

APPENDIX 1: SURVEY METHODOLOGY

About the General Public Survey

Results for the general public survey are based on telephone interviews conducted March 15-29, 2011 among a national sample of 2,142 adults 18 years of age or older living in the continental United States (a total of 1,052 respondents were interviewed on a landline telephone, and 1,090 were interviewed on a cell phone, including 544 who had no landline telephone). The survey was conducted by interviewers at Princeton Data Source under the direction of Princeton Survey Research Associates International (PSRAI). Interviews were conducted in English and Spanish. A combination of landline and cell phone random digit dial (RDD) samples were used; both samples were provided by Survey Sampling International. The landline RDD sample was drawn using traditional list-assisted methods where telephone numbers were drawn with equal probabilities from all active blocks in the continental U.S. The cell sample was drawn through a systematic sampling from dedicated wireless 100-blocks and shared service 100-blocks with no directory-listed landline numbers. Both the landline and cell RDD samples were disproportionately stratified by county based on estimated incidences of African-American and Hispanic respondents. Additional interviewers were obtained with 18-34 year-olds through a combination of additional screening in the cell phone RDD sample, and by re-contacting landline and cell phone respondents ages 18-34 from recent surveys conducted by PSRAI.

Number of Interviews Completed by Sample Source				
	New RDD All Adults	New RDD 18-34	Callback 18-34	Total
Landline	1,001	--	51	1,052
Cellular	<u>805</u>	<u>204</u>	<u>81</u>	<u>1,090</u>
Total	1,806	204	132	2,142

Both the landline and cell samples were released for interviewing in replicates, which are small random samples of each larger sample. Using replicates to control the release of telephone numbers ensures that the complete call procedures are followed for all numbers dialed. At least 7 attempts were made to complete an interview at every sampled telephone number. The calls are staggered over times of day and days of the week (including at least one daytime call) to maximize the chances of making contact with a potential respondent. An effort is made to recontact most interview breakoffs and refusals to attempt to convert them to completed interviews.

Respondents in the landline sample were selected by randomly asking for the youngest adult male or female who is now at home. Interviews in the cell sample were conducted with the person who answered the phone, if that person was an adult 18 years of age or older. The additional interviews with 18-34 year-olds from the cell sample were administered an age screener; those who were in the target age range completed the interview. For the landline callback sample, interviewers asked to speak with the person based on age and gender who participated in an earlier survey. For the cellular callback sample, interviews were conducted with the person who answered the phone once it was confirmed that they were in the target age range.

Weighting is generally used in survey analysis to adjust for effects of sample design and to compensate for patterns of nonresponse that might bias results. The weighting was accomplished in multiple stages to account for the different sample frames as well as the oversampling of 18-34 year-olds. Weighting also balances sample demographic distributions to match known population parameters.

The first stage of weighting accounted for the disproportionately-stratified RDD sample design of the landline and cell samples. In addition, this stage included an adjustment to account for the oversampling of 18-34 year-olds. The first stage weight also included a probability-of-selection adjustment for the RDD landline sample to correct for the fact that respondents in the landline sample have different probabilities of being sampled depending on how many adults live in the household (i.e., people who live with no other adults have a greater chance of being selected than those who live in multiple-adult households). Lastly, this stage of weighting also accounted for the overlap in the landline and cellular RDD frames.

In the second stage of weighting, the combined sample was weighted using an iterative technique that matches gender, age, education, race, Hispanic origin, and region to parameters from the March 2010 Census Bureau's Current Population Survey. The population density parameter is county based and was derived from 2000 Census data. The sample also is 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 2010 National Health Interview Survey.

The survey's *margin of error* is the largest 95% confidence interval for any estimated proportion based on the total sample – the one around 50%. For example, the margin of error for the entire sample is plus or minus 2.7 percentage points. This means that in 95 out of every 100 samples drawn using the same methods, estimated proportions based on the entire sample will be no more than 2.7 percentage points away from their true values in the population. Sampling errors and statistical tests of significance take into account the effect of weighting. The following table shows the sample sizes and 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	2,142	2.7 percentage points
18-34 year-olds	781	4.5 percentage points
4-year college graduates	757	4.6 percentage points
Non-college graduates (no 4-year degree)	1,372	3.4 percentage points

Sample sizes and sampling errors for other subgroups are available upon request.

