B. Collection of Information Employing Statistical Methods

1. <u>Universe and Respondent Selection</u>

The objective of this survey is to produce estimates of rates of sexual assault in juvenile correctional facilities that house adjudicated youth. To meet the goals of PREA, the sample is designed to produce national estimates for a sample of facilities owned by, operated by, or under contract to states. Whenever possible, the data will also be used to produce state/regional-level and facility-level estimates. The smallest facilities will be excluded because of the expense associated with enrolling and visiting facilities that would yield a small number of interviews. Under PREA, participation of sampled facilities is mandated, and BJS is required to publicly list any facilities declining to participate.

All youth participation is voluntary. Non-adjudicated youth will not be included in the survey because it is impractical to gain PGC consent given their short lengths of stay. If facilities require PGC consent, a lead time of 6 to 8 weeks is required. Non-adjudicated youth are typically not in facilities for this amount of time.

Goals of the Sample Design

There are several different goals of the sample design. The primary one is to produce estimates at the facility, state/regional, and national levels. NSYC-1 produced estimates at the facility and national level, as mandated by the PREA legislation. As will be seen below, this mandate requires sampling a relatively large number of facilities within the population universe. Providing state/regional-level estimates is a new analytic goal. It was added to provide more comprehensive feedback to administrators across all the facilities operated by the state. This is especially important for those state systems that are composed of small facilities which do not have the sample size needed to support a reliable facility estimate.

An additional goal for NSCY-2 is to characterize the experiences of youth in smaller facilities. NSYC-1 placed much of its emphasis on generating facility-level estimates for larger places which had the sample to support reliable estimates. The trend in juvenile corrections is to place youth in smaller facilities. Because of this, NSYC-2 will sample a larger number of small facilities to be able to characterize youth experience in these types of places.

a. <u>Sample Frame</u>

In this section, the sample frame is described and put within the context of all juvenile facilities in the U.S. The sample frame will be created using the 2009 Census of Juveniles in Residential Placement (CJRP), which is maintained by the Census Bureau for the Office of Juvenile Justice and Delinquency Prevention. The numbers presented below are based on the 2007 CJRP after obtaining updates provided by the Census Bureau since 2007. These numbers will be updated when the 2009 CJRP becomes available.

Table 2 depicts the universe of juvenile facilities as reported on the CJRP and the primary criteria for the NSYC-2 sample frame. Of the 2,911 facilities on the CJRP, 358 facilities are no longer in operation, 305 facilities only contain non-offender youth, and 94 facilities house no adjudicated youth. Excluding the non-adjudicated youth in the remaining facilities leaves 2,154 juvenile facilities and 66,264 adjudicated youth. Approximately six percent of the adjudicated youth are housed in very small facilities (fewer than 10 adjudicated youth); these 878 facilities and 4,183 youth are also are excluded for the reasons discussed above. After applying these adjustments to the universe, 1,276 facilities and 62,081 youth remain.

The frame is further restricted to facilities owned or operated by the state and those under state contract that house ten or more state-placed adjudicated youth. The inclusion of the contract facilities is done primarily to produce better state/regional-level estimates (see discussion below). Approximately 709 facilities (local, private or municipal) and 29,539 adjudicated youth are excluded because they are not under state contract or house fewer than ten adjudicated youth placed by the state. An additional 868 adjudicated youth are excluded because they are non-state placed adjudicated youth in contract facilities.

	Facilities	Number of youth
CJRP Universe as of October 2007	2,911	103,900
Facilities closed since October 2007	358	8,300
Facilities with non-offenders only	305	4,902
Facilities with no adjudicated youth	94	1,539
Total facilities housing offenders	2,154	89,159
Non-adjudicated youth Adjudicated youth		22,895 66,264
Facilities housing adjudicated youth	2,154	66,264
1-9	878	4,183
10+	1,276	62,081
Non-Contract Facilities ¹	709	29,539
State and Contract Facilities ²	567	32,542
Non-state placed youth		868
State placed youth		31,674

Table 2: Composition of the 2007 CJRP

¹ Facilities not under contract to states or housing fewer than 10 adjudicated placed by state authorities ² Includes non-state facilities housing at least 10 adjudicated youth placed by state authorities

The frame will be further restricted to facilities with at least 25 percent adjudicated youth. This restriction is done for efficiency reasons because it is quite expensive to interview in facilities that have very few adjudicated youth. As seen in Table 3, this restriction excludes only 14 facilities and 218 adjudicated youth.

