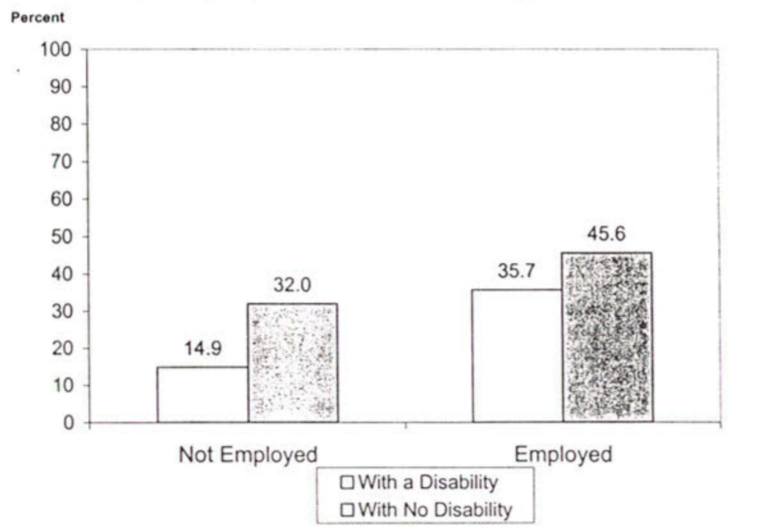
Figure III-15: Regularly Uses a PC by Age and Disability Status, 1999



Source: Survey on Income and Program Partipation, research data file (Aug-Nov 1999, Wave 11), U.S. Bureau of the Census, U.S. Department of Commerce.

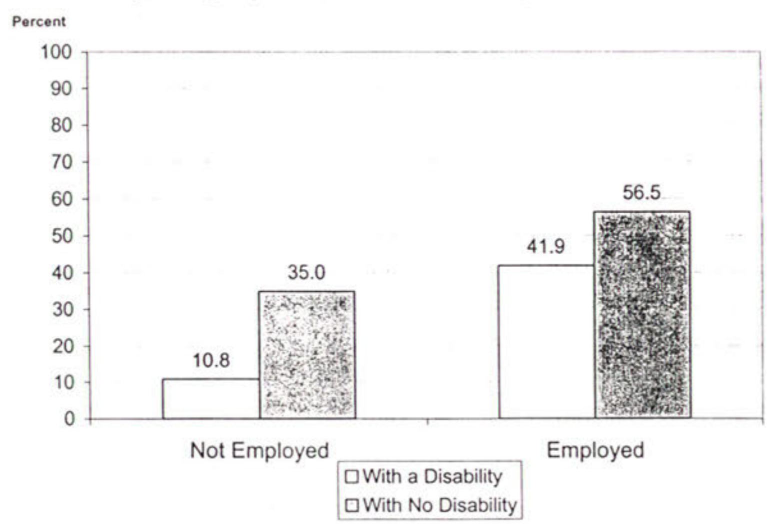
Employment Status– The following charts (Figures III-16 and III-17) consider disability status by employment status. When considering employment status in the current context, employed versus not employed is used rather than employed, not employed, and not in the labor force.[11] Home Internet access rates and regular use of PCs by employed persons in the two groups are substantially more similar, than for persons who are not employed.

Figure III-16: Internet Access at Home by Employment and Disability Status, 1999



Source: Survey on Income and Program Partipation, research data file (Aug-Nov 1999, Wave 11), U.S. Bureau of the Census, U.S. Department of Commerce.

Figure III-17: Regularly Uses a PC by Employment and Disability Status, 1999



Source: Survey on Income and Program Partipation, research data file (Aug-Nov 1999, Wave 11), U.S. Bureau of the Census, U.S. Department of Commerce.

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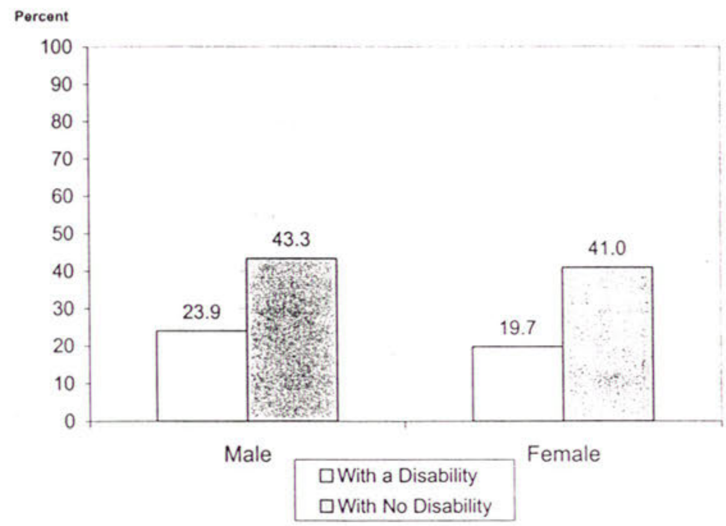
[11] Only those who are actively seeking work are counted as unemployed. Since a large proportion of those with a disability may consider the barriers to employment to be too high to overcome, they drop out of the labor force numbers.

