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Americans' Internet Access: 2000-2015

As internet use nears saturation for some groups, a look at patterns of adoption

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About This Report

This report is a collaborative effort based on the input and analysis of the following individuals. Find related reports online at www.pewresearch.org/internet

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About Pew Research Center

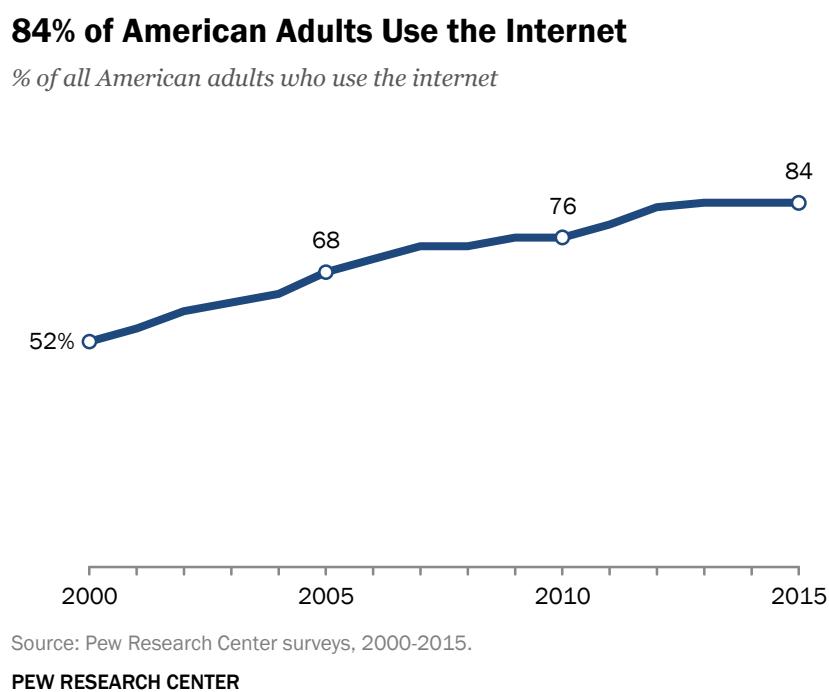
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Main Findings

The Pew Research Center's unit studying the internet and society began systematically measuring internet adoption among Americans in 2000. Since then, Pew Research has conducted 97 national surveys of adults that have documented how the internet has become an integral part of everyday life across diverse parts of society.

A new analysis of 15 years-worth of data highlights several key trends: For some groups, especially young adults, those with high levels of education, and those in more affluent households, internet penetration is at full saturation levels. For other groups, such as older adults, those with less educational attainment, and those living in lower-income households, adoption has historically been lower but rising steadily, especially in recent years. At the same time, digital gaps still persist.



In this report, we cover some of the major demographic trends that lie beneath the topline adoption numbers and highlight:

- **Age differences:** Older adults have lagged behind younger adults in their adoption, but now a clear majority (58%) of senior citizens uses the internet.
- **Class differences:** Those with college educations are more likely than those who do not have high school diplomas to use the internet. Similarly, those who live in households earning more than \$75,000 are more likely to be internet users than those living in households earning less than \$30,000. Still, the class-related gaps have shrunk dramatically in 15 years as the most

pronounced growth has come among those in lower-income households and those with lower levels of educational attainment.

- **Racial and ethnic differences:** African-Americans and Hispanics have been somewhat less likely than whites or English-speaking Asian-Americans to be internet users, but the gaps have narrowed. Today, 78% of blacks and 81% of Hispanics use the internet, compared with 85% of whites and 97% of English-speaking Asian Americans.
- **Community differences:** Those who live in rural areas are less likely than those in the suburbs and urban areas to use the internet. Still, 78% of rural residents are online.

