Guide to the New Generations & Gender Contextual Database

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Table of Content

1. Introduction

The Contextual Database (CDB) of the Generations & Gender Programme (GGP) offers open access to comparable, aggregated contextual data for 65 European, North American and Asian countries. The data can be used in macro-level analyses or in conjunction with the individual level data of the Generations & Gender Surveys (GGS). The database is available here: https://www.ggp-i.org/data/ggp-contextual-database/.

The CDB was established in the early 2000's under the coordination of the Max Planck Institute of Demographic Research (MPIDR)[1]. The French National Institute for Demographic Studies (INED) maintains the database since 2018[1]. The list of contextual indicators was revised, and a new online platform was launched. This guide describes how these developments came about. It shows the renewed content and the key functionalities of the online tool. It ends with plans for future updates.

The renewed CDB aims to provide a tool for researchers interested in demographic trends in a global perspective. To this end, it allows to produce tabulations and graphs of key up-to-date contextual indicators about demographic, economic, gender, and welfare-related issues.

2. CDB content

Under the MPIDR coordination, data collection for countries participating in the GGP was carried out by partner institutions in the respective countries. It contained closed to 250 indicators, including national, sub-national indicators and descriptions of policies. The CDB coordination team complemented these data collections with different sources, including international databases of supranational organizations or research consortiums, and made them available in an online platform[2]. As a result, for the same indicator a variety of (national and international) sources were used, depending on the countries and time periods.

Since the French National Institute for Demographic Studies (INED) took the lead in 2018, a set of 36 "core" indicators were identified for regular updating. The data is now compiled exclusively from international databases and is restricted to country level (sub-national data and descriptions of policies are no longer gathered). We try to use only one source for each indicator. This allows rapid update of the data with limited resources.

The new list of core indicators was chosen in collaboration with the GGP Central Coordination team and in consultation with a panel of demographic researchers. The following criteria were used: (1) indicators should help explain or understand demographic trends; (2) indicators should be widely available and therefore be easily updated (ideally annually); (3) indicators should be available for a large number of countries as opposed to only European Union member states or only OECD countries.

The new list of core indicators draws from three main domains of macro-level indicators that, broadly speaking, help explain or understand demographic trends – especially in the context of developed countries with low fertility in a global perspective:

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[1] See the database website at https://www.ggp-i.org/data/ggp-contextual-database/for the list of people involved.

[2] For more information see:

Caporali Arianna, Klüsener Sebastian, Neyer Gerda, Krapf Sandra, Grigorieva Olga. 2013. *Providing Easy Access to Cross-Country Comparative Contextual Data for Demographic Research: Concept and Recent Advances of the Generations & Gender Programme Contextual Database*, Max Planck Institute for Demographic Research, vol. 1, 32 p.;

Caporali Arianna, Klüsener Sebastian, Neyer Gerda, Krapf Sandra, Grigorieva Olga, Kostova Dora. 2016. « The Contextual Database of the Generations and Gender Programme: Concept, Content and Research Examples », *Demographic Research*, 35 (9), p. 229-252.

- Economic domain: e.g. the influence of economic development on fertility, or the impact of unemployment on the life course trajectories of young adults;
- Gender domain: e.g. the impact of gender equality on fertility;
- Welfare and education domain: e.g. the role of social protection and education systems on fertility.

In addition, a forth domain includes summary demographic indicators. To help identify the indicators to be included in the core list, we consulted the Global Sustainable Development Goals Indicators Database (https://unstats.un.org/sdgs/dataportal), as well as other international databases. For some indicators, e.g., the crude divorce rate and the global gender gap index, we provide longer time series than those available in other international databases.

The indicators from the pre-2018 platform (the one developed by the MPIDR) not included in the new core list may still be found in "**The Generations & Gender Contextual Database Archive**". Most of these indicators were prepared between 2010 and 2011. This group of indicators will no longer be updated. It includes data at the national level, and, wherever possible, at the sub-national level that can be linked to the GGS data.

In 2020, we enriched the CDB with the inclusion of indicators from Multilinks Database on Intergenerational Policy Indicators. In 2023, we added 4 indicators of the Oxford COVID-19 Government Response Tracker. These indicators were included to provide information on policy measures taken during the pandemic, when fieldwork was ongoing in some countries. Additionally, the CDB now covers countries that have joined the second round of GGP surveys (GGS-II) (e.g., Uruguay, Taiwan, Hong Kong, Argentina, Republic of Korea).