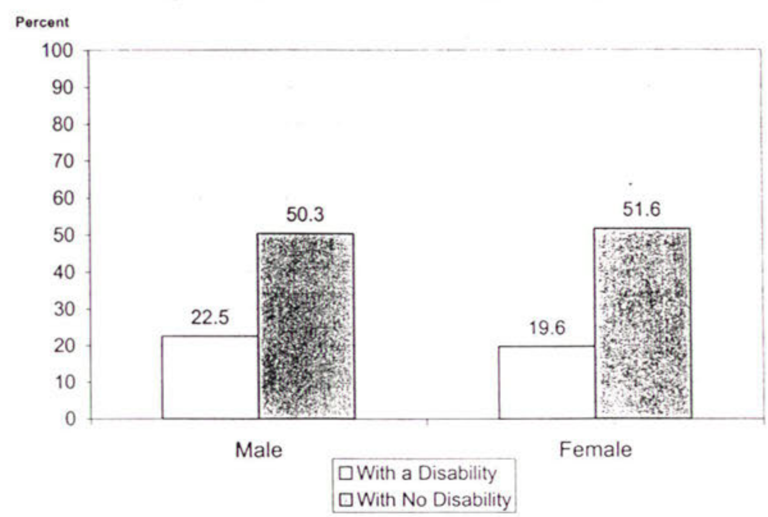
Gender–As shown in Figure III-18, males with or without disabilities are more likely than females in the comparable populations to have Internet access at home. Further the difference between the group with disabilities and the group without disabilities is larger for women, than for men (48% to 55%, respectively). This variation is even more pronounced in the comparison of proportion of persons who regularly use a PC: even though a slightly higher proportion of women without a disability regularly use a PC, women with a disability lag men with a disability in this category (see Figure III-19).

Figure III-18: Internet Access at Home by Gender and Disability Status, 1999



Source: Survey on Income and Program Paritipation, research data file (Aug-Nov 1999, Wave 11). U.S. Bureau of the Census, U.S. Department of Commerce.

Figure III-19: Regularly Uses a PC by Gender and Disability Status, 1999



Source: Survey on Income and Program Paritipation, research data file (Aug-Nov 1999, Wave 11). U.S. Bureau of the Census, U.S. Department of Commerce.

Table III-2
Population Distribution by Age and Disability

	16-24		25-49		50-64		65 and older	
	No Disability	Has A Disability	No Disability	Has A Disability	No Disability	Has A Disability	No Disability	Has A Disability
Population (in thousands)	31,282	2,960	88,557	13,885	27,932	11,604	15,596	16,966
Population Distribution	91.4	8.6	86.4	13.6	70.6	29.4	47.9	52.1
Male	50.0	52.9	49.5	47.6	49.6	44.4	46.7	38.5
Female	50.0	47.1	50.5	52.4	50.4	55.6	53.3	61.5
White Non-Hisp.	64.9	66.4	71.9	68.8	81.3	73.9	86.4	80.8
Black Non-Hisp	14.0	18.2	11.7	16.3	8.1	13.5	6.5	9.6
Asian and Pacific Islanders	4.3	1.4	3.9	2.5	3.0	2.5	2.2	2.5
Hispanic	15.7	10.9	11.7	10.7	7.1	8.8	4.6	6.1
Employed	59.6	43.2	86.9	54.9	80.3	38.4	21.5	7.5
Not Employed	40.4	56.8	13.1	45.1	19.7	61.6	78.5	92.5
Less than $25,000	27.4	38.5	20.3	42.6	18.7	41.4	44.9	60.1
$25,000 - $49,999	25.5	26.0	31.2	29.1	27.5	29.2	32.6	25.8
$50,000 - $74,999	20.0	15.1	22.9	15.9	22.7	16.6	12.7	8.2
$75,000 and above	27.1	20.4	25.6	12.4	31.1	12.8	9.8	5.9
Not a High School Graduate			9.5	21.3	11.3	29.8	24.7	40.6
High School Graduate			30.3	37.0	31.8	33.4	26.5	30.8
Some College			31.2	28.5	27.7	23.6	21.3	17.9
College Graduate			28.9	13.2	29.2	13.2	17.5	10.7

Source: Survey on Income and Program Participation, research data file (August -November 1999, Wave 11), U.S. Bureau of the Census, U.S. Department of Commerce.

Note: Educational attainment not reported for 16-24 year olds in this table because over 50% of this age group are *full-time students..*

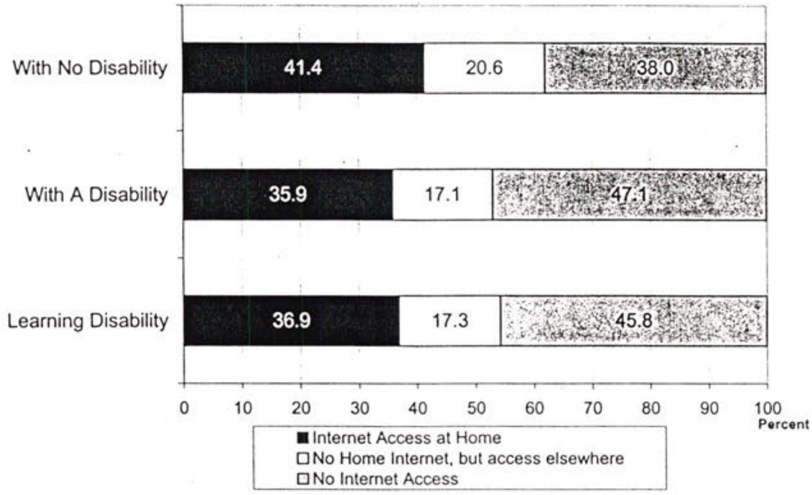
While any of the above socio-economic variables would provide an interesting basis by which to consider specific disabilities in greater detail, age is the variable selected here. As people age, they are increasingly likely to develop a disability (Appendix Table AIII-1 and AIII-3). And as shown in Table III-2, although differences remain between the disabled and the nondisabled populations in each of the four age groups considered here across variables such as gender, race/ethnicity, employment status, and income, these differences are less than the differences shown in Appendix Table AIII-1.