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 College Presidents Survey

Results for the college presidents' survey are based on interviews conducted from March 15 to April 24, 2011 among 1,055 college and university presidents under the direction of Princeton Survey Research Associates International. Interviewing was primarily self-administered online by college presidents, however, a phone interview option was made available to any president who requested it (1,022 interviews were completed online and 33 by telephone). The college presidents' survey was done by the Pew Research Center's Social & Demographic Trends project in association with the Chronicle of Higher Education (Chronicle). The list of college presidents was compiled by the Chronicle from the Higher Education Directory and the Integrated Postsecondary Education Data System. The population for this study is college and university presidents of public and private (for-profit and not-for-profit—NFP) institutions in the U.S. that meet the following criteria: (1) degree granting; (2) have received accreditation or pre-accreditation status from a recognized accrediting agency; and (3) had a minimum enrollment of 500 students in the fall of 2009. Institutions in U.S. territories, military institutions, graduate-only institutions, system offices and CEOs of for-profit parent companies were excluded from the survey. Presidents of institutions who oversee multiple eligible locations and branches were included but were only asked to complete the survey once. After the above institutions were excluded and presidents who oversee multiple locations were counted only once, the final list included 3,324 college and university presidents.

All 3,324 presidents on the list were contacted to complete the survey. Each president was mailed a letter on stationery with logos of both the Pew Research Center and the Chronicle of Higher Education on March 10, 2011. The letter was signed by Paul Taylor, executive vice president of the Pew Research Center, and Jeffrey J. Selingo, editor of the Chronicle of Higher Education. This letter was intended to introduce the survey to prospective respondents, describe the nature and purpose of the survey, and encourage participation in the survey. The initial letter contained a URL and a password for a secure website where the survey could be completed. The letter also included a toll-free number for respondents to call if they had questions.

Subsequent requests to complete the survey were sent primarily by email to those who had not yet responded. Three email requests to complete the survey were sent to those who had not yet responded and could be contacted by email (over 90% had working email addresses) on March 16 (to NFP and for-profit), March 30 (to NFP), April 5 (to for-profit) and April 12 (to NFP and for-profit). On March 17, interviewers at Princeton Data Source began calling those without email addresses, as well as those whose email requests had bounced back as undeliverable, in an effort to gather working email addresses and encourage participation online. On April 4 (for NFP) and April 11 (for for-profit) phone calling began to all presidents who had not yet completed the survey, to encourage participation online.

APPENDIX 2: TOPLINE SURVEY RESULTS

PEW SOCIAL & DEMOGRAPHIC TRENDS FINAL TOPLINE FOR ONLINE EDUCATION QUESTIONS March 15-April 24, 2011, HIGHER EDUCATION SURVEY WEB SURVEY OF COLLEGE PRESIDENTS TOTAL N=1,055

NOTE: ALL NUMBERS ARE PERCENTAGES. THE PERCENTAGES GREATER THAN ZERO BUT LESS THAN 0.5% ARE REPLACED BY AN ASTERISK (*). COLUMNS/ROWS MAY NOT TOTAL 100% DUE TO ROUNDING.

ASK ALL:

Next we have a few questions about the use of technology in higher education.

Q.41 Generally speaking, do you believe a course taken only online provides an equal educational value compared with a course taken in person in a classroom, or not?

<u>All</u>		<i>4-year Private</i>	<i>4-year Public</i>	<i>2-year Private/Public</i>	<i>For profit</i>
51	Yes, online courses provide equal value	36	50	66	54
48	No, online courses do not provide equal value	62	48	34	45
2	No answer	2	3	0	1
		(n=412)	(n=253)	(n=315)	(n=75)

ASK ALL:

Q.42 Does your institution offer any courses for which the instruction takes place exclusively in an online environment, or not?

ASK IF RESPONDENT ANSWERED 'YES' IN Q.42:

Q.43 What percentage of your current [undergraduate] student body has taken at least one course online? Just your best estimate is fine.

<u>All</u>		<i>4-year Private</i>	<i>4-year Public</i>	<i>2-year Private/Public</i>	<i>For profit</i>
77	Yes	60	89	91	71
30	Less than 25%	31	39	23	30
29	25-50%	16	31	50	13
9	51-75%	6	10	13	10
5	More than 75%	4	4	4	11
4	No answer	3	6	2	8
23	No	40	11	9	29
0	No answer	0	0	0	0

ASK IF RESPONDENT ANSWERED ‘YES’ IN Q.42: [n=820]

Q.44 Are online courses available for [undergraduate] students who live on campus?

