

# NCES International Data Explorer (IDE)

*A Publication of the National Center for Education Statistics at IES*

## What is the International Data Explorer (IDE)?

The National Center for Education Statistics (NCES) has made it easy to explore and analyze large-scale international education study data. The IDE is an interactive online tool with data from the following studies:

- Program for International Student Assessment (PISA)
- Progress in International Reading Literacy Study (PIRLS)
- Trends in International Mathematics and Science Study (TIMSS)
- Program for the International Assessment of Adult Competencies (PIAAC)
- Teaching and Learning International Survey (TALIS)
- International Computer and Information Literacy Study (ICILS)

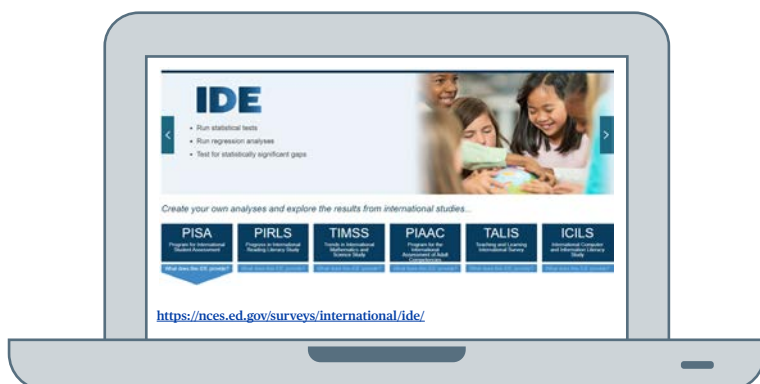
## What can I do with the IDE?

- Explore student and adult performance on international assessments
- Explore survey questionnaire data for thousands of variables
- Find data for the United States and more than 80 foreign education systems
- Create tables, charts, and maps
- Calculate averages, percentages, standard deviations, percentiles, and performance/proficiency levels
- Run statistical tests, including gap analyses



## How do I access the IDE?

1. Visit [nces.ed.gov/surveys/international/ide/](https://nces.ed.gov/surveys/international/ide/).
2. Select the assessment or survey you want and start exploring.
  - View “What does this IDE provide?” under each study to learn more.



## How do I use the IDE?

1. **Select Criteria**
  - Choose criteria for analysis, such as subject, grade, age, year, measure, or jurisdiction.
2. **Select Variables**
  - Choose variables in areas such as student characteristics and attitudes, teacher characteristics and instructional practices, school contexts, and adult workplace experiences.
3. **Edit Reports**
  - Give the report a title, select formatting and statistics options, and custom design the layout.
4. **Build Reports**
  - View data tables.
  - Create a chart or run a significance test, gap analysis, or regression analysis.
  - Export your findings so you can save it for additional analysis or share it with others.

# What types of questions can the IDE help you answer?

In 2018, how did the average computer and information literacy score of 8th-grade students in the United States compare with the international average? (ICILS IDE)

## 1. Select Criteria

- Under Display, select Student.
- Under Measure, select ICILS Computer and Information Literacy: Overall.
- Check the box under 2018.
- Under Jurisdiction, select Average of Countries and United States.
- Click Select Variables (at bottom right).

## 2. Select Variables

- Under Variable, select All Cases.
- Click the Edit Reports button (at bottom right).

## 3. Edit Reports

- Under Action, select Edit. In this tab, you can give your report a title and select various format and statistics options.
- Click Done.
- Click the Build Reports button (at bottom right).

## 4. Build Reports

- Your data table is generated.
- Click the Export Reports button to save or share in HTML, Microsoft Excel or Word, or PDF format.

