I. **California's Digital Divide: Computers and Internet Use**
Public Policy Institute of California - 2007

II. **Data Summaries**

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Pew Internet And American Life Project Home Broadband Adoption 2007

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III. **Why We Don't Enough About Broadband in the U.S.**
Pew Internet And American Life Project

IV. **The Economic Effects of Increased Home Broadband Use in California**
Sacramento Regional Research Institute - November 2007

V. **The Energy and Greenhouse Gas Emissions Impact of Telecommuting and e-Commerce**
Consumer Electronics Association July 2007

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Pew Internet And American Life Project

Compiled by Raquel Cinat and Presented by Alana O'Brien

- **CALIFORNIANS ARE SIMILAR TO ADULTS NATIONWIDE IN COMPUTER AND INTERNET USE.**
  Today, Californians (78%) are about as likely as adults nationwide (75%) to use a computer at home, work, or school and to say that they use the Internet (73% each).

- **ORANGE AND SAN DIEGO COUNTIES AND THE SAN FRANCISCO BAY AREA HAVE THE HIGHEST RATE OF COMPUTER AND INTERNET USE.**
  As in 2000, residents in Orange and San Diego Counties and in the San Francisco Bay Area are the most likely to use computers and the Internet. Los Angeles and Central Valley residents have lagged behind the other major regions since 2000 in both computer use (72% each today) and Internet use (67% each today). Residents in the Inland Empire (74%) and other regions (71%) more closely resemble the state and nation when it comes to Internet use.

- **USERS ARE BETTER EDUCATED AND MORE AFFLUENT.**
  Although 18 to 34 year olds used the computer (85%) and Internet (75%) more than other age groups in 2000, 35 to 54 year olds have taken the lead in 2007 (83% computer, 79% Internet). However, the fact that users tend to be better educated and more affluent has not changed since 2000. Today, at least nine in ten of those who are college graduates use computers (94%) and the Internet (91%). Most individuals with household incomes of $80,000 or more are both computer (96%) and Internet (95%) users, while only half of those with incomes under $40,000 can say the same (59% and 51% respectively).

- **USAGE ACROSS RACIAL/ETHNIC GROUPS IS DEEPLY DIVIDED.**
  Latinos are the least likely racial/ethnic group to use computers (60%) and the Internet (51%),and their usage is almost unchanged since 2000. Between whites and Latinos, there are vast differences in computer use (26 points) and Internet use (32 points); the divide in each case has grown since 2000 due to increased use among whites. Blacks have increased their computer use (76% to 83%) and Internet use (60% to 75%) the most since 2000, but still trail behind Asian and white use. Asians lead all racial/ethnic groups in computer (93%) and Internet (89%) use.

- **NOT ALL LATINOS LAG BEHIND: DEMOGRAPHIC CHARACTERISTICS MAKE A DIFFERENCE.**
  The share of English-speaking Latinos and Latinos born in the U.S. who use computers (85% and 82%) and the Internet (79% and 76%) is higher than the average among California adults and English-speaking Latinos at the national level (78%). Socioeconomic status seems to be key factor to bridging the digital divide: At least three in four Latinos with college degrees (84%) and incomes of at least $40,000 (78%) use the Internet.

- **BROADBAND USERS OUTNUMBER DIAL-UP USERS ACROSS MOST DEMOGRAPHIC GROUPS.**
  About half of Californians today (53%) have broadband Internet access at home (e.g., DSL, ca modem, T-1 line) while 12 percent use a dial-up connection. Three in 10 Californians do not have home Internet access. While majorities of Asians (77%), whites (65%), and blacks (52%) use broadband, a majority of Latinos (53%) do not have any Internet access at home. Near three in 10 Latinos (28%) use broadband and 14 percent use dial-up. Use increases among English-speaking Latinos (52%). Broadband users tend to be home owners (66%), adults without children (57%), and to live in the San Francisco Bay Area and Los Angeles (24% each).

Source: Five PPIC Statewide Surveys conducted between January and October 2000 (including 10,091 adult residents) and two PPIC Statewide Surveys conducted between March and June 2007 (including 4,006 adult residents). National comparisons derived from Pew Research Center surveys, February – April 2006.

Broadband Subscribers Worldwide

2006	Subscribers per 100 inhabitants
Denmark	31.9
Netherlands	31.8
Iceland	29.7
Korea	29.1
Switzerland	28.5
Norway	27.7
Finland	27.2
Sweden	26.0
Canada	23.8
Belgium	22.5
United Kingdom	21.6
Luxembourg	20.4
France	20.3
Japan	20.2
United States	**19.6**
Australia	19.2
Austria	17.3
Germany	17.1
Spain	15.3
Italy	14.8

Source: Organization for Economy Cooperation and Development (OECD), 2006.

Trends in Broadband Adoption Across Population Subgroups

	% broadband at home	% broadband at home	% broadband at home
	2005	2006	2007
All adult Americans	30	42	47
Gender			
Male	31	45	50
Female	27	38	44
Age			
18-29	38	55	63
30-49	36	50	59
50-64	27	38	40
65+	8	13	15
Race/Ethnicity			
White (not Hispanic)	31	42	48
Black (not Hispanic)	14	31	40
Education Attainment			
Less than high school	10	17	21
High school grad	20	31	34
Some college	35	47	58
College +	47	62	70
Household Income			
Under $30K	15	21	30
$30K-50K	27	43	46
$50K-$75K	35	48	58
Over $75K	57	68	76
Community Type			
Urban	31	44	52
Suburban	33	46	49
Rural	18	25	31

Sources: 2005 data comes from the Pew Internet Project's combined January-March tracking survey of 4,402 adults; 1,265 were home broadband users. The margin of error for all respondents is +/- 1.6%. 2006 data comes from the Pew Internet Project's February 15 through April 6 survey of 4,001 adults; 1,562 were home broadband users. The margin of error for all respondents is +/- 1.7%.2007 data comes from the Pew Internet Project's February-March survey of 2,200 adults; 966

A Portrait of Those Who Post Content Online

Users that shared something online they created - a story or a video; a webpage, work on a webpage, or a blog.	% Who Are Content Subscribers
	2005
Gender	
Male	37
Female	32
Age	
18-29	43
30-49	36
50-64	29
65+	18
Race/Ethnicity	
White (not Hispanic)	32
Black (not Hispanic)	39
Hispanics (English Speaking)	42
Education Attainment	
Less than high school	32
High school grad	28
Some college	37
College +	38
Household Income	
Under $30K	32
$30K-50K	32
$50K-$75K	33
Over $75K	41
Community Type	
Urban	39
Suburban	34
Rural	27

Source: Pew Internet Project's December 2005 survey of 3,011 adults; 1,931 were internet

Frequency of Home Internet /Email usage

	Broadband	Dial-Up
	%	%
Daily	65	40
3-5 times a week	16	21
1-2 times a week	11	21
Every few weeks or less	9	19

Year-to-Year Growth Rates in Home Broadband Adoption

	%
Mar 02-Mar 03	50
Mar 03-Mar 04	67
Mar 04-Mar 05	20
Mar 05-Mar 06	40
Mar 06-Mar 07	12

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Internet Adoption in the United States

		%
Internet Users (71% of all adults)	Broadband at home	47
	Dial-up connection	15
	Connection type not specified	5
	Use internet at work only	2
	Use internet in location other than work	2
Non Users (29% of all adults)	Do not use a computer at work, home or elsewhere	27
	Have access to a computer	2

