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User's Guide

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The Program For International Student Assessment (PISA) 2000 User's Guide

Trevor Williams, Westat Stephen Roey, Westat Connie Smith, Pearson David Kastberg, Westat Jean Fowler, Westat

Mariann Lemke, Project Officer National Center for Education Statistics

U.S. Department of Education Institute of Education Sciences

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Content contact:

Mariann Lemke: 202-502-7314 Fax: 202-502-7455 E-mail: Mariann.Lemke@ed.gov

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1. INTRODUCTION

The Program for International Student Assessment (PISA), first conducted in the spring of 2000, was a collaborative effort among a consortium of governmental and nongovernmental organizations, the Organization for Economic Cooperation and Development (OECD), and participating countries. It was designed around a framework that focused on measuring student abilities at or near the end of compulsory schooling. PISA assessments were based on applied learning, with the intention of measuring what students could do with what they had learned in school. The United States assessed 3,700 students across 145 schools. Internationally, a quarter of a million students were assessed across 32 participating countries.

1.1 What PISA Measures

PISA assesses student ability in three subject areas—reading, mathematics, and science. PISA 2000 was the first of what will be a cyclical survey administered every 3 years, with each cycle having a different subject area as its primary focus. The survey focused on reading in 2000 and will focus on mathematics in 2003, science in 2006, and then reading again in 2009. The cyclical nature of PISA will allow for two sets of trend measurement. The primary subject can be compared in detail every 9 years, while each subject can be compared over time more generally every 3 years.

In addition to the assessments, both student and school questionnaires were developed for PISA (see Appendix B). These questionnaires capture student and school educational, cultural, and socioeconomic characteristics thought to be useful in explaining differences in student performance both within and between countries. The following are some of the general issues that PISA can address:

- Differences between countries in the relationships between student-level factors (such as gender and social background) and achievement;
- Differences in the relationships between school-level factors and achievement across countries;
- Differences in the proportion of variation in achievement between (rather than within) schools, and differences in this value across countries;
- Differences between countries in the extent to which schools moderate or increase the effects of individual-level student factors and student achievement;

Differences in education systems and national context that are related to differences in student achievement across countries; and

In the future, changes in any or all of these relationships over time.

1.2 The User's Guide and PISA U.S. Data

The survey design for PISA is a complex one, as are the data set and the methodologies required to use it. This User's Guide contains a detailed technical explanation of the procedures used to conduct PISA in the United States, including the procedures for drawing the U.S. sample, administering the assessment, and scoring and coding the data. The guide also describes how to install and use the Electronic Codebook and accompanying data files, with explanations of the various data files, sampling weights, and procedures for obtaining proper estimates.

The CD-ROM that accompanies this User's Guide contains the U.S. PISA 2000 data, including data that was collected only in the United States and is not included on the International Database available from OECD. These variables include student race and ethnicity and the percentage of students in a school who are eligible for the Federal free and reduced-price lunch program administered by the U.S. Department of Agriculture. Further information about PISA in the United States is available on the National Center for Education Statistics (NCES) PISA website (http://nces.ed.gov/surveys/pisa/).

2. FIELD TESTING

2.1 Overview

Under contract to NCES, Westat conducted the field test for the U.S. PISA 2000. The field test was conducted in 55 schools during spring 1999, between the beginning of April and the first week of May. This chapter briefly describes the enlistment of schools for the field test, selection of students within the participating schools, selection and training of the Westat field staff who conducted the field test, and data collection activities.

2.2 Conducting the Field Test

2.2.1 Selection and Enlistment of Schools

The PISA field test was to be a test of assessment items, with no subsequent analysis of the data collected. Therefore, a strict probability sample of schools was not required, and Westat had some flexibility in recruiting schools to participate.

Contacts began with state test directors who had participated in and been supportive of the Third International Mathematics and Science Study (TIMSS), along with other test directors with whom Westat has had a close working relationship over the years on such studies as the National Assessment of Educational Progress (NAEP). The enlistment effort began with Westat home office staff contacting the state test directors in the selected states to explain the field test and discuss the types of schools being recruited. To assist in the recruiting effort, a Summary of School Tasks was developed and sent to the state test directors. The Summary was sent along with a letter from Westat asking for permission to contact districts and schools within the state. Also included in these letters were copies of reports generated from TIMSS.

The plan was to enlist the participation of schools in different locations (urban, rural, and suburban areas). States that were contacted were located in the East, Midwest, South, and West of the United States, ensuring a good geographic spread of schools for the field test. Within each participating school, the goal was to select 35 15-year-olds.

After the state test directors suggested districts to be contacted, Westat called superintendents and district test directors and sent them the Summary of School Tasks for the field test. In some instances, the districts contacted the schools; in others, the names of schools and contacts within them were provided to Westat by the district so that they could be contacted by Westat home office staff.

2.2.2 Student Selection

Field supervisors contacted the participating schools approximately 1 to 2 weeks before the scheduled date for the assessment, to arrange for the selection of the student sample and for testing space in the school. Each participating school provided a student list. This list was used, in conjunction with the Student Tracking Form, to derive the sample of 35 students.

2.2.3 Exclusions

Once the sample of classes had been selected, school officials reviewed the list of students from those classes and determined whether any students should be excluded from testing because they had permanently disabling conditions or were "nonnative" English speakers. The exclusion criteria were defined by the PISA International Study Center. A clear distinction was made between within-school exclusions and nonresponse. That is, students with a temporary condition, such as a broken arm, at the time of testing were treated as nonrespondents, along with other absent students in the sampled classes.

2.2.4 Student Sample

The original student sample consisted of 1,877 students. Of those students, 168 were removed from the sample, 85 because they were not eligible and 83 who were excluded. Of the remaining 1,709 students, 1,461 completed the test booklets and 248 were absent. These results are presented in Table 2-1.

Participation status	Number	Percent of total sample	Percent of those to be assessed
Total in sample	1,877	100.0	ţ
To be assessed	1,709	91.0	100.0
Absent	248	13.2	14.5
Assessed	1,461	77.8	85.5
Not to be assessed	168	9.0	Ť
Excluded	83	4.4	ţ
Not eligible	85	4.5	Ť

Table 2-1. Student participation in the PISA 2000 field test: PISA 2000

† Not applicable.

NOTE: Detail may not sum to total because of rounding.

SOURCE: Organization for Economic Cooperation and Development, Program for International Student Assessment (PISA) 2000.

2.2.5 Training of Field Staff

Twelve experienced Westat field supervisors and one field manager (a senior field supervisor) were trained during a 2-day session, which was conducted by the Westat project director for operations and the field director. The sampling procedures for student selection were described, and training exercises gave the supervisors an opportunity to practice sampling procedures. The procedures for preparing Student Tracking Forms, student test booklets, and school questionnaires were also presented, as were procedures for conducting the paper-and-pencil assessments. (These procedures are described in detail in the manual for conducting PISA assessments.) After the training, Westat mailed out a home study package containing additional training exercises to provide practice with assessment and postassessment paperwork.

2.2.6 Data Collection

The assessments were administered by reading verbatim from a standardized script. The script began with a brief introduction to the study. Test Administrators (TAs) then distributed the test booklets, matching the student with the preassigned booklet according to the Student Tracking Forms, which listed each student from the selected class and provided space to record the booklet number.

During the testing session, TAs monitored the students to make sure they were working in the correct section of their booklet and to prevent collusion. TAs were not allowed to give students any help during the assessments. The only assistance allowed was answering student questions about the Student Context Questionnaire, which was administered following the assessment. TAs were directed to record the numbers of any questions that students asked about, along with any words in the questions that students said they did not understand. Students were also asked to circle each word in the booklet that they did not understand.

Following the testing session, TAs returned all materials to the field supervisor, including the completed Student Tracking Form, test booklets, and any spare materials. All forms were reviewed for completeness, and test booklets were coded immediately with student demographic information to ensure a prompt return of these materials for processing.

3. U.S. PISA 2000 SCHOOL SAMPLE

3.1 Introduction

The OECD PISA 2000 school sample was drawn for the United States in August 1999. PISA is intended to evaluate students who are between the ages of 15 years, 3 months, and 16 years, 2 months, at the time of the assessment (which was April-May 2000 in the United States, so that the target students were those born in 1984). The sample design for each country had the following requirements:

- At least 4,500 students in the right age group (called "15-year-olds" throughout this User's Guide) should be evaluated.
- These students should come from at least 150 schools, with a general school sample size of 35 students per school (drawn with equal probability from the set of all 15-year-olds in the school).
- The school sample should be a nationally representative sample from all schools with 15year-olds in the country (with a small number of exclusions allowed).
- The school sample should be a probability proportional to size (PPS) sample, with size being the estimated number of 15-year-olds in the school.

As permitted in the international requirements, selection of the U.S. sample involved a threestage process rather than the general two-stage design, with the first stage a sample of primary sampling units (geographic areas; PSUs), the second stage a sample of schools within PSUs, and the third stage a sample of 15-year-olds within the eligible set of 15-year-olds in the school.

The assigned school sample size was 220. Although larger than the internationally required sample of 150 schools, this sample was designed to offset school nonresponse and design effects related to the three-stage design and the oversampling of schools with a high percentage of minority students.

The remaining sections of this chapter describe the PSU sampling stage (Section 3.2), the school sampling stage (Section 3.3), and the selection of replacement schools (Section 3.4).

3.2 PSU Sampling

The first stage of sampling for the U.S. PISA 2000 school sample was the selection of PSUs. The frame set included 1,027 PSUs covering the United States (excluding territories).

Fifty-two PSUs were drawn from this frame set for the PISA sample. This PSU sample was drawn in the 1990s in a general selection of 10 PSU samples for school surveys (most of these PSU samples were used for the National Assessment of Educational Progress, and one was used for the 1998 Third International Mathematics and Science Study–Repeat U.S. sample). These 10 PSU samples were drawn at one time under one sample design in order to minimize overlap between the various school samples, and thereby minimize burden on any particular region over a 10-year period.

This section describes this 10 PSU sample design, but primarily focuses on the PISA 2000 sample as if it were a single sample drawn from the frame.

3.2.1 Certainty PSUs

PSUs with a 1990 population of greater than 3.5 million were included as certainty selections in all 10 PSU samples (including PISA). There were 10 of these PSUs, and they accounted for a 1990 population of 71.8 million persons.

3.2.2 Large Noncertainty PSUs

Twelve PSUs on the frame had 1990 populations of 1.8 million to 3.5 million, representing a total 1990 population of 29.4 million. These 12 PSUs were selected into most, but not all, of the 10 PSU samples. Six of the 12 PSUs were selected for the PISA PSU sample.

The measures of size used in selecting the 6 PISA sample PSUs from the 12 PSUs were computed by taking six times the 1990 population divided by the aggregate 1990 population of the 12 PSUs. The six PISA sample PSUs were drawn as a systematic sample from the frame set of 12 PSUs

using the computed measures of size. The ordering for the systematic sample was based on a "serpentine order" that used the following variables to generate the sort order:

NAEP region:

- NAEP region 1 (Northeast): New England, New York, Pennsylvania, New Jersey, Maryland, Delaware, the District of Columbia, and some jurisdictions in Virginia within the District of Columbia metropolitan statistical area.
- NAEP region 2 (South): the remainder of Virginia, West Virginia, Kentucky, Tennessee, Arkansas, Louisiana, and all states south and east of these states.
- NAEP region 3 (Midwest): North Dakota, South Dakota, Nebraska, Kansas, Missouri, Illinois, Indiana, Ohio, Wisconsin, Minnesota, Iowa, and Michigan.
- NAEP region 4 (West): All remaining states in the United States west of the states categorized above for NAEP regions 1 through 3.

1990 Population of the PSU: The PSUs were arranged in descending order by population in NAEP regions 1 and 3 and in ascending order in NAEP regions 2 and 4.

3.2.3 Small Noncertainty PSUs: Frame Strata

The certainty and large noncertainty PSUs accounted for 22 PSUs on the sampling frame and 16 PSUs in the PISA PSU sample. There were 1,005 PSUs remaining on the frame, all with 1990 populations of less than 1.8 million. These 1,005 PSUs were assigned to 72 sampling strata, which were paired into 36 stratum pairs, with the primary stratifiers being NAEP region and metropolitan/nonmetropolitan PSU status. The numbers of stratum pairs and strata for the metropolitan and nonmetropolitan PSUs in each NAEP region are given in Table 3-1.

The strata and stratum pairs were assigned within each primary stratum using sociodemographic information that was found to be related to achievement within each primary stratum. These sociodemographic indicators were as follows:

1990 population;

1980-1990 change in population;

1990 percentage of minorities;

1990 percentage of unemployed;

1990 percentage of high school graduates; and

1990 percentage of college graduates.

The stratifiers differed within the primary strata.

Table 3-1.	Strata and stratum pair	counts in the eight	Primary Sampling	Unit (PSU) strata: PISA 2000
	1	Ų	<i>, , , ,</i>	

	Metropolitan/		
NAEP	nonmetropolitan	Stratum	(PSU)
region	status	pairs	strata
Northeast (1)	Metro	3	6
Northeast (1)	Nonmetro	2	4
South (2)	Metro	6	12
South (2)	Nonmetro	6	12
Midwest (3)	Metro	4	8
Midwest (3)	Nonmetro	6	12
West (4)	Metro	5	10
West (4)	Nonmetro	4	8

SOURCE: Organization for Economic Cooperation and Development, Program for International Student Assessment (PISA) 2000.

3.2.4 Small Noncertainty PSUs: The PISA Sample

A total of 36 PSUs were sampled from the 1,005 small noncertainty PSUs for the PISA PSU sample: one PSU per stratum pair. The first step in this sampling process was the selection of one stratum from each stratum pair, with each stratum in the pair having an equal probability of selection (i.e., each stratum within a stratum pair had a 0.5 chance of being the selected stratum pair, with selection being independent between stratum pairs). Next, one PSU was selected from the selected strata (i.e., the 36 strata with a STRATSEL value of 1), with probability proportional to the 1990 population.

3.3 Second-Stage Sampling: The School Sample

The school frame was developed from two lists. Regular public, Bureau of Indian Affairs, and Department of Defense Education Activity schools were obtained from the 1999 list of schools maintained by Quality Education Data, Inc. (QED). Catholic and other nonpublic schools were obtained from the Private School Survey (PSS) developed for NCES's 1997-1998 Schools and Staffing Survey.

