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 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 the "ISCED" section starting on page 49). Developed by the United Nations Educational, Scientific and Cultural Organization (UNESCO), ISCED 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.

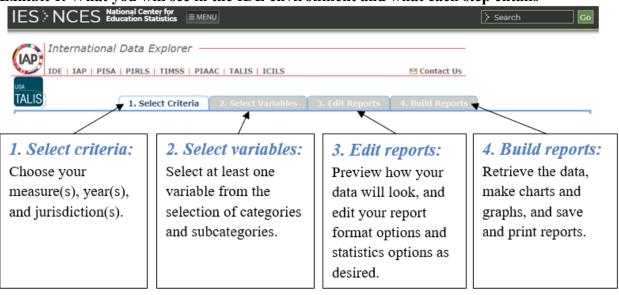
TALIS was first administered in 2008 and then in 2013 and 2018. The United States first participated in the 2013 cycle, along with 37 other education systems. The most recent round of data collection was in 2018, with 49 education systems participating. In addition to ISCED Level 2 (lower secondary education), starting in 2013, TALIS 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 https://nces.ed.gov/surveys/talis/questionnaire.asp.

The 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. General Overview

There are four general steps for exploring TALIS data using the TALIS IDE (see exhibit 1). Each step is described in more detail starting in section IV.

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



III. Computer Requirements for the IDE

- Screen resolution should be 1024×768 pixels.
- Browsers: Internet Explorer (IE) (version 10 or higher), Firefox, Google Chrome, or Safari.
- Enable JavaScript and pop-ups in your browser.
- 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.

The screenshots throughout this Help Guide were made using Google Chrome. Other browsers may vary the way the IDE is displayed.

IV. Steps to Explore the Data

To create your own custom tables, charts, and graphs, follow these steps when using the TALIS IDE:

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

Each of these steps is discussed in detail throughout the remainder of this guide, beginning with the selection of criteria.

1. Select Criteria

1.A. Overview

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

Select a **Subject** and **Education level** from the drop-down menus. 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 (\triangleright) to open up a category, and click on a blue downward-facing arrow (\blacktriangledown) to close a category.

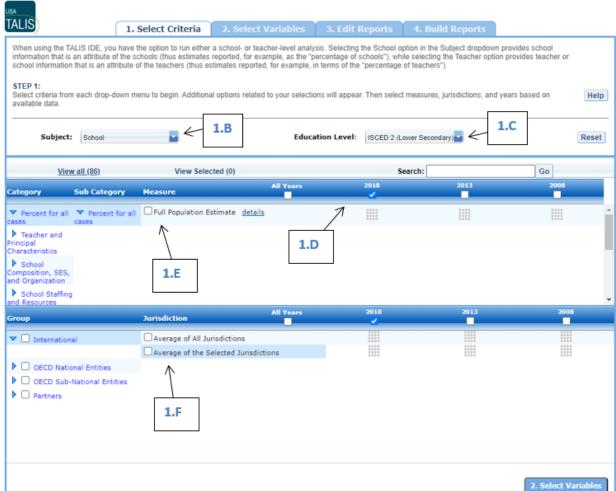


Exhibit 2. Selecting criteria

1.B. Choose a Subject

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

1.C. Choose an Education Level

The second option to choose in step 1, **Select Criteria**, is an **Education Level**. TALIS collects data on ISCED 1 (Primary), ISCED 2 (Lower Secondary), and ISCED 3 (Upper Secondary). Please note that the IDE default is ISCED 2.

1.D. Choose Year(s)

To the right of the **Measure** and **Jurisdiction** tab titles, you have the choice of selecting TALIS 2018, 2013, or 2008 data for analysis by checking the appropriate box underneath the year listed. To include data from all three years, check the "**All Years**" box to the left of the individual years.

1.E. Choose Measure(s)

After choosing a **Subject** and **Education 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.F. Choose Jurisdiction(s)

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

Jurisdictions are found under the following groups: **OECD National Entities**, **OECD Sub-National Entities**, and **Partners**. There is also a group category called **International**, with options to display the **Average of All Jurisdictions** and the **Average of the Selected Jurisdictions**.

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

- 1. To open or close jurisdictions, click on the arrow. Jurisdictions in the group are open and can be selected when the blue arrow points down (see exhibit 3).
- 2. 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., "OECD National Entities"), you will select all the jurisdictions within that group. If desired, uncheck the group name to deselect all.
- 3. If you want to close a group (for example, close the list of OECD countries), click the blue arrow next to the group name. The closed group's arrow points to the right. Be advised that closing the group will not deselect your choices.

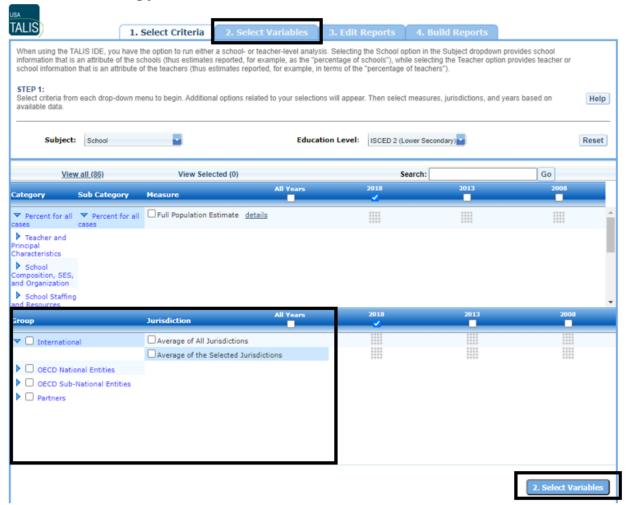


Exhibit 3. Choosing jurisdictions

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**.

