

AUGUST 26, 2013

# Home Broadband 2013

*Some 70% of American adults have a high-speed broadband connection at home; an additional 10% of Americans lack home broadband but do own a smartphone. And 20% of Americans have neither a home broadband connection nor a smartphone.*

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<http://pewinternet.org/Reports/2013/Broadband.aspx>

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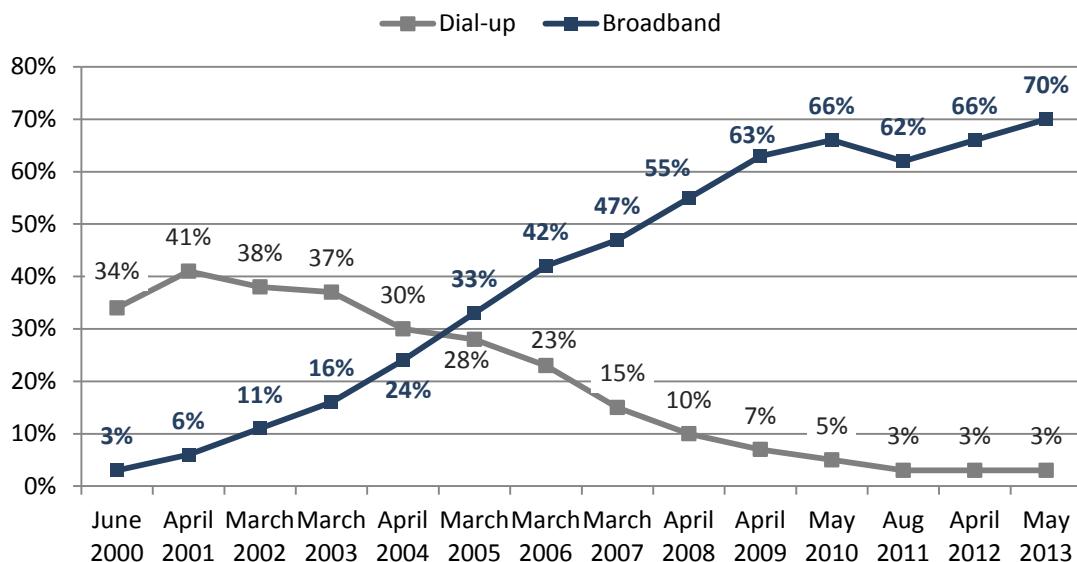
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## Trends and demographic differences in home broadband adoption

As of May 2013, 70% of American adults ages 18 and older have a high-speed broadband connection at home, according to a nationally representative survey by the Pew Research Center's Internet & American Life Project. This is a small but statistically significant rise from the 66% of adults who said they had home broadband in April 2012.

### Home broadband vs. dial-up, 2000-2013

*Among all American adults ages 18 and older, the % who access the internet at home via dial-up or high-speed broadband connection, over time. As of May 2013, 70% of adults have home broadband.*



**Source:** Pew Internet & American Life Project Surveys, March 2000-May 2013. Question wording has changed slightly over time. Our method for measuring home internet use changed in 2011, which would contribute to the seeming decline in adoption. See Methods section for more information.

**See also:** <http://pewinternet.org/Trend-Data/Home-Broadband-Adoption.aspx>

The demographic factors most correlated with home broadband adoption [continue to be](#) educational attainment, age, and household income. Almost nine in ten college graduates have high-speed internet at home, compared with just 37% of adults who have not completed high school. Similarly, adults under age 50 are more likely than older adults to have broadband at home, and those living in households earning at least \$50,000 per year are more likely to have home broadband than those at lower income levels.

## Home broadband demographics 2013

*Among all American adults ages 18 and older, the % in each group who have a high-speed broadband connection at home*