		Faciliti	es	Youth		
	Total State Contract			Total	State	$Contract^1$
State and Contract Facilities	567	414	153	31,674	27,975	3,699
≤ 25 percent adjudicated	14	12	2	218	190	28
>25 percent adjudicated	553	402	151	31,456	27,785	3,671

Table 3: Composition of the 2007 CJRP, by Percent Adjudicated

¹Includes only adjudicated youth placed by a state

The final step in constructing the sample frame involves defining which contract facilities will be included. Some of the states make use of contract facilities to house a significant portion of their youth. For this reason, it was important to include them for the purposes of making state/regional estimates. However, it is desirable to minimize these facilities in the frame because they are more difficult to enroll into the study. This will be done by only including contract facilities from those states where they are needed for state/regional-level estimation.

Following the above logic, the contract facilities that are included on the frame are in states where we expect to complete fewer than 80 interviews in state facilities or where at least 20 percent of state adjudicated youth are housed in contract facilities. Based on tabulations of the 2007 CJRP, there are 19 states that meet these criteria.¹ Table 4 shows the profile of the 553 facilities meeting all of the criteria mentioned previously by geography (i.e., based on whether or not the facility is located in one of these 19 states).

Table 4: Final	Sample Frame
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	Facilities			Adjudicated Youth		
	Total	State	Contract	Total	State	$Contract^1$
State and Contract	553	402	151	31,456	27,785	3,671
19 states	159	71	88	6,505	4,364	2,141
All other states	394	331	63	24,951	23,421	1,530
Final in Frame	490	402	88	29,926	27,785	2,141

¹ Includes only adjudicated youth placed by a state

As can be seen in the "All other states" row in Table 4, excluding the contract facilities in the remaining 32 states reduces the sampling frame by only 1,530 adjudicated youth in 63 facilities. Thus, the final sampling frame will include 490 facilities and 29,926 youth. It will include all state owned or operated facilities in the U.S. with greater than 25 percent adjudicated youth and at least 10 adjudicated youth. In 19 states, it will also include contract facilities with at least 10 youth placed by the state. Facilities meeting these criteria account for over 90 percent of

¹ According to the 2007 CJRP these states would include: Alaska, Arkansas, Arizona, Connecticut, District of Columbia, Florida, Iowa, Louisiana, Massachusetts, Michigan, Minnesota, North Carolina, North Dakota, Nebraska, New Hampshire, Oklahoma, Rhode Island, South Dakota, and Wyoming. These states may change when the 2009 CJRP data become available.

all adjudicated youth in state facilities or placed by states in contract facilities. It covers about 45 percent of all adjudicated youth in the U.S. and 33 percent of all juvenile offenders (see Table 2 above). Table 5 shows the projected composition of the sampling frame by facility size.

The major differences between the NSYC-1 and NSYC-2 sample designs are: (1) NSYC-1 included non-state facilities (both contract and non-contract) in all states, whereas NSYC-2 includes only contract non-state facilities in 19 states, and (2) NSYC-1 included only large non-state facilities whereas NSYC-2 includes both large and small contract facilities. The NSYC-1 and NSYC-2 frames are similar for state facilities and will allow for comparing the estimates between the two surveys for state facilities.

	Facilities			Adjudicated Youth		
	Total	Total State Contract		Total	State	$Contract^1$
Total	490	402	88	29,926	27,785	2,141
Facility Size						
10-19	153	113	40	2,168	1,604	564
20+	337	289	48	27,758	26,181	1,577

Table 5: Composition of Sampling Frame by Facility Size

¹ Includes only adjudicated youth placed by a state

b. Facility Sampling

All facilities in the frame with 20 or more state-placed adjudicated youth will be sampled with certainty. This threshold will yield at least one sample facility in each state. The remaining facilities, with 10-19 state-placed adjudicated youth, will be sampled with probability proportional to size. For state facilities, the measure of size will be the estimated number of adjudicated youth. For the non-state facilities, it will be the estimated number of state-placed youth. The selection probability of these small facilities will be their measure of size divided by 20; this number corresponds to the measure of size for the smallest certainty facility. Based on these rules, an estimated 450 facilities will be selected for the study from the 490 in the frame.