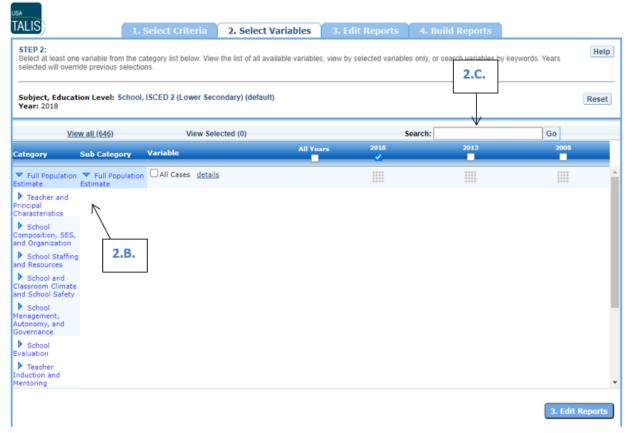


Exhibit 4. Select variables overview

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).

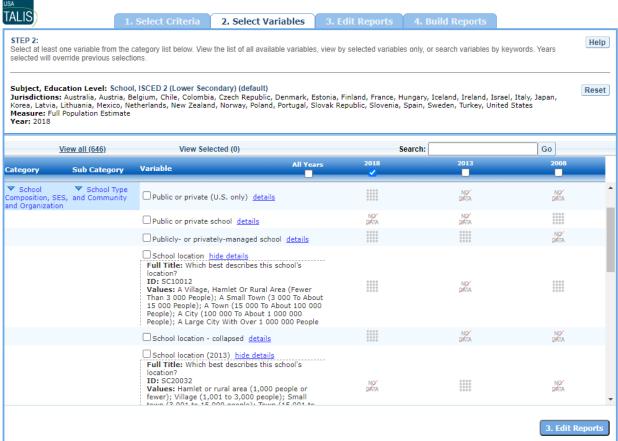
The variables shown are tied to the criteria you selected at step 1 (Subject, Education Level, Measure, Year, and Jurisdiction), which are indicated at the top of the screen. To change any of these criteria, return to step 1 by clicking on Select Criteria.

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** 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**.
- 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 for variables is an option from the **Search** box. See **Section 2.C. Select Variables using the Search Function** on the next page for more details about this function.

Exhibit 5. Select variables using category and sub category lists



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."

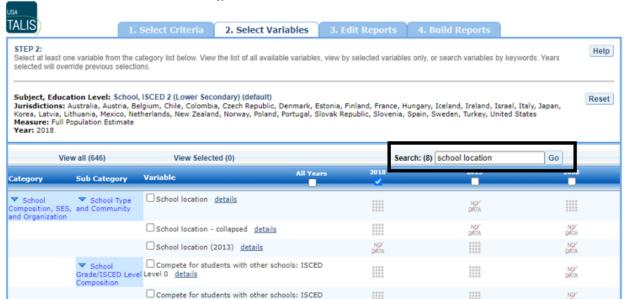


Exhibit 6. Select variables using the search function

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

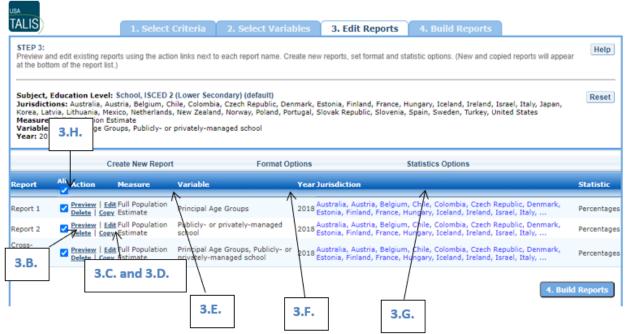
You can access step 3, **Edit Reports**, only after choosing criteria at step 1, **Select Criteria**, and then choosing variables at step 2, **Select Variables**. The IDE will automatically build reports based on your selections from steps 1 and 2. However, at step 3, you may modify your selections for 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 that no more than 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



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 the changes you made during step 3, **Edit Reports**, will affect the report's final layout.

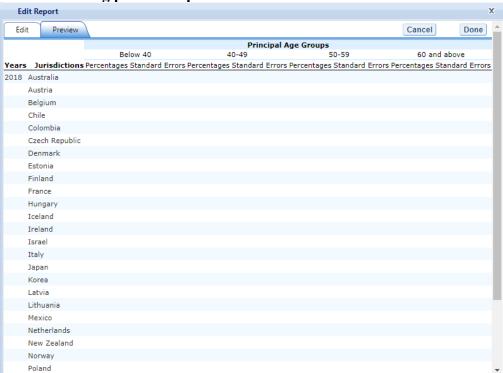


Exhibit 8. Using preview report

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.)
- 4. 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.
- 5. 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.

