



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

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# Mobile Access 2010

Six in ten Americans go online wirelessly using a laptop or cell phone; African-Americans and 18-29 year olds lead the way in the use of cell phone data applications, but older adults are gaining ground

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<http://pewinternet.org/Reports/2010/Mobile-Access-2010.aspx>

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# Summary of Findings

## Six in ten American adults are now wireless internet users, and mobile data applications have grown more popular over the last year.

As of May 2010, 59% of all adult Americans go online wirelessly. Our definition of a wireless internet user includes the following activities:

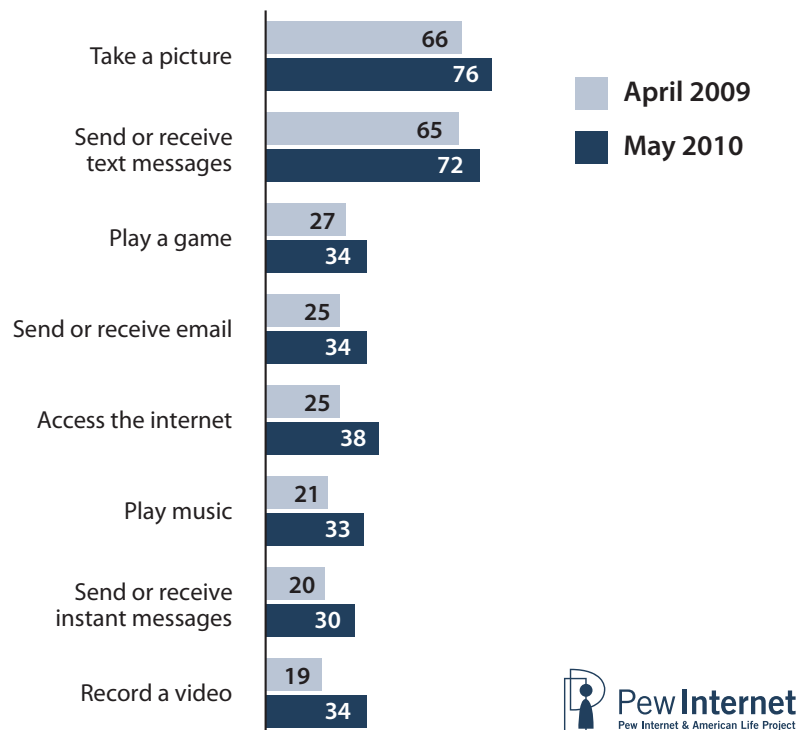
- Going online with a laptop using a wi-fi connection or mobile broadband card. Roughly half of all adults (47%) go online in this way, up from the 39% who did so at a similar point in 2009.
- Use the internet, email or instant messaging on a cell phone. Two in five adults (40%) do at least one of these using a mobile device, an increase from the 32% of adults who did so in 2009.

Taken together, 59% of American adults now go online wirelessly using either a laptop or cell phone, an increase over the 51% of Americans who did so at a similar point in 2009.<sup>1</sup>

Cell phone ownership has remained stable over the last year, but users are taking advantage of a much wider range of their phones' capabilities compared with a similar point in 2009. Of the eight mobile data applications we asked about in both 2009 and 2010, all showed statistically significant year-to-year growth.

### The use of non-voice data applications has grown significantly over the last year

The % of cell phone owners who use their phones to do the following



Source: Pew Research Center's Internet & American Life Project, April 29-May 30, 2010 Tracking Survey. N=2,252 adults 18 and older; n=1,917 based on cell phone users.

1 Because of changes in question wordings over time, our current wireless internet user definition is not directly comparable to any pre-2009 findings.

This year we also asked for the first time about seven additional cell phone activities. Among all cell phone owners:

- 54% have used their mobile device to send someone a photo or video
- 23% have accessed a social networking site using their phone
- 20% have used their phone to watch a video
- 15% have posted a photo or video online
- 11% have purchased a product using their phone
- 11% have made a charitable donation by text message
- 10% have used their mobile phone to access a status update service such as Twitter

### **African-Americans and Latinos continue to outpace whites in their use of data applications on handheld devices.**

Continuing a trend we first identified in 2009, minority Americans lead the way when it comes to mobile access—especially mobile access using handheld devices. Nearly two-thirds of African-Americans (64%) and Latinos (63%) are wireless internet users, and minority Americans are significantly more likely to own a cell phone than their white counterparts (87% of blacks and Hispanics own a cell phone, compared with 80% of whites). Additionally, black and Latino cell phone owners take advantage of a much wider array of their phones' data functions compared to white cell phone owners. It is important to note that our data for Hispanics represents English-speaking Hispanics only, as our survey did not provide a Spanish-language option.

## African-Americans and Latinos lead whites in their use of mobile data applications

	All adults	White, non-Hispanic	Black, non-Hispanic	Hispanic (English-speaking)
Own a cell phone	82%	80%	87%*	87%*
<b>% of cell owners within each group who do the following on their phones</b>				
Take a picture	76	75	76	83*
Send/receive text messages	72	68	79*	83*
Access the internet	38	33	46*	51*
Send/receive email	34	30	41*	47*
Play a game	34	29	51*	46*
Record a video	34	29	48*	45*
Play music	33	26	52*	49*
Send/receive instant messages	30	23	44*	49*
Use a social networking site	23	19	33*	36*
Watch a video	20	15	27*	33*
Post a photo or video online	15	13	20*	25*
Purchase a product	11	10	13	18
Use a status update service	10	8	13	15
<b>Mean number of cell activities</b>	<b>4.3</b>	<b>3.8</b>	<b>5.4</b>	<b>5.8</b>

Source: Pew Research Center's Internet & American Life Project, April 29-May 30, 2010 Tracking Survey. N=2,252 adults 18 and older, including 1,917 cell phone users. \* = statistically significant difference compared with whites



## Young adults are heavily invested in the mobile web, although 30-49 year olds are gaining ground.

Nine in ten 18-29 year olds own a cell phone, and these young cell owners are significantly more likely than those in other age groups to engage in all of the mobile data applications we asked about in our survey. Among 18-29 year old cell phone owners:

- 95% send or receive *text messages*
- 93% use their phone to *take pictures*
- 81% *send photos or videos* to others
- 65% *access the internet* on their mobile device
- 64% *play music* on their phones
- 60% use their phones to *play games or record a video*
- 52% have used their phone to *send or receive email*
- 48% have accessed a *social networking site* on their phone
- 46% use *instant messaging* on their mobile device
- 40% have *watched a video* on their phone
- 33% have *posted a photo or video online* from their phone
- 21% have used a *status update service such as Twitter* from their phone
- 20% have *purchased something* using their mobile phone
- 19% have made a *charitable donation* by text message

Although young adults have the highest levels of mobile data application use among all age groups, utilization of these services is growing fast among 30-49 year olds. Compared with a similar point in 2009, cell owners ages 30-49 are significantly more likely to use a range of mobile data applications on a handheld device.