The full story is told in the charts below:

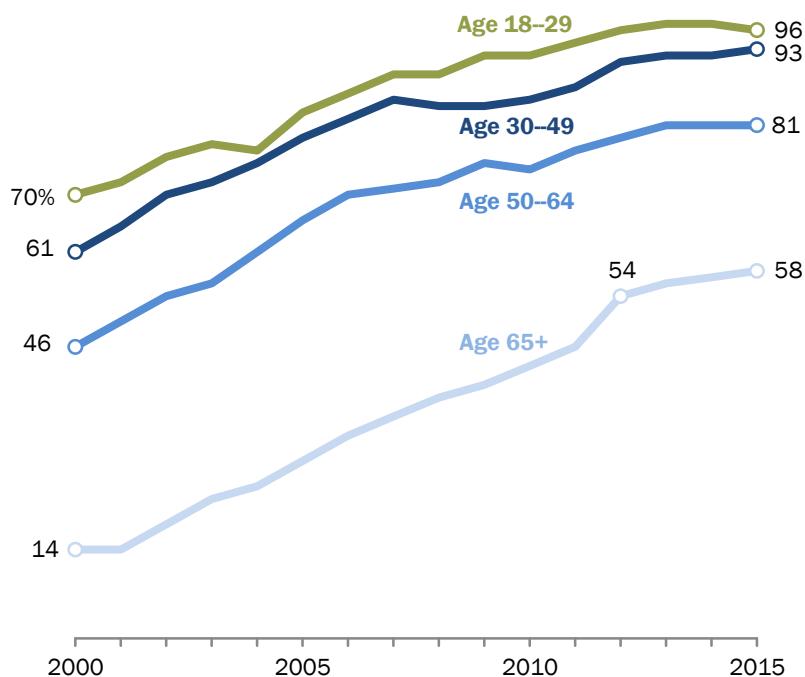
Internet Usage by Age

The proportion of young adults ages 18-29 who use the internet has always outpaced overall adoption levels among older groups. But while older adults still report lower levels of internet use today, seniors have the greatest rate of change since 2000.

In 2000, 70% of young adults used the internet and that figure has steadily grown to 96% today. At the other end of the spectrum, 14% of seniors used the internet in 2000, while 58% do so today. Not until 2012 did more than half of all adults ages 65 and older report using the internet.

Young Adults Are Most Likely to Use The Internet, but Seniors Show Faster Adoption Rates

Among all American adults, the % who use the internet, by age



Source: Pew Research Center surveys, 2000-2015.

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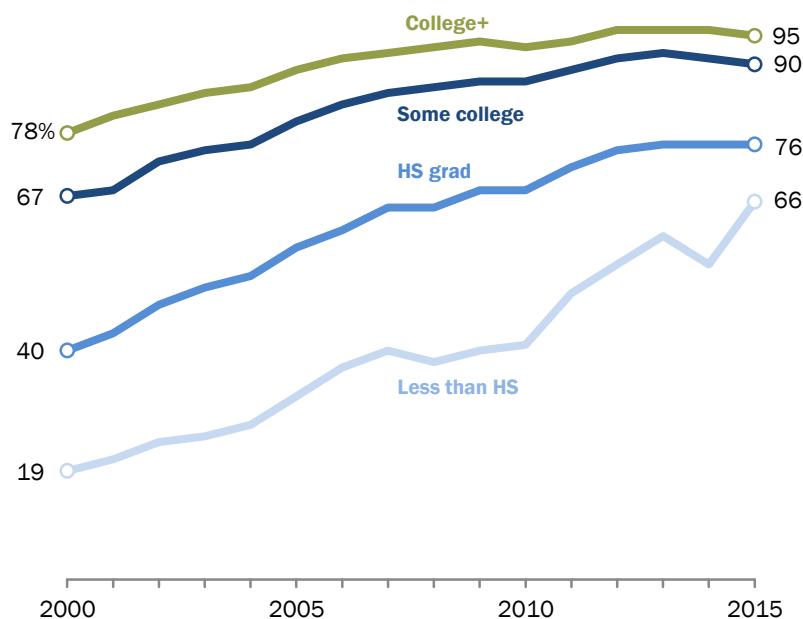
Internet Usage by Education Attainment

Since the Pew Research Center began consistently measuring internet penetration, educational attainment has been one of the strongest indicators of use. While a large majority of the well-educated has consistently been online, those without a college degree saw greater rates of adoption over the past 15 years and have notably lowered the access gap.

