



Pew Internet
Pew Internet & American Life Project

a project of the
PewResearchCenter

35% of American adults own a smartphone

One quarter of smartphone owners use their phone for most of their online browsing

Aaron Smith, Senior Research Specialist

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<http://pewinternet.org/Reports/2011/Smartphones.aspx>

Pew Research Center
1615 L St., NW – Suite 700
Washington, D.C. 20036
202-419-4500 | pewinternet.org

Summary of Findings

In its first standalone measure of smartphone ownership, the Pew Internet Project finds that one third of American adults – 35% – own smartphones. The Project’s May survey found that 83% of US adults have a cell phone of some kind, and that 42% of them own a smartphone. That translates into 35% of all adults. Our definition of a smartphone owner includes anyone who falls into either of the following two categories:

- One-third of cell owners (33%) say that their phone is a smartphone.
- Two in five cell owners (39%) say that their phone operates on a smartphone platform (these include iPhones and Blackberry devices, as well as phones running the Android, Windows or Palm operating systems).

And here’s how they feel about their devices:



Smartphone adoption is highest among the affluent and well-educated, the (relatively) young, and non-whites

Several groups have higher than average levels of smartphone adoption, including:

- *The financially well-off and well-educated* – 59% of adults living in a household earning income of \$75,000 or more are smartphone owners; 48% of those with a college degree own smartphones.
- *Those under the age of 45* – 58% of Americans between the ages of 25 and 34 now own a smartphone as do 49% of those ages 18-24 and 44% of those ages 35-44. Even among those with a household income of \$30,000 or less, smartphone ownership rates for those ages 18-29 are equal to the national average.
- *African-Americans and Latinos* – 44% of blacks and Latinos are smartphone users.

Urban and suburban residents are roughly twice as likely to own a smartphone as those living in rural areas, and employment status is also strongly correlated with smartphone ownership.

Mobile phones are a main source of internet access for one-quarter of the smartphone population

Some 87% of smartphone owners access the internet or email on their handheld, including two-thirds (68%) who do so on a typical day. When asked what device they normally use to access the internet, 25% of smartphone owners say that they mostly go online using their phone, rather than with a computer. While many of these individuals have other sources of online access at home, roughly one third of these “cell mostly” internet users lack a high-speed home broadband connection.

Smartphone ownership and internet use summary

% of smartphone owners, cell owners and all adults who...

	% of <u>smartphone</u> owners who...	% of <u>all cell</u> owners who...	% of <u>all adults</u> who...
Own a smartphone	100%	42%	35%
Use the internet or email on smartphone	87	36	30
Use smartphone to go online on a typical day	68	28	23
Go online <u>mostly</u> using smartphone	25	10	8

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.

Smartphone owners under the age of 30, non-white smartphone users, and smartphone owners with relatively low income and education levels are particularly likely to say that they mostly go online using their phones.

Android is the most common smartphone platform, followed by iPhone and Blackberry devices

Phones operating on the Android platform are currently the most prevalent type of smartphone, followed by iPhones and Blackberry devices.

Demographically, Android phones are especially common among young adults and African-Americans, while iPhones and Blackberry devices are most prevalent among college graduates and the financially well-off.

Platform differences in smartphone adoption

% within each column who say their phone is the following...

	Among cell owners	Among smartphone owners
Android	15%	35%
iPhone	10	24
Blackberry	10	24
Palm	2	6
Windows	2	4

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. "Smartphone owners" include those who say their phone is a smartphone, or who describe their phone as running on the Android, Blackberry, iPhone, Palm or Windows platforms.

About this survey

The results reported here are based on a national telephone survey of 2,277 adults conducted April 26-May 22, 2011. 1,522 interviews were conducted by landline phone, and 755 interviews were conducted by cell phone. Interviews were conducted in both English and Spanish. For results based on all adults, the margin of error is +/-2 percentage points; for results based on all cell owners, the margin of error is +/-3 percentage points (n=1,194); and for results based on smartphone owners, the margin of error is +/-4.5 percentage points (n=688).

