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# Variables Derived from the Student Questionnaire Population 3

User Guide for the TIMSS  
International Database

Final Year of Secondary School – 1995 Assessment

Third  
International  
Mathematics  
and  
Science  
Study

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# Supplement 3

## Variables Derived from the Student Questionnaires – Population 3

### Overview

This supplement contains documentation on all of the derived variables contained in the international background data files that are based on the student background questionnaire variables. These variables were used to report contextual data in the TIMSS international report, and may also be used in secondary analyses. Table S3.1 lists all of the derived variables published in *Mathematics and Science Achievement in the Final Year of Secondary School* (Mullis et al., 1998).<sup>1</sup>

Following Table S3.1 is specific documentation for each derived variable. The documentation section is organized in alphabetical order by derived variable name<sup>2</sup> and contains the following information about each of the derived contextual variables:

- Derived Variable Name
- Derived Variable Label
- Description
- Table Reference
- Source Variable(s) Used from the Background Questionnaire Items (Listed by both Questionnaire Item Location and International Background Variable Name)
- Analysis Notes (Descriptions of how the derived variables were computed based on associated source variables)
- Table of National Exclusion or Adaptation Documentation (List of countries that are either excluded from derived variables or for which some documentation is provided regarding country-specific options or national adaptations of background questionnaire items)

For most derived variables, the documentation reflects general analysis rules applied on the basis of the internationally-defined background questions. Due to national adaptations of the background questionnaires, some countries are omitted or handled somewhat differently for certain report variables. In addition, for a few derived variables the background questions used are country-specific, and the analysis procedures differ across countries. Documentation describing how country-specific or nationally-adapted background data were handled in the international derived variables is provided for all variables where any

<sup>1</sup> Although tables in the mathematics and science literacy, advanced mathematics, and physics sections of the international reports reflect only the corresponding subpopulation of students, derived variable data are included for all students.

<sup>2</sup> See Chapter 7 of the User Guide for descriptions of the variable naming system used.

adaptation of background questionnaire items resulted in some modification to either the general analysis method or the interpretation of the derived variable.

In the Tables of National Exclusion or Adaptation Documentation, countries are given one of two different data codes with the following definitions:

**Code D: Data for country are included in the derived variable but with documentation.**

The comment lines clarify any differences between the national data and what is expected based on the international definition of the derived and/or source variables. This code also applies to all countries for any derived variables where country-specific analysis rules are required.

**Code X: Data for country are NOT included in the derived variable.**

In general, these codes are given as a result of source variable(s) that are not available for the country. There are some variables where data are excluded for other reasons; these cases are indicated in the comment line.

**Table S3.1**  
**Index of Derived Variables Included in the International Report for Population 3**

Report Table	Table Reference Location *	Derived Variable	Label
Table 1.1	CLRT1.1c	CSDAGE	GEN\STUDENT'S AGE
Table 4.1	CLRT4.1	CSDGPGRM	GEN\ <program in<="" is="" student="" td="" track&gt;=""> </program>
Table 4.4	CLRT4.4	CSDSCOUR	SCI\CURRENT ENROLLMENT IN SCIENCE COURSE
Table 4.6	CLRT4.6	CSDGFED	GEN\STUDENTS PLAN\FUTURE EDUCATION
Table 4.7	CLRT4.7a	CSDMGGOOD	MAT\USUALLY DONE WELL IN MATH
	CLRT4.7b	CSDSGOOD	SCI\USUALLY DONE WELL IN SCIENCE
Table 4.8	CLRT4.8	CSDMLIKE	MAT\LIKE MATHEMATICS
Table 4.9	CLRT4.9a	CSDBLIKE	BIO\LIKE BIOLOGICAL SCIENCE
	CLRT4.9b	CSDCLIKE	CHE\LIKE CHEMISTRY
	CLRT4.9c	CSEDLIKE	EAR\LIKE EARTH SCIENCE
	CLRT4.9d	CSDPLIKE	PHY\LIKE PHYSICS
Table 4.10	CLRT4.10	CSDGEDUP	GEN\HIGHEST EDUC LEVEL\PARENT
Table 4.13	CLRT4.13	CSDGCALC	GEN\USE CALCULATOR\DURING TEST
Table 4.14	CLRT4.14	CSDGCOMP	GEN\USE DESKTOP COMPUTER\TERMINAL
Table 4.15	CLRT4.15a-d	CSDGSTDC	GEN\OUTSIDE SCHL\TOTAL HOURS STUDY(CAT)
	CLRT4.15e	CSDGSTUD	GEN\OUTSIDE SCHL\TOTAL HOURS STUDY
Table 4.16	CLRT4.16a-d	CSDMSTDC	MAT\OUTSIDE SCHL\HOURS STUDY MATH(CAT)
	CLRT4.16e	CSDMSTUD	MAT\OUTSIDE SCHL\STUDYING MATH
Table 4.17	CLRT4.17a-d	CSDSSTDC	SCI\OUTSIDE SCHL\HOURS STUDY SCI(CAT)
	CLRT4.17e	CSDSSTUD	SCI\OUTSIDE SCHL\STUDYING SCIENCE
Table 4.18	CLRT4.18a	CSDGDAY1	GEN\OUTSIDE SCHL\WATCH TV OR VIDEOS
	CLRT4.18b	CSDGDAY2	GEN\OUTSIDE SCHL\PLAY COMPUTER GAMES
	CLRT4.18c	CSDGDAY3	GEN\OUTSIDE SCHL\PLAY WITH FRIENDS
	CLRT4.18d	CSDGDAY4	GEN\OUTSIDE SCHL\DOING JOBS AT HOME
	CLRT4.18e	CSDGDAY5	GEN\OUTSIDE SCHL\WORKING AT A PAID JOB
	CLRT4.18f	CSDGDAY6	GEN\OUTSIDE SCHL\PLAYING SPORTS
	CLRT4.18g	CSDGDAY7	GEN\OUTSIDE SCHL\READING A BOOK
Table 4.19	CLRT4.19	CSDGPJOB	GEN\OUTSIDE SCHL\WORKING AT A PAID JOB
Table 4.20	CLRT4.20	CSDGDTV	GEN\OUTSIDE SCHL\WATCH TV OR VIDEOS(CAT)
Table 4.21	CLRT4.21a	CSDGSSTL	GEN\STUDENT HAD SOMETHING STOLEN
	CLRT4.21b	CSDGSHRT	GEN\STUDENT THREATENED BY ANOTHER STUDENT
Table 7.1	CMRT7.1	CSDMINST	MAT\AMOUNT OF INSTRUCTION EACH WEEK
Table 7.2	CMRT7.2	CSDMHMWK	MAT\FREQUENCY MATH HOMEWORK IS ASSIGNED
Table 7.3	CMRT7.3	CSDMREAS	MAT\HOW OFTEN\USE REASONING IN TASKS
Table 7.9	CMRT7.9	CSDGCALC	GEN\USE CALCULATOR\DURING TEST
Table 7.10	CMRT7.10	CSDGEDUP	GEN\HIGHEST EDUC LEVEL\PARENT
Table 7.11	CMRT7.11	CSDGFED	GEN\STUDENTS PLAN\FUTURE EDUCATION
Table 7.12	CMRT7.12	CSDMAREA	MAT\AREA STUDENTS INTENDS TO STUDY MOST
Table 10.1	CSRT10.1	CSDPINST	PHY\AMOUNT OF INSTRUCTION EACH WEEK
Table 10.2	CSRT10.2	CSDPHMWK	PHY\FREQUENCY PHYSICS HOMEWORK IS ASSIGN
Table 10.3	CSRT10.3	CSDSREAS	SCI\HOW OFTEN\USE REASONING IN TASKS

\*The international table reference location included for each derived variable is based on the general definitions described in Table 7.6 in the User Guide. Tables in each section of the international report reflect derived variable data for the corresponding subpopulations: Mathematics and Science Literacy (Chapters 1 and 4), Advanced Mathematics (Chapter 7), and Physics (Chapter 10).



**Population 3**  
**Variables Derived from the Student Questionnaire**



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<b>Derived Variable Name:</b> CSDAGE	<b>Label:</b> GENSTUDENT'S AGE
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**Description:** Student's age in years

**Table Reference:** CLRT1.1c

**Source Variables:** SQ3-1/2, 1/3  
(CSBGBIRM,CSGBIRY)

**Notes:** Derived from date-of-birth variables (month = CSBGBIRM; year = CSGBIRY) and date-of-testing variables (ITDATEY, ITDATEM) according to the following formula:  
$$CSDAGE = (ITDATEY - CSBGBIRY) + (ITDATEM - CSBGBIRM)/12$$
If the month of testing was not known, the expected month of testing for the particular country was substituted.  
If the month of birth was not known, the value of 6.5 was substituted.  
If the year of birth was not known, CSDAGE was set to missing.