Source: Pew Internet Project February-March 2007 survey of 2,200 adults; 966 were home broadband users

Percent of Internet Users Who Ever Engage in the Following Online Activities

	All Internet Users	Home Dialup	Home Broadband
	%	%	%
Send or read email	91	90	95
Info on hobby or interest	83	78	89
Get news	72	61	79
research for your job	51	42	57
Search Wikipedia	36	26	42
Search religious or spiritual info	35	34	37
Read online journals/blogs	29	21	34
Take material online and remix it into your own new creation	17	11	19
Create or work on journal/blog	12	12	13
Make a phone call online	9	3	11
Create an avatar or online graphic representation of yourself	9	5	11

Source: Pew Internet Project February-March 2007 survey of 2,200 adults; 966 were

Percent of Internet Users Who Report Doing the Following Activities Yesterday

	All Internet Users	Home Dialup	Home Broadband
	%	%	%
Send or read email	56	43	65
Get news	37	24	45
Info on hobby/interest	29	21	34
Do any type of research for y	23	15	27
Read someone's journal/blog	10	5	12
Look for information on Wikip	8	9	5
Look for religious/spiritual inf	6	4	7
Create or work on journal/blo	5	5	5
Take material and remix it into your own creation	3	3	3
Make a phone call online	2	<1	3

Source: Pew Internet Project February-March 2007 survey of 2,200 adults; 966 were home broadband users

California's Digital Divide

	% Use Computer		% Use Internet	
	2000	2007	2000	2007
All Adults	76	78	65	73
Race/ Ethnicity				
White	79	86	70	83
Latino	64	60	47	51
Black	76	83	60	75
Asian	91	93	84	89
Other	82	82	72	74
Region				
Los Angeles	74	72	61	67
SF Bay Area	82	83	73	78
Central Valley	74	72	61	67
Orange/San Diego	81	84	72	80
Inland Empire	72	81	60	74
Other regions	73	78	61	71
Age				
18 to 34	85	81	75	75
35 to 54	83	83	73	79
55 and older	54	66	42	61
Gender				
Men	78	81	68	76
Women	75	75	63	69
Education				
No college	56	58	40	49
Some college	81	86	70	81
College graduate	89	94	82	91
Income				
Under $40,000	61	59	47	51
$40,000 to $79,999	87	88	76	83
$80,000 or more	94	96	89	95
Own/rent				
Own	78	83	67	79
Rent	74	71	63	64
Children				
No	74	77	64	72
Yes	81	80	68	75
Citizenship				
Born in U.S.	79	85	69	82
Naturalized citizen	73	74	61	68
Not a citizen	51	51	34	41
Language of Interview				
English	80	86	69	82
Spanish	40	47	24	37

Source: Five PPIC Statewide Surveys conducted between January and October 2000 (including 10,091 adult residents) and two PPIC Statewide Surveys conducted between March and June 2007 (including 4,006 adult residents).

United States/California Broadband Adoption

	California	United States
	%	%
2000	10	7
2001	12	10
2002	17	15
2003	23	18
2004	24	28
2005	47	39

Source: Forrester Research and author Jed Kolko's calculations.
Public Policy Institute of Califonria

Broadband Adoption by Race/ Ethnicity, 2005

	Broadband at Home
	%
Asian Americans	63
Caucasians	46
Latinos (English Speaking)	46
African Americans	36

Sources: Forrester Research & author Jed Kolko's calculations. Data are based on a survey conducted by mail in English only.

Most Visited Websites in Northern and Southern California

San Francisco 4/1/2003

Rank	Web site	Unique visitors
1	yahoo.com	2,434,211
2	msn.com	1,788,596
3	AOL.com	1,686,032
4	microsoft.com	1,464,883
5	google.com	1,428,662
10	ca.gov	653,796
11	state.ca.us	652,103
14	digitalcity.com	531,650

Source: comScore Media Metrix.

Los Angeles 4/1/2003

Rank	Web site	Unique visitors
1	yahoo.com	5,098
2	msn.com	4,291,395
3	AOL.com	3,833,150
4	microsoft.com	3,522,449
5	google.com	2,778,263
11	digitalcity.com	1,383,203
12	ca.gov	1,352,083
14	state.ca.us	1,327,367

Source: comScore Media Metrix.

Broadband,/Internet,/Computer Ownership-California Region, 2005

	Broadband	Online broadband or dial-up	Computer	Number
	%	%	%	
Northern California	29	63	77	161
Northern Sacramento Valley	28	69	79	163
Greater Sacramento	44	76	83	518
San Francisco Bay Area	51	74	80	1335
Northern San Joaquin Valley	36	67	74	241
Southern San Joaquin Valley	35	64	73	387
Central Sierra	21	61	76	54
Central Coast	48	76	80	176
Greater Los Angeles	52	76	81	1949
Inland Empire	45	73	82	660
San Diego Border	48	72	78	722

Sources: Forrester Research author Jed Kolko's calculations. Data are based on a survey conducted by mail in English only.

Broadband,/Internet,/Computer Ownership-Income, 2005

Household Income ($1	Broadband	Online broadband or dial-up	Computer	Number
	%	%	%	
< 25	24	48	58	1167
25-49	40	70	77	1573
50-69	49	78	86	1146
70-99	59	87	91	1320
100+	68	89	93	1382

Sources: Forrester Research and author Jed Kolko's calculations. Data are based on a survey conducted by mail in English only.