The PSS is almost a census: Most of the private schools in the United States are fully enumerated without any sampling. The PSS has a small area probability component, so that the private schools from this component are sampled rather than fully enumerated. The PSS was treated as the frame for PISA 2000, and the PSS sampling weights (called PSSWGT below) were included in PISA frame measures of size for private schools from the area probability component of the PSS.

The U.S. PISA 2000 school frame consists of all public schools on the most current QED frame and all private schools on the PSS frame contained within the 52 PSUs in the PISA sample (see Section 3.2 for a discussion of PSU selection) that have at least one of the following grades: 8th, 9th, 10th, 11th, or 12th.¹ The school sample was a systematic probability proportional to measure of size sample of 220 schools from this frame, with no explicit strata. The assigned measures of size have the following factors (explained in detail below):

- AE: an estimate of the number of age-eligible students ("15-year-olds": those born in 1984) in each frame school;
- The PSSWGT factor for private schools in the PSS area probability sample;
- The inverse of the PISA PSU probability of selection (to account for first-stage sampling);
- A doubling factor for high minority public schools: public schools with more than 15 percent black and Hispanic students (to achieve an oversample of these schools); and
- An adjustment factor for schools with small numbers of age-eligible students (to prevent students from those schools from having too-large relative weights, which increases sampling variability).

3.3.1 Assignment of School Measures of Size

The first step in assigning the school measure of size was to estimate the number of ageeligible students in each school on the frame. No direct information was available on the numbers of students in each school who were born in a particular year; the only information was estimates of the numbers of students in each school who were in each grade. (In most cases, the latter estimate was derived by dividing the total student enrollment by the number of grades for the school, unless a within-

¹ A small number of 15-year-olds are enrolled in schools that end with the seventh grade, and these students will not be covered in the PISA frame. The percentage of these students is negligible: Estimates from the Current Population Survey indicate that fewer than 0.05 percent of 15-year-olds are in the seventh grade or below, and most schools with a seventh grade also contain an eighth grade and are represented on the PISA frame. The undercoverage rate resulting from the exclusion of these schools is therefore well below 0.05 percent.

grade enrollment was provided on the frame and was judged to be reliable for use as an estimate.) To use these estimates to develop an estimate of the number of 15-year-olds for each school, estimates were derived of the percentages of students born in 1984 in each grade in the 1999-2000 school year, using Current Population Survey (CPS) data [although the data corresponds to an earlier year and to an earlier group (13-year-olds), reasonably accurate results should be achieved through the imputation of these percentages to children born in 1984 who were enrolled during the 1999-2000 school year].

These CPS percentages are as follows for the age-eligible students:

7th	8th	9th	10th	11th
0.05	1.86	37.53	60.37	0.19

As seen above, 10th grade was the modal grade for children born in 1984 who were enrolled in school for the 1999-2000 school year, with a large fraction of children in the 9th grade. Very small fractions of children were in the 7th, 8th, or 11th grade, with completely negligible percentages (less than 0.01 percent all together) in other grades. These percentages divided by 100 are indicated as p_g below (g=7, 8, 9, 10, 11).

The age-eligible estimate AE_{ij} for each school *ij* (school *j* in PSU *i*, *i*=1,...,52) on the frame was calculated as follows (where E_{ijg} is the estimated number of students enrolled in grade *g* for school *ij*):

$$AE_{ij} = \sum_{g=7}^{11} p_g E_{ijg}$$

Note that AE_{ij} tends to be small for frame schools without a 9th or 10th grade (i.e., schools that end in the 8th grade or begin with the 11th grade), even if the schools themselves have a high

enrollment. The next step in developing measures of size was computing a preliminary measure of size, $PMOS_{ij}$. $PMOS_{ij}$ is computed from AE_{ij} using the following formula:

$$PMOS_{ij} = \begin{cases} 8.75 & AE_{ij} \le 5\\ 1.3125*(AE_{ij} + 1.67) & 5 < AE_{ij} \le 25\\ 35 & 25 < AE_{ij} \le 35\\ AE_{ij} & 35 < AE_{ii} \end{cases}$$

This is a piecewise constant and linear function. A graph of this function is shown below.



SOURCE: Organization for Economic Cooperation and Development, Program for International Student Assessment (PISA) 2000.

The logic behind the form of this function is as follows: Within a given PSU and minority stratum (the two minority strata are high minority public schools and all other schools), the school probability of selection without adjustment is proportional to the estimated number of age-eligible students, AE_{ij} ($p_{ij}=a^*AE_{ij}$, where *a* is the proportionality constant). The student sample design was to sample 35 students with equal probability when the school had more than 35 age-eligible students and to take all students when the school had fewer than or exactly 35 age-eligible students. For schools with more than 35 students, the within-school probability of selection for each student is $35/TAE_{ij}$, where TAE_{ij}

is the true number of age-eligible students in the school (which was found at the time the school was assessed); thus, the overall student probability of selection is $a^*AE_{ij}^*(35/TAE_{ij})$, which reduces to a^*35 when TAE_{ij} is equal to AE_{ij} . Within a school with fewer than 35 age-eligible students, all age-eligible students were taken with certainty, so the overall student probability of selection is the school probability of selection, a^*AE_{ij} . To avoid students with too-small probabilities of selection from these schools (which increases sampling variability), it was determined that no student should have a probability of selection smaller than $(1/4)^*a^*35$, which is 8.75^*a . This can be accomplished by bounding $PMOS_{ij}$ (see below) by 8.75. A variety of continuous functions (piecewise and otherwise) obey this constraint while being consistent with the simple slope-one linear function for AE_{ij} greater than 35 (corresponding to $PMOS_{ij}$ being equal to AE_{ij}). The particular piecewise function that was chosen is constant for schools with AE_{ij} values between 25 and 35, maximizing the probabilities of selection for these schools while being consistent with the other constraints.

The final measure of size *MOS_{ij}* for each school was computed from *PMOS_{ij}* as follows:

$$MOS_{ij} = \begin{cases} 2*PMOS_{ij}/\pi_i & \text{High minority public schools} \\ PMOS_{ij}/\pi_i & \text{Low minority public schools} \\ PSSWGT_{ij}*PMOS_{ij}/\pi_i & \text{Private schools} \end{cases}$$

PSSWGT_{ij} is equal to 1 for most private schools, except those in the area sample component of the PSS. The quantity π_i is the probability of selection for PSU *i* (see Section 3.2).

3.3.2 Implicit Stratification of the School Frame

There was no explicit stratification of the school frame for the U.S. PISA sample. A sample of 220 schools was drawn from the frame as a single stratum. Implicit stratification was accomplished by sorting the school frame into public and private schools, with the following internal sort priority for public schools:

- 1. High and low minority schools;
- 2. PSU within minority type; and
- 3. AE within PSU and minority type.

For private schools, the sort priority was as follows:

- 1. School type: Catholic, non-Catholic religious, and nonreligious private schools;
- 2. PSU within school type; and
- 3. AE within PSU and school type.

3.3.3 Tabulations Within Subgroups for Frame and Sample

This section provides an overview of the frame and sample for the implicit strata used in the sampling process (public/private status, minority status within public schools, school type within private schools, region of the country, and AE). For these strata-defining subgroups, Tables 3-2 through 3-6 present the following summary tabulations in these subgroups:

- **Total estimated number of 15-year-olds.** This is the summation of AE_{ij} divided by the PSU probability of selection π_i in the subgroup. It represents an unbiased estimate of the total number of 15-year-olds nationally in schools in the subgroup.
- **Total measure of size.** This is the summation of MOS_{ij} over the subgroup. Note that this is larger than the national population size in the subgroup because high minority public schools are doubled in their measures of size.
- Sample size. This is the final realized sample size of schools in the subgroup for the U.S. PISA sample.

Table 3-2 presents these tabulations by public and private status.

Public/	Total		Total			
private	estimated		measure		Sample	
status	15-year-olds	Percent	of size	Percent	size	Percent
Total	3,619,090	100.0	5,644,030	100.0	220	100.0
Private	317,500	8.8	458,510	8.1	18	8.2
Public	3,301,590	91.2	5,185,520	91.9	202	91.8

Table 3-2. Frame and sample tabulations by public/private status: PISA 2000

NOTE: Detail may not sum to total because of rounding.

SOURCE: Organization for Economic Cooperation and Development, Program for International Student Assessment (PISA) 2000.

The implicit stratification worked effectively: The sample percentage of private schools is close to the measure-of-size percentage of private schools. Tables 3-3 and 3-4 present these same tabulations by minority status within public schools and by school type within private schools.

	Total		Total			
Minority	estimated		measure		Sample	
status	15-year-olds	Percent	of size	Percent	size	Percent
Total public	3,301,590	100.0	5,185,520	100.0	202	100.0
High minority	1,685,380	51.0	3,502,020	67.5	136	67.3
Low minority	1,616,210	49.0	1,683,500	32.5	66	32.7

Table 3-3. Frame and sample tabulations by minority status within public schools: PISA 2000

NOTE: Detail may not sum to total because of rounding.

SOURCE: Organization for Economic Cooperation and Development, Program for International Student Assessment (PISA) 2000.

Table 3-4.	Frame and sam	ple tabulations b	y school type within	private schools: PISA 2000
			/	

Private school type	Total estimated 15-year-olds	Percent	Total measure of size	Percent	Sample size	Percent
Total private	317,500	100.0	458,510	100.0	18	100.0
Catholic	159,290	50.2	203,340	44.3	8	44.4
Non-Catholic religious	94,200	29.7	170,170	37.1	7	38.9
Nonreligious	64,010	20.2	85,000	18.5	3	16.7

NOTE: Detail may not sum to total because of rounding.

SOURCE: Organization for Economic Cooperation and Development, Program for International Student Assessment (PISA) 2000.

Table 3-5 presents tabulations by NAEP region (including both private and public schools). NAEP region was used to define the four major sets of PSUs, using the definitions of NAEP regions provided in Section 3.2.2.

Region	Total estimated 15-year-olds	Percent	Total measure of size	Percent	Sample size	Percent
Total	3,619,090	100.0	5,644,030	100.0	220	100.0
Northeast	755,840	20.9	1,139,510	20.2	43	19.5
South	813,560	22.5	1,326,840	23.5	53	24.1
Midwest	840,720	23.2	1,094,570	19.4	42	19.1
West	1,208,970	33.4	2,083,110	36.9	82	37.3

Table 3-5.Frame and sample tabulations by National Assessment of Educational
Progress (NAEP) region: PISA 2000

NOTE: Detail may not sum to total because of rounding.

SOURCE: Organization for Economic Cooperation and Development, Program for International Student Assessment (PISA) 2000.

Table 3-6 presents the tabulations by AE size (see the formula for PMOS in Section 3.3.1), by private and public schools separately.

	Total		Total			
Estimated	estimated		measure		Sample	
15-year-olds	15-year-olds	Percent	of size	Percent	size	Percent
		Η	Private			
Total	317,500	100.0	458,510	100.0	18	100.0
$AE \le 5$	9,630	3.0	116,680	25.4	5	27.8
$5 < AE \le 25$	62,170	19.6	92,510	20.2	2	11.1
$25 < AE \le 35$	13,580	4.3	16,630	3.6	0	0
35 < AE	232,120	73.1	232,690	50.7	11	61.1
]	Public			
Total	3,301,590	100.0	5,185,520	100.0	202	100.0
$AE \leq 5$	29,840	0.9	163,090	3.1	5	2.5
$5 < AE \le 25$	90,340	2.7	208,850	4.0	6	3.0
$25 < AE \le 35$	32,600	1.0	59,090	1.1	3	1.5
35 < AE	3,148,810	95.4	4,754,490	91.7	188	93.1

Table 3-6. Frame and sample tabulations by age eligible student (AE) size: PISA 2000

NOTE: Detail may not sum to total because of rounding.

SOURCE: Organization for Economic Cooperation and Development, Program for International Student Assessment (PISA) 2000.

3.4 Replacement Schools

As a supplement to the U.S. PISA school sample described above, replacement schools were selected from the unsampled schools on the frame. These replacements can be used if the sampled school refuses cooperation with PISA. Each sampled school was assigned up to two replacement schools selected from the set of "neighboring" schools on the sampling frame. Because the sampling frame is ordered by school characteristics, these neighboring frame schools have characteristics similar to those of the sampled school, and their addition to the sample can reduce the nonresponse bias incurred when the sampled school refuses to cooperate.

Replacement schools were assigned according to the following rules: The preceding school on the frame was assigned as the first replacement school for each sampled school and the second school was assigned as the second replacement school, unless the candidate replacement school is a sampled school or is in a different PSU, has a different minority status for public schools, or has a different school type for private schools. If a candidate replacement school neighbors two sampled schools, it is selected as a replacement for the sampled school that it precedes. Under these rules, some sampled schools can be assigned only one replacement, and some can be assigned no replacement schools.

4. ENLISTMENT OF SCHOOLS AND STUDENTS

4.1 Overview

The data collection for the PISA main study was administered between April 3 and May 15, 2000. Westat conducted PISA data collection in the United States. PISA was administered to students born in 1984. In the United States, these students were primarily in grades 9 and 10.

4.2 Contacting States, Districts, and Schools

Local control of public education in the United States means that, while the U.S. Department of Education supports PISA, decisions are made locally about whether each sampled school will agree to participate in the study. The protocol in the United States requires that state, school district, and local school officials are contacted, in that order, and that permission is granted at each level before the survey can continue.

Westat began the recruitment process by contacting the chief state school officer and the state test director in each of the 33 states where schools were selected for PISA. An informational letter was mailed, asking for a response only if the state did not wish PISA to be conducted in the state.

Next, Westat contacted the school district office for each selected public school and asked the superintendent for permission to approach the selected school(s) in that district. In five school districts, it was necessary to submit a formal application (sometimes called a research proposal) to conduct research in the district. Each district made its own decision based on the research proposal submitted.

Once approval to contact the school(s) had been obtained from the school district, Westat mailed a letter to the school principal with a brochure describing the study. Also included was a Summary of Activities flyer. This letter was followed several days later by a telephone call and, if calling failed, a visit to the school. Private schools were contacted directly, unless, as in the case of Catholic schools, an organization such as the local diocese required approval similar to public school district approval.