Adults with a college or graduate degree are the most likely to use the internet, with almost all of these adults (95%) saying they are internet users. This proportion has always been high – fifteen years ago, 78% of adults with at least a college degree used the internet. But the situation in 2000 was much different for those with less education: in that year, only 19% of those without a high school diploma reported that they were internet users. For those who have not completed high school, 66% now use the internet, still below where college graduates were in 2000.

While Less-Educated Adults Are Catching Up, Their Internet Adoption Rates Are Still Below Those of College Graduates

Among all American adults, the % who use the internet, by education level



Source: Pew Research Center surveys, 2000-2015.

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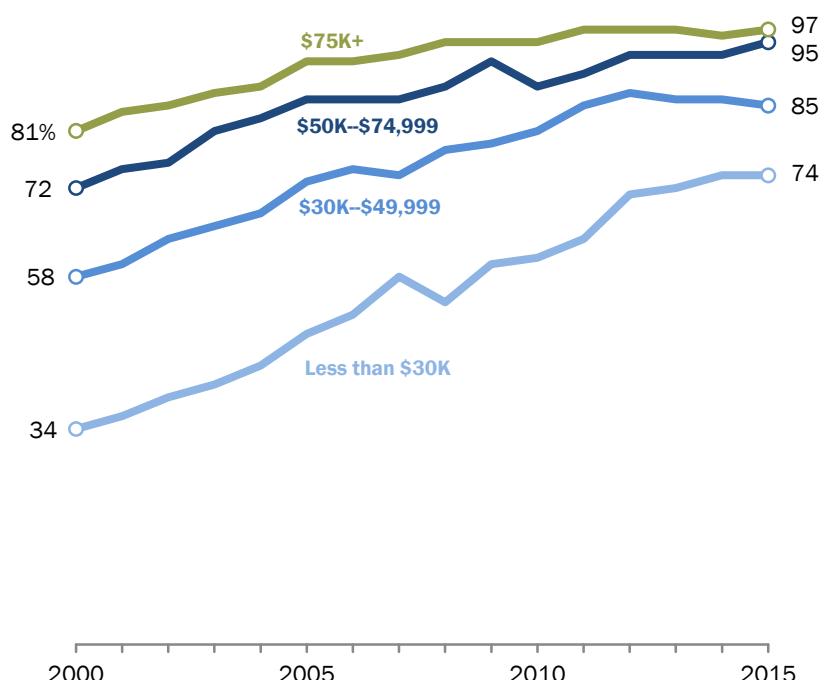
Internet Usage by Household Income

Another marker of class differences – household income – is also a strong indicator of internet usage. Adults living in households with an annual income of at least \$75,000 a year are the most likely to use the internet, with 97% of adults in this group currently reporting they are internet users. Those living in households with an annual income under \$30,000 a year are less likely to report internet usage, with 74% of adults doing so now.

These trends have been consistent over time, although the more recent rise of smartphones has provided internet access to lower-income people, sometimes with lower prices, sometimes with other attractive technology features. Indeed, a [recent report](#) released by Pew Research found that lower-income Americans are increasingly “smartphone-dependent” for internet access.

Those In Higher-Income Households Are Most Likely To Use Internet

Among all American adults, the % who use the internet, by income



Source: Pew Research Center surveys, 2000-2015.

