

About 73 percent of inexperienced respondents indicated that their home Internet service was “very reliable.”

About ten percent of all respondents have been using the Internet for less than six months, about 18 percent have been using the Internet for six months to one year, and about 22 percent have been using the Internet for over one year. On average, respondents use their home Internet service to go online for a total of about 16 hours per week. Broadband users are more active. Respondents with “Fast” and “Very Fast” connections spent about 15 and 19 hours online per week, respectively, compared to users with a “Slow” Internet connection, who spent about 10 hours online per week.

Internet activity data are obtained by asking respondents “How often do you use your home Internet service to do each of the following Internet activities: email and instant messaging (IM); use search engines (e.g., Google); play online games; sit on a bench in a public park and connect your laptop computer to the Internet wirelessly; download full-length high-definition movies and TV shows to view on your PC; place telephone calls and see the person you are calling (“Videophone”); and interact with your health care specialists (“Telehealth”).” Table 6 shows Internet activity for the most extreme response, “many times a week.” Email and IM, using search engines and playing games are frequent activities for all Internet users. As expected, broadband users are more active on the Internet than users with a slow connection. The percentage of broadband Internet users answering “many times a week” is higher for all seven Internet activities.

Table 7 summarises household responses to questions about activities that are not widely available in Internet services or can be unbundled. Four percent of survey respondents indicated that they had the ability to prioritize traffic with their home Internet service, with over

70 percent of these being served by AT&T, Comcast Communications, Cox Communications or Time Warner Cable. Interestingly, each of these four cable companies have trialed alternative usage-based pricing and prioritized traffic service plans over the past two years. For example, Cox Communications has tested a service that gives priority to time-sensitive Internet traffic during peak demand times in Arkansas and Kansas.²⁰ About seven percent of respondents have interacted with their health specialists through their home Internet service. Just over two percent indicated that their home Internet service had a mobile laptop feature.²¹ About 18 percent of respondents indicated that they have used a videophone feature to place phone calls and see the person they calling, through their internet service, and about 17 percent have used online movie rental services such as Netflix, Blockbuster.com and iTunes to download and watch high-definition movies and TV shows.

After completing the survey, 358 respondents provided additional comments on the individual questions, choice experiments and methodology. 250 respondents had comments on the Internet features, *COST*, *SPEED* and *RELIABILITY*. 28 percent indicated that reliability was the most important characteristic for their home Internet service, 26 percent indicated that monthly cost was the most important characteristic and 14 percent indicated that speed was the most important characteristic. 27 percent indicated that speed and reliability were equally the most important characteristics. There were also 196 comments on the Internet activities, *MOBILE LAPTOP*, *PRIORITY*, *TELEHEALTH*, *VIDEOPHONE* and *MOVIE RENTAL*. In 87 percent of the comments, respondents indicated that they did not want to pay for these Internet

²⁰ For example, see <http://www.allbusiness.com/media-telecommunications/telecommunications/11845135-1.html>, http://www.lightreading.com/document.asp?doc_id=175121&site=cdn, and <http://www.dslreports.com/shownews/Checking-Out-the-Time-Warner-Bandwidth-Usage-Meter-101278>.

²¹ For example, Qwest offer their “Mobile Laptop Data Plan” for \$79.99 per month. See <http://www.qwest.com/residential/products/wireless/mbb.html>.

activities. There were two main reasons: 1) they did not want the service(s); or 2) they already use the service(s) with their current Internet service provider for free.

4.4 Choice Questions

The distributions of answers to the choice questions show that in 54 percent of the A-B choice occasions, respondents chose Internet service alternative A over B. In the follow up questions, respondents chose to stay with their actual (status quo) service over the hypothetical alternative, A or B, in about 68 percent of the choice occasions. There is an equal distribution of A and B choices when respondents chose to switch from their actual (status quo) home service to the hypothetical service. There are no discernable trends over the eight choice questions.

5. Results

About 350 cases from the sample cannot be used because the respondents provided incomplete information about the characteristics of their home (status quo) Internet service. As a result, there are at most 5,921 usable cases with information on at least some of the eight A-B choices and the follow-up status quo versus A or B question. Since each pair of binary choices (A vs. B, and A or B vs. SQ) for each choice occasion represents information on preferences, the starting maximum sample size for econometric estimation is effectively $n = 5,921 \times 8 = 47,368$. In models where respondent demographic data are used to measure preference heterogeneity the sample size is reduced as made necessary by missing values for demographic variables.

Note that the coding of the categorical variable *SPEED* in equation 1 is linear, which implies that the marginal utility for *SPEED* is the same when moving from “Slow” to “Fast”

and when moving from “Fast” to “Very Fast.” We relax this restriction during the econometric estimation below by replacing *SPEED* (= 1, 2, 3) with a pair of dichotomous variables, *FAST SPEED* (equals one when *SPEED* equals “Fast” and zero otherwise) and *VERY FAST SPEED* (equals one when *SPEED* equals “Very fast” and zero otherwise). The estimated parameter on *FAST SPEED* measures the change in utility from moving from slow to fast connection speed and the estimated parameter on *VERY FAST SPEED* measures the change in utility from moving from slow to very fast connection speed.

5.1 Baseline Results

Equation A12 of Appendix A describes the likelihood function for the bivariate probit model used to estimate the household’s utility function. Table 8 reports maximum likelihood estimates of the baseline model without preference heterogeneity for the full sample of 47,368 observations.²² Marginal utility parameters (MU), asymptotic t-statistics for the marginal utilities (*t*), WTP calculations and standard errors for the WTP calculations are presented in column two through column five.²³ The estimate of the ratio of the standard deviation of the errors in evaluating the status quo alternative to the errors in evaluating the hypothetical alternatives estimate, $\lambda = 0.94$, implies that the error in the utility function for the SQ questions has about the same variance than the error from the A-B questions. The interpretation is that

²² Because consumers may have heterogeneous preferences for unmeasured aspects of Internet alternatives we estimate utility with a constant to capture differences in tastes between the status quo and hypothetical services. We also estimated an alternative specification of utility where individual specific constants were randomly distributed across households. The results, not reported, are similar to those in Table 8.

²³ Our WTP calculations are reported the conventional way, in dollars and cents. The standard errors of WTP are calculated using the delta method – see Appendix B.

respondents seem to have the same consistency in choice when comparing a hypothetical choice to a real alternative than when comparing two hypothetical choices.²⁴

The data fit the baseline model well as judged by the statistical significance of most parameter estimates. The estimated coefficient on *MOBILE LAPTOP* is relatively small and not significantly different from zero. As such, the choice data provide no evidence that households value the ability to connect their laptop to the Internet wirelessly while away from home. This estimate may arise from the fact that many people have the ability to connect away from home via a Smartphone and interpret the question as having an exclusive bundle of services.

The marginal utility parameter for *COST* is negative and statistically significant at the one percent level. The marginal utility parameters for *FAST SPEED*, *VERY FAST SPEED*, *RELIABILITY*, *PRIORITY*, *TELEHEALTH*, *VIDEOPHONE* and *MOVIE RENTAL* are positively signed and are also significant at the one percent level. The estimated signs for these service characteristics imply that the representative household's relative utility increases when cost is decreased, speed is increased and service is improved from less reliable to very reliable. Relative utility is also higher for a service that allows the household to designate some downloads as high-priority, interact with health specialists online, place free phone calls over the Internet and see the person being called, and download movies and TV shows, etc. Reliability and speed are important characteristics of Internet service with consumers willing to pay \$19.88 per month for more reliable service, \$45.10 for an improvement in speed from slow to fast, and \$48.12 for an improvement in speed from slow to very fast.

²⁴ The parameter λ is generally estimated to be close to, or greater than, one in all models in Table 8 through Table 18. We report its estimate and the corresponding test statistic, but do not discuss it further.

Households also value the *PRIORITY* feature and to a lesser extent, the *TELEHEALTH*, *VIDEOPHONE* and *MOVIE RENTAL* activities. The results show that households would be willing to pay an additional \$6.37 per month so that their Internet service provides the ability to designate downloads as high-priority, \$4.39 for the ability to interact with health specialists online, \$5.06 for the ability to place free phone calls over the Internet and see the person being called, and \$3.29 for the ability to download movies and TV shows.

The marginal utility estimates for *FAST SPEED* and *VERY FAST SPEED* in Table 8 indicate that households value an improvement in connection speed from slow to very fast (i.e., WTP = \$48.12) only slightly more than an improvement from slow to fast (i.e., WTP = \$45.10). In other words, very fast service is worth approximately \$3 more than fast service. An explanation for this finding is that the typical household in the sample is involved in Internet activities and applications at home that do not require blazing fast download and upload speeds. When we split the sample by household's existing connection speed, we observe in Table 9 that households with slow speed are willing to pay about \$16 per month for an improvement to fast and that they place no premium on very fast speed. Households with a fast Internet connection value that speed at about \$39, relative to slow speed, and also place no premium on very fast speed. Households with very fast Internet connection value fast speed at about \$55 per month and value very fast speed at about \$63 per month. Willingness-to-pay for reliability of service also increases with household's existing connection speed. Households with slow speed are willing to pay about \$11 per month for an improvement in service reliability and households with fast and very fast speeds are willing to pay about \$19 and \$25, respectively.

Additional insight into the demand for broadband Internet is obtained by estimating utility for subsamples of respondents that differ in their ownership of technology. Using pre-recorded data from KN for November, 2009, we are able to distinguish between respondents who own and do not own a Smartphone, own or do not own a webcam device, and respondents who pay a fee to view and/or download digital movies and TV shows (“Download digital video”) and respondents who do not do so (Knowledge Networks, Inc., 2009a).²⁵ Estimates of utility for these subsamples are provided in Table 10 through Table 12. Overall, we observe that households that use these technologies have higher valuations for service reliability and connection speed and they also place a premium on very fast speed relative to fast speed. For example, as reported in Table 10, respondents who download digital video are willing to pay \$28.79 per month for more reliable service compared to about \$20 for respondents who do not download digital video. Moreover, respondents who download digital video are also willing to pay \$62.99 and \$70.21 per month for fast and very fast speeds, while respondents who do not are willing to pay about \$41 for fast or very fast speeds. Another interesting observation is that respondents who own a Smartphone do not value the bundling of the mobile laptop characteristic into their Internet service relative to respondents who do not own a Smartphone (see Table 11). Similarly, respondents who own a webcam do not value the videophone characteristic (see Table 12) and respondents who download digital video do not value the movie rental characteristic (see Table 10).

²⁵ Knowledge Networks, Inc. (2009a) define a Smartphone as a cellular phone that allows you to access email and browse the Internet. Many of these cellular phones feature an operating system that allows you to use personal computer (PC) like applications, such as Excel or PowerPoint.

5.2 *Heterogeneous Preferences*

Because they do not have identical preferences, it is possible that individual household's WTP for Internet service varies with observable demographics such as age, education, income, race, rural location, as well as Internet experience.²⁶

Carey (1991) and Madden et. al. (1997) find that younger persons have been more open to learning about new technologies such as video cassette recorders, PCs and broadband, and as such, may have higher valuations. Table 13 reports estimates of the model for subsamples of respondents aged from 18 to 34 years, 35 to 58 years and respondents aged 59 to 91 years. Younger households, aged 18 to 34 years, value speed and the ability to interact with health specialists online relatively more than older households. Willingness to pay for reliability of service decreases slightly with age, with the 59 to 91 years of age group having the lowest value for reliability of \$19.48 per month. This oldest age group also values the ability to place free phone calls over the Internet and see the person being called and the ability to download movies and TV shows. None of the three separate age groups value the ability to connect their laptop to the Internet wirelessly while away from home as part of the home Internet service.

Savage and Waldman (2009) describe a theoretical model of consumer choice that predicts that Internet ability will increase the demand for bandwidth. This possibility is examined in Table 14 which reports estimates for a subsample of respondents with a college education and a subsample with no college education. Willingness-to-pay for speed increases with years of education with college educated respondents willing to pay \$45 per month for fast speed compared to \$38 for respondents without a college education. Willingness to pay for reliability and telehealth decreases with education, while both the college and non-college

²⁶ The likelihood ratio test statistics for Table 13 through Table 18, not reported, are large and reject the hypothesis that the estimated marginal utilities are equal across different subsamples.

educated groups do not value the ability to connect their laptops to the Internet wirelessly while away from home.

Table 15 reports estimates for a subsample of low income respondents (i.e., annual household income less is than \$25,000), a subsample of middle income respondents (i.e., annual household income is more than \$25,000, but less than \$75,000) and a subsample of high income respondents (i.e., annual household income is \$75,000 or more). Low- and middle-income households have similar valuations for broadband, about \$37-\$39 to go from slow to fast speed. Willingness to pay for speed is higher for high-income households – about \$8-\$10 per month when compared to low- and middle-income households – however, none of these groups place a premium on very fast speed. Willingness to pay for reliability increases with household income.²⁷

Estimates of utility for subsamples of white and non-white respondents are reported in Table 16. The estimated willingness-to-pay for speed and reliability are reasonably similar across these groups. Like most of the previous results, white and non-white households do not value a very fast Internet service more than a fast Internet service, nor do they do not value the ability to connect their laptops to the Internet wirelessly while away from home.

Forman et. al. (2003) suggest that the Internet substitutes for the benefits that accrue in an urbanized environment and that rural residents may be willing to pay more for faster Internet access. To examine variation in Internet service valuations by location, we use population and area data from Geolytics, Inc. (2010) and an approximation to the “rural region” definition

²⁷ We also used Census Bureau definitions to construct a “below poverty level” income group from data on the number of occupants per household and annual household income. The results, not reported, are qualitatively similar to those reported for the low-income group in Table 15. Furthermore, we also estimated subsamples of no college/low income versus no college/high income and subsamples for college/low income versus college/high income. The results, not reported, suggest that college education is not as important as income. High income respondents are willing to pay about 34 percent more for a improvement from slow to fast speed, regardless of whether or not they have a college education.

from the U.S. Census Bureau, i.e., respondent resides in a zip code with population density less than 1,000 persons per square miles, to measure each respondent's urban/rural location.²⁸ The mean population density for the rural subsample is 305 persons per square mile and the mean density for the urban subsample is 6,170 persons per square mile. Maximum likelihood estimates of the model for the urban and rural subsamples are reported in Table 17. The WTP estimates are qualitatively similar to those reported for the full sample in Table 8. Rural consumers are willing to pay \$20.64 per month for more reliable service, about \$44 for fast speed and about \$8 for the ability to prioritize traffic. Urban households are willing to pay about \$20 per month for more reliable service, about \$40 for fast speed and about \$7 for the ability to prioritize traffic. For both rural and urban households, there is very little difference in valuations for fast and very fast speeds, and neither group values the ability to connect their laptops to the Internet wirelessly while away from home.

5.3 Inexperienced Households

Dutz et. al. (2009) and Savage and Waldman (2004, 2009) show that experience, measured by the number of years online and by exposure to faster Internet connections, is an important determinant of household valuations for broadband. Table 18 presents estimates of the marginal utilities and WTP for a subsample of inexperienced Internet users with slow speed and a subsample of inexperienced Internet users with high speed (i.e., fast or very fast speed).

Because they are from relatively small samples, these estimates should be interpreted

²⁸ For Census 2000, the Census Bureau delineated urbanized area (UA) and urban cluster (UC) boundaries to encompass densely settled territory, which consists of core census block groups or blocks that have a population density of at least 1,000 people per square mile and surrounding census blocks that have an overall density of at least 500 people per square mile. The Census Bureau's classification of "rural" consists of all territory, population, and housing units located outside of UAs and UCs (See http://www.census.gov/geo/www/ua/ua_2k.html). Due to data constraints we are unable to classify a household as urban or rural according to the strict definition of the Census Bureau and, instead, use an approximation to its definition.

somewhat cautiously. Nevertheless, the estimates are similar to those reported in Table 8, where we split the full sample by household's existing connection speed. Inexperienced households with slow speed are willing to pay about \$16-\$17 per month for an improvement from slow to fast speed but they do not value an improvement from fast to very fast speed. Inexperienced households with broadband are willing to pay about \$26-\$27 per month for an improvement from slow to fast speed and value the improvement from fast to very fast at 70 cents.

Willingness-to-pay for characteristics (\$ per month)

	<i>All Respondents</i>	<i>Inexperienced with Slow Connection</i>	<i>Inexperienced with High Speed Connection</i>
Fast Speed	\$45.10	\$16.74	\$26.38
Very Fast Speed	\$48.12	\$15.91	\$27.08
Reliability	\$19.88	\$10.06	\$3.11
Priority	\$6.37	\$17.89	\$6.53
Telehealth	\$4.39	(\$0.27)	\$19.88
Mobile Laptop	\$0.01	\$1.19	(\$14.61)
Videophone	\$5.06	\$5.72	\$21.26
Movie Rental	\$3.29	\$12.31	(\$9.26)

A comparison of the estimates in Table 8 and Table 18 shows that inexperienced Internet users have relatively lower valuations for speed. One interpretation is that inexperienced users are less aware of the full range of economic, entertainment, information and social benefits that the World Wide Web has to offer. Inexperienced users may also have less technical ability when using high-technology goods and service. As such, they are relatively less productive when using the Internet to produce household income and/or savings in time. Interestingly, Table 4 shows that inexperienced Internet users are more likely to be older, non-white, female, unmarried and with less education and household income.

5.4 *Valuations for Internet Service*

The estimates in Table 8 and Table 18 can be used to calculate household's total valuations for high speed Internet services that are comprised of different characteristics. For this calculation, we first construct four hypothetical Internet services from the characteristics described in Table 1. Because the valuation of very fast speed is, generally, not significantly higher than the valuation of fast speed, the four examples have fast speed only. "Basic" Internet service has fast speed and less reliable service. "Reliable" Internet service has fast speed and very reliable service. "Premium" service has fast speed, very reliable service and the ability to designate some downloads as high priority. "Premium Plus" service has fast speed, very reliable service plus all other activities bundled into the service. We then assume that the household valuation for a less reliable, slow speed service with no other special activities is \$14 per month.²⁹ We next multiply the WTP estimates from Table 8 by the level for each characteristic and sum these individual characteristic valuations for each Internet service.³⁰ Adding the base valuation for dial-up service of \$14 gives the total valuation for each of the four broadband Internet services for the representative household. These valuations, provided in Table 19, suggest that the representative household would be willing to pay \$59 per month for a "Basic" service, \$79 for a "Reliable" service, \$85 for a "Premium" service and \$98 for a "Premium Plus" service. Table 20 shows that an inexperienced household with a slow connection would be willing to pay \$31 per month for a Basic service, \$41 for a Reliable service, \$59 for a Premium service and \$71 for a Premium Plus service.

²⁹ We obtained this estimate from the mid point of range of subscription prices for dial-up Internet service listed on CostHelper.com (<http://www.costhelper.com/cost/computers/internet-access.html>). Since these are the actual prices charged by Internet service providers, they provide a lower-bound estimate of customer valuations for dial-up service.

³⁰ When the marginal utilities for Internet activities are imprecisely estimated, we value the individual characteristics at zero in the total valuation calculation.

6. Conclusions

We used choice experiments to estimate household preferences for Internet service.

Respondents were presented with eight choice scenarios, and in each scenario, chose between a pair of Internet service alternatives that differed by the levels of their characteristics. The information in these choices was enriched with market data by having respondents indicate whether they would stay with their current (actual) Internet service or switch to the hypothetical service they had just selected. The marginal utility parameters of the representative household's utility function, and WTP, were then estimated from all the observed choices.

Our empirical results show that reliability and speed are important characteristics of Internet service. The representative household is willing to pay \$20 per month for more reliable service, \$45 for an improvement in speed from slow to fast, and \$48 for an improvement in speed from slow to very fast. The latter finding indicates that very fast Internet service is not worth much more to households than fast service. Willingness-to-pay for speed increases with education, income and online experience, and decreases with age. Rural households value connection speed by about \$3 more per month than urban households. Households are also willing to pay an additional \$6 so that their Internet service provides the ability to designate downloads as high-priority, \$4 for the ability to interact with health specialists online, about \$3 for the ability to download and view full-length movies, and \$5 for the ability to place free phone calls over the Internet and see the person being called.

Using these results, we calculate that a representative household would be willing to pay about \$59 per month for a less reliable Internet service with fast speed ("Basic"), about \$85 for a reliable Internet service with fast speed and the priority feature ("Premium"), and about \$98 for a reliable Internet service with fast speed plus all other activities ("Premium Plus"). An

improvement to very fast service adds about \$3 per month to these estimates. In contrast, an inexperienced household with a slow connection would be willing to pay about \$31 per month for a Basic Internet service, about \$59 per month for a Premium service and \$71 for a Premium Plus service.

An interesting finding from our results is that valuations for Internet increase substantially with experience. The implication is that, if targeted correctly, private or public programs that educate households about the benefits from broadband (e.g., digital literacy training), expose households to the broadband experience (e.g., public access) or directly support the initial take-up of broadband (e.g., discounted service and/or hookup fees) have potential to increase overall penetration in the United States (see Ackerberg et al, 2009).

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Tables and Figures

Table 1. Internet Service Characteristics

Characteristic	Levels
<i>COST</i>	The amount the household pays per month for home Internet service (ranging from \$5 to \$90 per month in increments of \$5).
<i>SPEED</i>	Slow: Similar to dial up. Downloads from the Internet and uploads to the Internet are slow. It is good for emailing and light web surfing. Fast: Much faster downloads and uploads. It is great for music, photo sharing and watching some videos. Very fast: Blazing fast downloads and uploads. It is really great for gaming, watching high-definition movies, and instantly transferring large files.
<i>RELIABILITY</i>	Very reliable Internet service is rarely disrupted by service outages, that is, your service may go down once or twice a year due to severe weather. With less reliable Internet service you will experience more outages, perhaps once or twice a month for no particular reason.
<i>MOBILE LAPTOP</i>	Yes, I can use my Internet service to connect my laptop to the Internet wirelessly while away from my home. No, I cannot use my Internet service to connect my laptop to the Internet wirelessly while away from my home.
<i>MOVIE RENTAL</i>	Yes, I can use my Internet service to download and watch high-definition movies and TV shows. No, I cannot use my Internet service to download high-definition movies and TV shows.
<i>PRIORITY</i>	Yes, I can use my Internet service to designate some of my downloads as high priority. No, I cannot use my Internet service to designate some of my downloads as high priority.
<i>TELEHEALTH</i>	Yes, I can interact with my health care specialists through my Internet service. No, I cannot interact with my health care specialists through my Internet service.
<i>VIDEOPHONE</i>	Yes, I can place free calls through my Internet service and see the person I am calling. No, I cannot place calls through my Internet service.

Table 2. Demographic Distributions (%)

	Census	KN panel	KN sample		
			Full sample	Experienced	Inexperienced
Region					
Northeast	18.5	18.7	18.8	19.3	13.6
Midwest	21.9	22.3	23.6	23.3	28.0
South	36.5	35.5	34.5	34.2	38.6
West	23.1	23.5	23.1	23.3	19.9
Age					
18-24 years	12.6	10.4	11.4	12.0	4.2
25-34 years	17.8	17.7	18.0	18.4	13.6
35-44 years	18.1	19.1	20.9	21.2	16.9
45-54 years	19.6	18.9	18.5	17.7	28.0
55-64 years	15.3	18.3	17.0	16.5	22.9
65 years or over	16.7	15.7	14.2	14.2	14.2
Race					
Non-white	18.8	20.5	22.7	20.9	44.5
White	81.2	79.5	77.3	79.1	55.5
Gender					
Female	51.7	52.7	51.5	50.5	64.4
Male	48.3	47.3	48.5	49.5	35.6
Marital status					
Married	55.5	53.4	58.7	60.7	33.9
Not married	44.5	46.6	41.3	39.3	66.1
Education					
< High school	14.2	13.1	7.7	6.8	18.2
High school	30.9	29.9	25.4	25.3	27.3
Some college	27.8	28.9	32.6	31.9	40.9
Bachelors degree or higher	27.1	28.0	34.3	36.0	13.6
Household income					
< \$10,000	5.9	6.6	3.4	2.3	16.5
\$10,000-\$24,999	15.6	16.2	10.0	8.5	28.2
\$25,000-\$49,999	26.5	26.5	23.0	22.3	31.4
\$50,000-\$74,999	19.7	20.2	22.7	23.4	15.2
> \$75,000-	32.3	30.5	40.9	43.5	8.7
Employment					
In labor force	67.6	67.4	61.4	61.6	43.0
Not in labor force	32.4	32.6	38.6	38.4	57.0

SOURCE. United States Census Bureau (2009); Knowledge Networks, Inc. (2009a).

Table 3. Summary Statistics for KN Full Sample

Demographic	Description	Obs	Mean	s.d.	Min	Max
INEXPERIENCED	1 if the respondent has less than twelve months of panel experience <i>and</i> who did not have Internet service prior to recruitment; 0 otherwise.	6,271	0.075	0.264	0	1
AGE	1 if 18-24 years; 2 if 25-34; 3 if 35-44; 4 if 45-54; 5 if 55-64; 6 if 65-74; 7 if 75 years or over.	6,270	3.578	1.639	1	7
RACE	1 if white; 0 otherwise.	6,271	0.773	0.419	0	1
GENDER	1 if female; 0 if male.	6,271	0.515	0.500	0	1
MARITAL STATUS	1 if married; 0 otherwise.	6,271	0.587	0.492	0	1
EDUCATION	1 if less than high school; 2 if high school; 3 if some college; 4 if bachelors degree or more.	6,271	2.935	0.949	1	4
HOUSEHOLD INCOME	1 if less than \$10,000; 2 if \$10,000-\$24,999; 3 if 25,000-\$49,999; 4 if \$50,000-\$74,999; 5 if \$75,000 or more.	6,271	3.878	1.153	1	5
EMPLOYMENT	1 if in work force; 0 otherwise.	6,271	0.614	0.487	0	1
NORTHEAST	1 if respondent resides in the Northeast census region; 0 otherwise.	6,271	0.188	0.391	0	1
MIDWEST	1 if respondent resides in the Midwest census region; 0 otherwise.	6,271	0.236	0.425	0	1
SOUTH	1 if respondent resides in the South census region; 0 otherwise.	6,271	0.345	0.475	0	1
WEST	1 if respondent resides in the West census region; 0 otherwise.	6,271	0.231	0.421	0	1

NOTES. Obs is number of observations. s.d. is standard deviation. Min is minimum value. Max is maximum value.

Table 4. Probit Estimates of Inexperienced Internet Users

	Coef.	z	P> z	dF/dx
AGE	0.129	7.92	0.000	-0.011
RACE	-0.531	9.22	0.000	0.061
GENDER	0.189	3.45	0.001	-0.017
MARITAL STATUS	-0.318	5.40	0.000	0.030
EDUCATION	-0.101	3.58	0.000	0.009
HOUSEHOLD INCOME	-0.356	14.46	0.000	0.032
EMPLOYMENT	-0.015	0.26	0.796	0.001
NORTHEAST	-0.090	1.00	0.317	0.008
MIDWEST	0.249	3.12	0.002	-0.025
SOUTH	0.067	0.92	0.355	-0.006
CONSTANT	0.261	1.64	0.101	
Likelihood	-1340.07			
Observations	6,270			

NOTES. “Inexperienced” are new recruits to the panel, that is, those with less than twelve months of panel experience *and* who did not have Internet service prior to recruitment. Coef. is the estimated coefficient for the independent variables in the probit model. z is the z value. P>|z| is the probability of getting an extreme value of the test statistic. dF/dx is the effect of a marginal change in the independent variable on the probability of being an experienced Internet user.

Table 5. Summary Statistics for Internet Service Features and Hours Online

Feature/Hours online	Obs	Mean	s.d.	Min	Max
<i>All Internet users</i>					
SPEED	6,260	2.114	0.561	1	3
COST (\$ per month)	5,925	39.15	23.17	0	250
RELIABILITY	6,261	0.872	0.334	0	1
BUNDLE	6,271	0.764	0.425	0	1
HOURS ONLINE PER WEEK	6,250	15.58	15.15	0	168
<i>Inexperienced Internet users</i>					
SPEED	466	1.412	0.606	1	3
COST (\$ per month)	374	16.89	24.39	0	145
RELIABILITY	472	0.725	0.447	0	1
BUNDLE	472	0.464	0.499	0	1
HOURS ONLINE PER WEEK	465	9.64	14.44	0	140

NOTES. SPEED = 1 when service is slow, SPEED = 2 when service is fast and SPEED = 3 when service is very fast.

RELIABILITY = 0 when service is less reliable and RELIABLE = 1 when service is very reliable. BUNDLE = 1 when Internet service is bundled with other telecommunication services. Obs is number of observations. s.d. is standard deviation. Min is minimum value. Max is maximum value.

Table 6. Frequency of Internet Activity – “Many Times a Week.”

Internet activity	All	Slow	High speed
Email and instant messaging	71.4 %	68.5 %	79.7 %
Search engines (e.g., Google)	37.8 %	29.5 %	60.8 %
Play online games	24.0 %	18.0 %	24.7 %
Connect your laptop to the Internet wirelessly	0.88 %	0.45 %	0.88 %
Download movies to view on your PC	2.85 %	0.89 %	3.09 %
Place telephone calls and see the person you are calling	1.78 %	0.45 %	1.64 %
Interact with your health care specialists	0.58 %	0 %	0.65 %

NOTES. Cells are percent of respondents using the activity “many times a week.” All is all Internet users. Slow is Internet users with slow service. High speed is Internet users with fast or very fast service.

Table 7. Summary Statistics for Internet Service Activities

Activity	Question	Obs.	Mean	s.d.	Min	Max
PRIORITY	Does your Internet service have a priority feature (note: this is not PowerBoost)?	2,514	1.958	0.200	1	2
TELEHEALTH	Have you ever interacted with your health care specialists through your Internet service?	2,517	1.931	0.254	1	2
MOBILE LAPTOP	Does your Internet service have a mobile laptop feature (note: this is not Wifi)?	2,494	1.942	0.234	1	2
VIDEOPHONE	Have you used a videophone feature to place free phone calls and see the person you are calling, through your Internet service?	2,496	1.817	0.386	1	2
MOVIE RENTAL	Do you use movie rental services such as Netflix, Blockbuster.com and iTunes, to download and watch high-definition movies and TV shows?	2,493	1.830	0.376	1	2

NOTES. “Yes” = 1. “No” = 2. Obs is number of observations. s.d. is standard deviation. Min is minimum value. Max is maximum value.

Table 8. Baseline Estimates of Utility

	5,921 respondents			
	MU	t	WTP	s.e.
COST	-0.021	66.58		
FAST SPEED	0.945	67.32	\$45.10	\$0.48
VERY FAST SPEED	1.009	60.75	\$48.12	\$0.54
RELIABILITY	0.417	40.89	\$19.88	\$0.42
PRIORITY	0.134	7.636	\$6.37	\$0.84
TELEHEALTH	0.092	6.583	\$4.39	\$0.67
MOBILE LAPTOP	0.000	0.018	\$0.01	\$0.55
VIDEOPHONE	0.106	8.976	\$5.06	\$0.56
MOVIE RENTAL	0.069	6.173	\$3.29	\$0.53
CONSTANT	0.816	66.911		
λ	0.940	33.042		
Likelihood	-1.082			
Observations	47,368			

NOTES. MU is estimate of marginal utility. t is t ratio for MU estimate. WTP is estimate of willingness to pay. s.e. is standard error of WTP estimate. λ is the estimate of the ratio of the standard deviation of the errors in evaluating the status quo alternative to the errors in evaluating the hypothetical alternatives. Likelihood is mean log likelihood.

Table 9. Baseline Estimates of Utility by Existing Internet Connection Speed

	Slow speed (568 respondents)				Fast speed (4,028 respondents)				Very fast speed (1,325 respondents)			
	MU	t	WTP	s.e.	MU	t	WTP	s.e.	MU	t	WTP	s.e.
COST	-0.029	27.31			-0.022	56.75			-0.018	27.00		
FAST SPEED	0.475	10.73	\$16.35	\$1.37	0.881	50.66	\$39.49	\$0.57	0.983	31.31	\$55.14	\$1.62
VERY FAST SPEED	0.436	8.453	\$15.02	\$1.65	0.846	41.67	\$37.89	\$0.65	1.129	29.91	\$63.32	\$1.95
RELIABILITY	0.313	9.308	\$10.78	\$1.10	0.421	32.95	\$18.87	\$0.51	0.447	19.31	\$25.05	\$1.13
PRIORITY	0.289	3.903	\$9.93	\$2.55	0.172	7.554	\$7.69	\$1.02	0.180	4.368	\$10.08	\$2.31
TELEHEALTH	0.085	1.462	\$2.91	\$1.99	0.111	6.026	\$4.99	\$0.83	0.130	3.853	\$7.30	\$1.89
MOBILE LAPTOP	0.060	1.294	\$2.05	\$1.59	0.010	0.679	\$0.47	\$0.69	0.067	2.466	\$3.78	\$1.53
VIDEOPHONE	0.126	2.429	\$4.34	\$1.79	0.129	8.241	\$5.76	\$0.70	0.178	6.198	\$9.97	\$1.61
MOVIE RENTAL	0.441	8.452	\$15.18	\$1.83	0.121	7.999	\$5.41	\$0.68	0.005	0.177	\$0.26	\$1.47
CONSTANT	0.087	2.307			0.944	51.72			1.403	23.61	1.403	23.61
λ	1.717	18.71			1.226	32.02			1.369	15.14		
Likelihood	-1.155				-1.089				-1.030			
Observations	4,544				32,224				10,600			

NOTES. MU is estimate of marginal utility. t is t ratio for MU estimate. WTP is estimate of willingness to pay. s.e. is standard error of WTP estimate. λ is the estimate of the ratio of the standard deviation of the errors in evaluating the status quo alternative to the errors in evaluating the hypothetical alternatives. Likelihood is mean log likelihood.

Table 10. Baseline Estimates of Utility by Download Digital Video

	Download digital video (291 respondents)				Do not download digital video (4,371 respondents)			
	MU	t	WTP	s.e.	MU	t	WTP	s.e.
COST	-0.016	11.37			-0.022	56.73		
FAST SPEED	0.968	13.14	\$61.99	\$3.61	0.875	51.56	\$40.64	\$0.57
VERY FAST SPEED	1.096	12.36	\$70.21	\$4.13	0.872	43.96	\$40.48	\$0.64
RELIABILITY	0.449	9.631	\$28.79	\$2.43	0.441	35.53	\$20.46	\$0.50
PRIORITY	0.091	1.224	\$5.82	\$4.76	0.152	6.924	\$7.07	\$1.02
TELEHEALTH	0.116	2.566	\$7.46	\$2.91	0.128	6.840	\$5.93	\$0.87
MOBILE LAPTOP	-0.149	-3.500	(\$9.53)	\$2.69	0.023	1.545	\$1.07	\$0.69
VIDEOPHONE	0.016	0.350	\$1.05	\$3.00	0.100	6.555	\$4.63	\$0.71
MOVIE RENTAL	-0.181	-3.441	(\$11.58)	\$3.31	0.084	5.701	\$3.92	\$0.69
CONSTANT	0.693	10.48			1.001	50.34		
λ	0.959	5.795			1.332	32.29		
Likelihood	-1.119				-1.105			
Observations	2,328				34,960			

NOTES. MU is estimate of marginal utility. t is t ratio for MU estimate. WTP is estimate of willingness to pay. s.e. is standard error of WTP estimate. λ is the estimate of the ratio of the standard deviation of the errors in evaluating the status quo alternative to the errors in evaluating the hypothetical alternatives. Likelihood is mean log likelihood.

Table 11. Baseline Estimates of Utility by Smartphone Ownership

	Own Smartphone (1,881 respondents)				Do not own Smartphone (3,001 respondents)			
	MU	t	WTP	s.e.	MU	t	WTP	s.e.
COST	-0.019	32.17			-0.022	49.07		
FAST SPEED	0.878	32.70	\$46.99	\$1.02	0.903	44.77	\$40.20	\$0.68
VERY FAST SPEED	0.899	28.77	\$48.13	\$1.11	0.881	37.09	\$39.18	\$0.76
RELIABILITY	0.444	23.96	\$23.77	\$0.83	0.428	28.15	\$19.03	\$0.60
PRIORITY	0.109	3.570	\$5.83	\$1.63	0.171	6.208	\$7.63	\$1.23
TELEHEALTH	0.106	4.420	\$5.68	\$1.28	0.120	5.204	\$5.36	\$1.03
MOBILE LAPTOP	-0.082	-4.175	(\$4.41)	\$1.05	0.053	2.812	\$2.38	\$0.85
VIDEOPHONE	0.036	1.712	\$1.92	\$1.12	0.154	8.083	\$6.87	\$0.85
MOVIE RENTAL	-0.015	-0.778	(\$0.81)	\$1.04	0.093	4.914	\$4.15	\$0.84
CONSTANT	0.779	31.33			1.026	42.67		
λ	1.032	16.76			1.446	29.76		
Likelihood	-1.121				-1.094			
Observations	?				24,008			

NOTES. MU is estimate of marginal utility. t is t ratio for MU estimate. WTP is estimate of willingness to pay. s.e. is standard error of WTP estimate. λ is the estimate of the ratio of the standard deviation of the errors in evaluating the status quo alternative to the errors in evaluating the hypothetical alternatives. Likelihood is mean log likelihood.

Table 12. Baseline Estimates of Utility by Webcam Ownership

	Own Webcam (1,749 respondents)				Do not own Webcam (3,817 respondents)			
	MU	t	WTP	s.e.	MU	t	WTP	s.e.
COST	-0.018	30.41			-0.023	55.31		
FAST SPEED	0.878	32.04	\$49.30	\$1.14	0.871	48.56	\$38.71	\$0.58
VERY FAST SPEED	0.907	28.26	\$50.89	\$1.22	0.855	40.71	\$37.99	\$0.66
RELIABILITY	0.445	23.05	\$24.99	\$0.90	0.428	32.23	\$19.03	\$0.52
PRIORITY	0.124	3.997	\$6.98	\$1.75	0.163	6.667	\$7.22	\$1.08
TELEHEALTH	0.107	4.297	\$6.00	\$1.40	0.108	5.292	\$4.78	\$0.90
MOBILE LAPTOP	-0.027	-1.350	(\$1.52)	\$1.13	0.039	2.284	\$1.71	\$0.75
VIDEOPHONE	0.022	1.104	\$1.23	\$1.11	0.201	10.73	\$8.92	\$0.83
MOVIE RENTAL	0.004	0.201	\$0.22	\$1.11	0.119	7.076	\$5.30	
CONSTANT	0.839	29.808			0.979	47.90		
λ	1.085	16.68			1.356	32.41		
Likelihood	-1.124				-1.096			
Observations	13,992				30,536			

NOTES. MU is estimate of marginal utility. t is t ratio for MU estimate. WTP is estimate of willingness to pay. s.e. is standard error of WTP estimate. λ is the estimate of the ratio of the standard deviation of the errors in evaluating the status quo alternative to the errors in evaluating the hypothetical alternatives. Likelihood is mean log likelihood.

Table 13. Estimates of Utility by Age

	18 – 34 years (1,769 respondents)				35 – 58 years (2,723 respondents)				59 – 91 years (1,425 respondents)			
	MU	t	WTP	s.e.	MU	t	WTP	s.e.	MU	t	WTP	s.e.
COST	-0.021	-35.216			-0.021	-43.421			-0.021	-31.304		
FAST SPEED	1.000	35.795	\$47.65	\$1.02	0.885	41.119	\$41.72	\$0.74	0.681	24.565	\$33.11	\$1.04
VERY FAST SPEED	1.067	32.613	\$50.82	\$1.11	0.891	35.572	\$42.03	\$0.82	0.564	17.455	\$27.39	\$1.30
RELIABILITY	0.459	23.949	\$21.86	\$0.78	0.424	27.004	\$20.02	\$0.65	0.401	18.228	\$19.48	\$0.95
PRIORITY	0.093	2.807	\$4.44	\$1.58	0.158	5.707	\$7.45	\$1.31	0.251	6.044	\$12.22	\$2.03
TELEHEALTH	0.180	6.469	\$8.60	\$1.33	0.114	4.995	\$5.38	\$1.08	0.049	1.498	\$2.37	\$1.58
MOBILE LAPTOP	0.029	1.336	\$1.38	\$1.03	-0.023	-1.205	(\$1.06)	\$0.88	-0.013	-0.446	(\$0.63)	\$1.41
VIDEOPHONE	0.055	2.426	\$2.61	\$1.08	0.081	4.220	\$3.84	\$0.91	0.190	6.468	\$9.25	\$1.43
MOVIE RENTAL	-0.015	-0.721	(\$0.73)	\$1.01	0.021	1.195	\$1.01	\$0.85	0.259	8.239	\$12.59	\$1.53
CONSTANT	0.853	29.604			0.904	38.297			1.020	28.173		
λ	1.241	19.401			1.245	24.197			1.420	19.602		
Likelihood	-1.105				-1.108				-1.020			
Observations	14,152				21,784				11,432			

NOTES. MU is estimate of marginal utility. t is t ratio for MU estimate. WTP is estimate of willingness to pay. s.e. is standard error of WTP estimate. λ is the estimate of the ratio of the standard deviation of the errors in evaluating the status quo alternative to the errors in evaluating the hypothetical alternatives. Likelihood is mean log likelihood.

Table 14. Baseline Estimates of Utility by Education

	No college (3,837 respondents)				College (2,084 respondents)			
	MU	t	WTP	s.e.	MU	t	WTP	s.e.
COST	-0.020	49.07			-0.023	-41.04		
FAST SPEED	0.768	43.58	\$38.68	\$0.65	1.032	40.38	\$45.17	\$0.86
VERY FAST SPEED	0.755	36.55	\$38.02	\$0.75	1.032	34.56	\$45.18	\$0.91
RELIABILITY	0.418	31.77	\$21.05	\$0.58	0.443	24.68	\$19.40	\$0.69
PRIORITY	0.147	6.189	\$7.41	\$1.20	0.168	5.269	\$7.36	\$1.40
TELEHEALTH	0.124	6.415	\$6.22	\$0.97	0.103	3.906	\$4.50	\$1.15
MOBILE LAPTOP	0.017	1.086	\$0.88	\$0.81	-0.037	-1.741	(\$1.61)	\$0.92
VIDEOPHONE	0.103	6.211	\$5.18	\$0.83	0.096	4.431	\$4.19	\$0.94
MOVIE RENTAL	0.072	4.653	\$3.63	\$0.78	0.010	0.461	\$0.42	\$0.92
CONSTANT	0.949	44.17			0.914	35.88		
λ	1.303	28.09			1.274	24.05		
Likelihood	-1.119				-1.088			
Observations	30,696				16,672			

NOTES. MU is estimate of marginal utility. t is t ratio for MU estimate. WTP is estimate of willingness to pay. s.e. is standard error of WTP estimate. λ is the estimate of the ratio of the standard deviation of the errors in evaluating the status quo alternative to the errors in evaluating the hypothetical alternatives. Likelihood is mean log likelihood.

Table 15. Estimates of Utility by Income

	Low income < \$25,000 (751 respondents)				\$25,000 ≤ Middle income < \$75,000 (3,245 respondents)				\$75,000 ≤ High income (1,925 respondents)			
	MU	t	WTP	s.e.	MU	t	WTP	s.e.	MU	t	WTP	s.e.
COST	-0.020	22.01			-0.021	48.43			-0.021	36.28		
FAST SPEED	0.754	18.74	\$37.00	\$1.50	0.838	43.03	\$39.02	\$0.66	0.965	36.75	\$46.90	\$0.97
VERY FAST SPEED	0.733	15.57	\$35.96	\$1.74	0.830	36.34	\$38.63	\$0.76	0.986	32.27	\$47.91	\$1.03
RELIABILITY	0.363	12.12	\$17.83	\$1.33	0.412	28.54	\$19.18	\$0.59	0.486	26.39	\$23.61	\$0.75
PRIORITY	0.255	4.450	\$12.51	\$2.83	0.188	7.190	\$8.74	\$1.22	0.078	2.488	\$3.81	\$1.53
TELEHEALTH	0.106	2.118	\$5.21	\$2.46	0.095	4.536	\$4.41	\$0.97	0.105	4.001	\$5.11	\$1.28
MOBILE LAPTOP	0.030	0.773	\$1.46	\$1.89	0.021	1.213	\$1.00	\$0.83	-0.043	-2.046	(\$2.08)	\$1.02
VIDEOPHONE	0.055	1.329	\$2.69	\$2.02	0.110	6.104	\$5.10	\$0.84	0.099	4.580	\$4.79	\$1.05
MOVIE RENTAL	0.107	2.955	\$5.24	\$1.77	0.069	4.002	\$3.23	\$0.81	0.025	1.198	\$1.20	\$1.00
CONSTANT	1.000	18.18			0.946	42.42			0.855	33.23		
λ	1.512	13.35			1.342	28.50			1.135	19.32		
Likelihood	-1.126				-1.107				-1.100			
Observations	6,008				25,960				15,400			

NOTES. MU is estimate of marginal utility. t is t ratio for MU estimate. WTP is estimate of willingness to pay. s.e. is standard error of WTP estimate. λ is the estimate of the ratio of the standard deviation of the errors in evaluating the status quo alternative to the errors in evaluating the hypothetical alternatives. Likelihood is mean log likelihood.

Table 16. Baseline Estimates of Utility by Race

	White (4,612 respondents)				Non white (1,309 respondents)			
	MU	T	WTP	s.e	MU	T	WTP	s.e.
COST	-0.022	59.03			-0.018	24.91		
FAST SPEED	0.876	53.07	\$39.93	\$0.55	0.685	22.35	\$38.85	\$1.24
VERY FAST SPEED	0.865	44.65	\$39.43	\$0.62	0.699	19.38	\$39.62	\$1.45
RELIABILITY	0.435	35.77	\$19.86	\$0.49	0.401	17.61	\$22.71	\$1.11
PRIORITY	0.167	7.444	\$7.60	\$1.02	0.148	3.823	\$8.41	\$2.20
TELEHEALTH	0.149	8.026	\$6.80	\$0.85	0.027	0.887	\$1.54	\$1.74
MOBILE LAPTOP	0.018	1.169	\$0.81	\$0.69	-0.022	-0.875	(\$1.25)	\$1.43
VIDEOPHONE	0.143	9.222	\$6.54	\$0.71	0.020	0.738	\$1.11	\$1.51
MOVIE RENTAL	0.094	6.285	\$4.29	\$0.68	-0.004	-0.146	(\$0.21)	\$1.42
CONSTANT	1.059	52.54			0.854	23.06		
λ	1.430	35.21			1.235	13.99		
Likelihood	-1.100				-1.151			
Observations	36,896				10,472			

NOTES. MU is estimate of marginal utility. t is t ratio for MU estimate. WTP is estimate of willingness to pay. s.e. is standard error of WTP estimate. λ is the estimate of the ratio of the standard deviation of the errors in evaluating the status quo alternative to the errors in evaluating the hypothetical alternatives. Likelihood is mean log likelihood.

Table 17. Baseline Estimates of Utility by Location

	Urban location (2,956 respondents)				Rural location (2,747 respondents)			
	MU	t	WTP	s.e.	MU	t	WTP	s.e.
COST	-0.020	43.82			-0.022	44.86		
FAST SPEED	0.822	40.60	\$40.80	\$0.73	0.944	43.82	\$43.55	\$0.75
VERY FAST SPEED	0.805	34.01	\$39.96	\$0.83	0.954	37.76	\$44.03	\$0.82
RELIABILITY	0.407	27.19	\$20.17	\$0.65	0.447	28.83	\$20.64	\$0.62
PRIORITY	0.145	5.538	\$7.18	\$1.30	0.173	6.173	\$7.98	\$1.29
TELEHEALTH	0.099	4.785	\$4.91	\$1.03	0.126	5.356	\$5.81	\$1.08
MOBILE LAPTOP	-0.015	0.887	(\$0.77)	\$0.87	0.006	0.306	\$0.27	\$0.87
VIDEOPHONE	0.095	5.380	\$4.73	\$0.88	0.094	4.724	\$4.32	\$0.91
MOVIE RENTAL	0.061	3.563	\$3.02	\$0.85	0.052	2.843	\$2.41	\$0.85
CONSTANT	0.915	38.79			0.888	39.16		
λ	1.207	23.72			1.300	26.51		
Likelihood	-1.109				-1.105			
Observations	23,648				21,992			

NOTES. MU is estimate of marginal utility. t is t ratio for MU estimate. WTP is estimate of willingness to pay. s.e. is standard error of WTP estimate. λ is the estimate of the ratio of the standard deviation of the errors in evaluating the status quo alternative to the errors in evaluating the hypothetical alternatives. Likelihood is mean log likelihood.

Table 18. Baseline Estimates of Inexperienced by Speed of Internet Connection

	Slow (231 respondents)				High speed (140 respondents)			
	MU	t	WTP	s.e.	MU	t	WTP	s.e.
COST	-0.033	17.47			-0.015	-8.228		
FAST SPEED	0.559	6.795	\$16.74	\$2.18	0.400	4.924	\$26.38	\$4.71
VERY FAST SPEED	0.531	5.610	\$15.91	\$2.57	0.410	4.247	\$27.08	\$5.60
RELIABILITY	0.336	5.941	\$10.06	\$1.59	0.047	0.728	\$3.11	\$4.26
PRIORITY	0.597	4.783	\$17.89	\$3.81	0.099	0.776	\$6.53	\$8.42
TELEHEALTH	-0.009	0.088	(\$0.27)	\$3.09	0.301	3.467	\$19.88	\$5.88
MOBILE LAPTOP	0.040	0.540	\$1.19	\$2.21	-0.221	-2.873	(\$14.61)	\$4.98
VIDEOPHONE	0.191	1.897	\$5.72	\$3.00	0.322	3.806	\$21.26	\$5.84
MOVIE RENTAL	0.411	4.848	\$12.31	\$2.56	-0.140	-1.840	(\$9.26)	\$5.02
CONSTANT	0.224	2.335			1.066	8.502		
λ	2.096	10.73			1.300	26.51		
Likelihood	-1.086				1.152	4.199		
Observations	1,848				1,120			

NOTES. MU is estimate of marginal utility. t is t ratio for MU estimate. WTP is estimate of willingness to pay. s.e. is standard error of WTP estimate. λ is the estimate of the ratio of the standard deviation of the errors in evaluating the status quo alternative to the errors in evaluating the hypothetical alternatives. Likelihood is mean log likelihood. Slow is Internet users with slow service. High speed is Internet users with fast or very fast service.

**Table 19. Estimated Valuation for Broadband Internet Service for
All Respondents (\$ per month)**

Characteristics	Basic	Reliable	Premium	Premium Plus
Speed	Fast	Fast	Fast	Fast
Reliability	Less reliable	Very reliable	Very reliable	Very reliable
Priority	No	No	Yes	Yes
Telehealth	No	No	No	Yes
Mobile laptop	No	No	No	Yes
Videophone	No	No	No	Yes
Movie rental	No	No	No	Yes
Total valuation	\$59.10	\$78.98	\$85.35	\$98.09

Table 20. Estimated Valuation for Broadband Internet Service for Inexperienced Users with Slow Internet Connection (\$ per month)

Characteristics	Basic	Reliable	Premium	Premium Plus
Speed	Fast	Fast	Fast	Fast
Reliability	Less reliable	Very reliable	Very reliable	Very reliable
Priority	No	No	Yes	Yes
Telehealth	No	No	No	Yes
Mobile laptop	No	No	No	Yes
Videophone	No	No	No	Yes
Movie rental	No	No	No	Yes
Total valuation	\$30.74	\$40.80	\$58.69	\$71.00

Figure 1. Choice Question Example

1. Consider the following two Internet service options, A and B. For this first question, we highlight the differences in the levels of the features in red. For some features, there may be no difference

[Click here to review a summary of the levels of all the features.](#)

To see the description of an individual feature, place your cursor over that feature

	Option A	Option B
Cost	\$25 per month	\$45 per month
Speed	Fast	Slow
Reliability	Less reliable	Very reliable
Priority	No	Yes
	<i>Option A is less expensive and faster</i>	<i>Option B is more reliable and has the Telehealth feature</i>
Select the option you prefer	<input checked="" type="radio"/> I prefer option A	<input type="radio"/> I prefer option B

2. Since you currently have Internet service at home, we also ask if you would actually switch to the Internet service, A or B, you have chosen. Please indicate “Yes” when your choice of A or B is preferred to your service at home, or “No” when your choice of A or B is not preferred to your service at home.

[Click here to review a summary of the levels of all the features.](#)

To see the description of an individual feature, place your cursor over that feature.

	Your Home Service	Option B
Cost	\$25.99 per month	\$45 per month
Speed	Fast	Slow
Reliability	Very reliable	Very reliable
Priority	No	Yes
Select the option you prefer	<input type="radio"/> I would stay with my home service	<input checked="" type="radio"/> I prefer option B

Investigator Profiles

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Scott James Savage is an Associate Professor in the Department of Economics and the Interdisciplinary Telecommunications Program at the University of Colorado at Boulder. He received his Ph.D. from Curtin University of Technology, Western Australia, in 2000. His current research interests are consumer preferences, competition and regulation in the telecommunications industry and economic education.

Donald M. Waldman is a Professor of Economics and Associate Chair, Department of Economics at the University of Colorado, Boulder. He received a Ph.D. in economics from the University of Wisconsin, Madison in 1979. He has published more than 50 refereed journal articles and contributed papers on a variety of econometric topics including discrete choice and panel data, and economic topics including nonmarket valuation, Internet demand, and production and cost functions.

Appendix A Structural economic and econometric model

The Demand for Internet Access

The conventional labor-leisure choice model is extended to include the benefits from Internet access. The consumer is assumed to maximize a utility function of consumption and leisure, subject to a monetary budget constraint that includes the household production input *Internet bandwidth*, and subject to a time budget constraint that includes the household production input *time online*. Both inputs are used to produce reductions in essential time, defined as the non-remunerated time lost when participating in the labor market, plus time doing fundamental living activities such as banking, bill-paying, maintaining health, shopping, etc.

Essential time is represented by the household production function $\bar{T}(h, b, t; a)$, where h is the number of hours worked, b is Internet bandwidth, t is time spent online, and a is an efficiency parameter that reflects the technical ability of the individual. The function \bar{T} is convex in b and t , and b and t are assumed to be complements in production so that increasing b will raise the marginal productivity of t . Similarly, a augments the productivity of b and t , decreasing essential time for a given input level. As such, $\bar{T}_b, \bar{T}_t, \bar{T}_a, \bar{T}_{bt}, \bar{T}_{ba}, \bar{T}_{ta} < 0$ and $\bar{T}_{bb}, \bar{T}_{tt} > 0$, where subscripts indicate partial derivatives. Some of the time costs of work may be fixed. Others, including commuting time, costs associated with the stress of work, the preparation and recovery period, and training and child care costs, may be linear or concave functions of the number of hours worked (Heim and Meyer, 2004). Essential time is concave in h so that $\bar{T}_h > 0$ and $\bar{T}_{hh} < 0$.

The consumer's maximization problem is:

$$\begin{aligned} \max_{h, b, t} \quad & U(c, L) & (A1) \\ \text{s.t.} \quad & c = y + wh - p_b b - p_t t \\ & L = T - h - t - \bar{T}(h, b, t; a) \end{aligned}$$

where U is utility, c is consumption, L is leisure, y is non-wage income, w is the wage rate, p_b is the per-unit price of bandwidth, p_t is the per-unit price of time online, and T is total time available.

Structural Econometric Models and Likelihoods

The individual's utility of an Internet service is assumed to be a function of the attributes of the service and a random error (known to the individual but not the researcher). This is the *Random Utility Model* (RUM) as it is applied in environmental economics, transportation research, health economics, and marketing.

It is assumed that respondents maximize their household's conditional utility of the service option (conditional on all other consumption and time allocation decisions):

$$U_{ij}^{k_{ij}} = \beta' \mathbf{x}_{ij}^{k_{ij}} + \epsilon_{ij}^{k_{ij}}, \quad i = 1, \dots, n; \quad j = 1, \dots, J, \quad k_{ij} = 1, 2 \quad (\text{A2})$$

where $U_{ij}^{k_{ij}}$ is the utility of alternative k_{ij} chosen by individual i during occasion j .¹ The vector \mathbf{x}_{ij} contains the observed attributes of the alternatives. It is assumed that the $\epsilon_{ij}^{k_{ij}}$ are independent, and identically distributed mean zero normal random variables, uncorrelated with \mathbf{x}_{ij} , with constant unknown variance σ_ϵ^2 .² The probability of choosing alternative 1, for example, is:

$$\begin{aligned} P_{ij}^1 &= P(U^1 > U^2) \\ &= P(\beta' \mathbf{x}_{ij}^1 + \epsilon_{ij}^1 > \beta' \mathbf{x}_{ij}^2 + \epsilon_{ij}^2) \\ &= P(\epsilon_{ij}^2 - \epsilon_{ij}^1 < -\beta'(\mathbf{x}_{ij}^2 - \mathbf{x}_{ij}^1)) \\ &= \Phi \left[-\beta'(\mathbf{x}_{ij}^2 - \mathbf{x}_{ij}^1) / \sqrt{2}\sigma_\epsilon \right] \end{aligned} \quad (\text{A3})$$

and similarly for alternative 2, where $\sqrt{2}\sigma_\epsilon$ is the standard deviation of $\epsilon_{ij}^2 - \epsilon_{ij}^1$ and $\Phi(\cdot)$ is the univariate standard normal cumulative distribution function. Note that equation A2 comprises the usual probit model for dichotomous choice under the assumption the individual knows the random component and maximizes utility. The parameter vector β is identified only up to the scale factor $\sqrt{2}\sigma_\epsilon$, and σ_ϵ is not identified, since only the sign and not the scale of the dependent variable (the utility difference) is observed. If the J observations for each respondent are simply “stacked” to produce a data set with Jn observations, the unit of observation is an i, j pair and the likelihood is the product of the Jn probabilities like equation A2:

$$L(k_{ij}, i = 1, \dots, n, j = 1, \dots, J | \mathbf{x}_{ij}^1, \mathbf{x}_{ij}^2; \beta, \sigma_\epsilon) = \prod_{i=1}^n \prod_{j=1}^J P_{ij}^{k_{ij}}. \quad (\text{A4})$$

Incorporating the Status Quo Question

After choosing k_{ij} , individuals answer a question stating whether alternative k_{ij} would be chosen over the status quo. Let the status quo be indicated by 0. There are now four kinds of observations. Let the binary variable Z_{ij}^1 indicate the choice of alternative 1 or 2

¹This notation, especially the use of k_{ij} to indicate either a 1 or a 2, is a bit cumbersome at first, but will make precise many of the concepts below.

²We allow for correlation of errors for an individual when it comes to choices involving the status quo—see section 3.2. For the hypothetical choices, there is no question of correlation since the effective errors that enter the likelihood are the *difference* in the two errors for any choice occasion, and the attribute sets are randomly assigned to choice “A” or choice “B”. That is, the relevant distribution theory for forming the likelihood is based on $\epsilon_{i1}^1 - \epsilon_{i1}^2$, for example (person i , first choice occasion—see equation A7). In addition, any additive systematic component of the error is then eliminated. This is similar to the arguments of Heckman and Robb (1985) in their evaluation of social interventions.

for individual i on occasion j , and let the binary variable Z_{ij}^2 indicate the chosen alternative or the status quo. These are defined by:

$$Z_{ij}^1 = \begin{cases} 0 & \text{choose 1} \\ 1 & \text{choose 2} \end{cases} \quad Z_{ij}^2 = \begin{cases} 0 & \text{choose 1 or 2 over status quo} \\ 1 & \text{choose status quo over 1 or 2} \end{cases} \quad (\text{A5})$$

Note that there is an information asymmetry here: when the status quo is chosen over 1 or 2 ($Z_{ij}^2 = 1$), a complete ranking of the three alternatives has been determined; when 1 or 2 is chosen over the status quo ($Z_{ij}^2 = 0$), all that is known is that 1 or 2 is the most preferred alternative.

Utility for the status quo, U_i^0 under the model assumption (equation A1) is given by:

$$U_i^0 = \boldsymbol{\beta}' \mathbf{x}_i^0 + \epsilon_i^0, \quad (\text{A6})$$

where ϵ_i^0 are disturbances and \mathbf{x}_i^0 are the attributes of the individual's current Internet access. The attributes of the status quo vary over individuals, but not over choice occasions, and the utility of the status quo is evaluated only once by each individual (U_i^0 and ϵ_i^0 are subscripted with i only). The ϵ_i^0 are assumed to be independent, identically distributed normal random variables with zero expectation and variance σ_0^2 , uncorrelated with $\epsilon_{ij}^{k_{ij}}$.

The probability of choosing alternative k_{ij} (1, 2) over alternative 3 – k_{ij} (2, 1) and then choosing alternative k_{ij} over the status quo ($Z_{ij}^2 = 0$) is the bivariate probability:

$$\begin{aligned} & P(U_{ij}^{k_{ij}} > U_{ij}^{3-k_{ij}}, U_{ij}^{k_{ij}} > U_i^0) \\ & = P\left(\epsilon_{ij}^{3-k_{ij}} - \epsilon_{ij}^{k_{ij}} < -\boldsymbol{\beta}'(\mathbf{x}_{ij}^{3-k_{ij}} - \mathbf{x}_{ij}^{k_{ij}}), \epsilon_i^0 - \epsilon_{ij}^{k_{ij}} < -\boldsymbol{\beta}'(\mathbf{x}^0 - \mathbf{x}_{ij}^{k_{ij}})\right) \\ & = \Phi_2\left[-\boldsymbol{\beta}'(\mathbf{x}_{ij}^{3-k_{ij}} - \mathbf{x}_{ij}^{k_{ij}})/\sqrt{2}\sigma_\epsilon, -\boldsymbol{\beta}'(\mathbf{x}^0 - \mathbf{x}_{ij}^{k_{ij}})/\sqrt{\sigma_0^2 + \sigma_\epsilon^2}; \rho\right] \end{aligned} \quad (\text{A7})$$

where ρ is the correlation between $\epsilon_{ij}^{3-k_{ij}} - \epsilon_{ij}^{k_{ij}}$ and $\epsilon_i^0 - \epsilon_{ij}^{k_{ij}}$,

$$\rho = \frac{\sigma_\epsilon^2}{\sqrt{2\sigma_\epsilon^2(\sigma_0^2 + \sigma_\epsilon^2)}} = \frac{\sigma_\epsilon}{\sqrt{2(\sigma_0^2 + \sigma_\epsilon^2)}}, \quad (\text{A8})$$

and Φ_2 is the standard bivariate normal cumulative distribution function. Similarly, the probability of choosing alternative k_{ij} over alternative 3 – k_{ij} and then choosing the status quo over alternative k_{ij} ($Z_{ij}^2 = 1$) is:

$$\begin{aligned} & P(U_{ij}^{k_{ij}} > U_{ij}^{3-k_{ij}}, U_{ij}^{k_{ij}} < U_i^0) \\ & = P\left(\epsilon_{ij}^{3-k_{ij}} - \epsilon_{ij}^{k_{ij}} < -\boldsymbol{\beta}'(\mathbf{x}_{ij}^{3-k_{ij}} - \mathbf{x}_{ij}^{k_{ij}}), \epsilon_i^0 - \epsilon_{ij}^{k_{ij}} > -\boldsymbol{\beta}'(\mathbf{x}^0 - \mathbf{x}_{ij}^{k_{ij}})\right) \\ & = \Phi_2\left[-\boldsymbol{\beta}'(\mathbf{x}_{ij}^{3-k_{ij}} - \mathbf{x}_{ij}^{k_{ij}})/\sqrt{2}\sigma_\epsilon, \boldsymbol{\beta}'(\mathbf{x}^0 - \mathbf{x}_{ij}^{k_{ij}})/\sqrt{\sigma_0^2 + \sigma_\epsilon^2}; -\rho\right] \end{aligned} \quad (\text{A9})$$

where the symmetry of the normal distribution has been utilized.

One normalization is required: let $\sigma_\epsilon = 1/\sqrt{2}$. Define $\lambda^2 = \sigma_0^2/\sigma_\epsilon^2 = 2\sigma_0^2$. Then equation A8 can be written as:

$$P(U_{ij}^{k_{ij}} > U_{ij}^{3-k_{ij}}, U_{ij}^{k_{ij}} < U_i^0) = \Phi_2 \left[-\beta'(\mathbf{x}_{ij}^{3-k_{ij}} - \mathbf{x}_{ij}^{k_{ij}}), \frac{\beta'(\mathbf{x}^0 - \mathbf{x}_{ij}^{k_{ij}})}{\sqrt{(1+\lambda^2)/2}}; -\frac{1}{\sqrt{2(1+\lambda^2)}} \right] \quad (\text{A8}')$$

and similarly for equation A6. The additional parameter to be estimated is λ . When $\lambda = 1$, $\sigma_\epsilon^2 = \sigma_0^2$ and the A versus B question and the question comparing A or B to the status quo have equal weight in the likelihood. When $\lambda < 1$ the question relating to the status quo contains more information, as there is more variability in the errors for the A vs. B question ($\sigma_\epsilon^2 > \sigma_0^2$), and conversely. Let $\mathbf{x}_{ij}^{rp} = (\mathbf{x}_{ij}^r - \mathbf{x}_{ij}^p)$ for $r, p = 0, 1$. Then the probabilities of the four data types are:

$$\begin{aligned} P(Z_{ij}^1 = 0, Z_{ij}^2 = 0) &= \Phi_2 \left[-\beta' \mathbf{x}_{ij}^{21}, -\beta' \mathbf{x}_{ij}^{01}/\lambda; \frac{1}{2\lambda} \right] \\ P(Z_{ij}^1 = 0, Z_{ij}^2 = 1) &= \Phi_2 \left[-\beta' \mathbf{x}_{ij}^{21}, \beta' \mathbf{x}_{ij}^{01}/\lambda; -\frac{1}{2\lambda} \right] \\ P(Z_{ij}^1 = 1, Z_{ij}^2 = 0) &= \Phi_2 \left[\beta' \mathbf{x}_{ij}^{21}, -\beta' \mathbf{x}_{ij}^{02}/\lambda; \frac{1}{2\lambda} \right] \\ P(Z_{ij}^1 = 1, Z_{ij}^2 = 1) &= \Phi_2 \left[\beta' \mathbf{x}_{ij}^{21}, \beta' \mathbf{x}_{ij}^{02}/\lambda; -\frac{1}{2\lambda} \right] \end{aligned} \quad (\text{A10})$$

The likelihood is the product of these Jn probabilities:

$$L(Z_{ij}^1, Z_{ij}^2, i = 1, \dots, n, j = 1, \dots, J | \mathbf{x}_{ij}^1, \mathbf{x}_{ij}^2, \mathbf{x}^0; \beta, \lambda) = \prod_{i=1}^n \prod_{j=1}^J P(Z_{ij}^1, Z_{ij}^2) \quad (\text{A11})$$

which, upon substitution of equations 9 can be written

$$\begin{aligned} L(Z_{ij}^1, Z_{ij}^2, i = 1, \dots, n, j = 1, \dots, J | \mathbf{x}_{ij}^1, \mathbf{x}_{ij}^2, \mathbf{x}^0; \beta, \lambda) &= \\ \prod_{i=1}^n \prod_{j=1}^J \Phi_2 \left\{ (-1)^{1-Z_{ij}^1} \beta' \mathbf{x}_{ij}^{21}, (-1)^{1-Z_{ij}^2} \left[(1-Z_{ij}^1) \beta' \mathbf{x}_{ij}^{01} + Z_{ij}^1 \beta' \mathbf{x}_{ij}^{02} \right] / \lambda; (-1)^{Z_{ij}^2} \frac{1}{\lambda} \right\} \end{aligned} \quad (\text{A12})$$

References

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Appendix B
Estimating the standard error of WTP measures
from discrete choice experiments

Ignoring interactions, the utility model for Internet access choice is

$$U_{ij}^* = \beta_p p_{ij} + \mathbf{X}'_{ij} \boldsymbol{\beta}_a + \beta_s b_{ij} + \epsilon_{ij}, \quad i = 1, \dots, n; \quad j = 1, \dots, 8. \quad (\text{B1})$$

where p_{ij} is price, b_{ij} is bandwidth, and $\boldsymbol{\beta}_a$ is a $K \times 1$ vector of attributes of the service other than price and bandwidth. The estimates of WTP for these attributes are $\widehat{\boldsymbol{\beta}}_a / \widehat{\beta}_p$ and the estimated WTP for bandwidth is $\widehat{w}_b = \widehat{\beta}_s / \widehat{\beta}_p$.

Since the estimates of willingness-to-pay are nonlinear function of parameter estimates, their exact standard errors are unknown. While it would be possible to bootstrap the distribution of these estimators, since the normally distributed estimator of β_p is the denominator, the simulation would not converge to anything useful (see Kling and Sexton, 1990; Morey and Waldman, 1994). Instead, we use a linear approximation to the variance (sometimes known as the “delta method”). This approximation for elasticities has been examined in Krinsky and Robb (1986).

Define the $(K + 1) \times 1$ vector

$$\widehat{\boldsymbol{w}} = (\widehat{\boldsymbol{\beta}}_a : \widehat{\beta}_s) / \widehat{\beta}_p. \quad (\text{B2})$$

Define the $(K + 2) \times 1$ vector of parameter estimates $\widehat{\boldsymbol{\theta}} = (\widehat{\beta}_p : \widehat{\boldsymbol{\beta}}_a' : \widehat{\beta}_s)'$. Let $\widehat{\boldsymbol{\Sigma}}$ be the estimated variance-covariance matrix of $\widehat{\boldsymbol{\theta}}$. The linear approximation to the variance of $\widehat{\boldsymbol{w}}$ is

$$\widehat{V}(\widehat{\boldsymbol{w}}) \approx \left[\frac{\partial \boldsymbol{w}}{\partial \boldsymbol{\theta}} \right]' \widehat{\boldsymbol{\Sigma}} \left[\frac{\partial \boldsymbol{w}}{\partial \boldsymbol{\theta}} \right] \quad (\text{B3})$$

where the derivatives are evaluated at the parameter estimates. The square root of the diagonal elements of $\widehat{V}(\widehat{\boldsymbol{w}})$ are the estimated standard errors of the estimates of WTP. These derivatives are

$$\frac{\partial \widehat{\boldsymbol{w}}}{\partial \widehat{\boldsymbol{\theta}}} = \begin{pmatrix} -\frac{\widehat{\beta}_{a_1}}{\widehat{\beta}_p^2} & \frac{1}{\widehat{\beta}_p} & 0 & 0 & \dots & 0 \\ -\frac{\widehat{\beta}_{a_2}}{\widehat{\beta}_p^2} & 0 & \frac{1}{\widehat{\beta}_p} & 0 & \dots & 0 \\ \vdots & \vdots & \vdots & \vdots & \vdots & \vdots \\ -\frac{\widehat{\beta}_{a_K}}{\widehat{\beta}_p^2} & 0 & 0 & 0 & \dots & 0 \\ -\frac{\widehat{\beta}_s}{\widehat{\beta}_p^2} & 0 & 0 & 0 & \dots & \frac{1}{\widehat{\beta}_p} \end{pmatrix} \quad (\text{B4})$$

Focusing on bandwidth, the estimated variance of the WTP for bandwidth from equation B2 is

$$V(\hat{w}_s) = \left(\frac{\hat{\beta}_s^2}{\hat{\beta}_p^4} \right) \hat{\sigma}_{pp} + 2 \left(\frac{\hat{\beta}_s}{\hat{\beta}_p^3} \right) \hat{\sigma}_{ps} + \frac{1}{\hat{\beta}_p^2} \hat{\sigma}_{ss}$$

The utility model for access, with interactions, is

$$U_{ij}^* = \beta_p p_{ij} + \mathbf{X}'_{ij} \boldsymbol{\beta} + (\beta_s + \mathbf{a}'_i \boldsymbol{\delta}) b_{ij} + \epsilon_{ij}, \quad i = 1, \dots, n; \quad j = 1, \dots, 8, \quad (\text{B5})$$

where \mathbf{a}_i is a vector of L demographic variables for individual i and the elements of $\boldsymbol{\delta}$ are additional parameters to be estimated. The estimate of WTP for bandwidth from this model is

$$\hat{w}_s = (\hat{\beta}_s + \bar{\mathbf{a}}'_i \hat{\boldsymbol{\delta}}) / \hat{\beta}_p \quad (\text{B6})$$

where the vector of individual-specific demographic variables is evaluated at their means.

Define $\hat{\boldsymbol{\phi}} = (\hat{\beta}_p : \hat{\beta}_s : \hat{\boldsymbol{\delta}})'$, and define $V(\hat{\boldsymbol{\phi}}) = \boldsymbol{\Sigma}^*$. The variance of \hat{w}_s is

$$\hat{V}(\hat{w}_s) \approx \left[\frac{\partial \hat{w}_s}{\partial \boldsymbol{\phi}} \right]' \boldsymbol{\Sigma}^* \left[\frac{\partial \hat{w}_s}{\partial \boldsymbol{\phi}} \right] \quad (\text{B7})$$

where

$$\frac{\partial \hat{w}_s}{\partial \boldsymbol{\phi}} = \left(-\frac{\hat{\beta}_s + \bar{\mathbf{a}}'_i \hat{\boldsymbol{\delta}}}{\hat{\beta}_p^2} \quad \frac{1}{\hat{\beta}_p} \quad \frac{a_1}{\hat{\beta}_p} \quad \frac{a_2}{\hat{\beta}_p} \quad \dots \quad \frac{a_L}{\hat{\beta}_p} \right)' \quad (\text{B8})$$

Reference:

Kling, C., and R. Sexton (1990). "Bootstrapping in Applied Welfare Analysis." *American Journal of Agricultural Economics* 72: p.

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Appendix C

Details on the study design: within subjects

The likelihood as it is written in equation A12 does not take into consideration the fact that the formation of that part of the likelihood involving the comparison of the chosen alternative to the status quo involves the error difference $\epsilon_i^0 - \epsilon_{ij}^{k_{ij}}$, where $k_{ij} = 1$ or 2 (depending upon the choice), and from choice occasion to choice occasion these error differences are correlated. This correlation is induced by the common occurrence of ϵ_i^0 , since respondents need evaluate their utility of the status quo only once. This point is generally missed in conjoint analysis. An econometric innovation of this study is to treat the person, and not the person-choice occasion, as the unit of observation, so that we may explicitly model this correlation. The likelihood is now written

$$L(Z_{ij}^1, Z_{ij}^2, i = 1, \dots, n, j = 1, \dots, J | \mathbf{x}_{ij}^1, \mathbf{x}_{ij}^2, \mathbf{x}^0; \boldsymbol{\beta}, \lambda) = \quad (C1)$$

$$\prod_{i=1}^n P(Z_{i1}^1, Z_{i1}^2, Z_{i2}^1, Z_{i2}^2, \dots, Z_{iJ}^1, Z_{iJ}^2) .$$

The probability in equation C1 would appear to be computationally intractable, as it involves a 16-fold ($2 \times J = 8$) integration of the multivariate normal density function. Fortunately, this is not the case, as the correlation between $\epsilon_i^0 - \epsilon_{ij}^1$ and $\epsilon_i^0 - \epsilon_{ij}^2$, for example, is a result of the common occurrence of ϵ_i^0 . This means that we can follow a familiar conditioning argument to express the probability in equation C1 as the integral of the product of eight bivariate probabilities, integrated against the univariate normal density (see Waldman, 1985). But the cost of this generality is in programming and computer time, as the likelihood must be maximized by simulation or with quadrature methods. We used Hermite polynomial quadrature (Abramowitz and Stegun, 1964, p. 890).

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Appendix D: Survey Questions: Internet Service Features

Q5. Some Internet service providers offer deals when you bundle Internet service with a traditional or cellular phone and/or TV into an “all-in-one” service plan with a single monthly bill. What kind of service do you have at home?

- Not sure
- Internet only
- Internet and phone
- Internet and TV
- Internet, phone and TV
- Other (please specify: _____)

SHOW Q6 IF Q5 = “INTERNET ONLY” OR REFUSED.

Q6. Your Internet service has a monthly *cost*. How much does your household pay per month for the Internet service at your home?

\$ _____ per month

[OR, FOR EXAMPLE] SHOW Q13 & Q14 IF Q5 = “OTHER.”.

Q13. Your bundle of services has a monthly *cost*. How much does your household pay per month for the bundle of services at your home?

\$ _____ per month

Q14. How much does your household pay per month for the Internet portion of your bundle of services?

\$ _____ per month

Q15. *Speed* describes the time it takes to receive (download) and send (upload) information from your home computer. Table 1 shows three common speeds.

Table 1. Speed of receiving and sending information over the Internet	
<i>Speed</i>	<i>Description</i>
Slow	Similar to dial up. Downloads from the Internet and uploads to the Internet are slow. It is good for emailing and light web surfing.
Fast	Much faster downloads and uploads. It is great for music, photo sharing, and watching some videos.
Very Fast	Blazing fast downloads and uploads. It is really great for gaming, watching high-definition movies, and instantly transferring large files.

- Q17. Many Internet services have a free wireless home network feature that allows you to connect your laptop computer to the Internet wirelessly within your home. Some Internet services also have a *mobile laptop* feature where you pay an extra monthly fee to connect your laptop to the Internet wirelessly while away from your home.

Does your Internet service have a mobile laptop feature (note: this is not Wifi)?

- Yes No

[HYPERLINK TO WIFI: “IN CONTRAST, WIFI OFTEN PROVIDES THE PUBLIC WITH A FREE, WIRELESS CONNECTION TO THE INTERNET AT WIFI HOTSPOTS OPERATED BY AIRPORTS, HOTELS, RESTAURANTS AND COFFEE SHOPS.”]

SHOW Q17B IF Q17 = “YES”.

- Q17b. How much extra does your household pay per month for your mobile laptop feature?

\$ _____ per month

- Q17. Some software applications such as Skype provide a “*videophone*” feature that allows you to place free phone calls over the Internet and see the person you are calling.

Have you used a videophone feature to place free phone calls and see the person you are calling, through *your* Internet service?

- Yes No

- Q17. Some *movie rental* services such as Netflix, Blockbuster.com and iTunes allow you to download and watch high-definition movies and TV shows, saving the cost of a trip to the video store.

Do you use these or similar services to download and watch high-definition movies and TV shows?

- Yes No

SHOW Q17B IF Q17 = “YES”.

- Q17b. How much does your household pay per month for your *online* movie rental service?

\$ _____ per month

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Pew
& Internet
American Life
PROJECT

The Broadband Difference

*How online Americans' behavior changes with
high-speed Internet connections at home*

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Summary of Findings

The current debate about broadband deployment and adoption is marked by hope and uncertainty. The hope is that deployment of a high-speed communications infrastructure will bring the telecommunications industry out of its current slump and, more broadly, will stimulate the economy. The uncertainty relates to the pace of consumer adoption of broadband – that is, whether enough consumers will purchase high-speed service and content to justify investment in broadband networks and applications.

This report focuses on the nature of broadband use in American homes. Roughly 24 million Americans (21% of all Internet users) have high-speed connections at home. The Pew Internet & American Life Project's survey of broadband Internet users shows that broadband users spend more time online, do more things, and do them more often than dial-up Internet users. There are three major ways in which broadband users distinguish themselves from their dial-up counterparts. For high-speed home users, broadband lets them use the Internet to:

- become creators and managers of online content;
- satisfy a wide range of queries for information, and;
- engage in multiple Internet activities on a daily basis.

Home broadband users have a new proximity to information and a convenient tool for communication that changes the way they find, generate, and manipulate content. Some uses of the high-speed connection are of the everyday sort – checking the time a movie is showing, finding a recipe, or settling a friendly argument about a factoid. Many are of greater weight, such as getting health care information off the Internet, taking an online course, or working at home. Home broadband users are typical early technology adopters – that is, they are wealthy, educated, and male. Our research shows that even though these demographic characteristics are factors in the broadband difference, the high-speed connection matters most in spurring these online Americans to new levels of Internet use.

For broadband users, the always-on, high-speed connection expands the scope of their online activities and the frequency with which they do them. It transforms their online experience. This has led to steady growth in broadband adoption among Net users. Since the Pew Internet Project first inquired about the nature of users' home connection in June 2000, the number of high-speed home users has quadrupled from 6 million to 24 million Americans. This places home broadband adoption rates on par with the adoption of other popular technologies, such as the personal computer and the compact disc player, and faster than color TV and the VCR.

Some have raised the concern that a lack of compelling online content, particularly in the entertainment arena, has dampened consumer uptake of broadband. Our research suggests that most early broadband adopters find plenty to do with their fast connections, especially when it comes to creating online content and performing information searches. Broadband users are as likely to go online to get job training, as they are to download a video. To be sure, both applications will benefit from the faster technologies of the

future, but the speed of today's high-speed networks is sufficient to attract growing numbers of users to current applications and features that give them the information that matters to them.

The online surfing patterns of high-speed users reveal two values that policymakers, industry leaders, and the public should bear in mind:

1. **An open Internet is appealing to broadband users.** As habitual posters of content, broadband users seem to desire the widest reach for what they share with the online world. As frequent searchers for information using their always-on connection, broadband users seek out the greatest range of sources to satisfy their thirst for information. Walling off portions of the Internet, which some regulatory proposals may permit, is anathema to how broadband users behave.
2. **Broadband users value fast upload speeds as well as fast download speeds.** They not only show this by their predilection to create content, but also by their extensive file-sharing habits.

The three noteworthy features of home broadband users

1. They are creators and managers of online content

Broadband Internet users differ vastly from dial-up users in the way they deal with online content. For many broadband users, images and data on the Internet are not just things to be viewed passively, but things that these users download, recombine, manipulate, and share with others. Four in ten broadband users (39%) have at one time or another created content for the Internet by doing such things as creating Web sites, posting their thoughts or other information to existing Web sites, and creating online diaries. Some 16% of broadband users create some kind of content for the Web on a typical day online. A similar number (43%) share files with others (17% on an average day do this) and also display or develop photos online (43% have done this, 14% do it on a typical day).

Fully 59% of broadband users have at one time created content or shared files with others online; 26% do these things on a typical day. When it comes to these activities, broadband users are about twice as likely as dial-up users to have ever done these things. Broadband users are also more active than dial-up users as content downloaders. Some 63% have at one time or another downloaded games, video or pictures, and 50% have at one time or another downloaded music files. On a typical day, 22% of broadband users download games, videos, or pictures, with 17% downloading music on a typical day.

Content creation is an especially prominent activity for a subset of the broadband population that we call the broadband elite. These are the quarter of the home broadband population who do 10 or more online activities on a typical day. That represents twice as much daily activity online as is performed by other broadband users, who average about 5 online activities on a typical day.¹ On any given day, four out of five (81%) members of the broadband elite post content to the Internet, such as updating a Web page, sharing

¹ Overall, broadband users (the elite and non-elite alike) average 7 online activities on a typical day compared with dial-up users, who average 3 online activities on a typical day.

files, or storing information online. They are equally active downloaders, with 78% downloading information of some kind on a given day.

