

JUNE 5, 2013

Smartphone Ownership – 2013 Update

56% of American adults now own a smartphone of some kind; Android and iPhone owners account for half of the cell phone user population. Higher income adults and those under age 35 lead the way when it comes to smartphone ownership.

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<http://pewinternet.org/Reports/2013/Smartphone-Ownership-2013.aspx>

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56% of American adults are now smartphone owners

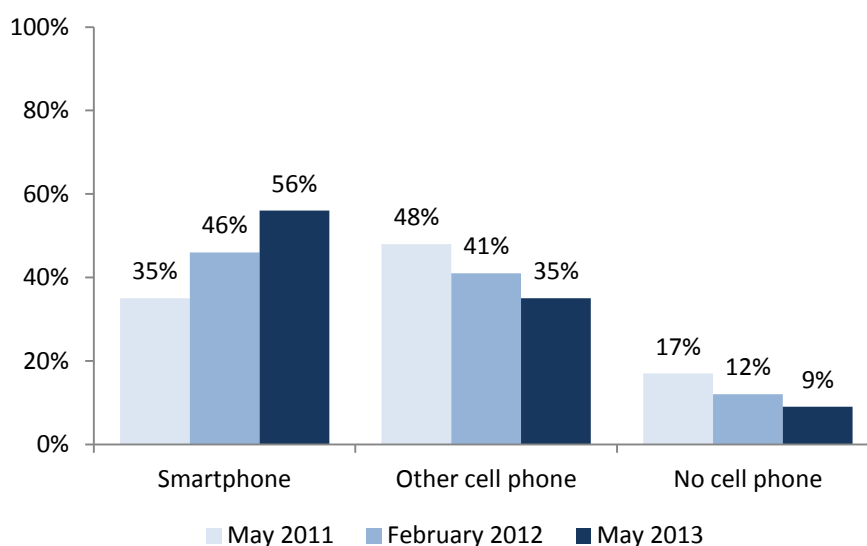
For the first time since the Pew Research Center's Internet & American Life Project began systematically tracking smartphone adoption, a majority of Americans now own a smartphone of some kind. Our definition of a smartphone owner includes anyone who says "yes" to one—or both—of the following questions:

- 55% of cell phone owners say that *their phone is a smartphone*.
- 58% of cell phone owners say that their phone *operates on a smartphone platform* common to the U.S. market.¹

Taken together, 61% of cell owners said yes to at least one of these questions and are classified as smartphone owners. Because 91% of the adult population now owns some kind of cell phone, that means that 56% of *all* American adults are now smartphone adopters. One third (35%) have some other kind of cell phone that is not a smartphone, and the remaining 9% of Americans do not own a cell phone at all.

Changes in smartphone ownership, 2011–2013

% of all U.S. adults who own...



Source: Pew Research Center's Internet & American Life Project April 26-May 22, 2011, January 20-February 19, 2012, and April 17-May 19, 2013 tracking surveys. For 2013 data, n=2,252 adults and survey includes 1,127 cell phone interviews. All surveys include Spanish-language interviews.

¹ This includes anyone who identified their phone as an iPhone, Android phone, Blackberry, or Windows phone

Demographic trends in smartphone ownership

As has consistently been the case since we began measuring smartphone adoption two years ago, ownership is particularly high among younger adults, especially those in their twenties and thirties (although a majority of Americans in their mid-forties through mid-fifties are now smartphone adopters) and those with relatively high levels of household income and educational attainment.

Every major demographic group experienced significant year-to-year growth in smartphone ownership between 2012 and 2013, although seniors—defined as those 65 and older—continue to exhibit relatively low adoption levels compared with other demographic groups. Some 18% of Americans age 65 and older now own a smartphone, compared with 13% in February 2012.

