



**Pew Internet**  
Pew Internet & American Life Project

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# **46% of American adults are smartphone owners**

*Smartphone users now outnumber users of more basic mobile phones within the national adult population*

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<http://pewinternet.org/Reports/2012/Smartphone-Update-2012.aspx>

## 46% of American adults now own a smartphone of some kind, up from 35% in May 2011; Smartphone owners now outnumber users of more basic phones

Nearly half (46%) of American adults are smartphone owners as of February 2012, an increase of 11 percentage points over the 35% of Americans who owned a smartphone last May. As in 2011, our definition of a smartphone owner includes anyone who said yes to either of the following two questions:

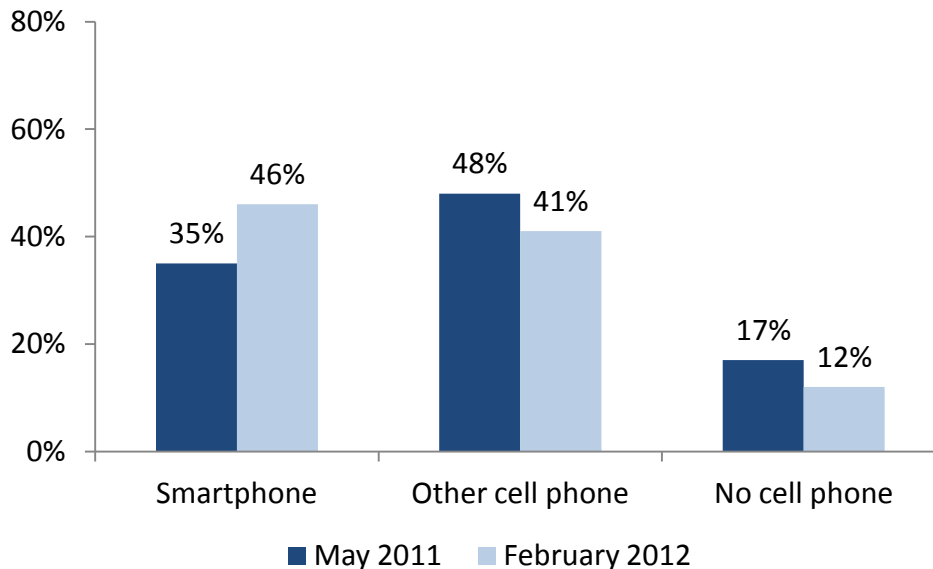
- 45% of cell owners say that their phone is a smartphone, up from 33% in May 2011
- 49% of cell owners say that their phone operates on a smartphone platform common to the US market<sup>1</sup>, up from 39% in May 2011

Taken together, just over half of cell owners (53%) said yes to one or both of these questions and are classified as smartphone owners. Since 88% of US adults are now cell phone owners, that means that a total of 46% of *all* American adults are smartphone users. Two in five adults (41%) own a cell phone that is not a smartphone, meaning that smartphone owners are now more prevalent within the overall population than owners of more basic mobile phones.

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### Changes in smartphone ownership, 2011-2012

*% of US adults who own...*



**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.

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<sup>1</sup> These include the iPhone and Blackberry, as well as phones running the Android, Windows or Palm operating systems.

As smartphone ownership has grown over the last year, there has been a corresponding shift in the specific types of phones that Americans report owning:

- 20% of cell owners now describe their phone as an Android device, up from 15% in May 2011
- 19% of cell owners now describe their phone as an iPhone, up from 10% in May 2011
- 6% of cell owners now describe the phone as a Blackberry, down from 10% in May 2011

The proportion of cell owners describing their phone as a Windows (2%) or Palm (1%) device is unchanged since the last time we asked this question in May 2011.

### **Smartphone ownership has increased across a wide range of demographic groups**

Nearly every major demographic group—men and women, younger and middle-aged adults, urban and rural residents, the wealthy and the less well-off—experienced a notable uptick in smartphone penetration over the last year, and overall adoption levels are at 60% or more within several cohorts, such as college graduates, 18-35 year olds and those with an annual household income of \$75,000 or more.

Although this overall increase in smartphone ownership is relatively wide-spread, several groups saw modest or non-existent growth in the last year. Chief among these are seniors, as just 13% of those ages 65 and older now own a smartphone. This is far below the national average of 46%, and is largely unchanged from the 11% of seniors who were classified as smartphone owners in 2011. Similarly, smartphone adoption among those without a high school diploma grew by a relatively modest seven percentage points over the last year, and overall adoption rates for this group continue to be roughly half of the national average (25% of those without a high school diploma currently are smartphone owners).

African-Americans and Latinos also exhibited modest changes in smartphone adoption between our 2011 and 2012 surveys. However, in contrast to those groups, 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%).