Overview of smartphone adoption

In its first standalone measure of smartphone ownership,¹ the Pew Research Center's Internet & American Life Project finds that two in five cell owners (42%) own a smartphone as of May 2011.² Since 83% of Americans own some kind of mobile phone, this means that one-third of all American adults (35%) are smartphone owners.

Measuring smartphone adoption in the context of a telephone survey presents some practical challenges. Smartphones are typically defined as mobile phones with advanced capabilities such as internet access and the ability to download and install applications or "apps". However, many cell owners—particularly casual users—are unsure of their phones' capabilities, so measuring smartphone ownership in this way risked overestimating the adoption of this technology. Therefore our definition of a "smartphone user" includes anyone who falls into either or both of the following categories:

- One-third of cell owners (33%) *say that their phone is a smartphone*. Just over half (53%) say that their phone is not a smartphone, while the remaining 14% do not know if their phone is a smartphone or not.
- Two in five cell owners (39%) *say that their phone operates on a smartphone platform* common to the US market (these include the iPhone and Blackberry, as well as phones running the Android, Windows or Palm operating systems). One in ten (13%) do not know what type of phone they have, while the remaining responses included those that were not smartphones (i.e. "basic cell phone", "cheapest phone" or "flip phone") or that were not easily classified into a particular category (i.e. "Samsung", "Nokia", "Verizon phone" or "AT&T").

Taken together, 42% of cell owners said yes to one or both of these questions and are classified as smartphone owners. The remaining 58% of cell owners have some kind of mobile phone other than a smartphone.

¹ In past surveys (in 2006 and 2007) we asked respondents two separate questions: "Do you have a cell phone?" and "Do you have a Blackberry, Palm or other personal digital assistant?" In more recent surveys we have combined all cell phones into a single question: "Do you have a cell phone...or a Blackberry or iPhone or other device that is also a cell phone?"

² Our estimate for smartphone ownership is roughly in line with Nielsen's April 2011 survey of mobile consumers, which found that 37% of adult cell owners own a smartphone (see <http://blog.nielsen.com/nielsenwire/consumer/android-leads-u-s-in-smartphone-market-share-and-data-usage/>). Data collected by ComScore during the same time period on a panel including those ages 13-17 found that 32% of cell owners have a smartphone of some kind (see [http://www.comscore.com/Press Events/Press Releases/2011/6/comScore Reports April 2011 U.S. Mobile Subscriber Market Share](http://www.comscore.com/Press%20Events/Press%20Releases/2011/6/comScore%20Reports%20April%202011%20U.S.%20Mobile%20Subscriber%20Market%20Share)).

The demographics of smartphone ownership

% of US adults within each group who own a smartphone

All adults	35%
Gender	
Men (n=973)	39
Women (n=1304)	31
Age	
18-29 (n=337)	52
30-49 (n=581)	45
50-64 (n=659)	24
65+ (n=637)	11
Race/Ethnicity	
White, non-Hispanic (n=1637)	30
Black, non-Hispanic (n=261)	44
Hispanic (n=223)	44
Household Income	
Less than \$30,000 (n=671)	22
\$30,000-\$49,999 (n=374)	40
\$50,000-\$74,999 (n=276)	38
\$75,000+ (n=444)	59
Education level	
No high school diploma (n=229)	18
High school grad (n=757)	27
Some college (n=525)	38
College+ (n=746)	48
Geographic location	
Urban (n=618)	38
Suburban (n=1113)	38
Rural (n=465)	21

