

PIAAC pētījuma metodoloģija un gaita

Mareks Niklass
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Daži jēdzieni

Ģenerālkopa (target population) – 16-65 gadus veci pastāvīgie iedzīvotāji, kuri nedzīvo dažādās institūcijās (pansionāti, cietumi, kopmītnes, slimnīcas);

Izsoles dizains (sampling design) – vairākpakāpju gadījumizlase (personu, mājokļu adresu);

Sasniegtā izlase (sampling size) – vismaz 5000 respondentu galvenajā valsts valodā;

Datu ievākšanas metode (klātienas intervijas); galvenā pētījuma anketa (BQ – background questionnaire), ko aizpilda intervētājs, testa jautājumi, ko patstāvīgi intervētāja klātbūtnē veic respondents.

Kādu valstu dati būs pieejami analīzei PIAAC pētījuma 2.ciklā?

Austrija, Beļģija (Flandrija), Kanāda, Čīle, Horvātija, Čehija, Dānija, Igaunija, Somija, Francija, Vācija, Ungārija, Īrija, Izraēla, Itālija, Japāna, Koreja, Latvija, Lietuva, Nīderlande, Jaunzēlande, Norvēģija, Polija, Portugāle, Singapūra, Slovākijas Republika, Spānija, Zviedrija, Šveice, Apvienotā Karaliste (Anglija), Amerikas Savienotās Valstis

PIAAC galvenā pētījuma lauka darba plānojums Latvijā

Lauka darba izpildi veic SKDS

Lauka darba uzsākšana	28.10.2022.
Lauka darba noslēgšana	16.06.2023.
Intervētāju apmācības uzsākšana galvenajam pētījumam	25.10.2022.
Intervētāju apmācības noslēgšana galvenajam pētījumam	05.04.2023.

PIAAC galvenā pētījuma lauka darba raksturojošie rādītāji Latvijā

Apsekojamo mājsaimniecību adrešu skaits	27630
Mājsaimniecības locekļu atteikumi	10567
AdreSES, kurās nebija pastāvīgi dzīvojošo iedzīvotāju (vasarnīcas, remonts, neapdzīvotie mājokļi u.tml.)	1584
AdreSES, kurās nebija mērķa grupas iedzīvotāji (16-65 gadus veci Latvijas pastāvīgie iedzīvotāji)	1793
Respondentu skaits, kas bija rekrutēti PIAAC galvenajam pētījumam	7551
Respondentu skaits, kas bija pabeiguši galvenā pētījuma anketu	6544
Respondentu skaits, kas bija pabeiguši galvenā pētījuma testa daļu	5789
Kopējais respondences līmenis (%)	27.5

Atlases intervija mājsaimniecībā (screener)

Respondentu atlasi mājsaimniecībā veic intervētājs

[IZVĒLIETIES RESPONDENTU NO ZEMĀK IEKĻAUTĀ SARAKSTA]

JĀ NAV SKAIDRS, PAVAICĀJIET: **Paldies Jums par to, ka esat pastāstījis par visiem cilvēkiem, kas dzīvo šajā mājsaimniecībā. Tagad man jājautā Jūsu vārds, lai saprastu, kurš mājsaimniecības loceklis no nosauktajiem esat Jūs]**

- Mareks
 Anna

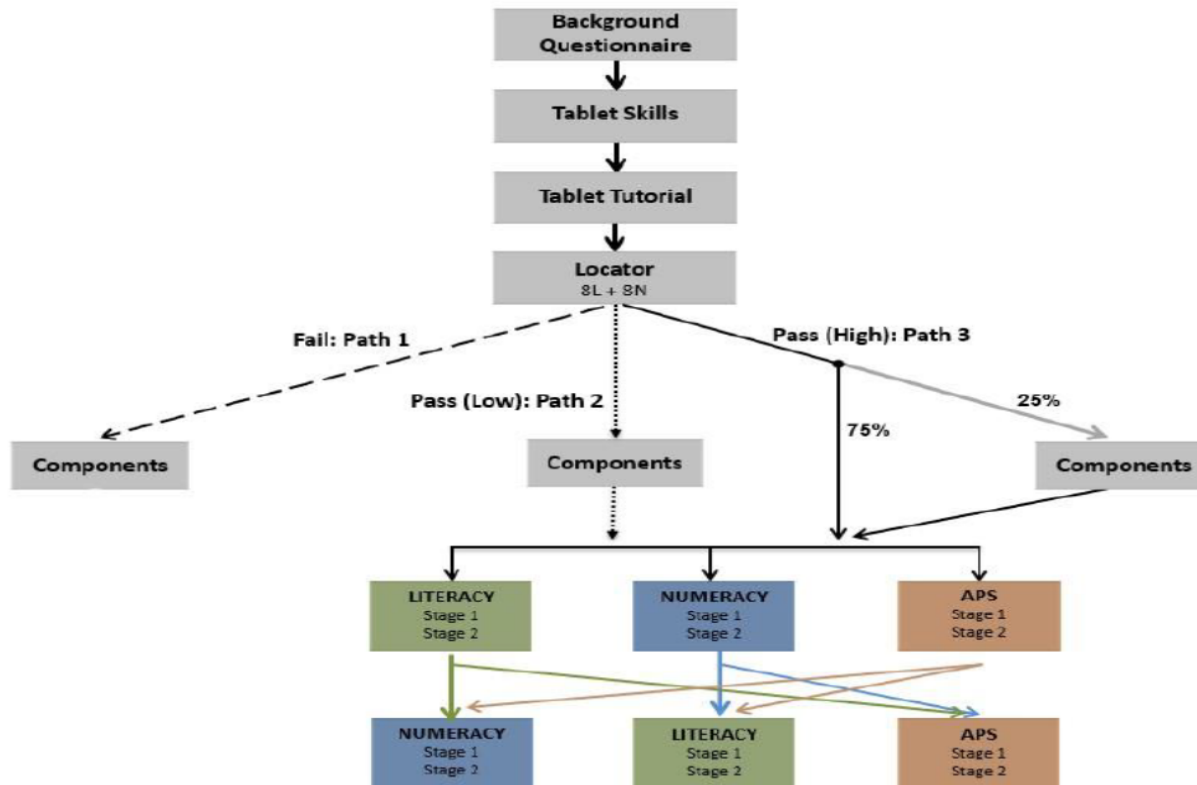
Iepriekšējais

Nākamais

Vārds	Atlasītais respondents (screener respondent)	Dzimums	Vecums	Vecuma intervāls	Kļūdaina informācija
Mareks					--
Anna					--

Intervijas gaita

Figure 1.1. Assessment design: PIAAC Cycle 2



Avots

OECD (2021), "Executive summary", in The Assessment Frameworks for Cycle 2 of the Programme for the International Assessment of Adult Competencies, OECD Publishing, Paris, <https://doi.org/10.1787/7e5fdc28-en>

Galvenā pētījuma anketas (BQ – background questionnaire) jautājuma paraugs (aizpilda intervētājs)

The screenshot shows a web browser window with two tabs: "Translations - PIAAC Portal" and "PIAAC aptauja". The address bar shows the URL "piaac.ets.org/node/runtime/piaac/sampling#no-back-button". The main content area displays a questionnaire question in Latvian. At the top left of the question area is the label "PIAAC" and a progress bar. At the top right is a button "Aptaujas vienumu saraksts" with a list icon. The question text is: "Vai Jūs jebkad esat uzsācis(-kusi) mācības, lai iegūtu kādu oficiālu izglītības līmeni, bet pametis(-usi) tās pirms pabeigšanas?". Below the question are two radio button options: "<01> Jā" and "<02> Nē". At the bottom of the options are two buttons: "Nezinu" and "Atteicās atbildēt". At the bottom left of the question area is the label "B2_Q05a". At the bottom right are two navigation arrows. The browser's taskbar at the bottom shows the Windows logo, a search bar, and various application icons. The system tray on the right shows the temperature "66°F Mostly sunny", the location "LAV", and the date and time "13:18 23.09.2024".

PIAAC

Aptaujas vienumu saraksts

Vai Jūs jebkad esat uzsācis(-kusi) mācības, lai iegūtu kādu oficiālu izglītības līmeni, bet pametis(-usi) tās pirms pabeigšanas?