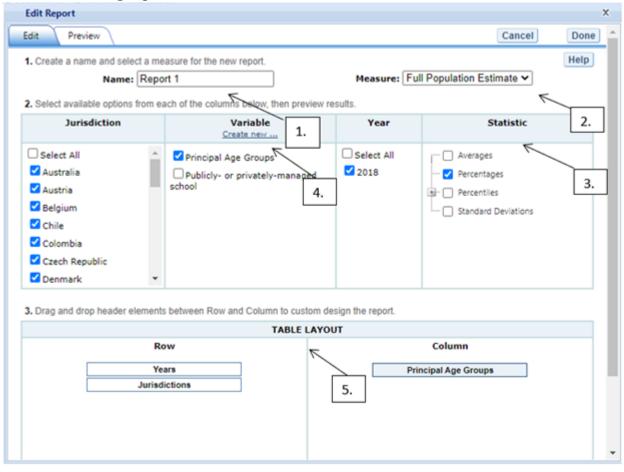


Exhibit 9. Editing reports

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

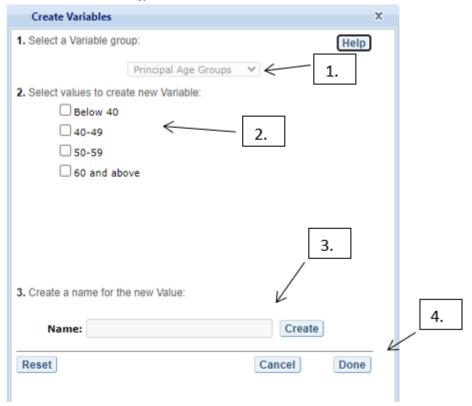
3.D. Create New Variables

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



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.

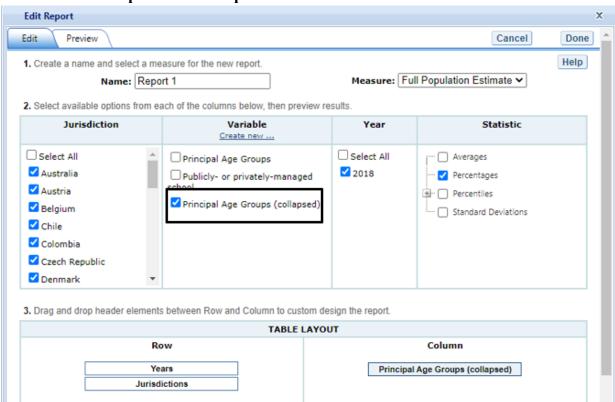


Exhibit 11. Edit reports with collapsed variables

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

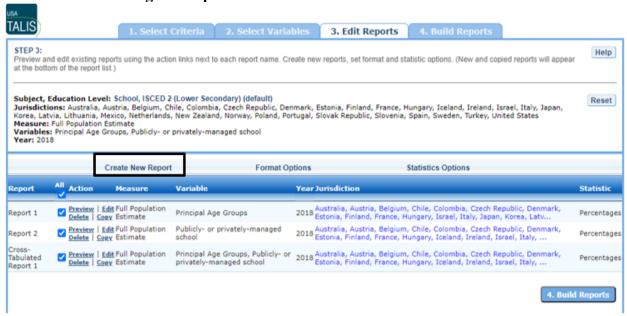
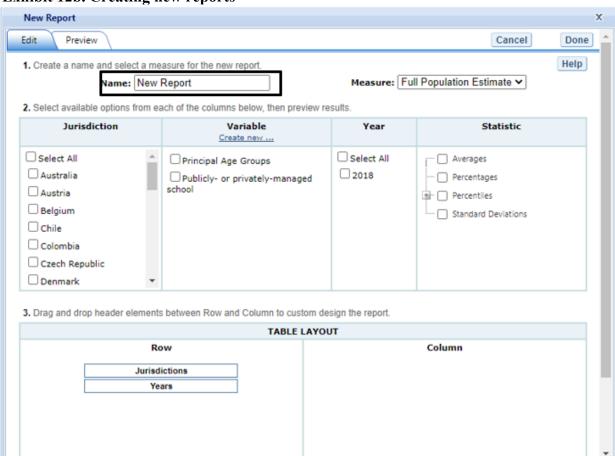


Exhibit 12b. Creating new reports

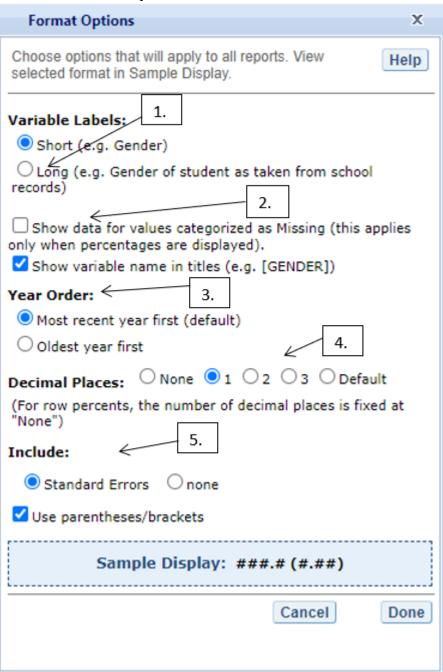


3.F. Format Options

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 report built, with either the most current year of data, or the oldest year of data, displaying first.
- 4. **Decimal Places** gives you the option of specifying 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