Until recently, it was Westat's experience that, once the district (or equivalent organization) had agreed to participate in an educational assessment, principals were usually compliant with the district superintendent's decision. In districts where school officials carefully reviewed formal applications to conduct research before approving the study, schools were unlikely to refuse participation independently. More and more frequently, however, superintendents are granting autonomy to schools, allowing school principals to decide for themselves whether or not their schools will participate in studies such as PISA. Fairly frequently, a lengthy effort to gain cooperation for PISA from the district superintendent was followed by an even more prolonged effort to gain cooperation from the school principal. In some cases, principals went one step further, deferring to individual teachers to make the decision about whether or not to participate.

4.3 Student Sampling and Exclusion Criteria

Westat field supervisors contacted schools approximately 1 week before the assessment to select the student sample and arrange for assessment space in the school. Supervisors followed student sampling procedures specified in the international PISA manuals and selected the sample using international PISA KeyQuest sampling software on portable laptop computers, although sampling was conducted in the field instead of at the national study center.

In each school, the student sample consisted of up to 35 students born in 1984. Schools were asked to provide specific information about age-eligible students, either by generating a list using a school computer or by entering student information on the PISA Student Listing Form. Supervisors were given laptops with school names already entered into the software. For each school, supervisors entered the number of students born in 1984, and then generated sampling line numbers by using the KeyQuest "draw sample" function and viewing the Student Tracking Form. Supervisors were given the option to either print a Student Tracking Form and write student names in by hand, or enter the selected names into the software to create a form with preprinted names.

Once the student sample had been selected, school officials reviewed the list and decided if any students should be excluded from the assessment. Exclusion criteria were those presented in the international PISA manuals and are shown in Exhibit 4-1. The "Other" category included all other categories of conditions for exclusions. For example, students who were home-schooled, students who transferred out of the school to another school, or students who were not age 15 as defined by PISA (born in 1984).

Exhibit 4-1. Exclusion criteria

INSTRUCTIONS FOR EXCLUDING STUDENTS

The following guidelines define general categories for the exclusion of students within schools. These guidelines need to be carefully implemented within the context of each educational system. The numbers to the left are codes to be entered in column 7 of the Student Tracking Form to identify excluded students.

- 1 = Functionally disabled students. These are students who are permanently physically disabled in such a way that they cannot perform in the PISA testing situation. Functionally disabled students who can respond to the test should be included in the testing.
- 2 = Educable mentally retarded students. These are students who are considered in the professional opinion of the school principal or by other qualified staff to be educable mentally retarded or who have been psychologically tested as such. This includes students who are emotionally or mentally unable to follow even the general instructions of the test. However, students should not be excluded solely because of poor academic performance or disciplinary problems.
- 3 = Students with limited proficiency in the test language. These are students who are unable to read or speak the language of the test and would be unable to overcome the language barrier in the test situation. Typically, a student who has received less than 1 year of instruction in the language of the test should be excluded, but this definition may need to be adapted in different countries.

4 =Other.

It is important that these criteria be followed strictly for the study to be comparable within and across countries. When in doubt, include the student.

4.4 Participation Results

The original PISA school sample consisted of 220 schools. After ineligible schools and original school refusals had been eliminated, 116 original schools participated in the study. There were 29 replacement schools. The selection of replacement schools is described in Section 3.4. With original and replacement schools combined, 145 schools participated in the study. School participation rates are presented in Table 4-1.

Before Replacement			After Replacement			
		Number of			Number of	
	Number of	schools sampled		Number of	schools sampled	
Weighted	responding	(responding and	Weighted school	responding	(responding and	
participation rate	schools	nonresponding,	participation	schools	nonresponding,	
before	(weighted by	weighted by	rate after	(weighted by	weighted by	
replacement (%)	enrollment)	enrollment)	replacement (%)	enrollment)	enrollment)	
56.42	2,013,101	3,567,961	70.33	2,503,666	3,559,661	

Table 4-1. Program for International Student Assessment (PISA) school response rates (weighted): PISA 2000

SOURCE: Organization for Economic Cooperation and Development, Program for International Student Assessment (PISA) 2000.

Due to the low response rate of original sampled schools, a bias analysis was conducted to determine if the characteristics of nonresponding schools differed from those of responding schools. Performing logistic regressions using frame variables such as region, metro status, percent minorities, public/private status, etc. as predictors, some differences were found in the distribution of several of the school characteristics between respondents and nonrespondents. These findings indicate that there is a possibility of bias in the assessment estimates, resulting from school nonresponse. However, adjustments were made to the sampling weights of the data to compensate for some of the differences in characteristics between responding and nonresponding schools, and these may have been effective in reducing any such bias. For a more detailed treatment of the adjustment procedures for nonresponse see Chapter 8. Survey Weighting and the Calculation of Sampling Variance and Chapter 15. Data Adjudication in the *PISA 2000 Technical Report* (http://www.pisa.oecd.org/tech/download.htm).

In total some 4,752 students were sampled from the 145 responding schools. Eligible students were defined as those born in 1984 and, in each school, a random sample of up to 35 of these eligible students was selected. Some 221 of these students were subsequently classified as ineligible and/or were withdrawn. Exclusion decisions by schools resulted in a further 211 students being excluded from the assessment.

Table 4-2 shows the student participation numbers. The result of this attrition because of ineligibility, withdrawal, or exclusion was that 4,320 students were eligible to take the assessment. Of these, 620 students failed to take the assessment due to absence and/or parent/student refusals. In total then 3,700 students from the 145 responding schools were assessed. The weighted number of students

assessed, expressed as a percentage of the weighted number of eligible students, gave the student response rate of 85 percent, a rate which exceeds the PISA international standard of 80 percent. In addition, 146 students in the partially responding schools took the assessment, giving a total of 3,846 students taking the PISA assessment in the United States. All 3,846 students are included in the international database.

Table 4-2.Program for International Student Assessment (PISA) student response rates (weighted):
PISA 2000

Weighted		Number of students	Number of	Number of students
participation rate	Number of	sampled (assessed	students	sampled (assessed
after replacement	students assessed	and absent,	assessed	and absent,
(%)	(weighted)	weighted)	(unweighted)	unweighted)
84.99	1,801,229	2,119,392	3,700	4,320

SOURCE: Organization for Economic Cooperation and Development, Program for International Student Assessment (PISA) 2000.

The assessment was administered in two 60-minute parts with an additional 30 minutes for the completion of the background questionnaire. Occasionally, students were not able to stay for the entire assessment, or the student questionnaire was not administered, at the request of the school. In total, 29 more students participated in Part 1 than in Part 2, and 149 more students participated in Part 1 than in the student questionnaire.

5. TRAINING AND DATA COLLECTION

5.1 Instruments

The instrumentation for PISA consisted of separately administered student and school components. The student component consisted of assessment items and a separately timed background questionnaire collecting basic demographic information and information on the student's reading habits, instructional experiences, and attitudes about school. The school questionnaire, completed by the school principal or designate, collected information on the demographic characteristics of the school and the structure and approach for education instruction. Each instrument was adapted to U.S. English. The school and student questionnaires are provided in Appendix B. A detailed description of the assessment and questionnaire development is provided in Chapter 2. Test Design and Test Development and Chapter 3. Student and School Questionnaire Development in the *PISA 2000 Technical Report* (http://www.pisa.oecd.org/tech/download.htm).

5.2 Test Administration Organization

To minimize burden on school staff and thereby improve school participation, the United States uses external test administrators hired and trained by Westat, a contractor to NCES. These external test administrators, called field supervisors, assumed the responsibilities of the test administrators and some of the responsibilities of the school coordinators and national research coordinator, as defined by the International Study Center.

Figure 5-1 shows Westat's organization for field data collections such as PISA. Figure 5-1. Field data collection organization



SOURCE: Organization for Economic Cooperation and Development, Program for International Student Assessment (PISA) 2000.

As shown in the figure, the home office field director reports to the project director and supervises the field staff. The field manager reports to the field director and is responsible for the day-today supervision of field staff. The field manager is experienced in field data collection and education studies and usually has been a field supervisor for several years before being promoted to field manager. The field supervisors are often people with teaching or school administration experience. For PISA, all of the field staff had worked for Westat on other education studies, including the Third International Mathematics and Science Study–Repeat (TIMSS-R) and the National Assessment of Educational Progress (NAEP).

Each field supervisor was responsible for a small number of schools located in a geographic region. Supervisor responsibilities included calling the schools to confirm all arrangements, visiting the schools to select the class or student sample, preparing and distributing questionnaires, conducting the test sessions, collecting all assessment materials, and shipping the test materials for processing.

While the student questionnaire was distributed and collected during the assessment session, the school questionnaires were mailed to the school coordinators with the assessment materials prior to the assessment. The school coordinator then distributed the questionnaire to the school principals. The completed questionnaires were collected on the day of the assessment by the field supervisor.

5.3 Field Staff Training

Training of the PISA field supervisors consisted of a history and overview of the project, a discussion of the study materials, and instruction on student sample selection using the international KeyQuest software. In addition, procedures were presented for preparing the booklets and questionnaires, conducting the assessment and postassessment activities, and using the reporting software and administrative procedures.

5.3.1 Staff Allocation

Twenty supervisors were assigned specific regions throughout the United States. Generally, one supervisor was assigned two to three primary sampling units (PSUs). However, some large PSUs had enough selected schools for one or more supervisors to be dedicated to those areas. In addition, other

supervisors (known as "troubleshooters") were trained but were not given specific assignments, so they could be available where and when needed for such occasions as emergencies or when two schools had to be scheduled for the same day in one supervisor's area. One field manager was trained to assist the field director in managing the assessment activities throughout the country. The field manager, selected from a staff of experienced NAEP field managers, also had worked on previous international assessments; thus, the field manager was very familiar with both the project design and the problems that occur with a staff that is distributed throughout the country.

Because it was never necessary to conduct more than one PISA session at a time in a school, Westat supervisors conducted the assessments themselves (instead of hiring additional test administrators). This meant that PISA assessments were conducted by very highly qualified and experienced members of Westat's field staff.

5.3.2 Field Management

During the school recruitment phase, each of the supervisors received a laptop computer containing a database of the schools they were responsible for contacting (the Field Management System, or FMS). On a weekly basis, they sent electronic files to Westat to update the main database of schools. The field manager also linked to Westat on a weekly basis to obtain the updated status of all of the schools in the sample. The field manager had weekly (if not more frequent) telephone contact with the supervisors to discuss the status of recruitment and scheduling. Weekly reports were printed by the FMS at Westat to provide regular updates on progress in school recruitment.

During the assessment field period, the field manager maintained close contact with the supervisors. Supervisors were required to photocopy various tracking forms used in the assessment and send them to the field manager and to Westat. The return of completed test materials was carefully tracked by Westat through the subcontractor responsible for shipping and receiving all assessment materials (NCS Pearson). If assessment materials were not received at NCS Pearson within a week of the scheduled assessment, the field manager checked with the supervisor to determine the whereabouts of the materials. This type of delay was frequently the result of the need for a makeup session at the school, in which case all materials were held until the makeup was completed.

5.4 Conduct of the Assessment

The field supervisors administered the assessments by reading verbatim from a standardized script, according to the instructions set forth in the international PISA Test Administrator Manual. Supervisors distributed the assessment booklets, matching the student with the preassigned booklet type (1-9) according to the Student Tracking Form preprinted through the KeyQuest software.

Students were allowed 60 minutes for Part 1 and 60 minutes for Part 2 of the PISA assessment booklet. Students were given 30 minutes to complete the Student Questionnaire, with an additional 10 minutes if necessary.

5.5 Results of Telephone Followup

To confirm the work of the PISA field supervisor and to obtain feedback from schools, the Westat field manager telephoned the school coordinator at 25 percent of participating schools several days after the assessment. All school coordinators surveyed said that the assessment went very well or satisfactorily. When asked how well the PISA representative organized and executed tasks (mainly sampling) during the preassessment period, 97 percent of school coordinators said that these tasks had been handled very well or satisfactorily.

5.6 PISA Forms Used in the United States

The following forms were used for PISA data collection in the United States:

Student Listing Form;

Student Tracking Form; and

Session Report Form.

These forms are described in the following sections and provided in Appendix A.

5.6.1 Student Listing Form

The Student Listing Form was used in the United States as it appears in the international National Project Manager (NPM) manual, with minor changes in the form instructions. The changes included instructions to keep the list until a member of the Westat field staff requested it (instead of sending it to the NPM), instructions to order the student list alphabetically, and a note explaining that student exclusions would be made later in the sampling process. The note was added to emphasize that students who might be excluded should always be given the opportunity to be selected. The U.S. version of the Student Listing Form instructions is shown in Exhibit A-1 in Appendix A.

5.6.2 Student Tracking Form

Student Tracking Forms were used as they appear in the international NPM manual and as generated by KeyQuest software, except that gender was indicated using the numbers 1 and 2 instead of the letters "F" and "M." In the few cases where supervisors were not able to use a computer-generated Student Tracking Form, preprinted forms were available (these forms were used, for example, if the computer or printer failed to operate). The preprinted version of the Student Tracking Form is shown in Exhibit A-2 in Appendix A.

After drawing the sample of student line numbers, the field supervisors were instructed to print a copy of the Student Tracking Form from KeyQuest. This copy was required as a hard-copy verification of the KeyQuest process for student line number generation.

5.6.3 Session Report Form

Field supervisors completed a Session Report Form for each session. The form was used as it appears in the International Test Administrator's Manual. The U.S. version of the form is shown in Exhibit A-3 in Appendix A. Session Report Form responses were used extensively in creating this report.

5.7 Identification System Used in the U.S. Main Study

Each school in the sample was given a unique, three-digit identifying number as required for international reference. In addition, Westat added digits to this number, to create a seven-digit school code for use in the U.S. internal field data system. The three-digit school number is embedded in the seven-digit code. The seven-digit code is structured as shown and explained below:

XX	Р	XXX	Х
PSU	Designates this study as PISA	Unique school identifier	Original or substitute school

The first two digits are a number between 01 and 52. This number refers to the PSU (geographic area) in which the school is located.

The third digit is always P and designates the study as PISA.