The mobile data applications with the largest year-to-year increases among the 30-49 year old cohort include taking pictures (83% of 30-49 year old cell owners now do this, a 12-point increase from 2009); recording videos (39% do this, an 18-point increase from 2009); playing music (36% do this, a 15-point increase); using instant messaging (35% now do this, a 14-point increase); and accessing the internet (43% now do this, a 12-point increase compared with 2009).

### About the Survey

This report is based on the findings of a daily tracking 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 between April 29 and May 30, 2010, among a sample of 2,252 adults ages 18 and older, including 744 reached on a cell phone. Interviews were conducted in English. For results based on the total sample, one can say with 95% confidence that the error attributable to sampling and other random effects is plus or minus 2.4 percentage points. For results based cell phone owners (n=1,917), 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.

Data about sending photos or videos to others using a cell phone and texting charitable donations are based on telephone interviews with a nationally representative sample of 1,009 adults living in the continental United States. Telephone interviews were conducted by landline (678) and cell phone (331, including 104 without a landline phone). The survey was conducted by Princeton Survey Research International (PSRAI). Interviews were done in English by Princeton Data Source from June 17-20, 2010. Statistical results are weighted to correct known demographic discrepancies. The margin of sampling error for the complete set of weighted data is  $\pm 3.7$  percentage points.

## Part One: The current state of wireless internet use

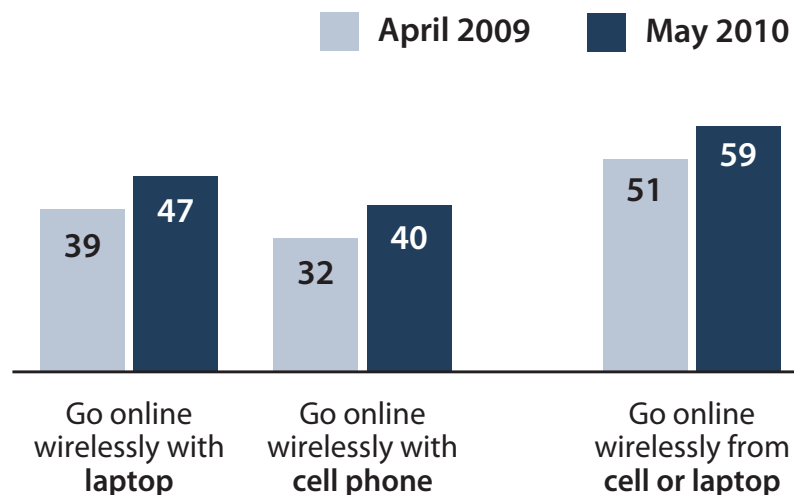
As of May 2010, six in ten American adults (59%) are wireless internet users. Due to the quickly evolving nature of mobile technologies, our definition of a wireless internet user has changed several times since we began studying this topic; throughout this report, a wireless internet user is defined as someone who does one or more of the following:

- Go online from a laptop using a wi-fi or mobile broadband internet connection. 86% of laptop owners go online in this way, which represents 47% of all American adults.
- Use the internet, email or instant messaging from a cell phone. Half (49%) of cell phone owners do at least one of these on their mobile device, which works out to 40% of all adults.

The 59% of American adults who do at least one of these activities represents an eight-point increase over the 51% of American adults who did so in our April 2009 wireless internet survey, and wireless access using both cell phones and laptops has grown significantly on a year-to-year basis.<sup>2</sup> The remaining 41% of Americans includes those who are internet users but do not go online wirelessly (22%) as well as those who are not internet users (19%).

### Wireless internet use, 2009-2010

The % of all adults who do the following



Source: Pew Research Center's Internet & American Life Project, April 29-May 30, 2010 Tracking Survey. N=2,252 adults 18 and older. Cell phone wireless users include those who use email on a cell phone; use the internet on a cell phone; or use instant messaging on a cell phone.



<sup>2</sup> While our 2009 report on "Wireless Internet Use" found that 56% of Americans went online wirelessly, that figure included several access methods (such as using a wireless network with a desktop computer) that were not asked in this survey. The 51% number cited above represents only the proportion who went online wirelessly using a cell phone or laptop computer. Due to changes in question wording over time, 2009 is the only year with directly comparable data to our 2010 findings.

Laptop computers and cell phones are the primary way Americans go online wirelessly. When we include other devices (such as mp3 players, e-book readers or tablet computers) in our definition of wireless internet usage, total usage increases by just one half of one percentage point. These other devices will be discussed individually in more detail in **Part Three: Mobile access using laptops and other devices**.

This eight point year-to-year increase in wireless internet usage is reflected across a fairly broad range of demographic groups, with 18-29 year olds and those with a household income of less than \$30,000 per year showing the greatest increases on a percentage point basis. Wireless internet usage remained flat for only a small number of groups, such as Latinos and those older than 50—although in contrast to older Americans, Latinos continue to have high overall rates of wireless adoption. In interpreting these figures, it is important to keep in mind that our survey did not provide a Spanish-language option so all data for Hispanics represents English-speaking Hispanics only.<sup>3</sup>

These higher rates of growth in wireless internet use by whites and African-Americans compared with Latinos are largely a function of laptop adoption. Rates of laptop ownership have grown dramatically among African-Americans in the last year (from 34% in 2009 to 51% in 2010) and moderately among whites (from 47% to 55%). By contrast, laptop ownership among English-speaking Latinos has remained flat over that time (54% of Latinos currently own a laptop computer, compared with 56% who did so in 2009).