2. They use their “always on” connections to satisfy their queries

As much as the broadband connection’s speed, the “always on” nature of a home broadband connection allows users to turn to the Internet for all sorts of information needs. About two-thirds (68%) of home broadband Internet users say they do more information searches online because of their high-speed connection. When asked what they have done *most* online since getting a home broadband connection, a plurality (32%) responded, “looking for information” with emailing a close second (28%). Broadband users also say they have spent more time online since getting broadband (61% say they do). Most of the extra time they spend online because of the high-speed connection is due to more information searching. Because of their active information gathering, home broadband users report that the Internet helps them in various dimensions in their lives:

- Close to 9 in 10 broadband users (86%) say the Internet has improved their ability to learn new things.
- Two-thirds (65%) say the Internet has helped them better pursue their hobbies and interests.
- Two-thirds (65%) also say it has improved their ability to shop.
- More than half (55%) say the Internet has improved their ability to do their jobs.
- Nearly half (47%) say the Internet has improved the way they get health care information.

In each case, broadband users are substantially more likely than dial-up users to say the Internet has helped them get information relevant to their lives.

3. They do many things online on a typical day

The average Internet user with high-speed home access does 7 things online on a typical day, such as getting news, health care information, taking an online course, listening to music, or downloading files. By contrast, a dial-up user does about 3 things online during a typical day online. The high-speed connection permits broadband users to perform multiple Internet tasks more easily in a given online session or at different times of the day.

Broadband Internet users are much more likely than dial-up users to be online during a typical day. Fully 82% of broadband Internet surfers are online on any given day, compared to 58% of dial-up users. They spend more time online than dial-up users (95 minutes on average for high-speed users during any given day, compared to 83 minutes for dial-up). Broadband users do more things online, and it is likely that at times they are multi-tasking by cramming several simultaneous activities into those online sessions. In addition, they are more than twice as likely as dial-up users to have several online surfing sessions on a given day (43% of broadband users have multiple online sessions per day versus 19% of dial-up users).

Analysis of the broadband elite – those users doing 10 or more activities on a typical day online – suggests there is an emerging broadband lifestyle. Those living that life do more

work at home, less TV watching, more online news-gathering, and spend less time shopping in stores. With an “always-on” Internet connection, a member of the broadband elite might be “instant messaging” friends or work colleagues, listening to a favorite radio station online, booking an airline ticket, or scanning an online news site – all at the same time. The sheer scope of things that the broadband elite do online suggests that the term “killer app” is a misnomer for this set of Internet users.

A typical day online for broadband users

Communications remains the dominant application. Two-thirds of broadband users (67%) check email on a typical day; 21% do instant messaging; and 71% do both on that typical day. Information seeking comes in next:

- 46% of broadband users get news online on any given day. In fact, broadband users are more likely to get news online than read a newspaper on an average day (40% do that).
- 36% of broadband users do job-related research on an average day online.
- 32% do product research online on a typical day.

Pursuing personal interests is popular, as 41% of broadband users go online during any given day for hobby information and 39% go online just for fun. Multimedia applications are also popular. Overall, 49% of broadband users are accessing some kind of multimedia content during a typical day online.

- 21% of broadband users do media streaming on any given day
- 22% play a game on any given day
- 21% watch a video clip on any given day
- 22% download games or video on a typical day.

Financial management and ecommerce benefit from broadband:

- 21% of broadband users buy a product online on a typical day.
- 22% do online banking or bill paying on a typical day.
- 14% buy a travel service of some sort on a typical day.

The social and family lives of broadband users

Not surprisingly, broadband households tend to have a lot of technology. Fully 69% have more than one computer, and 40% have three or more computers in the house. The multiplicity of computers has prompted more than half (55%) of broadband households to network their home computers. A similar number (56%) have installed computer firewalls to protect against viruses and other unwanted cyber-intrusions. The high-speed connection also has had a beneficial impact on sharing online resources in the house. Four in ten (43%) say broadband has made it easier to share the computer; half (52%) say it is easier to share the Internet.

Broadband users are more likely than dial-up users to report that their use of the Internet has had a positive impact on connections to family and friends. Three-quarter (76%) of broadband users say the Internet has improved connections to friends (versus 68% of dial-up users) and 71% of broadband users say it has improved connections with family (versus 58% of dial-up users). Since broadband and dial-up users have equally robust

social networks, the always-on connection may lead to a rise in convenience emailing that helps with social connections.

Time use: What broadband access changes

The extra time spent online due to broadband—and the wider range of online activities done by broadband users—comes at the expense of the use of traditional media, shopping in stores, working at the office, and commuting in traffic. Specifically, for home broadband users:

- 37% say their Internet use has decreased the time they spend watching television;
- 31% say their Internet use has decreased the time they spend shopping in stores;
- 18% say their Internet use has decreased their time reading newspapers;
- 13% say their Internet use has decreased the time they spend in traffic.

The home broadband connection does result in more work at home. One-third of home broadband users telecommute. For that reason, 25% of all broadband users (and 58% of those who telecommute) say the Internet has led them to spend more time working at home. Broadband users do not report that the Internet has had much impact on the time they spend with family, friends, or attending social events.

Main Report: The Broadband Difference

The promise of a high-speed data connection into people's homes has been around longer than the Worldwide Web. Digital technologies developed in the 1980s, which made possible the transmission of voice, video, and text over the same wire, upped the ante in the information revolution. Mass media would no longer mean the transmission of identical messages to millions of people, but rather the transmission of messages and images from multiple sources, tailored to specific needs, to millions of people in their home. Lots of things were never to be the same according to prognosticators of the 1980s. High-speed links to the home would revolutionize democratic participation, entertainment, health care delivery, education, commerce, and more.

Integrated Services Digital Network (ISDN), developed in the 1980s at Bell labs, was the earliest hope for making digital dreams a reality in the home. ISDN allowed voice, video, and data to be transmitted at, for those days, a very fast rate of 64 kilobits per second (Kps). As that technology improved throughout the 1980s, it was thought that most homes would one day be equipped with ISDN. However, the promise was never realized.

In 1990, one telephone company, GTE, had begun a trial in Cerritos, California, where consumers were equipped with high-speed fiber optic connections to the home. It, too, did not thrive. Cable companies also entered the act around the turn of the decade by touting interactive TV as a way to bring high-speed connections into people's home that would offer not just

video-on-demand, but health care, games, and other information services. In 1994, Time Warner Cable launched a trial in Orlando, Florida, called the Full Service Network as a test bed for high-speed interactive services. Neither this nor other trials met much success, and the Full Service Network was quietly mothballed after a short time.

The invention of the Worldwide Web in 1991 and the subsequent widespread adoption of the Internet renewed the hopes for broadband to the home. With the Web making the Internet easily navigable and with home computer purchases on the rise, technology backers hoped that the expanding ranks of technophiles would demand high-speed, or broadband, connections at home. Alas, even in the era of the Web, some firms that hoped to capitalize on broadband to the home have foundered. Perhaps the most trenchant example of this is the failure of Excite@Home. The ambitious attempt to marry a content company, Excite, with the broadband provider @Home, failed as its business model

Defining Broadband
Bandwidth is the number of binary bits of information that can be transmitted per second through a given channel, whether that is copper wire, radio spectrum, coaxial cable, or optical fiber.
The Federal Communications Commission (FCC) defines broadband or facilities with advanced telecommunications capabilities as those with transmission speeds exceeding 200 Kps both upstream and downstream. This is about four times the speed of standard 56 Kps dial-up modem.
The FCC uses the term high-speed to describe services with 200 Kps speed in one direction.
Some advanced services, such as video-on-demand, require speeds faster than the FCC definition. According to the Computer Systems Policy Project, TV-quality video streaming requires 750 Kps; DVD-quality requires 4 Mps.

proved unsustainable and as subscriber growth fell short of expectations. Declining dot-com share prices also proved punishing to the company. Once valued at \$6.7 billion, the company filed for bankruptcy at the end of 2001 and shut its doors in February 2002.

Cities and towns have also tried to enter the broadband fray. Many places have considered or built citywide high-speed networks to improve government service delivery and promote economic development. Some sizable cities in the mid- to late 1990s, such as Chicago, Seattle, Palo Alto, and Austin, Texas, contemplated building city-supported broadband networks. One that came to fruition, in Palo Alto, met tepid customer response. Others, such as Austin's, stalled due to controversy over whether municipal government should be offering services that compete with private sector in broadband development. Because of debate over government's role in such networks, eleven states prohibit cities from building broadband networks to serve retail markets.

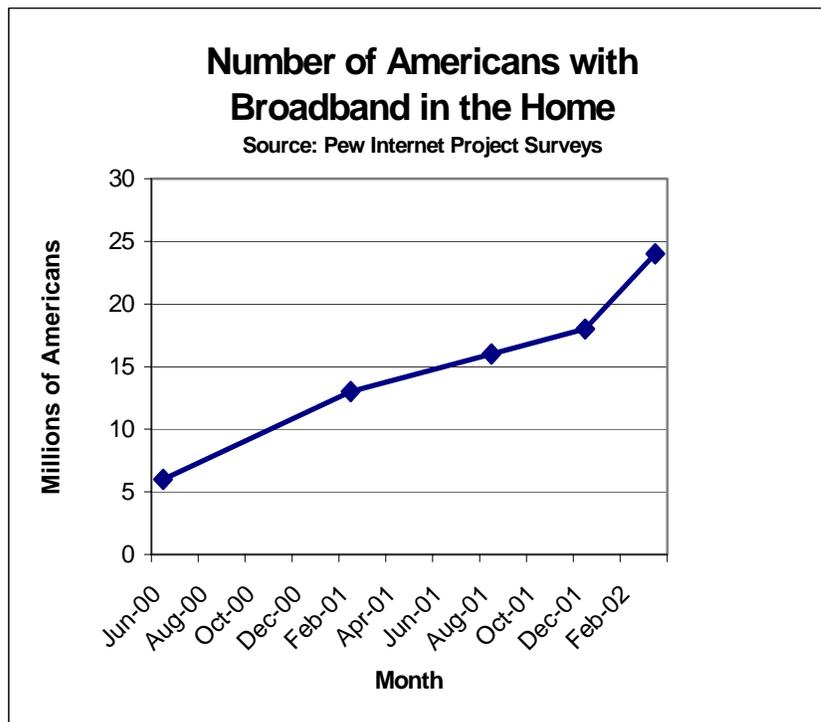
More recently, rural communities, worried that the private sector may not extend broadband networks to their areas in a timely fashion, have undertaken broadband initiatives, often using city-owned electric utilities as the vehicles for network development. Among the examples of smaller communities that have developed broadband are LaGrange, Georgia and Glasgow, Kentucky. By some estimates, some three-dozen small municipalities offer broadband service to residents and businesses. All hope broadband will spur economic growth in their communities, although customer enthusiasm has not always been as high as envisioned.

The “chicken and egg” investment challenge

A problem facing providers of high-speed home connections—public or private, before the Web or after its development—is the “chicken and egg” dilemma with respect to consumer demand. Companies or towns considering the sizable investment in high-speed infrastructure for homes have reason to pause, since it is hard to predict how many consumers would want such connections and what information services they would demand once they had them. Consumers, for their part, might be willing to pay for innovative online services, such as video-on-demand, online shopping, or home health care. But potential providers of such expensive online content do not want to incur the cost of creating those applications without assurance that the high-speed networks are built out and ready to serve customers.

The multiplicity of broadband trials and pervasive uncertainty about consumer demand point to a key question: What do Internet users with broadband connections in the home do online? This report sheds light on the answer to that question. We conducted a callback survey in February 2002 of 507 Internet users who had told us in past surveys that they have home broadband connections—either cable modems or digital subscriber line (DSL) service. The callback survey examined what broadband users do online, what additional things they do online because of the high-speed connection, and how it has affected their lives and jobs. In addition to the survey, this report uses information gathered by broadband users who responded to questions posed on the Pew Internet Project's Web site that asked them to describe their experience with their home broadband connection and how it has changed their lives.

Even with uncertainty in the marketplace, penetration of broadband Internet access has been steadily rising. When the Pew Internet and American Life Project in June 2000 first asked Internet users about the type of home connection they had, 6% of Internet users had a high-speed connection at home. That is 3% of all Americans, or approximately 6 million people. By February 2001, penetration had risen to 13% of all Internet users. By the end of 2001, 16% of Internet users reported being broadband users. Our latest survey shows that broadband penetration has increased four-fold in about two years. In May 2002, 21% of all Internet users in America have broadband in the home; that is 24 million, or 12%, of all American adults. In our February 2002 callback survey of broadband users, 27% of them said they subscribed to DSL, 71% used cable modems, and 2% used satellite or fixed wireless technologies.



Part 1: The Always-On Information Appliance

The advent of broadband in the home transforms the Internet from a “sometimes” tool for

Demographics: Broadband vs. Dial-up

The percent of Internet users in each group who are ...	Home Broadband Users	Dial-up Users
Sex ...		
Male	56%	49%
Female	44	51
Community Type		
Rural	11	24
Suburban	60	51
Urban	29	25
Age ...		
18-24	11	15
25-34	20	22
35-44	28	27
45-54	26	21
55+	14	15
Education		
High school or less	13	37
Some college	28	28
College grade or more	59	35
Race		
White (not Hispanic)	85	79
Black (not Hispanic)	4	8
Hispanic	5	9
Other	6	5
Income		
Less than \$30K	6	17
Between \$30 & \$50K	14	24
Between \$50 & \$75K	20	19
More than \$75K	45	24
Internet experience...		
Online in last 6 months	1	7
Online for about 1 year	4	13
Online for 2-3 years	21	35
Online for 4-5 years	28	24
Online > 6 years	42	20

Source: Home Broadband Users, Pew Internet & American Life Project February 2002 Survey, Internet users, n=507; margin of error is ±4%. Dial-Up Users, August-September 2001 Survey, n=1391; margin of error is ±3%.

difference is probably due to availability; the Federal Communications Commission reports that 97% of the country’s most densely populated zip codes contain broadband subscribers, while just 49% of the least populated zip codes do.

Our analysis shows that these demographic and personal traits of broadband users partially explain why they use the Internet differently from dial-up users. However, the presence of high-speed connections in their homes is an additional and independently important factor in predicting broadband users’ online behavior, such as their frequency

finding information and communicating with others to a pervasive information appliance that exponentially expands people’s ability to create, download, and access information in cyberspace. The always-on character of home high-speed connections turns people into very different kinds of Internet users. All Internet users—either dial-up or broadband—greatly value the possibility they can use their connections to participate in many-to-many communications. For dial-up users, this manifests itself in extensive emailing with family and friends and active participation on the listservs and chat rooms of online communities. Broadband users do these things and more. They also become information producers and downloaders in ways that differ fundamentally from their dial-up counterparts.

Some of these differences have to do with the traits of broadband users. They are generally the Internet’s early adopters who have taken their online experience to the next level. As the table at the left shows, nearly half (42%) of broadband users have been online since 1996 or before, while only one in five (20%) dial-up users have that much online experience.

Typical of early Internet adopters, broadband users are wealthier, better educated, and more likely to be men than dial-up users. And the broadband crowd is more suburban and urban than the dial-up population. The dial-up group is proportionally more rural. Some of this

of going online and the number of things they do online on a given day. They use the Internet differently because they have access to high-speed technology, not just because of who they are. (Further elaboration of this point comes in the section “Changes in behavior: Broadband access is a decisive factor” that begins on page 13.)

Despite concern, particularly in technology and industry circles, that broadband deployment is occurring too slowly, our data suggest that broadband’s roll out is unfolding much like other technologies. High-speed Internet has taken four years to reach the critical mass of 10% adoption, according to the FCC. It took four years for the personal computer to attain 10% adoption, 4 and one-half years for the CD player, and 8 years for cell phones. The table here summarizes adoption rates for several consumer

Adoption Time for New Consumer Technologies

	Years to reach 10% adoption	Years to reach 50% adoption
Video Cassette Recorder	10	14
Compact Disc Player	4.5	10.5
Color TV	12	18
Cell Phones	8	15
Personal Computer	4	18

Source: Federal Communications Commission, presentation of Robert Pepper “Policies for Broadband Migration,” April 2002.

technologies. Comparable data are difficult to come by for the Internet, since it was “invented” in 1969. By 1996, however, roughly five years after the Web came online, about 19% of U.S. households had Internet access, according to the U.S. Department of Commerce.

Why do broadband users obtain high-speed connections? Half cite the simple desire to have faster Web access, perhaps because it is clear to them that speedier access to information and the convenience of Internet communication is its own virtue. Others cite a variety of reasons for upgrading their connection, including their desire to perform job-related tasks at home, their ability to download files in less time, their interest in online multi-media offerings, their desire to have an always-on connection, and their interest in freeing up a phone line for telephone calls. Many broadband users (81%) have become accustomed to high-bandwidth connections at work, with fully 43% of all broadband users saying that the fast connection at work influenced their decision to upgrade the home connection. With one-third of broadband users being occasional telecommuters, it is no wonder they value the fast connection.

The most obvious way that broadband changes users’ Internet habits is the frequency with which they go online from home. On a typical day, almost three in five (58%) Internet dial-up users log on to check email or browse the Web; 71% of the most experienced dial-up users (those online for 6 years or more) log on on a typical day. For broadband users, 82% are doing something online on a typical day. Fully 86% of broadband users who have been online for more than 6 years are online on a typical day.

An Average Day for Broadband Users

On a typical day online, the percentage of each group who are doing various Internet activities		
	Home Broadband Users	Dial Up Users
Communications		
Email	67%	52%
Instant messaging	21	14
Chat rooms	10	5
Information Seeking		
News	46	24
Job-related research	36	14
Look for product information	32	18
Research for school or training	24	9
Look for travel information	23	6
Look for medical information	21	8
Information Producing		
Share computer files with others	17	4
Create content (e.g. Web pages or post to bulletin board)	16	3
Display/develop photos	14	1
Store files on Internet	8	n/a
Downloading		
Download games, video, pictures	22	4
Download music	17	6
Download movie	5	n/a
Media Streaming		
Watch video clip	21	6
Listen to music/radio station	19	4
Watch movie	4	n/a
Transactions		
Online banking/bill paying	22	6
Buy a product	21	3
Buy a travel service	14	2
Auction	10	3
Buy groceries/household goods	6	1
Buy/sell stocks	5	1
Gamble	2	n/a
Entertainment activities		
Hobby information	41	18
Browse just for fun	39	21
Play a game	22	10
Visit adult Web site	6	1

Source: Home Broadband Users, Pew Internet & American Life Project February 2002 Survey, Internet users, n=507; margin of error is ±4%. Dial-Up Users, August-September 2001 Survey, n=1391; margin of error is ±3%.

differences between dial-up and broadband users are striking when it comes to producing information and sharing files. A broadband connection increases the likelihood that a high-speed user will download files or music, create content, or share files online three to five times, compared with dial-up users. Broadband users are similarly much more likely than dial-up users to conduct transactions online. This probably reflects the higher incomes of broadband users.

The increased frequency with which broadband users do something online is also associated with a steep increase in frequency with which they do different Internet activities. In our survey, we ask users what they did *yesterday* online, which yields a portrait of what the broadband population as a whole does online during a typical day. We also ask people if they have *ever* done a particular activity online. The analysis in this section, and most of this report, focuses on a typical day's worth of Internet activities for the broadband user population compared with dial-up user population. An appendix to the report compares the share of broadband users who have ever done an activity online with the averages for all Internet users.

Pick any Internet activity and a broadband user is more likely to do it on a given day than a dial-up user – usually it is the case that the broadband user is *much* more likely to be doing the activity. For dial-up users, the act of getting information, such as news, product, or job research dominates their daily surfing habits. The same kinds of information-seeking activities play prominent roles in broadband users daily Internet habits. However, the extra bandwidth encourages more of them to download files, produce information for the Web, and complete online transactions. The

The fast upload and downloading speeds and the always-on connection of broadband also expand greatly the scope of a typical day's worth of activities for broadband users. On average, a broadband user does about 7 different things online during a typical day of Internet activity, whether that means paying a bill or finding health care information

How often do you sit down and access the Internet from home?	% of broadband users	% of dial-up users
Several times a day	43%	19%
About once a day	30	27
3-5 days a week	17	22
1-2 days a week	9	21
Once every few weeks	1	7
Less Often	*	4

Source: Home Broadband Users, Pew Internet & American Life Project February 2002 Survey, Internet users, n=507; margin of error is ±4%. Dial-Up Users, January 2002 Survey, n=1,415; margin of error is ±3%.

online. By contrast, a dial-up user in August 2001 was likely to engage in only 3 different activities online on any given day. Broadband users also spend more time online on a typical day than dial up users; broadband users spend about 95 minutes online during that average day compared with 83 minutes for dial-up Internet users. With broadband users more likely than dial-up

users to be online on a given day, the increased daily usage translates into about 3 and one-half hours more per week online for broadband users. In sum, members of the broadband population turn constantly to the Internet to satisfy all kinds of information needs.

Broadband users are also more likely than dial-up users to have multiple online sessions on a given day. The high-speed home connection makes it twice as likely that a user will go online several times a day in comparison with a dial-up user. Four in ten (43%) of broadband users log on several times per day, while 19% of dial-up users do.

Changes in behavior: Broadband access is a decisive factor

The stark demographic differences between dial-up and broadband users, in conjunction with their vastly different online behavioral patterns, invite the questions: What really explains the heightened online activity levels of broadband users? Is it demographics, such as higher levels of income and education, which makes them more “information hungry” or more likely to communicate with others? Or is it the home broadband connection itself?

We used regression analysis to determine what factors most accurately explain the intensity of a person's Internet use. As it turns out, three variables are most powerful in predicting the likelihood that someone will go online on any given day, the length of time he will be online during that day, and the number of Internet activities he will do on a given day. The factors are: the presence of a broadband connection, the user's length of Internet experience, and the user's gender. In other words, broadband users are more likely than dial-up users to be online on any given day, to spend several hours online during their daily sessions, and to do more online activities on that typical day. Similarly, those with a lot of Internet experience are more likely than relative newcomers to the Internet to exhibit high levels of intense Internet use. And, finally, women are more likely than men to be intense users of the Internet.

Most noteworthy of all, the availability of a broadband connection is the *largest single factor* that explains the intensity of an online American's Internet use. Put another way, the facts that a man has a home broadband connection and has a great deal of Internet experience all explain the intensity of his Internet use. But the existence of a home broadband connection is a *more powerful predictor* than his gender and his online tenure as to whether he uses the Internet intensely.²

In sum, the impact of the home broadband connection is clear; broadband is the largest driver of the frequency of people logging on daily, the amount of time they spend online daily, and the number of Internet activities they do daily. Other factors come into play, but high-speed connections are the single biggest determinant of his Internet use.

Our survey offers additional evidence that broadband is changing what people do online and how often they do it. Most broadband users – 61% – say they spend more time online at home since getting a high-speed connection, and one third say they do more work-related tasks since they obtained a broadband connection in the house. And they report that their information searches for random bits of everyday information have gone up because of broadband. Two-thirds (68%) of broadband users say that since they got a high-speed connection that have looked more frequently for such things as addresses, recipes, local events information and other facts they need.

² Appendix B to this report elaborates on the econometric techniques on which the findings in this section are built.

Part 2: The Broadband Lifestyle and the Rise of the Broadband Elite

Broadband connections are changing people’s lifestyles. The Internet is the “go to” tool for a variety of functions—paying a bill, updating photos on the family Web page,

The Broadband Elite—Daily Internet Activities

The percent of each group who are doing various Internet activities on any given day		
	Broadband Elite	Other Broadband Users
Communications		
Email	58%	80%
Instant messaging	48	14
Chat rooms	23	7
Information Seeking		
News	56	49
Job-related research	64	32
Look for product information	68	24
Research for school or training	50	19
Look for travel information	61	14
Look for medical information	52	13
Information Producing		
Share computer files with others	50	8
Create content (e.g. Web pages)	38	10
Display/develop photos	45	5
Store files on Internet	21	4
Downloading		
Download games, video, pictures	61	12
Download music	43	10
Download movie	17	2
Media Streaming		
Watch video clip	55	12
Listen to music/radio station	48	11
Watch movie	12	2
Transactions		
Online banking/bill paying	39	19
Buy a product	59	11
Buy a travel service	47	5
Auction	28	5
Buy groceries/household goods	18	2
Buy/sell stocks	17	2
Play lottery	7	1
Entertainment activities		
Hobby information	69	37
Just for fun	55	39
Play a game	46	17
Adult Web site	17	3

Source: Home Broadband Users, Pew Internet & American Life Project February 2002 Survey, Internet users, n=507. Margin of error is ±4%.

listening to music, sharing files with co-workers, or getting news. For these users, the Internet replaces multiple tools, such as the telephone, TV, stereo, newspaper, fax machine, or pen, to carry out tasks. Needs are met on a real-time basis, with the Internet letting people’s creativity structure how they interact with co-workers, family, friends, and the wider outside world.

A glimpse into a super-elite set of broadband users shows the transformative impact of a high-speed home connection in people’s lives. The analysis in this section focuses on the quarter of daily broadband surfers whom we call the broadband elite. These are those with high-speed home connections who, on average, do 10 or more online activities on a typical day. By contrast, on a typical day, the others in the broadband population do about 5 activities online.

For the broadband elite, the Internet itself, with all its warrens of information and outlets for creativity, is the killer application. On a given day, they are more likely to do job research online or look for product information than check email. Further, broadband users are nearly as likely to share files with

others on the Internet as to check email. For the broadband elite, the very high level of

instant messaging (48% of the elite use IM on a typical day) suggests that IM-ing substitutes for email to some extent.

The fact that the Internet itself is the killer application for these high-level users suggests the future of broadband's success may hinge not on what many entrepreneurs have tried to develop: a hugely popular and singular killer app. Rather, it suggests that broadband will likely grow as more and more people gain experience, confidence, and trust online and come to recognize the wealth of material that broadband access can offer a seasoned user.

Another distinguishing feature of the broadband elite is that they are information producers *and* downloaders. On any given day, fully 81% of the broadband elite creates information for the Internet, whether that is posting content to the Web, sharing files, or storing information online. Only 22% of the non-elite do this. Similarly, 78% of the broadband elite downloads files of some sort on a typical day, compared to 21% of remaining broadband users. Broadband elite members also are more likely to work at home—and work at home more often—than other high-speed surfers. Four in nine (44%) of the broadband elite say they telecommute, compared with 30% of other broadband users. Half of the elite (51%) say they telecommute several times a week, compared to 35% of remaining broadbanders.

Demographically, members of the broadband elite tend to be technophile males at both ends of the age distribution. Fully two-thirds are men, whereas men make up just half of the other part of the broadband cohort. Roughly one-third (30%) are over age 45 compared with 15% of other broadband users and 18% are between the ages of 18 and 24, compared to the 9% of remaining users who fall into that age range. The younger broadband elite score highly in producing and downloading information relative to their older counterparts, while the more senior elite rate relatively highly in going online for job research and seeking news. And broadband elites live in households teeming with technology. Broadband elites are more likely than other users to access the Internet using a wireless device. One-quarter (25%) go online using a Blackberry, cell phone, or other wireless device; only 8% of other broadband users do this. About half of broadband elites (49%) live in homes with three or more computers, compared to 39% of other broadband households.

Part 3: Broadband and the Household

High-speed connections also produce changes in some household functions. Users report that their broadband connections prompt them to change how they allocate their time. Such connections help bring the workplace into the home. Their presence results in the creation of home computer networks. And they place volumes of information easily at users' fingertips. The broadband household is not just home to its occupants, but, as Penn State's Jorge Schement has observed about households in the information age, an active node on an information network.

Fact finder, information manager

Among other things, broadband users value a high-speed connection for its ability to let them grab a fact they need out of cyberspace—either from the Web or from someone they know. Fully 68% of all broadband users (and 75% of the broadband elite) say that

What would you say you've spent the <i>most</i> time doing online since getting broadband to the home?	Broadband users
Looking up information	32%
E-mailing	28
Downloading files	8
Playing game	7
Work related tasks	7
Shopping online	6
Reading news	6
Travel, leisure, hobby	6
Banking/finance	4
Chat	4
Surfing for fun	2

Source: Home Broadband Users, Pew Internet & American Life Project February 2002 Survey, Internet users, n=507; margin of error is ±4%.

they do more information searches for everyday things online because of the convenience of a high-speed home connection. When all broadband users were asked what they have spent the most time doing online since getting broadband to the home, they report that their searches for information and use of email far outpace other activities.

We also asked broadband users whether they have spent more time online at home since getting broadband and, if so, what online activities took up this extra time. Fully 61% of broadband users said that they have spent more time online at home since their high-speed connection was switched on. The plurality of this increment of time online is attributable to information searching. One third (31%) say this extra time is due to more information searching online. About one-fifth (19%) say additional emailing is responsible for this extra time online, with 14% pointing to downloading music or movies as the reason and 13% saying online shopping has taken up the time.

We also asked broadband users whether they have spent more time online at home since getting broadband and, if so, what online activities took up this extra time. Fully 61% of broadband users said that they have spent

In sum, emailing and information searching are most popular among broadbanders. This is not too surprising, since most Americans view the Internet as an information resource like a library. When asked what the Internet is like, 51% of all Americans in the Pew Internet Project's March 2002 survey likened it to a library and no other alternative metaphor such as "meeting place" or "shopping mall" comes close to that symbol of what the Internet is.

Broadband users responding to online queries posted on the Pew Internet Project Web site were particularly vocal about how the always-on nature of the broadband connection lets them find out information they need. One put it succinctly, saying, “The always-on aspect [of broadband] has been a bigger feature than the bandwidth.” Others make a

complementary point that a broadband connection allows them to turn quickly to the Internet to see what is playing at the movies and when, check weather reports, or get a recipe. Where the Internet, says one broadband user, was once a toy, “it is now a tool.” One user wrote that her sister calls her on the phone to ask her to do quick searches for information, as the sister is frustrated by the slowness of dial-up and knows her sister’s connection is always on.

How much, if at all has the Internet improved ...	Broadband (% who say “a lot” or “somewhat”)	Dial-Up Internet users (% who say “a lot” or “somewhat”)
Ability to learn new things	86%	73%
The way you pursue your hobby or other interests	65	48
Your ability to shop	65	42
Your ability to do your job	55	38
The way you get health care information	47	41
The way you manage personal finances	42	25
Your ability to connect organizations in your local community	31	23*

Source: Home Broadband Users, Pew Internet & American Life Project February 2002 Survey, Internet users, n=507; margin of error is ±4%. Dial-Up users, Pew Internet & American Life Project March 2001 Survey, Internet users, n=862; margin of error is ±4%.
 * All Internet users from Pew Internet Project Feb. 2001 survey

Broadband users report that the Internet has helped them manage a variety of tasks in their lives – sometimes simultaneously. With their ardent information-seeking habits, it is no wonder that 86% of broadband users say that the Internet has improved their ability to learn new things “a lot” or “somewhat”. This compares with 73% of Internet users who said this in March 2001. Nearly half (47%) of broadband users say that the Internet has helped improve the way they get information about health care; 54% of women say this versus 41% of men. In the dial-up users’ universe, 38% told us in March 2001 that their use of the Internet improves the way they get health-care information. Forty-two percent of broadband users say the Internet has improved how they manage their personal finances, nearly twice the rate of dial-up users, 23% of whom said this in March 2001. And 65% of broadband users say that the Internet has improved how they pursue their hobbies or interests, compared with 48% of dial-up users in our March 2001 survey. The same share (65%) say the Internet has improved their ability to shop versus 41% of all Internet users in March 2001.

Telecommuting

One-third of home broadband users telecommute at one time or another – and one in eight home do so several times a week. About 60% say high-speed access in the home means they telecommute more often as a result of having their fast home connection. Telecommuters are among the Internet’s elite users, whether that is measured by length of time they have enjoyed Internet access, the frequency with which they log on, and the time they spend online during their typical sessions. Fully 90% of broadband telecommuters go online on a typical day, and their average sessions on that day last

nearly two and one-half hours (145 minutes). Three in five (58%) have been Internet users for 6 or more years, compared with 42% of all broadband users.

Not surprisingly, telecommuters focus on Internet activities that are connected to their jobs. Two-thirds (66%) of telecommuters say they do more work-related tasks at home since they have gotten broadband; only 18% of other broadband users say this. On a given day, 64% of telecommuters with broadband at home use the Internet for job-related research, compared to 23% of other broadband users. The same number (64%) say that the Internet has improved their ability to do their job “a lot” versus 20% of other broadbanders. Finally, and essentially by definition, telecommuters say that their Internet use allows them to spend less time in traffic and working at the office and more time working at home. One third (31%) of broadband telecommuters say that the Internet has decreased the time they spend in traffic; only 4% of non-telecommuters with broadband in the home say this. Similarly, 29% of telecommuters say their use of the Internet decreases the time they spend in the office; basically none (1%) of non-telecommuters with broadband say this.

Telecommuters are far from an “all work no play” breed. There is evidence that they have folded the Internet into other parts of their lives, perhaps because of their technological sophistication and perhaps also tied to their relatively high incomes. Since telecommuters spend more time at home, they have found ways to use the Internet to connect to their community. About 9% of non-telecommuters with broadband say the Internet has helped them get involved with groups in their community; by contrast 16% of telecommuters with broadband say this. And 16% of broadband telecommuters say the Internet has helped them get more involved with groups to which they already belong. Finally, there is some evidence—perhaps due to higher educational levels—that telecommuters with broadband are more civically involved. Fully 57% say the Internet has improved their knowledge of politics and public affairs, compared to 45% of other broadbanders who report this.

The family

With broadband users enjoying an always-on connection and using it to spend more time online, there is potential for changes around the house. We probed three possible areas of impact, namely whether it becomes more difficult to share the computer with broadband, whether the computer’s location changes, and whether family emailing changes. With respect to changing the location of the computer, there is not a lot of furniture moving around the house due to the acquisition of a high-speed Internet connection. One in nine (11%) of broadband users say they moved their computer after getting broadband.

A clear virtue of the home broadband connection is that it makes it easier for family members to share access to the computer and the Internet. Four in ten (43%) of broadbanders say that the high-speed connection makes shared computer use easier and half (52%) say it helps make sharing Internet access. Only 4% say broadband has made sharing the computer harder and just 2% say this about Internet access. Broadband to the home seems to have eased traffic jams at the computer most for the broadband elite, which is not surprising since these users are more likely to have multiple computers in

the home. Three in five (61%) of the broadband elite say it has become easier to share Internet access since getting broadband, and half (51%) say it has become easier to share the computer.

With ease of sharing improving, people are spending more time online at home. When asked whether family members are spending more time online at home since getting high-speed access, 65% of broadband users say “yes.” For broadband elite three-quarters (75%) say family members have spent more time online since getting broadband.

Different kinds of connections

The broadband connection to the home is associated with users’ deeper connections to friends and family. It also has some effect on how people connect to their local community, meet new people, and address problems in their lives. As the table shows, broadband users are more likely to attribute to the Internet stronger personal and

How much, if at all has the Internet improved ...	Broadband users (% who say “a lot” or “somewhat”)	Dial-up users (% who say “a lot” or “somewhat”)
Connections to your friends	76%	68%
Connections to your family	71	58
Your ability to become more involved groups and organizations you already belong to	34	36
Your ability to connect with groups and organizations in your community	31	23*
Your ability to meet new people	20	19
Your ability to find ways to deal with problems	5	n/a

Source: Home Broadband Users, Pew Internet & American Life Project February 2002 Survey, Internet users, n=507; margin of error is ±4%. Dial-Up users, Pew Internet & American Life Project March 2001 Survey, Internet users, n=862; margin of error is ±4%.

* All Internet users from Pew Internet Project Feb. 2001 survey

community connections than dial-up users. This is probably due mainly to broadband users’ greater online experience. Prior Pew Internet Project reports have found that length of time online goes hand-in-hand with how people perceive the Internet’s impact on personal connections. Still, it seems as if the always-on connection leads to a rise in convenience emailing to family and friends that makes broadband users feel more connected to them.

Broadband connectors also use the Internet to reach out to new people, their community, and for problem solving, although the impacts are not large. The broadband elite seems particularly adept at exploiting the Internet for these purposes. About one-fifth (18%) say the Internet has improved their ability to meet new people, and 13%—more than twice the rate for all broadbanders—use the Internet to help solve problems in their lives. Fully a third (31%) say the Internet has helped them become more involved with groups and organizations to which they already belong.

Home networking, home computer security

Broadband to the home presents new technological challenges to users that go along with the benefits of the fast, always-on connections. With 69% of broadband users having more than one computer in the home, they have the opportunity to install computer network to link computers throughout the house. In fact, 55% of broadband users with

multiple computers in the home have home networks; for those households with 5 or more computers, 90% have networks.

Computer security presents another challenge to broadband users. With the Internet link constantly open, the potential exists for computer viruses or intrusive individuals to invade home computers, corrupting data and hard drives. Many broadband users have taken precautions in view of these threats. More than half of broadbanders (56%) have installed a computer firewall to guard against unwanted electronic intrusions, with the broadband elite most likely to have done this, as 69% of those users have installed firewalls. Indeed, there is some reason for concern for broadband users; 14% have contracted a computer virus that they attribute to the always-on nature of their broadband connection. For that reason, 70% of users who have gotten viruses have installed firewalls.

Satisfaction with the home broadband experience

The patterns of household broadband use certainly signal that users value their high-speed connections and have found ways to put them to use. When asked about the reliability of their broadband connections and their satisfaction with them, users report a high level of contentment with their high-speed Internet links. Fully 90% of broadband users rate the quality of their Internet connection at home as “excellent” or “good”, with 40% saying it is excellent. Similarly, 91% say that having broadband to the home has “completely” or “mostly” lived up to expectations, with 35% saying “completely.” And there is no question that broadband users see the high-speed connections as improving their Internet experience; 75% says it has improved “a lot” with another 18% saying it has improved “somewhat.”

These findings of satisfaction come within a context of price increases for home broadband access. The average broadband user pays \$46 per month for service and 36% of broadband users say the price has increased since they first got service (with the average price increase at \$15 per month). Still, broadband users say the extra money they spend on broadband above and beyond dial up is worth it. Fully 85% say that they money they spend on broadband is worth it “a lot” or “somewhat.”

There are, however, a few frustrations for broadband users. When asked whether their broadband connection has worked everyday without interruption, half say it has and half say that it has not. In terms of reliability, broadband is not yet on par with, say, the telephone or electric utility service. And some users express dissatisfaction about the speed of their high-speed connection. About one-quarter (23%) report that they are “frequently” or “sometimes” frustrated by the speed of their broadband connection, a finding that is consistent for DSL and cable modem subscribers alike. Fully two-thirds say they are frequently bothered by “pop-up” advertisements and three quarters (73%) say they receive unwanted junk email either frequently or some of the time. Several respondents to our “query of the moment” said unwanted junk emails increased once they got broadband at home.

Who wants broadband?

This March we asked in our regular phone survey of dial-up users whether they would like to have a home broadband connection or not. Four in 10 (40%) said they would like to have a high-speed connection at home, with 58% saying they would not be interested in upgrading to broadband.

Of course, things change. Internet technologies, the speed of broadband connections, and people's preferences will all likely change with time. The longer a dial-up user has been online, the more likely he is to want broadband in the home; 53% of dial-up users who have been online for 6 or more years say they want broadband at home. Assuming time online increases for all users the likelihood that a user wants broadband, and assuming the user eventually purchases home high-speed connections, this means 64% of Internet users would eventually be home broadband users. This does not necessarily mean that 64% is the ceiling for broadband penetration among U.S. Internet users. A host of factors (e.g., changing prices, nature of Internet content, quality of connections, a "network effect" by which the growing number of broadband users prompts others to obtain such connections) could change this ceiling.

Part 4: Broadband and New Media

We asked broadband users to rate their experiences using their high-speed connections for a variety of activities that are especially attractive with high-speed connections. The

Have you ever ...	% of broadband users who have ever done this	% who do this "more often" because of their high-speed connection
Downloaded files, e.g., games, video, pictures, music	75%	69%
Listened to or watched streaming audio or video	57	72

Source: Home Broadband Users, Pew Internet & American Life Project February 2002 Survey, Internet users, n=507; margin of error is ±4%.

tables in this section summarize the share of broadband users who have ever downloaded files, streamed video or audio content, and played games online. They also explore the frequency with which broadband users do these activities now that they have broadband to the home.

Downloading and streaming are the most popular "new media" activities for broadband users, with the high-speed connection encouraging a strong majority of these users to do these activities more often. The broadband elite, as might be expected, lead the way on downloading; 92% have downloaded files to their computer, 40% do so frequently (versus 30% of the non-elite) and 76% have engaged in downloading more often since getting broadband in the home (versus 64% of the non-elite). For streaming, 72% of broadband elites have done this, with 81% doing it more often since they got their home broadband connection. Fully a third (31%) of the broadband elite stream audio or video several times a week or more, compared to 17% of other broadband users.

For game playing and watching movies online, not as many broadband users have done these things, although for online movies the broadband connection is very likely to increase the frequency of doing that. Again, the broadband elites lead the way in these areas, with two-thirds (66%) having played a game online. However, broadband elites are no more likely than other broadbanders to say that the high-speed connection has increased their online game playing, as 46% of all broadband users say this. Broadband elites are also no more likely than the rest to say they are "very satisfied" with online game playing over a broadband connection. One thing a broadband connection does for game players is to let them experiment with different types of games. Fully 45% have tried a new online game since obtaining broadband in the home, with 51% of the broadband elite having done this.

Have you ever ...	% of broadband users who have ever done this	% who do this at least several times a week	% who are "very satisfied" with activity
Played a game online	49%	41%	38%
Watched movies online or downloaded them	18	16	22

Source: Home Broadband Users, Pew Internet & American Life Project February 2002 Survey, Internet users, n=507; margin of error is ±4%.

Watching movies online has not yet caught the imagination of broadband users. Few do it, those who do are only occasional movie watchers, and they do not rate the experience very highly. Although the

broadband elites are more likely to have done this (36% have) they are only modestly more likely than other broadband users to do it often or say it is a very satisfying experience. Several broadband users, responding to the Pew Internet online query, complained that downloading movies is extremely time-consuming even with a broadband connection, with one calling it “a sheer waste of time.”

Part 5: Broadband’s Impact on People’s Use of their Time

A theme throughout this report is that a home broadband connection results in a surge in the number of activities that these Internet users do on a typical day and the amount of time they spend online. As noted, 61% of broadband users say they have spent more time online at home since getting the broadband connection; only 5% say they have spent less time online and the remainder (33%) report no change.

Where do broadband users find the extra time to engage in their high-speed surfing? About 3 in 8 (37%) broadband users cut back on watching television, with about a third saying they spend less time shopping in stores as a result of the Internet. This decrease in TV watching is most pronounced among those most active in using the Internet for entertainment purposes.

For many broadband users (25%), longer daily online sessions translate into doing more work at home. Indeed, for the one-third of our broadband sample that identifies themselves as telecommuters, it is not surprising that 58% say the Internet means they spend more time working at home. Nearly one-third (29%) say that it cuts down on time spent at the office, which in turn lessens the amount of time spent commuting in traffic (31% say the Internet reduces time in traffic). Finally, about a fifth (18%) of broadband users say their use of the Internet means they spend less time reading newspapers. For most of these people, the Internet substitutes for the newspaper.

For certain types of broadband users, distinct impacts on time use emerge. Those who download music and movies from the Internet or play games on line are most likely to cut back on watching television; 44% of these users say the Internet has decreased TV time. For those who create content for the Internet (e.g., helping to create a Web page), 34% of these users say the Internet has led to an increase in working at home. The increased time at home and facility with the Internet also keeps content creators out of stores; 39% of them say the Internet has decreased the time they spend shopping in stores. Telecommuters, as noted above, have substantial and expected changes in time use due to the Internet. Three in five (58%) of telecommuters spend more time working at home because of the Internet, 31% spend less time in traffic, and 39% spend less time shopping in stores.

The Internet and Time Use

(Asked of all broadband Internet Users)

Has the Internet increased, decreased, or had no change on the amount of time you spend...	Increased	Decreased	No change
Watching television	1%	37%	62%
Shopping in stores	1	31	67
Working at home	25	3	71
Reading newspapers	5	18	77
Working at the office	3	10	84
Commuting in traffic	1	13	86
Spending time with family	5	8	87
Spending time with friends	5	3	92
Attending social events	3	3	94

Source: Pew Internet & American Life Project February 2002 Survey, Broadband Internet users, n =507 for March 2001. Margin of error is ±4%.

Finally, the Internet's impact on spending time with family, friends or attending social events is modest for broadband users. A few more broadbanders say the Internet decreases time spent with family rather than increasing it (by an 8% to 5%) margin, with a

smaller and slightly countervailing trend for friends. A striking pattern emerges, however, when looking at telecommuters and differences between men and women. About 11% of telecommuters with broadband say the Internet has led to a decrease in spending time with family with 9% saying it has increased time spent with family. For men, 10% say it has led to a decrease while 5% say it has led to an increase in family time. The trend is reversed for women; 13% of female telecommuters with home broadband say the Internet has increased family time with 11% saying it has led to a decrease.

Part 6: Implications for the Future

Broadband Internet users clearly drive in both directions on the information superhighway, generating content and uploading information to the Web in addition to being active downloaders and information seekers. Whether this pattern will hold true as home broadband connections diffuse more widely is difficult to predict. In a longitudinal study last year, we found that Internet usage patterns of late adopters largely mirror those of early adopters. That is, with the passage of time, users who are new to the Internet begin to do things online, such as transactions, which their veteran counterparts have been doing for some time.

Will broadband users of the future be as active as today's in generating content and uploading data to the Web? It may be that early broadband adopters have unique characteristics, perhaps having to do with their jobs, education, and income, which explain their usage patterns. Not all occupations, for example, lend themselves to telecommuting and we have seen that telecommuters are ardent broadband users. This could well be the case, although, if the "new economy" is indeed new and enduring, one would expect in the future that a wider range of jobs will be intensive in the management and generation of information. Such jobs would likely benefit from high-speed two-way connections in the home. With life-long learning and continuous training of growing importance to all segments of the workforce, and with this report showing a sharp increase in these activities for broadband users, one would expect many kinds of Internet users to benefit from fast home connections. Finally, one would expect that families of

any kind would value sharing photos, video, or other memorabilia online via fast Internet connections.

A clear policy implication of the bi-directional data flow generated by broadband users has to do with the “open access” debate. This issue came to light in the mid-1990s when the cable authority in Portland, Oregon, tried to assert its right to compel a provider of broadband to the home—in this case a cable system acquired by AT&T—to allow any Internet service provider (ISP) to offer services over its network. Just as telephone companies, as common carriers, are required to allow any ISP to offer service, cable providers of Internet services, it was argued, should also have to provide the same “open access” to other ISPs. Fears about monopoly control were part of the debate. Specifically, some were worried the provider of the broadband connection to the home could leverage that connection to gain control over the types of information and services that were provided through that operator’s wires. Others were fretful that a lack of open access might attenuate the free flow of online content – i.e. that a broadband provider might not permit users to access to all content on the Worldwide Web, which has been the ethic of the Web since its inception.

As Stanford law professor Larry Lessig has documented in *The Future of Ideas*, there are reasons to believe that the authority to control the flow of content may result in actual restrictions on content availability. Some companies are developing technologies to allow providers to develop “walled gardens” online that give preference to content specified by a service provider. And some cable networks, which presently are legally able to restrict content flows, have imposed restrictions on subscribers. Some cable broadband providers prohibit customers from operating a Web site. In addition, some providers engage in “filtering” by which packets of information are examined by the provider and certain packets (e.g., those associated with file sharing) are discarded. Other restrictions include prohibiting home networks (something 55% of broadband users with multiple computers have) and limiting the number of minutes that users can stream video over their high-speed connection.

The tendency of broadband users to create content for the Internet, upload, and store files indicates that high-speed users value the ability to post material online that is available to a wide range of other Internet users. This suggests that “open access” is a policy that broadband users would endorse. Recently, after lengthy litigation left the “open access” issue in its lap, the FCC classified cable broadband as an “information service.” This means that federal “open access” rules that apply to phone companies do not apply to cable providers. The policy debate continues, however, as ISPs argue that a condition for approval of the proposed merger between AT&T and Comcast should be a congressionally mandate about “open access” that would apply to all providers of broadband. ISPs point out that a formal “open access” condition was placed on the AOL/Time Warner merger by the Federal Trade Commission. Whatever policy instrument—if any—is chosen to address “open access,” it seems clear from this research that the ability to upload material and make it available to a wide audience is something that is attractive to a significant segment of the broadband using community.

Early adopters of broadband to the home are unmistakably producers and users of all varieties of online information and applications. This is likely to shape the future development of the Internet, as consumers demand upload speeds equal to download speeds and continue to value the Internet's extensive connectivity of information and people. The lack of any "killer app" among early users of broadband shows that they are anxious to use all facets of the Internet, using their always-on connections to transition seamlessly between checking on a work project, seeing what time the movie is playing, updating the family Web page, all the while listening to a favorite radio station a thousand miles away. Whatever the precise usage patterns of future broadbanders, it seems likely that they too will value the same things current high-speed users do—greater and easier access to information, new capacities to generate it, and more control over how the online world can help in their day-to-day lives.

Methodology

This report is based on the findings of a survey of Americans about their use of the Internet. The results are based on data from telephone interviews conducted by Princeton Survey Research Associates between January 29 and February 20, 2002, among a sample of 507 Internet users, 18 and older, who have broadband Internet access. 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 4 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.

Interviews for this survey were completed from a pre-screened sample of Internet users who in past surveys identified themselves as having broadband Internet access. Once the household was reached, interviewers asked to speak with the individual who had recently completed a telephone survey. Once the targeted person was on the phone, they were asked a few screening questions to make sure that they still had high speed Internet access at home.

At least 10 attempts were made to complete an interview at every household in the sample. The calls were staggered over times of day and days of the week to maximize the chances of making contact with a potential respondent. Interview refusals were re-contacted at least once in order to try again to complete an interview.

Appendix A

Internet Activities

Percent of Internet users who have ever done the listed activities ...	Home Broadband Users	All Internet Users
Communications		
Email	99%	95%
Instant messaging	47	48
Chat rooms	23	23
Information Seeking		
News	81	70
Job-related research	65	54
Look for product information	88	75
Research for school or training	61	53
Look for travel information	82	66
Look for medical information	72	61
Information Producing		
Share computer files with others	43	28
Create content (e.g. Web pages)	39	20
Display/develop photos	43	21
Store files on Internet	19	n/a
Downloading		
Download games, video, pictures	63	41
Download music	50	26
Download movie	15	n/a
Media Streaming		
Watch video clip	65	51
Listen to music/radio station	58	37
Watch movie	12	n/a
Transactions		
Online banking/bill paying	53	23
Buy a product	84	56
Buy a travel service	61	42
Auction	36	20
Buy groceries/household goods	25	8
Buy/sell stocks	25	12
Play lottery	5	n/a
Entertainment activities		
Hobby information	89	80
Just for fun	71	64
Play a game	49	37
Adult Web site	21	14

Source: Home Broadband Users, Pew Internet & American Life Project February 2002 Survey, Internet users, n=507; margin of error is ±4%.

Appendix B

In this report’s section “Changes in behavior: Broadband access is a decisive factor”, we discuss some of the causal factors underlying our finding that home broadband access makes the key difference for the surfing habits of high-speed users. This appendix elaborates on the statistical techniques employed that are the basis for that finding. We used regression analysis, a statistical technique that isolates the independent effects of various factors (e.g., demographics or a home broadband connection) to examine what drives the intensity of home Internet use.

The analysis assesses the intensity of users’ online behavior by looking at three variables:

- the likelihood that someone answers “yes” to the question “Did you go online yesterday?”
- the amount of time spent online during a typical day
- how many activities he performs on a typical day online

The table below summarizes the results from the regression analysis, which examined the traits or outside forces that might influence people’s Internet use. The horizontal rows contain the independent variables—the factors we seek to explain—and the vertical rows contain the dependent variables—the things that may explain the observed outcomes (e.g., going online on a daily basis). The explanatory variables are the things that might conceivably affect the intensity of someone’s Internet use: a home broadband connection, number of years online, age, income, education gender, and race.

Determinants of Intensity of Internet Use

	Going online “yesterday”	Amount of Time Spent Online On a typical Day	Number of Internet Activities Done on a typical day
Explanatory variables	Effect	Effect	Effect
Home Broadband connection	Positive & significant	Positive & significant	Positive & significant
Number of Years Online	Positive & significant	Positive & significant	Positive & significant
Age	Positive & significant	Negative & significant	Negative & significant
Education (College graduate)	Positive & significant	Not significant	Positive & significant
Income	Not significant	Not significant	Not significant
Race (white)	Positive & significant	Not significant	Not significant
Gender (male)	Negative & significant	Negative & significant	Negative & significant

Source: Pew Internet & American Life Project January 2002 Survey, Internet users, n=1,415; margin of error is ±3%. Approximately 20% of the January sample of Internet users has home broadband connections, with the remainder being dial-up Internet users.

For “going online yesterday”, the dependent variable is binary (i.e., coded as 1 for those who answer “yes”) and logistic regression is used in the analysis. For the amount of time spent online on a given day, we asked users to estimate the amount of time they spend online. Those who say they spend more than 2 hours online per day are coded as 1, and

those who spend less than 2 hours are coded as 0 for the purposes of a logistic regression. The number of activities done on a typical day is a continuous variable, with ordinary least squares used in the regression analysis.

The results show that having a home broadband connection, number of years online,³ and gender are the only factors that explain intensity of Internet use consistently in all three specifications. Although numbers are not reported, having a home broadband is the *largest single factor* that explains going online daily, spending two or more hours online daily, or doing a greater number of Internet activities. For the logistic regressions, exponentiated coefficients allow us to compare the relative magnitudes of the predictive power of significant variables. For the ordinary least squares regression, the fact that having a broadband connection, number of years online, and gender are all “dummy” variables permits comparison of the relative magnitudes of variables’ explanatory power.

In short, having a home broadband connection and having been online for a long time both increase your chances of using the Internet intensively. But the home broadband connection increases your chances more.

³ The variable for number of years online is a “dummy” variable that takes on the value 1 if a user has had Internet access for 6 or more years. About 35% of Internet users have been online for 6 or more years.

**MODULARITY, VERTICAL INTEGRATION, AND OPEN
ACCESS POLICIES: TOWARDS A CONVERGENCE OF
ANTITRUST AND REGULATION IN THE INTERNET AGE***

*Joseph Farrell** & Philip J. Weiser****

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I. INTRODUCTION

Just as the dust settles from the Microsoft case, the Federal Communications Commission (“FCC” or “the Commission”) is preparing to craft rules to regulate broadband networks.¹ Taken together, these developments may mark the beginning of a new model of regulation for the Internet age. This regulatory regime will govern when a firm must provide “open access” to its platform — be it an operating system, a telecommunications service, or some other technology that facilitates Internet content or services — and will significantly influence the future development of the Internet.

A critical challenge for this emerging model of regulation will be whether and how to integrate antitrust policy and telecommunications regulation into a coherent whole. Antitrust and regulation have starkly contrasting traditions on mandated access. As the Internet, computer software, and telecommunications (“New Economy”²) industries converge, affected firms will increasingly seek clear and consistent legal rules.³ Moreover, courts reviewing the FCC’s decisions in this area are increasingly pressuring the Commission to devise a regulatory regime more compatible with economic theory and antitrust policy.⁴

1. See, e.g., *Inquiry Concerning High-Speed Access to the Internet over Cable and Other Facilities*, 17 F.C.C.R. 4798 (2002) (Declaratory Ruling and Notice of Proposed Rulemaking) [hereinafter *High-Speed Declaratory Ruling*].

2. See Richard A. Posner, *Antitrust in the New Economy*, 68 ANTITRUST L.J. 925, 925 (2001).

3. For a discussion of technological convergence and its impact on telecommunications regulation, see NAT’L RESEARCH COUNCIL, *BROADBAND: BRINGING HOME THE BITS* 9 (2002), which states that “with convergence, everything — video, audio, text, and so forth — has become a digital stream that can be transported across the Internet.”

4. For an example of increasing judicial insistence on careful economic analysis by regulators, see *United States Telecom Ass’n v. FCC*, 290 F.3d 415, 422–28 (D.C. Cir. 2002), in which the court criticized the economic rationale behind the FCC’s rules for unbundling the local telecommunications network. See also Warren G. Lavey, *Inconsistencies in Applications of Economics at the Federal Communications Commission*, 45 FED. COMM. L.J. 437,

To do so, however, the FCC must develop a framework for regulating what economists call “vertical relations”: how a firm relates to other firms in adjacent markets and whether it integrates into those markets.

In broad-brush terms, antitrust policy viewed much vertical conduct as suspect until the 1970s. By the late 1970s, however, the Chicago School of economics influenced mainstream antitrust thinking by establishing that vertical integration (e.g., mergers) and many kinds of vertical contracts had efficiency benefits and were unlikely to harm competition.⁵ While post-Chicago School scholarship of the 1980s and 1990s has weakened that view,⁶ current antitrust doctrine still generally presumes that vertical agreements, vertical extension, and vertical mergers are unobjectionable unless a fact-intensive investigation shows otherwise.

By contrast, in similarly broad-brush terms, early telecommunications policy positively encouraged integration and close coordination into “one network” under the regulated AT&T monopoly. Starting in the 1970s, however, a series of FCC and court decisions adopted a policy of developing and protecting open interfaces. This open architecture philosophy held that powerful firms at one level should not be allowed to leverage that power into — or perhaps even participate in — adjacent competitive segments. Likewise, the United States government’s early support for the Internet encouraged the development of an open architecture based on modular standards.⁷

These contrasting traditions of analyzing open access leave telecommunications policy unsettled. Technological convergence and emerging competition in telecommunications blur the lines between industries regulated primarily by antitrust (notably computing) and those subject to telecommunications law, and telecommunications regulators increasingly pledge fealty to antitrust approaches.⁸ The

439–40 (1993) (calling for increased judicial efforts to promote consistency in the use of economic theory to justify regulation).

5. The landmark event in the rise of Chicago School thinking was the Supreme Court’s decision in *Continental T.V., Inc. v. GTE Sylvania, Inc.*, 433 U.S. 36, 48 n.15, 55–56 (1977), which cited heavily to Chicago School criticisms of the Court’s earlier doctrine.

6. See David S. Evans & Michael Salinger, *Competition Thinking at the European Commission: Lessons from the Aborted GE/Honeywell Merger*, 10 GEO. MASON L. REV. 489, 512 & n.58 (2002) (discussing the impact of post-Chicago School scholarship).

7. As we explain in more detail below, “modularity” is a means of managing complexity. As one commentator defined the term, modularity involves “breaking up a complex system into discrete pieces — which can then communicate with one another only through standardized interfaces within a standardized architecture — [to] eliminate what would otherwise be an unmanageable spaghetti tangle of systemic interconnections.” Richard N. Langlois, *Modularity in Technology and Organization*, 49 J. ECON. BEHAV. & ORG. 19, 19 (2002).

8. For two discussions of the impact of convergence on regulatory policy, see Philip J. Weiser, *The Imperative of Harmonization Between Antitrust and Regulation*, in TELECOMMUNICATIONS CONVERGENCE: IMPLICATIONS FOR THE INDUSTRY AND FOR THE PRACTICING LAWYER 73 (PLI Intellectual Property Course, Handbook Series No. G-698,

clash of traditions and of arguments on open access is particularly sharp in one of today's central telecommunications problems: the regulatory treatment of broadband transport and its close complements. Broadband transport, usually provided by cable modems or telephone digital subscriber lines ("DSL"), promises to transform the Internet by vastly speeding up downloads and by permitting high-bandwidth applications.⁹ Some commentators — most notably Lawrence Lessig — have urged regulators to impose modularity on this market by requiring broadband transport providers to share their facilities with Internet service providers ("ISPs").¹⁰ Others, echoing the Chicago School perspective, argue that the market will facilitate open access to the extent that open access is efficient.

The open access question is even more ubiquitous than it may first appear, as policymakers and commentators often use different terms to describe the issue. Antitrust commentators discuss the "primary" (or "bottleneck") market and the "secondary" (or "complementary") market. In telecommunications, participants talk of "conduits" and "content." This Article, adopting the terminology used in the computer industry, will discuss "platforms" (often "information platforms") and "applications."¹¹ The essence of the issue is the complementarity between applications and platforms, whether the application is an input to the platform, a buyer of the platform, or neither.¹²

2002) and Philip J. Weiser, *Law and Information Platforms*, 1 J. TELECOMMS. & HIGH TECH. L. 1 (2002) [hereinafter Weiser, *Information Platforms*].

9. Though the definition of "broadband" will evolve over time, the FCC's current dividing line is 200 kilobits per second — bandwidth sufficient "to change web pages as fast as one can flip through the pages of a book and to transmit full-motion video." Inquiry Concerning the Deployment of Advanced Telecommunications Capability, 14 F.C.C.R. 2398, ¶¶ 20, 22 (1999) (Report); see *id.* ¶ 25 (noting that the definition will evolve); see also Inquiry Concerning the Deployment of Advanced Telecommunications Capability, 17 F.C.C.R. 2844, ¶ 7 (2002) (Third Report) (adhering to the 200 kilobits per second dividing line). But see NATIONAL RESEARCH COUNCIL, *supra* note 3, at 78–80 (proposing alternative definition).

10. See LAWRENCE LESSIG, *THE FUTURE OF IDEAS* 147–67 (2001). This argument builds off a prior piece that addressed critics of mandated modularity. See Mark A. Lemley & Lawrence Lessig, *The End of End-to-End: Preserving the Architecture of the Internet in the Broadband Era*, 48 UCLA L. REV. 925 (2001) (engaging arguments made in Phil Weiser, *Paradigm Changes in Telecommunications Regulation*, 71 U. COLO. L. REV. 819, 831 (2000) and James B. Speta, *Handicapping the Race for the Last Mile?: A Critique of Open Access Rules for Broadband Platforms*, 17 YALE J. ON REG. 39, 77–90 (2000)).

11. For a further explanation of the information platform concept and how it can frame technology policy debates, see Weiser, *Information Platforms*, *supra* note 8, at 3–8. A notable example of an information platform from the computer industry is the Microsoft Windows operating system, which exposes Application Programming Interfaces ("APIs") that can be used by applications developers to "call" certain functions provided by the operating system. See *United States v. Microsoft Corp.*, 253 F.3d 34, 53 (D.C. Cir. 2001).

12. In part for this reason, we define "applications" broadly, not distinguishing between software applications and hardware products (such as peripherals), both of which may connect to an underlying platform. Rather, we will use the term "applications" for all complementary products or services used in conjunction with a platform.

This Article aims to help regulators and commentators incorporate both Chicago School and post-Chicago School arguments in assessing whether regulation should mandate open access to information platforms. Much discussion on such questions focuses on the degree of competition among platforms. By contrast, the central analytical tool — not necessarily the victor — in our discussion is a Chicago School-style argument we call *internalizing complementary efficiencies* or “ICE.” ICE claims that even a monopolist has incentives to provide access to its platform when it is efficient to do so, and to deny such access only when access is inefficient. ICE is often a persuasive argument, yet its logic admits several cogent exceptions. Unfortunately, regulators and commentators seldom do justice to the nuances of this principle: some ignore ICE, while others embrace it and underestimate its exceptions. Only by addressing both ICE and its exceptions can regulators make full use of economics in analyzing open access requirements.¹³

In its broadband proceedings, the FCC has an opportunity to embrace the insights of ICE and its exceptions in developing a framework to evaluate independent providers’ claims for mandated access to a platform such as broadband transport.¹⁴ Ideally, such a framework would harmonize telecommunications regulation with antitrust policy and guide regulation in related contexts, such as unbundling policy for local telecommunications networks.¹⁵ The FCC could thus more accurately apply economic principles to information platforms and satisfy judicial demands for a better economic explanation of its regulatory policies.

This Article proceeds in five main parts. Part II recounts experiences of the Internet, computer, and telecommunications industries, illustrating the powerful benefits of modularity that inspire proponents of open access regulation. To explain the Chicago School skepticism of such regulation, Part III first discusses how close (i.e., other than arm’s-length) vertical relationships can yield important efficiencies.

13. Christopher Yoo makes a similar observation in his exposition of a project related to ours. See Christopher S. Yoo, *Vertical Integration and Media Regulation in the New Economy*, 19 YALE J. ON REG. 171, 177 & n.19, 178 (2002) (describing the project’s focus on cable television, broadcast, and broadband markets, but disclaiming any application to telecommunications markets).

14. Such a framework would provide more guidance than prior ad hoc FCC decisions in this area, which typically arose from merger reviews. See James B. Speta, *A Common Carrier Approach to Internet Interconnection*, 54 FED. COMM. L.J. 225, 226 (2002) (“[T]he only legal rules governing Internet interconnection are a limited number of company-specific conditions imposed in some merger reviews.”); Philip J. Weiser, *Internet Governance, Standard Setting, and Self-Regulation*, 28 N. KY. L. REV. 822, 844 (2001) (“In terms of setting a precedent for future regulation of information platforms, the FCC’s AOL/Time Warner Order failed to set forth a principled model of analysis . . .”).

15. See *United States Telecom Ass’n v. FCC*, 290 F.3d 415 (D.C. Cir. 2002) (remanding the development of the standard for unbundling the local telecommunications network back to the FCC).

Part III then explains the ICE principle: even monopoly platform providers have at least some incentive to operate in a modular fashion when it is efficient to do so, because they *internalize complementary efficiencies*. Part IV describes eight holes in the ICE logic: reasons why a monopoly platform provider might inefficiently close its platform. We do not see comparable reasons why such a monopoly might inefficiently open its platform. Part V outlines regulatory tools often used to facilitate open access, discusses factors that regulators should consider when contemplating open access policies, and offers three possible regulatory philosophies consistent with our discussion. Finally, Part VI applies the ICE framework to the FCC's Computer Inquiries, the *Microsoft* case, and the current broadband proceedings, illustrating how the subtleties of ICE and its exceptions, if not carefully addressed, can lead to policy instability. In conclusion, the Article urges the FCC to adopt a coherent model of platform regulation that takes account of ICE and permits a more harmonious convergence between antitrust and regulatory policy.

II. OPEN ARCHITECTURE AND MODULARITY

This Part focuses on the benefits of modularity. Sections A, B, and C explain how the Internet, computing, and telecommunications industries all came to be organized in a relatively modular fashion. Section D then discusses the benefits of modularity in general and the rationale for making it a guiding light for information policy.

A. *The Creation of the Internet and Its End-to-End Architecture*

The Internet's development was a triumph of United States technology policy. The Internet grew from the Defense Department's Advanced Research Projects Administration's ARPANET and later relied on support from the National Science Foundation. From its early days in the late 1960s until the early 1990s, the Internet remained a government project, relying on the academic and research community for its development.¹⁶ By the time commercial entities developed Internet services and products in the 1990s, its basic architecture was already in place. This architecture reflects the Internet pioneers' conscious strategy that the platform should not anticipate what applications would rely on it, and that no central gatekeeper should decide which applications could be provided.

The Internet can be understood as being comprised of four layers: content, applications, logical, and physical.¹⁷ At its center lies the

16. See JANET ABBATE, *INVENTING THE INTERNET* 54–65 (1999).

17. There are various ways to describe the layers of Internet architecture. Lawrence Lesig, for example, suggests a definition of the content layer that includes what others call the

logical layer, essentially a two-part standard called the Transfer Control Protocol and Internet Protocol (“TCP/IP”) that enables computer-to-computer communication.¹⁸ The Internet Protocol (“IP”) enables network devices (“routers”) to send packets of data to their destination without even knowing what form of data is being transmitted.¹⁹ This design feature is often called “end-to-end” networking.²⁰

The openness of the Internet’s logical layer invites diversity in the layers above and below it. The physical layer below includes wired, wireless, satellite, and cable transport facilities. In the layers above, developers can create new applications such as e-mail, the World Wide Web, and Napster without first asking permission of anyone, and in particular a custodian of the TCP/IP standard. In turn, these applications support the content layer and enable consumers to access all forms of information — voice, video, audio, and data. Many commentators suggest that the openness of the logical standard was crucial in spurring the development of applications and content.²¹

applications layer. See Lawrence Lessig, *The Internet Under Siege*, FOREIGN POL’Y, Nov./Dec. 2001, at 56, 59–60; see also Yochai Benkler & Alan Toner, *Access to the Internet* (June 12, 2001) (using a three-layered model, and defining the logical and applications layers as one layer), at <http://cyber.law.harvard.edu/ilaw/Access> (last visited Oct. 29, 2003). Tim Berners-Lee, by contrast, set out a model similar to what we have in mind. See TIM BERNERS-LEE, *WEAVING THE WEB* 18 (1999); see also Kevin Werbach, *A Layered Model for Internet Policy*, 1 J. TELECOMMS. & HIGH TECH. L. 37, 59 (2002) (adopting a four-layered model); Philip J. Weiser, *Information Platforms*, *supra* note 8, at 4, 5 & n.14 (same).

18. This protocol is so central that many definitions of the term “Internet” include the role of the TCP/IP standard. For example, the FCC has used the following definition:

“Internet” refers to the global information system that — (i) is logically linked together by a globally unique address space based on the Internet Protocol (IP) or its subsequent extensions/follow-ons; (ii) is able to support communications using the Transmission Control Protocol/Internet Protocol (TCP/IP) suite or its subsequent extensions/follow-ons, and/or other IP-compatible protocols; and (iii) provides, uses or makes accessible, either publicly or privately, high level services layered on the communications and related infrastructure described herein.

High-Speed Declaratory Ruling, *supra* note 1, ¶ 1 n.1 (quoting Federal Networking Council, *FNC Resolution: Definition of “Internet”* (Oct. 24, 1995), at http://www.itrd.gov/fnc/Internet_res.html (last visited Oct. 29, 2003)).

19. For explanations of this standard, see Robert E. Kahn & Vinton G. Cerf, *What Is the Internet (And What Makes It Work)* (Dec. 1999), at http://www.cnri.reston.va.us/what_is_internet.html (last visited Oct. 29, 2003), ABBATE, *supra* note 16, at 122–30, and Speta, *supra* note 14, at 245–46.

20. See Marjory S. Blumenthal, *End-to-End and Subsequent Paradigms*, 2002 L. REV. M.S.U.-D.C.L. 709, 709–11 (defining the concept); see also Dale N. Hatfield, *Preface*, 8 COMMLAW CONSPECTUS 1, 2 (2000) (defining the concept without reference to the “end-to-end” label in terms of “shifting intelligence and control to the edge of the network”). For a classic articulation of the principle of end-to-end networking, see J. H. Saltzer et al., *End-to-End Arguments in System Design*, 2 ACM TRANSACTIONS ON COMPUTER SYSTEMS 277 (1984), *reprinted in* INNOVATIONS IN INTERNETWORKING 195 (Craig Partridge ed., 1988).

21. For example, Jason Oxman stated:

The most important technical feature of the Internet is its openness, which allows any user to develop new applications and to communi-

B. The Transformation of the Computer Industry

The computer industry has evolved from an industry that supplied fully integrated proprietary systems to a modular industry open to specialization and entry at different levels. Initially, when IBM and other vertically integrated companies controlled the market, customers typically chose among single-vendor systems, relying, for example, on IBM peripherals to go with IBM mainframes.²² To keep its system closed, IBM kept the interfaces between the different parts of its system secret and proprietary.²³

Although IBM was very successful in the market of the 1970s, it was slow to grasp the significance of the personal computer, which Apple developed and deployed in the late 1970s.²⁴ Apple relied on a closed business model, but when IBM did introduce its personal computer, it (perhaps almost by accident) used an open architecture,²⁵ relying on Microsoft and Intel to produce key components for its system and allowing them to license these components to other computer makers.²⁶ The industry thus began to change from a closed to an open business model, with different providers specializing in different components.²⁷

This modular, or “Silicon Valley,” structure facilitated innovation in ways that had not been matched with an integrated structure.²⁸ Specialization by new entrants ensured “rapid improvement in compo-

cate with virtually any other user. This openness is driven by the sharing of . . . the Internet protocol No one owns the Internet protocol, no one licenses its use, and no one restricts access to it.

Jason Oxman, *The FCC and the Unregulation of the Internet*, at 5 (FCC Off. of Strategic Plan. & Pol’y Analysis, Working Paper No. 31, July 1999), at http://www.fcc.gov/Bureaus/OPP/working_papers/oppwp31.txt (last visited Oct. 29, 2003).

22. Particularly with its System 360, IBM emerged as the dominant firm in this market, leading commentators to refer to the eight top firms in the vertically-integrated computer industry as “Snow White and the Seven Dwarfs.” E.g., Peter Huber, *Loose Ends*, MEDIA L. & POL’Y, Nov. 1995, at 1, 7.

23. See Langlois, *supra* note 7, at 32.

24. On IBM’s slow entry into the personal computer market, see Steve Bickerstaff, *Shackles on the Giant: How the Federal Government Created Microsoft, Personal Computers, and the Internet*, 78 TEX. L. REV. 1, 29 (1999).

25. See Langlois, *supra* note 7, at 24 (indicating that the open architecture of the IBM PC evolved from earlier PCs without any “conscious” design or strategy).

26. See Richard N. Langlois, *Technological Standards, Innovation, and Essential Facilities: Toward a Schumpeterian Post-Chicago Approach*, in DYNAMIC COMPETITION AND PUBLIC POLICY: TECHNOLOGY, INNOVATION, AND ANTITRUST ISSUES 215 (Jerry Ellig ed., 2001) (noting IBM’s reliance on Intel and Microsoft); see also ANNABELLE GAWER & MICHAEL A. CUSUMANO, PLATFORM LEADERSHIP: HOW INTEL, MICROSOFT, AND CISCO DRIVE INDUSTRY INNOVATION 15–38 (2002) (explaining how Intel, along with Microsoft, emerged to provide platform leadership in this open architecture environment).

27. See ANDREW S. GROVE, ONLY THE PARANOID SURVIVE: HOW TO EXPLOIT THE CRISIS POINTS THAT CHALLENGE EVERY COMPANY 39–52 (1996).

28. See ANNALÉE SAXENIAN, REGIONAL ADVANTAGE: CULTURE AND COMPETITION IN SILICON VALLEY AND ROUTE 128 (1994).

nents, including not only the chips but various peripheral devices like hard disks and modems, as well as the proliferation of applications software, that has driven down the quality-adjusted price of the personal computer system.”²⁹ IBM, on some accounts, tried to control the platform, but other firms, such as Compaq, were able to reverse-engineer IBM’s Basic Input Output System (“BIOS”). These firms were thus able to produce “Windows-Intel”-compatible computers, taking market share away from both IBM and Apple.³⁰

C. The Development of Competition in Telecommunications

Richard Viotor remarks that the modern era in telecommunications began with a rubber cup.³¹ The independently-marketed “Hush-A-Phone” attached to a handset and would insulate telephone conversations against background noise. The AT&T Bell System insisted that the FCC should ban the product because it was a “foreign attachment” to its network. In 1955, the FCC agreed, concluding that the Hush-A-Phone was “deleterious to the telephone system” and that, in general, “telephone equipment should be supplied by and under [the] control of the carrier.”³² On appeal, the D.C. Circuit reversed the FCC’s decision, holding that the owner of the telephone network cannot restrict the use of reasonable attachments to the network.³³

In 1968, the Commission analogously held that AT&T could not prevent the use of a device called the Carterfone, which facilitated communication between a mobile radio and the landline network.³⁴ In

29. See Langlois, *supra* note 26, at 215.

30. See David P. Angel & James Engstrom, *Manufacturing Systems and Technological Change: The U.S. Personal Computer Industry*, 71 *ECON. GEOGRAPHY* 79, 79, 81 (1995) (noting that the combined market share of IBM and Apple declined between 1984 and 1992 from 52.5% to 21.4%, and that the average price of computers fell by 40% in 1992 alone).

31. See RICHARD H. K. VIOTOR, *CONTRIVED COMPETITION: REGULATION AND DEREGULATION IN AMERICA* 190 (1994) (stating that telecommunications “[d]eregulation began more or less with a rubber cup”).

32. *Hush-A-Phone Corp.*, 20 F.C.C. 391, 420 (1955) (Decision) [hereinafter *Hush-A-Phone*], *rev’d*, 238 F.2d 266 (D.C. Cir. 1956).

33. See *Hush-A-Phone Corp. v. United States*, 238 F.2d 266, 269 (D.C. Cir. 1956). It is often thought that the court established this principle over the FCC’s opposition. In fact, the FCC ostensibly endorsed the principle, but absurdly agreed with AT&T’s claim that the Hush-A-Phone was a threat to the network. Because the FCC’s implementation effectively gutted the principle, it may be that the Commission did not really believe in it, though it gave it lip service.

34. See *Use of the Carterfone Device in Message Toll Tel. Serv.*, 13 F.C.C.2d 420 (1968) (Decision) [hereinafter *Carterfone*]. In response to an antitrust case brought by the producers of the Carterfone, see *Carter v. AT&T*, 365 F.2d 486 (5th Cir. 1966), this decision established that AT&T’s restrictive tariff violated the Communications Act. See *Carterfone*, *supra*, at 426. The AT&T tariff stated that “[n]o equipment, apparatus, circuit, or device not furnished by the telephone company shall be attached to or connected with the facilities furnished by the telephone company, physically, by induction or otherwise.” *Id.* at 421. The Commission found, in particular, that such restrictions were discriminatory in light of the fact that AT&T allowed its own equipment to interconnect to the network. See *id.* at 423.

so doing, the Commission announced a broad protection for users to “interconnect” foreign devices to the telephone network.³⁵ To implement this principle, the Commission asked AT&T to file new tariffs allowing attachments that did not harm the network.³⁶

After the Carterfone decision, the FCC, and, later, the Department of Justice (“DOJ” or “Justice Department”), supported competitive entry into the long-distance market. Entrants like MCI sought interconnection to the public switched network so that their customers could reach all telephone subscribers.³⁷ In both MCI’s private antitrust suit and the Justice Department’s action against AT&T, the courts concluded that AT&T must allow MCI to interconnect, permitting it to compete with AT&T’s long distance services.³⁸ In so doing, these cases established that the effectiveness of regulation is a question of fact to consider in an antitrust case, but not a bar to relief altogether.³⁹ Moreover, the skepticism that regulatory authorities could otherwise stop an integrated monopoly from engaging in predatory conduct (such as discriminatory interconnection) in adjacent markets became a central rationale for AT&T’s divestiture of the Bell Companies.⁴⁰ Pro-

35. *Id.* at 424 (announcing that “a customer desiring to use an interconnecting device . . . should be able to do so, so long as the interconnection does not adversely affect the telephone company’s operations or the telephone system’s utility for others”).

36. AT&T took full advantage of the proviso allowing it to condition the use of attachments, requiring “protective connecting arrangements” (“PCAs”) that would limit greatly the use of non-AT&T equipment. See AT&T “Foreign Attachment” Tariff Revisions, 15 F.C.C.2d 605, ¶ 23 (1968) (Memorandum Opinion and Order) (permitting the effectiveness of AT&T tariff revisions, including the PCA provisions); see also *Litton Sys., Inc. v. AT&T*, 700 F.2d 785, 799 n.15 (2d Cir. 1983) (quoting an AT&T internal report that the PCA requirement was “a redundant, artificial, and economic barrier to those wishing to purchase their own equipment”); *Northeastern Tel. Co. v. AT&T*, 651 F.2d 76, 95 (2d Cir. 1981) (concluding that AT&T may have designed the PCAs in an unreasonable manner).

37. See *MCI*, 18 F.C.C.2d 953, ¶¶ 35–36 (1969) (Decision).

38. See *MCI Communications v. AT&T*, 708 F.2d 1081, 1105 (7th Cir. 1983); *United States v. AT&T*, 552 F. Supp. 131 (D.D.C. 1982), *aff’d sub nom. Maryland v. United States*, 460 U.S. 1001 (1983). For a discussion of the exact nature of MCI’s interconnection concerns, see *MCI Communications*, 708 F.2d at 1131–32 (discussing, among other things, MCI’s claims that AT&T required its customers to dial unnecessary digits and that AT&T’s interconnection procedures “utilized materials inadequate for the volume of business MCI was doing . . . and involved unduly complex and ineffective installation and maintenance procedures”).

39. See Philip J. Weiser, *Goldwasser, the Telecom Act, and Reflections on Antitrust Remedies*, 55 ADMIN. L. REV. 1, 10–11 (2003).

40. See *United States v. AT&T*, 552 F. Supp. 131, 170 (D.D.C. 1982), *aff’d sub nom. Maryland v. United States*, 460 U.S. 1001 (1983) (noting that AT&T had not been “effectively regulated”). The Modification of Final Judgment, which set forth the terms of the divestiture, see *United States v. W. Elec. Co.*, 569 F. Supp. 990 (D.D.C. 1983) [hereinafter MFJ], adhered to the following basic logic, often called either “Baxter’s Law” or the “Bell Doctrine”:

[R]egulated monopolies have the incentive and opportunity to monopolize related markets in which their monopolized service is an input, and that the most effective solution to this problem is to “quarantine” the regulated monopoly segment of the industry by separating its ownership and control from the ownership and control

tected by the divestiture decree, various companies introduced new data communications services and fiber optics into the backbone network.⁴¹

D. Modularity and the Logic for Open Access Regulation

Modularity means organizing complements (products that work with one another) to interoperate through public, nondiscriminatory, and well-understood interfaces. As the cases described above suggest, modularity can arise as an internal management system, as a self-governing organization of a market, or as a result of public policy decisions.

Modular industry structures enable independent firms to introduce innovations into an established environment. An open architecture can facilitate innovation in individual components, spur market entry, and result in lower prices.⁴² Moreover, as producers experiment with different approaches, the market can move quickly based on “rapid trial-and-error learning.”⁴³ Modularity thus allows for a smooth dissemination of the best of breed in each level or layer, as users mix and match components.⁴⁴

of firms that operate in potentially competitive segments of the industry.

Paul L. Joskow & Roger G. Noll, *The Bell Doctrine: Applications in Telecommunications, Electricity, and Other Network Industries*, 51 STAN. L. REV. 1249, 1249–50 (1999); see also Joseph D. Kearney, *From the Fall of the Bell System to the Telecommunications Act: Regulation of Telecommunications Under Judge Greene*, 50 HASTINGS L.J. 1395, 1415–16 (1999) (discussing the DOJ’s objections to a pure conduct remedy). *But see* Robert W. Crandall, *The Failure of Structural Remedies in Sherman Act Monopolization Cases*, 80 OR. L. REV. 109, 179–92 (2001) (arguing that equal access regulations alone, without divestiture and quarantine, would have ensured the MFJ’s competitive benefits).