In addition to quantitative indicator, we include a collection of complementary sources of national and sub-national contextual indicators and of "qualitative" descriptions of national policies[3].

3. The online platform

In order to transfer the database to INED, we had to implement a new online platform for technical reasons. Instead of developing a tailor made product, we preferred a software already in use in other institutions. Five software were considered and tested (i.e., Beyond 2020, Nesstar, Eurostat Data Explorer, .Stat and PXWEB). We decided to implement PX-Web (https://www.scb.se/en/services/statistical-programs-for-px-files/), the software developed by Statistics Sweden and used by other national statistical institutes (e.g., Statistics Norway, Statistics Lithuania), and international organizations (e.g., UNECE database). This software is free (also the updates) and it is compliant with international standards. PXWeb is based on PC-Axis file formats, which consist of keywords that describe the content of the data. The following sub-sections offer an overview of main functionalities of PXWeb software. In 2023, we implemented the 2021 version of the software, which is compliant with the WCAG (Web Content Accessibilty Guidelines) rules.

3.1 Selecting an indicator

The main menu offers an easy access to indicators sorted by topic (i.e., demography, economy, gender, welfare and education, Covid-19 Policy Response), to the **"**The Generations & Gender Contextual Database Archive**"**, and to the "Multilinks Database on Intergenerational Policy Indicators" section (figure 1).

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[3] http://ggpsurvey.ined.fr/documents/GGP-CDB/GGP-CDB_1-Qualitative_Data_Sources.xlsx

Fig. 1 - Select a database

Once users have selected a database, they can obtain the data in three steps.

Step 1 "Choose table": Select from an expanded list of contextual indicators and/or type to search for it (figure 2).
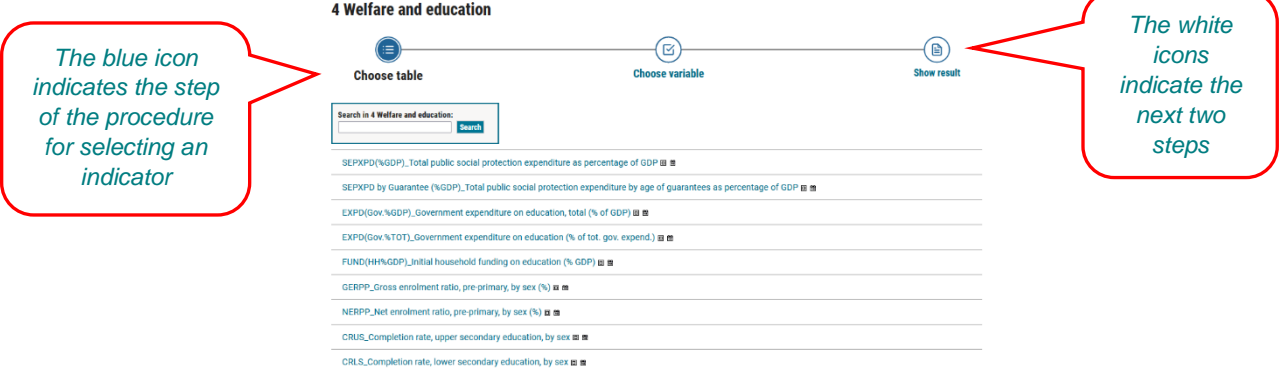

