



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

a project of the  
**PewResearchCenter**

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## **Mobile Phone Problems**

*Telemarketing calls and spam texts are realities for most cell phone users. Smartphone owners are particularly likely to report dropped phone calls and slow download speeds.*

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<http://pewinternet.org/Reports/2012/Mobile-phone-problems.aspx>

## Main Findings

Even though mobile technology often simplifies the completion of everyday tasks, cell phone owners can also encounter technical glitches and unwanted intrusions on their phones. In an April 2012 survey, the Pew Research Center's Internet & American Life Project assessed the prevalence of four problems that cell owners might face.

Some 88% of American adults have cell phones, according to this survey, and, of those cell owners:

- 72% of cell owners experience dropped calls at least occasionally. Some 32% of cell owners say they encounter this problem at least a few times a week or more frequently than that.
- 68% of cell owners receive unwanted sales or marketing calls at one time or another. And 25% of cell owners encounter this problem at least a few times a week or more frequently.

Some 79% of cell phone owners say they use text messaging on their cells. We asked them if they got spam or unwanted texts:

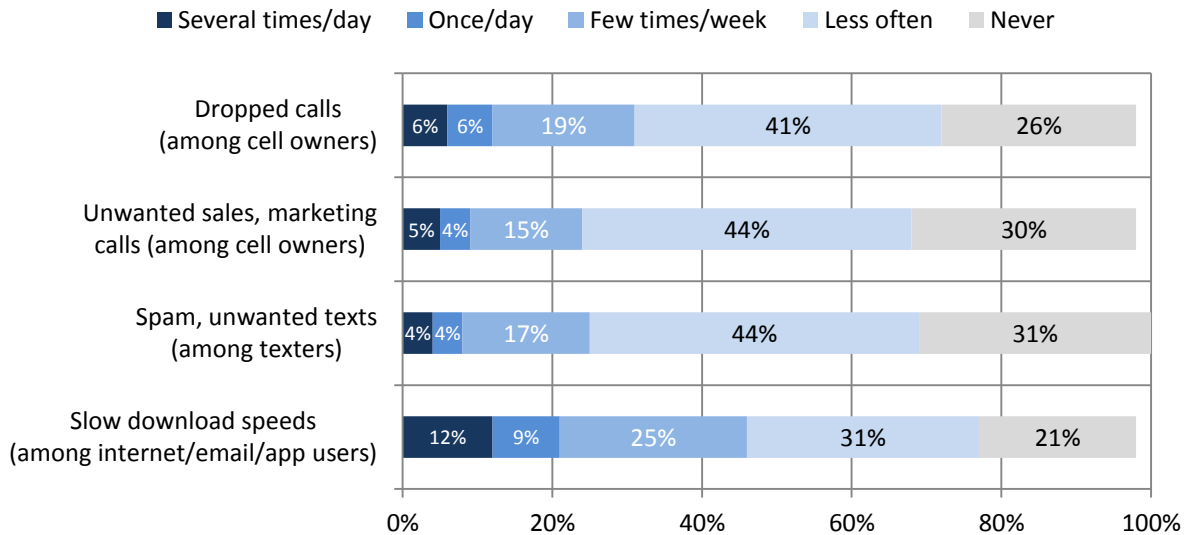
- 69% of those who are texters say they get unwanted spam or text messages. Of those texters, 25% face problems with spam/unwanted texts at least weekly.

Some 55% of cell phone owners say they use their phones to go online— to browse the internet, exchange emails, or download apps. We asked them if they experience slow download speeds that prevent things from loading as quickly as they would like:

- 77% of cell internet users say they experience slow download speeds that prevent things from loading as quickly as they would like. Of those cell internet users, 46% face slow download speeds weekly or more frequently.

## How often cell users experience problems with their phones

Among Americans ages 18+ who are cell owners, texters or cell internet/email/app users respectively



\* The figures in this chart do not sometimes match the bullets above due to rounding issues

**Source:** Pew Research Center's Internet & American Life Project Spring Tracking Survey, March 15-April 3, 2012. N for cell owners=1,954. N for cell owners who text message=1,395. N for cell owners who use the internet or email on their cell phones or download apps to their cell phone=953. Interviews conducted in English and Spanish and on landline phones and cell phones.

