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The National Juvenile Online Victimization Study: Methodology Report.

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THE NATIONAL JUVENILE ONLINE VICTIMIZATION STUDY METHODOLOGY REPORT

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SECTION 1. SUMMARY

The National Juvenile Online Victimization Study (N-JOV) was conducted by the Crimes against Children Research Center at the University of New Hampshire. Wave 1 of this study was funded by the National Center for Missing & Exploited Children and the Office of Juvenile Justice & Delinquency Prevention, U.S. Department of Justice. Wave 2 of this study was funded through grants from the Office of Juvenile Justice and Delinquency Prevention, U.S. Department of Justice.

Researchers collected information from a national sample of law enforcement agencies about the prevalence of arrests for, and characteristics of, Internet sex crimes against minors in the criminal justice system in the 12 months following July 1, 2000 and again in calendar year 2006. The goal of this methodology was to : 1) utilize a representative national sample of law enforcement agencies that would give us an overall picture of these crimes in the United States, 2) understand how these cases emerged and were handled in a diverse group of agencies, 3) get detailed data about the characteristics of these crimes from well-informed, reliable sources, and 4) see how the prevalence and characteristics of such crimes may have changed in a 5 to 6-year timeframe.

For both Waves 1 and 2, we used a two-phase process to collect data from a national sample of the same local, county, state, and federal law enforcement agencies. In Phase 1, we sent mail surveys to a national sample of law enforcement agencies asking if they had made arrests for Internet sex crimes against minors in a specific one-year timeframe. In Phase 2, we conducted telephone interviews with law enforcement investigators about a sample of the arrest cases reported in the mail survey. The final data set, weighted to account for sampling procedures and other factors, includes data from 612 completed case-level interviews from Wave 1 and 1,051 different completed case-level interviews from Wave 2.

SECTION 2. SAMPLE SELECTION

Section 2.1. Phase 1 national mail survey

Wave 1. The Wave 1 mail survey was sent to a national sample of 2,574 state, county and local law enforcement agencies. We created a stratified sample, dividing law enforcement agencies into three sampling frames based on their specialization or training in investigating Internet sex crimes against minors. This was done in order to get information from agencies that specialized in these crimes while still allowing every agency a chance to be selected for the sample.

The first frame consisted of 79 specialized agencies mandated to investigate Internet sex crimes against minors, including four federal agencies with units that investigate Internet-related child exploitation crimes, 32 agencies that made up 30* federally funded Internet Crimes Against Children (ICAC) Task Forces, and 43 ICAC satellites in operation when the sample was drawn. We did not sample this frame. Rather, we took a census of specialized agencies, starting in September 2001, when mail surveys were sent to the 75 agencies comprising the ICAC Task Forces and satellites. Federal agencies were invited to participate at later dates and reported their cases electronically rather than through mail surveys due to large caseloads. Two of the four federal agencies invited to participate declined. One of these gave us the number of arrests they had made between July 1, 2000 and June 30, 2001, and we took this number into account in the final weighting of the data. The other federal agency that declined had just begun to do Internet-related investigations during the time frame of the N-JOV Study and had few cases to report that met our eligibility requirements. Of the 75 eligible ICAC Task Force and satellite agencies that received mail surveys, 83% completed and returned surveys and 64% reported one or more cases involving Internet sex crimes against minors. See Table 1 for the disposition of the Wave 1 mail survey sample.

The second frame consisted of law enforcement agencies that we considered more likely than other agencies to have investigated Internet sex crimes against minors because they had staff that had received training in these types of cases. We identified these trained agencies by using lists of agencies participating in weeklong training programs in the investigation of Internet sex crimes against minors. The lists were acquired from two training organizations, SEARCH and the National Center for Missing & Exploited Children. We identified 1,668 agencies in the second frame. Of these agencies, about half (832) were randomly selected to participate in the study.

One additional agency in a large metropolitan area was included as a certainty jurisdiction, to make sure that agencies from all major metropolitan areas in the U.S. were included in the study, for a total of 833 agencies. Of the 833 trained agencies that responded to mail surveys, 1% was ineligible to participate because they lacked jurisdiction to investigate Internet sex crimes against minors. (These were mostly small towns that relied on county or other larger jurisdictions to conduct criminal investigations.) Of the 822 eligible trained agencies, 93% completed and returned mail surveys, and 27% (n = 226) reported one or more cases involving Internet sex crimes against minors.

The third frame consisted of 13,586 other local, county and state law enforcement agencies across the United States. The sample was drawn using a database available through the National Directory of Criminal Justice Data (National Directory of Law Enforcement Administrators, 2001). This data set included an annually updated census of local, county, and state law enforcement agencies in the U.S. and was designed to provide geographic and other identifying information for each record included in either the FBI's Uniform Crime Reports files or the Bureau of Justice Statistic's Directory of Law Enforcement Agencies. The agencies in the first and second frames were cross-referenced in the database to avoid duplication among the three frames. Of these 13,586 other agencies, 12% (n = 1666) were randomly selected to participate in the study. Of these, less than 1% was ineligible to participate because they lacked jurisdiction to investigate Internet sex crimes against minors. Of the eligible agencies in this frame (n = 1612), 86% completed and returned mail surveys, and 7% (n = 109) reported one or more cases involving Internet sex crimes against minors.

