

Teaching and Learning International Survey (TALIS) International Data Explorer Help Guide

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TALIS International Data Explorer Help Guide

I. Background on the Teaching and Learning International Survey (TALIS) and the TALIS International Data Explorer (IDE)

The Teaching and Learning International Survey (TALIS) is an international study of teachers, teaching, and learning environments developed under the auspices of the Organization for Economic Cooperation and Development (OECD), an intergovernmental organization of industrialized countries. TALIS's objective is to provide internationally comparable indicators on teachers and teaching to allow for a global view of teachers and the education systems in which they work, and help countries review current conditions and develop informed education policy. TALIS offers an opportunity for teachers and school principals to provide their perspectives on the state of education in their own countries.

TALIS samples are randomly drawn in order to ensure the representative samples of schools and teachers in each participating country. TALIS focuses on lower secondary education, also known as ISCED level 2 as classified by the International Standard Classification of Education (ISCED). In the United States, ISCED Level 2 corresponds to teachers of students in grades 7 through 9 (for detailed information on ISCED levels, please see “ISCED” section starting on page 49.). Developed by the United Nations Educational, Scientific and Cultural Organization (UNESCO), ISCED stands for the International Standard Classification of Education and is used by countries to map education levels across countries and subnational education systems. In the United States, ISCED Level 2 corresponds to teachers of students in grades 7 through 9.

TALIS was first administered in 2008 to teachers and schools in twenty-four countries and subnational education systems (United States did not participate). TALIS was administered again in 2013 to teachers and schools in thirty-four countries and subnational education systems (including the United States). In addition to ISCED Level 2 (lower secondary education), TALIS 2013 enabled countries and subnational education systems to participate at ISCED Level 1 (primary education) and ISCED Level 3 (upper secondary education). For further information on the design of the study and to view the teacher and principal questionnaires, go to: <http://nces.ed.gov/surveys/talis/questionnaire.asp>.

TALIS International Data Explorer (IDE) is a web-based application for accessing data from TALIS, supported by the U.S. National Center for Education Statistics (NCES). The TALIS IDE is available on the NCES website.

II. Computer Requirements for the IDE

- Screen resolution should be 1024 x 768 pixels.
- Browsers: Internet Explorer (IE) version 7 or higher, Safari, Firefox, or Google Chrome. For rendering and scrolling pages with large tables, Firefox 2.0 is faster than IE7 (Firefox 3.0 or higher is recommended).
- Enable JavaScript and pop-ups in your browser.
- The IDE requires Flash version 9.0.115 or higher (download Adobe Flash Player at <http://get.adobe.com/flashplayer/>).
- Exports of files to Microsoft Office require Office 2003 or later.
- Exports of files to PDF can be read with Adobe Acrobat Reader.
- Screen reader software should be Jaws 8.0 or higher.

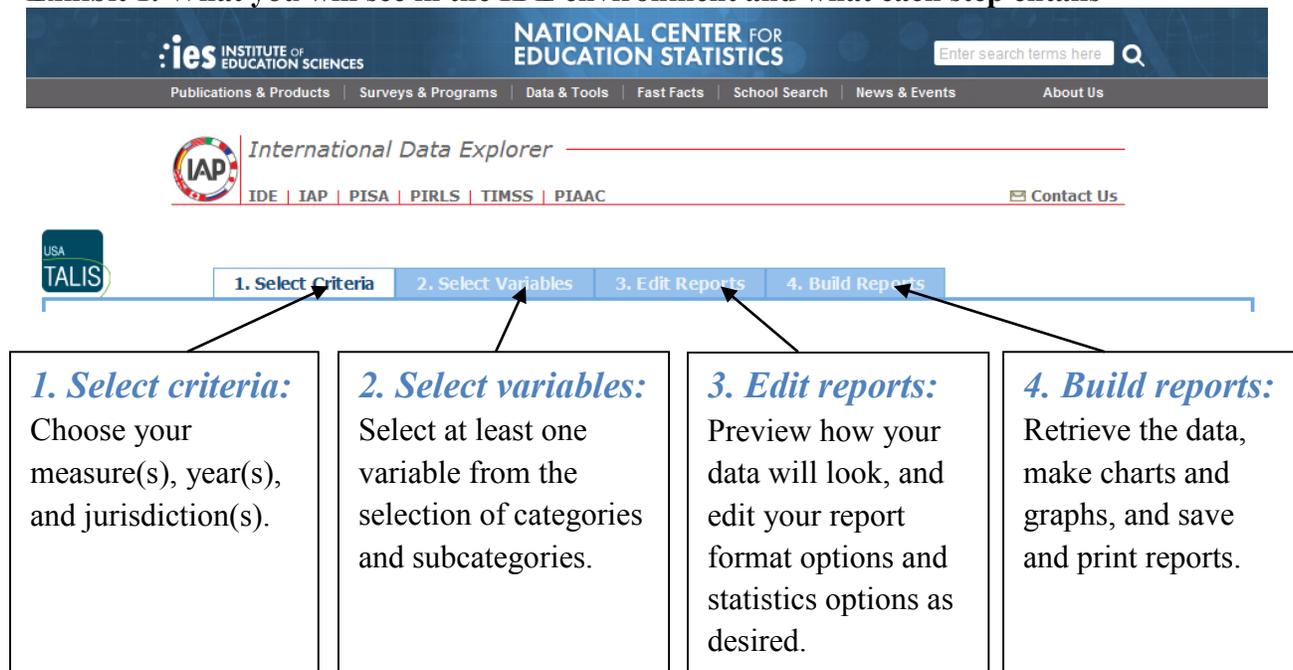
If you encounter an error, please send us the details through **Contact Us** (located in the upper-right portion of the screen on each page of the IDE website). When writing, include your browser version and operating system version, and as many other details as possible. Be sure to provide an e-mail address so that we can contact you.

Screenshots throughout this Help Guide were made using the Internet Explorer browser. Other browsers may vary the way the IDE is displayed.

III. General Overview and Steps to Explore Data

There are four general steps for exploring TALIS data using the TALIS IDE (see exhibit 1).

Exhibit 1. What you will see in the IDE environment and what each step entails



To create your own custom tables, charts, and graphs, follow this sequence of steps when using the TALIS IDE.

Each of these steps is discussed in detail throughout the remainder of this guide, starting with step 1, **Select Criteria** as shown below.

1. Select Criteria

1.A. Overview

Your data query in the TALIS IDE begins on the **Select Criteria** screen (see exhibit 2).

Select an **Analysis level** from the drop-down menu. Once the screen resets, you can choose one or more **Year**, **Measure**, and **Jurisdiction** for the data you wish to view or compare. Use the **Reset** button, located in the upper-right portion of the screen (just below the **Help** button), to cancel your selections and begin again.

Click on a blue sideways-facing arrow (▶) to open up a category, and click on a blue downward-facing arrow (▼) to close a category.

Exhibit 2. Selecting criteria

USA
TALIS

1. Select Criteria 2. Select Variables 3. Edit Reports 4. Build Reports

When using the TALIS IDE, you have the option to run either a school- or teacher-level analysis. Selecting the School option in the Analysis level dropdown provides school information that is an attribute of the schools (thus estimates reported, for example, as the "percentage of schools"), while selecting the Teacher option provides teacher or school information that is an attribute of the teachers (this estimates reported, for example, in terms of the "percentage of teachers").

STEP 1:
Select criteria from each drop-down menu to begin. Additional options related to your selection will appear. Then select measures, jurisdictions, and years based on available data. [Help](#)

Analysis level: School [Reset](#)

View all (68) View Selected (0) Search: Go

Category	Sub Category	Measure	All Years	2013	2008
Full Population Estimate	Full Population Estimate	<input type="checkbox"/> Full Population Estimate details	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Teacher and Principal Characteristics					
School Composition, SES, and Organization					
School Staffing and Resources					

1.D.

1.C.

Group	Jurisdiction	All Years	2013	2008
<input type="checkbox"/> International	<input type="checkbox"/> Average of All Jurisdictions – ISCED2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> Average of the Selected Jurisdictions			
<input type="checkbox"/> ISCED 2: Lower Secondary Education				
<input type="checkbox"/> ISCED 1: Primary Education				
<input type="checkbox"/> ISCED 3: Upper Secondary Education				

1.E.

[2. Select Variables](#)

About TALIS IDE Important Legal Information Accessible Version

1.B. Choose an Analysis Level

The first option you must choose in step 1, **Select Criteria**, is an **Analysis level**. When using the TALIS IDE, you have the option to run either a school- or teacher-level analysis. Click to open the dropdown menu next to Analysis level, which provides the choice of selecting either **School** or **Teacher**. Selecting the **School** option in the **Analysis level** dropdown provides school information that is an attribute of the *schools* (thus estimates reported, for example, as the “percentage of schools”), while selecting the **Teacher** option provides teacher or school information that is an attribute of the *teachers* (thus estimates reported, for example, in terms of the “percentage of teachers”).

1.C. Choose Year(s)

To the right of the **Measure** and **Jurisdiction** tab titles, you have the choice of selecting TALIS 2013 or TALIS 2008 data for analysis by checking the appropriate box underneath the year listed. To include data from both TALIS 2008 and 2013, check the “**All Years**” box to the left of the individual years.

1.D. Choose Measure(s)

After choosing an **Analysis Level**, you can then choose a **Measure** within the **Select Criteria** tab. Note that the Full Population Estimate is the default for selection, but instead of or in addition to the Full Population Estimate you can select from among a number of continuous variables listed under Measure. You can search for continuous variables using the **Category** and **Sub Category** lists or by using the **Search** function. The continuous variables are first organized by **Category** (such as Teacher and Principal Characteristics, School Staffing and Resources, and Classroom Climate), then organized by **Sub Category** (such as Principal Demographics and Principal Work Experience). Finally, selecting a **Sub Category** will display a list of continuous variables you may select to use as a **Measure** in your analysis.

1.E. Choose Jurisdiction(s)

With your **Measure(s)** and **Year(s)** selected, next choose at least one **Jurisdiction**.

Jurisdictions are found under the following groups: **ISCED 2: Lower Secondary Education**, **ISCED 1: Primary Education**, and **ISCED 3: Upper Secondary Education**.

The **International** group provides options to calculate the **Average of All Jurisdictions – ISCED 2** and **Average for Selected Jurisdictions**. When choosing one of these averages, please keep in mind the jurisdictions you are planning to select. If you plan to select ISCED 2 jurisdictions, you can choose the **Average of All Jurisdictions – ISCED 2** option. However, if you plan to select ISCED 1 or ISCED 3 jurisdictions, an analogous ISCED-level option for computing an average is not available. Instead, you need to select the **Average of the Selected Jurisdictions** option. Please note that selecting **Average of All Jurisdictions – ISCED 2** or **Average of the Selected Jurisdictions** increases the frequency of receiving an error message in step 4, **Build Reports**, due to the high volume of information contained in these groups. If this occurs, you must go back to previous tabs and narrow down your selections of criteria.

The general procedures for selecting one or more **Jurisdiction** are as follows:

To open groups of jurisdictions, click on the arrow (▶). Jurisdictions in the group are open and can be selected when the blue arrow points down (▼) (see exhibit 3).

Click the checkboxes next to the specific jurisdictions that you are interested in, or uncheck those jurisdictions that you wish to deselect. If you click the checkbox next to the group name (e.g., “ISCED 2: Lower Secondary Education”), you will select all the jurisdictions within that group. If desired, uncheck the group name to deselect all.

If you want to close a group (for example, close the list of ISCED 1: Primary Education countries in order to readily see the ISCED 3: Upper Secondary Education), click the blue arrow pointing down (▼) next to the group name. The closed group's arrow will now point to the right (▶). Be advised that closing the group will **not** deselect your choices.

Exhibit 3. Choosing jurisdictions

USA
TALIS

1. Select Criteria 2. Select Variables 3. Edit Reports 4. Build Reports

When using the TALIS IDE, you have the option to run either a school- or teacher-level analysis. Selecting the School option in the Analysis level dropdown provides school information that is an attribute of the schools (thus estimates reported, for example, as the "percentage of schools"), while selecting the Teacher option provides teacher or school information that is an attribute of the teachers (this estimates reported, for example, in terms of the "percentage of teachers").

STEP 1:
Select criteria from each drop-down menu to begin. Additional options related to your selections will appear. Then select measures, jurisdictions, and years based on available data. [Help](#)

Analysis level: School [Reset](#)

View all (68) View Selected (0) Search: [Go](#)

Category	Sub Category	Measure	All Years	2013	2008
Full Population Estimate	Full Population Estimate	Full Population Estimate details	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Teacher and Principal Characteristics	Principal Demographics	Age details	<input type="checkbox"/>	<input type="checkbox"/>	NO DATA
	Principal Work Experience		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
School Composition, SES, and Organization	School Enrollment and Class Size		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Group	Jurisdiction	All Years	2013	2008
International	Average of All Jurisdictions – ISCED2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Average of the Selected Jurisdictions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ISCED 2: Lower Secondary Education	<input checked="" type="checkbox"/> Abu Dhabi (United Arab Emirates)	<input type="checkbox"/>	<input type="checkbox"/>	NO DATA
	<input type="checkbox"/> Australia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> Austria	<input type="checkbox"/>	NO DATA	<input type="checkbox"/>
	<input type="checkbox"/> Belgium (Flemish)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> Brazil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> Bulgaria	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> Canada (Alberta)	<input type="checkbox"/>	<input type="checkbox"/>	NO DATA

2. Select Variables

To continue in the IDE, click the **Select Variables** button at the bottom right of the page or the tab at the top of the page to go to the next screen (see exhibit 3).

2. Select Variables

2.A. Overview

Step 2, **Select Variables**, can only be accessed after choosing criteria at step 1, **Select Criteria**. To continue your data query and edit a report, *you must choose at least one variable on this*

screen. You can browse for variables using the **Category** or **Sub-category lists** or by using the **Search** function (see exhibit 4). You can return to this screen to change variable selections at any time by clicking **Select Variables**.

Exhibit 4. Select variables overview

International Data Explorer

IDE | IAP | PISA | PIRLS | TIMSS | PIAAC Contact Us

USA TALIS

1. Select Criteria | **2. Select Variables** | 3. Edit Reports | 4. Build Reports

STEP 2:
Select at least one variable from the category list below. View the list of all available variables, view by selected variables only, or search variables by keywords.
Years selected will override previous selections.

Subject, Analysis level: TALIS, School
Jurisdictions: Abu Dhabi (United Arab Emirates), Austria, Brazil, Canada (Alberta)
Measure: Full Population Estimate
Years: 2013, 2008

View all (469) | View Selected (0) | Search: Go

Category	Sub Category	Variable	All Years	2013	2008
▼ Total	▼ Total	<input type="checkbox"/> All Cases details	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
▶	▶	Teacher and Principal Characteristics			
▶	▶	School Composition, SES, and Organization			
▶	▶	School Staffing and Resources			
▶	▶	School and Classroom Climate and School Safety			
▶	▶	School Management, Autonomy, and Governance			
▶	▶	School Evaluation			
▶	▶	Teacher Induction and Mentoring			

3. Edit Reports

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2.B. Select Variables using Category and Sub Category Lists

On the **Select Variables** screen, choose at least one independent variable for your report. One way to do this is to search for independent variables using the **Category** and **Sub Category** lists. If you don't wish to choose from any of the specified categories and subcategories, then select **All Cases** in the **Total** sub category (displayed as the default independent variable on the Select Variables screen).

The variables shown are tied to the criteria you selected at step 1 (**Analysis Level, Measure, Year, and Jurisdiction**), which are indicated at the top of the screen. To change any of these criteria, return to step 1, by clicking on **Select Criteria**.

To browse for variables and get details about them:

1. Click the blue arrows to open and close Category and Sub Category lists of variables (see exhibit 5).
2. Click **details** or **hide details** to show or hide the full title of a given variable, the TALIS IDE identification name (e.g. SC10012), and the values (i.e., variable labels). Note that some variables have similar short titles, but comparing details will show you how they differ. See the example in exhibit 5, which shows **School location (2008)** and **School location (2013)**. The differences between these two variables are further described in the details.
3. Click the checkbox next to a variable to select it for your analysis/report. You will see the count increase next to **View Selected**.
4. Click the **View Selected** tab to see the variables you have chosen. To return to the full list of variables by Category and Sub Category, click **View all (469)**.
5. Remember to select the year for which you wish to build a report and make sure that data are available for your chosen year and variables.
6. Searching variables is an option from the **Search** box. See [Section 2.C Search Function](#) on the next page for more details about this function.

Exhibit 5. Select variables using category and sub category lists

USA TALIS

1. Select Criteria 2. Select Variables 3. Edit Reports 4. Build Reports

STEP 2:
Select at least one variable from the category list below. View the list of all available variables, view by selected variables only, or search variables by keywords. Years selected will override previous selections. [Help](#)

Subject, Analysis level: TALIS, School
Jurisdictions: Belgium (Flemish) - ISCED 1, Denmark - ISCED 1, Finland - ISCED 1, Mexico - ISCED 1, Norway - ISCED 1, Poland - ISCED 1
Measure: Full Population Estimate
Year: 2013 [Reset](#)

View all (469)		View Selected (2)		Search: <input type="text"/> Go	
Category	Sub Category	Variable	All Years	2013	2008
		<input checked="" type="checkbox"/> School location (2008) hide details Full Title: Which of the following best describes the community in which this school is located? ID: SC10012 Values: A (Fewer Than 3 000 People); A (3 000 To About 15 000 People); A (15 000 To About 100 000 People); A (100 000 To About 1 000 000 People); A Large With Over 1 000 000 People	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	NO DATA
		<input checked="" type="checkbox"/> School location (2013) hide details Full Title: Which best describes this school's location? ID: SC20032 Values: [Hamlet or rural area] (1,000 people or fewer); [Village] (1,001 to 3,000 people); [Small town] (3,001 to 15,000 people); [Town] (15,001 to 100,000 people); [City] (100,001 to 1,000,000); [Large city] (more than 1,000,000 people)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	NO DATA

- ▶ School Funding
- ▶ School Enrollment and Class Size
- ▶ School Staffing

2.C. Select Variables using the Search Function

The second way to search for variables is to use the **Search** function on the **Select Variables** screen.

Type a term in the **Search** box and click **Go** (or hit “Enter” on your keyboard) to find variables by keywords in the variable title and/or details for the variable (see exhibit 6). The search function operates on whole words or on an exact phrase (if it is contained in quotes). To search for less than a whole word or exact phrase, include an asterisk (*) after the search term. If you use multiple keywords, “and” is assumed. You can narrow your search by using “or,” “not,” or “and not.”

Exhibit 6. Select variables using the search function

USA
TALIS

1. Select Criteria 2. Select Variables 3. Edit Reports 4. Build Reports

When using the TALIS IDE, you have the option to run either a school- or teacher-level analysis. Selecting the School option in the Analysis level dropdown provides school information that is an attribute of the schools (thus estimates reported, for example, as the "percentage of schools"), while selecting the Teacher option provides teacher or school information that is an attribute of the teachers (thus estimates reported, for example, in terms of the "percentage of teachers").

STEP 1:
Select criteria from each drop-down menu to begin. Additional options related to your selections will appear. Then select measures, jurisdictions, and years based on available data. [Help](#)

Analysis level: [Reset](#)

View all (68) View Selected (0) Search: (5) management personnel Go

Category	Sub Category	Measure	All Years	2013	2008
School Composition, SES, and Organization	School Staffing	<input type="checkbox"/> Number of administrative or management personnel in school (2008) details		NO DATA	
		<input type="checkbox"/> Number of school management personnel in school details			NO DATA
	Ratios of Staff and Students	<input type="checkbox"/> Student-administrator ratio details		NO DATA	
		<input type="checkbox"/> Teacher-administrator ratio (2008) details		NO DATA	
		<input type="checkbox"/> Teacher-administrator ratio (2013) details			NO DATA

When you have selected the independent variable(s) you want to include, continue by clicking the **Edit Reports** button at the bottom of the page or the tab at the top of the page to go to the next step.