Access, Use, and Disability: 16-24 year olds

This youngest of the age groups for which SIPP computer and Internet use data are available, has the highest rates of Internet and computer use, and members of this age group are least likely to have a disability. Of the population with a disability, just under 3 million, or 8.6%, fall into the 16-24 year old range, limiting the amount of disaggregation that can be presented for this age group. Of the specific disabilities considered in this report, only learning disabilities had a sample size sufficient to produce reliable results. Those with learning disabilities make up 2.8% of the population in this age group, while the other disabilities of difficulty walking, seeing hearing, and using ones hands each make up less than 1% of this population group.

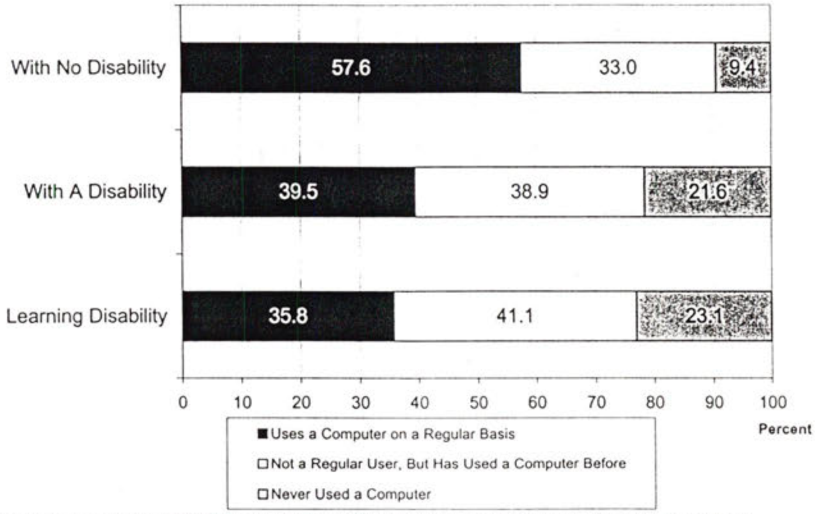
Although 16-24 year olds with disabilities have lower rates of Internet access and are less likely to have used a PC, the differences between the group who have a disability and the group that does not are much smaller than they were for the entire 16 and over population (Figures III-20 and III-21). Table III-3 shows how Internet Access and PC use varies across several sets of characteristics. Of special note is the fact that Internet access is the same for those employed whether or not they have a disability. A separate breakout of educational attainment is not included for this age group because over half of the people in this age category are full-time students. It is surprising that the point differential between disabled and nondisabled is the same between the full-time students as it is for the entire 16-24 year old group as a whole.

Figure III-20: Internet Access Among 16-24 Year Olds by Disability Status, 1999



Source: Survey on Income and Program Paritipation, research data file (Aug-Nov 1999, Wave 11), U.S. Bureau of the Census, U.S. Department of Commerce.

Figure III-21: Personal Computer Use Experience Among 16-24 Year Olds by Disability Status, 1999



Source: Survey on Income and Program Paritipation, research data file (Aug-Nov 1999, Wave 11), U.S. Bureau of the Census, U.S. Department of Commerce.

Table III-3
Internet Access and Computer Use by 16-24 Year Olds
(Population: 34,242,000)

	Home Internet Access		Internet Access, But Not At Home		Regular PC User		Never Used a PC	
	No Disabil-ity	Has a Disabil-ity	No Disabil-ity	Has a Disabil-ity	No Disabil-ity	Has a Disabil-ity	No Disabil-ity	Has a Disabil-ity
All 16-24 Year Olds	41.4	35.9	20.6	17.1	57.6	39.5	9.4	21.6
Male	41.5	34.8	19.4	15.1	54.8	35.5	10.1	22.6
Female	41.3	37.1	21.9	19.2	60.3	44.0	8.8	20.5
White Non-Hisp.	50.0	44.7	20.1	39.3	64.4	46.5	5.6	16.2
Black Non-Hisp	22.7		23.5		41.1	23.4	16.8	35.8
Asian and Pacific Islanders	48.3		20.1		69.0		5.4	
Hispanic	21.6		20.2		41.6	30.8	18.6	31.3
Employed	44.4	43.4	19.8	19.6	59.1	48.8	8.0	10.9
Not Employed	36.9	30.1	21.9	15.1	55.3	32.4	11.5	29.7
Less than $25,000	24.6	25.0	23.4	19.5	42.6	28.6	14.7	27.7
$25,000 - $49,999	35.7	32.8	23.0	17.8	55.1	37.5	10.4	22.3
$50,000 - $74,999	46.3		19.2		63.2		8.1	16.4
$75,000 and above	60.0	57.4	16.7	14.1	70.8	59.2	4.2	13.1
Full-Time Students	49.1	43.0	24.5	19.8	69.1	50.2	4.5	16.6