Fig. 2 – Choose table

Step 2 "Choose variable": Choose for which countries and other relevant variables (e.g., sex and year) the indicator should be loaded (figures 3 and 4).
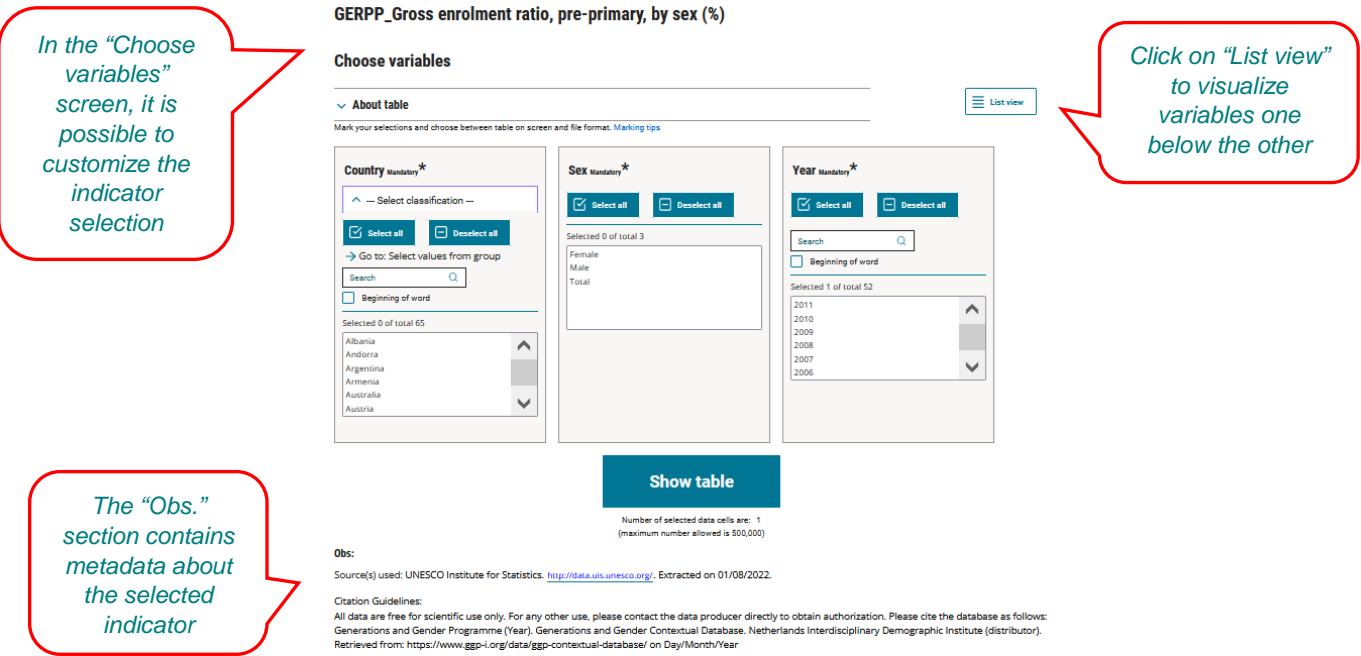

Fig. 3 – Choose variable

It is possible to select geographic classifications (figure 4) following the code used in the GGP survey to identify the place of residence of an interviewed person. This makes it easy to match extracted macro data with the GGP survey data. In addition to the GGP codes, NUTS and OECD coding schemes are available. In "The Generations & Gender Contextual Database Archive", also the German codes AGS (Amtlicher Gemeindeschlüssel) are available (for German sub-national levels only).

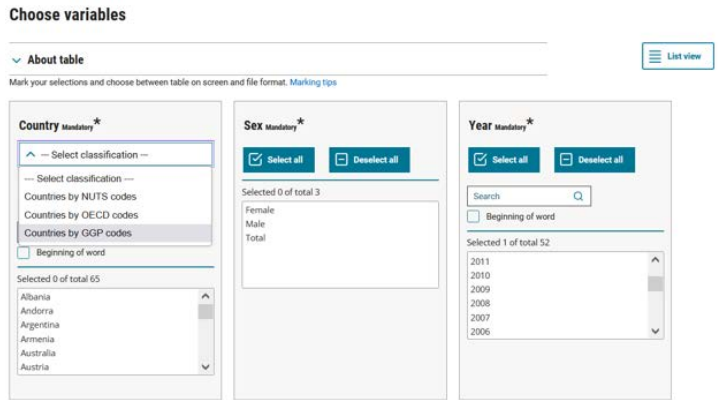*Possibility to select countries by a geographic classification*

Fig. 4 - Select a country classification

Two summary tables are also available, one for the country level indicators (called "ReferenceAreasCountries") and another one for the regional level indicators (called "ReferenceAreasRegions"), containing all the geographic entities covered in the CDB and the corresponding geographic codes. These tables are available for download in Excel format in the "Obs." section, below the selected indicator (figure 3). In this table (figure 5), the variable "Identifier" is a numeric identifier specifically created for the CDB[4]. This identifier also appears in certain types of exports from the database (e.g., XLSX). Through this variable, it is possible to merge the "ReferenceAreas" tables to the exports from the database. This will allow having, for the exported indicator, all the geographic codes systems at the same time.

CDB numeric identifier

Fig. 5 – Extract of the file containing the reference areas for country level indicators

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[4] This is produced through an algorithm associating two digits for each NUTS (or OECD when NUTS is not available) geographical level. For example, for Paris NUTS 3, the CDB identifier is 20 02 01 02 (i.e., "20" for NUTS 0 "France", "20 02" for NUTS 1 "Île de France", "20 02 01" for NUTS 2 "Île de France", and "20 02 01 02" for Paris NUTS 3).