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Country	Code	Comment
ALL		Data considered internationally comparable for reporting.

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<b>Derived Variable Name:</b> CSDBLIKE	<b>Label:</b> BIO\LIKE BIOLOGICAL SCIENCE
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**Description:** Students' reports on how much they like biological science

**Table Reference:** CLRT4.9a

**Source Variables:** SQ3-19B  
(CSBBLIKE)

**Notes:** Coded into 4 collapsed categories based on students' response to SQ3-19B:  
1 = Dislike A Lot (option 1);  
2 = Dislike (option 2);  
3 = Like or Like A Lot (option 3 or 4);  
5 = Have not studied (option 5).

Students reporting that they have not studied biology (option 5) are excluded from report table.

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Country	Code	Comment
Germany	D	Data included only for students in gymnasias, comprehensive, or higher technical schools (GS, IGS, FG); source variable question not administered in applied science/vocational versions of questionnaire (FOS/BFS, BS).
Netherlands	X	Data not available for source variable(s).

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**Derived Variable Name:** CSDCLIKE      **Label:** CHE\LIKE CHEMISTRY

**Description:** Students' reports on how much they like chemistry

**Table Reference:** CLRT4.9b

**Source Variables:** SQ3-19C  
(CSBCLIKE)

**Notes:** Coded into 4 collapsed categories based on students' response to SQ3-19C:

- 1 = Dislike A Lot (option 1);
- 2 = Dislike (option 2);
- 3 = Like or Like A Lot (option 3 or 4);
- 5 = Have Not Studied (option 5).

Students reporting that they have not studied chemistry (option 5) are excluded from report table.

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Country	Code	Comment
Germany	D	Data included only for students in gymnasias, comprehensive, or higher technical schools (GS, IGS, FG); source variable question not administered in applied science/vocational versions of questionnaire (FOS/BFS, BS).
Netherlands	X	Data not available for source variable(s).

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**Derived Variable Name:** CSDELIKE      **Label:** EAR\LIKE EARTH SCIENCE

**Description:** Students' reports on how much they like earth science

**Table Reference:** CLRT4.9c

**Source Variables:** SQ3-19D  
(CSBELIKE)

**Notes:** Coded into 4 collapsed categories based on students' response to SQ3-19D:

- 1 = Dislike A Lot (option 1);
- 2 = Dislike (option 2);
- 3 = Like or Like A Lot (option 3 or 4);
- 5 = Have Not Studied (option 5).

Students reporting that they have not studied earth science (option 5) are excluded from report table.

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Country	Code	Comment
Germany	D	Data included only for students in gymnasias, comprehensive, or higher technical schools (GS, IGS, FG); source variable question not administered in applied science/vocational versions of questionnaire (FOS/BFS, BS).
Netherlands	X	Data not available for source variable(s).

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**Derived Variable Name:** CSDGCALC      **Label:** GENUSE CALCULATOR\DURING TEST

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**Description:** Students' reports on frequency of calculator use during TIMSS test

**Table Reference:** CLRT4.13; CMRT7.9; CPRT10.8

**Source Variables:** SQ3-CS1; SQ3-CS3  
(CSBGCAL1; CSBGCAL3)

**Notes:** Coded into 4 categories based on students' response to CSBGCAL1 and CSBGCAL3:  
1 = Did Not Use A Calculator (CSBGCAL1=No);  
2 = Used A Calculator Very Little (< 5 questions) - (CSBGCAL1 = Yes and CSBGCAL3 = A);  
3 = Used A Calculator Somewhat (5 - 10 questions) - (CSBGCAL1 = Yes and CSBGCAL3 = B);  
4 = Used A Calculator Quite A Lot (> 10 questions) - (CSBGCAL1 = Yes and CSBGCAL3 = C).

Coded as missing if both CSBGCAL1 and CSBGCAL3 are missing or if CSBGCAL1=Yes and CSBGCAL3 is missing.

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Country	Code	Comment
ALL		Data considered internationally comparable for reporting.

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**Derived Variable Name:** CSDGCOMP      **Label:** GENUSE DESKTOP COMPUTER\TERMINAL

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**Description:** Students' reports on how often they use a computer at school, home, or anywhere else

**Table Reference:** CLRT4.14

**Source Variables:** SQ3-23B; SQ3-23C  
(CSBGUSE2; CSBGUSE3)

**Notes:** Coded into 4 categories based on students' response to SQ3-23B and 23C:  
1 = Daily;  
2 = Weekly;  
3 = Monthly;  
4 = Rarely or Never.

Based on lower response value (most frequent computer usage) to questions regarding desktop computer (23B) and computer terminal (23C). Coded as missing if both (23B) and (23C) are missing.

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Country	Code	Comment
Germany	D	Data included only for students in gymnasias, comprehensive, or higher technical schools (GS, IGS, FG); source variable question not administered in applied science/vocational versions of questionnaire (FOS/BFS, BS).

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**Derived Variable Name:** CSDGDAY1      **Label:** GEN\OUTSIDE SCHL\WATCH TV OR VIDEOS

**Description:** Students' reports on hours each day spent watching television or videos

**Table Reference:** CLRT4.18a

**Source Variables:** SQ3-16A  
(CSBGDAY1)

**Notes:** Hours based on SQ3-16A response categories recoded to numerical values:  
No time = 0; Less Than 1 Hour = .5; 1-2 Hours = 1.5; 3-5 Hours = 4; More Than 5 Hours = 7.

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Country	Code	Comment
Germany	D	Data included only for students in gymnasias, comprehensive, or higher technical schools (GS, IGS, FG); source variable question not administered in applied science/vocational versions of questionnaire (FOS/BFS, BS).

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**Derived Variable Name:** CSDGDAY2      **Label:** GEN\OUTSIDE SCHL\PLAY COMPUTER GAMES

**Description:** Students' reports on hours each day spent playing computer games

**Table Reference:** CLRT4.18b

**Source Variables:** SQ3-16B  
(CSBGDAY2)

**Notes:** Hours based on SQ3-16B response categories recoded to numerical values:  
No time = 0; Less Than 1 Hour = .5; 1-2 Hours = 1.5; 3-5 Hours = 4; More Than 5 Hours = 7.

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Country	Code	Comment
Germany	D	Data included only for students in gymnasias, comprehensive, or higher technical schools (GS, IGS, FG); source variable question not administered in applied science/vocational versions of questionnaire (FOS/BFS, BS).

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**Derived Variable Name:** CSDGDAY3      **Label:** GEN\OUTSIDE SCHL\PLAY WITH FRIENDS

**Description:** Students' reports on hours each day spending time with friends outside of school

**Table Reference:** CLRT4.18c

**Source Variables:** SQ3-16C

(CSBGDAY3)

**Notes:** Hours based on SQ3-16C response categories recoded to numerical values:  
No time = 0; Less Than 1 Hour = .5; 1-2 Hours = 1.5; 3-5 Hours = 4; More Than 5 Hours = 7.

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Country	Code	Comment
Germany	D	Data included only for students in gymnasia, comprehensive, or higher technical schools (GS, IGS, FG); source variable question not administered in applied science/vocational versions of questionnaire (FOS/BFS, BS).

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**Derived Variable Name:** CSDGDAY4      **Label:** GEN\OUTSIDE SCHL\DOING JOBS AT HOME

**Description:** Students' reports on hours each day spent doing jobs at home

**Table Reference:** CLRT4.18d

**Source Variables:** SQ3-16D

(CSBGDAY4)

**Notes:** Hours based on SQ3-16D response categories recoded to numerical values:  
No time = 0; Less Than 1 Hour = .5; 1-2 Hours = 1.5; 3-5 Hours = 4; More Than 5 Hours = 7.

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Country	Code	Comment
Germany	D	Data included only for students in gymnasia, comprehensive, or higher technical schools (GS, IGS, FG); source variable question not administered in applied science/vocational versions of questionnaire (FOS/BFS, BS).

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**Derived Variable Name:** CSDGDAY5      **Label:** GEN\OUTSIDE SCHL\WORKING AT A PAID JOB

**Description:** Students' reports on hours each day spent working at a paid job

**Table Reference:** CLRT4.18e

**Source Variables:** SQ3-16E  
(CSBGDAY5)

**Notes:** Hours based on SQ3-16E response categories recoded to numerical values:  
No time = 0; Less Than 1 Hour = .5; 1-2 Hours = 1.5; 3-5 Hours = 4; More Than 5 Hours = 7.