- Digits 4, 5, and 6 are the school identifier. These three digits are used to identify schools in all internationally submitted data. The three digits are unique and are ordered sequentially, as follows:
 - 101 through 320 for original schools;
 - 401 through 620 for first substitute schools; and
 - 701 through 920 for second substitute schools.

Digit 7 is the original/substitute school indicator, where

- 1 = original selection;
- 2 =first substitute; and
- 3 = second substitute.

5.8 KeyQuest Software

One of the main purposes of the KeyQuest software is to create the database of PISA assessment results. The PISA database for the United States was delivered to the International Study Center using KeyQuest, according to international specifications; however, the KeyQuest software was not used for initial data entry. Data entry for the United States was handled by the subcontractor NCS Pearson, as described in Chapter 6, and the data was imported into KeyQuest from the NCS Pearson
database before submission to the International Study Center. KeyQuest is also designed to track school participation, but Westat did not receive the final version of the KeyQuest software until supervisors were already in the field using a standard Westat field management system (to track school participation status). Westat was able to use KeyQuest to run the student samples and print the Student Tracking Forms, as described below.

Before the PISA field supervisors were trained on the assessment procedures, Westat programmers gained familiarity with KeyQuest and wrote a user's guide for the supervisors. Because the supervisor had to be able to draw student samples in the field, the KeyQuest 2.0 software was installed on each supervisor's laptop computer rather than at one central installation. KeyQuest software was installed and customized on laptops for 19 supervisors, 1 troubleshooter, and 1 field manager. The 19 supervisors each had records from their cooperating and pending sampled schools preloaded into their KeyQuest installations. The troubleshooter and field manager had records for all sampled schools.

At the supervisor training session, Westat field staff were trained on the basics of selecting the student sample and editing data. Two data tables were used, the List of Schools and the Student Tracking Form. When a supervisor confirmed the information for a sampled school, student sampling was performed and the Student Tracking Form data table (including the sampling line numbers) was automatically created. The actual data for the Student Tracking Form (such as student names and demographic information) was not necessarily entered into KeyQuest 2.0, because the supervisors were permitted to print out the form and enter information by hand. This data was key-entered by NCS Pearson. Westat did not require supervisors to enter student data into KeyQuest not only because NCS Pearson was planning to key-enter the data, but also because some schools do not permit the removal of student names from the school.

KeyQuest data was not backed up or transferred from the supervisor laptops. Supervisors were instructed to print the Student Tracking Form at every school for purposes of sampling line number validation, because all of the documentation necessary from the student sampling process was automatically printed at the top of this form. Westat briefly investigated the possibility of extracting the data from KeyQuest but decided against this approach because of the large KeyQuest file size.

5.9 Coding, scoring and data processing

Pearson was responsible for the printing and distribution of materials to the field and the receipt and processing of completed booklets and session materials after testing. After materials were received, three data entry systems were used to transcribe data to computerized form: key entry, optical mark recognition (OMR), and image scanning. These systems captured the demographic data, multiple-choice responses, and scores from short-answer and extended responses allowing the data to be arranged in format that conformed to the PISA codebook specifications. This data was edited for its consistency and to correct any formatting errors.

5.9.1 Data Marking and Scoring

Pearson trained markers to score the instruments for the United States using the marking guides, examples, and training materials provided by the Australian Council for Educational Research. Per agreement with the International Study Center, 27 reading markers (three teams) were hired. Each of the reading markers was trained on three item clusters. Each team was reconfigured for the next training. This ensured that the markers were compared to the whole pool rather than just the nine markers on a team. A 20 percent sample of materials was rescored to evaluate interrater reliability during both the reading and mathematics/science marking.

Scorings were coded and scanned. During scanning, the scoring system identified any missing marks, blank responses, or out-of-range marks on the score sheets. Each scoring sheet was printed with the booklet ID (barcode) and the specific items to be scored. Twenty five percent of the booklets were chosen at random by the scoring sheet creation program to be scored another time. The International Study Center required a third and fourth scoring of those booklets as well. The first and second scoring sheets were scanned by a tabletop scanner and the information uploaded onto a PC. The PC program compared those booklets that had both first and second scoring sheets. The third and fourth scoring sheets were keyed into an excel program and uploaded to the mainframe. The reliabilities between 1st and 3rd, 2nd and 3rd, 1st and 4th, 2nd and 4th, and 3rd and 4th were within a tenth of a percent of the 1st to 2nd reliability coefficient. A scoring team's progress was evaluated by its scoring reliability.

After all scoring was completed, 48 books from each of the booklets 1-7 that were selected for a second scoring were remarked for third and fourth scorings. For booklets 8 and 9, 72 of each were also remarked for third and fourth scorings. These scores were entered into the system rather than being

scanned. The scoring plan for reading was agreed upon with the International Study Center. Table 6-1 shows the range of item reliability percentages.

Subject	Number of items	100%	99-90%	89-80%	79-70%
		agreement	agreement	agreement	agreement
Mathematics	13	0	13	0	0
Science	14	0	13	1	0
Reading	81	2	65	13	1

Table 5-1. Number of items by reliability percentage, ranges, and subject: PISA 2000

† Not applicable

SOURCE: Organization for Economic Cooperation and Development, Program for International Student Assessment (PISA) 2000.

All of the math items had an agreement between 90 - 99 percent between the first and second scores. Thirteen of the science items had an agreement between 90 - 99 percent while one item had an agreement between 80 - 89 percent. Two of the reading items had 100 percent of the first and second scores match. Sixty-five items had an agreement between 90 - 99 percent between the 1st and 2nd scores while thirteen items had an agreement between 80 - 89 percent. There was one item that had an agreement between 70 - 79 percent.

5.9.2 File Creation and Consistency Checks

After open-ended marking was completed, scores were merged with the demographic data, multiple choice data, and key-entered data. At this point, final output files were produced for each file type and the final files were checked to ensure the correct data format. An additional check verified correct matching of student and school data files.

6. USING THE ELECTRONIC CODEBOOK AND DATA FILES

6.1 CD-ROM Contents and Uses

The PISA 2000 Electronic Codebook (ECB) software tool enables analysts to review and extract U.S. PISA data. This CD-ROM contains the following elements:

- Data for the student and school files (includes international data augmented with U.S. national data) and programs (SAS, SPSS, or Stata) for reading and merging the U.S. data;
- The ECB for the U.S. augmented PISA data;
- The U.S. PISA Quick Guide, a guide with troubleshooting tips, a tutorial on how to use the features of the ECB, and a glossary of terms; and
- The U.S. PISA User's Guide, which contains information on survey procedures such as sampling, data collection, and scoring.
- With this ECB software tool, an analyst can perform the following actions:
- Search the names and labels of variables in the U.S. PISA 2000 data files (called catalogs) to select variables for analysis;
- Create a list of variables to be extracted from the catalog (called taglists), save the list for later use, print the list as a codebook, or use a predefined taglist;
- Examine the response categories, frequencies, and percentages of responses for one or more catalog variables; and
- Automatically generate SAS, SPSS for Windows, or Stata programs to extract selected variables from the whole data set or for a subset of defined cases.

The ECB software tool works only on personal computers running a Windows-based environment (Windows 95 or higher). It will not run with other computer operating systems, such as Macintosh and Linux. The ECB software tool includes the PISA 2000 national data files, stored as flat (ASCII) data files.

6.2 Installation of Electronic Codebook and Data Files

The installation of the ECB has been divided into two sections: the ECB and the raw data files. The ECB shows the data in an easy-to-read format. The raw data files consist of the raw data in ASCII format. The flat files can be accessed to perform analyses using SAS, SPSS, or Stata. SAS, SPSS, and Stata programs and hard-copy codebooks may also be generated from the ECB. Only the U.S. augmented files are included on the data installation.

The disk space needed to install the ECB and raw data files varies according to what the user selects to install. For example:

Full installation	23 MG Required
Full installation of ECB	18 MG Required
Full installation of data files and documentation	5 MG Required

To install the ECB:

- 1. Select DOWNLOAD DATA from the HOME window.
- 2. Once in the DOWNLOAD DATA window, select ELECTRONIC CODEBOOK.
- 3. InstallShield will automatically start. Follow all prompts from within InstallShield.
- 4. Wait for the screen to display "Setup is Complete."
- 5. Click OK to end installation.
- 6. The ECB is ready to run.

The raw data files and programs may be accessed by selecting the DOWNLOAD DATA button from the HOME window.

To install the raw data and programs:

- 1. Select DOWNLOAD DATA from the HOME window.
- 2. Once in the DOWNLOAD DATA window, select the DATA FILES button.
- 3. The data files are in a zip file. The installation process prompts the user to unzip the data files to a directory.

- 4. Enter a destination drive or accept the default drive and click UNZIP.
- 5. Wait for the screen to display "9 FILES SUCCESSFULLY UNZIPPED."
- 6. Click OK to end installation, and then click CLOSE.
- 7. The data files are installed.

Note that the directories and subdirectories are created by the program.

To create a shortcut, before closing the ECB folder move any or all icons onto the window by:

- 1. Selecting any or all icons;
- 2. Pressing the Control key; and
- 3. Dragging the icon to the desktop using the mouse.

6.3 Reading and Downloading the Quick Guide, User's Guide, Codebooks, and Crosswalk File

6.3.1 Reading the Quick Guide, User's Guide, Codebooks, or Crosswalk File

The Quick Guide, User's Guide, Codebooks, and Crosswalk File are all in Portable Document Format (PDF). The user will need Adobe Acrobat Reader to read this type of format. The program will check for Acrobat Reader and will direct the user to load the program if it is not already installed on the machine. Users who have an older version of Acrobat Reader may install the latest version by selecting the ACROBAT READER button on the VIEW/DOWNLOAD REPORTS page.

6.3.2 Downloading the Quick Guide, User's Guide, Codebooks, or Crosswalk File

The user may download any of these files once they have been opened to view. To download any of these files, go to the File menu, select Save A Copy from the drop-down list in the Acrobat Reader window menu, and save the document to any directory.

6.4 Data Restrictions in Performing Cross-National Analysis

This CD-ROM contains PISA data for the United States only. It contains some variables that are national options and were not collected by other countries. This information is provided in the Comment field. Users should take care not to use these national variables in cross-national analyses.

6.5 Using PISA Data

The purpose of this section is to provide the user with the basic information for using the PISA data. Instructions for using the ECB may be found in the Quick Guide on the CD-ROM and in the Help file of the ECB. Additional information may be found in the *Manual for the PISA 2000 Database* (http://pisaweb.acer.edu.au/oecd/oecd_pisa_data_s1.html). The international data may be obtained at this same site.

6.5.1 Data Files Associated with the PISA Data

The PISA database comprises five data sets: the student reading performance file (intstud_read.txt), the student mathematics performance file (intstud_math.txt), the student science performance file (intstud_scie.txt), the school questionnaire file (intscho.txt), and the assessment items file (intcogn.txt). The data are in ASCII format. Associated extract programs are included within the ECB to read in the data to produce SAS data sets and SPSS system files. The data are hierarchical; thus, all of the students are within the schools. Each student record contains identification variables that enable the user to merge the school and teacher data with the student data. The school data may be merged to the student data by variable SCHOOLID.

The PISA 2000 files are described below:

- **usa_read.dat.** This file contains the identification variables, the student responses to the questionnaire, derived index scores, reading performance scores, student weights, and Fay's replicate weights. There are 3,846 cases in the student reading file.
- **usa_math.dat.** This file contains the identification variables, the student responses to the questionnaire, derived index scores, mathematics performance scores, student weights, and Fay's replicate weights. There are 2,135 cases in the student math file.

- **usa_scie.dat.** This file contains the identification variables, the student responses to the questionnaire, derived index scores, science performance scores, student weights, and Fay's replicate weights. There are 2,129 cases in the student science file.
- **usa_school.dat.** This file contains the identification variables, the school responses to the school questionnaire, the derived school index scores, and the school weight. There are 160 cases in the school file.
- **usa_assesm.dat.** This file contains each item from the test and shows the student responses in a one-digit format. There 3,846 cases in the student assessment file.

6.5.2 Definition of National Data

On the data files, some of the variables are defined as national variables. There are two types of national variables. Since PISA is an international comparison of students and schools, items that are not exactly comparable between countries are defined as national items. Most of the national variables on the U.S. data set are items added to original question stems or new questions on topics pertaining specifically to U.S. education, such as block scheduling. The U.S. data also includes some demographic information extracted from the sampling frame, such as region and school location (urbanicity). The questions that were significantly adapted or added for the US are as follows:

School Questionnaire

Question 5. Grade levels:	added 2 items a) and b)
Question 6. Instructional time:	restructured question to incorporate block scheduling
<i>Question</i> 8. Programs of study:	ISCED categories were replaced with more general program descriptions. Program descriptions are not directly comparable. Users should examine the international coding when using this item.
Question 11. Resources:	added item j)
Question 12. Resources:	added item b) ESL instruction
Question 13. Computers:	added item e) and restructured question
Question 14. Number of teachers:	ISCED levels were replaced with the equivalent U.S. descriptions so that ISCED 5A = Bachelor's or Master's degree; added item e) number of ESL teachers.
Question 17. Student performance:	added item d)

Question 18.	Use of assessments:	added iten	ns e) and f)					
Question 19.	Student learning:	added iten	n r)					
Question 22.	Administrative duties:	changed Superinter	response ndent	categories	adding	a	column	for

Student Questionnaire

Question 3. Race/Ethnicity:	U.S. specific question
Question 5. Country of origin:	question is restructured
<i>Question 6-8/ Questions 11-13.</i> Mother's and Father's occupation:	response category added for those students without a mother or a father
<i>Questions 9-10/ Questions14-15.</i> Mother's and Father's education:	replaced ISCED levels with equivalent U.S. descriptions ISCED 1 = elementary, ISCED 2 = some high school, ISCED 3 = high school or GED, ISCED 4, 5, or 6 = bachelor's, master's or postgraduate; response category added for those students without a mother or a father
Question 20. Homework	added two items g) and h)
Question 31. Attitudes toward school:	added ten items i) through r)
Question 35. Attitudes toward reading:	added item j)
Question 50. Attitudes toward computers:	restructured four questions from the international version into a single, multi-item question and with different response categories

The variables in the data files are ordered by the international variable name. The national corresponding item number in the US questionnaire is easily identified by the variable label information found in the source programs and in the ECB.