Table 1. Description and details of stratified national sample (Wave 1)

<u>Sampling Frames</u>	Agencies in Population N	Agencies in Sample n (% pop.)	Eligible Agencies n (% pop.)*	Responding Agencies n (% eligible agencies)	Agencies with Internet-Related Cases n (% eligible agencies)
First frame: Specialized Agencies	75	75 (100%)	75 (100%)	62 (83%)	48 (64%)
Second frame: Trained agencies	1,668	833 (50%)	822 (49%)	763 (93%)	226 (27%)
Third frame: Other agencies	13,586	1,666 (12%)	1,612 (12%)	1,380 (86%)	109 (15%)
Total	15,329	2,574 (17%)	2,509 (16%)	2,205 (88%)	383 (15%)

¹ 11 agencies (1%) were ineligible because they lacked jurisdiction to investigate internet sex crimes against minors. These were mostly small towns that relied on county or other agencies to conduct criminal investigations.

² 54 agencies (< 1%) were ineligible because they lacked jurisdiction to investigate internet sex crimes against minors.

* There was one tri-state ICAC Task Force that included three agencies from three different states. We surveyed these three agencies individually. Also, some of the Task Forces and satellites were just beginning operations during the time frame of the study and may not have been operating under ICAC guidelines.

Table 2. Population differences between Wave 1 and Wave 2

	Wave 1	Change	Wave 2
<u>First frame population</u>	75		
Tri-state ICAC Task Force ¹		-2	73
Added from 2 nd frame population ²		+14	88
Added from 3 rd frame population ²		+9	96
Added as new ³		+5	101
<u>Second frame population</u>	1,668		
Subtracted for addition to 1 st frame population ²		-14	1,654
<u>Third frame population</u>	13,586		
Subtracted for addition to 1 st frame population ²		-9	13,577

¹ In Wave 1, there was one tri-state ICAC Task Force that included three agencies from three different states. Upon request, we surveyed these three agencies individually. In Wave 2, these agencies preferred to be surveyed together. So for this one task force, the Wave 2 first frame N is decreased by 2 (N=73).

² Fourteen agencies from the Wave 1 2nd frame population (but not selected for the sample) were moved to the 1st frame population in Wave 2 because they were either new ICAC Task Forces or known to work with civilian agencies. This resulted in a decrease of the Wave 2 2nd frame population by 14 and an increase to the Wave 2 1st frame population of 14. Similarly, 9 cases from the Wave 1 3rd frame population (but not selected for the sample) were moved to the 1st frame population in Wave 2 because they were either new ICAC Task Forces or known to work with civilian agencies. This resulted in a 9 agency decrease to the Wave 2 3rd frame population and a 9 agency increase in the Wave 2 1st frame population.

³ Finally, five agencies were added to the Wave 2 1st frame population that were not in the population of any frame in Wave 1. These were Attorney General's Offices and Criminal Investigation Units that were either new ICAC Task Forces or known to work with civilian agencies in Wave 2.

Wave 2. The Wave 2 mail survey was conducted in the same way as the Wave 1 mail survey. We sent mail surveys to a national sample of 2,598 state, county, and local law enforcement agencies. We created a stratified sample, dividing law enforcement agencies into three sampling frames based on their expertise and training in conducting such investigations.

The **first frame** consisted of 101 agencies, including all 46 ICAC Task Forces, 39 agencies which were satellite ICAC Task Forces during Wave 1 (but no longer were), and 16 agencies which were known to work with civilian groups, such as Perverted Justice. We added 28 agencies to this frame in Wave 2 to reflect changes over the past 5 years. Table 2 shows how adding these agencies resulted in differences in our stratified population numbers.

Again, we did not sample this frame. Rather, we took a census of specialized agencies, starting in June 2007, when mail surveys were sent to the 101 1st frame agencies. Federal agencies were invited to participate at later dates and reported their cases electronically rather than through mail surveys due to large caseloads. Of the 101 eligible first frame agencies that received mail surveys, 77% completed and returned surveys and 60% reported one or more cases involving Internet sex crimes against minors. See Table 3 for the dispositions of the Wave 2 mail survey sample.

In Wave 2, there were 1,654 agencies in the **second frame** population. Fifty-percent were selected for the sample in Wave 1 and were resurveyed in Wave 2. Of the 832 2nd frame agencies that received mail surveys, 2% were ineligible to participate because they lacked jurisdiction to investigate Internet sex crimes against minors or the agency no longer existed. (These were mostly small towns that relied on county or other larger jurisdictions to conduct criminal investigations.) Of the 794 eligible 2nd frame agencies, 87% completed and returned mail surveys, and 30% (n = 239) reported one or more cases involving Internet sex crimes against minors.

In Wave 2, there were 13,577 agencies in the **third frame** population. Twelve percent of these were selected for the sample in Wave 1 and were resurveyed in Wave 2. Of the 1,665 third frame agencies that received mail surveys, 2% were ineligible to participate because they lacked jurisdiction to investigate Internet sex crimes against minors, the agency no longer existed, or the agency was a duplicate of another agency within that same frame. Of the 1,425 eligible agencies, 89% completed and returned mail surveys, and 11% (n = 161) reported one or more cases involving Internet sex crimes against minors.