3. Edit Reports

3.A. Overview

You can access step 3, **Edit Reports**, only after choosing criteria at step 1, **Select Criteria**, and then choosing variables at step 2, **Select Variables**. The IDE will automatically build reports based on your selections from steps 1 and 2. However, at step 3, the **Edit Reports** phase, you may modify your selections for each report.

At this step, you can

- preview and edit the layout of your reports;
- copy reports or create new reports based on the variables selected;
- change formatting options, such as year order or number of decimal places to display for all reports (these may also be changed in individual reports, but format options can overwrite previous edits);
- change statistics options, such as average scores and percentages, for all reports (these may also be changed in individual reports, but statistics options can overwrite previous edits). Please note only up to two statistics can be included in every report;
- select reports to be built into tables and charts at step 4, **Build Reports**; and delete reports.

Using your chosen criteria, the TALIS IDE will return a separate data report for each variable you have chosen. If you have selected two or three independent variables (not counting **All Cases**), you will also see a **cross-tabulated report** for these variables (see exhibit 7). If you have chosen four or more variables, you will get data reports for each variable, but a cross-tabulation report will not be produced. If you have selected more than one **Measure** (e.g., a continuous variable from step 1, **Select Criteria**), a separate set of data reports will be generated for each **Measure**.

Exhibit 7. Edit reports overview

STEP 3:
Preview and edit existing reports using the action links next to each report name. Create new reports, set format and statistic options. (New and copied reports will appear at the bottom of the report list)

Subject, Analysis level: TALIS, School

Jurisdictions: Abu Dhabi (United Arab Emirates), Australia, Austria, Belgium (Flemish), Brazil, Bulgaria, Canada (Alberta), Chile, Croatia, Czech Republic, England, Estonia, Finland, France, Georgia, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Latvia, Lithuania, Malaysia, Malta, Mexico, Norway, Poland, Portugal, Romania, Russia, Serbia, Singapore, Slovak Republic, Slovenia, Spain, Sweden, Turkey, United States

Measure: Years working as teacher (2013), Principal: Years working in other school management roles, Principal: Years working in other jobs, Year

Variable: Principal age groups

Year: 2013

Report	All	Action	Measure	Variable	Year	Jurisdiction	Statistic
Report 1	<input checked="" type="checkbox"/>	Preview Delete Copy	Principal: Years working as teacher (2013)	Principal age groups	2013	Abu Dhabi (United Arab Emirates), Australia, Austria, Belgium (Flemish), Brazil, Bulgaria, Canada (Alberta), Chile, Croatia, Czech Republic...	Percentages
Report 2	<input checked="" type="checkbox"/>	Preview Delete Copy	Principal: Years working in other school management roles	Principal age groups	2013	Abu Dhabi (United Arab Emirates), Australia, Austria, Belgium (Flemish), Brazil, Bulgaria, Canada (Alberta), Chile, Croatia, Czech Republic...	Percentages
	<input checked="" type="checkbox"/>	Preview Delete Copy	Principal: Years working in other jobs	Principal age groups	2013	Abu Dhabi (United Arab Emirates), Australia, Austria, Belgium (Flemish), Brazil, Bulgaria, Canada (Alberta), Chile, Croatia, Czech Republic...	Percentages
	<input checked="" type="checkbox"/>	Preview Delete Copy	Principal: This school (2013)	Principal age groups	2013	Abu Dhabi (United Arab Emirates), Australia, Austria, Belgium (Flemish), Brazil, Bulgaria, Canada (Alberta), Chile, Croatia, Czech Republic...	Percentages

The **Edit Reports** step (see exhibit 7) shows detailed information on the layout of your reports.

- The **Report** column indicates the report, or cross-tabulation report, number based on the variable(s) chosen during the criteria selection.
- Under the **All** column, individual or multiple reports may be selected for report-building (done in step 4, Build Reports), either by selecting **All** or selecting individual reports.
- The **Action** column gives you the option to **Preview**, **Edit**, **Delete**, or **Copy** the report.
- The **Measure** column shows which measure the report will portray.
- The **Variable** column indicates the variable(s) included in the report. The **Year** column shows which years you have selected for comparison.
- The **Jurisdiction** column labels the countries and subnational education systems selected for comparison.
- The **Statistic** column provides the type of statistic output that will be generated in the report-building phase.

3.B. Preview Report

Select **Preview**, in the **Action** column (see exhibit 7), to see how your report will be laid out. The preview will not provide actual data, but will show how the data will be arranged in rows and columns (see exhibit 8). You can select **Preview** at any time to see how your changes made during step 3, **Edit Reports** will affect the report's final layout.

Exhibit 8. Using preview report

All Cases			
All cases			
Years	Jurisdictions	Percentages	Standard Errors
2013	Abu Dhabi (United Arab Emirates)		
	Australia		
	Austria		
	Belgium (Flemish)		
	Brazil		
	Bulgaria		
	Canada (Alberta)		
	Chile		
	Croatia		
	Czech Republic		
	Denmark		
	England		
	Estonia		
	Finland		
	France		
	Georgia		
	Hungary		
	Iceland		
	Ireland		
	Israel		
	Italy		
	Japan		
	Korea		
	Latvia		

3.C. Edit Report

To edit a report, select the **Edit** command in the **Action** column, next to the report number (see exhibit 7). (Another way to edit a report is to select the **Edit** tab when you are previewing a report.) The following can be done using the **Edit** command (see exhibit 9):

1. Name your report. You have the option of giving each report a distinctive name, up to a limit of 50 characters, using only letters, numbers, spaces, underscores, and hyphens. (Otherwise, by default, the report is named Report 1, Report 2, etc., or Cross-Tabulated Report 1, Cross-Tabulated Report 2, etc.)
2. Select a measure. You can choose a measure if more than one was selected at step 1.
3. Select which jurisdictions, variables, years (if applicable), and statistics to include (out of the selections previously made at step 1, Select Criteria and step 2, Select Variables). You can select up to two statistics options from the following: **averages, percentages, percentiles and standard deviations.** (For further information, see [Section 3.G. Statistics Options.](#))

- To create a new variable while editing a report, click on **Create New...** under the **Variable** heading. [Section 3.D Create New Variables](#) below explains the process for creating a new variable.

Change the table layout by dragging elements to determine which items will appear in rows and which will appear in columns. Some of the arrangements will not be permissible, but a pop-up alert will explain this.

Exhibit 9. Editing reports

Edit Report

1. Create a name and select a measure for the new report. Help

Name: Measure:

2. Select available options from each of the columns below, then preview results.

Jurisdiction	Variable	Year	Statistic
<input type="checkbox"/> Select All <input checked="" type="checkbox"/> Abu Dhabi (United Arab Emirates) <input checked="" type="checkbox"/> Australia <input type="checkbox"/> Austria <input checked="" type="checkbox"/> Belgium (Flemish) <input checked="" type="checkbox"/> Brazil <input checked="" type="checkbox"/> Bulgaria	<input checked="" type="checkbox"/> All Cases Create new ...	<input type="checkbox"/> Select All <input checked="" type="checkbox"/> 2013	<input type="checkbox"/> Averages <input checked="" type="checkbox"/> Percentages <input type="checkbox"/> Percentiles <input type="checkbox"/> Standard Deviations

3. Drag and drop header elements between Row and Column to custom design the report.

TABLE LAYOUT	
Row	Column
<div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Years</div> <div style="border: 1px solid black; padding: 2px;">Jurisdictions</div>	<div style="border: 1px solid black; padding: 2px;">All Cases</div>

To save changes, make sure to select **Done** in the upper-right portion of the screen before closing the **Edit Report** window.

3.D. Create New Variables

To create a new variable, select **Edit**, in the **Action** column, and select **Create new...** under **Variable** (see exhibit 9). The new variable is created by combining values for an existing variable. The steps are as follows:

1. Select the variable for which you wish to combine values (see exhibit 10).
2. Select the values you want to combine by checking the boxes to the left of the value.
3. Create a name for the new value, and press **Create**. The collapsed values will appear in gray to indicate that they have already been used. The variable named can only be 25 characters long.
4. Wait for the screen to refresh, and press **Done**.

The new variable will appear in the **Variable** list in the **Edit Report** window or **Create New Report** window, designated as “collapsed” (see exhibit 11). Check the box next to the new variable to view it in the report. You can click **Preview** to see how the table will be laid out before retrieving data.

Exhibit 10. Creating new variables

The screenshot shows a dialog box titled "Create Variables" with a close button (X) in the top right corner. It is divided into three numbered sections:

- 1. Select a Variable group:** A dropdown menu is set to "Index of leadership training strength". A callout box with the number "1." points to this dropdown.
- 2. Select values to create new Variable:** Three checkboxes are listed: "Weak leadership training" (unchecked), "Average leadership training" (checked), and "Strong leadership training" (checked). A callout box with the number "2." points to the checked boxes.
- 3. Create a name for the new Value:** A text input field contains "Avg or above avg training". A callout box with the number "3." points to this field.

At the bottom of the dialog, there are four buttons: "Reset", "Cancel", "Create", and "Done". A callout box with the number "4." points to the "Create" button.

A new variable that you create is applicable *only* to a specific report; it does not apply to the other reports listed on the **Edit Reports** screen.

For example, if you selected multiple measures of teacher and principal characteristics for analysis, then you would need to create the new variable for *each* measure, or create a copy of the report and edit it accordingly. To do the latter, click on **Copy** report on the **Edit Reports** screen (copied reports appear at the end of the list of reports) and then, for the new copy, click on **Edit** (using the above example, you can change the measure and give the report a new name).

You can repeat the process and combine different values of a variable to create additional new variables. Using the **Create New Report** function, you can create a new report for each new variable that you create. (For further information, see [Section 3.E. Create New Report](#), below.)

If you selected two or three variables from which to create new variables, you can repeat the process for each of them. Using the **Create New Report** or **Edit Report** function, these collapsed variables will be listed and available for cross-tabulation (see exhibit 11). If you have chosen four or more variables (not counting **All Cases**) you won't get the cross-tabulation. You can click **Preview** to see how the table will be laid out before retrieving data.

Exhibit 11. Edit reports with collapsed variables

The screenshot shows the 'Edit Report' dialog box with the following configuration:

- Name:** Copy of Report 3
- Measure:** Full Population Estimate
- Step 2:** Select available options from each of the columns below, then preview results.

Jurisdiction	Variable	Year	Statistic
<input type="checkbox"/> Select All	<input type="checkbox"/> Principal's highest level of formal education completed	<input type="checkbox"/> Select All	<input type="checkbox"/> Averages
<input checked="" type="checkbox"/> Average of the Selected Jurisdictions	<input type="checkbox"/> Principal's highest level of formal education completed (U.S. only)	<input checked="" type="checkbox"/> 2013	<input checked="" type="checkbox"/> Percentages
<input checked="" type="checkbox"/> Abu Dhabi (United Arab Emirates)	<input type="checkbox"/> Index of leadership training strength		<input type="checkbox"/> Percentiles
<input checked="" type="checkbox"/> Australia	<input checked="" type="checkbox"/> Index of leadership training strength (collapsed)		<input type="checkbox"/> Standard Deviations
<input type="checkbox"/> Austria			<input type="checkbox"/> Averages
<input checked="" type="checkbox"/> Belgium (Flemish)			<input type="checkbox"/> Percentages
<input checked="" type="checkbox"/> Brazil			
- Step 3:** Drag and drop header elements between Row and Column to custom design the report.

TABLE LAYOUT	
Row	Column
Years	Index of leadership training strength (collapsed)
Jurisdictions	

3.E. Create New Report

From the main **Edit Reports** screen, clicking on **Create New Report** (see exhibit 12a) brings up the same options as **Edit Report**, but with no checkboxes marked and without any new variables you may have created. Thus, **Create New Report** provides a clean slate for your selections from the first two steps, **Select Criteria** and **Select Variables** (see exhibit 12b). Each new report you create will appear at the end of the list of reports. If you do not give the report a specific name, it will be called "New Report."

Exhibit 12a. Creating new reports

STEP 3:
Preview and edit existing reports using the action links next to each report name. Create new reports, set format and statistic options. (New and copied reports will appear at the bottom of the report list.)

Subject, Analysis level: TALIS, School

Jurisdictions: Average of the Selected Jurisdictions, Abu Dhabi (United Arab Emirates), Australia, Austria, Belgium (Flemish), Brazil, Bulgaria, Canada (Alberta), Chile, Croatia, Czech Republic, Denmark, England, Estonia, Finland, France, Georgia, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Latvia, Lithuania, Malaysia, Malta, Mexico, Netherlands, Norway, Poland, Portugal, Romania, Russia, Serbia, Singapore, Slovak Republic, Slovenia, Spain, Sweden, Turkey, United States

Measure: Full Population Estimate

Variables: Principal's highest level of formal education completed, Principal's highest level of formal education completed (U.S. only), Index of leadership training strength

Year: 2013

Report	All	Action	Measure	Variable	Year	Jurisdiction	Statistic
Report 1	<input checked="" type="checkbox"/>	Preview Delete Copy	Full Population Estimate	Principal's highest level of formal education completed	2013	Average of the Selected Jurisdictions, Abu Dhabi (United Arab Emirates), Australia, Austria, Belgium (Flemish), Brazil, Bulgaria, Canada (A...	Percentages
Report 2	<input checked="" type="checkbox"/>	Preview Delete Copy	Full Population Estimate	Principal's highest level of formal education completed (U.S. only)	2013	Average of the Selected Jurisdictions, Abu Dhabi (United Arab Emirates), Australia, Austria, Belgium (Flemish), Brazil, Bulgaria, Canada (A...	Percentages
Report 3	<input checked="" type="checkbox"/>	Preview Delete Copy	Full Population Estimate	Index of leadership training strength	2013	Average of the Selected Jurisdictions, Abu Dhabi (United Arab Emirates), Australia, Austria, Belgium (Flemish), Brazil, Bulgaria, Canada (A...	Percentages
Cross-Tabulated Report 1	<input checked="" type="checkbox"/>	Preview Delete Copy	Full Population Estimate	Principal's highest level of formal education completed, Principal's highest level of formal education completed (U.S. only), Index of leadership training strength	2013	Average of the Selected Jurisdictions, Abu Dhabi (United Arab Emirates), Australia, Austria, Belgium (Flemish), Brazil, Bulgaria, Canada (A...	Percentages
Copy of Report 3	<input checked="" type="checkbox"/>	Preview Delete Copy	Full Population Estimate	Index of leadership training strength	2013	Average of the Selected Jurisdictions, Abu Dhabi (United Arab Emirates), Australia, Austria, Belgium (Flemish), Brazil, Bulgaria, Canada (A...	Percentages

Exhibit 12b. Creating new reports

New Report

Edit Preview Cancel Done

1. Create a name and select a measure for the new report.

Name: New Report Measure: Full Population Estimate

2. Select available options from each of the columns below, then preview results.

Jurisdiction	Variable	Year	Statistic
<input type="checkbox"/> Select All <input type="checkbox"/> Average of the Selected Jurisdictions <input type="checkbox"/> Abu Dhabi (United Arab Emirates) <input type="checkbox"/> Australia <input type="checkbox"/> Austria <input type="checkbox"/> Belgium (Flemish) <input type="checkbox"/> Brazil	Create new ... <input type="checkbox"/> Principal's highest level of formal education completed <input type="checkbox"/> Principal's highest level of formal education completed (U.S. only) <input type="checkbox"/> Index of leadership training strength	<input type="checkbox"/> Select All <input type="checkbox"/> 2013	<input type="checkbox"/> Averages <input type="checkbox"/> Percentages <input type="checkbox"/> Percentiles <input type="checkbox"/> Standard Deviations

3. Drag and drop header elements between Row and Column to custom design the report.

TABLE LAYOUT	
Row	Column
Jurisdictions	
Years	

3.F. Format Options

From the main **Edit Reports** screen, clicking on **Format Options** will allow you to make formatting changes applicable to all the reports listed. The following formatting options are available using this function (see exhibit 13):

1. **Variable Labels (Long)** displays a more detailed description of the variables selected in a query than the default short label. For variables from questionnaires, the full text of the question is displayed. Be advised that the length of the extra detail may sometimes interfere with table formatting.
2. **Show data for values categorized as “missing”** will include the percentage of students in the total sample or in a reporting group for whom membership in a particular response category is unknown because no response was given by the students, their teacher, or their school. The percentage of “missing” will be shown in the right-most table column. Missing data are available only for queries that involve percentages as the statistic type. Unless you check this option, the default is for missing responses not to be included in the percentage distribution shown.
3. **Year Order** will order the data tables in each built report with by either most current year of data, or the oldest year of data, displaying first.
4. **Decimal Places** option allows you to specify a lower level of precision for a particular statistic (none or one decimal place) than does the default, which displays averages and percentages to two decimal places. Also, standard errors will be shown to one more decimal place than is shown for a particular statistic. For example, if you request that average scores be displayed to one decimal place, the corresponding standard errors will be displayed to two decimal places. If you export to Excel, you will be able to increase the number of decimal places in most cases.
5. **Include** gives you the option of showing standard errors. By default, standard errors are shown inside parentheses, but you have the option of choosing to show them without parentheses. You can preview the effects of your selection in the **Sample Display** area (see the blue-shaded box at the bottom of exhibit 13 below).

Exhibit 13. Format options

Format Options X

Choose options that will apply to all reports. View selected format in Sample Display. [Help](#)

Variable Labels: 1.

- Short (e.g. Feel prepared for content of subject(s) taught)
- Long (e.g. In your teaching, to what extent do you feel prepared for content of the subject you teach?) 2.

Show data for values categorized as Missing (this applies only when percentages are displayed).

Show variable name in titles (e.g. [TE20025])

Year Order: 3.

- Most recent year first (default)
- Oldest year first

Decimal Places: 4.

None 1 2

(For row percents, the number of decimal places is fixed at "None")

Include: 5.

- Standard Errors none

Use parentheses/brackets

Sample Display: ###.## (#.###)

[Cancel](#) [Done](#)

Be advised that the choices you make in the **Format Options** window will apply to *all* reports and cannot be changed for individual reports. Use the **Reset** button, located in the upper-right portion of the main **Edit Reports** screen (just below the **Help** button), to restore the **Format Options** to the default settings (although caution is advised, as this will also delete any new reports that you have created).

