

# **National Study of Delinquency Prevention in Schools**

## **Appendix A Sampling and Recruitment**

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# A. Sampling and Recruitment

## Schools and Principals

We desired to describe *schools* in the United States, and to provide descriptions for urban, suburban, and rural schools and for elementary, middle, and high schools. We required a list as inclusive of the population of schools in the U.S. as possible from which to sample. We used a commercial mailing list vendor's list because it included not only public but also private and Catholic schools, was purged of recently closed schools by the mailing list vendor, and contained schools that began operation more recently than the most comprehensive alternative lists that could be located. The vendor, Market Data Retrieval, uses information from the Common Core of Data developed by the National Center for Education Statistics, and it updates and augments that information with additional information which it develops, such as principal's name.

We assumed that a 70% participation rate might be attainable, and that it would be desirable to have 300 participating schools representing each of urban, suburban, and rural schools and 300 schools representing each grade level. The universe was stratified by location and level, and a systematic  $1/n$  sample of 1287 schools was drawn so that the number of sampled schools in each of the nine (level by location) cells sampled was 143. With a 70% participation rate this would produce 100 schools per cell, 300 at each level, and 300 for each location. School level was defined as follows (E = elementary, M = middle, H = high):

Lowest grade	Highest grade											
	1	2	3	4	5	6	7	8	9	10	11	12
Pre-K	E	E	E	E	E	E	E	E	M	M	H	H
K	E	E	E	E	E	E	E	E	M	M	H	H
1	E	E	E	E	E	E	E	E	M	M	H	H
2		E	E	E	E	E	E	E	M	M	H	H
3			E	E	E	E	E	E	M	M	H	H
4				E	E	E	M	M	M	M	H	H
5					E	E	M	M	M	M	H	H
6						E	M	M	M	M	H	H
7							M	M	M	M	H	H
8								M	M	H	H	H
9									M	H	H	H
10										H	H	H
11											H	H
12												H

The stratified probability sample includes public and private (sectarian and non-sectarian) schools in the United States (all 50 states and the District of Columbia), excluding Puerto Rico and U.S. territories. The sampling frame includes regular public schools as well as vocational schools, comprehensive schools, magnet schools, and alternative schools. It also contains Catholic schools and private schools (both sectarian and nonsectarian). The MDR list of schools was used to select the sample because we believed it to be more complete and up-to-date than the list compiled by the National Center for Education Statistics for the Common Core of Data (i.e., the most complete list available), and because it contained the names of principals. Initial sample weights (the inverse of the probability of selection) range from 22.88 for urban middle schools to 182.22 (for rural elementary schools). Because of the very large number of rural schools in the U.S., sampling probabilities for rural schools were relatively low (1 or 2%) whereas the sampling probability of urban middle schools was higher (over 4%).

In phase 1, schools were contacted directly to seek their participation in the project.<sup>1</sup> In phase 2, for sampled secondary schools and for elementary schools in districts containing sampled secondary schools, a more complicated recruitment procedure was followed by Westat. (This procedure is described below where the sampling of teachers is discussed.) For other elementary schools in the sample, survey assistants at Gottfredson Associates contacted the schools directly. Elementary schools in districts where Westat was seeking secondary school participation were contacted by Gottfredson Associates personnel after Westat had determined the outcome of its interaction with the district. Schools in districts with sampled secondary schools were approached only following district agreement to participate. Westat secured data from secondary schools and Gottfredson Associates secured data from elementary schools.

## **Prevention Activities**

Sampling of prevention activities within participating schools began with the list of activities identified in the principal phase 1 questionnaire for program identification and accompanying activity detail booklet (or for a small number of schools identified with a short-form questionnaire completed via telefax or telephone when the full-form had not been returned in phase 1). The number of distinct prevention activities identified in this way was greater than we had anticipated, so we decided to sample activities to limit the reporting burden on schools. In the phase 1 activity detail booklet principals had been asked to identify two individuals who could describe each activity. In telephone calls in preparation for the phase 2 survey we attempted to determine if specific prevention activities were still underway in schools, which

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<sup>1</sup>Some principals indicated that school district approval was required before the school could participate. In these cases district personnel were contacted to request endorsement of school participation in the project. Some of these districts refused to participate – citing obstacles such as too many surveys in schools or a policy of not conducting surveys at certain times of the year, for example. Some districts required the completion of a formal application for approval of research. In all cases where such a requirement was made, we prepared an application. Not all districts acted on these applications.

eliminated some activities. To obtain a sufficient amount of data in each of the 14 categories of discretionary prevention activity, no more than one activity was selected from each category for each school. An exception to this no-more-than-one-per-category rule was that two identifiable “packaged” programs were selected with probability = 1.0 if not selected by the random procedure. The packaged programs selected in this way were Drug Abuse Resistance Education (or D.A.R.E.), and Peer Mediation (including student mediation).