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Internet Usage by Race/Ethnicity

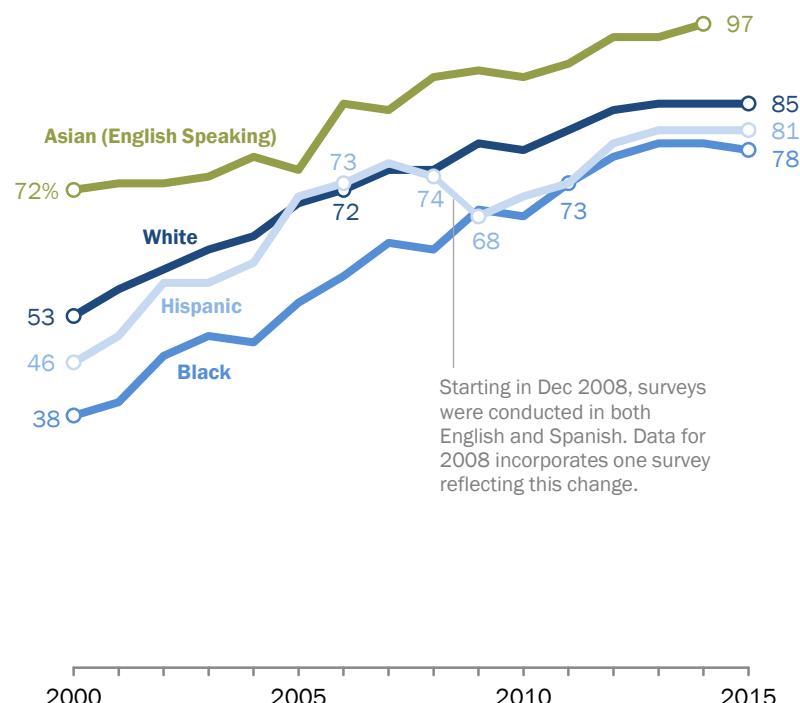
Since 2000, English-speaking Asian-Americans have shown consistently higher rates of internet usage compared to whites, blacks, and Hispanics. Fully 72% of English-speaking Asian-Americans said they were internet users 15 years ago when Pew Research began to regularly measure internet access. Whites and Hispanics would not cross this threshold until 2006, and blacks would reach this level in 2011. In 2014, fully 97% of English-speaking Asian-Americans reported being internet users.

Among different racial and ethnic groups, African-Americans have seen the greatest growth rate between 2000 and today, though they are still less likely than whites and English-speaking Asian-Americans to be internet users.

In December 2008, Pew Research began offering all surveys of the U.S. population in Spanish as well as English. This change ensured better coverage of the national population, including more recently arrived Hispanic

English-speaking Asian-Americans Are the Most Likely To Report Internet Usage

Among all American adults, the % who use the internet, by racial/ethnic group



Note 1: In December 2008, the Pew Research Center began offering national general population surveys in both Spanish and English, helping to increase the share of Hispanics who participated and improving the representativeness of our national surveys. Those who preferred to take interviews in Spanish were more likely to be recently arrived immigrants who had somewhat lower education levels, lower household income, and less connection to some technologies compared with other Hispanics living in the U.S. This helps to explain the break in the usage rate trend among U.S. Hispanics between 2008 and 2009.

Note 2: The results reported here on Asian-Americans are limited to English speakers only. The surveys reported here were conducted only in English and Spanish. Those who speak other Asian languages but are not comfortable speaking English are less likely to respond to these phone surveys.

Note 3: The 2015 data come from a survey that does not include enough Asian-Americans to yield statistically-reliable findings.

Source: Pew Research Center surveys, 2000-2015. Asian American sample size for 2015 is too low to report.

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immigrants. More recently arrived Hispanic immigrants are more likely to have limited English ability, have lower levels of income and formal education, and have less internet experience than other Hispanics living in the U.S. Thus, we report two separate time trends for Hispanics: the first leading up to late 2008 when Pew Research Center surveys of the U.S. population were only available in English, and the second, from late 2008 onward, when all Pew Research national surveys were administered in both English and Spanish¹.

