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# **Digital differences**

While increased internet adoption and the rise of mobile connectivity have reduced many gaps in technology access over the past decade, for some groups digital disparities still remain

Kathryn Zickuhr Research Specialist, Pew Internet

**Aaron Smith** Senior Research Specialist, Pew Internet

Pew Research Center's Internet & American Life Project 1615 L St., NW – Suite 700 Washington, D.C. 20036 Phone: 202-419-4500

#### **Overview**

When the Pew Internet Project first began writing about the role of the internet in American life in 2000, there were stark differences between those who were using the internet and those who were not.<sup>1</sup> Today, differences in internet access still exist among different demographic groups, especially when it comes to access to high-speed broadband at home. Among the main findings about the state of digital access:

- One in five American adults does not use the internet. Senior citizens, those who prefer to take
  our interviews in Spanish rather than English, adults with less than a high school education, and
  those living in households earning less than \$30,000 per year are the least likely adults to have
  internet access.
- Among adults who do not use the internet, almost half have told us that the main reason they
  don't go online is because they don't think the internet is relevant to them. Most have never
  used the internet before, and don't have anyone in their household who does. About one in five
  say that they do know enough about technology to start using the internet on their own, and
  only one in ten told us that they were interested in using the internet or email in the future.
- The 27% of adults living with disability in the U.S. today are significantly less likely than adults without a disability to go online (54% vs. 81%). Furthermore, 2% of adults have a disability or illness that makes it more difficult or impossible for them to use the internet at all.
- Though overall internet adoption rates have leveled off, adults who are already online are
  doing more. And even for many of the "core" internet activities we studied, significant
  differences in use remain, generally related to age, household income, and educational
  attainment.

The ways in which people connect to the internet are also much more varied today than they were in 2000. As a result, internet access is no longer synonymous with going online with a desktop computer:

- Currently, 88% of American adults have a cell phone, 57% have a laptop, 19% own an e-book reader, and 19% have a tablet computer; about six in ten adults (63%) go online wirelessly with one of those devices. Gadget ownership is generally correlated with age, education, and household income, although some devices—notably e-book readers and tablets—are as popular or even more popular with adults in their thirties and forties than young adults ages 18-29.
- The rise of mobile is changing the story. Groups that have traditionally been on the other side
  of the digital divide in basic internet access are using wireless connections to go online. Among
  smartphone owners, young adults, minorities, those with no college experience, and those with
  lower household income levels are more likely than other groups to say that their phone is their
  main source of internet access.

<sup>&</sup>lt;sup>1</sup> http://pewinternet.org/Reports/2000/Whos-Not-Online.aspx

• Even beyond smartphones, **both African Americans and English-speaking Latinos are as likely as whites to own any sort of mobile phone**, and are more likely to use their phones for a wider range of activities.

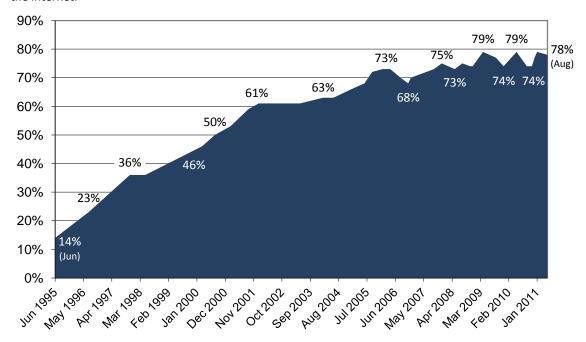
The primary recent data in this report are from a Pew Internet Project tracking survey. The survey was fielded from July 25-August 26, 2011, and was administered by landline and cell phone, in English and Spanish, to 2,260 adults age 18 and older. The margin of error for the full sample is ±2 percentage points. For more information about this survey and others that contributed to these findings, please see the **Methodology** section at the end of this report.

## Internet adoption over time

In 1995, only about one in 10 adults in the U.S. were going online.<sup>2</sup> As of August 2011, the U.S. internet population includes 78% of adults (and 95% of teenagers).<sup>3</sup> Certain aspects of the current internet population still strongly resemble the state of internet adoption in 2000, when one of Pew Internet's first reports found that minorities, adults living in households with lower incomes, and seniors were less likely than others to be online. "Those who do not use the Internet often do not feel any need to try it, some are wary of the technology, and others are unhappy about what they hear about the online world," the report concluded.<sup>4</sup>

## Internet adoption, 1995-2011

% of American adults (age 18+) who use the internet, over time. As of August 2011, 78% of adults use the internet.



Source: Pew Internet & American Life Project Surveys, March 2000-August 2011.

More: http://pewinternet.org/Trend-Data/Internet-Adoption.aspx

As of 2011, internet use remains strongly correlated with age, education, and household income, which are the strongest positive predictors of internet use among any of the demographic differences we studied. Yet while gaps in internet adoption persist, some have narrowed in the past decade—as shown in the table below.

<sup>&</sup>lt;sup>2</sup> Internet use over time: http://pewinternet.org/Trend-Data/Internet-Adoption.aspx

<sup>&</sup>lt;sup>3</sup> A note on definitions: "Adults" refers to American adults age 18 and older. "Teens" are defined as American teens ages 12-17.

<sup>4 &</sup>quot;Who's not online" (2000) http://pewinternet.org/Reports/2000/Whos-Not-Online.aspx

## Demographics of internet users in 2000 and 2011

% of each group of American adults who use the internet. For instance, 76% of women use the internet as of August 2011.

	% of adults who use the internet		
	June 2000	August 2011	
All adults (age 18+)	47%	78%	
Men	50	80	
Women	45	76	
Race/ethnicity			
White, Non-Hispanic	49	80	
Black, Non-Hispanic	35	71	
Hispanic^	40	68	
Age			
18-29	61	94	
30-49	57	87	
50-64	41	74	
65+	12	41	
Household income			
Less than \$30,000/yr	28	62	
\$30,000-\$49,999	50	83	
\$50,000-\$74,999	67	90	
\$75,000+	79	97	
<b>Educational attainment</b>			
No high school diploma	16	43	
High school grad	33	71	
Some College	62	88	
College +	76	94	

<sup>^</sup> Note: In the 2000 survey, this included only English-speaking Hispanics. In the 2011 survey, this included both English- and Spanish-speaking Hispanics.

All differences are statistically significant except for those between blacks and Hispanics in 2011. **Sources:** The Pew Research Center's Internet & American Life Project's May 2000 Tracking Survey conducted May 19-June 21, 2000. N=2,117adults age 18 and older. Interviews were conducted in English. // The Pew Research Center's Internet & American Life Project's August Tracking Survey conducted July 25-August 26, 2011. N=2,260 adults age 18 and older, including 916 interviews conducted by cell phone. Interviews were conducted in both English and Spanish.

More: http://pewinternet.org/Static-Pages/Trend-Data/Whos-Online.aspx

The internet access gap closest to disappearing is that between whites and minorities. Differences in access persist, especially in terms of adults who have high-speed broadband at home, but they have become significantly less prominent over the years<sup>5</sup>—and have disappeared entirely when other demographic factors (including language proficiency) are controlled for.

Ultimately, neither race nor gender are themselves part of the story of digital differences in its current form. Instead, age (being 65 or older), a lack of a high school education, and having a low household income (less than \$20,000 per year) are the strongest negative predictors for internet use. Our survey in the summer of 2011 was also offered to respondents in both English and Spanish; those who chose to take the survey in Spanish were also notably less likely to use the internet than those who chose English.

Yet even groups that have persistently had the lowest access rates have still seen significant increases over the past decade. In 2000, for instance, we found that there existed "a pronounced 'gray gap' as young people go online and seniors shun the internet." Adults age 65 and older are still significantly less likely to use the internet than other groups, but now 41% of them use the internet. In 2000, over five times as many adults under 30 used the internet as did adults 65 and older, but as of 2011 young adults' adoption levels are only a little over twice that of the 65-and-over age group.

Along with age, educational attainment represents one of the most pronounced gaps in internet access. Some 43% of adults who have not completed high school use the internet, versus 71% of high school graduates—and 94% of college graduates. Household income is also a strong predictor of internet use, as only six in ten (62%) of those living in households in the lowest income bracket (less than \$30,000 per year) use the internet, compared with 90% of those making at least \$50,000-74,999 and 97% of those making more than \$75,000.<sup>6</sup> Educational attainment and household income continue to be strongly correlated not only with internet adoption, but also with a wide range of internet activities and ownership of a number of devices.