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Country	Code	Comment
Germany	D	Data included only for students in gymnasias, comprehensive, or higher technical schools (GS, IGS, FG); source variable question not administered in applied science/vocational versions of questionnaire (FOS/BFS, BS).
Hungary	X	Data not available for source variable(s).

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**Derived Variable Name:** CSDGDAY6      **Label:** GEN\OUTSIDE SCHL\PLAYING SPORTS

**Description:** Students' reports on hours each day spent playing sports

**Table Reference:** CLRT4.18f

**Source Variables:** SQ3-16F  
(CSBGDAY6)

**Notes:** Hours based on SQ3-16F response categories recoded to numerical values:  
No time = 0; Less Than 1 Hour = .5; 1-2 Hours = 1.5; 3-5 Hours = 4; More Than 5 Hours = 7.

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Country	Code	Comment
Germany	D	Data included only for students in gymnasias, comprehensive, or higher technical schools (GS, IGS, FG); source variable question not administered in applied science/vocational versions of questionnaire (FOS/BFS, BS).

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**Derived Variable Name:** CSDGDAY7      **Label:** GEN\OUTSIDE SCHL\READING A BOOK

**Description:** Students' reports on hours each day spent reading a book for enjoyment

**Table Reference:** CLRT4.18g

**Source Variables:** SQ3-16G  
(CSBGDAY7)

**Notes:** Hours based on SQ3-16G response categories recoded to numerical values:  
No time = 0; Less Than 1 Hour = .5; 1-2 Hours = 1.5; 3-5 Hours = 4; More Than 5 Hours = 7.

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Country	Code	Comment
Germany	D	Data included only for students in gymnasia, comprehensive, or higher technical schools (GS, IGS, FG); source variable question not administered in applied science/vocational versions of questionnaire (FOS/BFS, BS).

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**Derived Variable Name:** CSDGDTV      **Label:** GEN\OUTSIDE SCHL\WATCH TV OR VIDEOS(CAT)

**Description:** Students' reports on time spent on a normal school day watching television or videos - reporting categories

**Table Reference:** CLRT4.20

**Source Variables:** SQ3-16A  
(CSBGDAY1)

**Notes:** Coded into 4 collapsed categories based on students' responses to SQ3-16A.  
1 = < 1 Hour ( No Time or <1 Hour; option 1 or 2);  
2 = 1-2 Hours (option 3);  
3 = 3-5 Hours (option 4);  
4 = > 5 Hours (option 5).

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Country	Code	Comment
Germany	D	Data included only for students in gymnasia, comprehensive, or higher technical schools (GS, IGS, FG); source variable question not administered in applied science/vocational versions of questionnaire (FOS/BFS, BS).

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**Derived Variable Name:** CSDGEDUP      **Label:** GEN:HIGHEST EDUC LEVEL\ PARENT

**Description:** Students' reports on highest level of education of either parent

**Table Reference:** CLRT4.10; CMRT7.10; CPRT10.9

**Source Variables:** SQ3-11/1; SQ3-11/2  
(CSBGEDUM; CSBGEDUF)

**Notes:** Derived from students' responses to two separate questions: highest level of education of mother (SQ3-11/1) and father (SQ3-11/2). The international definitions of response categories for SQ3-11/1,11/2 are:

- 1 = Finished primary school;
- 2 = Finished some secondary school (not equivalent to completion of an upper-secondary program);
- 3 = Finished secondary school (equivalent to the completion of an ISCED Level 3 upper-secondary program, usually 11-13 grades);
- 4 = Some vocational/technical education after secondary school (not equivalent to a university degree);
- 5 = Some university;
- 6 = Finished university;
- 7 = Do not know.

Modified national response categories were used in some countries to conform to their own educational systems. In these cases, the national options in the source variables were recoded to match as closely as possible the international definitions, and the national educational levels contained in each of the educational categories are described in the national adaptation documentation in Supplement 2.

For the derived parents' education variable (CSDGEDUP), the educational categories were combined into four reporting categories defined as:

- 1 = Finished university (option 6)
- 2 = Finished upper-secondary but not university  
(finished secondary, some vocational/technical after secondary, or some university - option 3,4, or 5)
- 3 = Finished primary but not upper-secondary (finished primary or some secondary - option 1 or 2)
- 4 = Do Not Know (option 7)

CSDGEDUP is based on the higher education level reported for mother or father. Cases are coded as Do Not Know only if both SQ3-11/1 and 11/2 are Do Not Know or one is Do Not Know and the other is missing. CSDGEDUP is coded as missing only if both source variables are missing.

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Country	Code	Comment
Australia	D	Options 1,2,3,4 = Comparable to international definitions.
Austria	D	Option 1 = University (master's degree); Option 2 = Combines four upper-secondary track options (apprenticeship, medium vocational, academic, and higher vocational); Option 3 = Compulsory (grades 1-9); Option 4 = Comparable to international definition.
Canada	D	Option 1 = 'Finished university or college'; Options 2,3,4 = Comparable to international definitions.
Cyprus	D	Option 1 = Combines two options for 'finish university degree' and 'post-graduate studies'; Option 2 = Combines two options for 'finish upper-secondary' and 'finish college or other institution' (3-year programs not equivalent to university degree); Options 3,4 = Comparable to international definitions.

<b>Derived Variable Name:</b> CSDGEDUP		<b>Label:</b> GENHIGHEST EDUC LEVEL\ PARENT
Czech Republic	D	Option 1 = Comparable to international definitions; Option 2 = Combines 3 options for 'finished secondary or vocational training with matura', 'some vocational training after secondary', and 'some university'; Option 3 = Combines two options for 'finished primary' and 'finished secondary or vocational training without matura'; Option 4 = Comparable to international definition.
Denmark	D	Option 1 = 'Long university program'; Option 2 = Combines upper-secondary track options (academic or general/vocational and vocational training) and 'medium-cycle higher education'; Option 3 = 'Basic school' (9 or 10 grades); Option 4 = Comparable to international definition.
France	D	Option 1 = 4-years study after baccalaureate (BAC); Option 2 = Combines two upper-secondary track options (BEP or BAC) and 2-3 years study after BAC; Option 3 = Combines 'no school or primary' and 'lower secondary (college) or certificate of vocational aptitude (CAP)'; Option 4 = Comparable to international definition.
Germany	D	Option 1 = Combines university, technical university, and other 3-4 year teacher college or higher vocational degree; Option 2 = Combines two upper-secondary levels (general/academic and apprenticeship/vocational) and post-secondary vocational schools; Option 3 = Combines 'no lower secondary (grade 8)', 'lower or middle secondary (9 or 10 grades)', and 'medium secondary (10 grades)'; Option 4 = Omitted.
Greece	D	Option 2 = Combines 'finished upper secondary', graduated from technical/vocational institute (3 years)', and 'some university'; Options 1,3,4 = Comparable to international definitions.
Hungary	D	Option 1 = 'University or college diploma'; Option 2 = Combines two upper-secondary tracks (apprenticeship and final exam in secondary); Option 3 = Combines 'some general school' and 'finished general school (grade 8)'; Option 4 = Omitted.
Iceland	D	Options 1,2,3,4 = Comparable to international definitions.
Israel	D	Options 1,2,3,4 = Comparable to international definitions.
Italy	D	Option 2 = Combines two secondary tracks (classical/technical with matura or vocational training) and 'some university'; Option 3 = Combines 'finish primary' and 'finish middle school'; Options 1,4 = Comparable to international definitions.
Latvia	D	Options 1,2,3,4 = Comparable to international definitions.
Lithuania	D	Options 1,2,3,4 = Comparable to international definitions.
Netherlands	D	Options 1,2,3,4 = Comparable to international definitions.
New Zealand	D	Option 1 = Combines 'finish university' and 'teachers' college'; Options 2,3,4 = Comparable to international definitions.
Norway	D	Option 1 = 'More than 3 years at university or technical college'; Option 2 = Combines 'upper secondary (general academic or vocational), 'post-secondary vocational training', and '1-3 years at university or technical college'; Option 3 = Combines 'Folkeskole' (7 grades) and 'lower secondary' (9 grades); Option 4 = Comparable to international definition.
Russia	D	Options 1,2,3,4 = Comparable to international definitions.
Slovenia	D	Options 1,2,3,4 = Comparable to international definitions.