6.5.3 Weights to Use for Analysis

There are three types of weights on each of the student files. The final student weight is **w_fstuwt** and functions as the population weight. Additionally, there are country weight factor adjustments for each domain; these are named **cntrfac** for reading, **cntmfac** for mathematics, and **cntsfac** for science. These weights give an equal weight to each country.

w_fstuwt = Total Student Weight
cntrfac = Country Weight Adjustment Factor for Reading
cntmfac = Country Weight Adjustment Factor for Mathematics
cntsfac = Country Weight Adjustment Factor For Science

The weights used in PISA were constructed under international procedures. A detailed discussion of the procedures used in constructing the weights and calculations of sampling variance is given in Chapter 8. Survey Weighting and the Calculation of Sampling Variance in the *PISA 2000 Technical Report* (http://www.pisa.oecd.org/tech/download.htm).

6.5.4 Handling of Missing Data

There are four kinds of missing data. "Nonresponse" data occurs when a respondent was expected to answer an item but no response is given. This is represented by the code 9 for a one-digit variable, 99 for a two-digit variable, 999 for a three-digit variable, etc. Responses that are "missing or invalid" occur in multiple-choice items where an invalid response is given. The code for this is 8 for a one-digit variable, 98 for a two-digit variable, 998 for a three-digit variable and so on. The code is not used for open-ended questions. An item is "not applicable" when it is not possible for the respondent to answer the question and this receives a code of 7, 97, 997 and so on. Finally, items that are "not reached" are consecutive missing values starting from the end of each test session and these are represented by an "r" except for the first value of the missing series which is coded as missing.

6.5.5 ECB Data Comparability with International Data Almanacs

The ECB is designed to show the U.S. data in its entirety. The frequencies from the ECB will not appear comparable to the international data almanacs because the almanacs do not report frequencies for the "not administered" and "not reached" categories. The result is that the ECB and the international almanacs use a different base in calculating frequency percentages. In addition, for continuous variables, the ECB provides the range of responses along with the mean for the variable to the right of the range in the "Response" column.

6.5.6 Confidentiality

The confidentiality analyses were conducted to provide reasonable assurance that the 2000 Programme for International Student Assessment (PISA) United States (U.S.) international population public use data files will not allow identification of individual schools, teachers, or students when compared against public data collections. No public data collections identify teachers or students by name. However, three publicly available data files identify schools by name. The National Center for Education Statistics (NCES), part of the U.S. Department of Education, regularly publishes the Common Core of Data (CCD), a detailed public school listing, and the Private School Survey (PSS), a detailed private school listing. Quality Education Data Inc. (QED), a private-owned educational research firm, also publishes a school-based file that provides demographic information for both public and private schools. Any potential identification of teachers and students would arise through the identification of their associated schools. Providing a reasonable degree of assurance that PISA schools cannot be identified, thus, assures that teacher and student data also remain unidentifiable.

Users should be assured that schools or students in the U.S. PISA dataset cannot be identified. Through a technique of probabilistic matching, problematic schools were identified and data masking procedures were performed to remove the risk of identification. The confidentiality analyses incorporated both national and international data variables. Variables found in both the student file and school file were masked by swapping or collapsing the data. Geographical information such as state and region were dropped from the file. Self-identifying information based upon occupation and date of birth were masked as well. PSU, strata, and school and student identifiers cannot be mapped to any schools or PSUs as they are arbitrarily assigned numbers. Documentation on the study provides no link to the

participating schools or students. The public release of the PISA U.S. national school database includes all confidentiality-based changes for both the international and national data variables.

6.5.7 Appropriate Software for Analysis of PISA Data

Because of the complex sample design of the survey, software used to analyze this data must take into account the sampling error and the measurement error. SAS and SPSS can produce the correct point estimates but cannot be used to produce accurate standard errors without applying some specific procedures that use the replicate weights. For a detailed discussion, refer to the manual for the PISA International Database (available at http://pisaweb.acer.edu.au/oecd/oecd pisa data s1.html).

WesVar is a commercially available software package that was specifically developed to handle data from studies such as PISA. WesVar uses the robust and flexible approach of replication variance estimation. Replication methods apply to sample designs and estimators from the simple to the most complex. Using one of five methods of replication, the user can estimate standard errors for simple estimators such as totals or complicated ones such as logistic regression parameter estimates.

WesVar's interface allows easy creation of weights, table specifications, and definition of regression models. No coding of procedure statements is necessary. Analysis requests are organized in workbooks that have an intuitive tree structure. Highlighting different nodes in the tree allows the user to select the statistics wanted, control the appearance of output, set the level of confidence intervals, and specify many other options. Simple dialog boxes let the user define complicated functions of estimates in cells of a table and statistics such as means, quintiles, and standardized rates. Regression models are specified with a few mouse clicks or by dragging and dropping variables. Easy-to-use screens let the user define customized hypothesis tests and odds ratios.

6.5.8 Analyzing School Data

It is recommended that the school data be disaggregated to the student level by merging the school-level data to the student file by **Schoolid.** The disaggregated data can be analyzed at the student level using the student-level weight **w_fustwt.**

6.5.9 Accessing Data from Other Countries

Currently, the international version of the PISA database may be downloaded, along with documentation explaining the structure and content of the database. These items are available for downloading at http://pisaweb.acer.edu.au/oecd/oecd pisa data.html.

6.5.10 Other Available PISA Reports and Reference Materials

Currently, several materials are available to analysts interested in analyzing PISA data. At the international level, the international report in *Knowledge and Skills for Life: First Results from PISA 2000* (Paris: OECD) is available for downloading at http://www.pisa.oecd.org/pisa/outcome.htm. This web site also provides other references and information dealing with various aspects of the study. The U.S. national report and additional information about U.S. PISA can be found at http://nces.ed.gov/surveys/pisa/.

REFERENCES

Adams, R. and Wu, M. (Eds.) (2002). PISA 2000 Technical Report. Paris: OECD.

APPENDIX A: DATA COLLECTION FORMS

PISA STUDENT LISTING FORM

Page	of	

School ID: America (USA)	Country Name:	United	States	of
School Name:	List Prepared By:			
Address:	Telephone #:			
	Date List Prepared:			
	Total # Students Listed:			

DIRECTIONS: PLEASE COMPLETE COLUMNS A, B, C, AND D, FOR EVERY STUDENT BORN IN 1984.

Include on the list students who may be excluded from other testing programs, such as some students with disabilities or limited English language proficiency. Detailed instructions and information about providing computer-generated lists are on the other side of this page.

For Samp	ling Only		(A) Student's Name		(B)	(C) Sex	(D) Birth
Selected Student (Enter "S")	Line #	(First	Middle Initial	Last)	Grade	(M or F)	Date (mm/yy)

PISA MAIN STUDY

A. Instructions for Preparing a List of Eligible Students

- 1. Please prepare a list of **ALL students** enrolled in your school **who were BORN IN 1984** using the most current enrollment records available.
- 2. Include on the list students who typically may be excluded from other testing programs (such as some students with disabilities or limited English language proficiency).
- 3. Write the name of each eligible student. Please also specify current grade, sex, and birth date for each student. The **students' birthdates should always be in 1984.**
- 4. If confidentiality is a concern in listing student names, then a unique student identifier may be substituted. Because some students may have the same or similar names, it is important to include a birth date for each student.
- 5. The list may be computer-generated or prepared manually using the PISA Student Listing Form. A copy of the PISA Student Listing Form is on the reverse side of these instructions. You may copy this form if you need additional pages. If you prefer to produce a computer-generated list, please follow the instructions in part B on the bottom half of this page.
- 6. If you use the Student Listing Form on the reverse side of this page, do **not** write in the "For Sampling Only" columns.
- 7. Keep the list of students that you prepare at the school until the PISA supervisor arrives for the sampling visit.
- 8. After the PISA supervisor selects the student sample from your list, the supervisor will ask you to use PISA criteria to identify any students who should not be included in the assessment.

B. Instructions for Preparing Computer-generated Lists

- Write the <u>school name and address</u> on list.
- List students in <u>alphabetically</u>, if possible.
- <u>Number</u> the students.
- <u>Double-space</u> the list.
- Allow left-hand <u>margin of at least two inches</u>.
- Include <u>the date</u> the printout was prepared.
- Define any <u>special codes</u> used.
- Include <u>preparer's</u> name and telephone number.

PISA STUDENT TRACKING FORM

Page __ of ___

Country	Name:
---------	-------

School Name:

Stratum ID:

School ID:

					SAMPLIN	G INFORM	IATION								
	(A) # Students Age 15	# S f	(B) tudents Listed or Sampling	(C) Sample Size		(C)(D)(E)Sample SizeRandomSamplinNumberInterval		(E) Sampling Interval		(E) Sampling Interval		(F) First Line # Selected [(Box D X Box E) + 1		+ 1]	
(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)	·· <u></u>	— Р	articipati	ination Status		
(- <i>)</i>	Line #				Gandar	Birth Data	Evoluded	Rool	rlat	Orig	(9) ginal Sess	ion	(10) Followup Session		sion
#	(Sample)	Stude	nt Name	Grade	(F=1/M=2)	(MM-YY)	Code	Num	ber	P1	P2	SQ	P1	P2	SQ
01															
02															
03															
04															
05															
06															
07															
08															
09															
10															
11															
12															
13															
14															
15															
Exclusion Codes (Col. 7) 1 = Functionally disabled 2 = Educable mentally retarded 3 = Limited test language proficiency				Partic $0 = Ab$ $1 = Pr$ $2 = Pr$ $3 = Sti$ $8 = Nc$	ipation Codes sent esent for entire esent for part of ident or parent of applicable (i	s (Cols. 9 e session of session t refusal .e., exclude	and 10)	onger in sc	bool, not	age-eligi	ble)				

	SAMPLING INFORMATION												
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	Participation Status					
								Orig	(9) rinal Sess	ion	Follo	(10) wun Ses	sion
ID #	Line # (Sample)	Student Name	Grade	Gender (F=1/M=2)	Birth Date (MM-YY)	Excluded Code	Booklet Number	P1	P2	SO	P1	P2	SO
16	((,)	()					~ <			~ (
17													
18													
19													
20													
21													
22													
23													
24													
25													
26													
27													
28													
29													
30													
31													
32													
33													
34													
35													
Exclusion Codes (Col. 7) 1 = Functionally disabled 2 = Educable mentally retarded 3 = Limited test language proficiency					Particip 0 = Abso 1 = Pres 2 = Pres	Participation Codes (Cols. 9 and 10) 0 = Absent 1 = Present for entire session 2 = Present for part of session							
3 = Elimited test language protectency 2 = Present for part of session 3 = Student or parent refusal 8 = Not applicable (i.e., excluded, no longer in school, not age-eligible)													

Exhibit A-3 – Session Report Form

		OECD/PISA	SESSION RI	EPORT FORM			
School Name:			School ID #:				
Test Administrat	tor:		School Coordinator:				
	SESSION INFOR	RMATION		SESSION RE	SULTS		
Type of Session:	Regular	Followup		How many students were	e:		
Date of Testing:				SAMPLED			
Scheduled Start '	Timo			– Excluded			
Scheumen Start	I IIIIe			 Not Eligible 			
Location: (e.g., l	ibrary, classroom)			= TO BE ASSESSED)		
				- Absent (including			
				refusals)			
				- ASSESSED			
Position of Test A	Administrator:			Mal	keup Needed?		
National Centr	re Staff		Region	al/District Staff	Yes		
Teacher of An	y Sampled Student		Externa	al Contractor Staff	🗌 No		
School Staff, H	But Not a Teacher of Any	Sampled Student					
Other, Specify	:						
		S	ESSION TIM	ING			
Start Time	End Time	Session Section					
		Introduction to the Distribution)	Cognitive Ass	essment (Preparation of Stud	lents, Instructions, Materials		
		Part 1 (60 Minutes)				
		Part 2 (60 Minutes)				
		Student Questionn	aire				
Did a School Qua	ality Monitor (SQM) obs	erve the session?					
🗌 No	🗌 Yes, National SQM	□ Ye	es, Internationa	l SQM			
XX 7 (1							
Were there any o	other observers during th	ie session?					
🗌 No	Yes. Specify (e.g., o	other school or district	staff, governm	ent officials, etc.):			
Were students u	ncooperative, loud, or dis	sruptive during the se	ession?				
🗌 No	Yes, Specify:						
Were there any d	lisruptions to the session	(e.g. alarms. announ	cements. chan	nging of classes. etc.) or any	unusual circumstances?		
	Vac Specify	· · · · · · · · · · · · · · · · · · ·	,	e e · · · · · · · · · · · · · · · · · ·			
	res, specify:						

Exhibit A-3 - Session Report Form

ASSESSMENT BOOKLET FORMAT AND CONTENT

Were there any problems with the Assessment Booklets (e.g. errors or omissions, unclear directions, confusing format, too long, too hard, boring, tiring etc.)?

No Yes, Specify:

Were there any problems with specific test items?

🗌 No

Yes, Specify (include booklet number and item number):

Book #	Item #	Problem

STUDENT QUESTIONNAIRE FORMAT AND CONTENT

Were there any problems with the Student Questionnaires (e.g. errors or omissions, unclear directions, confusing format, too long, too hard, boring, tiring, etc.)?

No Yes, Specify:

Were there any problems with specific questions?

🗌 No

Yes, Specify (include the item number):

Item #	Problem

OTHER COMMENTS

Please note other comments that you think would help improve the assessment:

APPENDIX B: QUESTIONNAIRES



OECD Program for International Student Assessment

United States of America English

SCHOOL QUESTIONNAIRE

School ID #

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless such collection displays a valid OMB control number. The valid OMB control number for this information collection is 1850-0755. The time required to complete this information collection is estimated to average 25 minutes per response, including the time to review instructions, search existing data resources, gather the data needed, and complete and review the information collection. If you have any comments concerning the accuracy of the time estimate(s) or suggestions for improving this form, please write to: U.S. Department of Education, Washington, D.C. 20202-4651. If you have comments or concerns regarding the status of your individual submission of this form, write directly to: National Center for Education Statistics, U.S. Department of Education, 555 New Jersey Avenue, N.W., Washington, D.C. 20208.