#### Why one in five American adults does not use the internet

<u>Back in 2000</u>, a majority of adults did not use the internet and many non-users felt that that the internet was "a dangerous thing"—54% believed this, especially seniors and those with less than a high school education. Some 39% said that internet access is too expensive (particularly young adults under age 30, Hispanics, and those with less than a high school education), and 36% expressed concern that the internet "is confusing and hard to use," especially those with a high school education or less.<sup>7</sup>

More recent research by the Pew Internet Project has shown that among current non-internet users, almost half (48%) say the main reason they don't go online now is because they don't think the internet is relevant to them—often saying they don't want to use the internet and don't need to use it to get the

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<sup>&</sup>lt;sup>5</sup> Why only these groups? See: Problems associated with surveying small demographic groups http://pewinternet.org/Commentary/2010/August/Why-not-report-Asians.aspx

<sup>&</sup>lt;sup>6</sup> See also: "Use of the internet in higher-income households" (2010), http://pewinternet.org/Reports/2010/Better-off-households.aspx

<sup>&</sup>lt;sup>7</sup> http://pewinternet.org/Reports/2000/Whos-Not-Online/Report/Part-4.aspx

information they want or conduct the communication they want. About one in five (21%) mention price-related reasons, and a similar number cite usability issues (such as not knowing how to go online or being physically unable to). Only 6% say that a lack of access or availability is the *main* reason they don't go online.<sup>8</sup>

# The main reasons non-internet users do not use the internet

In May 2010, 21% of American adults age 18+ did not use the internet. (This number is 22% as of August 2011.) When asked the main reason they do not go online (in their own words), these are the factors they cite.

	% of offline adults			
What is the MAIN reason you don't use the internet or email?				
Just not interested	31%			
Don't have a computer	12			
Too expensive	10			
Too difficult	9			
It's a waste of time	7			
Don't have access	6			
Don't have time to learn	6			
Too old to learn	4			
Don't want/need it	4			
Just don't know how	2			
Physically unable	2			
Worried about viruses/spyware/spam	1			
Other	6			

**Source:** Pew Research Center's Internet & American Life Project, April 29-May 30, 2010 Tracking Survey. N=2,252 adults 18 and older (n=496 for non-internet users). **More:** http://pewinternet.org/Reports/2010/Home-Broadband-2010.aspx

Most of these non-users have never used the internet before, and don't have anyone in their household who does. About one in five (21%) say that they know enough about technology to start using the internet on their own, and only one in ten told us that they were interested in using the internet or email in the future.

<sup>&</sup>lt;sup>8</sup> For more about non-internet users, see http://pewinternet.org/Reports/2010/Home-Broadband-2010.aspx

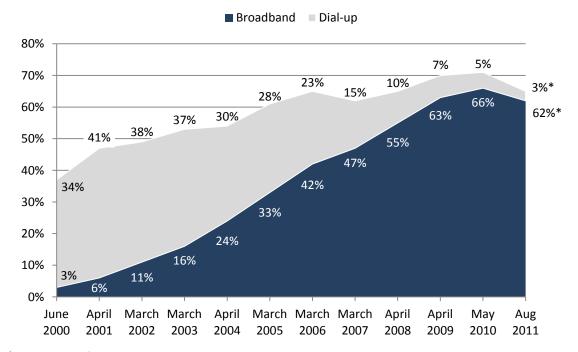
## Why four in ten American adults do not have a high-speed broadband connection at home

In February 2001, when about half of adults were online, only 4% of American households had broadband access; as of August 2011, about six in ten American adults (62%) have a high-speed broadband connection at home. Men are more likely than women to have home broadband, and whites are more likely than minorities. We also see clear patterns in home broadband adoption by age, household income, and education.

Having broadband strongly affects how one uses the internet, especially as multimedia elements such as video become more and more popular. Even <u>back in 2002</u> we found that dial-up users take part in an average of 3 online activities per day, while broadband users take part in 7.<sup>10</sup>

## Broadband and dial-up adoption, 2000-2011

% of American adults who access the internet at home via dial-up or broadband, over time. As of August 2011, 62% of American adults age 18+ have a high-speed broadband connection at home.



<sup>\*</sup> Our method for measuring home internet use changed in 2011, which would contribute to the seeming decline in adoption.

**Source:** Pew Internet & American Life Project Surveys, March 2000-August 2011. Question wording has changed slightly over time.

More: http://pewinternet.org/Trend-Data/Home-Broadband-Adoption.aspx

<sup>&</sup>lt;sup>9</sup> http://pewinternet.org/Trend-Data/Home-Broadband-Adoption.aspx Our method for measuring home internet use changed in 2011. See page 35 of this report for more details.

<sup>&</sup>lt;sup>10</sup> http://pewinternet.org/Reports/2002/The-Broadband-Difference-How-online-behavior-changes-with-highspeed-Internet-connections.aspx

In the spring of 2009, we asked adults who had dial-up internet what it would take for them to switch to a broadband connection at home. A plurality (35%) said the price would have to fall, and 17% said it would have to become available where they live. One in five (20%) said nothing would get them to change.<sup>11</sup>

## Reasons people do not have broadband at home

In April of 2009, 7% of American adults age 18+ used dial-up internet at home. (As of August 2011, this number is 3%.) These are the reasons they gave for not switching to broadband.

	% of dial-up users
What would it take to get you to switch to broadband?	
Price must fall	35%
Nothing would get me to switch	20
Don't know	16
It would have to become available where I live	17
Other	13

Source: Pew Internet & American Life Project Survey, April 2009.

More: http://pewinternet.org/Reports/2009/10-Home-Broadband-Adoption-2009.aspx

By 2010, while national adoption had slowed, growth in broadband adoption among African Americans jumped well above the national average, with 22% broadband adoption growth since the previous year. <sup>12</sup> Even with these gains, however, minorities are still less likely than whites to have home broadband overall. And foreign-born and Spanish-dominant Latinos trail not only whites but also native and English-speaking Latinos. In our August 2011 survey, 62% of all American adults have high-speed internet access at home, including two thirds (66%) of whites and roughly half of African Americans (49%) and Hispanics (51%).

However, as with internet adoption in general, the most persistent demographic differences in home broadband access continue to center around age, household income, and educational attainment. Looking at the groups with the lowest levels of home broadband access, we see adoption levels of 22% for adults who have not completed high school, 30% for seniors age 65 and older, and 41% for those who live in households making less than \$30,000 per year. This is compared with 85% of college graduates, 76% of adults under age 30, and 89% of those making at least \$75,000 per year.

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<sup>&</sup>lt;sup>11</sup> More about dial-up users: http://pewinternet.org/Reports/2009/10-Home-Broadband-Adoption-2009/5-Barriers-to-broadband-adoption.aspx?view=all

<sup>12</sup> http://pewinternet.org/Trend-Data/Home-Broadband-Adoption.aspx

## Home broadband demographics

% of American adults age 18+ who have a high-speed broadband connection at home, as of August 2011.

	% who access the internet via broadband at home
All adults (age 18+)	62%
Men	65
Women	59
Race/ethnicity	
White, Non-Hispanic	66
Black, Non-Hispanic	49*
Hispanic (English- and Spanish-speaking)	51*
Age	
18-29	76
30-49	70
50-64	60
65+	30
Household income	
Less than \$30,000/yr	41
\$30,000-\$49,999	66
\$50,000-\$74,999	81
\$75,000+	89
Educational attainment	
No high school diploma	22
High school grad	52
Some College	73
College +	85

<sup>\*</sup> All differences are statistically significant  $\underline{\text{except}}$  for those between the rows designated with an asterisk.

**Source:** The Pew Research Center's Internet & American Life Project's August Tracking Survey conducted July 25-August 26, 2011. N=2,260 adults age 18 and older, including 916 interviews conducted by cell phone. Interviews were conducted in both English and Spanish.

#### Americans living with a disability and their internet profile

Finally, there is one difference in internet access that does not often show up in standard demographic tables, and that is the one facing the roughly <u>one in four adults</u> in the United States (27%) who live with a disability that interferes with activities of daily living.<sup>13</sup>

There are many factors associated with disability that are generally associated with lower internet use—such as being older, being less educated, and living in a lower-income household. When we control for all of these demographic factors, however, we still find that living with a disability in and of itself is negatively correlated with the likelihood that someone has internet access. Some 54% percent of adults living with a disability use the internet, compared with 81% of adults without a disability.

High-speed internet access is also an issue. People living with disability, once they are online, are also less likely than other internet users to have home broadband or wireless access. For instance, 41% of adults living with a disability have broadband at home, compared with 69% of those without a disability.

Finally, a disability or illness itself might be a factor in preventing internet use; 2% of American adults say they have a disability or illness that makes it more difficult—or impossible—for them to use the internet.

## Internet activities: Those already online are doing more

While internet adoption has been more or less stable <u>over the past few years</u>, there has been significant growth in the activities internet users engage in once they are online. As a result, the gap in technical experience—and general understanding of the internet—between online adults and offline adults is increasing.

<u>Email and search</u> remain the backbone of the internet (roughly six in ten online adults engage in each of these activities on a typical day), but other activities are becoming ubiquitous as well. Using social networking sites, an activity once dominated by young adults, is now done by 65% of internet users—representing a majority of the total adult population. For the following "core" internet activities, which also include online shopping and online banking, the main gaps in use are related to age, household income, and educational attainment.

#### **Email and search**

Since the Pew Internet Project began measuring adults' online activities in the last decade, email and search have consistently ranked as the most popular. In fact, they remain nearly universal among adult internet users—with a few exceptions. 4 Women, for instance, are somewhat more likely than men to use email to communicate, mirroring a trend that we have seen around other online communication

<sup>&</sup>lt;sup>13</sup> "Americans living with disability and their technology profile" (2011) http://pewinternet.org/Reports/2011/Disability.aspx

<sup>&</sup>lt;sup>14</sup> "Search and email still top the list of most popular online activities" (2011), http://pewinternet.org/Reports/2011/Search-and-email.aspx

activities. <sup>15</sup> And young adults under age 30 are more likely than adults age 65 and older to use search engines to find information. Both activities also have a fairly strong correlation with education and income, although there are no significant differences among different groups for either activity by race or ethnicity.