Response analysis. The population size the agency served was related to differing participation across frames. The average population served was largest for those agencies that did not

Table 3. Description and details of stratified national sample and disposition of the mail survey (Wave 2)

<u>Sampling Frames</u>	Agencies in Pop. N	Agencies in Sample n (% pop.)	Eligible Agencies n (% pop.)	Agencies that Responded n (% eligible agencies)	Agencies with Internet-related Cases n (% eligible agencies)
First frame:					
Specialized agencies	101	101 (100%)	97 ³ (96%)	75 (77%)	58 (60%)
Second frame:	1,654	832 ¹ (50%)	794 ⁴ (48%)	691 (87%)	239 (30%)
Trained agencies					
Third frame:	13,577	1,665 ² (12%)	1,425 ⁵ (10%)	1,262 (89%)	161 (11%)
Other agencies					
Total	15,332	2,598 (17%)	2,316 (15%)	2,028 (87%)	458 (20%)

¹ This cell differs from 833 in Table 1 because one of these agencies was moved to the first frame in Wave 2.

² This cell differs from 1,666 in Table 1 because one of these agencies was moved to the first frame in Wave 2.

³ Four agencies had no jurisdiction to investigate Internet sex crimes against minors.

⁴ Thirty-eight agencies either had no jurisdiction to investigate these crimes (n=32), no longer existed (n=1), or were duplicates of 1st frame agencies (n=5).

⁵ Two hundred forty agencies either had no jurisdiction to investigate these crimes (n=196), no longer existed (n=40), or were duplicates of other agencies in the sample (n=4).

Longitudinal disposition of the mail survey. A total of 2,258 agencies were eligible in both waves of the study (see Table 4). This included 72 first frame, 785 second frame, and 1,401 third frame agencies. Seventy-eight percent of eligible agencies returned mail surveys in both waves, 9% participated in Wave 2 only, 10% participated in Wave 1 only, and 2% participated in neither. There were significant differences in survey participation across frames ($X^2 = 28.96 (6), p < .001$).

Table 4. Disposition of mail surveys between Wave 1 and Wave 2

	Agencies eligible in both Waves	Returned in Wave 2 only	Returned in Wave 1 only	Returned in Both	Returned in Neither
First frame	72	7 (10%)	12 (17%)	49 (68%)	4 (5%)
Second frame	785	45 (6%)	91 (11%)	638 (81%)	11 (1%)
Third frame	1,401	144 (10%)	121 (9%)	1,096 (78%)	40 (3%)
Total	2,258	196 (9%)	224 (10%)	1,783 (79%)	55 (2%)

participate in either of the waves ($M = 261,746, SD = 1,151,888$). This group significantly differed from all other groups. The Mean population served for agencies participating in: 1) Wave 1 only = 75,740, $SD = 225,968$; 2) Wave 2 only = 37,765, $SD = 107,918$; and 3) Both Waves 1 and 2 = 57,180, $SD = 289,546$ ($F = 6.95, p < .001$). No other significant differences were identified in terms of the size of the population served among the remaining groups.

Section 2.2. Case-level telephone interviews

Wave 1. The second phase consisted of follow-up telephone interviews with law enforcement investigators to gather information about case, offender, and victim characteristics. The 2,205 agencies that responded to the mail survey, plus the two federal agencies that participated, reported a total of 1,723 cases involving Internet sex crimes against minors, with 50 first frame agencies (consisting of ICAC Task Forces, ICAC satellites, and federal agencies) reporting 999 cases, 226 second frame agencies reporting 545 cases, and 109 third frame agencies reporting 179 cases. (See Table 5 for more details).

We designed a sampling procedure that took into account the number of cases reported by an agency, so that we would not unduly burden respondents in agencies with many cases. If an agency reported between one and three arrests for Internet-related cases, we conducted follow-up interviews for every case. Eighty-five percent of the agencies that had cases fell within this group in Wave 1 and 71% in Wave 2. For agencies that reported more than three cases, we conducted interviews for all cases that involved identified victims (victims who were located and contacted during the investigation), and sampled other cases. For agencies with between four and fifteen cases,

half of the cases that did not have identified victims were randomly selected for follow-up interviews. In agencies that reported more than fifteen cases, cases with no identified victims were divided into two samples, using random selection, and then half of one sample was randomly selected for follow-up interviews. In some agencies, we could not find out which cases had identified victims before completing an interview, so we sampled from all cases, using the sampling procedure described above.

Wave 2. In Wave 2, the second phase of the study also consisted of follow-up telephone interviews with law enforcement investigators to gather information about case, offender, and victim characteristics. The 2,028 agencies that responded to the mail survey, plus two federal agencies that participated reported a total of 3,322 cases involving Internet sex crimes against minors, with 60 first frame agencies (consisting of ICAC Task Forces, former satellites, agencies working with civilian groups, and two federal agencies) reporting 1,981 cases, 239 second frame agencies reporting 1,001 cases, and 161 third frame agencies reporting 340 cases. (See Table 6 on next page for more details).