Furthermore, the trends presented here on Asian-Americans are limited to English speakers only. The respondents classified as Asian-American said in surveys that they were “Asian or Pacific Islander” when asked to identify their race. As Pew Research surveys are only offered in English and Spanish, the Asian-Americans who respond are English speakers or bilingual. Those who speak other Asian languages but are not comfortable speaking English are less likely to respond to these phone surveys. Pew Research Center does not usually report on Asian-American technology use in its reports as surveys do not typically contain enough Asian-American respondents to yield statistically reliable findings. Aggregating surveys, as is done here, does yield sufficient cases of English-speaking Asian-Americans to report the findings.²

¹ For more information on Hispanic technology adoption, please visit <http://www.pewhispanic.org/2013/03/07/closing-the-digital-divide-latino-and-technology-adoption/>

² For more information on surveying Asian-Americans, please visit <http://www.pewinternet.org/2013/03/29/why-pew-internet-does-not-regularly-report-statistics-for-asian-americans-and-their-technology-use/>

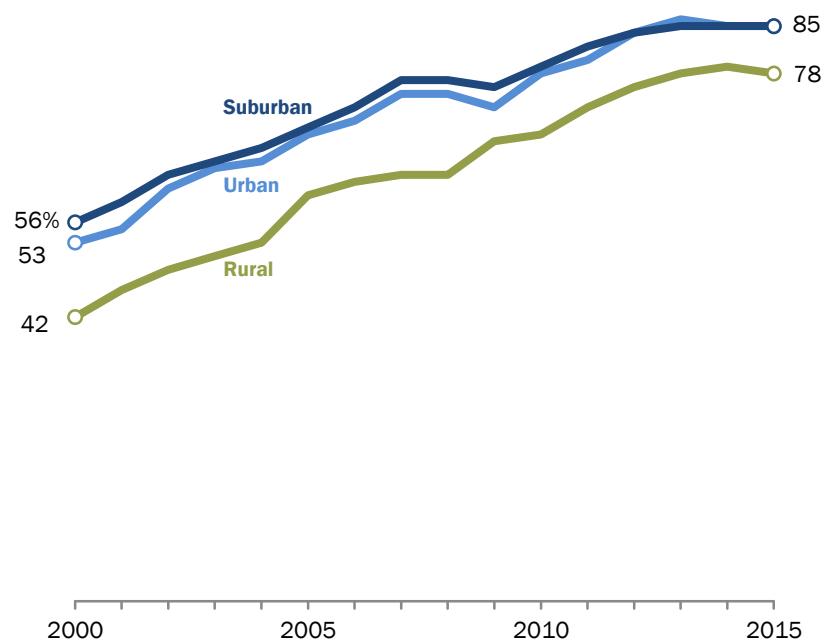
Internet Usage by Community Type

Adults who live in urban or suburban communities have shown consistently higher levels of internet adoption, compared with rural residents. This gap has persisted even as internet adoption has risen in all three types of communities.

In 2000, 56% of suburban residents, 53% of urban residents, and 42% of rural residents were internet users. Today those figures stand at 85%, 85%, and 78% respectively. Rural communities tend to have a higher proportion of residents who are older, lower-income, and have lower levels of educational attainment - additional factors associated with lower levels of internet adoption.

Rural Citizens Are Less Likely To Use Internet

Among all adults, the % who use the internet, by community type



Source: Pew Research Center surveys, 2000-2015.