#### Online commerce: Banking and shopping

Online banking is a <u>relatively common</u> activity online: 61% of adult internet users do it, making it about as popular an activity as using social networking sites. However, as with buying products online, we do see a few noticeable differences among demographic groups, especially in terms of age, household income, and education. Most strikingly, adults age 65 and older are significantly less likely than other age groups to do any banking online. Additionally, those with at least some college (including college graduates) are more likely to use online banking than those with a high school diploma or less, and those in households making less than \$30,000 per year are the income bracket least likely to use online banking, while those in households making more than \$75,000 per year are most likely. Online banking is also more popular with online men than with online women. There are no differences by race or ethnicity.

Purchasing products online is also significantly less popular with adults over age 65. Those who have not completed high school and those in households making less than \$30,000 per year are less likely to buy products online, while college graduates and those in households making more than \$75,000 are more likely to do this. Online Hispanics are also somewhat less likely to make online purchases than whites or African Americans. There are no significant differences between internet users by gender.

#### Social networking site usage

Though one of the newer online activities the Pew Internet Project studies, <sup>16</sup> as of 2011 social networking sites are used by <u>65% of all internet users</u>—half of all American adults. <sup>17</sup> Among internet users, we see a very strong correlation in use with age, as some 87% of internet users under 30 use these sites, compared with less than a third (29%) of those 65 and older. However, though their overall numbers are still relatively low, older adults have represented <u>one of the fastest-growing segments</u> of the social networking site-using population. <sup>18</sup> This growth may be driven by <u>several factors</u>, some of which include the ability to reconnect with people from the past, find supporting communities to deal with a chronic disease, and connect with younger generations. <sup>19</sup>

<sup>&</sup>lt;sup>15</sup> http://pewinternet.org/Reports/2011/Social-Networking-Sites/Report/Part-2.aspx

<sup>&</sup>lt;sup>16</sup> Friendster and MySpace were founded in the early 2000's, and Facebook was launched in 2004.

<sup>&</sup>lt;sup>17</sup> "65% of online adults use social networking sites" (2011), http://pewinternet.org/Reports/2011/Social-Networking-Sites.aspx

<sup>&</sup>lt;sup>18</sup> "Generations Online" (2010), http://pewinternet.org/Reports/2010/Generations-2010.aspx

<sup>&</sup>lt;sup>19</sup> "Older Adults and Social Media" (2010). http://pewinternet.org/Reports/2010/Older-Adults-and-Social-Media/Report/Implications.aspx

Other groups that are particularly likely to use social networking sites are adults with at least some college experience (who have not yet graduated) and parents with minor children living at home. There are currently no major differences in overall social networking site usage by gender, race, or household income.

## Online activities, by demographics

% of internet users age 18+ within each group who do the following activities online

	Search	Email	Buy a product	Use social network sites	Bank online		
Date of survey	May 2011	Aug 2011	May 2011	Aug 2011	May 2011		
All adults	92%	91%	71%	64%	61%		
Men	93	89	69	63	65		
Women	91	93	74	66	57		
Race/ethnicity							
White, Non-Hispanic	93	92	73	63	62		
Black, Non-Hispanic	91	88	74	70	67		
Hispanic (English- and Spanish-speaking)	87	86	59	67	52		
Age							
18-29	96	91	70	87	61		
30-49	91	93	73	68	68		
50-64	91	90	76	49	59		
65+	87	86	56	29	44		
Household income							
Less than \$30,000/yr	90	85	51	68	42		
\$30,000-\$49,999	91	93	77	65	65		
\$50,000-\$74,999	93	94	80	61	74		
\$75,000+	98	97	90	66	80		
Educational attainment							
No high school diploma	81	69	33	63	32		
High school grad	88	87	59	60	47		
Some College	94	95	74	73	66		
College +	96	97	87	63	74		

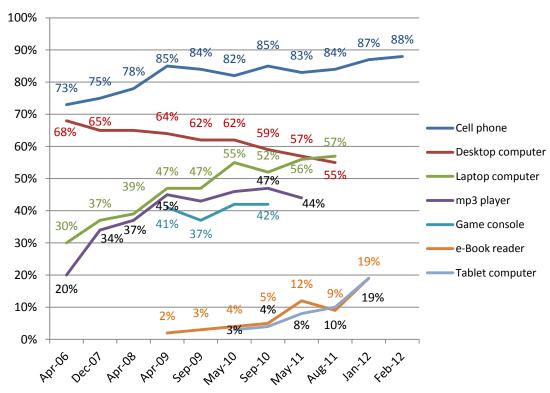
**Sources:** The Pew Research Center's Internet & American Life Project Tracking Surveys, May & August 2011. Interviews were conducted by landline and cell phone, in both English and Spanish.

## The power of mobile

Currently, 88% of American adults age 18 and older have a cell phone, 57% have a laptop, 19% own an e-book reader, and 19% have a tablet computer; about six in ten adults (63%) go online wirelessly with one of those devices. <u>Gadget ownership</u> is generally correlated with age, education, and household income, although some devices—notably <u>e-book readers and tablets</u><sup>20</sup>—are as popular or even more popular with adults ages 30-49 than those under 30.

## Adult gadget ownership over time (2006-2012)

% of American adults age 18+ who own each device



Source: Pew Internet surveys, 2006-2012.

As our research has documented the rise of mobile internet use, we have also noticed a "mobile difference": Once someone has a wireless device, she becomes much more active in how she uses the internet—not just with wireless connectivity, but also with wired devices. The same holds true for the impact of wireless connections and people's interest in using the internet to connect with others. These

<sup>&</sup>lt;sup>20</sup> http://pewinternet.org/Reports/2012/E-readers-and-tablets.aspx

mobile users go online not just to find information but to share what they find and even create new content much more than they did before.<sup>21</sup>

## Mobile internet use, by demographics

% of American adults age 18+ within each group who go online wirelessly with a laptop or cell phone, as of August 2011

	% who go online wirelessly
All adults (age 18+)	63%
Men	67
Women	59
Age	
18-29	88
30-49	76
50-64	53
65+	21
Race/ethnicity	
White, Non-Hispanic	63*
Black, Non-Hispanic	62*
Hispanic (English- and Spanish-speaking)	63*
Household income	
Less than \$30,000/yr	50
\$30,000-\$49,999	64
\$50,000-\$74,999	75
\$75,000+	86
<b>Educational attainment</b>	
No high school diploma	36
High school grad	53
Some College	72
College +	82

<sup>\*</sup> All differences are statistically significant <u>except</u> for those between the rows designated with an asterisk.

**Source:** The Pew Research Center's Internet & American Life Project's August Tracking Survey conducted July 25-August 26, 2011. N=2,260 adults age 18 and older, including 916 interviews conducted by cell phone. Interviews were conducted in both English and Spanish.

 $<sup>^{21}</sup>$  See: "The Mobile Difference" (2009) http://www.pewinternet.org/Reports/2009/5-The-Mobile-Difference-Typology.aspx

#### A closer look at smartphones

Some 46% of American adults have a smartphone, defined as adults who either say their phone is a smartphone when asked, or who describe their phone as running on the Android, Blackberry, iPhone, Palm or Windows platforms. 22 Two in five adults (41%) own a cell phone that is not a smartphone, which means that smartphone owners are now more prevalent within the overall population than owners of more basic mobile phones.

As we found in our May 2011 study of smartphone adoption, several demographic groups have higher than average levels of smartphone adoption, including groups that traditionally have higher rates of tech adoption in general: the financially well-off, the well-educated, and adults under age 50.

Additionally, we see no significant differences in use between whites and minorities. Both African-Americans and Latinos have overall adoption rates that are comparable to the national average for all Americans (smartphone penetration is 49% in each case, just higher than the national average of 46%).

(continued on the following page)

<sup>&</sup>lt;sup>22</sup> http://pewinternet.org/Reports/2012/Smartphone-Update-2012.aspx

## **Smartphone ownership demographics**

% of American adults age 18+ within each group who own a smartphone. "Smartphone ownership" includes those who say their phone is a smartphone, or who describe their phone as running on the Android, Blackberry, iPhone, Palm or Windows platforms.

	May 2011	Feb. 2012		
All adults (age 18+)	35%	46%		
Men	39	49		
Women	31	44		
Race/Ethnicity				
White, non-Hispanic	30	45		
Black, non-Hispanic	44	49		
Hispanic (English- and Spanish-speaking)	44	49		
Age				
18-29	52	66		
30-49	45	59		
50-64	24	34		
65+	11	13		
Household Income				
Less than \$30,000/yr	22	34		
\$30,000-\$49,999	40	46		
\$50,000-\$74,999	38	49		
\$75,000+	59	68		
Education level				
No high school diploma	18	25		
High school grad	27	39		
Some college	38	52		
College+	48	60		
Geographic location				
Urban	38	50		
Suburban	38	46		
Rural	21	34		

**Source:** Pew Research Center's Internet & American Life Project April 26-May 22, 2011 and January 20-February 19, 2012 tracking surveys. For 2011 data, n=2,277 adults ages 18 and older, including 755 interviews conducted on respondent's cell phone. For 2012 data, n=2,253 adults and survey includes 901 cell phone interviews. Both 2011 and 2012 data include Spanish-language interviews.