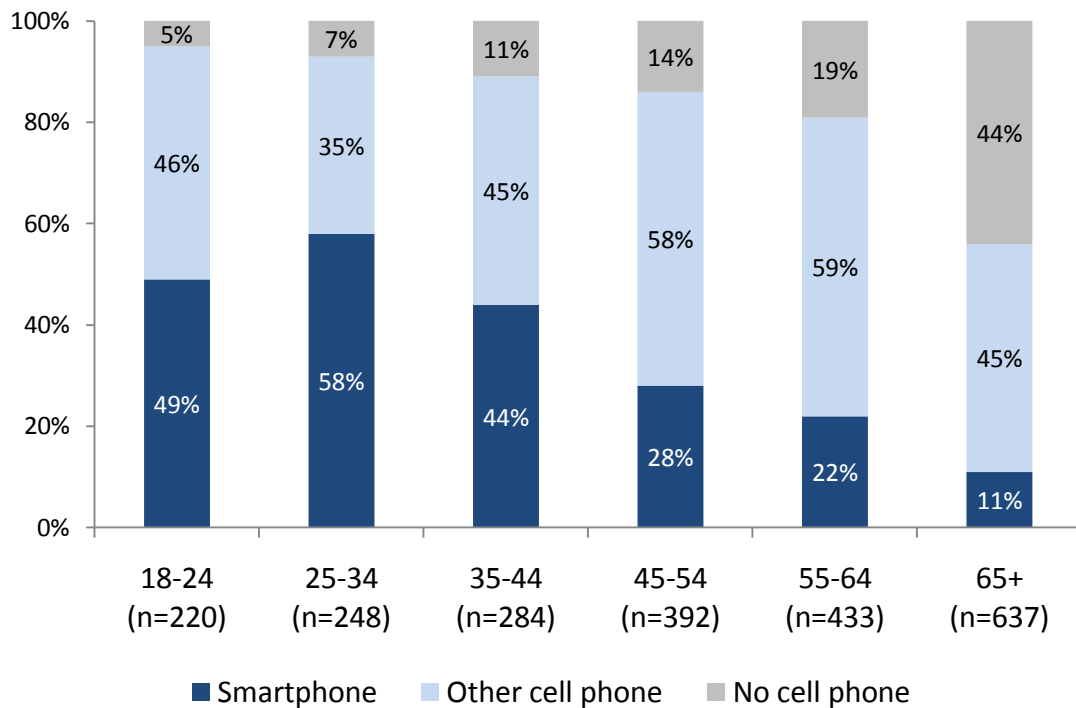
Source: The Pew Research Center's Internet & American Life Project, April 26 – May 22, 2011 Spring Tracking Survey. n=2,277 adult internet users ages 18 and older, including 755 cell phone interviews. Interviews were conducted in English and Spanish. "Smartphone ownership" includes those who say their phone is a smartphone, or who describe their phone as running on the Android, Blackberry, iPhone, Palm or Windows platforms.

Age differences in smartphone adoption

Smartphone ownership is highest among Americans in their mid-twenties through mid-thirties, as fully 58% of 25-34 year olds own a smartphone. Smartphone ownership begins to tail off at around 45 years of age, before dropping dramatically at around age 65 (just one in ten seniors own a smartphone, and 44% do not have a cell phone of any kind).

Smartphone ownership by age

% of US adults within each group who own a smartphone, some other type of cell phone, or no cell phone



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. "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.