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

Table Chart Significance Test Gap Analysis Regression Analysis

Averages for Student ICILS computer and information literacy: overall, by All Cases [TOTAL] and jurisdiction: 2018

		All Cases	
Year	Jurisdiction	Average	Standard Error
2018	Average of Countries	495	(0.9)
	United States	519	(1.9)

NOTE: CIL = Computer and information literacy. The International Average is the average of all participating education systems meeting international technical standards, with each education system weighted equally. In 2018, United States did not meet the guidelines for a sample participation rate of 85 percent and was not included in the international average. The ICILS computer and information literacy: overall ranges from 0 to 1000. Some apparent differences between estimates may not be statistically significant.  
SOURCE: International Association for the Evaluation of Educational Achievement, International Computer and Information Literacy Study (ICILS), 2018 Computer and Information Literacy Assessment.

In 2019, what was the average science score of U.S. 4th-grade students with and without internet connections at home? (TIMSS IDE)

## 1. Select Criteria

- Under Subject, select Mathematics and Science.
- Under Grade, select Grade 4.
- Under Measure, select TIMSS Science Scale: Overall Science.
- Check the box under 2019.
- Under Jurisdiction, select United States.
- Click the Select Variables button (at bottom right).

## 2. Select Variables

- Under Category, select Student and Family Characteristics.
- Under Sub Category, select Home Resources.
- Under Variable, select Gen\home possess\internet connection.
- Click the Edit Reports button (at bottom right).

## 3. Edit Reports

- Under Action, select Edit. In this tab, you can give your report a title and select various format and statistics options.
- Click Done.
- Click the Build Reports button (at bottom right).

To answer this question, run a significance test:

## 4. Build Reports

- Click the Significance Test button.
- In the Significance Test window, you can name your significance test and choose to display it as a table or map. Select table.
- Under Variable, select Gen\home possess\internet connection.
- Click Done.
- Click the Export Reports button to save or share in HTML, Microsoft Excel or Word, or PDF format.

TIMSS science scale: overall science scale, grade 4, Difference in averages between variables - dependent test, for Gen\home possess\internet connection [AS4GTH05] United States, 2019

	Yes (544)	No (491)
Yes (544)		> Diff = 53 (4.2) P-value = 0.0000
No (491)	< Diff = -53 (4.2) P-value = 0.0000	

**LEGEND:**

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

## How many years of experience do male and female lower secondary education teachers have on average? (TALIS IDE)

### 1. Select Criteria

- Under Subject, select Teacher.
- Under Education Level, select ISCED 2 (Lower Secondary) (default).
- Under Category, select Teacher and Principal Characteristics.
- Under Sub Category, select Teacher Work Experience.
- Under Measure, select Years working as teacher: Total.
- Check the box under 2018.
- Under Jurisdiction, select all the jurisdictions that participated in TALIS 2018 or select the countries you would like displayed.
- Click the Select Variables button (at bottom right).

### 2. Select Variables

- Under Category, select Teacher and Principal Characteristics.
- Under Sub Category, select Teacher Demographics.
- Under Variable, select Teacher gender.
- Click the Edit Reports button (at bottom right).

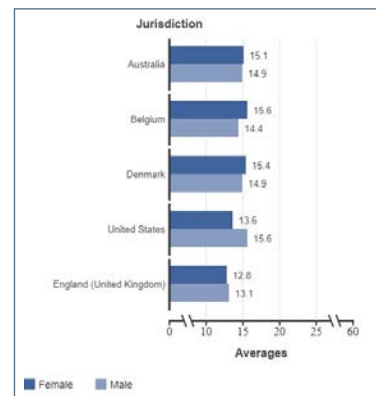
### 3. Edit Reports

- Click Statistics Options.
- Select Averages.
- Click Done.
- Click the Build Reports button (at bottom right).

To answer this question, display this data using a chart instead of a table:

### 4. Build Reports

- Click the Chart button.
- If you would like to reduce the number of jurisdictions displayed on your chart, select the countries you would like to display under Jurisdiction.
- Select the type of chart you would like to use to display your data.
- Click the Create Chart button.
- Click the Export Reports button to save or share in HTML, Microsoft Excel or Word, or PDF format.