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:

```
10<sup>th</sup> percentile – the bottom 10 percent of schools or teachers
```

25th percentile – the bottom quarter of schools or teachers

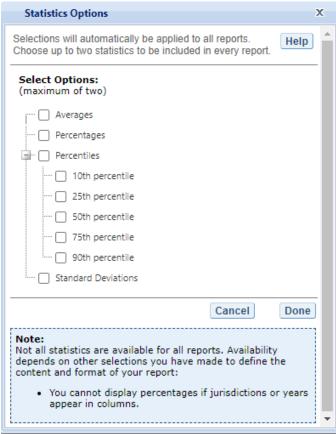
50th percentile – the median (half scored below the cut-point and half scored above it)

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), all reports are checked, and their data will be retrieved.

TALIS 3. Edit Reports Help 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, Education Level: School, ISCED 2 (Lower Secondary) (default) Reset Jurisdictions: Australia, Austria, Belgium, Chile, Colombia, Czech Republic, Denmark, Estonia, Finland, France, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Latvia, Lithuania, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Turkey, United States

Measure: Full Population Estimate Variables: Principal Age Groups, Publicly- or privately-managed school Year: 2018 2. Format Options Statistics Options Create New Report Variable Year Jurisdiction Statistic Preview | Edit Full Population | Delete | Copy Estimate 2018 Australia, Austria, Belgium, Chile, Colombia, Czech Republic, Denmark, Estonia, Finland, France, Hungary, Israel, Italy, Japan, Korea, Latv... Report 1 Principal Age Groups Percentage: Previou | Edit Full Population 2018 Australia, Austria, Belgium, Chile, Colombia, Czech Republic, Denmark, Estonia, Finland, France, Hungary, Iceland, Ireland, Israel, Italy, ... Publicly- or privately-managed Report 2 Percentage: opy Estimate Cross-Tabulated Preview | Ed Principal Age Groups, Publicly- or 2018 Australia, Austria, Belgium, Chile, Colombia, Czech Republic, Der privately-managed school Estonia, Finland, France, Hungary, Iceland, Ireland, Israel, Italy, Percentages 1. Report 1

Exhibit 15. Selecting reports to build

- 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.

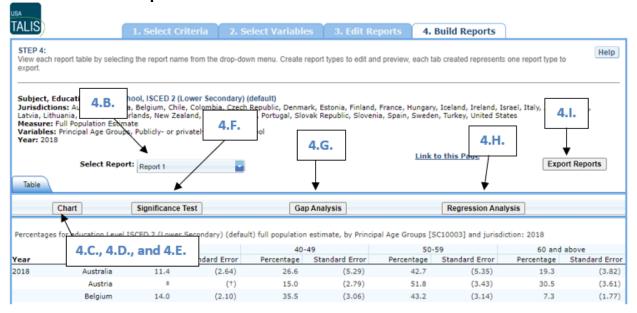
4. Build Reports

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 (see exhibit 16), 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 generated (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 4.B. 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



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.

