

Data Memo

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RE: MOBILE ACCESS TO DATA AND INFORMATION
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62% of all Americans are part of a wireless, mobile population that participates in digital activities away from home or work

According to the Pew Internet Project's December 2007 survey:

- 58% of adult Americans have used a cell phone or personal digital assistant (PDA) to do at least one of ten mobile non-voice data activities, such as texting, emailing, taking a picture, looking for maps or directions, or recording video.
- 41% of adult Americans have logged onto the internet on the go, that is, away from home or work either with a wireless laptop connection or a handheld device.

This comes to 62% of all Americans who have some experience with mobile access to digital data and tools. That is, they have either used a cell phone or PDA for a non-voice data application or logged on to the internet away from home or work using a wireless laptop connection or with a handheld device. The Pew Internet Project's December 2007 survey interviewed a sample of 2,054 adult Americans, which included 500 respondents contacted on their cell phones.

Accompanying this changing nature of access – no longer slow and stationary, but now fast and mobile – has been a transformation in how people value their media access tools. When asked how hard it would be to give up a specific technology, respondents are now most likely to say the cell phone would be most difficult to do without, followed by the internet, TV, and landline telephone. This represents a sharp reversal in how people viewed these technologies in 2002.

Those who say it would be very hard to give up ... (among those who use each device)			
	2002	2006	2007
Cell phone	38%	43%	51%
Internet	38	38	45
Television	47	44	43
Landline telephone	63	48	40
Email	35	34	37
Blackberry or wireless email device	6	22	36

Source: *Pew Internet & American Life Project Surveys.*

Leading the way in this world of untethered access are young adult Americans, Hispanics, and African Americans. A majority of adults under age 30 and Hispanics would find it hardest to do without their cell phones – and are much more likely to say it would be hard to be without a cell phone than to be without the internet or email. Hispanics in the United States are a more youthful group than whites or African Americans, but Latinos’ attachment to the cell phone stands out even after controlling for age and other demographic and socio-economic factors.

Non-voice data access using handheld devices

Here’s how the data breaks out for each of the ten activities asked about relating to non-voice data applications on a cell phone or PDA.

Mobile data and communications activities (among those who have a cell phone or personal data assistant)		
	% of cell/PDA users who have <u>ever</u> done this	% of cell/PDA who do this <u>on typical day</u>
Send or receive text messages	58%	31%
Take a picture	58	15
Play a game	27	8
Send or receive email	19	8
Access the internet for news, weather, sports, or other information	19	7
Record a video	18	3
Play music	17	7
Send or receive instant messages	17	6
Get a map or directions to another location	14	3
Watch video	10	3
Source: Pew Internet & American Life Project Survey, December 2007, n=1,704 for those with cell phones or PDAs.. Margin of error is +/- 3 points.		

Among the 75% of Americans with either a cell phone or a PDA:

- 77% have ever done at least one of the ten listed handheld activities.
- 42% on a typical day did at least one of the ten listed handheld activities.

This comes to 58% of all Americans who have ever done one of the ten activities, with 32% of all Americans doing at least one of them on a typical day.

Defining access “on the go”

For internet access on the go, online users were asked *how often* they use the internet someplace other than home or work. Some 29% of internet users say they do this at least every few weeks, with 21% doing this at least a couple days a week.

We also asked remaining online users whether they had, in the previous twelve months, gone online away from home or work. Specifically, this question was directed to those who said they had infrequently used the internet away from home or work (22% of internet users) or had not done this (49% of online users).

Combining these two ways of asking about “away from home or work” online use, we find that nearly two-thirds (64%) of internet users have gone online away from home or work, which could include wired access at libraries or in hotel rooms.

Focusing more narrowly on wireless access on the go, respondents were asked whether they had used a wireless internet connection on a laptop computer, a cell phone, or a PDA.¹ Adding up those who had said “yes” to any of those questions yielded the result that 52% of internet users have used a wireless connection at one time to go online away from home or work. This translates into 41% of all Americans who have logged on wirelessly away from home.

Hispanics and young adults lead the way with handheld devices

Demographically, the clearest dividing lines for the different handheld activities are age and race. For English-speaking Hispanics, the cell phone is an oft-used and multifaceted device – more so than is the case for white or black Americans.²

Mobile data and communications activities: by race (Those who have a cell phone or personal data assistant who have <u>ever</u> done one of listed activities)			
	White	Black	Hispanic
Send or receive text messages	53%	68%	73%
Take a picture	56	57	71
Play a game	23	36	35
Send or receive email	17	19	25
Access the internet for news, weather, sports, or other information	18	27	22
Record a video	15	21	30
Play music	13	27	30
Send or receive instant messages	14	26	27
Get a map or directions to another location	12	12	20
Watch video	9	10	17
Percent who have done at least one of these activities	73%	79%	90%
Median number of activities <u>ever</u> done	2	2	3
Number of cases	1,304	158	129
Source: Pew Internet & American Life Project Survey, December 2007, n=1,704 for those with cell phones or PDAs. Margin of error is +/- 3 points. Survey conducted in English.			

