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Youth Internet Safety Study (YISS): Methodology Report.

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YOUTH INTERNET SAFETY (YISS) STUDY: METHODOLOGY REPORT

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SECTION 1. OVERVIEW

The Youth Internet Safety Surveys (YISS-1, YISS-2, and YISS-3) were conducted in order to quantify and detail youth experiences with unwanted or problematic Internet experiences including sexual solicitations, harassment, and unwanted exposure to pornography on the Internet. YISS-3 collected additional information about youth produced sexual images (YPSI) or “sexting.” The YISS-1, YISS-2 and YISS-3 studies were conducted in 2000, 2005 and 2010, respectively, providing important comparative information on changes in the numbers of youth reporting unwanted or problematic Internet experiences at 5-year intervals since 2000. This is a critical timeframe for observation given the sharp rise in the use of Internet and new technologies by youth from 2000-2010¹. The YISS were conducted via telephone surveys with separate national samples of 1500 youth Internet users, ages 10 to 17, and their parents. A sample size of 1,500 was pre-determined based upon a maximum expected sampling error of +/-2.5% at the 5% significance level.

Human subject participation in the YISS studies were reviewed and approved by the University of New Hampshire Institutional Review Board (IRB) and conformed to the rules mandated for research projects funded by the U.S. Department of Justice.

SECTION 2. SAMPLE CONSTRUCTION AND SURVEY PROCEDURES

Schulman, Ronca, and Bucuvalas, Inc. (SRBI), a national survey research firm, conducted the sampling, screening and telephone interviews for each of the three YISS studies. Survey procedures were the same for YISS-1, YISS-2, and YISS-3. Nationally representative samples of households for the YISS studies were created using random digit dialing (RDD) procedures.

Upon reaching a household, interviewers spoke with an adult and determined whether there was an eligible child in the household. Children were eligible for participation if they were aged 10 through 17 years and had used the Internet at least once a month for the past 6 months from any location.

In households with eligible children, interviewers asked to speak with the adult who was most familiar with that child’s Internet use and after receiving informed consent, asked a series of questions about Internet use. At the close of the parent survey, the interviewer asked for permission to interview the child. Parents were informed by interviewers that the youth interview would be confidential, would include questions about “sexual material your child may have seen on the Internet,” and that youth would receive \$10 for participating. In households with more than one eligible youth, the one who used the Internet the most often was chosen as the respondent.

After receiving parental permission, interviewers spoke with the youth and asked for permission to conduct an interview. Interviewers assured youth that their answers would be confidential; they could skip any question they did not want to answer and end the interview at any time. Youth interviews were scheduled at the convenience of youth and at times when they were able to talk freely and confidentially. To further ensure confidentiality we purposely designed the interview to consist of mostly yes/no questions, interviewers made regular checks to make sure the youth were in a safe spot, and we provided a web page with internet safety information upon completion. Youth participants were mailed \$10 checks after completing the survey. The average youth interview lasted 30 minutes and the average adult interview lasted 10 minutes.

SECTION 3. RESPONSE RATES

Response rates are presented in two ways. Across YISS-1, YISS-2, and YISS-3, Table 1 provides: 1) the percentage of active households reached, 2) of those reached, the percentage of households screened, 3) the percentage of screened households eligible for the survey and 4) and the percentage of surveys completed by known eligible households. For YISS-2 and YISS-3, Table 2 provides response rates using standardized formulas developed by the American Association for Public Opinion Research ² (YISS-1 was conducted prior to the development of these rates). The AAPOR standardized rates allow for more direct comparisons with other survey research.