OMB No. 1850-0755 • Approval expires 04/30/2002

Project Consortium:

Australian Council for Educational Research (ACER) Netherlands National Institute for Educational Measurement (CITO) Educational Testing Service (ETS, USA) National Institute for Educational Research (NIER, Japan) Westat (USA)

Learning for Living THIS PAGE LEFT INTENTIONALLY BLANK

This questionnaire asks for information about:

- The school's resources;
- The number of teachers in the school and their qualifications;
- Characteristics of the student body;
- The relationship the school has with the students;
- Some of the administrative structures within the school; and
- Some of the pedagogical practices of the school

The information may help to establish the impact of resource distribution on student achievements – both within and between countries.

The questionnaire should be completed by the principal or designate.

It should take about 30 minutes to complete.

If you do not know an answer precisely, your best estimation will be adequate for the purposes of the study.

Your answers will be kept confidential. Thank you.

Preliminary note:

Sometimes you will be asked about:

- the whole of your school; or
- 15-year-olds within your school; or,
- the grade level at which most 15-year-olds are studying.

When asked about all 15-year-old students, we have underlined the text to emphasize that it is this specific group that we wish you to think about.

Q 1 Which of the following best describes the community in which your school is located?

Please check only one box.

A rural area (fewer than 3,000 people)	\Box_1
A small town (3,000 to about 15,000 people)	\Box_2
A town (15,000 to about 100,000 people)	
A city (100,000 to about 1,000,000 people)	\Box_4
Close to the center of a city with over 1,000,000 people	\Box_5
Elsewhere in a city with over 1,000,000 people	

Q 2 As of March 31, 2000, what was the total school enrollment (number of students)?

Please write in a number on each row or write 0 (zero) for none.

a) Number of boys:

b) Number of girls:

Q 3 Is your school a public or a private school?

Please check only one box.

A public school

(This is a school managed directly or indirectly by a public education authority, government agency, or governing board appointed by government or elected by public franchise.)

A private school

(This is a school managed directly or indirectly by a non-government organization; e.g., a church, trade union, business, other private institution.)

Q 4 About what percentage of your total funding for a typical school year comes from the following sources?

Please write in a number on each row or write 0 (zero) for none.

		Percentage	
a)	Government (includes departments, local, regional,	-	
	state and national)		%
b)	Student fees or school charges paid by parents		%
c)	Benefactors, donations, bequests, sponsorships,		
	parent fund raising		%
d)	Other		%
	Total	100	%

Q 5 Are the following grade levels found in your school?

	Yes	No
a) Pre-Kindergarten	\Box_1	\square_2
b) Kindergarten	\Box_1	\square_2
c) Grade 1	\square_1	\square_2
d) Grade 2	\Box_1	\square_2
e) Grade 3	\Box_1	\square_2
f) Grade 4	\Box_1	\square_2
g) Grade 5	\Box_1	\square_2
h) Grade 6	\Box_1	\square_2
i) Grade 7	\Box_1	\square_2
j) Grade 8	\Box_1	\square_2
k) Grade 9	\Box_1	\square_2
l) Grade 10	\Box_1	\square_2
m)Grade 11	\Box_1	\square_2
n) Grade 12	\square_1	\square_2
o) Ungraded	\Box_1	

Q 6a Does this school use some form of block scheduling?

	Yes	No
If yes, please describe		

Q 6b The following question refers to different aspects of instructional time for <u>15-year-old students</u> in your school.

If 15-year-olds are in different programs or grades, choose the one where most of the 15-year-olds are enrolled.

Please write in a number on each row.

a)	How many instructional <u>weeks</u> are there in the school <u>year</u> ?	 weeks
b)	How many <u>class periods</u> are there in the school <u>week</u> ?	 class periods
c)	How many instructional minutes are there in the average	
	single <u>class period</u> ?	 minutes

Q 7 How often are the following factors considered when students are admitted to your school?

		Never	Sometimes	Always
a) Resid	lence in a particular area	\Box_1		
b) Stude	ent's record of academic performance			
(inclu	iding placement tests)	\square_1		
c) Reco	mmendation of feeder schools	\Box_1		
d) Parer	ts' endorsement of the instructional or religious			
philo	sophy of the school	\Box_1	\square_2	
e) Whet	her the student requires or is interested in			
a spe	cial program	\Box_1		
f) Prefe	rence given to family members of current			
or for	mer students	\Box_1		
g) Other	·	\Box_1		

Q 8 In your school, what percentage of <u>15-year-old students</u> is studying each program?

Please write in a number on each row or write 0 (zero) for none.

	Percentage
a) General studies	%
b) Vocational studies	%
c) Academic/college prep studies	%
Total	100 %

Q 9 In your school, how important is each of the following factors in determining the course of study of <u>15-year-old students</u>?

	Not important	Important	Very important
a) Students' choices			
b) Students' previous academic records			
c) A placement examination			
d) Teachers' recommendations			
e) Parents' or guardians' requests		\Box_2	

Q 10 In your school, how likely is it that a <u>15-year-old student</u> would be transferred to another school because of:

Please check one box on each row.

If students are never transferred, skip to Question 11.

	Not likely	Likely	Very likely
a) low academic achievement			\square_3
b) high academic achievement			\square_3
c) behavioral problems			
d) special learning needs			\square_3
e) parents' or guardians' requests			
f) other			

Q 11 In your school, how much is the learning of <u>15-year-old students</u> hindered by:

хт...

* 7

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	Not at all	Very little	extent	A lot
a) poor condition of buildings?	\Box_1	\square_2		
b) poor heating, cooling and/or lighting systems?	\Box_1	\square_2		\Box_4
c) inadequate science laboratory equipment?	\Box_1	\square_2		\Box_4
d) inadequate facilities for the fine arts?	\Box_1	\square_2		\Box_4
e) lack of instructional space (e.g., classrooms)?	\Box_1	\square_2		\Box_4
f) lack of instructional materials in the library?	\Box_1	\square_2		\Box_4
g) lack of text books and basic supplies?	\Box_1	\square_2		\Box_4
h) not enough computers for instruction?	\Box_1	\square_2		\Box_4
i) lack of multi-media resources for instruction?	\Box_1	\square_2		\Box_4
j) lack of discipline and safety	\Box_1			\Box_4

Q 12 For <u>15-year-old students</u>, does your school provide the following resources?

Please check one box on each row.

		Yes	No
a)	Extra courses on academic subjects for gifted students	\Box_1	\square_2
b)	Special training for English as a second language	\square_1	\square_2
c)	Special training in English for low achievers	\Box_1	\square_2
d)	Special courses in study skills for low achievers	\Box_1	\Box_2
e)	Special tutoring by staff members	\Box_1	\Box_2
f)	Room(s) where the students can do their homework with staff help	\Box_1	\Box_2

Q 13 In your school, about how many computers are:

Please write in a number on each row or write 0 (zero) for none.

	Total Number	Connected to Internet
a) in the school altogether?		
b) available to 15-year-old students?		
c) available only to teachers?		
d) available only to administrative staff?		
e) available to both teachers and administrative staff?		
f) connected to a local area network (LAN, Intranet)?		

Q 14 In your school, how many full-time and part-time teachers:

A full-time teacher is employed at least 90% of the time as a classroom teacher. All other teachers should be considered part-time.

Note that categories b) to j) are not mutually exclusive, so the total item a) may be less than the sum of items b) to j).

Please write in a number in each space provided or write 0 (zero) for none.

		Full-time	Part-time
a)	are there in TOTAL?		
b)	have a bachelor's or master's degree in education?		
c)	are fully certified as teachers?		
d)	teach English as their main assignment?		
e)	teach English as a second language as their main assignment?		
f)	have a bachelor's or master's degree with a major in English?		
g)	teach mathematics as their main assignment?		
h)	have a bachelor's or master's degree with a major in mathematics?		
i)	teach science as their main assignment?		
j)	have a bachelor's or master's degree with a major in science?		

Q 15 During the last three months, what percentage of teaching staff in your school have attended a program of professional development that lasted at least one day?

Professional development is a formal program designed to enhance teaching skills or pedagogical practices. It may or may not lead to a recognized qualification. The total length of the program must last for at least one day and have a focus on teaching and education.

%

Q 16 Generally, in your school how often are <u>15-year-old students</u> assessed using:

	Never	Once a Year	2 times a year	3 times a year	4 or more times a year
a) standardized tests?	\Box_1	\square_2			
b) teacher-developed tests?			\square_3		_ ₅
c) teachers' judgmental ratings?		\square_2			
d) student portfolios?	\Box_1	\square_2			
e) student assignments/projects/					
homework?	\Box_1	\square_2		\Box_4	_ 5

Q 17 In your school, about how often is information on the performance of <u>15-year-old students</u> formally communicated to:

Please check one box on each row.

		Once a	2 times	3 times	4 or more times
	Never	Year	a year	a year	a year
a) parents/guardians?	\Box_1	\square_2	\square_3	\Box_4	5
b) school principal?	\Box_1	\square_2		\Box_4	\Box_5
c) local education authorities?	🗆				_ 5
d) State education authorities	🗆	\square_2		\Box_4	\Box_5

Q 18 In your school, are any assessments of <u>15-year-old students</u> used to:

	Yes	No
a) inform parents about their child's progress?	🗆	\square_2
b) make decisions about retention or promotion?	🗆	\square_2
c) group students for instructional purposes?	🗆	\square_2
d) compare the school to district performance?	🗆	\square_2
e) compare the school to state performance?	🗆	\square_2
f) compare the school to national performance?	🗆	\square_2
g) monitor the school's progress from year to year?	🗆	
h) make judgements about teachers' effectiveness?	🗆	\square_2

Q 19 In your school, is the learning of <u>15-year-old students</u> hindered by:

	Not at all	Very little	To some extent	A lot
a) low expectations of teachers?	\Box_1		3	\Box_4
b) student absenteeism?	\Box_1	\square_2		\Box_4
c) poor student-teacher relations?	\Box_1	\square_2		\Box_4
d) teacher turnover?	\Box_1	\square_2		\Box_4
e) lack of parental support for student				
learning at home?	\Box_1	\square_2		\Box_4
f) disruption of classes by students?	\Box_1	\square_2		\Box_4
g) teachers not meeting individual students'				
needs?	\Box_1	\square_2		\Box_4
h) teacher absenteeism?	\Box_1	\square_2	3	\Box_4
i) students skipping classes?	\Box_1		3	\Box_4
j) students lacking respect for teachers?	\Box_1	\square_2		\Box_4
k) staff resisting change?	\Box_1	\square_2		\Box_4
l) not enough instructional time?	\Box_1	\square_2		\Box_4
m) student use of alcohol or illegal drugs?	\Box_1			\Box_4
n) teachers being too strict with students?	\Box_1			\Box_4
o) students intimidating or bullying other				
students?	\Box_1	\square_2		\Box_4
p) students not being encouraged to achieve their				
full potential?	\Box_1	\square_2		\Box_4
q) students coming from poor home				
environments?	\Box_1	\square_2	\square_3	\Box_4
r) racial/ethnic tensions?	\Box_1	\square_2		\Box_4
Q 20 Think about the teachers in your school. How much do you agree or disagree with the following statements?

Please check one box on each row.

	Strongly disagree	Disagree	Agree	Strongly agree
a) The morale of teachers in this school is high	\Box_1			\Box_4
b) Teachers work with enthusiasm	\Box_1	\square_2		\Box_4
c) Teachers take pride in this school	\Box_1			\Box_4
d) Teachers value academic achievement	\Box_1			\Box_4

Q 21 In your school, is the learning of <u>15-year-old students</u> hindered by:

Please check one box on each row.

	Not at all	Very little	To some extent	A lot
a) a shortage/inadequacy of fully certified teachers?	\Box_1	\square_2		\Box_4
b) a shortage/inadequacy of fully certified English				
teachers?	\Box_1			\Box_4
c) a shortage/inadequacy of fully certified				
mathematics teachers?	\Box_1		\square_3	\Box_4
d) a shortage/inadequacy of fully certified science				
teachers?	\Box_1			\Box_4
e) a shortage/inadequacy of support personnel*				
for classroom teachers?	\Box_1			\Box_4

*Note: **Support personnel** covers non-teaching staff providing educational, administrative, and professional support to teachers and students. Examples are supervisors, counselors, librarians or educational media specialists, psychologists, inspectors, and former teachers who no longer have active teaching duties. It does NOT cover personnel providing indirect support in areas such as: building and maintenance, security, transportation, catering etc.

Q 22 In your school, who has the main responsibility for:

Please check as many boxes as appropriate on each row.

		Not a school responsibility	Superintendent	Appointed or elected board	Principal	Department head	Teachers
a)	hiring teachers?				4	₅	6
b)	firing teachers?		\square_2			₅	6
c)	establishing teachers' starting salaries	? 🗆	\square_2				
d)	determining teachers' salary increases	$:: \square_1$	\square_2		\Box_4	₅	
e)	formulating the school budget?		\square_2		\Box_4	₅	
f)	deciding on budget allocations within the school?	□1					
g)	establishing student disciplinary policies?						
h)	establishing student assessment policies?	🗆					
i)	approving students for admittance to school?						
j)	choosing which textbooks are used?		\square_2		_ _4		
k)	determining course content?		\square_2			₅	6
l)	deciding which courses are offered?		\square_2		\Box_4		

Thank you for completing this questionnaire

For more information on the PISA project, please visit www.pisa.oecd.org



OECD Program for International Student Assessment

United States of America English

STUDENT QUESTIONNAIRE

School ID #]-[]
STF (from Col. 1)			
Participation Status	Original	Followup	

Assessment Book ID #	

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless such collection displays a valid OMB control number. The valid OMB control number for this information collection is 1850-0755. The time required to complete this information collection is estimated to average 160 minutes per response, including the time to review instructions, search existing data resources, gather the data needed, and complete and review the information collection. If you have any comments concerning the accuracy of the time estimate(s) or suggestions for improving this form, please write to: U.S. Department of Education, Washington, D.C. 20202-4651. If you have comments or concerns regarding the status of your individual submission of this form, write directly to: National Center for Education Statistics, U.S. Department of Education, 555 New Jersey Avenue, N.W., Washington, D.C. 20208.

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ECONOMIC CO-OPERATION AND FOR ORGANIZATION

DEVELOPMENT

Learning

for Living

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In this booklet you will find questions about:

- you and your family;
- your experience of your school; and
- what you plan to do in the future.