<u>All</u>		<u>4-year Private</u>	<u>4-year Public</u>	<u>2-year Private/Public</u>	<u>For profit</u>
50	Yes, online courses are available for students who live on campus	64	85	31	21
7	No, online courses are not available for students who live on campus	23	4	0	1
42	Institution doesn't have residential students	10	11	68	78
1	No answer	2	0	1	0

ASK IF RESPONDENT ANSWERED ‘YES’ IN Q.42: [n=820]

Q.45 Does your institution grant degrees where all the course work has been completed online, or not?

<u>All</u>		<u>4-year Private</u>	<u>4-year Public</u>	<u>2-year Private/Public</u>	<u>For profit</u>
58	Yes	47	66	54	71
41	No	52	34	46	26
1	No answer	1	*	0	3

ASK ALL:

Q.46 Just your best guess, 10 years from now, during the typical semester, what percentage of your [undergraduate] students will be taking at least one course online?

<u>All</u>		<u>4-year Private</u>	<u>4-year Public</u>	<u>2-year Private/Public</u>	<u>For profit</u>
18	Less than 25%	33	15	6	15
31	25-50%	30	39	30	26
27	51-75%	18	25	36	28
23	More than 75%	19	20	29	26
1	No answer	*	*	0	5

ASK ALL:

Q.47 What are your institution's guidelines regarding students' use of laptops or other portable computers during class?

<u>All</u>		<u>4-year Private</u>	<u>4-year Public</u>	<u>2-year Private/Public</u>	<u>For profit</u>
41	Students are allowed to use laptops or other portable computers during class	41	41	40	41
2	Students are prohibited from using laptops or other portable computers during class	*	0	0	11
56	It is up to the instructor whether students can use laptops or other portable computers during class	58	59	59	47
1	No answer	1	0	*	1

ASK ALL:

Q.48 Over the past 10 years, has plagiarism in papers among college students ...?

<u>All</u>		<u>4-year Private</u>	<u>4-year Public</u>	<u>2-year Private/Public</u>	<u>For profit</u>
55	Increased	51	51	57	61
40	Stayed the same	43	44	39	32
2	Decreased	2	2	2	4
3	No answer	4	3	3	2

ASK IF RESPONDENT ANSWERED "INCREASED" IN Q.48: [n=556]

Q.49 In your opinion, how much of a role have computers and the internet played in this increase?

<u>All</u>		<u>4-year Private</u>	<u>4-year Public</u>	<u>2-year Private/Public</u>	<u>For profit</u>
89	A major role	89	84	87	93
7	A minor role	7	9	8	5
1	No role	0	1	1	0
4	No answer	4	6	4	2

ASK IF RESPONDENT ANSWERED "DECREASED" IN Q.48: [n=21]

Q.50 In your opinion, how much of a role has anti-plagiarism software played in this decrease?

*****RESULTS ARE NOT SHOWN DUE TO SMALL SAMPLE SIZES *****

A major role
A minor role
No role
No answer

ASK ALL:

Q.51 Just your best guess, 10 years from now, what percentage of the textbooks used by your [undergraduate] students will be entirely digital?

<u>All</u>		<u>4-year Private</u>	<u>4-year Public</u>	<u>2-year Private/Public</u>	<u>For profit</u>
7	Less than 25%	8	8	4	9
30	25-50%	31	32	30	25
36	51-75%	32	37	42	30
27	More than 75%	28	22	23	36
1	No answer	1	1	*	0

ASK ALL:

PRES2 How often, if at all, do you use each of the following?

RANDOMIZE LIST; ALWAYS ASK ITEM c. BEFORE d.

a. Laptop computer

<u>All</u>		<u>4-year</u> <u>Private</u>	<u>4-year</u> <u>Public</u>	<u>2-year</u> <u>Private/Public</u>	<u>For profit</u>
56	Several times a day	61	51	46	69
9	Once a day	9	9	10	5
15	A few times a week	10	20	19	10
12	Less often	9	13	16	7
8	Don't use	9	7	8	7
1	No answer	1	1	1	1

b. Desktop computer

<u>All</u>		<u>4-year</u> <u>Private</u>	<u>4-year</u> <u>Public</u>	<u>2-year</u> <u>Private/Public</u>	<u>For profit</u>
82	Several times a day	78	89	88	72
1	Once a day	2	1	2	0
2	A few times a week	2	*	*	6
2	Less often	1	1	2	3
12	Don't use	16	8	7	15
1	No answer	1	1	1	3

c. Smartphone (like a BlackBerry, Droid or iPhone)