Young adults continue to have higher-than-average levels of smartphone ownership <u>regardless</u> of income or educational attainment.<sup>23</sup> Younger adults under age 30 with a high school diploma or less are significantly more likely to own a smartphone than adults 50 and older who have attended college. Similarly, adults under age 30 who live in households making less than \$30,000 per year are still more likely to own a smartphone than those over age 50 in higher income brackets.

## Smartphone ownership by age & income/education

% of adults within each group who own a smartphone (for example, 58% of 18-29 year olds with a household income of less than \$30,000 per year are smartphone owners)

	18-29 (n=336)	30-49 (n=601)	50-64 (n=639)	65+ (n=626)	
All adults	66%	59%	34%	13%	
Annual Household Income					
Less than \$30,000	58	42	16	5	
\$30,000 or more	72	69	44	27	
Educational Attainment					
High school grad or less	63	43	22	8	
Some college or college graduate	70	71	44	20	

**Source:** Pew Research Center's Internet & American Life Project January 20-February 19, 2012 tracking survey. N=2,253 adults age 18 and older, including 901 interviews conducted on respondent's cell phone. Interviews conducted in both English and Spanish.

(continued on the following page)

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 $<sup>^{23}</sup>$  The highest rates of smartphone ownership are seen among young adults ages 25-34, 71% of whom own a smartphone.

Previously, in May of 2011, we found that young adults, minorities, those with no college experience, and those with lower household income levels who owned smartphones were more likely to say that their phone was their main source of internet access. A Many of "cell mostly" internet users have other ways to connect to the internet—most have a desktop or laptop computer at home, for instance. But about one third of these adults do **not** have a traditional high-speed broadband connection at home. For them, their smartphone is a way for them to access the online world.

# The demographics of smartphone users who go online mostly using their cell phone (May 2011)

% of American adult smartphone owners age 18+ within each group who go online mostly using their cell phone, as of May 2011

	% who go online mostly using their cell phone
All smartphone owners (age 18+, n=688)	25%
Men (n=349)	24
Women (n=339)	26
Race/Ethnicity	
White, non-Hispanic (n=417)	17
Black/Hispanic (n=206)	38
Age	
<b>18-29</b> (n=177)	42
<b>30-49</b> (n=256)	21
<b>50+</b> (n=240)	10
Household Income	
Less than \$30,000/yr (n=131)	40
\$30,000-\$49,999 (n=118)	29
\$50,000+ (n=334)	17
Education level	
High school grad (n=169)	33
Some college (n=171)	27
College+ (n=308)	13

**Source:** The Pew Research Center's Internet & American Life Project, April 26 – May 22, 2011 Spring Tracking Survey. n=2,277 adult internet users ages 18 and older, including 755 cell phone interviews. Interviews were conducted in English and Spanish.

<sup>&</sup>lt;sup>24</sup> Overall, one in four smartphone owners (25%) say their phones are their main source of internet access. http://pewinternet.org/Reports/2011/Smartphones/Section-2/Smartphones-as-an-internet-appliance.aspx

#### How organizations are harnessing the power of mobile

Many organizations, especially health-related organizations, are turning to mobile strategies to address the digital divide and reach underserved populations. Cell phones are especially powerful because they are so widespread throughout the U.S. population; while certain groups, such as young adults, certainly have higher adoption rates than others, cell phones are still relatively ubiquitous throughout all age groups, income levels, and racial and ethnic groups.

One example of a mobile outreach program is text4baby (www.text4baby.org), a free service that provides free prenatal advice and information to pregnant women and new moms, pegged to the due date of the child, in English or Spanish. The service includes everything from reminders about prenatal check-ups to advice and resources about nutrition, exercise, car seat safety, breastfeeding, and other topics.

For more examples, see Susannah Fox's presentation, "The Power of Mobile": <a href="http://pewinternet.org/Commentary/2010/September/The-Power-of-Mobile.aspx">http://pewinternet.org/Commentary/2010/September/The-Power-of-Mobile.aspx</a>

#### Mobile activities

Beyond smartphones, our surveys have found that both African Americans and English-speaking Latinos are more likely to own any sort of mobile phone than whites. Foreign-born Latinos do trail their native-born counterparts in cell phone ownership, but this gap is significantly smaller than the gap in internet use between these groups.

Over time, we've seen that minority groups use <u>a much wider range</u> of their cell phones' capabilities compared with white cell phone owners.<sup>25</sup> The full list is available in the table on the following page.

<sup>&</sup>lt;sup>25</sup> http://pewinternet.org/Reports/2011/Cell-Phones.aspx

## Cell phone activities by race/ethnicity

% of American adult cell phone owners age 18+ within each group who do the following activities with their cell phone, as of May 2011

	White, non- Hispanic (n=1343)	Black, non- Hispanic (n=232)	<b>Hispanic</b> (n=196)
Send or receive text messages	70	76	83*
Take a picture	71	70	79*
Access the internet	39	56*	51*
Send a photo or video to someone	52	58	61*
Send or receive email	34	46*	43*
Download an app	28	36*	36*
Play a game	31	43*	40*
Play music	27	45*	47*
Record a video	30	41*	42*
Access a social networking site	25	39*	35*
Watch a video	21	33*	39*
Post a photo or video online	18	30*	28*
Check bank balance or do online banking	15	27*	25*
Participate in a video call or video chat	4	10*	12*
Mean (out of 14)	4.7	6.1	6.2

<sup>\*</sup>indicates statistically significant differences compared with whites.

**Source:** The Pew Research Center's Internet & American Life Project, April 26 – May 22, 2011 Spring Tracking Survey. n=2,277 adults ages 18 and older, including 755 cell phone interviews. Interviews were conducted in English and Spanish.

## Methodology for May 2011 Tracking Survey

This report is based on the findings of surveys on Americans' use of the Internet. The results in this report are based primarily on data from telephone interviews conducted by Princeton Survey Research Associates International from April 26 to May 22, 2011, among a sample of 2,277 adults, age 18 and older. Telephone interviews were conducted in English and Spanish by landline (1,522) and cell phone (755, including 346 without a landline phone). For results based on the total sample, one can say with 95% confidence that the error attributable to sampling is plus or minus 2.4 percentage points. For results based Internet users (n=1,701), the margin of sampling error is plus or minus 2.7 percentage points. In addition to sampling error, question wording and practical difficulties in conducting telephone surveys may introduce some error or bias into the findings of opinion polls.

A combination of landline and cellular random digit dial (RDD) samples was used to represent all adults in the continental United States who have access to either a landline or cellular telephone. Both samples were provided by Survey Sampling International, LLC (SSI) according to PSRAI specifications. Numbers for the landline sample were selected with probabilities in proportion to their share of listed telephone households from active blocks (area code + exchange + two-digit block number) that contained three or more residential directory listings. The cellular sample was not list-assisted, but was drawn through a systematic sampling from dedicated wireless 100-blocks and shared service 100-blocks with no directory-listed landline numbers.

New sample was released daily and was kept in the field for at least five days. The sample was released in replicates, which are representative subsamples of the larger population. This ensures that complete call procedures were followed for the entire sample. At least 7 attempts were made to complete an interview at a sampled telephone number. The calls were staggered over times of day and days of the week to maximize the chances of making contact with a potential respondent. Each number received at least one daytime call in an attempt to find someone available. For the landline sample, interviewers asked to speak with the youngest adult male or female currently at home based on a random rotation. If no male/female was available, interviewers asked to speak with the youngest adult of the other gender. For the cellular sample, interviews were conducted with the person who answered the phone. Interviewers verified that the person was an adult and in a safe place before administering the survey. Cellular sample respondents were offered a post-paid cash incentive for their participation. All interviews completed on any given day were considered to be the final sample for that day.

Weighting is generally used in survey analysis to compensate for sample designs and patterns of non-response that might bias results. A two-stage weighting procedure was used to weight this dual-frame sample. The first-stage weight is the product of two adjustments made to the data – a Probability of Selection Adjustment (PSA) and a Phone Use Adjustment (PUA). The PSA corrects for the fact that respondents in the landline sample have different probabilities of being sampled depending on how many adults live in the household. The PUA corrects for the overlapping landline and cellular sample frames.

The second stage of weighting balances sample demographics to population parameters. The sample is balanced by form to match national population parameters for sex, age, education, race, Hispanic origin, region (U.S. Census definitions), population density, and telephone usage. The White, non-Hispanic subgroup is also balanced on age, education and region. The basic weighting parameters came from a special analysis of the Census Bureau's 2010 Annual Social and Economic Supplement (ASEC) that included all households in the continental United States. The population density parameter was derived from Census 2000 data. The cell phone usage parameter came from an analysis of the January-June 2010 National Health Interview Survey. 26

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<sup>&</sup>lt;sup>26</sup> Blumberg SJ, Luke JV. Wireless substitution: Early release of estimates from the National Health Interview Survey, January-June, 2010. National Center for Health Statistics. December 2010.