Sometimes the activity sampling described in the foregoing paragraph resulted in several activities with the same individual as the only identified informant. Sometimes, the principal had been identified as the person who could provide more information for two or more prevention activities (and in all cases the principal would be asked to complete the phase 2 principal questionnaire describing school-wide activities). When it occurred that an individual would be asked to complete more than two questionnaires, we attempted to determine in discussion with the school principal whether others in the school could describe the sampled activity. We were not always able to get the principal on the phone, and there were many instances in which the principal was not able to identify alternative respondents. Accordingly, we randomly re-sampled within prospective respondents so that respondents were not asked to complete more than two questionnaires. The principal was limited to the phase 2 principal questionnaire and one activity questionnaire.

Telephone interaction with elementary schools was conducted by assistants at Gottfredson Associates, and interaction with secondary schools was conducted by Westat personnel. Random sampling of activities was conducted by researchers at Gottfredson Associates. The principal was asked to designate an individual to serve as survey coordinator so that one package of questionnaires could be delivered to the school and one person would be responsible for receiving, distributing, and returning the completed materials. (In secondary schools, where Westat personnel engaged in negotiations with schools, survey coordinators would also be responsible for student and teacher surveys and for assisting Westat in securing rosters of students and teachers.) Sometimes the principal designated another individual, and sometimes the principal decided to serve as coordinator.

## **Teachers and Students**

We sought to survey all teachers and obtain completed student questionnaires from a probability sample of 50 students in participating secondary schools. Westat personnel were responsible for the sampling of teachers and students in participating secondary schools. Westat, which has conducted a number of surveys of schools under contract with the U.S. Department of Education, has developed a standard approach to the task which involves first contacting each Chief State School Officer, then requesting participation from local education agencies (school districts), and contacting schools only when district participation is secured. This traditional approach is particularly appropriate when districts are a primary sampling unit (PSU). In the present study, Gottfredson Associates had earlier selected a sample of schools in which schools were the PSU. Accordingly, Westat had to negotiate with a relatively large number of districts to

implement the traditional strategy. Details of the state, district, and secondary school recruitment effort by Westat are provided elsewhere.<sup>2</sup> District recruitment began in November 1997 and for some districts continued into April 1998. Once districts agreed to participate, Westat personnel approached principals to request school participation. Recruiters offered secondary schools an incentive of \$100 to participate,<sup>3</sup> and negotiated with principals about the nature of their participation (dropping the request for student participation to avoid refusal to participate in any part of the project).

To prepare for surveys, survey coordinators were asked for information about average student attendance, percentage of students unable to read English at the 6<sup>th</sup> grade level, expected survey date, and last day of school; and coordinators were asked to send a roster of students and teachers. In most cases all teachers were included in samples, but students were usually sampled. Where possible (i.e., where Westat was able to obtain a roster indicating student sex), the school population of students was stratified by sex and a systematic  $1/n$  sample of students was drawn. When sex was not known but grade level was known, the population was stratified by grade level and a  $1/n$  sample of students was drawn. In other cases, a  $1/n$  sample of students was drawn. The size of  $n$  depended upon (a) the number of students in the school, (b) the school's typical attendance rate, (c) the percentage of low English proficiency students, and (d) an anticipated response rate of .8 so that an expected 50 students would complete questionnaires.

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<sup>2</sup>Crosse, S., Burr, M., Cantor, D., & Hantman, I. (2000, April 14). *Study on school violence and prevention: Intermediate level: Draft report* (Appendix A). Rockville, MD: Westat.

<sup>3</sup>Recruiters also offered reluctant elementary school principals an incentive of \$50 to participate in the phase 2 surveys.