<u>All</u>		<u>4-year</u> <u>Private</u>	<u>4-year</u> <u>Public</u>	<u>2-year</u> <u>Private/Public</u>	<u>For profit</u>
86	Several times a day	88	91	83	84
1	Once a day	1	1	2	0
1	A few times a week	1	*	1	0
*	Less often	*	0	*	0
11	Don't use	8	7	13	15
1	No answer	1	*	1	1

d. Other mobile phone

<u>All</u>		<u>4-year</u> <u>Private</u>	<u>4-year</u> <u>Public</u>	<u>2-year</u> <u>Private/Public</u>	<u>For profit</u>
24	Several times a day	14	26	26	36
2	Once a day	1	4	3	0
2	A few times a week	3	2	3	0
3	Less often	3	4	4	3
60	Don't use	67	56	56	58
8	No answer	11	8	9	3

e. Tablet computer (like an iPad)

<u>All</u>		<u>4-year</u> <u>Private</u>	<u>4-year</u> <u>Public</u>	<u>2-year</u> <u>Private/Public</u>	<u>For profit</u>
26	Several times a day	27	31	24	21
6	Once a day	4	9	6	6
10	A few times a week	11	7	10	12
7	Less often	6	8	7	8
49	Don't use	49	42	52	52
2	No answer	2	3	2	1

PRES2 CONTINUED...

f. E-reader (like a Kindle or Nook)

<u>All</u>		<u>4-year</u> <u>Private</u>	<u>4-year</u> <u>Public</u>	<u>2-year</u> <u>Private/Public</u>	<u>For profit</u>
8	Several times a day	10	6	5	7
7	Once a day	8	9	7	5
15	A few times a week	16	13	16	11
13	Less often	13	16	12	8
56	Don't use	51	51	57	67
2	No answer	2	3	2	1

g. Facebook

<u>All</u>		<u>4-year</u> <u>Private</u>	<u>4-year</u> <u>Public</u>	<u>2-year</u> <u>Private/Public</u>	<u>For profit</u>
10	Several times a day	9	10	9	15
8	Once a day	9	6	8	9
14	A few times a week	10	12	19	12
18	Less often	17	16	17	25
48	Don't use	54	54	45	37
2	No answer	2	2	2	2

h. Twitter

<u>All</u>		<u>4-year</u> <u>Private</u>	<u>4-year</u> <u>Public</u>	<u>2-year</u> <u>Private/Public</u>	<u>For profit</u>
3	Several times a day	3	3	2	7
1	Once a day	1	1	1	1
4	A few times a week	4	6	4	2
10	Less often	9	10	12	8
78	Don't use	80	76	78	79
3	No answer	3	4	3	3

**PEW SOCIAL & DEMOGRAPHIC TRENDS
MARCH 2011 HIGHER EDUCATION SURVEY
FINAL TOPLINE FOR SELECTED QUESTIONS
March 15-29, 2011
TOTAL N = 2,142**

NOTE: ALL NUMBERS ARE PERCENTAGES. THE PERCENTAGES GREATER THAN ZERO BUT LESS THAN 0.5 % ARE REPLACED BY AN ASTERISK (*). COLUMNS/ROWS MAY NOT TOTAL 100% DUE TO ROUNDING. UNLESS OTHERWISE NOTED, ALL TRENDS REFERENCE SURVEYS FROM SOCIAL & DEMOGRAPHIC TRENDS AND THE PEW RESEARCH CENTER FOR THE PEOPLE & THE PRESS.

ASK ALL:

Q.44 These days many colleges and universities offer courses online. Have you ever taken a course online for academic credit, or not?

16	Yes
84	No
*	Don't know/Refused (VOL.)

ASK ALL:

Q.45 In general, do you think a course taken only online provides an equal educational value compared with a course taken in person in a classroom, or not?

29	Yes
60	No
11	Don't know/Refused (VOL.)

ASK IF YES IN Q.44 (Q.44=1): [n=411]

Q.46 Have you ever earned a degree entirely online, or not?

7	Yes
93	No
0	Don't know/Refused (VOL.)

ASK IF GRADUATED FROM COLLEGE WITHIN LAST 5 YEARS OR CURRENTLY ENROLLED IN COLLEGE [(ED1 OR ED2 = 2006, 2007, 2008, 2009, 2010) OR SCHL=3]: [n=366]

Q.47 (IF ED1 OR ED2 = 2006, 2007, 2008, 2009, 2010, INSERT: When you were in college, how often did you; IF SCHL=3, INSERT: When you are at school, how often do you) use a laptop, smartphone or tablet computer during class time? Would you say you (did /IF SCHL=3, INSERT: do) this...

35	Often
22	Sometimes
19	Hardly ever
22	Never
1	Don't know/Refused (VOL.)