Table 1: Response rates for landline interviews: YISS-1, YISS-2, and YISS-3

	YISS-1 (Aug 99 – Feb 00) N (%)	YISS-2 (March 05 – June 05) N (%)	YISS-3 (August 10 – Jan 11) N (%)
Numbers dialed	6,594	54,842	214,619
Active households reached	3,446 (52%)	26,853 (49%)	66,948 (31%)
Completed eligibility screener	2,572 (75%)	14,316 (53%)	38,950 (58%)
Eligible for participation	1,857 (72%)	3,956 (28%)	4,506 (12%)
Completed survey	1,501 (81%)	1,500 (38%)	1,515 (34%)

Table 2: AAPOR Response rates for landline interviews: YISS-2, and YISS-3

	YISS-2 (March 05 – June 05) N (%)	YISS-3 (August 10 – Jan 11) N (%)
Contact Rate 2	.83	.71
Response Rate 4	.45	.44
Refusal Rate 2	.34	.24
Cooperation Rate 4	.57	.65

Note: The denominator for contact rate, response rate (completed + partial interviews), and refusal rate is the number cases of known eligible plus estimated eligible households. The denominator for the cooperation rate (completed + partial interviews) is all known eligible households contacted.

Section 3.1. YISS-1 response rates

Phone numbers for the YISS-1 sample were drawn from the Second National Incidence Study of Missing, Abducted, Runaway, and Thrownaway Children (NISMART-2). NISMART-2 was based on a national sample utilizing RDD procedures ³. Households identified as having a child between 9 and 17 years of age during the NISMART 2 screening process were flagged for contact for YISS-1. In total, 6,594 phone numbers were dialed by YISS-1 interviewers. Interviewers made successful contact with 3,446 households by the end of the survey period. Seventy-five percent (N = 2,575) of the contacted households completed the eligibility screener, and 72% of those households (N = 1,857) were identified as eligible for YISS-1 participation. Finally, 81% (N = 1,501) of eligible households had completed both the adult and youth surveys when the desired sample size was reached. The interviews for YISS-1 took place between August, 1999 and February, 2000.

Section 3.2. YISS-2 response rates

The sample for YISS-2 was drawn from a national sample of households with telephones identified by random digit dialing, including a portion (n=12,523) of households that had been pre-screened in previous surveys conducted by SRBI. Interviewers dialed a total of 54,842 numbers and successful contact was made with 49% of these numbers (N=26,853). Of the households that were contacted, 53% (N=14,316) completed the eligibility screener. Of the households completing the eligibility screener, 28% (N=3,956) were eligible for participation in YISS-2 interviews. Finally, 38% of 3,956 eligible households had completed both the adult and youth surveys when the desired sample size of 1,500 was reached. The interviews for YISS-2 took place between March, 2005 and June, 2005.

Section 3.3. YISS-3 response rates

The sample for YISS-3 was also drawn from a national sample of households with telephones developed by random digit dialing. The YISS-3 dialing procedures included a much smaller sample of households (n=2,908) that had been pre-screened in previous survey. Interviewers dialed a total of 214,619 numbers to identify households with children ages 10 through 17 who had used the Internet at least once a month for the past six months. Successful contact was made with 31% of numbers called (N=66,948). Of the households that were contacted, 58% (N=38,950) completed the eligibility screener and of these, 12% (N=4,506) were eligible for participation in YISS-3 interviews. Finally, 34% of 4,506 eligible households had completed both the adult and youth surveys when the desired sample size of 1,500 was reached. The interviews for YISS-3 took place between August, 2010 and January, 2011.

As seen in Table 1, response rates decreased across the YISS-1, YISS-2, and YISS-3 studies. This difference is largely due to the extent that the three samples drew from pre-screened samples of households. The YISS-1 sample was drawn from a sample of national households that had already been identified as having a child in the eligible age range and had consented to participate in a previous survey. In YISS-2, a substantial portion of the sample included known households that had been pre-screened for a different survey. In YISS-3 the percentage of pre-screened households was smaller, requiring a more extensive process of random-digit dialing to identify reachable and eligible households.

The reduced response rates across the YISS-1, YISS-2, and YISS-3 are also reflective of a general decline in response rates for national telephone surveys⁴⁻⁶ which face the challenges of caller ID, confusion with telemarketers, and survey saturation among the public. However, analyses suggest that the decline in participation has not influenced the validity of most surveys conducted by reputable surveying. Keeter, et al.⁵, note that compared to government benchmarks, the demographic and social composition of telephone survey samples are quite representative on most measures (p. 777).

Section 3.4. YISS-3 cell phone sample.