Based on data from NSYC-1, we anticipate that approximately 20 percent of the sampled facilities will have no youth sampled. Most of this will be the result of facility ineligibility (i.e., the sampled facility has closed, no longer houses adjudicated youth, etc.) After accounting for sampling, nonresponse, and ineligibility, the expected composition of the cooperating facilities for NSYC-2 is shown in Table 6.

Table 6: Composition	of Sampled and	Cooperating I	Facilities by	Facility Size
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	Facilities			Ad	Youth	
	Total	State	Contract	Total	State	$Contract^1$
Sampled Facilities	450	371	79	29,425	27,403	2,022

Facility Size 10-19 20+	113 337	82 289	31 48	1,667 27,758	1,222 26,181	445 1,577
Cooperating Facilities	360	297	63	23,540	21,922	1,617
Facility Size						
10-19	91	66	25	1,334	978	356
20+	269	231	38	22,207	20,945	1,262

¹ Includes only adjudicated youth placed by a state

c. Youth Sampling

Youth response rates will vary across facilities according to whether the state or facility grants *in loco parentis* consent (ILP) for all, some, or none of the youth who are younger than the age of self-consent. Response rates in facilities with ILP, or if the youth population is mostly above the age of self-consent, will be much higher because it will not be necessary to obtain PGC consent.

All adjudicated youth in state facilities and all adjudicated state-placed youth in contract facilities will be selected with certainty. However, to minimize facility burden in facilities where more than 160 youth are consent-eligible, we will randomly subsample the youth to reach a final sample of 160 youth.² We will only subsample the youth in facilities with fewer than 160 consent- eligible youth when required due to facility or team resource constraints.

As in NSYC-1, a 10 percent subsample of youth at each facility will receive a questionnaire on their drug and alcohol use prior to being admitted to the facility rather than on sexual assault. This is done to protect the confidentiality of the respondents. Thus, no one, other than the respondent answering the questions, will know whether or not a given youth responded to the sexual assault questionnaire.

Even though individual survey responses are protected from disclosure, we will not publish facility-level estimates where fewer than 10 youth completed a sexual assault survey in order to further protect confidentiality. However, the data from these facilities will be included in the state/regional level and national estimates. We will publish estimates of facilities with 10-29 completed sexual assault surveys but will exclude them from the facility rankings due to their expected larger standard errors.

Based on analysis of NSYC-1 results, it is anticipated that facilities with more than 30 completed usable sexual assault surveys will have their estimates published and be ranked. These facilities will generally have acceptably small standard errors.³ This standard is preliminary and may be revised once the NSYC-2 data are collected analyzed. Table 7 shows the estimated number of

² Consent-eligible youth include those for whom the state or non-state agency provides *in loco parentis* consent, those for whom a parent/guardian provides consent, and those who are able to self-consent.

³ Usable surveys are those that do not have inconsistent or extreme data as described in section 2h.

facilities and youth for three categories based on the number of completed sexual assault surveys. We anticipate that approximately 95 of the facilities in NSYC-2 will be eligible for ranking, as shown below.

Completed Sexual Assault Surveys	Facilities	Sampled Youth	Interviews	Total Sexual Assault Surveys
Less than 10	138	2,679	1,141	1,027
10-29	127	5,102	2,865	2,578
30+	95	15,759	9,118	8,206
Total	360	23,540	13,124	11,812

Table 7: Estimated Sample Sizes by Number of Completed	Sexual
Assault Surveys	

2. <u>Procedures for Information Collection</u>

The methods proposed for use in data collection are as follows:

a. State/Non-State Agency Enrollment

The administrator of each state agency will receive a letter from BJS and a study information packet. The letter will request that the administrator identify a state staff member to serve as liaison for the study. Westat will contact the administrator soon after the packets are sent, answer questions the administrator might have, and obtain the contact information of the liaison. Similar procedures will be used to contact executives of the non-state agencies with jurisdiction over the sampled non-state facilities.

