
MEMORANDUM

TO: SHELLY WILKIE MARTINEZ, OMB

FROM: MONICA HILL, NCES

SUBJECT: ANALYSIS OF SSOCS:2010 RAPE VARIABLE PER OMB REQUEST (1850-0761 v.5)

DATE: 2/2/2021

CC: KASHKA KUBZDELA, KATHRYN CHANDLER, NCES

The School Survey on Crime and Safety (SSOCS) is managed by the National Center for Education Statistics (NCES) on behalf of the U.S. Department of Education. SSOCS collects extensive crime and safety data from principals and administrators of public schools in the United States. Data from this collection can be used to study the relationship of school characteristics with violent and serious violent crimes in American schools and examine what school programs, practices, and policies are used by schools in their efforts to prevent crime. SSOCS has been conducted five times: in school years 1999–2000, 2003–04, 2005–06, 2007–08 and 2009–10 and will be conducted again in school year 2011–12.

For the 2009–10 SSOCS, the definition of rape was modified to emphasize that both male and female students can be victims of rape. In prior iterations of the SSOCS questionnaire, rape was defined as “forced sexual intercourse (vaginal, anal, or oral penetration). This includes penetration from a foreign object.” In the SSOCS:2010 questionnaire, rape was defined as “forced sexual intercourse (vaginal, anal, or oral penetration). This includes penetration from a foreign object. Both male and female students can be victims of rape.” The purpose of the modification was to be more consistent with the definition used by the Office of Civil Rights and at the specific request of outside researchers. Concerns were raised during the review of the SSOCS:2010 OMB package that this new definition may encourage principals to report rapes that they would not have reported in earlier iterations of SSOCS, resulting in an increase in rapes on the SSOCS data file that could be misinterpreted as an actual increase in rapes from the 2007–08 school year to the 2009–10 school year.

During the OMB review process, NCES and OMB discussed possible methods to investigate this concern and decided that NCES would request that the Census Bureau (the data collection agency) collect additional information from qualifying schools. Specifically, if a school met the criteria to receive a callback during failed edit follow up (FEFU) and had a missing or nonzero value for the rape variable, the principal would be asked to confirm that the number of rapes was correct (or report the number of rapes if the value was missing) and report how many of these rapes were attributed to male students. In addition, Census collected information regarding how many respondents’ rape values met the criteria to proceed to FEFU, how many actually went to FEFU,

and of these, how many were successfully contacted. Census also recorded information on the number of these cases that resulted in a value change in the data file based on the FEFU call.

Out of the 2,650 completed questionnaires for SSOCS:2010, a total of 44 rapes were reported, of which 32 rape values met the criteria to proceed to FEFU (see table A for a breakdown of case outcomes from the FEFU operation). Of these 32 cases, 29 proceeded to FEFU (due to the late receipt of 3 questionnaires). Of these 29, Census was able to successfully contact 24 schools and 20 cases resulted in a value change on the data file. In the majority of cases, the original value was missing and FEFU resulted in a nonmissing value; specifically, 18 of the 20 cases changed from missing to '0.' For the remaining two cases, Census confirmed that there were no male victims. Thus, there were no rapes attributed to males in the group of schools that were successfully contacted during FEFU.

Table A. Outcome of FEFU operation for rape values, by number of cases, SSOCS:2010

Qualified for FEFU	32
Questionnaire received too late to go to FEFU	3
Schools not reached or refused FEFU	5
School successfully contacted during FEFU	24
Value did not change as a result of FEFU	4
Value changed as a result of FEFU	20 *

*18 of these 20 cases were changed from "missing" to "0" as a result of FEFU.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2007–08 and 2009–10: School Survey on Crime and Safety (SSOCS) FEFU operation.

The FEFU process confirms that 7 of the 44 total rapes reported in the 2009–10 SSOCS were not attributed to males. Because it is possible that the remaining 37 rapes may include male victims, we evaluated the estimates to confirm that there is no alarming increase in rapes reported across SSOCS years. If no difference is found in the mean values across the 2007–08 and 2009–10 school years, then we can be confident that the change in definition has not resulted in an increase in estimates of rape. Table B compares the mean, range, and the total number of recorded rapes as well as the rapes reported to police across the 2007–08 and 2009–10 school years. The total number of recorded rapes is 46 for SSOCS:2008 and 44 for SSOCS:2010, and the ranges are also slightly different with a maximum of 4 rapes in 2007–08.¹ The difference in the means across the years is equal to 0.0014, with a lower mean number of rapes recorded and reported in the 2009–10 school year. T-tests were performed to further assess whether this difference is statistically significant.

Table B. Comparison of the mean, range, and total number of recorded and reported rapes in 2007–08 and 2009–10, SSOCS:2008 and SSOCS:2010

	2007–08			2009–10		
	Mean	Range	Total	Mean	Range	Total
Number of recorded rapes or attempted rapes	0.0180	(0,4)	46	0.0166	(0,3)	44
Number of rapes or attempted rapes reported to police	0.0180	(0,4)	46	0.0162	(0,3)	43

¹ Only non-imputed SSOCS:2008 values were considered because imputation has not yet been completed on the SSOCS:2010 file.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2007-08 and 2009-10 School Survey on Crime and Safety (SSOCS).

For this analysis, t-tests were performed to assess whether the population mean for the number of rapes recorded in 2007-08 is equal to the population mean for the number of rapes in 2009-10. The overall mean for the number of rapes recorded in 2007-08 was 0.0180 (95% CI: 0.0112, 0.0249) and 0.0166 (95% CI: 0.0103, 0.0230) for 2009-10. No measurable difference was found in the mean number of rapes between school years 2007-08 and 2009-10.

Table C includes the means, t-statistics, and p-values for testing the mean number of recorded rapes by enrollment size, school level, and locale. No measurable differences were found in the mean number of rapes across any of these school characteristics with the exception of combined schools. A measurable difference in the mean number of rapes in combined schools was found across school years, with significantly more rapes reported in the 2007-08 school year; however, because of a small sample size (~100), a very small change in this category can result in a significant difference.

Table C. Comparison of the mean number of recorded rapes in 2007-08 and 2009-10 using t-tests by size, level, and locale of the school, SSOCS:2008 and SSOCS:2010

School characteristic	Mean		T Statistic	p value
	2007-08	2009-10		
Overall	0.0180	0.0166	0.29	0.77
Enrollment size				
Less than 300	0.0035	0.0066	-0.53	0.60
300-499	0.0021	0.0038	-0.51	0.61
500-999	0.0142	0.0189	-0.60	0.55
1,000 or more	0.0378	0.0260	1.03	0.30
School level				
Primary	0.0032	0.0000	1.42	0.16
Middle	0.0101	0.0154	-0.72	0.47
High school	0.0333	0.0317	0.15	0.88
Combined	0.0367	0.0000	2.03	0.04 *
Type of locale				
City	0.0339	0.0213	1.02	0.31
Suburb	0.0149	0.0170	-0.29	0.77
Town	0.0103	0.0231	-1.04	0.30
Rural	0.0104	0.0074	0.50	0.62

*p<0.05.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2007-08 and 2009-10: School Survey on Crime and Safety (SSOCS).

Summary:

Although concerns were raised that this new definition may cause an increase in rapes reported by principals, our analysis has indicated that there is no evidence of this increase. The

overall p-value was not significant and there were no male rapes reported during FEFU, which both support that the modification in the definition has not affected SSOCS estimates.