As to access to cell phone technology:

¹ The structure of the questions was such that respondents who said they had gone online away from home or work in the prior year were not asked specifically whether they used a cell phone or PDA away from home or work to access the internet. However, they were asked whether they had ever used a cell phone or PDA for several internet applications (sending email, instant messages, getting maps or directions, or accessing the internet for news). Those who answered “yes” to those questions are included in the figure above, on the assumption that “yes” respondents had at one time done these handheld access activities away from home or work.

² This survey was conducted in English. When a Spanish option is provided in survey administration, Spanish-dominant Latinos are found to be less likely to own a cell phone or use the internet. See *Latinos Online*, Pew Research Center, available online at: http://www.pewinternet.org/PPF/r/204/report_display.asp

- 84% of English-speaking Hispanics have cell phones.
- 74% of white Americans have cell phones.
- 71% of black Americans have cell phones.

On a typical day, more than half of English-speaking Hispanics do something on their cell phone that might involve sending or receiving data.

Mobile data and communications activities: by race (Those who have a cell phone or personal data assistant who have done one of listed activities on a typical day)			
	White	Black	Hispanic
Send or receive text messages	28	34	42
Take a picture	14	21	20
Play a game	6	11	15
Send or receive email	7	7	9
Access the internet for news, weather, sports, or other information	7	9	10
Record a video	3	4	3
Play music	5	10	12
Send or receive instant messages	4	9	12
Get a map or directions to another location	3	2	4
Watch video	2	4	2
Percent who have done at least one of these activities	38%	50%	56%
Median number of activities <u>ever</u> done	0	0	1
Number of cases	1,304	158	129
<i>Source: Pew Internet & American Life Project Survey, December 2007, n=1,704 for those with cell phones or PDAs. Margin of error is +/- 3 points. Survey conducted in English.</i>			

There are also differences across age groups in the use of handhelds for data applications.

Mobile data and communications activities: by Age (Those who have a cell phone or personal data assistant who have <u>ever</u> done one of listed activities)				
	18-29	30-49	50-64	65+
Send or receive text messages	85	65	38	11
Take a picture	82	64	42	22
Play a game	47	29	13	6
Send or receive email	28	21	12	6
Access the internet for news, weather, sports, or other information	31	22	10	6
Record a video	34	19	8	3
Play music	38	16	5	2
Send or receive instant messages	26	18	11	7
Get a map or directions to another location	18	16	9	5
Watch video	19	11	4	2
Percent who have done at least one of these activities	96%	85%	63%	36%
Median number of activities <u>ever</u> done	4	2	1	0
Number of cases	311	616	456	310

Roughly the same share of “under age 30” adults (60%) on the average day use a handheld device for text messaging as sends or receives email (62% do). These numbers suggest that, while alternative forms of digital chatter (e.g., texting) are important to young adults, email remains a part of their daily electronic communication activities, although it may be less central for young adults as other applications compete for their attention.

For English-speaking Hispanics, 42% text message on the average day, compared to 56% who check email. For black Americans, 34% send or receive a text message on the typical day, while 57% say they send or receive email.

Mobile data and communications activities: by Age (Those who have a cell phone or personal data assistant who have done one of listed activities on a typical day)				
	18-29	30-49	50-64	65+
Send or receive text messages	60	32	14	2
Take a picture	31	14	6	3
Play a game	16	8	3	1
Send or receive email	10	9	7	2
Access the internet for news, weather, sports, or other information	14	7	3	1
Record a video	6	2	1	**
Play music	16	6	2	*
Send or receive instant messages	9	7	3	2
Get a map or directions to another location	6	3	2	
Watch video	6	3	1	1
Percent who have done at least one of these activities	73%	57%	23%	9%
Median number of activities done on <u>typical day</u>	1	0	0	0
Number of cases	311	616	456	310

Hispanics and young adults also lead the way for “on the go” away from home or work.

Similar differences by age and race are evident for wireless access away from home or work using a laptop computer. Against the average of 52% of internet users who have used a laptop or handheld to connect to the internet wirelessly away from home or work:

- 65% of English-speaking Hispanic internet users have done this.
- 54% of African American internet users have done this.
- 49% of white internet users have done this.

Looking at different age groups, among internet users:

- 70% of online users between the ages of 18 and 29 have logged on wirelessly away from home or work using a laptop computer.
- 53% of online users between ages 30 and 49 have logged on wirelessly away from home or work using a laptop computer.