Study information packets will be sent to all liaisons along with a letter explaining that Westat staff will contact them to discuss procedures and requirements (Attachments 7-I, 7-II, 7-III, and7-IV). Through email and brief telephone contacts with the liaisons, state enrollment specialists will gather information on state mandatory reporting requirements, informed consent procedures, research clearance process (e.g., state institutional review boards), and other logistical requirements. Liaisons will be asked to provide written documentation of the state or non-state agency support for the study.

b. <u>Facility Enrollment</u>

A sample of approximately 450 juvenile facilities will be selected from a frame of 490 state and non-state facilities. Each sampled facility will be contacted to notify them of their selection and to request participation. A coordinator will be designated at each facility and study materials will be mailed to this person (Attachments 7-V, 7-VI, and 7-VII). Facility enrollment specialists will conduct a series of brief telephone calls to collect initial information about the facility and obtain logistic information for planning the survey visit (Attachments 7-VIII and 7-IX).

c. Sampling of Youth

Within six weeks prior to data collection at a facility, the facility will provide a roster of all adjudicated youth who are currently residing there (Attachments 2-I and 2-II). A random sample of youth will be drawn from the roster. The facility coordinator will provide periodic updates prior to the visit to the facility.

d. Parent/Guardian Consent

For those facilities requiring PGC consent, procedures to contact the households will be negotiated with the facilities (based on requirements specified by the state or non-state agency). Either the facility or the study contractor will send written materials containing an explanation of the study and the nature of youth involvement (Attachment 3-I, 3-II, and 3-III). Depending on the procedures that are negotiated, mail or telephone prompting of parents/guardians that do not respond to the initial mailing will be done (Attachment 3-IV).

e. Data Collection

A team of interviewers will visit the facility. They will ask facility staff to bring each sampled consent-eligible youth to a private interviewing area. The interviewer will read an assent script (Attachment 4-I) to the youth and solicit his/her participation. If the youth agrees to participate, the interviewer will initiate a brief ACASI tutorial to familiarize the youth with the headphones, touch screen, and screen display. Once the youth finishes the tutorial, the ACASI system will shift to the questionnaire assigned to the youth (i.e., either NSYC2 or NSYC2-A) and the youth will be able to complete the survey privately. At the end of the questionnaire, the youth will turn the computer back to the interview. The facility staff person will escort the youth from the interview area and the interviewer will then finish the process by answering a set of debriefing questions about the interview.

In order to determine if there is any bias introduced from nonrespondents, facilities will be asked to provide administrative record data for all sampled youth (Attachments 2-I and 2-II). This will allow researchers to compare characteristics (e.g., demographics, committing offense) of youth who participate and youth who do not participate.

The facilities will also be asked to complete the Facility Questionnaire and Living Unit Characteristics Form (Attachments 2-IV and 2-V). This will allow researchers to examine possible relationships between assault and the environmental and policy characteristics of the facility.

f. Weighting and Nonresponse Adjustment

The survey data will be weighted to provide facility, state/regional, and national estimates. To generate facility estimates, an initial weight will be assigned to each youth. In most facilities, the initial weight will correspond to the inverse of the probability of being selected for the sexual assault questionnaire. In facilities where subsampling of consent-eligible youth occurred, the initial weight will correspond to the inverse of the probability of being selected for the sexual assault questionnaire multiplied by the facility's subsampling rate.

A series of adjustments will be applied to the initial weight to compensate for nonresponse. These adjustments will be completed in three steps:

1. Adjustment cells will be constructed based on unit and youth characteristics (e.g. unit population size, offense, race, Hispanic origin, age, gender, and the number of days in facility, etc).

2. In creating adjustment cells, we will require a minimum nonresponse cell size of 10 youth. In many facilities, this will result in a single adjustment cell for the weight adjustment.

3. After the initial nonresponse adjustment, the distribution of weights will be examined. If the weights for some youth are too high (e.g. in NSYC-1, if within a facility the highest weight was 4 times larger than the lowest weight) their weights will be trimmed.

To generate state/regional and national estimates, the facility weights will be adjusted to reflect each facility's probability of selection into the sample and then adjusted for facility nonresponse. The next steps in creating state and national nonresponse adjustments will be the same as those described above for facility-level weights.

g. Standard Errors and Confidence Intervals for Facility Estimates

Survey estimates are subject to sampling error arising from the fact that the estimates are based on a sample rather than a complete enumeration. For facility estimates, the sampling error varies by the value of the estimate, the number of completed interviews, and the size of the facility.