Following is the full disposition of all sampled telephone numbers:

**Table 2:Sample Disposition** 

Table 2.3an	ipic Dispo	Dattion
Landline	Cell	
32,909	19,899	Total Numbers Dialed
1,416	364	Non-residential
1,428	35	Computer/Fax
32		Cell phone
16,833	8,660	Other not working
1,629	287	Additional projected not working
11,571	10,553	Working numbers
35.2%	53.0%	Working Rate
543	96	No Answer / Busy
3,091	3,555	Voice Mail
53	10	Other Non-Contact
7,884	6,892	Contacted numbers
68.1%	65.3%	Contact Rate
489	1,055	Callback
5,757	4,618	Refusal
1,638	1,219	Cooperating numbers
20.8%	17.7%	Cooperation Rate
56	33	Language Barrier
	426	Child's cell phone
1,582	760	Eligible numbers
96.6%	62.3%	Eligibility Rate
60	5	Break-off
1,522	755	Completes
96.2%	99.3%	Completion Rate
13.6%	11.5%	Response Rate

The disposition reports all of the sampled telephone numbers ever dialed from the original telephone number samples. The response rate estimates the fraction of all eligible respondents in the sample that were ultimately interviewed. At PSRAI it is calculated by taking the product of three component rates:

- o Contact rate the proportion of working numbers where a request for interview was made
- Cooperation rate the proportion of contacted numbers where a consent for interview was at least initially obtained, versus those refused
- Completion rate the proportion of initially cooperating and eligible interviews that were completed

Thus the response rate for the landline sample was 13.6 percent. The response rate for the cellular sample was 11.5 percent.

#### **Spring Change Assessment Survey 2011**

Final Topline

7/11/2011

Data for April 26-May 22, 2011

Princeton Survey Research Associates International for the Pew Research Center's Internet & American Life Project

Sample: n=2,277 national adults, age 18 and older, including 755 cell phone interviews Interviewing dates: 04.26.2011 - 05.22.2011

Margin of error is plus or minus 2 percentage points for results based on Total [n=2,277] Margin of error is plus or minus 3 percentage points for results based on internet users [n=1,701] Margin of error is plus or minus 3 percentage points for results based on cell phone users [n=1,914] Margin of error is plus or minus 3 percentage points for results based on SNS or Twitter users [n=1,015]

**WEB1** Next... Please tell me if you ever use the internet to do any of the following things. Do you ever use the internet to...[INSERT; RANDOMIZE]? / Did you happen to do this **yesterday**, or not?<sup>27</sup>

Based on all internet users [N=1,701]

	TOTAL HAVE EVER DONE THIS	DID YESTERDAY	HAVE NOT DONE THIS	DON'T KNOW	REFUSED
Use a social networking site like MySpace, Facebook or LinkedIn <sup>28</sup>					
Current	65	43	35	*	0
January 2011	61	n/a	39	0	0
December 2010	62	n/a	38	*	0
November 2010	61	37	39	*	*
September 2010	62	39	38	*	0
May 2010	61	38	39	0	0
January 2010	57	32	43	*	0
December 2009	56	33	44	0	*
September 2009	47	27	52	*	*
April 2009	46	27	54	*	*
December 2008	35	19	65	*	
November 2008	37	19	63	0	0
July 2008	34	n/a	66	*	
May 2008	29	13	70	*	
August 2006	16	9	84	*	
September 2005	11	3	88	1	
February 2005	8	2	91	1	
				WEB1	continued

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<sup>&</sup>lt;sup>27</sup> Prior to January 2005, question wording was "Please tell me if you ever do any of the following when you go online. Do you ever...?/Did you happen to do this yesterday, or not?" Unless otherwise noted, trends are based on all internet users for that survey.

<sup>&</sup>lt;sup>28</sup> In December 2008, item wording was "Use a social networking site like MySpace or Facebook." In August 2006, item wording was "Use an online social networking site like MySpace, Facebook or Friendster". Prior to August 2006, item wording was "Use online social or professional networking sites like Friendster or LinkedIn"

#### WEB1 continued...

**WEB1** Next... Please tell me if you ever use the internet to do any of the following things. Do you ever use the internet to...[INSERT; RANDOMIZE]? / Did you happen to do this **yesterday**, or not?<sup>29</sup>

Based on Form A internet users [N=855]

	TOTAL HAVE EVER DONE THIS	DID YESTERDAY	HAVE NOT DONE THIS	DON'T KNOW	REFUSED
Buy a product online, such as books, music, toys or clothing					
Current	71	6	29	*	0
May 2010	66	8	34	0	0
April 2009 <sup>30</sup>	75	8	25	0	0
December 2007 <sup>31</sup>	71	7	29	0	
Sept 2007	66	6	34	*	
August 2006	71	6	29	0	
June 2005	67	n/a	33	*	
November 23-30, 2004	67	6	33	0	
Feb 2004	65	3	35	0	
May 2003	62	5	38	0	
March 20-25, 2003	61	4	39	*	
March 12-19, 2003	60	3	40	0	
March 3-11, 2003	57	5	43	0	
Do any banking online					
Current	61	24	39	0	*
May 2010	58	26	42	0	*
April 2009	57	24	43	*	*
December 2008	55	19	45	*	
September 2007	53	21	47	*	
February 2005	41	12	58	*	
January 2005	44	15	56	0	
November 23-30, 2004	44	11	55	1	
October 2002	30	7	70	*	
Sept 2002	32	10	68	*	
July 2002	32	8	68	*	
March/May 2002	30	9	70	*	
June 2000	18	4	82	*	

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<sup>&</sup>lt;sup>29</sup> Prior to January 2005, question wording was "Please tell me if you ever do any of the following when you go online. Do you ever...?/Did you happen to do this yesterday, or not?" Unless otherwise noted, trends are based on all internet users for that survey.

<sup>&</sup>lt;sup>30</sup> In April 2009, item was asked only of Form A internet users [N=808].

<sup>&</sup>lt;sup>31</sup> In December 2007, item was asked only of landline internet users or Form 1 cell phone internet users [N=1,359].

**WEB1** Next... Please tell me if you ever use the internet to do any of the following things. Do you ever use the internet to...[INSERT; RANDOMIZE]? / Did you happen to do this **yesterday**, or not?<sup>32</sup>

Based on Form B internet users [N=846]

	TOTAL HAVE EVER DONE THIS	DID YESTERDAY	HAVE NOT DONE THIS	DON'T KNOW	REFUSED
Use an online search engine to help you find information on the Web					_
Current	92	59	8	*	0
May 2010	87	49	12	*	*
April 2009 <sup>33</sup>	88	50	12	*	0
May 2008	89	49	10	*	
December 2006	91	41	9	1	
August 2006	88	42	11	*	
Dec 2005	91	38	9	1	
September 2005	90	41	9	*	
June 2004	84	30	16	*	
June 2003	89	31	10	1	
Jan 2002	85	29	14	1	

<sup>&</sup>lt;sup>32</sup> Prior to January 2005, question wording was "Please tell me if you ever do any of the following when you go online. Do you ever...?/Did you happen to do this yesterday, or not?" Unless otherwise noted, trends are based on all internet users for that survey.

<sup>&</sup>lt;sup>33</sup> In April 2009, item was asked only of Form B internet users [N=879].

**CELL4** Some phones are called "smartphones" because of certain features they have. Is your cell phone a smartphone or not, or are you not sure?

Based on cell phone users [N=1,914]

	CURRENT	
%	33	Yes, is a smartphone
	53	No, is not a smartphone
	14	Not sure
	*	Refused

**CELLS** Which of the following best describes the type of cell phone you have? Is it an iPhone, a Blackberry, an Android phone, a Windows phone, a Palm, or something else?

Based on cell phone users [N=1,914]

	CURRENT	
%	10	iPhone
	10	Blackberry
	15	Android
	2	Windows phone
	2	Palm
	8	Basic cell phone – unspecified (VOL.)
	7	Samsung – unspecified (VOL.)
	5	LG – unspecified (VOL.)
	3	Flip phone – unspecified (VOL.)
	3	Motorola – unspecified (VOL.)
	2	Nokia – unspecified (VOL.)
	2	Tracfone (VOL.)
	1	Pantech – unspecified (VOL.)
	16	Something else (SPECIFY)
	13	Don't know
	1	Refused

Q14 Please tell me if you ever use your cell phone to do any of the following things. Do you ever use your cell phone to [INSERT ITEMS; ALWAYS ASK a-b FIRST in order; RANDOMIZE c-h]?<sup>34</sup>