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Usage	California	Mid-Atlantic (PA, NJ, DE, NY	Industrial MW (IL, IN, OH, MI)	Mountain (CO, UT, ID, NV, WY, MT)	Capital Region (MD, VA, DC)	New England (CT, MA, VT, RI, ME, NH)	Border States (TX, NM, AZ)	South (TN, AL, MS, LA, WV, KY, AK	Southeast (FL, GA, NC, SC)	Upper MW (MN, ND, SD, WI)	Midwest (MO, NE, KS, OK, IA)	Pacific NW (OR, WA)	National
2001	60.3%	57.5%	55.0%	61.4%	58.0%	58.9%	58.5%	45.8%	53.7%	54.6%	53.6%	66.3%	56.4%
2000	56.6%	51.2%	48.8%	56.2%	53.3%	55.5%	52.5%	40.1%	48.4%	49.1%	49.5%	56.5%	50.4%
Income													
Under $30,000	15.9%	15.6%	18.6%	17.6%	14.8%	16.4%	22.4%	21.0%	19.6%	17.8%	21.6%	16.7%	19.0%
$30,000 - $50,000	18.8%	19.2%	22.3%	25.6%	21.0%	20.6%	23.1%	24.9%	22.5%	24.3%	27.5%	25.5%	22.4%
$50,000 - $75,000	18.3%	21.7%	18.4%	23.9%	15.5%	14.6%	16.3%	20.4%	20.4%	20.3%	21.0%	16.8%	18.8%
Over $75,000	29.4%	25.7%	24.6%	17.5%	31.2%	32.6%	23.9%	18.4%	20.3%	24.2%	17.0%	22.5%	23.4%
DK	17.6%	17.8%	16.2%	15.5%	17.5%	15.8%	14.4%	15.2%	17.3%	13.4%	12.8%	18.6%	16.5%
N (weighted)	1674	1957	1814	672	612	835	1356	1239	1614	662	860	643	14601
N (unweighted)	920	957	1125	366	384	403	773	743	988	413	533	346	8284
Education													
Less than HS	6.0%	6.0%	4.1%	5.4%	3.3%	6.0%	6.4%	6.0%	5.2%	3.3%	6.8%	6.0%	5.9%
HS grad	22.8%	29.9%	28.6%	27.6%	26.3%	30.1%	28.6%	35.7%	29.1%	30.3%	27.6%	23.8%	29.1%
Some college	31.7%	25.6%	32.7%	32.1%	29.3%	22.5%	33.7%	30.1%	29.8%	26.0%	27.1%	31.9%	29.5%
College grad or more	39.5%	38.4%	34.6%	34.9%	41.1%	41.4%	31.3%	28.2%	35.9%	40.4%	38.5%	38.3%	35.5%
N (weighted)	2046	2373	2190	828	723	975	1619	1517	1903	778	1020	744	17355
N (unweighted)	1033	1084	1295	419	438	440	875	870	1120	471	609	375	9347
Age - Internet users													
18-24	19.8%	15.8%	18.5%	19.9%	15.0%	11.5%	19.0%	14.9%	14.5%	14.8%	18.6%	15.8%	17.2%
25-34	21.4%	23.1%	22.9%	19.3%	24.6%	30.2%	25.9%	23.9%	24.9%	22.2%	20.3%	22.4%	23.2%
35-44	25.8%	28.0%	26.3%	25.2%	25.4%	26.4%	25.0%	25.4%	27.4%	27.1%	23.2%	21.6%	25.8%
45-54	19.7%	20.6%	19.3%	19.0%	18.9%	19.5%	18.1%	21.3%	19.2%	21.7%	23.1%	21.5%	19.8%
55-64	9.2%	9.0%	8.8%	11.7%	12.6%	7.6%	8.2%	11.2%	9.0%	9.6%	9.5%	14.2%	9.6%
65+	4.1%	3.5%	4.2%	4.9%	3.5%	4.8%	3.6%	3.3%	5.1%	4.6%	5.2%	4.5%	4.3%
N (weighted)	2006	2335	2161	807	713	955	1595	1499	1883	771	1006	730	17101
N (unweighted)	1009	1061	1275	407	430	430	861	856	1107	466	598	367	9184
Race													
White, non-hispanic	62.0%	78.2%	85.4%	85.2%	74.9%	86.3%	66.5%	79.7%	75.0%	92.6%	87.4%	87.3%	78.0%
Black, non-hispanic	5.9%	8.8%	7.2%	1.1%	16.6%	1.3%	8.6%	14.0%	14.4%	1.2%	6.9%	2.8%	8.2%
Hispanic	21.3%	7.8%	3.9%	9.1%	4.8%	7.4%	20.9%	3.6%	7.4%	3.0%	2.1%	5.6%	9.2%
Other	10.8%	5.2%	3.5%	4.6%	3.7%	4.9%	4.0%	2.6%	3.2%	3.2%	3.6%	4.3%	4.7%
DK	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
N (weighted)	1353	1559	1483	563	479	696	1108	1017	1296	534	710	495	11836

Pew Internet American Life Project
Internet Use By Region In The United States 2003

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Usage	California	Mid-Atlantic (PA, NJ, DE, NY	Industrial MW (IL, IN, OH, MI)	Mountain (CO, UT, ID, NV, WY, MT)	Capital Region (MD, VA, DC)	New England (CT, MA, VT, RI, ME, NH)	Border States (TX, NM, AZ)	South (TN, AL, MS, LA, WV, KY, AK	Southeast (FL, GA, NC, SC)	Upper MW (MN, ND, SD, WI)	Midwest (MO, NE, KS, OK, IA)	Pacific NW (OR, WA)	National
N (unweighted)	739	735	928	305	307	320	630	614	797	339	443	267	6695
Sex													
Male	51.6%	45.6%	49.1%	47.0%	49.7%	54.5%	48.1%	53.1%	51.7%	50.4%	48.4%	51.9%	49.9%
Female	48.4%	54.4%	50.9%	53.0%	50.3%	45.5%	51.9%	46.9%	48.3%	49.6%	51.6%	48.1%	50.1%
N (weighted)	2335	2761	2517	935	847	1112	1862	1726	2215	905	1169	880	20024
N (unweighted)	1199	1299	1490	479	510	521	1015	992	1307	544	697	447	10879
Employment Status													
Employed, full time	60.8%	64.9%	63.6%	60.1%	70.3%	66.9%	64.0%	68.6%	64.8%	62.5%	64.8%	59.6%	63.8%
Employed, part time	16.9%	15.3%	14.7%	13.9%	11.8%	12.6%	13.0%	10.7%	11.4%	17.3%	15.7%	14.6%	14.0%
retired	6.4%	4.7%	6.7%	9.9%	5.9%	7.0%	5.7%	6.7%	7.2%	6.4%	6.7%	10.4%	6.8%
Not employed	12.8%	11.8%	11.6%	14.0%	10.5%	10.3%	14.4%	10.4%	12.6%	11.0%	11.3%	12.9%	12.2%
Disabled	0.9%	1.0%	0.7%	0.5%	0.3%	0.5%	0.5%	1.2%	1.4%	0.5%	0.8%	0.4%	0.9%
Student	0.9%	0.7%	0.6%	0.4%	0.5%	0.9%	0.8%	1.0%	0.8%	0.3%	0.1%	0.7%	0.7%
Other	0.6%	1.0%	1.6%	0.7%	0.5%	0.6%	1.2%	1.1%	1.4%	1.3%	0.3%	1.0%	1.0%
DK	0.7%	0.6%	0.7%	0.6%	0.1%	1.1%	0.5%	0.2%	0.5%	0.6%	0.2%	0.5%	0.6%
N (weighted)	2335	2761	2517	935	847	1112	1862	1726	2215	905	1169	880	20024
N(unweighted)	1199	1299	1490	479	510	521	1015	992	1307	544	697	447	10879
Time online yesterday													
Less than 15 minutes	13.2%	12.2%	9.8%	14.1%	8.8%	14.5%	12.5%	9.3%	12.5%	13.7%	14.4%	18.3%	12.4%
15 min to > 30 min	11.3%	14.0%	14.3%	13.3%	13.9%	14.9%	12.0%	18.6%	10.4%	15.2%	12.7%	14.1%	13.5%
30 min to > 1 hr	18.5%	15.4%	19.2%	16.9%	13.4%	17.1%	17.6%	17.3%	16.7%	20.8%	15.3%	17.9%	17.2%
About an hour	20.6%	18.2%	20.4%	19.3%	21.2%	19.2%	19.4%	22.4%	18.0%	14.3%	18.9%	14.3%	19.1%
1 hr to > 2 hrs	6.2%	9.0%	7.3%	9.4%	10.7%	7.6%	7.3%	6.6%	9.3%	9.2%	7.2%	8.0%	8.0%
2 hrs to > 3 hrs	11.8%	12.0%	12.5%	12.2%	11.3%	8.5%	14.0%	10.7%	15.0%	13.7%	13.7%	10.8%	12.3%
3 hrs to >4 hrs	5.1%	5.8%	5.8%	5.0%	6.2%	4.8%	3.9%	4.0%	6.2%	4.3%	7.0%	5.4%	5.3%
4 hrs or more	13.3%	12.0%	9.8%	9.8%	13.4%	12.0%	13.0%	10.2%	10.7%	7.1%	9.9%	10.4%	11.2%
DK	0.1%	1.4%	0.9%	0.0%	1.2%	1.4%	0.4%	0.9%	1.3%	1.6%	1.0%	0.8%	0.9%
N (weighted)	1346	1585	1375	533	499	665	1074	879	1221	496	675	550	10897
N (unweighted)	715	782	830	286	311	320	603	516	730	305	411	283	6092
first online usage													
Last six months	6.1%	8.0%	8.3%	7.3%	5.3%	5.3%	8.4%	11.0%	7.4%	8.8%	4.9%	6.0%	7.5%
A year ago	13.8%	14.3%	13.9%	13.4%	10.7%	13.9%	13.2%	16.7%	18.5%	14.1%	15.7%	11.8%	14.5%
2 or 3 years ago	31.0%	33.9%	36.5%	32.3%	34.2%	35.8%	33.2%	35.8%	31.6%	37.0%	33.2%	31.5%	33.8%