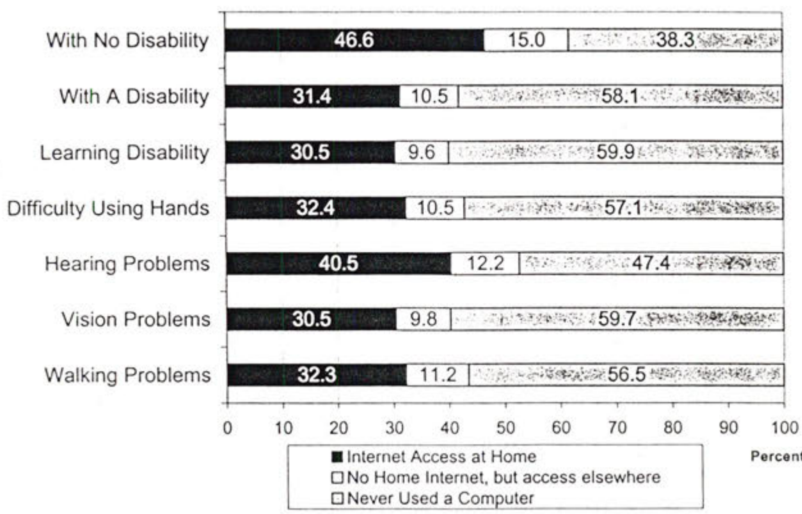
Source: Survey on Income and Program Participation, research data file (August -November 1999, Wave 11), U.S. Bureau of the Census, U.S. Department of Commerce.

Note: Blank cells in the table indicate insufficient sample size to produce reliable estimates.

Access, Use, and Disability: 25-49 year olds

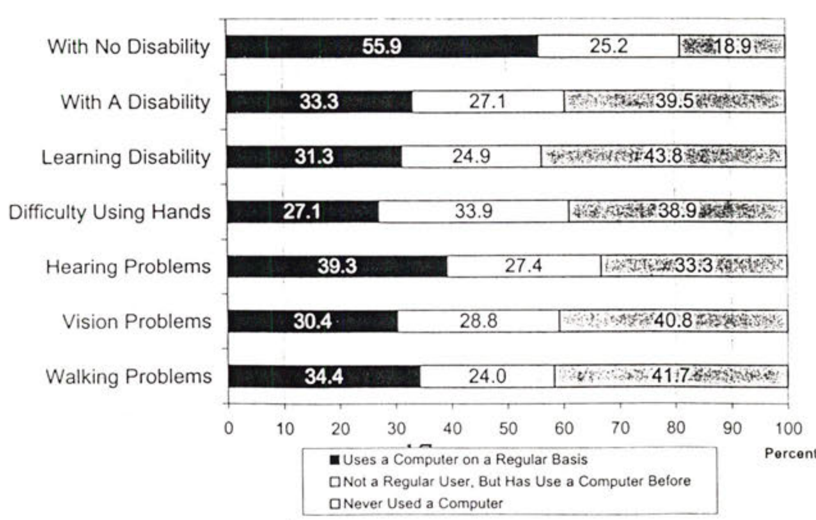
According to data presented in an earlier section, Internet use remains generally level when considered for the entire U.S. population at this age group, but there are substantial differences across various measures such as income and educational attainment (see Table III-4). For example, college graduates in the 25-49 year old age group had very similar rates of home Internet access regardless of disability status (67.8% for those with no disability and 65.2% for those with a disability). In addition, there are differences among the people with various disabilities within this group. Only those with hearing difficulties come close to having a similar proportion of their population with Internet access rates approaching the group comprised of those without any disabilities.

Figure III-22: Internet Access Among 25-49 Year Olds by Disability Status, 1999



Source: Survey on Income and Program Partipation, research data file (Aug-Nov 1999, Wave 11), U.S. Bureau of the Census, U.S. Department of Commerce.

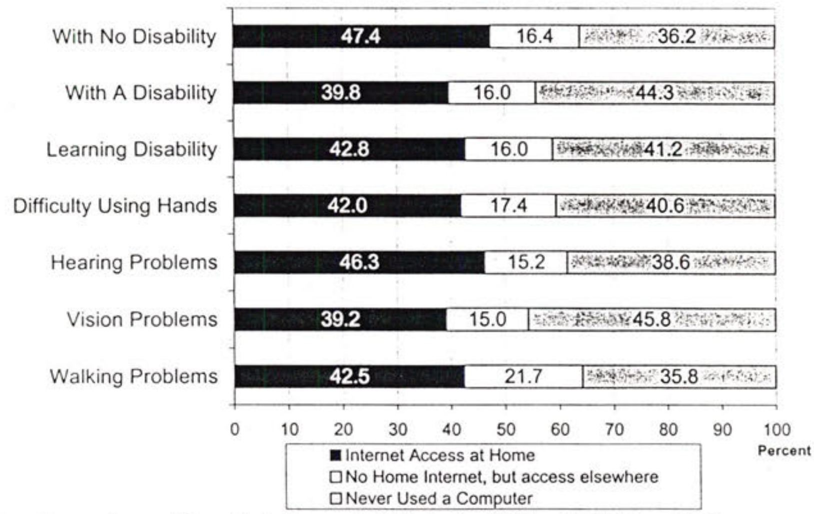
Figure III-23: Personal Computer Use Experience Among 25-49 Year Olds by Disability Status, 1999



Source: Survey on Income and Program Partipation, research data file (Aug-Nov 1999, Wave 11), U.S. Bureau of the Census, U.S. Department of Commerce.