		% with home broadband
<b>All Americans ages 18+ (n=2,252)</b>		<b>70%</b>
a	Men (n=1,029)	71
b	Women (n=1,223)	69
<b>Race/ethnicity</b>		
a	White, Non-Hispanic (n=1,571)	74 <sup>bc</sup>
b	Black, Non-Hispanic (n=252)	64 <sup>c</sup>
c	Hispanic (English- and Spanish-speaking) (n=249)	53
<b>Age</b>		
a	18-29 (n=404)	80 <sup>cd</sup>
b	30-49 (n=577)	78 <sup>cd</sup>
c	50-64 (n=641)	69 <sup>d</sup>
d	65+ (n=570)	43
<b>Education attainment</b>		
a	No high school diploma (n=580)	37
b	High school grad (n=374)	57 <sup>a</sup>
c	Some College (n=298)	78 <sup>ab</sup>
d	College + (n=582)	89 <sup>abc</sup>
<b>Household income</b>		
a	Less than \$30,000/yr (n=417)	54
b	\$30,000-\$49,999 (n=320)	70 <sup>a</sup>
c	\$50,000-\$74,999 (n=279)	84 <sup>ab</sup>
d	\$75,000+ (n=559)	88 <sup>ab</sup>
<b>Urbanity</b>		
a	Urban (n=763)	70 <sup>c</sup>
b	Suburban (n=1,037)	73 <sup>c</sup>
c	Rural (n=450)	62

**Source:** Pew Research Center's Internet & American Life Project Spring Tracking Survey, April 17 – May 19, 2013. N=2,252 adults ages 18+. Interviews were conducted in English and Spanish and on landline and cell phones. The margin of error for results based on all adults is +/- 2.3 percentage points.

**Note:** Percentages marked with a superscript letter (e.g., <sup>a</sup>) indicate a statistically significant difference between that row and the row designated by that superscript letter, among categories of each demographic characteristic (e.g. age).

## Smartphones and broadband

In recent years internet-connected mobile devices such as smartphones have exploded in popularity, offering an alternate form of “home” internet access. Today [56% of American adults own a smartphone of some kind](#), compared with 70% who have broadband at home.<sup>1</sup>

There is no widespread consensus as to whether 3G or 4G smartphones qualify as “broadband” speed, and many would question whether they offer the same utility to users as a dedicated home internet connection (activities such as updating a resume, filing taxes, or viewing educational content are certainly more challenging on a smartphone operating over a cell phone network, than on a broadband-connected home computer). For these reasons, smartphones are qualitatively distinct enough that we do not include them in our standard definition of what constitutes a “broadband user.”

At the same time, smartphones do offer a potential source of online access to individuals who might otherwise lack the ability to go online at all from within the home, even if that access is somewhat limited in comparison. And indeed, 10% of Americans indicate that they do not have a broadband connection at home but that they do own a smartphone (another way to say this is that 32% of non-broadband users own a smartphone). If we include that 10% of Americans with the 70% who have traditional broadband, that means that 80% of Americans have either a broadband connection, a smartphone, or both. Here is how the 80% breaks down:

- 46% of Americans have both a home broadband connection and a smartphone
- 24% have a home broadband connection, but not a smartphone
- 10% have a smartphone, but not a home broadband connection

The remaining 20% of Americans have neither a home broadband connection nor a smartphone.

Including smartphones in the definition of home broadband access helps narrow the differences between some demographic groups, but widens the gap between others. Differences between racial and ethnic groups are an example of smartphones narrowing the “broadband gap”: While blacks and Latinos are less likely to have access to home broadband than whites, their use of smartphones nearly eliminates that difference.<sup>2</sup>

On the other hand, including smartphones in our broadband definition actually exacerbates differences in broadband adoption rates between young and old. Looking just at our standard definition of home broadband adoption, we find that 80% of young adults ages 18-29 have a high-speed broadband at home, compared with 43% of seniors ages 65 and older—a gap of 37 percentage points. If we include smartphone ownership in our definition of home broadband, this gap actually increases to 49 percentage points, because young adults are more likely than seniors to own smartphones as well. Adding smartphone ownership to home broadband use, we see that the proportion of young adults who have “home broadband” under this definition increases from 80% to 95%, while including smartphones has no discernible impact on access rates for seniors—the 46% of seniors who have broadband or a smartphone is little different from the 43% who have broadband at all.

<sup>1</sup> Aaron Smith, “Smartphone Ownership 2013.” <http://pewinternet.org/Reports/2013/Smartphone-Ownership-2013.aspx>

<sup>2</sup> The US Census Bureau has found similar trends in its own research. See Thom File, U.S. Census Bureau, “Computer and Internet Use in the United States.” Issued May 2013, based on the July 2011 Current Population Survey. <http://www.census.gov/prod/2013pubs/p20-569.pdf> pp 11-13.