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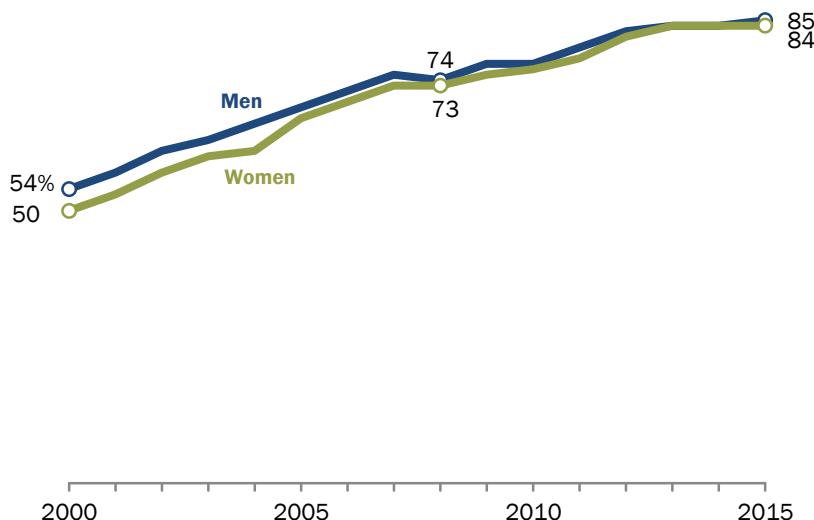
Internet Usage by Gender

Today, men and women are equally likely to be internet users, a trend that has not wavered throughout the 15 years these surveys have been conducted. However, the earliest Pew Research surveys found that men were more likely than women to be internet users. For instance, a [1995 survey](#) found 9% of men and 4% of women had used a “modem to connect to any computer bulletin boards, information services such as Compuserve or Prodigy.”

By 2000, when Pew Research began tracking internet use more consistently, 54% of men were internet users, compared with half of women. This modest gap continued, gradually shrinking until 2008 when a statistically indistinguishable 74% of men and 73% of women identified as internet users. Today, 85% of men and 84% of women report being internet users.

Gender Parity Has Been the Norm In Internet Usage

Among all American adults, the % who use the internet, by gender



Source: Pew Research Center surveys, 2000-2015.

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Methodology

This analysis of internet usage is based on a compilation of 97 surveys and over 229,000 interviews among the general public conducted by the Pew Research Center from March 2000 to May 2015. These surveys are combined, allowing for comparisons of trends among different demographic groups across years. Yearly totals are calculated by combining all surveys for the calendar year with appropriate weights applied. Weighting to adjust for disproportionate sampling and nonresponse reduces the precision of estimates beyond what would be achieved under simple random sampling. In this report, all measures of sampling error and statistical tests of significance take into account the design effect of weighting. The table below shows the number of surveys and interviews conducted each year, as well as the margin of error for each yearly sample.

Year	Number of Surveys	Unweighted Sample Size	Margin of Error
2000	7	37,965	+/-0.5%
2001	9	21,373	+/-0.7%
2002	7	16,997	+/-0.8%
2003	7	13,749	+/-0.9%
2004	7	12,734	+/-0.9%
2005	5	12,629	+/-1.0%
2006	6	15,367	+/-0.9%
2007	4	9,450	+/-1.2%
2008	6	13,773	+/-1.0%
2009	5	9,350	+/-1.2%
2010	8	17,344	+/-0.9%
2011	3	7,523	+/-1.3%
2012	11	19,304	+/-0.8%
2013	6	13,282	+/-1.0%
2014	4	5,512	+/-1.5%
2015	2	3,004	+/-2.0%

Survey Questions

The definition of an internet user in Pew Research Center surveys has evolved over time to account for changes in the technological landscape.

Prior to January 2005, internet users were defined as those who said “yes” to “Do you ever go online to access the Internet or World Wide Web or to send and receive email?”

From January 2005 through February 2012, internet users were defined as someone who said “yes” to either “Do you use the internet, at least occasionally?” or “Do you send or receive email, at least occasionally?”

From April 2012 to April 2013, internet users were defined as someone who said “yes” to at least one of three questions: “Do you use the internet, at least occasionally?” or “Do you send or receive email, at least occasionally?” or “Do you access the internet on a cell phone, tablet or other mobile handheld device, at least occasionally?”

From April 2013 to the present, internet users are defined as someone who said “yes” to either “Do you use the internet or email, at least occasionally?” or “Do you access the internet on a cell phone, tablet or other mobile handheld device, at least occasionally?”