- 39% of online users between ages 50 and 64 have logged on wirelessly away from home or work using a laptop computer.
- 29% of online users over age 65 or older have logged on wirelessly away from home or work using a laptop computer.

Most Hispanics and young adults say cell phones would be very hard to give up.

With handheld access or laptop access on the go routine for so many people – and especially young adults and Hispanics – it is not a surprise that they are likely to say it would be very hard to give up their cell phones or internet access. In fact, more than half (54%) of Hispanics said they would find it very hard to give up their cell phones – a higher share than said it would be very hard to give up the internet. Half (51%) of African Americans say it would be very hard to give up their cell phones, a significant difference from the share who say this about the internet (37%).

Those who say it would be very hard to give up ... (among those who use technology)			
	White	Black	Hispanic
Cell phone	49	51	54
Internet	44	37	43
Television	45	50	35
Landline telephone	40	48	36
Email	36	30	36
Number of cases	1,304	158	129
<i>Source: Pew Internet & American Life Project Survey, December 2007, n =1,704 for those with cell phones or PDAs. Margin of error is +/- 3 points.</i>			

For young adults, close to two-thirds (62%) say it would be very hard to do without a cell phone, more than the half (51%) who say that about the internet and more than twice the share that feels this way about the plain old landline telephone.

Those who say it would be very hard to give up ... (among those who use technology)				
	18-29	30-49	50-64	65+
Cell phone	62	52	43	37
Internet	51	46	40	34
Television	33	40	48	58
Landline telephone	25	34	43	60
Email	37	39	35	33
Number of cases	311	616	456	310
<i>Source: Pew Internet & American Life Project Survey, December 2007, n =1,704 for those with cell phones or PDAs. Margin of error is +/- 3 points</i>				

For the most part, untethered access is not a substitute for online access at home

The vast majority of people who have accessed digital data or tools on the go are internet users. Among this group, fully 91% count themselves as internet users. Among the remaining 9%, this group demographically tilts toward African American men in their 40's with low incomes. Within this group, 24% have household incomes that of \$25,000 annually or less, 25% are African American, and more than half are men. All have cell phones, and members of this group are more likely to have cell phones only as their means of telephone access than the general population (by a 30% to 21% margin).³

³ Although the number of respondents in the category of those who do not count themselves as online users but have used mobile connections to digital tools or information is small (n=113), the numbers reported above are significantly different from figures for all respondents who have either a cell phone or internet access.

Demographics of Different Groups of Wireless Users

	Total "untethered" users	"On the go" access	Mobile access with handheld device (those who have <u>ever</u> done at least one of ten activities)	Mobile access with handheld device (those who, on <u>typical day</u> , do at least one of ten activities)	Those who are either internet <u>OR</u> cell phone users
Gender					
Male	50%	53%	50%	49%	49
Female	50	47	50	51	51
Parental status					
Parent of child under 18	40	38	41	42	34
Age					
18-29	31	34	31	44	24
30-49	44	42	44	41	40
50-64	20	18	19	13	25
65+	5	6	5	2	11
Median age	37	36	36	32	42
Race					
White (not Hispanic)	69	69	68	64	73
Black (not Hispanic)	10	9	10	12	10
Hispanic (English speaking)	14	14	14	16	11
Other	7	8	7	8	6
Education					
Less than high school	9	6	9	8	9
High school grad	30	28	30	31	34
Some college	28	28	28	30	26
College +	32	38	32	31	31
Income					
Under \$20K	13	13	15	15	15
\$20K-40K	20	19	23	21	22
\$40K-\$50K	8	9	10	10	8
\$50K-\$75K	18	16	20	16	16
\$75K-\$100K	12	13	13	11	11
Over \$100K	16	19	19	17	14
Don't know/refused	13	12	12	10	14
Region					
Urban	39	40	40	43	37
Suburban	46	48	46	45	46
Rural	14	12	14	12	17
Communications Technology					
Broadband at home	71	77	71	77	63
Landline Only	3	4	*	*	13
Landline & Cell phone	75	74	78	71	71
Cell Phone Only	21	22	22	29	16
Number of cases	1,294	850	1,209	615	1,848
Source: Pew Internet & American Life Project Survey, December 2007 of 2,054 adult Americans.					

Annual Gadgets Survey 2007 Final Topline

Data for October 24 – December 2, 2007

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

Sample: n = 2,054 adults 18 and older, including 500 cell phone users
Interviewing dates: 10.24.07 – 12.2.07

Margin of error is plus or minus 2 percentage points for results based on total sample [n=2,054]

Margin of error is plus or minus 3 percentage points for results based on internet users [n=1,572]

Margin of error is plus or minus 3 percentage points for results based on landline and form 1 cell sample [n=1,804]

Margin of error is plus or minus 3 percentage points for results based on landline and form 2 cell sample [n=1,804]

Margin of error is plus or minus 3 percentage points for results based on landline only [n=1,554]

Q10a When you accessed the internet from someplace other than from home or from work, did you do that [INSERT ITEM]?