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CALIFORNIA EMERGING TECHNOLOGY FUND

Usage	California	Mid-Atlantic (PA, NJ, DE, NY	Industrial MW (IL, IN, OH, MI)	Mountain (CO, UT, ID, NV, WY, MT)	Capital Region (MD, VA, DC)	New England (CT, MA, VT, RI, ME, NH)	Border States (TX, NM, AZ)	South (TN, AL, MS, LA, WV, KY, AK	Southeast (FL, GA, NC, SC)	Upper MW (MN, ND, SD, WI)	Midwest (MO, NE, KS, OK, IA)	Pacific NW (OR, WA)	National
More than 3 years ago	48.6%	43.5%	41.0%	47.0%	49.8%	44.8%	45.1%	35.8%	42.0%	39.5%	45.6%	50.1%	43.9%
DK	0.5%	0.2%	0.2%	0.0%	0.0%	0.2%	0.1%	0.7%	0.5%	0.6%	0.6%	0.7%	0.4%
N (weighted)	2335	2761	2517	935	847	1112	1862	1726	2215	905	1169	880	19264
N (unweighted)	1199	1299	1490	479	510	521	1015	992	1307	544	697	447	10500
Online home usage													
Yes	87.8%	87.0%	85.4%	89.9%	86.5%	87.3%	85.0%	82.7%	87.0%	84.0%	81.9%	87.0%	86.0%
No	12.2%	13.0%	14.6%	10.1%	13.5%	12.7%	15.0%	17.3%	13.0%	16.0%	18.1%	13.0%	14.0%
DK	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
N (weighted)	2335	2761	2517	935	847	1112	1862	1726	2215	905	1169	880	19264
N (unweighted)	1199	1299	1490	479	510	521	1015	992	1307	544	697	447	10500
Online work usage													
Yes	51.1%	50.5%	47.9%	48.5%	55.6%	52.4%	51.5%	47.8%	48.7%	51.3%	50.5%	45.5%	49.9%
No	48.9%	49.5%	52.1%	51.5%	44.4%	47.6%	48.5%	52.2%	51.3%	48.7%	49.5%	54.5%	50.1%
DK	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
N (weighted)	2335	2761	2517	935	847	1112	1862	1726	2215	905	1169	880	19264
N (unweighted)	1199	1299	1490	479	510	521	1015	992	1307	544	697	447	10500
Online frequency													
Several times a day	40.1%	38.5%	34.3%	35.3%	44.7%	37.6%	39.7%	33.9%	33.8%	35.8%	35.6%	38.4%	37.1%
About once a day	25.4%	23.0%	25.5%	26.2%	22.5%	23.5%	26.6%	25.6%	29.5%	24.1%	26.5%	26.4%	25.5%
3-5 days a week	13.6%	17.1%	18.5%	16.1%	16.4%	17.3%	13.0%	16.2%	17.0%	18.8%	16.6%	13.0%	16.2%
1-2 days a week	11.5%	13.3%	11.9%	13.4%	10.4%	13.1%	13.0%	12.4%	10.3%	10.2%	11.4%	13.1%	12.0%
Every few weeks	3.4%	2.7%	4.5%	4.7%	2.7%	2.8%	2.6%	4.1%	3.9%	4.8%	3.5%	4.4%	3.6%
Less often	2.7%	2.8%	2.0%	2.2%	1.3%	3.4%	2.5%	3.4%	2.4%	2.5%	2.4%	1.9%	2.5%
DK	3.3%	2.6%	3.4%	2.1%	2.1%	2.3%	2.6%	4.3%	3.0%	3.8%	4.0%	2.9%	3.1%
N (weighted)	2316	2731	2493	924	833	1108	1857	1700	2195	903	1161	876	19096
N (unweighted)	1192	1289	1481	475	504	519	1012	978	1298	543	694	445	10430
Online yesterday													
Yes	57.6%	57.4%	54.6%	57.0%	58.9%	59.8%	57.7%	50.9%	55.1%	54.8%	57.7%	62.5%	56.6%
No	42.0%	42.1%	45.0%	42.2%	40.5%	40.2%	42.0%	48.8%	44.7%	45.0%	42.3%	37.5%	43.1%
DK	0.3%	0.5%	0.4%	0.8%	0.6%	0.0%	0.3%	0.3%	0.2%	0.2%	0.0%	0.0%	0.3%
N (weighted)	2335	2761	2517	935	847	1112	1862	1726	2215	905	1169	880	19264
N (unweighted)	1199	1299	1490	479	510	521	1015	992	1307	544	697	447	10500
Online from home yesterday													