## Broadband and smartphone adoption

*Among all American adults ages 18 and older, the % in each group who...*

		Have broadband at home	Have home broadband or smartphone	Difference
<b>All adults</b>		<b>70%</b>	<b>80%</b>	<b>+10</b>
a	Men (n=1029)	71	81	+10
b	Women (n=1223)	69	78	+9
<b>Race/ethnicity</b>				
a	White, Non-Hispanic (n=1571)	74 <sup>bc</sup>	80	+6
b	Black, Non-Hispanic (n=252)	64 <sup>c</sup>	79	+15
c	Hispanic (n=249)	53	75	+22
<b>Age</b>				
a	18-29 (n=404)	80 <sup>cd</sup>	95 <sup>bcd</sup>	+15
b	30-49 (n=577)	78 <sup>cd</sup>	89 <sup>cd</sup>	+11
c	50-64 (n=641)	69 <sup>d</sup>	77 <sup>d</sup>	+8
d	65+ (n=570)	43	46	+3
<b>Education attainment</b>				
a	No high school diploma (n=168)	37	52	+15
b	High school grad (n=630)	57 <sup>a</sup>	70 <sup>a</sup>	+13
c	Some College (n=588)	78 <sup>ab</sup>	87 <sup>ab</sup>	+9
d	College + (n=834)	89 <sup>abc</sup>	93 <sup>abc</sup>	+4
<b>Household income</b>				
a	Less than \$30,000/yr (n=580)	54	67	+13
b	\$30,000-\$49,999 (n=374)	70 <sup>a</sup>	79 <sup>b</sup>	+9
c	\$50,000-\$74,999 (n=298)	84 <sup>ab</sup>	91 <sup>ab</sup>	+7
d	\$75,000+ (n=582)	88 <sup>ab</sup>	95 <sup>ab</sup>	+7
<b>Urbanity</b>				
a	Urban (n=763)	70 <sup>c</sup>	80 <sup>c</sup>	+10
b	Suburban (n=1037)	73 <sup>c</sup>	83 <sup>c</sup>	+10
c	Rural (n=450)	62	70	+8

**Source:** Pew Research Center's Internet & American Life Project Spring Tracking Survey, April 17 – May 19, 2013. N=2,252 adults ages 18+. Interviews were conducted in English and Spanish and on landline and cell phones. The margin of error for results based on all adults is +/- 2.3 percentage points.

**Note:** Percentages marked with a superscript letter (e.g., <sup>a</sup>) indicate a statistically significant difference between that row and the row designated by that superscript letter, among categories of each demographic characteristic (e.g. age).

## Further reading on broadband access and adoption

The Census Bureau's July 2011 Current Population Survey found that about 98% of U.S. households live in areas where they have access to broadband Internet connections as of July 2011, although only 69% of households used broadband at home.<sup>3</sup> (According to the National Telecommunications and Information Administration and the Economics and Statistics Administration, the proportion of Americans households with home broadband rose to [72% as of October 2012](#).) In April 2009, Pew Internet asked [adults who had dial-up internet](#) at home what it would take for them to switch to a broadband connection. A plurality (35%) said the price would have to fall, 17% said it would have to become available where they live, and one in five (20%) said nothing would get them to change.<sup>4</sup>

In May 2010, Pew Internet found that Americans generally feel that individuals who do not have broadband at home are [at a major disadvantage](#) when it comes to finding out about job opportunities or learning career skills, or when getting health information, learning new things for personal enrichment, and using government services. However, nearly half of adults felt that those without broadband access are *not* at a disadvantage when it comes to keeping up with news and information or keeping up with what is happening in one's local community. Minority Americans were more likely to see a lack of broadband access as [a major hindrance to accomplishing numerous tasks](#), while older adults (specifically those ages 65 and older) were less likely to see the drawbacks of a lack of high-speed access.<sup>5</sup>

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<sup>3</sup> "Exploring the Digital Nation: America's Emerging Online Experience." National Telecommunications and Information Administration and Economics and Statistics Administration, June 2013.

<http://www.ntia.doc.gov/report/2013/exploring-digital-nation-americas-emerging-online-experience> pp 1-2.

