

USER'S GUIDE
to
Complete Descriptive Results from Secondary Schools,
2006-2007 and 2007-2008

This document provides guidelines for reading and interpreting the tables in the comprehensive descriptive statistics document accompanying it. That document contains the distributions of answers to all questions asked of secondary school administrators (mostly principals and heads of food service in the same school) in nationally representative samples of middle schools and high schools. A monograph that presents and interprets selected findings from these tables is published in tandem with this document. Users who wish to see all of the results from the surveys, and to see all of the results for the several demographic subgroups (described below) can use this Complete Descriptive Statistics document, which has been designed to be as accessible as possible to both the lay and scientific reader.

We briefly outline below the nature of the research design, including the samples, which gave rise to the data in these tables. A more complete description of the study methodology may be found in the technical appendix to the monograph. Specific instructions about how to use the table come toward the end of this guide. Those who feel sufficiently informed about the general nature of the study may wish to proceed directly to the section labeled "Using the Tables".

DESIGN AND SAMPLES

This part of the Youth, Education, and Society (YES) study is based on a nationally representative sample of public secondary schools drawn each year using a multi-stage sampling design. Roughly half of the schools are middle schools selected because they have an 8th grade; one quarter of the schools were selected because they have a 10th grade; and one quarter because they have a 12th grade. (These three samples are selected independently.) The results from the schools in which either a 10th or 12th grade was surveyed are combined in the presentation of descriptive statistics, and they comprise the high school sample shown in these tables. In each school, the principal was asked to complete the self-administered questionnaire (which takes approximately one to two hours) and in most cases (about 80 percent in both years) the principal completed Part 1 of the questionnaire, but occasionally another administrator completed it. It was recommended to the principals that they ask the head of the school's food service to complete Part 2, a second, separate section of the questionnaire that contained detailed questions about the foods and beverages that are offered to students in the different venues in the school. In about 43 percent of the schools the food service manager completed it, while in about 47% percent of the schools the principal or assistant principal did so. No data were collected from, or about, individual students.

Weighting of the Data

All data presented here have been adjusted with weights to allow us to make inferences about the three grade-specific, student populations. The weights correct for any unequal probabilities of students being represented in the selection process. They also correct for any unequal probabilities of selection across grades. Thus, even though schools were randomly selected for participation within each grade, the weights adjust for the relative proportions of students in 8th, 10th and 12th grades nationally. For example, for variable number H117, we can reliably report that in 2007, 83% of middle school students and 37% of high school students in the United States were required to take physical education.

SUBGROUP DEFINITIONS

Responses to each of the questions have been presented by school year (SY 06-07 and SY 07-08) under the following cross-tabulations:

Middle School/High School. This cross-tabulation is based on the target grade in the surveyed school. If the school was selected because it contained an 8th grade, the school is defined as a middle school. If selected because it contained a 10th grade, *or* a 12th grader, it is defined as a high school.

SES (Socio-economic status) tertiles. The socio-economic status of the student body of the school is determined by the percentage of students in the school eligible for USDA National School Lunch Program free or reduced price meals as reported by the principal. For each year, schools are first divided into middle or high school groups, then they are arrayed from high to low by percentage of eligible students and finally they are divided into three, equal-sized groups or tertiles. The “High” SES schools have the lowest percentage of students in the target grade(s) that year eligible for reduced price lunch meals. The “Low” SES schools have the greatest percentages of students in the target grade(s) in a particular year who are eligible for free or reduced price meals.

Racial Re-weighting. This procedure is one of two comparisons we make of the school conditions experienced by students of different races and ethnicities. In these analyses the weighted data from each school is further weighted separately by (a) the percent of white students it has in the target grade, (b) the percent of black students it has in the target grade, (c) the percent of Latino students it has in the target grade. (Estimates for smaller racial or ethnic subgroups were not attempted because of their smaller proportions in the population.) That is, the weights (described above) for middle or high schools in any particular year are multiplied by the proportion of attending students in the race/ethnic group of interest (white, black, or Latino) as reported by the principal. The statistics generated by using this weight characterize the average environmental characteristic experienced by each of the racial or ethnic groups (white, black, or Latino). So, for example, looking at the results for variable H122, we can say that in 2008 Latino middle school students attended schools in which only 18.9 percent of the students participated in varsity sports compared with 31.7 percent of the students in the schools attended by white students. These racial re-weighting comparisons are presented separately for middle school and high schools.

Racial Composition. This cross-tabulation classifies schools into four groups based on the percentages of each racial or ethnic group in the schools: >66% white (predominantly white, i.e. greater than 66% white), >50% black (majority black), and >50% Latino (majority Latino). All other schools are classified as “mixed race” schools. Differences based on this coding of racial composition allows us to characterize schools that are primarily composed of a minority group—either black or Latino—and to compare those to schools comprised largely of white students. To use the same variable in the example as above, H122, we find that in schools that have a majority Latino population, 22.7 percent of the students participate in varsity sports, compared to 35.6 percent of the students in predominantly white schools. These racial composition comparisons are presented separately for middle schools and high schools.