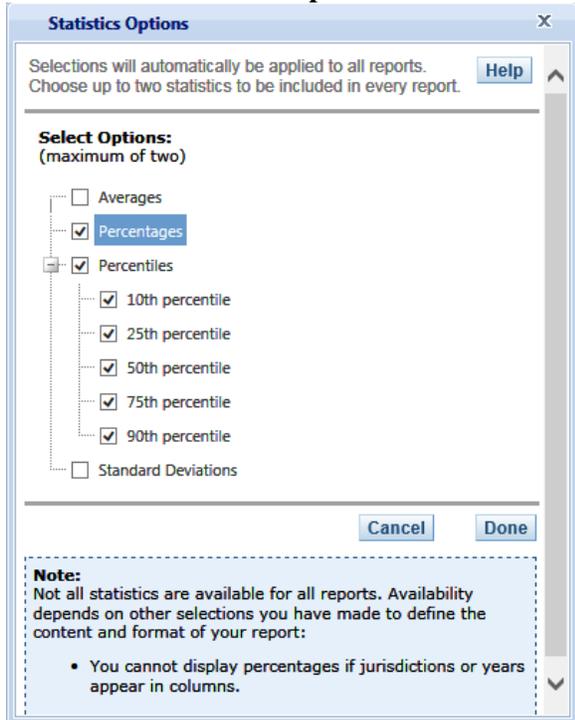
3.G. Statistics Options

Available only from the main **Edit Reports** screen, clicking on **Statistics Options** allows you to designate up to two statistics. The selections you make are applicable to all the reports listed, although you can also change the statistics for an individual report when you edit it. (For further information, see [Section 3.C. Edit Report.](#))

The following statistics options are available (see exhibit 14):

1. **Averages.** For the TALIS assessment, teacher and principal averages for continuous variables are in the same units as the variables themselves (e.g., average age of teachers). By default, the standard errors of the averages are shown in parentheses. Averages will only display in the TALIS IDE if you have selected a continuous variable from step 1, **Select Criteria**.
2. **Percentages.** This statistic shows the percentage of teachers or schools as a row percentage. For example, if the first column lists countries or subnational education systems, then each country or subnational education system will display its own percentage distribution across its row. By default, percentage distributions do not include missing data. For information on how to show data for values categorized as missing, see [Section 3.F. Format Options](#).
3. **Percentiles.** This statistic shows the threshold (or cut-point) score for the following:
 - 10th percentile – the bottom 10 percent of schools or teachers
 - 25th percentile – the bottom quarter of schools or teachers
 - 50th percentile – the median (half scored below the cut-point and half scored above it)
 - 75th percentile – the top quarter of schools or teachers
 - 90th percentile – the top 10 percent of schools or teachers
4. **Standard deviations.** The standard deviation is a measure of how widely or narrowly dispersed scores are. Under general normality assumptions, 95 percent of the scores are within two standard deviations of the mean. For example, if the average score is 35 and the standard deviation is 5, it means that 95 percent of the scores fall between 30 and 40. The standard deviation is the square root of the variance.

Exhibit 14. Statistics options



As previously noted, the selections you make in **Statistics Options** will be applied automatically to all reports, although you can change the statistics for an individual report if you use the **Edit** command in the **Action** column. Be advised that if you use **Statistics Options** after editing the statistics in one or more of your individual reports, the statistics options selected will overwrite your previously edited selections. If you wish to use the same criteria and variables in a report with a different selection of statistics, consider using the **Create New Report** function to generate a new report with different statistics. (For further information, see [Section 3.E. Create New Report](#).) You can also make a copy of an individual report.

You can use the **Reset** button, located in the upper-right portion of the main **Edit Reports** screen (just below the **Help** button), to restore the **Statistics Options** to the default setting, which is average scale scores for all reports (this will also delete any new reports that you created).

Not all statistics are available for all reports. Their availability depends on other selections you have made to define the content and format of your report.

NOTE: The statistics produced by the IDE may not match the statistics in reports published by the OECD, due to differences in certain statistical standards. In particular, NCES and the OECD may differ in the minimum sample sizes required for publishing teacher and school reports.

3.H. Select Reports to Build

In order to proceed to step 4, **Build Reports**, each report for which you want to retrieve data should be previewed using the **Preview** function. To decrease processing time as you move to step 4, you can uncheck any reports for which you do not wish to retrieve data. By default, all reports are checked. To uncheck one or more reports, you can either uncheck the reports individually or click on the **All** box. (Doing the latter will uncheck all of the reports and allow you to check only those for which you wish to retrieve data.) In the example that follows (see exhibit 15), data will be retrieved for all reports.

Exhibit 15. Selecting reports to build

STEP 3:
Preview and edit existing reports using the action links next to each report name. Create new reports, set format and statistic options. (New and copied reports will appear at the bottom of the report list.)

Subject, Analysis level: TALIS, School
Jurisdictions: Belgium (Flemish) - ISCED 1, Denmark - ISCED 1, Finland - ISCED 1, Mexico - ISCED 1, Norway - ISCED 1, Poland - ISCED 1
Measure: Full Population Estimate
Variables: Principal age groups, Did principal's formal educ include teacher training/education program or course
Year: 2013

Report	All	Action	Measure	Variable	Year Jurisdiction	Statistic
Report 1	<input checked="" type="checkbox"/>	Preview Delete Copy	Full Population Estimate	Principal age groups	Belgium (Flemish) - ISCED 1, Denmark - ISCED 1, Finland - ISCED 1, Mexico - ISCED 1, Norway - ISCED 1, Poland - ISCED 1	Percentages
Report 2	<input checked="" type="checkbox"/>	Preview Delete Copy	Full Population Estimate	Did principal's formal educ include teacher training/education program or course	Belgium (Flemish) - ISCED 1, Denmark - ISCED 1, Finland - ISCED 1, Mexico - ISCED 1, Norway - ISCED 1, Poland - ISCED 1	Percentages
Cross-Tabulated Report 1	<input checked="" type="checkbox"/>	Preview Delete Copy	Full Population Estimate	Principal age groups, Did principal's formal educ include teacher training/education program or course	Belgium (Flemish) - ISCED 1, Denmark - ISCED 1, Finland - ISCED 1, Mexico - ISCED 1, Norway - ISCED 1, Poland - ISCED 1	Percentages

Buttons: **4. Build Reports**, **Reset**

Footer: [About TALIS IDE](#), [Important Legal Information](#), [Accessible Version](#)

1. **Delete** is used in the **Action** column if you wish to delete a report from the list of reports.
2. You may use the **Reset** button to restore the deleted reports (although caution is advised, as this will also delete any new reports that you created and restore the **Format Options** and **Statistics Options** to the default settings).

To continue to the last step in the IDE, click the **Build Reports** button at the bottom of the page or the tab at the top of the page to go to the next screen.

4. Build Reports

4.A. Overview

After step 1, **Select Criteria**, you may also go on to step 2, **Select Variables** and step 3, **Edit Reports** where you can select additional variables and edit reports, before moving on to step 4, **Build Reports**. In the **Build Reports** tab, you can do the following:

- Generate a data table for each report selected in step 3, **Edit Reports** as shown by the **Select Reports** drop-down feature. By default, all reports are checked, although you can uncheck any reports for which you do not wish to retrieve data. (For further information, see [Section 3.H. Select Reports to Build.](#))
- Export and save data tables into various formats using the **Export Reports** button. The output formats include HTML (print-friendly), Microsoft Word, Microsoft Excel, and Adobe PDF.
- Select the **Chart** tab to create and customize charts for each report and save them for export in the above formats.
- Select the **Significance Test** tab to run a significance test on your results, customize it, and export it.

Exhibit 16. Build Reports overview

4.B. View Reports as Data Tables

Once you click on **Build Reports**, the reports will be calculated (evidenced by the “Progress” percentage bar) and then appear on your screen as they complete (see exhibit 17). Some reports will take longer than others to process, so please do not hit the “Back” button on your browser during this stage. To select a different report to view, go to the **Select Report** drop-down menu (see 1 in exhibit 16) and choose the report of interest. To change the formatting or statistics options of a table or to generate a report not included in your selection, return to step 3, **Edit Reports**.

Exhibit 17. Processing data

The screenshot shows the TALIS USA interface during the 'Build Reports' step. At the top, there are four tabs: '1. Select Criteria', '2. Select Variables', '3. Edit Reports', and '4. Build Reports'. The '4. Build Reports' tab is active. Below the tabs, there is a 'STEP 4:' section with instructions: 'View each report table by selecting the report name from the drop-down menu. Create report types to edit and preview, each tab created represents one report type to export.' A 'Help' button is located to the right of these instructions.

The main content area displays the following information:

- Subject, Analysis level:** TALIS, School
- Jurisdictions:** Average of the Selected Jurisdictions, Abu Dhabi (United Arab Emirates), Australia, Austria, Belgium (Flemish), Brazil, Bulgaria, Canada (Alberta), Chile, Croatia, Czech Republic, Denmark, England, Estonia, Finland, France, Georgia, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Latvia, Lithuania, Malaysia, Malta, Mexico, Netherlands, Norway, Poland, Portugal, Romania, Russia, Serbia, Singapore, Slovak Republic, Slovenia, Spain, Sweden, Turkey, United States
- Measure:** Full Population Estimate
- Variables:** Principal's highest level of formal education completed, Principal's highest level of formal education completed (U.S. only), Index of leadership training strength, Principal gender, Principal: Years working as teacher (2008)
- Year:** 2013

Below this information, there is a 'Select Report:' dropdown menu currently set to 'Report 1'. To the right of the dropdown are two buttons: 'Link to this Page' and 'Export Reports'.

At the bottom of the interface, there is a 'Table' tab and four buttons: 'Chart', 'Significance Test', 'Gap Analysis', and 'Regression Analysis'. The 'Chart' button is highlighted.

In the center of the screen, there is a progress bar showing 'Progress: 0%'. Below the progress bar is a 'Cancel' button and a loading spinner. Below the spinner, there is a message: 'Some queries may take up to two minutes to process. Please do not hit the "Back" button while processing.'

4.C. Charts

To create a chart, go to **Select Report** on the **Build Reports** screen to choose the report of interest from the drop-down menu, and then click the **Chart** link (see exhibit 18).

You will be able to create many types of charts and customize them. **Section 4.E. Create Charts – Chart Options** provides a summary of the available features and how they can be customized.

Exhibit 18. Viewing reports as charts

STEP 4:
View each report table by selecting the report name from the drop-down menu. Create report types to edit and preview, each tab created represents one report type to export. [Help](#)

Subject, Analysis level: TALIS, Teacher
Jurisdictions: Average of All Jurisdictions - ISCED2, Average of the Selected Jurisdictions, Abu Dhabi (United Arab Emirates), Australia, Austria, Belgium (Flemish), Brazil, Bulgaria, Canada (Alberta), Chile, Croatia, Czech Republic, Denmark, England, Estonia, Finland, France, Georgia, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Latvia, Lithuania, Malaysia, Malta, Mexico, Netherlands, Norway, Poland, Portugal, Romania, Russia, Serbia, Singapore, Slovak Republic, Slovenia, Spain, Sweden, Turkey, United States
Measures: Full Population Estimate, Age, Years working as teacher: Total, Years working in other education roles
Variables: All Cases, Teacher age groups, Gender, Years working as teacher: This School, Years working as teacher: Total, Current employment status, Work at another school
Year: 2013

Select Report: Report 14 [Link to this Page](#) [Export Reports](#)

Table

Chart [Significance Test](#) [Gap Analysis](#) [Regression Analysis](#)

Percentages for age, analysis level Teacher by Do you currently work as a teacher of [/15-year-olds] at another school? [TE10005], year and jurisdiction: 2013

Year	Jurisdiction	Yes		No	
		Percentage	Standard Error	Percentage	Standard Error
2013	Average of All Jurisdictions - ISCED2	5.58	(0.086)	94.42	(0.086)
	Average of the Selected Jurisdictions	5.48	(0.085)	94.52	(0.085)

4.D. Create Charts – Data Options

When you click **Chart**, your screen will present **Data Options** pertaining to **Statistic**, **Year**, and **Jurisdiction**. All are selected by default, except that you can have only one statistic (see exhibit 19). Uncheck any of the criteria that you do not wish to chart, as long as you have one selected in each category.

Once you are finished with the Data Options, click the **Chart Options** button in the lower-right corner of the screen.

Exhibit 19. Data options for charts

STEP 4:
View each report table by selecting the report name from the drop-down menu. Create report types to edit and preview, each tab created represents one report type to export.

Subject, Analysis level: TALIS, Teacher
Jurisdictions: Average of All Jurisdictions – ISCED2, Abu Dhabi (United Arab Emirates), Australia, Austria, Belgium (Flemish), Brazil, Bulgaria, Canada (Alberta), Chile, Croatia, Czech Republic, Denmark, England, Estonia, Finland, France, Georgia, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Latvia, Lithuania, Malaysia, Malta, Mexico, Netherlands, Norway, Poland, Portugal, Romania, Russia, Serbia, Singapore, Slovak Republic, Slovenia, Spain, Sweden, Turkey, United States
Measure: Years working as teacher: This school (2013)
Variable: Culture of sharing success
Year: 2013

Select Report: Report 1 [Link to this Page](#) **Export Reports**

Table **Chart 1** X

Chart **Significance Test** **Gap Analysis** **Regression Analysis**

Data Options

Select a single statistic and any combination of jurisdictions and years. Continue to Chart Options.

Statistic	Year	Jurisdiction
<input type="radio"/> Averages <input checked="" type="radio"/> Percentages <input type="radio"/> achievement level (cumulative) <input type="radio"/> achievement level (discrete) <input type="radio"/> Percentiles	<input checked="" type="checkbox"/> Year <input checked="" type="checkbox"/> 2013	<input checked="" type="checkbox"/> International <input checked="" type="checkbox"/> Average of All Jurisdictions – ISCED2 <input checked="" type="checkbox"/> ISCED 2: Lower Secondary Education <input checked="" type="checkbox"/> Abu Dhabi (United Arab Emirates) <input checked="" type="checkbox"/> Australia <input checked="" type="checkbox"/> Austria <input checked="" type="checkbox"/> Belgium (Flemish) <input checked="" type="checkbox"/> Brazil <input checked="" type="checkbox"/> Bulgaria

Chart Options

4.E. Create Charts – Chart Options

1. On the **Chart Options** screen, select **Bar Chart**, **Column Chart**, or **Line Chart** (see 1 in exhibit 20).
2. After selecting a chart type, change any data dimensions from the drop-down menus for **Bar**, **Column**, or **Line Values** and **Values Grouped by** (see 2 in exhibit 20). Any new variables that you created at step 3, **Edit Reports**, will be available for selection, but only if you selected the variables (by clicking the checkbox next to them) and pressed **Done** after you edited the report.
3. Enter a **Chart Name** limited to 25 characters, using only letters, numbers, spaces, underscores, and hyphens (otherwise, by default, the chart is named “Chart 1”) (see 3 in exhibit 20).
4. Preview your chart by clicking the **Preview** button in the lower-right corner, or go back to the data options and make different selections by clicking the **Data Options** button in the lower-left corner (see 4 in exhibit 20).

Exhibit 20. Chart options

USA TALIS

1. Select Criteria 2. Select Variables 3. Edit Reports 4. Build Reports

STEP 4:
View each report table by selecting the report name from the drop-down menu. Create report types to edit and preview, each tab created represents one report type to export. [Help](#)

Subject, Analysis level: TALIS, Teacher
Jurisdictions: Average of All Jurisdictions – ISCED2, Abu Dhabi (United Arab Emirates), Australia, Austria, Belgium (Flemish), Brazil, Bulgaria, Canada (Alberta), Chile, Croatia, Czech Republic, Denmark, England, Estonia, Finland, France, Georgia, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Latvia, Lithuania, Malaysia, Malta, Mexico, Netherlands, Norway, Poland, Portugal, Romania, Russia, Serbia, Singapore, Slovak Republic, Slovenia, Spain, Sweden, Turkey, United States
Measure: Years working as teacher: This school (2013)
Variable: Culture of sharing success
Year: 2013

Select Report: Report 1 [Link to this Page](#) [Export Reports](#)

Table Chart 1 X

Chart Significance Test Gap Analysis Regression Analysis

Chart Options

Choose an available chart type based on selected data. Choose data dimensions from the drop-down menus and name the chart, then preview the chart. To select different data return to Data Options.

Bar Chart Column Chart Line Chart

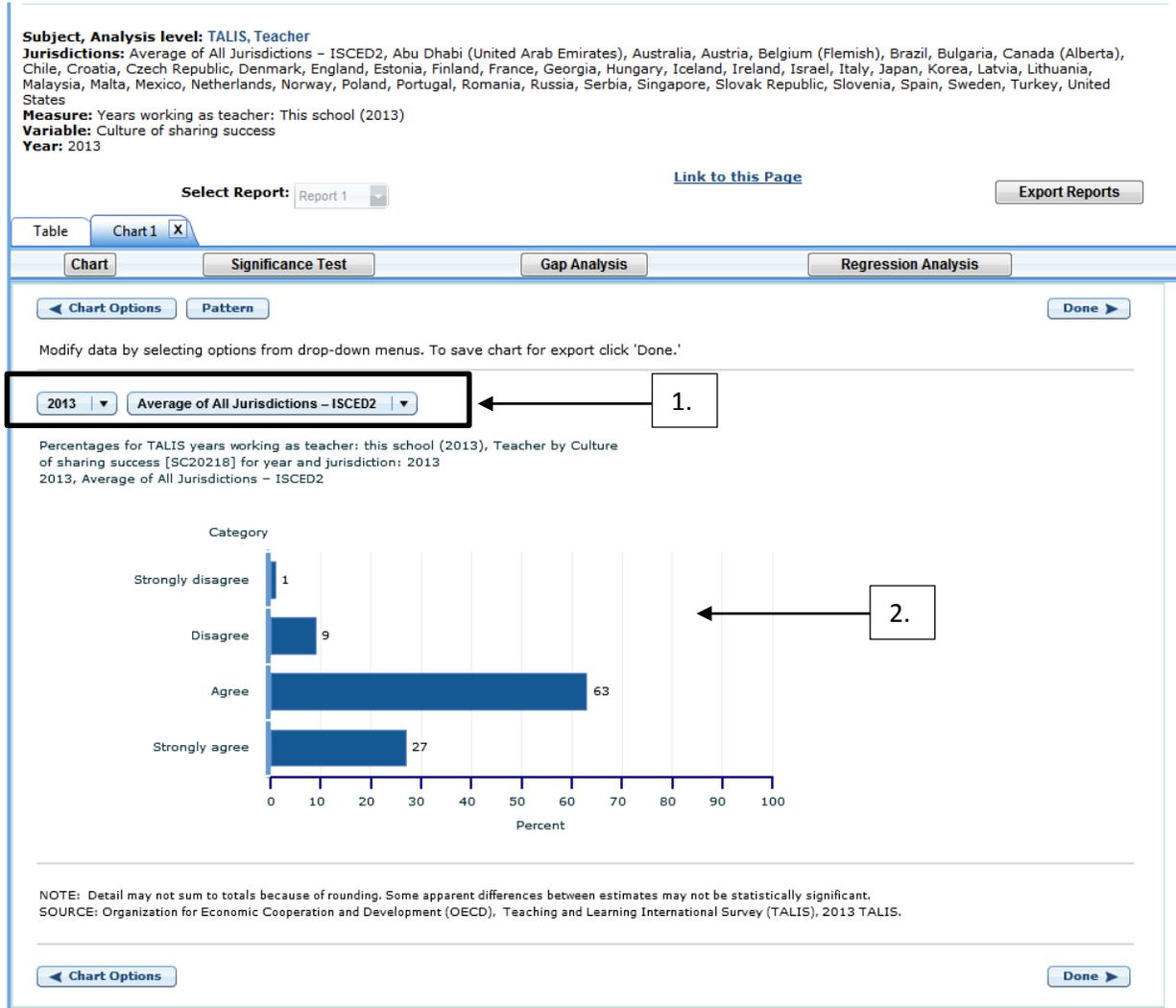
Bar Values: Culture of sharing success
 Values Grouped by: None
 Chart Name: Chart 1

Data Options Preview

While previewing your chart, you can do the following (see exhibit 21 as an example of a **Bar Chart**):

1. Use the drop-down menus to change the jurisdiction and other variables as applicable (see 1 in exhibit 21). Notice that when you change your selection, the change occurs slowly enough that you get a sense of the size and direction of the change—especially if you didn't previously specify in the data dimensions how you want your values grouped.
2. Place your cursor over the bars of the chart to see the data points and value label(s) (see 2 in exhibit 21).