From the "Choose variables" screen a variety of options are available to help choose variable values:

Select all : Selects all values

Deselect all : Deselect all values

→ Go to: Select values from group : Search value from groups, i.e., from geographic classifications

Search 🔍 : Allows searching for specific values

☐ Beginning of word : Allows isolating values beginning with a word specified in the search box

Step 3 "Show result": Show the table, customize your selection and table settings, save the table, create graphs, etc. (figure 6).

Choose a different table layout, visualise your selection in a chart

Pivot the table, insert calculations, change the table titles, change the decimals, etc.

Icons that allow quick access to different layout

Possibility to hide rows with only zeros, '-' or dots

Save your selection, so to come back to it using a web address

Result

∨ About table
∨ Show result as...
∨ Edit and Calculate
∨ Save result as...
∨ Save your query
∨ Hide empty rows

CDR_Crude Divorce Rate

Crude Divorce Rate by Country and Year

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Albania	1.30	..	1.20	1.30	1.20	1.30	1.20	1.30	1.50	1.30	1.90	..	1.69	2.05	..
Armenia	..	0.90	0.90	0.90	3.20	1.00	..	..	1.50	1.20	1.20	..	1.29	1.31	1.07
Australia	2.50	..	2.20	2.30	2.30	2.20	2.20	2.10	2.00	2.00	1.90	..	1.98	1.94	..
Austria	..	2.50	2.40	2.30	2.10	2.10	2.00	1.90	1.90	1.90	1.80	1.80	1.84	1.84	1.67
Azerbaijan	..	1.00	0.90	0.90	1.00	1.20	1.20	1.20	1.30	1.30	1.30	..	1.49	1.71	1.45
Belarus	3.30	..	3.80	3.70	3.90	4.10	4.10	3.80	3.70	3.50	3.40	3.40	3.50	3.64	3.75
Belgium	..	2.80	3.30	3.00	2.70	2.50	2.30	2.20	2.20	2.20	2.10	2.00	2.02	1.95	..
Bosnia and Herzegovina	0.40	..	0.40	0.40	0.40	0.60	0.60	0.50	0.50	0.60	0.50	0.60	0.88	0.80	..
Bulgaria	..	2.10	1.90	1.50	1.50	1.40	1.60	1.50	1.50	1.50	1.50	1.50	1.51	1.56	1.30

Toolbar icons: ↻ Pivot manual | ↻ Pivot clockwise | ↺ Pivot counterclockwise | 〰 Chart - Line | ⤢ Fullscreen

Fig. 6 – Result table of an indicator selection.

3.2 Metadata

The CDB is rich of metadata on each indicator. The main information pops up in a separate window as soon as we pass from step 2 to step 3 of the selection process (section 3.1). These metadata are also accessible below each table in the "Obs." section and include: source(s) used, relevant web links, citation guidelines, indicator definition, link to the excel file including all the reference areas and their ID codes (figure 7). In the tab "Footnotes" users can access notes related to specific data entries on e.g., breaks in series, geographic coverage, calculations. These notes can also be accessed by clicking on the relevant data entry (figure 8). By clicking on the "About table" section (figure 7) users can access information on, e.g., contact, unit, reference time, creation date. All these metadata can be exported together with the selected data in the output file (figure 11).

The "About table" tab provides information on the table

About table
- Contact
- Unit
- Reference time
- Creation date
- Copyright
- Source
- Matrix

Show result as...

Edit and Calculate

Save result as...

Save your query

Hide empty rows

Pivot manual | Pivot clockwise | Pivot counterclockwise | Chart - Line | Fullscreen

MAC_Mean age at childbearing

Mean age at childbearing by Country and Year

	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966
Armenia	29.88	29.86	29.86	29.85	29.85	29.85	29.88	29.89	29.88	29.68	29.49	29.30	29.16	28.83	28.61	28.47	28.34
Azerbaijan	30.34	30.35	30.36	30.37	30.38	30.39	30.39	30.42	30.41	30.42	30.41	30.40	30.38	30.25	30.21	30.15	30.00
China, Hong Kong SAR	29.15	29.15	29.15	29.15	29.17	29.17	29.20	29.23	29.27	29.30	29.32	29.36	29.23	29.10	28.96	28.83	29.14
Cyprus	30.15	30.13	29.85	29.86	29.57	29.34	28.78	28.57	28.50	28.89	29.02	29.08	28.89	28.73	28.64	28.82	28.52
Germany	27.81	27.82	27.83	27.79	27.77	27.75	27.81	27.73	27.63	27.52	27.47	27.36	27.25	27.19	27.18	27.11	27.00

Obs:

Source(s)used: United Nations, Department of Economic and Social Affairs, Population Division (2022). World Population Prospects 2022, Online Edition. Donwloaded from https://population.un.org/wpp/ on 13/9/2022.