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<sup>3</sup> Language proficiency has a strong association with technology use—for more information on internet adoption and technology use among Latinos, see <http://pewhispanic.org/reports/report.php?ReportID=119>



## Changes in wireless internet use by demographic groups, 2009-2010

% of all adult Americans

	April 2009	May 2010	Change
Total	51%	59%	+8
<b>Gender</b>			
Male	55	62	+7
Female	49	56	+7
<b>Age</b>			
18-29	73	84	+11
30-49	61	69	+8
50-64	44	49	+5
65+	17	20	+3
<b>Race/Ethnicity</b>			
White, non-Hispanic	49	57	+8
Black, non-Hispanic	57	64	+7
Hispanic (English-speaking)	64	63	-1
<b>Education</b>			
Less than high school	31	38	+7
High school grad	42	48	+6
Some college	59	68	+9
College grad	67	76	+9
<b>Annual household income</b>			
Less than \$30,000	35	46	+11
\$30,000-\$49,999	53	55	+2
\$50,000-\$74,999	63	67	+4
\$75,000+	72	80	+8

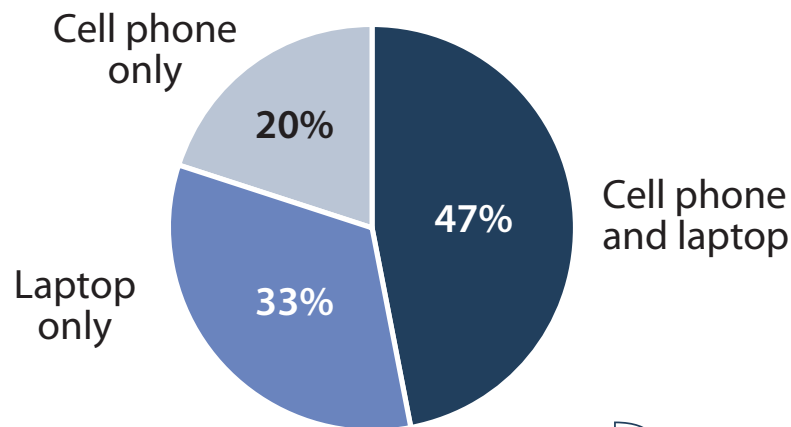
Source: Pew Research Center's Internet & American Life Project, April 29-May 30, 2010 Tracking Survey. N=2,252 adults 18 and older. \*\*Wireless internet users" includes going online wirelessly with a laptop (either via wi-fi connection or mobile broadband); using email on a cell phone; using the internet on a cell phone; or using instant messaging on a cell phone.



Wireless internet users are evenly split between those who access the internet wirelessly using only one device (a total of 53% of wireless users go online using either a cell phone or a laptop, but not both) and those who do so using both a laptop and a mobile phone (47% of wireless users). Additionally, many wireless users take advantage of stationary technologies—70% of wireless internet users own a desktop computer, and 57% own a home gaming console such as an Xbox or PlayStation.

## The composition of the wireless population

59% of Americans go online wirelessly using a laptop or cell phone; this is how they access the mobile web



Source: Pew Research Center's Internet & American Life Project, April 29-May 30, 2010 Tracking Survey. N=2,252 adults 18 and older; n=1,238 based on wireless internet users. Cell phone wireless users include those who use email on a cell phone; use the internet on a cell phone; or use instant messaging on a cell phone.

Several groups have relatively high rates of cell phone internet use. Some of these include:

- **African-Americans and Latinos** – 18% of blacks and 16% of English-speaking Hispanics are cell-only wireless users, compared with 10% of whites. In total, roughly half of African-Americans (54%) and Hispanics (53%) go online from a mobile phone.
- **Young adults** – 19% of 18-29 year olds are cell-only wireless users, compared with 13% of 30-49 year olds, 9% of 50-64 year olds and 5% of those ages 65 and older. In total, two-thirds of 18-29 year olds (65%) are cell phone internet users and 84% go online using either a cell phone or a laptop with a wireless internet connection.
- **Those with low levels of income and education** – 17% of those earning less than \$30,000 per year are cell-only wireless users, as are 20% of those who have not graduated from high school and 15% of those who have graduated high school but have not attended college. The affluent and well-educated have higher overall levels of wireless internet use due to their much higher rates of ownership and use of laptop computers.

Seniors are currently the group with the lowest levels of wireless internet usage. Eight in ten seniors (those ages 65 and older) are either internet users who do not go online wirelessly (24%) or not online at all (56%).

## Wireless user composition, by demographic group

% of all adults

	% who are wireless internet users*	Laptop and cell	Laptop only	Cell only
Total	59%	28%	19%	12%
<b>Gender</b>				
Male	62	31	19	12
Female	56	25	20	12
<b>Age</b>				
18-29	84	45	19	19
30-49	69	35	22	13
50-64	49	17	23	9
65+	20	6	9	5
<b>Race/Ethnicity</b>				
White, non-Hispanic	57	25	22	10
Black, non-Hispanic	64	36	10	18
Hispanic (English-speaking)	63	37	10	16
<b>Education</b>				
Less than high school	38	12	5	20
High school grad	48	19	14	15
Some college	68	35	24	9
College grad	76	39	29	7
<b>Annual household income</b>				
Less than \$30,000	46	17	12	17
\$30,000-\$49,999	55	30	13	12
\$50,000-\$74,999	67	31	26	10
\$75,000+	80	45	28	8

Source: Pew Research Center's Internet & American Life Project, April 29-May 30, 2010 Tracking Survey. N=2,252 adults 18 and older. \*Wireless internet use includes going online wirelessly with a laptop (either via wi-fi connection or mobile broadband); using email on a cell phone; using the internet on a cell phone; or using instant messaging on a cell phone.



In the rest of this report, we will take a more detailed examination of wireless access using mobile phones (**Part Two: Internet use and data applications using mobile phones**) and laptop computers and other devices (**Part Three: Mobile access using laptops and other devices**).

## Part Two: Internet use and data applications using mobile phones

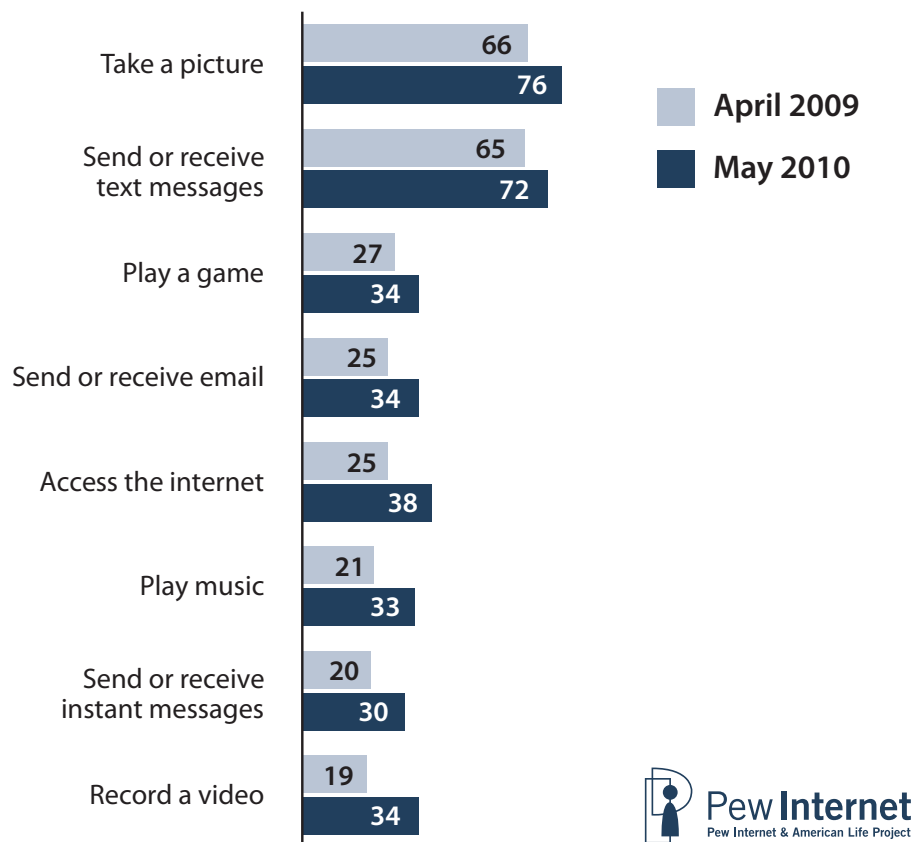
The use of mobile data applications has grown dramatically over the last year, even as overall cell phone ownership has remained steady