<01> Jā

<02> Nē

Nezinu Atteicās atbildēt

B2_Q05a

Atiestatīt

Testa jautājuma paraugs (ar korektu atbildi), ko aizpilda respondents

Documents - PIAAC Portal x PIAAC x +

piaac.ets.org/utt/platform//index.html?user=&unit=scoring_interface&authoredUnit=U651-Fertilizer&unitName=U651-Fertilizer&blockEdit=VTY1MS1GZXI0aWxpemVyOjA=&lang=lav-LVA

PIAAC

Sadaļa 1 - Jautājums 1 / 1

Apskatiet organiskā mēslojuma etiķeti. Viegli uzsitiet katram atbilstošu lodziņam un izmantojiet tastatūru, lai atbildētu uz nākamo jautājumu.

Jums jāpiepilda 1000 ml (1 l) rezervuārs ar mēslojuma maisījumu. Saskaņā ar norādījumiem uz etiķetes, cik mililitrus mēslojuma un cik mililitrus ūdens Jums jāizmanto?

Mēslojuma koncentrāts: ml

Ūdens: ml

ORGANISKAIS MĒSLOJUMS
Koncentrēts šķidrums augiem un dārzeņiem

Aktīvās sastāvdaļas:
Fitamīna 4-3-4 šķīdums



Lietošanas pamācība: Pirms lietošanas labi sakratīt
Sajaukt proporcijā 1 daļa koncentrētā mēslojuma uz 4 daļām ūdens (1:4)

Sastāvs: 500 ml (0,5 l)

1: N651P002 Reset Unit

U651-Fertilizer

Q: 1
id: N651P002

scoring rule

```
{{ MATCH(PARSEFRAC(C651P002_NUM1),200.0) }} && { MATCH(PARSEFRAC(C651P002_NUM2),800.0) }}
```

Evaluate the Score ✓ ✗ ↻

RESULT	1
item duration	15.82 s
total time	15.82 s
time to first action	2.50 s

17	change	keypau	9:22:27
18	dblclick	span	9:22:28
19	scoreNowEvent	MODULE	9:22:30
20	scoring	form	9:22:30
21	scoreNowResult	MODULE	9:22:30
812	shortcut	MODULE	10:15:33

After defining the scoring for this question, you can click on "Evaluate the Score" to check the result or "Reset Unit" to reset the current unit.

Type here to search

66°F Mostly sunny 13:16 23.09.2024 LAV

Kas notiek aiz «priekškara»? (lauka darba uzskaites paraugs)

If applicable, indicate the number of **finalised** Screeners to date for each of the disposition codes below. (S 10.7.1)

Description	Code	Number of Screeners
Complete – 1 sample person selected	01	7,275
Complete – 2 sample persons selected	02	276
Partial complete/break-off	03	0
Refusal – household member	04	10,567
Refusal – gatekeeper	05	150
Language barrier	07	18
Learning/mental disability	09	5
Hearing impairment	12	4
Blindness/visual impairment	13	3
Speech impairment	14	5
Physical disability	15	6
Other disability	16	15
Other (unspecified), such as sickness or unusual circumstances	17	230
Complete – no eligible sample persons	19	1,793
Unable to locate dwelling unit	20	86
Maximum number of calls	21	5,015
Dwelling unit under construction	22	152
Temporarily absent/unavailable during field period	24	79
Vacant dwelling unit or dwelling unit used as holiday/temporary residence only	26	1,584
Duplication – already interviewed	27	0
Address not a dwelling unit	28	367
Total		27,630

Citi saistīti fakti

- PIAAC 2.cikla pētījuma īstenošana Latvijā sākta 2019.gadā;
- Vairāk kā 100 personu iesaistītas dažādos pētījuma posmos (tulkotāji, izlases speciālisti, IKT speciālisti, analītiķi, intervētāji, lauka darba supervizori, organizētāji, kodētāji);
- Datu menedžmenta sistēmā ir reģistrēti 3263252 ierakstu (records) 3165 atšķirīgajiem mainīgajiem (variables).

Paldies!

Mareks Niklass

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PIAAC *Data Explorer* – tiešsaistes
analīzes rīks datu atspoguļošanai un
analīzei

Mareks Niklass
Latvijas Universitāte

Ko var izdarīt ar šo rīku?

- Analīze pa sasnieguma līmeņiem
- Atskaišu eksportēšana
- Biežuma tabulas, krustojuma tabulas un diagrammas
- Deskriptīvā statistika
- Regresijas analīze (pagaidām tikai autorizētajā daļā)
- Statistiskās nozīmības testi (pārbaude)
- Tendence (trends) (ja ir dati par iepriekšējo ciklu)

Galvenie soļi

1. Izvēlēties atkarīgo mainīgo (testa rezultātus), valstis un laika periodu;
2. Izvēlēties neatkarīgos mainīgos (dzimums, vecums, izglītība u.tml.);
3. Izvēlēties analīzes griezumus, metodes;
4. Parādīt analīzes rezultātus.

PIAAC Data Explorer

The screenshot shows the PIAAC Data Explorer website. At the top, there is the OECD logo with the tagline "BETTER POLICIES FOR BETTER LIVES" and a banner for "OECD Skills Surveys". Below this, the "PIAAC Data Explorer" title is followed by four steps: "1. Select Criteria", "2. Select Variables", "3. Edit Reports", and "4. Build Reports". The "1. Select Criteria" step is active. It includes a "Language" dropdown set to "English" and a "STEP 1:" instruction: "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." There is a "Help" button. Below this, an "Age" dropdown is set to "Adults 16-65" with a "Reset" button. A search bar is present with "View all (74)" and "View Selected (0)" options. The main content area is a table with columns for "Category", "Sub Category", "Measure", "All Years/Studies", "PIAAC 2012", "ALL 2003", and "IALS 1994". Under "Scale scores", there are three measures: "PIAAC Literacy: Literacy", "PIAAC Numeric: Numeracy", and "PIAAC Problem Solving: Problem Solving". Under "Skill use", there are "Reading components" and "Reading". Under "Group", there are "International" and "OECD National Entities". The "PIAAC 2012" column has a checked checkbox, while "ALL 2003" and "IALS 1994" have unchecked checkboxes. The bottom of the screenshot shows a Windows taskbar with the search bar and system tray.

Piekļuve
[https://piaac
dataexplorer.
oecd.org/ide/i
depiaac/](https://piaacdataexplorer.oecd.org/ide/idepiaac/)

Latvijas, tāpat kā citu valstu PIAAC pētījuma 2.cikla dati būs pieejami tikai 2024.gada decembra otrajā pusē. Līdz tam var aplūkot un analizēt 1.cikla datus (bez LV datiem)

Testa rezultātu un valstu izvēle

PIAAC Data Explorer | 1. Select Criteria | 2. Select Variables | 3. Edit Reports | 4. Build Reports

Language: English

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](#)

Age: Adults 16-65 [Reset](#)

[View all \(74\)](#) | [View Selected \(1\)](#) | Search: [Go](#)

Category	Sub Category	Measure	All Years/Studies	PIAAC 2012	ALL 2003	IALS 1994
Skill use	Reading components		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Reading component timings		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Full population estimates		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
International background		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Group	Jurisdiction		All Years/Studies	PIAAC 2012	ALL 2003	IALS 1994
<input type="checkbox"/> International	<input checked="" type="checkbox"/> OECD Average		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> Selected countries		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> OECD National Entities	<input type="checkbox"/> Australia		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> Austria		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> Canada		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> Chile		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> Czech Republic		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> Denmark		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> Estonia		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Windows taskbar: Type here to search | Earnings upcoming | 14:57 23.09.2024

Neatkarīgo mainīgo izvēle

The screenshot displays the PIAAC Data Explorer web application. The interface is divided into four steps: 1. Select Criteria, 2. Select Variables, 3. Edit Reports, and 4. Build Reports. The current step is '2. Select Variables'. The page shows the following details:

- Subject, Age:** Literacy, Numeracy & Problem Solving, Adults 16-65
- Jurisdictions:** OECD Average, Estonia
- Measure:** PIAAC Literacy: Literacy
- Year/Study:** PIAAC 2012

Below these details is a table of available variables. The table has columns for 'Category', 'Sub Category', 'Variable', and four data sources: 'All Years/Studies', 'PIAAC 2012', 'ALL 2003', and 'IALS 1994'. The 'PIAAC 2012' column has a checkmark, indicating it is the selected data source. The variable 'Person resolved gender from BQ and QC check (derived)' is selected, as indicated by a checked checkbox in the 'Variable' column.