Income differences in smartphone adoption

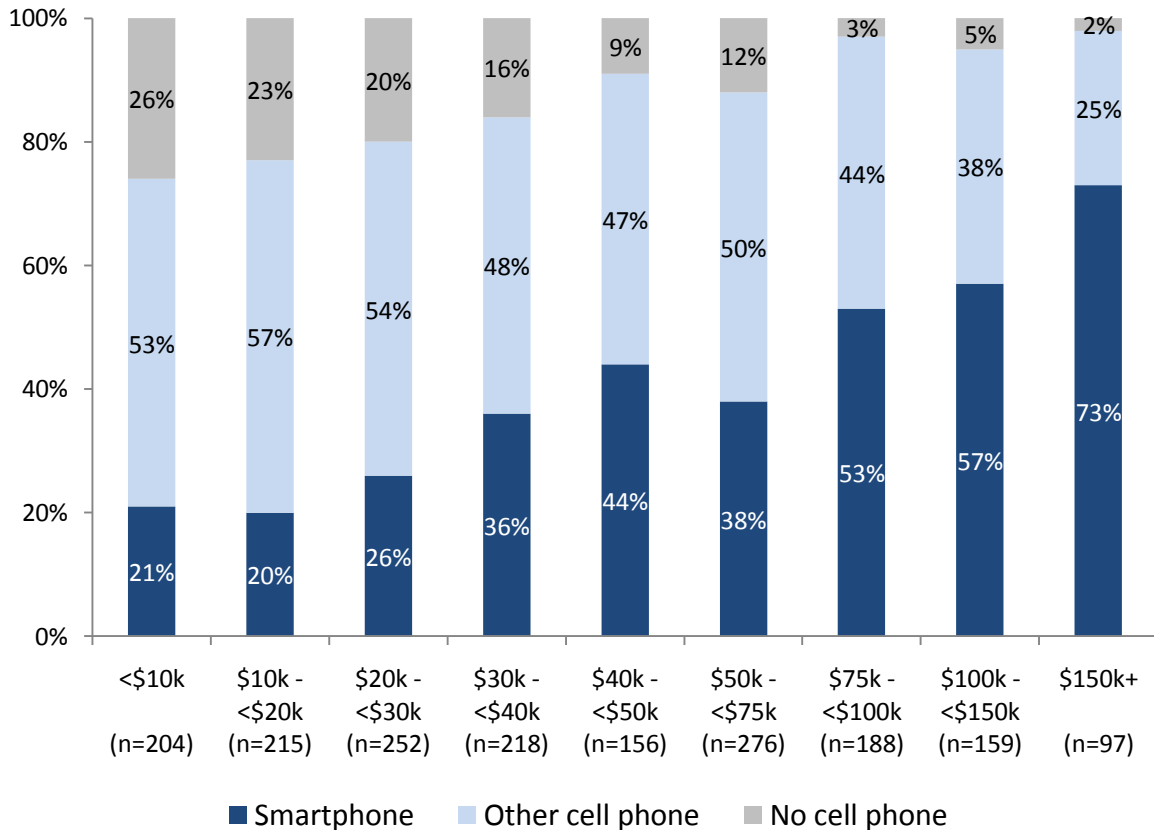
Smartphone ownership is highly correlated with household income. Respondents from the highest income cohort (those with an annual household income of \$150,000 or more) are around three and a half times as likely as those in the lowest income group (with an annual household income of \$10,000 or less) to own a smartphone: roughly three quarters of high-income earners do so, compared with one in five low-income earners.

A household income of \$75,000 is the approximate point at which Americans are more likely to own a smartphone than not—more than half of Americans above this income level are smartphone owners, and cell phone ownership in general is near-ubiquitous (95% or more) past this point in the income distribution.

While smartphone ownership is a majority proposition among higher-income earners, those Americans with a household income of less than \$30,000 per year primarily own more basic mobile phones. Indeed, members of this lower-income cohort are as likely to lack a cell phone entirely as they are to own a smartphone (22% own a smartphone, while 23% have no cell phone at all).

Smartphone ownership by household income

% of US adults within each group who own a smartphone, some other type of cell phone, or no cell phone



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. "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.

Although low-income Americans as a whole are relatively unlikely to own a smartphone, there is quite a bit of age variation within this group. Among 18-29 year olds earning less than \$30,000 per year, 39% own a smartphone (on par with the national average) and just 8% have no cell phone at all. By contrast, fully 57% of low-income seniors do not own a cell phone, and smartphone adoption rates for this group are extremely low at just 4%.

Smartphone ownership by age group, household income less than \$30k per year

Based on those with an annual household income of less than \$30,000

	Smartphone	Other cell phone	No Cell Phone
All <\$30k (n=671)	22%	55%	23%
Age			
18-29 (n=142)	39	53	8
30-49 (n=159)	26	59	15
50-64 (n=157)	12	65	24
65+ (n=209)	4	39	57

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.

“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.