Eight in ten American adults (82%) currently own a cell phone of some kind, a figure that has remained fairly stable over the past year. Since a similar point in 2006, the proportion of Americans with a mobile phone has risen by nine percentage points.

While overall mobile phone ownership has not grown over the last year, cell owners now take advantage of a much wider range of their phones' capabilities. Compared to when we asked these questions in April 2009, mobile phone owners are significantly more likely to use their phones to take pictures (76% now do this, up from 66% in April 2009); send or receive text messages (72% vs. 65%); play games (34% vs. 27%); send or receive email (34% vs. 25%); access the internet (38% vs. 25%); play music (33% vs. 21%); send or receive instant messages (30% vs. 20%); and record a video (34% vs. 19%).

### The use of non-voice data applications has grown significantly over the last year

The % of cell phone owners who use their phones to do the following



Source: Pew Research Center's Internet & American Life Project, April 29-May 30, 2010 Tracking Survey. N=2,252 adults 18 and older; n=1,917 based on cell phone users.

Along with these eight activities, we also asked about seven additional cell phone data applications for the first time in our 2010 survey.<sup>4</sup> Among all cell phone owners:

- 54% have used their mobile device to send someone a photo or video
- 23% have accessed a social networking site using their phone
- 20% have used their phone to watch a video
- 15% have posted a photo or video online
- 11% have purchased a product using their phone
- 11% have made a charitable donation by text message
- 10% have used their mobile phone to access a status update service such as Twitter

### **Young adults are much more likely than their elders to use mobile data applications, but cell phone access is becoming more prevalent among 30-49 year olds**

Picture-taking and texting are near-ubiquitous among young adult cell phone owners. Fully 95% of cell-owning 18-29 year olds use the text messaging feature on their phones, and 93% use their mobile devices to take pictures. Since nine in ten young adults own a cell phone, that means that 85% of all 18-29 year olds text, and 83% take photos using a cell phone. Young adult cell phone owners are significantly more likely to do all of the other mobile data applications we asked about in our survey relative to older cell owners—often by fairly dramatic margins.<sup>5</sup>

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4 Data about sending photos or videos to others and texting charitable donations were asked on a separate survey (see Methodology for more information) and are discussed individually in more detail later in this chapter.

5 For comparable data among teens, please see “Teens and Mobile Phones” (2010): <http://pewinternet.org/Reports/2010/Teens-and-Mobile-Phones.aspx>

## Young adults lead the way in the use of mobile data applications

	18-29	30-49	50-64	65+
Own a cell phone	90%**	88%**	82%*	57%
<b>% of cell owners within each group who do the following on their phones</b>				
Send/receive text messages	95***	82**	57*	19
Take a picture	93***	83**	67*	34
Access the internet	65***	43**	18*	10
Play music	64***	36**	13*	6
Play a game	60***	37**	17*	9
Record a video	60***	39**	14*	5
Send/receive email	52***	37**	22*	11
Use a social networking site	48***	23**	8*	3
Send/receive instant messages	46***	35**	17*	10
Watch a video	40***	20**	6	4
Post a photo or video online	33***	15**	5	2
Use a status update service	21***	9**	3	2
Make a purchase	20***	11**	4	5
<b>Mean number of cell activities</b>	<b>6.9</b>	<b>4.7</b>	<b>2.5</b>	<b>1.2</b>

Source: Pew Research Center's Internet & American Life Project, April 29-May 30, 2010 Tracking Survey. N=2,252 adults 18 and older, including 1,917 cell phone users. \*\*\* = significant difference compared with all other age groups; \*\* = significant difference compared with 50-64 and 65+; \* = significant difference compared with 65+; n/a = sample size too small to analyze



Although young adults are significantly more likely than all other age groups to use non-voice data applications on their mobile devices, these services are growing more popular among older adults (specifically, those ages 30-49). Compared with a similar point in 2009, cell owners ages 30-49 are significantly more likely to use their mobile phone to:

- Take pictures (83% of cell owners ages 30-49 now do this, compared with 71% in April 2009)
- Send or receive text messages (82% vs. 75%)

- Access the internet (43% vs. 31%)
- Record a video (39% vs. 21%)
- Send or receive email (37% vs. 30%)
- Play music (36% vs. 21%)
- Send or receive instant messages (35% vs. 21%)

Out of the eight mobile data activities we measured in both 2009 and 2010, playing games was the only one for which 30-49 year olds did not experience significant year-to-year growth—37% of cell owners ages 30-49 currently play games on a mobile phone, compared with the 32% who did so in 2009.

## **Minority Americans continue to outpace whites in their use of cell phone data applications**

As we found in previous research on this topic,<sup>6</sup> minority cell owners are significantly more likely than whites to use most non-voice data applications on their mobile devices. They also take advantage of a wider range of mobile phone features compared with whites. On average, white cell phone owners use 3.8 of the thirteen activities we measured, while black cell owners use an average of 5.4 and English-speaking Latinos use an average of 5.8 non-voice data applications.