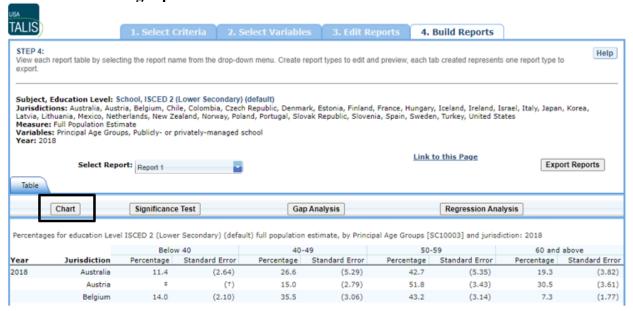


Exhibit 18. Viewing reports as charts

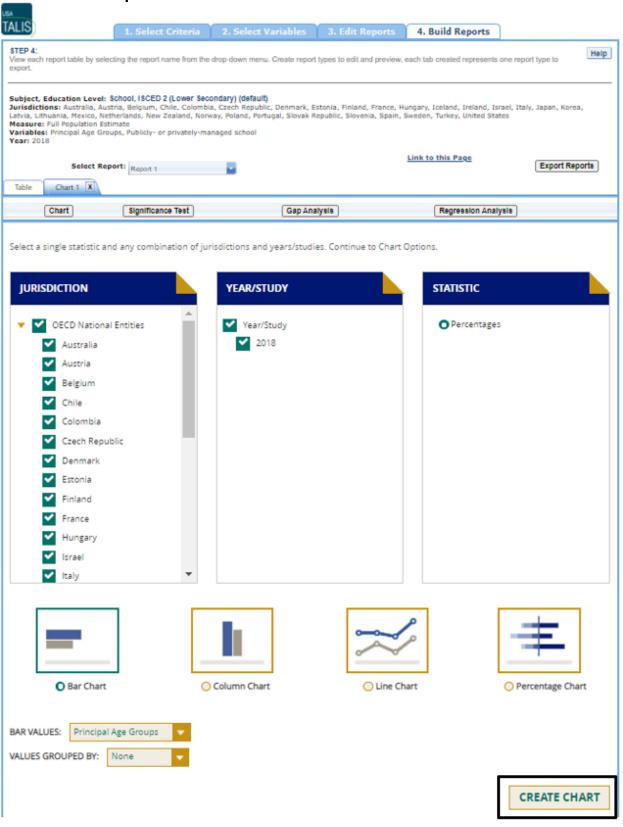
4.D. Create Charts

When you click **Chart**, you will first make selections pertaining to **Jurisdiction**, **Year/Study**, and **Statistic** (see exhibit 19). All **Jurisdictions** and **Studies** are selected by default, while you can only choose one **Statistic**. You may uncheck any of the criteria that you do not wish to chart, as long as you have selected one in each category.

Only the statistics option(s) used to report data in the previous step will be presented, and only one statistics option can be selected at a time. For example, **Percentiles** will appear as the only data option to build the chart if the table created in the previous step is reporting data with only percentiles selected as the statistics option.

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

Exhibit 19. Data options for charts

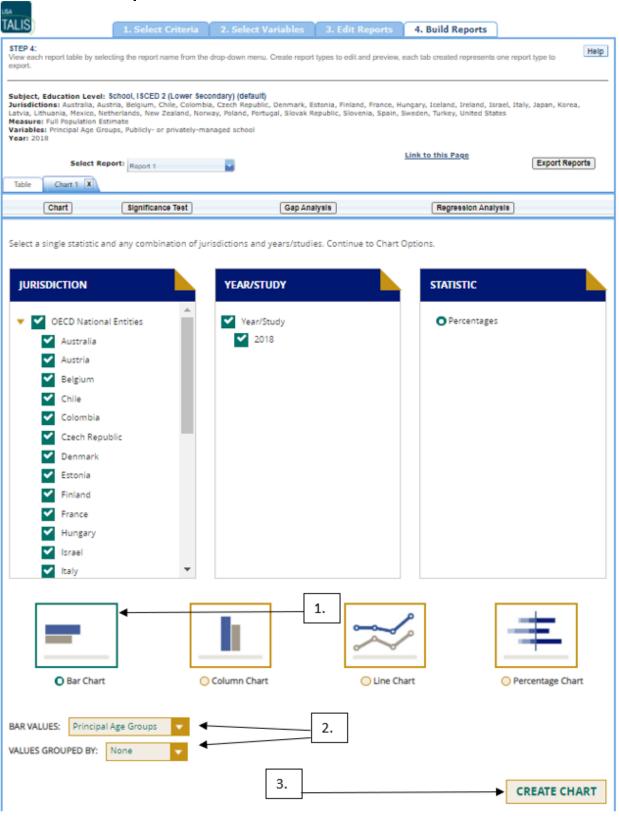


4.E. Create Charts – Chart Options

Next, you can make selections regarding the chart options located below on the same page.

- 1. Select Bar Chart, Column Chart, Line Chart, or Percentage Chart (see 1 in exhibit 20). If the Percentiles Statistic is selected, you can also select from a Percentile Chart option.
- 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. Create your chart by clicking the **Create Chart** button in the lower-right corner (see 3 in exhibit 20).

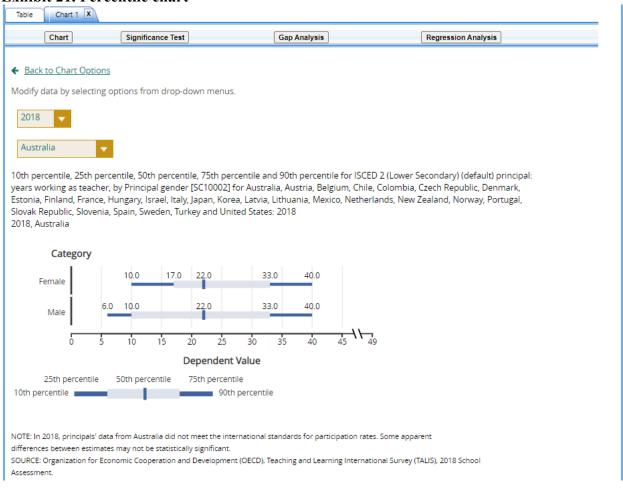
Exhibit 20. Chart options

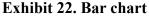


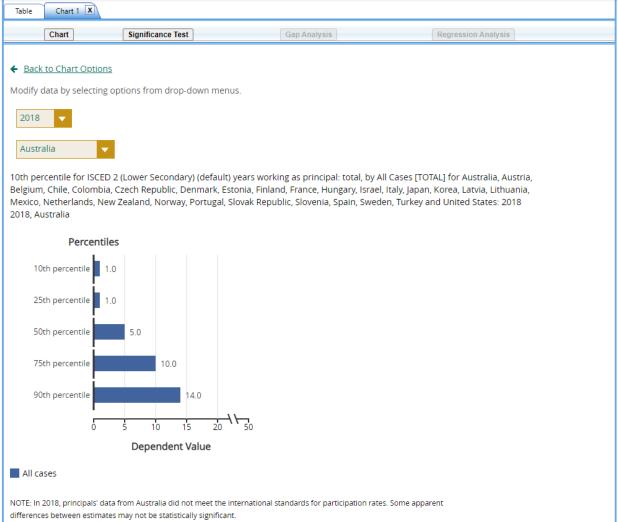
While previewing your chart, you can do the following (see exhibit 21 as an example of a **Percentile Chart** and exhibit 22 as an example of a **Bar Chart**):

- 1. Use the drop-down menus to change the jurisdiction and other variables as applicable.
- 2. Place your cursor over the bars of the chart to see the data points and value label(s).