To express the possible variation due to sampling associated with facilitylevel estimates of sexual assault, we will provide lower and upper bounds of the related 95 percent confidence intervals. Because many facility samples will be small and the estimates may be close to zero, confidence intervals will be constructed using a method developed by Wilson.⁴

The Wilson method assumes that the distribution of $\sqrt{\Box_{\Box}}$ is approximately t, where P is the underlying population proportion (e.g., assault rate). The inequality $\Box_{\Box} \Box_{\Box}$ is then rearranged to obtain a confidence interval for P, where df = the degrees of freedom associated with t. The confidence limits based on the Wilson score method are then calculated as

⁴ Brown, L.D., Cai, T. and DasGupta, A. (2001) Interval Estimation for a Binomial Proportion, *Statistical Science*, 16 (2), 101-138, and Wilson, E.B. (1927) Probable Inference, the Law of Succession, and Statistical Inference, *Journal of the American Statistical Association*, 22, 209-212.

$$\frac{(\square_{\square}\square^{\square})(\sqrt{\square^{\square}\square_{\square}})}{\square_{\square}\square^{\square}}$$
$$\frac{(\square_{\square}\square^{\square})(\sqrt{\square^{\square}\square_{\square}})}{\square_{\square}\square^{\square}}$$

where $\Box_{\Box} \stackrel{\Box}{\Box}$ and \Box_{\Box} .

Computationally, this method produces an asymmetrical confidence interval around the facility estimates, in which the lower bound is constrained to be greater than or equal to zero and the upper bound is less than or equal to 100 percent. It will also provide confidence intervals for facilities in which the survey estimates are zero (i.e., no assaults were reported). An estimate of 0 does not necessarily mean that the true assault rate is zero, but rather that the sample was too small to yield an occurrence of a very rare event through random sampling.

To provide an indication of the facility level precision to be achieved under the proposed sample design, Table 8 shows the approximate 95 percent confidence intervals of estimates when using the Wilson method for various sample sizes (i.e., numbers of youth completing interviews) and assault rates. The calculations assume a design effect of 1 and that half of the sampled youth will have a completed sexual assault survey.

Completed	Assault	Lower	Upper
Interviews	Rate	Bound	Bound
10	.00	0.00	0.16
	.10	0.03	0.30
	.20	0.08	0.42
30	.00	0.00	0.06
	.10	0.05	0.20
	.20	0.12	0.32
50	.00	0.00	0.04
	.10	0.06	0.17
	.20	0.13	0.29
100	.00	0.00	0.02
	.10	0.07	0.15
	.20	0.15	0.26

Table 8:	Approximate	e 95% Co	nfidence	Intervals
for Facili	ity Estimates	Using the	Wilson I	Method

h. <u>Standard Errors and Confidence Intervals for State/Regional and National</u> <u>Estimates</u>

For state/regional and national estimates, the standard errors of estimates derived from the survey will be computed using the formula: $\widehat{\Box} \Box_{\Box}()\widehat{\Box}$, where $\widehat{\Box}$ is the estimated assault rate, $\widehat{\Box}$ is the standard error for proportions,

 $\sqrt{\square_{\square}}$, and \square_{\square} is the appropriate percentile of a t distribution. Table 9 shows the approximate 95 percent confidence intervals for estimates based on a range of sample sizes applicable to state/regional and national estimates. The calculations assume that half of the sampled youth will have a completed sexual assault survey and an average design effect of 1.5, this value reflects differences in weights due to facility sampling, unequal weighting, and clustering.

Table 9:	Approximate 95%	Confidence Intervals for
State/Reg	gional and National	Estimates

Completed	Assault	Lower	Upper
Interviews	Rate	Bound	Bound
200	.05	0.044	0.056
	.10	0.089	0.111
	.15	0.133	0.167
500	.05	0.046	0.054
	.10	0.093	0.107
	.15	0.140	0.160
1,000	.05	0.047	0.053
	.10	0.095	0.105
	.15	0.143	0.157
11,812	.05	0.049	0.051
	.10	0.099	0.101
	.15	0.148	0.152

i. Reducing and Assessing Measurement Error

The survey design and procedures consider three major sources of measurement error:

1. *Comprehension*. The youth in this survey will be between 12 and 25 years old. Some youth may not have high reading skill levels and may have trouble concentrating for extended periods of time.

2. *Sensitive questions*. It is difficult to disclose details about sexual assault incidents, especially during an interview. It could bring back difficult memories. In addition, youth may not be confident of the promise of confidentiality of the survey data and fear that someone in the facility will find out about the interview. This could lead to a fear of reprisal, either by

other youth or by facility staff.