Exhibit 21. Preview of bar chart



- For the **Bar Chart**, choose between using colors or patterns for the bars by clicking the alternating **Pattern** or **Color** button located just below the **Chart** tab in the upper-left portion of the screen (see 3 in exhibit 22).
- Change the color of the bars with a single click on each level in the bars, which brings up a thumbnail of a color chart. Click on the thumbnail to reveal a color grid, and then select the color you desire (see 4 in exhibit 22). Change the pattern of the bars with a single click on each level in the bars. Continuous clicking brings up many patterns to choose from.
- Click the **Done** button located on the right side of the screen, or click back to **Chart Options** to change your selection criteria (see 5 in exhibit 22). You must click **Done** if you wish to later save and/or print your chart via the **Export Reports** function.

Exhibit 22. Preview of bar chart

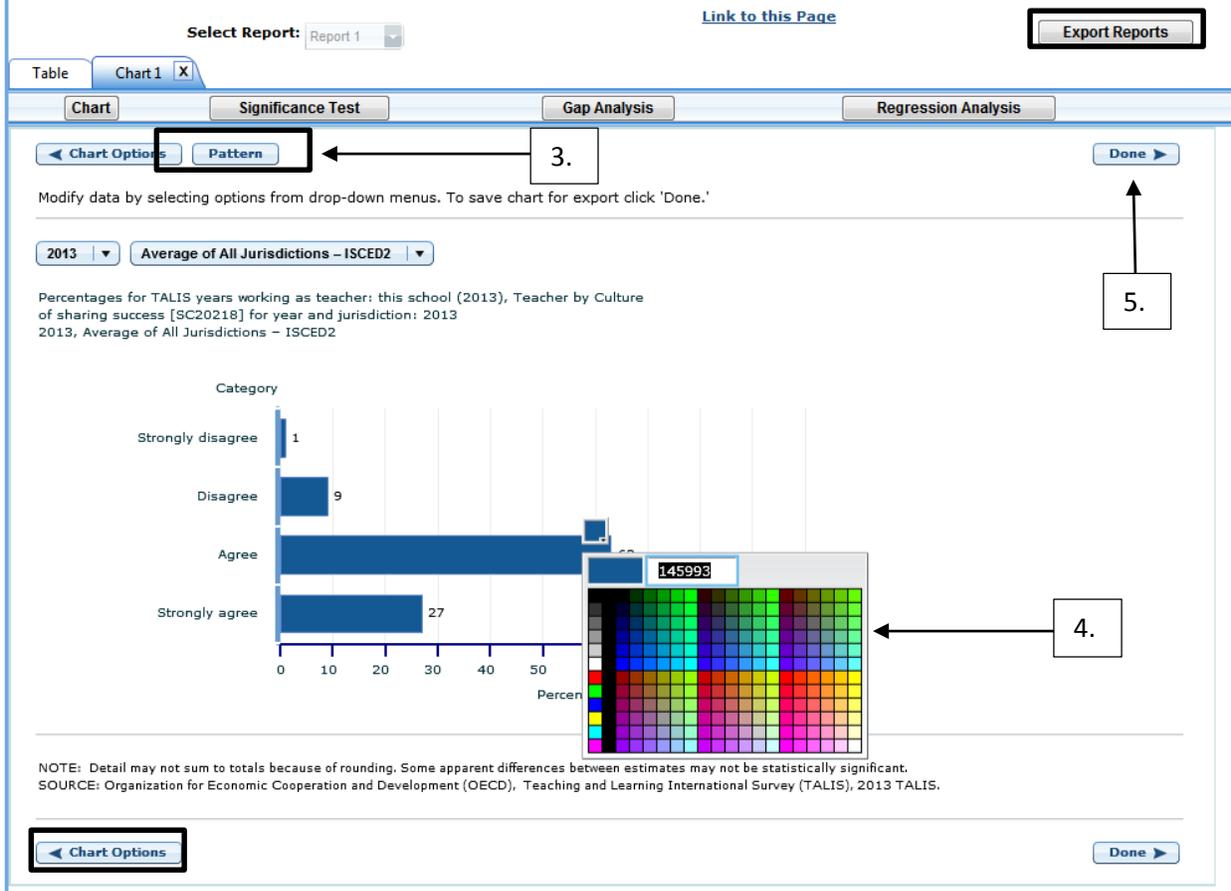
Subject, Analysis level: TALIS, Teacher

Jurisdictions: Average of All Jurisdictions – ISCED2, Abu Dhabi (United Arab Emirates), Australia, Austria, Belgium (Flemish), Brazil, Bulgaria, Canada (Alberta), Chile, Croatia, Czech Republic, Denmark, England, Estonia, Finland, France, Georgia, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Latvia, Lithuania, Malaysia, Malta, Mexico, Netherlands, Norway, Poland, Portugal, Romania, Russia, Serbia, Singapore, Slovak Republic, Slovenia, Spain, Sweden, Turkey, United States

Measure: Years working as teacher: This school (2013)

Variable: Culture of sharing success

Year: 2013



Clicking **Done** takes you to the exportable version of the chart (see exhibit 23). You can subsequently “**Click here to edit this chart**” (located in the upper-left corner, below the **Chart** link) to make more changes. Alternatively, clicking anywhere in the chart area will take you back to the edit screen.

Exhibit 23. Completed chart



To make an additional chart from the same report or table, click the **Chart** link on the **Build Reports** screen. It is recommended that you provide a new chart name (the default is Chart 1, Chart 2, etc.). If you don't start the chart process again by clicking the **Chart** link, the new chart will overwrite the previous one.

If you wish to make charts from other reports, select "other report" in the **Select Report** drop-down list. If other reports were not checked in step 3, **Edit Reports**, go back to step 3 and check the ones you want. Then, when you advance to step 4, **Build Reports**, the reports will appear in the **Select Report** drop-down list. If you need to create new reports, go back to step 1, **Select Criteria**, and/or step 2, **Select Variables**. Remember to export any completed charts you want to save by clicking **Done** and using the **Export Reports** function before leaving the **Build Reports** screen. (For further information, see [Section 4.I. Export Reports](#).)

4.F. Significance Tests

Tests for statistical significance indicate whether observed differences between assessment results are likely to have occurred because of sampling error or chance. "Significance" here does not imply any judgment about absolute magnitude or educational relevance. It refers only to the statistical nature of the difference and whether that difference likely reflects a true difference in the population.

With your report of interest selected, click the **Significance Test** link, which is located to the right of the **Chart** link (see exhibit 23). You first need to decide which variable you want to test and the criterion by which you want to test it (i.e., between jurisdictions, within variables, or across years). You will compare or “look across” the variable’s range of values, so it must have more than one value. You can look across jurisdictions for a variable (that is, compare between two or more jurisdictions) or you can look across the values within a variable for a single jurisdiction. For example, with the variables shown in exhibit 24, you could choose to compare percentages of female teachers between countries and subnational education systems, or you could choose to compare percentages of female teachers and male teachers. Once the primary criterion is chosen, all other criteria must be restricted to a single value.

The general steps for running significance tests are as follows (see exhibit 24):

1. In the **Significance Test** window, select either **Between Jurisdictions**, **Within Variables**, or **Across Years**. Then, select the appropriate jurisdiction(s), variable(s), year(s), and statistic(s). For **Between Jurisdictions**, select at least two jurisdictions. For **Within Variables**, select one or more jurisdictions. For **Across Years**, more than one year needs to be selected.
2. Enter a **Name** limited to 25 characters, using only letters, numbers, spaces, underscores, and hyphens (otherwise, by default, the test is named “Sig Test 1”).
3. Select the output type as either **Table** or **Map**. The table option will show the significance test results as a matrix. The map option will show the significance test results on a world map, highlighting countries and subnational education systems that have been selected. The map output is only available when **Between Jurisdictions** is selected in the first step.
4. Additional options allow you to select **Show Table Details** to display the estimates and standard errors for the table cells. If you selected a map, this option is not applicable, as the map will automatically show statistical details.
5. Click the **Preview** tab located in the upper-left corner, or the **Preview** button located in the bottom-left corner.
6. Click the **Edit** tab in the upper-left corner of the screen if you wish to go back and make changes to the selections you made for running the significance tests.
7. Click the **Done** button in the upper- or lower-right corner of the screen to run the significance tests.

Exhibit 24. Significance test options

6.

1. Select one category to compare significance from the choices available below.

Between Jurisdictions
 Within Variables
 Across Years

7.

2. Create a name for this significance test.

Name:

3. Select the output type.

Table
 Map

4. Select additional options.

Show table details

5. Select available options from each of the columns below, then preview results.

Jurisdiction	Variable	Year	Statistic
<input checked="" type="checkbox"/> All Jurisdictions <input checked="" type="checkbox"/> Average of All Jurisdictions – ISCED2 <input checked="" type="checkbox"/> Average of the Selected Jurisdictions <input checked="" type="checkbox"/> Abu Dhabi (United Arab Emirates) <input checked="" type="checkbox"/> Australia <input checked="" type="checkbox"/> Austria	<input checked="" type="checkbox"/> Culture of sharing success <input checked="" type="checkbox"/> Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Agree <input checked="" type="checkbox"/> Strongly agree	<input checked="" type="checkbox"/> 2013	<input checked="" type="checkbox"/> Percentages <input type="checkbox"/> Percentiles

When the table option is selected, you will get a significance test matrix in which you will see the differences and p values. Using the symbols shown in the legend of the matrix, an indication is also provided of whether one estimate is significantly lower or higher than another estimate or whether there is no significant difference (see exhibit 25). Most comparisons are independent with an alpha level of .05, except for (1) within-variable tests for gender, where a dependent methodology is used; and (2) significance testing across years, where a linking error is used.

Exhibit 25. Significance test table output

Subject, Analysis level: TALIS, Teacher
Jurisdictions: Average of All Jurisdictions – ISCED2, Abu Dhabi (United Arab Emirates), Australia, Austria, Belgium (Flemish), Brazil, Bulgaria, Canada (Alberta), Chile, Croatia, Czech Republic, Denmark, England, Estonia, Finland, France, Georgia, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Latvia, Lithuania, Malaysia, Malta, Mexico, Netherlands, Norway, Poland, Portugal, Romania, Russia, Serbia, Singapore, Slovak Republic, Slovenia, Spain, Sweden, Turkey, United States
Measure: Years working as teacher: This school (2013)
Variable: Culture of sharing success
Year: 2013

[Link to this Page](#) Export Reports

Select Report: Report 1

Table Chart1 X Sig Test 1 X Sig Test 2 X

Chart Significance Test Gap Analysis Regression Analysis

To see how one value compares with the others, read across the row for that value. The displayed symbols indicate whether that value is significantly higher, significantly lower, or not significantly different than the value associated with that column. In some cases the significance test may have not been possible for statistical reasons.

TALIS, analysis level Teacher, years working as teacher: This school (2013)
 Difference in percentages between jurisdictions, for Culture of sharing success [SC20218] = Strongly disagree 2013

	Brazil	France
Brazil		< Diff = -3.29 (1.624) P-value = 0.0430
France	> Diff = 3.29 (1.624) P-value = 0.0430	

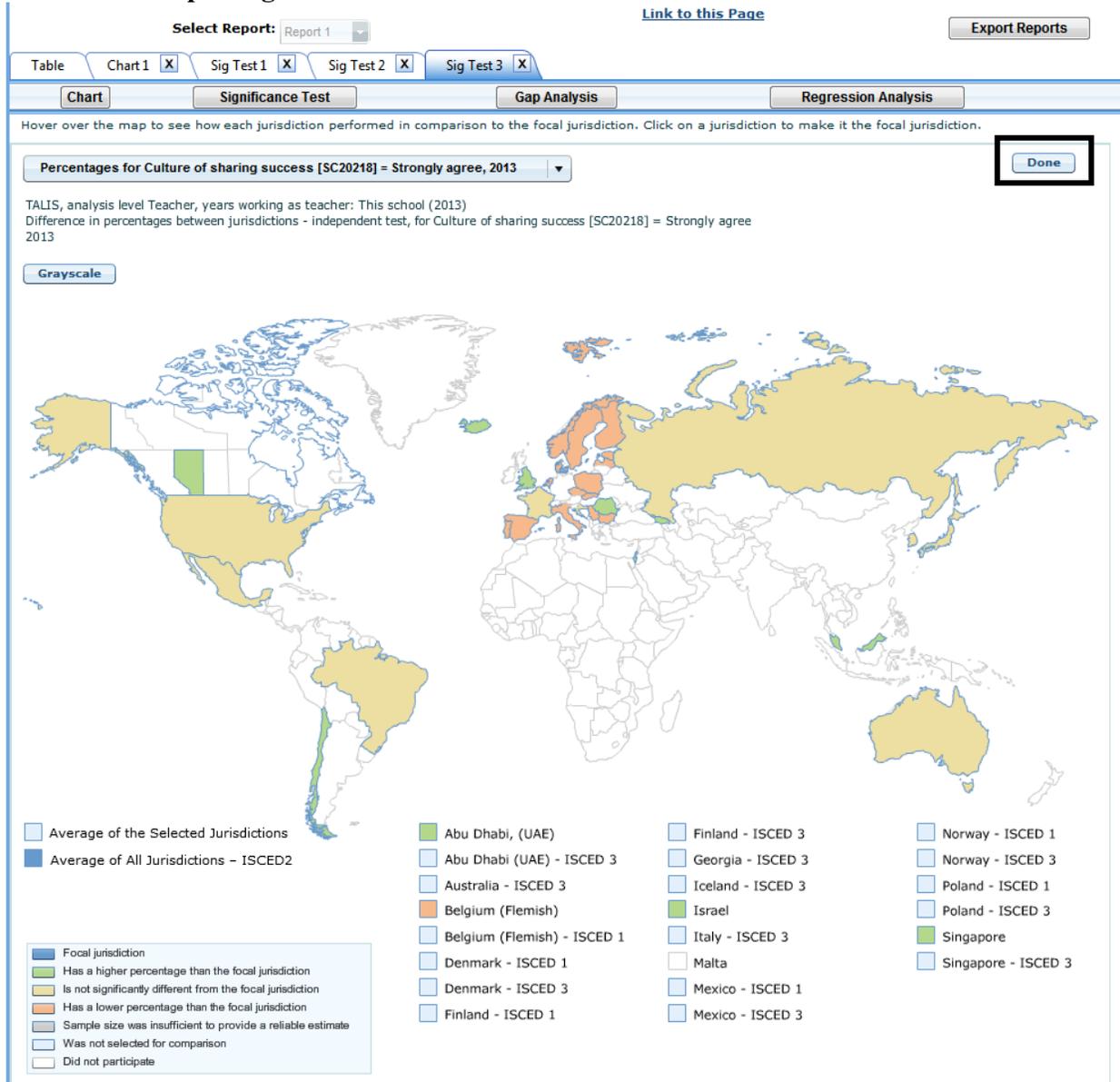
LEGEND:

<	Significantly lower.
>	Significantly higher.
x	No significant difference.

NOTE: Comparisons are independent with an alpha level of 0.05, except for comparisons of achievement scores across years where a linking error is taken into account and basic male-female comparisons by country (with no additional variables included in the analysis) where a dependent methodology is used. For more information see the Statistical Notations and Other Notes section in the Help Guide.
 SOURCE: Organization for Economic Cooperation and Development (OECD), Teaching and Learning International Survey (TALIS), 2013 TALIS.

When the map option is selected, a global map is shown with the countries and subnational education systems selected shaded (see exhibit 26). The focal jurisdiction is shaded in blue and represents a comparison for all the other countries and subnational education systems. The other countries and subnational education systems are shaded in colors that indicate whether they are higher, lower, or not significantly different from the focal jurisdiction on whatever measure has been selected. (Note that a lighter shade of blue is the default color for countries and subnational education systems categorized as “not selected for comparison.”) When you scroll over a country or a subnational education system, a text bubble pops up describing the strength of the difference between that country/subnational education system and the focal jurisdiction. At any point, you may choose a different focal jurisdiction by clicking on another country or a subnational education system.

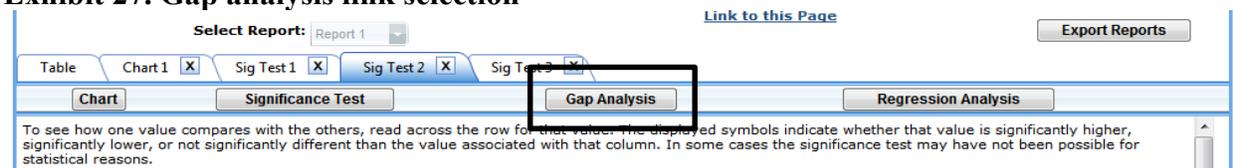
Exhibit 26. Map of significance tests



4.G. Gap Analysis

Gap Analysis is included in the IDE to compare differences in gaps shown in a table, a map or chart. These gap differences can be compared between jurisdictions and/or across years.

Exhibit 27. Gap analysis link selection



With your report of interest selected, click on the **Gap Analysis** link, which is located to the right of the **Significance Test** link (see exhibit 27). You will need to decide which variable you would like to test (e.g., principal job satisfaction, good teacher-student relationships) and the criterion by which you want to test it (i.e., between jurisdictions or across years). The difference measure, or gap, can be viewed **Between Groups**, **Between Years**, **Between Groups and Years**, or **Between Percentiles** within the selected variable. For example, if you compute the difference in administrative and leadership tasks for principals from different age groups for two countries, you can:

- at one time point, compare the age-group (ages below 40 and between 40-49) gap in one country/subnational education system to the age-group gap in another country/subnational education system;
- compare the age-group gap at two time points within a country/subnational education system;
- compare the difference between the age-group gap at two time points in one country/subnational education system to the difference between the age-group gap at two time points in another country/subnational education system; or
- compare the gap for ages below 40 at two time points in one country/subnational education system to the gap for ages below 40 at two time points in another country/subnational education system.