Response analysis for the telephone interview. In Wave 1, a total of 1,501 cases were reported; this increased to 2,444 cases in Wave 2. Increases in total number of cases reported were seen across all three frames of the study (See Table 7).

A total of 142 agencies reported eligible cases in both waves of the study (See Table 8). This included 47 first frame, 78

Table 5. Responses to Wave 1 telephone interviews in all LEAs

	1 st frame* agencies	2 nd frame agencies	3 rd frame agencies	Total
Cases reported in mail surveys	999	545	179	1,723
Not selected for sample	564 (56%)	58 (11%)	24 (13%)	646 (37%)
Ineligible cases***	73 (7%)	147 (27%)	61 (34%)	281 (16%)
Number of cases in sample	362	340	94	796
Non-responders**	42 (12%)	50 (15%)	9 (9%)	101 (13%)
Refusals	13 (3%)	10 (3%)	2 (2%)	25 (3%)
Other (duplicate & invalid)#	21 (6%)	14 (4%)	5 (5%)	40 (5%)
Completed interviews	286 (79%)	266 (78%)	78 (83%)	630 (79%)
Duplicate cases deleted##	11	6	1	18
Final number	275	260	77	612

Note: Percentages may not add to 100 because of rounding.
 *Includes cases from federal agencies.
 **Could not schedule interviews for various reasons
 ***Case did not meet eligibility requirements of study. (In most cases, the arrest did not occur in the timeframe of the study.)
 #Interviewers realized these were duplicate cases and did not conduct interviews.
 ##Cases were determined to be duplicates after interviews were completed.

Table 6. Responses to Wave 2 telephone interviews in all LEAs

	1 st frame agencies	2 nd frame agencies	3 rd frame agencies	Total
Cases reported in mail surveys	1,981	1,001	340	3,322
Not selected for sample	1,069 (54%)	247 (25%)	73 (21%)	1,389 (42%)
Ineligible cases*	85 (4%)	148 (15%)	43 (13%)	276 (8%)
Number of cases in sample	827	606	224	1,657
Non-responders**	335 (41%)	72 (12%)	39 (17%)	446 (27%)
Refusals	13 (1%)	97 (16%)	8 (3%)	118 (7%)
Other (duplicate and invalid)	5 (1%)	23 (4%)	2 (1%)	30 (2%)
Completed cases	474 (57%)	414 (68%)	175 (78%)	1,063 (64%)
Duplicate cases deleted	2	6	4	12
Final number	472	408	171	1,051

Note: Percentages may not add to 100 because of rounding.

* Case did not meet eligibility requirement for study. (In most cases, the arrest or detention did not occur in the timeframe of the study.)

** Could not schedule interviews for various reasons.

second frame, and 17 third frame agencies. Eighty-one percent of agencies with eligible cases participated (at least partially) in both Waves, 8% participated in Wave 2 only, 10% participated in Wave 1 only, and 1% participated in neither. No significant differences in participation across frames were identified ($\chi^2 = 3.67$ (6), $p = .72$).

SECTION 3. CONFIDENTIALITY

Both Waves of the National Juvenile Online Victimization Study were conducted with the approval of the University of New Hampshire’s Institutional Review Board and complied with confidentiality regulations mandated for research funded by the U.S. Department of Justice.

SECTION 4. INSTRUMENT DESIGN

Section 4.1. Phase 1 national mail surveys

Wave 1. The initial Wave 1 mail survey was modeled after a survey developed by Westat Corporation for use in the Second National Incidence Study of Missing, Abducted, Runaway, and Thrownaway Children (NISMA 2) Law Enforcement Study, which surveyed law enforcement agencies about the incidence and characteristics of stereotypical child abduction cases (Finkelhor, Hammer, & Sedlak, 2002; Sedlak, Finkelhor, Hammer, & Schultz, 2002). This was a multi-page booklet, formatted so respondents could follow it easily. It included a “Frequently Asked Questions” section and a glossary of study terms, along with a toll-free telephone number so that respondents could contact the researchers if they had questions. A focus group of state and local law enforcement investigators who were attending an Internet crime training program

reviewed the Wave 1 survey and gave comments to the researchers. Also, to pre-test the instrument at Wave 1, we sent ten pilot surveys to agencies that were not selected in the sample.

The Wave 1 mail survey asked two primary questions:

- Between **July 1, 2000 and June 30, 2001**, did your agency make ANY ARRESTS in cases involving the attempted or completed sexual exploitation of a minor, AND at least one the of the following occurred:
 - The offender and the victim first met on the Internet
 - The offender committed a sexual offense against the victim on the Internet, regardless of whether or not they first met online
- Between **July 1, 2000 and June 30, 2001**, did your agency make ANY ARRESTS in cases involving the possession, distribution or production of child pornography, and at least one of the following occurred:
 - Illegal images were found on the hard drive of a computer or on removable media (e.g., CDs or disks) possessed by the offender
 - The offender used the Internet to order or sell child pornography
 - There was other evidence that illegal images were downloaded from the Internet or distributed by the offender over the Internet

If respondents answered “Yes” to any of these questions, we asked them to list the case number, or other reference, and the name of the key investigating officer or most knowledgeable person for each case they reported. Also, we emphasized that agencies should return surveys, even if they had no cases to report.