3. *Overreporting*. Some youth may report a sexual assault that did not occur. This concern was voiced by some facility administrators. Since there are no actions taken as a result of reporting something on the survey, administrators feared youth would report incidents knowing the facility staff may be held accountable.

NSYC-2 will minimize these errors through several design features. The interview will use ACASI. This will help secure the confidentiality of the survey data, which should increase youth's willingness to disclose information. The audio portion of the interview will address the low literacy of some of the youth. In addition, the questionnaire will include "hot words," highlighted in a different color, which youth can access if they are uncertain about their definition. The ACASI will include a number of range and logic checks to guard against unrealistic values and ask youth to verify their responses. To further assist youth having difficulty with the interview, the computer will flag those who spend a long period in particular sections of the interview and prompt the youth to obtain assistance from an interviewer. All of these procedures were used on NSYC-1.

Once the interviews are completed, individual response patterns will be assessed to identify interviews having extreme or internally inconsistent responses. NSYC-1 used three response patterns considered indicative of invalid data. These patterns included:

- a youth completed the survey in less than 10 minutes. Based on internal testing, it was determined to be extremely difficult for a respondent to seriously complete the interview in less than 10 minutes.
- the reported number of forced sexual contacts with other youth exceeded 1.5 incidents per day for every day since admission to the facility.
- the reported number of forced sexual contacts with facility staff exceeded 1.5 incidents per day for every day since admission.

If the youth had any of these values, they were taken out of the estimate. For NSYC-1, out of 9,362 completed interviews, 89 had at least one of these response patterns. NSYC-2 will use similar indications that the survey should not be considered as valid.

We will develop an additional list of indicators to assess whether a youth showed signs that he or she did not fully understand the survey items, whether the youth did not consistently report the details of events, or if the youth provided inconsistent responses. On NSYC-1, this list contained approximately 25 indicators. For example, one indicator was if the youth provided unrealistic dates or personal information; another indicator was if the youth reported in a debriefing item that questions on sexual activity were hard to understand. Other indicators compared responses in one section of the survey with responses in other sections. We will combine these indicators into a count of the total number for each youth. Interviews will be taken out of the estimates if a youth has multiple indications of problems. Multiple extreme/inconsistent responses will be required to eliminate the response in recognition that youth could provide extreme or inconsistent data for a few items without it invalidating the entire interview. On NSYC-1 a standard of having at least 3 of the 25 response patterns was used to eliminate an interview from the analysis. Approximately 1 percent of the youth data were eliminated because of these criteria. The NSYC-1 publication also provided the national victimization rates when different criteria were used (e.g., when 2 or more outliers eliminated an interview; or when 1 or more eliminated an interview). Readers could then judge the extent to which this decision rule affected the results. For NSYC-2, a similar set of procedures will be used.

Facilities expressed concern that the youth could too easily overreport or falsify sexual victimization in NSYC-1. There were also concerns that youth could telescope prior incidents of victimization forward. To best determine how to modify the questionnaire in response to these concerns, Westat recruited 10 consultants who were either experts or investigators in the field of child welfare. These consultants were given NSYC-1 materials to review in advance and asked to comment on the methods used to evaluate the veracity of youth reporting in NSYC-1 as well as suggest other ways to evaluate the veracity of youth responses. The feedback sessions were successful and led to modifications in the NSYC-2 instrumentation.

The following consultants were recruited:

Lucy Berliner; MSW, LISW Director Harborview Center for Sexual Assault and Traumatic Stress 325 Ninth Ave, Box 359947 Seattle, WA 98104

Kathleen Coulborn Faller, Ph.D., A.C.S.W., L.M.S.W. Marion Elizabeth Blue Professor of Children and Families Director of the Family Assessment Clinic School of Social Work The University of Michigan 1080 S. University Ann Arbor, MI 48109-1106

Wimson Crespo Chief Investigator Juvenile Justice Commission, Office of Investigations Bordentown, NJ 08505

John Ellis Special Investigator of Abuse/Neglect for State Run Facilities State of South Dakota 3200 East Highway 34 c/o 500 East Capitol Avenue Pierre, SD 57501-5070