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6 See “Wireless Internet Use” (2009): <http://pewinternet.org/Reports/2009/12-Wireless-Internet-Use.aspx>

## African-Americans and Latinos lead whites in their use of mobile data applications

	All adults	White, non-Hispanic	Black, non-Hispanic	Hispanic (English-speaking)
Own a cell phone	82%	80%	87%*	87%*
<b>% of cell owners within each group who do the following on their phones</b>				
Take a picture	76	75	76	83*
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Use a social networking site	23	19	33*	36*
Watch a video	20	15	27*	33*
Post a photo or video online	15	13	20*	25*
Purchase a product	11	10	13	18
Use a status update service	10	8	13	15
<b>Mean number of cell activities</b>	<b>4.3</b>	<b>3.8</b>	<b>5.4</b>	<b>5.8</b>

Source: Pew Research Center's Internet & American Life Project, April 29-May 30, 2010 Tracking Survey. N=2,252 adults 18 and older, including 1,917 cell phone users. \* = statistically significant difference compared with whites



### Additional mobile data applications – sharing multimedia content and texting charitable donations

In a separate survey, we asked about two additional mobile activities—half of cell owners (54%) have used their mobile device to send a photo or video to someone else, and one in ten (11%) have made a charitable donation by text message.



As with the other mobile data applications discussed above, both of these activities are particularly common among young cell owners and minority Americans (particularly Latinos). Fully 81% of cell owners ages 18-29 have used their phone to send a photo or video to someone else, significant higher the proportion of cell owners ages 30-49 (63%), 50-64 (40%) or 65+ (18%) who have done so. Young cell owners are also more likely than cell owners in other age groups to make a charitable donation using the text messaging feature on their phones (19% of cell owners ages 18-29 have done so, compared with 10% of 30-49 year olds, 8% of 50-64 year olds and just 4% of cell owners 65 and up).

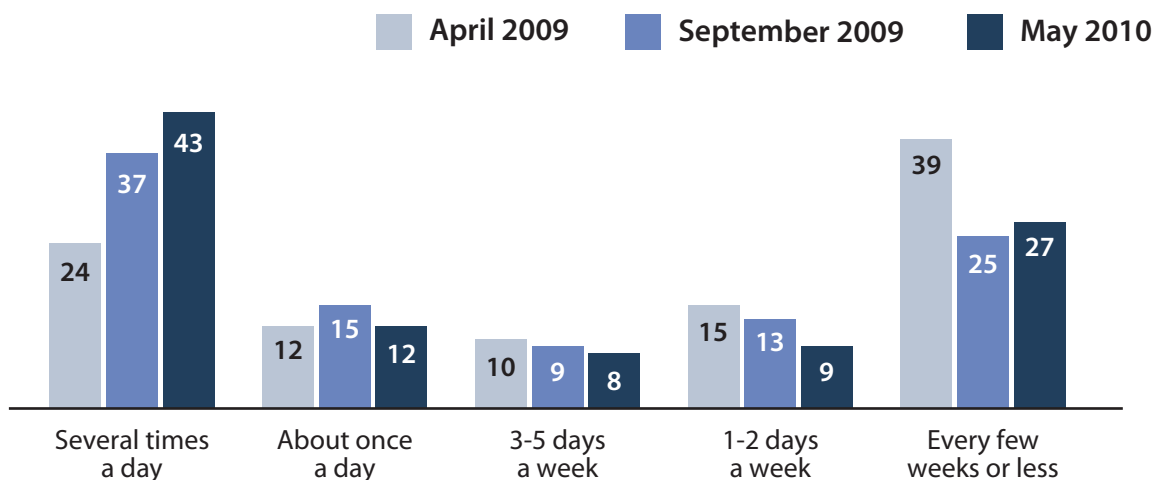
In terms of racial/ethnic comparisons, Latino cell phone owners are especially likely to do both of these activities using their mobile devices. Among cell owners, 70% of English-speaking Latinos have sent someone a photo or video (compared with 58% of African-Americans and 50% of whites) and 23% have made a charitable donation via text message (compared with 16% of African-Americans and 7% of whites).

### More than half of mobile web users go online from their phones on a daily basis

In addition to being a growing proportion of the overall cell phone population, users of the mobile web now go online more frequently using their handheld devices than they did as recently as last year. More than half of all mobile internet users go online from their handheld devices on a daily basis—43% do so several times a day, and 12% do so about once a day. At a similar point in 2009, just 24% of mobile internet users went online several times a day.

## More than half of cell phone internet users go online daily from their mobile device

Frequency of cell phone internet use among those who go online from a cell phone (% of adult cell phone internet users)



Source: Pew Research Center's Internet & American Life Project, April 29-May 30, 2010 Tracking Survey. N=2,252 adults 18 and older; n=772 based on those who use a cell phone to access the internet.



Among mobile internet users, frequency of use is highest among the affluent and well-educated, as well as Latinos. Among those who go online using a handheld device 55% of English-speaking Hispanics, 52% of college graduates and 56% of those with a household income of \$75,000 or more per year use their cell phone to go online several times a day. Young adults are also intense mobile internet users—52% of those ages 18-29 who go online using a cell phone do so several times a day, and an additional 17% do so about once a day—although 43% of mobile web users ages 30-49 go online multiple times a day.

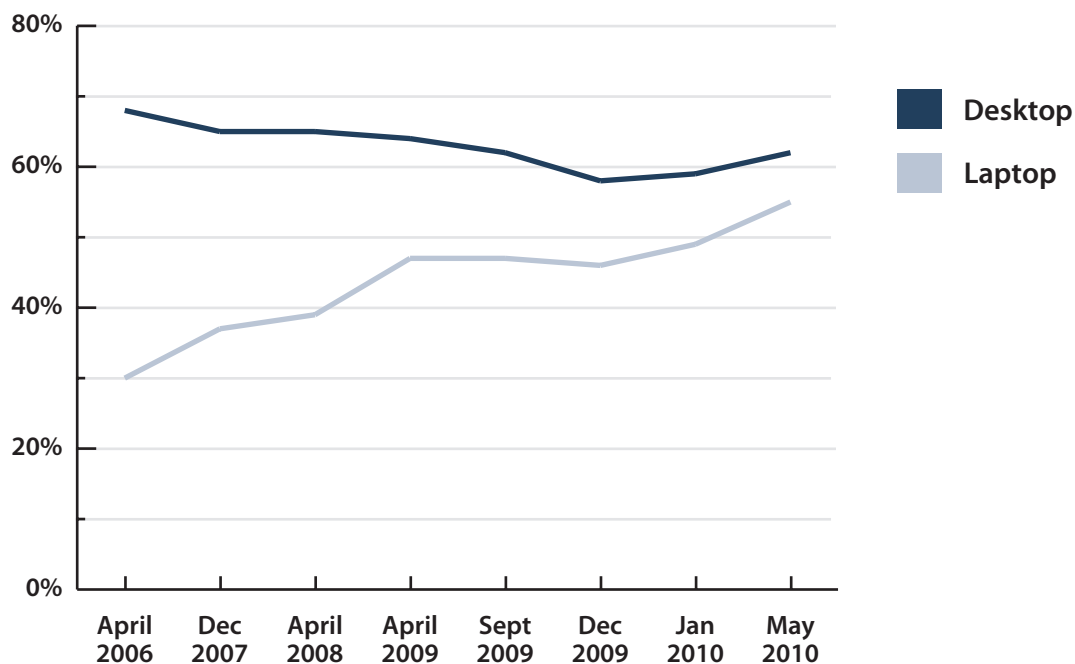
## Part Three: Mobile access using laptops and other devices