The increasing reliance on cell phones in the U.S. poses challenges to studies using telephone survey methodology. One quarter of U.S. adults relied on mobile or cellular phones exclusively in 2010⁷, up from 5% in 2005. In order to increase the generalizability of YISS survey responses, SRBI included a cell-phone RDD sample in addition to the landline sample in the YISS-3 study. The original intention was to include a sample of 300 respondents from the cell phone in the final sample of 1500. However, due to problems with cell phone sample response rates, and given the required timeframe for the study, a decision was made to complete the survey once a total of 1500 landline completions had been reached. At the end of data collection, 45 interviews had been completed by cell phone in addition to 1516 landline interviews. Table 3 shows the response rates for the YISS-3 cell phone sample and landline samples for comparison.

Table 3: Response Rates for Landline and Cell-Phone Samples: YISS-3

	YISS-3 landline sample (August 10 – Jan 11) N (%)	YISS-3 cell-phone sample (August 10 – Jan 11) N (%)
Numbers dialed	214,619	20,000
Household contacted	66,948 (31%)	8,613 (43%)
Completed eligibility screener	36,863 (55%)	2,181 (25%)
Eligible for participation	4,094 (11%)	205 (9%)
Completed survey	1,515 (37%)	45 (22%)

SECTION 4. SAMPLE CHARACTERISTICS

Respondents in the YISS studies were youth, ages 10 to 17, who had used the Internet at least once a month for the past six months from any location, and a caregiver in each household that self-identified as the one most knowledgeable about the youth's Internet practices. A broad definition of 'Internet use' was used to ensure a wide range of Internet use behaviors and to include youth with and without home Internet access. See Table 4 for internet use patterns across the three studies.

Table 4. Youth Internet Use Patterns (N=4,561) (Percent)

Description	YISS-1 All Youth (N=1,501)	YISS-2 All Youth (N=1,500)	YISS-3 All Youth (N=1,560)
Location(s) Youth Spent Time on the Internet in Past Year^a			
Home	74	91	97
School	73	90	89
Friend's home ^b	68	69	70
Cellular telephone	–	17	47
Video game console (Wii, Xbox 360, Playstation 3)	---	---	5
Portable gaming device (GameBoy Advance, PSP)	---	---	2
Other place (includes library)	37	43	38
Last Time Youth Used Internet			
Past week	76	86	94
Past 2 weeks	10	6	3
Past month or longer	14	8	3
Number of Hours Youth Spent on Internet on a Typical Day When Online			
1 hour or less	61	45	37
More than 1 hour to 2 hours	26	31	30
More than 2 hours	13	23	31
Number of Days Youth Went on Internet in a Typical Week^c			
1 day or less	29	8	4
2 to 4 days	40	42	26

Description	YISS-1 All Youth (N=1,501)	YISS-2 All Youth (N=1,500)	YISS-3 All Youth (N=1,560)
5 to 7 days	31	49	65
How Youth Used Internet ^a			
Went to web sites	94	99	---
Used e-mail	76	79	---
Used instant messaging	55	68	---
Went to chat rooms	56	30	---
Use video chat (ChatRoulette, Omegle, Skype)	---	---	31
Chat rooms that don't include video	---	---	28
Played games	67	83	---
Go to virtual worlds (Club Penguin, WhyVille, Second Life)	---	---	26
Play online virtual games	---	---	51
Did school assignments	85	92	---
Downloaded music	—	38	34
Kept an online journal or blog ^d	—	16	1
Used online dating or romance sites	—	1	---
Social networking site	--	--	80
Who Youth Talked to Online ^e			
People youth knew in person offline	73	79	93
People youth knew only online	40	34	40

^a Multiple responses possible.

^b In YISS-1 we asked if youth used the Internet in "other households," which included friends' homes. In YISS-2 and YISS-3, we specifically asked all youth if they used the Internet at friends' homes.

^c Based on youth who used the Internet in the past week or past 2 weeks.

^d In YISS-1 and YISS-2 we did not have a separate question for social networking sites so these could be included under this category. In YISS-3 social networking sites and online journal or blog was separated out.

^e Answers not mutually exclusive.