Mark D. Everson, Ph.D. Director, Program on Childhood Trauma and Maltreatment UNC Department of Psychiatry 104A Market Street Chapel Hill, NC 27516

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Lisa Johnson, Sr. Deputy Prosecuting Attorney Chair, Special Assault Unit Christopher Young, Detective Kevin Grossman, Detective King County Prosecuting Attorney's Office King County Courthouse, Room W554 516 Third Avenue Seattle, WA 98104-2362

j. Nonresponse Bias Analysis

As noted in the sample design section, the weighting of the data will include an adjustment for nonresponse using variables available on the frame. Even after this adjustment, there may still be bias if the nonrespondents are different from the respondents within the weighting adjustment classes. The most significant factor affecting nonresponse is the type of consent required. On NSYC-1, the facilities requiring PGC consent had a response rate that was approximately half (39.3%) of the rate for facilities using ILP consent (79.5%). We expect a similar pattern will occur on NSYC-2, although we are striving to increase the number of states that allow ILP.

In recognition of this discrepancy, a nonresponse bias analysis will assess whether nonresponse affects the comparability of facility rates that used different types of consent. This analysis will assess bias for each of the primary sexual victimization categories (i.e., total, involving youth, involving staff). The analysis will consist of estimating a series of regressions of the form:

$$V_i = a + \sum_j B_j X_{ij} + B_c X_{ic} + e_j$$

Where $V_i = 1$ if the person has been victimized; 0 otherwise

- B_i = the regression coefficient for the *j*th predictor variable
- X_{ii} = The value for the jth predictor variable for the *i* th person
- B_c = The regression coefficient for consent status
- X_{ic} = The value of consent status for the *i*th person
 - a = The constant for the regression
 - e_i = The error for the ith person

Nonresponse bias is indicated if the regression coefficient for consent status is significant. The inclusion of other predictor variables (X_{ij}'s) in the equation controls for differences across consent type that might be correlated with reporting victimization. These predictor variables will include all of the frame variables that are available for all sampled youth at the facility level (e.g., facility size; types of units) and individual youth level (e.g., age, gender, time in facility, most serious offense committed). A similar analysis on NSYC-1 found that several of these characteristics were related to victimization. It also found, even after controlling for these characteristics, that ILP respondents reported, on average, a victimization rate that was 2 to 3 percentage points higher than PGC respondents. For this reason, separate rankings were published for ILP and PGC facilities.

A similar procedure will be carried out for NSYC-2. The nonresponse bias associated with consent type will be assessed. If a similar result occurs, separate rankings will be completed for ILP and PGC facilities.

3. <u>Methods to Maximize Response</u>

Every effort is being made to make the survey materials clear and simple to use. Project staff will discuss with state liaisons whether the state can provide ILP consent. This discussion will include possible adaptations of the study protocol; for example, a state might be able to provide consent so long as the parent/guardian was notified of the survey and did not express refusal for their child to participate. In addition, the study is prepared to assist facilities in any way to obtain PGC consent. This includes conducting the mailings, using special mailing procedures (e.g., express delivery), making telephone calls to check on consent packages, obtaining verbal consent by telephone (when approved by the state or non-state agency).

The confidential nature of the data collected is clearly and repeatedly explained in the PGC consent process and in the youth assent process. The NSYC questionnaires have been designed to maximize privacy and foster an awareness of the steps taken to protect confidentiality. Some examples include the delivery of questions through headphones and the lack of direct involvement of the interviewer once the youth begins answering the questions.

The NSYC questionnaires have also been designed to maximize respondent comprehension and participation and minimize burden. Some examples include an easy to use touch-screen interface with the questions simultaneously delivered via headphones. A Spanish version of the questionnaire will be available for non-English, Spanishspeaking respondents. Westat field staff will be available to answer any questions that respondents may have, including bilingual staff who can answer questions in Spanish. Arrangements with mental health staff at each facility or with outside providers will be made for delivery of counseling services for respondents interested in obtaining counseling services or assistance following the survey.

4. <u>Test of Procedures or Methods</u>

The NSYC-2 survey questionnaires and data collection procedures are largely unchanged from those used for NSYC-1. The limited number of questionnaire changes did undergo cognitive testing in March 2011. The results of the testing have been incorporated into the final survey instruments described throughout the supporting statement (see Attachments 2-VII, 2-VIII, 2-IX, and 2-X).

5. <u>Consultation Information</u>

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