Please read each question carefully and answer as accurately as you can. In the test you usually circled your answers. For the questionnaire, you will normally answer by filling in an oval. For a few questions you will need to write in a short answer.

If you make a mistake when filling in an oval, <u>completely erase</u> your error and fill in the correct oval. If you make an error when writing in an answer, simply cross it out and write the correct answer next to it.

In this questionnaire, there are no 'right' or 'wrong' answers. Your answers should be the ones that are 'right' for you.

You may ask for help if you do not understand something or are not sure how to answer a question.

Your answers will be kept confidential. Thank you.

Q 1 On what date were you born?

Please write in the month, day, and year you were born.

				198
		Month	Day	Year
Q 2	What grade are you in?			grade
Q 3	Are you female or male?		Female	Male
			A	B
Q 3a	Which best describes you? Please fill in only one oval.			
	a) I am Hispanic or Latino. (A person of Cuban, Mexic Puerto Rican, South or Central American, or other Spanish culture or origin)	can,	۹	
	b) I am not Hispanic or Latino.		₿	

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Q 3b What is your race?

Please fill in one or more ovals.

a)	American Indian or Alaska Native (A person having origins in any of the original peoples of North and South America, including Central America and who maintains tribal affiliations or community attachments)	A
b)	Asian (A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam)	₿
c)	Black or African American (A person having origins in any of the Black racial groups of Africa; also, people who describe themselves as Haitian or Negro)	©
d)	Native Hawaiian or other Pacific Islander (A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands)	٦
e)	White (A person having origins in any of the original peoples of Europe, the Middle East, or North Africa)	€

PLEASE NOTE:

Some of the following questions are about your mother and father (or those person(s) who are like a mother or father to you — for example, guardians, step-parents, foster parents, etc.) — and your brothers and sisters.

If you share your time with more than one set of parents or guardians, please answer the following questions for those parents/step-parents/guardians you spend the most time with.

BEFORE ANSWERING THE FOLLOWING QUESTIONS, PLEASE READ THE NOTE ABOVE.

Who usually lives at home with you? Q 4

Please fill in only one oval on each row.

	Yes	No
a) Birth or adoptive mother	A	₿
b) Stepmother or foster mother	A	₿
c) Other female guardian	A	₿
d) Birth or adoptive father	A	₿
e) Stepfather or foster father	A	₿
f) Other male guardian	A	₿
g) Grandparent(s)	A	₿
h) Brother(s) (including stepbrothers)	A	₿
i) Sister(s) (including stepsisters)	A	₿
j) Others	A	₿

Q 5a In what country was your mother born?

Please fill in only one oval.

United States*

Another Country ๎฿

* Note: "United States" includes the 50 states, its territories, and U.S. military bases abroad.

Q 5b In what country was your father born?

Please fill in only one oval.

United States* A

Another Country ๎

* Note: "United States" includes the 50 states, its territories, and U.S. military bases abroad.

Q 5c In what country were you born?

Please fill in only one ove	al.
United States*	A
Another Country	₿

* Note: "United States" includes the 50 states, its territories, and U.S. military bases abroad.

Q 6 What is your mother currently doing?

Please fill in only one oval.

This does not apply to me/I don't know	A
Working full-time for pay	₿
Working part-time for pay	©
Not working, but looking for a job	៙
Other (e.g., home duties, volunteer work, retired)	Ē

Q 7 What is your mother's main job? (e.g., School teacher, sales manager)

This does not apply to me/I don't know O

Please write in the job title.

If your mother is not working now, please tell us her last main job.

Q 8 What does your mother do in her main job? (e.g., Teaches high school students, manages a sales team)

This does not apply to me/I don't know \bigcirc

Please use a sentence to describe the kind of work she does

or did in that job.

If your mother is not working now, please tell us her last main job.

Q 9 Did your mother complete High School?

Please fill in only **one** oval.

This does not apply to me/I don't know	A
No, she did not go to school.	₿
No, she completed elementary school only.	©
No, she completed some high school only.	▣
No, she completed a GED or high school equivalency program only	€
Yes, she completed high school.	F

Q 10 Did your mother complete a bachelor's, master's or post graduate program?

This does not apply to me/I don't know	v	O
Please fill in only one oval.	Yes	No
	A	B

Q 11 What is your father currently doing?

Please fill in only one oval.

This does not apply to me/I don't know	A
Working full-time for pay	₿
Working part-time for pay	©
Not working, but looking for a job	▣
Other (e.g., home duties, volunteer work, retired)	Ē

Q 12 What is your father's main job? (e.g., School teacher, sales manager)

This does not apply to me/I don't know O

Please write in the job title.

If your father is not working now, please tell us his last main job.

Q 13 What does your father do in his main job? (e.g., Teaches high school students, manages a sales team)

This does not apply to me/I don't know O

Please use a sentence to describe the kind of work he does

or did in that job.

If your father is not working now, please tell us his last main job.

Q 14 Did your father complete High School?

Please fill in only one oval.

This does not apply to me/I don't know	A
No, he did not go to school.	₿
No, he completed elementary school only.	©
No, he completed some high school only.	▣
No, he completed a GED or high school equivalency program only	E
Yes, he completed high school	F

Q 15 Did your father complete a bachelor's, master's or post graduate program ?

This does not apply to me/I don't know			0
Please fill in only one oval.	Yes ③	No ©	

Q 16 How many brothers and sisters (including stepbrothers and stepsisters) do you have?

Please fill in only one oval on each row. When appropriate, remember to fill in the 'None' oval.

					Four or
a) Older than you	None (A)	One B	Two ©	Three D	more E
b) Younger than you	۵	₿	©	0	E
c) Same age as you		B	©	D	E

Q 17 What language do you speak at home most of the time?

Please fill in only one oval.

English	A
Spanish	₿
Other language	©

Q 18 During the past year, how often have you participated in these activities?

Please fill in only one oval on each row.

			About	
		Once or twice	3 or 4 times	More than 4 times
	Never	a year	a year	a year
a) Gone to the movies	A	B	©	٦
b) Visited a museum or art gallery	A	B	©	٦
c) Attended a popular music concert	A	B	©	Ð
d) Attended an opera, ballet or classical symphony concert	A	₿	©	D
e) Watched live theater	A	B	©	٥
f) Attended sporting events	A	₿	©	®

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Q 19 In general, how often do your parents:

Please fill in only one oval on each row.

	A few	About	Several	Several	-
Never	times a year	once a month	times a month	times a week	Every Day
a) discuss political or social issues with you?	∎	ි	▣	Ē	Ð
b) discuss books, films or television					
programs with you? $\textcircled{\label{eq:programs}}$	B	©	Ð	E	F
c) listen to classical music with you?	₿	©	▣	E	Ð
d) discuss how well you are doing at school? $\textcircled{\sc op}$	₿	©	៙	E	F
e) eat dinner with you around a table?	₿	©	៙	E	F
f) spend time just talking to you?	₿	©	Ð	E	F

Q 20 How often do the following people work with you on your homework?

Please fill in only one oval on each row.

	Never	A few times a year	About once a month	Several times a month	Several times a week	Every Day
a) Your mother	A	B	©	ø	Ē	F
b) Your father	A	₿	©	៙	E	F
c) Your brothers and sisters	A	₿	©	៙	E	F
d) Grandparents	A	₿	©	៙	E	F
e) Other relatives	A	₿	©	៙	E	F
f) Friends of your parents	A	₿	©	៙	E	F
g) Tutor	A	₿	©	៙	E	F
h) Your friends	A	₿	©	▣	€	F

Q 21 In your home, do you have:

Please fill in only one oval on each row.

	Yes	No
a) a dishwasher?	A	₿
b) a room of your own?	A	₿
c) educational software?	A	₿
d) a link to the Internet?	A	₿
e) a dictionary?	A	₿
f) a quiet place to study?	A	₿
g) a desk for study?	A	₿
h) reference books (e.g., encyclopedia)?	A	₿
i) classic literature (e.g., Shakespeare, Jane Austen, Mark Twain)?	A	₿
j) books of poetry?	A	₿
k) works of art (e.g., paintings, sculpture)?	A	₿

Q 22 How many of these do you have at your home?

Please fill in only **one** oval on each row.

			,	Three or	
	None	One	Two	more	
a) Cellular phone	A	₿	©	▣	
b) Television	A	₿	©	▣	
c) Calculator	A	₿	©	▣	
d) Computer	A	₿	©	▣	
e) Musical instrument (e.g., piano, violin)	A	₿	©	Ð	
f) Automobile, pick-up truck, etc.	A	₿	©	▣	
g) Bathroom	A	₿	©	▣	

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Q 23 During the last three years, have you attended any of these special courses at your school to improve your learning?

Please fill in only **one** oval on each row.

	No, never	Yes, sometimes	Yes, regularly
a) Advanced or additional courses (e.g., AP, IB, Honors)	A	₿	©
b) Remedial courses in English	A	₿	©
c) Remedial courses in other subjects	A	B	©
d) Training to improve your study skills	A	B	©

Q 24 During the last three years, have you attended any of these special courses outside of your school to improve your learning?

Please fill in only **one** oval on each row.

	No, never	Yes, sometimes	Yes, regularly
a) courses in English	A	B	©
b) courses in other subjects	A	B	©
c) Advanced or additional courses (e.g., AP, IB, Honors)	A	₿	©
d) Remedial courses in English	A	₿	©
e) Remedial courses in other subjects	A	B	©
f) Training to improve your study skills	A	B	©
g) Private tutoring	A	B	©

Q 25 What program are you in at school?

Please fill in only one oval.

general studies	A
vocational studies	₿
academic/college prep	©

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Q 26 How often do these things happen in your English classes?

Please fill in only one oval on each row.

		Never	Some class periods	Most class periods	Every class period
1)	The teacher has to wait a long time for students to quiet down.	A	₿	©	٦
2)	The teacher wants students to work hard	A	₿	©	D
3)	The teacher tells students that they can do better.	A	₿	©	0
4)	The teacher does not like it when students deliver sloppy work.	A	B	©	0
5)	The teacher shows an interest in every student's learning.	A	B	©	0
6)	The teacher gives students an opportunity to express opinions.	A	B	©	0
7)	The teacher helps students with their work	A	₿	©	៙
8)	The teacher continues teaching until the students understand	A	₿	©	0
9)	The teacher does a lot to help students	A	₿	©	O
10)	The teacher helps students with their learning	A	B	©	0
11)	The teacher checks students' homework.	A	₿	©	៙
12)	Students cannot work well.	A	₿	©	៙
13)	Students don't listen to what the teacher says	A	B	©	៙
14)	Students don't start working for a long time after the lesson begins.	A	₿	©	0
15)	Students have to learn a lot.	A	B	©	៙
16)	There is noise and disorder.	A	B	©	▣
17)	At the start of class, more than five minutes are spent doing nothing.	A	₿	©	٦

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Q 27 In the last full week you were in school:

	English	Mathematics	Science
	Courses	Courses	Courses
a) How many class periods did you spend in <u>all</u> of your	Write i	n one number in each s	space
		n one number in each i	puee
b) On average, how many minutes was each class period			
	Write i	n one number in each s	space
c) Did you take this number of class periods for			
most of the school year?	Yes (A) No (B) <i>Fill in ye</i>	Yes 👁 No 🐵 es or no oval for each s	Yes (A) No (B) Subject
	·		-

Q 28 On average, about how many students are in your:

Please write in the average number of students in each class.

	Average number
a) English class(es)?	
b) mathematics class(es)?	
c) science class(es)?	

Q 29 How many times in the previous two school weeks did you:

Please fill in only one oval on each row.

	None	1 or 2	3 or 4	or more
a) miss the entire school day?	A	₿	©	0
b) skip a class? (note: count each skipped class separately)	A	₿	©	Ð
c) arrive late for school?	A	₿	©	D

Q 30 How much do you disagree or agree with each of the following statements about teachers at your school?

Please fill in only one oval on each row.

	Strongly disagree	Disagree	Agree	Strongly agree
a) Students get along well with most	t teachers (3)	₿	©	▣
b) Most teachers are interested in students' well-being.	A	₿	©	٦
c) Most of my teachers really listen to what I have to say		в	©	៙
d) If I need extra help, I will receive my teachers.	it from	B	©	٦
e) Most of my teachers treat me fair	ly	₿	©	▣

Q 31 My school is a place where:

Please fill in only one oval on each row.

	Strongly disagree	Disagree	Agree	Strongly agree
a) I feel like an outsider (or left out of things)	A	в	©	៙
b) I make friends easily.	A	B	©	Ð
c) I feel like I belong.	A	в	©	Ð
d) I feel awkward and out of place.	A	в	©	Ð
e) Other students seem to like me	A	в	©	Ð
f) I feel lonely.	A	в	©	Ð
g) I do not want to go	A	в	©	Ð
h) I often feel bored.	A	в	©	Ð
i) I often feel as if someone will attack or harm me.	A	B	©	٦
j) I often feel as if someone will attack or harm me while I am on my way to and from school	A	₿	©	٦
 k) I avoid participating in extra curricular activities at school because I think that someone might attack or harm me. 	A	₿	©	٦
 I avoid participating in particular classes because I think someone might attack or harm me. 	A	₿	©	٦
m) I sometimes stay home from school becauseI think someone might attack or harm me at school or on my way to or from school	A	₿	©	٩
n) Everyone knows what the school rules are	A	в	©	D
o) The school rules are unfair.	A	B	©	Ð
p) The punishment for breaking school rules is the same no matter who you are	۹	B	©	٦
q) The school rules are strictly enforced	A	₿	©	Ð
r) If a school rule is broken, students know what kind of punishment will follow	A	₿	©	®

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Q 32 Please indicate how often each of these applies to you.

Please fill in only one oval on each row.

	Never	times	the time	Always
a) I complete my homework on time	A	₿	©	Ð
b) I do my homework while watching television	A	B	©	٦
c) My teachers grade my homework	A	B	©	Ð
d) I finish my homework during the school day.	A	B	©	Ð
e) My teachers make useful comments on my homework.	A	B	©	Ð
f) I am given interesting homework.	A	B	©	Ð
g) My homework is counted as part of my grade.	A	₿	©	Ð

Q 33 On average, how much time do you spend <u>each week</u> on homework and study in these subject areas?