41. See Howard A. Shelanski, *Competition and Deployment of New Technology in U.S. Telecommunications*, 2000 U. CHI. LEGAL F. 85, 107 (2000) (explaining that AT&T failed to deploy these technologies in its long-haul network until Sprint and other upstarts not only deployed the technologies but also began advertising superior quality networks). As an executive from Corning explained:

AT&T, which owned most of the telephone lines in America at the time [of the invention of fiber optic technology], said it would be 30 years before its telephone system would be ready for optical fiber. And when it was, AT&T planned to make its own fiber . . . [After AT&T entered into a consent decree,] MCI took the risk [of ordering fiber optic technology] and placed a 100,000 kilometer order for a new generation of fiber.

Willard K. Tom & Joshua A. Newberg, *Antitrust and Intellectual Property: From Separate Spheres to Unified Field*, 66 ANTITRUST L.J. 167, 202 (1997) (quoting the testimony of Timothy J. Regan, Division Vice President and Director of Public Policy for Corning, before the House Judiciary Committee on May 9, 1995).

42. See Joseph Farrell et al., *The Vertical Organization of Industry: Systems Competition Versus Component Competition*, 7 J. ECON. & MGMT. STRATEGY 143, 172–73 (1998).

43. Richard N. Langlois & Paul L. Robertson, *Networks and Innovation in a Modular System: Lessons from the Microcomputer and Stereo Component Industries*, 21 RESEARCH POL’Y 297, 301 (1992).

44. As Clayton Christensen put it:

The three cases sketched above show modularity arising through different means, but in each case the modular structure seemed to promote innovation. In the development of the computer industry and the Internet, this structure facilitated innovation and entry. Similarly, with the breakup of the integrated Bell System, new companies were able to enter equipment and long-distance markets. Open standards and interfaces in the telecommunications and Internet industries enabled inventors to launch new products (such as modems) and new applications (notably, the World Wide Web) that work with their respective networks.⁴⁵ Given its success in facilitating innovation in these and other cases, some commentators — most notably Lawrence Lessig — argue that government policy should facilitate modularity.⁴⁶

As Part III discusses, however, making modularity a guiding light for regulatory policy creates tension with much modern economic thinking and antitrust policy, which tends to presume that platform providers can be trusted to allow open access when it is efficient to do so. In particular, Part III explains the logic of a critical economic concept — *internalizing complementary efficiencies* — and its claim that firms have a strong incentive to implement modularity voluntarily when modularity enhances consumer value.

Modular architectures help companies respond to individual customer needs and introduce new products faster by upgrading individual subsystems without having to redesign everything. Under these conditions (and only under these conditions), outsourcing titans like Dell and Cisco Systems can prosper — because modular architectures helps them be fast, flexible and responsive.

Clayton M. Christensen, *The Rules of Innovation*, TECH. REV., June 2002, at 33, 36.

45. See Jay M. Atkinson & Christopher C. Barnekov, *A Competitively Neutral Approach to Network Interconnection*, at 6 (FCC Off. of Strategic Plan. & Pol'y Analysis, Working Paper No. 34, Dec. 2000), at http://www.fcc.gov/Bureaus/OPP/working_papers/oppwp34.pdf (last visited Oct. 29, 2003).

46. See LESSIG, *supra* note 10, at 174–76; Lawrence Lessig, *Innovation, Regulation, and the Internet*, THE AMERICAN PROSPECT, Mar. 27, 2000, at 26, 29 (“[T]he burden should be on those who would compromise [on the principle of openness] to show that [such a compromise would] not take away from the innovation we have seen so far.”), available at <http://www.prospect.org/print/V11/10/lessig-1.html> (last visited Oct. 29, 2003). In a report to the government of Canada, T.M. Denton Consultants argued:

It might be questioned whether governments had interests to defend here. The justification for taking an interest is that the future operation of networks may well determine how economies will function, and is therefore a matter of national importance. Governments are guardians of the marketplace, and they have legitimate interests in knowing how they work. *In a computer-mediated marketplace, interfaces between networks determine who may compete.*

T.M. Denton Consultants, *Netheads Versus Bellheads: Research into Emerging Policy Issues in the Development and Deployment of Internet Protocols*, at 17 (emphasis in original), at <http://www.tmdenton.com/pub/bellheads.pdf> (last visited Oct. 29, 2003).

III. INTEGRATION AND EFFICIENCIES: PUTTING THE MODULARITY MOVEMENT ON ICE

Perhaps partly recognizing the efficiency and competitive benefits of modularity, antitrust policy until the 1970s was wary of allowing dominant firms to integrate into adjacent markets and create closed relationships between complementary products.⁴⁷ Over the last twenty-five years, however, antitrust policy has accepted the Chicago School argument that close (even closed) vertical relationships can yield and be motivated by integrative efficiencies. Furthermore, economists' better understanding of how complements boost demand for the primary good has taught antitrust that powerful firms, recognizing the merits of a modular industry structure, will often institute modularity voluntarily. The question for regulators therefore is not whether modularity is good — it very often is — but whether modularity is likely to be good *even when* it will not emerge (or survive) spontaneously, as it often will when it is most valuable to consumers.

This Part explains the logic behind allowing firms (even monopolists) to decide whether or not to integrate vertically into — or, more broadly, depart from an arm's-length relationship with — complementary markets.⁴⁸ Section A outlines some important efficiency benefits that can stem from a vertical relationship closer than an arm's-length one (or, equivalently, inefficiencies of arm's-length relationships). Section B goes on to explain the powerful concept of *internalizing complementary efficiencies*. ICE suggests that even a platform monopolist often has incentives to make efficient choices about when to maintain modularity and when to get involved in an adjacent market.

A. Integrative Efficiencies

Palm, which introduced the first successful personal digital assistant, later decided to separate its operating system and software applications divisions from its hardware division.⁴⁹ It did not want to follow Apple, which failed to commit to an open licensing strategy for its operating system and subsequently lost its initially strong market

47. See, e.g., *United States v. Arnold Schwinn & Co.*, 388 U.S. 365, 379 (1967) (recognizing the per se illegality of certain types of vertical restraints).

48. For brevity we sometimes talk as if platform firms choose between full integration and an arm's-length modular relationship with a complement, but of course there is a spectrum of vertical relationships, including partial integration (e.g., joint ventures), tie-ins, partial equity investments, long-term contracts, and affiliate relationships.

49. See Pui-Wing Tam, *For Palm, Splitting in Two Isn't Seamless*, WALL ST. J., June 27, 2002, at B4.

share.⁵⁰ Palm presumably preferred to emulate Microsoft, which has benefited enormously from modularity in the PC market.

The Apple and Microsoft examples might make Palm's decision to vertically separate seem like a no-brainer, but it was not. By separating its operations vertically, Palm lost control of some important aspects of its product deployment. For instance, Palm's reliance on outsiders and an "inability to crack the whip on its far-flung programmers" contributes (according to some observers) to its "slow pace of innovation" in applications.⁵¹ By contrast, Sega developed the operating system, equipment, and leading games (such as Sonic the Hedgehog) for its Sega Genesis system all in-house, presumably in order to control its product offerings and drive consumer demand for its system.⁵²

Because the platform and the applications made for it are economically interdependent, an arm's-length relationship can involve contractual hold-up hazards (on both sides, though especially threatening to competitive applications providers).⁵³ A closer vertical relationship can be an efficient response to such hazards.⁵⁴

An arm's-length relationship can also lead to what economists call "double marginalization." The classic formulation, offered by Augustin Cournot in 1838, is that separate complementary monopolies, each imposing a monopoly markup, wind up with a final product price that exceeds the overall monopoly price. As a result, both consumers and the producers are worse off than they would be if the two firms merged and charged a monopoly price for the two goods together.⁵⁵ More generally, this insight explains that firms providing complementary activities or products are in a mutual position of "vertical externality." When Microsoft, for example, improves its software or lowers its price, more consumers buy Intel's complementary microprocessor; similarly, when Intel improves its hardware or lowers

50. *See id.*

51. Erick Schonfeld & Ian Mount, *Beating Bill*, BUS. 2.0, June 2002, at 36, 39, available at <http://www.business2.com/articles/mag/print/0,1643,40438,FF.html> (last visited Oct. 29, 2003).

52. *See* ADAM M. BRANDENBURGER & BARRY J. NALEBUFF, CO-OPETITION 237–41 (1996). One possible explanation for these differing approaches is that the proprietary strategy is most effective in launching a new system, but, as Palm is discovering, it is difficult to determine when or whether integration has outlived its usefulness and when, if ever, to separate integrated divisions that once worked well together. *See* Tam, *supra* note 49.

53. *See* Yoo, *supra* note 13, at 262–64 (noting that vertical integration guards against free riding, hold-up problems, and other strategic behaviors by vital complementors).

54. More precisely, the hazards arise when fully effective modularity is not available, so that ex post haggling is likely. There may then be an intriguing positive feedback: when modularity works well, it is appealing and may be stable, but when it starts to break down, a platform supplier's best response may eventually be to integrate — perhaps killing off whatever imperfect modularity remains.

55. *See* AUGUSTIN COURNOT, RESEARCHES INTO THE MATHEMATICAL PRINCIPLES OF THE THEORY OF WEALTH 103 (Nathaniel T. Bacon trans., MacMillan 1927) (1838).

its price, demand for Microsoft's operating system rises. Thus, when complementors move closer to maximizing joint profits — whether through integration or through a closer contractual relationship than arm's-length pricing — it tends to encourage innovation and price-cutting.⁵⁶

Innovation can require changing the platform/application interface, which can be a slow process if an industry relies on open standards and open interfaces. In such cases, hand-in-glove coordination between the platform sponsor and one or more complementors can accelerate innovation.⁵⁷ In particular, a new product that would require new interfaces may be most readily launched in a hand-in-glove, even integrated, fashion. Indeed, Palm first launched its product in an integrated manner before moving to modularity through its voluntary split. Moreover, such coordination can give a platform provider more scope for penetration pricing and other start-up tactics aimed to encourage efficient use and adoption of its platform,⁵⁸ particularly when the product is newly introduced and relatively unknown.⁵⁹

Integration or hand-in-glove coordination also helps assure consumers that complementary products will work well, because the platform sponsor retains control over quality and interoperability. Antitrust law, even at the height of its hostility to vertical tie-ins, appreciated this point in a case involving the rollout of cable television and related equipment.⁶⁰

Analyzing a firm's choice of vertical structures is a focus of the "new institutional economics" ("NIE"). Building on insights of Nobel Laureate Ronald Coase,⁶¹ NIE "seeks to extend and enrich understanding of the microanalytic details of business behavior and the in-

56. For development of this point and some important refinements of it, see Joseph Farrell & Michael L. Katz, *Innovation, Rent Extraction, and Integration in Systems Markets*, 48 J. INDUS. ECON. 413 (2000). Of course, when competitors — in contrast to complementors — move closer to maximizing joint profits, the result can readily be anticompetitive.

57. For a development of this theme and a discussion of the virtues of proprietary platform competition, see Philip J. Weiser, *The Internet, Innovation, and Intellectual Property Policy*, 103 COLUM. L. REV. 534 (2003). For a further discussion of how developing stable interfaces can be too expensive and time consuming to merit the effort, see Langlois, *supra* note 7, at 23.

58. See Douglas Lichtman, *Property Rights in Emerging Platform Technologies*, 29 J. LEGAL STUD. 615, 616–17 (2000).

59. See JEFFREY H. ROHLFS, *BANDWAGON EFFECTS IN HIGH-TECHNOLOGY INDUSTRIES* 197 (2001).

60. See *United States v. Jerrold Elec. Corp.*, 187 F. Supp. 545, 556–57 (E.D. Pa. 1960), *aff'd per curiam*, 365 U.S. 567 (1961) (allowing leeway for bundling in introducing a new product when reputation matters).

61. See generally Ronald H. Coase, *The Nature of the Firm*, 4 *ECONOMICA* 386 (1937); Ronald H. Coase, *The Problem of Social Cost*, 3 J.L. & ECON. 1 (1960). The subject is also known as "transactions cost economics."

dustry settings that shape firm conduct.”⁶² Usefully, if tautologically, NIE suggests that firms will vertically integrate or depart from arm’s-length market dealing when such arm’s-length dealing would be more costly.⁶³ Thus, firms will sometimes opt for modularity as a means of bringing maximum imagination and diversity to the problem of developing applications on a platform, and minimizing the need for complex coordination. Conversely, firms will sometimes opt for vertical integration in order to facilitate complex coordination and strengthen incentives for product development and deployment.⁶⁴

B. ICE and the Rationale Against Open Access Regulation

In an ideal world, a firm could obtain the benefits of vertical integration while still employing some degree of modularity to spur independent innovation. In attempting such strategies, platform providers who integrate into applications development often take pains “not to compete with customers” so as to minimize any ill effects of integration on independent applications.⁶⁵ But because getting the best of both worlds in this way is hard, firms may give up and stick to their core business. In this respect, Palm’s decision to divest its operating system can be seen as a step to reassure its licensees that it can be trusted as a steward of the standard, that it will not leverage its control of the platform into related markets, and that it will remain focused on serving the needs of independent developers — particularly now that Microsoft’s rival handheld operating system is offered on a modular basis (i.e., without a hardware component).⁶⁶ Similarly, AT&T divested its equipment manufacturing arm, Lucent, perhaps to reassure

62. Timothy J. Muris, Chairman, Fed. Trade Comm’n, Remarks at George Mason University Law Review’s Winter Antitrust Symposium (Jan. 15, 2003), at <http://www.ftc.gov/speeches/muris/improveconfoundtio.htm> (last visited Oct. 29, 2003).

63. For discussions of this point and citations to relevant literature, see Alan J. Messe, *Tying Meets the New Institutional Economics: Farewell to the Chimera of Forcing*, 146 U. PA. L. REV. 1, 50–66 (1997) and Gregory J. Werden, *The Law and Economics of the Essential Facility Doctrine*, 32 ST. LOUIS U. L.J. 433, 462–64 (1987).

64. Because it is seldom obvious which of these two strategies is superior, antitrust courts have waded carefully into the area of “technological tying,” requiring plaintiffs to establish that any competitive harms outweigh the efficiencies produced by such integration. See, e.g., *United States v. Microsoft Corp.*, 253 F.3d 34, 92–94 (D.C. Cir. 2001); *ILC Peripherals Leasing Corp. v. IBM*, 458 F. Supp. 423, 443–44 (N.D. Cal. 1978), *aff’d sub nom. Memorex Corp. v. IBM*, 636 F.2d 1188 (9th Cir. 1980); *Telex Corp. v. IBM*, 367 F. Supp. 258, 347 (N.D. Okla. 1973), *rev’d on other grounds*, 510 F.2d 894 (10th Cir. 1975).

65. This phrasing is most natural when applications developers buy the platform product and then sell a combined product downstream. Nonetheless, the same issues arise whether this is the market structure, or whether the platform provider buys from the applications developers, or whether end users or intermediaries buy both products.

66. See Ian Fried & Dawn Kawamoto, *Two Palms Better Than One?* (Feb. 4, 2002), at <http://news.com.com/2100-1040-828446.html> (last visited Oct. 29, 2003).

equipment customers who competed with other parts of AT&T that Lucent would not favor the latter.⁶⁷

If a monopoly platform provider chooses to stick to its core platform business, it would prefer that applications — the complements to its product — be cheaply, innovatively, and efficiently supplied. Thus, in choosing how to license interface information, certify complementors, and otherwise deal with developers, such a firm has a clear incentive to choose the pattern that will best provide it or its customers with applications. That is, a firm will *internalize complementary efficiencies* arising from applications created by others. Although antitrust law has not always appreciated it,⁶⁸ we call this point Obvious ICE.

Obvious ICE can be illustrated with a numerical example involving a platform monopolist in the game console market.⁶⁹ Assume that competition in the market for applications (video games) will yield a selection of applications such that each user of the platform values it at \$100, while a monopoly in applications will yield platform valuations of only \$70.⁷⁰ Under these conditions, if the platform provider were to monopolize the applications market, the platform's value to a buyer would fall by \$30; consequently, the platform provider would have to either sell fewer platforms or lower its platform price by \$30. In that way, the platform provider *internalizes the complementary efficiencies* (here \$30) from a better performing applications market.⁷¹

67. See T. Randolph Beard et al., *Why Adco? Why Now? An Economic Exploration into the Future Structure for the "Last Mile" in Local Telecommunications Markets*, 54 FED. COMM. L.J. 421, 457 n.83 (2002).

68. Judge Posner makes this point sharply in discussing the antitrust rule governing minimum resale price maintenance. See RICHARD A. POSNER, *ANTITRUST LAW* 177–78 (2d ed. 2001).

69. In antitrust, a company need not control 100% of a market (and even "market" is a nuanced term of art) to be considered a "monopolist"; rather, a "monopolist" is a company with considerable control over prices and output (and/or the ability to exclude competitors). See *id.* at 195–96 (noting that courts use market shares of 50% to 70% as threshold indicators of when a firm is a monopolist); *United States v. DuPont & Co.*, 351 U.S. 377, 391 (1956) (defining "monopoly power" as "power to control prices or exclude competition"); see also ABA SECTION OF ANTITRUST LAW, *ANTITRUST LAW DEVELOPMENTS* 235–36 (4th ed. 1997) (noting the 50% and 70% benchmarks and citing supporting federal case law); *id.* at 238 (listing factors relevant to monopoly power determinations such as "presence and degree of barriers to entry or expansion, technological superiority resulting in cost advantages, economies of scale and scope, ability to price discriminate, the relative size of competitors, competitors' performance, pricing trends and practices, homogeneity of products, potential competition, and the stability of market shares over time"); *United States v. Syufy Enters.*, 903 F.2d 659, 664 (9th Cir. 1990) ("A high market share, though it may ordinarily raise an inference of monopoly power, will not do so in a market with low entry barriers . . .").

70. Such valuations reflect the quality, variety, and price of the available applications, and are measured assuming that the platform is already purchased.

71. The argument as formulated yields a slightly sharper conclusion than is usually stated. First, it is the incremental value to the marginal platform purchaser that counts. Second, if the platform provider chooses a different price strategy than that described, it will more than capture the advantage of the more efficient downstream organization. See Joseph

Obvious ICE neither proves nor assumes that competition in applications markets is efficient. If, for instance, it is exceptionally hard to avoid spillovers of innovation among applications developers, then competition among developers might lead to less rather than more innovation. Or, if consumers cannot easily judge the quality of applications, fly-by-night entry into applications could spoil the market. If, for such reasons, a competitive applications market would yield less value than a monopolized one, the monopoly platform provider would gain by efficiently preventing competition in the market for applications. Thus, Obvious ICE does not say what structure of the applications market is optimal, but simply observes that the unintegrated platform monopolist has an incentive to favor whichever form of organization of applications is most efficient (or delivers the most value to users).

But often a platform monopolist *does* integrate into (and remain in) the market for applications for its platform.⁷² For at least three reasons, it will often be able to take a dominant position in that business. First, it has a stronger incentive than an independent firm to work harder on its applications: while innovators can seldom capture all their incremental value through simple pricing, the integrated provider (as ICE reminds us) can capture some — perhaps all — of the residue in its platform sales. Second, even if a platform provider truly tries to cooperate with independent applications developers, it is unlikely to be as open with them as with its own applications division (unless it builds a “Chinese wall” to keep information from the latter). Third, if the integrated firm wants to hamstring applications rivals, it might be very easy to bias interface design, the timing of new releases, pricing policy, and other choices. Moreover, such subtleties would only be necessary if blunter means (e.g., rendering an application inoperable) were unavailable. For these reasons, a platform provider’s decision to integrate vertically may well hurt independent complementors, seemingly posing formidable competitive concerns.⁷³

Obvious ICE does not address these concerns. But a stronger and less obvious version of ICE claims that platform monopolists will act efficiently even in deciding whether or not to integrate into adjacent markets. Similarly, this version of ICE claims that if a platform monopolist integrates into an adjacent market, it will still welcome value-added innovations by independent firms. Thus, according to this form of ICE, such close vertical relationships do not raise economic policy concerns.

Farrell, *Integration and Independent Innovation on a Network*, 93 AM. ECON. REV. 420 (2003).

72. This need not be literal integration; alliances with particular applications developers could have similar effects. Therefore, this Article sometimes refers to “close vertical relationships” instead of using the traditional term “vertical integration.”

73. See Farrell & Katz, *supra* note 56, at 421–26; Farrell, *supra* note 71, at 421–23.

Suppose, in the hypothetical above, that the platform provider could integrate into the applications market, and by participating in that market improve the platform's value to users from \$100 to \$105, while breaking even on its applications. Then, it will be able to charge \$5 more for its platform and sell as many as before. Whether or not it chooses just that pricing, it will profit from vertical integration, as it should, since by hypothesis integration increases value. Suppose, on the other hand, that the platform provider contemplates integrating into applications, monopolizing that market, and making a profit of \$20 per user there while users value the platform at \$70 rather than at \$100. Because the \$20 profit is less than the \$30 harm created by this action — harm that is in the first instance to applications buyers, but that redounds to the platform monopolist's bottom line because consumers will be willing to pay less for the platform — it will lose by such a strategy, as it should since, by hypothesis, this strategy leads to lower overall value. To be sure, a platform provider would choose to monopolize the applications market if it could make \$40 (per user) rather than \$20 in doing so, but only because the assumptions imply that this monopolization would somehow increase rather than decrease total value.⁷⁴

ICE maintains that the platform monopolist cannot increase its overall profit by monopolizing the applications market, because it could always have charged consumers a higher platform price in the first place; it has no incentive to take profits or inefficiently hamper or exclude rivals in the applications market because it can appropriate the benefits of cheap and attractive applications in its pricing of the platform. To the contrary, ICE claims that a platform monopolist has an incentive to innovate and push for improvements in its system — including better applications — in order to profit from a more valuable platform.⁷⁵

For the reasons discussed above, firms may hesitate to enter an applications market where they must compete with the platform provider. More generally, efficient applications competition can be problematic if one of the competitors controls the platform.⁷⁶ In such cases, ICE teaches that platform providers may choose to stay out of (or exit from) the applications market altogether as a means of ensur-

74. That is, the platform provider makes an extra \$40 per user at the cost of only \$30 per user of reduced value. Admittedly, the assertion that this increases total value rides on an assumption that excluded applications firms do not capture more than the \$10 difference in pure profits.

75. *See, e.g.,* United States v. Microsoft Corp., 84 F. Supp. 2d 9, 26 (D.D.C. 1999) (“[I]f there are innovations that will make Intel-compatible PC systems attractive to more consumers, and those consumers less sensitive to the price of Windows, the innovations will translate into increased profits for Microsoft.”).

76. *See, e.g.,* Farrell, *supra* note 71, at 421–24.

ing efficient competition in that market. (Palm's recent break-up may illustrate such a motive.)

The more ambitious version of ICE is a close kin to the "one monopoly profit theory,"⁷⁷ which dates back to early Chicago School thinking and the later work of Richard Posner and Robert Bork.⁷⁸ But the "one monopoly profit" label⁷⁹ captures only part of ICE. It claims that a platform monopolist cannot gain by inefficiently leveraging its market power into applications: this is ICE's claim that where competition in the applications market is efficient, the platform monopolist will protect it. But ICE goes further, stressing the broader principle that the platform monopolist gains from an *efficient* applications market — whether that be unbridled competition, integration without independents, licensing of a limited set of independents, or some attempt to combine these or other structures. The "one monopoly profit" label fails to suggest this broader point. In sum, ICE better conveys the claim that the platform monopolist has an incentive to be a good steward of the applications sector for its platform⁸⁰ and thus better captures the argument for laissez-faire vertical policies.

The stronger form of ICE largely explains modern antitrust law's reluctance to worry broadly about spillovers and leveraging of market power. It also underlies the basics of Chicago School doctrine, as well as its more ambitious arguments for the per se legality of tying ar-

77. Judge Posner has outlined the argument succinctly for the case where the complement is an input into the platform product:

But the bare fact that a firm has monopoly power in Market X does not imply that it will have an incentive to obtain monopoly power over Y, an input into X. In general a monopolist like any other firm wants to minimize its input costs; the lower those costs are, the greater the monopoly profits it will be able to make. Therefore the rational monopolist will usually want his input markets to be competitive, for competition usually will minimize the costs that he has to pay for his inputs.

Olympia Equip. Leasing Co. v. W. Union Tel. Co., 797 F.2d 370, 374 (7th Cir. 1986); see also POSNER, *supra* note 68, at 200–02.

78. The classic statement of the Chicago School position came in Ward S. Bowman, Jr., *Tying Arrangements and the Leverage Problem*, 67 YALE L.J. 19 (1957). The orthodox restatements of it came in RICHARD A. POSNER, *ANTITRUST LAW: AN ECONOMIC PERSPECTIVE* 171–84 (1976) and ROBERT H. BORK, *THE ANTITRUST PARADOX* 372–75 (1978).

79. See BORK, *supra* note 78, at 229 (“[V]ertically related monopolies can take only one monopoly profit.”); RICHARD A. POSNER & FRANK H. EASTERBROOK, *ANTITRUST* 870 (2d ed. 1981) (“There is only one monopoly profit to be made in a chain of production.”). Judges, too, have used the “one monopoly profit” label. See, e.g., *Town of Concord v. Boston Edison Co.*, 915 F.2d 17, 23 (1st Cir. 1990) (Breyer, J.); *W. Resources, Inc. v. Surface Transp. Bd.*, 109 F.3d 782, 787 (D.C. Cir. 1997).

80. In this spirit, some commentators have argued that intellectual property holders should be able to control the development and deployment of complementary products. See Edmund W. Kitch, *The Nature and Function of the Patent System*, 20 J.L. & ECON. 265, 277–78 (1977); see also Lichtman, *supra* note 58, at 615. But see SUZANNE SCOTCHMER, *INNOVATION AND INCENTIVES* (forthcoming 2004) (manuscript ch. 5, on file with authors).

rangements.⁸¹ Surprisingly (and, as we see below, not always correctly), it suggests that antitrust and regulation should generally not worry even if an integrated firm engages in behavior within the applications market that is plainly exclusionary.

IV. HOLES IN THE ICE: WHEN ITS LOGIC CAN FAIL

ICE is a central organizing principle for the analysis of vertical competitive effects. But its claims do not always hold. In this Part, we explain eight ways in which it can fail: (1) Baxter's Law; (2) price discrimination; (3) potential competition; (4) bargaining problems; (5) incompetent incumbents; (6) option value; (7) regulatory strategy; and (8) incomplete complementarity. There are other exceptions,⁸² but we find these eight particularly relevant to the information industries.

A. Baxter's Law

Even classical Chicago School adherents concede an exception to ICE where the platform (the core monopoly) is subject to regulation but the applications market is not.⁸³ The economics of "Baxter's Law" echo the ICE argument itself: ICE argues that a monopolist can capture in its platform profits improvements in consumer value in applications, but it generally cannot do so if the platform price is regulated. Thus, regulated platform prices can lead a monopolist to relate differently to the applications market than ICE would ordinarily suggest.

Two simple economic reasons underlie Baxter's Law. First, suppose that there is an "ideal" price cap that constrains the price of the platform product and that will not respond if platform-level profits change over time. Now consider how the regulated platform monopolist will view an opportunity to raise the price of applications and take a profit there. Assuming fixed one-to-one proportions between the platform and the applications market, suppose that the platform pro-

81. See BORK, *supra* note 78, at 288 (arguing that all vertical restraints should be per se legal).

82. See Steven C. Salop & R. Craig Romaine, *Preserving Monopoly: Economic Analysis, Legal Standards, and Microsoft*, 7 GEO. MASON L. REV. 617, 625 (1999).

83. See *Olympia Equip. Leasing Co. v. W. Union Tel. Co.*, 797 F.2d 370, 374 (7th Cir. 1986) ("There are, however, special circumstances in which a rational monopolist may want to restrict competition in an input market; as it happens, one of those circumstances is where the monopolist's rates are regulated."); *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 466 U.S. 2, 36 n.4 (1984) (O'Connor, J., concurring) ("In a regulated industry a firm with market power may be unable to extract a supercompetitive profit because it lacks control over the prices it charges for regulated products or services. Tying may then be used to extract that profit from sale of the unregulated, tied products or services." (citations omitted)). Bowman's initial argument contemplated this exception, see Bowman, *supra* note 78, at 22, but later commentators criticized this argument as too deferential to the regulatory process. See Louis Kaplow, *Extension of Monopoly Power Through Leverage*, 85 COLUM. L. REV. 515, 522 n.26 (1985).

vider can take an additional profit of \$1 per unit in the applications market by monopolizing that market. As ICE stresses, this profit potential lowers the profit-maximizing price for its platform by \$1 (in the simplest case), given the level of platform sales. But whereas this “normally” lowers platform profits by \$1, it may have a far smaller effect on platform profits when the platform price is already regulated below the profit-maximizing level.⁸⁴ In a sense, the platform provider can compensate for the fact that its platform is priced below the profit-maximizing price by taking additional — and perhaps otherwise inefficient — profits in the applications market.

The second reason for Baxter’s Law does not apply under an ideal price cap but does hold under some other common forms of price regulation. Suppose that the platform provider is regulated in a rate-of-return fashion, or by a price cap that responds over time to changes in platform profits. Then, by raising the price of its application product by \$1 and gaining profits there, a platform provider would benefit on balance even if in the short term its profits in the platform market would fall by the full \$1, because the regulatory process will over time make its platform operations whole and restore that “lost” \$1.

This exception to ICE has figured prominently in telecommunications policy.⁸⁵ In particular, the Bell System allegedly leveraged its way to market power in complementary markets, denying equal access to its network to competitors in long distance and equipment manufacturing.⁸⁶ By excluding such competitors, AT&T could rent telephones to its customers and sell equipment from its Western Electric affiliate to its operating companies or telephone subscribers at inflated rates. Such a strategy was *available* to AT&T because of its network-level market power, but ICE would claim the option should be *unattractive* because it would decrease demand for telephone sub-

84. The loss of demand is the \$1 divided by the absolute slope of the demand curve, so it is $-dx/dp$, or $(-dx/dp)/x$ per unit sales. Multiplying by the gross margin $(p-MC)$ gives $(p-MC)(-dx/dp)/x$, or $[(p-MC)/p] * (-p/x dx/dp)$. This is the Lerner markup index times the absolute elasticity of demand; this amounts to 1 if p is profit-maximizing, and is less than 1 if p is below the profit-maximizing level.

85. This issue also emerged in cases involving railroad regulation. See *N. Pac. R.R. v. United States*, 356 U.S. 1, 8 (1958) (noting that land grant sales conditioned on “preferential routing” might well be an example of a tie used as a substitute for an unlawful rebate); see also Kaplow, *supra* note 83, at 522 n.26.

86. See Roger G. Noll & Bruce M. Owen, *The Anticompetitive Uses of Regulation: United States v. AT&T*, in *THE ANTITRUST REVOLUTION* 328, 339–44 (John E. Kwoka, Jr. & Lawrence J. White eds., 2d ed. HarperCollins 1994), available at <http://www.oup.com/us/antitrustrevolution> (last visited Oct. 29, 2003). In theory, an ideal “global price cap” could restore ICE, but modern telecommunications regulation rarely focuses on this goal, instead aiming to deregulate workably competitive segments. For more extensive discussions of the relationship of ICE to regulation, see JEAN-JACQUES LAFFONT & JEAN TIROLE, *COMPETITION IN TELECOMMUNICATIONS* (2000); B. Douglas Bernheim & Robert D. Willig, *The Scope of Competition in Telecommunications* (1996) (unpublished manuscript, on file with authors); and MARK ARMSTRONG ET AL., *REGULATORY REFORM: ECONOMIC ANALYSIS AND BRITISH EXPERIENCE* (1994).

scription. But that decrease did not deter AT&T because of the price regulation of local telephone service. In the Carterfone decision and its aftermath, the FCC imposed an “unbundling” requirement on AT&T to prevent it from requiring consumers to rent phones, and thereby opened the customer premises equipment (“CPE”) market to competition.⁸⁷ This issue was at the heart of the government’s anti-trust case against AT&T, even though AT&T’s long-distance rates — like its local ones — were regulated.⁸⁸ Because then-Assistant Attorney General Baxter highlighted this hole in ICE in championing the consent decree that broke up AT&T, this exception is termed “Baxter’s Law” or the “Bell Doctrine.”⁸⁹

B. Price Discrimination

Participating in, or dominating, the applications market can help a platform monopolist to price discriminate; this objective may make even inefficient vertical leveraging profitable.⁹⁰ Control over applications can help a platform monopolist to engage in price discrimination, charging different markups on combinations of the platform with different sets of applications.⁹¹ It can customize its offerings for different buyers, separating “inframarginal” customers who are willing to pay more, from “marginal” customers who would switch to other alternatives in the face of a price increase.⁹² Price discrimination is familiar in airline travel, where airlines use various means to segment

87. See *supra* note 34 and accompanying text.

88. AT&T was federally regulated as a dominant carrier in the interstate long-distance market until 1995. See Motion of AT&T Corp. to be Reclassified as a Non-Dominant Carrier, 11 F.C.C.R. 3271, ¶¶ 10–13 (1995) (Order) (ending rate regulation of AT&T in the long-distance market). The fact that AT&T faced regulation in its complementary markets — both in long distance and, in some cases, in CPE — suggests that the justification for regulatory action based on Baxter’s Law is more complicated than often appreciated. Three possible variations on this classic explanation might address this complication. First, areas that regulation did not address — such as certain CPE markets, particularly where AT&T sold equipment to itself — may have been open to abuses. Second, imperfections of regulation may have enabled the AT&T monopoly to take greater advantage of consumers by providing both the monopoly and complementary service — i.e., the end of vertical integration helped consumers by facilitating better regulation. Finally, the ability to prevent competition might have helped AT&T to forestall innovation in complementary markets that would force it to depreciate its sunk investments more quickly than it wished.

89. See *supra* note 40 and accompanying text.

90. Proponents of the “leverage theory” of tying regularly invoke this explanation. See, e.g., Lawrence A. Sullivan, *Section 2 of the Sherman Act and Vertical Strategies by Dominant Firms*, 21 SW. U. L. REV. 1227, 1237 (1992); see also Kaplow, *supra* note 83, at 523 (“[P]ractices merely increasing profits to an existing monopoly, without ‘extending’ it, can increase the welfare loss that results.”).

91. For example, in the Internet environment, customer identity might be more readily tracked through the complement than through the platform product.

92. For a discussion and explanation of the difference between “marginal” and “inframarginal” customers, see James A. Keyte, *Market Definition and Differentiated Products: The Need for a Workable Standard*, 63 ANTITRUST L.J. 697, 739–45 (1995).

the market and extract premium prices from inframarginal business travelers who cannot plan in advance. In telecommunications, both incumbents and entrants practice price discrimination by offering different tiers of packages or sets of offerings to different customers.⁹³

Price discrimination need not in itself be inefficient or anti-consumer, but the platform monopolist's desire to price discriminate can outweigh ICE and lead it to exclude efficient innovation or price competition in complementary products. In the classic case, the monopolist does so more or less intentionally because control of the complementary market allows it to maximize profits through large markups on complementary goods — for example, the substantially higher ticket prices charged to first class airline passengers for better meal service.⁹⁴ In other cases, profit maximizing price discrimination involves *below-cost* pricing of complements. The platform provider has no motive to exclude such offerings per se and probably would be delighted if independent complementors were to offer cheap and innovative offerings; independent developers, however, may refrain from providing such products where the platform provider offers its own complements below cost.⁹⁵

Economists recognize that price discrimination can either harm or benefit consumers overall (and is likely to harm some and benefit others).⁹⁶ Some forms of price discrimination, like Ramsey pricing,⁹⁷ can raise profits at the lowest possible cost to consumers as a group, and

93. See, e.g., Tiffany Kane, *Legislators Laud Debut of Covad's Service* (June 19, 2002) (reporting on Covad's tiered pricing structure), at <http://news.com.com/2100-1033-937523.html> (last visited Oct. 29, 2003); see also CARL SHAPIRO & HAL R. VARIAN, *INFORMATION RULES 300* (1998) (indicating that price discrimination is predictably prevalent in information industries).

94. This, of course, does not explain why the platform monopolist seeks to co-opt and tame independent innovation rather than welcoming it. But allowing independent innovation while restricting the available independent product offerings to facilitate price discrimination may prove either infeasible or unadministrable.

95. See Farrell & Katz, *supra* note 56 (formally modeling such an effect). A platform provider could alternatively offer a uniform subsidy to independent as well as its own complements, which might avoid this problem but raise others.

96. See Richard A. Posner, *The Chicago School of Antitrust Analysis*, 127 U. PA. L. REV. 925, 926–28 (1979) (explaining how price discrimination can reduce the “misallocative effects of monopoly”). Moreover, if price discrimination increases output and thus generates economies of scale and/or “learning by doing” efficiencies, unit cost of production will drop. See Jerry Hausman & Jeffrey MacKie-Mason, *Price Discrimination and Patent Policy*, 19 RAND J. ECON. 253, 257 (1988). Finally, even if price discrimination is harmful, policies to limit it may have unintended consequences, such as leading firms to use cruder means of achieving the same purpose. See Hal R. Varian, *Price Discrimination*, in 1 HANDBOOK OF INDUSTRIAL ORGANIZATION 597, 644–46 (Schmalensee & Willig eds., 1989); Hausman & MacKie-Mason, *supra*, at 257.

97. As Justice Breyer explained, “Ramsey pricing is a classical regulatory pricing system that assigns fixed costs in a way that helps maintain services for customers who cannot (or will not) pay higher prices.” *AT&T v. Iowa Util. Bd.*, 525 U.S. 366, 426 (1999) (Breyer, J., concurring in part and dissenting in part).

this is valuable where profits are an important spur to innovation.⁹⁸ Thus modern economics is not generally hostile to price discrimination.

As a result, some commentators do not see price discrimination as an exception to ICE.⁹⁹ But it is. Even where price discrimination itself *enhances* efficiency, the platform monopolist may impose highly inefficient restrictions on applications competition in order to engage in price discrimination.

To illustrate, consider the attitude of cable providers toward streaming video applications over their cable modems. ICE would suggest that cable providers should happily endorse this use of their platform, as it would make the platform more valuable to users and therefore more profitable. But a cable provider who allows video streaming will find it harder to engage in the profitable and customary price discrimination that sets high markups for premium cable programming. Thus, a cable provider might rationally, but inefficiently, try to stop this innovative method of distribution.¹⁰⁰

C. Potential Competition

Platform monopolists will evaluate actions in complementary markets through two lenses. On the one hand, ICE reminds us that the platform franchise often is worth more when the complement is efficiently supplied. On the other hand, competition in the complement can sometimes threaten the primary monopoly.¹⁰¹ Thus, even if a two-

98. See Hausman & MacKie-Mason, *supra* note 96, at 263 (allowing for price discrimination in the sale of a patented product can spur innovation and thus substitute for longer intellectual property protection).

99. See, e.g., *Town of Concord v. Boston Edison Co.*, 915 F.2d 17, 24 (1st Cir. 1990); BORK, *supra* note 78, at 241–42; POSNER, *supra* note 68, at 203–06.

100. For an anecdotal suggestion that cable providers may fear such effects, see David Lieberman, *Media Giants' Net Change Major Companies Establish Strong Foothold Online*, USA TODAY, Dec. 14, 1999, at B3 (reporting that Dan Somers, CEO of AT&T Broadband, dismissed suggestions that it would allow video streaming of programming on the ground that “AT&T did not spend \$56 billion to get into the cable business ‘to have the blood sucked out of our veins’”).

101. Some have argued that this point adds a dynamic element to the analysis that the traditional Chicago School model lacks. See Kaplow, *supra* note 83, at 524, 527–29 (arguing that a monopolist’s “motivation is to change the structural conditions it faces in the future in order that it may receive greater profits,” and contrasting “dynamic” and “static” approaches); see also Steven C. Salop & R. Craig Romaine, *Preserving Monopoly: Economic Analysis, Legal Standards, and Microsoft*, 7 GEO. MASON L. REV. 617, 625–26 (1999) (discussing the “preserving monopoly theory” that posits that vertical integration can be used “to impede the efforts of firms that might reduce the monopolist’s power and thereby cause it to reduce its prices, increase innovation or perhaps lose out to a superior rival”); Herbert Hovenkamp, *Antitrust Policy After Chicago*, 84 MICH. L. REV. 213, 261 (1985) (criticizing Chicago School orthodoxy as focused on “static” analysis and unable to take account of “strategic behavior”). For an economic model of tying strategy, see Dennis W. Carlton & Michael Waldman, *The Strategic Use of Tying to Preserve and Create Market Power in Evolving Industries*, 33 RAND J. ECON. 194 (2002).

level monopoly may not yield more than one monopoly profit, it can protect the monopolist against entry in several ways.¹⁰²

First, if there are no independent applications suppliers, any potential platform rival would need to enter at both the platform and applications levels.¹⁰³ This “two-level entry” theory is familiar to both telecommunications regulation and antitrust policy. For example, the program access provisions of the Cable Policy Act of 1992 give satellite firms access to cable networks affiliated with rival cable operators in order to ensure that satellite providers can compete effectively with cable and are not hindered by a lack of programming availability.¹⁰⁴

The two-level entry theory also underlaid the Justice Department’s challenge to General Electric’s licensing policies for medical imaging equipment. The company had contractually restricted hospitals from servicing the equipment of other hospitals. The DOJ argued that these restrictions illegally raised barriers to entry in the market for medical imaging equipment.¹⁰⁵ If hospitals’ service staffs learned to service outside equipment, new equipment providers would need only to enter the equipment market, relying on hospital service staffs to service their own equipment and that of other hospitals.¹⁰⁶ Thus, this case fits our framework, with equipment playing the role of the “platform” and service the role of “applications.”

Second, complements may ultimately make possible substitutes for the platform. In the *Microsoft* case, for example, Netscape’s web

102. In his *Town of Concord* opinion, then-Chief Judge Breyer set out this justification:

Insofar as it is more difficult for a firm to enter an industry at two levels than at one, the monopolist, by expanding its monopoly power, has made entry by new firms more difficult. And insofar as the monopolist previously set prices cautiously to avoid attracting a competitive challenge, the added security of a two-level monopoly could even lead that monopolist to raise its prices.

915 F.2d at 23–24; *see also* Matsushita Elec. Indus. Co. v. Zenith Radio Corp., 475 U.S. 574, 591 n.15 (1986) (“[W]ithout barriers to entry, it would presumably be impossible to maintain supracompetitive prices for an extended time.”); POSNER, *supra* note 68, at 202 (“[T]he possibility that tying might discourage entry into the monopolized market for the tying product cannot be excluded altogether.”). For an argument along these lines, see Jay Pil Choi & Christodoulos Stefanadis, *Tying, Investment, and the Dynamic Leverage Theory*, 32 RAND J. ECON. 52 (2001) and Jay Pil Choi, *Preemptive R&D, Rent Dissipation, and the “Leverage Theory,”* 111 Q. J. OF ECON. 1153 (1996).

103. Artificially created entry barrier issues emerged as an early post-Chicago School concern. *See, e.g.*, Jonathan B. Baker, *Recent Developments in Economics That Challenge Chicago School Views*, 58 ANTITRUST L.J. 645, 651–52 (1989).

104. *See* 47 U.S.C. § 548(c)(5) (2000); Implementation of Cable Television Consumer Protection and Competition Act of 1992, 16 F.C.C.R. 19074 (2001) (Notice of Proposed Rulemaking); News Release, FCC, FCC Extends Program Access Exclusivity Rules (June 13, 2002), at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-223381A1.doc (last visited Oct. 29, 2003).

105. *See* Competitive Impact Statement at 4–5, *United States v. Gen. Elec. Co.*, No. CV-96-121-M-CCL, 1999 U.S. Dist. LEXIS 598 (D. Mont. Jan. 11, 1999), at <http://www.usdoj.gov/atr/cases/f1800/1842.htm> (last visited Oct. 29, 2003).

106. *See id.*

browser was a complementary application in the short term, but could have facilitated operating systems competition in the long term.¹⁰⁷ By exposing its own application programming interfaces, the browser could ultimately “commoditize” the underlying operating system.¹⁰⁸ As the district court found (and the court of appeals affirmed), Microsoft concluded that this was a serious threat to its core monopoly and undertook a campaign to undermine Netscape’s browser.¹⁰⁹

Finally, independent providers of complements may themselves be likely entrants into the platform market. Carl Shapiro, a leading economist, recently concluded that while “network monopolies can be very strong, they are most vulnerable to attack by firms in a strong position in a widely-used *complementary product*.”¹¹⁰ Complementors know the market and have an economic interest in lowering the price of the underlying platform (lower platform prices will raise demand for their product). For the same reason, complementors need not fear a

107. Lessig has called this scenario a “partial substitute.” See Brief of Prof. Lawrence Lessig as Amicus Curiae at 46–47, *United States v. Microsoft Corp.*, 87 F. Supp. 2d 30 (D.D.C. 2000) (No. 98-1232), at <http://www.lessig.org/content/testimony/ab/ab.pdf> (last visited Oct. 29, 2003). This term, however, does not emphasize the temporal nature of what is often called “middleware.” See James B. Speta, *Tying, Essential Facilities, and Network Externalities: A Comment on Piraino*, 93 NW. U. L. REV. 1277, 1282 (1999) (pointing out that Microsoft’s predatory actions vis-à-vis Netscape can be explained on the ground that Microsoft viewed the browser as a partial substitute for the operating system); Michael D. Whinston, *Exclusivity and Tying in U.S. v. Microsoft: What We Know, and Don’t Know*, J. ECON. PERSP., Spring 2001, at 63, 73.

108. For a discussion based on Microsoft’s internal documents (as revealed by the trial), see Timothy F. Bresnahan, *Network Effects and Microsoft*, at 23–25, at http://www.stanford.edu/~tbres/Microsoft/Network_Theory_and_Microsoft.pdf (last visited Oct. 29, 2003); see also Timothy F. Bresnahan, *A Remedy That Falls Short of Restoring Competition*, ANTITRUST, Fall 2001, at 67, 67 [hereinafter Bresnahan, *Restoring Competition*] (“[T]he development of a spectacularly innovative complementary product . . . can lower entry barriers into the monopolized market and create an opening for substitutes to make inroads and competition to emerge.”).

109. *United States v. Microsoft Corp.*, 87 F. Supp. 2d 30, 38 (D.D.C. 2000) (“In this case, Microsoft early on recognized middleware as the Trojan horse that, once having, in effect, infiltrated the applications barrier, could enable rival operating systems to enter the market for Intel-compatible PC operating systems unimpeded. Simply put, middleware threatened to demolish Microsoft’s coveted monopoly power.”), *aff’d*, 253 F.3d 34 (D.C. Cir. 2001); see also Bresnahan, *Restoring Competition*, *supra* note 108, at 67–68 (describing Microsoft’s campaign).

110. Declaration of Carl Shapiro at 6, *United States v. Microsoft Corp.*, 87 F. Supp. 2d 30 (D.D.C. 2000) (No. 98-1232), at <http://www.usdoj.gov/atr/cases/t4600/4642.pdf> (last visited Oct. 29, 2003); see *id.* (listing examples). To address Microsoft’s anticompetitive tactics to defeat a complementary product that threatened its monopoly platform, Shapiro’s testimony recommended divesting Microsoft’s applications division from its operating systems division in order to create additional competition in the operating systems market. See *id.* at 6–7. *But see* Howard A. Shelanski & J. Gregory Sidak, *Antitrust Divestiture in Network Industries*, 68 U. CHI. L. REV. 1, 99 (2001) (criticizing Shapiro’s proposal). On entry by complementors in the computer industry more broadly, see Timothy F. Bresnahan & Shane Greenstein, *Technological Competition and the Structure of the Computer Industry*, 47 J. INDUS. ECON. 1 (1999).

platform monopoly's price cuts or quality enhancements in response to entry as much as a stand-alone entrant would.¹¹¹

In television programming and distribution, the FCC's financial interest and syndication ("finsyn") rules effectively barred the major networks (then ABC, NBC, and CBS) from the programming market and kept the major studios (then Fox, Warner Brothers, and Paramount) out of the network market.¹¹² In court, however, the FCC failed to justify them and they were invalidated.¹¹³ The studios — who had been the complementary providers of programming — then entered the platform market, creating three new networks. The existing networks likewise moved quickly to create their own programming.¹¹⁴ Similarly, the Telecommunications Act of 1996 ("Telecom Act") arguably assumed that the long-distance providers — who rely on the local network — were likely entrants into the local telephone market and that the local providers were almost certain entrants into the long-distance market.¹¹⁵

D. Bargaining Problems

An independent innovator and a gatekeeping platform monopolist may fail to reach a mutually beneficial access arrangement. We identify two ways in which this can happen. In the simplest such bargaining problem, a complementor develops an innovative application, but transaction costs obstruct agreement with the platform gatekeeper, and the innovation lies fallow.¹¹⁶ Thus, this problem has an immediate

111. See Joseph Farrell, *Prospects for Deregulation in Telecommunications*, 6 *INDUS. & CORP. CHANGE* 719, 727 (1997).

112. See *Schurz Communications, Inc. v. FCC*, 982 F.2d 1043, 1045–48 (7th Cir. 1992).

113. Judge Posner remarked of the FCC's justification for these rules: "Stripped of verbiage, the opinion, like a Persian cat with its fur shaved, is alarmingly pale and thin." *Id.* at 1050. Many commentators have concurred with Judge Posner's critical assessment. See, e.g., Crandall, *supra* note 40, at 178–79.

114. In so doing, the networks often eschewed outside programming, only much later realizing the benefits of contracting out. See, e.g., Bill Carter, *Ailing ABC Turns to HBO in Search of TV Hits*, *N.Y. TIMES*, Aug. 5, 2002, at C1 (reporting that, after its initial hesitation, ABC decided not to rely largely on its internal production of programming, but to solicit programming from outside sources). To a degree, therefore, the finsyn rules did protect modularity and prevent vertical integration, whether or not that was desirable.

115. See 47 U.S.C. § 271 (2003); see also Joel I. Klein, Address before the American Enterprise Institute (Nov. 5, 1997) ("In essence, then, the Act envisions that the local and long distance companies will enter each other's markets and offer new and improved services, including bundled offerings of local and long distance, at better prices to consumers."), at <http://www.usdoj.gov/atr/public/speeches/1268.htm> (last visited Oct. 29, 2003).

116. See Michael L. Katz, *Intellectual Property Rights and Competition Policy: Four Principles in a Complex World*, 1 *J. TELECOMMS. & HIGH TECH. L.* 325, 342 (2002).

impact, and also discourages independent innovations in the longer run.¹¹⁷

A second kind of bargaining problem arises if the platform provider threatens to withhold access to the platform unless the application inventor licenses its new application very cheaply. If the inventor reluctantly agrees, this may be an efficient solution after the fact, but the prospect of this outcome discourages future independent invention.¹¹⁸ Invoking this theory, the Federal Trade Commission (“FTC”) complained that Intel’s demand for intellectual property licenses from its licensees (complementors) violated the antitrust laws.¹¹⁹

Such discouragement of efficient independent innovation might be a problem inherent in closed architectures.¹²⁰ In a fully modular structure without a gatekeeper, the innovation could quickly be introduced,¹²¹ and the innovator would profit to an extent commensurate with its innovation. But, in the longer term, ICE suggests a possible self-correcting dynamic: if the platform sponsor thinks that more complementary innovation will be forthcoming as a result, it could set up a private commons or otherwise implement modularity. Microsoft exposes many of its APIs to independent developers, spending money and resources to cooperate with complementary (applications) providers.¹²² Similarly, Intel carefully manages its complementors.¹²³

117. Economists would call this the “short run” both because it is immediate and because it is inefficient given the set of applications that have been developed, in contrast to the problem of discouraging innovations.

118. See Farrell & Katz, *supra* note 56, at 430 (providing an economic model to support this conclusion).

119. See Carl Shapiro, *Technology Cross-Licensing Practices: FTC v. Intel*, in THE ANTITRUST REVOLUTION 350, 361–63 (John E. Kwoka, Jr. & Lawrence J. White eds., 4th ed. Oxford Univ. Press 2004).

120. To mitigate these potential barriers to innovation, intellectual property law has sought to develop certain open access doctrines. See Mark A. Lemley, *The Economics of Improvement in Intellectual Property Law*, 75 TEX. L. REV. 989 (1997). For an argument that copyright law should not allow complementors to access a platform standard through reverse engineering as a means of addressing transaction cost issues, see Lichtman, *supra* note 58, at 637–38. For an argument that patent law should give second-generation inventors legal protection to facilitate fair arrangements with original inventors and to address the hold-up problem, see Suzanne Scotchmer, *Standing on the Shoulders of Giants: Cumulative Research and the Patent Law*, J. ECON. PERSP., Winter 1991, at 29. Moreover, real property law also recognizes that “strategic behavior” can prevent a socially desirable arrangement and provides for flexibility in crafting appropriate relief to avoid this outcome. See, e.g., *Walgreen Co. v. Sara Creek Prop. Co.*, 966 F.2d 273, 276–79 (7th Cir. 1992) (Posner, J.).

121. In the Internet environment, for example, the openness of the logical standard allows developers like Napster to introduce applications without first reaching agreement with a network owner. See *supra* notes 20–21 and accompanying text.

122. See MICHAEL A. CUSUMANO & RICHARD W. SELBY, MICROSOFT SECRETS: HOW THE WORLD’S MOST POWERFUL SOFTWARE COMPANY CREATES TECHNOLOGY, SHAPES MARKETS, AND MANAGES PEOPLE 166–74 (1995). Under the proposed consent decree reached with the Justice Department, Microsoft would formalize — and be subject to judicial oversight related to — the disclosure of information on its otherwise proprietary interfaces. See Joe Wilcox, *Microsoft Tallies Antitrust Efforts* (Aug. 5, 2002), at <http://news.com/2100-1009-948440.html> (last visited Oct. 29, 2003).

A platform monopolist may find it hard to make a credible commitment to modularity. One way may be to stay out of the complementary sector altogether. Just as in the *AT&T* case, where the Justice Department was skeptical that equal access was credible without divestiture and quarantine, some platform gatekeepers think their complementors will find voluntary quarantine the best guarantee of fair treatment. This could involve spinning off divisions, as *AT&T* and *Palm* did.

E. Incompetent Incumbents

A platform monopolist will not behave as ICE predicts if it fails to understand ICE. Some applications of ICE are surprising even for professional economists.¹²⁴ Thus, even if there is only one monopoly profit, some may think otherwise and inefficiently seek a second.¹²⁵ And even when top management appreciates ICE, other employees may not.¹²⁶

In our experience, businesspeople are often reluctant to help outside firms compete against internally supplied applications.¹²⁷ This may be particularly likely if the benefit of modularity comes in the form of “a hundred flowers” of diverse paths of innovation in the

123. On Intel’s strategy, see GAWER & CUSUMANO, *supra* note 26, at 15–38. For related antitrust issues concerning Intel, see Intel Corp., 64 Fed. Reg. 20134 (Fed. Trade Comm’n Apr. 23, 1999) (Analysis to Aid Public Comment and Commissioner Statements) and Intergraph Corp. v. Intel Corp., 195 F.3d 1346 (Fed. Cir. 1999). For an economic model that explains “the theoretical rationale for the contrast between Intel’s stated concern for complementors and its inability to fully commit not to behave aggressively towards them,” see David Miller, *Invention Under Uncertainty and the Threat of Ex Post Entry* (June 20, 2003), at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=319180 (last visited Oct. 29, 2003). See also Farrell & Katz, *supra* note 56.

124. For example, consider competition when a platform monopoly such as an incumbent local exchange company (“ILEC”) charges an “access charge” above marginal cost to its downstream rivals (for example, long-distance providers). If demand is totally inelastic, ICE implies that no imputation rule is necessary to ensure that the ILEC should charge itself the same access charge as it charges rivals. See, e.g., Farrell, *supra* note 71, at 423. In our experience, however, this “opportunity cost argument” is not obvious to policymakers, businesspeople, or even distinguished economists.

125. See Kaplow, *supra* note 83, at 548–49 (“[O]ne might argue that even if a leveraging strategy is unprofitable or doomed to complete failure in the long run, many firms cling to a misguided belief that they can succeed.”).

126. Some courts have acknowledged this possibility. For example, the court in *Time Warner Entertainment Co. v. FCC* noted that a company may be “reluctant to ditch or curtail an inefficient in-house operation because of the impact on firm executives or other employees, or the resulting spotlight on management’s earlier judgment.” 240 F.3d 1126, 1138 (D.C. Cir. 2001). Such resistance to change might be rational for individual managers wanting to avoid the detection of their own mistakes, but irrational for the company as a whole, which would suffer from the lack of superior applications for its platform product. In economics, this is called a “principal-agent” problem.

127. See, e.g., Bruce T. Allen, *Vertical Integration and Market Foreclosure: The Case of Cement and Concrete*, 14 J. L. & ECON. 251, 270–72 (1971) (offering this explanation for vertical integration).

complement.¹²⁸ Incumbents may fail to imagine the potential benefits of increased competition in the market for applications, and thus fail to implement modularity even when it would spur greater innovation and thus increase their platform profits.

ICE's insights for business strategy may be particularly hard to see for industries emerging from a regulated environment of end-to-end service.¹²⁹ ICE-aware business commentators have argued that the customer relationship business, the product innovation business, and the infrastructure business can be "unbundled" from one another to great efficiency benefits,¹³⁰ but that regulated incumbent firms often miss this opportunity.¹³¹ Thus, two commentators claim that the local telephone companies have "deliberately limited the growth and profitability of their infrastructure businesses to protect their customer relationship businesses."¹³²

ICE-savvy commentators also argue that Apple erred in the early 1980s by not licensing its operating system so that others could build computer systems around it.¹³³ Apple had developed an operating system widely viewed as better than Microsoft's MS-DOS (which IBM and others licensed),¹³⁴ but thought it could make more money by

128. This recalls Mao Tse-Tung's famous adage: "Let a hundred flowers bloom, let a hundred schools of thought contend." THE ENCYCLOPEDIA OF WORLD HISTORY (Peter N. Stearns ed., Houghton Mifflin CD-ROM 6th ed. 2001), available at <http://www.bartleby.com/67/4149.html> (last visited Nov. 30, 2003). For explorations of the economics of innovation and diversity, see Raaj Kumar Sah & Joseph E. Stiglitz, *The Invariance of Market Innovation to the Number of Firms*, 18 RAND J. ECON. 98 (1987) and Joseph Farrell et al., *Market Structure, Organizational Structure, and R&D Diversity*, in ECONOMICS FOR AN IMPERFECT WORLD (Richard Arnott et al. eds., 2003).

129. See Clifford Winston, *U.S. Industry Adjustment to Economic Deregulation*, J. ECON. PERSP., Summer 1998, at 89, 89 (stating that, under the influence of regulation, "managers and employees of regulated firms settle into patterns of inefficient production and missed opportunities for technological advance and entry into new markets"); *id.* at 98 (noting that it takes time for the management of formerly regulated monopolists to move to a more entrepreneurial culture).

130. See John Hagel III & Marc Singer, *Unbundling the Corporation*, MCKINSEY Q., 2000, No. 3, at 148, available at <http://www.optimizemagazine.com/mckinsey/2002/0408.htm> (last visited Oct. 29, 2003).

131. See *id.* This concern underlies the much-discussed proposal of imposing a wholesale-retail separation of the incumbent local telephone providers' operations. For debate on this, compare Beard et al., *supra* note 67, at 421 (2002) with Robert W. Crandall & J. Gregory Sidak, *Is Structural Separation of Incumbent Local Exchange Carriers Necessary for Competition?*, 19 YALE J. ON REG. 335 (2002).

132. Hagel & Singer, *supra* note 130, at 154.

133. See Charles R. Morris & Charles H. Ferguson, *How Architecture Wins Technology Wars*, HARV. BUS. REV., Mar.-Apr. 1993, at 86, 90 (noting how Apple's refusal to open the Macintosh platform hurt it in the marketplace); see also Joseph Farrell, *Standardization and Intellectual Property*, 30 JURIMETRICS J. 35, 42 (1989) ("As the IBM PC experience reminds us, moreover, a technology may be much more likely to set a standard if its owner chooses to renounce at least part of the prospective proprietary gains, by making the system 'open' or by widespread licensing."); Joseph Farrell & Nancy Gallini, *Second Sourcing as a Commitment: Monopoly Incentives to Attract Competition*, 103 Q. J. ECON. 673 (1988).

134. See Stanley M. Besen & Joseph Farrell, *Choosing How to Compete: Strategies and Tactics in Standardization*, J. ECON. PERSP., Spring 1994, at 117, 118.

bundling the operating system with its own computers. Thus, considered as an operating system platform provider, Apple bet on its own production and distribution channel rather than on a competitive hardware sector. Whether it failed to see that it was making this bet or simply overrated its hardware and distribution prowess, Apple lost the chance to be the leading producer of operating systems, realizing too late that it would have done better to promote an open architecture.¹³⁵

If incumbents do not always fully understand ICE, what policy implications follow? Sensibly, public policy does not normally let courts or regulators tell a business how to maximize its profits.¹³⁶ Similarly, the antitrust laws and regulatory policy generally do not seek to correct business strategy failures.¹³⁷ Although we agree with this reluctance to second-guess platform providers' calculations of their best interests, one lesson does follow: the less we can count on a monopolist to be efficient even on its own terms, the more we should value platform-level competition, perhaps especially diverse competition.¹³⁸ In the case of Apple, for example, the presence of a rival platform protected customers; it also made the punishment for Apple's error more striking and more visible. Even monopolists who fail to understand ICE are punished with lower profits, but the punishment is sharper or at least more visible when there is competition among platforms. Thus, the arcane complexities of ICE and its implications boost the (already strong) case for platform-level competition.¹³⁹

If, as Judge Posner claims, an economics-based approach has won in antitrust,¹⁴⁰ we urge that this salutary triumph be leavened by recognizing that competition protects not only against powerful firms with bad incentives (on which economics-based antitrust mainly focuses), but also against powerful firms with incompetent or dishonest management. When a firm fails to optimize modularity (or anything else) in a fully competitive industry, its shareholders suffer, but customers broadly do not. When a monopoly fails to do so, however, cus-

135. On the inferiority of Apple's strategy, see Langlois & Robertson, *supra* note 43, at 308–12.

136. For example, the “business judgment rule” used in corporate law instructs courts not to substitute their judgment for business decisions in assessing liability, provided that the decision at issue “can be attributed to any rational business purpose.” See *Sinclair Oil Corp. v. Levien*, 280 A.2d 717, 720 (Del. 1971).

137. See William Baxter, *Legal Restrictions on Exploitation of the Patent Monopoly: An Economic Analysis*, 76 *YALE L.J.* 267, 318 (1966) (rejecting use of “antitrust laws to assure that private economic interests are perceived correctly”); Kaplow, *supra* note 83, at 549 (stating that the “purpose of the antitrust laws is not to improve the effectiveness of management”).

138. The importance of such competition is elaborated in Weiser, *supra* note 57.

139. In evaluating, for example, mergers between platform providers, antitrust enforcers should be mindful of the competitive impact related to the loss of rival platforms and the associated experimentation that arises from such platform diversity.

140. See POSNER, *ANTITRUST LAW*, *supra* note 68, at ix.

tomers often suffer. Antitrust and regulation should thus aim to protect against incompetent monopolies as well as against rapacious ones.

F. Option Value

Perversely, fear of access regulation may itself discourage a firm from opening its platform. After a monopolist allows open access to its platform, it may not later be allowed to pursue a closed or fully integrated strategy. Under current antitrust jurisprudence, for example, a firm is far more likely to get into trouble for closing a previously open platform than for never opening it in the first place.¹⁴¹ Some commentators and judges have noted the adverse ex ante effect of imposing liability for changing a cooperative practice and have cautioned courts against imposing such liability,¹⁴² but the fear of such liability will not dissipate any time soon. Consequently, a firm may keep its platform closed even if opening it would be more profitable, if the option value of later being able to close it is important.

Thus, suppose that the platform provider can extract \$10 of profits per customer in applications by monopolizing that market and knows the demand for its platform that will result, but is uncertain about how much more valuable the platform would be to its customers if applications were competitively supplied. Suppose in particular that the firm thinks it equally likely that customers will value the platform at only \$6 more (the advantages of applications competition are small) or that customers will value the platform at \$12 more (competitively supplied applications are very valuable). Then the efficient path, which also (as in ICE) maximizes the firm's overall profits, is to open the platform initially, learn how much customers value that openness, and leave it open if customers turn out to value open competition in applications at \$12, but close it and take over the applications market if they turn out to value openness at only \$6.

But if that path is prohibited (or will attract antitrust liability), the firm must choose between opening the market forever and keeping it closed. Note that an equal chance of a \$6 or \$12 boost to platform demand (from applications competition) is worth less than the \$10 applications profits. Therefore, if denied the option to close the plat-

141. See, e.g., *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, 472 U.S. 585, 603 (1985); *Eastman Kodak Co. v. Image Technical Servs., Inc.*, 504 U.S. 451, 483 (1992). For a sense of the debate over these cases, compare Dennis W. Carlton, *A General Analysis of Exclusionary Conduct and Refusal to Deal — Why Aspen and Kodak Are Misguided*, 68 ANTITRUST L.J. 659, 668–71 (2001) (criticizing these cases) with Jonathan B. Baker, *Promoting Innovation Competition Through the Aspen/Kodak Rule*, 7 GEO. MASON L. REV. 495, 501–02 (1999) (endorsing these cases).

142. See, e.g., *Olympia Equip. Leasing Co. v. W. Union Tel. Co.*, 797 F.2d 370, 376 (7th Cir. 1986).

form later (should customers value openness at only \$6), the firm will inefficiently close the platform *ab initio*.¹⁴³

G. Regulatory Strategy Considerations

A second “iatrogenic”¹⁴⁴ exception to ICE arises if a firm thinks allowing open access in one context will increase its regulatory duties elsewhere. For instance, a broadband transport provider might refuse to open its platform even where open access increases its profits, because it does not want to risk having to provide access elsewhere. Thus, competitive provision of broadband Internet service might add value to a cable broadband transport product, but in another, related market — say, video content — competitive providers will hurt the cable company’s core product offering. If the company believed that opening up its pipe to ISPs would make it substantially more likely to have to open up to video providers, it might rationally resist open access even for ISPs. Similarly, it is unclear why AT&T would have disliked the Hush-A-Phone itself, but it might well have feared that welcoming it would have created a precedent for other attachments. In this way, the likely response of law and regulation can affect a firm’s stance toward modularity.

Some firms may be more inclined than others to believe that “their” regulators will extrapolate across markets. Certainly, regulators do sometimes do so, using benchmarking between regional monopolists in devising public policy.¹⁴⁵ Thus, in the cable market, they may seek to preserve cable firms with different sets of assets or business strategies on the view that some cable firms will be more willing than others to experiment with open access arrangements.

143. A version of ICE survives: with the efficient path unavailable, the firm chooses efficiently among those that remain. But this may be cold comfort to both the firm and the rest of society.

144. This term literally means “induced in a patient by a physician’s activity, manner, or therapy.” AMERICAN HERITAGE DICTIONARY 867 (4th ed. 2000), available at <http://dictionary.reference.com/search?q=iatrogenic> (last visited Oct. 29, 2003).

145. This rationale underlaid the creation of different regional companies as part of the AT&T consent decree. See *United States v. W. Elec. Co.*, 993 F.2d 1572, 1580 (D.C. Cir. 1993) (“[T]he existence of seven [Bell Companies] increases the number of benchmarks that can be used by regulators to detect discriminatory pricing . . . in evaluating compliance with equal access requirements . . .”). Similarly, in approving the SBC/Ameritech merger, the FCC recognized lost benchmarking opportunities as a harm caused by the merger. See *Ameritech Corp.*, 14 F.C.C.R. 14712, ¶ 5 (1999) (Memorandum Opinion and Order) (“The merger will substantially reduce the Commission’s ability to implement the market-opening requirements of the 1996 Act by comparative practice oversight methods.”). In that proceeding, one of us (Farrell) made this very argument on behalf of Sprint Corporation. Note that differences among regional monopolies may be what causes them to choose different strategies, so it is arguable whether regulators should be willing, a priori, to impose on one monopoly what another seemingly similarly situated one finds acceptable.

H. Incomplete Complementarity

If applications can be valuable without the platform, platform providers may profit by monopolizing the applications market. As Michael Whinston has explained, this exception to ICE arises where (1) the platform is not essential for all uses of the application (creating the incentive), and (2) there are economies of scale or network effects in the application (creating the opportunity).¹⁴⁶ Consider for instance a restaurant on a beach resort that some travelers visit for day trips, while others stay for a week. A monopolist hotel might profitably bundle the complement (meals) with its core offering (rooms) if doing so would foreclose the restaurant market to rivals. As ICE insists, raising the price of meals lowers longer-stay visitors' willingness to pay for rooms (if they know about it before booking), but part of the profits on meals will be extracted from day-trippers and of course the higher meal prices cannot reduce their demand for rooms.

In the information industries there are often strong complementarities between platforms and applications, so we have assumed in our exposition that applications are strict complements with the platform. In reality, however, an application for one platform — say, broadband transport — may also be useful for another — say, narrowband transport — and this may lead the broadband transport provider to try to control the applications market. Thus, this exception could prove important.

V. LESSONS FROM ICE AND ITS EXCEPTIONS, AND TOWARDS A COGENT FRAMEWORK FOR OPEN ACCESS POLICIES

As discussed in Part III, modern antitrust generally supposes that ICE is broadly right with limited and fairly easily diagnosed exceptions, and thus usually permits even dominant firms to make their own vertical choices. Courts and commentators have often heeded the basic ICE argument for skepticism about claims that a monopolist would “leverage” its primary monopoly into a second market,¹⁴⁷ but have often adopted a simplistic form of this logic that does not fully address ICE's exceptions.

In contrast, as telecommunications policy moved away from its disposition toward regulated integration, it turned sharply toward mandating modularity or “openness.” The Hush-A-Phone and Carter-

146. See Michael D. Whinston, *Tying, Foreclosure, and Exclusion*, 80 AM. ECON. REV. 837, 850–55 (1990).

147. See, e.g., *G.K.A. Beverage Corp. v. Honickman*, 55 F.3d 762, 767 (2d Cir. 1995) (“Once having achieved the alleged bottling monopoly, therefore, appellees' sole incentive is to select the cheapest method of distribution.”); *Advo, Inc. v. Phila. Newspapers, Inc.*, 51 F.3d 1191, 1203 (3d Cir. 1995) (arguing that leveraging theory “makes no sense”).

fone decisions, followed by the breakup of the Bell System and the Telecom Act's unbundling provisions, reflect this shift.

Thus, some take ICE very seriously, others take its exceptions very seriously,¹⁴⁸ but few integrate the two in a sophisticated manner. In light of this divide, a central question is whether ICE is the rule, with relatively rare or minor exceptions, or whether ICE is actually the exception.¹⁴⁹ This Part discusses how ICE and its exceptions can help frame and evaluate open access obligations.

In traditional telecommunications markets, the monopoly platform was generally price-regulated, and Baxter's Law provides that ICE does not apply to regulated monopolies.¹⁵⁰ And the Telecom Act's unbundling obligations can be viewed and justified within this tradition. In particular, the Act's ambitious effort to regulate "bottle-neck" wholesale inputs, such as the local lines to residential telephone subscribers, aims in part to replace the legacy system of retail regulation.¹⁵¹ But increasingly, as with broadband platforms, telecommunications regulators confront arguments for open access regulation where the market is not generally price-regulated. To address such arguments in a fashion that is consistent with antitrust policy, policy-makers must understand the different regulatory tools for facilitating modularity, the difficult tradeoffs in developing a regulatory regime, and the possible regulatory philosophies for addressing the issue. This Part addresses each issue in turn.

A. Regulatory Strategies to Facilitate Modularity

When a regulator believes (despite ICE) that modularity is both efficient and yet threatened by actual or potential vertical integration, it may seek a remedy. Competitive remedies are often divided into "structural measures" and "conduct remedies."¹⁵² Antitrust law tends

148. For two classic responses to Chicago School thinking, see Lawrence A. Sullivan, *Section 2 of the Sherman Act and Vertical Strategies by Dominant Firms*, 21 SW. U. L. REV. 1227 (1992) and Kaplow, *supra* note 83.

149. See Herbert Hovenkamp, *Post-Chicago Antitrust: A Review and Critique*, 2001 COLUM. BUS. L. REV. 257, 278–79 ("The principal difference between Chicago and post-Chicago economic analysis is" the prevalence in the latter of "a complex set of assumptions about how a market works, [which make] anticompetitive outcomes seem more plausible."); see also POSNER, *supra* note 68, at 194–95 (maintaining that policy deviations from ICE should be the exception, not the rule). Some "die-hard" Chicagoans believe that vertical arrangements can never have anticompetitive effects (i.e., they believe that there are no exceptions to ICE), but the heavy weight of economic opinion agrees that vertical integration and vertical market restrictions can injure competition in certain cases. See Posner, *supra* note 96, at 932 (discussing "die-hard" Chicagoans who refuse to accept subsequent refinements of early Chicago School ideas).

150. See Joskow & Noll, *supra* note 40, at 1249–50.

151. For a description of the Telecom Act's market opening strategy, see Philip J. Weiser, *Federal Common Law, Cooperative Federalism, and the Enforcement of the Telecom Act*, 76 N.Y.U.L. REV. 1692, 1733–67 (2001).

152. See Shelanski & Sidak, *supra* note 110, at 15–16.

to favor structural measures, both to avoid enmeshing itself in closely regulating behavior and to get at the heart of the incentive and opportunity for the unlawful conduct.¹⁵³ Nonetheless, as demonstrated during the debates over remedy in the *Microsoft* case, structural remedies pose their own risks, which may ultimately dispose even antitrust courts towards conduct relief.¹⁵⁴

The classic and pure structural remedy is a “quarantine” that forbids the platform monopolist from participating in the applications sector. For those who distrust a platform monopolist’s stewardship of an applications market, and yet also doubt regulators’ ability to stop anticompetitive behavior by other means, this approach remains a favored option.¹⁵⁵ But it precludes (by definition) any integrative efficiencies.¹⁵⁶ In addition, unless the platform/applications boundary is clean and natural, a quarantine risks becoming clumsy and artificial, as (some have argued) the quarantine imposed on the Bell Companies under the AT&T consent decree illustrates.¹⁵⁷

Recognizing such problems, regulators sometimes try to get the best of both worlds, allowing the platform provider to integrate but trying to ensure that it not abuse its position. The aim is to limit the platform monopolist’s behavior in the applications market only to activities associated with integrative efficiency. A fundamental problem with such best-of-both-worlds regulatory strategies is that it is difficult to know whether the anticompetitive effects of a particular approach will outweigh the efficiencies it generates; by and large, stricter rules against anticompetitive problems also risk greater collateral damage to the integrative efficiencies that presumably motivated the rejection of a quarantine. Nonetheless, regulators often seek to develop compromise approaches between quarantine and vertical *laissez-faire*.

153. See, e.g., *United States v. AT&T*, 552 F. Supp. 131, 193 n.251 (D.D.C. 1982), *aff’d sub nom.* *Maryland v. United States*, 460 U.S. 1001 (1983) (recognizing core economic incentives for anticompetitive conduct and discussing the limitations of antitrust courts in superintending regulatory relief).

154. See, e.g., Shelanski & Sidak, *supra* note 110, at 73–90 (examining the weaknesses of divestiture relief in the *Microsoft* case).

155. See, e.g., Charles H. Ferguson, *The United States Broadband Problem: Analysis and Policy Recommendations*, at 1, 6–8 (Brookings Inst., Policy Brief #105, July 2002), at <http://www.brookings.edu/comm/policybriefs/pb105.pdf> (last visited Oct. 29, 2003).

156. Restrictions on entry may well limit competition in the applications market, but because of the possible countervailing effect, this is not a certainty.

157. See *United States v. AT&T*, 552 F. Supp. 131, 227 (D.D.C. 1982), *aff’d sub nom.* *Maryland v. United States*, 460 U.S. 1001 (1983) (forbidding the Bell Companies from “provid[ing] interexchange telecommunications services or information services”). For the argument that this quarantine reflected an artificial distinction between local and long-distance telecommunications services, see Mark A. Jamison, *Competition in Networking: Research Results and Implications for Further Reform*, 2002 L. REV. M.S.U.-D.C.L. 621, 622–23.

One intermediate option is a structural separation requirement. Under the Telecom Act, for example, the Bell Companies may enter the long-distance market once certain conditions are met, but must do so through a structurally separate entity.¹⁵⁸ This form of regulation does not necessarily change a firm's ability to discriminate against rivals, but aims to make such discrimination easier to detect and prevent by requiring the firm to deal with its own affiliate at arm's length. This approach may require policing equal access arrangements and overseeing the management of the separate subsidiary (including the imputation of any access charges).¹⁵⁹

Other intermediate approaches do not control scope or structure, but order the platform provider not to discriminate in certain ways, contrary (presumably) to its assessed incentives. Conduct remedies try to control behavior directly, often requiring ongoing supervision by a regulator or court.¹⁶⁰ Non-structural remedies also include mandated unbundling and compatibility.¹⁶¹

Mandated unbundling requires an integrated platform provider to offer the platform without (at least some of) its applications. In its simplest form, mandated unbundling is meant to protect applications competition even for a monopoly platform. When regulators fear that an integrated platform provider will inefficiently hinder independent applications on its platform — presumably because of an exception to ICE — they may mandate that the platform product be truly open to independent applications on terms comparable to those (perhaps only implicitly) given by the platform provider “to itself.”

Telecommunications regulators used an unbundling strategy to facilitate competition in the terminal equipment (applications) market

158. See 47 U.S.C. § 272 (2003).

159. See, e.g., Amendment of Section 64.702 of the Commission's Rules and Regulations (Second Computer Inquiry), 77 F.C.C.2d 384, ¶ 205 (1980) (Final Decision) (detailing measures imposed on telephone companies to facilitate monitoring of structurally separated subsidiaries) [hereinafter Computer II], *aff'd sub nom.* Computer & Communications Indus. Ass'n v. FCC, 693 F.2d 198 (D.C. Cir. 1982).

160. See, e.g., *Roland Mach. Co. v. Dresser Indus., Inc.*, 749 F.2d 380, 391–92 (7th Cir. 1984) (Posner, J.); see also Ken Auletta, *Final Offer*, THE NEW YORKER, Jan. 15, 2001, at 40, 43 (quoting Chief Judge Posner, mediator in the *Microsoft* case, as stating that conduct remedy-based consent decree provisions must be “sufficiently clear to be judicially administrable and that (even if clear) they would not impose an undue administrative burden on the district court, which would have to administer the decree”).

161. For ease of exposition, we use the general term “open access” to describe all measures that require the platform provider to deal with other firms with whom it might otherwise choose not to deal. Some suggest that there is little need to parse the term more narrowly, but, like most commentators, we believe that the approaches discussed above are worth analyzing separately. Compare Lemley & Lessig, *supra* note 10, at 969 n.139 (quarreling with the suggestion that interconnection regulation and unbundling regulation are distinct approaches) with Gerald R. Faulhaber, *Access ≠ Access1 + Access2*, 2002 L. REV. M.S.U.-D.C.L. 677 (making this distinction), Speta, *supra* note 14, at 252 (same), Weiser, *supra* note 10, at 826 (same), and Joseph D. Kearney & Thomas W. Merrill, *The Great Transformation of Regulated Industries Law*, 98 COLUM. L. REV. 1323, 1350–57 (1998) (same).

by defining an interface to AT&T's telephone network (the platform), and permitting all customer premises equipment compatible with that interface and with certain requirements to plug into the network.¹⁶² Similarly, MCI demanded and won the right to compete against AT&T in the long-distance component (an application) of a long-distance call,¹⁶³ complementing the Bell System's provision of local exchange access (the platform, or the first and last miles of such a call). In these cases, the exception to ICE was Baxter's Law, and the goal of unbundling was to protect competition in applications, which regulators thought likely to be efficient notwithstanding AT&T's opposition. And the Telecom Act's unbundling provisions¹⁶⁴ are in part intended to ensure competition in the parts of the network that have the potential to sustain competition, despite whatever natural monopoly network elements remain. Again, Baxter's Law disarms ICE.

In the antitrust realm, the Ninth Circuit required Kodak to cooperate with independent providers of service (applications) for its copiers (the platform).¹⁶⁵ Similarly, the FTC required AOL Time Warner to offer broadband transport (the platform) separately from Internet access (applications) and to cooperate with independent Internet access providers. To regulate this requirement, the FTC relied on a benchmark arrangement between AOL Time Warner and Earthlink and appointed a monitor to oversee other such arrangements.¹⁶⁶ In the *Kodak* case, the exception to ICE was a concern that Kodak had engaged in a hold-up strategy; by contrast, in the AOL matter, the FTC did not clearly identify any exception to ICE.

As the AT&T antitrust litigation and Telecom Act examples illustrate, unbundling often (though not always, as the CPE example shows) requires both complex regulation and difficult price-setting.¹⁶⁷ Because of this requirement and because most antitrust problems do not confront Baxter's Law, antitrust commentators are often skeptical of unbundling policies.

Antitrust is, however, open to unbundling remedies when the potential competition exception to ICE applies, as our discussion of the

162. See Proposals for New or Revised Classes of Interstate and Foreign Message Toll Telephone Service (MTS) and Wide Area Telephone Service (WATS), 56 F.C.C.2d 593, ¶ 16 (1975) (First Report and Order), *modified by* 58 F.C.C.2d 716 (1976) (Memorandum Opinion and Order), *modified by* 58 F.C.C.2d 736 (1976) (Second Report and Order), *aff'd sub nom.* N.C. Utils. Comm'n v. FCC, 552 F.2d 1036 (4th Cir. 1977).

163. See *MCI Communications v. AT&T*, 708 F.2d 1081, 1105 (7th Cir. 1983).

164. 47 U.S.C. §§ 251–52 (2003).

165. See *Image Technical Servs. v. Eastman Kodak Co.*, 125 F.3d 1195, 1224–28 (9th Cir. 1997).

166. See Faulhaber, *supra* note 161, at 684–85.

167. As Justice Breyer explained, forced sharing regimes risk undermining investment incentives if prices for the shared facilities are set too low, and create considerable administrative costs if the regime is ambitious. See *AT&T v. Iowa Utils. Bd.*, 525 U.S. 366, 427–30 (1999) (Breyer, J., concurring in part and dissenting in part).

General Electric case above shows. If complementors are important in providing potential platform competition, then unbundling may be required so as to increase the chance of such competition. In the *Microsoft* case, for example, the DOJ sought and obtained a judicially overseen regime for how Microsoft manages the APIs for its Windows operating system. In particular, the court imposed regulations aimed to ensure that rival “middleware applications” can be as compatible with Microsoft’s Windows operating system as are Microsoft’s applications.¹⁶⁸ The *Microsoft* remedy aims to restore the chance of platform competition indirectly facilitated by independent middleware. Likewise, the Telecom Act’s unbundling provisions are meant in part as stepping stones for the many-level entry otherwise required in order to compete against the platforms of incumbent local exchange providers.