Category	Sub Category	Variable	All Years/Studies	PIAAC 2012	ALL 2003	IALS 1994
Major reporting groups	Major reporting groups	<input type="checkbox"/> All adults details	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input checked="" type="checkbox"/> Person resolved gender from BQ and QC check (derived) details	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/> Education - Highest qualification - Level details	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/> Current status/work history - Subjective status details	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/> Current work - Employee or self-employed details	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/> Background - Born in country details	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/> Age groups in 5-year intervals based on LFS groupings (derived) details	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/> Age in 10 year bands (derived) details	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

At the bottom of the page, there is a footer with 'About PIAAC IDE', 'Accessible Version', and the ETS Data Explorer Technology logo. The Windows taskbar at the bottom shows the system clock as 14:59 on 23.09.2024.

Analizes griezumu un metožu izvēle

OECD
BETTER POLICIES FOR BETTER LIVES

OECD Skills Surveys

PIAAC Data Explorer

1. Select Criteria
2. Select Variables
3. Edit Reports
4. Build 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, Age: Literacy, Numeracy & Problem Solving, Adults 16-65
Jurisdictions: OECD Average, Estonia
Measure: PIAAC Literacy: Literacy
Variable: Person resolved gender from BQ and QC check (derived)
Year/Study: PIAAC 2012

Create New Report Format Options Statistics Options

Report	Action	Measure	Variable	Year/Study	Jurisdiction	Statistic
Report 1	<input checked="" type="checkbox"/> Preview Edit Delete Copy	PIAAC Literacy: Literacy	Person resolved gender from BQ and QC check (derived)	PIAAC 2012	OECD Average, Estonia	Averages

4. Build Reports

About PIAAC IDE Accessible Version ETS Data Explorer Technology

Sign in | PIAAC - Edit Reports | <https://piaacdataexplorer.oecd.org/ide/idepiaac/format.aspx>

OECD
BETTER POLICIES FOR BETTER LIVES

OECD Skills Surveys

PIAAC Data Explorer | 1. Select Criteria

STEP 3:
Preview and edit existing reports using the action link at the bottom of the report list.)

Subject: Age: Literacy, Numeracy & Problem Solving
Jurisdictions: OECD Average, Estonia
Measure: PIAAC Literacy: Literacy
Variable: Person resolved gender from BQ and QC
Year/Study: PIAAC 2012

Create New Report

Report	All	Action	Measure
Report 1	<input checked="" type="checkbox"/>	Preview Edit Delete Copy	PIAAC Literacy: Lit

About PIAAC IDE

Statistics Options

Selections will automatically be applied to all reports. Choose up to two statistics to be included in every report. [Help](#)

Select Options:
(maximum of two)

- Averages
- Standard Deviations
- Percentages
- Percentiles
 - 10th Percentile
 - 25th Percentile
 - 50th Percentile
 - 75th Percentile
 - 90th Percentile

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

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

- You cannot display percentages if jurisdictions or years appear in columns.

Build Reports | [Help](#) | [Reset](#)

Options

Year/Study	Jurisdiction	Statistic
PIAAC 2012	OECD Average, Estonia	Averages

[4. Build Reports](#)

ETS Data Explorer Technology

Rezultātu izkārtojums tabulās

The screenshot displays the OECD Skills Surveys PIAAC Data Explorer interface. The page is titled "OECD Skills Surveys" and is part of the "PIAAC Data Explorer" tool. The interface is divided into four steps: 1. Select Criteria, 2. Select Variables, 3. Edit Reports, and 4. Build Reports. The current step is "Build Reports", which includes a "Help" button and instructions on how to view and export report tables.

The report details are as follows:

- Subject, Age:** Literacy, Numeracy & Problem Solving, Adults 16-65
- Jurisdictions:** OECD Average, Estonia
- Measure:** PIAAC Literacy: Literacy
- Variable:** Person resolved gender from BQ and QC check (derived)
- Year/Study:** PIAAC 2012

The "Select Report" dropdown menu is set to "Report 1". There are buttons for "Link to this Page" and "Export Reports".

The table below shows the average scores and standard deviations for all adults, by Person resolved gender from BQ and QC check (derived) [GENDERR] and Jurisdiction: PIAAC 2012.

Year/Study	Jurisdiction	Male				Female			
		Average	Standard Error	Standard Deviation	Standard Error	Average	Standard Error	Standard Deviation	Standard Error
PIAAC 2012	OECD Average	267	(0.2)	48	(0.2)	265	(0.2)	46	(0.2)
	Estonia	275	(1.1)	45	(0.7)	277	(0.8)	43	(0.6)

NOTE: The PIAAC literacy: literacy ranges from 0 to 500. Some apparent differences between estimates may not be statistically significant.
SOURCE: Organization for Economic Cooperation and Development (OECD), Program for the International Assessment of Adult Competencies (PIAAC), PIAAC 2012 Literacy, Numeracy & Problem Solving Assessment.

At the bottom of the page, there are links for "About PIAAC IDE" and "Accessible Version", and the ETS Data Explorer Technology logo.

Attēla izveide

The screenshot displays the PIAAC Report web application interface. The browser address bar shows the URL: <https://piaacdataexplorer.oecd.org/ide/idepiaac/report.aspx>. The main content area contains the following sections:

Select a single statistic and any combination of Jurisdictions and years/studies. Continue to Chart Options.

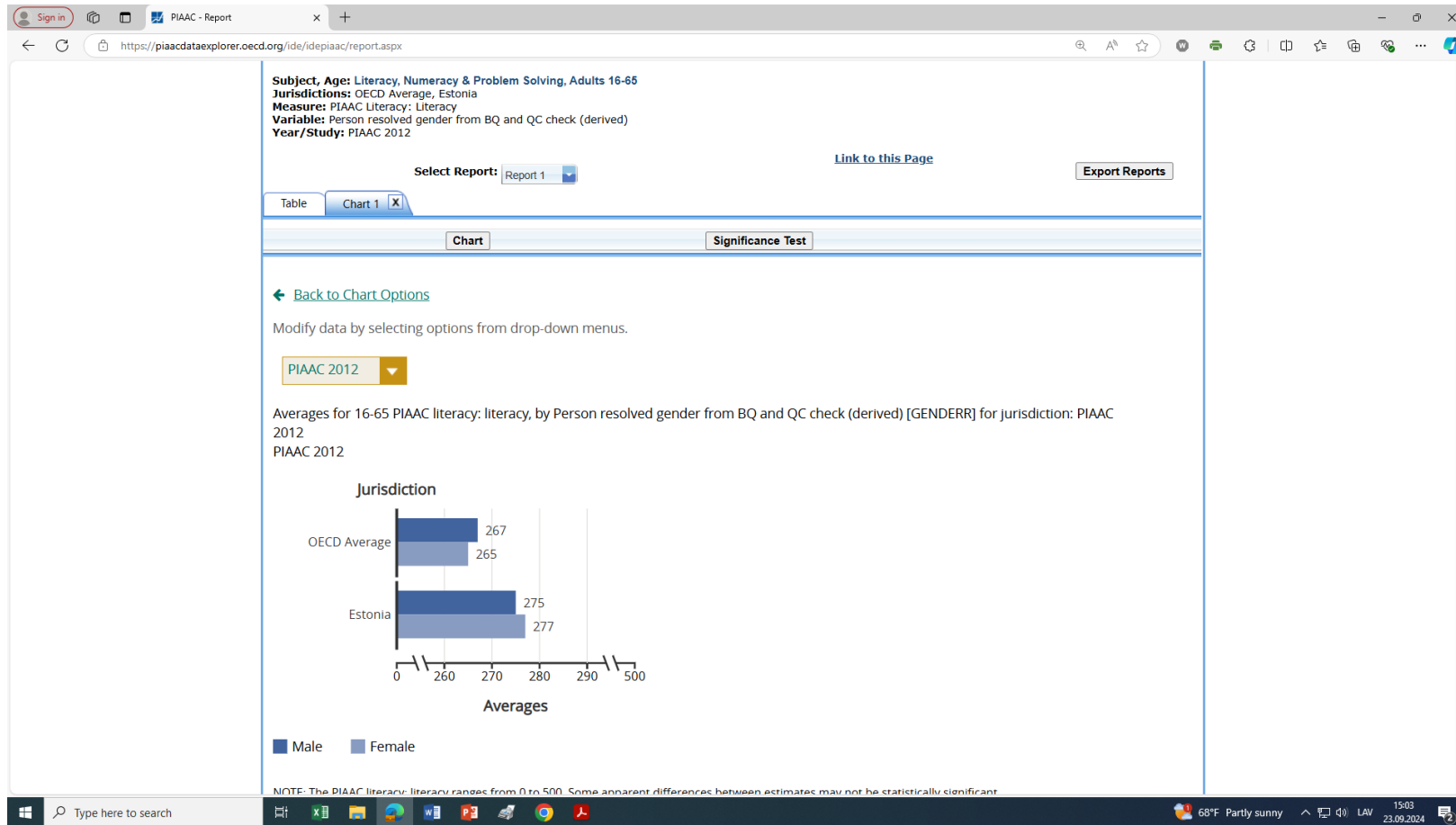
- JURISDICTION**
 - International
 - OECD Average
 - OECD National Entities
 - Estonia
- YEAR/STUDY**
 - Year/Study
 - PIAAC 2012
- STATISTIC**
 - Averages
 - Standard Deviations