See also: <http://www.broadbandmap.gov/>

<sup>4</sup> John Horrigan, "Home Broadband Adoption 2009." <http://pewinternet.org/Reports/2009/10/Home-Broadband-Adoption-2009.aspx>

<sup>5</sup> Aaron Smith, "Home Broadband 2010." <http://www.pewinternet.org/Reports/2010/Home-Broadband-2010.aspx> One in ten Americans (11%) said that expanding high speed access to everyone in the country should be a "top priority," while three in ten (30%) felt that it is "important, but a lower priority." One quarter each said that federal promotion of broadband expansion is "not too important" (27%) or "should not be done" (26%).

# Survey Questions

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## Spring 2013 Tracking Survey

Data for April 17-May 19, 2013

Final Topline

5/21/2013

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

Sample: n=2,252 national adults, age 18 and older, including 1,127 cell phone interviews

Interviewing dates: 04.17.2013 – 05.19.2013

Margin of error is plus or minus 2.3 percentage points for results based on Total [n=2,252]

Margin of error is plus or minus 2.5 percentage points for results based on all internet users [n=1,895]

Margin of error is plus or minus 2.4 percentage points for results based on all cell phone owners [n=2,076]

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**INTUSE** Do you use the internet, at least occasionally?

**EMLOCC** Do you send or receive email, at least occasionally?

**EMINUSE** Do you use the internet or email, at least occasionally?

**INTMOB** Do you access the internet on a cell phone, tablet or other mobile handheld device, at least occasionally?<sup>6</sup>

	USES INTERNET	DOES NOT USE INTERNET
Current	85	15
December 2012	81	19
September 2012	81	19
August 2012	85	15
April 2012	82	18
February 2012	80	20

**INTUSE/EMLOCC/EMINUSE/INTMOB continued...**

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<sup>6</sup> The definition of an internet user varies from survey to survey. In the current survey, half the sample was asked INTUSE/EMLOCC/INTMOB and half was asked EMINUSE/INTMOB. Current results are for both forms combined. Throughout the current topline, total internet users are defined as those who answered yes to any question INTUSE, EMLOCC, EMINUSE or INTMOB. From April 2012 thru December 2012, an internet user is someone who uses the internet at least occasionally, sends/receives email at least occasionally or accesses the internet a mobile device (three-part definition with question wording "Do you use the internet, at least occasionally?" OR "Do you send or receive email, at least occasionally?" OR "Do you access the internet on a cell phone, tablet or other mobile handheld device, at least occasionally?"). From January 2005 thru February 2012, an internet user is someone who uses the internet at least occasionally or sends/receives email at least occasionally (two-part definition with question wording "Do you use the internet, at least occasionally?" OR "Do you send or receive email, at least occasionally?"). Prior to January 2005, an internet user is someone who goes online to access the internet or to send and receive email (question wording "Do you ever go online to access the Internet or World Wide Web or to send and receive email?").

**INTUSE/EMLOCC/ EMINUSE/INTMOB continued...**

	USES INTERNET	DOES NOT USE INTERNET
December 2011	82	18
August 2011	78	22
May 2011	78	22
January 2011	79	21
December 2010	77	23
November 2010	74	26
September 2010	74	26
May 2010	79	21
January 2010	75	25
December 2009	74	26
September 2009	77	23
April 2009	79	21
December 2008	74	26
November 2008	74	26
August 2008	75	25
July 2008	77	23
May 2008	73	27
April 2008	73	27
January 2008	70	30
December 2007	75	25
September 2007	73	27
February 2007	71	29
December 2006	70	30
November 2006	68	32
August 2006	70	30
April 2006	73	27
February 2006	73	27
December 2005	66	34
September 2005	72	28
June 2005	68	32
February 2005	67	33
January 2005	66	34
Nov 23-30, 2004	59	41
November 2004	61	39
July 2004	67	33
June 2004	63	37
March 2004	69	31
February 2004	63	37
November 2003	64	36
August 2003	63	37
June 2003	62	38
May 2003	63	37
March 3-11, 2003	62	38
February 2003	64	36

**HOME3NW** Do you ever use the internet or email at HOME?<sup>7</sup>

Based on all internet users [N=1,895]

	YES	NO	DON'T KNOW	REFUSED
Current	90	10	0	*
December 2012	90	10	0	0
April 2012	89	11	0	0
February 2012	90	10	*	*
August 2011	90	10	0	0
May 2011	88	12	0	*
January 2011	89	11	*	0
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	*	--

<sup>7</sup> In December 2012, question wording was: "Do you ever use the internet AT HOME?" In January 2011 and May 2011, question wording was: "Do you ever use the internet or email from home?" December 2010 and earlier 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.