As in the CPE example, an unbundling remedy may require regulators to ensure that technical interface standards allow independent complementors to work with the platform. A different set of policies, directed at platform-level competition, also involve compatibility mandates. Such mandates can help make “small” platforms more effective competitors when economic network effects are important.¹⁶⁹ Regulators can flatly require compatibility or establish a right for any firm (or only for non-dominant firms) to request or ensure it.¹⁷⁰ The relevant kind of compatibility depends on the nature of the network effects.

Network effects sometimes arise directly from the size of a platform’s customer base, in which case a compatibility mandate should ensure *access to customers*, requiring firms to share the benefits of their combined customer networks, even if one firm contributes the majority of customers. For example, with instant messaging, the value of the service rises as a subscriber can communicate with more users. In a compatibility mandate in that market, the FCC required AOL, as part of a merger approval, to develop an interoperable instant messaging system.¹⁷¹ Similarly, the Telecom Act requires every telecommu-

168. *United States v. Microsoft Corp.*, 231 F. Supp. 2d 144 (D.D.C. 2002).

169. Economists describe a greater value of a larger network as a “network effect.” For an overview, see Joseph Farrell & Paul Klemperer, *Coordination and Lock-In: Competition with Switching Costs and Network Effects*, in 3 HANDBOOK OF INDUSTRIAL ORGANIZATION (Mark Armstrong & Robert Porter eds., forthcoming 2004) (on file with authors) and Mark A. Lemley & David McGowan, *Legal Implications of Network Economic Effects*, 86 CAL. L. REV. 479 (1998).

170. On rights of reverse engineering to ensure compatibility, for instance, see Pamela Samuelson & Suzanne Scotchmer, *The Law and Economics of Reverse Engineering*, 111 YALE L.J. 1575 (2002).

171. See Applications for Consent to the Transfer of Control of Licenses and Section 214 Authorizations by Time Warner Inc. and America Online, Inc., Transferors, to AOL Time Warner Inc., Transferee, 16 F.C.C.R. 6547, ¶¶ 191–200 (2001) (Memorandum Opinion and Order); see also Faulhaber, *supra* note 161, at 704–05 (discussing the interoperability mandate).

nications provider to terminate calls to its subscribers from other providers, thus “socializing” the network effect.¹⁷²

In other cases the network effect arises from a greater variety of complements available for a particular platform — an example is the “applications barrier to entry” in the *Microsoft* case.¹⁷³ To address such a network effect, a compatibility requirement may be imposed that reduces porting costs and thus ensures that applications written for one platform are readily available on others. An extreme compatibility requirement would make the platform/applications interface public and common, and thus modularize the market.

B. Considerations for Regulatory Policy

Our analysis suggests that regulators should consider two basic questions: whether an exception to ICE exists, and, if this seems likely, how well the regulator can address the competitive harms that might result. A regulatory regime that addresses both questions will minimize the opportunity for anticompetitive conduct while also being less apt to chill efficient conduct. This Section will discuss each consideration in turn.

In assessing possible exceptions to ICE, regulators should consider error costs. Courts are accustomed and explicitly instructed to weigh error costs, for instance as part of a preliminary injunction inquiry.¹⁷⁴ Moreover, the law has adopted a number of doctrinal devices to guard against false positives, which, in antitrust, include the opportunity for a monopolist to offer an efficiency explanation for challenged conduct.¹⁷⁵ Error costs include both “false positives” and “false negatives.” Some Chicago School commentators argue that policymakers should worry less about false negatives, because the marketplace can ultimately address regulatorily unremedied market power abuses whereas ill-conceived regulation faces no such self-correcting mechanism.¹⁷⁶

172. For discussion and an analogy to intellectual property policy, see Joseph Farrell, *Creating Local Competition*, 49 FED. COMM. L.J. 201, 202–04 (1996).

173. See *United States v. Microsoft Corp.*, 84 F. Supp. 2d 9, 18–23 (D.D.C. 1999).

174. See, e.g., *Am. Hosp. Supply Co. v. Hosp. Prods. Ltd.*, 780 F.2d 589, 593 (7th Cir. 1986) (noting that harm calculations should account for the probability of error); see also Frank H. Easterbrook, *The Limits of Antitrust*, 63 TEX. L. REV. 1, 3 (1984) (“[J]udicial errors that tolerate baleful practices are self-correcting while erroneous condemnations are not.”); William F. Baxter, *Reflections upon Professor Williamson’s Comments*, 27 ST. LOUIS U. L.J. 315, 320 (1983) (urging courts to be mindful of “error rates” and “false positives” in judging exclusionary conduct).

175. See Baker, *supra* note 141, at 518.

176. For an example of the debate on this score, compare Salop & Romaine, *supra* note 82, at 653–55 (discussing varying perspectives on the relative degree of harm associated with false positives and false negatives) with Ronald A. Cass & Keith N. Hylton, *Preserving Competition: Economic Analysis, Legal Standards, and Microsoft*, 8 GEO. MASON L. REV. 1, 30–33 (1999) (arguing that false positives are more harmful than false negatives).

Regulators should also evaluate how well they can address any identified anticompetitive conduct. As antitrust law recognizes, not all marketplace harms are easily remediable. Professor Donald Turner first made this point in regard to the difficulty of policing tacit collusion between oligopolists,¹⁷⁷ and remediability concerns continue to figure prominently in debates over whether and how antitrust law can address single-firm conduct, as in the *Microsoft* case.¹⁷⁸ In the regulatory arena, this concern is both less pronounced — as regulatory bodies have greater resources than courts — and also less well considered. Remedies can also have unintended negative side effects.¹⁷⁹ Remedies should aim to avoid chilling efficient conduct, creating large administrative costs, or allowing opportunities for rivals to engage in strategic behavior. One guard against overbroad regulatory remedies is to ask whether less intrusive measures could be equally effective at addressing the harmful conduct.

C. Regulatory Philosophies

Our analysis suggests three basic models for the regulation of vertical relations. Each of these models ultimately converges with antitrust policy by taking account of integrative efficiencies, appreciating the logic of ICE, and acknowledging its exceptions, but each proceeds from different basic premises. In particular, the models differ in their presumptions about the reliability of assessing claimed exceptions to ICE, about the importance of vertical efficiencies, and about the FCC's ability to administer vertical regulation.¹⁸⁰

In the model closest to antitrust practice, the FCC could intervene only after careful investigation compellingly shows that ICE fails along the lines of an analytically coherent exception, and that the benefits of regulation likely outweigh its costs.¹⁸¹ This model thus expects that exceptions to ICE can be fairly reliably diagnosed or predicted (placing the burden on the regulator to overturn the presump-

177. See Donald F. Turner, *The Definition of Agreement Under the Sherman Act: Conscious Parallelism and Refusals to Deal*, 75 HARV. L. REV. 655, 671 (1962).

178. See Weiser, *supra* note 39, at 14–21.

179. In criticizing the finsyn rules, Judge Posner made this very argument. See *Schurz Communications, Inc. v. FCC*, 982 F.2d 1043, 1045–48 (7th Cir. 1992).

180. Of course, these models could be used not only to consider new regulation but also to consider removing old regulations in light of changed market conditions or new economic learning. In some recent decisions, the Commission has lifted restrictive regulations based on this very logic. See Policy and Rules Concerning the Interstate, Interexchange Marketplace, 16 F.C.C.R. 7418, ¶¶ 10, 34, 35 (2001) (Report and Order) [hereinafter *Unbundling Order*].

181. One of us has advocated this approach previously. See Philip J. Weiser, *Changing Paradigms in Telecommunications Regulation*, 71 U. COLO. L. REV. 819, 835 (2000); see also *W. Res., Inc. v. Surface Transp. Bd.*, 109 F.3d 782, 788 (D.C. Cir. 1997) (noting that the Surface Transportation Board took roughly this approach).

tion that ICE applies), and that regulators are reasonably good at predicting, or diagnosing and correcting, their own failures.¹⁸²

The two other models, while differing in substance, both reflect pessimism about regulators' ability to diagnose exceptions to ICE. Such pessimism is hardly unreasonable, since some of the exceptions sketched above might be genuinely widespread, and yet might be colorably asserted even where they do not really arise. One response to such pessimism could be a categorical protection of modularity, as advocated by some commentators.¹⁸³ An opposite response is a categorical presumption that ICE applies, as in a hard-line Chicago approach. Stating the strategies in this manner suggests a helpful way to frame the contrast between an open architecture strategy and the Chicago School approach. Some Chicago scholars appear to trust ICE more than they trust imperfect regulators or courts to diagnose its exceptions.¹⁸⁴ Open architecture advocates, such as Lawrence Lessig, appear to trust the history and future prospects of successful innovation through modularity more than they trust either ICE or regulators' ability to diagnose its exceptions.

VI. THE FRAMEWORK IN ACTION

Agencies and courts are often asked to decide what vertical conduct should be regulated. ICE and its exceptions, as well as the considerations noted above, can help them towards a sophisticated and consistent treatment of platform monopolists.¹⁸⁵ Such sophistication

182. Such rules would thus focus on "readily observable conduct whose presence or absence is highly correlated with a conclusion a court would reach were it to conduct a full analysis." Baker, *supra* note 141, at 496.

183. See, e.g., Francois Bar et al., *Access and Innovation Policy for the Third Generation Internet*, 24 TELECOMM. POL'Y 489, 496 (2000) (insisting that "open access to the network led to rich experimentation by many actors whose ideas had previously been excluded from shaping network evolution"). This categorical protection might also rely on two arguments that telecommunications uniquely justifies regulatory oversight that deviates from the logic of ICE's suggestion that platform providers can be trusted. First, network industries might create greater incentives for predatory strategies, particularly those that would raise entry barriers. See A. Douglas Melamed, *Network Industries and Antitrust*, 23 HARV. J.L. & PUB. POL'Y 147, 149–52 (1999) (suggesting this possibility). Second, telecommunications networks — as platforms for transporting ideas — might warrant open access not based on competition policy, but on First Amendment values.

184. A compatible argument, based on Joseph Schumpeter's theory of creative destruction, is that successive battles for dominance mean that any market power gained through predatory tactics will only be temporary and thus not worth addressing. See, e.g., Shelanski & Sidak, *supra* note 110, at 10–12 (discussing Schumpeterian competition, in which "firms compete through innovation for temporary market dominance, from which they may be displaced by the next wave of product advancements"); see also Richard Schmalensee, *Antitrust Issues in Schumpeterian Industries*, 90 AMER. ECON. REV. PAP. & PROC. 192, 195 (2000) (discussing Schumpeterian competition between Microsoft and Netscape in the Internet browser market).

185. Such treatment would not only mean better results, but also a reduction in regulatory uncertainty and its associated impact on investment incentives. See Warren G. Lavey, *Mak-*

will aid courts in addressing what the *Microsoft* court aptly identified as the central challenge of competition policy: “distinguishing between exclusionary acts, which reduce social welfare, and competitive acts, which increase it.”¹⁸⁶ To demonstrate the insights derived from this framework, this Part evaluates the recent antitrust litigation against Microsoft, the history of the Computer Inquiries, and the proposal for network neutrality of broadband platforms.

A. *Microsoft*

The antitrust litigation against Microsoft underscores both the substantive importance of ICE and the procedural considerations discussed above. Substantively, the Justice Department’s case against Microsoft relied on the potential competition exception to ICE. The DOJ developed evidence that Microsoft itself and others in the industry viewed the development of strong independent “middleware” as a threat to Microsoft’s monopoly in operating systems.¹⁸⁷ In addition, whether or not the DOJ had this in mind, many observers have highlighted the bargaining problems rationale in this context — i.e., a platform monopolist’s ability to deter socially valuable innovation by appropriating it for itself.¹⁸⁸ Although the Justice Department did not explicitly frame its case in terms of ICE, the economic thinking behind the case reflects ICE and its importance.

The *Microsoft* case also offers important procedural lessons. First, the D.C. Circuit’s opinion sought to minimize error costs by evaluating carefully the efficiency justifications offered by Microsoft, rejecting many as unconvincing.¹⁸⁹ Second, the case demonstrated how courts — like regulatory agencies — may change their thinking as they confront additional information. In interpreting an earlier consent decree provision that governed product bundling decisions, for example, the D.C. Circuit had previously imposed a stringent test to determine whether Microsoft illegally tied its browser to its operating system.¹⁹⁰ In particular, the court asked whether there was a “plausible claim that [integration] brings some advantage.”¹⁹¹ When that

ing and Keeping Regulatory Promises, 55 FED. COMM. L.J. 1, 10–11 (2002) (discussing the importance of regulatory certainty and predictability).

186. *United States v. Microsoft Corp.*, 253 F.3d 34, 58 (D.C. Cir. 2001).

187. See Kevin J. Arquit & Arman Y. Oruc, *Predation Against “Dangerous” Complexities*, 4 SEDONA CONF. J. 21, 27–28 (2003).

188. For a model and further explanation of this point, see Miller, *supra* note 123.

189. See *Microsoft*, 253 F.3d at 59 (“If the monopolist asserts a procompetitive justification — a nonpretextual claim that its conduct is indeed a form of competition on the merits because it involves, for example, greater efficiency or enhanced consumer appeal — then the burden shifts back to the plaintiff to rebut that claim.”); see also *id.* at 62–64, 66–67, 69–71 (applying that standard).

190. See *United States v. Microsoft Corp.*, 147 F.3d 935, 950 (D.C. Cir. 1998).

191. *Id.*

court examined a very similar question in the context of the government's antitrust case, however, it backed off this ICE-heavy stance and set out a more agnostic test to govern technological tying — one that examined the actual justifications (as opposed to any conceivable ones) in asking whether the competitive harms outweighed the efficiencies of integration.¹⁹²

B. The Computer Inquiries

The FCC's Computer Inquiries illustrate the challenges of regulating access between a platform and its application market. In the 1960s, when data processing services (applications) began to be offered over the network (the platform) of a monopoly telephone company, the FCC confronted the central issue on which this Article focuses: the local telephone companies, each the sole supplier in its region of the basic platform for telecommunications services, wished to integrate and to provide data processing services in competition with others.

In its Computer I decision, the Commission found that computer data services enjoyed "open competition and relatively free entry," and concluded that it should not "at this point, assert regulatory authority over data processing, as such."¹⁹³ Because of an earlier antitrust consent decree limiting AT&T to providing regulated common carrier services,¹⁹⁴ this decision not to regulate data processing amounted to a quarantine, excluding the platform monopolist AT&T from the data processing (applications) sector.¹⁹⁵ The FCC recognized that AT&T and other local telephone companies would be obvious entrants into this market, but feared that they would "favor their own data processing activities by discriminatory services, cross-subsidization, improper pricing of common carrier services, and related anticompetitive practices and activities."¹⁹⁶ Its initial response was thus a quarantine approach towards AT&T and the imposition of

192. See *Microsoft*, 253 F.3d at 92, 95–97 (noting the different circumstances of its earlier decision and setting out a new standard).

193. Regulatory and Policy Problems Presented by the Interdependence of Computer and Communication Servs. and Facilities, 28 F.C.C.2d 267, ¶ 11 (1971) (Final Decision and Order) [hereinafter Computer I]. By contrast, the Commission had previously used its ancillary regulatory jurisdiction to regulate providers outside the scope of its explicit regulatory mandate. See, e.g., *United States v. Southwestern Cable Co.*, 392 U.S. 157, 167–68 (1968) (holding that regulations of cable television were permissible on the ground that such regulations were ancillary to the Commission's charge to regulate broadcasting).

194. See *United States v. W. Elec. Co.*, No. 17-49, 1956 U.S. Dist. LEXIS 4076, at *3, *6 (D.N.J. 1956) (restricting AT&T from offering anything other than "common carrier communications services" and defining those services as "communications services and facilities . . . subject to public regulation").

195. See Computer I, *supra* note 193, ¶ 39 & n.13.

196. *Id.* ¶ 12.

a structural separation requirement on non-Bell telephone companies.¹⁹⁷

But this quarantine, as well as the structural separation provisions, required the FCC to classify all services into “communication” or “data processing.” Because it could not anticipate how to do so, the FCC decided to classify “hybrid services” on a case-by-case basis.¹⁹⁸ This practice called forth a stream of cases that ultimately led the FCC to reconsider the basic premises of the Computer I regime.¹⁹⁹

The Commission’s Computer II decision followed the same basic philosophy as Computer I, but developed a new dividing line between “basic” telecommunications services and “enhanced” services. In Computer II, the Commission decided not to regulate the latter even if they relied on and contained basic telecommunications services.²⁰⁰ The Computer II rules concluded that GTE and the Bell Companies, if allowed to provide such services, must do so through a separate subsidiary, but lifted the separate subsidiary requirement for almost all non-Bell (“independent”) local telephone (monopoly) companies.²⁰¹ In place of this requirement, the Commission imposed a set of open access requirements on the independent telephone companies.²⁰²

Of the actions taken in the Computer Inquiries, Computer II’s open access rules, which facilitated competition in customer premises equipment, were the most successful and enduring. Despite its Carterfone decision in 1969, the FCC — facing heavy resistance from AT&T²⁰³ — failed to enforce a “network neutrality” policy until the follow-on from the Carterfone decision converged with the Computer Inquiry rules. Ultimately the FCC, in a set of decisions reflecting Bax-

197. *See id.* app. A (providing for the codification of this response at 47 C.F.R. § 64.702(b)–(c)).

198. *See id.* ¶ 27.

199. *See* Computer & Communications Indus. Ass’n v. FCC, 693 F.2d 198, 204 (D.C. Cir. 1982) (“As computer and communications technology continued to merge, the line between regulated and unregulated activities became increasingly blurred, and the Computer I definitions became unworkable.”); *see also* Amendment of Sections 64.702 of the Commission’s Rules and Regulations (Third Computer Inquiry), 104 F.C.C.2d 958, ¶ 10 (1986) (Report and Order) [hereinafter Computer III] (“After Computer I took effect, technological and competitive developments in the telecommunications and computer industries exposed shortcomings in its definitional structure, and in particular its ad hoc approach to evaluating the ‘hybrid’ category.”).

200. *See* Computer II, *supra* note 159, ¶¶ 119–32.

201. *See id.* ¶ 228. Even after the antitrust litigation against AT&T culminated in a divestiture of the local Bell Companies, the new consent decree continued to bar the Bell Companies from providing “information services” (a closely related concept to “enhanced services”) until the D.C. Circuit ultimately lifted that bar. *See* United States v. W. Elec. Co., 900 F.2d 283 (D.C. Cir. 1990).

202. *See* Computer II, *supra* note 159, ¶ 231; *see also* Unbundling Order, *supra* note 180, ¶ 40 (noting the Computer II requirement that all carriers not subject to the separate subsidiary requirement must “acquire transmission capacity pursuant to the same prices, terms, and conditions reflected in their tariffs when their own facilities are used”).

203. *See supra* note 36.

ter's law, imposed three sets of requirements to facilitate competition in CPE: (1) all equipment had to be certified as compliant with existing network requirements; (2) incumbent telephone providers had to "unbundle" sales of equipment and telephone service; and (3) those incumbents had to sell CPE through a separate subsidiary.²⁰⁴ The D.C. Circuit endorsed the FCC's judgment that "competition in the CPE market and innovation in the CPE industry occurring apart from the telecommunications network demonstrate that CPE is severable from communications transmission services."²⁰⁵ Moreover, after this strategy spurred the development and deployment of scores of CPE products, the FCC concluded that its unbundling requirement on equipment sales was no longer necessary, leaving in place only its certification requirements.²⁰⁶

The Computer III decision lifted the requirement that the Bell Companies and GTE establish a separate subsidiary for enhanced services (although the Bell Companies were still restricted under the MFJ²⁰⁷). The Commission reasoned that separate-subsidary regulation could better be replaced with non-structural safeguards,²⁰⁸ and in order to ensure enhanced service providers non-discriminatory access to the telephone network it mandated "comparably efficient interconnection"²⁰⁹ and "open network architecture."²¹⁰ Following remands from the Ninth Circuit regarding these requirements, the Commission has yet to close the book on the Computer III rules.²¹¹

The FCC's actions in the Computer Inquiries thus reflected a series of different approaches, beginning (at least as to the local Bell

204. See *N.C. Utils. Comm'n v. FCC*, 552 F.2d 1036 (4th Cir. 1977) (upholding the certification process requirements); 47 C.F.R. § 64.702(e) (2000) (requiring unbundling of CPE and telephone service); see also *Communications Indus. Ass'n*, 693 F.2d at 205–06 (requiring, among other things, incumbent telephone companies to market CPE only through a separate subsidiary and preempting inconsistent state regulation).

205. *Communications Indus. Ass'n*, 693 F.2d at 209.

206. See *Unbundling Order*, *supra* note 180, ¶¶ 9–10 (removing unbundling restrictions in light of market conditions).

207. See *MFJ*, *supra* note 40.

208. See *Computer III*, *supra* note 199, ¶ 3.

209. See *Computer III Further Remand Proceedings: Bell Operating Company Provision of Enhanced Services*, 14 F.C.C.R. 4289, ¶ 13 (1999) (Report and Order) (discussing the comparably efficient interconnection requirements).

210. See *Computer III Further Remand Proceedings: Bell Operating Company Provision of Enhanced Service*, 13 F.C.C.R. 6040, ¶¶ 78–84 (1998) (Further Notice of Proposed Rulemaking) [hereinafter *Computer III Further Notice*] (discussing the open architecture requirements); see also Robert Cannon, *Where Internet Service Providers and Telephone Companies Compete: A Guide to the Computer Inquiries, Enhanced Service Providers, and Information Service Providers*, 9 *COMMLAW CONCEPTUS* 49, 56–65 (2001).

211. See *California v. FCC*, 905 F.2d 1217 (9th Cir. 1990) (vacating initial order and remanding); *California v. FCC*, 39 F.3d 919 (9th Cir. 1994) (partially vacating subsequent order and remanding); *Computer III Further Notice*, *supra* note 210 (continuing inquiry into the appropriate response to issues remanded by the Ninth Circuit); see also Robert Cannon, *The Legacy of the Federal Communication Commission's Computer Inquiries*, 55 *FED. COMM. L.J.* 167, 200–03 (2003); Cannon, *supra* note 210, at 56–57.

Companies) with a quarantine in Computer I, moving to structural separation in Computer II, and then to a conduct remedy without structural separation in Computer III. Similarly, the MFJ first quarantined the Bell Companies from certain adjacent markets; subsequent changes to the MFJ, along with the Telecom Act, loosened the restrictions, allowing more vertical integration.²¹² The telecommunications firms themselves also took shifting approaches to vertical relations, as shown by AT&T's divestiture of its equipment-manufacturing arm Lucent, its approach to wireless (in the McCaw merger and subsequent spin-off of AT&T Wireless), and its purchase and later sale of local cable properties.

An optimistic interpretation of such instability would be that, as the right policy shifted in light of the competing merits, policymakers and executives ably tracked these shifts. For instance, market conditions and other relevant factors may simply have varied over time. Or, perhaps the spell of quarantine imposed on the Bells, by establishing reliable access arrangements, created a benchmark that made later discrimination harder and thus made it possible to capture the benefits of vertical integration without excessive discrimination or the need for further heavy-handed conduct regulation.²¹³ Alternatively, a cynical interpretation would be that the Computer I regime rightly imposed a quarantine and that later relaxations reflected a bending to the political power of the local telephone companies. Finally, a pessimistic but less cynical interpretation would be that the FCC was repeatedly stabbing in the dark, unable to maintain a stable view of the relative merits of different policies.

We see little evidence of subtle balancing to suggest that changes in circumstances explain the changes in policy, so it is tempting instead to describe the variation as "vacillating" in an inadequate analytical framework.²¹⁴ Thus, having first adopted one imperfect policy, regulators may become painfully aware of its deficiencies and of the advantages of an alternative approach. This greener-grass syndrome could arise with any tradeoff, but it seems particularly likely with a tradeoff only poorly understood and not guided by clear analytical principles. Indeed, the FCC's inability to articulate its outlook on vertical relations convincingly has begun to plague it in court — in the

212. For changes in the MFJ, see *United States v. W. Elec. Co.*, 767 F. Supp. 308 (D.D.C. 1991), *aff'd*, 993 F.2d 1572 (D.C. Cir. 1993) (lifting information services restriction). For the Telecom Act's policies, see 47 U.S.C. § 271 (2003) (governing entry into in-region long distance).

213. For development of this possibility, see Marius Schwartz, *The Economic Logic for Conditioning Bell Entry into Long Distance on the Prior Opening of Local Markets*, 18 J. REG. ECON. 247, 286 (2000).

214. Warren G. Lavey, *Ending Structural Separation for Telephone Companies*, 18 CONN. L. REV. 81, 85–86 (1985) (arguing that Computer I's separate subsidiary requirement did not rest on demonstrated monopoly abuses or cost-benefit analysis).

finsyn rules and the Computer III proceedings, for example — where it must explain policy swings.²¹⁵ By contrast, the FCC’s policy of facilitating competition in equipment manufacturing was grounded in Baxter’s Law and withstood judicial scrutiny.

C. Broadband Policy

In its broadband proceedings, the FCC announced its intent to determine how its Computer III rules apply to broadband networks.²¹⁶ In the old environment, regulated monopoly telephone companies held the keys to the development of new, “information services” like “dial-a-joke” and dial-up Internet access.²¹⁷ Given that Baxter’s Law does not apply in the broadband context (as cable modems and DSL do not face classic price regulation), if the FCC intends to impose modularity on broadband Internet, it must develop a reasoned basis for doing so.

In re-thinking the basis for these rules, the FCC could decide to adopt a more “antitrust-like” approach.²¹⁸ Antitrust law aspires to aid the workings of the market by stopping certain anticompetitive practices, whereas regulation traditionally substitutes for competition. Traditional public utility regulation oversaw price-setting as well as entry and exit decisions in order to limit the monopolist’s ability to extract rents from consumers while ensuring the regulated utility a sufficient return on its investment.²¹⁹ As alternative providers entered formerly monopolized industries, antitrust enforcers sought to facilitate competition, whereas regulators reacted hesitantly.²²⁰ The Telecom Act endorsed entry and aimed to facilitate competition in an

215. See *California*, 905 F.2d at 1234 (finding that the initial Computer III order reflected an “unexplained change” from the Commission’s previous decisions); see also Lavey, *supra* note 4, at 444–48 (discussing Computer III).

216. See *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities*, FCC CC Docket No. 02-33, FCC 02-42, ¶¶ 43–53 (Feb. 15, 2002) (Notice of Proposed Rulemaking). Those proceedings also will attempt to respond to the Ninth Circuit’s remand of the FCC’s Computer III rules. See *id.*

217. See *id.* ¶ 36 (“[W]ith respect to technology, the core assumption underlying the Computer Inquiries was that the telephone network is the primary, if not exclusive, means through which information service providers can obtain access to customers.”).

218. One of us has advocated such an approach. See Philip J. Weiser, *Toward a Next Generation Regulatory Strategy*, 35 LOY. U. CHI. L.J. (forthcoming Dec. 2003) (manuscript at 45–59, on file with authors).

219. See Kearney & Merrill, *supra* note 161, at 1359–61.

220. Compare, e.g., *Otter Tail Power Co. v. United States*, 410 U.S. 366, 372 (1973) with *Hush-A-Phone*, *supra* note 32, at 420. In *Otter Tail*, antitrust’s market-opening measures came twenty years in advance of regulatory reforms. See *Energy Policy Act of 1992*, Pub. L. No. 102-486, 106 Stat. 2776, 2915–16 (codified at 16 U.S.C.S. §§ 824j–824k (2003)) (authorizing the Federal Energy Regulatory Commission to mandate wholesale “wheeling” of power to facilitate competition).

emerging market,²²¹ but still left the FCC with broad regulatory powers and discretion.

In developing its regulatory strategy for new environments such as broadband where price regulation is absent, the FCC should define more clearly when to restrict a firm's conduct — for instance, only after exclusionary conduct is demonstrated, where it seems probable, or where it would do the most harm. Antitrust enforcers normally address exclusionary conduct by a single firm only *ex post*, once such conduct has been proven. Regulators, by contrast, often act to avoid vertical competitive harms before they occur, but do not always explain how their actions fit with ICE or antitrust policy more generally.²²² The FCC must provide such an explanation if it decides to impose an open access requirement on broadband platforms.

VII. CONCLUSION

Changes in the telecommunications market and the emergence of the Internet have created both a challenge and an opportunity for regulators. In dynamic markets governed by both telecommunications regulation and antitrust oversight, there is considerable uncertainty about which regulatory strategy can best protect competition. Nevertheless, the FCC has an opportunity to adopt a coherent approach to information platform regulation that takes account of ICE and would facilitate convergence between antitrust and regulatory policy. Such an approach would be welcomed by the courts and would help steer a steady course on open access policies for the years to come.

221. For discussions of the evolution of how antitrust and telecommunications regulation relate to one another, see Weiser, *Information Platforms*, *supra* note 8, at 9; Weiser, *supra* note 39, at 1–2. For a discussion of regulation's evolution from its old regime to a new paradigm, see Kearney & Merrill, *supra* note 161, at 1329.

222. Some commentators suggest that regulation parts company with the maxim, stated in *Brown Shoe Co. v. United States*, that sound competition policy aims to protect “*competition*, not *competitors*.” 370 U.S. 294, 320 (1962) (emphasis in original). In particular, regulation sometimes adopts measures rationalized as infant industry protection that seek to produce certain innovative benefits — at the risk of falling victim to the perilous exercise of predicting winners and losers. See Paul L. Joskow, *Restructuring, Competition and Regulatory Reform in the U.S. Electricity Sector*, J. ECON. PERSP., Summer 1997, at 119, 125 (noting that the Public Utility Regulatory Power Act's “requirements that utilities contract with certain independent power suppliers, combined with competitive generation procurement programs in the late 1980s, helped to stimulate technological innovation” that facilitated the use of natural gas as a fuel).



Local News

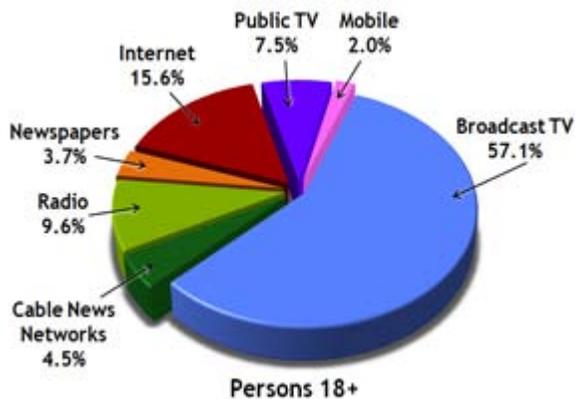
Local TV Stations are the Top Daily News Source

American adults get news from local or national news broadcasts, the internet, radio, or newspapers on any given day. As many as 92% follow news on multiple platforms. But more adults choose local TV stations as their daily source of news over any other major medium.

On a typical day:

- 78% of Americans get news from a local TV station
- 73% get news from a national television network
- 61% get some kind of news online
- 54% listen to a radio news program at home or in the car
- 50% read news in the print version of a local newspaper
- 17% read news in the print version national newspaper

More people turn to broadcast television first for local weather, traffic or sports.



Sources: Pew Internet & American Life Project Survey '10; TVB/Knowledge Networks Media Comparisons Study '10

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THE PEW RESEARCH CENTER
For The People & The Press

SUNDAY, SEPTEMBER 12, 2010

Ideological News Sources: Who Watches and Why

Americans Spending More Time Following the News

With a Commentary by Tom Rosenstiel, Director of the Pew Research Center's Project for Excellence in Journalism

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SEPTEMBER 12, 2010

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Ideological News Sources: Who Watches and Why

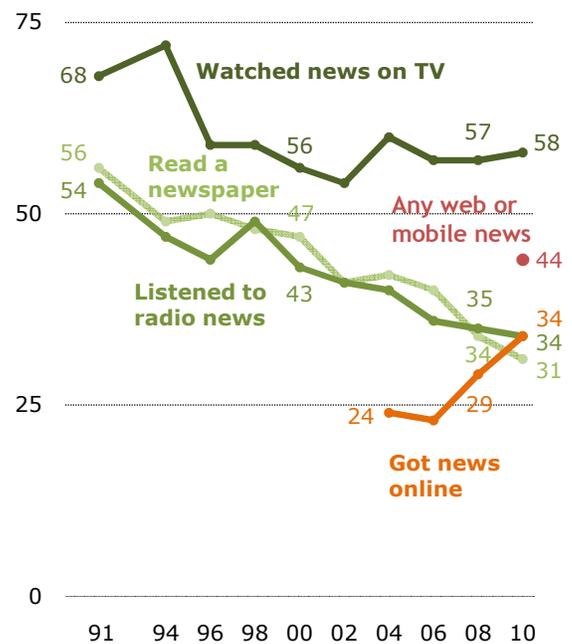
Americans Spending More Time Following the News

There are many more ways to get the news these days, and as a consequence Americans are spending more time with the news than over much of the past decade. Digital platforms are playing a larger role in news consumption, and they seem to be more than making up for modest declines in the audience for traditional platforms. As a result, the average time Americans spend with the news on a given day is as high as it was in the mid-1990s, when audiences for traditional news sources were much larger.

Roughly a third (34%) of the public say they went online for news yesterday – on par with radio, and slightly higher than daily newspapers. And when cell phones, email, social networks and podcasts are added in, 44% of Americans say they got news through one or more internet or mobile digital source yesterday.

At the same time, the proportion of Americans who get news from traditional media platforms – television, radio and print – has been stable or edging downward in the last few years. There has been no overall decline in the percentage saying they watched news on television, and even with the continued erosion of print newspaper and radio audiences, three-quarters of Americans got news yesterday from one or more of these three traditional platforms.

Where People Got News Yesterday

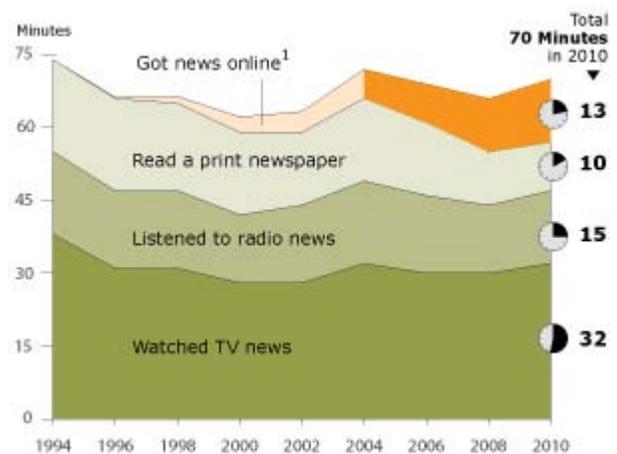


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In short, instead of replacing traditional news platforms, Americans are increasingly integrating new technologies into their news consumption habits. More than a third (36%) of Americans say they got news from both digital and traditional sources yesterday, just shy of the number who relied solely on traditional sources (39%). Only 9% of Americans got news through the internet and mobile technology without also using traditional sources.

The net impact of digital platforms supplementing traditional sources is that Americans are spending more time with the news than was the case a decade ago. As was the case in 2000, people now say they spend 57 minutes on average getting the news from TV, radio or newspapers on a given day. But today, they also spend an additional 13 minutes getting news online, increasing the total time spent with the news to 70 minutes. This is one of the highest totals on this measure since the mid-1990s and it does not take into account time spent getting news on cell phones or other digital devices¹.

Minutes Spent With News Yesterday



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Estimated time getting news from each source. Online news includes newspapers read online. Online news "yesterday" not asked prior to 2004. Pre-2004 figures estimated from other data.

¹ Throughout this report, "online news" refers to news from newspaper websites or from online news sources generally. "Digital news" is a broader category that includes news from newspaper websites and other online sources, as well as news consumed through specific technologies, such as cell phones, email, RSS, Twitter, social networking and podcasts.

The biennial news consumption survey by the Pew Research Center for the People & the Press, conducted June 8-28 on cell phones and landlines among 3,006 adults, finds further evidence that the combination of digital and traditional platforms is leading to increased news consumption.

The groups that are driving the increase in time spent with the news – particularly highly educated people – are most likely to use digital *and* traditional platforms. Fully 69% of those with some post-graduate experience got news through a digital source yesterday; this also is the group that showed the largest rise in time spent with the news from 2006-2008 to 2010 (from 81 minutes yesterday to 96 minutes).

There also has been a modest increase in time spent with the news among those 30 to 64 – but not among older and younger age groups.

Increase in Time Spent with News Driven by the Highly Educated and Middle-Aged

	2006-2008 Average	2010	Change
Total minutes with news	67 mins	70 mins	+3
18-29	47	45	-2
30-39	64	68	+4
40-49	66	74	+8
50-64	75	81	+6
65+	82	83	+1
Post graduate	81	96	+15
BA/BS	79	80	+1
Some college	68	71	+3
HS or less	58	58	0

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Estimated time yesterday, in minutes, watching, listening to or reading news in newspapers, on radio, on television, or online. (Online news time added in 2004.)

Digital platforms are supplementing the news diets of news consumers, but there is little indication they are expanding the proportion of Americans who get news on a given day. The vast majority of Americans (83%) get news in one form or another as part of their daily life. But even when cell phones, podcasts, social networks, email, Twitter and RSS feeds are accounted for, 17% of Americans say they got no news yesterday, little changed from previous years.

Moreover, while young people are most likely to integrate new technologies into their daily lives, they are not using these sources to get *news* at higher rates than do older Americans. Rather, those in their 30s are the only age group in which a majority (57%) reports getting news on one or more digital platforms yesterday.

The integration of traditional and digital technology is common among those in older age groups as well. Nearly half (49%) of people in their 40s, and 44% of those between 50 and 64, got news through one or more digital modes yesterday – rates that are comparable to those 18 to 29 (48%). Digital news consumption is low only among those ages 65 and older, just 23% of whom used one or more digital modes for news yesterday.

Print Newspaper Decline Only Partially Offset by Online Readership

Only about one-in-four (26%) Americans say they read a newspaper in print yesterday, down from 30% two years ago and 38% in 2006. Meanwhile, online newspaper readership continues to grow and is offsetting some of the overall decline in readership. This year, 17% of Americans say they read something on a newspaper's website yesterday, up from 13% in 2008 and 9% in 2006.

But the online audience is only partially stemming the decline in the share of Americans who turn to newspapers; even when all online newspaper readership is included, 37% of Americans report getting news from newspapers yesterday, virtually unchanged from 39% two years ago, but down from 43% in 2006. (These percentages still may miss some people who access newspaper content indirectly through secondary online sources such as news aggregators or search engines.)

In general, daily newspaper readers tend to be older on average than the general public, but the regular readership of some of the major national newspapers – USA Today, the Wall Street Journal, and especially the New York Times – defy this trend. More than half of regular USA Today and Wall Street Journal (55% each) readers are younger than 50 – a profile that largely matches the nation as a whole (roughly 55% of all adults are between 18 and 49). Fully two-thirds (67%) of regular New York Times readers are younger than 50, with a third (34%) younger than 30 – making its audience substantially younger than the national average (55% younger than 50, 23% younger than 30).

The young profile of the regular New York Times readership is undoubtedly linked to the paper's success online. Nearly one-in-ten of internet users younger than 30 (8%) – and 6% of all internet users – volunteer the New York Times when asked to name a few of the websites they use most often to get news and information.

Print and Online Newspaper Readership

<i>Read yesterday...</i>	2006	2008	2010	06-10 change
Any newspaper*	43	39	37	-6
In print	38	30	26	-12
Online	9	13	17	+8
Print only	34	25	21	-13
Online only	5	9	11	+6
Both print & online	4	5	5	+1

PEW RESEARCH CENTER June 8-28, 2010. Q9,11,20. Figures may not add exactly to subtotals because of rounding.

* Includes respondents who reported reading a newspaper yesterday as well as those who said they got news online yesterday and, when prompted, said they visited the websites of one or more newspapers when online (Q20).

Cable News Audiences in Flux

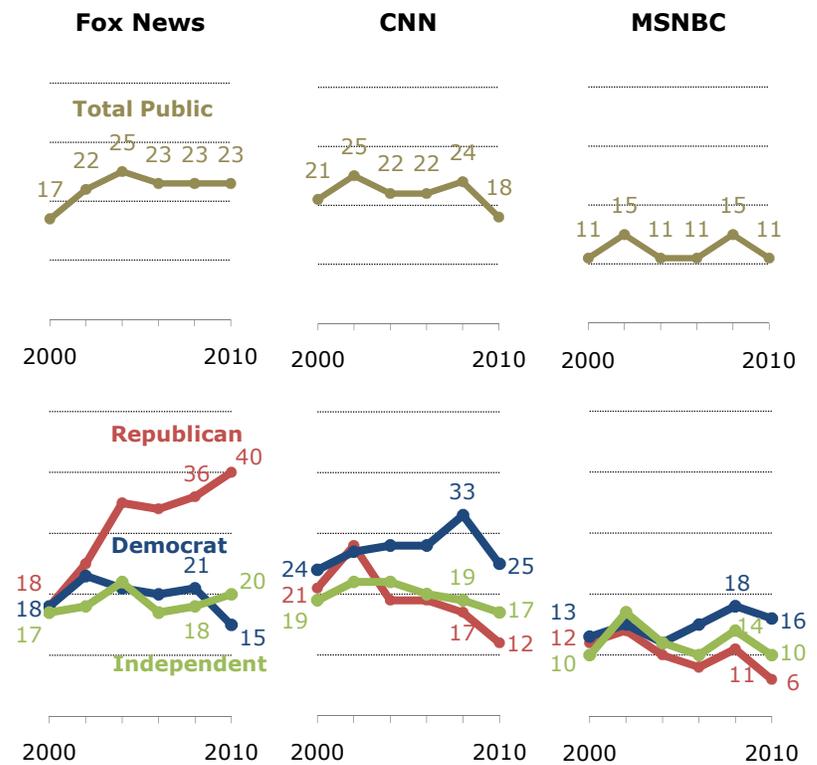
Overall, cable news continues to play a significant role in peoples’ news habits – 39% say they regularly get news from a cable channel. But the proportions saying they regularly watch CNN, MSNBC and CNBC have slipped substantially from two years ago, during the presidential election.

Only Fox News has maintained its audience size, and this is because of the increasing number of Republicans who regularly get news there. Four-in-ten Republicans (40%) now say they regularly watch Fox News, up from 36% two years ago and just 18% a decade ago. Just 12% of Republicans regularly watch CNN, and just 6% regularly watch MSNBC.

As recently as 2002, Republicans were as likely to watch CNN (28%) as Fox News (25%). The share of Democrats who regularly watch CNN or Fox News has fallen from 2008.

More Republicans Watching Fox News; CNN, MSNBC Lose Regular Viewers Since 2008

Percent who regularly watch...



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In terms of specific programs, Fox News hosts Sean Hannity, Glenn Beck and Bill O'Reilly have succeeded in attracting conservative and attentive audiences. This is also the case for radio host Rush Limbaugh.

Most of those who regularly watch O'Reilly (63%) and Hannity (65%) are 50 or older; 44% of the public is 50 or older. By contrast, the Daily Show and Colbert Report have the youngest audiences of any outlet included in the survey. Large majorities of those who say they regularly watch the Colbert Report (80%) and the Daily Show (74%) are younger than 50; 55% of public is 18 to 49.

Youngest and Oldest News Audiences

<i>Age of regular readers, viewers or listeners</i>	18-49	50 and older
	%	%
Colbert Report	80	20
Daily Show	74	26
New York Times	67	33
NPR	56	44
News magazines	55	45
Wall St. Journal	55	42
USA Today	55	44
Total public	55	44
Nightly news	37	62
Sunday shows	36	63
Bill O'Reilly	35	63
Sean Hannity	33	65

PEW RESEARCH CENTER June 8-28, 2010.

News Audiences' Political Views

Ideology continues to be closely associated with people's choice of certain news sources. Eight-in-ten Americans (80%) who regularly listen to Rush Limbaugh or watch Sean Hannity are conservative – roughly twice the national average of 36%. And at the other end of the spectrum, the New York Times, Keith Olbermann, the Daily Show, the Colbert Report and Rachel Maddow have regular audiences that include nearly twice the proportion of liberals than in the public.

News audiences also vary widely when it comes to opinions about current issues and topics. For instance, those who describe themselves as supporters of the Tea Party movement make up disproportionately large proportions of the audiences for Limbaugh's radio show and Fox News opinion programs. This also is the case for supporters of the NRA (National Rifle Association).

By contrast, supporters of gay rights make up large shares of regular New York Times readers, viewers of the Colbert Report and NPR listeners. Several ideologically divergent news audiences – including Wall Street Journal readers and viewers of the Colbert Report and Glenn Beck show – include larger-than-average percentages of self-described libertarians.

How News Audiences Describe their Views

Percent of Americans who describe themselves as...

A Tea Party supporter: 25% <i>% of audiences</i>	A gay rights supporter: 40% <i>% of audiences</i>	An NRA supporter: 40% <i>% of audiences</i>	Libertarian: 18% <i>% of audiences</i>
76 Rush Limbaugh	78 New York Times	76 Rush Limbaugh	33 Wall Street Journal
76 Glenn Beck	69 Colbert Report	73 Sean Hannity	29 Colbert Report
75 Sean Hannity	65 NPR	71 Glenn Beck	27 Glenn Beck
68 Bill O'Reilly	62 Daily Show	68 Bill O'Reilly	27 Political blogs
52 Fox News	62 Keith Olbermann	60 Fox News	27 Daily Show

PEW RESEARCH CENTER June 8-28, 2010 Q98a,e,g,h. Audience figures show the percent of regular readers, viewers or listeners who say these terms describe them. For full profiles of all audiences, see Section 4.

News Outlets' Appeal: From Breaking News to Entertainment

News audiences are drawn to different sources for different reasons. A substantial majority (64%) of regular CNN viewers say they turn to the network for the latest news and headlines; far fewer say they turn to CNN for in-depth reporting (10%), interesting views and opinions (6%) or entertainment (4%). Similarly, the main appeal of network evening news, USA Today and daily newspapers is the latest news and headlines.

Regular Fox News viewers offer somewhat different reasons for tuning into that network: 44% say they go to Fox for the latest news, but a sizable minority (22%) volunteers several reasons or say that all apply.

Regular readers of the Wall Street Journal and New York Times are drawn particularly by in-depth reporting; 37% and 33%, respectively, say they mostly read those papers for in-depth reporting, the highest percentages for any new outlet.

For the audiences of evening cable programs – whether liberal or conservative – interesting views and opinions are the primary appeal. That is the case for regular listeners of Rush Limbaugh as well, although many Limbaugh listeners cite multiple reasons or say that all apply.

What Regular Audiences Like About Sources

Turn to source mostly for...

Regularly watch, read or listen to...	Latest headlines	In depth reporting	Views and opinions	Entertainment	(Vol.) Mix/All	(Vol.) Oth/DK	N
	%	%	%	%	%	%	
CNN	64	10	6	4	14	2	274
Network evening	59	13	8	6	9	5	470
Daily newspaper	53	7	8	8	18	4	690
USA Today	52	9	9	16	9	5	144
Fox News	44	11	11	5	22	6	386
MSNBC	43	12	15	13	13	2	167
Morning news	39	4	13	18	19	7	318
News magazines	31	23	20	6	16	5	275
Wall St. Journal	30	37	11	2	16	4	132
New York Times	30	33	11	4	18	4	153
Political blogs	27	10	29	10	11	12	307
Sunday talk shows	24	19	37	6	9	6	403
NPR	21	20	18	12	28	2	371
Hardball	19	19	42	7	10	3	120
Rachel Maddow	18	14	33	10	15	11	93
Sean Hannity	14	21	39	6	18	2	225
Keith Olbermann	14	16	39	11	14	6	90
O'Reilly Factor	11	20	44	6	18	2	341
Glenn Beck	10	24	32	6	23	4	223
Rush Limbaugh	10	15	37	7	28	4	185
Daily Show	10	2	24	43	20	1	194
Colbert Report	3	2	18	53	19	5	151

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Figures read across and are based on regular readers/viewers/listeners of each source.

For some news audiences, such as regular NPR listeners, no single reason stands out as to why people watch, read or listen: 28% of regular NPR listeners cite several, or all, of the reasons listed, while nearly as many say they listen for the latest news (21%) or for in-depth reporting (20%).

Entertainment is by far the biggest reason why regular viewers of the Colbert Report and the Daily Show tune into those programs; 53% of the regular Colbert audience and 43% of the Daily Show audience say they mostly watch those programs for entertainment. Yet entertainment also is a factor for many regular viewers of morning news shows (18%), readers of USA Today (16%) and other audiences.

Fewer Liberals Enjoying the News

Overall, the share of Americans who say keeping up with the news is something they enjoy a lot has dipped, from a consistent 52% in recent biennial news consumption surveys, including 2008, to 45% in 2010.

The decline is linked to partisanship and ideology: in 2008 67% of liberal Democrats said they enjoyed the news a lot, compared with just 45% today. By contrast, about as many conservative Republicans say they enjoy keeping up with the news today as did so two years ago (57% now, 56% then). This has resulted in a switch in news enjoyment. Today, conservative Republicans enjoy keeping up with the news more than any other ideological and partisan group; just two years ago it was the liberal Democrats who held that distinction.

Fewer Liberal Democrats and Young People Enjoy News than in '08

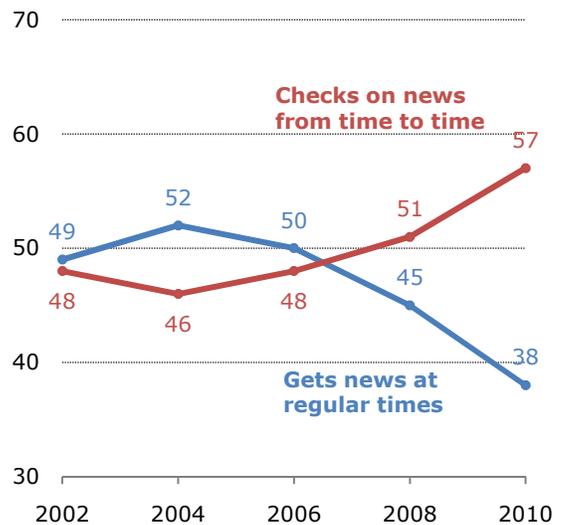
<i>Enjoy keeping up with news "a lot"</i>	2008	2010	Change
	%	%	
Total	52	45	-7
Conserv Rep	56	57	+1
Mod/Lib Rep	47	39	-8
Independent	45	43	-2
Cons/Mod Dem	58	46	-12
Liberal Dem	67	45	-22
18-29	38	27	-11
30-49	49	43	-6
50-64	59	53	-6
65+	64	60	-4

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Other Key Findings

- While 26% of all Americans say they read a print newspaper yesterday, that figure falls to just 8% among adults younger than 30.
- Far more men (50%) than women (39%) get news on digital platforms, such as the internet and mobile technology, on any given day. Men are more likely to get news by cell phone, email, RSS feeds or podcasts than are women. But men and women are equally likely to get news through Twitter or social networking sites.
- More people say they mostly get news “from time to time” rather than at “regular times.” The percentage of so-called news grazers has increased nine points (from 48% to 57%) since 2006.
- Search engines are playing a substantially larger role in people’s news gathering habits – 33% regularly use search engines to get news on topics of interest, up from 19% in 2008.
- About three-in-ten adults (31%) access the internet over their cell phone, but just 8% get news there regularly.
- Most Facebook and Twitter users say they hardly ever or never get news there.

More Say They Graze for News



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- One-in-four adults (25%) who have Tivos or DVRs say they program them to record news programs.
- About eight-in-ten (82%) say they see at least some bias in news coverage; by a 43% to 23% margin, more say it is a liberal than a conservative bias.
- Roughly a third (35%) read a book yesterday, which is largely unchanged over the past decade. Of those, 4% read an electronic or digital book.
- The public struggled with a four-question current events quiz – just 14% answered all four correctly. But about half (51%) of regular Wall Street Journal readers aced the quiz, as did 42% of regular New York Times readers.
- Among news audiences, Obama gets his highest approval ratings among regular viewers of Keith Olbermann (84% approve) and Rachel Maddow (80%); his rating is nearly as high among regular readers of the New York Times (79%). Obama gets his lowest ratings among regular Sean Hannity viewers (7%) and Rush Limbaugh listeners (9%).
- Partisan gaps in media credibility continue to grow, with Republicans far more skeptical of most major news sources than Democrats. The one exception is Fox News, which twice as many Republicans believe all or most of (41%) than Democrats (21%).

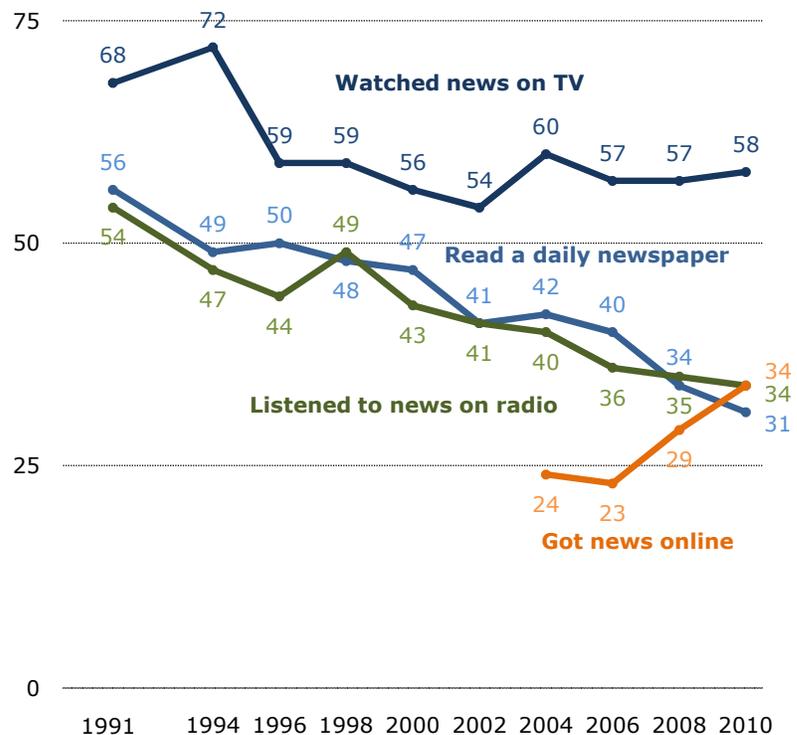
SECTION 1: WATCHING, READING AND LISTENING TO THE NEWS

When asked if they had a chance to read a daily newspaper yesterday, just 31% of Americans say they read a newspaper, the lowest percentage in two decades of Pew Research Center polling. When online news consumers are later probed separately if they happened to read anything on a newspaper website, the total rises to 37%, but even this more inclusive measure of newspaper readership is on a downward trajectory. Four years ago 43% reported some kind of newspaper reading, in print or online. These percentages still may miss some people who access newspaper content indirectly through secondary online sources such as news aggregators or search engines.

Daily audiences for TV and radio, by contrast, are holding steady. Television remains the most prevalent source of news; 58% of Americans say they watched the news or a news program on television yesterday, a percentage that has changed little over the past decade. About a third (34%) say they listened to news on the radio yesterday, which is little changed from recent years, but far lower than during the 1990s.

The proportion turning to the internet for news continues to grow – 34% say they got news online yesterday in the latest survey, up from 29% in 2008 and 23% in 2006. And the overall reach of digital technologies is even broader – 44% say they got news yesterday from the internet, cell phones, social networks or podcasts.

Trends in News Consumption “Yesterday”



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The vast majority of Americans (83%) get news in one form or another as part of their daily life. But even with the availability of news over a wide range of new technologies, 17% of Americans say they got no news yesterday, a figure that is virtually unchanged from previous years. In the 2008 survey, 19% said they got no news yesterday – and that survey did not ask about getting news on a given day via cell phones or other digital technologies. Currently, 27% of adults under age 30 get no news on any given day; among the very youngest, ages 18 to 24, the number going newsless yesterday is 31%.

The Array of Digital News Platforms

The share of Americans getting news on mobile devices or through online social networks on any given day is substantial, though far more people continue to get news from traditional news sources. Roughly one-in-ten Americans (9%) got news over a cell phone or smartphone yesterday, and the same percentage says they got news through a social networking site such as Facebook or Twitter.

A similar number (10%) says they got news through RSS feeds or a customizable webpage like My Yahoo or iGoogle. Email has a somewhat broader reach – 14% get news by email on any given day.

More than a Third Used Traditional *and* Digital Platforms Yesterday

Where did you get news yesterday?	Total	18-24	25-29	30-39	40-49	50-64	65+
<u>Traditional Platforms</u>							
Television	58	39	44	49	60	65	75
Radio	34	22	31	38	42	38	25
Print newspaper	26	7	11	15	24	35	46
One or more	75	53	64	70	80	83	83
<u>Digital Platforms</u>							
Online*	34	32	36	46	40	36	18
Email	14	13	11	15	15	16	9
RSS/Custom webpage	10	12	17	18	10	9	2
Social networking/Twitter	9	13	15	21	9	5	1
Cell phone/Smartphone	9	15	14	14	11	6	1
Podcast	4	5	7	5	4	4	1
One or more	44	48	48	57	49	44	23
<u>Summary</u>							
Traditional only	39	20	30	25	39	44	62
Digital only	9	16	15	12	9	5	1
Both	36	32	34	45	41	39	21
No news yesterday	<u>17</u>	<u>31</u>	<u>21</u>	<u>18</u>	<u>12</u>	<u>11</u>	<u>16</u>
	100	100	100	100	100	100	100

PEW RESEARCH CENTER June 8-28, 2010.
Q9, Q11, Q13, Q17, Q18, Q18a, Q49a, Q52a, Q55a, Q57a, Q61a, Q71.
Figures may not add to 100% because of rounding.

* Includes those who reported reading a newspaper online.

That about a quarter of adults (27%) under age 30 get no news on any given day – even when the array of mobile and online news sources are accounted for – is not new. The number of young people getting no news yesterday was comparably high in 2008 (29%) and 2006 (26%).

Even with their widespread adoption of modern communications technology – internet usage among those younger than 30 is nearly universal, 80% have profiles on social networking sites and 58% go online using their cell phones– fewer than half (48%) of young people got news over any kind of digital platform yesterday. In fact, more of those younger than 30 (57%) got news from traditional sources yesterday.

Instead, it is people in their 30s (30 to 39) who are the most likely to use digital technologies to get news. Fully 57% of those in their 30s say they got news through a digital platform yesterday – either online or mobile – the highest percentage of any age group. And 21% of those 30 to 39 say they got news through social networking or Twitter yesterday, which is higher than other age groups.

Many older Americans also use new technologies to get the news. Nearly half (49%) of people in their 40s got news yesterday through some internet or mobile source, as did 44% of those ages 50-64. Digital news drops off as a source only among those ages 65 and older (23%), largely because older Americans remain less likely to go online or use mobile technology. In many cases, seniors who do have the technology are just as likely to use it to get news as their younger counterparts (see *Section 2: Online and Digital News*).

While men and women are equally likely to get news from one or more traditional platform on a given day (75% of men, 74% of women), men are far more likely than women to get news digitally. Overall, half of men (50%) get news over some kind of online or digital platform on any given day, compared with 39% of women. Specifically, men are twice as likely as women (12% vs. 6%) to get news using cell phones, and more men than women also get news from email, RSS readers and customizable webpages. However, there is no gender gap in the percentage getting news through social networks or Twitter on any given day.

These gender differences persist across all age groups, but are particularly wide among younger adults. While 56% of men under 30 get news digitally on any given day, just 41% of young women do so. In fact, 20% of men in their late teens and twenties got *only* digital news yesterday – without any television, radio or print newspapers – compared with just 11% of women the same age.

Digital News Platforms: Gender, Race and Education

	Total	Men	Women	White	Black	Col grad	Some col	HS or less	\$75k +	\$30-\$75k	Less than \$30k
	%	%	%	%	%	%	%	%	%	%	%
Online*	34	40	30	38	20	55	38	18	54	36	19
Email	14	16	12	13	13	24	14	7	21	14	7
RSS/Custom webpage	10	13	8	10	10	15	13	6	15	10	9
Social network/Twitter	9	9	10	10	6	15	9	6	15	9	7
Cell phone/Smartphone	9	12	6	9	8	16	10	5	18	7	6
Podcast	4	5	3	3	5	4	4	4	6	4	4
One or more	44	50	39	47	28	66	49	27	64	48	27

PEW RESEARCH CENTER June 8-28, 2010. Q11, Q18, Q49a, Q52a, Q55a, Q57a, Q61a, Q71.

* Includes those who reported reading a newspaper online.

College graduates and higher income Americans typically express the greatest interest in news, and also have the broadest access to new technology in both their personal and work lives. Thus, not surprisingly, there are large educational and income differences in the use of internet and other digital technologies to get news. Two-thirds of college graduates (66%) got news through a digital source yesterday, compared with 27% of adults with no more than a high school degree. Similarly, 64% of people with family incomes of \$75,000 or more get digital news on any given day, compared with 27% of those with incomes of less than \$30,000.

Television Still Has Broadest Reach

Even with the array of digital technology, the traditional news platforms of television, radio and print newspapers continue to reach a much broader segment of the public on any given day. Fully 75% of Americans report getting news from one or more of these mediums yesterday: 58% watching television news, 34% listening to news on the radio, and 26% reading a print newspaper. This compares to the 44% who got news over the internet or another digital platform. Even among the very youngest adults age 18-24, as many get news from television, print or radio (53%) as from a digital platform (48%) on any given day.

Among these sources, television stands apart not only because more people get news there, but also because people continue to spend more time getting news there than any other source. People getting TV news on any given day spend an average of 55 minutes doing so. This compares to 38 minutes

among people getting news online and 37 minutes among people reading a newspaper. Measured another way, 56% of television news watchers spend an hour or more with television news, compared with 40% of radio news listeners and just 25% of online news consumers and 19% of print newspaper readers.

And television remains the dominant source for older Americans – 75% of people age 65 and older watch television news on any given day, while just 23% are getting news online or from any kind of digital source.

Television News Reaches More People for Longer

	Got news there yesterday %	Time Spent Among Users			
		Hour or more %	30-59 min %	Less than 30 min %	Average (minutes)
Television	58	56	30	14=100	55
Radio	34	40	26	34=100	45
Internet*	34	25	24	51=100	38
Print newspaper	26	19	38	43=100	37

PEW RESEARCH CENTER June 8-28, 2010. Q10, Q14, Q17, Q19. Figures may not add to 100% because of rounding.

* Includes online newspapers.

Print Newspapers' Decline

While there has been no decline in the share getting news on television, the percentage saying they read a newspaper yesterday continues to slip. Overall, 37% of Americans report reading any kind of newspaper – in print or online – yesterday. That compares with 39% two years ago and 43% in 2006. The decline since 2006 represents a steep dropoff in print newspaper readership that is only partially offset by growth in online newspaper readership.

This year, 26% of adults report reading a print newspaper on any given day, down from 30% two years ago and 38% in 2006. The decline over the past four year spans all age groups. Looking at all Americans under age 50, the share reading a print newspaper on a given day has fallen by nearly half, from 29% in 2006 to 15% today. Among those ages 50 and older, print newspaper readership fell from 50% to 40% over the same time period.

Meanwhile, online newspaper readership has grown, though not enough to counterbalance the print decline. Currently, 17% of Americans say they read a newspaper online yesterday or visited a newspaper website. This is up from 13% two years ago and 9% in 2006, but is still lower than the 26% who read the newspaper in print. People in their 20s, 30s, 40s, and 50s are all about equally likely to read newspapers online. The rate falls off among those ages 65 and older because fewer use the internet. Among seniors who use the internet, 17% read a newspaper online yesterday; that is comparable to the percentage of those under 65 who are online and read a newspaper (21%).

Print and Online Newspaper Readership

Read any newspaper yesterday*	2006 %	2008 %	2010 %	06-10 change
Total	43	39	37	-6
18-24	27	21	20	-7
25-29	32	32	25	-7
30-39	36	33	33	-3
40-49	44	37	37	-7
50-64	50	44	45	-5
65+	58	56	50	-8

Read a print newspaper yesterday	2006 %	2008 %	2010 %	06-10 change
Total	38	30	26	-12
18-24	20	14	7	-13
25-29	25	19	11	-14
30-39	29	19	15	-14
40-49	37	26	24	-13
50-64	46	37	35	-11
65+	57	53	46	-11

Read a newspaper online yesterday*	2006 %	2008 %	2010 %	06-10 change
Total	9	13	17	+8
18-24	9	9	16	+7
25-29	8	17	18	+10
30-39	12	19	22	+10
40-49	13	16	19	+6
50-64	9	13	17	+8
65+	3	6	9	+6

PEW RESEARCH CENTER June 8-28, 2010. Q9, Q11, Q20. Those who read both a print and online newspaper are included in each individual category.

* Also includes those who said they got news online yesterday and, when prompted, said they visited the websites of one or more newspapers when online (Q20).

Time with the News

On average, the typical American spends 70 minutes watching, reading and listening to news on any given day. That is the highest level since the 2004 survey, which was conducted during the presidential campaign and amid rising violence in Iraq. The largest share of that time (32 minutes) is spent watching television news, 15% listening to news on the radio, and – reflecting the drop in overall readership – just 10 minutes reading a print version of the newspaper.

Time Spent with the News “Yesterday”

<i>Average minutes spent...</i>	1994	1996	1998	2000	2002	2004	2006	2008	2010
Watching TV news	38	31	31	28	28	32	30	30	32
Listening to news on radio	17	16	16	14	16	17	16	14	15
Reading a newspaper*	19	19	18	17	15	17	15	11	10
Getting news online**	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>6</u>	<u>8</u>	<u>11</u>	<u>13</u>
Total	74	66	65	59	59	72	69	66	70

PEW RESEARCH CENTER June 8-28, 2010. Q10, Q14, Q17, Q19. Figures may not add to 100% because of rounding. All averages are estimated based on self reported time spent watching TV news, reading newspapers, listening to news on the radio and getting news online. Online news added in 2004.

* For 2006-2010 average minutes includes only time reading a print newspaper.

** For 2006-2010 average minutes includes reading newspapers online.

There is a consistently large gap in time spent on the news by age. Those who are younger than 30 spend just 45 minutes with the news on any given day. That compares with 68 minutes for people in their 30s, 74 minutes for people in their 40s, and more than 80 minutes for those people 50 and older.

Much of this is based on the fact that fewer younger people are getting *any* news on a given day, which brings down the average substantially. But even when younger people get news, they spend less time doing so than do older people. Those younger than 30 who got news yesterday spent, on average, 64 minutes doing so, compared with 85 minutes among those 30 and older.

Age and Time Spent with the News

	-----Average total minutes yesterday -----								
	1994	1996	1998	2000	2002	2004	2006	2008	2010
18-29	56	44	48	42	38	45	49	46	45
30-39	69	60	53	50	57	70	65	63	68
40-49	75	65	65	58	56	73	64	67	74
50-64	83	79	69	64	71	82	76	74	81
65+	90	88	96	80	81	88	79	84	83

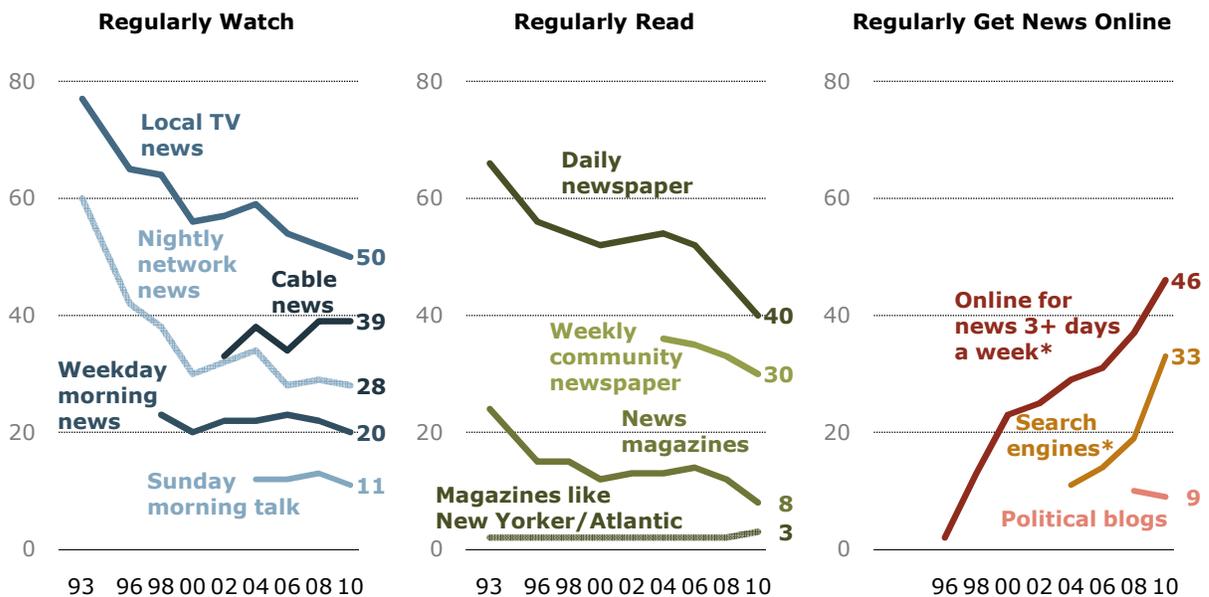
PEW RESEARCH CENTER June 8-28, 2010. Q10, Q14, Q17, Q19.

All averages are estimated based on total time spent watching TV news, reading a print version of the newspaper, listening to news on the radio and getting news online, including newspaper websites. Online news added in 2004.

Regular Sources of News

The relative stability in the number of adults who report getting television news on any given day is consistent with the trend in how many say they “regularly” get news from various types of television news programs. Following steep declines during the 1990s, the share who report regularly watching the national nightly network news programs has remained flat in recent years. Currently 28% watch the evening news regularly, little changed from 30% ten years ago. Roughly four-in-ten (39%) regularly watch cable news outlets, and half of Americans (50%) regularly watch the local TV news. Of these major TV news sources, only local news has experienced a significant decline over the past 10 years, from 56% in 2000 to 50% today.

Trends in Regular News Sources



PEW RESEARCH CENTER June 8-28, 2010. Q28aF1,bF1,k,o,p, Q30a-d, Q41, Q43, Q46 based on total.
 * Search engine use and general news online three or more days a week. All other trends are percent who use “regularly.”

By contrast, every year the number of Americans who describe themselves as regular readers of newspapers continues to fall. Currently, 40% say they regularly read a daily newspaper either in print or online, down from 46% two years ago and 52% in 2006. The share regularly reading local weekly community newspapers has fallen from 35% in 2006 to 33% in 2008 to 30% today. And fewer are reading news magazines such as Time, U.S. News or Newsweek; just 8% now say they read news magazines regularly, down from 12% in 2008 and 14% in 2006.

Meanwhile, consistent with the measure of use yesterday, the internet continues to grow as a regular source of news. In the latest survey, 46% say they get news online either every day (32%) or three-to-five days a week (14%). This is up from 37% two years ago and 31% in 2006, and just 2% when the question was first asked in 1995. Much of this reflects the continued growth in the share of Americans who have access to the internet.

Search engines have seen a particular surge in usage as a source of news over the past two years. A third (33%) of adults today say they use search engines to search for news on a particular topic at least three days a week or more, up from 19% in 2008 and 14% in 2006. But political blogs have seen no such increase – just 9% of Americans say that they regularly read blogs about politics or current events, virtually unchanged from 10% two years ago.

More Regularly Watching Fox News than CNN

Regularly Watch, Read or Listen to...

	1992	1994	1996	1998	2000	2002	2004	2006	2008	2010
Cable Networks	%	%	%	%	%	%	%	%	%	%
Fox News	--	--	--	17	17	22	25	23	23	23
CNN	30	33	26	23	21	25	22	22	24	18
MSNBC	--	--	--	8	11	15	11	11	15	11
CNBC	--	--	--	12	13	13	10	11	12	8
C-SPAN	6	9	6	4	4	5	5	4	5	4
Evening News Shows										
ABC World News	--	--	--	--	--	18	16	14	14	14
NBC Nightly News	--	--	--	--	--	20	17	15	13	12
CBS Evening News	--	--	--	--	--	18	16	13	8	8
Radio										
Talk radio shows		17	13	13	14	17	17	20	17	16
NPR	--	--	--	--	--	--	--	--	10	11
Newspapers										
New York Times	--	--	--	--	--	--	--	--	--	5
USA Today	--	--	--	--	--	--	--	--	--	4
Wall Street Journal	--	--	--	--	--	--	--	--	--	4

PEW RESEARCH CENTER June 8-28, 2010. Q28dF2-jF2, Q28I-n, Q31a-c, Q36.

* Longer trends on NPR not applicable due to changes in question wording.

For the first time in over a decade of tracking both audiences, more Americans say they regularly watch Fox News (23%) than CNN (18%). From 2002 through 2008 Fox News and CNN had run about even in the size of their regular audience, and in 1998 and 2000

CNN had the larger audience. But over the past two years, CNN's regular audience has declined by six points while Fox News' has remained stable. MSNBC and CNBC, which have consistently had fewer regular viewers than the other two cable networks, have also seen substantial drop-offs over the past two years. The share that regularly watch MSNBC fell from 15% in 2008 to 11% in 2010, and over this period CNBC's regular audience fell from 12% to 8%.

The decline in regular CNN viewership – from 24% in 2008 to 18% today – spans many demographic and political groups. Fewer younger (under 30) and older people (50 and older) now say they watch CNN regularly. Notably, significantly more people age 65 and over now watch Fox News regularly (30%) than CNN (21%). Two years ago, those 65 and older were about as likely to regularly watch CNN (30%) as Fox News (29%).

The proportion of Democrats that reports watching CNN regularly has fallen from 33% in 2008 to 25% currently. As in 2008, about twice as many Democrats as Republicans regularly watch CNN (25% vs. 12%).

Meanwhile, regular viewership of Fox News, which was already politically polarized, has become even more partisan. Currently, 40% of Republicans say they regularly watch Fox News, compared with just 15% of Democrats. Two years ago, the partisan gap was narrower (36% of Republicans vs. 21% of Democrats). Independents continue to watch both cable news networks at about the same rate (17% regularly watch CNN, 20% regularly watch Fox News). (See Section 4, *Who Is Listening, Watching, Reading – and Why*, for a detailed look at the demographic and political profiles of the audiences for CNN, Fox News and other news sources.)

Fewer Regular CNN Viewers

	CNN		Fox News		2010 N
	2008	2010	2008	2010	
	%	%	%	%	
Total	24	18	23	23	1509
Men	25	16	23	22	653
Women	22	20	23	24	856
18-29	22	13	19	17	246
30-49	21	19	23	21	392
50-64	26	18	26	26	489
65+	30	21	29	30	356
Republican	17	12	36	40	430
Democrat	33	25	21	15	493
Independent	19	17	18	20	487
College grad+	26	21	20	23	552
Some college	20	14	22	24	382
HS or less	25	18	26	23	568

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Q28gF2 & 28hF2.

Opinion and Comedy Programming

A number of talk shows focusing on political opinions and humor appeal to relatively few regular viewers. One-in-ten Americans (10%) say they watch the O'Reilly Factor on Fox News regularly, unchanged from two years ago, but up from earlier in the decade. Glenn Beck's program, which airs earlier in the day on Fox News, is watched regularly by 7%. About the same percentage regularly watches Sean Hannity's program, which follows O'Reilly's program. Reflecting the network's smaller audience overall, talk and opinion shows on MSNBC have fewer regular viewers. Just 4% say they regularly watch Hardball with Chris Matthews, and 3% watch Rachel Maddow or Keith Olbermann regularly.

Seven percent of Americans say they regularly watch the Daily Show with Jon Stewart on Comedy Central – a regular audience which has grown over the past decade. Roughly the same number (6%) regularly watch the Colbert Report, which airs immediately following.

Regular Cable/Radio Program Audiences

	2002	2004	2006	2008	2010
	%	%	%	%	%
O'Reilly Factor w/Bill O'Reilly	6	8	9	10	10
Daily Show w/ Jon Stewart	2	3	6	5	7
Glenn Beck Show	--	--	--	--	7
Sean Hannity's show	--	--	--	7	6
Colbert Report w/Stephen Colbert	--	--	--	5	6
Rush Limbaugh's radio show	4	6	5	5	5
Hardball w/Chris Matthews	--	--	--	4	4
Rachel Maddow Show	--	--	--	--	3
Countdown w/ Keith Olbermann	--	--	--	3	3

PEW RESEARCH CENTER June 8-28, 2010. Q29a-i.
 "Sean Hannity's show" trend to "Hannity and Colmes" in 2008.

What Young and Old Watch Regularly

One characteristic of the talk and opinion shows on both Fox News and MSNBC is that they tend to appeal to older audiences. The gap is particularly wide for the O'Reilly Factor, which is watched regularly by 16% of people 65 and older, and 5% of those under 30, but the same pattern applies to his fellow Fox News hosts Beck and Hannity. At MSNBC, Chris Matthews is watched regularly by 8% of older adults, and just 1% of 18-29 year olds, with smaller age differentials for Maddow and Olbermann.

Not surprisingly, the age pattern is the reverse for Comedy Central's programs. Among those younger than 30, 13% watch the Daily Show regularly, and the same number says they regularly watch the Colbert Report. Among people 65 and older, the figures are just 2% and 1%, respectively. Young people are about as likely to regularly watch these comedy shows as they are to regularly watch the network evening news, weekday morning news shows, or CNN.

Partisan News Choices

While many of the most widely used news sources – such as local TV news, network evening news programs and daily newspapers, reach about as many Republicans as Democrats, the same cannot be said for many other news sources, which have become increasingly politicized over the past decade.

News Sources by Age

Regularly watch/ read/listen to...	Total %	18-	30-	50-	65+
		29 %	49 %	64 %	65+ %
Local TV news	50	31	48	61	64
Daily newspaper	40	23	37	49	55
Community papers	30	17	28	38	39
Network evening	28	14	22	37	42
Fox News	23	17	21	26	30
Morning shows	20	12	18	24	28
CNN	18	13	19	18	21
Sunday shows	11	5	10	15	19
NPR	11	11	12	12	10
MSNBC	11	4	11	13	14
O'Reilly Factor	10	5	7	12	16
News blogs	9	6	10	12	8
News magazines	8	9	8	8	10
CNBC	8	4	8	9	10
Daily Show	7	13	8	5	2
Glenn Beck show	7	5	6	7	10
Hannity	6	2	5	8	10
Colbert Report	6	13	5	3	1
New York Times	5	8	5	3	5
Rush Limbaugh	5	3	5	5	8
USA Today	4	4	5	5	3
Wall Street Journal	4	4	4	4	3
Hardball	4	1	4	3	8
C-SPAN	4	2	4	3	5
Rachel Maddow	3	2	3	3	4
Countdown	3	2	3	3	4
N	3,006	507	766	952	735

PEW RESEARCH CENTER, June 8-28, 2010. Q28aF1, Q28gF2-m, Q28o, Q28p, Q29a-i, Q30a-d, Q31a-c, Q46.
Sample size note: Network evening news, CNN, Fox News, MSNBC and CNBC items were asked of only half the sample.

As discussed above, 40% of Republicans regularly watch Fox News, compared with just 15% of Democrats. And this general partisan divide is magnified when political ideology is taken into account. Nearly half (48%) of conservative Republicans regularly watch Fox News, compared with 27% of moderate and liberal Republicans. Among Democrats, just 7% of liberals are regular Fox News viewers, compared with 18% of conservative and moderate Democrats.

Fox News is a top news source among conservative Republicans; the proportion saying they regularly watch Fox News (48%) is about equal to the percentages of conservative Republicans who watch local TV news (50%) or read a daily newspaper (47%). No single news network ranks among the top sources for other partisan groups.

The partisan tilt in viewership of Fox News is even greater for individual programs on the network. Over a quarter (27%) of conservative Republicans say they regularly watch the O'Reilly Factor, compared with 9% of moderate and liberal Republicans, 9% of independents, 4% of conservative and moderate Democrats, and 1% of liberal Democrats. Viewership patterns for Hannity and Beck are comparable.

Where Partisans Turn for News and Opinion

Regularly watch/ read/listen to...	Total %	Among Reps			Among Dems			N	
		Rep %	Dem %	Ind %	Mod/ Cons/ %	Mod/ Cons/ %	Lib %		
Local TV news	50	51	54	48	50	54	61	40	
Daily newspaper	40	45	41	38	47	41	43	40	
Community papers	30	35	30	30	37	33	32	26	
Network evening	28	27	30	27	23	33	32	24	
Fox News	23	40	15	20	48	27	18	7	
Morning shows	20	18	26	17	15	22	29	21	
CNN	18	12	25	17	10	18	24	26	
Sunday shows	11	11	13	11	11	11	14	13	
NPR	11	6	14	14	6	8	10	23	
MSNBC	11	6	16	10	5	7	17	18	
O'Reilly Factor	10	21	3	9	27	9	4	1	
News blogs	9	10	10	9	12	7	9	13	
News magazines	8	7	10	8	7	9	8	16	
CNBC	8	6	11	6	6	8	12	11	
Daily Show	7	4	9	8	3	8	8	14	
Glenn Beck show	7	14	2	7	19	5	2	*	
Hannity	6	15	1	5	20	5	1	*	
Colbert Report	6	3	7	7	2	5	5	11	
New York Times	5	2	8	6	1	4	5	13	
Rush Limbaugh	5	13	2	4	17	5	2	1	
USA Today	4	6	4	4	7	4	4	3	
Wall St Journal	4	6	3	5	7	4	3	3	
Hardball	4	2	6	3	1	3	6	7	
C-SPAN	4	3	5	3	2	3	6	3	
Rachel Maddow	3	1	4	3	1	2	3	7	
Countdown	3	*	5	2	*	1	5	7	
N	3,023	841	961	993	580	238	612	307	

PEW RESEARCH CENTER, June 8-28, 2010. Q28aF1, Q28gF2-m, Q28o, Q28p, Q29a-i, Q30a-d, Q31a-c, Q46.
Sample size note: Network evening news, CNN, Fox News, MSNBC and CNBC items were asked of only half the sample.

There also are differences in the other direction when it comes to MSNBC and its programs. For example, 7% of liberal Democrats say they regularly watch Rachel Maddow's program, compared with 3% of conservative and moderate Democrats, 3% of independents, 2% of moderate and liberal Republicans, and 1% of conservative Republicans.

There is a sharp partisan divide when it comes to reading the New York Times regularly – 8% of Democrats and just 4% of Republicans do so. Among liberal Democrats, 13% regularly read the Times, compared with 5% of conservative and moderate Democrats, 6% of independents, 4% of moderate and liberal Republicans, and just 1% of conservative Republicans. The Wall Street Journal is read more regularly by Republicans (6%) than Democrats (3%), though the ideological differences are less pronounced.