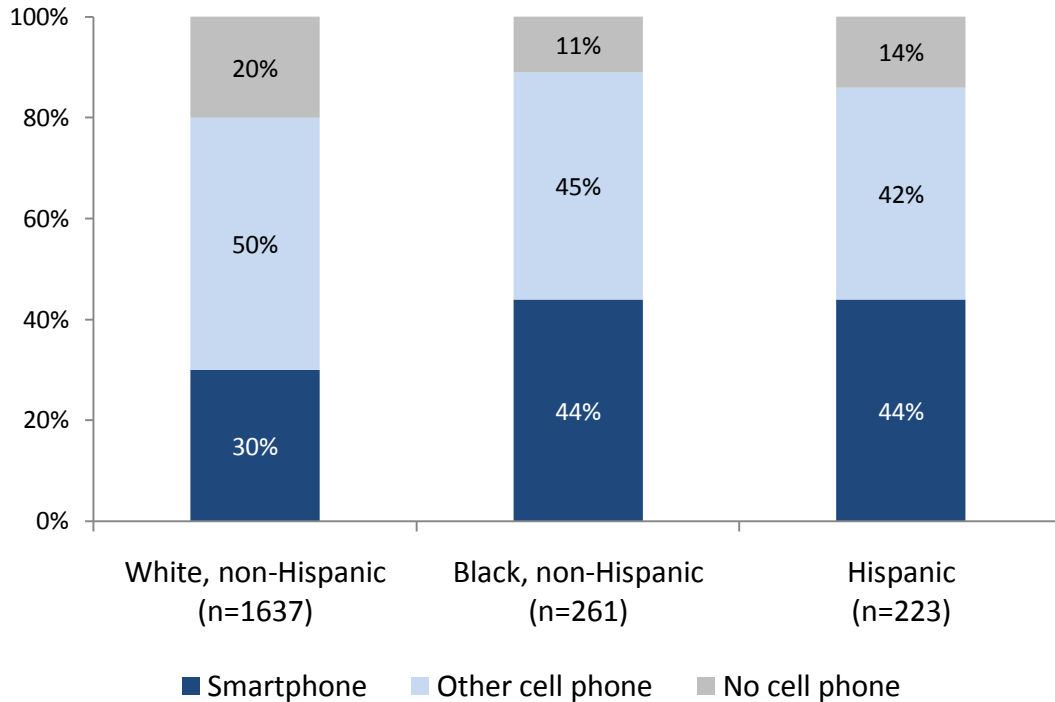
Other factors correlated with smartphone ownership

For several years, Pew Internet research has found that African-Americans and Latinos are more likely than whites to use their cell phones for non-voice applications such as using the internet, playing games, or accessing multimedia content. These differences extend to smartphone ownership as well, as 44% of black and Latino adults are smartphone owners, compared with 30% of whites.³

³ In its August-September 2010 survey of Latinos and technology adoption, the Pew Hispanic Center found that 76% of Latinos are cell phone owners (see <http://pewhispanic.org/reports/report.php?ReportID=134>). This compares with our current finding that 86% of Latinos are cell owners. Although Pew Internet Project surveys include Spanish-language interviews, they typically contain a lower percentage of such respondents than surveys conducted by the Pew Hispanic Center.

Smartphone ownership by race/ethnicity

% of US adults within each group who own a smartphone, some other type of cell phone, or no cell phone



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. "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.