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Usage	California	Mid-Atlantic (PA, NJ, DE, NY	Industrial MW (IL, IN, OH, MI)	Mountain (CO, UT, ID, NV, WY, MT)	Capital Region (MD, VA, DC)	New England (CT, MA, VT, RI, ME, NH)	Border States (TX, NM, AZ)	South (TN, AL, MS, LA, WV, KY, AK	Southeast (FL, GA, NC, SC)	Upper MW (MN, ND, SD, WI)	Midwest (MO, NE, KS, OK, IA)	Pacific NW (OR, WA)	National
Yes	79.7%	74.0%	74.0%	78.3%	70.8%	73.7%	77.3%	75.1%	79.8%	75.6%	73.0%	83.5%	76.3%
No	20.3%	25.7%	25.8%	21.3%	29.2%	26.3%	22.7%	24.9%	20.2%	24.4%	27.0%	15.8%	23.6%
DK	0.0%	0.3%	0.2%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.1%
N (weighted)	1346	1585	1375	533	499	665	1074	879	1221	496	675	550	10897
N (unweighted)	715	782	830	286	311	320	603	516	730	305	411	283	6092
Online from work yesterday													
Yes	36.6%	41.6%	40.9%	38.8%	51.7%	44.3%	39.4%	40.6%	40.3%	41.9%	39.0%	33.6%	40.4%
No	63.3%	58.4%	59.0%	60.8%	48.3%	55.5%	60.6%	59.4%	59.7%	58.1%	60.8%	65.8%	59.5%
DK	0.1%	0.0%	0.1%	0.4%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.1%	0.6%	0.1%
N (weighted)	1346	1585	1375	533	499	665	1074	879	1221	496	675	550	10897
N (unweighted)	715	782	830	286	311	320	603	516	730	305	411	283	6092
Home Connection													
Standard phone line	76.6%	79.9%	82.1%	86.2%	85.3%	76.8%	84.2%	85.6%	81.2%	84.8%	80.1%	82.7%	81.6%
DSL	10.0%	4.4%	2.7%	4.2%	4.2%	2.9%	4.5%	2.0%	4.8%	3.1%	4.3%	5.2%	4.6%
Cable modem	9.1%	12.2%	11.1%	5.0%	7.7%	15.5%	7.9%	9.2%	9.9%	9.6%	12.2%	9.8%	10.1%
Wireless	0.5%	0.2%	0.6%	0.9%	0.5%	0.6%	0.2%	0.2%	0.2%	0.0%	0.7%	0.0%	0.4%
T-1/Fiber optic	0.2%	0.2%	0.4%	0.3%	0.2%	0.3%	0.1%	0.2%	0.1%	0.2%	0.2%	0.4%	0.2%
Other	0.7%	0.3%	1.2%	1.6%	0.5%	0.7%	0.6%	0.5%	1.4%	1.2%	0.7%	0.3%	0.8%
DK	2.8%	2.8%	1.8%	1.7%	1.7%	3.0%	2.4%	2.3%	2.4%	1.1%	1.7%	1.6%	2.3%
N (weighted)	2049	2402	2150	840	733	971	1582	1428	1927	760	958	766	16567
N (unweighted)	1067	1143	1283	430	450	453	872	825	1142	455	571	394	9085
2001 Online Tasks													
Email	88.1%	88.8%	87.1%	91.4%	87.5%	88.6%	88.1%	86.5%	88.9%	87.6%	89.0%	91.4%	88.3%
News	54.4%	60.8%	58.2%	51.3%	62.0%	57.7%	63.7%	63.2%	59.1%	52.9%	64.9%	52.9%	59.0%
Financial Information	40.9%	36.6%	38.0%	34.8%	42.6%	35.2%	38.8%	41.3%	38.1%	40.5%	30.5%	40.4%	38.3%
Health Information	53.4%	57.6%	57.5%	47.2%	58.6%	57.2%	53.5%	60.5%	56.4%	57.9%	58.5%	48.8%	56.1%
Job research	38.3%	38.6%	41.9%	38.5%	39.9%	45.3%	44.1%	41.6%	42.9%	41.1%	42.3%	38.1%	41.1%
Hobby information	82.6%	80.5%	77.1%	78.3%	77.9%	80.9%	75.8%	77.8%	73.2%	75.9%	76.8%	75.9%	77.9%
Just for fun	54.4%	65.0%	61.3%	52.8%	65.3%	61.9%	63.6%	66.9%	60.5%	54.9%	69.9%	48.5%	61.2%
Buy a product	52.7%	48.0%	42.4%	44.7%	43.5%	55.3%	46.4%	43.0%	42.2%	36.9%	36.6%	41.1%	45.0%
Internet search	75.7%	73.3%	74.1%	73.6%	69.6%	88.9%	78.4%	75.4%	73.0%	71.6%	78.2%	79.5%	75.4%

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2002	65.3%	57.8%	56.1%	64.2%	64.4%	65.8%	60.4%	48.3%	57.1%	59.3%	54.5%	67.6%	59.1%
2001	60.3%	57.5%	55.0%	61.4%	58.0%	58.9%	58.5%	45.8%	53.7%	54.6%	53.6%	66.3%	56.4%
2000	56.6%	51.2%	48.8%	56.2%	53.3%	55.5%	52.5%	40.1%	48.4%	49.1%	49.5%	56.5%	50.4%
Income													
Under $30,000	18.8%	17.6%	15.3%	15.7%	12.6%	13.9%	17.9%	21.7%	20.7%	18.4%	18.6%	25.6%	18.3%
$30,000 - $50,000	19.9%	22.0%	25.5%	22.8%	16.4%	17.8%	27.2%	26.1%	24.6%	20.9%	27.9%	23.2%	23.2%
$50,000 - $75,000	14.6%	18.9%	18.9%	22.9%	18.3%	17.4%	14.0%	17.2%	16.1%	21.8%	20.0%	17.6%	17.7%
Over $75,000	30.8%	25.1%	23.2%	23.9%	35.8%	35.1%	24.2%	20.9%	25.7%	24.5%	20.8%	20.4%	25.3%
Refused	15.9%	16.5%	17.0%	14.7%	16.8%	15.9%	16.7%	14.1%	13.0%	14.4%	12.7%	13.1%	15.4%
N (weighted)	1462	1833	1553	648	575	730	1248	1190	1449	693	811	610	15301
N (unweighted)													
Education													
Less than HS	3.8%	4.6%	5.3%	7.3%	3.6%	3.5%	6.2%	7.6%	7.0%	3.2%	7.2%	4.9%	5.7%
HS grad	25.5%	31.1%	31.3%	25.7%	24.8%	29.0%	27.8%	30.6%	29.2%	33.9%	26.4%	27.8%	29.0%
Some college	31.1%	26.5%	31.5%	32.2%	30.5%	22.1%	31.0%	31.4%	31.6%	26.5%	32.6%	32.4%	29.6%
College grad or more	39.6%	37.9%	32.0%	34.8%	41.1%	45.5%	35.0%	30.4%	32.2%	36.4%	33.8%	35.0%	35.7%
N (weighted)	1452	1819	1544	646	572	724	1247	1184	1445	687	799	609	15222
N (unweighted)													
Age													
18-24	21.4%	20.2%	20.7%	22.9%	20.1%	13.6%	25.4%	20.0%	19.2%	19.8%	19.8%	21.3%	20.0%
25-34	31.8%	32.7%	29.7%	31.4%	29.2%	32.4%	30.6%	31.0%	31.9%	27.9%	29.8%	30.3%	29.7%
35-44	22.0%	22.2%	23.7%	20.9%	21.4%	27.6%	19.3%	24.4%	25.1%	24.1%	24.0%	23.0%	23.5%
45-54	14.1%	15.6%	16.2%	14.7%	18.1%	17.2%	14.8%	15.5%	13.4%	16.6%	15.1%	12.0%	15.9%
55-64	6.7%	5.9%	6.1%	6.2%	7.6%	5.9%	6.9%	5.9%	6.0%	9.0%	7.1%	8.6%	7.0%
65+	4.0%	3.3%	3.5%	4.0%	3.6%	3.3%	3.2%	3.2%	4.5%	2.6%	4.2%	4.9%	3.9%
N (weighted)	1431	1795	1521	640	563	708	1236	1176	1430	682	789	590	15011
N (unweighted)													
Race													
White, non-hispanic	62.0%	74.3%	84.1%	85.7%	71.9%	88.0%	65.2%	80.2%	73.4%	91.6%	88.4%	84.1%	77.2%
Black, non-hispanic	5.0%	9.3%	8.4%	1.6%	19.8%	2.4%	8.8%	13.8%	15.1%	3.3%	4.1%	4.2%	8.5%
Hispanic	22.6%	10.5%	4.2%	9.4%	3.7%	6.5%	22.5%	3.7%	6.9%	1.9%	2.7%	6.2%	9.5%
Other	10.4%	5.9%	3.3%	3.4%	4.6%	3.1%	3.5%	2.3%	4.7%	3.3%	4.8%	5.5%	4.9%
N (weighted)	1419	1790	1532	639	561	706	1235	1185	1425	681	799	597	15035
N (unweighted)													