Citation Guidelines:
All data are free for scientific use only. For any other use, please contact the data producer directly to obtain authorization. Please cite the database as follows:
Generations and Gender Programme (Year). Generations and Gender Contextual Database. Netherlands Interdisciplinary Demographic Institute (distributor).
Retrieved from: https://www.ggp-i.org/data/ggp-contextual-database/ on Day/Month/Year

If the data downloaded from the GGP Contextual Database comes only from one source (e.g. Eurostat), you might cite it as follows:
Original Source [e.g. Eurostat, © European Union, 1995-2019] (Data obtained through the Generations and Gender Contextual Database. Netherlands Interdisciplinary Demographic Institute (distributor). Retrieved from: https://www.ggp-i.org/data/ggp-contextual-database/ on Day/Month/Year)

Please also check the original source for further information on the use of the data and proper citation.

Indicator (long name): Mean age at childbearing Indicator (short name): MAC

Definition: The mean age at childbearing is the mean age of mothers at the birth of their children if women were subject throughout their lives to the age-specific fertility rates observed in a given year.

Source of variable definition: UN Population Division Glossary of Demographic Terms. Available at https://population.un.org/wpp/General/GlossaryDemographicTerms.aspx. Last accessed on 13/9/2022.

Comments: Values for years 1950-2022 are UN estimates.

Reference areas: Click here to download the list of reference areas and the respective geographical codes.

The "Footnotes" tab includes, when applicable, metadata on specific data entries

Footnotes

API query for this table

Fig. 7 – Indicator metadata available below the selected table

Fig. 8 – Window documenting the notes on a specific data entry

The metadata linked to each data entry of the group "The Generations & Gender Contextual Database Archive" also include information on the data source used (just like in the pre-2018 platform). Indeed, in this group, for the same indicator data sources often vary, depending on the country and/or the year. For some indicators of this group, the metadata for each data entry are only provided in a downloadable file available in the "Obs." section. When we used data provided by GGP national teams, we also indicate the list of National Data Collectors.