## In 2018, how did U.S. 15-year-olds perform in mathematics compared with students in other countries? (PISA IDE)

### 1. Select Criteria

- Under Subject, select Mathematics, Reading, and Science.
- Under Measure, select PISA Mathematics Scale: Overall Mathematics.
- Check the box under 2018.
- Under Jurisdiction, select the United States and the other jurisdictions you would like to include as part of your analysis.
- Click the Select Variables button (at bottom right).

### 2. Select Variables

- Under Variable, select All students.
- Click the Edit Reports button (at bottom right).

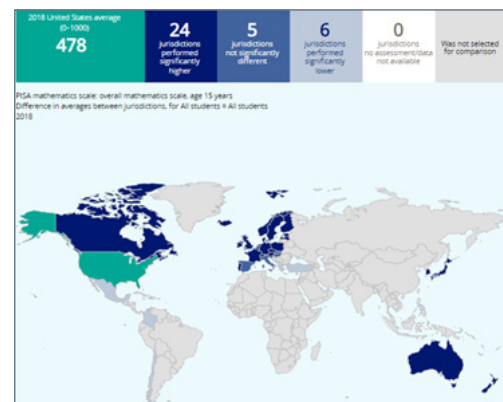
### 3. Edit Reports

- Under Action, select Edit. In this tab, you can give your report a title and select various format and statistics options.
- Click Done.
- Click the Build Reports button (at bottom right).

To answer this question, display this data using a map instead of a table:

### 4. Build Reports

- Select the Significance Test button.
- In the Significance Test window, you can name your significance test and choose to display it as a table or map. Select Map.
- Under Jurisdiction, select All Jurisdictions.
- Click Done.
- Click the Export Reports button to save or share in HTML, Microsoft Excel or Word, or PDF format.



# What is the association between literacy proficiency and monthly earnings among adults ages 16-65 in the United States? (PIAAC IDE)

## 1. Select Criteria

- Under Display, select Adults, 16-65.
- Under Measure, select PIAAC Literacy: Overall scale.
- Under Years, select PIAAC 2012/2014.
- Under Group, unfold OECD National Entities and scroll down to bottom of the list.
- Under Jurisdiction, select the United States.

## 2. Select Variables

- Under Category, select International background questionnaire.
- Under Sub Category, select Current earnings.
- Under Variable, select Monthly earnings including bonuses and self-employed, in deciles (derived).

## 3. Edit Reports

- Click Done after you make any optional report edits.

To answer this question, perform a regression analysis:

## 4. Build Reports

- Select the Regression Analysis button.
- In the Regression Analysis window, you can choose the variables you'd like to include as part of your regression analysis. Select All Variables.
- Click Done.
- Click Export Reports to save or share your regression analysis in HTML, Microsoft Excel, or Microsoft Word format.

## Helpful Tips

**Be sure to click Done** when you are finished editing or working with a table, chart, or graphic to be able to save and export it.

**Always Export** your reports, tables, maps, and charts before leaving the Build Reports screen. They will not remain available if you choose new variables or edit the format.

**If you know what variable you are looking for in Step 2 - Select Variables**, you can use the search box, located above the years, to find it.

The **search function only works if you type complete words**. For example, "mathe" will not provide any results, but "mathematics" will.

## Additional Support

Use the **Help Guides**, available from the IDE homepage, or click **Help** within any of the IDEs.

Watch [these tutorial videos](#) from the [IEA-ETS Research Institute](#) for a full walkthrough of the IDE tool using TIMSS, PIRLS, and PIAAC as examples.

## Technical Requirements for IDE

Target screen resolution is **1024 x 768**.

You can use the IDE on the following internet browsers: **Microsoft Edge, Firefox, Google Chrome, and Apple Safari**.

**Enable JavaScript and pop-ups** in your browser.

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