<b>Derived Variable Name:</b> CSDGEDUP		<b>Label:</b> GENHIGHEST EDUC LEVEL/PARENT
South Africa	D	Options 1,2,3,4 = Comparable to international definitions.
Sweden	D	Option 1 = '3 years university studies or more'; Option 2 = Combines two upper-secondary tracks (academic or vocational) and 'less than 3 years university studies'; Option 3 = Combines 'compulsory school (grades 1-9)' and 'starting upper secondary'; Option 4 = Comparable to international definition.
Switzerland	D	Option 1 = 'University or technical university'; Option 2 = Combines upper-secondary options (vocational, academic, and teacher training) and 'vocational/professional school'; Option 3 = 'Compulsory school (9 grades)'; Option 4 = Comparable to international definition.
United States	D	Option 1 = 'Completed bachelor's degree at college or university'; Option 2 = Combines 'finished high school', 'some vocational/technical education after high school' and 'some community college, college, or university courses'; Options 3,4 = Comparable to international definitions.

**Description:** Students' reports on their plans for future education

**Table Reference:** CLRT4.6; CMRT7.11; CPRT10.10

**Source Variables:** SQ3-14A; SQ3-14A1-14A5  
(CSBGFEDU; CSBGFED1-CSBGFED5)

**Notes:** Derived from students' responses to questions SQ3-14A (asking if the student intends to continue his or her education after secondary school) and SQ3-14A1-A5 (forms of further education student intends to take). The international definitions of response categories for SQ3-14A1-A5 are:

- A1 = vocational or technical courses at a trade or business school;
- A2 = academic courses at a junior or community college;
- A3 = vocational or technical subjects at a junior or community college;
- A4 = attend a four-year college or university;
- A5 = other.

Modified national response categories were used in some countries to conform to their own educational systems. In these cases, the national options in the source variables were recoded to match as closely as possible the international definitions, and the national options contained in each of the educational categories are described in the national adaptation documentation in Supplement 2.

For the derived variable reporting students' plan for future education (CSDGFED), the educational categories (14A1-A5) were combined into four reporting categories defined internationally as:

- 1 = Does Not Intend to Continue Education ('No' to filter question 14A);
- 2 = University ('Yes' to filter question 14A; A4 = Yes);  
At least a 3-year degree program at a university or equivalent institute of higher education.
- 3 = Vocational Studies ('Yes' to filter question 14A; A4 = No or missing; and either A1 or A3 = Yes);  
Vocational/technical courses at a tertiary institution not equivalent to a university degree program; may also include some higher level upper secondary vocational programs.
- 4 = Other ('Yes' to filter question 14A; A1, A3, A4 = No or missing; and either A2 or A5 = Yes).  
Other post-secondary education defined in each country; includes categories such as academic courses at junior or community college, short university or polytechnic courses, and college-preparatory courses.

The specific national options included in each of the reporting categories are defined below for each country.

CSDGFED is coded as missing only if all 5 educational category variables (14A1-A5) are missing.

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Country	Code	Comment
Australia	D	Option 1 = Comparable to international version; Option 2 = 'University degree' (A4); Option 3 = 'Vocational/technical courses at a trade or business school' (A1) or 'enter an apprenticeship' (A3); Option 4 = 'Academic courses at a TAFE (technical and further education) college' (A2) or 'other' (A5).
Austria	D	Option 1 = Comparable to international version; Option 2 = 'University or higher technical institution' (A4) or 'teacher education at pedagogical academy or university' (A3); Option 3 = 'Apprenticeship' (A1) or 'other occupational training' (A2); Option 4 = 'Other' (A5).
Canada	D	Options 1,2,3,4 = Comparable to international definitions.
Cyprus	D	Option 1 = Comparable to international version; Option 2 = 'University' (A4); Option 3 = 'Vocational/technical courses at a trade or business school' (A1) or 'vocational/technical education at higher technical institute' (A3); Option 4 = 'Academic courses at college (2-3 years)' (A2) or 'other' (A5).

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<b>Derived Variable Name:</b> CSDGFED		<b>Label:</b> GEN\STUDENTS PLAN\FUTURE EDUCATION
Czech Republic	D	Option 1 = Comparable to international version; Option 2 = 'University study (at least 4 years)' (A4) or 'Bachelor or higher in humanities or business/technical subjects' (A2 or A3); Option 3 = 'Extension course' (A1); Option 4 = 'Other' (A5).
Denmark	D	Option 1 = Comparable to international version; Option 2 = 'University or other higher institution' (A4) or 'medium-duration specialized education' (A3); Option 3 = 'Short commercial/technical education' (A1); Option 4 = 'Education for public service' (A2) or 'other' (A5).
France	D	Option 1 = Comparable to international version; Option 2 = '2, 3 or 4 years study at university' (A2 or A4); Option 3 = 'Technical institute' (A3); Option 4 = 'Other' (A5). [No national option included in A1.]
Germany	D	Option 1 = Comparable to international version; Option 2 = 'University, technical university or teacher college' (A4) or 'specialized higher vocational education' (A3); Option 3 = 'Full- or part-time vocational training' (A1 or A2); Option 4 = 'Other' (A5). [Data not included for applied science or vocational students (FOS/BFS or BS).]
Greece	D	Option 1 = Comparable to international version; Option 2 = 'University education' (A4); Option 3 = 'Vocational or teaching courses at commercial or professional school or college' (A1 or A3); Option 4 = 'Academic courses in a college' (A2) or 'other' (A5).
Hungary	D	Option 1 = Comparable to international version; Option 2 = 'Economical, technical, or teacher training college or university' (A2, A3, or A4); Option 3 = 'Short vocational training course' (A1); Option 4 = 'Other' (A5).
Iceland	D	Option 1 = Comparable to international version; Option 2 = 'University study of 3 years or longer' (A4); Option 3 = 'Less than 3 years vocational study at university, technical school or technical university' (A3) or 'vocational study in upper-secondary school or business school' (A1); Option 4 = 'Matriculation exam' (A2) or 'other' (A5).
Israel	D	Option 1 = Comparable to international version; Option 2 = '4-year college or university' (A4); Option 3 = 'Technological college' (A3) or 'technical/vocational study in a college' (A1); Option 4 = 'Academic courses in college' (A2) or 'other' (A5).
Italy	D	Option 1 = Comparable to international version; Option 2 = 'University degree program' (A4); Option 3 = 'Post-secondary professional training' (A1); Option 4 = 'Short university course' (A2) or 'other' (A5). [No national option included in A3.]
Latvia	D	Options 1,2,3,4 = Comparable to international definitions.
Lithuania	D	Option 1 = Comparable to international version; Option 2 = 'Attend university' (A4); Option 3 = 'Vocational/technical courses at trade or business school' (A1) or 'attend vocational or agricultural high school' (A2); Option 4 = 'Attend college' (A3) or 'Other' (A5).

<b>Derived Variable Name:</b> CSDGFED		<b>Label:</b> GENSTUDENTS PLANFUTURE EDUCATION
Netherlands	D	Option 1 = Comparable to international version; Option 2 = 'University' (A4); Option 3 = 'Senior secondary vocational program' (A1) or 'Higher post-secondary vocational program' (A3); Option 4 = 'Other' (A5). [No national option included in A2.]
New Zealand	D	Option 1 = Comparable to international version; Option 2 = 'University or teachers college' (A4) or 'academic courses at polytechnic' (A2); Option 3 = 'Technical/vocational courses at trade or business school' (A1) or 'Vocational/technical subjects at polytechnic' (A3); Option 4 = 'Other' (A5).
Norway	D	Option 1 = Comparable to international version; Option 2 = '4 or more years study at university' (A4) or 'up to 3 years study at university or college' (A2); Option 3 = 'Vocational/technical study at vocational school, 1-3 years' (A3) or 'short post-secondary vocational training' (A1); Option 4 = 'Other' (A5).
Russia	D	Option 1 = Comparable to international version; Option 2 = 'University or other higher education institute' (A4); Option 3 = 'Vocational/technical school or courses' (A1) or 'short vocational program at college, 2 years' (A3); Option 4 = 'Special courses to prepare for university exam' (A2) or 'other' (A5).
Slovenia	D	Option 1 = Comparable to international version; Option 2 = 'Higher university study, >4 years' (A4) or '4-year or shorter university study' (A2); Option 3 = 'Vocational/technical courses at trade or business school' (A1) or 'vocational/technical program at vocational schools' (A3); Option 4 = 'Other' (A5).
South Africa	D	Option 1 = Comparable to international version; Option 2 = 'Attend technikon or university' (A4); Option 3 = 'Vocational/technical courses at trade or business school' (A1) or 'vocational/technical subject at technical college, 3 years' (A3); Option 4 = 'Academic course at private or community college' (A2) or 'other' (A5).
Sweden	D	Option 1 = Comparable to international version; Option 2 = 'University study for 3 years or longer' (A4) or 'university study for up to 3 years' (A3); Option 3 = 'Short vocationally-oriented courses, up to 1 year' (A1); Option 4 = 'Continuing adult education' (A2) or 'other' (A5).
Switzerland	D	Option 1 = Comparable to international version; Option 2 = 'University or technical university' (A4) or 'higher specialized vocational education' (A3); Option 3 = 'Further upper-secondary level vocational training' (A1) or 'post-secondary vocational education' (A3); Option 4 = 'Other' (A5).
United States	D	Options 1,2,3,4 = Comparable to international definitions.