Exhibit 28. Gap analysis options

The screenshot shows the 'Gap Analysis' window with the following configuration:

- 1. Select the basis to use for comparison (Between Jurisdictions, Across Years):** Between Jurisdictions, Across Years
- 2. Create a name for this gap analysis:** Gap Test 1
- 3. Select the difference measure (gap) to analyze:** Between Groups, Between Years, Between Groups and Years, Between Percentiles
- 4. Select the output type:** Table, Map
- 5. Check to show table details:** Show table details
- 6. Select available options from each of the columns below, then preview results.**

Jurisdiction	Variable	Year	Statistic
<input checked="" type="checkbox"/> All Jurisdictions	<input checked="" type="checkbox"/> Principal age groups	<input checked="" type="checkbox"/> 2013	<input checked="" type="checkbox"/> Percentages
<input checked="" type="checkbox"/> Average of All Jurisdictions – ISCED2	<input checked="" type="checkbox"/> Below 40		<input type="checkbox"/> Percentiles
<input checked="" type="checkbox"/> Average of the Selected Jurisdictions	<input checked="" type="checkbox"/> 40-49		
<input checked="" type="checkbox"/> Abu Dhabi (United Arab Emirates)	<input checked="" type="checkbox"/> 50-59		
<input checked="" type="checkbox"/> Australia	<input checked="" type="checkbox"/> 60 and above		
<input checked="" type="checkbox"/> Austria			

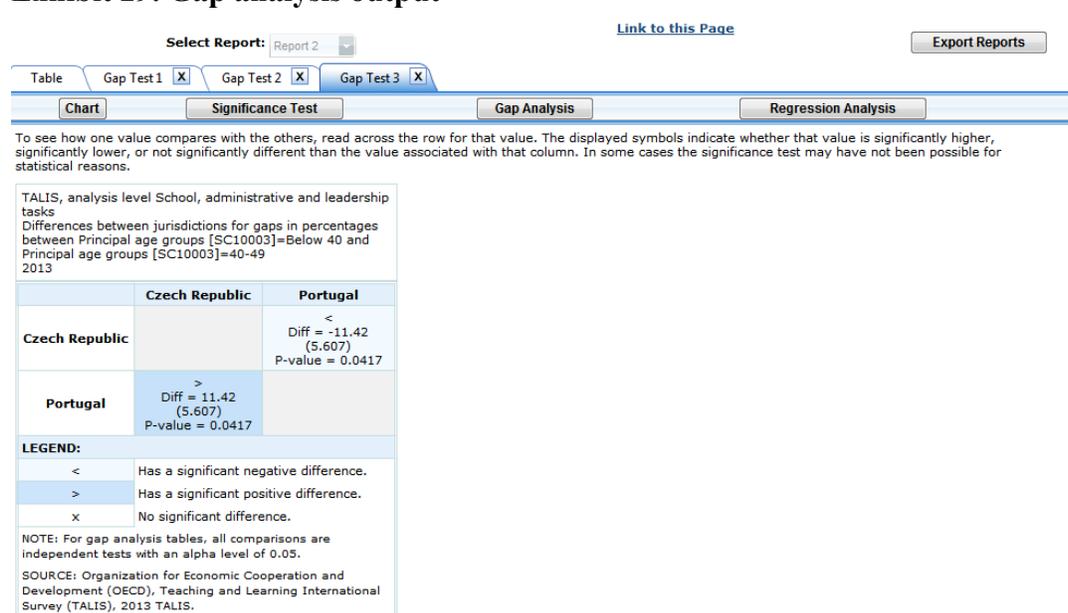
The steps for running a gap analysis are similar to those for conducting a statistical significance test (see exhibit 28). Thus, to run a gap analysis, follow the instructions under [Section 4.F. Significance Tests](#), noting the following differences:

- The **Gap Analysis** link should be selected, not the **Significance Test** link.
- The gap analysis does not have a **Within Variables** option for analysis; the options are **Between Jurisdictions** and **Across Years**.
- The difference measure (gap) of analysis must be selected from the following: **Between Groups**, **Between Years**, **Between Groups and Years**, and **Between Percentages** (if variables are selected for which a difference measure is not feasible, the difference measure option will not appear as available in the **Gap Analysis** menu).

The gap analysis output is presented in a format similar to that of the significance test output, with one difference: the difference estimate shown in the output is the difference between the gaps selected for analysis. Note that you will still see the significance of these differences just like in a significance test. For example, exhibit 29 shows the differences in percentage gaps between two jurisdictions (Czech Republic and Portugal) for administrative and leadership tasks between principles that are below 40 or between the ages 40-49.

The gap analysis function computes and statistically tests differences between average, percentage, or percentile gaps. Note that the reference group for the gaps is kept constant during the analysis, as opposed to taking the absolute value of the gaps. Therefore, the gap analysis tests whether the magnitude of the gaps differ from each other only when the gaps go in the same direction.

Exhibit 29. Gap analysis output

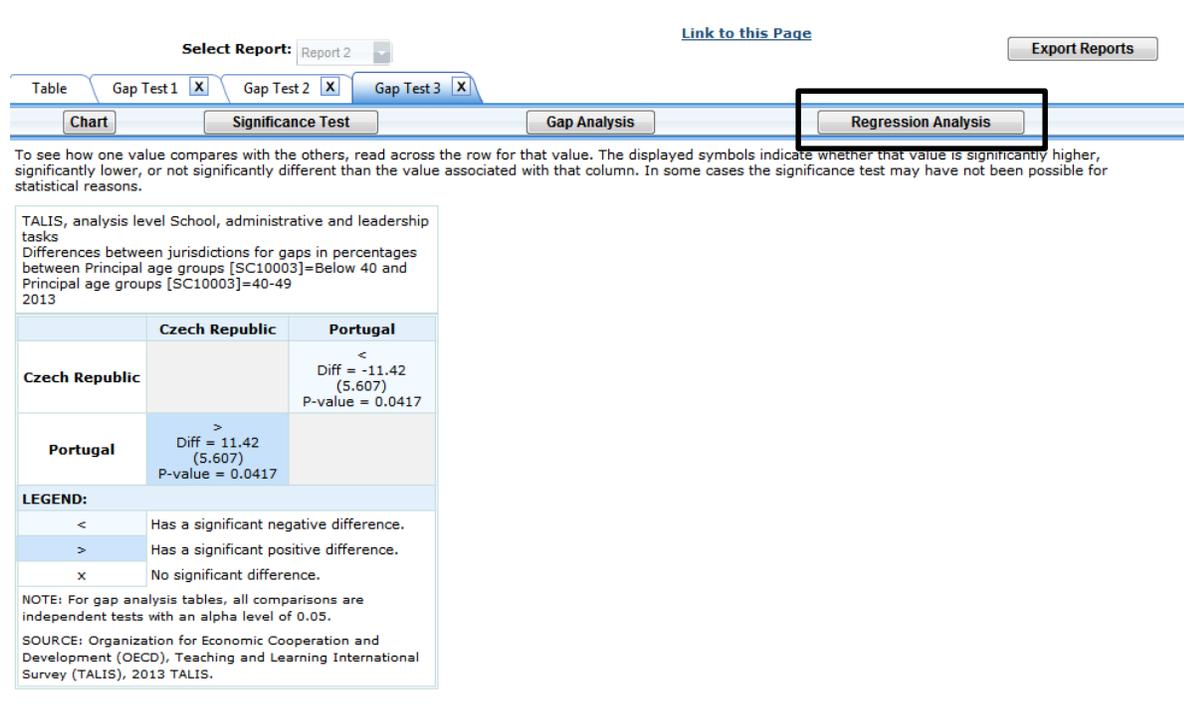


NOTE: A gap analysis across years cannot be combined with the **Between Years** or **Between Groups and Years** difference measures, so you will select the difference measure **Between Groups**, or, if you have selected percentiles as one of your statistics, you may choose **Between Percentiles**.

4.H. Regression Analysis

Regression Analysis is included in the IDE to test for trends across more than two data points. The type of analysis performed in this feature of the IDE is referred to as linear regression within the field of statistics. To run a regression, first go to **Build Reports** and choose the report of interest from the drop-down **Select Report** menu. Then click on the **Regression Analysis** link, which is to the right of the **Gap Analysis** link (see exhibit 30).

Exhibit 30. Regression analysis link selection



The screenshot shows the IDE interface with the 'Select Report' dropdown set to 'Report 2'. The 'Regression Analysis' link is highlighted in a black box. Below the menu, a text box explains the significance test symbols: '<' for significantly higher, '>' for significantly lower, and 'x' for not significantly different. A table compares 'Czech Republic' and 'Portugal' for 'TALIS, analysis level School, administrative and leadership tasks' in 2013. The table shows a significant negative difference for the Czech Republic and a significant positive difference for Portugal. A legend and source information are also provided.

To see how one value compares with the others, read across the row for that value. The displayed symbols indicate whether that value is significantly higher, significantly lower, or not significantly different than the value associated with that column. In some cases the significance test may have not been possible for statistical reasons.

TALIS, analysis level School, administrative and leadership tasks
Differences between jurisdictions for gaps in percentages between Principal age groups [SC10003]=Below 40 and Principal age groups [SC10003]=40-49
2013

	Czech Republic	Portugal
Czech Republic		< Diff = -11.42 (5.607) P-value = 0.0417
Portugal	> Diff = 11.42 (5.607) P-value = 0.0417	

LEGEND:

<	Has a significant negative difference.
>	Has a significant positive difference.
x	No significant difference.

NOTE: For gap analysis tables, all comparisons are independent tests with an alpha level of 0.05.
SOURCE: Organization for Economic Cooperation and Development (OECD), Teaching and Learning International Survey (TALIS), 2013 TALIS.

The general steps for running a regression analysis are as follows (see exhibit 31):

1. In the **Regression Analysis** pop-up window, enter a **Name** limited to 25 characters, using only letters, numbers, spaces, underscores, and hyphens (otherwise, by default, the test will be named "Regression 1").
2. Select the appropriate jurisdiction, year, and variable(s) for analysis. Please note that you may only choose one jurisdiction and year at a time, but you may choose up to 3 variables to be in your report. In order to use up to 3 variables, you must have already

created and selected a cross-tabulated report (by selecting 3 variables in Step 2, **Select Variables**).

3. Click the **Preview** tab located in the upper-left corner to view the table format into which your output will be populated. In the Preview tab, an “X” denotes where the output will display.
4. Click the **Done** button in the upper- or lower-right corner of the screen to run the regression analysis.

Click the **Edit** tab in the upper-left corner of the screen if you wish to go back and make changes to the selections you made for running the analysis.

Exhibit 31: Regression analysis options

The screenshot shows the 'Regression Analysis' dialog box with the following elements:

- Buttons:** 'Edit', 'Preview' (selected), 'Cancel', 'Done', 'Help'.
- Step 1:** '1. Create a name for this regression analysis.' with a text input field containing 'Regression 2'.
- Step 2:** '2. Select available options from each of the columns below, then preview results.'

Jurisdiction	Year	Variable
<input type="radio"/> Romania <input type="radio"/> Russia <input type="radio"/> Serbia <input checked="" type="radio"/> Singapore <input type="radio"/> Slovak Republic <input type="radio"/> Slovenia	<input checked="" type="radio"/> 2013	<input checked="" type="checkbox"/> All Variables <input checked="" type="checkbox"/> Principal age groups
- Bottom Buttons:** 'Cancel', 'Done'.

After you have clicked **Done**, your regression analysis output will load onto the screen (see exhibit 32). A 0-1 contrast coding is used to code the independent variable, where the first subgroup of the independent variable is the reference group. Using dummy-coded variables in a linear regression is useful for comparing each subgroup against a reference group. For example, in exhibit 32, the reference group for the independent variable **Principal Age Groups** (SC10003) is the subgroup “Below 40”, and is coded as 0. Except for the reference group, each subgroup (e.g., ages “40-49”, “50-59” and “60 and above”) is contrast coded in a separate dummy variable (code 1) against all the other subgroups of the variable (coded 0).

Exhibit 32. Regression analysis output

TALIS, School 2013
 Dependent Variable: Administrative and leadership tasks
 Independent Variable(s): Principal age groups [SC10003]
 Contrast Coding Reference Group: Below 40
 United States

Multiple Correlation	0.27
R Squared	0.07

	Degrees of Freedom	Mean square	F Ratio	P Value
Model	3	179904,39	1.38	0.26
Error	54.05	130507.47		

	Standardized Regression Coefficients	S.E. of Standardized Coefficients	Regression Coefficients	S.E. of Regression Coefficients	T Statistic	Probability	Significance
Intercept	0	0	34.9694	3.7192	9.4024	0	>
Principal age groups							
40-49	-0.1966	0.1394	-5.9002	4.2489	-1.3886	0.168	x
50-59	-0.148	0.1733	-4.2579	4.9456	-0.8609	0.3913	x
60 and above	-0.3084	0.1266	-13.6809	4.9312	-2.7743	0.007	<

	Mean	SD
Administrative and leadership tasks	30	13.93

	Percentage	SD
Principal age groups		
40-49	31	46

Using the output from exhibit 32 you can compare the mean percentage of principals aged below 40 years old to the mean percentage of those aged 40 and above. When a single dummy-coded variable is used in a regression, the *intercept* is the mean of the reference group (e.g., 34.9694), and the *regression coefficient* is the difference between the mean of the reference group and the group identified (coded 1) with the dummy-coded variable (e.g., -5.9002 for 40-49 years old). Since the regression coefficients are presented with a standard error and a *t* value, these can be used to test whether a difference between means is statistically significant. Under the **Significance** column in the output you will see 3 possible signs: 1) < signifies a significant negative difference, 2) > signifies a significant positive difference, and 3) x signifies the difference is not significant.

4.I. Export Reports

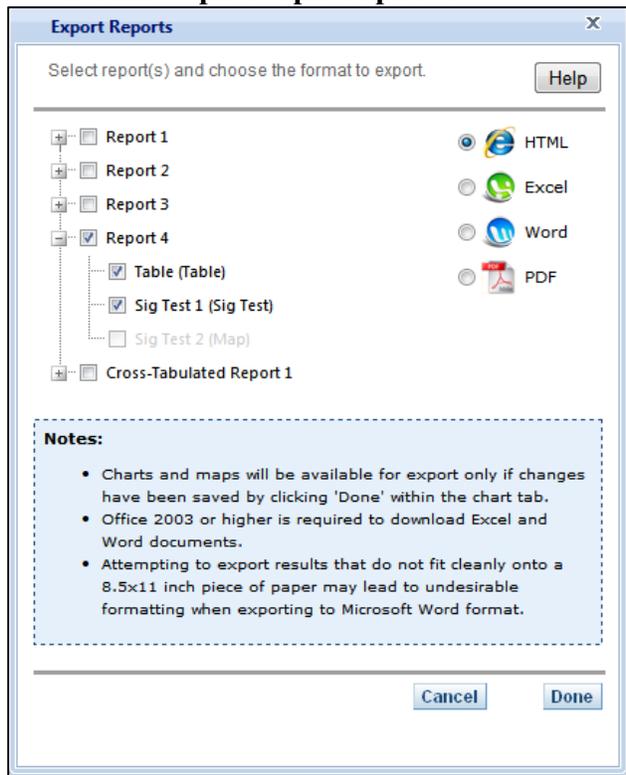
Click on the **Export Reports** button/arrow located on the right side of the **Build Reports** screen (see exhibit 30) to save or print your tables, charts, and significance tests. The report names that appear in the **Export Reports** window are those that were checked off at step 3, **Edit Reports**.

Check the files you want to export, and select one of the file formats: **HTML** (print-friendly), **Excel**, **Word**, or **PDF** (see exhibit 33). All reports that you select at the same time will be exported in one file. In the Excel format, you will be able to increase the decimal places visible (wherever more precision is available in the database). Because there are many different

operating systems in use, you may get an error message with Excel or one of the other formats. Usually, this will not affect your ability to export, so please wait for the software errors to resolve.

Charts or maps for each report will only be available on the **Export Reports** menu if you saved them by clicking **Done** when you finished each one (see exhibit 24 and 26). If a chart or map that you wish to save or print is grayed out (not available for selection), cancel the **Export Reports** tool, go back to your chart or map, and be sure to click **Done** on the last screen. After that, it will be available for export.

Exhibit 33. Export report options



If you wish to edit tables or charts before saving or printing them, remember to do this via the **Export Reports** function before leaving the **Build Reports** screen. If you return to prior screens to edit the table formats or change variables or criteria, you will overwrite the tables and charts.

IV. TALIS International Data Explorer Definitions

This section describes the kinds of criteria and variables that are used to form data queries, as well as the kinds of data available and the statistical methods used to assess them.

These topics include the following:

1. Criteria

- a. Analysis level
- b. Year(s)
- c. Measure(s)
- d. Jurisdiction(s)

2. Variables

3. Statistics options

- a. Averages
- b. Percentages
- c. Percentiles
- d. Standard deviations

4. Cross-tabulations

5. Statistical notations and other notes

6. Glossary

1. Criteria

Each data query must include at least one selection from four criteria choices: analysis level, year(s), measure(s), and jurisdiction(s). Shown below is an outline of these selection criteria followed by a brief description.

- a. Analysis level:
 - School
 - Teacher
- b. Year(s):
 - TALIS 2013 (data available for U.S.)
 - TALIS 2008 (data not available for U.S.)
- c. Measure(s):
 - Full population estimate

- Continuous variables from the school and teacher questionnaires, including International variables, derived variables, combined item scales, and U.S. National adaptations and additions to the International questionnaires.
- d. Jurisdiction(s):
- Average of All Jurisdictions – ISCED 2
 - Average of Selected Jurisdictions
 - ISCED 2: Lower Secondary Education
 - ISCED 1: Primary Education
 - ISCED 3: Upper Secondary Education

Analysis level

Only one analysis level (either school level or teacher level) can be selected at a time in the IDE. Selecting the School option in the Analysis level dropdown provides school information that is an attribute of the schools (thus estimates reported, for example, as the "percentage of schools"), while selecting the Teacher option provides teacher or school information that is an attribute of the teachers (this estimates reported, for example, in terms of the "percentage of teachers").

Measure(s)

You can choose the full population estimate, which is the default measure at each analysis level in the TALIS IDE, or there are a number of continuous variables that you may choose as a measure of analysis. These continuous variables are from the international and U.S. national teacher and school questionnaires.

Year(s)

The TALIS IDE includes data from 2013 and 2008, the two years that TALIS was administered to teachers and principals. Some of the variables included across years may differ; for example the 'culture of sharing success' variable under the School Climate and Safety (reported by Principal) subcategory has data available in TALIS 2013, but not in TALIS 2008.

When a certain variable is not available for a corresponding year in the TALIS IDE, it will be noted with the symbol “^{NO} DATA”. The participating countries and subnational education systems across years also vary (more information provided under '*Jurisdictions*').

To select both years of TALIS for analysis, check the box for “**All Years**”.

Jurisdiction(s)

All listed jurisdictions can be selected for any analysis, provided data are available for the selected year of TALIS (see Table 1). TALIS began in 2008 with 24 countries and subnational education systems participating, and was focused on lower secondary education (ISCED Level

2). TALIS 2013, which included 34 countries and subnational education systems at ISCED Level 2, also allowed the survey to be conducted at the primary and upper secondary grades (ISCED Level 1 and ISCED Level 3, respectively).

Please note the following inclusions and exclusions of TALIS participating country and subnational education system data between the OECD TALIS International Reports and the NCES TALIS IDE:

- Cyprus data for TALIS 2013 are included in the OECD TALIS International Report, but Cyprus data is not publicly available for use in the TALIS IDE on the NCES website nor in the data files provided on the OECD website. Cyprus did not participate in TALIS 2008.
- Russia and Georgia data for TALIS 2013 are included in the TALIS IDE on the NCES website, but are not in the TALIS data files on the OECD website nor in the OECD TALIS International Report. This is because Russia and Georgia participated in TALIS 2013 after the original administration.
- Iceland data for TALIS 2013 were included in the TALIS IDE and in the OECD TALIS International Report, but were not made publicly available for use in the data files provided on the OECD website.
- The Netherlands participated in TALIS 2008 but did not meet the sampling standards, thus their data are not included in the TALIS IDE, the data files provided on the OECD website, nor in the OECD TALIS International Report.
- In the OECD TALIS 2013 International Report, all estimates for the United States are shown separately from the other participating education systems and are not included in the international averages. This is because the United States did not achieve an acceptable level of response based on the international response rate standards established for TALIS 2013. (To read more about the U.S. response rate, steps taken to determine the level of bias that may be present in the estimates, and caveats about the U.S. data, see <http://nces.ed.gov/surveys/talis/talis2013/index.asp>.) However, in the TALIS IDE, report outputs do not show U.S. estimates separately from the estimates of all other jurisdictions and U.S. data are included in the international averages. (For further details on the calculation of averages in the TALIS IDE, see in section 5 that follows, Statistical Notations and Other Notes – Calculation of Average of All Jurisdictions in the TALIS IDE.)

Table 1. TALIS IDE jurisdictions with available data by year.

Jurisdictions, by ISCED Level	TALIS 2008	TALIS 2013
ISCED 2: Lower Secondary Education	23	35*
ISCED 1: Primary Education	0	6
ISCED 3: Upper Secondary Education	0	11

*The count of 35 countries and subnational education systems which have ISCED Level 2 data in the TALIS IDE for TALIS 2013 is different from those listed as participating in the OECD TALIS International Report. This is due to the omission of Cyprus data from the TALIS IDE, and the inclusion of Russia and Georgia data which is only provided in the TALIS IDE.