3.3 Making graphs

Users can choose to visualize the data in a variety of graphic options, e.g. bar charts (figure 9) and line charts (figure 10).
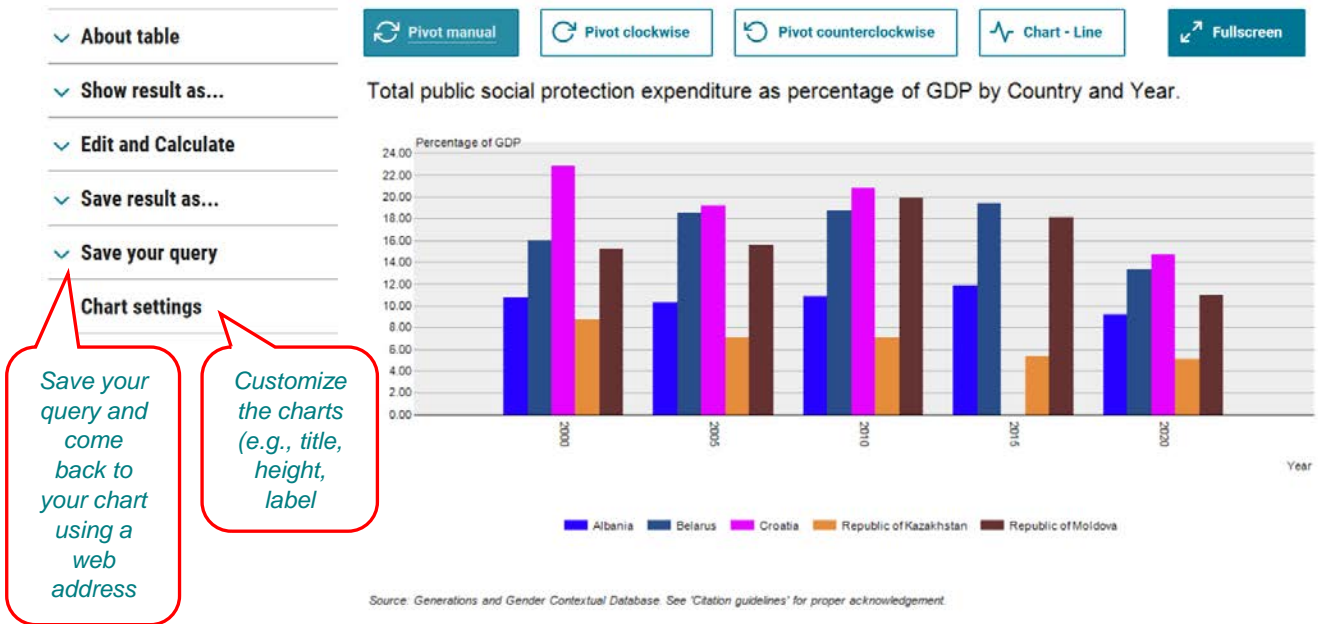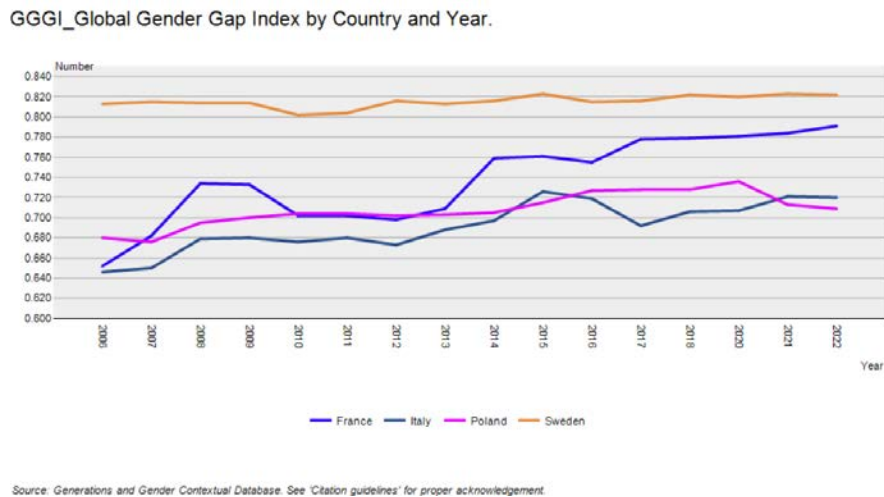

Fig. 9 – Example of a bar chart

Fig. 10 – Example of a line chart

3.4 Export outputs

A variety of table formats is available for saving selected tables. This includes: txt, CSV, PX-file, XML, XLSX, etc. Some exports also include indicator metadata and footnotes, as well as the CDB numeric ID associated to each geographic entity (figure 11).

GGGI_Global Gender Gap Index by Country and Year																	
		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2020	2021	2022
20	France	0,652	0,682	0,734	0,733	0,702	0,702	0,698	0,709	0,759	0,761	0,755	0,778	0,779	0,781	0,784	0,791
30	Italy	0,646	0,650	0,679	0,680	0,676	0,680	0,673	0,688	0,697	0,726	0,719	0,692	0,706	0,707	0,721	0,720
46	Poland	0,680	0,676	0,695	0,700	0,704	0,704	0,702	0,703	0,705	0,715	0,727	0,728	0,728	0,736	0,713	0,709
47	Portugal	0,692	0,696	0,705	0,701	0,717	0,714	0,707	0,706	0,724	0,731	0,737	0,734	0,732	0,744	0,775	0,766
59	Sweden	0,813	0,815	0,814	0,814	0,802	0,804	0,816	0,813	0,816	0,823	0,815	0,816	0,822	0,820	0,823	0,822

CDB numeric identifier

Source(s) used: <FONT COLOR=BLACK> The Global Gender Gap was obtained from the World Economic Forum annual reports. All reports and an interactive map are available at <A HREF=https://www.weforum.org/reports/global-gender-gap-report-2015/ TARGET=_blank><FONT COLOR=BLUE> https://www.weforum.org/reports/global-gender-gap-report-2015.</FONT COLOR=BLUE></A> Data accessed on 25/1/2023.

Indicator metadata

Fig. 11 – Extract of an XLSX file exported from the new CDB, including metadata

4. Looking ahead

The "core" list of indicators is regularly updated. The CDB provides contextual information useful for the analysis of GGS data. This is why we are open to enrich it with new indicators, especially following the needs of researchers using GGS-II data. Similarly, if necessary, we will extend the geographic coverage of the CDB so to include new countries that will carry out the GGP survey.

In order to improve the database we particularly welcome feedbacks from users. Please address your feedbacks to arianna.caporali@ined.fr .