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**Derived Variable Name:** CSDGPGRM      **Label:** GEN\<<PROGRAM /TRACK> STUDENT IS IN

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**Description:** Students' reports on educational program

**Table Reference:** CLRT4.1

**Source Variables:** SQ3-24

(CSBGPGRM)

**Notes:** Program options were defined by each country to conform to their own educational system. The national options contained in the source variable (SQ3-24) are described in the national adaptation documentation in Supplement 2. For the derived variable for students' program (CSDGPGRM), the national options were combined into 4 general reporting categories defined as:

- 1 = Academic Program;
- 2 = Technical Program;
- 3 = Vocational Program;
- 4 = General Education Program.

The specific national program options contained in each of the reporting categories are defined below for each country.

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Country	Code	Comment
Australia	D	Academic = 'Full academic course, preparing for university' (Option 1); Technical = Not included; Vocational = 'Program in specific area, e.g., business studies' or 'school/industry link program' (Option 3 or 4); General = 'Part academic/part general education' or 'other' (Option 2 or 5).
Austria	D	Academic = 'Academic, AHS' (Option 1); Technical = 'Higher technical vocational school, BHS' (Option 2); Vocational = 'Intermediate vocational/technical school, BMS' or 'apprenticeship program, BS' (Option 3 or 4); General = Not included.
Canada	D	Academic = 'University/college preparation program: general or specialization in math, science, or math & science' (Option 1, 2, 3, or 4); Technical = Not included; Vocational = 'Trade/technical school preparation program' (Option 5); General = 'Other general graduation program' (Option 6).
Cyprus	D	Academic = 'Academic tracks at Lyceum: classical, math/science, economics, commercial/secretarial, and foreign language' (Option 1, 2, 3, 4, or 5); Technical = 'Technical/vocational schools' (Option 6); Vocational = Not included; General = Not included.
Czech Republic	D	Academic = 'Gymnasium tracks with class oriented on: math, math & physics, natural science, computer science, general class, or humanities & foreign languages' (Option 7, 8, 9, 10, 11, or 12); Technical = 'Secondary technical school (engineering)', 'secondary technical school (business)' or 'other secondary technical school with maturita' (Option 1, 2 or 3); Vocational = 'Secondary school without maturita', 'vocational training center with maturita' or 'vocational training center without maturita' (Option 4, 5 or 6); General = Not included.
Denmark	D	Academic = 'Gymnasia with or without advanced math/physics study' (Option 1 or 4); Technical = Not included; Vocational = 'Technical or commercial school, with or without advanced math/physics study' (Option 2, 3, 5, or 6); General = Not included.

<b>Derived Variable Name:</b> CSDGPGRM		<b>Label:</b> GEN\ <program in<="" is="" student="" th="" track&gt;=""> </program>
France	D	Academic = 'Lycees Serie S (scientific), L (literacy) or ES (economic and social)' (Option 1 or 2); Technical = 'Lycees technical serie STT or other technical serie' (Option 3 or 4); Vocational = 'Baccalaureat Professionals (BAC)' or 'Brevet d'etudes professionnels (BEP)' (Option 5 or 6); General = Not included.
Germany	D	Academic = 'Gymnasia (GS) and comprehensive schools (IGS)' (Option 1); Technical = 'Higher technical/professional (FG) and applied science (FOS) tracks' (Option 2); Vocational = 'Full-time vocational (BFS) and apprenticeship (BS) programs' (Option 3); General = Not included.
Greece	X	Not included in report variable; program/track data retained in source variable (SQ3-24).
Hungary	D	Academic = 'General academic track' (Option 1); Technical = 'Vocational/professional programs in vocational schools: industrial, agricultural, merchant/economics/catering, or humanities' (Option 2, 3, 4, or 5); Vocational = 'Vocational trade schools: trade, merchant, or agricultural' (Option 6, 7 or 8); General = Not included.
Iceland	D	Academic = 'General academic or technical programs in gymnasia or comprehensive schools' (Option 1 or 6); Technical = Not included; Vocational = 'Vocational programs in comprehensive schools or special vocational schools' (Option 2, 3, 4, or 5); General = Not included.
Israel	X	Not included in report variable; program/track data retained in source variable (SQ3-24).
Italy	D	Academic = 'Classical school programs in classics, languages, teaching programs, or science' or 'art schools' (Option 1, 2 or 3); Technical = 'Technical schools' (Option 5); Vocational = 'Vocational schools' (Option 4); General = Not included.
Latvia	X	Not included in report variable; program/track data retained in source variable (SQ3-24).
Lithuania	D	Academic = 'Gymnasia and general academic schools' (Option 1); Technical = Not included; Vocational = 'Vocational schools' (Option 2); General = Not included.
Netherlands	D	Academic = 'Senior academic pre-university schools (VWO)' or 'senior general schools (HAVO)' (Option 5 or 6); Technical = Not included; Vocational = 'Long vocational (MBO) programs: technology, economics, agriculture, or home economics' or 'short vocational (KMBO) programs: technology, economics, or home economics' (Option 1, 2, 3, 4, 7, 8, or 9); General = Not included.
New Zealand	D	Academic = 'General academic/comprehensive schools' (Option 1); Technical = Not included; Vocational = Not included; General = Not included.
Norway	D	Academic = 'Academic program(AF), general or with specialization in math/science' (Option 1); Technical = Not included; Vocational = 'Vocational program: trade/office (HK), craft/industry (HI), health science/social education (HS), domestic (HH), or other' (Option 2, 3, 4, 5, or 6); General = Not included.

<b>Derived Variable Name:</b> CSDGPGRM		<b>Label:</b> GEN\<PROGRAM /TRACK> STUDENT IS IN
Russia	D	Academic = Academic programs in general secondary school or gymnasia: general education or with advanced study in math/physics or other subjects' (Options 1, 2, 3, 4, 5, or 6); Technical = Not included; Vocational = Not included; General = Not included.
Slovenia	D	Academic = 'Gymnasia, matura program' (Option 1); Technical = 'Technical/professional schools' (Option 2); Vocational = '4-year or 3-year vocational programs' (Options 3 or 4); General = Not included.
South Africa	D	Academic = 'Programs in general academic/comprehensive schools, with or without advanced study in math/physics' (Options 1, 2, 3, 4, 5, or 6); Technical = Not included; Vocational = Not included; General = Not included.
Sweden	D	Academic = 'Academic programs with specialization in: math/physics (NT/NV), social science/economics (SP/SE), or humanities (SP/H)' (Option 1, 2 or 3); Technical = Not included; Vocational = '2-year programs or 3-year vocational programs' (Option 4); General = Not included.
Switzerland	D	Academic = 'Gymnasia academic programs in math/science (Type C) or language/economics (Type A/B, D, or E)' or 'matura-level teacher training' (Option 5, 6 or 7); Technical = Not included; Vocational = 'Full-time vocational school, vocational training plus general education, or apprenticeship' (Option 1, 2, or 3); General = 'Intermediate diploma school' (Option 4).
United States	D	Academic = 'College-preparation program (in general/comprehensive high schools)' (Option 1); Technical = Not included; Vocational = 'Vocational/technical program (in general/comprehensive high schools)' (Option 2); General = 'General academic program (in general/comprehensive high schools)' (Option 3).

<b>Derived Variable Name:</b> CSDGPJOB		<b>Label:</b> GEN\OUTSIDE SCHL\WORKING AT A PAID JOB(CAT)
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**Description:** Students' reports on the hours per day spent working at a paid job - reporting categories

**Table Reference:** CLRT4.19

**Source Variables:** SQ3-16E  
(CSBGDAY5)

**Notes:** Coded into 4 collapsed categories based on students' responses to SQ3-16E.  
1 = < 1 Hour (No Time or < 1 Hour; option 1 or 2);  
2 = 1-2 Hours (option 3);  
3 = 3-5 Hours (option 4);  
4 = > 5 Hours (option 5).