Note: Some categories do not add to 100% because of rounding and/or missing data.

Well-educated, prosperous families and White individuals were over-represented in the YISS-1 YISS-2, and YISS-3 samples compared to the national average (see www.census.gov), but the skewed distribution reflects the population of youth internet users at the time of the YISS data collection ⁸. See Table 5 for demographic characteristics across the three studies.

Table 5. Demographic and internet use characteristics for the 2000, 2005, and 2010 YISS samples

Characteristics	Year 2000 (n=1501) % (n)	Year 2005 (n=1500) % (n)	Year 2010 (n=1560) % (n)	p value
Demographic				
Gender (male)	53 (790)	49 (738)	50 (775)	.12
Age				
10 to 12 years old	23 (337)	23 (345)	21 (333)	.02
13 to 15 years old	48 (725)	43 (651)	45 (694)	
16 to 17 years old	29 (439)	34 (504)	34 (533)	
Race				
White, non-Hispanic	73 (1091)	71 (1070)	67 (1048)	.001
Black, non-Hispanic	10 (153)	11 (161)	13 (208)	

Characteristics	Year 2000 (n=1501) % (n)	Year 2005 (n=1500) % (n)	Year 2010 (n=1560) % (n)	p value
Hispanic or Latino, any Race	7 (108)	9 (130)	10 (152)	
American Indian/Alaskan Native	2 (30)	1 (21)	3 (41)	
Asian	3 (38)	2 (33)	3 (48)	
Other (includes bi-racial)	2 (26)	3 (40)	2 (28)	
Don't know/not ascertainable	4 (55)	3 (45)	2 (35)	
Parental marital status				
Married	79 (1182)	76 (1139)	78 (1214)	.01
Living with a partner	1 (19)	3 (37)	2 (36)	
Separated	3 (37)	1 (22)	2 (29)	
Divorced	10 (154)	10 (147)	10 (148)	
Widowed	2 (35)	2 (29)	2 (31)	
Single, never married	5 (73)	8 (117)	6 (98)	
Youth lives with both biological parents	63 (949)	62 (926)	66 (1029)	.04
Highest level of education in household				
Not a high school graduate	3 (37)	2 (30)	3 (41)	<.001
High school graduate	21 (320)	20 (305)	14 (210)	
Some college education	22 (336)	23 (344)	19 (299)	
College graduate	32 (474)	32 (481)	37 (577)	
Post college degree	22 (330)	22 (333)	28 (431)	
Annual household income				
Less than \$20,000	8 (119)	8 (123)	12 (192)	<.001
\$20,000 to \$50,000	38 (575)	27 (405)	18 (287)	
More than \$50,000 to \$75,000	23 (350)	24 (355)	16 (245)	
More than \$75,000	23 (347)	33 (494)	45 (700)	
Don't know/missing	7 (110)	8 (123)	9 (136)	
Internet use				
Amount of Internet use (mean, SD) ^a	.24 (.26)	.41 (.31)	.49 (.30)	<.001
Location of Internet use				
Home	74 (1109)	91 (1363)	97 (1506)	<.001
Friend's home	69 (1028)	69 (1029)	70 (1088)	.72
School	73 (1100)	90 (1356)	89 (1392)	<.001
Cell phone	-	-	47 (740)	-

^aAmount of Internet use was derived from a factor analysis of the following four items: youth experience with the Internet (scale of 1 to 5), importance of Internet in youth's life (scale of 1 to 5), and hours and days online in a typical week. Values ranged from .00 to 1.0. This comparison was examined using a *t*-test rather than a chi-square test.

Section 4.1: YISS-3 landline and cell phone samples.

There was evidence of significant differences in respondent characteristics between the landline and cell phone samples. Youth in the cell phone sample were more likely to be Hispanic or Latino, and live with a single, never married parent, and not both biological parents (See Table 6). Internet use patterns did not differ between youth in the landline and cell phone samples with one exception; youth in the cell phone sample were more likely to access the internet through a cell phone (See Table 7). Although

small, because inclusion of the cell phone sample increased access to some harder-to-reach populations (e.g., Hispanic and Latino youth) we chose to incorporate it into the larger dataset.