When it comes to radio, Democrats (14%) and independents (14%) are more likely than Republicans (6%) to say they regularly listen to NPR. Nearly a quarter of liberal Democrats (23%) regularly get news from NPR, compared with 10% of conservative and moderate Democrats, 8% of moderate and liberal Republicans and 6% of conservative Republicans. By contrast, 13% of Republicans (including 17% of conservative Republicans) say they regularly listen to Rush Limbaugh's radio program; that compares with just 4% of independents and 2% of Democrats.

SECTION 2: ONLINE AND DIGITAL NEWS

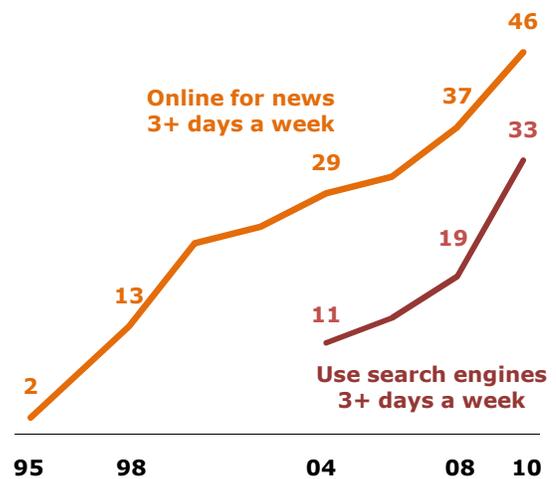
The internet is a regular news source for a majority of Americans – 57% regularly get news from at least one internet or digital source. Over the past several years, there has been a rise in the use of more traditional online technologies, like search engines, and a proliferation of new technologies, like news applications for mobile phones, and tablet computers, such as the iPad.

Nearly half (46%) of the public says they get news online three or more days a week, up from 29% in 2004 and 37% just two years ago. About a third (32%) gets news online every day, which is double the percentage that reported going online for news daily four years ago.

The use of search engines to find news has also increased substantially. A third (33%) of the public employs search engines, such as Google, Yahoo or Bing, three or more days a week to search for news on a particular subject of interest. That is up from 19% in 2008 and has tripled since 2004, when only 11% used search engines for news that frequently.

The public turns to other online technologies for news far less often. About one-in-ten regularly get news or news headlines by email (12%), through a customizable webpage or RSS reader (10%), or read blogs about politics or current events (9%). When it comes to newer technologies, 8% regularly get news on their cell phone or smartphone, 7% regularly get news through social networking sites and 5% regularly watch or listen to news podcasts. Only 2% of the public regularly gets

Rise in Online News Consumption



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New Online Technologies for News

Percent of the public who gets news through ...	Regularly %
Email	12
Customized homepage/RSS reader	10
Blogs	9
Cell phone/Smartphone	8
Social networking site	7
Podcasts	5
Twitter	2
iPad	1

PEW RESEARCH CENTER June 8-28, 2010. Q46, Q49, Q50, Q51, Q55, Q57, Q61 & Q70.

news through Twitter, and 1% uses their iPad or other tablet computer for news regularly.

Regular Online News Consumption

There continue to be age, education, gender and racial differences in online news consumption. Although young adults are often on the leading edge of internet and digital technology adoption, those in their 30s and 40s – who are the most avid news consumers – are also the most likely to get news online. A majority (58%) of those ages 30 to 49 get news online at least three days a week, compared with 48% of those under 30 and 46% of people ages 50 to 64. Just 22% of those 65 and older regularly get news online.

College graduates continue to go online for news at much higher rates than do those with less education. About seven-in-ten (69%) college graduates get news online at least three days a week (including 53% who do so every day). By comparison, only 27% of those with a high school education or less regularly get news online at least three days a week.

More men than women regularly get news online (51% vs. 41%). Non-Hispanic whites (49%) also are significantly more likely than non-Hispanic blacks (31%) to get news online at least three days a week. Many of these demographic patterns partly reflect variations in internet use; still, there are substantial educational, racial and gender differences in going online for news even when internet use is taken into account.

Regular Online News Consumers

<i>Percent who get news online at least three days a week</i>	General public	Among internet users
	%	%
Total	46	56
Men	51	61
Women	41	51
White, non-Hispanic	49	58
Black, non-Hispanic	31	46
18-24	48	49
25-29	49	50
30-39	62	66
40-49	55	63
50-64	46	57
65+	22	43
College grad+	69	72
Some college	52	57
High school or less	27	40

PEW RESEARCH CENTER June 8-28, 2010. Q41.

Online News Sources

Many familiar names dominate the list of websites people go to most often for news and information. More than a quarter (28%) mention Yahoo – the most frequently mentioned website – and another 15% cite Google and 14% name MSN as one of the websites they use most often. Fewer mention AOL (7%) and their internet service provider (4%) as their top online sources for news.

Cable television news organizations also are among the most common websites for news and information – 16% cite CNN, 8% mention FOX, and 7% name MSNBC among the websites they use most often. Far fewer cite BBC (2%), ABC (2%), NBC (2%), NPR (1%) and CBS (1%).

Online news consumers also turn to the websites of national newspapers; 6% name the New York Times website, but USA Today (2%), the Wall Street Journal (2%) and the Washington Post (1%) are mentioned less often.

Only 2% cite the Drudge Report and 1% volunteer the Huffington Post as one of the websites they go to most often for news and information. And 1% mention Facebook as one of their top sources for news.

Where Do People Get News Online?

<i>Websites used most often ...</i>	%
Yahoo	28
CNN	16
Google	15
MSN	14
Local news sites	11
Fox	8
AOL	7
MSNBC	7
New York Times	6
Internet service providers	4
BBC	2
Drudge Report	2
ABC	2
USA Today	2
Wall Street Journal	2
NBC	2

PEW RESEARCH CENTER June 8-28, 2010. Q42.

*Open-ended question based on those who go online for news. Figures add to more than 100% because of multiple responses.

Searching for News Online

Not only are Yahoo and Google among the most frequently mentioned websites for online news, but two-thirds of the public say they use search engines to find news on a particular subject. And Americans are using search engines more frequently than they were just two years ago. About a third (34%) of the public now use search engines at least three days a week, up from 19% in 2008. The increase is evident across most demographic groups.

Similar to two years ago, far more college graduates than those with a high school

education or less use search engines at least three days a week (50% vs. 20%). Those 65 and older are the least likely to use search engines.

Far fewer regularly get news through a customizable webpage or RSS reader than search for news. One-in-ten (10%) regularly get news through a customizable webpage, such as iGoogle or MyYahoo, or through an RSS reader. About two-thirds of the public (67%) never gets news through a customized webpage or RSS reader.

People under 50 are more than twice as likely as those 50 and older to regularly get news through a customized webpage or RSS reader (14% vs. 6%). And 14% of college graduates

More Turning to Search Engines for News

Percent who use search engines for news at least three days a week

	General public			Based on internet users		
	2008	2010	Change	2008	2010	Change
Total	19	34	+15	29	41	+12
Men	21	39	+18	31	46	+15
Women	17	29	+12	26	36	+10
White, non-Hispanic	18	35	+17	27	42	+15
Black, non-Hispanic	17	23	+6	31	34	+3
18-24	23	39	+16	29	40	+11
25-29	21	45	+24	28	47	+19
30-39	29	47	+18	36	50	+14
40-49	21	36	+15	29	42	+13
50-64	16	33	+17	25	40	+15
65+	6	12	+6	18	24	+6
College grad+	32	50	+18	36	52	+16
Some college	24	39	+15	31	48	+17
High school or less	9	20	+11	19	29	+10
N	3615	3006		2331	2266	

PEW RESEARCH CENTER June 8-28, 2010. Q43.

Online News on Demand

Percent who get news from a customized webpage or RSS reader ...

	General public	Among internet users
Regularly	10	12
Sometimes	10	12
Hardly ever	12	15
Never/Not online	67	60
Don't know	1	1
	100	100

PEW RESEARCH CENTER June 8-28, 2010. Q55.

get customized news through a webpage or RSS reader, compared with 6% of those with a high school education or less.

News on the Go

About a third of the public (34%) and 42% of cell phone owners access the internet or email on their cell phones or smartphones. But far fewer people are getting *news* on their cell phones; 8% regularly get news or news headlines on their cell phones; 6% sometimes do this. About one-in-ten (9%) say they got news on their cell phone yesterday.

Among those who access the internet on their cell phones, 24% regularly and 18% sometimes get news on their cell phones. More than a quarter of this group (27%) say they used their cell phones to get news yesterday.

Fewer than one-in-five (16%) Americans have downloaded an application or “app” to access news or news headlines on their cell phone, but 44% of cell phone internet users have downloaded a news-related application for their phone.

Mobile Phones and News Consumption

	General public	Among cell phone owners	Among cell internet users
	%	%	%
Access internet/email using cell phone	34	42	n/a
<i>Get news by cell phone ...</i>			
Regularly	8	10	24
Sometimes	6	8	18
Hardly ever	7	8	20
Never/Not online*	78	74	38
Got news on cell phone yesterday	9	11	27
Downloaded an “app” to access news	16	20	44
N	3006	2627	913

PEW RESEARCH CENTER June 8-28, 2010. Q40c, Q47b-c, Q49, Q49a & Q48.

* Includes those who don't have a cell phone and those who don't go online using their cell phone.

More men than women regularly get news on their cell phone. College graduates are more likely than those with less education to use their cell phone for news. And although Americans under 50 are more likely than those ages 50 and older to regularly get news on their cell phones, much of this reflects that those over 50 are far less likely to use the internet on their cell phones. There are no significant age differences on this question among cell internet users.

More Men than Women Get News on a Cell Phone

	<i>General public</i>		<i>Among cell internet users</i>	
	Reg-ularly	Some-times	Reg-ularly	Some-times
<i>Percent who get news on a cell phone</i>	%	%	%	%
Total	8	6	24	18
Men	12	7	29	17
Women	5	6	17	20
18-24	13	10	22	18
25-29	14	10	24	17
30-39	13	11	25	22
40-49	10	7	26	17
50-64	5	4	23	18
65+	1	1	--	--
College grad+	14	10	31	21
Some college	9	6	23	14
High school or less	4	4	16	19

PEW RESEARCH CENTER June 8-28, 2010. Q49.

Getting News from Social Networking Sites

Nearly half (45%) of the public has created a profile on a social networking site like MySpace, Facebook or LinkedIn. Far fewer use Twitter (9%). Not surprisingly, more get news through social networking sites than from Twitter.

About one-in-five (19%) regularly (7%) or sometimes (12%) get news or news headlines through social networking sites. By comparison, only 3% of the public regularly or sometimes gets news from Twitter. Similarly, 9% say they got news yesterday through social networking sites, compared with only 2% who got news-related tweets yesterday.

More Use Social Networking Sites for News Than Twitter

	General public		Among ...	
	Social networking Sites	Twitter	Social networking users	Twitter users
	%	%	%	%
Use/Have a profile	45	9	n/a	n/a
<i>Get news ...</i>				
Regularly	7	2	16	17
Sometimes	12	1	26	15
Hardly ever	10	3	22	27
Never/Not online*	71	95	36	42
Got news yesterday	9	2	19	18
Follow news orgs./journalists	7	2	16	24
<i>Send news ...</i>				
Regularly	2	1	4	6
Sometimes	8	1	17	9
Hardly ever	9	2	20	20
Never/Not online*	82	97	59	65
N	3006	3006	1264	256

PEW RESEARCH CENTER June 8-28, 2010. Q56-Q63.

*Includes those who do not use the internet, those who do not have a social networking or Twitter profile and those who do not get news from social networking sites or Twitter.

However, among users of each of these sites, there are fewer differences in news consumption. As many Twitter users say they regularly get tweets about the news as social networking users who regularly get news through social networking sites (17% vs. 16%). But more social networking users get news sometimes than Twitter users (26% vs. 15%). Similarly, 18% of Twitter users got news yesterday through Twitter, while 19% of social networking users turned to these sites for news.

Twitter users are more likely to follow news organizations or individual journalists; 24% of Twitter users do this compared with 16% of social networking users. And, as is the case with cell phones and news consumption, far fewer send news through social networking sites or Twitter than receive news; 21% of social networking users regularly

(4%) or sometimes (17%) send news through these sites. Somewhat fewer Twitter users send news tweets: 15% of Twitter users regularly (6%) or sometimes (9%) send news or news headlines through Twitter.

As with other types of online news consumption, there are demographic differences in the use of social networking sites and Twitter for news. Combining those who get news through social networking sites or Twitter, Americans under 30 are the most likely to get news through these sites at least sometimes (36%). About a quarter (26%) of those ages 30-49 also gets news through these sites regularly or sometimes. But far fewer (6%) who are 50 and older turn to these sites for news. However, among social networking or Twitter users, these age differences are smaller – only those 65 and older lag far behind other age groups in getting news through these sites.

Women are slightly more likely than men to get news through social networking sites or Twitter – 22% of women get news through social networking sites or Twitter regularly or sometimes, compared with 18% of men.

More college graduates (13%) regularly get news through social networking sites or Twitter than those with a high school education or less (4%). But both groups are equally likely to sometimes get news through these sites.

Who Gets News Through Social Networking Sites or Twitter?

<i>Percent who get news through social networking sites or Twitter</i>	<i>General public</i>		<i>Among SNS or Twitter users</i>	
	Reg-ularly %	Some-times %	Reg-ularly %	Some-times %
Total	8	12	17	27
Men	7	11	16	25
Women	9	13	19	28
18-24	13	26	15	31
25-29	14	23	19	30
30-39	17	20	26	31
40-49	8	11	16	23
50-64	4	6	14	18
65+	*	2	3	15
College grad+	13	13	21	21
Some college	9	13	17	24
High school or less	4	12	13	36

PEW RESEARCH CENTER June 8-28, 2010. Q57 & Q61.

Little Partisan Difference in Blog Reading

About one-in-ten (9%) Americans regularly read blogs about politics or current events, another 19% sometimes turn to blogs for their news and 22% hardly ever read blogs. About half (49%) never read blogs or do not use the internet. Among internet users, 35% regularly (11%) or sometimes (24%) read political or news blogs. This is similar to 2008, when 14% of internet users regularly read blogs and 20% sometimes turned to blogs for news.

There are virtually no partisan differences in blog reading; 10% of Republicans, 10% of Democrats and 9% of independents regularly read political blogs. Conservative Republicans and liberal Democrats are slightly more likely than their moderate counterparts to regularly read blogs about politics or current events.

There are only modest age differences in blog reading; those under 30 are the least likely to read blogs. And although far fewer people age 65 and older engage in many online activities, seniors who go online are just as likely as their younger counterparts to read blogs. Similar to the pattern for other online behaviors, college graduates (13%) are more likely to regularly read political or news blogs than those with some college experience (9%) and those with a high school education or less (7%).

Many Older Internet Users Read Political Blogs

<i>Percent who read blogs about politics or current events ...</i>	General public		Among internet users	
	Reg-ularly	Some-times	Reg-ularly	Some-times
	%	%	%	%
Total	9	19	11	24
Men	11	18	14	22
Women	7	20	9	25
18-24	6	23	6	23
25-29	6	23	7	24
30-39	10	25	11	26
40-49	10	22	12	25
50-64	12	16	15	20
65+	8	13	16	26
College grad+	13	23	14	24
Some college	9	22	10	24
High school or less	7	15	10	23
Republican	10	21	12	25
Conservative Rep	12	21	14	25
Mod/Lib Rep	7	22	8	25
Independent	9	20	10	22
Democrat	10	20	13	26
Cons/Mod Dem	9	19	12	25
Liberal Dem	13	23	15	27

PEW RESEARCH CENTER June 8-28, 2010. Q46.

Emailing News

About a quarter (27%) of the public regularly (12%) or sometimes (15%) get news or news headlines by email. Another 20% hardly ever receives news in their inboxes and 54% never get news by email or are not online.

Meanwhile, 14% say they got news or news headlines by email yesterday. And 10% of the public says they get news emailed to them directly from news organizations or journalists.

Fewer send news by email than receive it; only 3% regularly and 11% sometimes send news by email. About two-thirds of Americans (67%) never send news by email (49%) or do not use the internet (18%). Even among internet users, only 4% regularly send news by email, compared with 14% who receive news in their inboxes regularly.

Email and News Consumption

	General public	Among internet users
	%	%
Use internet/email	82	100
<i>Get news by email...</i>		
Regularly	12	14
Sometimes	15	18
Hardly ever	20	24
Never/Not online	54	43
Got news by email yesterday	14	17
Get email directly from news orgs./journalists	10	12
<i>Send news by email... ..</i>		
Regularly	3	4
Sometimes	11	13
Hardly ever	19	23
Never/Not online	67	60
N	3006	2474

PEW RESEARCH CENTER June 8-28, 2010. Q51-Q54.

Young People Most Likely to Happen Across News Online

A majority of the public (62%) and about three-quarters of internet users (76%) say they come across news online even when they are on the internet for purposes other than getting news. The proportion of internet users who happen across news online is virtually unchanged over the last six years.

Young people are the most likely to come across news when online for other purposes – 85% of those under 30 say this, compared with 70% of those ages 30 to 49 and 56% of those ages 50 to 64. Seniors are the least likely to happen across news online (29%). These age differences are similar but less pronounced when looking only at internet users.

Far more college graduates (82%) come across news when online for other purposes than those with some college education (68%) or those with a high school degree or less (46%). And 67% of men happen across news when online for other reasons, compared with 58% of women.

Do You Ever Come Across News When You are Online for Other Purposes?

<i>Percent who come across news when online for other purposes</i>	General public %	Among internet users %
Total	62	76
Men	67	79
Women	58	73
18-24	87	91
25-29	83	86
30-39	72	74
40-49	69	79
50-64	56	70
65+	29	58
College grad+	82	85
Some college	68	75
High school or less	46	69

PEW RESEARCH CENTER June 8-28, 2010. Q45F2.

Regular News Consumption Among Young People

While nearly half (48%) of those younger than 30 get news online regularly (three or more days a week), many young people also continue to rely on traditional news sources – particularly television. About three-in-ten (31%) regularly watch local news and nearly as many (29%) watch cable news.

Among specific television outlets and programs, 17% say they regularly watch Fox News while 13% say they regularly watch CNN. About as many young people regularly watch the Daily Show (13%) and the Colbert Report (13%) as watch the national network evening news (14%) and the morning news shows (12%).

After local TV and cable news, newspapers are near the top of the list. About a quarter (23%) of those under 30 read a daily newspaper regularly and 17% are regular consumers of weekly community newspapers.

Young people also regularly turn to many online or digital sources for news; 16% get news on a customized webpage or through an RSS reader, 13% use their cell phones for news and 13% get news through social networking sites or Twitter. About one-in-ten (11%) young people regularly get news by email.

Where Young People Turn for News

<i>Percent who regularly ...</i>	18-29 %
Get news online*	48
Watch local TV News	31
Watch cable news	29
Read a daily newspaper	23
Read local weekly community newspapers	17
Watch the Fox News Channel	17
Get news on custom webpage/RSS reader	16
Watch the network evening news	14
Watch CNN	13
Get news on cell phone/smartphone	13
Watch the Daily Show	13
Get news from social networking/Twitter	13
Watch the Colbert Report	13
Watch the morning shows	12
Get news by email	11
Listen to NPR	11

PEW RESEARCH CENTER, June 8-28, 2010.
Q28-31, Q41, Q49, Q51, Q55, Q57 & Q61.
* 3 or more days a week

Gender, Age and Online News Consumption

Among young people, men are more likely than women to regularly get news online and to use many online technologies for news. More than half (54%) of men under the age of 30 get news online at least three days a week, compared with 41% of young women. Similarly, 48% of young men use search engines to find news on a particular subject while 33% of women under 30 get news by using search engines.

Young Men More Avid Online News Consumers

	All 18-29 year olds	Men	Women	Diff
<i>Get news regularly</i>	%	%	%	
Online*	48	54	41	+13
Search engines*	41	48	33	+15
Customized homepage/ RSS reader	15	20	9	+11
Cell phone/Smartphone	13	19	7	+12
Social networking site/ Twitter	13	14	12	+2
Email	11	13	9	+4
Blogs	6	9	3	+6
N	507	266	241	

PEW RESEARCH CENTER June 8-28, 2010. Q41, Q43, Q46, Q49, Q51, Q55, Q57 & Q61. Based on general public.

* Regularly for these items includes those who said every day or 3-5 days per week.

More than twice as many young men as young women get news through a customizable webpage or a RSS reader (20% vs. 9%). Men under 30 also are more avid consumers of news on their cell phone or smartphone than young women. About one-in-five (19%) young men get news or news headlines on their cell phone, compared with only 7% of women under 30. Men under 30 also are more likely to regularly read blogs about politics or current events. But there are no significant differences among young men and women in their use of social networking sites or Twitter and the use of email for news.

Recording the News

More Americans have the technology to digitally record television programs – 45% now have a TiVo or DVR, up from 35% just two years ago, and nearly double the proportion that had one in 2006. But only 24% of those with a TiVo or DVR have programmed it to regularly record any news programs. This is little changed from two years ago (22%), even though the share of Americans who have a TiVo or DVR has grown.

More Now Have a TiVo or DVR

	2002	2004	2006	2008	2010
Among the general public	%	%	%	%	%
Have a TiVo or DVR	3	13	23	35	45
Among those with a TiVo/DVR					
Program TiVo/DVR to record news programs	--	--	17	22	24

PEW RESEARCH CENTER June 8-28, 2010. Q75 & Q76.

There are very few demographic differences among those who program their TiVo or DVR to regularly record news programs. Men are as likely as women to regularly record news programs and similar proportions of whites and blacks have programmed their TiVo or DVR to record news programs. There are only modest differences by age – those 65 and older are slightly less likely than those in other age groups to record news programs using a TiVo or DVR.

More college graduates (31%) regularly record news programs using a TiVo or DVR than those with some college (24%) and people with a high school education or less (17%). And there is a similar pattern by income – those with the highest family incomes are the most likely to have programmed their TiVo or DVR to regularly record news programs.

About a quarter of Republicans (23%), Democrats (24%) and independents (26%) regularly record news programs with a digital video recorder. And there are no significant differences among Republicans or Democrats along ideological lines.

Digitally Recording News

<i>Percent who have programmed TiVo/DVR to record news programs</i>	Among those who have a TiVo/DVR
	%
Total	24
Men	23
Women	25
White, non-Hispanic	24
Black, non-Hispanic	20
18-24	22
25-29	24
30-39	28
40-49	27
50-64	23
65+	17
College grad+	31
Some college	24
High school or less	17
<i>Family income</i>	
\$75,000 or more	29
\$30,000-\$74,999	22
Less than \$30,000	17
Republican	23
Conservative Republican	23
Mod/Liberal Republican	23
Independent	26
Democrat	24
Conserv/Mod Democrat	25
Liberal Democrat	23

PEW RESEARCH CENTER June 8-28, 2010. Q76.

SECTION 3: NEWS ATTITUDES AND HABITS

Most Americans say they enjoy keeping up with the news, but the proportion saying they enjoy following the news a lot has declined. Currently 45% say they enjoy following the news a lot, while 36% say they enjoy this a little and 18% say not much or not at all. In each of the past three news consumption surveys (2004, 2006 and 2008), 52% said they enjoyed following the news a lot.

The falloff in the number saying they enjoy the news a lot has come across many groups, but the declines have been particularly large among Democrats – particularly liberal Democrats – young people and those with no more than a high school education.

The percentage of liberal Democrats who say they enjoy keeping up with the news a lot has fallen 22 points, from 67% in 2008 to 45% currently. The decline is 12 points among conservative and moderate Democrats (58% to 46%). By contrast, opinions among Republicans and independents have shown little change.

Those younger than 30 have consistently been less likely to say they enjoy keeping up with the news than have older age groups. The falloff since 2008 is also larger for young people than for other age groups. About a quarter of those

Fewer Say They Enjoy Keeping Up with the News "a lot"

<i>Enjoy keeping up w/ news...</i>	1998	2000	2002	2004	2006	2008	2010
	%	%	%	%	%	%	%
A lot	50	45	48	52	52	52	45
Some	37	40	36	37	34	32	36
Not much/Not at all	13	15	15	10	13	15	18
Don't know	<u>*</u>	<u>*</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>
	100	100	100	100	100	100	100

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Sharp Decline in Number of Democrats, Young People who Enjoy Following the News

<i>Enjoy keeping up w/ news "a lot"</i>	2006	2008	2010	08-10 change
Total	52	52	45	-7
Men	55	53	48	-5
Women	50	51	42	-9
White	52	52	46	-6
Black	60	60	53	-7
18-29	38	39	27	-12
30-49	51	49	43	-6
50-64	60	59	53	-6
65+	59	64	60	-4
College grad+	61	59	55	-4
Some college	53	51	45	-6
HS or less	47	49	39	-10
Con Rep	60	57	57	0
Mod/Lib Rep	50	47	39	-8
Independent	48	45	43	-2
Cons/Mod Dem	56	58	46	-12
Lib Dem	63	67	45	-22

PEW RESEARCH CENTER June 8-28, 2010. Q37.

ages 18 to 29 (27%) now say they enjoy keeping up with the news a lot, down 12 points from 39% in 2008.

The percentage of those with a high school diploma or less who say they enjoy keeping up with the news a lot dropped from 49% in 2008 to 39%; there has also been a slight decline among those with some college experience (from 51% to 45%). The views of college graduates are largely unchanged (59% in 2008, 55% today).

Fewer Getting News at Regular Times

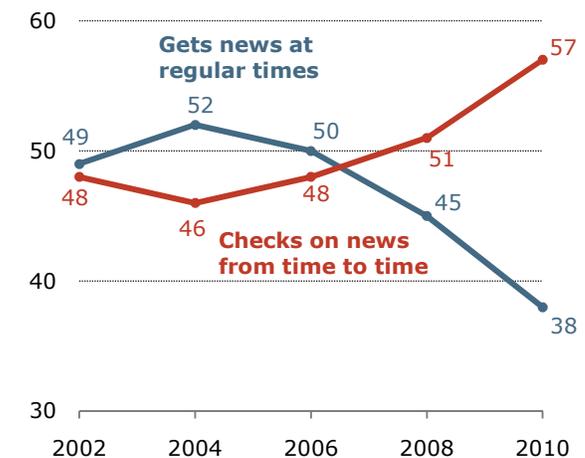
With the availability of the internet and 24-hour news channels, nearly six-in-ten Americans (57%) say they are the kind of people who check in on the news from time to time, as opposed to getting the news at regular times. That is up from 51% in 2008 and 48% in 2006.

The percentage saying they are more likely to get their news at regular times has dropped from 50% in 2006 to 45% in 2008 to 38% today.

Young people have long been more likely than older Americans to say they check in on the news rather than getting news on a regular schedule. That remains the case today, but “news grazing” has become much more common among older age groups.

Among those 50 to 64, about as many say they get news from time to time (49%) as at regular times (46%). Just two years ago, a majority (55%) of this age group said they got news at regular times. Those 65 and older are still most likely to get their news at regular times (57%), but that is down from 64% in 2008. The percentage that says they get news from time to time rose from 31% to 37%.

More Say They Graze for News



PEW RESEARCH CENTER June 8-28, 2010. Q91.

Among those ages 30 to 49, 63% say they are more likely to get news from time to time than at regular times (32%). Two years ago, the divide was more narrow (57% from time to time, 41% at regular times). A substantial majority of those younger than 30 continue to say they get news more from time to time (74% now, 70% in 2008).

People with no more than a high school education also are now more likely to get news from time to time. Among this group, the percentage that says they get news from time to time increased from 49% in 2008

to 58%, while the number saying they get their news at regular times dropped from 47% to 36%. Majorities among both those with some college experience (59%) and those with a college degree (54%) say they seek out news from time to time. That also was the case in 2008.

Older Age Groups Increasingly Graze for News

<i>Get most news...</i>	----- 2008 -----			----- 2010 -----		
	At regular times %	From time to time %	Other/DK %	At regular times %	From time to time %	Other/DK %
Total	45	51	4=100	38	57	5=100
Men	43	53	4=100	34	60	6=100
Women	47	49	4=100	41	54	5=100
18-29	27	70	3=100	21	74	5=100
30-49	41	57	2=100	32	63	5=100
50-64	55	41	5=100	46	49	5=100
65+	64	31	5=100	57	37	6=100
Coll grad+	46	51	3=100	41	54	4=100
Some coll	41	56	3=100	36	59	5=100
HS or less	47	49	5=100	36	58	6=100

PEW RESEARCH CENTER June 8-28, 2010. Q91.
Numbers may not add to 100% because of rounding.

Most See Some News Sources as More Trustworthy

Most Americans say they trust certain news sources more than others. Currently, 57% express this view, up slightly from 53% in 2008. About four-in-ten (39%) say they see all the news media as “pretty much the same.” That is down slightly from 43% in 2008 and 45% in 2006.

About three-quarters of conservative Republicans (76%) and 69% of liberal Democrats say they trust a few news sources more than others. Smaller majorities of other political groups express this view.

While there has been little change among Democratic groups on this question since 2008, an increasing number of conservative Republicans say they trust a few sources more than others; 76% express that view currently, compared with 65% in 2008.

Those with a college degree or more education are more likely than those with less education to say they trust certain sources more than others. Three-quarters (75%) of those with at least a college degree say they trust certain sources more, up from 69% in 2008. About six-in-ten (59%) of those with some college experience say this, as do 43% of those with a high school diploma or less education. Those numbers are little changed from 2008.

Liberals, Conservatives More Likely to Trust a Few News Sources

<i>Which comes closer to your view?</i>	News media all similar	Trust a few sources more	DK
	%	%	%
2010	39	57	5=100
2008	43	53	4=100
2006	45	52	3=100
Liberal Dem	29	69	2=100
Cons/Mod Dem	46	51	4=100
Independent	40	56	5=100
Mod/Lib Rep	43	55	2=100
Cons Rep	22	76	2=100
College Grad +	24	75	2=100
Some college	36	59	4=100
HS or less	50	43	7=100

PEW RESEARCH CENTER June 8-28, 2010. Q92.

More Prefer News with No Point of View to their Point of View

About six-in-ten (62%) say they prefer getting political news from sources that do not have a particular point of view. A quarter (25%) says they prefer getting news from sources that share their political point of view. That is down slightly from 2008 when 66% said they preferred getting news from sources that do not have a specific point of view.

About four-in-ten conservative Republicans (41%) say they prefer to get news from sources that share their political point of view – the highest percentage of any political group. That compares with a third of liberal Democrats (33%) and only about one-in-five conservative and moderate Democrats (22%), moderate and liberal Republicans (20%), and independents (19%).

Roughly seven-in-ten (71%) of those with a college education or more say they prefer political news with no point of view, compared with just more than half (53%) of those with a high school diploma or less education. In terms of income, 70% of those with family incomes of \$75,000 or more say they prefer news with no point of view; 54% of those with family incomes of \$30,000 or less agree.

Most Want Political News with No Point of View

	<i>Prefer political news from...</i>		
	My point of view	No point of view	DK
	%	%	%
2010	25	62	13=100
2008	23	66	11=100
2006	23	68	9=100
College grad+	21	71	9=100
Some college	23	67	11=100
HS or less	29	53	18=100
Conserv Rep	41	48	11=100
Mod/Lib Rep	20	71	9=100
Independent	19	69	12=100
Cons/Mod Dem	22	66	11=100
Liberal Dem	33	58	9=100

PEW RESEARCH CENTER June 8-28, 2010. Q93.

Majority Sees Bias in News Coverage

About eight-in-ten Americans (82%) say they see at least some bias in news coverage – 52% say they see a lot and 30% say they see some. By a wide margin, those who see bias in news coverage say it is a liberal bias; 43% of the public says there is more of a liberal bias while just 23% see more of a conservative bias.

Republicans, especially conservative Republicans, are more likely than other political groups to say they see a lot of press bias. More than six-in-ten Republicans (62%) say this, compared with 47% of Democrats and 53% of independents. About seven-in-ten Republicans (69%) say that bias tilts liberal. Among conservative Republicans, 72% see a lot of bias in news coverage and 79% say that bias tilts liberal.

Nearly half of Democrats (47%) say they see a lot of bias in coverage, while another 33% see some. Slightly more Democrats say they see a conservative bias (36%) than a liberal bias (28%).

But by nearly two-to-one (41% to 22%), more liberal Democrats see a conservative bias in news coverage than a liberal bias.

Independents largely mirror the public as a whole: 53% see a lot of bias and 30% see some. Fully 44% say that bias tilts liberal, while 21% say it tilts conservative.

Fewer of those with a high school degree or less say they see at least some bias than those with some college experience or a college degree or more education. About four-in-ten (39%) of those with a high school degree or less education say they see a lot of bias, compared with 58% of those with some college experience and 64% of those with a college degree or more education.

Most See Press Bias – and Generally with a Liberal Tilt

	<i>How much bias do you see in news coverage?</i>		<i>Bias is...*</i>	
	A lot	Some	Conserv	Liberal
	%	%	%	%
Total	52	30	23	43
Men	56	26	21	45
Women	48	33	25	42
18-29	40	37	27	38
30-49	51	31	24	44
50-64	59	27	22	46
65+	56	24	17	45
Coll grad+	64	28	23	51
Some college	58	29	23	48
HS or less	39	31	23	35
Republican	62	27	11	69
Cons Rep	72	21	6	79
Mod/Lib	44	40	21	52
Democrat	47	33	36	28
Cons/Mod	45	37	34	33
Lib Dem	53	28	41	22
Independent	53	30	21	44

PEW RESEARCH CENTER June 8-28, 2010. Q95 & 95a.

* Based on total, asked of those who see at least some bias.

About half of those with at least a college degree (51%) say the bias tilts liberal, compared with 35% of those with no more than a high school education. Among those with some college experience, 48% perceive a liberal tilt.

Tracking the News for Work

More than a third of those employed full or part-time say that keeping up with the news is important to their jobs. That number has changed little in recent years, fluctuating from 35% in 2006 to 30% in 2008 and then up to 36% this year.

And, as in past surveys, those with at least a college degree are much more likely than those with less education to say it is important for their jobs to keep up with the news. Fully half of those with a college degree or more education say this, compared with 28% each of those with some college experience or a high school diploma or less education.

Those with annual family incomes of \$75,000 or more are also more likely than those with smaller incomes to say keeping up with the news is important to their jobs. Nearly half (47%) of those earning at least \$75,000 say this, compared with 21% of those earning less than \$30,000 and 35% of those earning between \$30,000 and \$74,999.

Not surprisingly, those who say that keeping up with the news is important to their jobs are more avid news consumers. A majority (56%) of those who say the news is important for their job enjoy keeping up a lot, compared with 37% of those who say keeping up with the news is not important to their jobs.

Is Keeping Up with the News Important for Your Job?

	Yes %	No %	DK %
Total*	36	64	*=100
Male	37	63	*=100
Female	35	65	*=100
White	36	64	*=100
Black	37	63	0=100
18-29	25	75	0=100
30-49	42	57	*=100
50-64	36	64	*=100
65+	40	60	0=100
College grad+	50	49	*=100
Some college	28	72	0=100
HS or less	28	72	0=100
<i>Family income</i>			
\$75,000 or more	47	53	*=100
\$30k to \$74,999	35	65	*=100
Less than \$30,000	21	79	0=100

PEW RESEARCH CENTER June 8-28, 2010. Q103.

* Based on those employed full or part-time.

And those who say keeping up with the news is important to their jobs are much more likely to go on-line from work. About seven-in-ten (69%) say they regularly go online from work, while just 38% of those who say it is not important to their jobs to keep up with the news say this.

Looking at all full and part-time workers, about half say they regularly go online at work (49%), while half say they do not.

Again, those with more education and higher family incomes are more likely go online regularly from their jobs. Fully 70% of those with a college degree or more education say they go online regularly at work. That compares with 46% of those with some college education and 30% of those with a high school education or less.

Similarly, two-thirds (67%) of those with family incomes of \$75,000 or more say they regularly go online at work. That drops to 45% of those earning between \$30,000 and \$74,999 and 27% of those with incomes of less than \$30,000.

Do You Go Online Regularly from Work?

	Yes %	No %	DK %
Total*	49	50	*=100
White	52	48	*=100
Black	35	65	*=100
18-29	42	58	0=100
30-49	56	44	0=100
50-64	49	50	*=100
65+	29	71	1=100
College grad+	70	30	1=100
Some college	46	54	*=100
HS or less	30	70	*=100
<i>Family income</i>			
\$75,000 or more	67	33	*=100
\$30k to \$74,999	45	55	0=100
Less than \$30,000	27	73	*=100

PEW RESEARCH CENTER June 8-28, 2010. Q104.

* Based on those employed full or part-time.

Little Change in Book Reading

Though the public's preferences for how they get news may be changing, the percentages that say they read a book in the past day have remained largely steady in recent years. Just more than a third of the public (35%) says they read a book yesterday. That is little changed from 38% in 2006 – the last time the question was asked – and matches the number that said they read a book yesterday in 2004.

Almost all of those who say they read a book in the past day say they read a printed book (95%). Despite the growing popularity of electronic book readers, just 4% say they read an electronic or digital book yesterday.

Another 4% say they listened to an audio book.

Those who say they read a book yesterday are equally likely to say they read fiction as non-fiction: 16% of the public say they read fiction and 16% say non-fiction.

While young people are less likely than older Americans to get news on a typical day, there are no significant age differences in book reading. Fully 36% of those ages 18-29 say they read a book “yesterday,” compared with 33% of those 30-49, 36% of those 50-64 and 35% of those 65 and older.

Just about all of the book reading recorded in the survey – among all age groups – was of printed books. Just 2% of those ages 18-29 say they read an electronic book the previous day, compared with 6% of those ages 30-49, 5% of those ages 50-64 and 1% of those 65 and older.

Though still small, the percentages of the better educated and more affluent that say they read an electronic book yesterday are larger than for those with less education and lower incomes. For example, 7% of those with a college degree or more say they read an electronic book yesterday, compared with 2% for those with some college experience or no more than a high school diploma. Among those with household incomes of \$75,000

Book Readers Still Turn to Print

	<i>Read a book yesterday?</i>		<i>In print, digital or audio format?*</i>		
	Yes %	No %	Print %	Digital %	Audio %
Total	35	65	95	4	4
Men	29	70	92	6	6
Women	40	60	97	3	3
18-29	36	64	98	2	3
30-49	33	67	93	6	5
50-64	36	64	93	5	5
65+	35	65	98	1	1
Coll grad+	45	55	93	7	4
Some coll	37	63	97	2	4
HS or less	27	72	95	2	4

PEW RESEARCH CENTER June 8-28, 2010. Q24 & 26.

* Based on those who read a book yesterday. Respondents could give multiple responses.

or more, 7% say they read an electronic book yesterday, compared with 3% of those earning less than \$75,000.

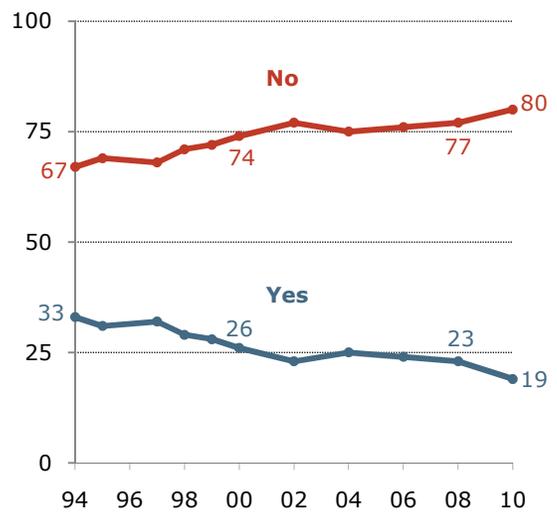
Magazine Readership Still Declining

While the trend for book reading shows little change, the percentage saying they read a magazine in the past day continues to decline. Currently, 19% say they read a magazine yesterday, down slightly from 23% in 2008. In 1994, 33% said they had read a magazine in the past day.

Those with at least a college degree (28%) are more likely than those with some college experience (19%) or a high school education or less (14%) to say they read a magazine in the previous day. Similarly, more people with family incomes of \$75,000 or more (25%) say they read a magazine yesterday than those with incomes of between \$30,000 and \$74,999 (18%) and incomes of less than \$30,000 (15%).

Fewer Reading Magazines

Spend any time reading magazines yesterday?



PEW RESEARCH CENTER June 8-28, 2010. Q23.

SECTION 4: WHO IS LISTENING, WATCHING, READING – AND WHY

Not all Americans are looking for the same things when they turn to the news. With the wide array of news sources now available, the regular audiences for various news outlets offer differing top reasons why those sources appeal to them. Regular CNN viewers, for example, overwhelmingly say they turn to CNN for the latest news and headlines, rather than for in-depth reporting, opinions about the news or entertainment. Many regular New York Times and Wall Street Journal readers value the publications for their in-depth reporting, and, not surprisingly, those who watch the Daily Show and Colbert Report regularly say overwhelmingly that they are mostly seeking entertainment – not the latest headlines and in-depth reporting – from those programs.

Why Audiences Turn to Their Regular News Sources

Percent of each regular audience who turn to source mostly for...

	Latest news & headlines	In-depth reporting	Interesting views & opinions	Entertainment	(Vol.) Mix/ All	(Vol.) Other/ DK	N
	%	%	%	%	%	%	
CNN	64	10	6	4	14	2	274
Network evening	59	13	8	6	9	5	470
Daily newspaper	53	7	8	8	18	4	690
USA Today	52	9	9	16	9	5	144
Fox News	44	11	11	5	22	6	386
MSNBC	43	12	15	13	13	2	167
Morning shows	39	4	13	18	19	7	318
News magazines	31	23	20	6	16	5	275
Wall Street Journal	30	37	11	2	16	4	132
New York Times	30	33	11	4	18	4	153
News blogs	27	10	29	10	11	12	307
Sunday news/talk	24	19	37	6	9	6	403
NPR	21	20	18	12	28	2	371
Hardball	19	19	42	7	10	3	120
Rachel Maddow	18	14	33	10	15	11	93
Hannity	14	21	39	6	18	2	225
Countdown	14	16	39	11	14	6	90
O'Reilly Factor	11	20	44	6	18	2	341
Glenn Beck show	10	24	32	6	23	4	223
Rush Limbaugh	10	15	37	7	28	4	185
Daily Show	10	2	24	43	20	1	194
Colbert Report	3	2	18	53	19	5	151

PEW RESEARCH CENTER June 8-28, 2010. Q82a-x.

Figures read across and are based on regular readers/viewers/listeners of each source.

When it comes to cable news programs such as The Glenn Beck Program or The Rachel Maddow Show, roughly a third of regular viewers say they turn to these sources mainly for the interesting views and opinions they provide. Still, roughly the same numbers say they turn to these programs mostly for hard news.

While 64% of regular CNN viewers say they go there mostly for the latest news and headlines, only 44% of regular viewers of Fox News say the same. While about one-in-ten (11%) regular Fox News viewers say they turn to the channel mostly for “interesting views and opinions,” 22% volunteer that it is a combination of offerings – the mix of hard news, opinion and entertainment – that draws them to the network.

The same kind of pattern holds with NPR – 28% of regular listeners say there is no single aspect of NPR coverage that draws them in, but instead the combination of breaking news, in-depth reporting, interesting opinions and entertainment. And, though the show offers a different kind of content, many of Rush Limbaugh’s regular radio listeners say the same. While 37% say they mostly listen to Limbaugh for views and opinions, 28% say it is the combination of news, opinion and entertainment that they find appealing.

News magazines like Time, Newsweek and U.S. News, have a similar profile – many regular readers cite them as sources for headlines, in-depth reporting, and interesting views and opinions. The same can be said for political blogs and for Sunday morning television talk shows.

While a number of programs clearly appeal to overwhelmingly ideological audiences, not all viewers cite the views and opinions presented on those shows as the main reason they watch. For example, 80% of those who regularly watch Sean Hannity’s show say they are conservative, but only 39% say the views and opinions presented on the show are the main reason they watch. Nearly as many regular viewers (35%) say they turn to the show mainly for breaking news (14%) or in-depth reporting (21%).

The same is true at the other end of the spectrum: Rachel Maddow’s regular MSNBC audience is roughly twice-as-liberal as the national average, yet as many viewers cite her show as a source of breaking news and in-depth reporting as sources of opinion and viewpoints.

Audience Party and Ideology Profiles

More than half of the audiences for Glenn Beck and Bill O'Reilly and about six-in-10 of those who regularly watch Sean Hannity or listen to Rush Limbaugh say they are Republicans. Fully 80% of regular Hannity and Limbaugh viewers and listeners describe themselves as conservative, as do 74% of Beck's and 72% of O'Reilly's regular viewers. Among the general public, 36% describe themselves as conservative, while 37% are moderates and 19% are liberals.

Fox News overall has a larger regular audience than any of its individual opinion-oriented programs (23% of adults regularly watch Fox News, compared with 10% for O'Reilly, 7% for Beck, and 6% for Hannity). While the channel's viewership tilts much more Republican and conservative than the population as a whole, that tilt is less pronounced for the channel as a whole than for the individual shows.

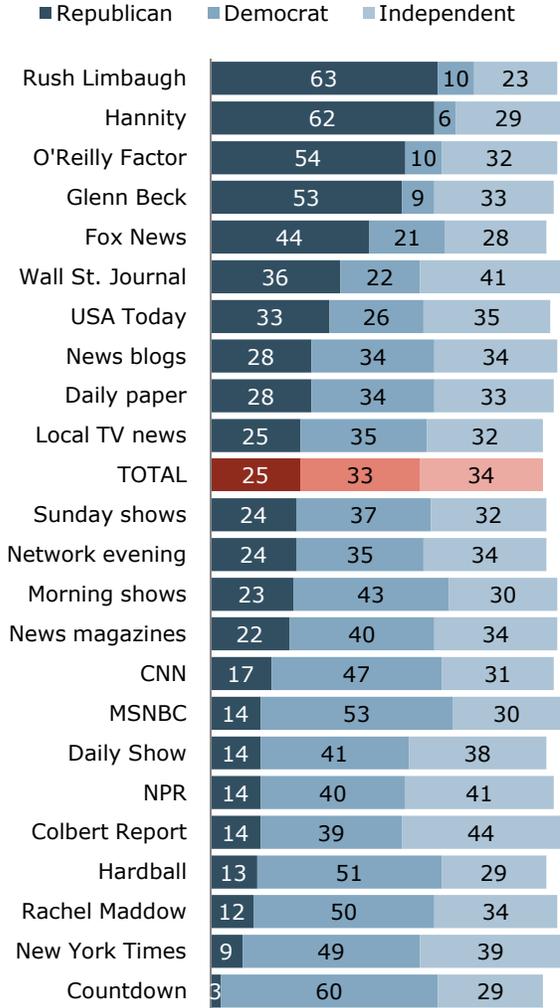
None of the leading conservative political shows has an audience with more than 10% Democrats – though a third of the public (33%) describes themselves as Democrats.

On the other hand, at least half of the audiences for MSNBC's political talk programs – Hardball with Chris Matthews, the Rachel Maddow Show and Countdown with Keith Olbermann – say they are Democrats. Just 3% of Olbermann's audience and 12% of Maddow's viewers say they are Republicans. Looking at New York Times regular readers, 9% say they are Republicans, far less than the 25% of the American public that says they are Republicans.

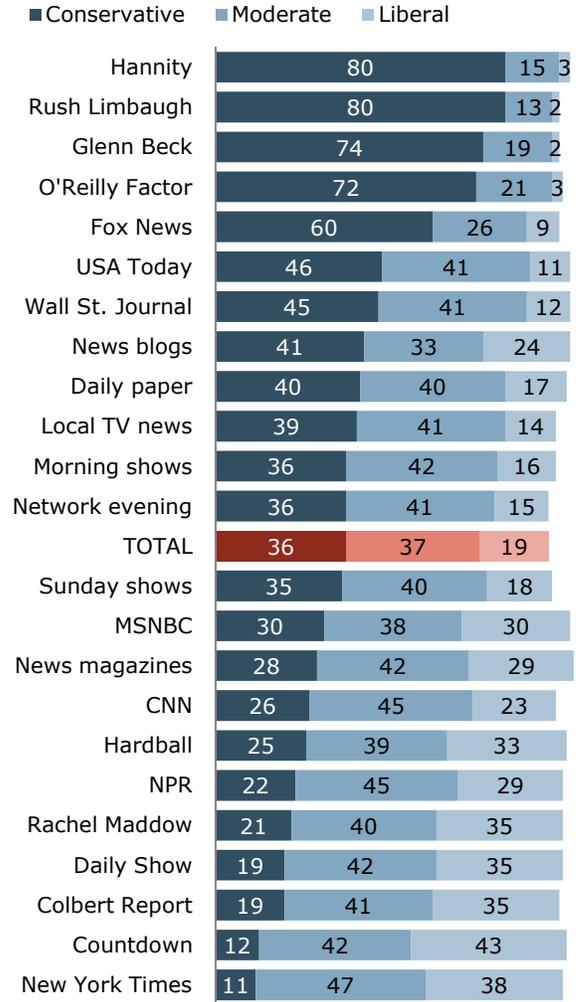
Liberal-leaning shows have more liberals among their audiences than there are in the general population, but these programs also attract a lot of moderates. Olbermann's audience has the largest share of liberals (43%), more than double the percentage for the overall population, but his audience has about as many moderates (42%); 12% of his regular viewers say they are conservative.

Audience Profiles: Party and Ideology

Percent of each audience who are ...



Percent of each audience who are ...



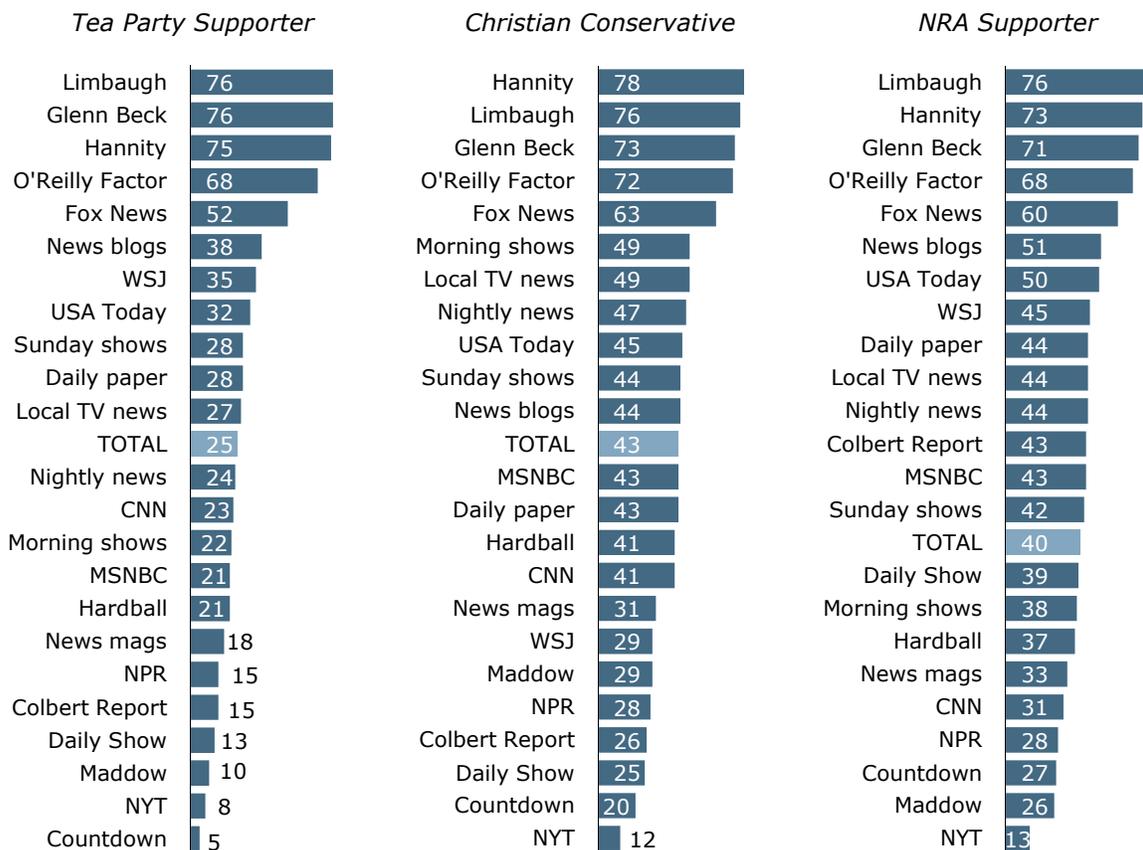
PEW RESEARCH CENTER June 8-28, 2010. Figures may not add to 100% because of rounding and because those who did not answer party affiliation or ideology questions are not shown. Based on regular readers/viewers/listeners of each source.

Audiences and Political Labels

Asked whether certain political labels applied to them, majorities of Americans say they are environmentalists (60%) or are pro-business (56%). About four-in-ten say they are Christian conservatives (43%), progressive (41%), NRA supporters (40%), or gay rights supporters (40%). Fewer say they are supporters of the Tea Party movement (25%) or that they are libertarian (18%).

Audience Profiles: Political Labels

Percent of each audience who say they are ...



PEW RESEARCH CENTER June 8-28, 2010. Q98a,b,g. Based on regular readers/viewers/listeners of each source.

Identification with these labels varies greatly across the various media audiences. Roughly three-quarters of Limbaugh (76%), Beck (76%) and Hannity (75%) regular audiences say they are Tea Party supporters, while just 10% of Maddow viewers, 8% of New York Times readers and 5% of Olbermann viewers say they support the Tea Party.

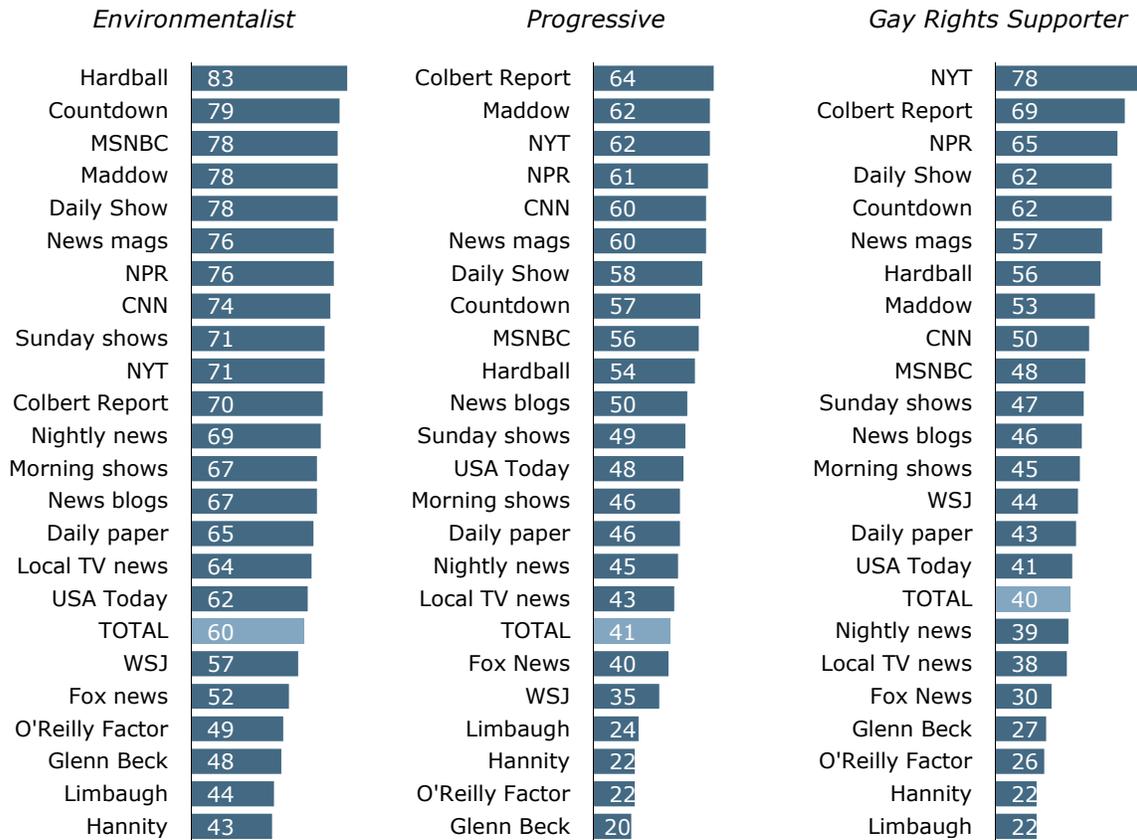
The differences are nearly as large when looking at Christian conservatives. At least seven-in-ten Hannity, Limbaugh, Beck and O'Reilly regular viewers say they are Christian conservatives. By contrast, just 12% of regular New York Times readers say so. Two-in-ten Olbermann viewers (20%) say this label applies to them, as do 29% of Maddow viewers and 28% of NPR listeners. About four-in-ten (41%) Hardball viewers say they are Christian conservatives, about the same as the public as a whole (43%).

Support for the NRA, the National Rifle Association, ranges from 76% of Limbaugh's audience to 13% of regular readers of the New York Times. Audiences of the four conservative talk shows were most likely to call themselves supporters of the gun-owners lobby, while audiences of Olberman and Maddow were less likely to adopt the label than was any other audience – except for the readership of the New York Times. Four-in-ten Americans say they are NRA supporters.

Environmentalists, Progressives and Gay Right Supporters

Audience Profiles: Political Labels

Percent of each audience who say they are ...



PEW RESEARCH CENTER June 8-28, 2010. Q98c,f,h. Based on regular readers/viewers/listeners of each source.

Regular audiences of Beck, Hannity, Limbaugh and O'Reilly are the least likely to call themselves environmentalists, or to say that they are progressive. The term environmentalist is much more popular with a number of audiences: At least three-quarters of the audiences for Matthews, Olbermann, Maddow, MSNBC, the Daily Show, news magazines and NPR say this label applies to them.

The term progressive is less popular, but at least six-in-ten regular viewers of the Colbert Report, Maddow and CNN, plus NPR listeners and readers of the New York Times and news magazines call themselves progressive.

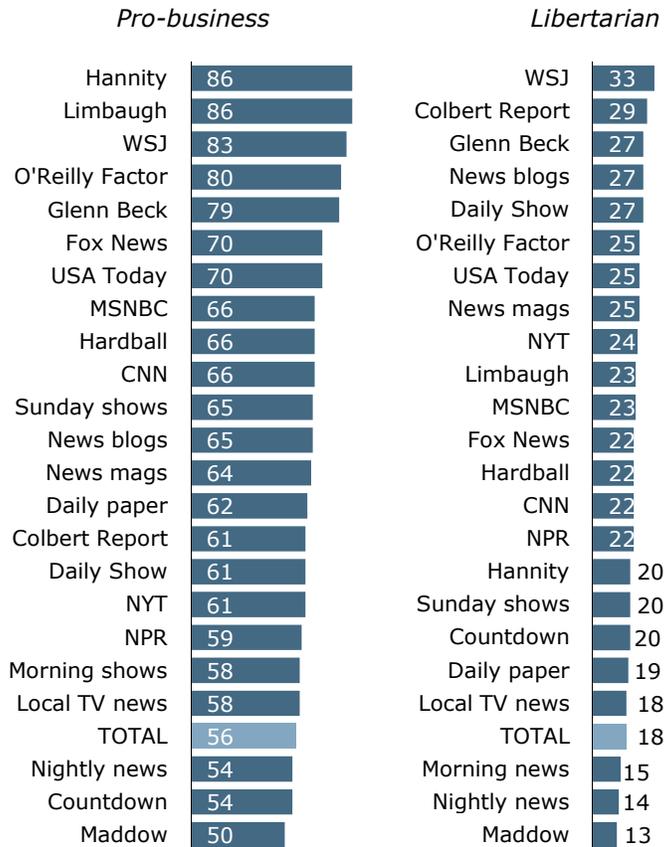
When it comes to support for gay rights, almost eight-in-ten New York Times readers (78%) say they are supporters, making them almost twice as likely as the American public (40%) to adopt this label. Just 22% of Hannity viewers and Limbaugh listeners are gay rights supporters.

The regular Hannity and Limbaugh audiences, along with Wall Street Journal readers and O'Reilly and Beck viewers, also are most likely to call themselves pro-business. At least half of every audience in the survey says they are pro-business.

Relatively small percentages of all news audiences – and just 18% of the public – describe themselves as libertarian. The proportion of libertarians ranges from 33% for Wall Street Journal readers to 13% for Maddow viewers.

Audience Profiles: Political Labels

Percent of each audience who say they are ...



PEW RESEARCH CENTER June 8-28, 2010. Q98d,e. Based on regular readers/viewers/listeners of each source.

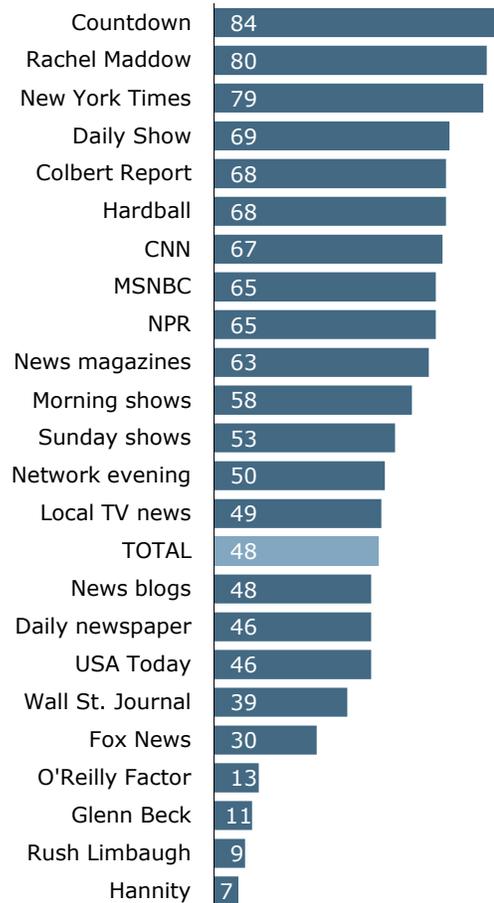
Attitudes about Politics

As one might expect, audiences of liberal programming are much more likely to approve of the job President Obama is doing than are audiences of conservative programming. At least eight-in-ten Maddow and Olbermann viewers say they approve of the job Obama is doing, while 13% of O'Reilly viewers, 11% of Beck viewers, 9% of Limbaugh viewers and 7% of Hannity viewers approve. In this survey, just under half (48%) of Americans say they approve of the job the president is doing.

New York Times readers express much higher approval (79%) of Obama than do USA Today (46%) or Wall Street Journal (39%) readers. Almost two-thirds of NPR viewers approve. Three-in-ten Fox News viewers approve, while about two-thirds of MSNBC and CNN watchers approve. Almost seven-in-ten watchers of the political humor shows the Colbert Report (68%) and the Daily Show (69%) approve of the job Obama is doing.

Obama Job Approval

Percent of each audience who approve



PEW RESEARCH CENTER June 8-28, 2010. Q1.
Based on regular readers/viewers/listeners of each source.

Views of Government

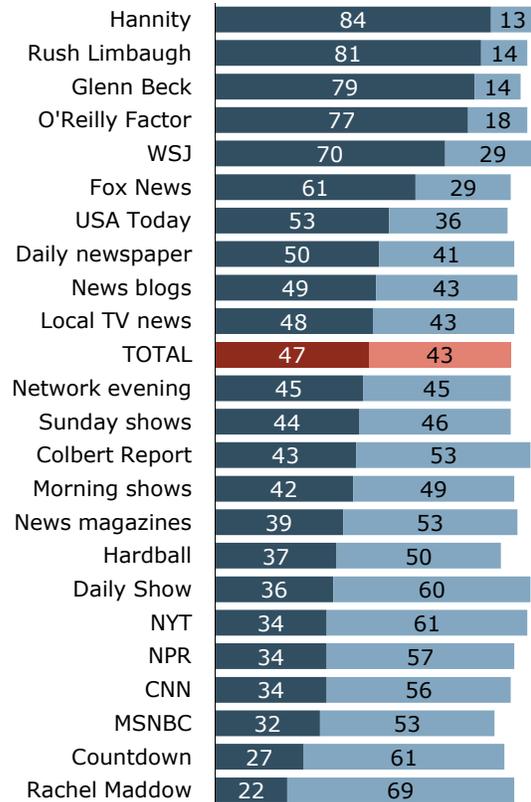
Americans overall are divided over whether the government is doing too much – or too little – to solve problems: 43% say the government should do more to solve problems, while 47% say the government does too much that is better left to businesses or individuals. Regular audiences for news blogs, local and national TV news and Sunday morning news and talk programs are divided along similar lines.

Audiences of the conservative political shows, however, are firmly in the government-does-too-much-camp. At least three quarters of the audiences for O'Reilly (77%), Beck (79%), Limbaugh (81%) and Hannity (84%) express this view. At the other end of the spectrum, about seven-in-ten Maddow viewers (69%) and six-in-ten Olbermann viewers (61%) say the government should do more to solve problems.

Views of Government Activism

Percent of each audience that says...

- Government does too much
- Government should do more to solve problems



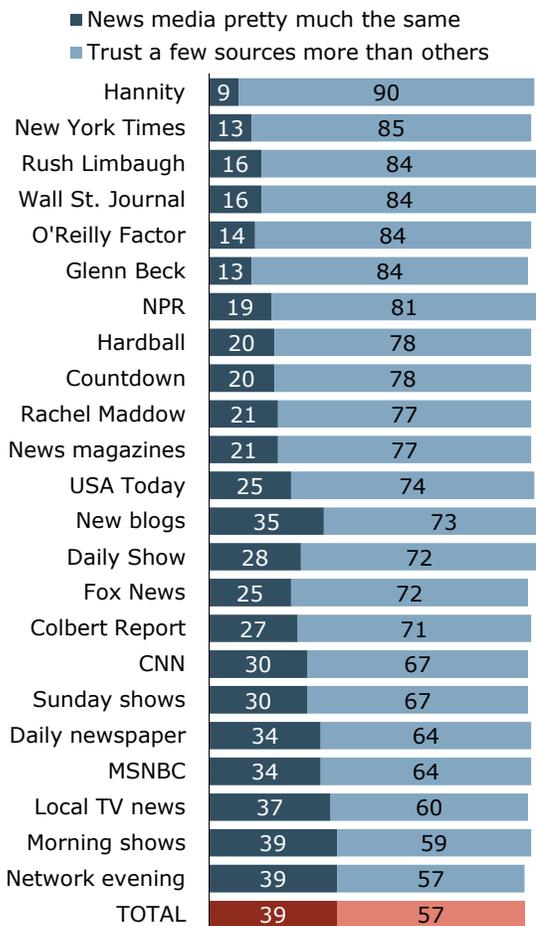
PEW RESEARCH CENTER June 8-28, 2010. Q100.
Based on regular readers/viewers/listeners of each source.

Views of News Media

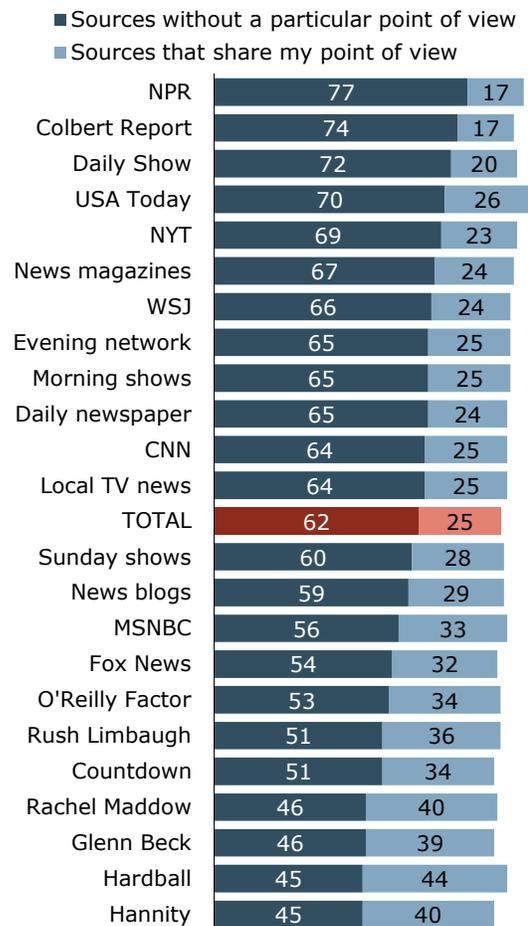
Most Americans see some news sources as more trustworthy than others (57%), though much higher percentages of the regular audiences for many of the options in the survey agree with this statement. At least three-quarters of the regular audiences for 11 of the 24 sources say some sources are more trustworthy than others. And, as in the past, most Americans (62%) say they prefer to get news from sources that don't have a particular point of view. A quarter (25%) says they want news that shares their point of view.

Audience Profiles: Attitudes about the News Media

Percent of each audience who say ...



Percent of each audience who prefer ...



PEW RESEARCH CENTER June 8-28, 2010. Q92, Q93. Figures may not add to 100% because of rounding and because those who did not give an answer are not shown. Based on regular readers/viewers/listeners of each source.

Viewers of both liberal and conservative talk shows are more evenly divided on whether they prefer news that shares their point of view than is the general public.

When evaluating news sources, viewers of Hannity (90%) and the other conservative hosts (84% each) are especially likely to say there are some sources they trust more than others. That is also the case for readers of the New York Times (85%) and the Wall Street Journal (84%). Conversely, regular television news watchers (nightly network news, morning news and local TV news) are about as likely as the general public to say some news sources are more trustworthy.

When it comes to mixing news and point of view, about 45% of the audiences regularly watching shows hosted by Hannity, Matthews, Beck and Maddow say they want news without a point of view. Almost as many say they want news from their own perspective. At the other end of the spectrum, at least seven-in-ten NPR listeners, Colbert Report and Daily Show watchers and USA Today readers say they want news without a point of view. Regular readers of blogs that cover news and politics are split along the same lines as the general public: 59% want news without a particular viewpoint, and 29% want news from their point of view.

Perceptions of Bias

About half of Americans (52%) say they see a lot of bias in news coverage, but regular audiences for many of the news sources in the survey are much more likely to say they see a lot of bias than the public as a whole.

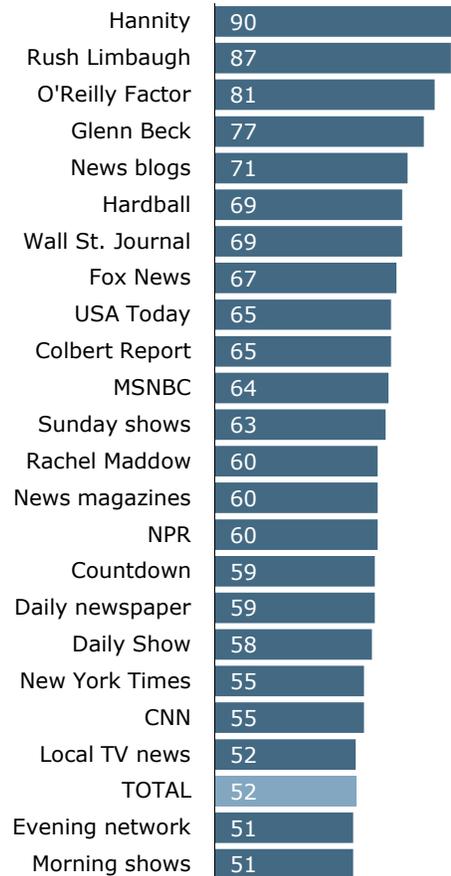
Looking at partisans, Republicans generally see more bias in media coverage (62% a lot) than Democrats (47%) or independents (53%). The same holds true for conservatives (61%) when compared to moderates (49%) and liberals (46%).

Regular audiences for the more conservative shows are among the most likely to say they see a lot of bias in news coverage. Nine-in-ten Hannity viewers, 87% of Limbaugh's regular audience and 81% of O'Reilly's say they see a lot of bias in news coverage. Still, close to seven-in-ten (69%) regular viewers of Chris Matthews' MSNBC show say this, while about six-in-ten of regular Maddow (60%) and Olbermann (59%) viewers agree. Among regular blog readers, 71% say they see a lot of bias in the news.

Viewers of morning news programs (51%), nightly network news (51%) and local TV news (52%) are less likely to say they see a lot of bias.

Who Sees "A Lot" of News Bias?

Percent of each audience who see "a lot" of political bias in news coverage



PEW RESEARCH CENTER June 8-28, 2010. Q95. Based on regular readers/viewers/listeners of each source.

Audience Age and Profiles

Because younger people spend so much less time with the news than older people, the profile of most news audiences is substantially older than the nation as a whole. Still, there are a few key exceptions.

The late night Colbert Report audience is the youngest of the 24 studied: 53% of its regular viewers are 18 to 29, while just 23% of American adults are younger than 30. The Daily Show (41% younger than 30) and the New York Times (34%) also have younger regular audiences. Interestingly, the percentage of New York Times regular readers under 30 is more than double the 13% of regular daily newspaper readers in the 18-29 age group overall.

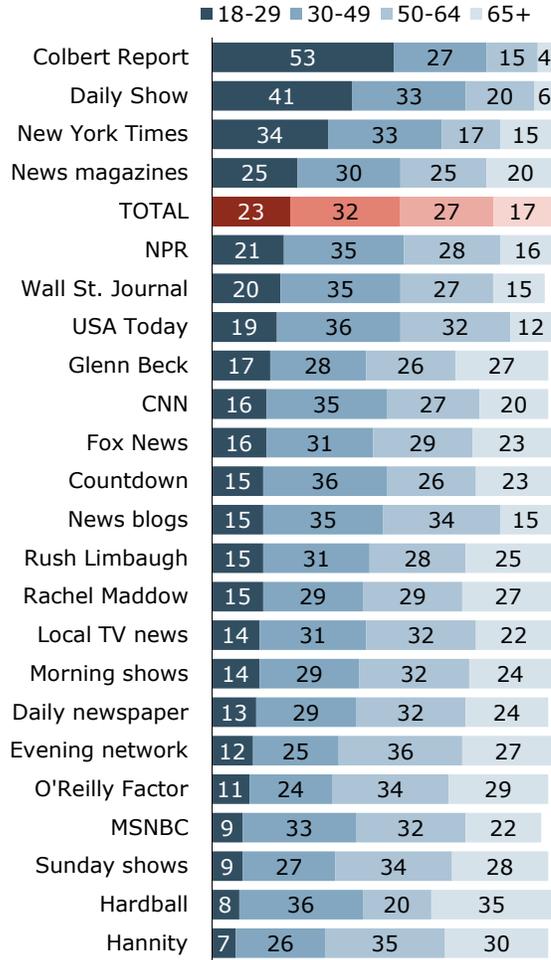
On the other hand, Sean Hannity's show and Hardball with Chris Matthews have a lot of regular viewers who are 65 and older. While 17% of the country is in that age group, 30% of Hannity viewers and 35% of Hardball watchers are at least 65.

In terms of gender, many news audiences have roughly the same percentages of men and women watching, listening or reading. The proportions are more lopsided in the audiences of several media sources, however. Two thirds of the Wall Street Journal's regular readership is male (67%), while one third is female (33%). The proportions are almost exactly reversed for regular watchers of morning news programs (32% men, 68% women). The Colbert Report and the Daily Show, as well as Rush Limbaugh's radio program, all have more men than women in their audiences, while local and national TV news have more women than men among regular viewers.

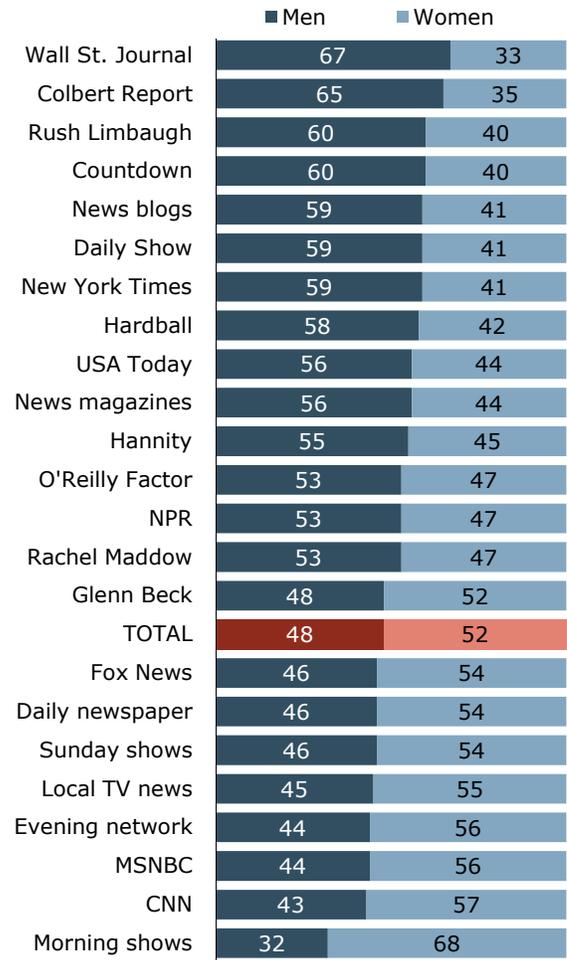
Women have become a bigger part of the Hannity audience since 2008. Two years ago, women were 33% of Sean Hannity's audience. This year, they are 45%.

Audience Profiles: Age and Gender

Percent of each audience who are ...



Percent of each audience who are ...



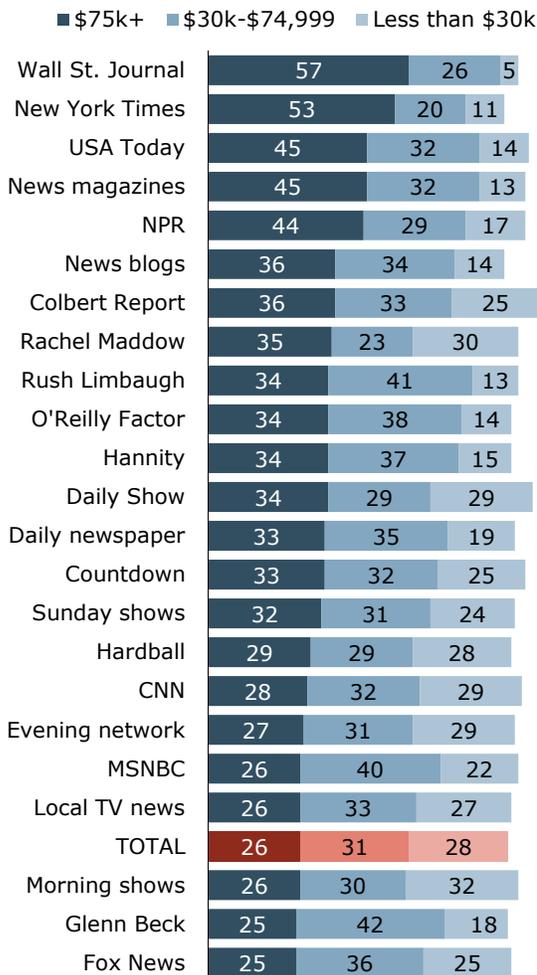
PEW RESEARCH CENTER June 8-28, 2010. Figures may not add to 100% because of rounding; those who did not answer questions about their age not shown. Based on regular readers/viewers/listeners of each source.

Audience Income and Education Profiles

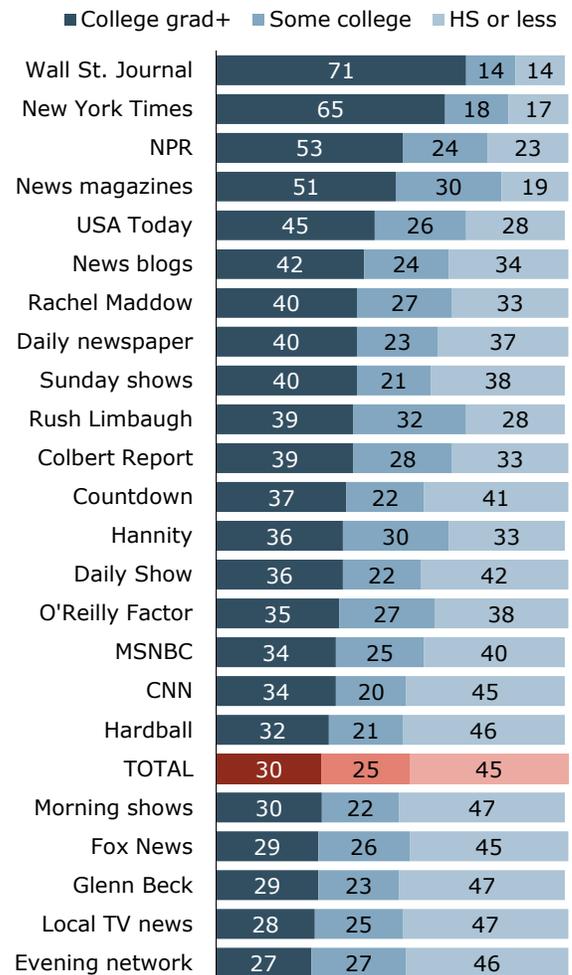
The Wall Street Journal and New York Times have the most highly educated – and the highest-income – audiences of the media sources measured. Fully 71% of regular Wall Street Journal readers have a college degree, as do 65% of regular Times readers. (Nationwide, three-in-ten adults have college degrees.) Most regular readers of these newspapers also have family incomes of at least \$75,000 a year, compared with just 26% of all Americans who are at that income level. USA Today, news magazines and NPR also have particularly high-income audiences.

Audience Profiles: Income and Education

Percent of each audience who are ...



Percent of each audience who are ...



PEW RESEARCH CENTER June 8-28, 2010. Figures may not add to 100% because of rounding and because those who did not answer questions about their income or education are not shown. Based on regular readers/viewers/listeners of each source.