Exhibit 21. Percentile chart







You can choose "Back to Chart Options" (located in the upper-left corner, below the Chart link) to make more changes.

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 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 another 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 4.1. Export Reports**.)

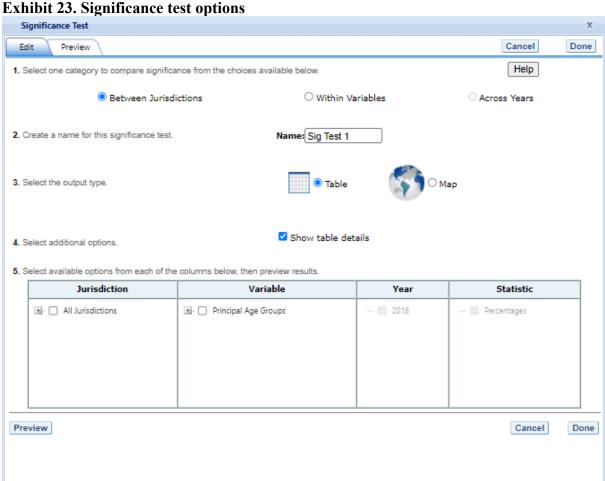
4.F. Significance Tests

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 exhibits 16). 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 23, 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 23):

- 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 the 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.



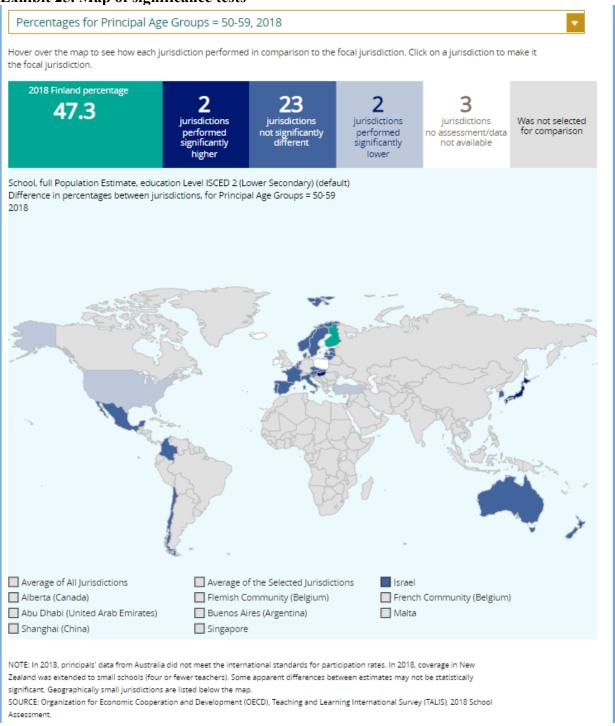
When the table option is selected, you will get a significance test matrix in which you will see the differences and *p* values. Using the symbols shown in the legend of the matrix, an indication is also provided of whether one estimate is significantly lower or higher than another estimate or whether there is no significant difference (see exhibit 24). 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 24. Significance test table output

When the **map option** is selected, a global map is shown with the countries and subnational education systems selected shaded (see exhibit 25). The focal jurisdiction is shaded in teal green, with all other countries compared to it. The other countries 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 light shade of gray is the default color for jurisdictions not selected for comparison.

When you hover over a jurisdiction, a text bubble displays the numerical difference in estimates between that jurisdiction and the focal jurisdiction. At any point, you may choose a different focal jurisdiction by clicking on another country. You may also choose a different variable category for comparison by using the drop-down menu above the map.

Exhibit 25. Map of significance tests



Please note that the IDE does not apply adjustments for multiple comparisons. This is consistent with current NCES statistical standards and practice.

4.G. Gap Analysis

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

TALIS STEP 4: Help export. Subject, Education Level: School, ISCED 2 (Lower Secondary) (default) Jurisdictions: Australia, Australia, Belgium, Chile, Colombia, Czech Republic, Denmark, Estonia, Finland, France, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Latvia, Lithuania, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Turkey, United States Measure: Full Population Estimate Variables: Principal Age Groups, Publicly- or privately-managed school Link to this Page Select Report 1 Export Reports Table Chart Significance Test Gap Analysis Regression Analysis Percentages for education Level ISCED 2 (Lower Secondary) (default) full population estimate, by Principal Age Groups [SC10003] and jurisdiction: 2018 40-49 Below 40 50-59 Jurisdiction Percentage Standard Error Percentage Standard Error Percentage Standard Error Percentage Standard Error Year (2.64) 26.6 (3.82) Australia 11.4 (5.29) 42.7 (5.35) 19.3 2018 Austria (†) 15.0 (2.79)51.8 (3.43)30.5 (3.61)

Exhibit 26. 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 26). 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:

43.2 (3.14)

7.3

(1.77)

Belgium 14.0 (2.10) 35.5 (3.06)

- at one time point, compare the age-group (e.g., 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 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.