Table 7. Number of cases reported (unweighted) for eligible agencies that responded in both Waves 1 and 2 (includes federal agencies)

	Wave 1	Wave 2
First frame	920	1,183
Second frame	451	960
Third frame	139	301
Total	1,501	2,444

Wave 2. The Wave 2 mail survey was identical to the Wave 1 survey, except the dates for when the arrests occurred were between January 1, 2006 and December 31, 2006 and some questions were added to specifically target such cases that had a commercial element (*highlighted text*):

- Between **January 1, 2006 and December 31, 2006**, did your agency make any arrests in cases involving the attempted or completed sexual exploitation of a minor, and at least one of the following occurred:
 - The offender and the victim first met on the Internet

Table 8. Disposition of telephone interviews between Wave 1 and Wave 2

	Agencies with eligible cases in both Waves	Wave 2 only	Wave 1 only	Participated in Both	Participated in neither
First frame	47	4 (9%)	4 (9%)	39 (83%)	0 (0%)
Second frame	78	5 (6%)	7 (9%)	64 (82%)	2 (3%)
Third frame	17	2 (12%)	3 (18%)	12 (71%)	0 (0%)
Total	142	11 (8%)	14 (10%)	115 (81%)	2 (1%)

- a. The offender committed a sexual offense against the victim on the Internet, regardless of whether or not they first met online
 - b. The offender was involved in prostitution or other form of commercial sexual exploitation of a minor that involved the Internet in any way
2. Between **January 1, 2006 and December 31, 2006**, did your agency make any arrests in cases involving the possession, distribution, or production of child pornography, and at least one of the following occurred:
- a. Illegal images were found on the hard drive of a computer or on removable media (e.g., CD's or disks) possessed by the offender
 - b. The offender used the Internet to order or sell child pornography
 - c. There was other evidence that illegal images were downloaded from the Internet or distributed by the offender over the Internet
 - d. Money was paid for access to a web site that featured child pornography

Section 4.2. Phase 2 case-level telephone interviews

The Phase 2 telephone interview instrument (used in both Wave 1 and Wave 2) consisted of the following sections, some of which were used in each interview and others depending on the facts of the case. In Wave 1, the case-level telephone interviews were conducted using paper and pencil; in Wave 2 they were conducted with a computer-assisted interviewing program.

- **Preliminary Information.** The Preliminary Information section served as a screening device to establish whether a case was eligible for the study. It was used in all interviews. It asked respondents to give a brief narrative description of the case and then queried them about whether and when an arrest was made, whether the case was related to the Internet and whether there was an identified victim who was younger than 18.
 - ⇒ If a case involved more than one offender, this section identified a primary offender. Later questions about the characteristics of the crime and offender referred to the primary offender. Primary offenders were chosen based on the following hierarchy: 1) the offender who directly used the Internet; if more than one offender directly used the Internet, then 2) the offender who committed the most serious crime; if the crimes were equally serious, then 3) the offender who was the youngest.

- ⇒ If a case involved more than one victim of an Internet-related crime, this section identified a primary victim. Later questions about the characteristics of the crime and victim referred to the primary victim. Primary victims were chosen based on the following hierarchy: 1) the victim who directly used the Internet; if more than one victim directly used the Internet, then 2) the victim who was most seriously victimized; if the victimizations were equally serious, then 3) the victim who was the youngest.

- ⇒ The Preliminary Section also gathered information about the gender and age of any identified victim of a *non-Internet-related sex crime* who was identified in the investigation. However, we gathered more detailed victim information only for victims of Internet-related crimes.

- **Sexual Exploitation: Online Meeting.** The Sexual Exploitation: Online Meeting section was used in cases with identified victims where the victim first met the offender on the Internet. (We also refer to these as “Internet-initiated” cases.) This section collected specific information about the offender-victim relationship, including where they met and corresponded online, what they did online, whether they met in person, the details of any sexual assault, and other information.
- **Sexual Exploitation: Prior Face-to-Face Relationship.** The Sexual Exploitation: Prior Face-to-Face Relationship section was used in cases with identified victims where the offender and victim did not meet on the Internet, but knew each other in some other capacity. (We also refer to these as “family and prior acquaintance” cases.) This section collected specific information about the offender-victim relationship, including how they knew each other, how the Internet was used, the details of any sexual assault, and other information about what transpired between the offender and victim during the course of the crime. Either this section or the Sexual Exploitation: Online Meeting section (but never both) was used for all cases involving identified victims of Internet-related crimes.
- **Production of Child Pornography.** The Production of Child Pornography section was used in cases where there was an identified victim of an Internet-related crime who was also a victim of child pornography production. Cases qualified for this section if an offender photographed an identified victim in a pose that the respondent described as sexually suggestive or explicit. This section collected information about the format, number, content and distribution of the produced child pornography.

