

## Considerations for Analysis of SSOCS Data

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This module describes the analytic considerations for SSOCS data. It explains the anomalies in the SSOCS data file and discusses reporting concerns associated with the data. It also explains limitations for the data and describes additional resources.

Throughout this module, underlined blue screen text indicates a link to additional resources.

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Some data values in the SSOCS data file are modified using editing or imputation procedures. In some cases, changes were made to the data because answers to questions did not make sense logically based on answers to related questions. In these instances, the data are edited or imputed for consistency in responses.

Computer-based checks are run on the SSOCS data file to detect and correct inconsistencies.

However, in some cases, changes are not made despite inconsistencies that are apparent in the data. Responses sometimes indicate that respondents may not have understood a question. One example is item 44, the average daily attendance at the school as the percentage of students present. Some respondents in the SSOCS 2016 sample appear to have interpreted this question to mean the percentage of students absent rather than present. This was evident where the number reported was very low. These abnormally low responses were left in the data file; however, data users may want to code these responses in a different manner or eliminate them from analysis when using this variable.

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There are two items on the SSOCS questionnaire that include open-ended text responses: respondent title and type of school. In both cases, respondents selecting the option "other" are asked to record an original response to explain their selection. The responses entered in these fields were reviewed to determine whether they could be logically coded into one of the response options supplied on the questionnaire. This procedure is called back-coding. After back-coding, those responses that could not be recoded were reviewed to determine which were used frequently. A new variable was created to record the most frequently given responses in these fields. Categories including administrative or secretarial staff, teacher or instructor, counselor, Superintendent or district staff, and security personnel were added to the recoded variable for respondent title. Researchers may prefer to use the created variable categories along with the original response variable categories. After back-coding,

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there were no common responses for “type of school” in the 2016 data set and these were left as “other”.

The methods described here for back coding and logical errors were consistently used throughout each year of SSOCS data collection.

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When presenting the results of SSOCS data analyses, there are several important considerations. For one, the data in SSOCS can only be used for aggregate reporting. As such, the results of data analyses should not be taken as representative of any one particular school. That is, if a researcher finds that most schools in a particular subgroup are, for example, employing school security guards, we cannot assume that any one school, or that all schools, with the same subgroup characteristics are employing school security guards. This is the ecological fallacy: assuming that what is valid for the aggregate is valid for any one part of that aggregate. Results derived from the analysis of weighted SSOCS data represent population-level estimates.

In drawing inferences about the results of SSOCS data analyses, users should also keep in mind that conclusions about causality between school characteristics and crime cannot be made due to the cross-sectional, non-experimental nature of SSOCS data. Researchers should be careful not to assign causal relationships to correlations in the data set. Additionally, many questions in the SSOCS data set are interrelated. For example, the number of disciplinary actions reported will be higher in schools where higher numbers of infractions are reported. Users interested in analyzing how frequently disciplinary actions are applied in schools need to look beyond the total number of disciplinary actions recorded. Researchers should be familiar with the survey questions and with school crime and safety topics before analyzing SSOCS data.

Be sure to review standard error estimates for any means derived from SSOCS data before reporting results. Standard errors are an indicator of the margin of error for the statistic generated. NCES standards require that tables containing estimates with high standard errors should be footnoted, and in some cases cell values blanked out, to avoid misinterpretation.

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The target population for SSOCS, or the group for which SSOCS data are representative, is regular public schools, public charter schools, and public schools that have partial or total magnet programs in the United States. The data can be used to make inferences about these schools with regard to their safety and crime. There are a few limitations about the target population that must be kept in mind because these limitations may impact some analyses.

First, the target population does not include schools outside of the 50 states and the District of Columbia. SSOCS data cannot be used to describe safety and crime at schools outside of the 50 states and the District of Columbia.

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Even within the 50 United States and the District of Columbia, additional schools were excluded from participation in this survey based on the special populations that they serve, including Bureau of Indian Education schools, special education schools, vocational schools, alternative schools, virtual schools, and ungraded schools. Likewise, schools with a high grade of kindergarten or lower, that is, preschool and Kindergarten only schools, are excluded from SSOCS data collection. Again, inferences cannot be made to these schools using SSOCS data. Additionally, SSOCS data cannot be used to produce state-level estimates.

Remember, too, that SSOCS is a cross-sectional survey. Although there have been several years of data collection, differences from year to year for specific schools are not tracked using this survey.

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Data collected through SSOCS are used in many ways by different stakeholders, including school administration, policymakers, academics, and the general public. Publications that use SSOCS data are available on the websites of the National Center for Education Statistics, various web pages of the Bureau of Justice Statistics, and various academic journals, databases, and libraries. Links to each of these websites are provided on the Summary and Resources slide.

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The school crime team has completed testing of new items and changes to current items in preparation and development of the 2018 questionnaire. Additionally, the 2018 collection will include the development and field test of a web version of the questionnaire.

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Another source of information for researchers interested in school crime and safety in public schools from the schools' perspective is the Department of Education's Office for Civil Rights, or OCR's, Civil Rights Data Collection, or CRDC. This project collects data on key education and civil rights issues in the nation's public schools. CRDC data contain a variety of information (including incidents and disciplinary actions) disaggregated by race/ethnicity, sex, limited English proficiency and disability, and are available for all schools and districts by name.

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This module described the analytic considerations for SSOCS data. It explained the anomalies in the SSOCS data file and discussed reporting concerns associated with the data. It also explained limitations for the data and described current and future SSOCS-related projects.

Important resources that have been provided throughout the module are summarized in this slide along with the module's objectives for your reference.

## Considerations for Analysis of SSOCS Data

This concludes the SSOCS dataset training. You may now click the exit button to return to the landing page.