At the bottom, three chart type options are available:

- Bar Chart
- Column Chart
- Line Chart

The Windows taskbar at the bottom shows the search bar, task view, and several open applications. The system tray on the right indicates a temperature of 68°F, weather of Partly sunny, and the date and time: 15:02 on 23.09.2024.

Rezultātu attēlojums stabiņu diagrammā



Statistiskās nozīmības noteikšana analīzes griezumam

The screenshot shows the OECD PIAAC Report Explorer interface. A 'Loading...' dialog box is open, allowing users to configure a significance test. The dialog has 'Edit' and 'Preview' tabs, with 'Preview' currently selected. It contains the following steps and options:

- 1. Select one category to compare significance from the choices available below.**
 - Between Jurisdictions
 - Within Variables
 - Across Years
- 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"/> Person resolved gender from BQ and QC check (derived)	<input checked="" type="checkbox"/> PIAAC 2012	<input checked="" type="checkbox"/> Averages
<input checked="" type="checkbox"/> OECD Average	<input checked="" type="checkbox"/> Male		<input type="checkbox"/> Standard deviations
<input checked="" type="checkbox"/> Estonia	<input checked="" type="checkbox"/> Female		

Buttons:

Background interface elements include the OECD logo, a sidebar with 'STEP 4: View each export.' and 'Subject, Jurisdiction, Measure, Variable, Year/Study', and a 'LEGEND:' section at the bottom with the text 'Significantly lower.'



OECD Skills Surveys

PIAAC Data Explorer | 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, Age: Literacy, Numeracy & Problem Solving, Adults 16-65
Jurisdictions: OECD Average, Estonia
Measure: PIAAC Literacy: Literacy
Variable: Person resolved gender from BQ and QC check (derived)
Year/Study: PIAAC 2012

Select Report: Report 1

[Link to this Page](#)

[Export Reports](#)

Table | Chart 1 | **Sig Test 1**

Chart

Significance Test

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.

All adults scale,
 Difference in averages between jurisdictions, for Person resolved gender from BQ and QC check (derived)
 [GENDERS] = Male
 PIAAC 2012

	OECD Average (267)	Estonia (275)
OECD Average (267)		Diff = < (1.1) P-value = 0.0000
Estonia (275)	Diff = > (1.1) P-value = 0.0000	

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

NOTE: Within country comparisons on any given year are dependent with an alpha level of 0.05.

Averages for all adults, by Person resolved gender from BQ and QC check (derived) [GENDERS] and jurisdiction: PIAAC 2012

Year/Study	Jurisdiction	Male	Average	Standard

Analizes rezultātu eksports

OECD
BETTER POLICIES FOR BETTER LIVES

OECD Skills Surveys

PIAAC Data Explorer

STEP 4: View each report table by selecting the report name to export.

Subject, Age: Literacy, Numeracy & Problem Solving
Jurisdictions: OECD Average, Estonia
Measure: PIAAC Literacy: Literacy
Variables: Person resolved gender from BQ and QC check (derived) [GENDERR] = Male
Year/Study: PIAAC 2012

Select Report: Report 1

Table | Chart 1 | Sig Test 1

Chart

To see how one value compares with the others, or not significantly different than the value associated with the OECD average.

All adults scale, Difference in averages between jurisdictions, first resolved gender from BQ and QC check (derived) [GENDERR] = Male

	OECD Average (267)	
OECD Average (267)		Diff P-val
Estonia (275)		Diff = 8 (1.1) P-value = 0.0000

LEGEND:

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

NOTE: Within country comparisons on any given year are dependent with an alpha level of 0.05.

Averages for all adults, by Person resolved gender from BQ and QC check (derived) [GENDERR] and jurisdiction: PIAAC 2012

Year/Study: Male
Jurisdiction: Average
Standard deviation

Export Reports

Select report(s) and choose the format to export.

Report 1

- Table (Table)
- Chart 1 (Chart)
- Sig Test 1 (Sig Test)

HTML
Excel
Word

Notes:

- Charts and maps will be available for export only if changes have been saved by clicking 'Done' within the chart tab.
- Office 2003 or higher is required to download Excel and Word documents.
- Attempting to export results that do not fit cleanly onto a 8.5x11 inch piece of paper may lead to undesirable formatting when exporting to Microsoft Word format.

Cancel Done

68°F Partly sunny 15:12 23.09.2024

Daži tehniski «sīkumi»

Visi dati ir svērti (data weights);

Vieni un tie paši testa rezultāti dažādos griezumos var atšķirties par 1-2 punktiem (testa rezultātu maksimālā vērtība ir 500 punkti);

Absolūtās vērtības nav jāinterpretē un jāanalizē;

Valstu/dažādu grupu vērtējumu atšķirības jānovērtē ar pieejamiem statistiskās analīzes metodēm (t-tests, standardklūdas);

Jālasa apzīmējumi/norādes/«smalkā druka» (tabulās neparādās trūkstošās vērtības, grupu vērtējumi ar ļoti mazu novērojumu skaitu, piemēram, respondenti ar doktora grādu vai nepabeigtu pamatizglītību u.tml.).

Paldies!

Mareks Niklass

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IEA IDB Analyzer

Mareks Niklass
Latvijas Universitāte

IEA IDB Analyzer instalācija un mācību materiāli

IEA IDB Analyzer mājaslapa

<https://www.iea.nl/data-tools/tools>

Video instrukcijas, kā strādāt ar IEA IDB Analyzer

<https://www.iea.nl/research-services/training#section-200>

IEA IDB Analyzer rokasgrāmata (angliski)

<https://www.iea.nl/sites/default/files/2022-06/IDB-Analyzer-Manual-%28Version-5-0%29.pdf>

Kas ir IEA IDB Analyzer?

- The IEA's International Database Analyzer - IEA IDB Analyzer;
- International Association for the Evaluation of Educational Achievement - IEA;
- Programma, kas sagatavo (sapludina (merge) dažādu valstu datus, rada programmas sintaksi (skriptu)) lielo izglītības pētījumu datus tālākai analīzei ar datorprogrammām SPSS, SAS vai R;
- SPSS un SAS ir maksas produkti (parasti augstākās izglītības iestādēs ir vismaz viena programma pieejama);
- R ir bezmaksas programma, bet lietotājam vieglāk strādāt ar papildus programmām, kā, piemēram, RStudio;
- IEA IDB Analyzer ir bezmaksas programma;

Citi tehniski sīkumi

Jaunākās IEA IDB Analyzer programmas versija strādā ar Windows 10 un Windows 11;

Nepieciešama vismaz SPSS 20, SAS 9 vai R (version 4);

Instalācijas brīdī nepieciešama administratora atļauja.