Table 6. YISS-3 Youth Internet User and Household Characteristics by Sample Source * (N=1,560)

Characteristics	Landline sample (n=1,515) %	Cell Sample (n=45) %	χ^2
Age			
Mean age (SD)	14.2 (2.1)	14.2 (2.0)	t=.06
10	7.1	6.7	6.4
11	7.1	2.2	
12	8.8	15.6	
13	13.3	8.9	
14	14.4	22.2	
15	15.0	13.3	
16	17.6	15.6	
17	16.7	15.6	
Gender			
Boy	49.7	48.9	.01
Girl	50.3	51.1	
Race			
White	73.2	66.7	.95
African-American	14.6	15.6	.03
American Indian or Alaskan Native	2.6	2.2	.03
Asian	3.2	0	1.5
Other	1.8	2.2	.05
Didn't Know/Did Not Answer	2.2	2.2	.000
Ethnicity			
Hispanic or Latino (May Be of Any Race)	9.9	20.0	4.9*
Parent/Guardian Marital Status			
Married	78.3	60.0	16.0*
Divorced	9.4	13.3	
Single/Never Married	5.9	17.8	
Living With Partner	2.2	4.4	
Separated	1.8	4.4	
Widowed	2.0	0	
Don't know / not ascertainable	0.3	0	
Youth Lives With Both Biological Parents	66.7	44.4	9.6**
Highest Level of Completed Education in Household			
Not a High-School Graduate	2.6	4.4	4.3
High-School Graduate	13.2	22.2	
Some College Education	19.2	17.8	
College Graduate	37.0	35.6	
Post-College Degree	27.9	20.0	
Don't know	0.1	0	
Annual Household Income			
Less than \$25,000	12.1	20.0	6.5
\$25,000 to \$49,999	18.3	22.2	
\$50,000 to \$74,999	15.8	11.1	

Characteristics	Landline sample (n=1,515) %	Cell Sample (n=45) %	X ²
\$75,000 to \$99,999	15.2	15.6	
\$100,000 or more	30.0	17.8	
Don't know / not ascertainable	8.6	13.3	

* All the data in this table are based on questions asked of parents or guardians with the exception of the information about race, which was asked of youth.

Table 7. Youth Internet Use Patterns (N=1,560)

Description	Landline sample (n=1,515) %	Cell Sample (n=45) %	X ²
Location(s) Youth Spent Time on the Internet in Past Year^a			
Home	96.7	93.3	1.5
School	89.4	88.9	.01
Friend's home ^b	70.0	68.9	.03
Cellular telephone	47.0	64.4	5.3*
Other place (includes library)	38.6	31.8	.84
Last Time Youth Used Internet			
Past week	94.0	93.3	3.5
Past 2 weeks	3.1	0	
Past month or longer	2.9	6.7	
Number of Hours Youth Spent on Internet on a Typical Day When Online			
1 hour or less	37.8	37.8	.007
More than 1 hour to 2 hours	30.6	31.1	
More than 2 hours	31.6	31.1	
Number of Days Youth Went on Internet in a Typical Week^b			
1 day or less	4.1	4.8	.89
2 to 4 days	27.1	33.3	
5 to 7 days	68.7	61.9	
How Youth Used Internet^a			
Social networking site	80.2	77.8	.16
Use video chat (ChatRoulette, Omegle, Skype)	31.2	31.3	.000
Chat rooms that don't include video	28.0	26.7	.04
Go to virtual worlds (Club Penguin, WhyVille, Second Life)	25.7	27.3	.05
Play online virtual games	52.0	53.3	.03
Downloaded music, pictures, or videos from file sharing program	34.2	31.8	.11
Who Youth Talked to Online^c			
People youth knew in person offline	93.1	91.1	.28
People youth knew only online	39.9	33.3	.78

^a Multiple responses possible.

^b Based on youth who used the Internet in the past week or past 2 weeks.

^c Answers not mutually exclusive.

Note: Some categories do not add to 100% because of rounding and/or missing data.