2. Variables

In the TALIS IDE, variables are derived from two types of questionnaires; the school questionnaire (answered by school principals) and the teacher questionnaire (answered by teachers). TALIS gives teachers and school principals the opportunity to provide their perspectives on the state of education in their own countries through six reporting areas: 1) Learning environment, 2) Appraisal and feedback, 3) Teaching practices and classroom environment, 4) Development and support, 5) School leadership, and 6) Self-efficacy and job satisfaction.

Variables are organized into categories (and subcategories) that have shared characteristics and can be selected as a group when examining and generating tables. Note that variable titles in the TALIS IDE may overlap or be repeated under the categories or subcategories, but specific variables appear only once. Some variables might be similar in title and content, but not comparable over the years, either due to differences in the question asked or differences in their response categories.

Use **Search** in the **Select Variables** step to locate and select variables in the TALIS IDE.

3. Statistics Options

The IDE reports TALIS data with several statistics options:

- a. Averages
- b. Percentages
- c. Standard deviations
- d. Percentiles

Averages

For the TALIS assessment, teacher and principal averages for continuous variables are in the same units as the variables themselves (e.g. average age of teachers). By default, the standard errors of the averages are shown in parentheses. Note that averages will only display in the TALIS IDE if you have selected a continuous variable as a Measure.

Percentages

Percentages are the default statistic used for analysis in the TALIS IDE. This statistic shows the percentage of teachers or schools as a row percentage. For example, if the first column lists countries, then each country will display its own percentage distribution of teachers or principals across its row. By default, percentage distributions do not include missing data, although there is an option to include them.

Standard Deviations

The standard deviation is a measure of how widely or narrowly dispersed scores are. Under general normality assumptions, 95 percent of the scores are within two standard deviations of the mean. For example, if the average score is 35 and the standard deviation is 5, it means that 95 percent of the scores fall between 30 and 40. The standard deviation is the square root of the variance.

Percentiles

This statistic shows the threshold (or cut-point) for the following:

10th percentile – the bottom 10 percent of teachers or schools

25th percentile – the bottom quarter of teachers or schools

50th percentile – the median (half the teachers or schools reported values below the cut-point and half reported values above it)

75th percentile – the top quarter of teachers and schools

90th percentile – the top 10 percent of teachers and schools

4. Cross-tabulations

Cross-tabulation is a method of combining separate variables into a single table. Normally, each variable has its own table. If you have selected two or three variables (not counting **All cases**), when you go to the **Edit Reports** step, you will automatically get a list with one table for each variable (including one for **All cases**); at the end of that list, you will get one cross-tabulation for the two or three variables selected.

If you have chosen four or more variables (not counting **All cases**), you will get tables for each variable, but you won't receive a cross-tabulation table.

Be advised that if you go back to add another variable without subtracting one to keep the total under four, you will lose any edits you might have made to the cross-tabulation.

5. Statistical Notations and Other Notes

Statistical notations and other notes are found at the end of each data table, as applicable to that table:

- — Not available.
- † Not applicable. (For instance, the standard error for the statistic cannot be reported because the statistic does not meet reporting standards.)

- # The statistic rounds to zero.
- ‡ Reporting standards not met. (For instance, the sample size is insufficient to permit a reliable estimate.)
- NOTE: A general note pertains to any special characteristics of the data in the table.
- SOURCE: Source information is listed for all TALIS data and should be cited when data are used in a publication or presentation.

Calculation of Average of All Jurisdictions in the TALIS IDE

The IDE generates the average of all ISCED 2: Lower Secondary Education jurisdictions included in the IDE for the selected measures and variables if **Average of All Jurisdictions: ISCED 2** is chosen under **Jurisdiction** in step 1, **Select Criteria**. This average generated by the IDE is based on 31 national and 4 sub-national entities [Abu Dhabi (United Arab Emirates), Flemish Community (Belgium), Alberta (Canada), and England (UK)] in TALIS 2013, and 22 national and 1 sub-national entities [Flemish Community (Belgium)] in TALIS 2008. Please note that there might be differences between the averages generated by the TALIS IDE and the averages published in the TALIS 2013 and TALIS 2008 OECD and NCES reports. These differences are due to the country composition of the averages. For example, in the OECD TALIS 2013 International Report, U.S. data are not included in the international average because the United States did not achieve an acceptable level of response based on the international response rate standards established for TALIS 2013. (To read more about the U.S. response rate, steps taken to determine the level of bias that may be present in the estimates, and caveats about the U.S. data, see <http://nces.ed.gov/surveys/talis/talis2013/index.asp>.) However, in the TALIS IDE, U.S. data are included in the **Average of All Jurisdictions: ISCED 2**.

Furthermore, the **Average of All Jurisdictions - ISCED 2** generated by the TALIS IDE only calculates the average at the level of ISCED 2: Lower Secondary Education. In order to calculate the average of ISCED 1: Primary Education or ISCED 3: Upper Secondary Education, you must select the **Average of the Selected Jurisdictions** option to calculate the average of any selected ISCED 1 or ISCED 3 jurisdictions.

Statistical Comparisons

In the TALIS IDE, most comparisons are independent with an alpha level of 0.05, and dependent t-tests are performed only for basic gender comparisons by country (with no additional variables included in the analysis). In contrast, reports published by the OECD employ a dependent testing methodology for all gender comparisons by country (i.e., even when additional variables besides gender and country are included in the analysis). Because of this difference, the statistical significance of gender differences by country may vary slightly between published reports and the IDE.

Data Suppression

Data suppression may be handled slightly differently in the TALIS IDE and the OECD TALIS International Reports. For the IDE, the Rule of 62 is applied to suppress data to avoid reporting results for groups about which little of interest could be said due to lack of statistical power from the data. The Rule of 62 is borrowed from the IDE's counterpart, the National Assessment of Educational Progress (NAEP) Data Explorer (NDE). This rule states that statistics for a group are suppressed if they are based on less than 62 cases. Statistics are: means, standard errors, standard deviations, and a set of percentiles. The rule serves to assure a minimum power requirement to detect moderate differences at nominal significance level (0.05). The minimum power is 0.80 and the moderate effect size is 0.5 standard deviation units. A design effect of 2 is assumed to derive an appropriate complex sample standard deviation.

6. Glossary

Below is a list of technical and TALIS-specific terms used in the IDE. The index variables listed are derived from a combination of variables, or questions, taken from the teacher and/or school questionnaires.

For more detailed information regarding the scaling, standard deviations, and statistical calculations used to create each derived variable provided in this Glossary and in the TALIS IDE on the NCES website, please refer to the following TALIS technical reports that are available on the OECD website:

[TALIS 2008 Technical Report](#) – Chapter 10

[TALIS 2013 Technical Report](#) – Chapter 10

6.A. ISCED

The International Standard Classification of Education (ISCED) is an internationally comparable method for describing levels of education across countries, created by the United Nations Educational, Scientific and Cultural Organization (UNESCO). TALIS uses the ISCED 1997 classification system for both the 2013 and 2008 administration cycles. ISCED 1997 levels are defined as follows:

Level 0 – the initial stage of organized instruction, designed primarily to introduce very young children to a school-type environment. ISCED level 0 programs can either be center or school based. Preschool and kindergarten programs in the United States fall into the level 0 category.

Level 1 – consists of primary education, which usually lasts 4 to 6 years. ISCED level 1 typically begins between ages 5 and 7, and is the stage where students begin to study basic subjects, such as reading, writing, and mathematics. In the United States, elementary school (grades 1 through 6) is classified as level 1.

Level 2 – also known as lower secondary education. Students continue to learn the basic subjects taught at level 1, but this level is typically more subject specific than level 1 and

may be taught by specialized teachers. ISCED level 2 usually lasts between 2 and 6 years, and begins around the age of 11. Middle school and junior high (grades 7 through 9) in the United States are classified as level 2.

Level 3 – also known as upper secondary education, student coursework is generally subject specific and often taught by specialized teachers. Students often enter upper secondary education at the age of 15 or 16 and attend anywhere from 2 to 5 years. ISCED level 3 can prepare students for university, further schooling, or the labor force. Senior high school (grades 10 through 12) is considered level 3 in the United States.

Level 4 – consists of primarily vocational education, and courses are taken after the completion of secondary school, though the content is not more advanced than the content of secondary school courses. ISCED level 4 programs in the United States are often in the form of 1-year certificate programs.

Level 5 – divided into levels 5A and 5B, this level focuses on tertiary education. ISCED level 5A refers to academic higher education below the doctoral level. Level 5A programs are intended to provide sufficient qualifications to gain entry into advanced research programs and professions with high skill requirements. In the United States, bachelor's, master's, and first-professional degree programs are classified as ISCED level 5A. ISCED level 5B refers to vocational higher education. Level 5B programs provide a higher level of career and technical education and are designed to prepare students for the labor market. In the United States, associate's degree programs are classified as level 5B.

Level 6 – refers to the doctoral level of academic higher education. Level 6 programs usually require the completion of a research thesis or dissertation.

6.B. Ratios Derived from TALIS Data (2008 and 2013)

Student-administrator ratio

(ID: SC10263) (TALIS 2008 only)

This is a school-level ratio derived from school principals' responses to questions about the number of staff (head counts) currently working in the whole school and the total number of students (head counts) of all grades in the school. The measure is therefore not restricted to only those teaching or supporting ISCED Level 2 education in the school but covers education of all levels provided in the school. The **ratio of number of students in the school to number of school administrative or management personnel in the school** (SC10263) is derived by dividing the number of students in the school by the number of school administrative or management personnel in the school. School administrative or management personnel include principals, assistant principals, and other management staff, receptionists, secretaries and administration assistants whose main activity is administration or management.

Student-teacher ratio (2008)

(ID: SC10261)

This is a school-level ratio derived from school principals' responses to questions about the number of staff (head counts) currently working in the school and the total number of students

(head counts) of all grades in the school. The measure is not therefore restricted to those teaching or supporting ISCED Level 2 education in the school but covers education of all levels provided in the school. The **ratio of number of students in the school to number of teachers in the school** (SC10261) is derived by dividing the number of students in the school by the number of teachers in the school (those whose main activity is the provision of instruction to students).

Student-teacher ratio (2013) (ID: SC20286)

This student-teacher ratio was derived from school principals' responses to a question about number of staff (head counts) currently working in the school and the total number of students (head counts) of all grades in the school. The measure is not therefore restricted to those teaching or supporting ISCED level 2 education in the school but covers education at all levels provided in the school. The **ratio of number of students in the school to number of teachers in the school** (SC20286) is derived by dividing the number of students by the number of teachers (those whose main activity is the provision of instruction to students).

Student-pedagogical support ratio (ID: SC10262) (TALIS 2008 only)

This is a school-level ratio derived from school principals' responses to questions about the number of staff (headcounts) currently working in the school and the total number of students (head counts) of all grades in the school. The measure is not therefore restricted to those teaching or supporting ISCED level 2 education in the school but covers education of all levels provided in the school. The **ratio of number of students in the school to number of personnel for pedagogical support in the school** (SC10262) is derived by dividing the number of students in the school by the number of personnel for pedagogical support in the school. Pedagogical support personnel include all teacher aides or other non-professional personnel who provide instruction or support teachers in providing instruction, professional curricular/instructional specialists and educational media specialists.

Teacher-administrator ratio (2008) (ID: SC10265)

This is a school-level ratio derived from school principals' responses to a question about the number of staff (head counts) currently working in the whole school and so is not restricted to only those teaching or supporting ISCED level 2 education in the school. The **ratio of number of teachers in the school to number of school administrative or management personnel in the school** (SC10265) is derived by dividing the number of teachers (those whose main activity is the provision of instruction to students) by the number of school administrative or management personnel. School administrative or management personnel include principals, assistant principals, and other management staff, receptionists, secretaries and administration assistants whose main activity is administration or management.

Teacher-administrator ratio (2013) (ID: SC20285)

This teacher-administrator ratio was derived from school principals' responses to a question about the number of staff (head counts) currently working in the school. The measure is not therefore restricted to those teaching or supporting ISCED level 2 education in the school but

covers education at all levels provided in the school. The **ratio of number of teachers in the school to number of school administrative or management personnel in the school** (SC20285) is derived by dividing the number of teachers (those whose main activity is the provision of instruction to students) by the sum of school administrative personnel and management personnel. School administrative personnel include receptionists, secretaries, and administration assistants while management personnel include principals, assistant principals, and other management staff whose main activity is management.

Teacher-pedagogical support ratio (2008)

(ID: SC10264)

This is a school-level ratio derived from school principals' responses to a question about the number of staff (head counts) currently working in the whole school and so is not restricted to only those teaching or supporting ISCED level 2 education in the school. The **ratio of number of teachers in the school to number of personnel for pedagogical support in the school** (SC10264) is derived by dividing the number of teachers (those whose main activity is the provision of instruction to students) by the number of personnel for pedagogical support. Pedagogical support personnel include all teacher aides or other nonprofessional personnel who provide instruction or support teachers in providing instruction, professional curricular/instructional specialists and educational media specialists.

Teacher-pedagogical support ratio (2013)

(ID: SC20284)

This teacher-pedagogical support ratio was derived from school principals' responses to a question about the number of staff (head counts) currently working in the whole school and is therefore not restricted only to those teaching or supporting ISCED level 2 education in the school. The **ratio of number of teachers in the school to number of personnel for pedagogical support in the school** (SC20284) is derived by dividing the number of teachers (those whose main activity is the provision of instruction to students) by the sum of school administrative personnel and management personnel. School administrative personnel include receptionists, secretaries and administration assistants, and management personnel include principals, assistant principals and other staff whose main activity is management.

6.C. Indices of School Autonomy (2008)

To describe the extent of school autonomy in decision making, indices were derived from school principals' responses. For a list of thirteen tasks, school principals indicated who, among a range of stakeholders, had a considerable responsibility in the decision making for these tasks. Considerable responsibility could be attributed to one or more of the following: the principal, teachers, the school governing board, regional or local authority and national education authority. For a particular task, the extent of school-level autonomy was determined by whether a considerable responsibility lays at the school level (i.e. with principal, the teachers or the school governing board) or with other authorities (i.e. regional or local authority and national education authority) or shared between both groups.

The rotated component matrix derived from the Principal Components Analysis (PCA) allows four components to be derived:

- Index of school autonomy in hiring teachers, determining salaries (SC10257)
- Index of school autonomy in budgeting (SC10258)
- Index of school autonomy in student policy and textbooks (SC10259)
- Index of school autonomy in curriculum (SC10260)

Index of school autonomy in hiring teachers and determining salaries

(ID: SC10257) (TALIS 2008 only)

This index variable is derived by regrouping five responsibilities or task statements related to school autonomy in hiring teachers and determining salaries, answered by school principals: “*Selecting teachers for hire*”, “*Firing teachers*”, “*Establishing teachers’ starting salaries*”, “*Determining teachers’ salary increases*”, and “*Allocating funds for teachers’ professional development*”. Principals’ responses were either marked, or left unmarked, next to each corresponding school-level group or other authority to which these responsibilities or tasks were attributed.

Index of school autonomy in budgeting

(ID: SC10258) (TALIS 2008 only)

This index variable is derived from two responsibilities or task statements related to school autonomy in budgeting, answered by school principals: “*Formulating the school budget*”, and “*Deciding on budget allocations within the school*”. Principals’ responses were either marked, or left unmarked, next to each corresponding school-level group or other authority to which these responsibilities or tasks were attributed.

Index of school autonomy in student policy and textbooks

(ID: SC10259) (TALIS 2008 only)

This index variable is derived by regrouping three responsibilities or task statements related to school autonomy in student policy and textbooks, answered by school principals: “*Establishing student disciplinary policies*”, “*Establishing student assessment policies*”, and “*Approving students for admission to the school*”. Principals’ responses were either marked, or left unmarked, next to each corresponding school-level group or other authority to which these responsibilities or tasks were attributed.

Index of school autonomy in curriculum

(ID: SC10260) (TALIS 2008 only)

This index variable is derived by regrouping three responsibilities or task statements related to school autonomy in curriculum, answered by school principals: “*Choosing which textbooks are used*”, “*Determining course content*”, and “*Deciding which courses are offered*”. Principals’ responses were either marked, or left unmarked, next to each corresponding school-level group or other authority to which these responsibilities or tasks were attributed.

6.D. Indices of School Autonomy (2013)

To assess principals’ autonomy in governing their schools, TALIS asked school principals to indicate who has significant responsibility on making decisions at the school level by responding to nine statements. The school principals answered the statements with “yes” or “no” depending

on who has the significant responsibility for making the decisions: the principal, other members of the school management team, teachers, school governing boards or external authority.

The nine statements describing the tasks totaled 45 variables, as that each response option (marked/not marked) created a variable of its own. Three simple indices were formed from these responses:

- Index of school autonomy for staffing (SC20279)
- Index of school autonomy for budgeting (SC20280)
- Index of school autonomy for instructional policies (SC20281)

Simple categorization technique is used for the index. If the principal selected principal, school management team or teacher as those having significant responsibility for the specified task, the task was considered a school responsibility (autonomous). If the principal selected school governing board or external authority, the task was considered an external responsibility (not autonomous). If the school principal selected both lists, it was considered a shared responsibility (mixed). For each scale, if more than half the tasks were classified as autonomous, the school was classified as autonomous for that scale. If more than half the tasks were classified as not autonomous, the school was classified as not autonomous. If neither criterion was met, the school was classified as mixed.

Index of school autonomy for staffing (ID: SC20279) (TALIS 2013 only)

This index variable was created using two task statements related to school autonomy of staffing: “*appointing or hiring teachers*”, “*dismissing or suspending teachers from employment*”. The categories for each index are 1 for “no autonomy”, 2 for “mixed autonomy”, and 3 for “autonomy”.

Index of school autonomy for budgeting (ID: SC20280) (TALIS 2013 only)

This index variable was created using three task statements related to school autonomy of budgeting: “*establishing teachers’ starting salaries, including setting payscales*”, “*determining teachers’ salary increases*”, and “*deciding on budget allocations within the school*”. The categories for each index are 1 for “no autonomy”, 2 for “mixed autonomy”, and 3 for “autonomy”.

Index of school autonomy for instructional policies (ID: SC20281) (TALIS 2013 only)

This index variable was created using four task statements related to school autonomy of instructional policies: “*establishing student assessment policies, including <national/regional> assessments*”, “*establishing student disciplinary policies and procedures*”, “*determining course content, including <national/regional> curricula*”, and “*deciding which courses are offered*”. The categories for each index are 1 for “no autonomy”, 2 for “mixed autonomy”, and 3 for “autonomy”.

6.E. Indices of School Resources (2008)

To describe the relative level of resources available in schools, indices were derived from nine response items answered by school principals in the school questionnaire. School principals were asked to indicate the extent (“not at all”, “very little”, “to some extent” or “a lot”) to which the school’s capacity to provide instruction was hindered by a shortage or lack of resources in a range of areas. For the calculation of these indices, responses “not at all” and “very little” were coded to the value of -1 and the responses “to some extent” and “a lot” were recoded to the value of 1. If all responses to the component variables were “not at all” or “very little”, the index score was set to “not a problem”. If all responses to the component variables were “to some extent” or “a lot”, the index score was set to “a problem”. All other combinations of responses were set to for “a bit of a problem”. Two indices were included in scaling:

- Index of lack of personnel resources (SC10255)
- Index of lack of material resources (SC10256)

Index of lack of personnel resources (ID: SC10255) (TALIS 2008 only)

This index variable was derived by regrouping four statements in which school principals were asked to indicate the extent to which the school’s capacity to provide instruction was hindered by a shortage or lack of the following types of school personnel: *Teachers*, *Laboratory technicians*, *Instructional support personnel*, and *Other support personnel*. The four response categories for each statement are 1 for “not at all”, 2 for “very little”, 3 for “to some extent”, and 4 for “a lot”.