The IDB Analyzer moduļi

Convert – konvertēt SPSS datu failus R formātā;

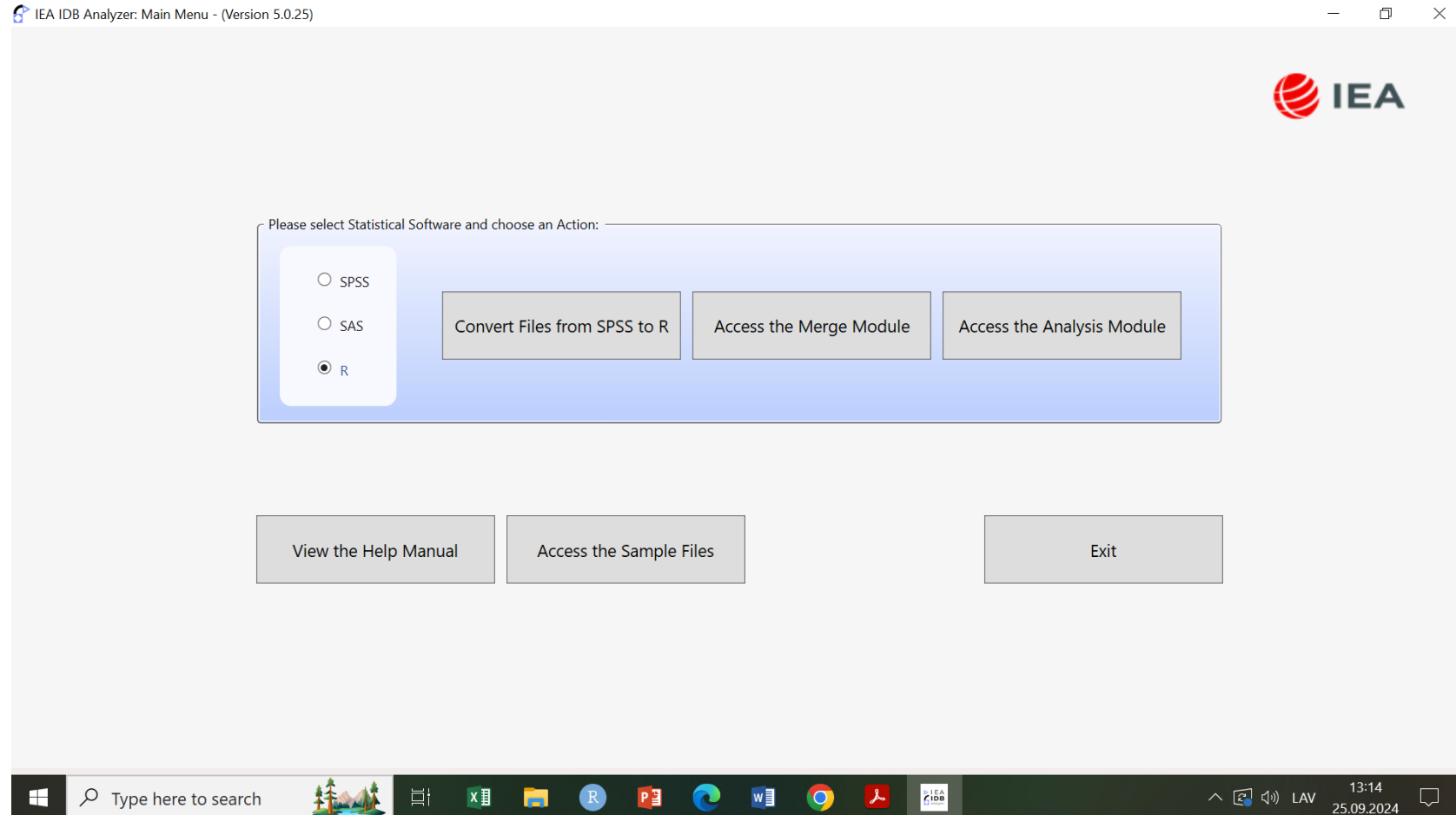
Merge – sapludināt, apvienot (merge) vairāku valstu datu failus tālākai analīzei;

Analysis – atzīmēt analīzes griezumus un metodes.

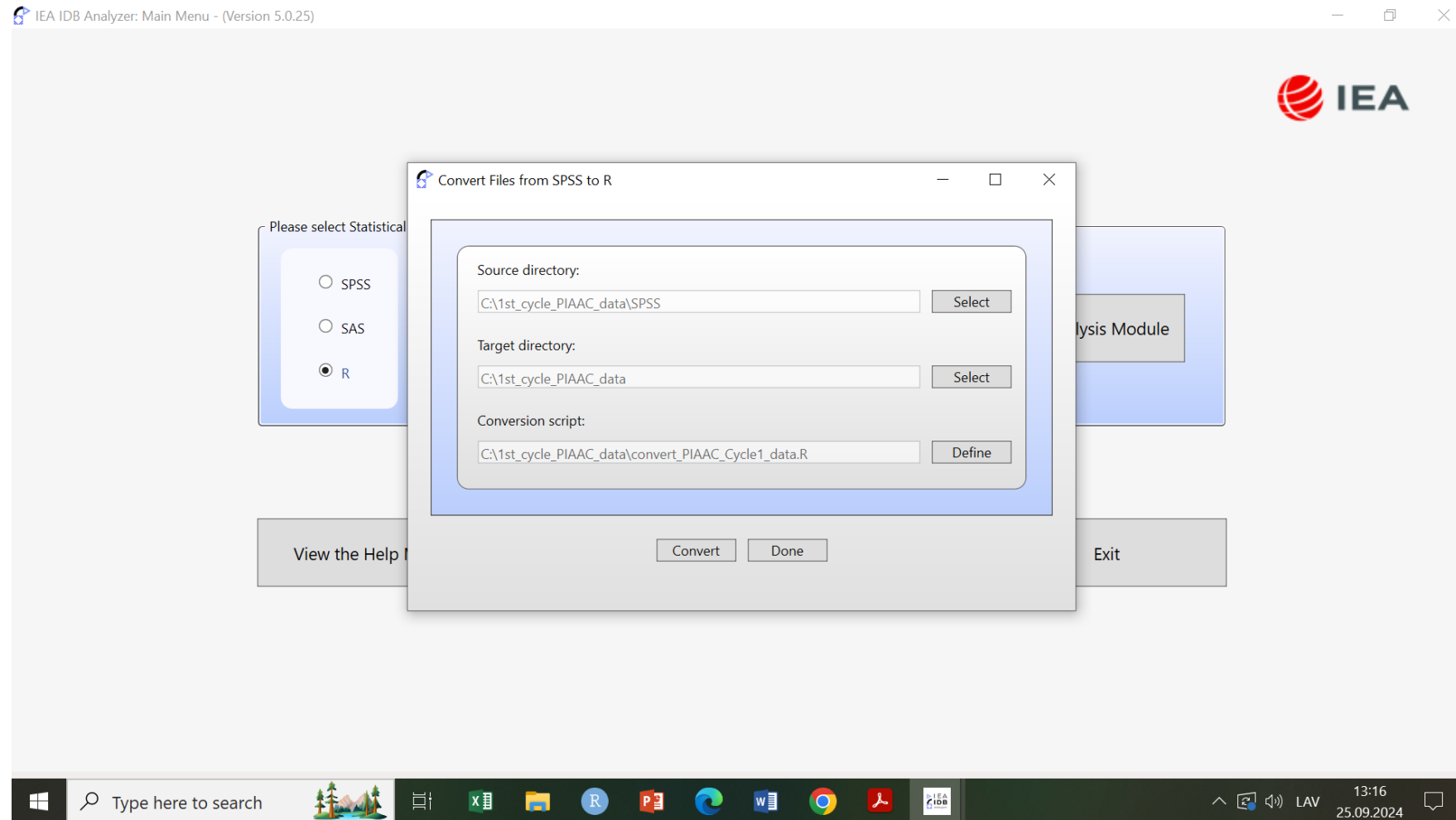
Piezīmes pa datu failiem

Nav viena datu faila, kur būtu apkopotas visu valstu respondentu atbildes;
99% gadījumu katrai valstij būs savs datu fails, visbiežāk SPSS formātā, ko var konvertēt jebkurā citā datu formātā;
Visas transformācijas (daļas atbilžu atfiltrēšana, dzēšana (doorstep interviews gadījumā) jāveic pirms datu apstrādes ar IEA IDB Analyzer.