Based on cell phone users

		YES	NO	DON'T KNOW	REFUSED
a.	Send or receive email				
	Current [N=1,914]	38	62	0	*
	December 2010 [N=1,982]	38	62	*	*
	November 2010 [N=1,918]	34	66	0	*
	September 2010 [N=2,485]	34	66	*	0
	May 2010 [N=1,917]	34	66	0	0
	January 2010 [N=1,891]	30	70	0	0
	December 2009 [N=1,919]	29	70	*	*
	September 2009 [N=1,868]	27	73	*	0
	April 2009 [N=1,818]	25	75 75	*	0
	December 2007 [N=1,704]	25 19	73 81	0	U
b.	Send or receive text messages	19	01	U	
	Current	73	27	0	0
	December 2010	74	26	*	*
	November 2010	71	28	*	0
	September 2010	7 <u>-</u> 74	26	*	0
	May 2010	72	28	0	0
	January 2010	69	31	*	0
	December 2009	68	32	*	0
	September 2009	65	35	*	0
	April 2009	65	35	*	0
	December 2007	58	42	0	
c.	Take a picture				
	Current	73	27	*	0
	May 2010	76	24	*	*
d.	Play music				
	Current	34	66	0	0
	May 2010	33	67	0	0
	September 2009	27	73	0	0
	April 2009 December 2007	21	79	*	0
	December 2007	17	83	*	

<sup>&</sup>lt;sup>34</sup> In May 2011, the question was asked of all Form B cell phone users and Form A cell phone users who said in CELL7 that they do more than make calls on their phone. The percentages are based on all cell phone users, counting as "no" Form A cell phone users who said in CELL7 they use their phones only for making calls. Prior to May 2011, question was asked of all cell phone users. Prior to January 2010, question wording was "Please tell me if you ever use your cell phone or Blackberry or other device to do any of the following things. Do you ever use it to [INSERT ITEM]?" In January 2010, question wording was "Please tell me if you ever use your cell phone or Blackberry or other handheld device to do any of the following things. Do you ever use it to [INSERT ITEMS]?" For January 2010, December 2009, and September 2009, an answer category "Cell phone can't do this" was available as a volunteered option; "No" percentages for those trends reflect combined "No" and "Cell phone can't do this" results.

Q14 continued...

		YES	NO	DON'T KNOW	REFUSED
e.	Download a software application or "app" 35				
	Current	31	69	*	0
	September 2009	22	78	1	0
f.	Record a video				
	Current	34	66	0	*
	May 2010	34	66	*	0
	April 2009	19	81	0	0
	December 2007	18	82	0	
g.	Play a game				
	Current	35	65	0	0
	May 2010	34	66	*	0
	April 2009	27	73	*	0
	December 2007	27	73	0	
h.	Access the internet <sup>36</sup>				
	Current	44	56	0	0
	December 2010	42	58	*	*
	November 2010	39	61	*	*
	September 2010	39	61	*	0
	May 2010	38	62	0	0
	January 2010	34	66	0	0
	December 2009	32	67	*	0
	September 2009	29	71	*	0
	April 2009	25	74	*	*
	December 2007	19	81	0	

**CELL9** Overall, when you use the internet, do you do that mostly using your cell phone or mostly using some other device like a desktop, laptop or tablet computer?

Based on those who access the internet on their cell phone [N=746]

	CURRENT	
%	27	Mostly on cell phone
	62	Mostly on something else
	10	Both equally (VOL.)
	1	Depends (VOL.)
	*	Don't know
	*	Refused

In September 2009, item wording was "Download an application for your cell phone"

In December 2007, item wording was "Access the internet for news, weather, sports, or other information"

Thinking of some other things that people might do on their cell phones, do you ever use your cell phone to... [INSERT ITEMS; ALWAYS ASK a-c FIRST IN ORDER; RANDOMIZE d-g; ALWAYS ASK h-i LAST IN ORDER1?<sup>37</sup>

Based on cell phone users

		YES, DO THIS	NO, DO NOT DO THIS/ HAVE NOT DONE THIS	(VOL.) CELL PHONE CAN'T DO THIS	DON'T KNOW	REFUSED
a.	Watch a video	123, 23 1112	70112 11115			
	Current [N=1,914]	26	74	*	0	0
	April 2009 [N=1,818]	14	86	n/a	*	0
	December 2007 [N=1,704]	10	90	n/a	0	
b.	Send a photo or video to someone			, -		
	Current	54	45	*	0	0
c.	Post a photo or video online					
	Current	22	78	*	*	0
Ite. SN:	m D: Based on cell users who use					
d.	Access a social networking site like MySpace, Facebook or LinkedIn					
	Current [N=953]	52	48	0	0	0
	m E: Based on cell users who use vitter					
e.	Access Twitter					
	Current [N=188]	55	45	0	0	0
f.	Check your bank account balance or do any online banking					
	Current	18	81	*	0	*
g.	Participate in a video call or video chat <sup>38</sup>					
	Current	6	94	*	0	0
	September 2010	7	93	n/a	*	*
				•	Q17 cor	ntinued

<sup>&</sup>lt;sup>37</sup> In May 2011, the question was asked of all Form B cell phone users and Form A cell phone users who said in CELL7 that they do more than make calls on their phone. The percentages are based on all cell phone users, counting as "no" Form A cell phone users who said in CELL7 they use their phones only for making calls. Prior to May 2011, question was asked of all cell phone users and question wording was "Please tell me if you ever use your cell phone or Blackberry or other device to do any of the following things. Do you ever use it to [INSERT ITEM]?"

<sup>&</sup>lt;sup>38</sup> September 2010 item wording was "Participate in a video call, video chat or teleconference"

#### Q17 continued...

,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	iucu					
		YES, DO THIS	NO, DO NOT DO THIS/ HAVE NOT DONE THIS	(VOL.) CELL PHONE CAN'T DO THIS	DON'T KNOW	REFUSED
h.	Use a service such as Foursquare or Gowalla to "check in" to certain locations or share your location with friends					
	Current	5	94	*	*	0
i.	Get directions, recommendations, or other information related to your present location <sup>39</sup>					
	Current	28	72	*	0	0
	April 2009	18	82	n/a	*	*
	December 2007	14	86	n/a	*	

<sup>39</sup> April 2009 and December 2007 item wording was "Get a map or directions to another location"

## Methodology for August 2011 Tracking Survey

This report is based on the findings of a survey on Americans' use of the Internet. The results in this report are based on data from telephone interviews conducted by Princeton Survey Research Associates International from July 25 to August 26, 2011, among a sample of 2,260 adults, age 18 and older. Telephone interviews were conducted in English and Spanish by landline (1,344) and cell phone (916, including 425 without a landline phone). For results based on the total sample, one can say with 95% confidence that the error attributable to sampling is plus or minus 2.3 percentage points. For results based on Internet users (n=1,716), the margin of sampling error is plus or minus 2.6 percentage points. In addition to sampling error, question wording and practical difficulties in conducting telephone surveys may introduce some error or bias into the findings of opinion polls.

A combination of landline and cellular random digit dial (RDD) samples was used to represent all adults in the continental United States who have access to either a landline or cellular telephone. Both samples were provided by Survey Sampling International, LLC (SSI) according to PSRAI specifications. Numbers for the landline sample were selected with probabilities in proportion to their share of listed telephone households from active blocks (area code + exchange + two-digit block number) that contained three or more residential directory listings. The cellular sample was not list-assisted, but was drawn through a systematic sampling from dedicated wireless 100-blocks and shared service 100-blocks with no directory-listed landline numbers.

New sample was released daily and was kept in the field for at least five days. The sample was released in replicates, which are representative subsamples of the larger population. This ensures that complete call procedures were followed for the entire sample. At least 7 attempts were made to complete an interview at a sampled telephone number. The calls were staggered over times of day and days of the week to maximize the chances of making contact with a potential respondent. Each number received at least one daytime call in an attempt to find someone available. For the landline sample, interviewers asked to speak with the youngest adult male or female currently at home based on a random rotation. If no male/female was available, interviewers asked to speak with the youngest adult of the other gender. For the cellular sample, interviews were conducted with the person who answered the phone. Interviewers verified that the person was an adult and in a safe place before administering the survey. Cellular sample respondents were offered a post-paid cash incentive for their participation. All interviews completed on any given day were considered to be the final sample for that day.

Weighting is generally used in survey analysis to compensate for sample designs and patterns of non-response that might bias results. A two-stage weighting procedure was used to weight this dual-frame sample. The first-stage corrected for different probabilities of selection associated with the number of adults in each household and each respondent's telephone usage patterns. <sup>40</sup> This weighting also adjusts for the overlapping landline and cell sample frames and the relative sizes of each frame and each sample. The second stage of weighting balances sample demographics to population parameters. The sample is balanced by form to match national population parameters for sex, age, education, race, Hispanic origin, region (U.S. Census definitions), population density, and telephone usage. The White, non-Hispanic subgroup is also balanced on age, education and region. The basic weighting parameters came from a special analysis of the Census Bureau's 2010 Annual Social and Economic Supplement (ASEC) that included all households in the continental United States. The population density parameter was derived from Census 2000 data. The cell phone usage parameter came from an analysis of the July-December 2010 National Health Interview Survey. <sup>41</sup>

<sup>&</sup>lt;sup>40</sup> i.e., whether respondents have only a landline telephone, only a cell phone, or both kinds of telephone.

<sup>&</sup>lt;sup>41</sup> Blumberg SJ, Luke JV. Wireless substitution: Early release of estimates from the National Health Interview Survey, July-December, 2010. National Center for Health Statistics. June 2011.