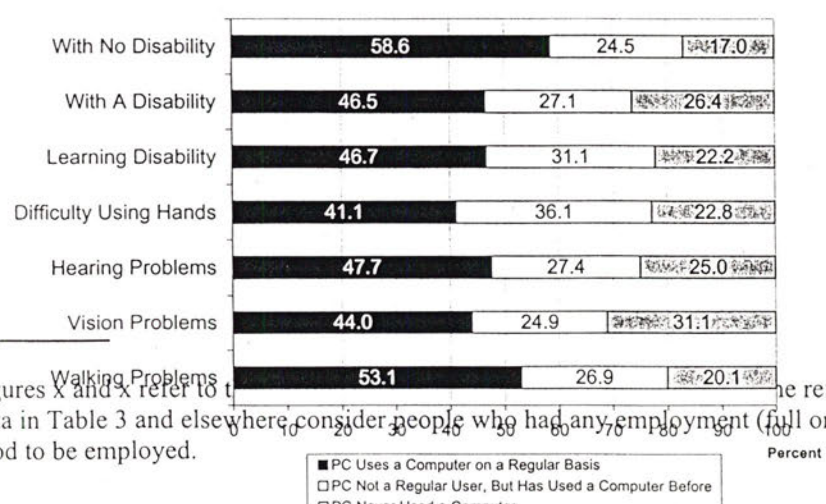
This population group has the highest proportion employed of any other age group considered here and although the proportion employed among those with no disabilities (86.9%) far exceeds the proportion of those with a disability who are employed (54.9%), there are sufficient numbers in both groups to take a detailed look at variations by disability status. As shown in Figures III-24 and III-25, differences in Internet access and computer use are less when considering only those in each group who were employed on a full-time basis[12].

Figure III-24: Internet Access Among Employed 25-49 Year Olds by Disability Status, 1999



Source: Survey on Income and Program Paritipation, research data file (Aug-Nov 1999, Wave 11), U.S. Bureau of the Census, U.S. Department of Commerce.

Figure III-25: Personal Computer Use Experience Among Employed 25-49 Year Olds by Disability Status, 1999



Source: Survey on Income and Program Pantipation, research data file (Aug-Nov 1999, Wave 11), U.S. Bureau of the Census, U.S. Department of Commerce.

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[12]The data in Figures X and X refer to t[illegible]he reference period of the survey. Data in Table 3 and elsewhere consider people who had any employment (full or part-time) during the reference period to be employed.

Table III-4
Internet Access and Computer Use by 25-49 Year Olds
(Population: 102,442,000)

	Home Internet Access		Internet Access, But Not At Home		Regular PC User		Never Used a PC	
	No Disabil-ity	Has a Disabil-ity	No Disabil-ity	Has a Disabil-ity	No Disabil-ity	Has a Disabil-ity	No Disabil-ity	Has a Disabil-ity
All 25-49 Year Olds	46.6	31.4	15.0	10.5	55.9	33.3	18.9	39.5
Male	47.3	31.6	13.1	8.3	54.3	33.2	21.0	43.3
Female	46.0	31.2	16.9	12.5	57.4	33.5	16.8	36.1
White Non-Hisp.	53.5	37.1	15.6	11.4	62.42	39.0	12.5	32.6
Black Non-Hisp	27.4	14.8	17.4	9.2	41.8	17.8	28.2	58.6
Asian and Pacific Islanders	49.9		12.2		53.9	32.8	23.2	40.0
Hispanic	23.3	18.6	9.8	6.8	31.5	21.1	47.2	54.4
Employed	47.3	39.4	16.3	15.2	58.3	45.7	17.1	26.3
Not Employed	42.3	21.6	6.5	4.8	40.3	18.3	30.6	55.7
Less than $25,000	27.7	16.9	12.4	7.7	36.5	18.0	34.6	52.9
$25,000 - $49,999	39.0	33.6	17.5	12.1	51.2	38.1	21.3	34.8
$50,000 - $74,999	53.3	44.5	14.7	12.9	61.7	45.9	13.2	28.5
$75,000 and above	64.9	59.1	14.4	13.3	71.8	58.3	8.5	19.2
Not a High School Graduate	12.2	9.4	3.8	4.0	13.6	8.9	64.0	74.8
High School Graduate	34.1	24.5	12.9	8.4	39.9	24.0	27.2	43.6
Some College	49.7	41.2	17.0	15.2	60.7	45.5	11.4	22.8
College Graduate	67.8	65.2	18.8	16.9	81.5	72.6	3.3	7.2

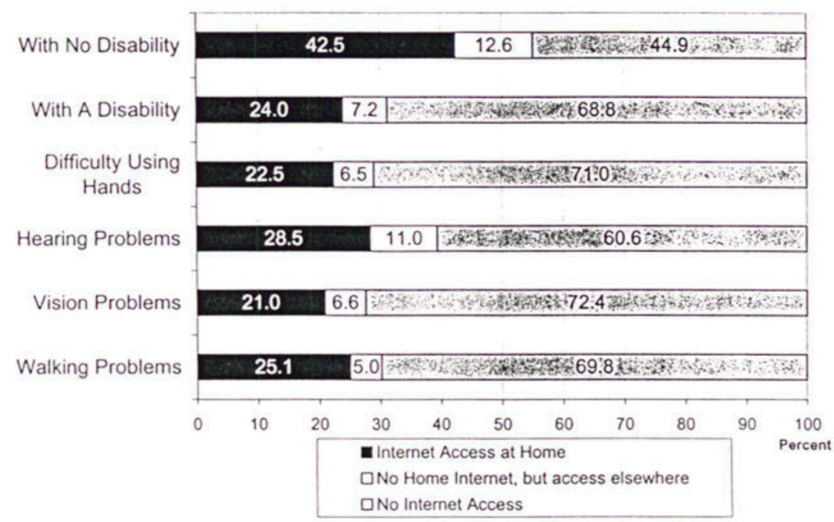
Source: Survey on Income and Program Participation, research data file (August -November 1999, Wave 11), U.S. Bureau of the Census, U.S. Department of Commerce.