IEA IDB Analyzer interfeiss



Kā konvertēt SPSS datu failus R formātā?



Merge modulis

1. Izvēlēties mapi, kur dati tiks noglabāti (piemēram, sapludinātie LT un EE dati);
2. Norādiet valsti/valstu grupas, ko tālāk analizēsiet (nav jēgpilni analizēt visas datu kopas, jo tas prasa ievērojamu laiku un arī datora resursus);
3. Atlasīt analīzei nepieciešamo mainīgo kopu (dzimums, vecums, izglītība, testa rezultāti u.tml.);
4. Norādīt rezultātu failu (output) nosaukumus;
5. Ģenerēt SPSS/SAS/R skriptu/sintaksi.

1 Select Directory...

C:\1st_cycle_PIAAC_data

Select



Select Study:

Select Cycle:

PIAAC

PIAAC Cycle 1

2 Available Participants: (30)

Code	Name
AUT	Austria
BEL	Belgium
CAN	Canada
CHL	Chile
CYP	Cyprus
CZE	Czech Republic
DEU	Germany
DNK	Denmark
ESP	Spain
FIN	Finland
FRA	France
GBR	United Kingdom
GRC	Greece
IDN	Indonesia

Selected Participants: (2)

Code	Name
EST	Estonia
LTU	Lithuania



Edit Country List

3 Select File Types... 4 Select Variables...



Available Variables:

General Response File

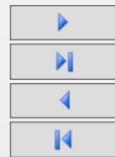
Background Variables and Scores (1212) ID and Sampling Variables (0)

Name	Description
CNTRYID_E	Participating country or sub-national entity code...
SEQID	Sequential ID (randomly derived)
AGE_R	Person resolved age from BQ and QC check (deri...
DISP_CIBQ	Final disposition code for person - combining CI...
DISP_MAIN	Final disposition code for person for Main task in...
DISP_MAINWRC	Final disposition code for person for Main task in...
A_N01_T	Gender (Trend-IALS/ALL)
B_Q01A	Education - Highest qualification - Level
B_Q01A_T	Highest level of schooling (Trend-IALS/ALL)
B_Q01A3	Education - Highest qualification - Level of forei...
B_Q01A3_C	Education - Highest Qualification - Level of forei...
B_Q01B	Education - Highest qualification - Area of study
B_Q01C1	Education - Highest qualification - Age of finish
B_Q01C1_C	Education - Highest qualification - Age of finish (...)
B_Q01C1_T	Age at completion of highest level of schooling (...)
B_Q01C2	Education - Highest qualification - Year of finish
B_Q01D	Education - Highest qualification - Month of finish

Selected Variables:

Background Variables and Scores (4) ID and Sampling Variables (85)


Name	Description
GENDER_R	Person resolved gender from BQ and QC check (...)
PVLIT1-10	1ST TO 10TH PV Literacy scale score
PVNUM1-10	1ST TO 10TH PV Numeracy scale score
PVPSL1-10	1ST TO 10TH PV Problem-solving scale score



Analysis modulus – procentu aprēķini

IEA IDB Analyzer: Analysis Module - (Version 5.0.33)

1 Analysis File: C:\1st_cycle_data\PRGESTP1.Rdata Select

2 Analysis Type: PIAAC (using final full sample weight) | Statistic Type: Percentages only | Number of Decimals: 2 | Show Graphs: Yes 

3 Select Variables:

Name	Description
CNTRYID_E	Participating country or sub-national entity code (numeric)
SEQID	Sequential ID (randomly derived)
AGE_R	Person resolved age from BQ and QC check (derived)
DISP_CIBQ	Final disposition code for person - combining CI and BQ/JRA (derived)
DISP_MAIN	Final disposition code for person for Main task instrument (derived)
DISP_MAINWRC	Final disposition code for person for Main task instrument, including reading...
A_N01_T	Gender (Trend-IALS/ALL)
B_Q01A	Education - Highest qualification - Level
B_Q01A_T	Highest level of schooling (Trend-IALS/ALL)
B_Q01A3	Education - Highest qualification - Level of foreign qualification
B_Q01A3_C	Education - Highest Qualification - Level of foreign qualification (collapsed, 1...
B_Q01B	Education - Highest qualification - Area of study
B_Q01C1	Education - Highest qualification - Age of finish
B_Q01C1_C	Education - Highest qualification - Age of finish (categorised, 6 categories)
B_Q01C1_T	Age at completion of highest level of schooling (Trend-IALS/ALL)
B_Q01C2	Education - Highest qualification - Year of finish
B_Q01D	Education - Highest qualification - Month of finish
B_D01D	Education - Highest qualification - Months elapsed since finished (DERIVED B...
B_D01D_C	Education - Time elapsed since finished highest qualification (categorised, 5 c...
B_Q02A	Education - Current qualification

Grouping Variables: Exclude Missing From Analysis

Name	Description
CNTRYID	Country ID (ISO 3166, numeric)


Separate Tables by:

Name	Description
GENDER_R	Person resolved gender from BQ and QC check (derived)

Weight Variable:

Name	Description
SPFWT0	Final full sample weight

R PIAAC (using final full sample weight) Percentages only Use PVs d20346

19°C Mostly cloudy  3:57 PM 9/25/2024

Apzīmējumi

- Grouping variable – mainīgie (jautājumi), grupas, kurās tiek atsevišķi aplūkoti testa rezultāti (dzimumu, vecuma grupas);
- Separate tables by – papildus grupēšanas mainīgie (izglītības grupas);
- Weight variable – datu svari (nemainīt noklusējuma uzstādījumus);
- Plausible values – testa ticamās vērtības (10 katrā testa daļā lasīt.., rēķināt.. un datorprasmju mērīšanai)

Start R – palaist Rstudio un ģenerēto skriptu

The screenshot displays the RStudio interface with the following components:

- Code Editor:** Shows the R script `EE_edu_level_by_gender.R`. The script includes comments and code for setting up the environment and loading packages.
- Environment Pane:** Shows "Environment is empty".
- Files Pane:** Shows a directory listing of files generated by the script.

```
1 # Percentages only: JB_Pct.R
2
3 # =====
4
5 # Script created using the IEA IDB Analyzer (Version 5.0.33).
6 # Created on 9/25/2024 at 4:27 PM.
7 # Press Ctrl+A followed by Ctrl+Enter to submit this analysis.
8
9 #####
10 #
11 # IEA IDB Analyzer: R Module
12 # Programmer: IEA Hamburg, please contact idb-analyzer@iea-hamburg.de
13 #
14 #####
15
16 # Overall function
17
18 # Clean workspace and define settings =====
19
20 rm(list = ls())
21
22 # Directory, where the IEA IDB Analyzer macros are stored
23
24 include_file <- "C:/Users/d20346/AppData/Roaming/IEA/IDBAnalyzerV5/bin/Data/Templates/R_Macro
25
26 source(sprintf("%s/check_packages.R", include_file), local = TRUE)
27 source(sprintf("%s/JB_Pct.R", include_file), local = TRUE)
28
29 # Dependencies =====
30
31 library(dplyr)
32 library(ggplot2)
33 library(haven)
34 library(htmltools)
35 library(kableExtra)
36 library(knitr)
37 library(openxlsx)
38 library(rmarkdown)
39
40
```

Name	Size	Modified
..		
EE_edu_level_by_gender_by_EDLEVEL3_Sig.Rdata	1.3 KB	Sep 25, 2024, 4:10 PM
EE_edu_level_by_gender_by_EDLEVEL3_Sig.xlsx	8.2 KB	Sep 25, 2024, 4:10 PM
EE_edu_level_by_gender_by_EDLEVEL3_Sig2.Rdata	1.2 KB	Sep 25, 2024, 4:10 PM
EE_edu_level_by_gender_by_EDLEVEL3_Sig2.xlsx	7.7 KB	Sep 25, 2024, 4:10 PM
EE_edu_level_by_gender_EDLEVEL3.html	1.1 MB	Sep 25, 2024, 4:10 PM
EE_edu_level_by_gender_EDLEVEL3.Rdata	923 B	Sep 25, 2024, 4:10 PM
EE_edu_level_by_gender_EDLEVEL3.xlsx	7.5 KB	Sep 25, 2024, 4:10 PM
EE_edu_level_by_gender.R	1.7 KB	Sep 25, 2024, 4:27 PM