Country	Code	Comment
Germany	D	Data included only for students in gymnasia, comprehensive, or higher technical schools (GS, IGS, FG); source variable question not administered in applied science/vocational versions of questionnaire (FOS/BFS, BS).
Hungary	X	Data not available for source variable(s).

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**Derived Variable Name:** CSDGPS                      **Label:** GENNUMBER OF ITEMS AT STUDENT'S HOME

**Description:** Students' reports of the total number of items in the home

**Table Reference:** (Not reported)

**Source Variables:** SQ3-9A-P  
(CSBGPS01-CSBGPS16)

**Notes:** Included as an indicator of socioeconomic status based on a set of nationally-defined variables related to possessions contained in students' homes. CSDGPS is an integer value computed as the total number of Yes (1) responses to the set of questions regarding possessions in the home (SQ3-9a-p), with a maximum value of 16. In some countries, less than 16 items were included, so the maximum value is not comparable across countries. The possessions in SQ3-9a-d are comparable across countries (calculator, computer, study desk/table, dictionary).

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Country	Code	Comment
ALL		Documentation regarding national options for source variables included in Supplement 2.

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**Derived Variable Name:** CSDGSHRT                      **Label:** GEN\STUDENT THREATENED BY ANOTHER STUDENT

**Description:** Students' reports on how often they had been threatened in school

**Table Reference:** CLRT4.21b

**Source Variables:** SQ3-17C  
(CSBGSHRT)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ3-17C:  
1 = Never (option 1);  
2 = Once or twice a month (option 2);  
3 = Three times or more a month (3-4 times or 5 times or more; option 3 or 4).

---

Country	Code	Comment
France	X	Data not available for source variable(s).
Germany	D	Data included only for students in gymnasias, comprehensive, or higher technical schools (GS, IGS, FG); source variable question not administered in applied science/vocational versions of questionnaire (FOS/BFS, BS).
Hungary	X	Data not available for source variable(s).
Netherlands	X	Data not available for source variable(s).

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**Derived Variable Name:** CSDGSSTL      **Label:** GEN\STUDENT HAD SOMETHING STOLEN

**Description:** Students' reports on how often they had something stolen in school

**Table Reference:** CLRT4.21a

**Source Variables:** SQ3-17B  
(CSBGSSTL)

**Notes:** Coded into 3 collapsed categories based on students' responses to SQ3-17B:  
1 = Never (option 1);  
2 = Once or twice a month (option 2);  
3 = Three times or more a month (3-4 times or 5 times or more; option 3 or 4).

---

Country	Code	Comment
France	X	Data not available for source variable(s).
Germany	D	Data included only for students in gymnasia, comprehensive, or higher technical schools (GS, IGS, FG); source variable question not administered in applied science/vocational versions of questionnaire (FOS/BFS, BS).
Netherlands	X	Data not available for source variable(s).

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**Derived Variable Name:** CSDGSTDC      **Label:** GEN\OUTSIDE SCHL\TOTAL HOURS STUDY(CAT)

**Description:** Students' reports on total hours per day studying or doing homework - reporting categories

**Table Reference:** CLRT4.15a-d

**Source Variables:** SQ3-16H,I,J; SQ3-30A; SQ3-34A-E  
(CSBMDAY8; CSBSDAY9; CSBGDAY0; CSBMTAKE; CSBSCOU1- CSBSCOU5)

**Notes:** Total hours studying is defined as the sum of hours reported studying or doing homework in mathematics, science and other subjects based on the sum of SQ3-6H,I,J response categories recoded to numerical values:  
No time = 0; Less Than 1 Hour = 0.5; 1-2 Hours = 1.5; 3-5 Hours = 4; More Than 5 Hours = 7.

For the reporting category variable (CSDGSTDC), the sum values in the derived variable CSDGSTUD were coded into four categories by numerical range:

- 1 = <1 Hour;
- 2 = 1 - < 2 Hours;
- 3 = 2 - 3 Hours;
- 4 = >3 Hours.

Coded as missing if ANY of the source variables are missing EXCEPT in cases where missing math homework (16H) or missing science homework (16I) is consistent with students' responses about NOT taking mathematics (30A = NO) or science (ALL of 34A-E = NO).

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Country	Code	Comment
Germany	X	Data not available for source variable(s).

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**Derived Variable Name:** CSDGSTUD      **Label:** GEN\OUTSIDE SCHL\TOTAL HOURS STUDY

**Description:** Students' reports on total hours per day studying or doing homework

**Table Reference:** CLRT4.15e

**Source Variables:** SQ3-16H,I,J; SQ3-30A; SQ3-34A-E

(CSBMDAY8; CSBSDAY9; CSBGDAY0; CSBMTAKE; CSBSCOU1- CSBSCOU5)

**Notes:** Total hours computed based on the sum of SQ3-6H,I,J response categories recoded to numerical values:  
No time = 0; Less Than 1 Hour = 0.5; 1-2 Hours = 1.5; 3-5 Hours = 4; More Than 5 Hours = 7.

Coded as missing if ANY of the source variables are missing EXCEPT in cases where missing math homework (16H) or missing science homework (16I) is consistent with students' responses about NOT taking mathematics (30A = NO) or science (ALL of 34A-E = NO).

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Country	Code	Comment
Germany	X	Data not available for source variable(s).

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**Derived Variable Name:** CSDMAREA      **Label:** MAT\AREA STUDENTS INTEND TO STUDY MOST

**Description:** Students' reports on the area they intend to study after secondary school - advanced mathematics reporting categories

**Table Reference:** CMRT7.12

**Source Variables:** SQ3-14B

(CSBGAREA)

**Notes:** Coded into 7 collapsed categories based on students' responses to SQ3-14B:

- 1 = Mathematics (14B option 9);
- 2 = Computer or Information Sciences (14B option 4);
- 3 = Engineering (14B option 6);
- 4 = Business (14B option 2);
- 5 = Health Sciences or related occupations (14B option 8 or 7);
- 6 = Sciences (14B option 1, 3, 5, or 10: biological sciences, chemistry, earth sciences, or physics);
- 7 = Other(14B option 11).

Students not intending to continue education after secondary school (14A = No) coded as 'Not Applicable'.

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Country	Code	Comment
Austria	D	Source variable questions asked only of students intending to go to university or higher technical institutes (Fachhochschule); other students coded as 'Not Applicable'.
Germany	D	Data included only for students in gymnasias, comprehensive, or higher technical schools (GS, IGS, FG); source variable question not administered in applied science/vocational versions of questionnaire (FOS/BFS, BS).

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**Derived Variable Name:** CSDMGOOD      **Label:** MATUSUALLY DONE WELL IN MATH

**Description:** Students' reports on their self-perceptions about usually doing well in mathematics

**Table Reference:** CLRT4.7a

**Source Variables:** SQ3-22A  
(CSBMGOOD)

**Notes:** Coded into 2 collapsed categories based on students' responses to SQ3-22A:  
1 = Strongly Agree or Agree (option 1 or 2);  
2 = Disagree or Strongly Disagree (option 3 or 4).

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Country	Code	Comment
Germany	D	Data included only for students in gymnasia, comprehensive, or higher technical schools (GS, IGS, FG); source variable question not administered in applied science/vocational versions of questionnaire (FOS/BFS, BS).

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**Derived Variable Name:** CSDMHMWK      **Label:** MATFREQUENCY MATH HOMEWORK IS ASSIGNED

**Description:** Students' reports on how often they are assigned mathematics homework

**Table Reference:** CMRT7.2

**Source Variables:** SQ3-30A;SQ3-33  
(CSBMTAKE; CSBMHMWK)

**Notes:** Coded into 4 collapsed categories based on students' responses to SQ3-30A and SQ3-33:  
1 = Not currently taking mathematics (30A = No);  
2 = Less than once a week (30A = Yes and 33 = Never or <Once a week; option 1 or 2);  
3 = Once or twice a week (30A = Yes and 33 = option3);  
4 = Three or more times a week (30A = Yes and 33 = 3 or 4 times a week or everyday; option 4 or 5).

Coded as missing if 30A is missing or if 30A = Yes and 33 is missing.

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Country	Code	Comment
Germany	X	Data not available for source variable(s).
Netherlands	X	Data not available for source variable(s).