Index of lack of material resources (ID: SC10256) (TALIS 2008 only)

This index variable was derived by regrouping four statements in which school principals were asked to indicate the extent to which the school’s capacity to provide instruction was hindered by a shortage or inadequacy of the following materials: *Instructional materials*, *Computers for instruction*, *Other equipment*, and *Library materials*. The four response categories are 1 for “not at all”, 2 for “very little”, 3 for “to some extent”, and 4 for “a lot”.

6.F. Indices of School Resources (2013)

To assess principals’ opinion on the lack of resources in their schools, TALIS asked school principals to indicate to what extent the quality of instruction is hindered in their schools by responding to eight statements regarding pedagogical personnel and material resources. Each statement had four mutually exclusive response categories: 1 for “not at all”, 2 for “very little”, 3 for “to some extent” and 4 for “a lot”. Two simple indices were formed from these principals’ responses:

- Index of lack of pedagogical personnel (SC20277)
- Index of lack of material resources (SC20278)

Simple categorization technique is used for the indices because of many items with low item-total correlations and mixed factor structures from the factor analysis models (see OECD, 2014).

Both indices were computed in the following way: If all responses to the component variables were “not at all” or “very little”, the index score was set to 1 for “Not a problem”. If all responses to the component variables were “to some extent” or “a lot”, the index score was set to 3 for “A problem”. All other combinations of responses were coded with an index score of 2 for “A bit of a problem”.

Index of lack of pedagogical personnel (ID: SC20277) (TALIS 2013 only)

This simple index includes three statements in which school principals were asked to indicate the extent to which the school’s capacity to provide instruction was hindered by a shortage or inadequacy of the following pedagogical personnel: “*Shortage of qualified and/or (well performing) teachers*”, “*Shortage of teachers with competence in teaching students with special needs*”, and “*Shortage of vocational teachers*”. The four response categories for these statements were 1 for “not at all”, 2 for “very little”, 3 for “to some extent”, and 4 for “a lot”.

Index of lack of material resources (ID: SC20278) (TALIS 2013 only)

This simple index includes five statements in which school principals were asked to indicate the extent to which the school’s capacity to provide instruction was hindered by a shortage or inadequacy of the following material resources: “*Shortage or inadequacy of instructional materials (e.g. textbooks)*”, “*Shortage or inadequacy of computers for instruction*”, “*Insufficient internet access*”, “*Shortage or inadequacy of computer software for instruction*”, and “*Shortage or inadequacy of library materials*”. The four response categories for these statements were 1 for “not at all”, 2 for “very little”, 3 for “to some extent”, and 4 for “a lot”.

6.G. Indices of School Leadership (2008)

Two composite indices and five simple indices describing the school leadership and management styles of school principals in TALIS were derived from questions in the TALIS 2008 school questionnaire. School principals’ responses about the frequency with which they engaged in a range of school management activities and behaviors, and how strongly they agreed or disagreed with statements about their role in the school were used. These seven indices are listed below:

- Index of overall instructional leadership style (SC10254)
 - Index of school leadership participation in framing and communicating the school’s goals and the curricular development (SC10248)
 - Index of school leadership participation in promoting instructional improvements and professional development (SC10249)
 - Index of school leadership participation in supervision of the instruction in the school (SC10250)
- Index of overall administrative leadership style (SC10253)
 - Index of accountability role of the principal (SC10251)
 - Index of bureaucratic rule-following (SC10252)

Index of overall instructional leadership style (ID: SC10254) (TALIS 2008 only)

This index variable was defined as the combination of three of the school management indices: **Index of school leadership participation in framing and communicating the school's goals and the curricular development** (SC10248), **Index of school leadership participation in promoting instructional improvements and professional development** (SC10249), and **Index of school leadership participation in supervision of the instruction in the school** (SC10250). Together, these indices relate to tasks seeking to enhance and improve the learning process in the schools.

Index of school leadership participation in framing and communicating the school's goals and the curricular development

(ID: SC10248) (TALIS 2008 only)

This index variable is derived from six statements where school principals were asked to indicate the frequency of their participation in school leadership activities related to framing and communicating the school's goals and curricular development: *"I make sure that the professional development activities of teachers are in accordance with the teaching goals of the school"*, *"I ensure that teachers work according to the school's educational goals"*, *"I use student performance results to develop the school's educational goals"*, *"I take exam results into account in decisions regarding curriculum development"*, *"I ensure that there is clarity concerning the responsibility for coordinating the curriculum"*, and *"In this school, we work on goals and/or a school development plan"*. Each statement had four response categories: 1 for "never", 2 for "seldom", 3 for "quite often" and 4 for "very often".

Index of school leadership participation in promoting instructional improvement and professional development

(ID: SC10249) (TALIS 2008 only)

This index variable is derived from four statements where school principals were asked to indicate the frequency of their participation in school leadership activities related to promoting instructional improvement and professional development: *"When a teacher has problems in his/her classroom, I take the initiative to discuss matters"*, *"I inform teachers about possibilities for updating their knowledge and skills"*, *"When a teacher brings up a classroom problem, we solve the problem together"*, and *"I pay attention to disruptive behavior in classrooms"*. Each statement had four response categories: 1 for "never", 2 for "seldom", 3 for "quite often" and 4 for "very often".

Index of school leadership participation in supervision of the instruction in the school

(ID: SC10250) (TALIS 2008 only)

This index variable is derived from four statements where school principals were asked to indicate the frequency of their participation in school leadership activities related to the supervision of the instruction in the school: *"I observe instruction in classrooms"*, *"I give teachers suggestions as to how they can improve their teaching"*, *"I monitor students' work"*, and *"I check to see whether classroom activities are in keeping with our educational goals"*. Each statement had four response categories: 1 for "never", 2 for "seldom", 3 for "quite often" and 4 for "very often".

Index of overall administrative leadership style

(ID: SC10253) (TALIS 2008 only)

This index variable was defined as the combination of the two remaining school management indices: **Index of accountability role of the principal** (SC10251), and **Index of bureaucratic rule-following** (SC10252). Together these indices relate to administrative tasks, enforcing rules and procedures, and the accountability role of the school principal.

Index of accountability role of the principal

(ID: SC10251) (TALIS 2008 only)

This index variable is derived from school principals' responses as to how strongly they agreed or disagreed to four statements related to their accountability and role as school principal: "*An important part of my job is to ensure that ministry-approved instructional approaches are explained to new teachers, and that more experienced teachers are using these approaches*", "*A main part of my job is to ensure that the teaching skills of the staff are always improving*", "*An important part of my job is to ensure that teachers are held accountable for the attainment of the school's goals*", and "*An important part of my job is to present new ideas to the parents in a convincing way*". Each statement had four response categories: 1 for "strongly disagree", 2 for "disagree", 3 for "agree" and 4 for "strongly agree".

Index of bureaucratic rule-following

(ID: SC10252) (TALIS 2008 only)

This index variable is derived from school principals' responses as to how strongly they agreed or disagreed to five statements related to bureaucratic rule-following: "*It is important for the school that I see to it that everyone sticks to the rules*", "*It is important for the school that I check for mistakes and errors in administrative procedures and reports*", "*An important part of my job is to resolve problems with the timetable and/or lesson planning*", "*An important part of my job is to create an orderly atmosphere in the school*", and "*I stimulate a task-oriented atmosphere in this school*". Each statement had four response categories: 1 for "strongly disagree", 2 for "disagree", 3 for "agree" and 4 for "strongly agree".

6.H. Indices of School Leadership (2013)

Three indices describe the leadership climate of the schools that teachers and principals work in, based on both teachers' and school principals' responses from TALIS 2013.

- Degree of distributed leadership in the school (SC20272)
- Instructional leadership (SC20276)
- Participation among stakeholders (TE20355)
- Index of leadership training strength (SC20283)

Degree of distributed leadership in the school

(ID: SC20272) (TALIS 2013 only)

The degree of distributed leadership (SC20272) is an index variable which was created using school principals' responses to how strongly they agreed or disagreed to the following three statements related to the distribution of leadership within their school: "*This school provides staff with opportunities to actively participate in school decisions*", "*This school provides parents or guardians with opportunities to actively participate in school decisions*", and "*This school*

provides students with opportunities to actively participate in school decisions". All statements were answered on a four-point scale, where the response categories were 1 for "strongly disagree", 2 for "disagree", 3 for "agree" and 4 for "strongly agree."

Instructional leadership

(ID: SC20276) (TALIS 2013 only)

The instructional leadership index scale (SC20276) is a scale which was created using school principals' responses as to how frequently they participated in three instructional leadership activities: *"I took actions to support co-operation among teachers to develop new teaching practices"*, *"I took actions to ensure that teachers take responsibility for improving their teaching skills"*, and *"I took actions to ensure that teachers feel responsible for their students' learning outcomes"*. The statements were answered on a four-point scale, with the response categories 1 for "never or rarely", 2 for "sometimes", 3 for "often" and 4 for "very often".

Participation among stakeholders

(ID: TE20355) (TALIS 2013 only)

Teachers were asked to answer how strongly they agreed or disagreed to five statements which measured their perception of participation among stakeholders at their school: *"This school provides staff with opportunities to actively participate in school decisions"*, *"This school provides parents or guardians with opportunities to actively participate in school decisions"*, *"This school provides students with opportunities to actively participate in school decisions"*, *"This school has a culture of shared responsibility for school issues"* and *"There is a collaborative school culture which is characterized by mutual support"*. All statements were answered on a four-point scale, with response categories of 1 for "strongly disagree", 2 for "disagree", 3 for "agree" and 4 for "strongly agree".

Index of leadership training strength

(ID: SC20283) (TALIS 2013 only)

In addition to the data about the level and type of formal training principals report having received, TALIS also measures the level or intensity of the leadership training that principals report was included in their formal education. The leadership training strength index (SC20283) was constructed from the question asking whether a principal's formal education included the following three elements and whether this was before or after taking up duty as principal: *School administration or principal training program or course*, *Teacher training/education program or course*, *Instructional leadership training or course*. Responses indicating "never" were coded as zero (0), and responses indicating that the training occurred before, after or before and after were coded as one (1). Each respondent's codes were summed to produce the following categories: 0 for "no training", 1 for "weak leadership training", 2 for "average leadership training" and 3 for "strong leadership training".

6.I. Indices of School Climate (2008)

Five indices describe the overall climate of the schools that teachers and principals work in for TALIS 2008, based on both teacher and school principal reports.

- Student delinquency (SC10246)

- Teacher working morale (SC10247)
- Index of classroom disciplinary climate (TE10200)
- Index of teacher-student relations (TE10201)
- Index of teacher self-efficacy (TE10202)

Student delinquency

(ID: SC10246) (TALIS 2008 only)

This index variable was derived from school principals' responses on the extent to which each of the following six student delinquency activities hindered learning within their school:

“Vandalism”, “Theft”, “Intimidation or verbal abuse of other students (or other forms of bullying)”, “Physical injury to other students”, “Intimidation or verbal abuse of teachers or staff”, “Use/possession of drugs and/or alcohol”. Each response item had four response categories: 1 for “not at all”, 2 for “very little”, 3 for “to some extent”, and 4 for “a lot”.

Teacher working morale

(ID: SC10247) (TALIS 2008 only)

This index variable was derived from school principals' responses on the extent to which each of the following three teacher behaviors hindered learning within their school: *“Arriving late at school”, “Absenteeism”, “Lack of pedagogical preparation”*. Each response item had four response categories: 1 for “not at all”, 2 for “very little”, 3 for “to some extent”, and 4 for “a lot”.

Index of classroom disciplinary climate

(ID: TE10200) (TALIS 2008 only)

To describe the classroom level environment, this index variable was derived from teachers' responses of how strongly they agreed or disagreed to four statements related to the disciplinary climate within their classroom: *“When the lesson begins, I have to wait quite a long time for students to quieten down”, “Students in this class take care to create a pleasant learning atmosphere”, “I lose quite a lot of time because of students interrupting the lesson”, and “There is much noise in this classroom”*. Each statement had four response categories: 1 for “strongly disagree”, 2 for “disagree”, 3 for “agree” and 4 for “strongly agree”.

Index of teacher-student relations

(ID: TE10201) (TALIS 2008 only)

This index variable was derived from teachers' responses of how strongly they agreed or disagreed to four statements about teacher-student relations within their school: *“In this school, teachers and students usually get on well with each other”, “Most teachers in this school believe that students' well-being is important”, “Most teachers in this school are interested in what students have to say”, and “If a student from this school needs extra assistance, the school provides it”*. Each statement had four response categories: 1 for “strongly disagree”, 2 for “disagree”, 3 for “agree” and 4 for “strongly agree”. The response categories “disagree” and “strongly disagree” were collapsed for this scale, because generally only few teachers used the response category “strongly disagree” and empty cells for some countries hindered further analysis.

Index of teacher self-efficacy

(ID: TE10202) (TALIS 2008 only)

This index variable was derived from teacher reports of how strongly they agreed or disagreed to four statements about their perceived efficacy in teaching their students: *“I feel that I am making a significant educational difference in the lives of my students”*, *“If I try really hard, I can make progress with even the most difficult and unmotivated students”*, *“I am successful with the students in my class”*, and *“I usually know how to get through to students”*. Each statement had four response categories: 1 for “strongly disagree”, 2 for “disagree”, 3 for “agree” and 4 for “strongly agree”. Only few teachers used the response category “strongly disagree” and empty cells were found for some countries. Therefore, the response categories “disagree” and “strongly disagree” were collapsed.

6.J. Indices of School Climate (2013)

One composite index and seven simple indices describe the overall climate of the schools that teachers and principals work in for TALIS 2013, based on both teacher and school principal reports.

- School delinquency and violence (SC20270)
- School climate - mutual respect (SC20271)
- Teacher-student relations (TE20356)
- Classroom disciplinary climate: Need for discipline (TE20357)
- Teacher self-efficacy (TE20351)
 - Efficacy in classroom management (TE20348)
 - Efficacy in instruction (TE20349)
 - Efficacy in student engagement (TE20350)

School delinquency and violence (ID: SC20270) (TALIS 2013 only)

School delinquency and violence (SC20270) is an index variable that is representative of school climate. This index scale was created using school principals’ responses to how often four behaviors by students occurred: *“Vandalism and theft by students”*, *“Intimidation or verbal abuse among students (or other forms of non-physical bullying)”*, *“Physical injury caused by violence among students”* and *“Intimidation or verbal abuse of teachers or staff”*. All response items were answered on a five-point scale, where the response categories were 1 for “never”, 2 for “rarely”, 3 for “monthly”, 4 for “weekly”, and 5 for “daily”.

School climate - mutual respect (ID: SC20271) (TALIS 2013 only)

School climate – mutual respect (SC20271) is an index variable that is representative of school climate. This index scale was created using school principals’ responses to how strongly they agreed or disagreed to the following four statements: *“School staff have an open discussion about difficulties”*, *“There is mutual respect for colleagues’ ideas”*, *“There is a culture of sharing success”*, and *“The relationships between teachers and students are good”*. All statements were answered on a four-point scale, where the response categories were 1 for “strongly disagree”, 2 for “disagree”, 3 for “agree” and 4 for “strongly agree.”

Teacher-student relations

(ID: TE20356) (TALIS 2013 only)

The index of teacher-student relations (TE20356) was created by using teachers' responses of how strongly they agreed or disagreed with each of the following four statements related to the overall relationship between teachers and students within their school: *"In this school, teachers and students usually get on well with each other"*, *"Most teachers in this school believe that the students' well-being is important"*, *"Most teachers in this school are interested in what students have to say"*, and *"If a student from this school needs extra assistance, the school provides it"*. Each response item was answered on a four-point scale, the response categories of which were 1 for "strongly disagree", 2 for "disagree", 3 for "agree" and 4 for "strongly agree".

Classroom disciplinary climate: Need for discipline

(ID: TE20357) (TALIS 2013 only)

The index of classroom disciplinary climate: need for discipline (TE20357) was created by using teachers responses on how strongly they agreed or disagreed to four statements measuring the disciplinary climate within their classroom: *"When the lesson begins, I have to wait quite a long time for students to quiet down"*, *"Students in this class take care to create a pleasant learning atmosphere"*, *"I lose quite a lot of time because of students interrupting the lesson"*, and *"There is much disruptive noise in this classroom"*. Each response item had four response categories: 1 for "strongly disagree", 2 for "disagree", 3 for "agree", and 4 for "strongly agree".

Teacher self-efficacy

(ID: TE20351) (TALIS 2013 only)

The teacher self-efficacy scale (TE20351) was created by combining three scales: **Efficacy in classroom management** (TE20348), **Efficacy in instruction** (TE20349), and **Efficacy in student engagement** (TE20350). Together these indices relate to the perceived self-efficacy of teachers in TALIS 2013.

Efficacy in classroom management

(ID: TE20348) (TALIS 2013 only)

This index scale was created by using teachers' responses on the extent to which they used the following four teaching management methods in their classrooms: *"Control disruptive behavior in the classroom"*, *"Make my expectations about student behavior clear"*, *"Get students to follow classroom rules"* and *"Calm a student who is disruptive or noisy"*. All response items in the scales were measured on a four-point scale. Response categories were 1 for "not at all", 2 for "to some extent", 3 for "quite a bit", and 4 for "a lot".

Efficacy in instruction

(ID: TE20349) (TALIS 2013 only)

This index scale was created by using teachers' responses on the extent to which they used the following four instructional methods in their classrooms: *"Craft good questions for my students"*, *"Use a variety of assessment strategies"*, *"Provide an alternative explanation for example when students are confused"* and *"Implement alternative instructional strategies in my classroom"*. All response items in the scales were measured on a four-point scale. Response categories were 1 for "not at all", 2 for "to some extent", 3 for "quite a bit", and 4 for "a lot".

Efficacy in student engagement (ID: TE20350) (TALIS 2013 only)

This index scale was created by using teachers' responses on the extent to which they used the following four teaching methods to inspire student engagement in their classrooms: "*Get students to believe they can do well in school work*", "*Help my students value learning*", "*Motivate students who show low interest in school work*" and "*Help students think critically*". All response items in the scales were measured on a four-point scale. Response categories were 1 for "not at all", 2 for "to some extent", 3 for "quite a bit", and 4 for "a lot".

6.K. Beliefs About Instruction Indices (2008)

To describe teachers' and principals' beliefs about instruction, three indices were formed from both teachers' and principals' responses in TALIS 2008:

- Index of teacher direct transmission beliefs about instruction (TE10206)
- Index of teacher constructivist beliefs about instruction (TE10207)
- Index of principal constructivist beliefs about instruction (SC10245)

Index of teacher direct transmission beliefs about instruction (ID: TE10206) (TALIS 2008 only)

This index variable was created by using teachers' responses of how strongly they agreed or disagreed to four statements measuring direct transmission beliefs: "*Effective/good teachers demonstrate the correct way to solve a problem*", "*Instruction should be built around problems with clear, correct answers, and around ideas that most students can grasp quickly*", "*How much students learn depends on how much background knowledge they have – that is why teaching facts is so necessary*", and "*A quiet classroom is generally needed for effective learning*". Response categories were 1 for "strongly agree", 2 for "agree", 3 for "disagree" and 4 for "strongly disagree". The response categories of "strongly disagree" and "disagree" were collapsed, because "strongly disagree" was only utilized by a few teachers resulting in empty cells for some of the countries.