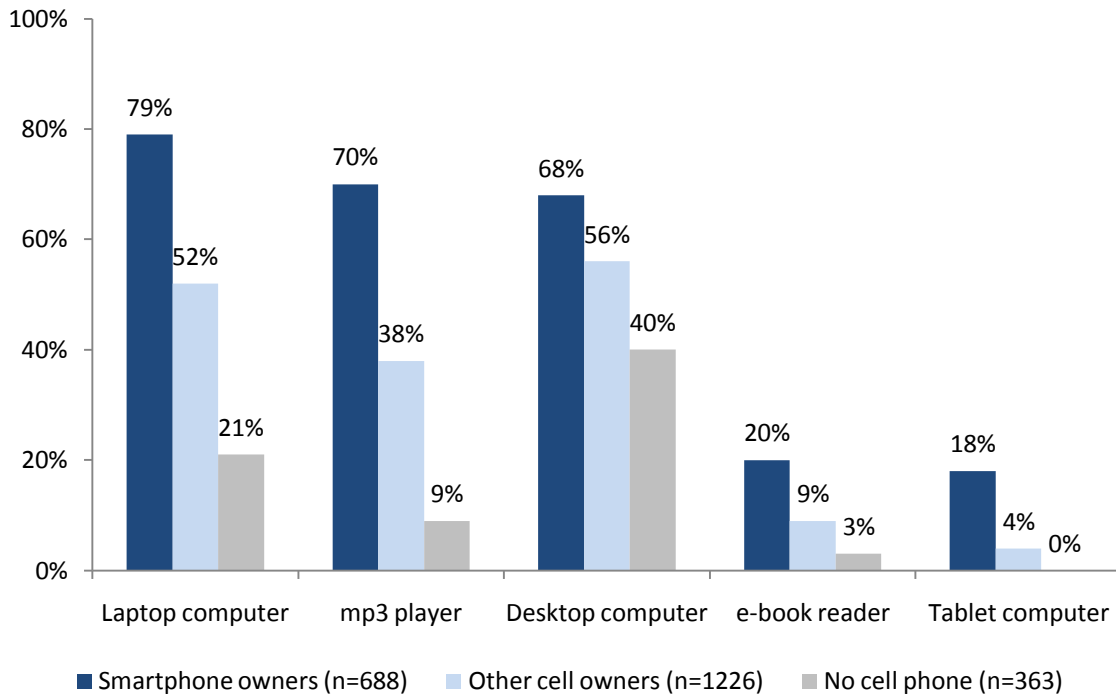
Employment status is also closely linked with smartphone ownership. Nearly half of full-time employees (48%) have a smartphone of some kind, as do 38% of those who are employed part-time. Roughly one quarter of those who are not employed for pay (27%) have this type of device, while just 13% of retirees do so.

Smartphone owners and their technology assets

Smartphone users own a wide range of devices in addition to their phones. Eight in ten smartphone owners also own a laptop computer, and e-book readers and tablet computers are much more prevalent among smartphone owners than in the general population.

Smartphone users own a numbers of other technology assets

% of US adults within each group who own the following devices



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. "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.

In their own words—how smartphone owners describe their phones

Along with asking about smartphone adoption and usage, we also included a question in our spring survey that asked cell phone owners to provide the one word that best describes how they feel about their phones. The smartphone owners we surveyed provided an enormous diversity of reactions to this question—the 662 responses we coded included 177 unique descriptors—so few words or phrases stuck out clearly from the pack. The three most common words were “good” (mentioned by 10% of smartphone owners), “great” and “convenient” (each mentioned by 7% of smartphone owners). Overall, 72% of smartphone owners used a positive word (such as “good”, “great”, “excellent” or “convenient”) to describe their phones, 16% used a negative description (such as “expensive” or “frustrated/frustrating”) and 12% offered a neutral word choice (such as “adequate”, “OK”, “fair” or “fine”).



Smartphones as an internet appliance

Nearly nine in ten smartphone owners (87%) use their phones to access the internet or email, with 78% of these users saying that they go online using their phone on a typical day.⁴ Put differently, that means that on a typical day 68% of *all* smartphone owners go online using their phone.

Although smartphone ownership varies significantly based on demographic factors, within the smartphone owner population there is relatively little variation when it comes to using one's phone to go online. Age is the primary differentiator—fully 94% of smartphone owners ages 18-29 use their phones to go online, with eight in ten (81%) doing so on a typical day.

Demographic differences in smartphone internet use

% of smartphone owners in each group who use their phone to access the internet or email

	Ever	Typical Day
Total for smartphone owners (n=688)	87%	68%
Gender		
Men (n=349)	86	69
Women (n=339)	87	66
Age		
18-29 (n=177)	94	81
30-49 (n=256)	90	71
50+ (n=240)	72	44
Race/Ethnicity		
White, non-Hispanic (n=417)	85	67
Black, non-Hispanic (n=109)	90	63
Hispanic (n=97)	89	74
Household Income		
Less than \$30,000 (n=131)	81	61
\$30,000-\$49,999 (n=118)	86	72
\$50,000+ (n=334)	89	70
Education level		
High School Diploma (n=169)	79	56
Some College (n=171)	89	68
College Graduate (n=308)	91	75

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. "Smartphone owners" include those who say their phone is a smartphone, or who describe their phone as running on the Android, Blackberry, iPhone, Palm or Windows platforms.