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**Derived Variable Name:** CSDMINST      **Label:** MATAMOUNT OF INSTRUCTION EACH WEEK

**Description:** Students' reports on the amount of mathematics instruction they receive each week

**Table Reference:** CMRT7.1

**Source Variables:** SQ3-30A,B,C

(CSBMTAKE; CSBMCLAS; CSBMTIME)

**Notes:** Computed based on responses to open-ended questions regarding math classes per week (30B) and minutes per class (30C) for those students currently taking mathematics (30A = Yes). Instructional hours per week computed by multiplying 30B by 30C and dividing by 60 minutes. Coded into 5 categories:

1 = Not Currently Taking Mathematics (30A = No);

2 = < 3 Hours;

3 = 3 to <4 Hours;

4 = 4 to < 5 Hours;

5 = 5 Hours or More.

Coded as missing if 30A is missing or if 30A = Yes and either 30B or 30C is missing.

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Country	Code	Comment
Denmark	D	Instructional time data obtained from the ministry for advanced mathematics/physics students; no data available for Literacy students.
Germany	X	Data not available for source variable(s).

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**Derived Variable Name:** CSDMLIKE      **Label:** MATLIKE MATHEMATICS

**Description:** Students' reports on how much they like mathematics

**Table Reference:** CLRT4.8; CLRF4.4

**Source Variables:** SQ3-19A

(CSBMLIKE)

**Notes:** Coded into 4 categories based on students' responses to SQ3-19A:

1 = Dislike A Lot;

2 = Dislike;

3 = Like;

4 = Like A Lot.

Students in option 5 (Have not studied) are coded as missing.

---

Country	Code	Comment
Germany	D	Data included only for students in gymnasia, comprehensive, or higher technical schools (GS, IGS, FG); source variable question not administered in applied science/vocational versions of questionnaire (FOS/BFS, BS).
Netherlands	X	Data not available for source variable(s).

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**Derived Variable Name:** CSDMREAS      **Label:** MAT\HOW OFTEN\USE REASONING IN TASKS

**Description:** Students' reports on how often they are asked to do reasoning tasks in their mathematics lessons

**Table Reference:** CMRT7.3

**Source Variables:** SQ3-31A-D  
(CSBMDO01- CSBMDO04)

**Notes:** Coded into 4 categories based on students' highest response value (most frequent occurrence) to SQ3-31A-D:  
1 = Never or Almost Never (highest value = 1);  
2 = Some Lessons (highest value = 2);  
3 = Most Lessons (highest value = 3);  
4 = Every Lesson (highest value = 4).

Coded as missing if all of 31A-D are missing.

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Country	Code	Comment
Austria	D	Data included only for those students reporting that they are currently taking mathematics.
Germany	D	Data included only for students in gymnasias, comprehensive, or higher technical schools (GS, IGS, FG); source variable question not administered in applied science/vocational versions of questionnaire (FOS/BFS, BS).
Netherlands	X	Data not available for source variable(s).
Switzerland	D	Data included only for those students reporting that they are currently taking mathematics.

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**Derived Variable Name:** CSDMSTDC      **Label:** MAT\OUTSIDE SCHL\HOURS STUDY MATH(CAT)

**Description:** Students' reports on hours per day studying or doing mathematics homework - categories

**Table Reference:** CLRT4.16a-d

**Source Variables:** SQ3-30A; SQ3-16H  
(CSBM TAKE; CSBMDAY8)

**Notes:** Hours reported studying or doing mathematics homework (16H) coded into four categories based on students' responses to SQ3-30A and 16H:  
1 = Not Taking Mathematics (30A = No);  
2 = <1 Hour (30A = Yes and 16H = No Time or <1 Hour; option 1 or 2);  
3 = 1 - 2 Hours (30A = Yes and 16H = option 3);  
4 = 3 or More Hours (30A = Yes and 16H = 3-5 Hours or >5 Hours; option 4 or 5).

Coded as missing if 30A or 16H is missing.

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Country	Code	Comment
Germany	X	Data not available for source variable(s).

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**Derived Variable Name:** CSDMSTUD      **Label:** MAT\OUTSIDE SCHL\STUDYING MATH

**Description:** Students' reports on hours per day studying or doing mathematics homework

**Table Reference:** CLRT4.16e

**Source Variables:** SQ3-30A; SQ3-16H  
(CSBMTAKE; CSBMDAY8)

**Notes:** Hours based on SQ3-16H recoded to numerical values, included only for those students currently taking mathematics (30A=Yes):  
No time = 0; Less Than 1 Hour = .5; 1-2 Hours = 1.5; 3-5 Hours = 4; More Than 5 Hours = 7.  
  
Coded as missing if 30A = No or if 30A = Yes and 16H is missing.

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Country	Code	Comment
Germany	X	Data not available for source variable(s).

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**Derived Variable Name:** CSDPAREA      **Label:** PHYAREA STUDENTS INTEND TO STUDY MOST

**Description:** Students' reports on the area they intend to study after secondary school - physics reporting categories

**Table Reference:** CPRT10.11

**Source Variables:** SQ3-14B  
(CSBGAREA)

**Notes:** Coded into 7 collapsed categories based on students' responses to SQ3-14B.  
1 = Physics or Chemistry (14B option 10 or 3);  
2 = Biological or Earth Sciences (14B option 1 or 5);  
3 = Health Sciences or Related Occupations (14B option 8 or 7);  
4 = Mathematics or Computer/Information Sciences (14B option 9 or 4);  
5 = Engineering (14B option 6);  
6 = Business (14B option 2);  
7 = Other (14B option 11).

Students not intending to continue education after secondary school (14A = No) coded as 'Not Applicable'.

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Country	Code	Comment
Austria	D	Source variable questions asked only of students intending to go to university or higher technical institutes (Fachhochschule); other students coded as 'Not Applicable'.
Germany	D	Data included only for students in gymnasias, comprehensive, or higher technical schools (GS, IGS, FG); source variable question not administered in applied science/vocational versions of questionnaire (FOS/BFS, BS).

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**Derived Variable Name:** CSDPCOMP      **Label:** SCI\USE COMPUTERS TO SOLVE PROBLEMS

**Description:** Students' reports on how often in physics lessons they are asked to use computers to solve exercises or problems

**Table Reference:** CPRT10.6

**Source Variables:** SQ3-34A; SQ3-35A; SQ3-36L  
(CSBSCOU1; CSBSQUES; CSBSDO12)

**Notes:** Coded into 4 categories based on students' responses to SQ3-36L, 35A, 34A.  
1 = Never or Almost Never;  
2 = Some Lessons;  
3 = Most Lessons;  
4 = Every Lesson.

Included only for students reporting about a current physics class (34A = Yes and 35A = 1, Physics). Coded as missing if: (a) 34A is missing; (b) 34A = Yes and 36L is missing; or (c) 34A = Yes and 35A = 2, 3, 4, or 5.

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Country	Code	Comment
Germany	D	Data included only for students in gymnasias, comprehensive, or higher technical schools (GS, IGS, FG); source variable question not administered in applied science/vocational versions of questionnaire (FOS/BFS, BS).
Netherlands	X	Data not available for source variable(s).

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**Derived Variable Name:** CSDPHMWK      **Label:** PHY\FREQUENCY PHYSICS HOMEWORK IS ASSIGN

**Description:** Students' reports on how often they are assigned physics homework

**Table Reference:** CPRT10.2

**Source Variables:** SQ3-34A; SQ3-35A; SQ3-38  
(CSBSCOU1; CSBSQUES; CSBSHMWK)

**Notes:** Coded into 4 categories based on students' responses to SQ3-34A, 35A, 38:  
1 = Not Currently Taking Physics (34A = No);  
2 = Less Than Once a Week (34A = Yes; 35A = 1 (Physics); and 38 = never or < once a week, option 1 or 2);  
3 = Once or Twice a Week (34A = Yes; 35A = 1 (Physics); and 38 = option 3);  
4 = 3 or More Times a Week (34A = Yes; 35A = 1 (Physics); and 38 = 3-4 times per week or everyday, option 4 or 5).

Coded as missing if: (a) 34A is missing; (b) 34A = Yes and 38 is missing; or (c) 34A = Yes and 35A = 2,3,4, or 5.

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Country	Code	Comment
Germany	D	Data included only for students in gymnasias, comprehensive, or higher technical schools (GS, IGS, FG); source variable question not administered in applied science/vocational versions of questionnaire (FOS/BFS, BS).
Netherlands	X	Data not available for source variable(s).
South Africa	X	Data not available for source variable(s).