SECTION 5: CONFIDENTIALITY, MANDATORY REPORTING, AND CHILD PROTECTION

With respect to confidentiality, in research involving sensitive topics such as mental health problems and victimization, it is crucial to protect the confidentiality of respondents. This is particularly important and challenging when interviewing children and adolescents. Data quality would be jeopardized and refusal among higher risk respondents would be increased if consent procedures indicated the need to report abuse incidents revealed in the interview to parents or authorities. Clearly issues of confidentiality, state mandated reporting, and ethical responsibilities around child protection must be reconciled in a survey of this nature.

We have developed a protocol to deal with these issues that has been approved by the UNH IRB and successfully implemented in other studies conducted by the CCRC. This protocol assures that all precautions are taken to maintain respondents' confidentiality.

First, at the time of the telephone interview, interviewers are required to establish that no one is listening to respondents during their interviews. Interviewers emphasize the importance of privacy with the youth. They ask youth if there is a place where they can talk where they will be alone and where no one can hear the conversation. Specific probes are used, such as "Who is there now?", "Do you think you may be interrupted?" "Can anyone hear our conversation?". Interviewers suggest calling respondents back at a different time if privacy cannot be obtained. Interviewers also tell respondents that if anything changes during interviews, they should just say, "Can you call me back later?" and interviews will be re-scheduled.

Second, interviewers are trained about how to handle situations where they believe a respondent is currently in danger and in need of some kind of protection. The protocol for handling such situations instructs interviewers to bring the situation to the attention of the researchers to review the nature of the risk and the options. Potential "endangered" cases are also flagged by an automated system within the questionnaire, based on answers to questions about undisclosed abuse and/or suicidal ideation. Then, if it is agreed that actual danger is present, the clinical psychologist on the research team re-contacts the respondent and introduces herself as a member of the study. She reiterates the confidentiality of the interview and asks some additional questions to ascertain the nature of the problem. The goal of the psychologist is to get the respondent to disclose the situation to his/her caretakers, if appropriate, or to some other authority who can take protective actions. The psychologist requests permission to re-contact the respondent on a periodic basis to inquire about the resolution of the situation. Contacts are maintained until a resolution is made that is satisfactory to the PIs (either the danger ended or appropriate parental, child protection, law enforcement or human service professionals involved). In no case does the psychologist notify anyone without permission of the respondent.

We are also concerned about compliance with mandatory reporting laws. While state child abuse laws typically require professionals to report child maltreatment episodes, whether mandated reporters include researchers varies from state to state. We have consulted with the UNH IRB and USNH General Counsel to establish procedures that assure we comply with statutes while protecting the confidentiality of respondents. Although New Hampshire law requires reporting of child abuse by researchers, we have been advised that we may conduct research on child abuse and neglect in other states without triggering the reporting requirements under New Hampshire law. To comply with NH law and conform

to the opinion of the University General Counsel, we deal with reporting issues in the following manner. We instruct our subcontractor to draw a national sample that excludes New Hampshire residents so that none of our interviews could trigger NH mandatory reporting laws. In addition, the survey is conducted from the subcontractor's New York or West Virginia offices, because laws in these states do not require mandatory reporting by researchers.

SECTION 6: CORE MEASURES

The YISS survey was designed to collect detailed information from caregivers and youth on a wide range of problematic or unwanted Internet experiences including: harassment, sexual solicitation, unwanted exposure to pornography, and youth produced sexual images (YISS-3 only). The YISS also collected information from youth and caregivers on the nature of Internet use by the youth, experiences with Internet safety education and prevention efforts, and other online and offline experiences and behaviors by the youth. Information on the core sections of the survey is provided below. Most survey questions were repeated across all YISS studies to allow for comparisons in prevalence rates over time. New questions or sections included with the YISS-3 are highlighted below.

Section 6.1. Unwanted Online Experiences

In the three YISS studies, the incidence rates for sexual solicitation, unwanted exposure to sexual material, and harassment were estimated based on a series of screener questions about unwanted experiences while using the Internet in the past year ("past year" refers to the year prior to the interview). Screener questions in YISS-1, YISS-2, and YISS-3 were identical.