Knowledge of Politics and Current Events

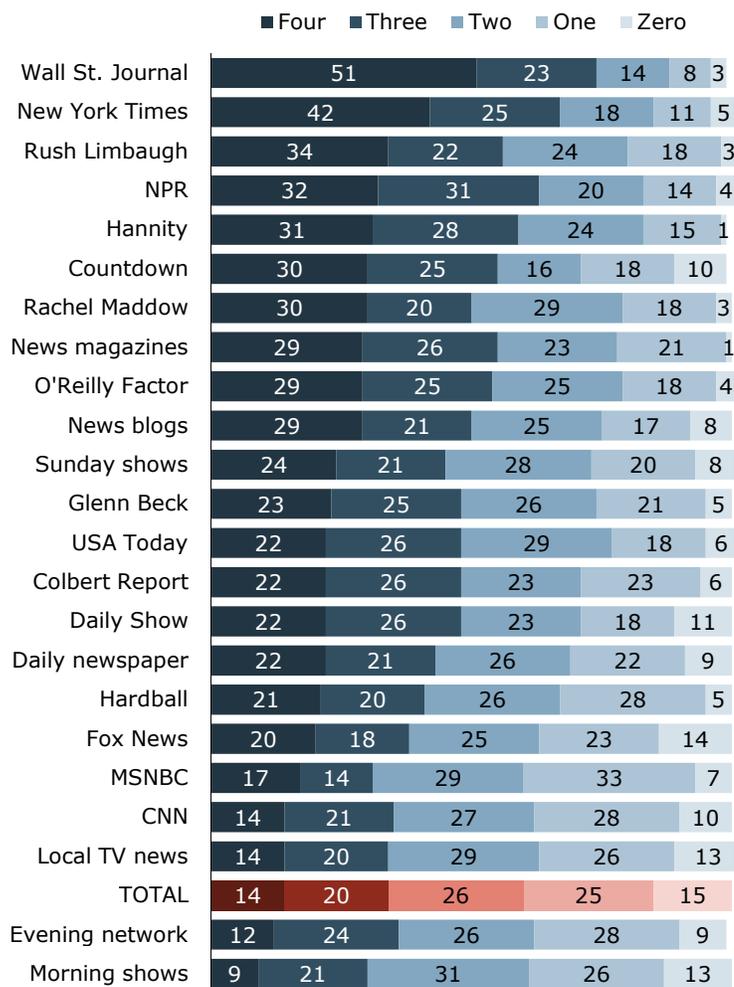
Asked a series of four questions to test their knowledge about politics and current events, just 14% of the public got all four correct – as many got all four wrong (15%). Two-in-ten got three correct, 26% two and 25% one. Regular readers, viewers or listeners of most media sources outscored the general public.

People were asked which party currently controls the House of Representatives (Democrats), to identify the post held by Eric Holder (U.S. attorney general), which company is run by Steve Jobs (Apple) and which country has an active volcano that disrupted international air travel earlier this year (Iceland).

Wall Street Journal readers fared the best on the quiz— 51% of regular Journal readers got all four questions right; just 3% got none right. New York Times readers also fared well: 42% got all of the questions right. USA Today readers scored better than the general public, but not nearly as well as Times or Journal readers; 22% of USA Today readers got all the questions correct, while 6% got all four wrong. As a whole, 22% of daily paper readers answered all the questions correctly.

Knowledge of Politics, Current Events

Number of Correct Answers given by each audience ...



PEW RESEARCH CENTER June 8-28, 2010. Q85-88. Based on regular readers/viewers/listeners of each source.

Looking at the talk shows, at least 30% of the audiences for Limbaugh, Hannity, Olbermann and Maddow got all four questions correct. O'Reilly's audience did about as well (29%). The regular Glenn Beck and Hardball audiences performed slightly worse, with 21% and 23% of their respective viewers getting all the questions correct. Daily Show and Colbert Report audiences fared about as well.

Overall, seven-in-ten Americans know that Democrats have a majority in the U.S. House of Representatives. No media audience did poorly on this question, and 90% or more of the Hannity, Limbaugh and O'Reilly audiences got this right.

Far fewer know that Eric Holder is the attorney general. Just 22% got this question right. Wall Street Journal readers and Hannity viewers performed best on this question, with 56% of each audience answering it correctly.

About four-in-ten (41%) know that Steve Jobs is the head of Apple. Wall Street Journal (85%) and New York Times (80%) readers are especially likely to know this. Six-in-ten know that the volcanic eruption that recently disrupted international air travel is in Iceland. Journal (82% correct) and Times (81%) readers also did especially well on this question.

Cable News Audiences at a Glance

A comparison of the profiles of audiences for cable news outlets reveals substantial partisan and ideological differences. CNN, Fox News and MSNBC all attract roughly the same proportions of women and men and young people and old people as regular viewers. But while Republicans make up 17% of the CNN audience and 14% of the MSNBC audience, they are a much bigger share of the Fox audience: 44%, and these are overwhelmingly conservative Republicans (34% of the total).

Democrats, meanwhile, make up 21% of Fox's audience, but 47% of CNN's and 53% of MSNBC's. Liberal Democrats make up just 3% of the Fox cable network's audience.

Fox's regular viewers are much more likely to call themselves Christian conservatives, to be NRA supporters and to be Tea Party supporters than are regular watchers of the other cable networks. CNN and MSNBC audiences are more likely to call themselves environmentalists, progressives and gay rights supporters than are Fox viewers.

Comparing CNN, Fox, MSNBC Audiences

	CNN	FOX	MSNBC
	%	%	%
Men	43	46	44
Women	57	54	56
18-29	16	16	9
30-49	35	31	33
50-64	27	29	32
65+	20	23	22
Republican	17	44	14
Cons Rep	9	34	8
Mod/Lib Rep	9	10	6
Independent	31	28	30
Democrat	47	21	53
Cons/Mod Dem	28	16	34
Lib Dem	16	3	18
<i>Consider self:</i>			
An environmentalist	74	52	78
Pro-Business	66	70	66
A Christian Conservative	41	63	43
Progressive	60	40	56
NRA supporter	31	60	43
A gay rights supporter	50	30	48
A Tea Party supporter	23	52	21
Libertarian	22	22	23

PEW RESEARCH CENTER June 8-28, 2010.
Q98a-h. Based on regular viewers for each network.

Major Newspaper Audiences at a Glance

In many respects, regular readers of daily newspapers look very much like the country as a whole, but readers of the New York Times, the Wall Street Journal and USA Today differ a great deal from one another and from newspaper readers in general.

Readers of each of the three national papers are more likely to be male than are regular readers of all daily newspapers. This is especially the case for the Wall Street Journal: Two-thirds of its readership is male. Fully a third of the New York Times' regular readership is younger than 30, more than twice the percentage for daily papers overall and a higher share than for the Journal or USA Today.

Regular readers of the Wall Street Journal (71%) and New York Times (65%) are much more likely to have graduated from college than

are readers of USA Today (45%) or readers of newspapers overall (40%). The audiences for all three major papers come from households with higher family income, but the difference is more dramatic for the Times and Journal.

Profile of Newspaper Audiences

	Daily papers %	New York Times %	Wall Street Journal %	USA Today %
Men	46	59	67	56
Women	54	41	33	44
18-29	13	34	20	19
30-49	29	33	35	36
50-64	32	17	27	32
65+	24	15	15	12
Republican	28	9	36	33
Cons Rep	20	4	27	25
Mod/Lib Rep	8	5	8	8
Independent	33	39	41	35
Democrat	34	49	22	26
Cons/Mod Dem	22	20	14	18
Lib Dem	11	26	8	7
College grad+	40	65	71	45
Some college	23	18	14	26
High school or less	37	17	14	28
<i>Family income:</i>				
\$75,000 or more	33	53	57	45
\$30,000-\$74,999	35	20	26	32
Less than \$30,000	19	11	5	14
<i>Consider self:</i>				
An environmentalist	65	71	57	62
Pro-Business	62	61	83	70
A Christian Conservative	43	12	29	45
Progressive	46	62	35	48
NRA supporter	44	13	45	50
A gay rights supporter	43	78	44	41
A Tea Party supporter	28	8	35	32
Libertarian	19	24	33	25

PEW RESEARCH CENTER June 8-28, 2010. Q98a-h.
Based on regular readers of each newspaper or newspapers in general.

Politically, the papers' audiences are very different. Just 9% of the New York Times' regular readers are Republicans, but at least a third of Journal (36%) and USA Today (33%) readers are Republicans. Democrats (49%) — liberal Democrats in particular (26%) — are a much bigger part of the New York Times' readership than of the other papers.

New York Times readers are much more likely to say they are gay rights supporters and progressives than are readers of the Wall Street Journal or USA Today. Times readers are much less likely to call themselves Tea Party supporters, NRA supporters or Christian conservatives than are readers of the other two national papers. Journal readers are more likely to say they are pro-business than are readers of the other papers, though clear majorities of all three audiences say they are pro-business.

SECTION 5: NEWS MEDIA CREDIBILITY

The public continues to take a skeptical view of reporting from the major news outlets. No more than a third says they can believe all or most of the reporting by 14 major news organizations.

There has been little change in public views of media credibility since 2008. Since the late 1990's, however, there has been significant erosion in the believability ratings of several news organizations.

For example, since 1998 ABC News, CBS News and NBC News have all seen substantial declines in the percentages saying they believe all or most of what they say (among those who say they can rate those organizations). Currently, about two-in-ten say they believe all or most information from ABC News (21%), CBS News (21%) and NBC News (20%) – down from about three-in-ten in 1998.

The longer-term declines can be seen across different media groups as well. Since 1998, CNN and the Wall Street Journal, for example, have experienced double-digit declines in the percentages saying they can believe all or most of their reporting (a rating of four on a scale of one to four). Currently, 29% say they can believe all or most of the reporting of CNN and 25% say the same about the Wall Street Journal.

The credibility ratings for Fox News (27% today) and 60 Minutes (33%) have shown less change over the past decade. And NPR is the only news organization whose credibility rating has improved since 1998 – 28% now give it the top rating compared with 19% a dozen years ago.

News Organization Believability

	<i>Believe all or most</i>			<i>Believe almost nothing</i>		N	Can't rate
	4	3	2	1	%		
60 Minutes	33	34	22	11=100	859	15	
Local TV news	29	40	23	8=100	931	7	
CNN	29	36	22	13=100	894	10	
NPR	28	32	25	16=100	696	28	
Fox News	27	29	22	22=100	900	8	
Wall Street Journal	25	37	23	14=100	701	27	
C-SPAN	23	35	25	17=100	658	32	
MSNBC	22	38	21	19=100	839	15	
ABC News	21	43	23	13=100	901	9	
CBS News	21	41	24	15=100	889	12	
Your daily newspaper	21	38	27	14=100	921	9	
NBC News	20	43	23	14=100	914	7	
New York Times	20	38	21	21=100	707	27	
USA Today	17	39	28	15=100	744	23	

PEW RESEARCH CENTER July 8-11, 2010. PEW 11a-I, n-o. Figures may not add to 100% because of rounding. Percentages based on those who could rate each organization.

National newspapers fare relatively poorly when it comes to public perceptions of media credibility. Just two-in-ten (20%) of those who offer a rating for the New York Times say they can believe all or most of what it says and just 17% say the same about USA Today. Those numbers have fluctuated only slightly since 2004. Local daily news newspapers are seen in largely the same way (21% get the highest credibility rating).

Majorities give each of the news organizations included on the survey a credibility rating of three or four on the four-point scale. Relatively small percentages give the organizations a one – meaning they can believe “almost nothing” of what the news organization reports.

Believability Trends

<i>Believe "all or most" of what organization says...</i>	1998	2000	2002	2004	2006	2008	2010
	%	%	%	%	%	%	%
60 Minutes	35	34	34	33	27	29	33
Local TV news	34	33	27	25	23	28	29
CNN	42	39	37	32	28	30	29
NPR	19	25	23	23	22	27	28
Fox News	--	26	24	25	25	23	27
Wall Street Journal	41	41	33	24	26	25	25
C-SPAN	32	33	30	27	25	26	23
MSNBC	--	28	28	22	21	24	22
ABC News	30	30	24	24	22	24	21
CBS News	28	29	26	24	22	22	21
Your daily newspaper	29	25	21	19	19	22	21
NBC News	30	29	25	24	23	24	20
New York Times	--	--	--	21	20	18	20
USA Today	23	23	19	19	18	16	17

PEW RESEARCH CENTER July 8-11, 2010. PEW 11a-l, n-o. Percentages based on those who could rate each organization.

Partisan Gaps in Credibility Ratings

Republicans have long viewed the overall media more skeptically than Democrats and this continues to be reflected in credibility ratings for individual news outlets.

Republicans express far less confidence than Democrats in most major outlets. The Fox News Channel stands out as the only news organization that more Republicans than Democrats view as highly credible.

Democrats are at least twice as likely as Republicans to give the highest believability ratings to CNN, NPR, MSNBC and the New York Times.

About four-in-ten (41%) Republicans say they believe all or most of what the Fox News Channel says, by far the highest believability rating offered by Republicans. By contrast, 21% of Democrats give a believability rating of four to Fox News, among the lowest rating given by Democrats to any outlet.

Local TV news, the Wall Street Journal, and USA Today receive about the same ratings from Republicans and Democrats. For example, 28% of Republicans and 33% of Democrats say they believe all or most of what the Wall Street Journal says.

Partisanship and Credibility

<i>Believe "all or most" of what org. says...</i>	Rep	Dem	Ind	R-D gap
	%	%	%	%
CNN	19	40	26	-21
NPR	16	37	29	-21
MSNBC	13	34	17	-21
60 Minutes	25	42	31	-17
New York Times	14	31	16	-17
C-SPAN	16	31	22	-15
NBC News	17	30	12	-13
CBS News	16	29	16	-13
ABC News	16	28	15	-12
Your daily newspaper	18	27	17	-9
Local TV News	27	33	25	-6
Wall Street Journal	28	33	19	-5
USA Today	16	20	13	-4
Fox News	41	21	22	+20

PEW RESEARCH CENTER July 8-11, 2010. PEW 11a-l, n-o.
Percentages based on those who could rate each organization.

Widening Gaps in Credibility Ratings of Cable News Channels

In recent years, the divides between Democrats and Republicans have grown in judging the credibility of the cable news outlets. In 2000, about equal percentages of each said they could believe all or most of what Fox News said (26% Republicans, 27% Democrats). Since then time, Fox News' credibility rating among Republicans has increased (now 41%). As a result, there is now a 20-point partisan gap in Fox News' credibility ratings.

News Media Credibility Ratings by Party, 2000-2010

<i>Believe all or most from...</i>	-----Republicans-----						-----Democrats-----						R-D Gap			
	00	02	04	06	08	10	00	02	04	06	08	10	04	06	08	10
	%	%	%	%	%	%	%	%	%	%	%	%				
CNN	33	32	26	22	22	19	48	45	45	32	35	40	-19	-10	-13	-21
NPR	20	16	15	15	18	16	36	24	33	30	37	37	-18	-15	-19	-21
MSNBC	24	22	14	18	18	13	36	30	29	25	29	34	-15	-7	-11	-21
60 Minutes	--	23	25	20	24	25	--	45	42	32	37	42	-17	-12	-13	-17
NY Times	--	--	14	16	10	14	--	--	31	23	24	31	-17	-7	-14	-17
C-SPAN	32	27	23	21	17	16	38	31	36	28	31	31	-13	-7	-14	-15
NBC News	29	19	16	19	16	17	37	31	29	26	31	30	-13	-7	-15	-13
CBS News	27	17	15	15	18	16	36	33	34	26	26	29	-19	-11	-8	-13
ABC News	25	17	17	18	19	16	37	31	35	27	28	28	-18	-9	-9	-12
Your daily newspaper	21	18	16	12	19	18	31	28	23	26	29	27	-7	-14	-10	-9
Local TV News	--	26	21	17	27	27	--	31	29	28	32	33	-8	-11	-5	-6
Wall St. Journal	46	35	23	29	29	28	40	29	29	26	24	33	-6	+3	+5	-5
USA Today	--	13	14	15	16	16	--	22	25	22	15	20	-11	-7	-1	-4
Fox News	26	28	29	32	34	41	27	27	24	22	19	21	+5	+10	+15	+20

PEW RESEARCH CENTER July 8-11, 2010. PEW 11a-I, n-o. Percentages based on those who could rate each organization.

Republican credibility ratings for MSNBC have fallen over the past decade, from 24% in 2000 to 13% today. Democrats' ratings have changed little over this period (now 34%). As a result, partisan differences over MSNBC's credibility (21 points) are as large as those over Fox News.

Similarly, there is sizable partisan divide in perceptions of CNN's credibility; 19% of Republicans say they believe all or most of what they see or hear on CNN, compared with 40% of Democrats.

A NEW PHASE IN OUR DIGITAL LIVES

A commentary on the findings by Tom Rosenstiel, Director of the Pew Research Center's Project for Excellence in Journalism

Some people describe it as The End of the Internet, though that is probably a misnomer.

Others, at the risk of cliché, might call it News 3.0.

Maybe the best way to understand what is occurring today with the way people interact with the news and technology is to think of it as the end of our digital childhood.

By whatever term you give it, the latest biennial survey on news consumption from the Pew Research Center for the People & the Press reveals signs of a new phase, perhaps even a new era, in the acquisition and consumption of news.

And there is every reason to expect the shift will only accelerate now with a new wave of technology devices – from smartphones to iPad-style devices – which the data do not fully measure.

In the last two years, people have begun to do more than replace old news platforms with new ones. Instead, the numbers suggest that people are beginning to exploit the capacity of the technology to interact with information differently.

This notion – that we are beginning to use the tools differently without necessarily abandoning the old ones – can be seen first in the amount of time people spend getting news. Compared with much of the past decade, people say they are spending more time each day acquiring or interacting with news.

In addition to the roughly one hour they spend with traditional platforms – which is largely unchanged from a decade ago – on average they spend another 13 minutes a day getting news online. Traditional platform use has stabilized (or has declined only slightly) in the last few years. And the online numbers, as the survey report notes, do not include time spent getting news on cell phones or other digital devices, the arena where news producers are now focusing so much of their effort and seeing so much potential. The data reinforce findings that we began to see earlier this year when the [Project for Excellence in Journalism and the Pew Internet and American Life Project collaborated on a survey](#) that explored the new participatory culture for news. That survey asked a new battery of questions and opened up new areas of inquiry. The newest People-Press

survey also tracks the trends on long-standing questions, adding to our knowledge about these shifts.

Why have we moved into this new phase -- where people are not simply replacing old technologies with new but using new ones for different things or in different ways, augmenting their more traditional behavior?

One explanation is that the content is changing. News producers are beginning to understand how they can deliver news in new ways to create new understanding, whether through the use of online graphics, customizing news to fit a consumer's interest or location, or recognizing the public as a community that participates in the news rather than an audience that receives it. Another factor is improved connections and faster speeds that bring the technology's potential to life. A third is that consumers themselves are changing, recognizing that each platform has its own unique strengths and weaknesses. The strength of an aggregator or search engine, which allows someone to find answers to his or her own specific questions, is very different from the agenda-setting power of a newscast or a newspaper front page (even online), in which the news is ordered and presented for you. The power of a social networking site to tell you what people you know are thinking about or reading is different than the convenience of using a smartphone on the spur of the moment to check a fact or scan a headline.

And these notions are reinforced in the data about why people say they use different media. News has many different functions in our lives; the proliferation of devices, platforms and products makes that variety more recognizable for us as consumers. The quick scan of news we might get from a cell phone is a different experience from the deeper interaction that users of the iPad say that they experience with those devices. The survey data show this is even true for traditional media. A large majority of regular CNN viewers say they turn to it for the latest news and headlines, while Bill O'Reilly's viewers turn to him for interesting views and opinions. The numbers reveal USA Today has a different function for its readers (primarily the latest headlines) than do the two other national papers in the United States, the Wall Street Journal or the New York Times, which are more valued for in-depth reporting.

The numbers also reveal some older publications, because of their strengths, are appealing to new audiences in ways they almost certainly never could have without the creative destruction and promise of the digital age. Regular readers of The New York Times are young – 34% are younger than 30, compared with 23% of the public – suggesting that a new generation of readers is discovering virtues of the newspaper that

had been known as the Old Gray Lady. The growing popularity of search engines, directing people to sites like nytimes.com, apparently has had an effect.

It all points to something we might have forgotten. The medium may not quite be the message, as Marshall McLuhan argued two generations ago. But the medium does make a difference. Different platforms serve us differently, and there is now more evidence people are integrating all of them into their lives.

About the Survey

Results for this survey are based on telephone interviews conducted under the direction of Princeton Survey Research Associates International among a national sample of 3,006 adults living in the continental United States, 18 years of age or older, from June 8-28, 2010 (2,005 respondents were interviewed on a landline telephone, and 1,001 were interviewed on a cell phone, including 392 who had no landline telephone). Both the landline and cell phone samples were provided by Survey Sampling International. Interviews were conducted in English. For detailed information about our survey methodology, see <http://people-press.org/methodology/>.

The combined landline and cell phone sample are weighted using an iterative technique that matches gender, age, education, race/ethnicity, region, and population density to parameters from the March 2009 Census Bureau's Current Population Survey. The sample is also weighted to match current patterns of telephone status and relative usage of landline and cell phones (for those with both), based on extrapolations from the 2009 National Health Interview Survey. The weighting procedure also accounts for the fact that respondents with both landline and cell phones have a greater probability of being included in the combined sample and adjusts for household size within the landline sample. Sampling errors and statistical tests of significance take into account the effect of weighting.

The following table shows the error attributable to sampling that would be expected at the 95% level of confidence for different groups in the survey:

Group	Sample Size	Plus or minus ...
Total sample	3,006	2.5 percentage points
Republicans	841	4.5 percentage points
Democrats	961	4.0 percentage points
Independents	993	4.0 percentage points
<i>Age</i>		
18-29	507	5.5 percentage points
30-49	766	4.5 percentage points
50-64	952	4.0 percentage points
65+	735	4.5 percentage points
<i>18-49 detailed</i>		
18-24	314	7.0 percentage points
25-29	193	8.5 percentage points
30-39	335	6.5 percentage points
40-49	431	6.0 percentage points
<i>Technology users:</i>		
Internet users	2,474	2.5 percentage points
Cell phone owners	2,627	2.5 percentage points
Twitters users	256	7.5 percentage points
Have SNS profile	1,264	3.5 percentage points

In addition to sampling error, one should bear in mind that question wording and practical difficulties in conducting surveys can introduce error or bias into the findings of opinion polls.

About the Center

The Pew Research Center for the People & the Press is an independent opinion research group that studies attitudes toward the press, politics and public policy issues. We are sponsored by The Pew Charitable Trusts and are one of seven projects that make up the Pew Research Center, a nonpartisan "fact tank" that provides information on the issues, attitudes and trends shaping America and the world.

The Center's purpose is to serve as a forum for ideas on the media and public policy through public opinion research. In this role it serves as an important information resource for political leaders, journalists, scholars, and public interest organizations. All of our current survey results are made available free of charge.

All of the Center's research and reports are collaborative products based on the input and analysis of the entire Center staff consisting of:

Andrew Kohut, Director
Scott Keeter, Director of Survey Research
Carroll Doherty and Michael Dimock, Associate Directors
Michael Remez, Senior Writer
Leah Christian and Jocelyn Kiley, Senior Researchers
Robert Suls, Shawn Neidorf and Alec Tyson, Research Associates
Jacob Poushter, Research Analyst
Mattie Ressler and Danielle Gewurz, Research Assistants

		NIGHTLY NETWORK NEWS						CABLE NEWS CHANNELS					
		Regu- larly	Some- times	Hardly ever	Never	DK	N	Regu- larly	Some- times	Hardly ever	Never	DK	N
		%	%	%	%	%		%	%	%	%	%	
TOTAL		28	27	16	29	1	1497	39	31	12	18	0	1497
GENDER	Men	26	26	17	30	1	642	41	30	11	17	1	642
	Women	29	28	15	28	0	855	38	32	12	18	0	855
AGE	18-29	14	29	18	39	0	261	29	39	16	16	0	261
	30-49	22	31	19	27	1	374	39	33	11	17	0	374
	50-64	37	24	13	25	1	463	42	27	11	20	0	463
	65+	42	23	10	22	2	379	50	23	8	17	1	379
18-49 DETAILED	18-24	12	29	19	40	0	168	29	38	18	15	0	168
	25-29	17	28	17	38	0	93	29	41	13	18	0	93
	30-39	20	34	19	26	1	155	35	35	15	14	0	155
	40-49	24	29	19	28	0	219	41	31	8	20	0	219
AGE BY GENDER	Men 18-29	14	30	21	35	0	134	30	41	17	12	0	134
	Women 18-29	18	30	21	30	1	179	39	30	12	20	0	179
	Men 30-49	39	21	11	26	2	323	49	25	7	18	1	323
	Women 30-49	14	27	16	43	0	127	28	37	15	20	0	127
	Women 50+	39	26	12	22	0	519	42	25	12	20	0	519
RACE	White, non-Hisp	29	26	16	28	0	1148	39	31	12	18	0	1148
	Black, non-Hisp	37	32	11	19	1	140	42	30	10	19	0	140
	Hispanic*	14	28	16	39	3	91	37	30	15	17	1	91
EDUCATION	College grad+	25	28	20	27	1	547	44	29	14	13	0	547
	Some college	29	31	14	25	1	403	40	33	10	18	0	403
	HS or less	29	25	14	32	1	542	36	31	11	21	1	542
FAMILY INCOME	\$75,000+	28	28	18	26	1	426	45	32	13	11	0	426
	\$30k-74,999	28	29	16	26	0	461	40	32	9	18	0	461
	Less than \$30k	28	26	14	31	1	375	36	29	11	24	1	375
DETAILED INCOME	\$100,000+	27	28	17	28	0	243	42	35	14	10	0	243
	\$75k-99,999	30	27	19	24	1	183	49	28	11	12	0	183
	\$50k-74,999	33	26	17	25	0	217	41	35	10	14	0	217
	\$30k-49,999	24	32	16	27	0	244	39	29	9	22	1	244
	Less than \$30k	28	26	14	31	1	375	36	29	11	24	1	375
PARTY	Republican	27	27	14	32	0	411	49	27	9	15	0	411
	Democrat	30	29	15	24	1	468	35	31	13	21	1	468
	Independent	27	26	17	30	0	506	40	34	12	15	0	506
PARTY- IDEOLOGY	Cons Rep	23	26	16	34	0	295	50	27	8	15	0	295
	Mod/Lib Rep	33	29	11	26	0	105	47	28	13	12	0	105
	Cons/Mod Dem	32	32	14	21	2	301	37	28	13	21	1	301
	Liberal Dem	24	27	18	30	1	150	34	36	12	17	1	150
INTERNET USER	Yes	27	28	16	28	0	1236	40	33	12	15	0	1236
	No	32	24	11	30	2	261	39	21	9	30	1	261

PEW RESEARCH CENTER June 8-28, 2010. Question 28: Now I'd like to know how often you watch or listen to certain TV and radio programs. For each that I read, tell me if you watch or listen to it regularly, sometimes, hardly ever or never.

Item aF1 (based on Form 1): Watch the national nightly network news on CBS, ABC or NBC? This is different from local news shows about the area where you live.

Item bF1 (based on Form 1): Watch cable news channels such as CNN, MSNBC, or the Fox News CABLE Channel.

* Interviews were conducted only in English and concerned only English-language media sources, which may affect the representativeness of the Hispanic sample.

		LOCAL TELEVISION NEWS						MORNING NEWS PROGRAMS					
		Regu- larly	Some- times	Hardly ever	Never	DK	N	Regu- larly	Some- times	Hardly ever	Never	DK	N
		%	%	%	%	%		%	%	%	%	%	
TOTAL		50	26	11	12	0	3006	20	22	16	42	0	3006
GENDER	Men	48	25	14	13	1	1295	14	20	16	51	0	1295
	Women	53	27	8	11	0	1711	26	24	16	34	0	1711
AGE	18-29	31	37	15	17	0	507	12	27	20	42	0	507
	30-49	48	27	12	12	1	766	18	21	16	44	0	766
	50-64	61	22	7	10	0	952	24	20	15	41	0	952
	65+	64	19	8	9	1	735	28	21	12	39	1	735
18-49 DETAILED	18-24	28	41	15	16	0	314	10	29	21	40	0	314
	25-29	35	31	15	20	0	193	15	23	17	44	0	193
	30-39	46	26	13	15	0	335	17	22	17	45	0	335
	40-49	50	28	12	9	1	431	20	21	16	43	0	431
AGE BY GENDER	Men 18-29	31	33	17	19	0	266	6	24	19	50	0	266
	Women 18-29	44	26	16	13	1	351	11	18	16	55	0	351
	Men 30-49	61	21	9	9	1	666	20	18	14	47	1	666
	Women 30-49	31	41	13	15	0	241	19	29	20	32	0	241
	Women 50+	52	29	8	11	0	415	25	25	17	34	0	415
RACE	White, non-Hisp	51	26	11	11	0	2308	20	20	16	44	0	2308
	Black, non-Hisp	61	24	5	9	1	283	32	30	14	23	0	283
	Hispanic*	42	31	12	15	0	187	15	27	17	41	1	187
EDUCATION	College grad+	48	25	14	13	0	1099	21	16	18	45	0	1099
	Some college	49	28	10	13	0	785	17	23	17	42	0	785
	HS or less	52	26	9	11	1	1110	21	25	14	39	0	1110
FAMILY INCOME	\$75,000+	50	24	12	14	0	855	20	19	16	45	0	855
	\$30k-74,999	54	27	10	9	0	946	19	21	19	41	0	946
	Less than \$30k	49	28	10	11	1	725	23	26	13	38	0	725
DETAILED INCOME	\$100,000+	48	25	13	14	0	496	19	18	16	47	0	496
	\$75k-99,999	51	22	11	15	0	359	22	20	16	42	0	359
	\$50k-74,999	57	24	11	9	0	445	21	19	22	38	0	445
	\$30k-49,999	51	29	10	9	1	501	18	22	16	44	0	501
	Less than \$30k	49	28	10	11	1	725	23	26	13	38	0	725
PARTY	Republican	51	28	9	11	1	841	18	23	15	43	0	841
	Democrat	54	24	11	11	0	961	26	23	15	35	0	961
	Independent	48	28	12	12	0	993	17	20	18	44	0	993
PARTY- IDEOLOGY	Cons Rep	50	27	10	13	0	580	15	22	15	47	0	580
	Mod/Lib Rep	54	31	8	7	1	238	22	27	16	34	0	238
	Cons/Mod Dem	61	22	8	9	0	612	29	25	15	31	0	612
	Liberal Dem	40	28	17	14	0	307	21	21	14	44	1	307
INTERNET USER	Yes	49	27	12	12	0	2474	19	22	17	42	0	2474
	No	56	23	8	12	2	532	25	24	11	39	1	532

PEW RESEARCH CENTER June 8-28, 2010. Question 28: Now I'd like to know how often you watch or listen to certain TV and radio programs. For each that I read, tell me if you watch or listen to it regularly, sometimes, hardly ever or never.

Item k: Watch the local news about your viewing area, which usually comes on before or after the national news in the evening and again later at night.

Item o: Watch the Today Show, Good Morning America or the Early Show.

* Interviews were conducted only in English and concerned only English-language media sources, which may affect the representativeness of the Hispanic sample.

		CNN						FOX NEWS CABLE CHANNEL					
		Regu- larly	Some- times	Hardly ever	Never	DK	N	Regu- larly	Some- times	Hardly ever	Never	DK	N
		%	%	%	%	%		%	%	%	%	%	
TOTAL		18	32	17	32	0	1509	23	26	14	37	0	1509
GENDER	Men	16	29	22	32	0	653	22	26	15	37	0	653
	Women	20	34	13	32	0	856	24	26	13	36	1	856
AGE	18-29	13	33	20	34	0	246	17	27	14	42	0	246
	30-49	19	32	18	31	0	392	21	27	14	37	1	392
	50-64	18	31	18	32	0	489	26	26	15	33	1	489
	65+	21	34	13	31	1	356	30	25	12	33	0	356
18-49 DETAILED	18-24	12	35	20	33	0	146	15	26	17	41	0	146
	25-29	15	30	19	36	0	100	18	29	9	44	0	100
	30-39	18	30	15	38	0	180	21	25	11	42	0	180
	40-49	20	34	21	25	0	212	22	29	16	32	1	212
AGE BY GENDER	Men 18-29	13	28	25	34	0	132	16	24	16	43	0	132
	Women 18-29	16	30	24	30	0	172	17	31	14	38	0	172
	Men 30-49	19	29	19	31	0	343	31	23	14	31	0	343
	Women 30-49	15	39	13	34	0	114	17	32	11	40	0	114
	Men 50+	22	33	12	33	0	220	26	23	13	37	1	220
Women 50+	19	35	14	31	1	502	25	27	13	35	0	502	
RACE	White, non-Hisp	15	32	19	33	0	1160	24	25	13	37	0	1160
	Black, non-Hisp	32	40	15	14	0	143	26	29	15	29	1	143
	Hispanic*	26	28	11	35	0	96	17	30	14	37	2	96
EDUCATION	College grad+	21	33	20	26	0	552	23	22	12	43	0	552
	Some college	14	32	19	35	0	382	24	25	14	37	0	382
	HS or less	18	31	15	35	1	568	23	29	15	32	1	568
FAMILY INCOME	\$75,000+	19	34	19	27	0	429	22	25	10	43	0	429
	\$30k-74,999	18	32	18	31	0	485	26	24	17	33	0	485
	Less than \$30k	20	29	16	34	1	350	22	29	15	33	1	350
DETAILED INCOME	\$100,000+	20	35	17	28	0	253	22	24	11	43	0	253
	\$75k-99,999	18	32	23	26	0	176	22	26	8	44	0	176
	\$50k-74,999	19	32	21	28	0	228	28	24	15	33	0	228
	\$30k-49,999	17	33	17	33	0	257	24	24	18	33	0	257
	Less than \$30k	20	29	16	34	1	350	22	29	15	33	1	350
PARTY	Republican	12	29	21	37	0	430	40	31	9	21	0	430
	Democrat	25	33	16	26	0	493	15	23	17	45	1	493
	Independent	17	33	18	32	0	487	20	27	15	38	1	487
PARTY- IDEOLOGY	Cons Rep	10	26	23	40	1	285	48	29	6	17	0	285
	Mod/Lib Rep	18	35	16	31	0	133	27	30	16	27	0	133
	Cons/Mod Dem	24	36	15	25	0	311	18	25	17	39	1	311
	Liberal Dem	26	28	18	28	0	157	7	16	16	61	0	157
INTERNET USER	Yes	18	32	19	32	0	1238	23	25	14	38	0	1238
	No	20	33	12	34	1	271	22	31	12	33	2	271

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Item gF2 (based on Form 2): Watch CNN.

Item hF2 (based on Form 2): Watch the Fox News CABLE Channel.

* Interviews were conducted only in English and concerned only English-language media sources, which may affect the representativeness of the Hispanic sample.

		MSNBC						C-SPAN					
		Regu- larly	Some- times	Hardly ever	Never	DK	N	Regu- larly	Some- times	Hardly ever	Never	DK	N
		%	%	%	%	%		%	%	%	%	%	
TOTAL		11	28	19	41	1	1509	4	17	19	60	1	3006
GENDER	Men	10	25	20	44	0	653	4	17	20	58	1	1295
	Women	11	31	18	39	1	856	4	16	18	61	1	1711
AGE	18-29	4	29	20	47	0	246	2	14	17	67	1	507
	30-49	11	30	19	40	0	392	4	17	21	58	1	766
	50-64	13	28	20	38	0	489	3	18	19	59	1	952
	65+	14	25	17	42	2	356	5	18	18	56	3	735
18-49 DETAILED	18-24	4	29	20	48	0	146	2	13	17	67	1	314
	25-29	6	29	20	46	0	100	1	16	16	66	1	193
	30-39	10	27	19	43	1	180	4	14	19	62	1	335
	40-49	11	33	19	37	0	212	4	19	22	54	0	431
AGE BY GENDER	Men 18-29	4	25	18	52	0	132	2	17	18	62	1	266
	Women 18-29	10	26	20	44	0	172	4	16	22	57	1	351
	Men 30-49	12	25	22	40	1	343	4	18	20	57	1	666
	Women 30-49	4	33	21	41	0	114	2	12	15	71	1	241
	Women 50+	11	34	18	37	1	220	4	17	20	59	0	415
RACE	White, non-Hisp	10	28	20	42	1	1160	3	15	19	63	0	2308
	Black, non-Hisp	19	34	15	30	2	143	7	25	17	48	2	283
	Hispanic*	10	28	22	40	0	96	4	21	18	54	3	187
EDUCATION	College grad+	12	27	23	37	0	552	4	16	25	54	1	1099
	Some college	11	26	19	43	1	382	2	19	18	59	1	785
	HS or less	9	31	16	43	1	568	4	16	15	64	2	1110
FAMILY INCOME	\$75,000+	10	29	21	40	0	429	3	16	24	57	0	855
	\$30k-74,999	13	30	19	37	1	485	4	19	20	56	1	946
	Less than \$30k	9	28	16	47	1	350	4	17	14	64	1	725
DETAILED INCOME	\$100,000+	12	27	18	43	0	253	2	16	24	57	1	496
	\$75k-99,999	9	31	24	36	0	176	5	15	23	56	0	359
	\$50k-74,999	16	27	19	38	1	228	4	19	22	55	0	445
	\$30k-49,999	11	33	20	36	1	257	4	20	19	57	1	501
	Less than \$30k	9	28	16	47	1	350	4	17	14	64	1	725
PARTY	Republican	6	25	20	49	1	430	3	14	20	63	0	841
	Democrat	16	33	17	33	1	493	5	21	19	54	1	961
	Independent	10	29	21	40	0	487	3	16	19	62	1	993
PARTY- IDEOLOGY	Cons Rep	5	24	20	51	0	285	2	15	20	62	0	580
	Mod/Lib Rep	7	29	21	43	1	133	3	12	22	62	1	238
	Cons/Mod Dem	17	35	17	30	1	311	6	20	19	54	1	612
	Liberal Dem	18	25	17	40	0	157	3	22	20	54	0	307
INTERNET USER	Yes	10	29	20	41	0	1238	3	17	21	59	1	2474
	No	12	27	14	45	2	271	4	17	11	64	3	532

PEW RESEARCH CENTER June 8-28, 2010. Question 28: Now I'd like to know how often you watch or listen to certain TV and radio programs. For each that I read, tell me if you watch or listen to it regularly, sometimes, hardly ever or never.

Item iF2 (based on Form 2): Watch MSNBC.

Item I: Watch C-SPAN.

* Interviews were conducted only in English and concerned only English-language media sources, which may affect the representativeness of the Hispanic sample.

		POLITICAL CALL-IN RADIO SHOWS						SUNDAY NEWS-AND-POLITICS SHOWS					
		Regu- larly	Some- times	Hardly ever	Never	DK	N	Regu- larly	Some- times	Hardly ever	Never	DK	N
		%	%	%	%	%		%	%	%	%	%	
TOTAL		16	23	20	42	0	3006	11	20	16	52	0	3006
GENDER	Men	19	23	21	37	0	1295	11	21	17	51	1	1295
	Women	13	22	18	46	0	1711	12	19	16	53	0	1711
AGE	18-29	14	24	22	41	0	507	5	11	15	69	0	507
	30-49	19	24	19	38	0	766	10	22	17	51	0	766
	50-64	16	22	20	41	0	952	15	23	16	46	0	952
	65+	10	21	17	52	1	735	19	23	16	40	2	735
18-49 DETAILED	18-24	13	22	23	42	0	314	3	11	16	70	0	314
	25-29	14	27	19	39	0	193	7	10	15	68	0	193
	30-39	23	23	19	35	0	335	6	18	19	57	0	335
	40-49	15	26	19	40	0	431	13	25	15	46	0	431
AGE BY GENDER	Men 18-29	16	24	23	37	0	266	5	10	15	70	0	266
	Women 18-29	22	23	20	34	0	351	9	23	17	51	0	351
	Men 30-49	17	23	21	39	0	666	16	25	17	40	1	666
	Women 30-49	11	24	21	45	0	241	4	11	16	69	0	241
	Women 50+	11	20	17	51	1	1021	16	21	15	47	0	1021
RACE	White, non-Hisp	16	22	20	41	0	2308	11	18	17	54	0	2308
	Black, non-Hisp	11	29	17	42	0	283	15	31	12	41	1	283
	Hispanic*	12	21	16	51	0	187	10	18	16	56	0	187
EDUCATION	College grad+	21	26	21	32	0	1099	16	21	19	44	0	1099
	Some college	18	21	20	41	0	785	9	18	14	58	0	785
	HS or less	10	22	18	49	0	1110	10	19	15	55	1	1110
FAMILY INCOME	\$75,000+	20	26	22	32	0	855	14	21	18	47	0	855
	\$30k-74,999	18	24	19	38	0	946	11	19	16	53	0	946
	Less than \$30k	10	20	21	48	0	725	10	18	17	54	1	725
DETAILED INCOME	\$100,000+	21	26	20	33	0	496	14	22	17	46	0	496
	\$75k-99,999	18	26	25	30	0	359	13	20	20	47	0	359
	\$50k-74,999	20	26	22	32	0	445	13	20	17	50	1	445
	\$30k-49,999	17	23	18	43	0	501	10	19	14	56	0	501
	Less than \$30k	10	20	21	48	0	725	10	18	17	54	1	725
PARTY	Republican	20	25	19	35	0	841	11	17	17	55	0	841
	Democrat	11	23	21	45	0	961	13	25	15	46	1	961
	Independent	18	23	20	39	0	993	11	18	17	54	0	993
PARTY- IDEOLOGY	Cons Rep	25	28	17	30	0	580	11	18	18	53	0	580
	Mod/Lib Rep	10	22	24	44	0	238	11	17	15	57	0	238
	Cons/Mod Dem	10	23	22	45	0	612	14	25	15	45	1	612
	Liberal Dem	13	23	20	44	0	307	13	23	14	49	0	307
INTERNET USER	Yes	18	24	21	37	0	2474	11	19	17	53	0	2474
	No	5	16	16	63	1	532	14	23	14	48	2	532

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Question 36: How often, if ever, do you listen to radio shows that invite listeners to call in to discuss current events, public issues and politics—regularly, sometimes, hardly ever or never?

Question 28p: Now I'd like to know how often you watch or listen to certain TV and radio programs. For each that I read, tell me if you watch or listen to it regularly, sometimes, hardly ever or never. ... Watch Sunday morning news shows, such as Meet the Press, This Week or Face the Nation.

* Interviews were conducted only in English and concerned only English-language media sources, which may affect the representativeness of the Hispanic sample.

		NEWS MAGAZINES						ATLANTIC / NEW YORKER / HARPER'S					
		Regu- larly	Some- times	Hardly ever	Never	DK	N	Regu- larly	Some- times	Hardly ever	Never	DK	N
		%	%	%	%	%		%	%	%	%	%	
TOTAL		8	27	24	40	0	3006	3	8	15	74	0	3006
GENDER	Men	10	26	25	40	0	1295	3	7	14	76	0	1295
	Women	7	28	24	41	0	1711	2	8	16	73	0	1711
AGE	18-29	9	30	24	36	0	507	2	11	16	71	0	507
	30-49	8	27	27	38	0	766	2	7	17	74	0	766
	50-64	8	25	23	44	0	952	3	7	13	77	0	952
	65+	10	24	22	44	1	735	3	6	15	74	0	735
18-49 DETAILED	18-24	9	30	25	36	0	314	3	12	16	69	0	314
	25-29	9	31	23	37	0	193	2	10	16	73	0	193
	30-39	8	28	23	40	0	335	3	6	17	74	1	335
	40-49	7	26	30	36	0	431	1	7	17	74	0	431
AGE BY GENDER	Men 18-29	12	30	23	35	0	266	3	12	13	72	0	266
	Women 18-29	7	25	28	40	0	351	2	4	14	80	1	351
	Men 30-49	10	24	23	42	0	666	4	6	15	75	0	666
	Women 30-49	5	31	25	38	0	241	1	9	20	70	0	241
	Women 50+	7	25	22	45	0	1021	3	7	13	77	0	1021
RACE	White, non-Hisp	9	25	26	41	0	2308	3	6	14	77	0	2308
	Black, non-Hisp	9	31	21	40	0	283	3	12	18	67	0	283
	Hispanic*	7	33	21	39	0	187	2	12	19	66	1	187
EDUCATION	College grad+	14	29	29	27	0	1099	5	10	20	65	0	1099
	Some college	10	27	24	39	0	785	1	7	16	76	0	785
	HS or less	4	25	22	49	0	1110	2	6	12	80	0	1110
FAMILY INCOME	\$75,000+	14	26	29	31	0	855	5	8	18	68	0	855
	\$30k-74,999	9	28	26	36	0	946	1	7	15	76	0	946
	Less than \$30k	4	27	20	49	0	725	2	7	15	75	0	725
DETAILED INCOME	\$100,000+	14	27	29	30	0	496	7	8	18	67	0	496
	\$75k-99,999	15	26	28	32	0	359	2	9	18	71	0	359
	\$50k-74,999	10	30	26	34	0	445	2	6	14	77	0	445
	\$30k-49,999	7	27	26	39	0	501	1	8	16	75	0	501
	Less than \$30k	4	27	20	49	0	725	2	7	15	75	0	725
PARTY	Republican	7	26	24	43	0	841	1	5	13	81	0	841
	Democrat	10	27	22	40	0	961	5	9	16	69	0	961
	Independent	8	28	27	37	0	993	2	8	17	73	0	993
PARTY- IDEOLOGY	Cons Rep	7	26	24	43	0	580	0	5	12	83	0	580
	Mod/Lib Rep	9	26	28	37	0	238	2	5	16	77	0	238
	Cons/Mod Dem	8	29	23	40	0	612	3	8	17	72	0	612
	Liberal Dem	16	29	23	32	0	307	11	11	17	61	0	307
INTERNET USER	Yes	10	29	25	36	0	2474	3	8	16	73	0	2474
	No	3	16	20	61	0	532	2	5	11	81	1	532

PEW RESEARCH CENTER June 8-28, 2010. Question 30: Now I'd like to know how often you read certain types of publications in print or online. How often do you read... regularly, sometimes, hardly ever or never?

Item a: News magazines such as Time, U.S. News or Newsweek.

Item b: Magazines such as The Atlantic, Harper's or The New Yorker.

* Interviews were conducted only in English and concerned only English-language media sources, which may affect the representativeness of the Hispanic sample.

		A DAILY NEWSPAPER						WEEKLY COMMUNITY NEWSPAPERS					
		Regu- larly	Some- times	Hardly ever	Never	DK	N	Regu- larly	Some- times	Hardly ever	Never	DK	N
		%	%	%	%	%		%	%	%	%	%	
TOTAL		40	27	11	21	0	3006	30	28	14	27	1	3006
GENDER	Men	39	28	11	22	1	1295	27	27	15	31	1	1295
	Women	41	27	12	21	0	1711	34	28	13	24	0	1711
AGE	18-29	23	41	15	22	0	507	17	35	19	29	0	507
	30-49	37	30	12	21	0	766	28	29	15	27	0	766
	50-64	49	22	9	20	0	952	38	26	12	24	0	952
	65+	55	13	8	23	0	735	39	18	9	32	2	735
18-49 DETAILED	18-24	17	46	16	20	0	314	17	37	19	27	0	314
	25-29	30	32	12	25	0	193	17	32	18	33	0	193
	30-39	32	31	13	23	1	335	25	28	19	28	1	335
	40-49	40	29	11	19	0	431	32	31	12	26	0	431
AGE BY GENDER	Men 18-29	24	40	12	24	0	266	15	34	19	33	0	266
	Women 18-29	34	31	13	21	1	351	26	26	16	31	1	351
	Men 30-49	52	18	8	22	1	666	35	23	11	30	1	666
	Women 30-49	21	41	17	20	0	241	19	37	19	25	0	241
	Women 50+	39	28	11	21	0	415	31	32	14	23	0	415
RACE	White, non-Hisp	43	25	11	21	0	2308	33	27	14	26	0	2308
	Black, non-Hisp	37	34	9	20	0	283	26	34	10	30	0	283
	Hispanic*	26	36	14	23	1	187	23	27	17	31	1	187
EDUCATION	College grad+	54	20	11	15	0	1099	37	26	14	23	1	1099
	Some college	36	28	13	23	0	785	30	28	16	26	0	785
	HS or less	33	31	10	25	0	1110	26	29	13	31	1	1110
FAMILY INCOME	\$75,000+	49	21	12	18	0	855	33	26	16	25	0	855
	\$30k-74,999	45	26	10	18	0	946	34	30	13	23	1	946
	Less than \$30k	27	34	12	27	0	725	25	27	15	32	1	725
DETAILED INCOME	\$100,000+	53	21	10	16	0	496	33	26	15	26	0	496
	\$75k-99,999	44	22	14	20	0	359	33	26	17	23	0	359
	\$50k-74,999	52	24	9	14	1	445	35	30	13	22	1	445
	\$30k-49,999	40	28	11	21	0	501	33	30	13	24	0	501
	Less than \$30k	27	34	12	27	0	725	25	27	15	32	1	725
PARTY	Republican	45	25	11	19	0	841	35	26	12	26	1	841
	Democrat	41	27	11	21	0	961	30	27	14	28	1	961
	Independent	38	30	11	20	0	993	30	30	14	25	0	993
PARTY- IDEOLOGY	Cons Rep	47	23	11	19	0	580	37	25	11	26	1	580
	Mod/Lib Rep	41	30	13	16	0	238	33	30	14	22	0	238
	Cons/Mod Dem	43	27	10	20	0	612	32	27	13	27	1	612
	Liberal Dem	40	25	14	21	0	307	26	29	19	25	0	307
INTERNET USER	Yes	41	28	12	19	0	2474	31	29	15	25	0	2474
	No	35	22	9	34	0	532	28	21	10	38	2	532

PEW RESEARCH CENTER June 8-28, 2010. Question 30: Now I'd like to know how often you read certain types of publications in print or online. How often do you read... regularly, sometimes, hardly ever or never?

Item c: A daily newspaper.

Item d: Local weekly community newspapers.

* Interviews were conducted only in English and concerned only English-language media sources, which may affect the representativeness of the Hispanic sample.

		THE NEW YORK TIMES						THE WALL STREET JOURNAL					
		Regu- larly	Some- times	Hardly ever	Never	DK	N	Regu- larly	Some- times	Hardly ever	Never	DK	N
		%	%	%	%	%		%	%	%	%	%	
TOTAL		5	13	14	68	0	3006	4	13	16	67	0	3006
GENDER	Men	7	14	14	65	0	1295	6	16	17	61	0	1295
	Women	4	11	15	70	0	1711	3	11	15	72	0	1711
AGE	18-29	8	19	16	57	0	507	4	14	16	66	0	507
	30-49	5	12	16	66	0	766	4	15	17	64	0	766
	50-64	3	12	13	72	0	952	4	13	15	68	0	952
	65+	5	8	10	77	0	735	3	11	15	70	0	735
18-49 DETAILED	18-24	8	19	18	54	0	314	3	13	18	66	0	314
	25-29	7	19	13	62	0	193	4	15	14	67	1	193
	30-39	7	12	17	64	0	335	5	14	16	65	1	335
	40-49	4	11	16	68	1	431	4	15	17	63	0	431
AGE BY GENDER	Men 18-29	11	23	16	50	0	266	6	17	18	58	0	266
	Women 18-29	6	11	11	71	1	351	4	17	15	63	1	351
	Men 30-49	5	12	14	70	0	666	6	14	17	62	0	666
	Women 30-49	5	15	15	65	0	241	1	9	15	75	0	241
	Women 50+	3	9	11	77	0	1021	2	10	13	75	0	1021
RACE	White, non-Hisp	5	10	13	71	0	2308	4	11	15	69	0	2308
	Black, non-Hisp	5	16	16	63	0	283	3	13	17	66	0	283
	Hispanic*	7	18	18	57	0	187	3	19	19	58	1	187
EDUCATION	College grad+	12	16	19	53	0	1099	10	20	21	49	0	1099
	Some college	4	13	15	68	0	785	2	13	16	68	0	785
	HS or less	2	10	10	77	0	1110	1	9	12	77	1	1110
FAMILY INCOME	\$75,000+	11	13	18	58	0	855	9	19	20	52	0	855
	\$30k-74,999	3	13	15	69	0	946	3	13	18	66	0	946
	Less than \$30k	2	13	13	71	0	725	1	9	13	76	0	725
DETAILED INCOME	\$100,000+	14	15	17	54	0	496	9	20	20	51	0	496
	\$75k-99,999	6	12	19	63	0	359	8	18	20	54	0	359
	\$50k-74,999	3	16	14	67	0	445	4	15	16	64	0	445
	\$30k-49,999	4	11	15	70	0	501	3	10	19	68	0	501
	Less than \$30k	2	13	13	71	0	725	1	9	13	76	0	725
PARTY	Republican	2	9	13	76	0	841	6	13	15	66	0	841
	Democrat	8	14	16	62	0	961	3	12	17	67	0	961
	Independent	6	15	14	65	0	993	5	15	16	64	0	993
PARTY- IDEOLOGY	Cons Rep	1	9	13	77	0	580	7	13	15	65	0	580
	Mod/Lib Rep	4	11	14	72	0	238	4	14	15	67	0	238
	Cons/Mod Dem	5	14	15	66	0	612	3	11	16	70	0	612
	Liberal Dem	13	16	20	51	0	307	3	15	22	60	0	307
INTERNET USER	Yes	6	14	15	64	0	2474	5	15	17	63	0	2474
	No	1	6	8	84	1	532	1	5	11	83	1	532

PEW RESEARCH CENTER June 8-28, 2010. Question 31: And thinking about some specific newspapers in print and online, how often do you read... regularly, sometimes, hardly ever or never.

Item a: The New York Times.

Item b: The Wall Street Journal.

* Interviews were conducted only in English and concerned only English-language media sources, which may affect the representativeness of the Hispanic sample.

		USA TODAY						NPR					
		Regu- larly	Some- times	Hardly ever	Never	DK	N	Regu- larly	Some- times	Hardly ever	Never	DK	N
		%	%	%	%	%		%	%	%	%	%	
TOTAL		4	24	19	53	0	3006	11	13	14	61	1	3006
GENDER	Men	5	25	19	50	0	1295	13	13	15	58	1	1295
	Women	4	22	19	55	0	1711	10	13	13	63	1	1711
AGE	18-29	4	23	23	51	0	507	11	14	9	65	1	507
	30-49	5	25	21	49	0	766	12	14	15	58	1	766
	50-64	5	25	15	54	0	952	12	12	16	59	1	952
	65+	3	21	17	59	0	735	10	11	14	62	2	735
18-49 DETAILED	18-24	4	20	24	52	0	314	9	16	10	65	1	314
	25-29	3	27	20	51	0	193	13	12	8	65	1	193
	30-39	5	22	19	54	0	335	14	14	16	56	0	335
	40-49	5	27	23	46	0	431	11	13	15	60	1	431
AGE BY GENDER	Men 18-29	4	24	23	49	0	266	13	14	8	63	2	266
	Women 18-29	6	25	19	50	0	351	12	14	16	58	0	351
	Men 30-49	5	26	17	51	0	666	13	13	17	55	2	666
	Women 30-49	4	21	22	54	0	241	8	15	10	67	0	241
	Women 50+	4	24	23	49	0	415	13	14	14	58	1	415
RACE	White, non-Hisp	5	23	19	54	0	2308	12	13	14	60	1	2308
	Black, non-Hisp	6	26	19	46	1	283	8	16	14	59	2	283
	Hispanic*	2	20	23	54	0	187	8	10	16	66	1	187
EDUCATION	College grad+	7	30	24	40	0	1099	20	18	16	45	1	1099
	Some college	4	26	18	52	0	785	11	13	13	62	1	785
	HS or less	3	18	17	61	0	1110	6	10	13	70	1	1110
FAMILY INCOME	\$75,000+	7	27	24	42	0	855	19	16	15	50	0	855
	\$30k-74,999	5	26	18	51	0	946	11	13	15	60	1	946
	Less than \$30k	2	20	17	60	0	725	7	12	13	67	1	725
DETAILED INCOME	\$100,000+	8	26	26	41	0	496	20	17	15	48	0	496
	\$75k-99,999	6	29	21	44	0	359	18	15	15	52	0	359
	\$50k-74,999	6	28	19	47	0	445	11	14	15	58	2	445
	\$30k-49,999	3	24	18	54	0	501	10	12	15	62	0	501
	Less than \$30k	2	20	17	60	0	725	7	12	13	67	1	725
PARTY	Republican	6	21	19	54	0	841	6	12	16	65	1	841
	Democrat	4	27	17	52	0	961	14	13	13	59	1	961
	Independent	4	24	21	50	0	993	14	14	14	58	1	993
PARTY- IDEOLOGY	Cons Rep	7	22	17	54	0	580	6	12	18	62	1	580
	Mod/Lib Rep	4	19	25	52	0	238	8	10	14	68	0	238
	Cons/Mod Dem	4	27	17	51	0	612	10	13	15	61	1	612
	Liberal Dem	3	29	19	48	0	307	23	16	9	52	1	307
INTERNET USER	Yes	5	26	20	49	0	2474	13	14	14	58	1	2474
	No	1	12	14	72	1	532	4	7	14	72	2	532

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Question 31c: And thinking about some specific newspapers in print and online, how often do you read USA Today... regularly, sometimes, hardly ever or never.

Question 28m: Now I'd like to know how often you watch or listen to certain TV and radio programs. For each that I read, tell me if you watch or listen to it regularly, sometimes, hardly ever or never. Listen to NPR, National Public Radio.

* Interviews were conducted only in English and concerned only English-language media sources, which may affect the representativeness of the Hispanic sample.

		BLOGS ABOUT POLITICS, CURRENT EVENTS						NEWS FROM SOCIAL NETWORKING					
		Regu- larly	Some- times	Hardly ever	Never	DK	N	Regu- larly	Some- times	Hardly ever	Never	DK	N
		%	%	%	%	%		%	%	%	%	%	
TOTAL		11	24	27	38	0	2474	16	26	22	36	0	1264
GENDER	Men	14	22	28	37	0	1100	13	25	24	38	0	536
	Women	9	25	27	39	0	1374	18	26	21	35	0	728
AGE	18-29	6	24	32	38	0	490	15	29	22	34	0	407
	30-49	11	26	28	35	0	709	19	27	19	34	0	442
	50-64	15	20	23	43	0	820	14	18	24	45	0	314
	65+	16	26	23	34	1	420	3	15	42	40	0	89
18-49 DETAILED	18-24	6	23	34	36	0	303	13	29	23	34	0	261
	25-29	7	24	29	40	0	187	16	28	21	33	1	146
	30-39	11	26	26	37	0	320	23	31	17	29	0	222
	40-49	12	25	31	33	0	389	15	22	22	41	0	220
AGE BY GENDER	Men 18-29	9	23	31	37	0	260	15	29	18	37	1	211
	Women 18-29	14	24	29	33	0	322	13	24	26	38	0	178
	Men 30-49	17	19	24	40	0	508	11	16	33	40	0	143
	Women 30-49	3	25	33	39	0	230	14	29	27	30	0	196
	Women 50+	9	27	27	37	0	387	24	29	15	32	0	264
RACE	White, non-Hisp	11	22	26	40	0	1914	16	24	22	38	0	952
	Black, non-Hisp	14	31	27	29	0	207	16	36	22	25	0	104
	Hispanic*	10	23	36	32	0	159	15	18	28	39	0	102
EDUCATION	College grad+	14	24	26	36	0	1045	20	20	23	37	0	584
	Some college	10	24	30	36	0	685	14	22	22	40	1	357
	HS or less	10	23	25	41	0	735	12	35	22	31	0	321
FAMILY INCOME	\$75,000+	13	25	27	35	0	818	18	23	23	35	0	455
	\$30k-74,999	11	24	27	37	0	838	14	25	23	38	0	423
	Less than \$30k	7	23	29	40	0	467	14	32	20	34	1	250
DETAILED INCOME	\$100,000+	14	25	29	33	0	477	19	20	24	36	0	272
	\$75k-99,999	13	24	24	38	0	341	17	27	22	33	0	183
	\$50k-74,999	11	23	30	37	0	411	18	20	24	37	0	215
	\$30k-49,999	12	26	25	37	0	427	10	29	22	39	0	208
	Less than \$30k	7	23	29	40	0	467	14	32	20	34	1	250
PARTY	Republican	12	25	26	36	0	706	16	26	24	33	1	343
	Democrat	13	26	28	34	0	749	16	28	22	33	0	395
	Independent	10	22	28	39	0	876	15	24	21	40	0	477
PARTY- IDEOLOGY	Cons Rep	14	25	27	34	0	490	15	29	25	31	0	230
	Mod/Lib Rep	8	25	26	41	0	204	17	20	23	40	0	110
	Cons/Mod Dem	12	25	30	33	0	469	16	31	23	29	0	222
	Liberal Dem	15	27	25	32	0	262	16	26	22	36	0	164

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Question 46 (based on Internet users): How often, if ever, do you read blogs about politics or current events? Regularly, sometimes, hardly ever or never?

Question 61 (based on those who have social networking profiles): How often, if ever, do you get news or news headlines through social networking sites?

* Interviews were conducted only in English and concerned only English-language media sources, which may affect the representativeness of the Hispanic sample.

		THE DAILY SHOW						THE COLBERT REPORT					
		Regu- larly	Some- times	Hardly ever	Never	DK	N	Regu- larly	Some- times	Hardly ever	Never	DK	N
		%	%	%	%	%		%	%	%	%	%	
TOTAL		7	20	12	60	1	3006	6	18	14	62	0	3006
GENDER	Men	9	20	14	57	1	1295	8	19	15	59	0	1295
	Women	6	19	11	63	1	1711	4	18	13	65	0	1711
AGE	18-29	13	27	12	47	0	507	13	22	13	52	0	507
	30-49	8	22	14	56	0	766	5	21	16	58	0	766
	50-64	5	16	12	66	1	952	3	16	13	67	0	952
	65+	2	11	11	74	1	735	1	13	10	75	1	735
18-49 DETAILED	18-24	13	31	12	44	0	314	14	24	13	49	0	314
	25-29	13	22	13	52	0	193	11	20	12	57	0	193
	30-39	9	25	15	51	0	335	6	24	14	56	0	335
	40-49	6	19	13	61	1	431	3	18	18	61	0	431
AGE BY GENDER	Men 18-29	18	26	13	44	0	266	18	21	13	48	0	266
	Women 18-29	8	22	16	53	1	351	5	23	17	55	0	351
	Men 30-49	4	15	13	67	1	666	3	15	13	68	0	666
	Women 30-49	8	29	12	51	0	241	8	23	12	57	0	241
	Men 50+	7	22	12	60	0	415	4	19	15	62	0	415
Women 50+	4	14	10	71	1	1021	2	15	11	72	1	1021	
RACE	White, non-Hisp	7	20	13	60	1	2308	5	19	13	62	0	2308
	Black, non-Hisp	3	20	13	63	1	283	3	20	12	65	0	283
	Hispanic*	12	17	10	61	0	187	6	14	16	64	0	187
EDUCATION	College grad+	9	24	15	52	0	1099	7	23	18	51	0	1099
	Some college	6	23	13	58	1	785	6	20	14	60	0	785
	HS or less	7	15	11	67	1	1110	4	14	11	71	0	1110
FAMILY INCOME	\$75,000+	9	24	15	51	0	855	8	24	16	52	0	855
	\$30k-74,999	7	20	12	61	1	946	6	18	14	61	0	946
	Less than \$30k	8	19	12	61	1	725	5	15	13	67	0	725
DETAILED INCOME	\$100,000+	10	24	15	50	0	496	8	26	16	50	0	496
	\$75k-99,999	8	23	15	53	0	359	7	22	15	56	0	359
	\$50k-74,999	7	22	10	60	1	445	5	19	15	61	0	445
	\$30k-49,999	7	18	14	61	0	501	6	18	14	61	0	501
	Less than \$30k	8	19	12	61	1	725	5	15	13	67	0	725
PARTY	Republican	4	15	12	68	0	841	3	15	13	68	0	841
	Democrat	9	24	11	56	0	961	7	21	14	58	0	961
	Independent	8	22	14	55	1	993	7	20	14	59	0	993
PARTY- IDEOLOGY	Cons Rep	3	13	11	73	1	580	2	14	13	70	0	580
	Mod/Lib Rep	8	21	16	55	0	238	5	18	14	63	0	238
	Cons/Mod Dem	8	19	12	61	0	612	5	17	15	63	0	612
	Liberal Dem	14	34	10	42	0	307	11	31	14	43	0	307
INTERNET USER	Yes	8	22	13	57	0	2474	6	21	14	58	0	2474
	No	4	9	11	75	1	532	1	7	12	79	1	532

PEW RESEARCH CENTER June 8-28, 2010. Question 29: Now I'd like to ask you about some other television and radio programs. How often do you ... regularly, sometimes, hardly ever or never.

Item c: Watch the Daily Show with Jon Stewart.

Item g: Watch the Colbert Report with Stephen Colbert.

* Interviews were conducted only in English and concerned only English-language media sources, which may affect the representativeness of the Hispanic sample.

		GLENN BECK SHOW						SEAN HANNITY SHOW					
		Regu- larly	Some- times	Hardly ever	Never	DK	N	Regu- larly	Some- times	Hardly ever	Never	DK	N
		%	%	%	%	%		%	%	%	%	%	
TOTAL		7	13	8	72	1	3006	6	11	9	73	1	3006
GENDER	Men	7	14	9	70	0	1295	7	12	10	71	1	1295
	Women	7	11	7	74	1	1711	5	10	8	76	1	1711
AGE	18-29	5	6	6	83	0	507	2	6	8	84	0	507
	30-49	6	14	9	70	0	766	5	12	11	73	0	766
	50-64	7	14	9	70	1	952	8	12	9	70	1	952
	65+	10	16	9	64	1	735	10	14	8	65	2	735
18-49 DETAILED	18-24	5	6	5	83	0	314	2	5	7	85	0	314
	25-29	6	6	6	82	1	193	2	6	8	83	1	193
	30-39	6	13	8	73	1	335	5	11	9	76	0	335
	40-49	6	16	10	68	0	431	4	13	12	70	0	431
AGE BY GENDER	Men 18-29	6	8	5	80	1	266	3	5	7	85	0	266
	Women 18-29	6	17	10	67	0	351	6	13	12	69	0	351
	Men 30-49	8	16	11	65	0	666	10	15	10	64	1	666
	Women 30-49	4	5	6	85	0	241	1	6	9	84	0	241
	Men 50+	6	12	8	73	1	415	4	11	9	76	0	415
Women 50+	8	13	7	71	1	1021	8	11	7	72	2	1021	
RACE	White, non-Hisp	7	14	8	70	0	2308	7	12	8	71	1	2308
	Black, non-Hisp	1	8	6	84	1	283	2	7	7	84	1	283
	Hispanic*	5	10	9	76	1	187	4	5	13	77	1	187
EDUCATION	College grad+	7	13	10	70	0	1099	7	14	10	68	1	1099
	Some college	6	14	9	70	1	785	7	10	9	73	1	785
	HS or less	7	11	7	74	1	1110	5	9	8	77	1	1110
FAMILY INCOME	\$75,000+	6	16	10	68	0	855	8	14	9	69	0	855
	\$30k-74,999	9	13	9	68	0	946	7	12	11	69	1	946
	Less than \$30k	4	10	6	79	1	725	3	8	8	80	1	725
DETAILED INCOME	\$100,000+	7	15	8	70	0	496	9	13	8	70	0	496
	\$75k-99,999	5	18	11	65	0	359	6	14	9	69	1	359
	\$50k-74,999	9	15	11	64	1	445	8	13	12	66	1	445
	\$30k-49,999	9	12	8	71	0	501	6	10	11	72	0	501
	Less than \$30k	4	10	6	79	1	725	3	8	8	80	1	725
PARTY	Republican	14	23	10	53	0	841	15	20	11	53	1	841
	Democrat	2	6	6	86	1	961	1	4	8	86	1	961
	Independent	7	13	9	72	1	993	5	11	8	74	1	993
PARTY- IDEOLOGY	Cons Rep	19	28	9	45	0	580	20	25	13	41	1	580
	Mod/Lib Rep	5	12	15	68	0	238	5	8	9	77	1	238
	Cons/Mod Dem	2	6	7	84	1	612	1	5	10	84	1	612
	Liberal Dem	0	6	5	88	0	307	0	4	5	90	1	307
INTERNET USER	Yes	7	13	8	72	0	2474	6	11	9	73	0	2474
	No	7	10	7	74	1	532	5	8	8	77	2	532

PEW RESEARCH CENTER June 8-28, 2010. Question 29: Now I'd like to ask you about some other television and radio programs. How often do you ... regularly, sometimes, hardly ever or never.

Item h: Watch the Glenn Beck show.

Item b: Watch the Sean Hannity show.

* Interviews were conducted only in English and concerned only English-language media sources, which may affect the representativeness of the Hispanic sample.

		THE O'REILLY FACTOR WITH BILL O'REILLY						RUSH LIMBAUGH'S RADIO SHOW					
		Regu- larly	Some- times	Hardly ever	Never	DK	N	Regu- larly	Some- times	Hardly ever	Never	DK	N
		%	%	%	%	%		%	%	%	%	%	
TOTAL		10	20	13	57	0	3006	5	13	10	72	0	3006
GENDER	Men	11	20	14	55	1	1295	6	14	10	69	0	1295
	Women	9	20	12	59	0	1711	4	11	9	75	0	1711
AGE	18-29	5	16	10	69	0	507	3	9	8	80	0	507
	30-49	7	22	16	55	0	766	5	14	11	69	0	766
	50-64	12	20	14	53	1	952	5	12	10	72	0	952
	65+	16	22	11	51	1	735	8	15	9	68	1	735
18-49 DETAILED	18-24	4	13	12	70	0	314	3	9	8	81	0	314
	25-29	5	19	6	68	1	193	4	9	8	78	0	193
	30-39	6	19	19	56	0	335	4	15	12	69	0	335
	40-49	8	24	13	54	0	431	6	14	11	70	0	431
AGE BY GENDER	Men 18-29	5	17	8	69	1	266	5	10	7	78	0	266
	Women 18-29	8	21	17	54	0	351	6	18	10	66	0	351
	Men 30-49	16	22	14	46	1	666	8	15	11	66	0	666
	Women 30-49	4	15	12	69	0	241	2	8	9	81	0	241
	Women 50+	7	23	14	57	0	415	4	12	12	72	0	415
	Women 50+	12	20	11	57	0	1021	5	12	8	75	1	1021
RACE	White, non-Hisp	11	20	13	56	0	2308	6	14	10	70	0	2308
	Black, non-Hisp	3	19	14	64	0	283	1	7	5	87	0	283
	Hispanic*	6	16	14	61	2	187	3	10	11	74	1	187
EDUCATION	College grad+	11	22	14	53	0	1099	7	12	11	70	0	1099
	Some college	10	20	12	57	0	785	6	15	9	70	0	785
	HS or less	8	19	12	60	1	1110	3	12	9	75	0	1110
FAMILY INCOME	\$75,000+	12	21	14	53	0	855	7	15	10	69	0	855
	\$30k-74,999	12	22	14	51	0	946	7	13	10	70	0	946
	Less than \$30k	5	18	13	64	1	725	2	11	10	76	0	725
DETAILED INCOME	\$100,000+	12	22	13	53	0	496	8	13	10	69	0	496
	\$75k-99,999	12	20	15	53	0	359	5	16	11	68	0	359
	\$50k-74,999	15	23	16	46	0	445	7	13	13	66	0	445
	\$30k-49,999	9	22	13	55	0	501	7	12	8	73	0	501
	Less than \$30k	5	18	13	64	1	725	2	11	10	76	0	725
PARTY	Republican	21	25	15	40	0	841	13	23	15	49	0	841
	Democrat	3	16	12	69	1	961	2	5	6	88	0	961
	Independent	9	21	14	56	0	993	4	13	10	73	0	993
PARTY- IDEOLOGY	Cons Rep	27	26	13	33	0	580	17	27	14	41	0	580
	Mod/Lib Rep	9	22	19	50	0	238	5	15	16	64	0	238
	Cons/Mod Dem	4	18	12	66	1	612	2	7	7	85	0	612
	Liberal Dem	1	12	13	73	1	307	1	2	4	93	0	307
INTERNET USER	Yes	10	21	13	56	0	2474	6	13	10	71	0	2474
	No	8	16	11	63	1	532	3	10	8	78	1	532

PEW RESEARCH CENTER June 8-28, 2010. Question 29: Now I'd like to ask you about some other television and radio programs. How often do you ... regularly, sometimes, hardly ever or never.

Item f: Watch the O'Reilly Factor with Bill O'Reilly.

Item d: Listen to Rush Limbaugh's radio show.

* Interviews were conducted only in English and concerned only English-language media sources, which may affect the representativeness of the Hispanic sample.

		HARDBALL WITH CHRIS MATTHEWS						COUNTDOWN WITH KEITH OLBERMANN					
		Regu- larly	Some- times	Hardly ever	Never	DK	N	Regu- larly	Some- times	Hardly ever	Never	DK	N
		%	%	%	%	%		%	%	%	%	%	
TOTAL		4	15	14	67	0	3006	3	10	9	78	0	3006
GENDER	Men	5	18	15	63	0	1295	4	10	9	77	0	1295
	Women	3	13	13	71	0	1711	2	10	8	79	0	1711
AGE	18-29	1	11	11	76	0	507	2	8	6	84	0	507
	30-49	4	15	16	65	0	766	3	10	11	75	0	766
	50-64	3	20	14	63	0	952	3	11	10	75	1	952
	65+	8	17	12	63	0	735	4	9	8	78	1	735
18-49 DETAILED	18-24	1	10	13	76	0	314	2	9	5	84	0	314
	25-29	1	13	9	76	0	193	2	7	6	85	0	193
	30-39	5	11	17	68	0	335	3	10	11	76	0	335
	40-49	4	18	16	62	0	431	3	11	11	75	0	431
AGE BY GENDER	Men 18-29	2	15	10	73	0	266	2	8	6	84	0	266
	Women 18-29	5	17	17	61	0	351	4	11	11	74	0	351
	Men 30-49	5	21	15	57	1	666	4	11	10	74	1	666
	Women 30-49	0	8	12	79	0	241	2	9	5	84	0	241
	Women 50+	3	12	16	68	0	415	3	10	11	76	0	415
	Women 50+	4	16	11	68	0	1021	2	10	9	78	1	1021
RACE	White, non-Hisp	3	15	13	69	0	2308	2	9	8	80	1	2308
	Black, non-Hisp	7	20	14	58	0	283	4	17	11	67	0	283
	Hispanic*	4	16	15	65	0	187	6	8	14	73	0	187
EDUCATION	College grad+	4	17	17	63	0	1099	3	10	11	75	0	1099
	Some college	3	15	12	69	0	785	2	9	8	80	0	785
	HS or less	4	15	13	69	0	1110	3	10	8	79	1	1110
FAMILY INCOME	\$75,000+	4	16	16	64	0	855	3	11	10	75	0	855
	\$30k-74,999	3	18	15	63	0	946	3	11	11	75	0	946
	Less than \$30k	4	15	12	69	0	725	2	9	8	80	1	725
DETAILED INCOME	\$100,000+	4	16	16	65	0	496	5	11	11	74	0	496
	\$75k-99,999	4	17	16	62	0	359	2	11	10	77	0	359
	\$50k-74,999	4	21	15	61	0	445	5	11	11	73	0	445
	\$30k-49,999	3	15	15	66	1	501	1	10	10	77	1	501
	Less than \$30k	4	15	12	69	0	725	2	9	8	80	1	725
PARTY	Republican	2	14	15	70	0	841	0	5	10	84	0	841
	Democrat	6	17	13	63	0	961	5	15	10	69	0	961
	Independent	3	16	15	65	0	993	2	9	8	80	1	993
PARTY- IDEOLOGY	Cons Rep	1	14	14	70	0	580	0	5	9	85	1	580
	Mod/Lib Rep	3	13	17	66	0	238	1	6	12	81	0	238
	Cons/Mod Dem	6	18	14	63	0	612	5	16	11	68	0	612
	Liberal Dem	7	16	15	61	1	307	7	16	10	67	0	307
INTERNET USER	Yes	4	15	14	67	0	2474	3	10	9	78	0	2474
	No	4	16	11	69	0	532	3	8	9	79	1	532

PEW RESEARCH CENTER June 8-28, 2010. Question 29: Now I'd like to ask you about some other television and radio programs. How often do you ... regularly, sometimes, hardly ever or never.

Item e: Watch Hardball with Chris Matthews.

Item a: Watch Countdown with Keith Olbermann.

* Interviews were conducted only in English and concerned only English-language media sources, which may affect the representativeness of the Hispanic sample.

		THE RACHEL MADDOW SHOW					
		Regu- larly	Some- times	Hardly ever	Never	DK	N
		%	%	%	%	%	
TOTAL		3	7	8	81	1	3006
GENDER	Men	3	6	8	82	1	1295
	Women	3	8	8	81	1	1711
AGE	18-29	2	5	7	86	0	507
	30-49	3	8	9	80	0	766
	50-64	3	8	8	80	2	952
	65+	4	7	7	79	3	735
18-49 DETAILED	18-24	1	7	9	82	0	314
	25-29	2	1	4	92	0	193
	30-39	4	7	10	79	0	335
	40-49	2	8	9	81	0	431
AGE BY GENDER	Men 18-29	2	3	7	88	0	266
	Women 18-29	3	6	8	84	0	351
	Men 30-49	4	8	10	76	2	666
	Women 30-49	1	7	7	84	1	241
	Men 50+	3	9	11	77	0	415
Women 50+	3	7	6	81	2	1021	
RACE	White, non-Hisp	2	7	7	83	1	2308
	Black, non-Hisp	5	11	10	73	1	283
	Hispanic*	5	6	9	79	0	187
EDUCATION	College grad+	4	8	9	78	1	1099
	Some college	3	6	7	83	1	785
	HS or less	2	7	8	82	1	1110
FAMILY INCOME	\$75,000+	4	8	8	80	0	855
	\$30k-74,999	2	7	11	79	1	946
	Less than \$30k	3	7	7	83	1	725
DETAILED INCOME	\$100,000+	4	10	7	78	1	496
	\$75k-99,999	4	5	8	83	0	359
	\$50k-74,999	3	7	12	77	1	445
	\$30k-49,999	1	7	10	80	1	501
	Less than \$30k	3	7	7	83	1	725
PARTY	Republican	1	2	6	90	1	841
	Democrat	4	10	11	74	1	961
	Independent	3	8	8	80	1	993
PARTY- IDEOLOGY	Cons Rep	1	2	6	90	1	580
	Mod/Lib Rep	2	4	6	87	0	238
	Cons/Mod Dem	3	9	10	77	1	612
	Liberal Dem	7	13	14	66	0	307
INTERNET USER	Yes	3	7	8	81	1	2474
	No	3	7	7	80	2	532

PEW RESEARCH CENTER June 8-28, 2010. Question 29: Now I'd like to ask you about some other television and radio programs. How often do you ... regularly, sometimes, hardly ever or never.

Item i: Watch the Rachel Maddow show.

* Interviews were conducted only in English and concerned only English-language media sources, which may affect the representativeness of the Hispanic sample.

PEW RESEARCH CENTER FOR THE PEOPLE & THE PRESS
BIENNIAL MEDIA CONSUMPTION SURVEY 2010
FINAL TOPLINE
June 8-28, 2010
N=3006

RANDOMIZE Q.1 AND Q.1a**ASK ALL:**

Q.1 Do you approve or disapprove of the way Barack Obama is handling his job as President? **[IF DK ENTER AS DK. IF DEPENDS PROBE ONCE WITH: Overall do you approve or disapprove of the way Barack Obama is handling his job as President? IF STILL DEPENDS ENTER AS DK]**

	<u>Approve</u>	<u>Dis- approve</u>	<u>(VOL.) DK/Ref</u>		<u>Approve</u>	<u>Dis- approve</u>	<u>(VOL.) DK/Ref</u>
Jun 8-28, 2010	48	41	11	Sep 30-Oct 4, 2009	52	36	12
Jun 16-20, 2010	48	43	9	Sep 10-15, 2009	55	33	13
May 6-9, 2010	47	42	11	Aug 20-27, 2009	52	37	12
Apr 21-26, 2010	47	42	11	Aug 11-17, 2009	51	37	11
Apr 8-11, 2010	48	43	9	Jul 22-26, 2009	54	34	12
Mar 10-14, 2010	46	43	12	Jun 10-14, 2009	61	30	9
Feb 3-9, 2010	49	39	12	Apr 14-21, 2009	63	26	11
Jan 6-10, 2010	49	42	10	Mar 31-Apr 6, 2009	61	26	13
Dec 9-13, 2009	49	40	11	Mar 9-12, 2009	59	26	15
Oct 28-Nov 8, 2009	51	36	13	Feb 4-8, 2009	64	17	19

RANDOMIZE Q.1 AND Q.1a**ASK ALL:**

Q.1a All in all, are you satisfied or dissatisfied with the way things are going in this country today?

	<u>Satis- fied</u>	<u>Dis- satisfied</u>	<u>(VOL.) DK/Ref</u>		<u>Satis- fied</u>	<u>Dis- satisfied</u>	<u>(VOL.) DK/Ref</u>
Jun 8-28, 2010	25	68	6	Mid-September, 2008	25	69	6
Jun 24-27, 2010	27	64	9	August, 2008	21	74	5
May 13-16, 2010	28	64	7	July, 2008	19	74	7
Apr 21-26, 2010	29	66	5	June, 2008	19	76	5
Apr 1-5, 2010	31	63	6	Late May, 2008	18	76	6
Mar 11-21, 2010	25	69	5	March, 2008	22	72	6
Mar 10-14, 2010	23	71	7	Early February, 2008	24	70	6
Feb 3-9, 2010	23	71	6	Late December, 2007	27	66	7
Jan 6-10, 2010	27	69	4	October, 2007	28	66	6
Oct 28-Nov 8, 2009	25	67	7	February, 2007	30	61	9
Sep 30-Oct 4, 2009	25	67	7	Mid-January, 2007	32	61	7
Sep 10-15, 2009 ²	30	64	7	Early January, 2007	30	63	7
Aug 20-27, 2009	28	65	7	December, 2006	28	65	7
Aug 11-17, 2009	28	65	7	Mid-November, 2006	28	64	8
Jul 22-26, 2009	28	66	6	Early October, 2006	30	63	7
Jun 10-14, 2009	30	64	5	July, 2006	30	65	5
Apr 28-May 12, 2009	34	58	8	May, 2006*	29	65	6
Apr 14-21, 2009	23	70	7	March, 2006	32	63	5
Jan 7-11, 2009	20	73	7	January, 2006	34	61	5
December, 2008	13	83	4	Late November, 2005	34	59	7
Early October, 2008	11	86	3	Early October, 2005	29	65	6

² For September 10-15, 2009 and other surveys noted with an asterisk, the question was worded "Overall, are you satisfied or dissatisfied with the way things are going in our country today?"