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Sex													
Male	50.2%	50.0%	50.9%	51.1%	53.0%	50.2%	49.7%	48.8%	50.1%	48.9%	48.0%	53.6%	50.2%
Female	49.8%	50.0%	49.1%	48.9%	47.0%	49.8%	50.3%	51.2%	49.9%	51.1%	52.0%	46.4%	49.8%
N (weighted)	1462	1833	1553	648	575	730	1248	1190	1449	693	811	610	15301
N (unweighted)													
Employment Status													
Employed, full time	54.6%	63.4%	63.7%	57.4%	66.2%	66.1%	61.3%	62.1%	63.2%	66.5%	61.2%	56.0%	61.8%
Employed, part time	17.4%	14.9%	15.1%	15.1%	12.8%	14.5%	15.4%	14.2%	11.7%	17.7%	15.0%	12.7%	14.7%
retired	9.0%	8.9%	6.5%	7.9%	7.3%	5.2%	7.4%	8.3%	8.4%	6.2%	8.0%	11.9%	7.9%
Not employed	15.5%	9.1%	12.3%	15.7%	12.2%	10.4%	13.6%	12.0%	12.6%	7.8%	13.1%	16.3%	12.5%
Disabled	0.8%	0.9%	1.0%	1.0%	0.6%	1.1%	0.4%	0.8%	1.1%	0.6%	0.6%	1.0%	0.8%
Student	0.4%	0.7%	0.4%	0.6%	0.3%	0.5%	0.4%	0.7%	0.5%	0.0%	0.3%	0.3%	0.5%
Other	1.1%	0.9%	0.4%	2.3%	0.4%	1.1%	1.3%	1.1%	1.8%	0.5%	1.0%	1.3%	1.1%
DK	1.2%	1.1%	0.6%	0.0%	0.3%	1.1%	0.1%	0.8%	0.6%	0.7%	0.7%	0.4%	0.6%
N (weighted)	1462	1833	1553	648	575	730	1248	1190	1449	693	811	610	15301
First Online Usage													
Last six months	2.6%	1.6%	1.0%	2.8%	0.9%	2.8%	2.5%	2.0%	2.7%	1.2%	3.2%	2.2%	2.1%
A year ago	6.6%	4.7%	7.7%	3.3%	5.0%	4.7%	7.6%	5.8%	7.4%	7.9%	2.6%	4.8%	6.0%
2 or 3 years ago	20.7%	24.9%	23.1%	20.4%	17.8%	25.4%	21.2%	29.1%	22.2%	21.5%	30.0%	17.7%	23.2%
>3 years ago	69.5%	67.4%	66.6%	71.4%	73.7%	65.2%	67.4%	62.0%	65.2%	67.6%	63.1%	73.3%	67.1%
DK	0.4%	1.3%	1.5%	2.1%	2.6%	1.9%	1.3%	1.2%	2.6%	1.7%	1.1%	2.1%	1.5%
N (weighted)	987	1209	1056	439	413	479	843	814	936	456	533	374	8539
Online from home?													
Yes	85.1%	95.5%	82.8%	N<100	N<100	N<100	88.1%	88.2%	N<100	N<100	N<100	N<100	87.8%
No	14.9%	4.5%	17.2%	N<100	N<100	N<100	11.9%	11.8%	N<100	N<100	N<100	N<100	12.2%
DK	0.0%	0.0%	0.0%	N<100	N<100	N<100	0.0%	0.0%	N<100	N<100	N<100	N<100	0.0%
N (weighted)	257	285	244	N<100	N<100	N<100	221	225	N<100	N<100	N<100	N<100	4477
Online from work?													
Yes	57.2%	48.5%	47.1%	N<100	N<100	N<100	48.5%	56.6%	N<100	N<100	N<100	N<100	49.5%
No	42.8%	51.5%	52.9%	N<100	N<100	N<100	51.5%	43.4%	N<100	N<100	N<100	N<100	50.5%
DK	0.0%	0.0%	0.0%	N<100	N<100	N<100	0.0%	0.0%	N<100	N<100	N<100	N<100	0.0%
N (weighted)	257	285	244	N<100	N<100	N<100	221	225	N<100	N<100	N<100	N<100	4477
Online Frequency													
Several times a day	40.6%	35.6%	34.2%	38.3%	42.4%	39.3%	39.6%	32.4%	40.5%	34.1%	36.5%	40.4%	37.4%
About once a day	23.2%	24.2%	23.4%	22.0%	24.4%	26.3%	21.4%	25.0%	18.7%	23.4%	25.6%	27.0%	23.6%

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3-5 days a week	14.3%	14.0%	16.4%	15.7%	10.6%	14.3%	15.8%	18.0%	14.8%	17.7%	15.0%	12.3%	15.3%
1-2 days a week	11.4%	13.4%	12.6%	11.1%	13.6%	9.6%	10.7%	11.7%	12.8%	15.0%	10.9%	11.0%	12.2%
Every few weeks	3.9%	5.7%	5.2%	3.6%	2.8%	4.4%	4.3%	4.6%	4.7%	5.0%	3.5%	2.8%	4.3%
Less often	2.0%	2.6%	2.0%	2.9%	2.2%	2.4%	2.3%	2.8%	1.9%	1.9%	2.3%	1.6%	2.2%
DK	4.5%	4.5%	6.1%	6.4%	4.0%	3.7%	5.9%	5.6%	6.8%	2.9%	6.1%	5.0%	5.1%
N (weighted)	1462	1833	1553	648	575	730	1248	1190	1449	693	811	610	15191
Online yesterday													
Yes	57.7%	54.9%	54.5%	52.8%	64.7%	59.9%	55.0%	52.7%	55.0%	53.2%	58.9%	61.4%	56.6%
No	42.2%	45.1%	45.1%	47.2%	35.1%	39.7%	45.0%	47.3%	44.8%	46.3%	41.1%	37.4%	43.3%
DK	0.1%	0.0%	0.4%	0.0%	0.2%	0.3%	0.0%	0.0%	0.2%	0.5%	0.0%	1.2%	0.2%
N (weighted)	1462	1833	1553	648	575	730	1248	1190	1449	693	811	610	15191
Online from home yesterday													
Yes	80.4%	82.0%	76.1%	81.4%	78.5%	79.0%	78.1%	79.7%	76.2%	71.8%	76.8%	78.4%	79.0%
No	19.6%	18.0%	23.9%	18.6%	21.5%	20.7%	21.9%	20.3%	23.8%	27.8%	23.2%	21.6%	21.0%
DK	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%
N (weighted)	844	1006	847	342	372	437	687	627	797	369	478	375	8590
Online from work yesterday													
Yes	38.2%	37.4%	40.8%	39.9%	46.3%	41.3%	40.6%	35.8%	41.3%	44.6%	40.7%	37.3%	39.3%
No	61.2%	62.6%	59.2%	60.1%	53.7%	58.7%	59.4%	64.2%	58.7%	55.4%	59.3%	62.7%	60.6%
DK	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
N (weighted)	844	1006	847	342	372	437	687	627	797	369	478	375	8590
Home Connection													
Standard phone line	69.5%	69.4%	78.1%	78.6%	74.6%	67.2%	74.2%	77.5%	72.4%	79.5%	74.6%	76.8%	74.9%
DSL	14.0%	5.9%	5.2%	7.4%	4.5%	9.5%	6.4%	5.3%	9.6%	4.1%	4.8%	9.3%	7.1%
Cable modem	11.8%	20.2%	14.1%	10.7%	17.7%	19.0%	14.7%	13.9%	14.0%	12.0%	15.7%	10.2%	14.2%
Wireless	0.6%	0.3%	0.5%	1.0%	0.0%	0.3%	1.0%	0.4%	0.5%	0.6%	1.2%	0.4%	0.5%
T-1/Fiber optic	0.1%	0.5%	0.0%	0.6%	0.6%	0.5%	0.7%	0.5%	0.3%	0.7%	0.5%	0.0%	0.3%
Other	1.1%	1.0%	0.6%	0.2%	0.3%	1.2%	0.9%	0.7%	1.4%	0.8%	0.9%	0.4%	0.9%
DK	3.0%	2.7%	1.6%	1.4%	2.2%	2.3%	2.0%	1.7%	1.9%	2.3%	2.3%	2.9%	2.1%
N (weighted)	1291	1639	1312	576	513	643	1067	1027	1245	594	686	529	13227
Online Tasks 2002													
Email	93.5%	93.5%	91.0%	92.9%	95.7%	95.9%	92.6%	92.2%	91.4%	92.0%	94.6%	94.4%	93.0%
News	67.7%	69.1%	66.4%	60.8%	74.5%	70.5%	68.7%	70.1%	66.8%	61.6%	67.2%	68.3%	67.7%
Health Information	60.8%	66.4%	60.5%	57.6%	65.5%	62.0%	62.1%	68.2%	62.0%	60.6%	65.2%	64.8%	63.1%
Buy a product	62.1%	65.1%	55.8%	56.6%	67.9%	64.1%	55.9%	54.4%	56.0%	53.8%	56.6%	57.4%	58.8%