⁴ Just as our standard definition of an "internet user" includes those who use the internet or email, our definition of a "smartphone internet user" includes those who access the internet and/or email on their phone.

One-quarter of smartphone owners mostly go online using their cell phone, even though many have other access options available to them

When asked what device they typically use to access the internet, 28% of smartphone internet users (the 87% of smartphone owners who go online using their phone) say that they use their mobile phone for most of their online activity:

- 28% go online *mostly using their phone*
- 59% go online using *mostly some other device*
- 11% use their phone and some other device equally to access the internet, while an additional 1% say that the device they use depends on the situation

Put another way, this means that 25% of *all* smartphone owners (regardless of whether or not they use the internet on their device) do most of their online browsing on their mobile phone.

In looking at this 25% of smartphone owners who do most of their online activities on their phone, the question naturally arises as to what extent this is based on necessity (i.e. a lack of other internet access options) versus convenience or other factors. Although we did not address this question directly in our survey, our data does offer some insights into this particular group.

Even among smartphone owners who use their phone as their main source of internet access, computer (i.e. laptop or desktop) ownership is quite prevalent. Indeed, fully 84% of these individuals also have a desktop or laptop computer at home. At the same time, a notably smaller number have access to high-speed internet service, as just over two-thirds of these users (68%) have broadband at home. This is slightly above the national broadband average (61% of all adults are broadband adopters), but still means that 32% of these “cell mostly” internet users lack traditional high-speed home access—even though they may go online from other locations outside of the home.

This is a marked contrast from smartphone users who go online mostly using a device other than their phone, who are much more likely to have an internet-connected computer at home. Within this group, both computer ownership (99%) and broadband adoption (94%) are near-ubiquitous.

Additionally, usage of smartphones as a primary internet access device is highest among several groups with relatively low rates of traditional internet and broadband adoption—for example, those with no college experience as well as those with relatively low income levels.

Who are the “cell mostly” smartphone internet users?

*% of smartphone owners within each group who go online **mostly using their cell phone***

All smartphone owners (n=688)	25%
Gender	
Men (n=349)	24
Women (n=339)	26
Age	
18-29 (n=177)	42
30-49 (n=256)	21
50+ (n=240)	10
Race/Ethnicity	
White, non-Hispanic (n=417)	17
Black/Latino(n=206)	38
Household Income	
Less than \$30,000 (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 grad (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.

Platform differences in smartphone ownership

As noted in the introduction to this report, our definition of smartphone ownership includes a question based on the platform (operating system) of each respondent's phone. The relative adoption rates for different platforms among all cell owners and within the smartphone population are as follows:⁵

- 15% of cell owners (representing 35% of smartphone owners) describe their phone as an *Android* device
- 10% of cell owners (24% of smartphone owners) describe their phone as an *iPhone*
- 10% of cell owners (24% of smartphone owners) describe their phone as a *Blackberry*
- 2% of cell owners (4% of smartphone owners) describe their phone as a *Windows* phone
- 2% of cell owners (6% of smartphone owners) describe their phone as a *Palm* device

In examining smartphone adoption within demographic groups, several key trends stand out:

- **African-Americans and young adults have higher than average rates of Android adoption.** One-quarter (26%) of black cell owners say that they have an Android device, which is significantly higher than the rate for both whites (12%) and Latinos (16%). By contrast, just 5% of African-American cell owners own an iPhone, which is half the national average. Similarly, 26% of cell owners ages 18-24 are Android owners, making Android phones roughly twice as popular within this group as iPhones, and three times as prevalent as Blackberry devices.
- **Ownership rates for Blackberry and iPhone devices are particularly high among the well-educated and the relatively well-off.** Compared with those in the lowest income and education groupings, cell phone owners with a college degree or a household income of \$75,000 or more per year are approximately 3-4 times as likely to say that their phone is a Blackberry or an iPhone. Blackberry ownership is also higher among those who are employed full-time (15% of such cell owners have a Blackberry) compared with cell owners who are employed part-time (6%) or who are not employed for pay (6%).
- Smartphone ownership is generally low among rural residents, but **urban and suburban dwellers are much more likely than their rural counterparts to own an iPhone.** Just 5% of rural cell phone owners say that they own an iPhone, compared with one in ten urban and suburban cell owners.