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<b>Derived Variable Name:</b> CSDPINST	<b>Label:</b> PHYAMOUNT OF INSTRUCTION EACH WEEK
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**Description:** Students' reports on the amount of physics instruction they receive each week

**Table Reference:** CPRT10.1

**Source Variables:** SQ3-34A; SQ3-35A,B,C  
(CSBSCOU1; CSBSQUES; CSBSCLAS; CSBSTIME)

**Notes:** Computed based on responses to open-ended questions regarding physics classes per week (35B) and minutes per class (35C) for those students reporting about a current physics class (34A = Yes and 35A = 1, Physics). Instructional hours per week computed by multiplying 35B by 35C and dividing by 60 minutes. Coded into 5 categories:  
1 = Not Currently Taking Physics (34A = No);  
2 = < 3 Hours;  
3 = 3 to <4 Hours;  
4 = 4 to < 5 Hours;  
5 = 5 Hours or More.

Coded as missing if: (a) 34A is missing; (b) 34A = Yes and either 35B or 35C is missing; or  
(c) 34A = Yes and 35A = 2,3,4, or 5.

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<b>Country</b>	<b>Code</b>	<b>Comment</b>
Austria	X	Omitted from report variable; modified national data retained in source variables (SQ3-35B,C).
Denmark	D	Instructional time data obtained from the ministry for advanced mathematics/physics students; no data available for Literacy students.
Germany	D	Data included only for students in gymnasias, comprehensive, or higher technical schools (GS, IGS, FG); source variable question not administered in applied science/vocational versions of questionnaire (FOS/BFS, BS).
Netherlands	X	Data not available for source variable(s).

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**Derived Variable Name:** CSDPLIKE      **Label:** PHYLIKE PHYSICS

**Description:** Students' reports on how much they like physics

**Table Reference:** CLRT4.9d

**Source Variables:** SQ3-19E  
(CSBPLIKE)

**Notes:** Coded into 4 collapsed categories based on students' response to SQ3-19E:

- 1 = Dislike A Lot (option 1);
- 2 = Dislike (option 2);
- 3 = Like or Like A Lot (option 3 or 4);
- 5 = Have Not Studied (option 5).

Students reporting that they have not studied physics (option 5) are excluded from report table.

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Country	Code	Comment
Germany	D	Data included only for students in gymnasias, comprehensive, or higher technical schools (GS, IGS, FG); source variable question not administered in applied science/vocational versions of questionnaire (FOS/BFS, BS).
Latvia	X	Data not available for source variable(s).
Netherlands	X	Data not available for source variable(s).

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**Derived Variable Name:** CSDSCOUR      **Label:** SCI\CURRENT ENROLLMENT IN SCIENCE COURSE

**Description:** Students' reports on number of science courses currently taking

**Table Reference:** CLRT4.4; CLRT4.15; CLRT4.17

**Source Variables:** SQ3-34A-E  
(CSBSCOU1-CSBSCOU5)

**Notes:** Coded into 4 categories based on students' responses to SQ3-34A-E:

- 1 = No Science (ALL of 34A-E = No);
- 2 = One Science Course (One of 34A-E = Yes);
- 3 = Two Science Courses (Two of 34A-E = Yes);
- 4 = Three or More Science Courses (Three or more of 34A-E = Yes)

Coded as Missing if ANY of 34A-E are missing.

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Country	Code	Comment
France	D	Data based on only four science course variables: physics, chemistry, biology, and earth science. Variable for 'other science course' not included (SQ3-34E).
Germany	D	Data included only for students in gymnasias, comprehensive, or higher technical schools (GS, IGS, FG); source variable question not administered in applied science/vocational versions of questionnaire (FOS/BFS, BS).

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**Derived Variable Name:** CSDSGOOD      **Label:** SCI\USUALLY DONE WELL IN SCIENCE

**Description:** Students' reports on their self-perceptions about usually doing well in science

**Table Reference:** CLRT4.7b

**Source Variables:** SQ3-22B  
(CSBSGOOD)

**Notes:** Coded into 2 collapsed categories based on students' responses to SQ3-22A:  
1 = Strongly Agree or Agree (option 1 or 2);  
2 = Disagree or Strongly Disagree (option 3 or 4).

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<b>Country</b>	<b>Code</b>	<b>Comment</b>
Germany	D	Data included only for students in gymnasia, comprehensive, or higher technical schools (GS, IGS, FG); source variable question not administered in applied science/vocational versions of questionnaire (FOS/BFS, BS).
Netherlands	D	Includes combined data for four separate questions about: physics, chemistry, biology, and earth science.

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<b>Derived Variable Name:</b> CSDSREAS	<b>Label:</b> SCI\HOW OFTEN\USE REASONING IN TASKS
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**Description:** Students' reports on how often they are asked to do reasoning tasks in their physics (science) lessons

**Table Reference:** CPRT10.3

**Source Variables:** SQ3-34A; SQ3-35A; SQ3-36A-E  
(CSBSCOU1; CSBSQUES; CSBSDO01-CSBSDO05)

**Notes:** Coded into 4 categories based on students' highest response value (most frequent occurrence) to 36A-E:  
1 = Never or Almost Never (highest value = 1);  
2 = Some Lessons (highest value = 2);  
3 = Most Lessons (highest value = 3);  
4 = Every Lesson (highest value = 4).

Coded as missing if all of 36A - E are missing.

[Note: Derived variable (CSDSREAS) is included for all students reporting for any science class (35A = 1,2,3,4, or 5), although data reported in Table 10.3 include only those students reporting about physics class (34A = Yes and 35A =1.)]

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<b>Country</b>	<b>Code</b>	<b>Comment</b>
Austria	D	Data included only for students currently in physics or physics-related vocational classes.
France	D	Data included only for students currently in physics classes.
Germany	D	Data included only for students in gymnasias, comprehensive, or higher technical schools (GS, IGS, FG); source variable question not administered in applied science/vocational versions of questionnaire (FOS/BFS, BS).
Hungary	D	Data included only for students currently in physics classes.
Latvia	D	Data included only for students currently in physics classes.
Netherlands	X	Data not available for source variable(s).
Russia	D	Data included only for students currently in physics classes.
Switzerland	D	Data included only for students currently in physics classes.

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**Derived Variable Name:** CSDSSTDC      **Label:** SCI\OUTSIDE SCHL\HOURS STUDY SCI(CAT)

**Description:** Students' reports on hours per day studying or doing science homework- reporting categories

**Table Reference:** CLRT4.17a-d

**Source Variables:** SQ3-34A-E; SQ3-16I  
(CSBSCOU1-CSBSCOU5; CSBSDAY9)

**Notes:** Hours reported studying or doing science homework broken into 4 categories based on students' responses to SQ3-34A-E and 16I.

1 = Not Taking Science (All of 34A-E = No);

2 = < 1 Hour (One or more of 34A-E = Yes and 16I = No Time or <1 Hour; option 1 or 2);

3 = 1 - 2 Hours (One or more of 34A-E = Yes and 16I = option 3);

4 = 3 or More Hours (One or more of 34A-E = Yes and 16I = 3-5 Hours or >5 Hours; option 4 or 5).

Coded as missing if (a) none of 34A-E are Yes and any are missing or (b) 16I is missing.

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Country	Code	Comment
France	D	Data based on only four science course variables: physics, chemistry, biology, and earth science. Variable for 'other science course' not included (SQ3-34E).
Germany	D	Data included only for students in gymnasia, comprehensive, or higher technical schools (GS, IGS, FG); source variable question not administered in applied science/vocational versions of questionnaire (FOS/BFS, BS).

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**Derived Variable Name:** CSDSSTUD      **Label:** SCI\OUTSIDE SCHL\STUDYING SCIENCE

**Description:** Students' reports on hours per day studying or doing science homework

**Table Reference:** CLRT4.17e

**Source Variables:** SQ3-34A-E; SQ3-16I  
(CSBSCOU1-CSBSCOU5; CSBSDAY9)

**Notes:** Hours based on SQ3-16I recoded to numerical values, included only those students currently taking at least one science class (one or more of 34A-E = Yes):

No time = 0; Less Than 1 Hour = .5; 1-2 Hours = 1.5; 3-5 Hours = 4; More Than 5 Hours = 7.

Coded as missing if (a) none of 34A-E are Yes or (b) 16I is missing.

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Country	Code	Comment
France	D	Data based on only four science course variables: physics, chemistry, biology, and earth science. Variable for 'other science course' not included (SQ3-34E).
Germany	D	Data included only for students in gymnasia, comprehensive, or higher technical schools (GS, IGS, FG); source variable question not administered in applied science/vocational versions of questionnaire (FOS/BFS, BS).

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