Since broadband first became widely available to consumers in the late 1990s, adoption has hit the halfway point faster than most other information and communication technologies. It has taken about 10 years for broadband to reach 50% of adults in their homes. The quick pace at which high-speed internet has found its way into Americans' homes stands in sharp contrast to how government statistical agencies have adapted to measuring broadband. The focal point for worrying about tracking broadband is America's low ranking in international comparisons of home broadband penetration - 15th in 2007 according to statistics compiled by the Organization for Economic Cooperation and Development down from 4 in 2001. Policymakers wishing to criticize the rankings quickly learn of the inadequacies in the data underlying the U.S. ranking collected by our own Federal Communications Commission.

As broadband's importance in carrying out everyday activities grows, new issues arise for a variety of stakeholders:

- Rural communities may want to do something about lack of broadband infrastructure, but many don't have the data to tell them precisely where deployment gaps exist.

- Economic development officials in cities wonder whether higher quality information infrastructure would improve their prospects for attracting jobs but the economists on whom they rely for answers struggle to provide reliable advice as there are no systematically collected and publicly available sources of data on adoption and deployment of broadband at the local level.

- A variety of organizations, large and small, for profit or not, want to know about the user experience to design service delivery programs more effectively.

In June 2006, researchers at the Pew Internet Project, the University of Texas at Austin, and the Massachusetts Institute of Technology convened a workshop to discuss ways to address them. The workshop included academics, state and federal officials from data-collection agencies, and staff from Capitol Hill. Soon thereafter, Congress began to consider how to improve data collection for broadband. A pervasive theme of the workshop can be summed up this way: "Networks may be global, but measurement must be local."

The gathered experts kept coming back to the need for granularity in data collection. That is, whether the goal is assessing economic impacts or understanding user behavior, data must be collected at the smallest geographic levels possible -- smaller than areas captured by 5 digit zip codes. This would permit state and local officials to better understand the impacts of information technology in their areas. Workshop participants also agreed that the United States should be able to produce a map showing the availability of broadband infrastructure. This map must be built from the bottom-up, so measures at the local level are necessary in some detail.

Current Legislation on Broadband Data Collection

Legislation currently working its way through the House and the Senate captures many of the key points raised at the workshop. In the Senate, Commerce Committee Chairman Daniel Inouye has introduced the Broadband Data Improvement Act, which, among other provisions, calls on the FCC to reevaluate the current definition of broadband to develop a new "second generation

broadband" metric. Workshop participants also called for updating the definition of broadband; the current definition of broadband is 200 Kilobits per second in one direction -- far slower than speeds advertised by most services today. Inouye's bill also includes other provisions that reflect workshop discussions:

- It requires providers to report broadband availability in 9 digit zip code areas -- a level
- of disaggregation that will enable robust mapping of infrastructure.

- It directs the Census Bureau to include in the American Community Survey (ACS) questions on residential computer use and dial-up versus broadband subscribership.

- It addresses quality of service by asking the Government Accountability Office to develop metrics to enable consumers to compare information better on such issues as the cost and capability of home high-speed connections.

- An additional requirement in the bill is to have the Small Business Administration conduct a study of broadband's impact on small businesses.

On the House side, the Energy and Commerce Committee approved on October 30 the Broadband Census of America Act, a bill sponsored by Congressman Ed Markey. The House bill directs the Commerce Department's National Telecommunications and Information Administration to develop an interactive map of broadband infrastructure at the 9 digit zip code level -- something not specified in the Senate bill. While the Senate directs the Census to include broadband questions in the ACS, the House bill designates the FCC as the agency to conduct periodic surveys of residential and business broadband users. The surveys will determine the technology people use, the price they pay for service, specifics on transmission speeds, as well as prices paid for service. Like the Senate, the House bill authorizes funding for grants to local planning organizations to facilitate technology planning. Whereas the Senate bill authorizes $40 million over 5 years, the House bill specifies $300 million over 3 years.[5]

At this point, it is unclear how the House and Senate would resolve their differences should each chamber approve a bill. Although there is widespread consensus on the desirability of better broadband data collection, details are controversial. Industry understandably worries that public disclosure information on infrastructure availability and network speeds could give away proprietary data. Depending on the level of specificity, data on user behavior raises worries about personal privacy.

However, if improvements in broadband data collection are enacted into law, that is only the beginning of a process to map and measure information infrastructure in the United States better. Ongoing dialogue with research community is needed to properly implement any new law. The researchers assembled at the Pew Research Center will be key resources when the time comes to put into practice new broadband data collection provisions.

The Economic Effects of Increased Home Broadband Use in California Study

The economic growth model developed by the Sacramento Regional Research Institute (SRRI) estimates the historical effects of broadband use at the statewide level and forecasts three scenarios measuring moderate (0.2% per year), strong (3.8% per year) and dramatic (7.6% per year) increases in broadband adoption for the state and its 24 regions.

SRRI used statistical models, as well as economic and broadband usage data from 2001 through 2005 to analyze 24 major regions of California and project future growth. SRRI's research was conducted using proprietary data from Scarborough Research, based on surveys conducted in 39 California counties twice each year from 2001 to 2007. The key findings from the study include:

- An increase in California's broadband Internet usage could lead to significantly higher levels of employment and payroll in the state.
- With a 3.8 annual percentage point increase in the proportion of the adult population using broadband, California could see a net cumulative gain of 1.8 million jobs and $132 billion of payroll over the next 10 years.
- The percentage of Californians using a broadband connection has tripled since 2001.
- Between 2002 and 2005 broadband use generated approximately 198,000 jobs and approximately $11.6 billion of payroll in California.