**MODEM4B** 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, or a fiber optic connection such as FIOS?<sup>8</sup>

Based on those who use the internet at home

	DIAL-UP	TOTAL HIGH SPEED	DSL	CABLE MODEM	WIRELESS	FIBER OPTIC <sup>9</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>10</sup>	DK	REF.
Current [N=1,727]	4	92	18	31	33	8	n/a	1	1	1	1	*	2	*
Dec 2012 [N=1,645]	4	90	18	33	30	5	1	2	*	*	2	*	3	1
Nov 2012 [N=1,770]	4	88	18	34	28	6	1	2	0	*	2	*	4	*
April 2012 [N=1,631]	4	90	20	33	30	6	*	1	*	*	1	*	4	*
Feb 2012 [N=1,572]	4	90	21	35	28	5	1	1	*	*	2	1	3	*
Aug 2011 [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

**MODEM4B continued...**

<sup>8</sup> December 2012 and earlier trend question wording included “T-1” as a read category. 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>9</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>10</sup> May 2011 and earlier trend percentages for “None of the above” reflect “Other (SPECIFY)” responses.

**MODEM4B continued...**

	DIAL-UP	TOTAL HIGH SPEED	DSL	CABLE MODEM	WIRELESS	FIBER OPTIC	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	DK	REF.
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	--
Aug 2006 [N=1,787]	28	68	34	30	3	1	n/a	n/a	n/a	n/a	n/a	1	3	--
Dec 2005 [N=1,715]	35	61	29	27	4	1	n/a	n/a	n/a	n/a	n/a	1	3	--
June 2005 [N=1,204]	44	53	24	25	3	1	n/a	n/a	n/a	n/a	n/a	1	1	--
Feb 2005 [N=1,287]	47	50	22	25	3	1	n/a	n/a	n/a	n/a	n/a	1	3	--
Jan 2005 [N=1,261]	48	50	21	26	2	1	n/a	n/a	n/a	n/a	n/a	1	1	--
Feb 2004 [N=1,241]	55	42	18	23	1	1	n/a	n/a	n/a	n/a	n/a	1	2	--
Nov 2003 [N=1,199]	62	35	13	21	1	*	n/a	n/a	n/a	n/a	n/a	1	2	--

# Methods

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 17 to May 19, 2013, among a sample of 2,252 adults, age 18 and older.

Telephone interviews were conducted in English and Spanish by landline (1,125) and cell phone (1,127, including 571 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<sup>11</sup> (n=1,895), the margin of sampling error is plus or minus 2.5 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 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 drawn with equal probabilities 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

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<sup>11</sup> Internet user definition includes those who use the internet or email at least occasionally or access the internet on a mobile handheld device at least occasionally.

adults in each household and each respondent's telephone usage patterns.<sup>12</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 (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 basic weighting parameters came from the US Census Bureau's 2011 American Community Survey data. The population density parameter was derived from Census 2010 data. The telephone usage parameter came from an analysis of the January-June 2012 National Health Interview Survey.

Following is the full disposition of all sampled telephone numbers:

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<sup>12</sup> i.e., whether respondents have only a landline telephone, only a cell phone, or both kinds of telephone.

### Sample Disposition

<u>Landline</u>	<u>Cell</u>	-
41,291	24,698	Total Numbers Dialed
1,755	411	Non-residential
1,516	88	Computer/Fax
12	----	Cell phone
24,344	9,674	Other not working
2,038	226	Additional projected not working
11,626	14,299	Working numbers
28.2%	57.9%	Working Rate
679	75	No Answer / Busy
3,442	3,668	Voice Mail
41	16	Other Non-Contact
7,464	10,540	Contacted numbers
64.2%	73.7%	Contact Rate
450	1,537	Callback
5,786	7,097	Refusal
1,228	1,906	Cooperating numbers
16.5%	18.1%	Cooperation Rate
45	68	Language Barrier
----	684	Child's cell phone
1,183	1,154	Eligible numbers
96.3%	60.5%	Eligibility Rate
58	27	Break-off
1,125	1,127	Completes
95.1%	97.7%	Completion Rate
10.0%	13.0%	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 10 percent. The response rate for the cellular sample was 13 percent.