### Nearly as many Americans now own laptops as own desktops, and just under half of all adults use a laptop to go online wirelessly

As of May 2010 55% of all American adults own a laptop computer. This is the first time since the Pew Internet Project began surveying laptop ownership that more than half of all adults own a laptop computer, and represents an eight percentage point increase since a similar point in 2009. Laptops are now nearly as common as desktop computers—62% of American adults now own a desktop computer, a figure that is relatively unchanged on a year-to-year basis and down slightly from the 68% of adults who owned a desktop computer in the spring of 2006. As we have found in previous research,<sup>7</sup> 18-29 year olds are one of the few groups more likely to own a laptop (70% of 18-29 year olds do so) than a desktop (61%), although 30-49 year olds are rapidly approaching that point as well (66% of 30-49 year olds own a desktop, compared with 63% who own a laptop computer).

## Desktop and laptop ownership, 2006-2010

The % of all adults who own a desktop or laptop computer



Source: Pew Research Center's Internet & American Life Project, April 29-May 30, 2010 Tracking Survey. N=2,252 adults 18 and older; n=1,238 based on wireless internet users. Cell phone wireless users include those who use email on a cell phone; use the internet on a cell phone; or use instant messaging on a cell phone.



Not all laptop owners use their laptops to go online wirelessly, although the vast majority (86%) do so, using either a wi-fi or mobile broadband connection. That works out to 47% of all adults who use a lap-

7 See "Social Media and Young Adults" (2010), Part 2: <http://pewinternet.org/Reports/2010/Social-Media-and-Young-Adults/Part-2/2-Computers.aspx?r=1>

top to connect wirelessly to the internet. Both of these represent a statistically significant increase from what we found at a similar point in 2009. At that time, 82% of laptop owners (representing 39% of all adults) went online wirelessly using a laptop computer.

Connecting via a wi-fi connection is by far the most common way laptop owners access the wireless internet. More than eight in ten laptop owners (84%) use wi-fi to go online, and one-quarter (23%) do so using mobile wireless broadband.<sup>8</sup> There is some overlap between these two technologies, as around one in five laptop owners (22%) use *both* wi-fi and mobile wireless broadband to go online.

Laptop ownership and mobile usage is most concentrated among the college educated, those younger than age 50 and those earning \$50,000 or more per year. There are no major differences when it comes to race or ethnicity—blacks and English-speaking Hispanics are just as likely as whites to own a laptop, and to access the internet on a laptop using a wireless connection. Notably, laptop ownership and usage among African Americans has grown significantly since 2009; half (51%) of all black adults now own a laptop computer, up from the 34% who said this in our April 2009 survey.

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<sup>8</sup> Note: because multiple responses were allowed, totals may sum to more than 100%.

## Laptop ownership and wireless internet use by demographic groups

% of all adult Americans

	Own laptop	Go online wirelessly with laptop
Total	55%	47%
<b>Gender</b>		
Male	57	50
Female	53	45
<b>Age</b>		
18-29	70	65
30-49	63	57
50-64	51	40
65+	24	15
<b>Race/Ethnicity</b>		
White, non-Hispanic	55	47
Black, non-Hispanic	51	46
Hispanic (English-speaking)	54	48
<b>Education</b>		
Less than high school	27	18
High school grad	42	33
Some college	67	58
College grad	74	68
<b>Annual household income</b>		
Less than \$30,000	37	28
\$30,000-\$49,999	52	43
\$50,000-\$74,999	66	57
\$75,000+	78	72

Source: Pew Research Center's Internet & American Life Project, April 29-May 30, 2010 Tracking Survey. N=2,252 adults 18 and older.



## Most wireless laptop users go online from multiple locations

Laptop owners utilize the portable nature and wireless capabilities of these devices to go online from a range of locations. Among those who use their laptop to go online wirelessly (using either a wi-fi or mobile broadband card) 86% do so at home, 37% do so at work, and 54% do so someplace other than home or work. Six in ten wireless laptop users (61%) go online from more than one of these locations, with two in five (20%) using their laptop to access the internet from all three locations (home, work and somewhere else).

Overall, there are relatively few demographic differences among laptop owners when it comes to where they use their devices to access the internet. The primary differences relate to access at work. Among wireless laptop users:

- 43% of those with some college experience go online using a laptop at work, compared with 22% of those with a high school degree or less.
- 49% of those earning \$75,000 or more per year go online using a laptop at work, compared with 30% of those earning less than \$75,000 per year.
- 41% of men go online using a laptop from work, compared with 32% of women.

## Mobile access using other devices

Devices other than laptop computers and mobile phones also play into the wireless internet story, as 9% of American adults now go online using an mp3 player, e-book reader or tablet computer. However, these devices largely play a supporting role for Americans who already access the internet wirelessly using a laptop computer or cell phone. The addition of these devices to our wireless internet definition adds only one half of one percentage point to the overall wireless internet usage figure discussed above.

Put another way, just 1% of Americans who **do not** go online wirelessly using a laptop computer or cell phone use some other type of mobile device to access the internet. By contrast, 15% of wireless internet users also use some other type of mobile device to go online in addition to a cell phone and/or wireless laptop.

**Mp3 players** – Nearly half of all American adults (46%) own an mp3 player, and 16% of them use their handheld music players to go online. Not surprisingly, mp3 player ownership is strongly correlated with age: three-quarters (73%) of 18-29 year olds own this type of device, compared with 56% of 30-49 year olds, 33% of 50-64 year olds and just 7% of those ages 65 and older. Among mp3 player owners, men are slightly more likely than women to use their device to go online (19% vs. 14%), while internet use is also relatively high among 18-29 year olds (22% of mp3 owners in this age group use their player to access the internet).

**E-book readers** – 4% of Americans own an e-book reader like a Kindle, and nearly half (46%) of these owners use their electronic book reader to access the internet. At the moment e-book readers are largely a luxury item owned primarily by the well-off and well-educated, as one in ten college graduates (9%) and 8% of those with an annual household income of \$75,000 or more per year own an electronic book reader. The number of individuals in our survey who go online using e-book readers is too small for detailed demographic comparisons of internet use on this device.