A boost in broadband use would affect all regions of the state, from major metropolitan areas to more rural communities. The following is a detailed chart by region of economic impacts of broadband growth:

Region	Forecast of 10-Year Cumulative Employment Gains	Forecast of 10-Year Cumulative Payroll Gains (millions of $)
Los Angeles-Long Beach-Glendale	455,753	$33,079
Riverside-San Bernardino-Ontario	196,613	$11,022
Santa Ana-Anaheim-Irvine	186,478	$14,512
San Diego-Carlsbad-San Marcos	152,075	$11,211
Sacramento-Arden Arcade-Roseville	113,790	$7,928
Oakland-Fremont-Hayward	109,041	$9,282
San Francisco-San Mateo-Redwood City	101,297	$9,080
San Jose-Sunnyvale-Santa Clara	93,250	$8,878
Fresno	41,163	$2,229
Oxnard-Thousand Oaks-Ventura	38,131	$2,971
Stockton	25,717	$1,523
Modesto	21,233	$1,214
Santa Rosa-Petaluma	20,618	$1,211
Visalia-Porterville	16,779	$809
Vallejo-Fairfield	14,853	$1,001
Merced	8,213	$448
Napa	7,275	$506
Madera	6,315	$299
Yuba City	4,998	$270
Hanford-Corcoran	4,970	$245
Truckee-Grass Valley	3,555	$200
Ukiah	3,435	$153
Phoenix Lake-Cedar Ridge	2,188	$140
Clearlake	1,705	$96

Source- *The Economic Effects of Increased Home Broadband Use in California*, Sacramento Regional Research Institute, November 2007.

The use of information technology equipment and the Internet provides opportunities to reduce energy consumption and the generation of greenhouse gases. The following are some of the benefits:

- Telecommuting reduces energy consumption associated with transportation to and from the office and, in some cases, a portion of the energy associated with commercial office space.
- Annually, a worker with a one-way commute of 22 miles can save up to 81,000 MJ of energy by telecommuting five days a week. 81,000 MJ is equivalent to about 50% of the annual electricity consumption of an average household.
- Downloading electronic goods instead of purchasing physical media in a retail store can provide measurable energy savings. For example, viewing a movie through video-on-demand (VOD) instead of driving to the rental store reduces energy consumption, especially if renting requires a long drive.
- The use of e-mail in place of First Class Mail provides energy savings (even when the embodied energy of the Postal Service is excluded); however, printing emails can reduce or eliminate those savings.

The national energy savings of telecommuting and e-commerce can be expressed in terms of the annual electricity consumed by equivalent number of average household and the average annual energy associated with an equivalent number of light-duty vehicles:

Activity	Description	Annual National Energy Savings	Energy Savings- Equivalences	
			Annual Electricity Consumed*	Annual Number of Light-Duty Vehicles (LDV)**
Telecommuting	Savings associated with current estimate of 3.9 million telecommuters.	130,000 to 190,000 TJ	0.8 to 1.2 million households	1.5 to 2.1 million LDVs
e-Commerce: Electronic Goods	Potential savings if 1.25 billion video/DVD rentals, transitioned to Video on Demand (VOD).	33,000 TJ	0.2 million households	0.36 million LDVs
e-Commerce: e-materialization	Savings associated with the 3.5 billion unit decline in First Class Mail from 2000 to 2006, with no printing.	200 TJ	Small	Small

*Taking into account the energy used to generate the electricity; transmit and distribute the electricity; extract resources used to generate electricity; and to create the infrastructure to extract resources, generate electricity, and transmit and distribute electricity.
** Taking into account the energy in the fuel and the energy to: produce the fuel, distribute fuel; extract resources used to produce the fuel; and create the infrastructure to extract resources, produce fuel, and distribute fuel.
Sources: EIA (2006), CMU (2007)

Health Information Online [1]

- Eight in ten Internet users have looked online for health information.
- Seventy-nine percent of Internet users have searched online for information on at least one major health topic. That translates to about 95 million American adults who use the internet to find health information.
- Certain groups of Internet users are the most likely to have sought health information online: women, Internet users younger than 65, college graduates, those with more online experience, and those with broadband access.
- There are now many more Internet users with high-speed or broadband access at home. Those who have high-speed connections are, in many cases, more likely than those with dial-up connections to have sought various kinds of health information online.
- There are many more internet users with six or more years of online experience. These "power users" may now turn to the internet not only when they have a pressing concern, but when they have an every-day sort of health questions about diet, fitness, or how to check if something is covered by their health insurance.

Health Topics Searched Online Nationwide [2]

The typical health seeker has searched for 5 topics. About a third of health seekers have searched for 7 or more topics.

	Internet Users Who Have Searched for Information on It (%)	
Health Topic	**2002**	**2004**
Specific disease or medical problem	63%	66%
Certain medical treatment or procedure	47	51
Diet, nutrition, vitamins, or nutritional supplements	44	51
Exercise or fitness	36	42
Prescription or over-the-counter drugs	34	40
Health insurance	25	31
Alternative treatments or medicines	28	30
A particular doctor or hospital	21	28
Depression, anxiety, stress, or mental health issues	21	23
Experimental treatments or medicines	18	23
Environmental health hazards	17	18
Immunizations or vaccinations	13	16
Sexual health information	10	11
Medicare or Medicaid	9	11
Problems with drugs or alcohol	8	8
How to quit smoking	6	7

1. Excerpt- Fox, Susannah. *Health Information Online*. Washington, DC: Pew Internet & American Life Project, May 17, 2005. 2. Excerpt- Pew Internet & American Life Project December 2002 Survey (N=1,220); November 2004 Survey (N=537). Margin of error for comparing the two samples is +/- 4.6%. 3. Excerpt - Fox, Susannah. *Wired for Health*. Washington, DC: Pew Internet & American Life Project, December 14, 2003. 4. Excerpt- Fox, Susannah. *E-patients With a Disability or Chronic Disease*. Washington, DC: Pew Internet & American Life Project, October 8, 2007.

How Californians Compare to the Rest of the Nation[3]

Californians in all income brackets and of all ethnicities are in line with the rest of the country when it comes to most Internet health search habits. However, online Californians differ from other wired Americans in three areas of online health:

- Low-income Californians are more likely than other low-income Americans to go online and to search for health information. Most report benefits from their online health searches.
- Latino Californians search online for health information, especially if they speak English.
- Health insurance, alternative medicine, and experimental treatments are particularly popular topics among Californian Internet users.

E-patients with a Disability or Chronic Disease[4]

About a fifth of American adults say that a disability, handicap, or chronic disease keeps them from participating fully in work, school, housework, or other activities. Half (51%) of those living with a disability or chronic disease go online, compared to 74% of those who report no chronic conditions. Fully 86% of internet users living with disability or chronic illness have looked online for information about at least one of 17 health topics, compared with 79% of internet users with no chronic conditions.

- Adults living with a disability or chronic disease are less likely than others to go online, but once online, are avid health consumers.
- Those with chronic conditions are more likely than other e-patients to report that their online searches affected treatment decisions, their interactions with their doctors, their ability to cope with their condition, and their dieting and fitness regimen.
- E-patients with chronic conditions are more likely than other health seekers to go online for information about their own conditions.
- E-patients with chronic conditions have mostly positive things to say about their online health searches, but they are more likely than others to report frustration as well.
- The impact of the most recent search for health information was most deeply felt by internet users who had received a serious diagnosis or experienced a health crisis in the past year.

Conclusions and Opportunities for E-patients with a Disability or Chronic Disease

- If health care providers have sites or key words to recommend, e-patients with chronic conditions may be especially receptive.

- Health care providers may want to make "Do you ever go online for health information?" a standard question.
- Online research may be part of a "coached care" program to help people get the most out of their health care.

- The Medical Library Association (http://www.mlanet.org/) provides tips and resources for consumers who want to be sure they are accessing the best information available.

- Doctors, nurses, website developers, public health advocates and anyone else involved in health information dissemination should be especially tuned in to hard-hit e-patients' interest in gathering data and advice online.