## Smartphone ownership within demographic groups, 2011-2012

% of adults within each group who own a smartphone (\* indicates statistically significant difference between 2011 and 2012):

	<u>May 2011</u>	<u>February 2012</u>	<u>Change</u>
<b>All adults</b>	<b>35%</b>	<b>46%</b>	<b>+11*</b>
<b>Gender</b>			
Men	39	49	+10*
Women	31	44	+13*
<b>Age</b>			
18-24	49	67	+18*
25-34	58	71	+13*
35-44	44	54	+10*
45-54	28	44	+16*
55-64	22	31	+9*
65+	11	13	+2
<b>Race/Ethnicity</b>			
White, non-Hispanic	30	45	+15*
Black, non-Hispanic	44	49	+5
Hispanic	44	49	+5
<b>Household Income</b>			
Less than \$30,000	22	34	+12*
\$30,000-\$49,999	40	46	+6
\$50,000-\$74,999	38	49	+11*
\$75,000+	59	68	+9*
<b>Education level</b>			
Less than High School	18	25	+7
High School Grad	27	39	+12*
Some College	38	52	+14*
College+	48	60	+12*
<b>Geography</b>			
Urban	38	50	+12*
Suburban	38	46	+8*
Rural	21	34	+13*

**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.

As we found in our previous study of smartphone adoption, young adults tend to have higher-than-average levels of smartphone ownership regardless of income or educational attainment, while for older

adults smartphone ownership tends to be relatively uncommon across the board—but especially so for less educated and affluent seniors. Among 18-29 year olds there is a 14-point difference in smartphone ownership rates between those earning less than \$30,000 per year and those earning more than \$30,000 per year (and smartphone ownership even among lower-income young adults is well above the national average). By contract, for those 65 and older, there is a 22-point difference between these income cohorts (and just 5% of low-income seniors are smartphone users).

Similarly, smartphone ownership decreases dramatically with age even among adults with similar levels of education. However, younger adults with a high school diploma or less are significantly more likely to own a smartphone than even those seniors who have attended college.

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### Smartphone ownership by age and income/education

*% 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%
<b>Annual Household Income</b>				
Less than \$30,000	58	42	16	5
\$30,000 or more	72	69	44	27
<b>Educational Attainment</b>				
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.

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### Confusion over the term “smartphone” has declined in the last year

As smartphone ownership has become more widespread over the last year, consumers have generally found it easier to answer questions about their phones and whether they own a smartphone or not. To be sure, there is still some confusion around this term as 8% of cell owners are still not sure if their phone is a smartphone. However, this is a significant decrease from the 14% of cell owners who were not sure if their phone was a smartphone or not in May 2011. Similarly, the proportion of cell owners who volunteered that they don’t know what type of phone they have fell from 13% of cell owners in May 2011 to just 4% of cell owners in February 2012.

## Survey Questions and Methodology

### Winter Tracking Survey 2012

Final Topline

02/22/2012

Data for January 20–February 19, 2012

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

Sample: n=2,253 national adults, age 18 and older, including 901 cell phone interviews  
Interviewing dates: 01.20.2012 – 02.19.2012

Margin of error is plus or minus 2 percentage points for results based on Total [n=2,253]

Margin of error is plus or minus 3 percentage points for results based on cell phone owners [n=1,961]

**Q11** Some cell 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 owners

	<u>CURRENT</u>		<u>MAY 2011</u>
%	45	Yes, is a smartphone	33
	46	No, is not a smartphone	53
	8	Not sure	14
	*	Refused	*
	[n=1,961]		[n=,1914]

**Q12** 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 owners

	<u>CURRENT</u>		<u>DEC 2011</u>	<u>MAY 2011</u>
%	19	iPhone	15	10
	6	Blackberry	8	10
	20	Android	20	15
	2	Windows phone	2	2
	1	Palm	2	2
	16	Basic cell phone – unspecified (VOL.)	18	8
	8	Samsung – unspecified (VOL.)	7	7
	5	LG – unspecified (VOL.)	4	5
	4	Flip phone – unspecified (VOL.)	6	3
	3	Tracfone (VOL.)	2	2
	2	Motorola – unspecified (VOL.)	2	3
	1	Nokia – unspecified (VOL.)	2	2
	1	Pantech – unspecified (VOL.)	1	1
	6	Something else (SPECIFY)	7	16
	4	Don't know	4	13
	*	Refused	*	1
	[n=1,961]		[n=2,771]	[n=,1914]

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 January 20 to February 19, 2012, among a sample of 2,253 adults, age 18 and older. Telephone interviews were conducted in English and Spanish by landline (1,352) and cell phone (901, including 440 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 Internet users (n=1,729), 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 corrected for different probabilities of selection associated with the number of adults in each household and each respondent's telephone usage patterns.<sup>2</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 to match national population parameters for sex, age, education, race, Hispanic origin, region

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<sup>2</sup> i.e., whether respondents have only a landline telephone, only a cell phone, or both kinds of telephone.

(U.S. Census definitions), population density, and telephone usage. The Hispanic origin was split out based on nativity; U.S born and non-U.S. born. 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 2011 Annual Social and Economic Supplement (ASEC) that included all households in the 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>3</sup>

Following is the full disposition of all sampled telephone numbers:

<b>Sample Disposition</b>		
Landline	Cell	
33,732	22,499	Total Numbers Dialed
1,396	274	Non-residential
1,483	47	Computer/Fax
8	----	Cell phone
14,936	8,237	Other not working
3,094	467	Additional projected not working
12,815	13,474	Working numbers
38.0%	59.9%	Working Rate
1,031	156	No Answer / Busy
4,290	5,288	Voice Mail
40	16	Other Non-Contact
7,454	8,014	Contacted numbers
58.2%	59.5%	Contact Rate
513	1,256	Callback
5,491	5,273	Refusal
1,450	1,485	Cooperating numbers
19.5%	18.5%	Cooperation Rate
67	41	Language Barrier
----	524	Child's cell phone
1,383	920	Eligible numbers
95.4%	62.0%	Eligibility Rate
31	19	Break-off
1,352	901	Completes
97.8%	97.9%	Completion Rate
11.1%	10.8%	Response Rate

<sup>3</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.



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 11 percent. The response rate for the cellular sample was 11 percent.