Following is the full disposition of all sampled telephone numbers:

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Landline	Cell	
27,999	21,600	Total Numbers Dialed
1,138	323	Non-residential
1,348	54	Computer/Fax
2		Cell phone
13,357	8,166	Other not working
1,565	262	Additional projected not working
10,589	12,795	Working numbers
37.8%	59.2%	Working Rate
522	87	No Answer / Busy
3,398	4,396	Voice Mail
35	8	Other Non-Contact
6,634	8,304	Contacted numbers
62.7%	64.9%	Contact Rate
521	1,331	Callback
4,700	5,475	Refusal
1,413	1,498	Cooperating numbers
21.3%	18.0%	Cooperation Rate
36	49	Language Barrier
	509	Child's cell phone
1,377	940	Eligible numbers
97.5%	62.8%	Eligibility Rate
33	24	Break-off
1,344	916	Completes
97.6%	97.4%	Completion Rate
13.0%	11.4%	Response Rate

The disposition reports all of the sampled telephone numbers ever dialed from the original telephone number samples. The response rate estimates the fraction of all eligible respondents in the sample that were ultimately interviewed. At PSRAI it is calculated by taking the product of three component rates:

- Contact rate the proportion of working numbers where a request for interview was made
- **Cooperation rate** the proportion of contacted numbers where a consent for interview was at least initially obtained, versus those refused
- Completion rate the proportion of initially cooperating and eligible interviews that were completed

Thus the response rate for the landline sample was 13 percent. The response rate for the cellular sample was 11.4 percent.

8/30/2011

Data for July 25–August 26, 2011

Princeton Survey Research Associates International for the Pew Research Center's Internet & American Life Project

Sample: n=2,260 national adults, age 18 and older, including 916 cell phone interviews Interviewing dates: 07.25.2011 - 08.26.2011

Margin of error is plus or minus 2 percentage points for results based on Total [n=2,260]
Margin of error is plus or minus 3 percentage points for results based on internet users [n=1,716]
Margin of error is plus or minus 3 percentage points for results based on cell phone owners [n=1,948]
Margin of error is plus or minus 3 percentage points for results based on SNS or Twitter users [n=1,047]

**INTUSE** Do you use the internet, at least occasionally? **EMLOCC**Do you send or receive email, at least occasionally?<sup>42</sup>

_	USES INTERNET	DOES NOT USE INTERNET
Current	78	22
May 2011	78	22
January 2011 <sup>43</sup>	79	21
December 2010 <sup>44</sup>	77	23
November 2010 <sup>45</sup>	74	26
September 2010	74	26
May 2010	79	21
January 2010 <sup>46</sup>	75	25
December 2009 <sup>47</sup>	74	26
September 2009	77	23
April 2009	79	21
December 2008	74	26
November 2008 <sup>48</sup>	74	26
August 2008 <sup>49</sup>	75	25

<sup>&</sup>lt;sup>42</sup> Prior to January 2005, question wording was "Do you ever go online to access the Internet or World Wide Web or to send and receive email?"

<sup>&</sup>lt;sup>43</sup> January 2011 trends based on the Pew Internet Project/Project for Excellence in Journalism/Knight Foundation "Local News survey," conducted January 12-25, 2011 [N=2,251, including 750 cell phone interviews].

<sup>&</sup>lt;sup>44</sup> December 2010 trends based on the Social Side of the Internet survey, conducted November 23–December 21, 2010 [N=2,303, including 748 cell phone interviews].

<sup>&</sup>lt;sup>45</sup> November 2010 trends based on the Post-Election Tracking Survey 2010, conducted November 3-24, 2010 [N=2,257, including 755 cell phone interviews].

<sup>&</sup>lt;sup>46</sup> January 2010 trends based on the Online News survey, conducted December 28, 2009 – January 19, 2010 [N=2,259, including 562 cell phone interviews].

<sup>&</sup>lt;sup>47</sup> December 2009 trends based on the Fall Tracking "E-Government" survey, conducted November 30 – December 27, 2009 [N=2,258, including 565 cell phone interviews].

<sup>&</sup>lt;sup>48</sup> November 2008 trends based on the Post-Election 2008 Tracking survey, conducted November 20-December 4, 2008 [N=2,254].

<sup>&</sup>lt;sup>49</sup> August 2008 trends based on the August Tracking 2008 survey, conducted August 12-31, 2008 [N=2,251].

#### **HOME3NW** Do you ever use the internet or email at HOME?<sup>50</sup>

Based on all internet users [N=1,716]

	YES	NO	DON'T KNOW	REFUSED
Current	90	10	0	0
May 2011	<mark>88</mark>	<mark>12</mark>	<mark>0</mark>	*
January 2011	<mark>89</mark>	<mark>11</mark>	<mark>*</mark>	<mark>0</mark>
December 2010	95	4	*	*
November 2010	95	4	*	*
September 2010	95	5	*	*
May 2010	94	6	*	*
January 2010	94	6	*	*
December 2009	93	6	*	*
September 2009	92	6	*	*
April 2009	91	8	*	*
December 2008	92	6	*	*
November 2008	93	7	*	*
August 2008	93	7	*	
July 2008	93	7	*	
May 2008	95	6	*	
December 2007	94	7	*	
September 2007	93	6	*	
February 2007	95	5	*	
November 2006	93	7	*	
February 2006	94	6	*	
June 2005	90	10	*	
July 2004	94	7	*	
March 2004	92	8	*	

Trend wording was as follows: "About how often do you use the internet or email from... HOME – several times a day, about once a day, 3-5 days a week, 1-2 days a week, every few weeks, less often or never?" Results shown here for "YES" reflect combined "Several times a day," "About once a day," "3-5 days a week," "1-2 days a week," "Every few weeks," and "Less often" responses. Results shown here for "NO" reflect "Never" responses. In January 2011 and May 2011, question wording was slightly different: "Do you ever use the internet or email from home?"

**MODEM3B** At home, do you connect to the internet through a dial-up telephone line, or do you have some other type of connection, such as a DSL-enabled phone line, a cable TV modem, a wireless connection, a fiber optic connection such as FIOS or a T-1?<sup>51</sup>

Based on those who use the internet at home

	DIAL-UP	TOTAL HIGH SPEED	DSL	CABLE MODEM	 WIRELESS	FIBER OPTIC <sup>52</sup>	 T-1	(VOL.) OTHER BROAD- BAND	(VOL.) BROAD- BAND COMBO	(VOL.) NO HOME NET ACCESS	(VOL.) ACCESS NET ON CELL ONLY	(VOL.) NONE OF THE ABOVE <sup>53</sup>	DK	REF.
Current [N=1,565]	5	89	22	34	26	5	*	2	*	1	1	1	3	*
May 2011 [N=1,518]	6	88	25	31	29	4	*	n/a	n/a	n/a	n/a	1	3	1
Jan 2011 [N=1,610]	4	88	28	33	22	5	1	n/a	n/a	n/a	n/a	2	4	1
Dec 2010 [N=1,731]	6	85	27	33	19	5	*	n/a	n/a	n/a	n/a	2	6	2
Nov 2010 [N=1,560]	6	86	28	33	20	5	1	n/a	n/a	n/a	n/a	2	4	2
Sept 2010 [N=1,947]	7	86	29	31	20	6	1	n/a	n/a	n/a	n/a	2	4	1
May 2010 [N=1,659]	7	86	27	33	20	5	1	n/a	n/a	n/a	n/a	2	4	1
Jan 2010 [N=1,573]	7	88	29	38	18	4	*	n/a	n/a	n/a	n/a	1	3	1
Dec 2009 [N=1,582]	9	86	28	37	17	3	1	n/a	n/a	n/a	n/a	2	4	1
Sept 2009 [N=1,584]	7	87	30	37	15	4	*	n/a	n/a	n/a	n/a	2	3	2
April 2009 [N=1,567]	9	86	29	36	15	4	1	n/a	n/a	n/a	n/a	2	3	1
Dec 2008 [N=1,538]	13	80	30	32	15	3	*	n/a	n/a	n/a	n/a	1	5	
Nov 2008 [N=1,481]	12	82	33	34	13	3	*	n/a	n/a	n/a	n/a	1	5	
Aug 2008 [N=1,543]	13	81	37	30	10	3	1	n/a	n/a	n/a	n/a	1	5	
July 2008 [N=1,797]	14	81	35	30	13	3	1	n/a	n/a	n/a	n/a	1	4	
May 2008 [N=1,463]	15	79	36	31	9	2	*	n/a	n/a	n/a	n/a	1	5	
Dec 2007 [N=1,483]	18	77	34	31	10	2	1	n/a	n/a	n/a	n/a	1	3	
Sept 2007 [N=1,575]	20	73	34	30	8	2	n/a	n/a	n/a	n/a	n/a	1	6	
Feb 2007 [N=1,406]	23	70	35	28	6	1	n/a	n/a	n/a	n/a	n/a	1	6	

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From September 2009 thru January 2010, the question asking about type of home internet connection (MODEM) was form split. MODEMA was asked of Form A respondents who use the internet from home. MODEMB was asked of Form B respondents who use the internet from home. Trend results shown here reflect combined MODEMA and MODEMB percentages. Form B respondents who answered "satellite," fixed wireless provider," or "other wireless such as an Aircard or cell phone" have been combined in the "Wireless" column in the table.