TESTS OF STATISTICAL SIGNIFICANCE

The tables in this document contain the results of statistical tests to assess whether the changes between the years 2007 and 2008 are statistically significant—that is, how likely that they could have occurred due to chance. The results of these tests may be found in the rows entitled “Significance test: 2007 vs 2008”). Significance tests were also run to assess whether the differences among the subgroups in the cross-tabulations are statistically significant. The results of these tests are contained in the columns to the right of the data. (Where appropriate, tests were conducted in a way that accounted for the complex sampling design.)

Chi-square tests were utilized for all variables using categorical scales. For continuous variables tests that produced contrasts between means were utilized. The tables report significance levels based upon these tests in the conventional fashion: ns for “not statistically significant”, * for $p < .05$, ** for $p < .01$, and *** for $p < .001$. (In layman’s language, the one, two, or three asterisks represent the probability the observed result could have happened by chance less than five percent of the time, less than one percent, and less than one-tenth of one percent, respectively.) If the numbers of cases in any of the levels in categorical variables were zero for both pairs of sub-groups under scrutiny, the chi-square test could not be performed and the test was left blank.

USING THE TABLE

This table has questions arranged according to the order that they occurred in the questionnaire that was sent to principals. You may wish to go to a particular question when using the table, and because there are so many questions in the set, you will need a method for locating what you want.

Searching for a subject or variable number.

There are two straightforward approaches available to you, and both involve using the search function in the table, which is actually one large file in Microsoft Excel format. You can use the search function through either the **“Find and Select”** button in the default tool bar at the top right of the Excel file, marked by a pair of black binoculars; or, simultaneously press the keys **“Control”** and **“F”** on your keyboard, which will bring up a small search box. [there is only one search function, accessed by alternative ways; case sensitivity is an option that may or may not be set] You can either:

- Enter the variable number of interest into the search (the variable number may be found in the annotated copy of the questionnaire available on the BTG Web site (located with the monograph and this Complete Descriptives Document), or
- Enter a word or phrase that reflects what you are seeking, (such as “physical education”, or “sports” or “soft drinks”) and then search for that word or phrase in the document.

Manipulating the tables

This table has an unusual characteristic. It is really just one very large table, and by manipulating the **scroll bars** on the right side of the screen *and* at the bottom of the screen, you can shift the portion of that large table that you are viewing on your screen at any one time. You can change the variables that you are viewing by using the scroll bar to the right of the screen (or, more conveniently, by simply using the up and down roller on your mouse). That way it is possible to move your area of focus to each of the many questions asked of respondents.

You also can scan *across* the table to view data on whichever subgroup comparisons you wish to see. For example, the screen usually opens by showing a view that includes the middle school vs. high school comparison and the comparison of the three SES tertiles for middle schools. By shifting the other slide bar--located at the bottom of the screen in the right hand half--to the right, you can bring the results for all of the remaining subgroup comparisons into view. As you move across subgroups, the row definitions in the far left of the screen remain fixed, so there is no need to scroll back to the left to find out which question is being displayed.

Entries in the tables

For each survey year, either the percentage distribution is given for all of the answer alternatives, (as is illustrated by the first question in the table about what type of school it is): *or*, if the question requested the respondent to give a number (say the number of students in the school) then the mean and standard deviation of all of the respondents’ answers are provided (as is illustrated in the second question in the table).

Because many questions are yes/no questions or simply require a check mark if a condition exists, we have entered only the percent who said “yes” or checked the box. That considerably reduces the number of lines in the table without the loss of any information, because the percent giving a “no” answer (or not checking the box) is simply 100% minus the percent saying “yes” (or checking the box).

Numbers of schools

The numbers of schools participating in the study each year may be found in a table by clicking on a tab at the bottom left of the Excel file entitled “Number of Schools”. It also gives the numbers of schools contained in the various subgroups being compared. That tab makes it easy to check on sample sizes while working in the table; but we also present the same table here for your information.

[INSERT TABLE HERE }

Numbers of Schools by School Year

	Middle Schools	High Schools
SY 06-07	222	224
SY 07-08	265	262

Middle Schools by SES tertiles

	Low SES	Middle SES	High SES
SY 06-07	76	74	72
SY 07-08	85	93	87

High Schools by SES tertiles

	Low SES	Middle SES	High SES
SY 06-07	84	71	69
SY 07-08	91	88	83

Middle Schools by Racial Composition

	>66% White	>50% Black	>50% Latino	Other
SY 06-07	102	28	42	50
SY 07-08	120	34	42	69

High Schools by Racial Composition

	>66% White	>50% Black	>50% Latino	Other
SY 06-07	115	24	26	58
SY 07-08	134	26	33	69

Cross-referencing the elementary school results

Some readers may wish to compare the results from middle and high schools with those from the elementary school survey, conducted by UIC. A document, similar to the present one, that contains the elementary school results is available on the BTG Website www.bridgingthegapresearch.org. That document is in pdf format, but one can do a similar search in that document to the search described here in order to locate the comparable question. While the two questionnaires are not identical, they do share a large number of questions, so more often than not you could find the comparable results there.