Note: Blank cells in the table indicate insufficient sample size to produce reliable estimates.

Access, Use, and Disability: 50-64 year olds

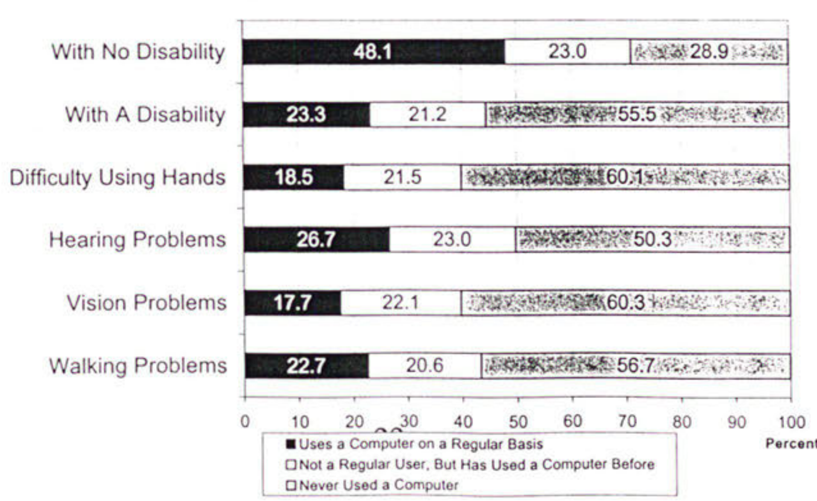
Among this group, 30% have at least one of the disabilities listed in Box III-1 and the proportion with any one of the five disabilities considered, with the exception of learning disabilities, is also substantially higher than in the 25-49 year old group. This is an age group that has wide variations in Internet access and computer use within the group of people who have disabilities. For example, 70.9% of those who have a disability and have household income of less than $25,000 have never used a PC. That proportion falls to 29.7% in the $75,000 and above income group.

Figure III-26: Internet Access Among 50-64 Year Olds by Disability Status, 1999



Source: Survey on Income and Program Paritipation, research data file (Aug-Nov 1999, Wave 11), U.S. Bureau of the Census, U.S. Department of Commerce.

Figure III-27: Personal Computer Use Experience Among 50-64 Year Olds by Disability Status, 1999



Source: Survey on Income and Program Pantipation, research data file (Aug-Nov 1999, Wave 11), U.S. Bureau of the Census, U.S. Department of Commerce.

Table III-5
Internet Access and Computer Use by 50-64 Year Olds
(Population: 39,536,000)

	Home Internet Access		Internet Access, But Not At Home		Regular PC User		Never Used a PC	
	No Disabil-ity	Has a Disabil-ity	No Disabil-ity	Has a Disabil-ity	No Disabil-ity	Has a Disabil-ity	No Disabil-ity	Has a Disabil-ity
All 50-64 Year Olds	42.5	24.0	12.6	7.2	48.1	23.3	28.9	55.5
Male	45.1	25.2	11.2	7.6	48.7	23.5	30.2	56.4
Female	39.9	23.0	13.9	6.8	47.5	23.1	27.7	54.8
White Non-Hisp.	46.6	28.2	13.2	7.8	52.8	26.8	23.8	50.4
Black Non-Hisp	23.8	10.0	11.5	7.1	31.0	14.9	45.8	66.9
Asian and Pacific Islanders	34.2		10.4		31.8		46.8	
Hispanic	20.6		7.2		21.3	10.2	61.4	77.3
Employed	44.2	32.8	14.8	14.3	52.6	39.9	25.6	36.8
Not Employed	35.5	18.5	3.8	2.7	29.6	12.9	42.7	67.2
Less than $25,000	23.6	12.2	10.5	4.2	28.1	10.9	47.3	70.9
$25,000 - $49,999	31.2	23.9	12.6	8.3	40.7	24.8	34.6	52.6
$50,000 - $74,999	46.5	30.5	12.9	10.7	51.5	33.8	25.2	42.3
$75,000 and above	60.8	54.2	13.6	9.6	64.1	46.3	15.6	29.7
Not a High School Graduate	13.6	7.4	4.0	1.8	11.4	5.8	73.6	83.5
High School Graduate	30.6	17.62	11.9	7.1	34.0	17.3	39.8	59.4
Some College	45.7	39.4	13.7	10.7	52.1	38.6	19.4	33.6
College Graduate	63.6	50.2	15.6	13.2	73.8	50.4	8.9	21.7