- **Possession of Child Pornography.** The Possession of Child Pornography section was used if the respondent said that the offender possessed child pornography. This section collected information about the format, number, content and distribution of the possessed child pornography.
- **Undercover Investigation.** The Undercover Investigation section was used in cases that involved online undercover operations in which law enforcement investigators 1) posed online as minors or adults with access to minors, 2) took over the identities of identified victims, or 3) posed as distributors or consumers of child pornography. This section included questions about the extent and nature of the online interactions between the offender and undercover investigator and information about face-to-face meetings between offenders and investigators, when applicable.
- **Offender.** The Offender section collected information about the demographic, family, emotional, and behavioral characteristics of the offender in each case. For cases with multiple offenders, information was collected about the primary offender only. (See the description of the Preliminary Section for how we selected the primary offender.) This section also captured information about arrests, charges, and outcomes of criminal cases.
- **Victim.** The Victim section was used if the case involved an identified victim of an Internet-related crime. It collected information about the demographic, family, emotional, and behavioral characteristics of the victim. For cases with multiple victims, information was collected about the primary victim only. (See the description of the Preliminary Section for how we selected the primary victim.)
- **Interview Conclusion.** The Interview Conclusion was used in all cases and served to finalize the interview, collect information about respondents' training, and capture any other important information about the case that was not covered in the survey.

Prior to beginning the telephone interview in Wave 1 and Wave 2, the interviewers introduced themselves and the study using the script in Figure 1.

SECTION 5: CRITERIA FOR ELIGIBILITY

To be included in the N-JOV Study, cases had to be Internet-related and involve victims younger than 18. Further, cases had to end in arrests that occurred between July 1, 2000 and June 30, 2001 (for Wave 1) and in the calendar year 2006 (Wave 2).

1. **Internet-related.** A case was Internet-related if: 1) an offender-victim relationship was initiated online; 2) an offender who was a family member, acquaintance, or stranger to a victim used the Internet to communicate with a victim to further a sexual victimization, or otherwise exploit the victim; 3) a case involved an Internet-related undercover investigation; 4) child pornography was received or distributed online, or arrangements for receiving or distributing were made online; or 5) child pornography was

Figure 1. Telephone interview introduction script, Waves 1 & 2

INTRODUCTION

Hello, my name is _____, and I am calling from the Crimes against Children Research Center at the University of New Hampshire.
(May I please speak with _____).

We are researchers, conducting a study of Internet crimes with juvenile victims for the Department of Justice and the National Center for Missing & Exploited Children. Your agency responded to a mail survey we sent you and identified _____ case(s) that might qualify for our study. They referred us to you for more information about (the case(s)) (_____ of the cases), so we are now calling to follow up, as we promised.

(_____ from your agency completed the survey. I don't know if (he/she) told you that we might be calling.)

The case number I'm calling about is:

I'd like to make an appointment to call you back and conduct the (first case) interview which should take about 30 minutes. Or we could talk right now, if you have time. However, we would like you to have the case file in front of you during the interview. If it is easily accessible, I can wait for you to get it. Or I could call you back. What is a good time for you?

Date: _____

Local time: _____

Time zone: _____

found on a computer, on removable media (disks, CDs, etc.), as computer print-outs, or in some other digital format. We chose broad criteria so we would not exclude any cases that could be Internet-related.

2. **Victims younger than 18.** We chose this definition of minors because 18 is the age of majority for most purposes in most jurisdictions. We did not want to rely on state or federal statutes that define "age of consent," because these statutes vary considerably. However, eighteen is the upper age limit for any statutes defining age of consent. Also, federal and many state statutes define child pornography as images of minors younger than 18. We considered cases to have victims under 18 in three situations: 1) there was an "identified victim," defined as a victim who was identified and contacted by the police in

the course of the investigation, who was under 18; 2) a law enforcement investigator impersonated a youth under 18, so that the offender believed s/he was interacting with a minor; and 3) a case involved child pornography, which by definition depicts the sexual assault or exploitation of a minor under 18.

3. **End in arrest.** We limited the study to case ending in arrests, rather than crime reports or open investigations because cases ending in arrests: 1) were more likely to involve actual crimes; 2) had more complete information about the crimes, offenders and victims; 3) gave us a clear standard for counting cases; and 4) helped us avoid interviewing multiple agencies about the same case.

SECTION 6. DATA COLLECTION

Section 6.1. Phase 1 national mail survey procedures

In both Wave 1 and Wave 2, to maximize response rates to the Phase 1 mail survey, we followed an adapted version of the "total design" mail survey methodology (Dillman, 2007).

1. We used first class mail to send surveys, personalized cover letters, and business reply envelopes to the heads of the local, county, and state law enforcement agencies in the sample.
2. Approximately three weeks after the initial mailing, we sent reminder postcards to all agency heads, asking them to complete and return the survey if they had not done so, and thanking them if they had.
3. Approximately six weeks after the initial mailing, we sent additional copies of the survey, personalized cover letters, and business reply envelopes to the heads of agencies who had not responded to date.
4. Approximately nine weeks after the initial mailing, we sent third copies of the survey, personalized cover letters, and business reply envelopes to agency heads that had still not responded.
5. Finally, telephone interviewers called the agencies that had not responded and, when possible, filled out the survey instrument over the telephone.

The overall response rate for the mail survey was 88% of eligible agencies in Wave 1 and 87% of eligible agencies in Wave 2. Data collection for the mail survey portion of the Wave 1 study took place between September, 2001 and February, 2002 and between April, 2007 and July, 2008 for Wave 2. See Tables 1 and 3 for a detailed description of the disposition of the Wave 1 and Wave 2 mail survey samples, respectively.