Smartphone ownership by demographic group— gender, age, race/ethnicity

% within each group who own a smartphone

| | | Own a smartphone |
|-----------------------|-------------------------------|--------------------|
| All adults (n=2,252) | | 56% |
| Gender | | |
| a | Men (n=1,029) | 59 ^b |
| b | Women (n=1,223) | 53 |
| Age | | |
| a | 18-24 (n=243) | 79 ^{cdef} |
| b | 25-34 (n=284) | 81 ^{cdef} |
| c | 35-44 (n=292) | 69 ^{def} |
| d | 45-54 (n=377) | 55 ^{ef} |
| e | 55-64 (n=426) | 39 ^f |
| f | 65+ (n=570) | 18 |
| Race/ethnicity | | |
| a | White, Non-Hispanic (n=1,571) | 53 |
| b | Black, Non-Hispanic (n=252) | 64 ^a |
| c | Hispanic (n=249) | 60 |

Source: Pew Research Center's Internet & American Life Project, April 17-May 19, 2013 Tracking Survey. Interviews were conducted in English and Spanish and on landline and cell phones. Margin of error is +/-2.3 percentage points based on all adults (n=2,252).

Note: Percentages marked with a superscript letter (e.g., ^a) 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).

Smartphone ownership by demographic group— education, household income, geography

% within each group who own a smartphone

| | | Own a smartphone |
|-----------------------------|-------------------------------|-------------------|
| All adults (n=2,252) | | 56% |
| Education attainment | | |
| a | Less than high school (n=168) | 36 |
| b | High school grad (n=630) | 46 ^a |
| c | Some College (n=588) | 60 ^{ab} |
| d | College + (n=834) | 70 ^{abc} |
| Household income | | |
| a | Less than \$30,000/yr (n=580) | 43 |
| b | \$30,000-\$49,999 (n=374) | 52 ^a |
| c | \$50,000-\$74,999 (n=298) | 61 ^a |
| d | \$75,000+ (n=582) | 78 ^{abc} |
| Urbanity | | |
| a | Urban (n=763) | 59 ^c |
| b | Suburban (n=1,037) | 59 ^c |
| c | Rural (n=450) | 40 |

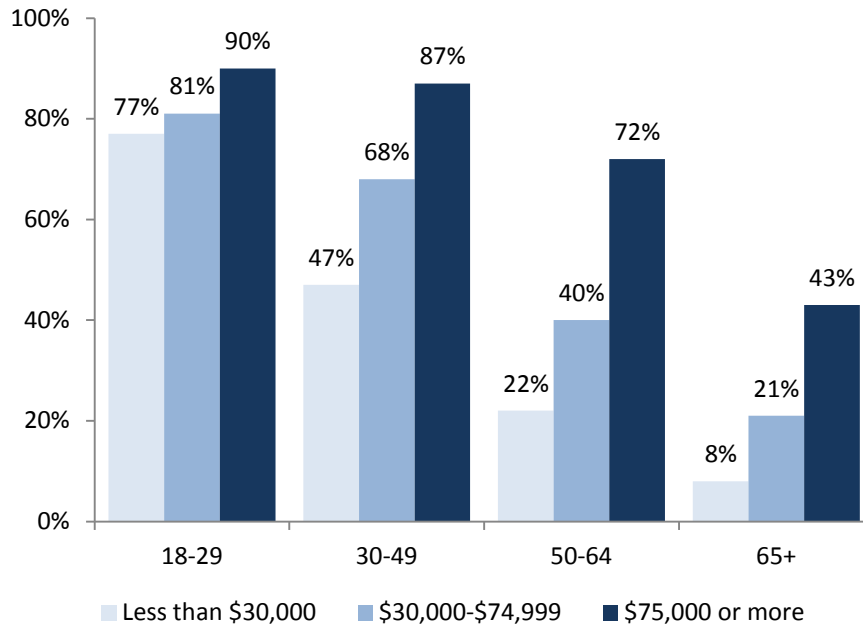
Source: Pew Research Center’s Internet & American Life Project, April 17-May 19, 2013 Tracking Survey. Interviews were conducted in English and Spanish and on landline and cell phones. Margin of error is +/-2.3 percentage points based on all adults (n=2,252).