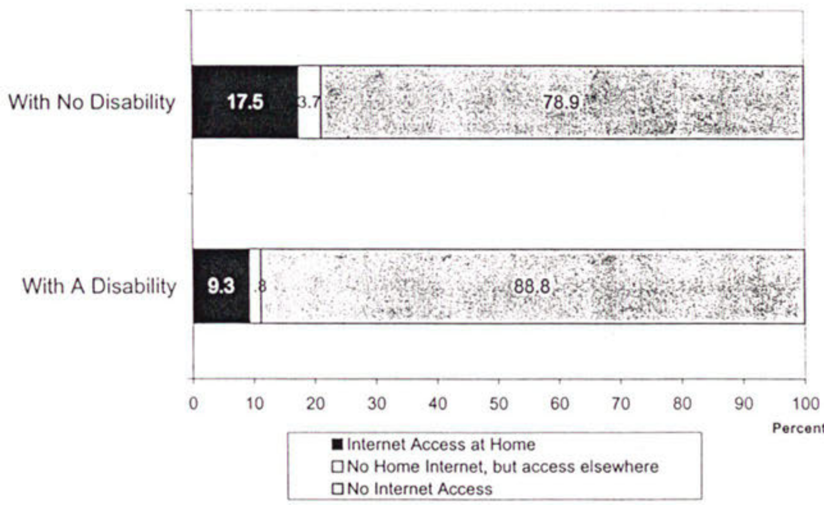
Source: Survey on Income and Program Participation, research data file (August -November 1999, Wave 11), U.S. Bureau of the Census, U.S. Department of Commerce.

Note: Blank cells in the table indicate insufficient sample size to produce reliable estimates.

Access, Use, and Disability: 65 year olds and Older

Over one-half (52.1%) of the population in this age group has a disability. Or to consider it another way, over one-third (37.4%)of the total number of people with a disability falls into this age group which accounts for only 15.6% of the population as a whole. This age group has very low rates of home Internet access and computer use generally, and the rates for those with a disability are very low. Therefore, even with the large number of those with a disability, low rates of home Internet access make it impossible to distinguish between individual types of disabilities for Figure III-28. As shown in Table III-6, household income, once above $25,000 does not seem to impact computer use in either the group with disabilities or the group without disabilities, although home Internet access rates do not seem to share this aberration.

Figure III-28: Internet Access Among 65 and Older by Disability Status, 1999



Source: Survey on Income and Program Paritipation, research data file (Aug-Nov 1999, Wave 11), U.S. Bureau of the Census, U.S. Department of Commerce.

Figure III-29: Personal Computer Use Experience Among 65 and Older by Disability Status, 1999

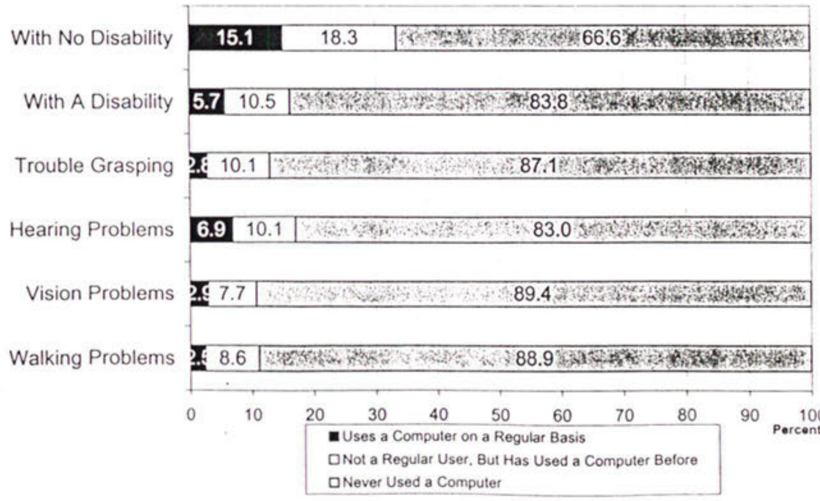


Table III-6
Internet Access and Computer Use by 65 Year Olds and Older
(4,221 Thousand)

	Home Internet Access		Internet Access, But Not At Home		Regular PC User		Never Used a PC	
	No Disability	Has a Disability	No Disability	Has a Disability	No Disability	Has a Disability	No Disability	Has a Disability
All 65 and Older	17.4	9.3	3.7	1.8	15.1	5.7	66.6	83.8
Male	20.2	12.5	3.9	1.2	19.7	7.6	63.0	79.8
Female	15.0	7.4	3.5	1.8	11.0	4.5	69.8	86.3
White Non-Hisp.	18.6	10.4	3.7	2.0	16.2	6.6	64.7	81.6
Black Non-Hisp								
Asian and Pacific Islanders								
Hispanic								
Employed	24.6		9.8		28.4	19.2	52.1	64.2
Not Employed	15.5	8.8	2.0	1.6	11.4	4.6	70.6	85.4
Less than $25,000	9.1	4.1	2.8	1.1	7.9	2.9	78.9	89.6
$25,000 - $49,999	18.0	13.0	3.1	2.6	18.2	8.2	59.5	78.1
$50,000 - $74,999	31.3		5.5		22.7	12.3	52.8	69.0
$75,000 and above	36.1		7.3		27.3	13.8	51.9	70.8
Not a High School Graduate	5.3		1.6		3.5	1.7	87.6	94.4
High School Graduate	12.5	9.0	3.0	1.6	10.2	4.5	72.1	84.1
Some College	23.8	13.4	5.2	3.1	20.2	8.9	56.3	93.7
College Graduate	37.1	24.0	6.3	4.9	35.4	19.4	38.1	59.8

Source: Survey on Income and Program Participation, research data file (August -November 1999, Wave 11), U.S. Bureau of the Census, U.S. Department of Commerce.

Note: Blank cells in the table indicate insufficient sample size to produce reliable estimates.

Conclusion:

Access to the Internet and computer use by persons with disabilities has been an area of intense interest, in part, because the standard interface technology can either be an important assistive device or a barrier depending of the type of disability. Surveys on which past *Falling Through the Net* reports and Parts I and II of this report are based have not been able to provide a basis from which to analyze this important subject in sufficient depth. In this year's report, however, we have been able to supplement our analysis with data derived from the Census Bureau's Survey on Income and Program Participation (SIPP) conducted in the fall of 1999.