**Game consoles** – 42% of Americans own a game console like an Xbox or Play Station, and 29% of console owners use their gaming device to access the internet.<sup>9</sup> Young adults are more likely than average

9 Note: we did not ask respondents to specify whether this internet access involved a wired or wireless network, so this

to own a game console (62% of 18-29 year olds do so) as are parents (67%) and those ages 30-49 (56%). Although men and women are equally likely to own a gaming console, men are much more likely to use them to go online (38% of male console owners do so, compared with 20% of women). Additionally, nearly half of console owners ages 18-29 (45%) use their gaming to device to access the internet.

**Tablet computers** – This year for the first time we asked our respondents whether they owned a tablet PC such as an iPad, and 3% said that they do. Roughly six in ten of these individuals use their device to access the internet, although given the small number of tablet owners these findings are not reported in detail here.

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figure is not included in any of the wireless internet usage figures calculated in this report.

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**Spring Change Assessment Survey 2010**

Final Topline

6/4/10

Data for April 29 – May 30, 2010

Princeton Survey Research Associates International  
for the Pew Research Center's Internet & American Life ProjectSample: n= 2,252 national adults, age 18 and older, including 744 cell phone interviews  
Interviewing dates: 04.29.10 – 05.30.10

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

Margin of error is plus or minus 3 percentage points for results based on internet users [n=1,756]

Margin of error is plus or minus 3 percentage points for results based on cell phone users [n=1,917]

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**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 desktop computer				
Current	62	38	*	*
January 2010	59	41	0	*
December 2009	58	42	*	*
September 2009	62	37	0	*
April 2009	64	36	*	*
April 2008	65	34	*	--
Dec 2007	65	35	*	--
April 2006	68	32	*	--
b. A laptop computer or netbook <sup>1</sup>				
Current	55	45	*	0
January 2010	49	51	*	*
December 2009	46	53	*	*
September 2009	47	53	*	*
April 2009	47	53	*	*
April 2008	39	61	*	--
Dec 2007	37	63	*	--
April 2006	30	69	*	--

**Q10 continued...**

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<sup>1</sup> Through January 2010, item wording was "A laptop computer [IF NECESSARY: includes a netbook]."



**Q10 continued...**

**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
c. A cell phone or a Blackberry or iPhone or other device that is also a cell phone <sup>2</sup>				
Current	82	18	*	0
January 2010 <sup>3</sup>	80	20	0	*
December 2009	83	17	0	*
September 2009	84	15	*	*
April 2009	85	15	*	*
April 2008	78	22	*	--
Dec 2007	75	25	*	--
Sept 2007	78	22	*	--
April 2006	73	27	*	--
January 2005 <sup>4</sup>	66	34	*	--
November 23-30, 2004	65	35	*	--
d. An electronic book device or e-Book reader, such as a Kindle or Sony Digital Book				
Current	4	96	*	*
September 2009	3	97	*	*
April 2009	2	98	*	*
e. An iPod or other MP3 player <sup>5</sup>				
Current	46	54	*	0
September 2009	43	57	*	0
April 2009	45	55	*	*
December 2007	34	66	*	--
April 2006	20	79	*	--
February 2005	11	88	1	--
January 2005	11	88	1	--

**Q10 continued...**

<sup>2</sup> Prior to April 2009, item wording was "A cell phone." From April 2009 thru December 2009, item wording was "A cell phone or a Blackberry or iPhone or other device that is also a cell phone." Beginning December 2007, this item was not asked of the cell phone sample, but results shown here reflect Total combined Landline and cell phone sample.

<sup>3</sup> In January 2010, item wording was "A cell phone or a Blackberry or iPhone or other handheld device that is also a cell phone."

<sup>4</sup> Through January 2005, question was not asked as part of a series. Question wording as follows: "Do you happen to have a cell phone, or not?"

<sup>5</sup> Through February 2005, question was not asked as part of a series. Question wording as follows: "Do you have an iPod or other MP3 player that stores and plays music files, or do you not have one of these?"

**Q10 continued...**

**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
f. A game console like Xbox or Play Station				
Current	42	58	*	*
September 2009	37	63	*	*
April 2009	41	59	*	*
g. A tablet computer like an iPad				
Current	3	97	*	0

**Q12** On your laptop computer or netbook, do you use [INSERT IN ORDER]?<sup>6</sup>

Based on internet users who have a laptop or netbook

	YES	NO	DON'T KNOW	REFUSED
a. WiFi or wireless connection to access the internet [IF NECESSARY: WiFi is a short-range wireless internet connection.]				
Current [N=1,144]	88	11	1	0
January 2010 [N=1,019]	83	17	1	0
December 2009 [N=1,000]	83	16	1	*
September 2009 [N=965]	82	17	1	*
April 2009 [N=937]	80	19	1	*
b. Mobile wireless broadband, such as an AirCard, to access the internet <sup>7</sup> [IF NECESSARY: Wireless broadband is a longer-range wireless connection, offered by many telephone companies and others.]				
Current	24	72	4	*
January 2010	19	79	2	0
December 2009	28	69	2	*
September 2009	31	64	5	*
April 2009	37	57	6	*

**Q13** Thinking about when you access the internet wirelessly on your laptop or netbook – either using WiFi or mobile wireless broadband – do you ever do this [INSERT IN ORDER]?

Based on internet users who use WiFi or mobile wireless broadband on their laptop or netbook

<sup>6</sup> Prior to May 2010, question wording was "On your laptop computer, do you ever use [INSERT IN ORDER]?"

<sup>7</sup> Prior to January 2010, item wording was "Wireless broadband, such as an AirCard, to access the internet"

	YES	NO	DON'T KNOW	REFUSED
a. At home				
Current [N=1,003]	86	13	1	0
September 2009 [N=807] <sup>8</sup>	91	9	*	*
b. At work				
Current	37	62	1	*
September 2009	37	62	*	*
c. Someplace other than home or work				
Current	54	46	*	0
September 2009	55	44	1	*

**Q14** Thinking now just about your cell phone... 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]?<sup>9</sup>

Based on cell phone users

	YES	NO	DON'T KNOW	REFUSED
a. Send or receive email				
Current [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. Send or receive text messages				
Current	72	28	0	0
January 2010	69	31	*	0
December 2009	68	32	*	0
September 2009	65	35	*	0
April 2009	65	35	*	0
December 2007	58	42	0	--
c. Take a picture				
Current	76	24	*	*
d. Play music				
Current	33	67	0	0
September 2009	27	73	0	0
April 2009	21	79	*	0
December 2007	17	83	*	--

<sup>8</sup> In September 2009, two separate series of questions were asked: one of internet users who use WiFi on their laptop [N=772] and one of internet users who use wireless broadband on their laptop [N=305]. Trend results shown here combine those two series for each item (home/work/other).