Section 6.2.

Phase 2 case-level telephone interview procedures

Wave 1. In Wave 1, six trained interviewers conducted the telephone interviews, recording the answers on paper copies of the instrument. We chose to use pencil and paper rather than a Computer Assisted Telephone Interview (CATI) system due to

cost limitations. This pencil and paper method was also used in the NISMART 2 Law Enforcement Study. The interviewers attended a two-day training session led by the researchers that provided extensive details about the background, purpose and instrumentation of the study, and they participated in a series of practice and pilot interviews. The telephone interviews were conducted between mid-October 2001 and the end of July 2002.

Table 4 depicts the final disposition of the Phase 2 telephone surveys. The 383 agencies reporting cases in the mail survey and the two participating federal agencies reported a total of 1,723 cases. Of these, 37% were not selected for the sample. An additional 16% were ineligible based on the criteria for eligibility. Of the 796 eligible cases in the sample, we completed interviews for 79% (n = 630), 13% involved agencies that did not respond to requests for interviews, 3% involved respondents who refused to be interviewed, and 5% were duplicate cases or cases that could not be identified. Sampled cases that were ineligible were not replaced in the sample. Finally, 18 cases were identified as duplicates after the study closed and were thus deleted from the data set – this resulted in 612 completed interviews for Wave 1.

Wave 2. In Wave 2, six trained interviewers conducted the telephone interviews, recording the answers on a CATI system. In principle, CATI provides a number of benefits over traditional telephone interviewing, including a smoother flowing interview when the questionnaire contains branches to different series of questions depending on answers to previous questions, because the computer program moves the interviewer to the next appropriate question automatically. In addition, the use of CATI can help to minimize recording errors because the acceptable range of responses can be programmed into the data entry program, which will not permit the interviewer to accidentally enter an out-of-range punch. Since the interviewer actually records each response to survey questions through the on-line data entry program, the risk of data processing errors arising from key punch errors is greatly reduced in CATI interviews. The CATI system also provided some important quality control benefits. It automatically recorded the day and time of dialing; the number dialed; and the connection time in minutes. Since each interviewer had to sign on and off the system, this meant that the performance of each interviewer on the project, as well as the progress of the study overall, could be monitored.

A research assistant programmed the telephone survey instrument for CATI administration. The CATI program involved: 1) question and response series; 2) skip patterns; 3) interviewer probes and instructions; 4) range checks; and 5) special edit procedures. The programmed instrument was reviewed by the lead investigators for consistency of question wording, response categories, interviewer instructions and skip patterns with the approved hard copy. It required about a week

to put the initial programming of the draft questionnaire into the CATI system.

The interviewers attended a two-day training session led by the researchers that provided extensive details about the background, purpose, and instrumentation of the study, and they then participated in a series of practice and pilot interviews. The case-level interviews for the Wave 2 study were conducted between June, 2007 and August, 2008.

Table 5 depicts the final disposition of the Phase 2 telephone surveys in Wave 2. The 458 agencies reporting cases in the mail survey and the two participating federal agencies reported a total of 3,322 cases. Of these, 42% were not selected for the sample. An additional 8% were ineligible. Of the 1,657 cases in the sample, we completed interviews for 64% ($n = 1,063$), 27% involved agencies that did not respond to requests for interviews, 7% involved respondents who refused to be interviewed and 2% were duplicate cases. Sampled cases that were ineligible were not replaced in the sample. Finally, 11 cases were identified as duplicates after the study closed and were thus deleted from the data set – this resulted in 1,051 completed interviews for Wave 2.

SECTION 7. DATA CLEANING AND CODING

Section 7.1. Qualitative data

Wave 1. Interviewers wrote brief summaries of the facts of each case. These summaries were imported into a software program created for qualitative research (N'Vivo Version 1.1, 1999), which allowed researchers to access case descriptions easily and provided a system for coding.

Wave 2. In Wave 2 the interviewers also wrote brief summaries of the facts of each case. Summaries were written into Microsoft Office Word and used by the researchers to clarify complex cases. Also, these case summaries (with any identifying information deleted) were often included in written manuscripts to supplement quantitative data findings.

Section 7.2. Quantitative data.

Wave 1. The data from the mail survey and telephone interview instruments were double-entered into a SPSS data set using the SPSS Data Entry Builder 3.0 program (Statistical Package for the Social Sciences Inc., 2001). This program is designed for use with SPSS statistical software and incorporates reliability checks for double entry of data. After data entry was completed, the two primary researchers devised lists of codes for each open-ended response, coded the open-ended responses, compared the coded responses for discrepancies and reviewed and resolved any of these discrepancies.

Wave 2. Since the data from the telephone interview was collected using a CATI program, data entry was not necessary in Wave 2. For open-ended responses or those that did not fit

given categories (e.g. "Other, specify"), research assistants (monitored by one of the study investigators) utilized the list of codes for each open-ended response used in Wave 1, coded the open-ended responses, compared the coded responses for discrepancies, and reviewed and resolved any discrepancies with one of the lead investigators.