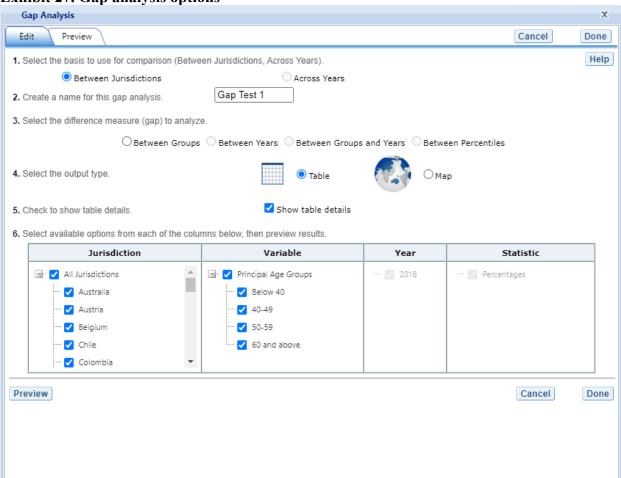


Exhibit 27. Gap analysis options

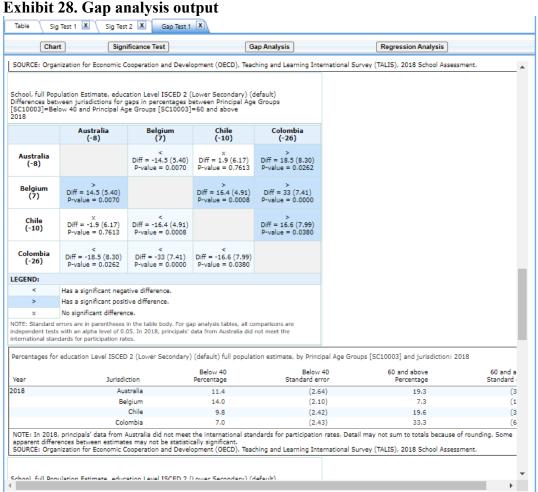
The steps for running a gap analysis (exhibit 27) are similar to those for conducting a statistical significance test. Thus, to run a gap analysis, follow the instructions under **Section 4.F. Significance Tests**, noting the following differences:

- 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 28 shows cross-national differences in the

percentage gaps between two age groups (principals who are below 40 and who are 60 and above).

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.



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 within the field of statistics as linear regression. 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 29).

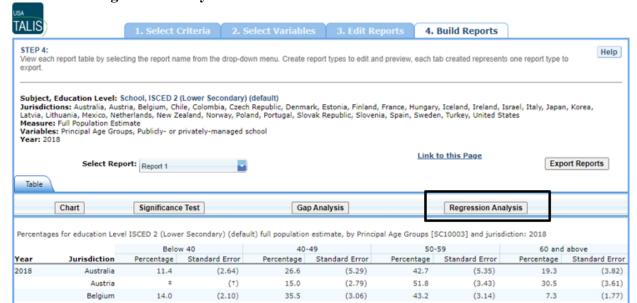


Exhibit 29. Regression analysis link selection

The general steps for running a regression analysis are as follows (see exhibit 30):

- 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 to be in your report, but you may choose up to three variables. In order to use up to three variables, you must have already created and selected a cross-tabulated report (by selecting three 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.

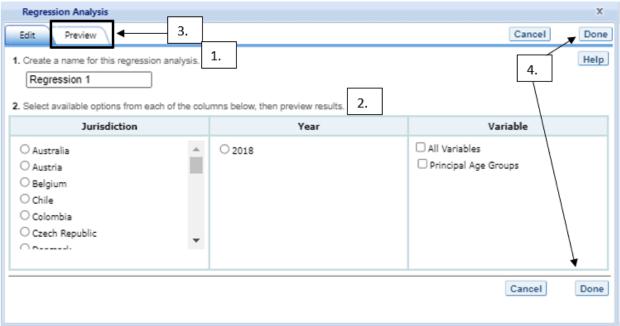


Exhibit 30. Regression analysis options

After you have clicked **Done**, your regression analysis output will load onto the screen (see exhibit 31). 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 31, the reference group for the independent variable **Principal Age Groups** (SC10003) is the subgroup "Below 40," and it 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).

ndependent Variable(s): Pri Contrast Coding Reference (United States		.10003]					
Multiple Correlation	0.49						
R Squared	0.24						
	Degrees of Freedom	Mean square	F Ratio	P Value			
Model	3	1328139.79	1.68	0.21			
Error	16.28	792839.05					
	Standardized Regression Coefficients	S.E. of Standardized Coefficients	Regression Coefficients	S.E. of Regression Coefficients	T Statistic	Probability	Significance
Intercept	0	0	40.3598	6.3162	6.3899	0	>
Principal Age Groups							
40-49	-0.5591	0.1782	-19.6928	6.4513	-3.0525	0.0029	<
50-59	-0.5093	0.1688	-18.6715	6.1954	-3.0138	0.0033	<
60 and above	-0.1882	0.3063	-8.0554	12.8423	-0.6273	0.5319	×