Index of teacher constructivist beliefs about instruction (ID: TE10207) (TALIS 2008 only)

This index variable was created by using teachers' responses of how strongly they agreed or disagreed to four statements measuring constructivist beliefs: "*My role as a teacher is to facilitate students' own inquiry*", "*Students learn best by finding solutions to problems on their own*", "*Students should be allowed to think of solutions to practical problems themselves before the teacher shows them how they are solved*", and "*Thinking and reasoning processes are more important than specific curriculum content*". Response categories were 1 for "strongly agree", 2 for "agree", 3 for "disagree" and 4 for "strongly disagree". The response categories of "strongly disagree" and "disagree" were collapsed, because "strongly disagree" was only utilized by a few teachers resulting in empty cells for some of the countries.

Index of principal constructivist beliefs about instruction (ID: SC10245) (TALIS 2008 only)

This index variable is measured at the principal level with the following four response items: *“The role of teachers is to facilitate students’ own inquiry”*, *“Students learn best by finding solutions to problems on their own”*, *“Students should be allowed to think of solutions to practical problems themselves before the teacher shows them how they are solved”*, and *“Thinking and reasoning processes are more important than specific curriculum content”*. Response categories were 1 for “strongly agree”, 2 for “agree”, 3 for “disagree” and 4 for “strongly disagree”. The response categories of “strongly disagree” and “disagree” were collapsed, because “strongly disagree” was only utilized by a few principals resulting in empty cells for some of the countries.

6.L. Beliefs About Instruction Indices (2013)

To describe teachers’ beliefs about instruction, one index was formed from teachers’ responses in TALIS 2013:

- Teacher constructivist beliefs (TE20358)

Teacher constructivist beliefs (ID: TE20358) (TALIS 2013 only)

The index of teacher constructivist beliefs (TE20358) was created by using teachers’ responses on how strongly they agreed or disagreed to four statements related to how students think and learn best: *My role as a teacher is to facilitate students’ own inquiry*“, *“Students learn best by finding solutions to problems on their own”*, *“Students should be allowed to think of solutions to practical problems themselves before the teacher shows them how they are solved”* and *“Thinking and reasoning processes are more important than specific curriculum content”*. The statements were answered on a four-point scale, with response categories of 1 for “strongly disagree”, 2 for “disagree”, 3 for “agree” and 4 for “strongly agree”.

6.M. Classroom Teaching Practices Indices (2008)

Thirteen items were used to measure teachers’ instructional practices in TALIS 2008. Three scales were formed from these teachers’ responses:

- Index of structuring practices (TE10203)
- Index of student-oriented practices (TE10204)
- Index of enhanced activities (TE10205)

Index of structuring practices (ID: TE10203) (TALIS 2008 only)

This index variable was created using teachers' responses of how frequently they performed five teaching behaviors relating to the structure of their classroom learning environments: "*I explicitly state learning goals*", "*I review with the students the homework they have prepared*", "*I ask my students to remember every step in a procedure*", "*At the beginning of the lesson I present a short summary of the previous lesson*" and "*Students evaluate and reflect upon their own work*". The response items were answered on six point ordinal scale. Response categories were 1 for "never or hardly ever", 2 for "in about one-quarter of lessons", 3 for "in about one-half of lessons", 4 for "in about three-quarters of lessons" and 5 for "in almost every lesson".

Index of student-oriented practices (ID: TE10204) (TALIS 2008 only)

This index variable was created using teachers' responses of how frequently student performed four student-oriented behaviors in their classroom learning environments: "*Students work in small groups to come up with a joint solution to a problem or task*", "*I give different work to the students that have difficulties learning and/or to those who can advance faster*", "*I ask my students to suggest or to help plan classroom activities or topics*" and "*Students work in groups based upon their abilities*". The response items were answered on six point ordinal scale. Response categories were 1 for "never or hardly ever", 2 for "in about one-quarter of lessons", 3 for "in about one-half of lessons", 4 for "in about three-quarters of lessons" and 5 for "in almost every lesson".

Index of enhanced activities (ID: TE10205) (TALIS 2008 only)

This index variable was created using teachers' responses of how frequently students performed four enhanced activities in their classroom learning environments: "*Students work on projects that require at least one week to complete*", "*Students make a product that will be used by someone else*", "*I ask my students to write an essay in which they are expected to explain their thinking or reasoning at some length*" and "*Students hold a debate and argue for a particular point of view which may not be their own*". The response items were answered on six point ordinal scales. Response categories were 1 for "never or hardly ever", 2 for "in about one-quarter of lessons", 3 for "in about one-half of lessons", 4 for "in about three-quarters of lessons" and 5 for "in almost every lesson".

6.N. Co-operation Among Staff Indices (2008)

Co-operation among staff was measured by using teachers' responses to twelve response items in TALIS 2008. Two scales were formed from these responses:

- Index of exchange and co-ordination for teaching (TE10208)
- Index of professional collaboration (TE10209)

Index of exchange and co-ordination for teaching (ID: TE10208) (TALIS 2008 only)

This index scale was created using five response items, answered by teachers, relating to the frequency of the exchange and co-ordination of teaching with other teachers within their schools: “Discuss and decide on the selection of instructional media (e.g. textbooks, exercise books)”, “Exchange teaching materials with colleagues”, “Attend team conferences for the age group I teach”, “Ensure common standards in evaluations for assessing student progress”, and “Engage in discussion of the learning developments of specific students”. All response items were answered on six point ordinal scale. Response categories were 1 for “never”, 2 for “less than once per year”, 3 for “once per year”, 4 for “3-4 times per year”, 5 for “monthly”, and 6 for “weekly”.

Index of professional collaboration (ID: TE10209) (TALIS 2008 only)

This index scale was created using five response items, answered by teachers, relating to the frequency of professional collaboration with other teachers within their schools: “Teach jointly as a team in the same class”, “Take part in professional learning activities (e.g. team supervision)”, “Observe other teachers’ classes and provide feedback”, “Engage in joint activities across different classes and age groups (e.g. projects)”, and “Discuss and coordinate homework practice across subjects”. All response items were answered on six point ordinal scale. Response categories were 1 for “never”, 2 for “less than once per year”, 3 for “once per year”, 4 for “3-4 times per year”, 5 for “monthly”, and 6 for “weekly”.

6.O. Indices of Teacher Co-operation (2013)

To assess co-operation among teaching staff, TALIS asked teachers to indicate the frequency with which they undertook specified activities (using a six-point scale ranging from “never” to “weekly”). Teacher cooperation was measured as a composite index and as two separate indices.

- Co-operation among teaching staff (TE20361)
 - Exchange and coordination for teaching (TE20359)
 - Teacher professional collaboration (TE20360)

Co-operation among teaching staff (ID: TE20361) (TALIS 2013 only)

The co-operation among teaching staff scale (TE20361) was created by combining two scales: **Exchange and coordination for teaching** (TE20359) and **Teacher professional collaboration** (TE20360). Together these indices relate to the perceived co-operation among teaching staff as reported by teachers in TALIS 2013.

Exchange and coordination for teaching (ID: TE20359) (TALIS 2013 only)

This index scale was created by using teachers’ responses of how frequently in the past school year had they participated in four teacher cooperation activities: “Exchange teaching materials with colleagues”, “Engage in discussions about the learning development of specific students”, “Work with other teachers in my school to ensure common standards in evaluations for assessing student progress” and “Attend team conferences”. All response items in this scale were measured on a six-point scale, with response categories of 1 for “never”, 2 for “once a year

or less”, 3 for “2-4 times a year”, 4 for “5-10 times a year”, 5 for “1-3 times a month” and 6 for “once a week or more”.

Teacher professional collaboration

(ID: TE20360) (Variable name: TCOOPS) (TALIS 2013 only)

This index scale was measured by teacher responses as to how frequently in the past school year had they done the following four professional collaboration activities: “*Teach jointly as a team in the same class*”, “*Observe other teachers’ classes and provide feedback*”, “*Engage in joint activities across different classes and age groups (e.g. projects)*”, and “*Take part in collaborative professional learning*”. All items in this scale were measured on a six-point scale, with response categories of 1 for “never”, 2 for “once a year or less”, 3 for “2-4 times a year”, 4 for “5-10 times a year”, 5 for “1-3 times a month” and 6 for “once a week or more”.

6.P. Indices of Teacher Professional Development (2013)

To assess teachers’ effective professional development, or need for professional development, three indices were created using teachers’ responses in TALIS 2013:

- Effective professional development (TE20362)
- Need for professional development in subject matter and pedagogy (TE20363)
- Need for professional development for teaching for diversity (TE20364)
- Participation in professional development activities (TE20367)

Effective professional development

(ID: TE20362) (TALIS 2013 only)

In order to create the effective professional development scale (TE20362), teachers were asked to answer how frequently they experienced four specific circumstances during their professional development activities: “*A group of colleagues from my school or subject group*”, “*Opportunities for active learning methods (not only listening to a lecturer)*”, “*Collaborative learning activities or research with other teachers*” and “*An extended time-period (several occasions spread out over several weeks or months)*”. The response items were administered on a four-point scale, with each item having response categories of 1 for “not in any activities”, 2 for “yes, in some activities”, 3 for “yes, in most activities” and 4 for “yes, in all activities”.

Need for professional development in subject matter and pedagogy

(ID: TE20363) (TALIS 2013 only)

The degree of need for professional development in subject matter and pedagogy (TE20363) was created by using teachers’ responses to five statements related to the degree of need they experienced in the following professional development areas: “*Knowledge and understanding of my subject field(s)*”, “*Pedagogical competencies in teaching my subject field(s)*”, “*Knowledge of the curriculum*”, “*Student evaluation and assessment practice*”, and “*Student behavior and classroom management*”. Each response item had four response categories: 1 for “no need at present”, 2 for “low level of need”, 3 for “moderate level of need” and 4 for “high level of need”.

Need for professional development for teaching for diversity

(ID: TE20364) (TALIS 2013 only)

To create the degree of need for professional development for teaching for diversity (TE20364), teachers were asked to report the degree of need they experienced for six areas of professional development: “*Approaches to individualized learning*”, “*Teaching students with special needs*”, “*Teaching in a multicultural or multilingual setting*”, “*Teaching cross-curricular skills (e.g. problem solving, learning-to-learn)*”, “*Approaches to developing cross-occupational competencies for future work or future studies*”, and “*Student career guidance and counselling*”. Each response item had four response categories: 1 for “no need at present”, 2 for “low level of need”, 3 for “moderate level of need” and 4 for “high level of need”.

Participation in professional development activities

(ID: TE20367) (TALIS 2013 only)

This teacher-level derived variable indicates whether or not teachers participated in professional development in the 12 months prior to the survey. The variable is coded “1” if there was no participation in professional development and “0” otherwise.

6.Q. Indices of Job Satisfaction (2013)

To assess teachers’ and principals’ job satisfaction, TALIS asked teachers’ and principals to indicate how satisfied they feel about their job (on a four-point scale ranging from “strongly disagree” to “strongly agree”) by responding to a number of statements about their work environment and their profession. Teachers’ and principals’ job satisfaction formed two composite indices in TALIS 2013:

- Principal job satisfaction (SC20275)
 - Principal satisfaction with current work environment (SC20273)
 - Principal satisfaction with profession (SC20274)
- Teacher job satisfaction (TE20354)
 - Teacher satisfaction with current work environment (TE20352)
 - Teacher satisfaction with profession (TE20353)

Principal job satisfaction

(ID: SC20275) (TALIS 2013 only)

The index of principal job satisfaction (SC20275) was created by using two index scales formed separately: **Principal satisfaction with current work environment** (SC20273) and **Principal satisfaction with profession** (SC20274). Together these indices relate the overall job satisfaction as reported by principals in TALIS 2013.

Principal satisfaction with current work environment

(ID: SC20273) (TALIS 2013 only)

This index scale consists of school principals’ responses of how strongly they agreed or disagreed with four statements related to their satisfaction with their current work environment: “*I enjoy working at this school*”, “*I would recommend my school as a good place to work*”, “*I am satisfied with my performance in this school*” and “*All in all, I am satisfied with my job*”. All response items were measured on a four-point scale. Response categories were 1 for “strongly disagree”, 2 for “disagree”, 3 for “agree”, and 4 for “strongly agree”.

Principal satisfaction with profession

(ID: SC20274) (TALIS 2013 only)

This index scale consists of school principals' responses of how strongly they agreed or disagreed with three statements related to their satisfaction with their profession: "*The advantages of this profession clearly outweigh the disadvantages*", "*If I could decide again, I would still choose this job/position*" and "*I regret that I decided to become a principal*". All response items were measured on a four-point scale. Response categories were 1 for "strongly disagree", 2 for "disagree", 3 for "agree", and 4 for "strongly agree".

Teacher job satisfaction

(ID: TE20354) (TALIS 2013 only)

The teacher job satisfaction scale (TE20354) was created by combining two scales: **Teacher satisfaction with current work environment** (TE20352), and **Teacher satisfaction with profession** (TE20353). Together these indices relate the overall job satisfaction as reported by teachers in TALIS 2013.

Teacher satisfaction with current work environment

(ID: TE20352) (TALIS 2013 only)

This index scale was created by using teachers' responses of how strongly they agreed or disagreed to four statements related to their satisfaction with their current work environment: "*I would like to change to another school if that were possible*", "*I enjoy working at this school*", "*I would recommend my school as a good place to work*" and "*All in all, I am satisfied with my job*". All response items were measured on a four-point scale, for which the response categories were 1 for "strongly disagree", 2 for "disagree", 3 for "agree", and 4 for "strongly agree".

Teacher satisfaction with profession

(ID: TE20353) (TALIS 2013 only)

This index scale was created by using teachers' responses of how strongly they agreed or disagreed to four statements related to their satisfaction with their profession: "*The advantages of being a teacher clearly outweigh the disadvantages*", "*If I could decide again, I would still choose to work as a teacher*", "*I regret that I decided to become a teacher*" and "*I wonder whether it would have been better to choose another profession*". All response items in the scales were measured on a four-point scale, for which the response categories were 1 for "strongly disagree", 2 for "disagree", 3 for "agree", and 4 for "strongly agree".

6.R. Other Derived Variables from TALIS DATA (2008 and 2013)

Average class size

(ID: SC10267) (TALIS 2008 only)

In the section of the TALIS teacher questionnaire where teachers were asked about their classroom teaching practices, they were also asked to report on a "target class" that they taught. This "target class" was defined as the first ISCED level 2 class that the teacher (typically) taught in the school after 11am on Tuesdays. This formulation was used to introduce randomization in the selection of the "target class". As this approach is less rigorous than a truly randomized selection of classes, some caution is needed in interpreting the results at the teacher level and in the aggregation to the school level. Among the characteristics of the "target class", teachers were

asked to report the number of students in this class on average throughout the year. In the international database, **average class size** (SC10267) is calculated at the school level as the mean of the values reported by teachers for that school.

Average percent of students whose first language is different from language of instruction
(ID: SC10268) (TALIS 2008 only)

In the section of the TALIS teacher questionnaire where teachers were asked about their classroom teaching practices, they were asked to report on a “target class” that they taught. This “target class” was defined as the first ISCED level 2 class that the teacher (typically) taught in the school after 11am on Tuesdays (see cautionary note above). Among the characteristics of the “target class”, teachers were asked to report the percentage of students whose first language is different from the language of instruction. In the international database, **average percent of students whose first language is different from language of instruction** (SC10268) is calculated at the school level as the mean of the response categories (rather than the percentages that these response categories represent) reported by teachers for that school.

Average percentage of students who have at least one parent/guardian who has completed at least upper secondary education
(ID: SC10269) (TALIS 2008 only)

In the section of the TALIS teacher questionnaire where teachers were asked about their classroom teaching practices, they were asked to report on a “target class” that they taught. This “target class” was defined as the first ISCED level 2 class that the teacher (typically) taught in the school after 11am on Tuesdays. Among the characteristics of the “target class”, teachers were asked to report the percentage of students who have at least one parent/guardian who has completed at least upper secondary education (ISCED level 3 or higher). In the international database, **average percentage of students who have at least one parent/guardian who has completed at least upper secondary education** (SC10269) is calculated at the school level as the mean of the values reported by teachers for that school.

Average percentage of students who have at least one parent/guardian who has completed higher education
(ID: SC10270) (TALIS 2008 only)

In the section of the TALIS teacher questionnaire where teachers were asked about their classroom teaching practices, they were asked to report on a “target class” that they taught. This “target class” was defined as the first ISCED level 2 class that the teacher (typically) taught in the school after 11am on Tuesdays. Among the characteristics of the “target class”, teachers were also asked to report the percentage of students who have at least one parent/guardian who has completed higher education (ISCED level 5 or higher). In the international database, **average percentage of students who have at least one parent/guardian who has completed higher education** (SC10270) is calculated at the school level as the mean of the response categories (rather than the percentages that these response categories represent) reported by teachers for that school.

Self-efficacy in teaching mathematics
(ID: TE20365) (TALIS 2013 only)

The index of **self-efficacy in teaching mathematics** (TE20365) was created by using the responses from the mathematics teachers from the TALIS-PISA population on how strongly they agreed or disagreed to four statements relating to their perceived effectiveness in teaching of mathematics within their classrooms: *“I have a hard time getting students interested in mathematics”*, *“I find it hard to meet the needs of the individual students in my mathematics class”*, *“I am able to get my students to feel confident in mathematics”*, and *“I have a hard time getting my students to understand underlying concepts in mathematics”*. All response items were measured on a four-point scale, the response categories of which were 1 for “strongly disagree”, 2 for “disagree”, 3 for “agree” and 4 for “strongly agree”.

Percentage of professional development that is compulsory for teachers
(ID: TE10210) (TALIS 2008 only)

This is a percentage taken at the individual teacher level and was derived from teachers’ responses to the questions, *“In all, how many days of professional development did you attend during the last 18 months?”* (rounded to whole days), and *“Of these, how many were compulsory for you to attend as part of your job as a teacher?”* In the international database, for each teacher, **percentage of professional development that is compulsory for teachers** (TE10210) was calculated by dividing the number of compulsory days by the total number of days and multiplying by 100.

Whether school evaluation has been conducted on school
(ID: SC10266) (TALIS 2008)

This school-level derived variable indicates whether or not a school evaluation has been conducted on the school in the five years prior to the survey (either a school self-evaluation or an external evaluation). The variable is coded “1” if no such evaluation was conducted and “0” otherwise. School principals were asked the following question, *“How often during the last 5 years did this school produce a school self-evaluation document and/or was the school evaluated by an external agency or body (e.g. external inspector)?”* in the TALIS school questionnaire. The response options for this questions were 1 for “Never”, 2 for “Once”, 3 for “2-4 times”, 4 for “Once per year”, and 5 for “More than once per year”.

Whether teacher received appraisal or feedback about work as a teacher
(ID: TE10211) (TALIS 2008)

This teacher-level derived variable indicates whether or not a teacher has received an appraisal or feedback about their work as a teacher in their current school (either from the school principal, other teachers or members of the school management team or an external individual or body). The variable is coded “1” if no such appraisal or feedback was received by the teacher and “0” otherwise. Teachers were asked the following question, *“From the following people, how often have you received appraisal and/or feedback about your work as a teacher in this school?”* in the TALIS teacher questionnaire. The school evaluation entities listed for this question were principal, other teachers or members of the school management team, and external individual or body (e.g. external inspector). The response options for this questions were 1 for “Never”, 2 for “Less than once every two years”, 3 for “Once every two years”, 4 for “Once per year”, 5 for “Twice a year”, 6 for “3 or more times per year”, 7 for “Monthly”, and 8 for “More than once per month”.