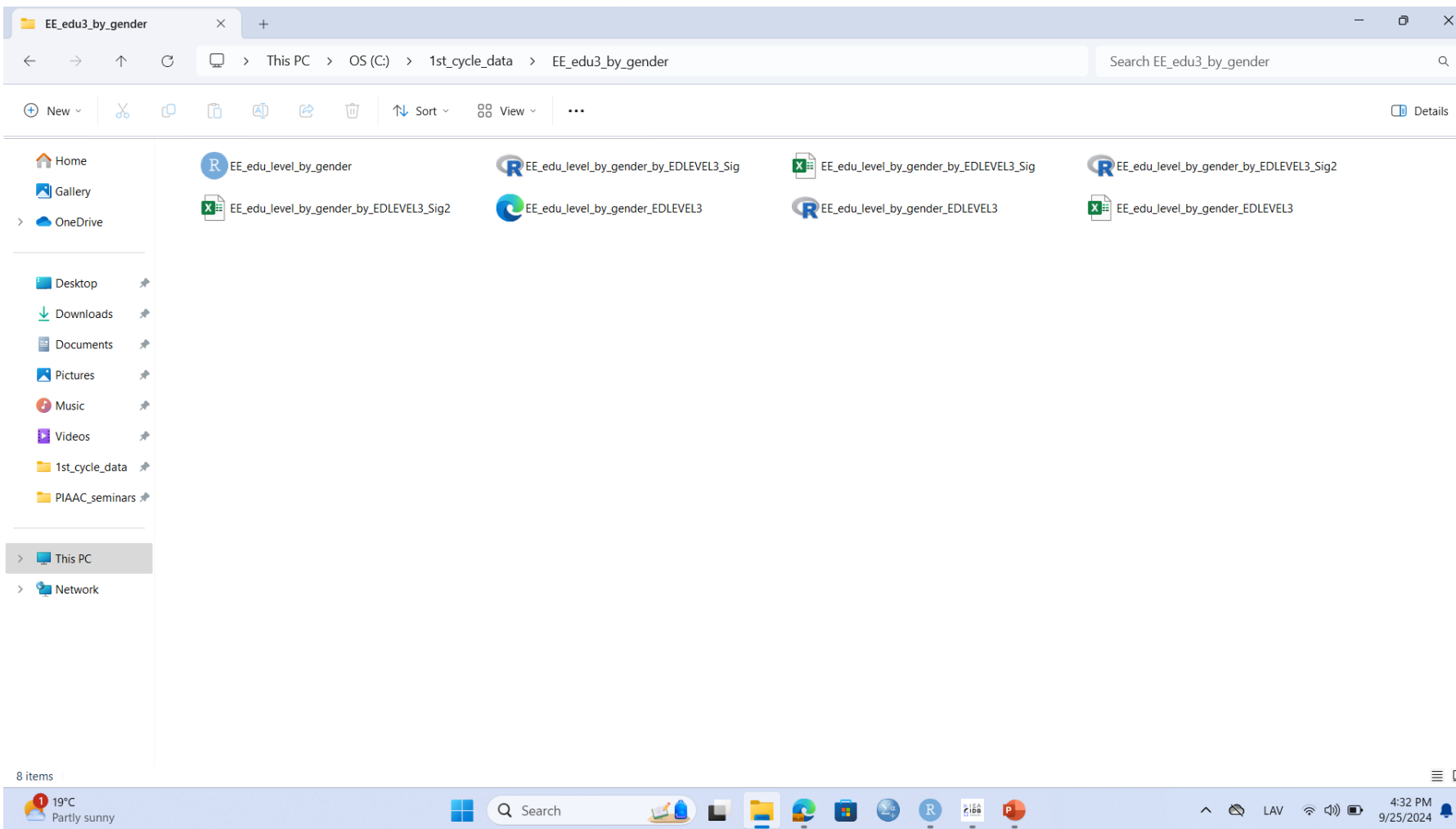
Rezultāti pārlūkotājprogrammā

The screenshot shows a web browser window with the following elements:

- Browser Tab:** EE_edu_level_by_gender_EDLEVEL3
- Address Bar:** File | C:/1st_cycle_data/EE_edu3_by_gender/EE_edu_level_by_gender_EDLEVEL3.html
- Report Navigation:** Report (selected), Graphs
- Report Title:** EE_edu_level_by_gender_EDLEVEL3
- Source:** IEA's IDB Analyzer
- Date:** 25 September, 2024
- IEA Logo:** IEA - Researching education, improving learning
- Section:** Report
- Subtitle:** Percentages by CNTRYID GENDER_R EDLEVEL3
- Table:** A table with 8 columns: Country ID (ISO 3166, numeric), Person resolved gender from BQ and QC check (derived), Educational level of the respondent (DERIVED BY CAPI), N of Cases, Sum of SPFWT0, Sum of SPFWT0 (s.e.), Percent, and Percent (s.e.).
- Table Data:**

Country ID (ISO 3166, numeric)	Person resolved gender from BQ and QC check (derived)	Educational level of the respondent (DERIVED BY CAPI)	N of Cases	Sum of SPFWT0	Sum of SPFWT0 (s.e.)	Percent	Percent (s.e.)
Estonia	Male	Low	784	92279	2997.13	21.61	0.70
Estonia	Male	Medium	1695	211163	3314.06	49.44	0.78
Estonia	Male	High	954	123665	3418.55	28.95	0.80
Estonia	Female	Low	625	68944	2307.92	14.80	0.49
Estonia	Female	Medium	1750	193993	3773.68	41.66	0.81
Estonia	Female	High	1779	202762	4082.17	43.54	0.88
Table Average	Male	Low	NA	NA	NA	21.61	0.70
Table Average	Male	Medium	NA	NA	NA	49.44	0.78
Table Average	Male	High	NA	NA	NA	28.95	0.80
Table Average	Female	Low	NA	NA	NA	14.80	0.49
Table Average	Female	Medium	NA	NA	NA	41.66	0.81
Table Average	Female	High	NA	NA	NA	43.54	0.88
- Section:** Graphs
- System Tray:** 19°C Partly sunny, Search, Taskbar icons, System tray icons (LAV, Wi-Fi, Speaker, Battery), Date/Time: 4:29 PM 9/25/2024

Rezultāti dažādos formātos atsevišķā mapē



Vidējo aritmētisko salīdzināšana dažādās grupās

IEA IDB Analyzer: Analysis Module - (Version 5.0.33)

1 Analysis File: C:\1st_cycle_data\PRGESTP1.Rdata Select

2 Analysis Type: PIAAC (using final full sample weight) | Statistic Type: Percentages and Means | Plausible Value Option: Use PVs | Number of Decimals: 2 | Show Graphs: Yes IEA

3 Select Variables:

Name	Description
PVLIT1-10	1ST TO 10TH PV Literacy scale score
PVPSL1-10	1ST TO 10TH PV Problem-solving scale score

4 Grouping Variables: Exclude Missing From Analysis

Name	Description
CNTRYID	Country ID (ISO 3166, numeric)
GENDER_R	Person resolved gender from BQ and QC check (derived)

5 Separate Tables by:

Name	Description
------	-------------

6 Plausible Values:

Name	Description
PVNUM1-10	1ST TO 10TH PV Numeracy scale score

7 Weight Variable:

Name	Description
SPFWT0	Final full sample weight

8 Output Files: C:\1st_cycle_data\EE_gender_numeracy\EE_gender_numeracy.* Modify Return to Main Menu Help

Start R

R PIAAC (using final full sample weight) Percentages and Means Use PVs d20346

19°C Partly sunny | Search | LAV | 4:40 PM 9/25/2024

Vidējo aritmētisko aprēķinu rezultāti pārlūkotājprogrammā

Check Analysis Variables
Report
Graphs

Estonia	Female	Numeracy scale score - Plausible value 9	465699	94.41	415.54	270.39	43.81
Estonia	Female	Numeracy scale score - Plausible value 10	465699	91.39	419.90	270.62	43.99

Report

Analysis for PVNUM by COUNTRYID GENDER_R

Country ID (ISO 3166, numeric)	Person resolved gender from BQ and QC check (derived)	N of Cases	Sum of SPFWT0	Sum of SPFWT0 (s.e.)	Percent	Percent (s.e.)	PVNUM (Mean)	PVNUM (s.e.)	Std.Dev.	Std.Dev. (s.e.)	Percent Missing
Estonia	Male	3432	427035	419.81	47.83	0.03	276.24	0.86	47.27	0.77	0.57
Estonia	Female	4154	465699	339.19	52.17	0.03	270.26	0.80	43.69	0.64	0.21
Table Average	Male	NA	NA	NA	47.83	0.03	276.24	0.86	47.27	0.77	NA
Table Average	Female	NA	NA	NA	52.17	0.03	270.26	0.80	43.69	0.64	NA

Graphs

The following graphics should be interpreted taking into account the standard errors presented in the preceding table.