Our questions were not intended to measure the incidence of illegal marketing to cell phones. They focused on unwanted intrusions. Still, the telemarketing and spam text findings are noteworthy because legal restrictions apply to both activities under certain circumstances. It is against the law in the U.S. to place unsolicited commercial calls to a mobile phone when the call is made by using an automated random-digit dialing generator or if the caller uses a pre-recorded message.<sup>1</sup>

In the case of unsolicited texts, commercial parties cannot send spam to cell owners who have placed their mobile device on the National Do Not Call registry. For those who have not chosen to go on that registry, governmental regulations bar text messages sent from internet domain names. Any mobile-to-mobile spam messages are permissible to reach consumers on their cell phones, so long as the text contacts were not generated through an automatic dialing system.<sup>2</sup>

### Smartphone owners report more problems

Smartphone owners reported higher incidence levels of these problems, compared with other cell owners, as shown in the table below.

<sup>1</sup> More information available at "Truth about Wireless Phones and the National Do-Not-Call List" available at <http://www.fcc.gov/guides/truth-about-wireless-phones-and-national-do-not-call-list>

<sup>2</sup> More information available at "Spam: Unwanted Text Messages and Email" available at <http://www.fcc.gov/guides/spam-unwanted-text-messages-and-email>

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## Smartphone owners confront challenging mobile problems

*% in each group who have encountered mobile phone problems AT LEAST WEEKLY...*

	Smartphone owners	Other cell owners
Dropped calls (among cell owners)	35%*	28%
Unwanted sales, marketing calls (among cell owners)	26%	23%
Spam, unwanted texts (among texters)	29%*	20%
Slow download speeds (among mobile internet / email / apps users)	49%*	31%

\* Denotes statistically significant difference

**Source:** Pew Research Center's Internet & American Life Project Spring Tracking Survey, March 15-April 3, 2012. N for cell owners=1,954. N for cell owners who text message=1,395. N for cell owners who use the internet or email on their cell phones or download apps to their cell phone=953. Interviews conducted in English and Spanish and on landline phones and cell phones.

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Non-white cell owners confront all four problems at somewhat higher weekly rates than do their white counterparts. This might be tied to the fact that African-Americans and Hispanics are more likely than whites to rely on their cell phones as their primary or exclusive phones for calling and for internet access.<sup>3</sup>

For instance, more than half of Hispanic cell internet users (53%) face slow download times at least weekly or more often, compared with 44% of white cell internet users who report this problem. Some 41% of black and 39% of Hispanic cell owners reported dropping calls at least weekly, compared with 30% of white cell owners.

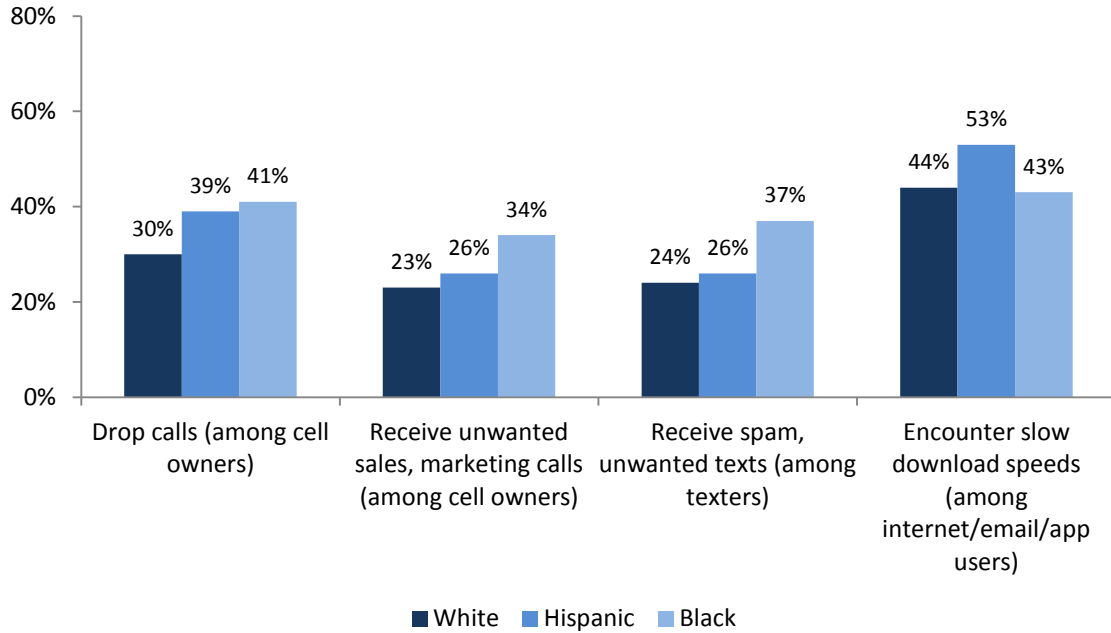
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<sup>3</sup> See, for instance, Pew Internet Project report "Cell Internet Use 2012." June 26, 2012. Available at <http://pewinternet.org/Reports/2012/Cell-Internet-Use-2012.aspx>