<sup>9</sup> 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.

e. Send or receive Instant Messages				
Current	30	69	1	*
January 2010	29	70	1	0
December 2009	31	68	1	0
September 2009	27	72	1	*
April 2009	20	79	*	*
December 2007	17	83	*	--
f. Record a video				
Current	34	66	*	0
April 2009	19	81	0	0
December 2007	18	82	0	--

**Q14 continued...**

**Q14 continued...**

**Q14** Thinking now just about your cell phone... 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]?<sup>10</sup>

Based on cell phone users

	YES	NO	DON'T KNOW	REFUSED
g. Play a game				
Current	34	66	*	0
April 2009	27	73	*	0
December 2007	27	73	0	--
h. Access the internet <sup>11</sup>				
Current	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	--

**WIRELESS** Wireless internet use<sup>12</sup>

	WIRELESS INTERNET USER	INTERNET USER BUT NOT WIRELESS	ALL OTHERS
Current	59	22	19
January 2010	53	24	23
December 2009	55	24	21
September 2009	54	25	21
April 2009	56	23	20
December 2008	43	30	26

<sup>10</sup> 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.

<sup>11</sup> In December 2007, item wording was "Access the internet for news, weather, sports, or other information"

<sup>12</sup> Definitions for wireless internet use may vary from survey to survey.

November 2008                      37                      37                      26

- Q15** Using your cell phone, how often do you access the internet or email – 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?

Based on those who use their cell phones to access the internet

	CURRENT		SEPT 2009	APRIL 2009
%	43	Several times a day	37	24
	12	About once a day	15	12
	8	3-5 days a week	9	10
	9	1-2 days a week	13	15
	5	Every few weeks	7	12
	10	Less often	11	14
	12	Never	7	13
	*	Don't know	*	0
	*	Refused	0	0
	[n=779]		[n=539]	[n=475]

- Q16** Thinking about other devices you own... Do you EVER access the internet or email using [INSERT IN ORDER]?<sup>13</sup>

	YES	NO	DON'T KNOW	REFUSED
<i>Item A: Based on e-Book users</i>				
a. Your electronic Book device or e-Book				
Current [N=97]	46	54	0	0
September 2009 [N=68]	35	63	2	0
April 2009 [N=44]	32	67	1	0
<i>Item B: Based on iPod or MP3 users</i>				
b. An iPod or other MP3 player <sup>14</sup>				
Current [N=929]	16	83	*	0
September 2009 [N=850]	15	85	*	0
April 2009 [N=846]	11	88	*	0
<i>Item C: Based on game console users</i>				
c. A game console like Xbox or Play Station <sup>15</sup>				
Current [N=815]	29	71	*	0
September 2009 [N=700]	23	77	*	0
April 2009 [N=742]	22	78	0	0
<i>Item D: Based on tablet computer users</i>				

<sup>13</sup> September 2009 question wording was as follows: "Thinking about some of the electronic devices you have... Do you EVER access the internet using [INSERT IN ORDER]?" April 2009 question wording was as follows: "Thinking about these various devices... Do you EVER access the internet or email using [INSERT IN ORDER]? [If YES, ASK: Do you mostly do this at home, at work, or someplace other than home or work?]." Results for "Yes" reflect combined responses for "Mostly home," "Mostly work," "Mostly other," and volunteered category "Combination of home/work/other."

<sup>14</sup> Through September 2009, item wording was "Your iPod or other MP3 player"

<sup>15</sup> Through September 2009, item wording was "Your game console like Xbox or Play Station"

d. A tablet computer like an iPad  
Current [N=56] 59 41 0 0

**Q17** Do you ever use your cell phone to... [INSERT ITEM; RANDOMIZE]?

Based on those who use their cell phones to access the internet [N=779]

	YES, DO THIS	NO, DO NOT DO THIS	(VOL.) CELL PHONE CAN'T DO THIS	DON'T KNOW	REFUSED
a. Send a photo or video to someone	74	26	*	0	0
b. Post a photo or video online	31	68	1	0	0
c. Purchase a product, such as books, music, toys or clothing	22	78	*	0	0
d. Make a charitable donation by text message	10	89	0	*	0
e. Access a social networking site like MySpace, Facebook or LinkedIn.com	48	52	*	*	0
f. Access Twitter or another service to share updates about yourself or to see updates about others	20	79	1	0	0
g. Watch a video	40	60	*	0	0

## Methodology

This report is based on the findings of a daily tracking 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 between April 29 and May 30, 2010, among a sample of 2,252 adults, age 18 and older. Interviews were conducted in English. For results based on the total sample, one can say with 95% confidence that the error attributable to sampling and other random effects is plus or minus 2.4 percentage points. For results based Internet users (n=1,756), 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, half of the time interviewers first asked to speak with the youngest adult male currently at home. If no male

was at home at the time of the call, interviewers asked to speak with the youngest adult female. For the other half of the contacts interviewers first asked to speak with the youngest adult female currently at home. If no female was available, interviewers asked to speak with the youngest adult male at home. 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.

Non-response in telephone interviews produces some known biases in survey-derived estimates because participation tends to vary for different subgroups of the population, and these subgroups are likely to vary also on questions of substantive interest. In order to compensate for these known biases, the sample data are weighted in analysis. The demographic weighting parameters are derived from a special analysis of the most recently available Census Bureau's March 2009 Annual Social and Economic Supplement. This analysis produces population parameters for the demographic characteristics of adults age 18 or older. These parameters are then compared with the sample characteristics to construct sample weights. The weights are derived using an iterative technique that simultaneously balances the distribution of all weighting parameters.

Following is the full disposition of all sampled telephone numbers:

<b>Table 1: Sample Disposition</b>		
Landline	Cell	
20,895	12,699	Total Numbers Dialed
1,160	251	Non-residential
982	18	Computer/Fax
12	---	Cell phone
8,886	4,906	Other not working
1,675	176	Additional projected not working
8,180	7,348	Working numbers
39.1%	57.9%	Working Rate
558	59	No Answer / Busy
870	2,054	Voice Mail
68	13	Other Non-Contact
6,684	5,222	Contacted numbers
81.7%	71.1%	Contact Rate
521	740	Callback
4,305	3016	Refusal
1,858	1,466	Cooperating numbers
27.8%	28.1%	Cooperation Rate
284	235	Language Barrier
---	460	Child's cell phone
1,574	771	Eligible numbers
84.7%	52.6%	Eligibility Rate
66	27	Break-off
1,508	744	Completes
95.8%	96.5%	Completion Rate
21.8%	19.3%	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 21.8 percent. The response rate for the cellular sample was 19.3 percent.