Q.1a CONTINUED

	Satis- fied	Dis- satisfied	(VOL.) DK/Ref		Satis- fied	Dis- satisfied	(VOL.) DK/Ref
July, 2005	35	58	7	August, 1999	56	39	5
Late May, 2005*	39	57	4	January, 1999	53	41	6
February, 2005	38	56	6	November, 1998	46	44	10
January, 2005	40	54	6	Early September, 1998	54	42	4
December, 2004	39	54	7	Late August, 1998	55	41	4
Mid-October, 2004	36	58	6	Early August, 1998	50	44	6
July, 2004	38	55	7	February, 1998	59	37	4
May, 2004	33	61	6	January, 1998	46	50	4
Late February, 2004*	39	55	6	September, 1997	45	49	6
Early January, 2004	45	48	7	August, 1997	49	46	5
December, 2003	44	47	9	January, 1997	38	58	4
October, 2003	38	56	6	July, 1996	29	67	4
August, 2003	40	53	7	March, 1996	28	70	2
April 8, 2003	50	41	9	October, 1995	23	73	4
January, 2003	44	50	6	June, 1995	25	73	2
November, 2002	41	48	11	April, 1995	23	74	3
September, 2002	41	55	4	July, 1994	24	73	3
Late August, 2002	47	44	9	March, 1994	24	71	5
May, 2002	44	44	12	October, 1993	22	73	5
March, 2002	50	40	10	September, 1993	20	75	5
Late September, 2001	57	34	9	May, 1993	22	71	7
Early September, 2001	41	53	6	January, 1993	39	50	11
June, 2001	43	52	5	January, 1992	28	68	4
March, 2001	47	45	8	November, 1991	34	61	5
February, 2001	46	43	11	Late February, 1991 (Gallup)	66	31	3
January, 2001	55	41	4	August, 1990	47	48	5
October, 2000 (RVs)	54	39	7	May, 1990	41	54	5
September, 2000	51	41	8	January, 1989	45	50	5
June, 2000	47	45	8	September, 1988 (RVs)	50	45	5
April, 2000	48	43	9				

ASK ALL:

Q.2 Do you happen to read any daily newspaper or newspapers regularly, or not?

	<u>Yes</u>	<u>No</u>	(VOL.) <u>DK/Ref</u>		<u>Yes</u>	<u>No</u>	(VOL.) <u>DK/Ref</u>
Jun 8-28, 2010	49	51	*	July, 1994	74	26	*
May, 2008	54	46	*	February, 1994	70	30	0
April, 2006	59	41	*	January, 1994	71	29	*
April, 2004	60	40	*	June, 1992	75	25	*
April, 2002	63	37	*	July, 1991	73	27	*
April, 2000	63	37	*	May, 1991	70	30	*
November, 1998	70	30	0	January, 1991	72	27	1
April, 1998	68	32	*	November, 1990	74	26	0
April, 1996	71	28	1	October, 1990	72	28	0
June, 1995	69	34	*	July, 1990	71	29	0
March, 1995	71	29	*	May, 1990	71	29	0
October, 1994	73	27	*				

ASK ALL:

Q.3 Do you happen to watch any TV news programs regularly, or not?

	<u>Yes</u>	<u>No</u>	<u>(VOL.) DK/Ref</u>		<u>Yes</u>	<u>No</u>	<u>(VOL.) DK/Ref</u>
Jun 8-28, 2010	72	27	*	July, 1994	81	19	*
May, 2008	75	25	*	February, 1994	84	16	0
April, 2006	77	23	*	January, 1994	85	15	*
April, 2004	79	21	*	June, 1992	85	15	*
April, 2002	78	22	*	July, 1991	84	16	*
April, 2000	75	25	*	May, 1991	84	16	*
April, 1998	80	20	*	January, 1991	88	12	*
April, 1996	81	19	0	November, 1990	80	20	*
June, 1995	78	22	*	October, 1990	81	19	0
March, 1995	82	18	*	July, 1990	81	19	0
October, 1994	81	19	*	May, 1990	80	20	0

ASK ALL:

Q.4 Do you listen to news on the radio regularly, or not?

	<u>Yes</u>	<u>No</u>	<u>(VOL.) DK/Ref</u>		<u>Yes</u>	<u>No</u>	<u>(VOL.) DK/Ref</u>
Jun 8-28, 2010	43	56	*	October, 1994	51	49	*
May, 2008	46	54	*	July, 1994	52	48	0
April, 2006	49	51	*	February, 1994	53	47	0
April, 2004	49	51	*	January, 1994	52	48	*
April, 2002	48	52	*	June, 1992	54	46	*
April, 2000	46	54	*	May, 1991	53	47	*
April, 1998	52	48	*	January, 1991	55	45	*
April, 1996	51	49	*	November, 1990	55	45	*
June, 1995	50	50	*	October, 1990	54	46	0
March, 1995	54	46	*	May, 1990	56	44	*

NO QUESTION 5

ASK ALL:

Q.6 As I read a list of some stories covered by news organizations this past week, please tell me if you happened to follow each news story very closely, fairly closely, not too closely, or not at all closely. First, **[INSERT ITEM; RANDOMIZE] [IF NECESSARY "Did you follow [ITEM] very closely, fairly closely, not too closely or not at all closely?"]**.

	<u>Very closely</u>	<u>Fairly closely</u>	<u>Not too closely</u>	<u>Not at all closely</u>	<u>(VOL.) DK/Ref</u>
a. The current situation and events in Afghanistan Jun 8-28, 2010	23	37	24	15	1
b. News about this year's congressional elections Jun 8-28, 2010	17	25	28	29	1
c. Reports about the condition of the U.S. economy Jun 8-28, 2010	36	38	15	10	1

NO QUESTIONS 7 OR 8

INTERVIEWER NOTE: FOR QUESTIONS 9 THROUGH 22 PLEASE DETERMINE WHAT DAY OF THE WEEK IT IS. IF THE DAY OF THE WEEK IS SUNDAY, PLEASE READ "FRIDAY." IF THE DAY OF THE WEEK IS NOT SUNDAY, READ "YESTERDAY."]

ASK ALL:

Q.9 Now thinking about yesterday... Did you get a chance to read a daily newspaper yesterday, or not?

ASK IF READ NEWSPAPER YESTERDAY (Q.9=1):

Q.10 About how much time did you spend reading a daily newspaper yesterday? [**DO NOT READ**]

	Total	Amount of time read the newspaper					Didn't read paper	(VOL.)
	Read the paper	<15 min.	15-29	30-59	1 hour+	DK		DK/Ref
Jun 8-28, 2010	31	4	8	12	7	*	69	*
May, 2008	34	5	9	13	7	*	66	*
April, 2006 ³	40	5	10	15	9	1	60	*
April, 2004	42	5	11	17	9	*	58	*
November, 2002	39	--	--	--	--	--	61	*
April, 2002	41	7	10	15	8	1	59	*
April, 2000	47	9	14	16	8	*	53	*
Late September, 1999	47	9	12	16	10	*	53	*
November, 1998	47	8	11	16	11	1	53	*
April, 1998	48	8	14	17	9	*	52	*
November, 1997	50	8	14	17	10	1	50	0
April, 1996	50	7	15	18	10	*	50	*
June, 1995	52	7	15	18	11	1	48	*
March, 1995	45	9	14	16	6	0	55	*
February, 1994	58	7	15	21	14	1	42	0
January, 1994	49	7	15	17	10	*	50	1
March, 1991	56	n/a	n/a	n/a	n/a	n/a	44	*
Gallup, 1965	71	n/a	n/a	n/a	n/a	n/a	29	0

ASK IF READ NEWSPAPER YESTERDAY (Q.9=1):

Q.11 Yesterday, did you read a PAPER version of the newspaper, or did you read the newspaper online on a computer or handheld device?⁴

ASK IF READ BOTH (Q.11=3):

Q.12 Would you say you spent MORE time reading the paper version or MORE time reading the newspaper online yesterday?⁵

BASED ON THOSE WHO READ A NEWSPAPER YESTERDAY [N=1130]:

Jun 8-28 2010		May 2008	April 2006
73	Paper version	79	86
16	Online newspaper	12	6
11	Both (VOL.)	9	8
4	More paper version	4	5
6	More online version	4	2
1	About equal (VOL.)	1	1
0	Don't know/Refused (VOL.)	0	0
*	Don't know/Refused (VOL.)	*	*

³ In April 2006, Q.10 was form split with different interviewer options. The results presented here include both F1 and F2.

⁴ In April 2006 and May 2008, Q.11 read: "Yesterday, did you read a PAPER version of the newspaper, or did you read the newspaper online through the internet?"

⁵ In April 2006 and May 2008, Q.12 read "Would you say you spent MORE time reading the paper version or MORE time reading the online version yesterday?"

ASK ALL:

Q.13 Did you watch THE NEWS OR A NEWS PROGRAM on television yesterday, or not?

ASK IF WATCHED A NEWS PROGRAM ON TV (Q.13=1):

Q.14 About how much time did you spend watching the news or any news programs on TV yesterday?
[DO NOT READ]

	Total Watched TV News	-- Amount of time watched TV News --					DK	Didn't watch	(VOL.) DK/Ref
		<15 min.	15-29	30-59	1 hour+				
Jun 8-28, 2010	58	3	5	17	33	1	41	*	
May, 2008	57	3	6	18	30	*	43	*	
April, 2006	57	3	5	19	29	1	42	1	
April, 2004	60	3	6	20	31	*	40	*	
November, 2002	61	--	--	--	--	--	39	*	
April, 2002	54	3	6	19	26	*	46	*	
April, 2000	56	4	8	20	23	1	44	*	
Late September, 1999	62	6	7	21	28	*	37	1	
November, 1998	65	5	8	21	30	1	35	*	
April, 1998	59	3	7	21	28	*	41	*	
November, 1997	68	4	11	23	30	*	31	1	
April, 1996	59	3	6	21	29	*	40	1	
June, 1995	64	3	8	24	28	1	35	1	
March, 1995	61	4	9	21	27	*	38	1	
February, 1994	74	3	8	25	37	1	26	0	
January, 1994	72	3	8	25	36	*	27	1	
March, 1991	68	n/a	n/a	n/a	n/a	n/a	32	*	
Gallup, 1965	55	n/a	n/a	n/a	n/a	n/a	45	0	

ASK FORM 2 ONLY [N=1509]:

Q.15F2 Apart from news, did you watch anything else on television yesterday, or not?

ASK IF WATCHED ANYTHING ELSE YESTERDAY (Q.15F2=1):

Q.16F2 About how much time did you spend watching TV yesterday, not including the news? **[DO NOT READ]**

		May	April	April	April	April	Late	Nov	June	Feb
<u>2010</u>		<u>2008</u>	<u>2006</u>	<u>2004</u>	<u>2002</u>	<u>2000⁶</u>	<u>1999</u>	<u>1997</u>	<u>1995</u>	<u>1994</u>
61	Yes	58	63	63	58	57	63	64	59	69
1	Less than a half hour	1	1	1	2	3	1	2	1	2
3	Thirty minutes to less than one hour	3	4	5	3	5	6	5	4	3
11	About an hour	13	12	12	11	10	13	15	10	11
6	More than one hour but less than two hours	7	6	6	5	8	6	7	6	7
17	Two hours to less than three hours	16	19	19	17	15	18	16	16	19
9	Three hours to less than four hours	7	10	8	8	7	9	11	10	12
13	Four hours or more	10	10	11	12	8	10	8	11	14
1	Don't know (VOL.)	1	1	1	*	*	*	*	1	1
38	Did not watch	42	36	36	41	42	37	36	40	31
*	Don't know (VOL.)	*	1	1	1	1	0	*	1	0

⁶ April 2000 is from a survey conducted for the Pew Internet & American Life Project (March 1 - May 1, 2000; N=6,036).

ASK ALL:

Q.17 About how much time, if any, did you spend listening to a radio news program or any news on the radio yesterday, or didn't you happen to listen to the news on the radio yesterday?⁷ **[DO NOT READ]**

	Total (NET) <u>Listened</u>	<i>Amount of time listened to radio news</i>				<u>Didn't listen</u>	(VOL.) <u>DK/Ref</u>
		<u><15 min.</u>	<u>15-29</u>	<u>30-59</u>	<u>1 hour+</u>		
Jun 8-28, 2010	34	6	6	9	13	66	1
May, 2008	35	8	7	8	12	64	1
April, 2006	36	7	7	9	13	63	1
April, 2004	40	8	7	10	15	59	1
April, 2002	41	10	7	10	14	58	1
April, 2000	43	14	9	9	11	56	1
Late September, 1999	44	12	8	10	14	56	*
November, 1998	41	13	8	8	12	57	2
April, 1998	49	16	9	10	14	51	*
November, 1997	44	12	9	9	14	55	1
April, 1996	44	12	11	10	11	55	1
June, 1995	42	13	9	9	11	56	2
March, 1995	47	16	12	9	10	52	1
February, 1994	47	14	11	9	13	52	1
January, 1994	47	15	10	10	12	52	1
June, 1992	47	15	11	10	11	52	1
March, 1991 ⁸	54	23	9	18	14	46	*
March, 1990	52	22	11	10	9	47	1
February, 1990	55	24	11	9	11	44	1
January, 1990	51	21	12	9	9	48	1
Gallup, 1965	58	n/a	n/a	n/a	n/a	42	0

ASK IF GOT RADIO NEWS YESTERDAY (Q.17=1-4):

Q.17a Did you listen to radio news yesterday on a traditional AM or FM radio, on satellite radio, on a computer, or on a handheld device, such as a cell phone or MP3 player? **[ACCEPT MULTIPLE RESPONSES, BUT DO NOT PROBE FOR MORE THAN ONE]**

BASED ON THOSE WHO GOT RADIO NEWS YESTERDAY [N=1042]:

Jun 8-28

2010

89	Traditional AM/FM radio
8	Satellite radio
4	Computer
1	Handheld device (MP3/Cell phone)
1	Other (VOL.)
*	Don't know/Refused (VOL.)

Figures add to more than 100% because of multiple responses.

⁷ June 2010 question wording was modified to include "a radio news program or..."

⁸ For March 1991, based on results from Form 1.

ASK ALL EXCEPT ONLINE NEWSPAPER YESTERDAY (Q.9=2,9 OR Q.11=1,9):

Q.18 Did you get any news ONLINE yesterday, or not?⁹

ASK IF ONLINE NEWSPAPER YESTERDAY (Q.11=2,3):

Q.18a You mentioned reading newspapers on the internet yesterday. Aside from newspaper websites did you get any OTHER news ONLINE yesterday, or not?

ASK IF NEWS ONLINE YESTERDAY (Q.18=1 OR Q.18a=1):

Q.19 **[IF Q.18a=1 READ: And again aside from newspaper websites...]** About how much time did you spend getting news online yesterday? **[DO NOT READ] [IF RESPONDENT VOLUNTEERS "NONE" OR "ZERO", PUNCH 1]**

NET TOTAL GOT NEWS ONLINE YESTERDAY; BASED ON TOTAL:

	<u>Yes</u>	<u>No</u>	(VOL.) <u>DK/Ref</u>
Jun 8-28, 2010 (Q.11=2,3 or Q.18=1)	34	65	*
May, 2008 (Q.11=2,3 or Q.18=1)	29	71	*
April, 2006 (Q.11=2,3 or Q.18=1)	23	77	*
April, 2004 (Q.18 asked of total sample)	24	76	*

ASK IF "YES" IN Q.18 ONLY (Q.18=1) ASK:

Q.20 Many national and local print newspapers also have websites on the internet. When you were online yesterday, did you read anything on a NEWSPAPER'S website, or not?

NET TOTAL READ NEWSPAPER ONLINE YESTERDAY; BASED ON TOTAL:

	<u>Yes</u>	<u>No</u>	(VOL.) <u>DK/Ref</u>
Jun 8-28, 2010 (Q.11=2,3 or Q.20=1)	17	83	1
May, 2008 (Q.11=2,3 or Q.20=1)	13	87	*
April, 2006 (Q.11=2,3 or Q.20=1)	9	90	1

NO QUESTIONS 21-22

ASK ALL:

[INTERVIEWER: IF THE DAY OF THE WEEK IS SUNDAY, BEGIN THIS SERIES WITH "Now, thinking about yesterday..." OTHERWISE BEGIN WITH "Again, thinking about yesterday..."]

Q.23 Did you spend any time reading magazines?

Jun 8-28 <u>2010</u>		<u>May 2008</u>	<u>April 2006</u>	<u>April 2004</u>	<u>April 2002</u>	<u>April 2000</u>	Late <u>Sept 1999</u>	<u>April 1998</u>	<u>Nov 1997</u>	<u>June 1995</u>	<u>Feb 1994</u>
19	Yes	23	24	25	23	26	28	29	32	31	33
80	No	77	76	75	77	74	72	71	68	69	67
*	Don't know/Refused (VOL.)	*	*	*	*	*	*	*	*	*	0

⁹ In May 2008 and April 2006 Q.18 and Q.18a question wording asked about news "ONLINE through the internet."

ASK ALL:

Q.24 Not including school or work related books, did you spend any time reading a book yesterday? **[IF YES ASK: Was it a work of fiction or non-fiction?] [IF RESPONDENT VOLUNTEERS THAT HE/SHE READ THE BIBLE, THE KORAN OR ANOTHER HOLY BOOK, FOLLOW WITH: "I know you have told me what book you read, but could you tell me if you consider it to be fiction or nonfiction?"¹⁰**

Jun 8-28		April	April	April	Late Sept	Nov	June	Feb
<u>2010</u>		<u>2006</u>	<u>2004</u>	<u>2002</u>	<u>1999</u>	<u>1997</u>	<u>1995</u>	<u>1994</u>
35	Yes	38	35	34	35	35	30	31
	16 Fiction	15	15	13	16	16	14	14
	16 Non-fiction	20	18	19	16	17	14	17
	1 Both	1	1	1	2	1	1	*
	1 Don't know	2	1	1	1	1	1	0
65	No	62	65	66	65	65	70	69
*	Don't Know/Refused (VOL.) *	*	0	0	*	*	*	

ASK ALL:

Q.24 Not including school or work related books, did you spend any time reading a book yesterday? **[IF YES ASK: Was it a work of fiction or non-fiction?] [IF RESPONDENT VOLUNTEERS THAT HE/SHE READ THE BIBLE, THE KORAN OR ANOTHER HOLY BOOK, FOLLOW WITH: "I know you have told me what book you read, but could you tell me if you consider it to be fiction or nonfiction?"]**

ASK IF READ BOOK YESTERDAY (Q.24=1,2,3,5):

Q.25 About how much time did you spend reading books yesterday? **[DO NOT READ]**

Jun 8-28		April	April	Late Sept	Nov	June	Feb
<u>2010</u>		<u>2004</u>	<u>2002</u>	<u>1999</u>	<u>1997</u>	<u>1995</u>	<u>1994</u>
35	Yes, read a book yesterday	35	34	35	35	30	31
	1 Less than 15 minutes	1	1	3	2	1	2
	4 15 to less than 30 minutes	4	5	6	5	4	3
	10 30 minutes to less than one hour	10	10	9	10	8	9
	20 One hour or more	20	18	17	17	17	17
	* Don't know/Refused (VOL.)	0	*	*	1	0	0
65	No	65	66	65	65	70	69
*	Don't know/Refused (VOL.)	*	0	0	*	*	*

ASK IF READ BOOK YESTERDAY (Q.24=1,2,3,5):

Q.26 There are different ways people read books these days. Yesterday, did you read a printed book, an electronic or digital book, or listen to an audio book? **[ACCEPT MULTIPLE RESPONSES, BUT DO NOT PROBE FOR MORE THAN ONE]**

BASED ON THOSE WHO READ A BOOK YESTERDAY [N=1155]:

Jun 8-28	
<u>2010</u>	
95	Printed book
4	Electronic or digital book
4	Audio book
*	Don't know/Refused (VOL.)

Figures add to more than 100% because of multiple responses.

¹⁰ Interviewer instruction regarding holy books was added to questions 23 and 24 in June 2010.

NO QUESTION 27**ASK ALL:**

Q.28 Now I'd like to know how often you watch or listen to certain TV and radio programs. For each that I read, tell me if you watch or listen to it regularly, sometimes, hardly ever, or never. First, how often do you ... **[INSERT FIRST ITEM; RANDOMIZE. OBSERVE FORM SPLITS]**, regularly, sometimes, hardly ever or never? How about **[INSERT NEXT ITEM]**. **[READ ALL ANSWER CHOICES AS NECESSARY; DO NOT OFFER LESS THAN THE FULL LIST OF CHOICES]**

		<u>Regularly</u>	<u>Sometimes</u>	<u>Hardly ever</u>	<u>Never</u>	(VOL.) DK/Ref
ASK FORM 1 ONLY [N=1497]:						
a.F1	Watch the national nightly network news on CBS, ABC or NBC? This is different from local news shows about the area where you live					
	Jun 8-28, 2010	28	27	16	29	1
	May, 2008 ¹¹	29	25	14	31	1
	April, 2006	28	26	14	31	1
	April, 2004	34	28	16	22	*
	April, 2002	32	29	15	24	*
	April, 2000	30	28	16	25	1
	August, 1999	40	33	16	11	*
	April, 1998	38	29	15	18	*
	February, 1997	41	31	14	14	*
	April, 1996	42	29	15	14	*
	March, 1995	48	28	14	10	*
	May, 1993	60	28	5	6	1
	February, 1993	58	23	10	9	*
b.F1	Watch cable news channels such as CNN, MSNBC, or the Fox News CABLE Channel					
	Jun 8-28, 2010	39	31	12	18	*
	May, 2008	39	28	12	20	1
	April, 2006	34	31	13	22	*
	April, 2004	38	33	10	19	*
	April, 2002	33	35	11	21	*

NO ITEM c.

¹¹ Results for Q.28 from May 2008 combine two versions of the questions. Half of respondents received the wording seen here, while the other half received wording that explicitly included visiting a news organization or program's website. Answers to these questions were similar and have been combined.

Q.28 CONTINUED...

		<u>Regularly</u>	<u>Sometimes</u>	<u>Hardly ever</u>	<u>Never</u>	(VOL.) <u>DK/Ref</u>
ASK FORM 2 ONLY [N=1509]:						
d.F2	Watch the CBS Evening News with Katie Couric ¹²					
	Jun 8-28, 2010	8	21	16	54	*
	May, 2008	8	20	14	58	*
	April, 2006	13	23	18	45	1
	April, 2004	16	30	16	38	*
	April, 2002	18	29	18	35	*
e.F2	Watch the ABC World News with Diane Sawyer ¹³					
	Jun 8-28, 2010	14	25	15	46	*
	May, 2008	14	24	16	46	*
	April, 2006	14	22	18	45	1
	April, 2004	16	31	16	36	1
	April, 2002	18	30	19	33	*
f.F2	Watch the NBC Nightly News with Brian Williams ¹⁴					
	Jun 8-28, 2010	12	21	17	49	*
	May, 2008	13	24	14	48	1
	April, 2006	15	26	16	42	1
	April, 2004	17	31	17	35	*
	April, 2002	20	29	18	33	*
g.F2	Watch CNN ¹⁵					
	Jun 8-28, 2010	18	32	17	32	*
	May, 2008	24	33	14	28	1
	April, 2006	22	32	12	33	1
	April, 2004	22	33	12	32	1
	April, 2002	25	31	12	32	*
	April, 2000	21	34	16	29	*
	April, 1998	23	34	13	30	*
	February, 1997	28	30	14	28	0
	April, 1996	26	33	14	27	*
	March, 1995	30	28	13	28	1
	July, 1994	33	36	7	24	*
	February, 1994	31	32	8	29	*
	May, 1993	35	34	7	24	*
	June, 1992	30	32	10	27	1
	July, 1990	27	28	8	36	1
	June, 1990	30	27	6	37	*
	May, 1990	27	25	7	40	1
	April, 1990	26	29	7	37	1
	March, 1990	22	28	8	41	1
	February, 1990	23	29	8	40	0
	January, 1990	26	25	7	41	1

¹² In April 2006 the item asked about Bob Schieffer. In April 2004 and April 2002 the item asked about Dan Rather.

¹³ In May 2008 the item asked about Charles Gibson. In April 2006 the item asked about Elizabeth Vargas and Bob Woodruff. In April 2004 and April 2002 the item asked about Peter Jennings.

¹⁴ In April 2004 and April 2002 the item asked about Tom Brokaw.

¹⁵ In April 2006 and earlier, the item asked about Cable News Network (CNN).

Q.28 CONTINUED...

		<u>Regularly</u>	<u>Sometimes</u>	<u>Hardly ever</u>	<u>Never</u>	(VOL.) DK/Ref
h.F2	Watch the Fox News CABLE Channel					
	Jun 8-28, 2010	23	26	14	37	*
	May, 2008	23	27	14	35	1
	April, 2006	23	28	14	35	*
	April, 2004	25	29	11	34	1
	April, 2002	22	26	15	37	*
	April, 2000	17	28	17	37	1
	April, 1998	17	30	14	38	1
i.F2	Watch MSNBC					
	Jun 8-28, 2010	11	28	19	41	1
	May, 2008	15	31	14	39	1
	April, 2006	11	29	20	39	1
	April, 2004	11	31	16	39	3
	April, 2002	15	30	16	37	2
	April, 2000	11	27	17	42	3
	April, 1998	8	23	15	51	3
j.F2	Watch CNBC					
	Jun 8-28, 2010	8	27	17	46	1
	May, 2008	12	26	17	43	2
	April, 2006	11	26	18	43	2
	April, 2004	10	31	17	40	2
	April, 2002	13	30	17	38	2
	April, 2000	13	29	18	37	3
	April, 1998	12	27	17	42	2

ASK ALL:

k.	Watch the local news about your viewing area which usually comes on before or after the national news in the evening and again later at night					
	Jun 8-28, 2010	50	26	11	12	*
	May, 2008	52	25	9	14	*
	April, 2006	54	23	10	13	*
	April, 2004	59	23	8	10	*
	April, 2002	57	24	8	11	*
	April, 2000 ¹⁶	56	24	9	11	*
	April, 1998	64	22	6	8	*
	February, 1997	72	16	7	5	0
	April, 1996	65	23	7	5	*
	March, 1995	72	18	6	4	*
	May, 1993	77	16	5	4	*
	February, 1993	76	16	5	3	*

¹⁶ In April 2000 and earlier, the item was worded "Watch the local news about your viewing area? This usually comes on before the national news and then later at night at 10 or 11."

Q.28 CONTINUED...

		Regularly	Sometimes	Hardly ever	Never	(VOL.) DK/Ref
I.	Watch C-SPAN					
	Jun 8-28, 2010	4	17	19	60	1
	May, 2008	5	16	17	61	1
	April, 2006	4	16	17	61	2
	April, 2004	5	18	17	59	1
	April, 2002	5	18	18	57	2
	April, 2000	4	17	22	56	1
	April, 1998	4	19	18	58	1
	April, 1996	6	21	18	53	2
	March, 1995	8	17	20	53	2
	July, 1994	9	26	12	52	1
	February, 1994	7	20	15	56	2
	May, 1993	11	25	13	48	3
	February, 1993	7	18	14	45	16
	June, 1992	6	19	18	54	3
m.	Listen to NPR, National Public Radio ¹⁷					
	Jun 8-28, 2010	11	13	14	61	1
	May, 2008	10	14	13	62	1
	April, 2006	17	19	13	50	1
	April, 2004	16	19	15	49	1
	April, 2002	16	16	15	52	1
	April, 2000	15	17	16	51	1
	April, 1998	15	17	18	49	1
	April, 1996	13	18	16	52	1
	March, 1995	15	17	21	46	1
	July, 1994	9	18	11	62	*
	February, 1994	9	13	12	65	1
	May, 1993	15	20	15	49	1
	June, 1992	7	16	17	59	1
	July, 1990	9	13	8	70	*
	June, 1990	9	10	11	69	1
	May, 1990	7	11	10	72	*
	April, 1990	7	12	9	71	1
	March, 1990	7	9	10	74	*
	February, 1990	8	10	8	74	*
	January, 1990	5	10	7	78	*
n.	Watch the PBS NewsHour ¹⁸					
	Jun 8-28, 2010	7	18	16	59	1
	May, 2008	5	14	12	68	1
	April, 2006	5	16	14	63	2
	April, 2004	5	15	14	65	1
	April, 2002	5	13	15	66	1

¹⁷ From February 1994 through April 2006, the item was worded "National Public Radio (NPR)." In May 1993 and earlier, the item was worded "Programs on National Public Radio, such as Morning Edition or All Things Considered." Results for the current wording, "NPR, National Public Radio" are not strictly comparable with earlier results.

¹⁸ From April 1998 through May 2008, the item was worded "The NewsHour with Jim Lehrer." In April 1996 the item was worded "Jim Lehrer NewsHour." In July 1994 and earlier, the item was worded "MacNeil-Lehrer NewsHour." The change in 2010 to "The PBS NewsHour" caused unforeseen measurement problems, however. Internal analysis suggests that there was significant over-reporting of NewsHour viewership. We suspect this is because when read over the phone, the new name may sound like a generic hour of news or any hour of PBS programming, as opposed to the name of a particular show. These figures are included in the topline for reference only. Our report does not include any analysis of the NewsHour audience because of this substantial measurement error. **(This footnote was modified on Sept. 23, 2010.)**

Q.28 CONTINUED...

	<u>Regularly</u>	<u>Sometimes</u>	<u>Hardly ever</u>	<u>Never</u>	(VOL.) DK/Ref
April, 2000	5	12	15	66	2
April, 1998	4	14	14	67	1
April, 1996	4	10	11	73	2
July, 1994	7	23	11	58	1
February, 1994	6	16	11	66	1
May, 1993	10	24	14	51	1
June, 1992	6	19	17	56	2
July, 1990	7	16	11	66	*
June, 1990	7	16	12	64	1
May, 1990	8	15	11	65	1
April, 1990	6	16	11	66	1
March, 1990	5	19	12	63	1
February, 1990	5	15	11	69	0
January, 1990	6	15	12	67	*
o. Watch the Today Show, Good Morning America or The Early Show ¹⁹					
Jun 8-28, 2010	20	22	16	42	*
May, 2008	22	22	14	42	*
April, 2006	23	20	15	42	*
April, 2004	22	21	14	43	*
April, 2002	22	19	14	45	*
April, 2000	20	18	15	47	*
April, 1998	23	19	17	41	*
p. Watch Sunday morning news shows such as Meet the Press, This Week or Face the Nation ²⁰					
Jun 8-28, 2010	11	20	16	52	*
May, 2008	13	19	15	53	*
April, 2006	12	19	14	55	*
April, 2004	12	20	15	53	*
May, 1993	18	32	15	35	*
June, 1992	15	25	21	39	*
July, 1990	13	24	14	49	*

¹⁹ In April 1998, the item was worded "Watch the Today Show, Good Morning America or CBS This Morning."

²⁰ In May 1993 and earlier, the question asked "...such as Meet the Press, Face the Nation or This Week with David Brinkley."

ASK ALL:

Q.29 Now I'd like to ask you about some other television and radio programs. (First) how often do you...
[INSERT FIRST ITEM; RANDOMIZE], regularly, sometimes, hardly ever or never? How about
[INSERT NEXT ITEM; RANDOMIZE]. **[READ ALL ANSWER CHOICES AS NECESSARY; DO NOT OFFER LESS THAN THE FULL LIST OF CHOICES]**²¹

		<u>Regularly</u>	<u>Sometimes</u>	<u>Hardly ever</u>	<u>Never</u>	(VOL.) <u>DK/Ref</u>
a.	Watch Countdown with Keith Olbermann					
	Jun 8-28, 2010	3	10	9	78	*
	May, 2008	3	8	7	81	1
b.	Watch the Sean Hannity show ²²					
	Jun 8-28, 2010	6	11	9	73	1
	May, 2008	7	11	7	74	1
c.	Watch the Daily Show with Jon Stewart					
	Jun 8-28, 2010	7	20	12	60	1
	May, 2008	5	18	14	62	1
	April, 2006	6	15	11	68	*
	April, 2004	3	12	10	75	*
	April, 2002	2	10	8	79	1
d.	Listen to Rush Limbaugh's radio show					
	Jun 8-28, 2010	5	13	10	72	*
	May, 2008	5	9	9	76	1
	April, 2006	5	10	9	76	*
	April, 2004	6	10	10	74	*
	April, 2002	4	10	9	77	*
	April, 1998	5	11	11	73	*
	June, 1997	5	11	12	71	1
	April, 1996	7	11	11	70	1
	July, 1994	6	20	13	61	*
e.	Watch Hardball with Chris Matthews					
	Jun 8-28, 2010	4	15	14	67	*
	May, 2008	4	15	12	68	1
f.	Watch the O'Reilly Factor with Bill O'Reilly					
	Jun 8-28, 2010	10	20	13	57	*
	May, 2008	10	19	12	59	*
	April, 2006	9	18	11	61	1
	April, 2004	8	18	11	63	*
	April, 2002	6	14	10	70	*
g.	Watch the Colbert Report with Stephen Colbert					
	Jun 8-28, 2010	6	18	14	62	*
	May, 2008	5	14	10	70	1
h.	Watch the Glenn Beck show					
	Jun 8-28, 2010	7	13	8	72	1
i.	Watch the Rachel Maddow show					
	Jun 8-28, 2010	3	7	8	81	1

²¹ Results for Q.29 from May 2008 combine two versions of the questions. Half of respondents received the wording seen here, while the other half received wording that explicitly included visiting the program's website. Answers to these questions were similar and have been combined.

²² In May 2008, the item asked about "Hannity and Colmes."

ASK ALL:

Q.30 Now I'd like to know how often you read certain types of publications in print or online. (First,) How often do you read... **[INSERT FIRST ITEM; RANDOMIZE ITEMS a AND b FOLLOWED BY ITEMS c AND d IN ORDER]**, regularly, sometimes, hardly ever, or never? How about... **[INSERT NEXT ITEM; RANDOMIZE]**. **[READ ALL ANSWER CHOICES AS NECESSARY; DO NOT OFFER LESS THAN THE FULL LIST OF CHOICES]**

	<u>Regularly</u>	<u>Sometimes</u>	<u>Hardly ever</u>	<u>Never</u>	(VOL.) DK/Ref
a. News magazines such as Time, U.S. News, or Newsweek					
Jun 8-28, 2010	8	27	24	40	*
May, 2008 ²³	12	32	17	39	*
April, 2006	14	33	17	36	*
April, 2004	13	34	18	35	*
April, 2002	13	35	18	34	*
April, 2000	12	34	19	35	*
April, 1998	15	36	17	32	*
April, 1996	15	35	20	30	*
July, 1994	18	41	18	23	*
February, 1994	16	31	23	30	*
May, 1993	24	39	14	23	*
June, 1992	20	39	18	23	*
July, 1990	18	34	18	30	*
June, 1990	21	39	16	24	*
May, 1990	17	34	19	30	*
April, 1990	20	35	16	29	*
March, 1990	16	35	19	30	*
February, 1990	17	36	18	29	0
January, 1990	18	34	17	31	0
b. Magazines such as The Atlantic, Harper's or The New Yorker					
Jun 8-28, 2010	3	8	15	74	*
May, 2008	2	9	11	78	*
April, 2006	2	9	10	79	*
April, 2004	2	8	11	79	*
April, 2002	2	7	11	80	*
April, 2000	2	7	11	80	*
April, 1998	2	8	11	79	0

23

Results for Q.30 from May 2008 combine two versions of the questions. Half of respondents received the wording seen here, while the other half received wording that did not explicitly mention "in print or online." Answers to these questions were similar and have been combined.

Q.30 CONTINUED...

		<u>Regularly</u>	<u>Sometimes</u>	<u>Hardly ever</u>	<u>Never</u>	(VOL.) DK/Ref
	February, 1994	2	6	14	78	*
	June, 1992	2	9	16	73	*
	July, 1990	2	8	11	79	*
	June, 1990	2	8	13	77	*
	May, 1990	2	7	12	79	*
	April, 1990	2	6	12	80	*
	March, 1990	2	7	13	78	0
	February, 1990	2	7	10	81	*
	January, 1990	2	7	11	80	0
c.	A daily newspaper					
	Jun 8-28, 2010	40	27	11	21	*
	May, 2008	46	26	9	19	*
	April, 2006	52	25	8	15	*
	April, 2004	54	25	8	13	*
	August, 1999	52	28	13	7	*
	February, 1997	56	24	9	11	*
	May, 1993	66	19	7	8	*
	February, 1992	71	19	5	4	1
d.	Local weekly community newspapers					
	Jun 8-28, 2010	30	28	14	27	1
	May, 2008	33	27	11	28	1
	April, 2006	35	27	10	28	*
	April, 2004	36	26	11	26	1

ASK ALL:

Q.31 And thinking about some specific newspapers in print and online, how often do you read... **[INSERT FIRST ITEM; RANDOMIZE]**? How about... **[INSERT NEXT ITEM; RANDOMIZE]** **[READ ALL ANSWER CHOICES AS NECESSARY; DO NOT OFFER LESS THAN THE FULL LIST OF CHOICES]**?

		<u>Regularly</u>	<u>Sometimes</u>	<u>Hardly Ever</u>	<u>Never</u>	(VOL.) DK/Ref
a.	The New York Times					
	Jun 8-28, 2010	5	13	14	68	*
b.	The Wall Street Journal					
	Jun 8-28, 2010	4	13	16	67	*
c.	USA Today					
	Jun 8-28, 2010	4	24	19	53	*

NO QUESTIONS 32-35

ASK ALL:

Q.36 How often, if ever, do you listen to radio shows that invite listeners to call in to discuss current events, public issues and politics – regularly, sometimes, hardly ever or never?²⁴

	<u>Regularly</u>	<u>Sometimes</u>	<u>Hardly ever</u>	<u>Never</u>	(VOL.) <u>DK/Ref</u>
Jun 8-28, 2010	16	23	20	42	*
May, 2008	17	23	19	41	*
April, 2006	20	22	22	36	*
April, 2004	17	23	22	38	*
April, 2002	17	20	22	41	*
April, 2000	14	23	23	40	*
August, 1999	18	23	24	35	*
Early September, 1998	23	25	23	29	*
April, 1998	13	22	24	41	*
October, 1997	18	28	25	29	*
August, 1997	17	24	28	31	*
Early September, 1996	15	25	22	37	1
July, 1996	16	24	27	33	*
June, 1996	17	25	26	31	1
April, 1996	13	23	25	39	*
March, 1996	18	28	24	30	*
October, 1995	18	33	25	24	*
June, 1995	15	19	27	39	*
April, 1995	19	30	24	27	*
November, 1994	16	31	26	26	1
July, 1994	17	29	24	30	*
December, 1993	23	22	25	30	0
April, 1993	23	32	23	22	*

ASK ALL:

Just in general...

Q.37 How much do you enjoy keeping up with the news – a lot, some, not much, or not at all?

Jun 8-28 <u>2010</u>		<u>May 2008</u>	<u>April 2006</u>	<u>April 2004</u>	<u>May 2002</u>	<u>April 2002</u>	<u>April 2000</u>	<u>April 1998</u>	<u>June 1995</u>	<u>Feb 1994</u>
45	A lot	52	52	52	52	48	45	50	54	53
36	Some	32	34	37	37	36	40	37	34	35
12	Not much	10	9	7	7	11	12	11	8	9
6	Not at all	5	4	3	3	4	3	2	3	2
1	Don't know/Refused (VOL.)	1	1	1	1	1	*	*	1	1

NO QUESTIONS 38 OR 39

²⁴ In May 2008 and earlier, response categories were: regularly, sometimes, rarely, or never.

ASK ALL:

On another subject...

Q.40 As I read the following list of items, please tell me if you happen to have each one, or not. Do you have **[INSERT ITEM; READ IN ORDER]**, or not? **[INTERVIEWER NOTE: PLEASE BE SURE TO DISTINGUISH BETWEEN IPAD AND IPOD IN RESPONDENTS' ANSWERS.]**

		<u>Yes</u>	<u>No</u>	<u>(VOL.)</u> <u>DK/Ref</u>
a.	A desktop computer			
	Jun 8-28, 2010	67	33	*
	Apr 29-May 30, 2010 <i>Pew Internet Project</i>	62	38	*
	Dec 28, 2009-Jan19, 2010 <i>Pew Internet Project</i>	59	41	*
	Nov 30-Dec 27, 2009 <i>Pew Internet Project</i>	58	42	*
	Aug 18-Sep 14, 2009 <i>Pew Internet Project</i>	62	37	*
	Mar 26-Apr 19, 2009 <i>Pew Internet Project</i>	64	36	*
	April, 2008 <i>Pew Internet Project</i>	65	34	*
	December, 2007 <i>Pew Internet Project</i>	65	35	*
	April, 2006 <i>Pew Internet Project</i>	68	32	*
b.	A laptop computer			
	Jun 8-28, 2010	55	45	0
	April 29-May 30, 2010 ²⁵ <i>Pew Internet Project</i>	55	45	*
	Dec 28, 2009-Jan19, 2010 <i>Pew Internet Project</i>	49	51	*
	Nov 30-Dec 27, 2009 <i>Pew Internet Project</i>	46	53	*
	Aug 18-Sep 14, 2009 <i>Pew Internet Project</i>	47	53	*
	Mar 26-Apr 19, 2009 <i>Pew Internet Project</i>	47	53	*
	April, 2008 <i>Pew Internet Project</i>	39	61	*
	December, 2007 <i>Pew Internet Project</i>	37	63	*
	April, 2006 <i>Pew Internet Project</i>	30	69	*
c.	A cell phone or a Blackberry, iPhone, or other device that is also a cell phone			
	Jun 8-28, 2010 <i>Pew Internet Project</i>	83	17	*
	April 29-May 30, 2010 <i>Pew Internet Project</i>	82	18	*
	Dec 28, 2009-Jan19, 2010 ²⁶ <i>Pew Internet Project</i>	80	20	*
	Nov 30-Dec 27, 2009 <i>Pew Internet Project</i>	83	17	*
	Aug 18-Sep 14, 2009 <i>Pew Internet Project</i>	84	15	*
	Mar 26-Apr 19, 2009 <i>Pew Internet Project</i>	85	15	*
	April, 2008 <i>Pew Internet Project</i>	78	22	*
	December, 2007 <i>Pew Internet Project</i>	75	25	*
	September, 2007 <i>Pew Internet Project</i>	78	22	*
	April, 2006 <i>Pew Internet Project</i>	73	27	*
	January 2005 <i>Pew Internet Project</i>	66	34	*
	November, 2004 <i>Pew Internet Project</i>	65	35	*

²⁵ Item wording for April 29-May 30, 2010, was "a laptop computer or netbook." Prior to that, item wording was "a laptop computer [IF NECESSARY: includes a netbook]."

²⁶ In January 2010, the item wording was "A cell phone or a Blackberry or iPhone or other handheld device that is also a cell phone." Prior to April 2009, item wording was "A cell phone." Beginning in December 2007, this item was not asked of the cell phone sample, but results shown reflect total combined landline and cell phone sample. Through January 2005, the question was not asked as part of a series.

Q.40 CONTINUED...

		<u>Yes</u>	<u>No</u>	(VOL.) <u>DK/Ref</u>
d.	An MP3 player or iPod			
	Jun 8-28, 2010	47	53	*
	April 29-May 30, 2010 <i>Pew Internet Project</i>	46	54	*
	Aug 18-Sep 14, 2009 <i>Pew Internet Project</i>	43	57	*
	Mar 26-Apr 19, 2009 <i>Pew Internet Project</i>	45	55	*
	December, 2007 <i>Pew Internet Project</i>	34	66	*
	April, 2006 <i>Pew Internet Project</i>	20	79	*
	February, 2005 ²⁷ <i>Pew Internet Project</i>	11	88	1
	January 2005 <i>Pew Internet Project</i>	11	88	1
e.	A tablet computer such as an iPad			
	Jun 8-28, 2010 <i>Pew Internet Project</i>	4	96	*
	April 29-May 30, 2010 <i>Pew Internet Project</i>	3	97	*
f.	A satellite radio subscription through X-M or Sirius radio			
	Jun 8-28, 2010	15	85	*
	May, 2008 ²⁸	14	85	1
	April, 2006	10	89	1

ASK ALL:

INT1 Do you use the internet, at least occasionally?

ASK ALL:

INT2 Do you send or receive email, at least occasionally?

Jun 8-28

2010

82 Yes to either

18 No/Don't know/Refused to both

ASK IF INTERNET USER (INT1 OR INT2=1):

Q.41 How frequently do you get NEWS online... would you say every day, 3 to 5 days per week, 1 or 2 days per week, once every few weeks, or less often? ²⁹

Jun 8-28, 2010

Based on:

-----RESULTS BASED ON INTERNET USERS-----

<u>Total</u>	<u>Internet users</u>		<u>May 2008</u>	<u>April 2006</u>	<u>April 2004</u>	<u>April 2002</u>	<u>April 2000</u>	<u>April 1998</u>	<u>June 1995</u>
32	39	Every day	37	27	27	25	27	18	6
14	17	3-5 days per week	18	20	18	16	15	17	9
11	13	1-2 days per week	16	17	15	16	19	20	15
7	8	Once every few weeks	8	12	12	13	12	15	13
12	15	Less often	13	16	17	21	18	21	28
6	7	No/Never (VOL.)	8	8	11	9	9	9	29
*	*	Don't know/Refused (VOL.)	*	*	*	*	*	*	*
18	--	Not an internet user							
[3006]	[2474]								

²⁷ Through February 2005, the item was not asked as part of a series. The question wording was: "Do you have an iPod or other MP3 player that stores and plays music files, or do you not have one of these?"

²⁸ In May 2008 and April 2006, this question was part of a list with the introduction: "Do you happen to have **[INSERT ITEM, IN ORDER]**, or not?"

²⁹ In May 2008 and earlier, the question wording was "How frequently do you go online go get NEWS..."

ASK IF EVER GETS NEWS ONLINE (Q.41=1-5) [N=2266]:

Q.42 What websites do you use to get news and information? Just name a few of the websites that you go to the MOST often. **[OPEN END; CODE UP TO THREE RESPONSES; PROBE FOR ADDITIONAL: "Anything else?"]?**

Jun 8-28 2010		-----Trend for Comparison-----			
		May 2008		April 2006 ³⁰	
28	Yahoo	28	Yahoo	31	MSN/NBC
16	CNN	19	MSN/Microsoft	23	Yahoo
15	Google	17	CNN	23	CNN
14	MSN	11	Google	9	Google
11	Local	10	MSNBC/NBC	8	AOL
8	Fox	8	AOL	8	Fox
7	AOL	7	Fox	5	New York Times
7	MSNBC	4	New York Times	5	USA Today
6	New York Times	4	Local news website	4	ESPN/Sports-related
4	All ISP	2	BBC	4	ABC
2	BBC	2	ESPN/sports-related	3	Drudge Report
2	Drudge Report	2	ABC	3	Cable homepage
2	ABC	2	Drudge Report	2	BBC
2	USA Today	2	CNBC	2	Washington Post
2	Wall Street Journal	2	Wall Street Journal	1	CBS
2	NBC	2	USA Today	1	Los Angeles Times
1	Washington Post	2	Washington Post	1	Wall Street Journal
1	Huffington Post	2	ISP		
1	Facebook	1	CBS		
1	NPR				
1	Bing				
1	ESPN				
1	CBS				
18	Other	25	Other website	1	Don't like/Misunderstood
12	Don't know/Refused	10	Misunderstood/DK/Ref.	39	Other websites
				7	Don't know/Refused

Figures add to more than 100% because of multiple responses.

³⁰

Results from April 2006 are based on the broader category of all internet users. Also, in 2006, the MSN/NBC category included references to NBC, MSNBC, CNBC and MSN. In May 2008, MSN and Microsoft are coded together, MSNBC and NBC are coded together and CNBC has its own category. The 2006 category for "Comcast/Cox Cable homepages" is replaced in 2008 with an "Internet service provider" category.

ASK IF EVER GETS NEWS ONLINE (Q.41=1-5):

Q.43 Have you ever used search engines such as Google, Yahoo or Bing to search for news on a particular subject you are interested in? **[IF YES]** How often do you do this, every day, 3 to 5 days per week, 1 or 2 days per week, once every few weeks, or less often?³¹

Jun 8-28, 2010

Based on:

Total	Based on:			BASED ON ONLINE NEWS USERS		
	Internet users	Online news users		May 2008	April 2006	April 2004
17	21	23	Yes, Every day	13	10	7
16	20	21	Yes, 3-5 days per week	18	14	12
14	17	19	Yes, 1-2 days per week	22	20	15
11	13	14	Yes, Once every few weeks	18	21	18
8	9	10	Yes, Less often	12	15	18
9	12	12	No, Never done this	17	20	30
*	*	*	Don't know/Refused (VOL.)	*	*	*
6	8	--	Not an online news user			
18	--	--	Not an internet user			
[3006]	[2474]	[2266]				

NO QUESTION 44**ASK IF FORM 2 AND INTERNET USER (INT1=1 OR INT2=1):**

Q.45F2 When you are online, do you ever come across news even when you are online for purposes other than getting news?³²

Jun 8-28, 2010

Based on:

Total	Based on:		-----BASED ON INTERNET USERS-----					
	Internet users		May 2008	April 2006	April 2004	April 2002	April 1998	October 1996
62	76	Yes	73	76	73	65	54	53
19	23	No	26	24	27	35	45	45
1	1	Don't know/Refused (VOL.)	1	*	*	*	1	2
18	--	Not an internet user						
[1509]	[1238]							

³¹ In May 2008 and earlier, question asked about searching for "news stories" and did not include Bing.

³² From April 2002 to May 2008 the question asked: "When you go online do you ever come across news when you may have been going online for a purpose other than to get the news?" In April 1998 it asked "When you go online do you ever encounter or come across news and information on current events, public issues or politics when you may have been going online for a purpose other than to get the news?" In October 1996 it asked "When you go on-line are you ever EXPOSED to news and information on current events, public issues or politics when you may have been going on-line for a purpose other than to get the news?"

ASK IF INTERNET USER (INT1=1 OR INT2=1):

Q.46 How often, if ever, do you read blogs about politics or current events **[READ]**?

Jun 8-28, 2010

Based on:

Internet			May 2008 ³³	
<u>Total</u>	<u>users</u>		<u>Total</u>	<u>users</u>
9	11	Regularly	10	14
19	24	Sometimes	13	20
22	27	Hardly ever	19	28
31	38	Never	25	37
*	*	Don't know/Refused (VOL.)	*	*
18	--	Not an internet user	33	
[3006]	[2474]			

ASK ALL CELL PHONE OWNERS (Q40c=1):

Q.47 Thinking now about any of your cell phones, do you ever use a cell phone to **[INSERT ITEM; READ IN ORDER]** or not?

a. Send or receive text messages

Jun 8-28, 2010

Based on:

Cell phone		
<u>Total</u>	<u>owners</u>	
57	69	Yes
25	30	No
*	*	Don't know/Refused (VOL.)
17	--	Not a cell phone owner
[3006]	[2627]	

ASK IF INTERNET USER (INT1=1 OR INT2=1) AND CELL PHONE OWNER (Q40C=1):

b. Send or receive email

Jun 8-28, 2010

Based on:

Use			
Cell phone		internet &	
<u>Total</u>	<u>owners</u>	<u>have cell</u>	
28	34	38	Yes
45	55	62	No
0	0	0	Don't know/Refused (VOL.)
9	11	--	Cell phone owner, but not internet user
17	--	--	Not a cell phone owner
[3006]	[2627]	[2296]	

³³ Asked as part of a list of online news activities.

ASK IF INTERNET USER (INT1=1 OR INT2=1) AND CELL PHONE OWNER (Q40C=1):

c. Access the internet

Jun 8-28, 2010*Based on:*

<u>Total</u>	<u>Cell phone owners</u>	<u>Use internet & have cell</u>	
31	38	42	Yes
42	51	58	No
*	*	*	Don't know/Refused (VOL.)
9	11	--	<i>Cell phone owner, but not an internet user</i>
17	--	--	<i>Not a cell phone owner</i>
[3006]	[2627]	[2296]	

ASK ALL CELL PHONE OWNERS (Q40c=1):

Q.48 Have you ever downloaded an application or "app" that allows you to access news or news headlines on a cell phone, or not?

Jun 8-28, 2010*Based on:*

<u>Total</u>	<u>Cell phone owners</u>	
16	20	Yes
66	80	No
*	*	Don't know/Refused (VOL.)
17	--	<i>Not a cell phone owner</i>
[3006]	[2627]	

ASK IF INTERNET/E-MAIL ON CELL PHONE (Q.47b=1 OR Q.47c=1):Q.49 How often, if ever, do you get news or news headlines on a cell phone **[READ]**?**Jun 8-28, 2010***Based on:*

<u>Total</u>	<u>Cell phone owners</u>	<u>Use internet on cell</u>	
8	10	24	Regularly
6	8	18	Sometimes
7	8	20	Hardly ever [OR]
13	16	38	Never
*	*	*	Don't know/Refused (VOL.)
39	47	--	<i>Cell phone owner who uses internet, but not on phone</i>
9	11	--	<i>Cell phone owner who does not use internet</i>
17	--	--	<i>Not a cell phone owner</i>
[3006]	[2627]	[913]	

ASK IF EVER GET NEWS ON CELL PHONE (Q.49=1-3):

Q.49a Did you get any news or news headlines on a cell phone YESTERDAY, or not?

Jun 8-28, 2010

Based on:

<u>Total</u>	<u>Cell phone owners</u>	<u>Use internet on cell</u>	
9	11	27	Yes, got news yesterday
12	15	35	No, did not get news yesterday
*	*	*	Don't know/Refused (VOL.)
13	16	38	<i>Cell phone owner who uses internet on phone, but not for news</i>
39	47	--	<i>Cell phone owner who uses internet, but not on phone</i>
9	11	--	<i>Cell phone owner who does not use internet</i>
17	--	--	<i>Not a cell phone owner</i>
[3006]	[2627]	[913]	

ASK IF HAS TABLET COMPUTER (Q.40e=1):

Q.50 Now, thinking about your iPad or tablet computer, how often, if ever, do you get news or news headlines on your tablet computer **[READ]**?

Jun 8-28, 2010

Based on:

<u>Total</u>	<u>Tablet owners</u>	
1	33	Regularly
1	26	Sometimes
1	20	Hardly ever
1	19	Never
*	1	Don't know/Refused (VOL.)
96	--	<i>Do not have a tablet computer</i>
[3006]	[113]	

ASK IF INTERNET USER (INT1=1 OR INT2=1):

Q.51 How often, if ever, do you get news or news headlines by email **[READ]**?

Jun 8-28, 2010

Based on:

<u>Total</u>	<u>Internet users</u>	
12	14	Regularly
15	18	Sometimes
20	24	Hardly ever
36	43	Never
*	*	Don't know/Refused (VOL.)
18	--	<i>Not an internet user</i>
[3006]	[2474]	

ASK IF GETS NEWS BY EMAIL (Q.51=1-3):

Q.52a Did you get any news or news headlines by email YESTERDAY, or not?

Jun 8-28, 2010

Based on:

		Internet
<u>Total</u>	<u>users</u>	
14	17	Yes, got news yesterday
31	37	No, did not get news yesterday
2	2	Don't know/Refused (VOL.)
36	44	<i>Do not get news by email</i>
18	--	<i>Not an internet user</i>
[3006]	[2474]	

ASK IF GETS NEWS BY EMAIL (Q.51=1-3):

Q.53 Do you get news or news headlines by email directly from any news organizations or journalists, or not?

Jun 8-28, 2010

Based on:

		Internet
<u>Total</u>	<u>users</u>	
10	12	Yes, get news directly from news organizations or journalists
36	43	No, do not get news directly from news organizations or journalists
1	1	Don't know/Refused (VOL.)
36	44	<i>Do not get news by email</i>
18	--	<i>Not an internet user</i>
[3006]	[2474]	

ASK IF INTERNET USER (INT1=1 OR INT2=1):

Q.54 How often, if ever, do you send news or news headlines by email **[READ]**?

Jun 8-28, 2010

Based on:

		Internet
<u>Total</u>	<u>users</u>	
3	4	Regularly
11	13	Sometimes
19	23	Hardly ever
49	60	Never
*	*	Don't know/Refused (VOL.)
18	--	<i>Not an internet user</i>
[3006]	[2474]	

ASK IF INTERNET USER (INT1=1 OR INT2=1):

Q.55 How often, if ever, do you get news or news headlines through a customizable web page, such as iGoogle or MyYahoo, or through an RSS reader?

Jun 8-28, 2010

Based on:

		Internet
<u>Total</u>	<u>users</u>	
10	12	Regularly
10	12	Sometimes
12	15	Hardly ever
49	60	Never
1	1	Don't know/Refused (VOL.)
18	--	<i>Not an internet user</i>
[3006]	[2474]	

ASK IF GETS NEWS BY CUSTOMIZABLE WEB PAGE OR RSS (Q.55=1-3):

Q.55a Did you get any news or news headlines through a customizable web page, such as iGoogle or MyYahoo, or through an RSS reader YESTERDAY, or not?

Jun 8-28, 2010

Based on:

		Internet
<u>Total</u>	<u>users</u>	
10	13	Yes, got news yesterday
21	26	No, did not get news yesterday
*	1	Don't know/Refused (VOL.)
50	61	<i>Do not get news through customizable web page/RSS</i>
18	--	<i>Not an internet user</i>
[3006]	[2474]	

ASK IF INTERNET USER (INT1=1 OR INT2=1):

Q.56 Do you ever use Twitter, or haven't you done this?

Jun 8-28, 2010

Based on:

		Internet	<i>Pew Social Trends</i>
			Jan 14-27 2010
<u>Total</u>	<u>users</u>		<u>Total</u>
9	11	Yes	8
72	88	No	69
*	1	Don't know/Refused (VOL.)	*
18	--	<i>Not an internet user</i>	23
[3006]	[2474]		

ASK IF USES TWITTER (Q.56=1):Q.57 How often, if ever, do you get news or news headlines through Twitter? **[READ]****Jun 8-28, 2010***Based on:*

	Internet	Twitter	
<u>Total</u>	<u>users</u>	<u>users</u>	
2	2	17	Regularly
1	2	15	Sometimes
3	3	27	Hardly ever [OR]
4	5	42	Never
0	0	0	Don't know/Refused (VOL.)
73	89	--	<i>Do not use Twitter</i>
18	--	--	<i>Not an internet user</i>
[3006]	[2474]	[256]	

ASK IF GETS NEWS FROM TWITTER (Q.57=1-3):

Q.57a Did you get any news or news headlines through Twitter YESTERDAY, or not?

Jun 8-28 2010*Based on:*

	Internet	Twitter	
<u>Total</u>	<u>users</u>	<u>users</u>	
2	2	18	Yes, got news yesterday
4	5	41	No, did not get news yesterday
*	*	*	Don't know/Refused (VOL.)
4	5	42	<i>Do not get news from Twitter</i>
73	89	--	<i>Do not use Twitter</i>
18	--	--	<i>Not an internet user</i>
[3006]	[2474]	[256]	

ASK IF USES TWITTER (Q.56=1):Q.58 How often, if ever, do you send news or news headlines through Twitter **[READ]**?**Jun 8-28, 2010***Based on:*

	Internet	Twitter	
<u>Total</u>	<u>users</u>	<u>users</u>	
1	1	6	Regularly
1	1	9	Sometimes
2	2	20	Hardly ever [OR]
6	7	65	Never
0	0	0	Don't know/Refused (VOL.)
73	89	--	<i>Do not use Twitter</i>
18	--	--	<i>Not an internet user</i>
[3006]	[2474]	[256]	

ASK IF GETS NEWS FROM TWITTER (Q.57=1-3):

Q.59 Do you use Twitter to follow any news organizations or journalists, or not?

Jun 8-28, 2010*Based on:*

	Internet	Twitter	
<u>Total</u>	<u>users</u>	<u>users</u>	
2	3	24	Yes
3	4	34	No
*	*	*	Don't know/Refused (VOL.)
4	5	42	<i>Do not get news from Twitter</i>
73	89	--	<i>Do not use Twitter</i>
18	--	--	<i>Not an internet user</i>
[3006]	[2474]	[256]	

ASK IF INTERNET USER (INT1=1 OR INT2=1):

Q.60 Have you ever created your own profile on any social networking site like MySpace, Facebook or LinkedIn, or haven't you done this?

Jun 8-28, 2010*Based on:**Pew Social Trends*

	Internet		
<u>Total</u>	<u>users</u>		<u>Total</u>
45	55	Yes	41
37	45	No	35
*	*	Don't know/Refused (VOL.)	*
18	--	<i>Not an internet user</i>	23
[3006]	[2474]		

ASK IF HAVE SOCIAL NETWORKING PROFILE (Q.60=1):

Q.61 How often, if ever, do you get news or news headlines through social networking sites [READ]?

Jun 8-28, 2010*Based on:***TREND FOR COMPARISON:****May 2008³⁴**

	Internet	Have SNS		Have SNS
<u>Total</u>	<u>users</u>	<u>profile</u>		<u>profile</u>
7	9	16	Regularly	10
12	14	26	Sometimes	20
10	12	22	Hardly ever [OR]	27
16	20	36	Never	43
*	*	*	Don't know/Refused (VOL.)	*
37	45	--	<i>Do not have a social networking profile</i>	
18	--	--	<i>Not an internet user</i>	
[3006]	[2474]	[1264]		

³⁴

In May 2008, the question was worded: "How often do you get information about local, national or international news through social networking pages?" And the wording for the filter was different: "Do you have a profile on MySpace, Facebook or another social networking site, or not?"

ASK IF GETS NEWS FROM SOCIAL NETWORKING SITES (Q.61=1-3):

Q.61a Did you get any news or news headlines through social networking sites YESTERDAY, or not?

Jun 8-28, 2010*Based on:*

Internet Have SNS			
<u>Total</u>	<u>users</u>	<u>profile</u>	
9	11	19	Yes, got news yesterday
20	24	43	No, did not get news yesterday
1	1	1	Don't know/Refused (VOL.)
17	20	37	<i>Do not get news from social networking sites</i>
37	45	--	<i>Do not have a social networking profile</i>
18	--	--	<i>Not an internet user</i>
[3006]	[2474]	[1264]	

ASK IF HAVE SOCIAL NETWORKING PROFILE (Q.60=1):Q.62 How often, if ever, do you post news or news headlines on social networking sites **[READ]**?**Jun 8-28, 2010***Based on:*

Internet Have SNS				May 2008³⁵
<u>Total</u>	<u>users</u>	<u>profile</u>		<u>Have SNS profile</u>
2	2	4	Regularly	6
8	9	17	Sometimes	18
9	11	20	Hardly ever [OR]	19
27	33	59	Never	57
*	*	*	Don't know/Refused (VOL.)	*
37	45	--	<i>Do not have a social networking profile</i>	
18	--	--	<i>Not an internet user</i>	
[3006]	[2474]	[1264]		

ASK IF GETS NEWS FROM SOCIAL NETWORKING SITES (Q.61=1-3):

Q.63 Do you use social networking sites to follow any news organizations or journalists as a fan or friend, or not?

Jun 8-28, 2010*Based on:*

Internet Have SNS			
<u>Total</u>	<u>users</u>	<u>profile</u>	
7	9	16	Yes
21	26	47	No
*	*	*	Don't know/Refused (VOL.)
17	20	37	<i>Do not get news from social networking sites</i>
37	45	--	<i>Do not have a social networking profile</i>
18	--	--	<i>Not an internet user</i>
[3006]	[2474]	[1264]	

NO QUESTIONS 64-69³⁵

In May 2008, the question was worded: "How often do you share information about local, national or international news on your social networking page?" And the wording for the filter was different: "Do you have a profile on MySpace, Facebook or another social networking site, or not?"

ASK IF INTERNET USER (INT1=1 OR INT2=1):

Q.70 How often, if ever, do you watch or listen to news podcasts **[READ]**?

Jun 8-28, 2010

Based on:

<u>Total</u>	<u>MP3 players</u>	
3	6	Regularly
6	13	Sometimes
7	16	Hardly ever
29	64	Never
*	1	Don't know/Refused (VOL.)
54	--	<i>Not an internet user and/or do not have an MP3 player</i>
[3006]	[1263]	

ASK IF WATCH/LISTEN TO PODCASTS (Q.70=1-3):

Q.71 Did you watch or listen to a news podcast YESTERDAY, or not?

Jun 8-28, 2010

Based on:

<u>Total</u>	<u>MP3 players</u>	
4	9	Yes, watch/listened yesterday
12	26	No, did not watch/listen yesterday
*	*	Don't know/Refused (VOL.)
30	65	<i>Do not watch/listen to podcasts</i>
54	--	<i>Not an internet user and/or do not have an MP3 player</i>
[3006]	[1263]	

NO QUESTIONS 72 OR 73**ASK ALL:**

Q.74 At your home, do you currently subscribe to Cable TV, satellite TV, or another digital cable service like Fios, or not?

Jun 8-28

2010

80	Yes
19	No
*	Don't know/Refused (VOL.)

ASK ALL:

Q.75 Do you happen to have a Tivo or cable box with a DVR that can record TV programs you select, or not?³⁶

Jun 8-28 <u>2010</u>		May <u>2008</u>	April <u>2006</u>	April <u>2004</u>	April <u>2002</u>
45	Yes	35	23	13	3
54	No	64	76	86	96
1	Don't know/Refused (VOL.)	1	1	1	1

ASK IF HAS TIVO/DVR (Q.75=1):

Q.76 Have you programmed your DVR or Tivo to record any news programs regularly, or not?

BASED ON THOSE WHO HAVE A DVR/TIVO [N=1409]:

Jun 8-28 <u>2010</u>		May <u>2008</u>	April <u>2006</u>
24	Yes	22	17
76	No	83	78
*	Don't know/Refused (VOL.)	*	*

NO QUESTIONS 77-81**ASK IF REGULARLY GET NEWS FROM THE FOLLOWING SOURCE LIST:**

Q.82 We're interested in understanding WHY people use certain media sources. For example, earlier you said that you regularly turn to **[INSERT FIRST SOURCE, RANDOMIZE a-j FIRST, FOLLOWED BY RANDOMIZED k-x]**. Do you turn to **[FIRST SOURCE]** MOSTLY **[READ AND RANDOMIZE, KEEP ORDER CONSISTENT FOR EACH RESPONDENT]**

Do you turn to **[INSERT NEXT SOURCE]** MOSTLY **[READ AND RANDOMIZE, KEEP ORDER CONSISTENT FOR EACH RESPONDENT; READ ALL ANSWER CHOICES AFTER EACH SOURCE]** **[IF RESPONDENT HAS DIFFICULTY CHOOSING, PROBE WITH "WHAT IS THE MAIN REASON YOU TURN TO [SOURCE]?"]**

		Latest news & headlines	In-depth reporting	Enter- tainment	Interesting views/opinions	(VOL.) Mix/All	(VOL.) Other/ DK/Ref	N
a.F1	The national nightly network news on CBS, ABC or NBC Jun 8-28, 2010	59	13	6	8	9	5	[470]
b.F1	The Today Show, Good Morning America or The Early Show Jun 8-28, 2010	39	4	18	13	19	7	[318]
c.F1	A daily newspaper Jun 8-28, 2010	53	7	8	8	18	4	[690]
d.F2	CNN Jun 8-28, 2010	64	10	4	6	14	2	[274]
e.F2	The Fox News CABLE Channel Jun 8-28, 2010	44	11	5	11	22	6	[386]
f.F2	MSNBC Jun 8-28, 2010	43	12	13	15	13	2	[167]

³⁶ In a list in May 2008 and earlier. In May 2008, item was: "A DVR, such as a Tivo that can record TV programs you select." In April 2006 and April 2004 the item was: "A digital video recorder like TiVo that automatically records TV programs you select." In April 2002 the item was: "A smart TV product like TiVo or UltimateTV."

Q.82 CONTINUED...

		<u>Latest news & headlines</u>	<u>In-depth reporting</u>	<u>Enter- tainment</u>	<u>Interesting views/opinions</u>	(VOL.) Mix/All	(VOL.) Other/ DK/Ref	N
g.	NPR, National Public Radio Jun 8-28, 2010	21	20	12	18	28	2	[371]
h.	News magazines such as Time, U.S. News or Newsweek Jun 8-28, 2010	31	23	6	20	16	5	[275]
i.	Magazines such as The Atlantic, Harper's and The New Yorker Jun 8-28, 2010	14	20	21	26	16	4	[75]
j.	Blogs about politics or current events Jun 8-28, 2010	27	10	10	29	11	12	[307]
k.	The PBS NewsHour Jun 8-28, 2010 ³⁷	35	24	12	13	8	7	[214]
l.	Countdown with Keith Olbermann Jun 8-28, 2010	14	16	11	39	14	6	[90]
m.	The Rachel Maddow show Jun 8-28, 2010	18	14	10	33	15	11	[93]
n.	The Daily Show with Jon Stewart Jun 8-28, 2010	10	2	43	24	20	1	[194]
o.	The Colbert Report with Stephen Colbert Jun 8-28, 2010	3	2	53	18	19	5	[151]
p.	The Glenn Beck show Jun 8-28, 2010	10	24	6	32	23	4	[223]
q.	The O'Reilly Factor with Bill O'Reilly Jun 8-28, 2010	11	20	6	44	18	2	[341]
r.	The Sean Hannity show Jun 8-28, 2010	14	21	6	39	18	2	[225]
s.	Rush Limbaugh's radio show Jun 8-28, 2010	10	15	7	37	28	4	[185]
t.	Hardball with Chris Matthews Jun 8-28, 2010	19	19	7	42	10	3	[120]
u.	Sunday morning news shows such as Meet the Press, This Week or Face the Nation Jun 8-28, 2010	24	19	6	37	9	6	[403]

³⁷ Because of substantial measurement error concerning the NewsHour audience (see footnote to Q.28n), these figures are not analyzed in the report. **(This footnote was added on Sept. 23, 2010.)**

Q.82 CONTINUED...

		Latest news & headlines	In-depth reporting	Enter- tainment	Interesting views/opinions	(VOL.) Mix/All	(VOL.) Other/ DK/Ref	N
v.	The New York Times Jun 8-28, 2010	30	33	4	11	18	4	[153]
w.	The Wall Street Journal Jun 8-28, 2010	30	37	2	11	16	4	[132]
x.	USA Today Jun 8-28, 2010	52	9	16	9	9	5	[144]

NO QUESTIONS 83 OR 84**RANDOMIZE Q.85 THROUGH Q.88****ASK ALL:**

Next I would like to ask you about some things that have been in the news. Not everyone will have heard about them...

Q.85 Do you happen to know which political party has a majority in the U.S. House of Representatives?
[READ AND RANDOMIZE]

	Democrats	Republicans	(VOL.) DK/Ref
Jun 8-28, 2010	70	12	19
Oct 1-4, 2009	75	13	12
Jun 18-21, 2009	76	12	12
Mar 26-29, 2009	86	12	2
Dec 4-7, 2008	82	11	7
Feb 28-Mar 2, 2008	70	26	4
Aug 16-19, 2007	78	19	3
February, 2007	76	10	14
TREND FOR COMPARISON:³⁸			
May, 2008	53	15	32
Late October, 2006	4	58	38
April, 2006	6	64	30
April, 2004	8	56	36
June, 2001	34	31	35
August, 1999	8	55	37
December, 1998	11	56	33
June, 1997	6	50	44
April, 1996	8	70	22
June, 1995	5	73	22
July, 1994	60	18	22
February, 1994	58	42	n/a
September, 1992	46	9	45
June, 1992	44	12	44
May, 1992	49	12	39
May, 1989	68	16	16

Correct answers for each trend in bold

³⁸ In May 2008, and from May 1992 through Late October 2006 this was asked as an open-ended question, without offering response options for Democrats and Republicans. In May 1989 the question was worded "As a result of the election last year which party now has the most members in the U.S. House of Representatives in Washington?"

RANDOMIZE Q.85 THROUGH Q.88**ASK ALL:**

Q.86 Can you tell me which company Steve Jobs is the head of? Is it... **[READ AND RANDOMIZE]:**

Jun 8-28

2010

41 Apple
 4 Amazon.com
 1 DreamWorks [OR]
 6 Microsoft
 47 Don't know/Refused **(VOL.)**

RANDOMIZE Q.85 THROUGH Q.88**ASK ALL:**

Q.87 Do you happen to know who Eric Holder is? Is he... **[READ AND RANDOMIZE]:**

Jun 8-28

2010

22 The U.S attorney general
 2 The secretary of the treasury
 9 The CEO of BP [OR]
 5 White House chief of staff
 61 Don't know/Refused **(VOL.)**

RANDOMIZE Q.85 THROUGH Q.88**ASK ALL:**

Q.88 Can you name the country where a recent volcanic eruption disrupted international air travel?
[READ AND RANDOMIZE]:

Jun 8-28

2010

60 Iceland
 4 Finland
 6 China [OR]
 6 Indonesia
 24 Don't know/Refused **(VOL.)**

NO QUESTIONS 89 OR 90**ASK ALL:**

On a different subject...

Q.91 Are you more the kind of person who gets the news at regular times, or are you more the kind of person who checks in on the news from time to time?

Jun 8-28

2010

		May <u>2008</u>	April ³⁹ <u>2006</u>	April <u>2004</u>	April <u>2002</u>
38	Gets news at regular times	45	50	52	49
57	Checks in from time to time	51	48	46	48
4	Neither (VOL.)	2	1	1	2
1	Don't know/Refused (VOL.)	2	1	1	1

ASK ALL:

Q.92 Which comes closer to describing your view of the news media **[READ AND RANDOMIZE]:**

Jun 8-28

2010

		May <u>2008</u>	April <u>2006</u>	April <u>2004</u>
39	All the news media are pretty much the same to me OR	43	45	45
57	There are a few news sources I trust more than others	53	52	54
5	Don't know/Refused (VOL.)	4	3	1

³⁹ In April 2006 and earlier, the question wording was: "Are you more the kind of person who watches or listens to the news at regular times, or are you more the kind of person who checks in on the news from time to time?"

ASK ALL:

Q.93 Thinking about the different kinds of political news available to you, what do you prefer ... **[READ AND RANDOMIZE]**?

Jun 8-28 <u>2010</u>		May <u>2008</u>	Dec <u>2007</u>	April <u>2006</u>	Early Jan <u>2004</u>
25	Getting news from sources that share YOUR political point of view [OR]	23	23	23	25
62	Getting news from sources that DON'T have a particular political point of view	66	67	68	67
13	Don't know/Refused (VOL.)	11	10	9	8

ASK ALL:

Q.94 What do you find gives you the BEST understanding of major news events **[READ AND RANDOMIZE]**?

Jun 8-28 <u>2010</u>		May <u>2008</u>	April <u>2004</u>
45	Reading or hearing the facts about what happened OR	45	40
49	Seeing pictures and video showing what happened	48	55
6	Don't know/Refused (VOL.)	7	5

ASK ALL:

Thinking about the news media in general...

Q.95 How much political bias do you see in news coverage? A lot, some, not much or none at all?

Jun 8-28 <u>2010</u>	
52	A lot
30	Some
9	Not too much
6	None at all
4	Don't know/Refused (VOL.)

ASK ALL:

Thinking about the news media in general...

Q.95 How much political bias do you see in news coverage? A lot, some, not much or none at all?

ASK IF A LOT OR SOME BIAS (Q.95=1,2):

Q.95a In general, do you think news coverage has **[READ AND RANDOMIZE]**?

Jun 8-28 <u>2010</u>	
82	A lot/Some bias
43	More of a liberal bias [OR]
23	More of a conservative bias
10	Other/Neither/Depends (VOL.)
5	Don't know/Refused (VOL.)
15	Not too much bias/None at all
4	Don't know if there's bias/Refused (VOL.)

NO QUESTIONS 96 OR 97

ASK ALL:

Q.98 As I read a list of some descriptions, tell me if each describes you or not. If you're not familiar with something, just let me know. The first one is... **[INSERT ITEM; RANDOMIZE] [IF NECESSARY: Do you think of yourself as [ITEM] or not?]**

		<u>Yes</u>	<u>No</u>	<u>(VOL.) DK/Ref</u>
a.	An NRA supporter Jun 8-28, 2010	40	46	13
b.	A Christian conservative Jun 8-28, 2010	43	52	5
c.	An environmentalist Jun 8-28, 2010	60	36	4
d.	Pro-business Jun 8-28, 2010	56	34	10
e.	Libertarian Jun 8-28, 2010	18	68	15
f.	Progressive Jun 8-28, 2010	41	45	14
g.	A Tea Party supporter Jun 8-28, 2010	25	63	12
h.	A gay rights supporter Jun 8-28, 2010	40	52	8

ASK ALL:

Q.99 Do you display the American flag at your home, in your office, or on your car, or not?⁴⁰

	<u>Yes</u>	<u>No</u>	<u>(VOL.) DK/Ref</u>
Jun 8-28, 2010	59	41	1
March 11-21, 2010	58	42	*
Mar 31-Apr 21, 2009	59	40	1
January, 2007	62	38	*
Late March, 2005	64	36	*
Mid-July, 2003	69	29	2
August, 2002	75	25	*

ASK ALL:

Thinking about the government ...

Q.100 Which comes closer to your view, even if neither is exactly right? **[READ AND RANDOMIZE]?**

		<i>Pew Social Trends</i>
		Jan 14-27
		<u>2010</u>
Jun 8-28		
<u>2010</u>		
43	Government should do more to solve problems [OR]	45
	Government is doing too many things better left to	
47	businesses and individuals	47
10	Don't know/Refused (VOL.)	8

NO QUESTIONS 101 OR 102

⁴⁰ In June 2010, the question wording was modified to include "American." In April 2009 and earlier, the question was part of a list.

ASK ALL:

PARTY In politics TODAY, do you consider yourself a Republican, Democrat, or Independent?

ASK IF ANSWERED 3, 4, 5 OR 9 IN PARTY:

PARTYLN As of today do you lean more to the Republican Party or more to the Democratic Party?

	<u>Republican</u>	<u>Democrat</u>	<u>Independent</u>	(VOL.) No preference	(VOL.) Other party	(VOL.) DK/Ref	Lean Rep	Lean Dem
Jun 8-28, 2010	25	33	34	3	*	4	14	13
Jun 16-20, 2010	27	34	34	3	1	2	15	15
Apr 21-26, 2010	26	33	36	3	1	3	16	13
Apr 8-11, 2010	23	32	38	5	*	2	17	13
Apr 1-5, 2010	24	29	40	3	1	3	17	15
Mar 18-21, 2010	24	30	40	2	1	3	17	13
Mar 11-21, 2010	28	34	32	3	*	3	13	12
Mar 10-14, 2010	22	33	37	6	*	3	14	13
Feb 3-9, 2010	26	31	37	3	*	3	14	17
Jan 6-10, 2010	22	33	42	2	1	2	17	16
Dec 9-13, 2009	25	32	38	2	*	2	14	15
Oct 28-Nov 8, 2009	27	35	32	3	*	2	13	13
Sep 30-Oct 4, 2009	23	34	37	3	1	3	16	14
Sep 10-15, 2009	23	34	34	4	*	5	13	17
Aug 20-27, 2009	26	32	36	3	*	3	14	16
Aug 11-17, 2009	23	33	38	3	*	3	16	15
Jul 22-26, 2009	22	34	37	5	*	2	15	14
Jun 10-14, 2009	25	34	34	3	*	3	11	16
Yearly Totals								
2009	23.9	34.4	35.1	3.4	.4	2.8	13.1	15.7
2008	25.3	35.8	31.7	3.8	.3	3.1	10.5	15.4
2007	25.4	32.9	33.7	4.6	.4	3.1	10.7	16.7
2006	27.6	32.8	30.3	5.0	.4	3.9	10.2	14.5
2005	29.2	32.8	30.3	4.5	.3	2.8	10.2	14.9
2004	29.7	33.4	29.8	3.9	.4	2.9	11.7	13.4
2003	29.8	31.4	31.2	4.7	.5	2.5	12.1	13.0
2002	30.3	31.2	30.1	5.1	.7	2.7	12.6	11.6
2001	29.2	33.6	28.9	5.1	.5	2.7	11.7	11.4
2001 Post-Sept 11	30.9	31.8	27.9	5.2	.6	3.6	11.7	9.4
2001 Pre-Sept 11	28.2	34.6	29.5	5.0	.5	2.1	11.7	12.5
2000	27.5	32.5	29.5	5.9	.5	4.0	11.6	11.6
1999	26.6	33.5	33.7	3.9	.5	1.9	13.0	14.5
1998	27.5	33.2	31.9	4.6	.4	2.4	11.8	13.5
1997	28.2	33.3	31.9	4.0	.4	2.3	12.3	13.8
1996	29.2	32.7	33.0	5.2	--	--	12.7	15.6
1995	31.4	29.7	33.4	5.4	--	--	14.4	12.9
1994	29.8	31.8	33.8	4.6	--	--	14.3	12.6
1993	27.4	33.8	34.0	4.8	--	--	11.8	14.7
1992	27.7	32.7	35.7	3.9	--	--	13.8	15.8
1991	30.9	31.4	33.2	4.5	--	--	14.6	10.8
1990	31.0	33.1	29.1	6.8	--	--	12.4	11.3
1989	33	33	34	--	--	--	--	--
1987	26	35	39	--	--	--	--	--

ASK ALL:

EMPLOY Are you now employed full-time, part-time or not employed?

Jun 8-28	
<u>2010</u>	
45	Full-time
13	Part-time
41	Not employed
1	Don't know/Refused (VOL.)

ASK IF EMPLOYED FULL OR PART TIME (EMPLOY=1 OR 2):

Q.103 Is it important for your job that you keep up with the news, or not?

BASED ON THOSE WHO ARE EMPLOYED FULL/PART TIME [N=1650]

Jun 8-28		May	April	April
<u>2010</u>		<u>2008</u>	<u>2006</u>	<u>2004</u>
36	Yes	30	35	31
64	No	70	64	68
*	Don't Know/Refused (VOL.)	*	1	1

ASK IF EMPLOYED FULL OR PART TIME (EMPLOY=1 OR 2):

Q.104 Do you regularly go online from work, or not?

BASED ON THOSE WHO ARE EMPLOYED FULL/PART TIME [N=1650]

Jun 8-28		May
<u>2010</u>		<u>2008</u>
49	Yes	44
50	No	56
*	Don't Know/Refused (VOL.)	*

PEW RESEARCH CENTER FOR THE PEOPLE & THE PRESS
BELIEVABILITY SURVEY
JULY 8-11, 2010 OMNIBUS
FINAL TOPLINE
N=1001

PEW 1-PEW.4 PREVIOUSLY RELEASED

ASK ALL:

PEW.A How do you get most of your news about national and international issues? From **[READ AND RANDOMIZE]**? **[ACCEPT TWO ANSWERS: IF ONLY ONE RESPONSE IS GIVEN, PROBE ONCE FOR ADDITIONAL: "Anything Else?"]**

	Tele- vision	News- papers	Radio	Maga- zines	Internet	(VOL.) Other	(VOL.) DK/Ref
July 8-11, 2010	68	24	17	3	41	2	1
Dec 9-13, 2009	70	32	17	3	35	1	1
July 22-26, 2009	71	33	21	3	42	1	1
December, 2008	70	35	18	5	40	2	1
September, 2007	74	34	13	2	24	2	1
Late September, 2006	74	37	16	4	21	3	1
August, 2006	72	36	14	4	24	2	1
November, 2005	73	36	16	2	20	2	*
Early Sept, 2005⁴¹ (Hurricane Katrina)	89	35	17	*	21	3	*
June, 2005	74	44	22	5	24	2	1
December, 2004	74	46	21	4	24	2	3
October, 2003	80	50	18	4	20	2	1
August, 2003	79	46	15	3	18	2	1
Early July, 2003	79	45	16	5	19	1	*
March, 2003 (War in Iraq)	89	24	19	*	11	2	*
February, 2003	83	42	19	4	15	3	*
January, 2003	81	44	22	4	17	2	1
January, 2002	82	42	21	3	14	2	*
Mid-September, 2001 (Terror Attacks)	90	11	14	*	5	1	1
Early September, 2001	74	45	18	6	13	1	*
February, 2001	76	40	16	4	10	2	1
October, 1999	80	48	19	5	11	2	*
January, 1999	82	42	18	4	6	2	*
January, 1996	88	61	25	8	--	2	*
September, 1995	82	63	20	10	--	1	1
January, 1994	83	51	15	10	--	5	1
September, 1993	83	60	17	9	--	3	*
January, 1993	83	52	17	5	--	1	1
Early January, 1991 (Persian Gulf)	82	40	15	4	--	1	*

Figures add to more than 100% because of multiple responses.