Note: Percentages marked with a superscript letter (e.g., ^a) 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).

Though growth in smartphone ownership has occurred up and down the economic spectrum, adoption still varies significantly by household income. However, that variation is unevenly distributed across different age groups. Younger adults—regardless of income level—are very likely to be smartphone owners. Conversely, for older adults smartphone ownership is more of an “elite” phenomenon: smartphones tend to be quite prevalent at the upper end of the income distribution but much less common among those with lower income levels.

Smartphone ownership by income/age grouping

% within each age/income grouping who own a smartphone (example: 77% of 18-29 year olds with an annual household income of less than \$30,000 are smartphone owners)



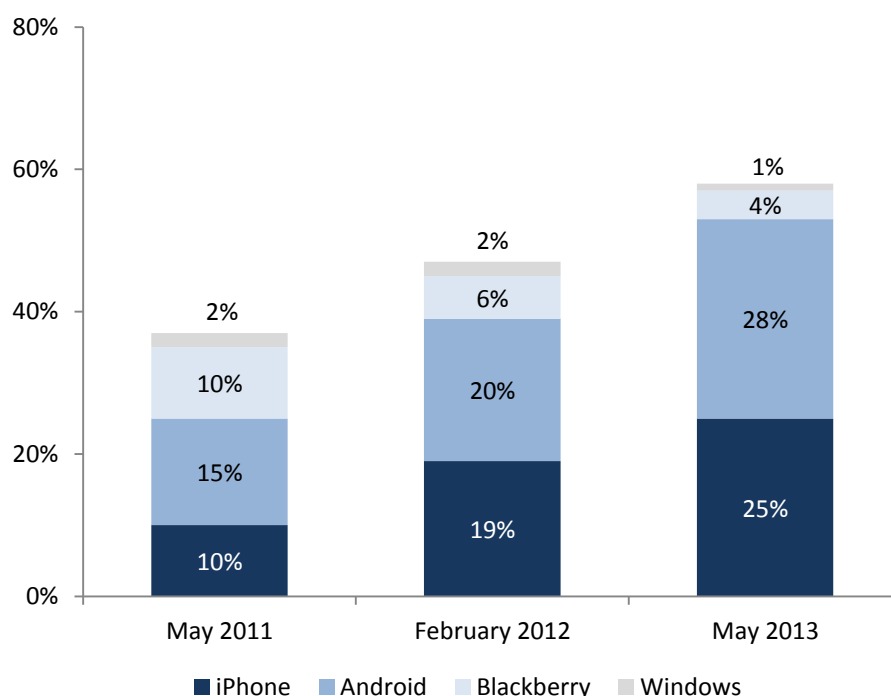
Source: Pew Research Center's Internet & American Life Project April 26-May 22, 2011, January 20-February 19, 2012, and April 17-May 19, 2013 tracking surveys. For 2013 data, n=2,252 adults and survey includes 1,127 cell phone interviews. All surveys include Spanish-language interviews.

Trends in platform adoption

Since 2011, the proportion of cell owners who say they own either an iPhone or an Android device have each grown dramatically. Android owners now represent 28% of all cell owners (up from 15% in May 2011), while iPhone owners now represent 25% of the cell owner population (up from 10% in May 2011). Meanwhile, the proportion of cell owners who say they own a Blackberry device has fallen from 10% in May 2011 to just 4% in our most recent survey.

Cell owner platform choices, 2011–2013

% of cell phone owners who say their phone is ...



Source: Pew Research Center’s Internet & American Life Project April 26-May 22, 2011, January 20-February 19, 2012, and April 17-May 19, 2013 tracking surveys. For 2013 data, n=2,252 adults and survey includes 1,127 cell phone interviews. All surveys include Spanish-language interviews.