Graph 1

19°C Partly sunny
4:43 PM 9/25/2024

Benchmark – analīze pa dažādiem sasniegumu līmeņiem

IEA IDB Analyzer: Analysis Module - (Version 5.0.33)

1 Analysis File: C:\1st_cycle_data\PRGESTP1.Rdata Select

2 Analysis Type: PIAAC (using final full sample weight) | Statistic Type: Benchmarks | Plausible Value Option: Use PVs | Benchmark Option: Discrete | Number of Decimals: 2 | Show Graphs: Yes IEA

3 Select Variables:

Name	Description
PVLIT1-10	1ST TO 10TH PV Literacy scale score
PVPSL1-10	1ST TO 10TH PV Problem-solving scale score

Grouping Variables: Exclude Missing From Analysis

Name	Description
CNTRYID	Country ID (ISO 3166, numeric)
GENDER_R	Person resolved gender from BQ and QC check (derived)

Plausible Values: Report cases with no plausible values (Not classified)

Name	Description
PVNUM1-10	1ST TO 10TH PV Numeracy scale score

Achievement Benchmarks: 176 226 276 326 376 Compute percentages within benchmarks

Weight Variable:

Name	Description
SPFWT0	Final full sample weight

4 Output Files: C:\1st_cycle_data\EE_gender_benchmark_numeracy\EE_benchmark_numeracy_gender.* Modify Return to Main Menu Help

5 Start R
Click to create syntax file and start R.


R PIAAC (using final full sample weight) Benchmarks Use PVs Discrete d20346

19°C Partly sunny Search 4:56 PM 9/25/2024

Korelācijas analīze

IEA IDB Analyzer: Analysis Module - (Version 5.0.33)

1 Analysis File: C:\1st_cycle_data\PRGESTP1.Rdata Select

2 Analysis Type: PIAAC (using final full sample weight) Statistic Type: Correlations (Pearson) Plausible Value Option: Use PVs Missing Data Option: Listwise Number of Decimals: 2 

3 Select Variables:

Name	Description
PVLIT1-10	1ST TO 10TH PV Literacy scale score
PVPSL1-10	1ST TO 10TH PV Problem-solving scale score

4 Output Files: C:\1st_cycle_data\EE_numeracy_age_corr\EE_corr_age_numeracy.* Modify Return to Main Menu Help

5 Start R

Grouping Variables: Exclude Missing From Analysis

Name	Description
CNTRYID	Country ID (ISO 3166, numeric)

Analysis Variables:

Name	Description
AGE_R	Person resolved age from BQ and QC check (derived)

Plausible Values:

Name	Description
PVNUM1-10	1ST TO 10TH PV Numeracy scale score

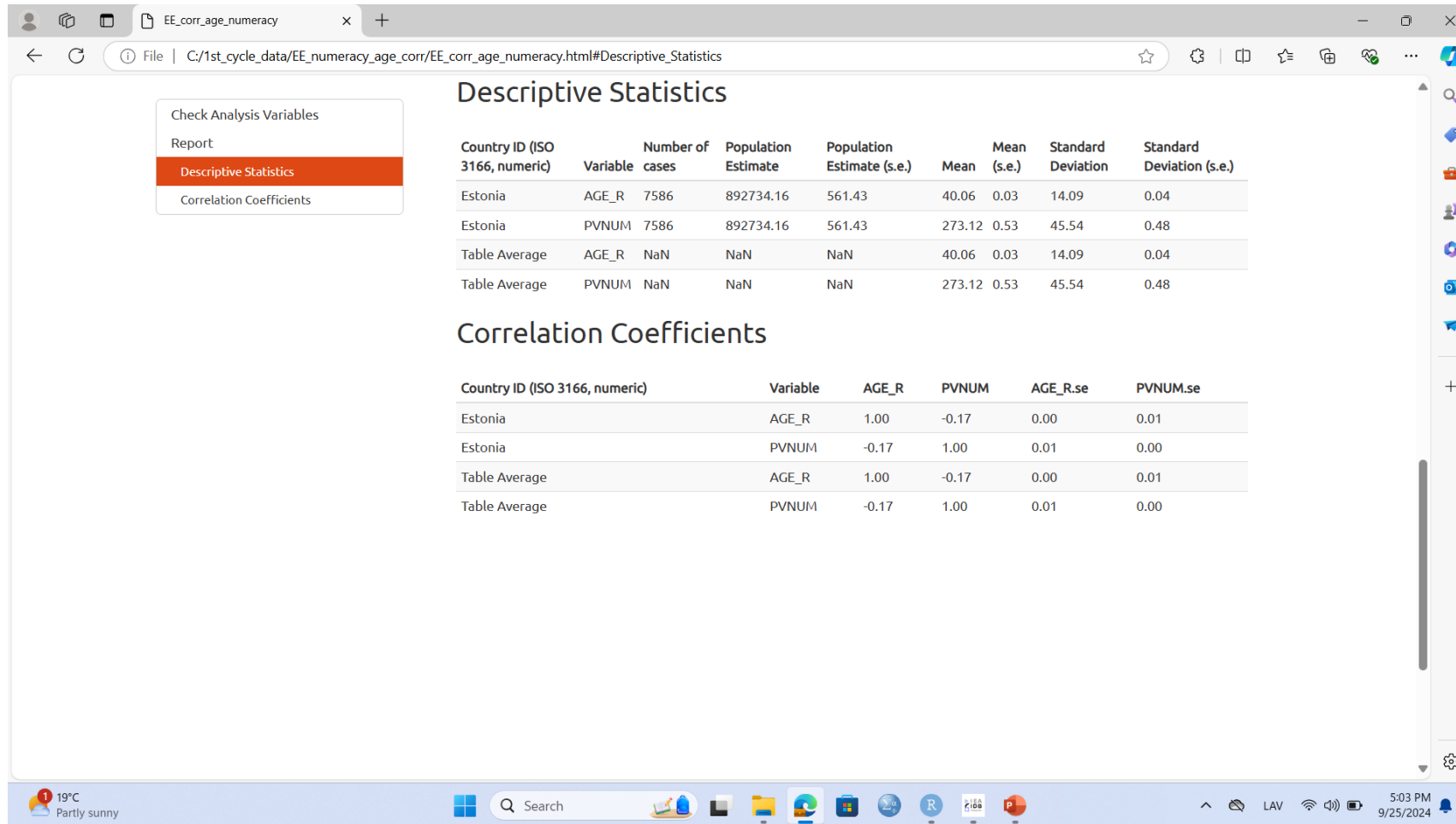
Weight Variable:

Name	Description
SPFWT0	Final full sample weight

R PIAAC (using final full sample weight) Correlations (Pearson) Use PVs d20346

19°C Partly sunny Search 5:07 PM 9/25/2024

Korelācijas analīzes rezultāti



Daži ceļa vārdi

Nedrīkst izmantot tikai vienu ticamo vērtību;
Nedrīkst izmantot vidējos aritmētiskos, svērtos u.tml.
atvasinātās vērtības no ticamajām vērtībām;
Nedrīkst neizmantot svarus;
R skriptos var parādīties kļūdas;
Ja nevarat atrisināt problēmu, tad rakstiet ldb-analyzer@iea-hamburg.de;
P-vērtības būs jāreķina pašam.

Paldies!

Mareks Niklass

LU Ekonomikas un sociālo zinātņu fakultāte

mareks.niklass@lu.lv