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## Ethnicity and mobile phone problems

*% of cell owners, texters or cell internet/email/app users respectively who AT LEAST WEEKLY...*



**Source:** Pew Research Center's Internet & American Life Project Spring Tracking Survey, March 15-April 3, 2012. N for cell owners=1,954. N for cell owners who text message=1,395. N for cell owners who use the internet or email on their cell phones or download apps to their cell phone=953. Interviews conducted in English and Spanish and on landline phones and cell phones.

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## About the Pew Internet Project

**The Pew Research Center's Internet & American Life Project** is an initiative of the Pew Research Center, a nonprofit "fact tank" that provides information on the issues, attitudes, and trends shaping America and the world. The Pew Internet Project explores the impact of the internet on children, families, communities, the work place, schools, health care and civic/political life. The Project is nonpartisan and takes no position on policy issues. Support for the Project is provided by The Pew Charitable Trusts. More information is available at [pewinternet.org](http://pewinternet.org).

# Survey Questions and Methodology

## Spring Tracking Survey 2012

Final Topline

04/10/2012

Data for March 15–April 3, 2012

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

Sample: n=2,254 national adults, age 18 and older, including 903 cell phone interviews  
Interviewing dates: 03.15.2012 – 04.03.2012

Margin of error is plus or minus 2 percentage points for results based on Total [n=2,254]  
Margin of error is plus or minus 3 percentage points for results based on internet users [n=1,803]  
Margin of error is plus or minus 3 percentage points for results based on cell phone owners [n=1,954]

Margin of error is plus or minus 3 percentage points for results based on cell phone owners who text message  
[n=1,395]

Margin of error is plus or minus 4 percentage points for results based on those who use the internet or email on  
their cell phone or download apps to their cell phone [n=953]

Margin of error is plus or minus 4 percentage points for results based on those who use the internet or email on  
their cell phone [n=929]

Margin of error is plus or minus 4 percentage points for results based on those who download apps to their cell  
phone [n=714]

**Q33** How often, if ever, do you experience [INSERT ITEMS; RANDOMIZE] on your cell phone? Do you experience this several times per day, about once a day, a few times per week, less often, or never?

	SEVERAL TIMES PER DAY	ABOUT ONCE A DAY	A FEW TIMES PER WEEK	LESS OFTEN	NEVER	DON'T KNOW	REF.
<i>Items A and B: Based on cell phone owners [N=1,954]</i>							
a. Dropped phone calls	6	6	19	41	26	1	*
b. Unwanted sales or marketing calls	5	4	15	44	30	1	1
<i>Item C: Based on cell phone owners who text message [N=1,395]</i>							
c. Spam or unwanted text messages	4	4	17	44	31	*	*
<i>Item D: Based on those who use the internet or email on their cell phone or download apps to their cell phone [N=953]</i>							

d. Slow download speeds that prevent things from loading as quickly as you would like them to	12	9	25	31	21	2	1
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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 March 15 to April 3, 2012, among a sample of 2,254 adults, age 18 and older. Telephone interviews were conducted in English and Spanish by landline (1,351) and cell phone (903, including 410 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<sup>4</sup> (n=1,803), 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>5</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

<sup>4</sup> Internet user definition includes those who access the internet on their cell phones or other mobile handheld device.  
<sup>5</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>6</sup>

Following is the full disposition of all sampled telephone numbers:

Table 2: Sample Disposition		
Landline	Cell	
33,738	22,143	Total Numbers Dialed
1,502	332	Non-residential
1,491	45	Computer/Fax
8	----	Cell phone
15,401	8,237	Other not working
2,746	404	Additional projected not working
12,590	13,126	Working numbers
37.3%	59.3%	Working Rate
915	135	No Answer / Busy
3,472	4,465	Voice Mail
	66	5
		Other Non-Contact
8,137	8,521	Contacted numbers
64.6%	64.9%	Contact Rate
	523	1,382
		Callback
6,161	5,654	Refusal
1,453	1,485	Cooperating numbers
17.9%	17.4%	Cooperation Rate
52	43	Language Barrier
----	498	Child's cell phone
1,401	944	Eligible numbers
96.4%	63.6%	Eligibility Rate
50	41	Break-off
1,351	903	Completes
96.4%	95.7%	Completion Rate

<sup>6</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.



11.1%	10.8%	Response Rate
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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.