Based on those who used the internet from someplace other than home or work [N=421]

	yes	No	Don't know/ Refused
Using a laptop computer through a WIRELESS connection	53	47	0
Using a laptop computer through a WIRED connection	34	65	1
Using a DESKTOP computer through a wired connection	67	33	*
Using a cell phone	31	69	0
Using a Blackberry, Palm or other handheld device with a wireless connection	23	77	*

Q10b In the past 12 months, have you EVER accessed the internet from someplace other than from home or from work...[INSERT ITEM]?

Based on those who did not use the internet from someplace other than home or work [N=1,151]

	YES	NO	DON'T KNOW/ REFUSED
Using a laptop computer through a WIRELESS connection	30	70	*
Using a laptop computer through a WIRED connection	21	79	*
Using a DESKTOP computer through a wired connection	38	62	1

Q15 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)?/Did you happen to do this YESTERDAY, or not?

Based on those who own a cell phone or Blackberry [N=1,704]

	Total who have <u>ever</u> done this	Total who did this <u>yesterday</u>	have not done this	don't know/ refused
Send or receive email	19	8	81	0
Send or receive text messages	58	31	42	0
Take a picture	58	15	42	*
Play music	17	7	83	*
Send or receive Instant Messages	17	6	83	*
Record a video	18	3	82	0
Watch video	10	3	90	0
Play a game	27	8	73	0
Access the internet for news, weather, sports, or other information	19	7	81	0
Get a map or directions to another location	14	3	86	*

Methodology

Summary

The Annual Gadgets Survey, sponsored by the Pew Internet and American Life Project, obtained telephone interviews – both landline and cell phone - with a nationally representative sample of 2,054 adults living in the continental United States. The survey was conducted by Princeton Survey Research International. The interviews were conducted in English by Princeton Data Source, LLC from October 24 to December 2, 2007. Statistical results are weighted to correct known demographic discrepancies. The margin of sampling error for the complete set of weighted data is $\pm 2.4\%$. Details on the design, execution and analysis of the survey are discussed below.

Design and Data Collection Procedures

Sample Design

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.

Random phone numbers for the landline sample were generated from active blocks (area code + exchange + two-digit block number) that contained three or more residential directory listings. Active blocks were chosen with probabilities in proportion to their share of listed telephone households. The cellular sample was not list-assisted, but was drawn through a systematic sampling from 1000-blocks dedicated to cellular service according to the Telcordia database.

Contact Procedures

Interviews were conducted from October 24 to December 2, 2007. As many as 10 attempts were made to contact every sampled telephone number. Sample was released for interviewing in replicates, which are representative subsamples of the larger sample. Using replicates to control the release of sample ensures that complete call procedures are followed for the entire sample. Calls were staggered over times of day and days of the week to maximize the chance of making contact with potential respondents. Each household received at least one daytime call in an attempt to find someone at home.

For the landline sample, interviewers asked to speak with the youngest adult male currently at home. If no male was available, interviewers asked to speak with the youngest female at home. This systematic respondent selection technique has been shown to produce samples that closely mirror the population in terms of age and 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. If this person was not an adult, they were screened out as ineligible. Cellular sample respondents were offered a post-paid cash incentive for their participation.

Weighting and analysis

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. A first-stage weight of 0.5 was applied to all dual-users to account for the fact that they were included in both sample frames.⁴ All other cases were given a first-stage weight of 1.0. The second stage of weighting balanced sample demographics to population parameters. The sample was balanced to match national population parameters for sex, age, education, race, Hispanic origin, region (U.S. Census definitions), population density, and telephone usage. The White, non-Hispanic subgroup was also balanced on age, education and region. The basic weighting parameters came from a special analysis of the Census Bureau's 2006 Annual Social and Economic Supplement (ASEC) that included all households in the continental United States that had a telephone. The cell phone usage parameter came from an analysis of the July-December 2006 National Health Interview Survey.

Weighting was accomplished using Sample Balancing, a special iterative sample weighting program that simultaneously balances the distributions of all variables using a statistical technique called the *Deming Algorithm*. Weights were trimmed to prevent individual interviews from having too much influence on the final results. The use of these weights in statistical analysis ensures that the demographic characteristics of the sample closely approximate the demographic characteristics of the national population.

⁴ Dual-users are defined as [a] landline respondents who have a working cell phone, or [b] cell phone respondents who have a regular land line phone where they currently live.