Android and iPhone owners are equally common within the cell owner population as a whole, although this ratio differs across various demographic groups. Cell phone owners from a wide range of educational and household income groupings have similar levels of Android adoption, but those from the upper end of the income and education spectrum are much more likely than those with lower income and educational levels to say they own an iPhone. Indeed, fully half—49%—of cell owners with a household income of \$150,000 or more say their phone is an iPhone. And African-American cell owners are more likely than whites or Latinos to say that their phone is an Android device as opposed to an iPhone.

Demographic differences in iPhone and Android ownership

% of cell owners in each group who own an iPhone or Android

| | | % who say their phone is an iPhone | % who say their phone is an Android |
|----------------------------------|-------------------------------|------------------------------------|-------------------------------------|
| All cell owners (n=2,076) | | 25% | 28% |
| Gender | | | |
| a | Men (n=967) | 24 | 31 ^b |
| b | Women (n=1,109) | 26 | 26 |
| Age | | | |
| a | 18-24 (n=238) | 31 ^{ef} | 43 ^{cdef} |
| b | 25-34 (n=279) | 34 ^{def} | 40 ^{def} |
| c | 35-44 (n=283) | 29 ^{ef} | 33 ^{ef} |
| d | 45-54 (n=354) | 25 ^f | 27 ^{ef} |
| e | 55-64 (n=392) | 19 ^f | 17 ^f |
| f | 65+ (n=478) | 11 | 7 |
| Race/ethnicity | | | |
| a | White, Non-Hispanic (n=1,440) | 27 ^b | 26 |
| b | Black, Non-Hispanic (n=238) | 16 | 42 ^{ac} |
| c | Hispanic (n=235) | 26 ^b | 27 |
| Education attainment | | | |
| a | Less than high school (n=144) | 11 | 25 |
| b | High school grad (n=565) | 17 ^a | 27 |
| c | Some College (n=545) | 27 ^{ab} | 31 |
| d | College + (n=799) | 38 ^{abc} | 29 |
| Household income | | | |
| a | Less than \$30,000/yr (n=504) | 13 | 28 |
| b | \$30,000-\$49,999 (n=345) | 23 ^a | 27 |
| c | \$50,000-\$74,999 (n=289) | 25 ^a | 31 |
| d | \$75,000+ (n=570) | 40 ^{abc} | 31 |

Source: Pew Research Center's Internet & American Life Project, April 17-May 19, 2013 Tracking Survey. Interviews were conducted in English and Spanish and on landline and cell phones. Margin of error is +/-2.4 percentage points based on cell phone owners (n=2,076).

Note: Columns marked with a superscript letter (^a) or another letter indicate a statistically significant difference between that row and the row designated by that superscript letter. Statistical significance is determined inside the specific section covering each demographic trait.

Survey Questions

Spring 2013 Tracking Survey

Final Topline

5/21/2013

Data for April 17-May 19, 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]

Q10 Next... [IF REACHED ON A LANDLINE, READ: Please tell me if you happen to have the following items, or not.] Do you have... [INSERT ITEMS IN ORDER]?

| | YES | NO | DON'T KNOW | REFUSED |
|------------------------------|-----|----|------------|---------|
| a. A cell phone ² | | | | |
| Current | 91 | 9 | 0 | * |
| December 2012 | 87 | 13 | * | 0 |
| November 2012 | 85 | 15 | 0 | * |
| Sept 2012 | 85 | 15 | * | 0 |
| August 2012 | 89 | 10 | 0 | * |
| April 2012 | 88 | 12 | * | * |
| February 2012 | 88 | 12 | 0 | * |
| December 2011 | 87 | 13 | 0 | * |
| August 2011 | 84 | 15 | * | * |
| May 2011 | 83 | 17 | * | 0 |
| January 2011 | 84 | 16 | * | * |
| December 2010 | 81 | 19 | * | * |
| November 2010 | 82 | 18 | 0 | * |
| September 2010 | 85 | 15 | * | * |
| May 2010 | 82 | 18 | * | 0 |
| January 2010 | 80 | 20 | 0 | * |
| December 2009 | 83 | 17 | 0 | * |
| September 2009 | 84 | 15 | * | * |
| April 2009 | 85 | 15 | * | * |
| Dec 2008 | 84 | 16 | * | * |
| July 2008 | 82 | 18 | * | -- |
| May 2008 | 78 | 22 | * | 0 |
| April 2008 | 78 | 22 | * | -- |
| January 2008 | 77 | 22 | * | -- |