SECTION 8. WEIGHTING AND VARIANCE ESTIMATES

Wave 1. Four weights were constructed to reflect the complex sample design. First, each case was given a sampling weight to account for the probability of selection to both the mail survey and telephone interview samples. The sampling weights were adjusted for agency non-response, case level non-response, duplication of cases among agencies, and arrests by one federal agency that did not participate in case level interviews. Second, primary sampling unit (PSU) weights were created to account for clustering within each of the three sampling frames. Third, stratification weights were computed based on the different sampling strategies for each frame. Finally, finite population correction factors accounted for the sampling being conducted without replacing ineligible cases.

Wave 2. In Wave 2, the same cross-sectional weights were constructed to reflect the complex sample design. Four variables were constructed to reflect the complex sample design. First, each case was given a weight to account for its probability of selection for both the mail survey and telephone interview samples. The weights were adjusted for agency non-response, case-level non-response, duplication of cases among agencies, and arrests by one federal agency that did not participate in case-level interviews. Second, a primary sampling unit (PSU) ID was created to account for the clustering of cases. Third, a stratum variable was created in order to reflect the sampling frame from which the agency or case was selected. Finally, overall probabilities of selection were provided in order to calculate finite population correction factors which accounted for the sample being selected without replacement.

The Wave 2 weights were designed in the same way as the Wave 1 weights so the two datasets could be combined for longitudinal analyses.

Sample Design and Probabilities of Selection

The N-JOV2 data was collected from a stratified, two stage probability sample of agencies and cases within agencies. Agencies were stratified into three frames (frames 1, 2, and 3) and a sample of agencies was drawn with equal probability within stratum but variable probabilities across strata. Cases were selected with equal probability within agencies but variable probability across agencies. The overall probability of selection for any given case was equal to the product of the agency and case probability of selection, which were each

adjusted individually for multiple chances of selection. The relevant calculations for the agency and case probabilities of selection were as follows:

The probability of selection for a given agency (*j*) was calculated as the ratio of the sample size for the stratum to the population size for the stratum,

$$p_{1,j} = \frac{n_h}{N_h}$$

The agency probability of selection was adjusted for duplication in the agency sampling frame as

$$p_{1,i} = 1 - \prod (1 - p_{1,j})$$

where separate agencies *j* on the frame actually represented the same agency *i*.

The probability of selection for a given case (*j*) within an agency was calculated as the ratio of the case sample size for the agency to the total case size for the agency,

$$p_{2,j} = \frac{n_h}{N_h}$$

Certain case types were sampled with certainty within agencies; Their probability of selection within an agency was therefore = 1.0 and such cases were not included in the denominator of the case probability of selection given above.

The case probability of selection was adjusted for duplication in the case sampling frame as

$$p_{2,i} = 1 - \prod (1 - p_{2,j})$$

where separate cases *j* on the frame actually represented the same case *i*.

Data Weighting

Given the unequal probabilities of selection for both agencies and cases, weights were required to ensure unbiased estimation (Kish, 1992). Base weights were calculated for each agency as the reciprocal of the unduplicated agency probability of selection,

$$w_{1,i} = \frac{1}{p_{1,i}}$$

Similarly, base weights were calculated for each case as the reciprocal of the unduplicated case probability of selection,

$$w_{2,i} = \frac{1}{p_{2,i}}$$

Nonresponse Adjustment

Weights are not only needed with unequal probability sampling but are also used in making adjustments for unit nonresponse (Kalton, 1983). The base weights were adjusted for agency and case nonresponse using the cell weighting method (Sarndal, Swensson and Wretman, 1992). The agency base weights were adjusted for nonresponse by the ratio of sums of weights for all eligible units to the sums of weights for all responding units, as follows,

$$w_{1,i,NR} = \left(\frac{\sum^{Eligible} w_{1,i}}{\sum^{Responding} w_{1,i}} \right) (w_{1,i})$$

Nonresponse adjustment cells were defined by size within sampling stratum, as follows:

Stratum	Size	Cell
Postal service	n/a	99
FBI field offices	n/a	98
1	< 10,000	1
1	< 100,000	2
1	< 500,000	3
1	< 1,000,000	4
1	>= 1,000,000	5
2	< 5,000	1
2	< 10,000	2
2	< 20,000	3
2	< 50,000	4
2	< 100,000	5
2	< 250,000	6
2	< 500,000	7
2	< 1,000,000	8
2	>= 1,000,000	9
3	< 1,000	1
3	< 2,000	2
3	< 5,000	3
3	< 10,000	4
3	< 20,000	5
3	< 40,000	6
3	< 75,000	7
3	< 150,000	8
3	< 300,000	9
3	< 1,000,000	10
3	>= 1,000,000	11

The case base weights were adjusted for nonresponse by the ratio of sums of weights for all eligible cases to the sums of weights for all responding cases, as follows,

$$W_{2,i,NR} = \left(\frac{\sum_{\text{Eligible}} w_{2,i}}{\sum_{\text{Responding}} w_{2,i}} \right) (w_{2,i})$$

Nonresponse adjustment cells for case nonresponse were defined by sampling stratum.

The final overall case weight was calculated as the product of the nonresponse adjusted agency weight and the nonresponse adjusted case weight, as follows:

$$W_{\text{case, final}} = W_{1,i,NR} * W_{2,i,NR}$$

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