Analyzing this data, we found that persons with a disability are only half as likely to have access to the Internet at home as those without a disability: 21.6% compared to 42.1%. Further, only 20.9% of persons with disabilities reported regularly using a computer, compared to 51.0% of those without disabilities.

But beyond this aggregate finding, we found some important differences based on type of disability. In particular, people with hearing and mobility problems have higher rates of Internet access and are more likely to regularly use a PC than people who have impaired vision and problems with manual dexterity. This difference holds in the aggregate, as well as across age groups. In examining the Internet access and computer use by people with disabilities, it is important to take note of the fact that, as a group, they have lower income, are older, and are less likely to be employed than the group without disabilities. These are characteristics are associated with lower rates of Internet access and computer use.

Differences in home Internet access and computer use between those with a disability and those without a disability were narrowest among youngest age group and then rose with each succeeding age group. Similarly, differences between those with and those without disabilities narrow substantially as income rise. But even when characteristics, such as income, age, and employment are accounted for, important differences in Internet access and computer use remain.

Appendix Table AIII-1
Individuals 16 and over
(Numbers in Thousands)

	Total Population		Persons without a Disability		Persons with a Disability	
	Number	Percent	Number	Percent	Number	Percent
TOTAL	208,783		163,367	78.2	45,416	21.8
SEX						
Male	100,449	48.1	80,580	49.3	19,869	43.7
Female	108,334	51.9	82,787	50.7	25,547	56.3
AGE						
16 to 24	34,241	16.4	31,282	19.1	2,960	6.5
25 to 49	102,442	49.1	88,557	54.2	13,885	30.6
50 to 64	39,536	18.9	27,932	17.1	11,604	25.5
65 +	32,563	15.6	15,596	9.6	16,996	37.4
FAMILY INCOME						
Less than $25,000	60,767	29.1	38,723	23.7	22,045	48.5
$25,000 to $49,999	60,976	29.2	48,405	29.6	12,571	27.7
$50,000 to $74,999	40,868	19.6	34,892	21.4	5,976	13.2
$75,000 or more	46,170	22.1	41,347	25.3	4,824	10.6
EMPLOYMENT STATUS						
Employed	136,030	65.2	121,398	74.3	14,632	32.2
Not Employed	72,753	34.8	41,969	25.7	30,784	67.8
RACE						
White, Non-Hispanic	154,011	73.8	120,203	73.6	33,808	74.4
Black, Non-Hispanic	24,004	11.5	18,000	11.0	6,004	13.2
Asian and Pacific Isl	7,089	3.4	5,984	3.7	1,105	2.4
Hispanic	21,836	10.5	17,965	11.0	3,871	8.5

Source: Survey on Income and Program Participation, research data file (August -November 1999, Wave 11), U.S. Bureau of the Census, U.S. Department of Commerce.

Appendix Table AIII-2
Internet Access and Computer Use
(208 Million)

	Home Internet Access		Internet Access, But Not At Home		Regular PC User		Never Used a PC	
	No Disabil-ity	Has a Disabil-ity	No Disabil-ity	Has a Disabil-ity	No Disabil-ity	Has a Disabil-ity	No Disabil-ity	Has a Disabil-ity
All Persons 16 and Above	42.1	21.6	14.6	6.8	51.0	20.8	23.3	59.0
Male	43.3	23.9	13.2	6.6	50.3	22.5	24.2	57.1
Female	41.0	19.7	16.0	7.1	51.6	19.6	22.5	60.5
White Non-Hisp.	47.7	24.4	14.6	7.0	55.8	23.2	19.3	56.0
Black Non-Hisp	24.7	10.1	17.4	7.8	38.3	13.2	30.5	68.1
API	45.9	12.4	13.4		51.8	16.6	25.2	67.2
Hispanic	21.9	14.6	12.0	4.8	32.2	13.9	42.3	69.1
Employed					56.5	41.9	18.2	31.4
Not Employed					35.0	10.8	38.1	72.1
Less than $25,000	23.1	10.4	12.8	4.5	31.6	10.0	39.9	72.5
$25,000 - $49,999	35.0	23.8	16.1	8.1	46.7	24.1	25.7	53.9
$50,000 - $74,999	49.6	34.2	14.6	10.1	57.9	34.0	16.7	41.5
$75,000 and above	62.0	51.3	14.4	10.3	68.3	45.4	10.7	32.5

Source: Survey on Income and Program Participation, research data file (August -November 1999, Wave 11), U.S. Bureau of the Census, U.S. Department of Commerce.

Appendix Table AIII-3
Presence of Disability by Age
(in percent)

	16-24 34,241 thousand	**25-49** 102,442 thousand	**50-64** 39,536 thousand	**65 and above** 32,563 thousand
No Disability	91.4	86.4	70.6	47.9
Has a Disability	8.6	13.6	29.4	52.1
Difficulty Walking	0.4	1.4	4.8	17.7
Difficulty Seeing	0.5	1.7	4.1	11.4
Difficulty Hearing	0.7	1.3	3.7	12.0
Difficulty Grasping	0.3	1.5	4.0	9.4
Learning Disability	2.8	1.4	1.1	0.5

Source: Survey on Income and Program Participation, research data file (August -November 1999, Wave 11), U.S. Bureau of the Census, U.S. Department of Commerce.