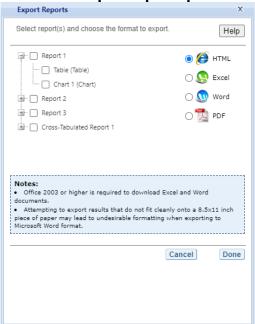
Using the output from exhibit 31, you can compare the mean percentage of principals below age 40 to the mean percentage of those age 40 and above. When a single dummy-coded variable is used in a regression, the *intercept* is the mean of the reference group (e.g., 40.3598), and the *regression coefficient* is the difference between the mean of the reference group and the group identified (coded 1) with the dummy-coded variable (e.g., -19.6928 for 40 to 49 years old). Since the regression coefficients are presented with a standard error and a *t* value, they can be used to test whether a difference between means is statistically significant. Under the **Significance** column in the output, you will see three 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 29) 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 32). 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.





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.

V. 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. Subject
 - b. Education Level
 - c. Year(s)
 - d. Measure(s)
 - e. Jurisdiction(s)
- 2. Variables
- 3. Statistics options
 - a. Averages
 - b. Percentages
 - c. Standard deviations
 - d. Percentiles
- 4. Cross-tabulations
- 5. Statistical notations and other notes
- 6. Index Variables

1. Criteria

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

- a. Subject:
 - School
 - Teacher
- b. Education Level:
 - o ISCED 2 (Lower Secondary, default)
 - o ISCED 1 (Primary)
 - o ISCED 3 (Upper Secondary)

c. Year(s):

- o TALIS 2018 (data available for U.S.)
- o TALIS 2013 (data available for U.S.)
- o TALIS 2008 (data not available for U.S.)

d. 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

e. Jurisdiction(s):

- Average of All Jurisdictions
- o Average of Selected Jurisdictions
- OECD National Entities
- OECD Sub-National Entities
- o Partners

Subject

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

Education Level

Only one education level (ISCED 1, 2, or 3) can be selected at a time in the IDE. For more information on data availability by ISCED level, please see *Jurisdiction(s)* below.

Measure(s)

You can choose the full population estimate, which is the default measure at each education 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 2018, 2013, and 2008, the three years in which 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 2018 or 2008.

When a certain variable is not available for a corresponding year in the TALIS IDE, it will be noted with the symbol "—". The participating countries and subnational education systems across years also vary (more information provided under *Jurisdiction(s)* below).

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.

Please note the following inclusions and exclusions of TALIS participating country and subnational education system data in the OECD TALIS international reports and the NCES TALIS IDE:

- The Netherlands participated in TALIS 2008 but did not meet the sampling standards. Their data are not included in the TALIS IDE or in the OECD TALIS international report.
- Cyprus's data for TALIS 2013 were included in the OECD TALIS international report but were not made publicly available for use in the data files provided on the OECD website. Cyprus's data for TALIS 2013 are not included in the TALIS IDE.
- Iceland's data for TALIS 2013 and 2018 were included in the OECD TALIS international report but were not made publicly available for use in the data files provided on the OECD website. Iceland's data for TALIS 2013, but not for TALIS 2018, are included in the TALIS IDE.
- In the OECD TALIS 2013 international report, all ISCED 2 estimates for the United States are shown separately from those for the other participating education systems. 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, the steps taken to determine the level of bias in the estimates, and caveats about the U.S. data, see https://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.

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 in 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 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. Thus, 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 Bottom 10 percent of teachers or schools
- 25th percentile Bottom quarter of teachers or schools
- 50th percentile Median (i.e., half the teachers or schools reported values below the cutpoint and half reported values above it)
- 75th percentile Top quarter of teachers and schools
- 90th percentile 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

For each ISCED level, the **Average of All Jurisdictions** option under **Jurisdiction** within step 1, **Select Criteria**, includes all jurisdictions with data for the year of interest.

Statistical Comparisons

In the TALIS IDE, most comparisons are independent with an alpha level of .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. This rule states that statistics for a group—i.e., means, standard errors, standard deviations, and a set of percentiles—are suppressed if they are based on less than 62 cases. The rule serves to assure a minimum power requirement to detect moderate differences at a nominal significance level (.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.

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 used the ISCED classification system for all administration cycles. ISCED 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 2 to 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 at this level 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 primarily of vocational education, and courses are taken after the completion of secondary school, although 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. Index Variables

TALIS uses indices derived from the teacher and school questionnaires to contextualize TALIS results and to estimate trends that account for demographic changes over time.

Information on the indices available for each year of administration can be found in the chapters referenced in the summary table below.

Year of TALIS administration	TALIS report chapter	TALIS technical report links
2018	Chapter 11	https://www.oecd.org/education/talis/TALIS_2018_Technical_Report.pdf
2013	Chapter 10	https://www.oecd.org/education/school/TALIS-technical-report-2013.pdf
2008	Chapter 11	https://www.oecd.org/education/school/44978960.pdf