The following briefly describes the TIMSS 2003 Grade 4 and Grade 8 data sets and describes how to access the data using SAS or SPSS. It is highly recommended that the user refer first to the *Trends in International Mathematics and Science Study (TIMSS) 2003 Data Analysis User's Guide*. The report is available on this site. It is also suggested that the user refer to the *TIMSS 2003 User Guide for the International Database* (Martin 2005) for detailed information on analysis issues. That report is available for downloading on the international TIMSS web site, at *http://isc.bc.edu/timss2003i/PDF/t03_userguide.pdf*. The international data may be downloaded from this same site.

TIMSS 2003 Datasets

The U.S. TIMSS 2003 database is comprised of three types of datasets: background files for students, their mathematics and science teachers, and their school principals; achievement files with the students' responses to the assessment items; and the student-teacher link files. The data are in ASCII format and associated programs are included on this site to read in these data to produce SAS and datasets and SPSS system files. The structure of the data is hierarchical; thus, all of the students are linked to both teachers and schools, and teachers are linked to schools. Each student record includes identification variables that enable the user to merge the school and teacher data with the student data. The school and teacher data may be merged with the student data by the variable IDSCHOOL.

Fourth-grade files begin with "a" while eighth-grade files begin with "b." The TIMSS 2003 fourth-grade files are as follows:

Fourth-grade U.S. TIMSS data files:

asgusan3.raw. This file contains data on students' demographic information, home background and school experiences, achievement scores, the sampling weights, and sampling information. There are 9,829 cases on this file.

atmusan3.raw. This file contains the teacher background information from the survey, the teacher views on mathematics and science education, the activities used in mathematics and science education, and weights and sampling information. This file contains 921 cases.

acgusan3.raw. This file contains background information on the school provided by the school principal or designate, demographic information about the school, school programs related to mathematics and science, and weights and sampling information. There are 248 cases on this file.

asausam.raw. This file contains the student response data for the individual achievement items in the TIMSS fourth-grade achievement test. Test items were either multiple choice or

open-ended. The test data contains the answers to the multiple-choice questions and the scoring codes assigned to the student responses for open-ended questions. This file contains 9,829 cases.

astusam3.raw. This file contains information to link the student and teacher files and correctly compute weighted teacher-level data using the student as the unit of analysis. There are 18,448 cases on this file.

Eighth-grade U.S. TIMSS data files:

bsgusan3.raw. This file contains data on students' demographic information, home background and school experiences, achievement scores, the sampling weights, and sampling information. There are 8,912 cases on this file.

btmusan3.raw. This file contains the mathematics teacher background information from the survey, the teacher views on mathematics education, the activities used in mathematics education, and weights and sampling information. This file contains 456 cases.

btsusan3.raw. This file contains the science teacher background information from the survey, the teacher views on science education, the activities used in science education, and weights and sampling information. There are 1,090 cases on this file.

bcgusan3.raw. This file contains background information on the school provided by the school principal or designate, demographic information about the school, school programs related to mathematics and science, and weights and sampling information. This file contains 232 cases.

bsausam3.raw. This file contains the student response data for the individual achievement items in the TIMSS achievement test. Test items were either multiple choice or open-ended. The test data contains the answers to the multiple-choice questions and the scoring codes assigned to the student responses for open-ended questions. There are 8,912 cases on this file.

bstusam3.raw. This file contains information to link the student and teacher files and correctly compute weighted teacher-level data using the student as the unit of analysis. This file contains 17,905 cases.

Accessing the U.S. Data through the SAS/SPSS Control Files

SAS and SPSS control files are available on this site. These files contain code to create SAS/SPSS datasets ready for analysis. Users will need to make some minor edits to the code prior to running it. The most basic edits required are changes to the paths pointing the raw data files and the path where the output dataset will be saved. The naming convention for the programs is to take the root name of the dataset and replace the "raw" with "sas" or "sps" respectively. For example, in order to create a SAS dataset from the Graded 4 student background file, asgusan3.raw, the user must modify and run the program asgusan3.sas.