⁵ Our findings for the proportion of smartphone owners with Android, Blackberry and Apple devices are nearly identical to April 2011 findings by Nielsen and ComScore. Both Nielsen and Comscore found that 36% of smartphone owners are Android users, and that 26% of smartphone owners have an iPhone. Nielsen found that Blackberry phones represent 23% of the smartphone market, while ComScore calculated Blackberry penetration at 26%. Our findings differ more dramatically for the Windows and Palm platforms. Our platform "market share" figures for Windows phones are roughly half that found by Nielsen and Comscore, while our comparable figure for the Palm platform is roughly twice that found by these organizations. For more information on their studies, see <http://blog.nielsen.com/nielsenwire/consumer/android-leads-u-s-in-smartphone-market-share-and-data-usage/> and [http://www.comscore.com/Press Events/Press Releases/2011/6/comScore Reports April 2011 U.S. Mobile Subscriber Market Share](http://www.comscore.com/Press%20Events/Press%20Releases/2011/6/comScore%20Reports%20April%202011%20U.S.%20Mobile%20Subscriber%20Market%20Share)

Key demographic differences in smartphone platform adoption

% of adult cell phone owners within each group who describe their phone as one of the following:

	<u>Android</u>	<u>iPhone</u>	<u>Blackberry</u>
All cell owners (n=1914)	15%	10%	10%
Gender			
Men (n=845)	15	10	11
Women (n=1069)	14	9	9
Age			
18-24 (n=212)	26	12	8
25-34 (n=234)	24	18	15
35-44 (n=259)	16	12	14
45-54 (n=348)	10	4	8
55-64 (n=375)	6	7	8
65+ (n=430)	3	5	2
Race/Ethnicity			
White, non-Hispanic (n=1343)	12	10	9
Black, non-Hispanic (n=232)	26	5	12
Hispanic (n=196)	16	10	14
Household Income			
Less than \$30,000 (n=513)	11	4	6
\$30,000-\$49,999 (n=332)	19	12	7
\$50,000-\$74,999 (n=253)	13	10	11
\$75,000+ (n=430)	21	17	17
Education level			
Less than High School (n=155)	12	3	4
High School Grad (n=605)	10	7	8
Some College (n=460)	18	12	7
College+ (n=684)	17	14	15
Geography			
Urban (n=523)	15	12	11
Suburban (n=944)	16	10	10
Rural (n=366)	10	5	7

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.

Survey questions

Spring Change Assessment Survey 2011 Data for April 26–May 22, 2011

Final Topline

5/25/2011

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]

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 cell phone or a Blackberry or iPhone or other device that is also a cell phone ⁶				
Current	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	*	--

⁶ 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.

Dec 2007	75	25	*	--
Sept 2007	78	22	*	--
April 2006	73	27	*	--
January 2005	66	34	*	--
November 23-30, 2004	65	35	*	--

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]

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

CELL5 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]

	<u>CURRENT</u>	
%	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]?⁷

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	*	0
December 2007 [N=1,704]	19	81	0	--
b. Access the internet⁸				
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	--

⁷ 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. Current figures have been repercentaged to all cell phone users. 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.

⁸ In December 2007, item wording was "Access the internet for news, weather, sports, or other information"

CELL8 Did you happen to use the internet on your cell phone YESTERDAY?

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

	<u>CURRENT</u>	
%	70	Yes, used the internet on cell phone yesterday
	30	No, did not use the internet on cell phone yesterday
	*	Don't know
	0	Refused

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]

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

Methodology

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 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 on 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. Following is the full disposition of all sampled telephone numbers:

Table 2: Sample Disposition

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:

- 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.