Screening questions

Unwanted sexual solicitations and approaches were defined as requests to engage in sexual activities or sexual talk or to give personal sexual information that were unwanted or made by a person 5 or more years older, whether wanted or not. The incidence rate for sexual solicitation was estimated based on endorsement of at least one of the following three screener questions:

- "In the past year, did anyone on the Internet ever try to get you to talk online about sex when you *did not want to*?"
- "In the past year, did anyone on the Internet ask you for sexual information about yourself when you did not want to answer such questions? I mean very personal questions, like what your body looks like or sexual things you have done?"
- "In the past year, did anyone on the Internet ever ask you to *do* something sexual that you did not want to do?"

Harassment was defined as threats or other offensive behavior (not sexual solicitation), sent online to youth or posted online about youth for others to see. Harassment was measured through endorsement of at least one of the following two screener questions:

- "In the past year, did you ever feel worried or threatened because someone was bothering or harassing you online?"
- "In the past year, did anyone ever use the Internet to threaten or embarrass you by posting or sending messages about you for other people to see?"

Unwanted exposure to pornography was defined as being exposed to pictures of naked people or people having sex without seeking or expecting such pictures, when doing online searches, surfing the web, opening e-mail or Instant Messages or links in messages. Unwanted exposure to pornography was estimated based on endorsement of one of the following two questions.

- “In the past year when you were doing an online search or surfing the web, did you ever find yourself in a web site that showed pictures of naked people or of people having sex when *you did not want to be in that kind of site?*”
- “In the past year, did you ever *open* a message or a link in a message that showed you actual pictures of naked people or of people having sex *that you did not want?*”

Runaway incidents were identified with one question: “In the past year, did anyone on the Internet ever ask you or encourage you to run away from home?”

Follow-up questions

Follow-up questions were limited to only two incidents because of time constraints. Consequently, some incidents that young people told us about were not the subject of follow-up questions, and these incidents were omitted from incidence rates. If a youth had incidents in more than two categories, runaway incidents were given first priority for follow-up questions, harassment incidents second priority, sexual solicitations incidents third priority, and unwanted exposure incidents fourth priority. If a youth had more than one incident in a particular category, the follow-up questions referred to the “most bothersome” incident or, if none was “most bothersome,” the most recent incident. The limits on follow-up questions probably led to some undercounting of incidents, particularly episodes of unwanted exposure to sexual material.

Section 6.2. Youth Produced Sexual Images (Sexing): In YISS-3 we added a series of questions to determine the prevalence and characteristics of youth production, distribution, and receipt of sexual images.

Screener questions

Interviewers used the following introduction: “*Now I have some questions about kids taking nude or nearly nude pictures of themselves or other kids. By ‘nearly nude’ I mean pictures of kids in things like their underwear.*” We created a series of five screener questions that asked about three types of sexting involvement: 1) receiving nude or nearly nude images, 2) forwarding or posting such images, and 3) appearing in or creating such images. The screeners asked:

- 1) Has anyone ever sent you nude or nearly nude pictures or videos of kids who were under the age of 18 that someone else took?
- 2) Have you ever forwarded or posted any nude or nearly nude pictures or videos of other kids who were under the age of 18 that someone else took?
- 3) Have you ever taken nude or nearly nude pictures or videos of yourself?
- 4) Has someone else ever taken nude or nearly nude pictures or videos of you?
- 5) Have you ever taken nude or nearly nude pictures or videos of other kids who were under the age of 18?

Follow-up questions

When youth responded positively to a screener question, interviewers asked if the incident occurred in the past year. Interviewers then asked extensive follow-up questions about up to two unique *past year* sexting episodes including questions about the content of the nude or nearly nude pictures or videos. Our prevalence estimates were created based on youth-level data, some of whom reported more than one sexting type incident. An algorithm was used to choose incidents for follow-up with a hierarchy that selected first for incidents in which pictures were taken and second for incidents in which pictures were distributed. No youth were left uncounted based on this algorithm. Images that depicted breasts,

genitals, or someone's "bottom," someone completely nude, sexual intercourse, or masturbation were classified as sexually explicit.

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