⁴¹

In Early September 2005, the question was worded "news about the impact of Hurricane Katrina." In March 2003, the question was worded "news about the war in Iraq," and in Mid-September 2001, the question was worded "news about the terrorist attacks." In September 1995, question wording did not include "international." In Early January 1991 the question asked about "the latest developments in the Persian Gulf."

IF '1' TELEVISION AS EITHER 1ST OR 2ND RESPONSE IN PEW.A ASK:

PEW.B On television, do you get most of your news about national and international issues from [READ, RANDOMIZE ITEMS 2 THRU 4 AND 5 THRU 7 SEPARATELY, AND RANDOMIZE SETS OF ITEMS (LOCAL; NETWORK; CABLE). ACCEPT MULTIPLE ANSWERS BUT DO NOT PROBE FOR ADDITIONAL]

BASED ON TOTAL:

	<u>Local</u>	<u>ABC</u>	<u>CBS</u>	<u>NBC</u>	<u>CNN</u>	<u>MSNBC</u>	<u>FNC</u>	<u>(VOL.) Other</u>	<u>(VOL.) DK/Ref</u>	<i>TV not a main source</i>
July 8-11, 2010	17	9	8	8	17	5	19	4	2	(32)
Dec 9-13, 2009	16	12	8	10	19	6	19	3	2	(30)
July 22-26, 2009	18	11	10	13	22	6	19	3	1	(29)
December, 2008	15	12	9	10	23	8	17	4	2	(30)
September, 2007	18	11	8	13	22	7	16	3	2	(26)
August, 2006	13	10	9	12	24	6	20	6	1	(28)
November, 2005	16	14	12	15	24	8	22	5	3	(27)
Early Sept, 2005⁴² (Hurricane Katrina)	19	14	8	12	31	9	22	3	3	(11)
June, 2005	13	12	9	12	18	5	16	2	4	(26)
December, 2004	15	11	9	14	20	6	19	3	3	(26)
October, 2003	17	12	8	13	20	6	17	--	4	(20)
August, 2003	17	12	10	15	26	7	18	3	4	(21)
Early July, 2003	17	12	11	14	27	9	22	3	3	(21)
January, 2002	16	11	11	15	28	8	16	4	2	(18)

Figures add to more than 100% because of multiple responses.

PEW.5-PEW.10 PREVIOUSLY RELEASED**ASK ALL:**

PEW.11 As I name some organizations, please rate how much you think you can BELIEVE each that I name on a scale of 4 to 1. On this four point scale, "4" means you can believe all or most of what the organization says, and "1" means you believe almost nothing of what they say.

First, how would you rate the believability of [READ ITEM. RANDOMIZE LIST] on this scale of 4 to 1? How about [NEXT ITEM]? [IF NECESSARY: How would you rate the believability of [NEXT ITEM] on this scale of 4 to 1 where "4" means you can believe all or most of what the organization says, and "1" means you believe almost nothing of what they say?]

[INTERVIEWERS: PROBE TO DISTINGUISH BETWEEN "NEVER HEARD OF" AND "CAN'T RATE"]

	Believe <u>4</u>	<u>3</u>	<u>2</u>	Cannot Believe <u>1</u>	(VOL.) Never Heard <u>of</u>	(VOL.) Can't Rate
a. USA Today						
July 8-11, 2010	13	30	22	12	1	22
Late May, 2008	13	35	26	8	2	16
June, 2006	15	30	25	10	2	18
May, 2004	15	32	22	8	2	21
May, 2002	15	36	19	6	1	23
May, 2000	17	31	20	7	2	23
May, 1998	18	35	21	5	2	19
April, 1996	20	34	20	9	3	14
February, 1993	20	36	21	7	1	15
August, 1989	21	32	18	5	6	18
June, 1985	13	26	13	2	4	42

⁴² In early September 2005, the question was worded: "Have you been getting most of your news about the disaster from ..."

PEW.11 CONTINUED...

		Believe			Cannot Believe	Never Heard of	(VOL.) Can't Rate
		<u>4</u>	<u>3</u>	<u>2</u>	<u>1</u>		
b.	The Wall Street Journal						
	July 8-11, 2010	18	27	17	11	*	27
	Late May, 2008	20	34	17	8	2	19
	June, 2006	19	29	17	8	3	24
	May, 2004	18	31	17	8	1	25
	May, 2002	22	29	11	4	1	33
	May, 2000	27	24	9	6	4	30
	May, 1998	30	30	9	4	2	25
	April, 1996	28	29	13	7	3	20
	February, 1993	30	32	14	6	2	16
	August, 1989	30	26	9	3	6	26
	June, 1985	25	23	6	2	1	43
c.	The New York Times						
	July 8-11, 2010	15	28	15	15	1	26
	Late May, 2008	14	32	19	14	2	19
	June, 2006	15	26	19	14	2	24
	May, 2004	16	31	18	10	2	23
d.	The daily newspaper you are most familiar with						
	July 8-11, 2010	19	35	25	12	0	9
	Late May, 2008	21	39	23	8	1	8
	June, 2006	18	37	26	12	1	6
	May, 2004	17	33	30	12	*	8
	May, 2002	20	39	25	9	0	7
	May, 2000	23	38	24	8	*	7
	May, 1998	27	36	24	7	*	6
	April, 1996	24	37	26	8	*	5
	February, 1993	22	41	25	8	*	4
	August, 1989	26	41	24	7	*	2
	June, 1985	28	52	13	2	*	5
e.	CNN						
	July 8-11, 2010	26	32	20	12	1	9
	Late May, 2008	28	36	18	9	1	8
	June, 2006	25	35	20	10	1	9
	May, 2004	29	36	17	8	1	9
	May, 2002	32	34	15	6	1	12
	May, 2000	33	32	14	5	1	15
	May, 1998	37	35	11	4	1	12
	April, 1996	34	37	14	4	1	10
	February, 1993	41	35	10	4	2	8
	August, 1989	33	31	11	2	8	16
	June, 1985	20	24	7	1	10	38

PEW.11 CONTINUED...

		(VOL.)					(VOL.)
		Believe			Cannot	Never	(VOL.)
		<u>4</u>	<u>3</u>	<u>2</u>	Believe	Heard	Can't
					<u>1</u>	<u>of</u>	<u>Rate</u>
f.	The Fox News CABLE Channel						
	July 8-11, 2010	25	26	20	20	*	8
	Late May, 2008	21	32	21	15	2	9
	June, 2006	22	29	21	15	1	12
	May, 2004	21	33	23	9	1	13
	May, 2002	19	34	20	6	2	19
	May, 2000	19	28	19	9	3	22
g.	MSNBC						
	July 8-11, 2010	19	32	18	16	3	12
	Late May, 2008	21	34	22	10	2	11
	June, 2006	17	34	24	8	2	15
	May, 2004	18	36	22	8	2	14
	May, 2002	21	34	17	5	4	19
	May, 2000	19	29	15	6	8	23
h.	ABC News						
	July 8-11, 2010	19	39	21	12	1	8
	Late May, 2008	22	37	25	9	1	6
	June, 2006	20	39	23	10	*	8
	May, 2004	22	36	24	9	*	9
	May, 2002	22	43	19	6	*	10
	May, 2000	26	36	20	6	*	12
	May, 1998	28	43	18	4	*	7
	April, 1996	30	44	17	5	*	4
	February, 1993	34	42	17	4	*	3
	August, 1989	30	46	14	3	1	7
	June, 1985	32	51	11	1	*	5
i.	CBS News						
	July 8-11, 2010	19	36	21	13	1	11
	Late May, 2008	20	36	26	10	1	7
	June, 2006	20	34	27	10	1	8
	May, 2004	22	35	24	9	1	9
	May, 2002	23	41	19	6	*	11
	May, 2000	26	37	20	7	*	10
	May, 1998	26	43	21	4	*	6
	April, 1996	30	42	17	6	*	5
	February, 1993	31	44	16	5	*	4
	August, 1989	29	45	16	4	1	5
	June, 1985	33	51	11	1	*	4
j.	NBC News						
	July 8-11, 2010	18	40	22	13	*	7
	Late May, 2008	23	40	21	11	*	5
	June, 2006	21	39	24	8	*	8
	May, 2004	22	39	24	9	*	6
	May, 2002	23	43	19	6	*	9
	May, 2000	26	37	21	7	*	9
	May, 1998	28	42	20	4	*	6
	April, 1996	28	46	18	5	*	3
	February, 1993	31	42	18	6	*	3
	August, 1989	32	47	14	2	*	5
	June, 1985	31	51	12	1	*	5

PEW.11 CONTINUED...

		(VOL.)					(VOL.)
		Believe			Cannot	Never	(VOL.)
		<u>4</u>	<u>3</u>	<u>2</u>	Believe	Heard	Can't
					<u>1</u>	<u>of</u>	<u>Rate</u>
k.	Your local TV news						
	July 8-11, 2010	27	38	21	7	0	7
	Late May, 2008	27	40	21	8	*	4
	June, 2006	22	38	25	10	*	5
	May, 2004	23	36	27	9	*	5
	May, 2002	26	39	22	7	*	6
	May, 2000	30	39	19	6	*	6
	May, 1998	32	38	19	6	*	4
	June, 1985	34	47	13	1	*	5
l.	C-SPAN						
	July 8-11, 2010	15	24	17	11	6	26
	Late May, 2008	18	30	16	7	8	21
	June, 2006	18	27	19	7	6	23
	May, 2004	20	28	18	7	4	23
	May, 2002	18	26	12	5	8	31
	May, 2000	21	24	11	6	10	28
	May, 1998	20	26	12	4	12	26
	April, 1996	19	24	12	9	10	26
m.	The PBS NewsHour						
	July 8-11, 2010	20	25	18	10	5	23
	Late May, 2008 ⁴³	14	22	19	8	15	22
	June, 2006	14	21	16	9	13	27
	May, 2004	13	20	16	8	8	35
	May, 2002	13	20	13	5	18	31
	May, 2000	13	18	13	8	18	30
	May, 1998	15	21	12	5	19	28
	June, 1985	18	17	6	2	29	28
n.	60 Minutes						
	July 8-11, 2010	28	29	19	9	1	14
	Late May, 2008	27	36	21	7	1	8
	June, 2006	24	34	22	9	1	10
	May, 2004	29	33	19	9	*	10
	May, 2002	30	39	15	5	*	11
	May, 2000	31	37	17	7	*	8
	May, 1998	32	37	20	4	*	7
o.	NPR, National Public Radio						
	July 8-11, 2010	20	23	18	11	7	21
	Late May, 2008	19	23	18	10	12	18
	June, 2006	17	27	20	12	4	20
	May, 2004	17	25	22	12	3	21
	May, 2002	16	28	20	7	6	23
	May, 2000	16	21	18	8	13	24
	May, 1998	13	34	17	7	7	22

⁴³ From 1998 to 2008 the item was worded "The NewsHour with Jim Lehrer." In 1985 this item was worded "The MacNeil-Lehrer NewsHour." The change in 2010 to "The PBS NewsHour" caused unforeseen measurement problems (See footnote to Q.28n in the main survey topline.). Our report does not include any reference to public evaluations of the NewsHour audience because of this substantial measurement error. **(This footnote was modified on Sept. 23, 2010.)**

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B&C's Top 25 Station Groups 2010

Size still matters. Despite a fractured media landscape, big station groups get a leg up on retrans, syndication and talent deals.

By Paige Albiniaak -- *Broadcasting & Cable*, April 12, 2010

NAB 2010: Complete Coverage from B&C

TV stations, which once represented the hub of local media, are now one choice among many. In the past decade, the media have fractured into smaller and smaller parts, with viewers and revenue alike scattering to cable and the Internet, to the iPad, Twitter and Foursquare.

But while TV station groups have less power over things like market share as a result of the diffused media landscape, heft is still quite helpful. Station group size is important in retransmission consent, syndication and talent negotiations. Economies of scale are another result of being big.

TV stations remain the biggest media brand in any local market, and the more top local brands a group has, the better it's positioned in retrans negotiations with multichannel video providers. "If a group is big, it has a lot more leverage in retrans arguments," says Justin Nielson, analyst at SNL Kagan Research, which helped B&C assemble the data for this year's Top 25 list.

Many of the bigger groups have several stations carried on cable systems owned by one cable operator. Those groups have an advantage in that they can cut one deal with one operator and then apply that deal to every other operator, according to Larry Patrick, managing partner of media investment firm Patrick Communications. "Those groups can walk in and say to Comcast or Time Warner, 'Here's the deal; we'd like to do one blanket agreement that affects all of our stations,'" Patrick says. "They can then take that deal to every other cable company on their list."

Group size alone gives some broadcasters an edge in retrans negotiations, but the size of the group's individual stations and the markets in which they are located has an even bigger effect on the company's leverage. For example, groups such as Belo and LIN are not the country's biggest, but they run top-notch stations in solid markets that cable operators are loath to lose.

Station groups get another bonus for being big when it comes to buying syndicated programming. In general, there are five groups—ABC, CBS, NBC, Tribune and Fox—that syndicators must work with when trying to clear any new show. These groups, often referred to as the "five families," own the biggest stations in the biggest markets. Once those groups establish terms of the deal, the rest of the country is forced to follow suit.

For off-network sitcoms, Tribune and Fox have all the leverage because they are the only two groups in the sitcom business in the nation's top markets. This doesn't apply to some of the country's biggest groups—Ion, Univision, Trinity—because they don't play much in the syndication world, although in the past two years Ion has picked up shows such as CBS Television Distribution's *Ghost Whisperer* and *Criminal Minds* to run in primetime.

Size also creates economies of scale, which helps when groups are negotiating with equipment and service vendors such as Nielsen, The Associated Press and Frank N. Magid Associates.

Large station groups additionally offer a lot of options to new talent. "If I'm a talent that wants to grow, I might go to work for a company like Hearst. I might start in Omaha but end up in [a major Hearst market like Pittsburgh]," Patrick says. "The ability to groom and grow your own people is important."

The CBS-owned group, for one, plans to launch an in-house Website this year to help talent find new positions within the CBS family.

B&C Updates 'Top 25' Criteria for DTV Era

For the first time, B&C this year is ranking its top 25 station groups only by total U.S. coverage. B&C's information is heavily based on data provided by SNL Kagan, and backed by B&C's own research and input from the listed companies.

The decision to change our ranking system is in line with industry trends. When last June's digital transition was complete, the majority of U.S. TV stations had moved to UHF channels, which are better suited to broadcasting digital television at lower power levels. In the analog world, the biggest TV stations aired on higher-power, lower-frequency VHF channels.

That change calls into question current TV industry regulations. The law of the land remains that any one group can own only enough TV stations to cover 39.4% of the country, and continues to take the UHF discount into account. However, the transition and related technology have rendered the discount moot, and without the discount two station groups, Ion and Univision, exceed the limit.

At this point, neither the FCC nor Congress is looking at this issue. The FCC has begun its quadrennial review on media ownership limits, but the national ownership limits and the UHF discount are not included in that review.

Broadcast insiders say that retaining strong talent is key to a group's long-term health.

"If you are a big enough group, you have a really good farm system and that's good for your future," says Mark Fratrick, VP of consulting firm BIAfn. "You can use that to hone the skills of your people and transfer information around the country."

1 Ion Media Networks

(Privately held)

63.9% coverage

58 stations

Ion Media Networks
601 Clearwater Park Rd.
West Palm Beach, FL
33401
(561) 659-4122
Website: www.iontelevision.com

Brandon Burgess

Chairman and CEO



[Click to download chart](#)

2 Univision Television Group

(Privately held by Broadcasting Media Partners, an investor group including Madison Dearborn Partners, Providence Equity Partners, Saban Capital Group, Thomas H. Lee Partners and TPG)

42% coverage

37 stations

605 Third Ave.
New York, NY 10158
(212) 455-5200
Website: www.univision.net

Joe Uva

CEO and president

3 CBS Corp.

(CBS, CBS.A)

38.4% coverage

29 stations

51 W. 52nd St.
New York, NY 10019
(212) 975-4321
Websites: Cbslocal.com; www.cbcorporation.com

Sumner M. Redstone

Executive chairman

Leslie Moonves

President/CEO

Peter Dunn

President, CBS Television Stations

4 Fox Television Stations

(NWS; subsidiary of News Corp.)

37.1% coverage

27 full-power stations

1211 Avenue of the
Americas, 21st Floor
New York, NY 10036
(212) 301-5400
Website: www.newscorp.com

K. Rupert Murdoch

Chairman, News Corp.

Roger Ailes

Chairman/CEO, Fox News; Chairman, Fox Television Stations; Chairman, Twentieth Television

Jack Abernethy

CEO, Fox Television Stations

Dennis Swanson

President, Fox Television Station Operations

5 NBC/General Electric

(GE; Comcast in process of acquiring a 51% interest in NBC)

36.6% coverage

26 stations, including NBC and Telemundo

30 Rockefeller Plaza
New York, NY 10112
(212) 664-4444
Website: www.nbclocalmedia.com

Jeffrey Immelt

Chairman/CEO, GE

Jeff Zucker

President/CEO, NBC Universal

John Wallace

President, NBC Local Media Division

6 Trinity Broadcasting

(Private)

35.9% coverage

25 stations

2442 Michelle Drive
Tustin, CA 92780
(714) 832-2950
Website: www.tbn.org

Paul F. Crouch

President

Paul Crouch Jr.

Chief of staff

7 Tribune Co.

(Private)
35.1% coverage
23 stations
435 N. Michigan Ave.
Chicago, IL 60611
(312) 222-3333
Fax: (312) 329-0611
Website: www.tribune.com

Sam Zell

Chairman, Tribune Co.

Randy Michaels

President and CEO, Tribune Co.

Ed Wilson

President, Tribune Broadcasting Co.

8 ABC TV Stations Group

(DIS)
23.3% coverage
10 stations
77 W. 66th St.
New York, NY 10023
(212) 456-7777
Websites: corporate.disney.go.com; abclocal.go.com

Robert Iger

President/CEO, The Walt Disney Co.

Walter Liss

President, ABC Owned Television Stations

9 Sinclair Broadcast Group

(SBGI)
21.6% coverage
57 stations

10706 Beaver Dam Rd.
Hunt Valley, MD 21030
(410) 568-1500
Fax: (410) 568-1533
Website: www.sbgj.net

David D. Smith

President/CEO/chairman

Steven M. Marks

VP/COO, television

10 Gannett Broadcasting

(GCI)
18.2% coverage
23 stations
7950 Jones Branch Drive
McLean, VA 22107
(703) 854-6000
Website: www.gannett.com

Craig A. Dubow

Chairman/CEO, Gannett Co.

Gracia C. Martore

President/COO, Gannett Co.

David Lougee

President, Gannett Broadcasting

11 Hearst Corp./Hearst Television

(Private)
18% coverage
34 stations
300 W. 57th St.
New York, NY 10019
(212) 887-6800
Fax: (212) 887-6875
Website: www.hearsttelevision.com

Frank A. Bennack Jr.

Vice chairman and CEO, Hearst Corp.

David Barrett

President/CEO, Hearst-Argyle Television

12 Multicultural Capital Trust

16.7% coverage
5 stations
449 Broadway
New York, NY 10013
(212) 966-1059
Website: www.mrbi.net

Arthur Liu

Founder

Lee W. Shubert

Trustee

13 Belo Corp.

(BLC)

14.5% coverage

22 stations

400 S. Record St.

Dallas, TX 75202-4841

(214) 977-6606

Website: www.belo.com

Dunia Shive

President/CEO

Peter Diaz

Executive VP, television operations

14 Entravision (EVC)

12.5% coverage

25 stations

2425 Olympic Blvd.,

Suite 6000 W

Santa Monica, CA 90404

(310) 447-3870

Website: www.entravision.com

Walter F. Ulloa

Chairman/CEO

Philip C. Wilkinson

President/COO

15 Raycom Media

(Private)

12.1% coverage

38 stations

RSA Tower, 20th Floor

201 Monroe St.

Montgomery, AL 36104

(334) 206-1400

Website: www.raycommedia.com

Paul McTear

President/CEO

16 Nexstar Broadcasting

11.1% coverage

54 stations

5215 N. O'Connor Blvd,
Suite 1400
Irving, TX 75039
(972) 373-8800
Website: www.nexstar.tv

Perry A. Sook

Chairman/president/CEO

Matt Devine

CFO

17 Local TV LLC

(Private; owned by Oak Hill Capital Partners)

10.8% coverage

19 stations

1717 Dixie Highway

Suite 650

Fort Wright, KY 41011

(859) 448-2700

Website: www.localtvllc.com

Bobby Lawrence

CEO

18 Cox Media Group

(Private)

10.4% coverage

15 stations

6205 Peachtree

Dunwoody Rd.

Atlanta, GA 30328

(678) 645-0000

Website: www.coxenterprises.com

James C. Kennedy

Chairman/CEO, Cox Enterprises

Jimmy W. Hayes

President/COO, Cox Enterprises

Sanford Schwartz

President, Cox Media Group

19 Newport Television

(Private; owned by Providence Equity Partners)

10% coverage

29 stations

460 Nichols Rd., Suite

250

Kansas City, MO 64112

(816) 751-0200

Website: www.newporttv.com

Sandy DiPasquale,
President/CEO

20 E.W. Scripps Co.

(SSP)
9.9% coverage
10 stations
312 Walnut St.
Scripps Center 2800
Cincinnati, OH 45202
(513) 977-3000
Website: scripps.com

Richard Boehne
President/CEO

Brian Lawlor
Senior VP, TV

21 Liberman Broadcasting

(Private)
9.7% coverage
4 stations
1845 Empire Ave.
Burbank, CA 91504
(818) 729-5300
www.lbimedia.com

Jose Liberman
Founder, president

22 Meredith Corp.

(MDP)
9.1% coverage
11 stations
1716 Locust St.
Des Moines, IA 50309
(515) 284-3000
www.meredith.com

Stephen M. Lacy
Chairman, president, CEO

Paul Karpowicz
President, Meredith Local Media Group

23 LIN Television Corp.

(TVL)
8.5% coverage (FCC)
27 stations

1 W. Exchange St.
Providence, RI 02903
(401) 457-9501
Website: www.lintv.com

Vincent Sadusky

President/CEO

Scott Blumenthal

Executive VP, television

24 Media General

(MEG)

8.3% coverage
18 stations
333 E. Franklin St.
Richmond, VA 23219
(804) 649-6000
Website: www.mediageneral.com

J. Stewart Bryan III

Chairman, Media General

Marshall N. Morton

President/CEO

James A. Zimmerman

VP, Media General; president, Broadcast Division

25 Post-Newsweek

(WPO; subsidiary of The Washington Post Co.)

7.4% coverage
6 stations
550 W. Lafayette Blvd.
Detroit, MI 48226-3123
(313) 223-2260
Website: www.washpostco.com

Donald E. Graham

Chairman/CEO, The Washington Post Co.

Alan Frank

President/CEO, Post-Newsweek Stations

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Online Video & the Media Industry

**SPECIAL FEATURE:
BRAND MARKETERS & ON-SITE VIDEO INITIATIVES**

QUARTERLY RESEARCH REPORT, Q2 2010



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Background

Brightcove is an on-demand software platform that media companies and marketers use to publish and distribute video on the Web, mobile devices, and Internet-connected TVs. Brightcove has more than 1,800 customers in 48 countries, which operate video across nearly 10,000 websites, including many of the most popular news and entertainment destinations on the Web.

TubeMogul is an online video analytics and advertising platform that processes billions of video streams every month from the Internet's top publishers. More than 200,000 users rely on TubeMogul's distribution and analytics, and hundreds of marketing agencies and brand advertisers are among the company's clients.

Brightcove and TubeMogul have teamed up to develop a new online video index and quarterly research report, which will help identify key industry trends and answer questions about the state of the industry.

Methodology

The data used for the analysis included in this report was taken from a cross-section sample of Brightcove customers representing media industry verticals. While the sample aggregates a sizable data set, it is not intended to be statistically representative of the online video industry as a whole, or of Brightcove's entire customer base. Instead, the data analysis is intended to provide a directional snapshot of media trends and inform additional research initiatives focused on the online video industry.

This research report draws on a number of data sources:

- Platform data from a sample of Brightcove media customers; and
- Consumer engagement reports based on TubeMogul's online video analytics from this aggregate data set.

In this Q2 research report, Brightcove and TubeMogul have included a special feature focused on brand marketers and on-site video initiatives. This analysis uses:

- Platform data from a sample of Brightcove brand marketing and e-commerce customers; and
- An anonymous survey of more than 300 senior-level brand managers from leading business-to-business and consumer brands, including dozens of Fortune 500 companies.

Key Findings

Online Video Streams

Newspaper online video growth surges

- In Q2, broadcast networks and pure-play Web media properties remained in the top two positions among media industry verticals for overall video stream growth.
- Online video streams from newspaper websites surged in Q2 by more than 65 percent. This can be attributed to the sustained coverage of the BP oil disaster in the Gulf of Mexico, which started on April 20th and ran through May and June.
- Video stream growth slowed among magazine website properties, as well as music label and artist websites in Q2.

Engagement

More people watching more videos

- The volume of unique viewers accessing online video grew across all media verticals in Q2 by an average of 2.8 percent per month compared to .05 percent month-over-month growth in Q1.
- Viewers watched 11.8 percent more videos per month in Q2 than last quarter.
- In Q2, across media verticals, the average viewing time per video stream was 2:00 minutes.
- Broadcast networks and magazine websites saw an increase in the average length of viewing time per video in Q2 by 3.1 percent and 2.1 percent respectively.
- The online video content of media companies has an average completion rate of 38 percent per video view. Magazine website and pure-play Web media properties had the highest overall completion rates per video view.

Discovery

Referral traffic for online video from Facebook and Twitter growing faster than search engines

- Google continues to generate the highest volume of traffic to online video content followed by Yahoo!, Facebook, Bing and Twitter.
- Referral traffic from Facebook and Twitter is growing faster than traditional search engines as a source of video views. At current rates, Facebook will surpass Yahoo! within the year to be second only to Google in referral traffic to online video content for media companies.

Distribution & Engagement

On-site viewing generates deeper engagement than syndicated video players

- Broadcast networks have the smallest percentage of video content viewed through embedded players on third-party websites. Newspapers, on the other hand, have the highest percentage of off-site viewing.
- For the majority of media verticals, viewers watching videos via off-site player embeds tend to watch fewer minutes per stream than on-site viewers.
- Facebook and Twitter generate the most engaged viewing audiences for online video content from media companies, followed by Bing, Yahoo!, and Google.

Special Feature: Brand Marketers & On-Site Video Initiatives

Platform Data

- Viewers in Q2 watched brand marketing and e-commerce videos an average of 1:04 minutes per stream, compared to 2:00 minutes per stream of online video content from media companies.
- 2.6 percent of views for brand marketing and e-commerce video content was viewed off-site through embedded video players on third party sites as compared to 6.5 percent of off-site video for media companies
- The average length of brand and e-commerce video views via embedded players on third-party sites in Q2 was 1:42 minutes compared to 1:02 minutes on the brand websites. By contrast, media companies generated an average of 1:00 minute per view for video content on third-party sites compared to an average of 2:00 minutes per view on the official news and entertainment websites.
- Referral traffic from Facebook and Twitter lead to the longest viewing times, while the video views that originate from Yahoo! search and display ads tied for shortest.

Survey Results

- For the vast majority of brand managers (85 percent), website video is currently part of their marketing mix. More than 60 percent say they plan to invest more in on-site video initiatives in the next 12 months.
- Survey respondents indicated that the primary purpose for their on-site video initiatives is branding and awareness (66 percent) followed by direct response / lead generation (21 percent) and e-commerce / sales (12 percent).
- Brand managers have embraced blended distribution strategies with 80 percent including video on their own brand sites, as well as YouTube and 90 percent distributing video through Facebook.
- While only 21 percent of brand managers indicated that their current mobile app strategy included video, 70 said they plan to add video to their mobile apps over the next 12 months.

Platform Usage

The following analysis is based on aggregated Brightcove platform data from a sample of more than 200 media companies representing media industry verticals, including broadcast networks, magazine publishers, music labels, newspaper publishers, pure-play Web media properties, and radio broadcasters. The data set spans 2008 to 2009, as well as the first half of 2010.

Video Stream Trend Data

Broadcast remains top media vertical for online video streams

In Q2, broadcast networks maintained their top position among media verticals for the ninth consecutive quarter with 406 million online video streams. Video stream totals for broadcasters in Q2 represent a 25 percent increase compared to the same quarter last year.

Pure-play Web media properties in second place, newspapers gaining

Pure-play Web media properties continue to show strong growth with nearly 300 million video streams in Q2. While relatively flat over the past five quarters, online video streams surged in the newspaper vertical more than 65 percent to almost 225 million between Q1 and Q2 of this year as a result of the sustained coverage of the BP oil disaster in the Gulf of Mexico, which started on April 20th and ran through May and June.

Video stream growth slows for magazine publishers and music labels

After eight consecutive quarters of growth, online video streams for magazine publishers declined by seven percent between Q1 to Q2 of this year. Despite the decline, Q2's 174 million video streams represent a 45 percent increase compared to the same period last year. In the music sector, Q2 brought a sharper decline of almost 40 percent in video stream volume from artist and label sites with 134 million streams. This significant reduction in overall online video stream volume on music label and artist sites could be attributable to the growing popularity of the VEVO.com music video portal. Music label and artist stream totals are still up by 13 percent compared to the same quarter last year.

Radio broadcasters continue steady growth in online video streams

Q2 of 2010 marked the tenth consecutive quarter of growth for the radio broadcast sector with 9 million video streams.

Player Loads – Q2 2010

A player load represents the graphics, data and other components rendered on a webpage in order to view a video stream and monetize the content. Player loads are an important measure for the amount of video content included across website properties.

Newspapers and magazines continue to publish more online video than any other media vertical

For the third consecutive quarter, newspaper and magazine websites featured a larger number of videos than any other media vertical. In Q2, newspaper websites generated 2.3 billion player loads, up 12 percent from Q1 and nearly 40 percent compared to Q2 of last year. Magazine websites generated 1.3 billion player loads in Q2, a similar volume of player loads compared to Q1, but up 38 percent compared to Q2 of last year.

Broadcast networks and pure-play Web media properties increased video publishing activity

In Q2, broadcast networks generated 685 million player loads, up four percent compared to Q1. While slightly up in Q2, the player load number represents a decline of almost 60 percent compared to the same quarter last year. The decline seems to be further indication of a trend toward portal and aggregated video player experiences around longer-form content, as compared to the distributed, contextual and short-form nature of video content in the editorial and website strategies represented by newspapers, magazines and other media industry verticals.

Web media properties grew by three percent in Q2 with 788 million player loads, which represents an increase of nearly 40 percent compared to the same period last year.

After four consecutive quarters of growth, radio broadcasters publish fewer videos

In Q2, radio broadcast sites generated 90 million video player loads, which represents the first decline after four consecutive quarters of growth. Despite the decline in Q2, player loads on radio broadcaster websites are up 18 percent compared to the same quarter in 2009.

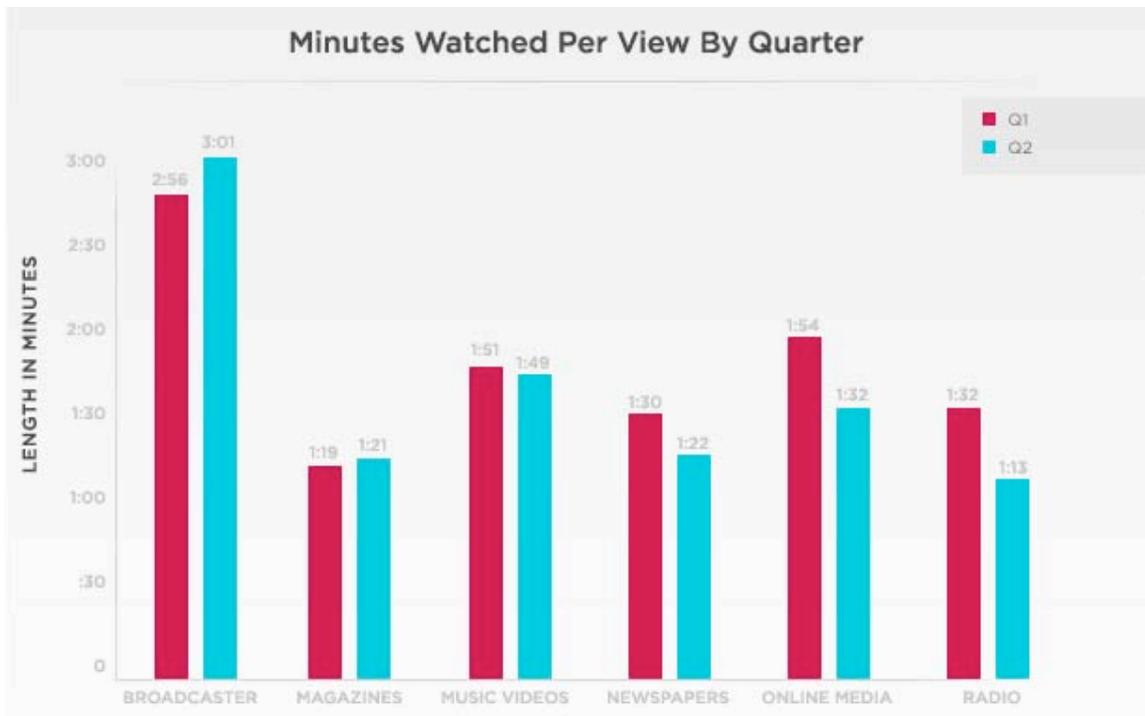
Engagement, Discovery, Geography and Distribution

The following section analyzes viewer behavior for a cross-section of media companies (broadcasters, magazines, music labels, newspapers, online media properties and radio).

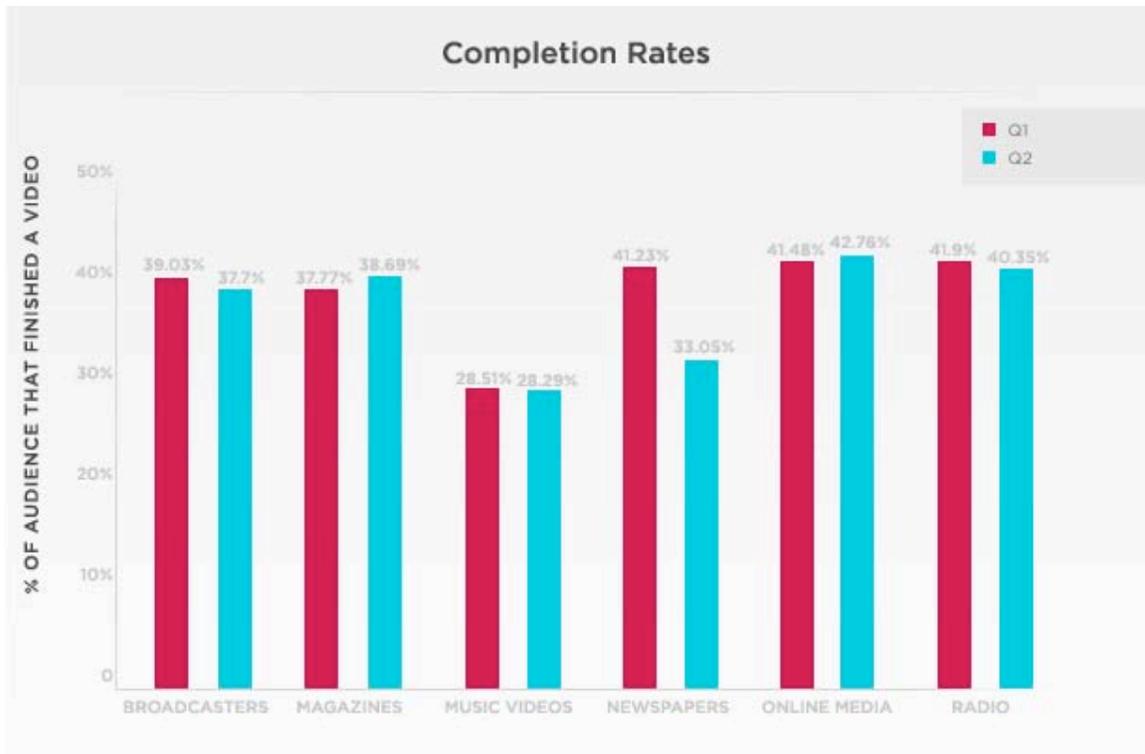
Engagement

Overall, the number of unique viewers grew by an average of 2.81 percent per month in Q2, up from 0.05 percent per month in the first quarter. Not only were more unique viewers watching, but they were watching 11.2 percent more videos per month. Audience engagement levels across all of the media verticals were fairly consistent between Q1 and Q2, though some verticals saw a decrease in both minutes watched and completion rates.

Between the first quarter and second quarter, average minutes watched held steady across most categories at 2:00 minutes per stream, though growth was achieved by television broadcasters by 3.1 percent to 3:01 minutes and magazines by 2.1 percent to 1:21 minutes. Radio saw the biggest decline, dropping from 1:32 minutes to 1:13 minutes in Q2.



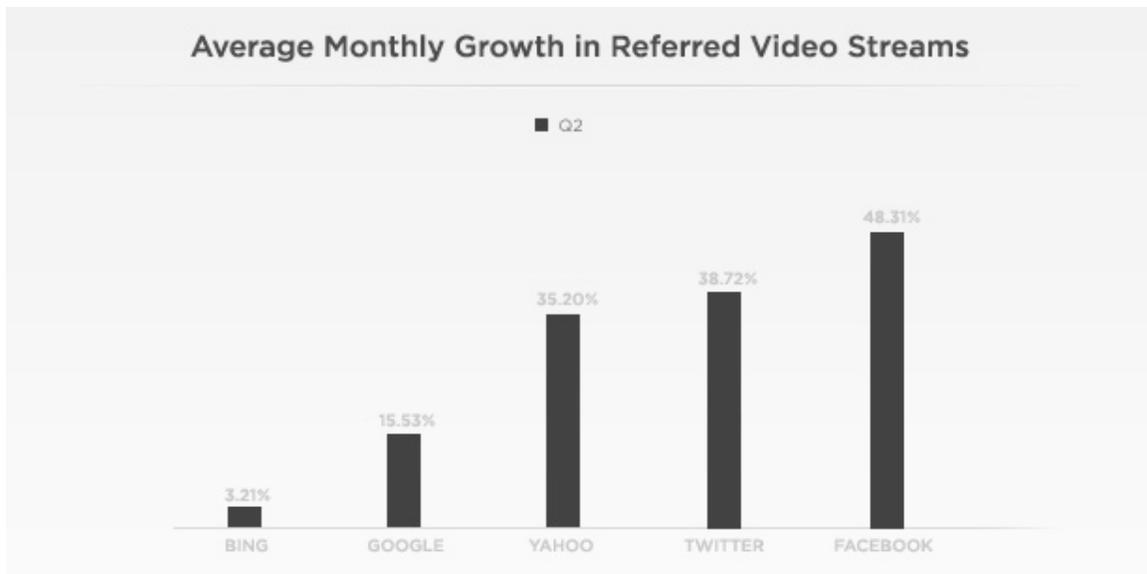
Completion rates, which refer to videos that were watched from start to finish, were also steady across most of the media verticals, though broadcasters, newspapers and radio saw a decline from Q1 to Q2. Newspapers saw the sharpest decrease, dropping from 41 percent in Q1 to 33 percent in Q2.



Discovery

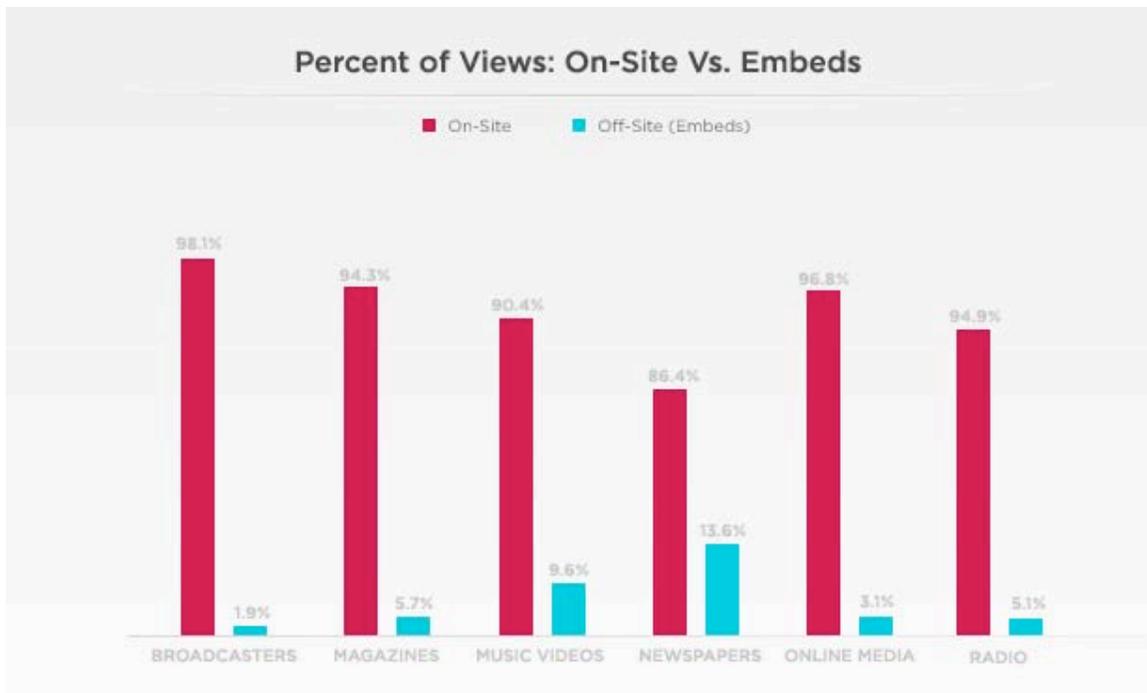
Overall, 81.9 percent of video streams were discovered via direct traffic or navigation within a publisher’s own site. From third party referral traffic, 64 percent comes from Google, followed by Yahoo (11.9 percent), Facebook (4.3 percent), Bing (2.6 percent), and Twitter (1.2 percent).

In terms of number of video streams referred per month, Facebook and Twitter are growing much faster than traditional search engines as sources of video views. At current rates, Facebook will surpass Yahoo! within the year to be second only to Google in referral traffic to online video content for media companies.

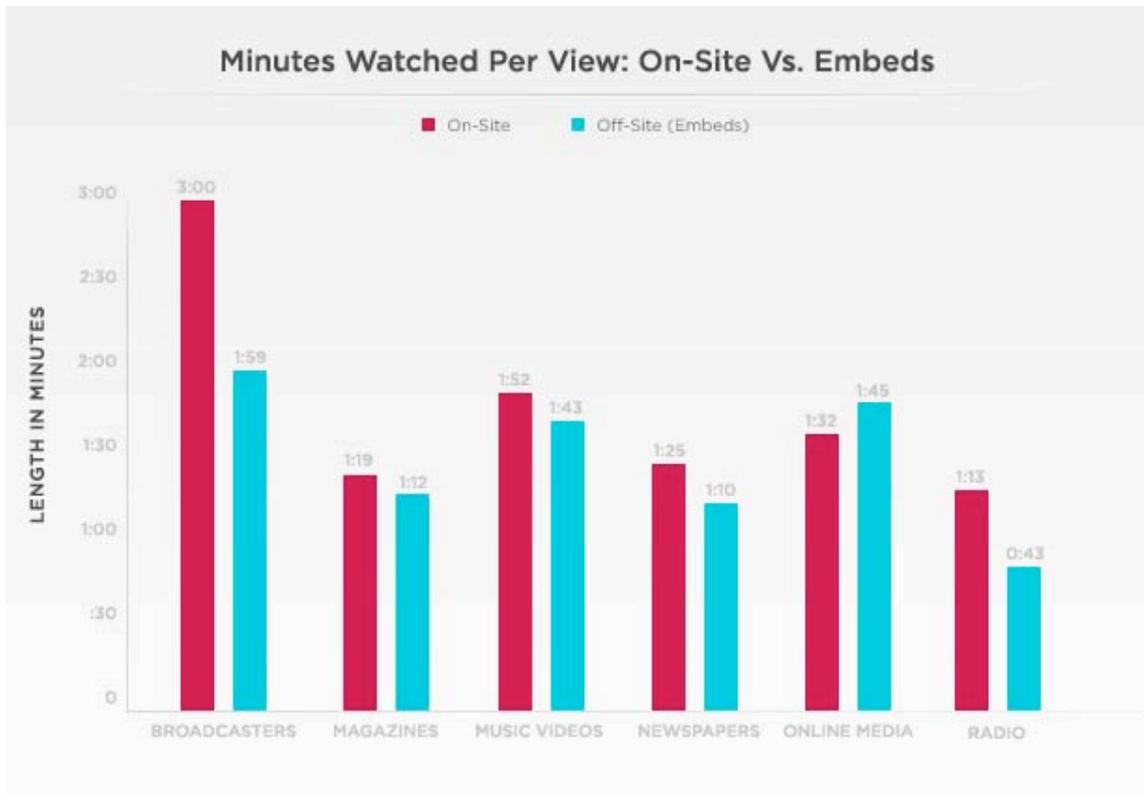


Distribution

For the first time, this report will include analysis of off-site embeds across media verticals, which varies widely by category. Broadcasters had the lowest percentage of off-site embeds, which is not surprising given the premium, long-form nature of their content. Newspapers, on the other hand, had the highest percentage of off-site embeds, with 13.6 percent of all video content being embedded on third party sites. Music videos represent the second highest percentage, followed by radio broadcasters, magazine publishers and pure-play Web media properties.

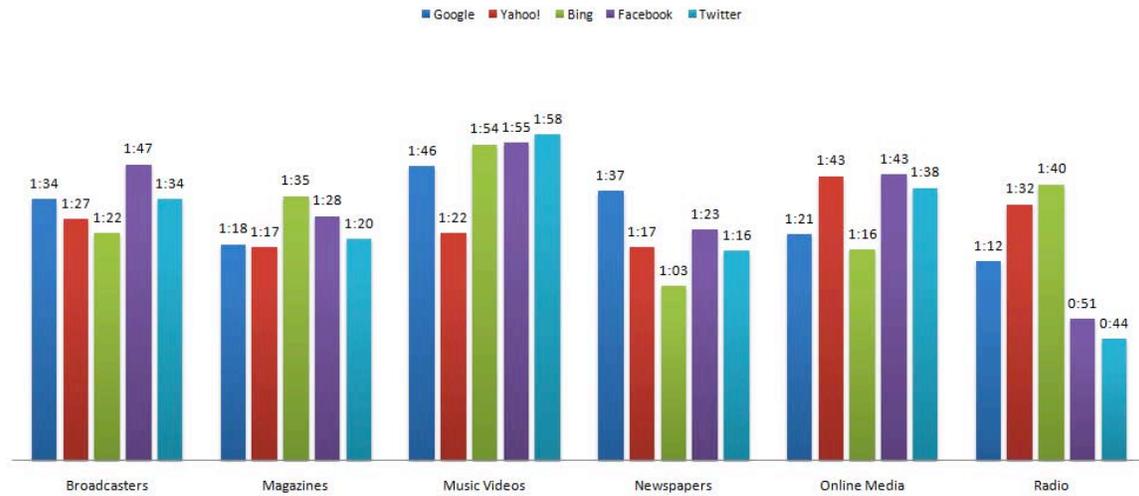


Viewers watching videos via off-site embeds tended to watch less minutes per stream than on-site viewers. Videos were watched for nearly double the amount of time on broadcast sites (3:00 minutes) as they were from off-site embeds (1:59 minutes), but the numbers were less dramatic across the other verticals. Of note, while pure-play Web media properties had the second lowest percentage of off-site embeds, viewers watched off-site videos nearly 15 seconds longer than on-site video content for this media vertical.



In most of the media verticals, Facebook and Twitter tended to refer more engaged viewers than search engines. Broadcasters saw the highest engagement levels from Facebook, while Twitter held the top spot in terms of engagement for music videos. Google referred the most engaged viewers for the newspaper vertical, while Bing was tops for the magazine and radio industry verticals. Pure-play Web media was the only vertical where Yahoo! referred more engaged viewers than Twitter, Google and Bing.

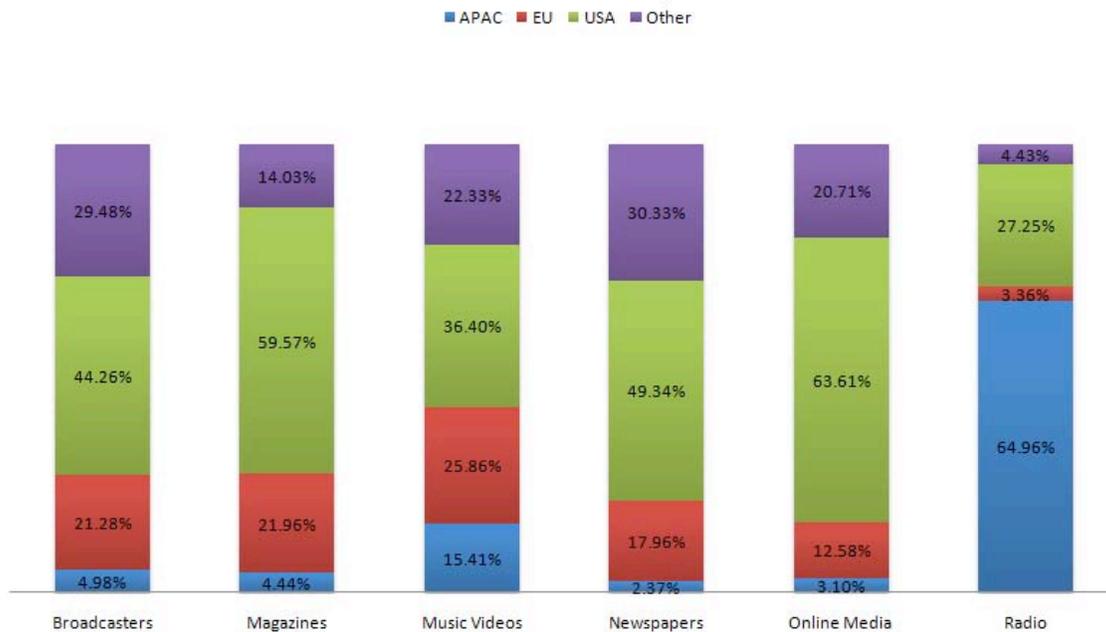
Minutes Watched Per View By Discovery Source



Geography

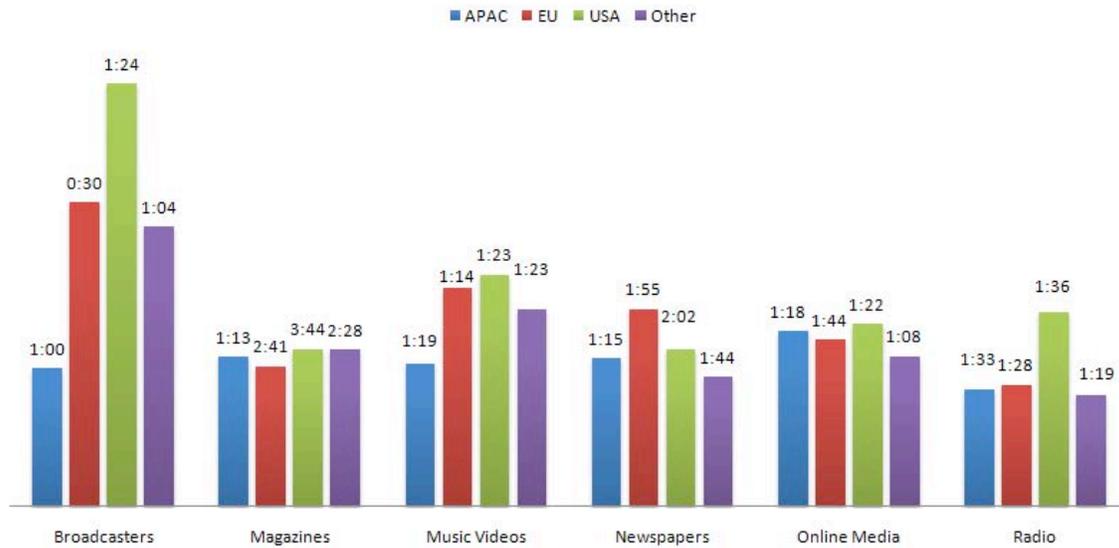
Certain regions have outsized influence in specific categories. For instance, viewers in the U.S. watched a larger share of videos from pure-play Web media properties. 65 percent of the total views for radio content came from Asia-Pacific. Music videos and radio content represent the lowest percentages for viewers in the U.S. In Europe, music videos represent the largest share of total views, followed closely by broadcast and magazine video content.

Top Regions By Category (as % of Category's Total Views)



U.S. viewers watched the greatest amount of content for the longest periods of time across the broadcast, magazine, music video and radio verticals. Europeans watched more video content on newspaper sites, but were slightly less engaged than the U.S. audience. Europeans also watched the second highest amount of broadcast video content, but were the least engaged, dropping off after 30 seconds on average. In the Asia-Pacific region, viewers tended to watch more video from pure-play Web media properties than any other category, but were most engaged when it came to radio content.

Minutes Watched Per View By Region



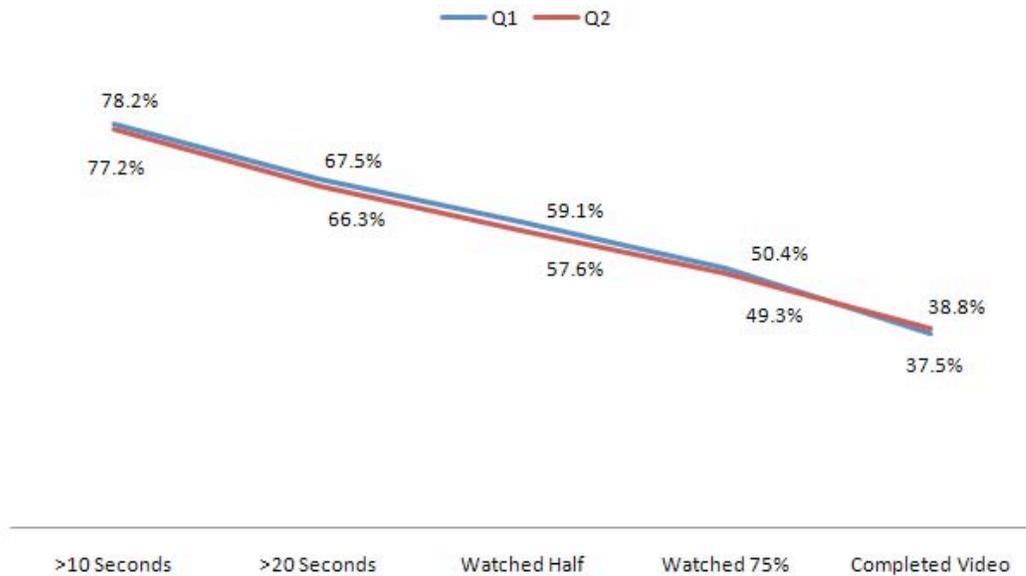
Special Feature: Brand Marketers & On-Site Video Initiatives

The following section focuses on a sample of brands and e-commerce sites (referred to as “brands” below) powered by Brightcove. Media company averages were not weighted by volume, but rather by type so as not to give any one type (i.e. broadcasters) outsized influence.

Engagement

Viewers watched brand and e-commerce videos an average of 1:04 minutes per stream in the second quarter of 2010, up slightly from 1:02 minutes in the first quarter. Completion rates also held steady compared to the first quarter of 2010, with around 38 percent watching a completed video.

Completion Rates By Quarter: Brands

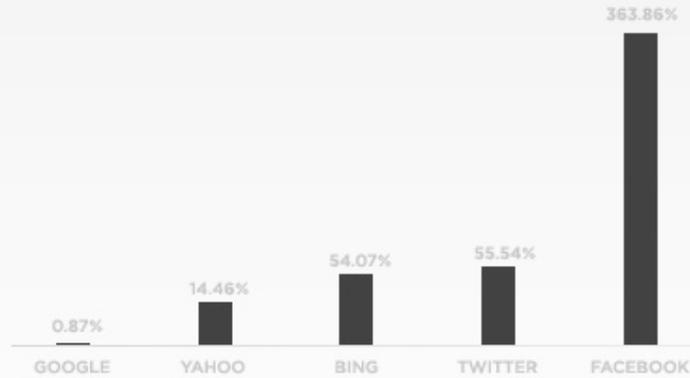


Discovery

Overall, the majority of video streams (92.1 percent) were discovered via direct traffic or within a brand's own site. From third-party traffic, 40.1 percent of video streams came from Google, 16.8 percent from Yahoo, 13.1 percent from Bing, 7.9 percent from Facebook, 2.7 percent from AOL and 0.9 percent from Twitter.

In terms of growth in streams by discovery source, Facebook and Twitter are growing much faster than the major search engines.

Average Monthly Growth in Referred Video Streams



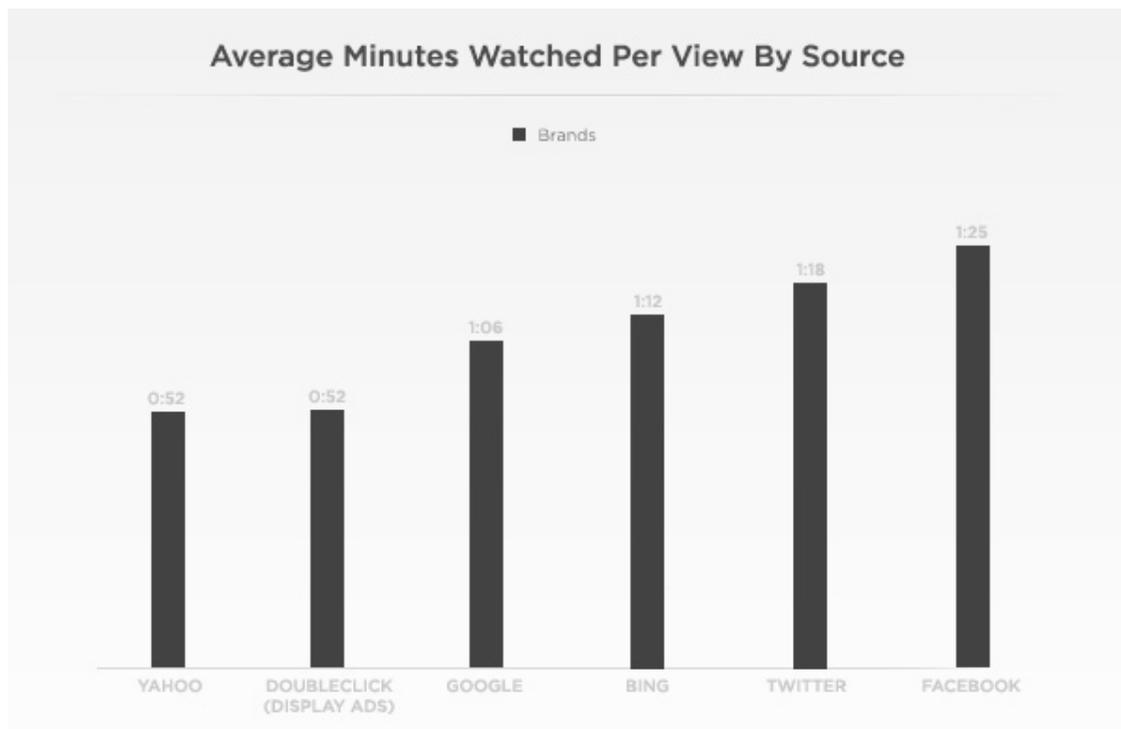
Distribution

Only 2.6 percent of all brand views occurred through off-site embeds, which is less than all media categories except for broadcasters. Viewers watching brand and e-commerce videos off-site tend to watch longer than viewers watching on a brand's own site.

Average Minutes Watched Per View

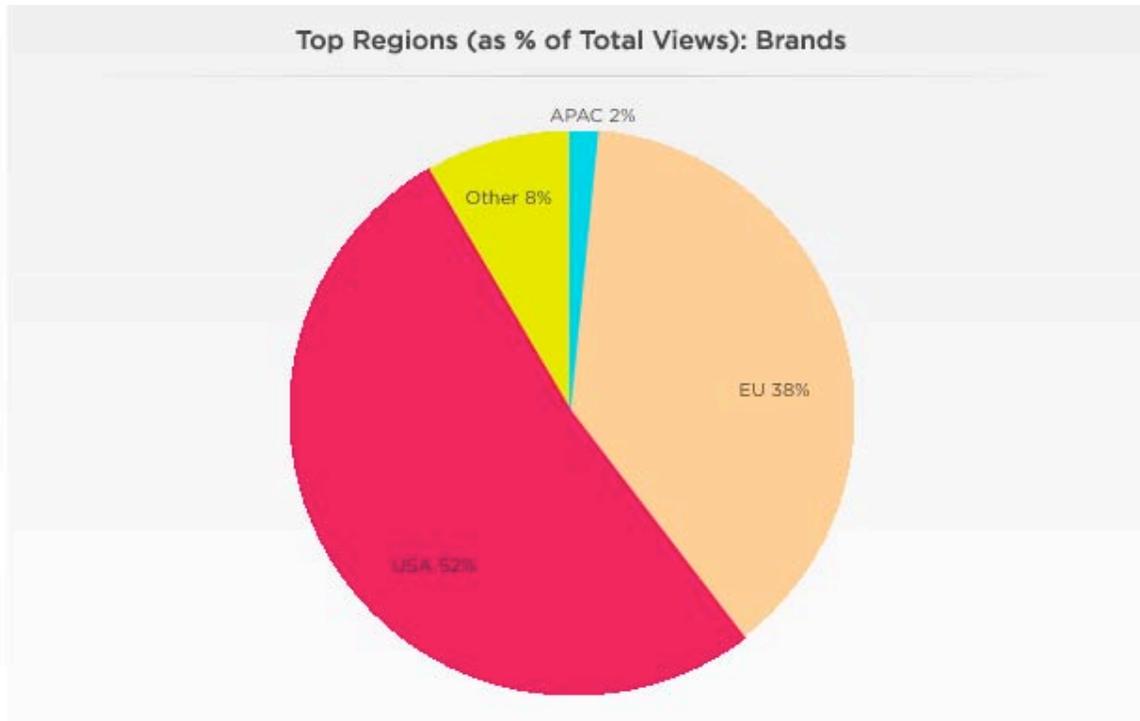


For brands, viewers coming from Facebook and Twitter lead to the longest viewing times, while Yahoo! searches and display ads tied for shortest. Compared to media companies, brands had shorter viewing-times, partly due to the nature of the content and the fact that they tend to post videos that are shorter in length.



Geography

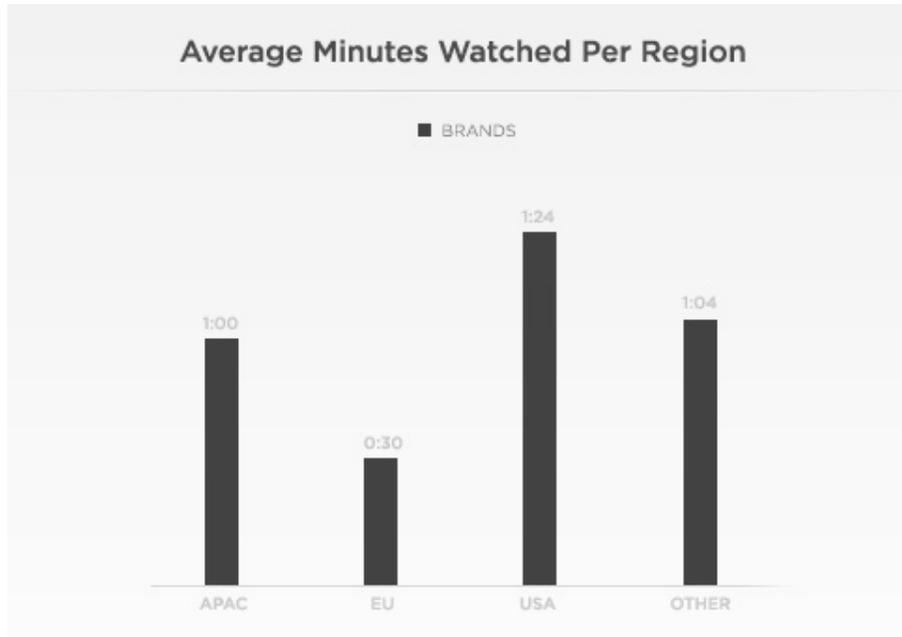
In terms of geography, nearly 90 percent of brand views came from either the U.S. or Europe. More than half of all brand / e-commerce views occurred in the U.S. Brands also had fewer views coming from the Asia-Pacific region or the rest of the world than media companies.



U.S. viewers watched brand videos 20 to 54 seconds more than viewers from other regions, demonstrating more time-spent with brand-related online video content. Europeans watched news and entertainment video content even longer than U.S. viewers, on average, but spent less time with brand videos than any other region.

Brand Manager Survey Results

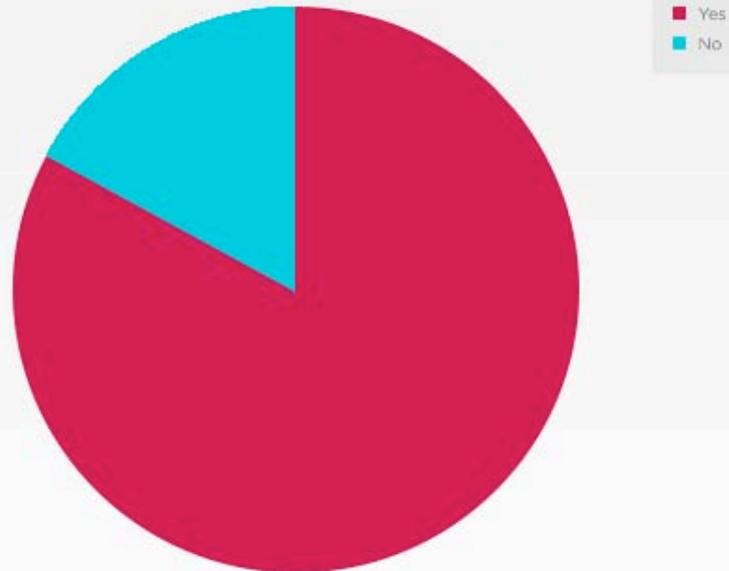
In Q2 of 2010, Brightcove and TubeMogul conducted a survey of more than 300 brand managers representing major consumer and B2B organizations, including dozens of Fortune 500 companies, about their on-site video initiatives. The sample included customers across North America and Europe.



Online Video Investment

Nearly 85 percent of brand managers surveyed indicated that they are currently using online video on brand websites for marketing products and services.

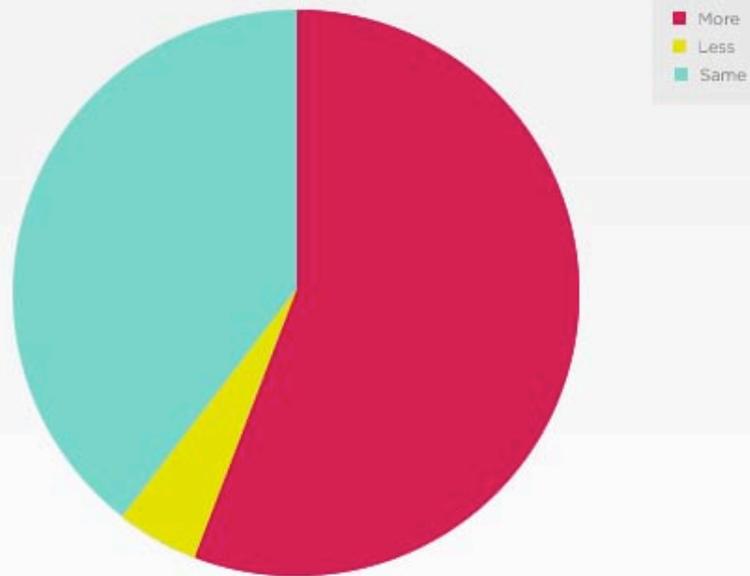
Excluding YouTube and video advertising, do you currently use online video on your brand website (s) for marketing your products or services?



For those currently not using online video, 75 percent said they plan to add online video to their websites within the next 12 months.

While brands devote a relatively small portion of their overall marketing budgets to on-site video initiatives (50 percent devote less than 10 percent; 23 percent devote less 25 percent; 22 percent devote between 25 and 50 percent), nearly 60 percent said they plan to spend more on their website video initiatives within the next 12 months.

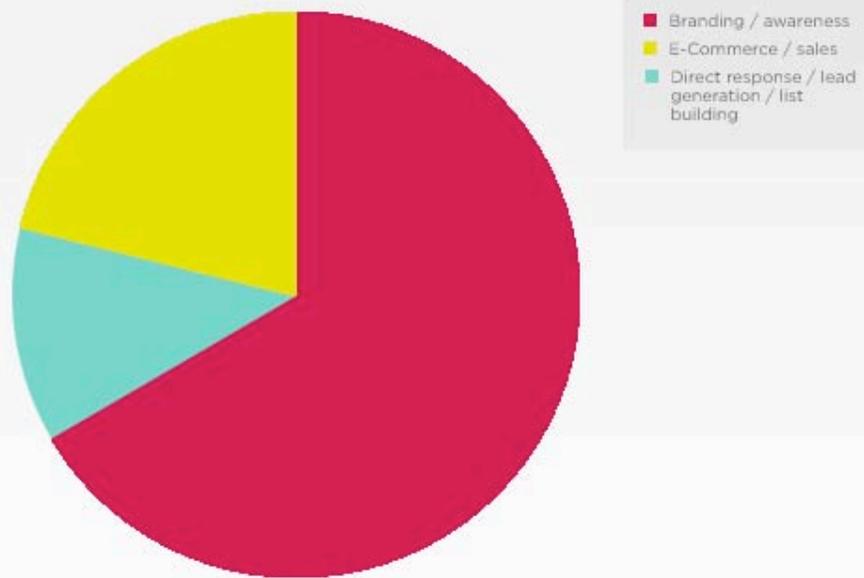
Over the next 12 months do you plan more, less or about the same amount on your website video initiatives?



Online Video Strategy

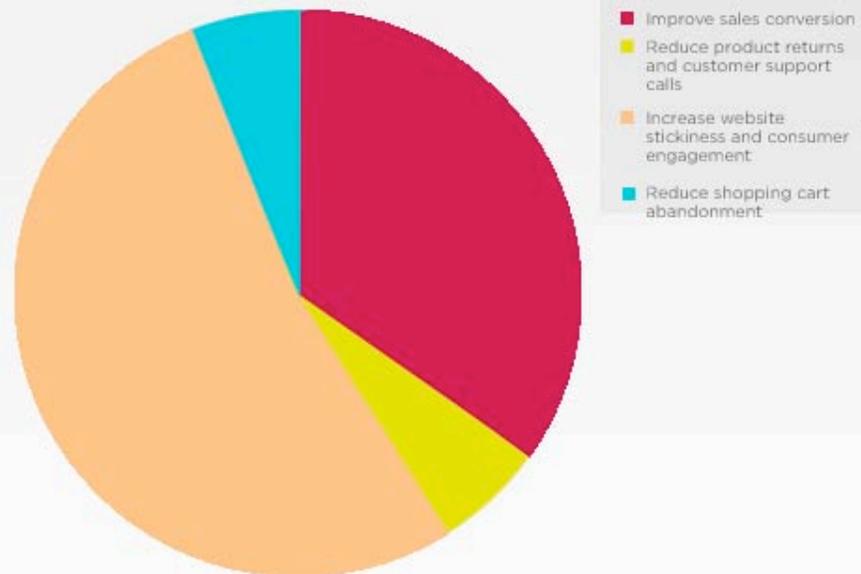
66 percent of brand managers said the primary purpose of their online video initiatives are focused on branding and awareness, 21 percent are using video for direct response and lead generation campaigns, and 12 percent to drive e-commerce and sales initiatives.

What is the primary purpose of your online video initiatives?



The majority of those using online video to drive e-commerce and sales initiatives have found video to be highly effective at increasing customer engagement and time spent on the brand website (53 percent) and increasing sales conversions (35 percent). 12 percent of respondents noted that video has helped to reduce product returns and customer support calls, while also reducing shopping cart abandonment.

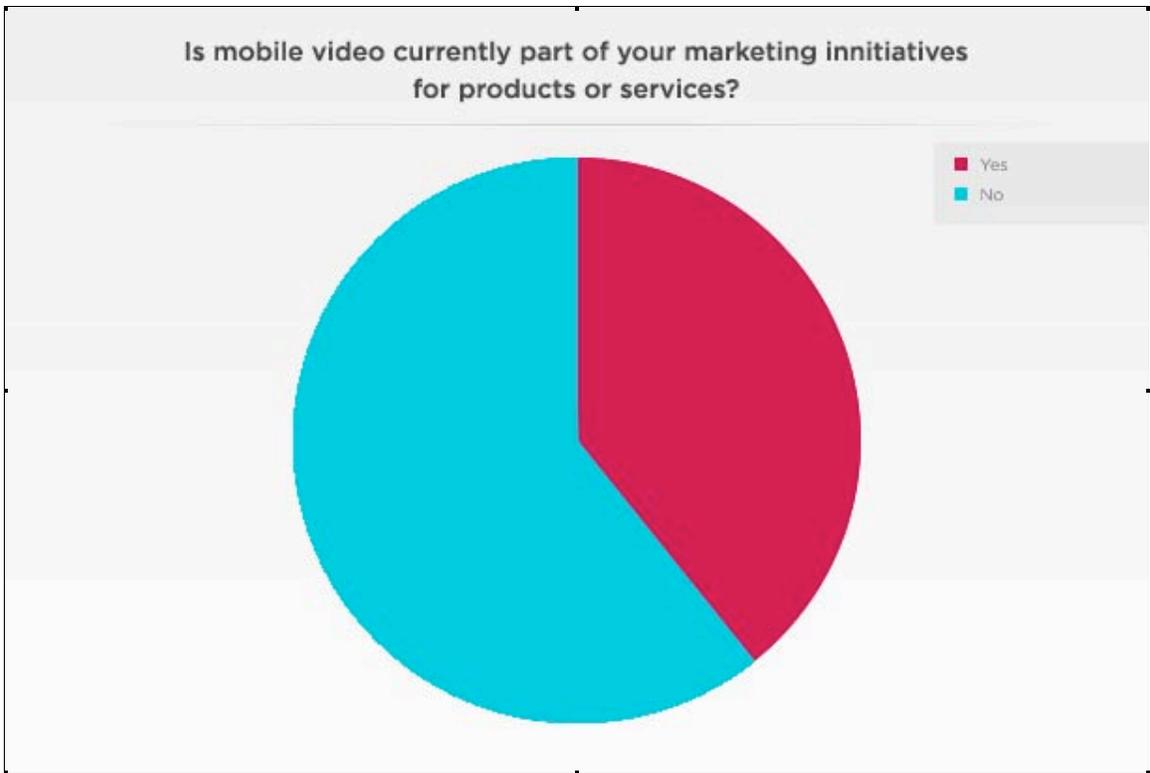
If you use online video in e-commerce, what is the most important benefit of the video investment?



Mobile Video Initiatives

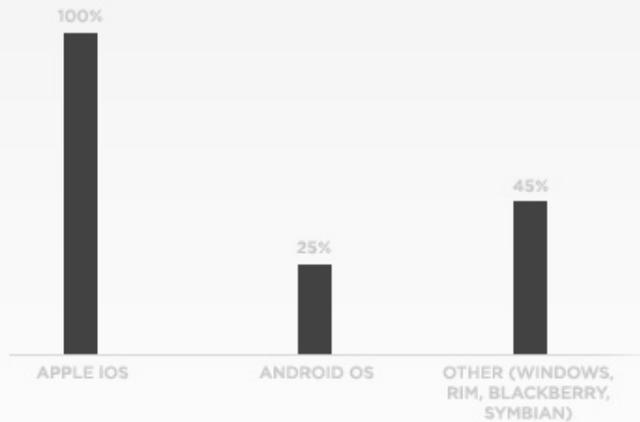
The rapid growth of smartphone adoption throughout the world continues to drive an enormous amount of mobile video consumption amongst consumers.

However, mobile video is still an emerging focus for many of the brand managers that we surveyed. More than 60 percent said that mobile video is not currently part of their marketing initiatives, though the same 60 percent also said they plan to add mobile video to their marketing mix in the next 12 months.



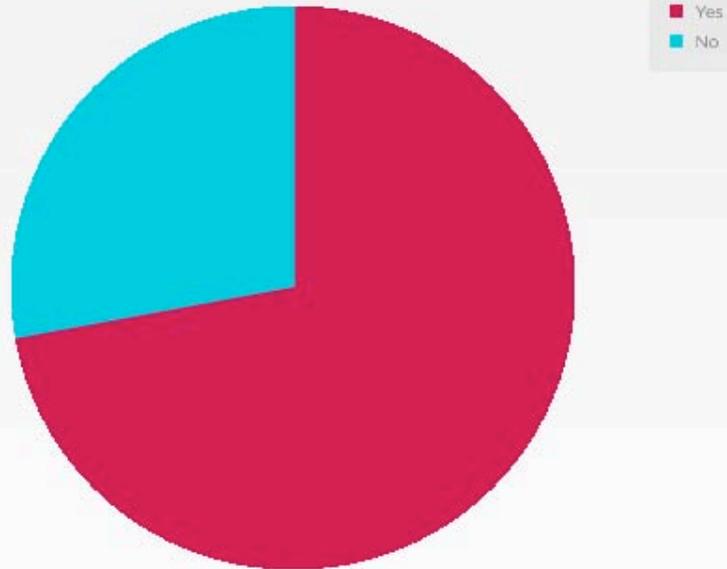
When it comes to mobile apps, 42 percent of brand managers indicated that they currently have a mobile app to promote their brand, while 57 percent do not. Those that do have mobile apps are primarily focused on building apps for Apple iOS devices (100 percent), Android OS (27 percent) and other platforms including Windows, Research in Motion BlackBerry and Symbian (47 percent).

If yes, did you develop your mobile app for Apple iOS devices (iPhone, iPad, iPod touch), Android devices (Nexus, Droid), or another platform? Please check all that apply



Of the respondents that do have mobile apps for their brands, only 21 percent indicated their mobile apps include video content. However, a full 70 percent of brand managers said they plan to add video to their mobile app strategy in the next 12 months.

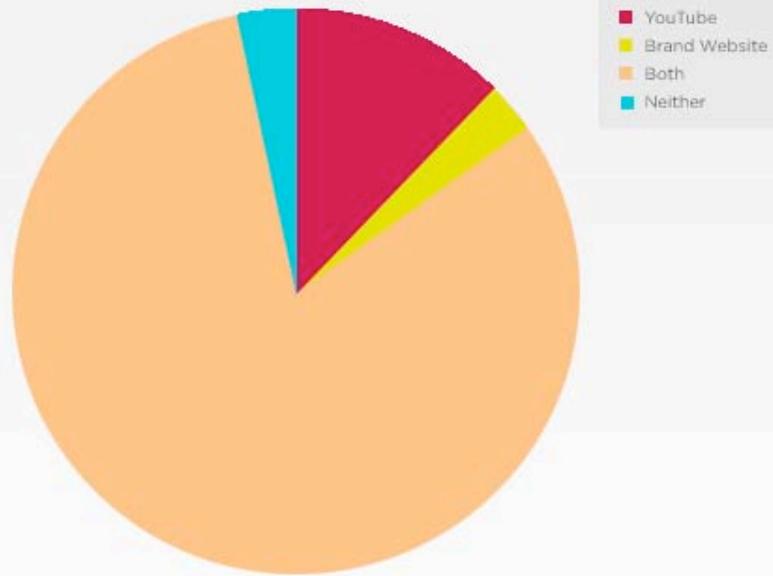
If not, do you plan to add video to your mobile app strategy in the next 12 months?



Distribution & Social Media

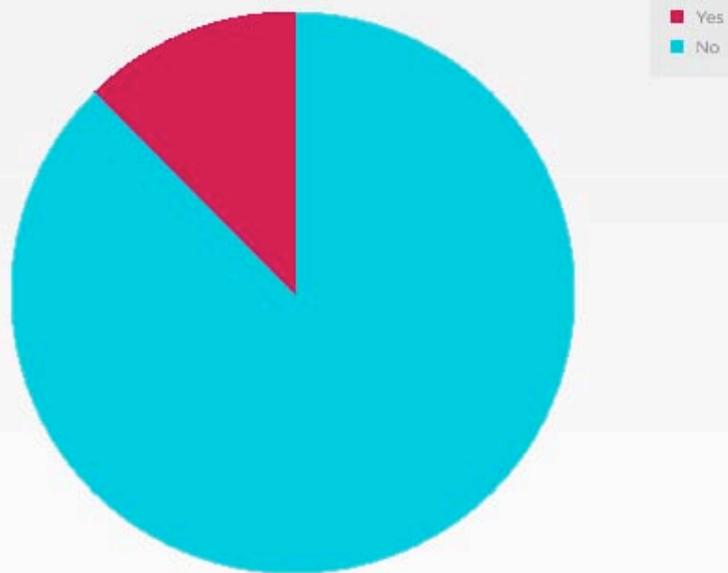
80 percent of the brand managers surveyed indicated that they use a blended distribution strategy that involves video content on their brand websites, as well as on YouTube. 12 percent distribute video content exclusively on YouTube, while three percent feature video content only on their brand websites.

Do you distribute video through YouTube, your brand/product/service website(s), or both?



Nearly 90 percent of those surveyed distribute video content through social media destinations like Facebook.

Do you currently distribute your video content through social media destinations like Facebook?



Additionally, respondents were split down the middle when it comes to having user-generated content as part of their online video initiatives.