² Question was asked of landline sample only. Results shown here have been recalculated to include cell phone sample in the "Yes" percentage. Beginning September 2007, question/item was not asked of the cell phone sample, but trend results shown here reflect Total combined Landline and cell phone sample. In past polls, question was sometimes asked as an independent question and sometimes as an item in a series. Wording may vary from survey to survey.

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

SMART1 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?³

Based on cell phone owners

| | YES, SMARTPHONE | NO, NOT A SMARTPHONE | NOT SURE/DON'T KNOW | REFUSED |
|--------------------------|--------------------|-------------------------|------------------------|---------|
| Current [N=2,076] | 55 | 39 | 5 | * |
| December 2012 [N=1,954] | 52 | 41 | 6 | * |
| November 2012 [N=1,992] | 55 | 38 | 6 | * |
| September 2012 [N=2,581] | 53 | 40 | 6 | * |
| April 2012 [N=1,954] | 46 | 44 | 10 | * |
| February 2012 [N=1,961] | 45 | 46 | 8 | * |
| May 2011 [N=1,914] | 33 | 53 | 14 | * |

SMART2 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, or something else?⁴

Based on cell phone owners

| | CURRENT | | FEB 2012 | DEC 2011 | MAY 2011 |
|---|-----------|---------------------------------------|-----------|-----------|-----------|
| % | 25 | iPhone | 19 | 15 | 10 |
| | 4 | Blackberry | 6 | 8 | 10 |
| | 28 | Android | 20 | 20 | 15 |
| | 1 | Windows | 2 | 2 | 2 |
| | n/a | Palm | 1 | 2 | 2 |
| | 15 | Basic cell phone – unspecified (VOL.) | 16 | 18 | 8 |
| | 7 | Flip phone – unspecified (VOL.) | 4 | 6 | 3 |
| | 5 | Samsung – unspecified (VOL.) | 8 | 7 | 7 |
| | 3 | LG – unspecified (VOL.) | 5 | 4 | 5 |
| | 1 | Tracfone (VOL.) | 3 | 2 | 2 |
| | 1 | Motorola – unspecified (VOL.) | 2 | 2 | 3 |
| | 1 | Nokia – unspecified (VOL.) | 1 | 2 | 2 |
| | * | Pantech – unspecified (VOL.) | 1 | 1 | 1 |
| | 3 | Something else (SPECIFY) | 6 | 7 | 16 |
| | 5 | Don't know | 4 | 4 | 13 |
| | 1 | Refused | * | * | 1 |
| | [n=2,076] | | [n=1,961] | [n=2,771] | [n=,1914] |

³ September 2012 through December 2012, question wording was: “Some cell phones are called “smartphones” because of certain features they have. Is your cell phone a smartphone, such as an iPhone, Android, Blackberry or Windows phone, or are you not sure?”

⁴ Prior to the current survey, question wording was: “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?”

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 users⁵ (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 adults in each household and each respondent's telephone usage patterns.⁶ This weighting also adjusts for the overlapping landline and cell sample frames and the relative sizes of each frame and each sample.

⁵ 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.

⁶ i.e., whether respondents have only a landline telephone, only a cell phone, or both kinds of telephone.

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:

| Sample Disposition | | |
|---------------------------|-------------|----------------------------------|
| <u>Landline</u> | <u>Cell</u> | <u>-</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.