<sup>&</sup>lt;sup>52</sup> In Sept. 2007 and before, "Fiber optic connection" and "T-1 connection" were collapsed into one category. Percentage for "Fiber optic connection" reflects the combined "Fiber-optic/T-1" group.

<sup>&</sup>lt;sup>53</sup> May 2011 and earlier trend percentages for "None of the above" reflect "Other (SPECIFY)" responses.

**Q10** As I read the following list of items, please tell me if you happen to have each one, or not. Do you have... [INSERT ITEMS IN ORDER]?

		YES	NO	DON'T KNOW	REFUSED
a.	A desktop computer				
	Current	55	45	*	*
	May 2011	57	42	*	*
	November 2010	61	39	0	*
	September 2010	59	40	*	*
	May 2010	62	38	*	*
	January 2010	59	41	0	*
	December 2009	58	42	*	*
	September 2009	62	37	0	*
	April 2009	64	36	*	*
	April 2008	65	34	*	
	Dec 2007	65	35	*	
	April 2006	68	32	*	
b.	A laptop computer or netbook <sup>54</sup>				
	Current	57	43	*	*
	May 2011	56	44	*	*
	January 2011	57	43	*	*
	December 2010	53	47	*	*
	November 2010	53	47	*	*
	September 2010	52	48	*	*
	May 2010	55	45	*	0
	January 2010	49	51	*	*
	December 2009	46	53	*	*
	September 2009	47	53	*	*
	April 2009	47	53	*	*
	April 2008	39	61	*	
	Dec 2007	37	63	*	
	April 2006	30	69	*	

Q10 continued...

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<sup>54</sup> Through January 2010, item wording was "A laptop computer [IF NECESSARY: includes a netbook]."

#### Q10 continued...

		YES	NO	DON'T KNOW	REFUSED
C.	A cell phone or a Blackberry or iPhone or other device that is also a cell phone <sup>55</sup>				
	Current	84	15	*	*
	May 2011	83	17	*	0
	January 2011	84	16	*	*
	December 2010	81	19	*	*
	November 2010	82	18	0	*
	September 2010	85	15	*	*
	May 2010	82	18	*	0
	January 2010	80	20	0	*
	December 2009	83	17	0	*
	September 2009	84	15	*	*
	April 2009	85	15	*	*
	Dec 2008	84	16	*	*
	July 2008	82	18	*	
	May 2008	78	22	*	0
	April 2008	78	22	*	
	January 2008	77	22	*	
	Dec 2007	75	25	*	
	Sept 2007	78	22	*	
	April 2006	73	27	*	
	January 2005	66	34	*	
	November 23-30, 2004	65	35	*	
d.	An electronic Book device or e-Book reader, such as a Kindle or Nook <sup>56</sup>				
	Current	9	90	*	*
	May 2011	12	88	*	0
	November 2010	6	94	*	*
	September 2010	5	95	*	*
	May 2010	4	96	*	*
	September 2009	3	97	*	*
	April 2009	2	98	*	*

<sup>&</sup>lt;sup>55</sup> Question was asked of landline sample only. Results shown here have been recalculated to include cell phone sample in the "Yes" percentage. In past polls, question was sometimes asked as an independent question and sometimes as an item in a series. In January 2010, question wording was "Do you have...a cell phone or a Blackberry or iPhone or other handheld device that is also a cell phone." In Dec 2008, Nov 2008, May 2008, January 2005 and Nov 23-30 2004, question wording was "Do you happen to have a cell phone?" In August 2008, July 2008 and January 2008, question wording was "Do you have a cell phone, or a Blackberry or other device that is also a cell phone?" In April 2008, Dec 2007, Sept 2007 and April 2006, question wording was "Do you have a cell phone?" Beginning December 2007, question/item was not asked of the cell phone sample, but results shown here reflect Total combined Landline and cell phone sample.

<sup>&</sup>lt;sup>56</sup> Through November 2010, item wording was "An electronic book device or e-Book reader, such as a Kindle or Sony Digital Book".

#### Q10 continued...

		YES	NO	DON'T KNOW	REFUSED
e.	A tablet computer like an iPad, Samsung Galaxy or Motorola Xoom <sup>57</sup>				
	Current	10	90	*	*
	May 2011	8	92	*	0
	January 2011	7	92	*	*
	November 2010	5	95	*	*
	September 2010	4	96	*	*
	May 2010	3	97	*	0

You said you have [a Laptop; an e-Book reader; a tablet computer]. Do you ever use [this device / any of those devices] to go online wirelessly, either at home or somewhere else? $^{58}$ 

Based on those who have a laptop/netbook, e-Book reader, or tablet computer

	CURRENT		MAY 2011
%	87	Yes	75
	13	No	24
	*	Don't know	*
	*	Refused	*
	[n=1,300]		[n=1,380]

#### **WIRELESS** Wireless internet use<sup>59</sup>

	WIRELESS INTERNET USER	INTERNET USER BUT NOT WIRELESS	ALL OTHERS
Current	63	16	21
May 2011	59	20	21
December 2010	59	20	20
November 2010	57	20	23
September 2010	57	20	23
May 2010	59	22	19
January 2010	53	24	23
December 2009	55	24	21
September 2009	54	25	21
April 2009	56	23	20
December 2008	43	30	26
November 2008	37	37	26

<sup>57</sup> Through January 2011, item wording was "A tablet computer like an iPad"

<sup>&</sup>lt;sup>58</sup> In May 2011, question was also asked of those who have an MP3 player.

<sup>&</sup>lt;sup>59</sup> Definitions for wireless internet use may vary from survey to survey.

**WEB1** Next... Please tell me if you ever use the internet to do any of the following things. Do you ever use the internet to...[INSERT; RANDOMIZE]? / Did you happen to do this yesterday, or not?<sup>60</sup>

Based on all internet users [N=1,716]

	TOTAL HAVE EVER DONE THIS	DID YESTERDAY	HAVE NOT DONE THIS	DON'T KNOW	REFUSED
Send or read e-mail					
Current	91	59	9	*	0
November 2010	92	61	8	*	*
September 2010	91	61	9	*	*
May 2010	94	62	6	*	0
January 2010	92	59	8	*	*
December 2009	90	55	10	*	*
September 2009	89	58	11	*	*
April 2009	90	57	9	*	0
December 2008	91	58	9	*	
November 2008	89	56	11	0	*
August 2008	92	60	8	*	
December 2007	92	60	8	*	
September 2007	90	56	10	*	
February 2007	91	56	9	*	
December 2006	91	54	8	*	
November 2006 <sup>61</sup>	91	52	9	*	
August 2006 <sup>62</sup>	90	53	10	*	
December 2005	91	53	9	*	
September 2005	91	54	9	*	
February 2005	91	52	9	*	
January 2005	90	49	9	*	
November 23-30, 2004	92	48	8	*	
November 2004	93	54	7	*	
June 2004	93	45	7	*	
February 2004	91	48	8	*	
Nov 2003	91	48	8	*	
June 2003	91	49	9	*	
May 2003	93	52	7	*	
March 20-25, 2003	94	50	6	*	
March 12-19, 2003 <sup>63</sup>	91	52	9	0	
March 3-11, 2003	94	54	6	*	
February 2003	91	50	9	*	

WEB1 continued...

<sup>&</sup>lt;sup>60</sup> Prior to January 2005, question wording was "Please tell me if you ever do any of the following when you go online. Do you ever...?/Did you happen to do this yesterday, or not?" Unless otherwise noted, trends are based on all internet users for that survey.

<sup>&</sup>lt;sup>61</sup> November 2006 results for this activity series reflect the landline respondents only [N=1,578].

<sup>&</sup>lt;sup>62</sup> August 2006 WEB1 trends were asked of internet users based on split form. Results shown for "Send or read e-email" reflect combined responses for total internet users.

<sup>&</sup>lt;sup>63</sup> March 12-19, 2003 trends based on daily tracking survey conducted March 12-19, 2003 [N=883].

#### WEB1 continued...

continueu					
	TOTAL HAVE EVER DONE THIS	DID YESTERDAY	HAVE NOT DONE THIS	DON'T KNOW	REFUSED
Use a social networking site like					
MySpace, Facebook or LinkedIn <sup>64</sup>					
Current	64	43	35	*	0
May 2011	65	43	35	*	0
January 2011	61	n/a	39	0	0
December 2010	62	n/a	38	*	0
November 2010	61	37	39	*	*
September 2010	62	39	38	*	0
May 2010	61	38	39	0	0
January 2010	57	32	43	*	0
December 2009	56	33	44	0	*
September 2009	47	27	52	*	*
April 2009	46	27	54	*	*
December 2008	35	19	65	*	
November 2008	37	19	63	0	0
August 2008	33	17	67	*	
July 2008	34	n/a	66	*	
May 2008	29	13	70	*	
August 2006	16	9	84	*	
September 2005	11	3	88	1	
February 2005	8	2	91	1	

In December 2008, item wording was "Use a social networking site like MySpace or Facebook." In August 2006, item wording was "Use an online social networking site like MySpace, Facebook or Friendster". Prior to August 2006, item wording was "Use online social or professional networking sites like Friendster or LinkedIn"