Please fill in only one oval on each row.

When answering include time on the weekend too.

			Between	3 hours
		Less than	1 and	or
	No	1 hour	3 hours	more
	time	a week	a week	a week
a) English	A	₿	©	D
b) mathematics	A	B	©	▣
c) science	A	B	©	Ð

Q 34 *Each day*, about how much time do you usually spend reading for enjoyment?

Please fill in only one oval.

I do not read for enjoyment	A
30 minutes or less each day	₿
More than 30 minutes to less than 60 minutes each day	©
1 to 2 hours each day	៙
More than 2 hours each day	Ē

Q 35 How much do you disagree or agree with these statements about reading?

Please fill in only one oval on each row.

	disagree	Disagree	Agree	agree
a) I read only if I have to.	A	₿	©	0
b) Reading is one of my favorite hobbies	A	B	©	D
c) I like talking about books with other people		B	©	D
d) I find it hard to finish books.	۵	B	©	D
e) I feel happy if I receive a book as a present	۵	B	©	D
f) For me, reading is a waste of time	۵	B	©	D
g) I enjoy going to a bookstore or a library	۵	B	©	D
h) I read only to get information that I need	٨	B	©	D
i) I cannot sit still and read for more than a few minutes.	A	₿	©	Ð
i) I enjoy reading material from the Internet.	A	₿	©	D

Q 36 How often do you read these materials because you want to?

Please fill in only one oval on each row.

	Never or hardly ever	A few times a year	About once a month	Several times a month	Several times a week
a) Magazines	A	B	©	▣	Ē
b) Comic books	A	₿	©	▣	Ē
c) Fiction books (novels, narratives, stories)	A	₿	©	▣	Ē
d) Non-fiction books	A	₿	©	▣	Ē
e) Emails and Web pages	A	₿	©	▣	Ē
f) Newspapers	A	₿	©	▣	E

Q 37 How many books are there in your home?

There are usually about 40 books per yard of shelving. Do not include magazines.

Please fill in only one oval.

None	A
1-10 books	₿
11-50 books	©
51-100 books	▣
101-250 books	E
251-500 books	F
More than 500 books	6

Q 38 How often do you borrow books to read for pleasure from a public or school library?

Please fill in only one oval.

Never or hardly ever	A
A few times per year	₿
About once a month	©
Several times a month	▣

Q 39 At your school, about how often do you use:

Please fill in only one oval on each row.

	Never or hardly ever	A few times a year	About once a month	Several times a month	Several times a week
a) school library?	A	₿	©	Ð	E
b) computers?	A	B	©	Ð	E
c) calculators?	A	B	©	Ð	E
d) Internet?	A	B	©	Ð	E
e) science laboratories?	A	B	©	Ð	E

Q 40 What kind of job do you expect to have when you are about 30 years old?

Write the job title:

Q 41 On your last school report card, what grade did you receive in the following subjects?

a) English

b) mathematics

c) science

Q 42 How often do these things apply to you?

Please fill in only **one** oval on each row.

	Almost Never	Sometimes	Often	Almost always	
a) When I study, I try to memorize everything that might be covered.	A	в	©	D	
b) I'm certain I can understand the most difficult material presented in texts.	A	в	©	D	
c) When I study, I start by figuring out exactly what I need to learn.	A	в	©	D	
d) When I sit myself down to learn something really difficult, I can learn it.	A	B	©	O	
e) When I study, I memorize as much as possible	A	₿	©	Ð	
f) I study to increase my job opportunities	A	₿	©	Ð	
g) When studying, I work as hard as possible	A	в	©	▣	
h) I'm confident I can understand the most complex material presented by the teacher	A	в	©	Ð	
i) When I study, I try to relate new material to things I have learned in other subjects.	٩	B	©	O	
j) When I study, I memorize all new material so that I can recite it.	۹	B	©	O	
k) If I decide not to get any bad grades, I can really do it.	۹	B	©	O	
 When studying, I keep working even if the material is difficult. 	۹	B	©	O	
m) When I study, I force myself to check to see if I remember what I have learned	A	B	©	O	
n) I study to ensure that my future will be financially secure.	۹	B	©	O	
o) When I study, I practice by saying the material to myself over and over.	A	₿	©	٥	
p) If I decide not to get any problems wrong,I can really do it.	A	в	©	٥	
q) When I study, I figure out how the information might be useful in the real world	A	₿	©	٥	
r) I'm confident I can do an excellent job on assignments and tests	A	в	©	Ð	

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		Almost Never	Sometimes	Often
	s) When I study, I try to figure out which concepts I still haven't really understood	A	₿	©
	t) When studying, I try to do my best to acquire the knowledge and skills taught.	٨	₿	©
	u) When I study, I try to understand the material better by relating it to things I already know	A	B	©
	v) I study to get a good job.	A	B	©
	w) When I study, I make sure that I remember the most important things.	A	B	ତ
	x) If I want to learn something well, I can	A	B	©
	y) When I study, I figure out how the material fits in with what I have already learned	A	B	ତ
	z) I'm certain I can master the skills being taught	A	B	©
	aa) When I study, and I don't understand something I look for additional information to clarify this	A	B	ତ
	ab) When studying, I put forth my best effort	A	₿	©
Q 43	B How much do you disagree or agree with Please fill in only one oval on each row.	th each	of the fo	ollowing?
Q 43	B How much do you disagree or agree with Please fill in only one oval on each row.	t h each Disagree	Disagree Somewhat	Agree Somewhat
Q 43	 B How much do you disagree or agree with <i>Please fill in only one oval on each row.</i> a) When I do mathematics, I sometimes get totally absorbed 	th each Disagree	Disagree Somewhat	Agree Somewhat
43	 B How much do you disagree or agree with <i>Please fill in only one oval on each row.</i> a) When I do mathematics, I sometimes get totally absorbed. b) I like to work with other students 	th each Disagree	Disagree Somewhat	Agree Somewhat
43	 B How much do you disagree or agree with <i>Please fill in only one oval on each row.</i> a) When I do mathematics, I sometimes get totally absorbed. b) I like to work with other students. c) I learn things quickly in most school subjects. 	th each Disagree (A) (A)	Disagree Somewhat	Agree Somewhat © ©
43	 B How much do you disagree or agree with Please fill in only one oval on each row. a) When I do mathematics, I sometimes get totally absorbed. b) I like to work with other students. c) I learn things quickly in most school subjects. 	th each Disagree (a) (b) (c)	Disagree Somewhat	Agree Somewhat © ©
9 43	 B How much do you disagree or agree with Please fill in only one oval on each row. a) When I do mathematics, I sometimes get totally absorbed. b) I like to work with other students. c) I learn things quickly in most school subjects. d) I like to try to be better than other students. 	th each Disagree (A) (A) (A) (A)	Disagree Somewhat (B) (B) (B) (B) (B) (B)	Agree Somewhat © © © ©
Q 43	 B How much do you disagree or agree with Please fill in only one oval on each row. a) When I do mathematics, I sometimes get totally absorbed. b) I like to work with other students. c) I learn things quickly in most school subjects. d) I like to try to be better than other students. e) I'm hopeless in English classes. 	th each Disagree (A) (A) (A) (A)	Disagree Somewhat (B) (B) (B) (B) (B) (B) (B)	Agree Somewhat © © © © ©
Q 43	 B How much do you disagree or agree with Please fill in only one oval on each row. a) When I do mathematics, I sometimes get totally absorbed. b) I like to work with other students. c) I learn things quickly in most school subjects. d) I like to try to be better than other students. e) I'm hopeless in English classes. f) Because reading is fun, I wouldn't want to give it up. 	th each Disagree (A) (A) (A) (A) (A)	of the for Disagree Somewhat Image: Comparison of the formation of the format	Agree Somewhat © © © © © ©
) 43	 B How much do you disagree or agree with Please fill in only one oval on each row. a) When I do mathematics, I sometimes get totally absorbed. b) I like to work with other students. c) I learn things quickly in most school subjects. d) I like to try to be better than other students. e) I'm hopeless in English classes. f) Because reading is fun, I wouldn't want to give it up. g) I'm good at most school subjects. 	th each Disagree (A) (A) (A) (A) (A) (A) (A)	of the for Disagree Somewhat ®	Agree Somewhat © © © © © © ©
43	 B How much do you disagree or agree with Please fill in only one oval on each row. a) When I do mathematics, I sometimes get totally absorbed. b) I like to work with other students. c) I learn things quickly in most school subjects. d) I like to try to be better than other students. e) I'm hopeless in English classes. f) Because reading is fun, I wouldn't want to give it up. g) I'm good at most school subjects. h) I learn most when I work with other students. 	th each Disagree (A) (A) (A) (A) (A) (A) (A) (A) (A) (A)	of the for Disagree Somewhat (B)	Agree Somewhat © © © © © © © © ©
Q 43	 B How much do you disagree or agree with Please fill in only one oval on each row. a) When I do mathematics, I sometimes get totally absorbed. b) I like to work with other students. c) I learn things quickly in most school subjects. d) I like to try to be better than other students. e) I'm hopeless in English classes. f) Because reading is fun, I wouldn't want to give it up. g) I'm good at most school subjects. h) I learn things quickly in English classes. 	th each Disagree (A) (A) (A) (A) (A) (A) (A) (A) (A) (A)	of the for Disagree Somewhat Image:	Agree Somewhat © © © © © © © © © © © © © © © © © © ©
Q 43	 B How much do you disagree or agree with Please fill in only one oval on each row. a) When I do mathematics, I sometimes get totally absorbed. b) I like to work with other students. c) I learn things quickly in most school subjects. d) I like to try to be better than other students. e) I'm hopeless in English classes. f) Because reading is fun, I wouldn't want to give it up. g) I'm good at most school subjects. h) I learn things quickly in English class. j) Because doing mathematics is fun, I wouldn't want to give it up. 	th each Disagree (A) (A) (A) (A) (A) (A) (A) (A) (A)	of the for Disagree Somewhat (B) (B) (B)	Agree Somewhat © © © © © © © © © © © © © © © © © © ©

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	Disagree	Disagree Somewhat	Agree Somewhat	Agree	P 7 4 +
k) Trying to be better than others makes me work well.	. A	B	©	D	2 1 P
l) I get good marks in mathematics.	. A	В	©	٦	
m) I read in my spare time.	. 🔺	в	©	٥	2
n) I do my best work when I work with other students.	. (A)	B	©	D	<u> </u>
o) Mathematics is one of my best subjects	🔺	в	©	0	—
p) I would like to be the best at something	. (A)	₿	©	0	
q) When I read, I sometimes get totally absorbed	🔿	в	©	٥	•
r) I have always done well in mathematics.	🔿	₿	©	٥	•
s) I like to help other people do well in group assignments.	. 🛆	B	©	Ð	- •
t) I do well in tests in most school subjects	(A)	₿	©	0	
u) Mathematics is important to me personally	. 🔺	в	©	٥	_
v) It is helpful to put together everyone's ideas when working on a project.	. (A)	B	©	0	34-4/8
w) I get good marks in English	. (A)	в	©	٥	16475
x) I learn faster if I'm trying to do better than the others.	. (3	6	©	٦	P 7 4 2 1 P 7
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Q 44 How often is there a computer available to you to use at these places?

Please fill in only one oval on each row.

	Almost every day	A few times each week	once a week and once a month	Less than once a month	Never
a) At home	A	₿	©	៙	E
b) At school (other than the school library)	A	в	©	©	€
c) In the library that you use	A	в	©	៙	E
d) At another place	A	B	©	▣	Ē

Q 45 How comfortable:

Please fill in only one oval on each row.

	Very comfortable	Comfortable	Somewhat comfortable	Not at all comfortable
a) are you with using a computer?	A	B	©	٦
b) are you with using a computer to write paper?	a 🖎	B	©	0
c) would you be taking a test on a comput	ter? 👁	₿	©	0

Q 46 If you compare yourself with other 15-year-olds, how would you rate your ability to use a computer?

Please fill in only one oval.

Excellent	Good	Fair	Poor
A	₿	©	Ð

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Q 47 How often do you use a computer:

Please fill in only one oval on each row.

	Between				
		A few	once a		
	Almost	times	week	Less that	n
	every	each	and once	once	
	day	week	a month	a month	Never
a) at home?	A	₿	©	▣	E
b) at school (other than the school library)?	A	₿	©	▣	E
c) in the library that you use?	A	₿	©	៙	Ē
d) at another place?	A	₿	©	Ð	E

Do you use a computer in any setting?

Please fill in only one oval.

a) Yes	0	Please go to Question 48.
b) No	0	Please stop here. Thank you.

Q 48 How often do you use:

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Please fill in only one oval on each row.

	Almost	A few times each	Between once a week and once	Less than once a	
	day	weeks	a month	month	Never
a) a computer for electronic communication (e.g., e-mail					
or "chat rooms")?	. A	B	©	D	E
b) the Internet (other than e-mail)?	. (A)	₿	©	٥	E
c) the computer to help you learn school material	. (A)	₿	©	0	Ē
d) the computer for programming (e.g., HTML, Visual Basic, etc.)?	. (A)	₿	©	0	▣

Q 49 How often do you use each of the following kinds of computer software?

Please fill in only one oval on each row.

	Between				
		A few	once a		
	Almost	times	week	Less than	
	every	each	and once	once	
	day	week	a month	a month	Never
a) Games	A	₿	©	Ð	Ē
b) Word processing (e.g., Word® or Word Perfect®)	A	₿	©	0	E
c) Spreadsheets (e.g., Lotus 1 2 3® or Microsoft Excel®)	A	B	©	▣	E
d) Drawing, painting or graphics	A	₿	©	D	Ē
e) Educational software (e.g., SAT or ACT practice, encyclopedia,		-	-		-
dictionary)	A	๎	©	ّ	¢

Q 50 How much do you agree with the following:

Please fill in only one oval on each row.

	Disagree	Somewhat Disagree	Somewhat Agree	Agree
a) It is important to me to work with a computer.	. (A)	₿	©	٦
b) To play or work with a computer is really fun.	A	₿	©	▣
c) I use a computer because computers and computing interest me	. A	₿	©	៙
d) I forget the time when I am working with the computer.	. (A)	₿	©	٦

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Thank you for taking the time to answer these questions.

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PISA Student Questionnaire

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