

# CFE database

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## COHORT FERTILITY AND EDUCATION

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*The open-access Cohort Fertility and Education (CFE) database provides high-quality data on completed cohort fertility and parity distribution by level of education. The data come from censuses and large sample surveys, and cover mostly European countries. The database supports enhanced possibilities to explore and visualise the data.*

Achieved level of education is a key stratifying variable of demographic behaviour. The relationship between education and fertility has been analysed in individual countries, but comparative studies on fertility rarely include education. Based on census and large-scale sample data, the open-access *Cohort Fertility and Education* (CFE) database aims to become a rich source of historical and recent data, and a tool to study fertility trends. Launched in June 2014 as a test version, the database has been established within the EURREP project, which is funded by the European Research Council (ERC Starting Grant). The database provides internationally comparable indicators of cohort fertility by level of education in countries with below- and around-replacement fertility levels. It is user friendly and allows the user to dynamically display the results online or to download the data for own computations.

### Content of the CFE Database

The CFE database now covers 11 countries (see Table 1). It focuses on women and men who have (almost) completed their family building, i.e. those aged 40 and more at the time of the interview. The data come from censuses and large-scale surveys conducted in recent decades. In addition, in some

### INDICATORS available

- » completed fertility rate (CFR)
- » CFR by birth order
- » share of women by number of children ever born (including childless women)
- » parity progression ratios (PPR)

cases the data cover earlier censuses and encompass women born in the late 19<sup>th</sup> century. In the database, you find the following **standardised indicators**: completed cohort fertility rate (CFR), CFR by birth order, share of women by number of children ever born (including childless women) and parity progression ratios (PPR). They are all stratified by level of education, and, if possible, by country of birth/citizenship. For some countries, the data are available for men as well. The indicators can be visualised on interactive graphs, which can be printed or downloaded in several formats (see an example on Figure 1).

Further, the user can download the **input data**, i.e. the absolute number of women (and men, if available) by birth cohort, level of education (including those with unknown education), number of children ever born (including those with unknown

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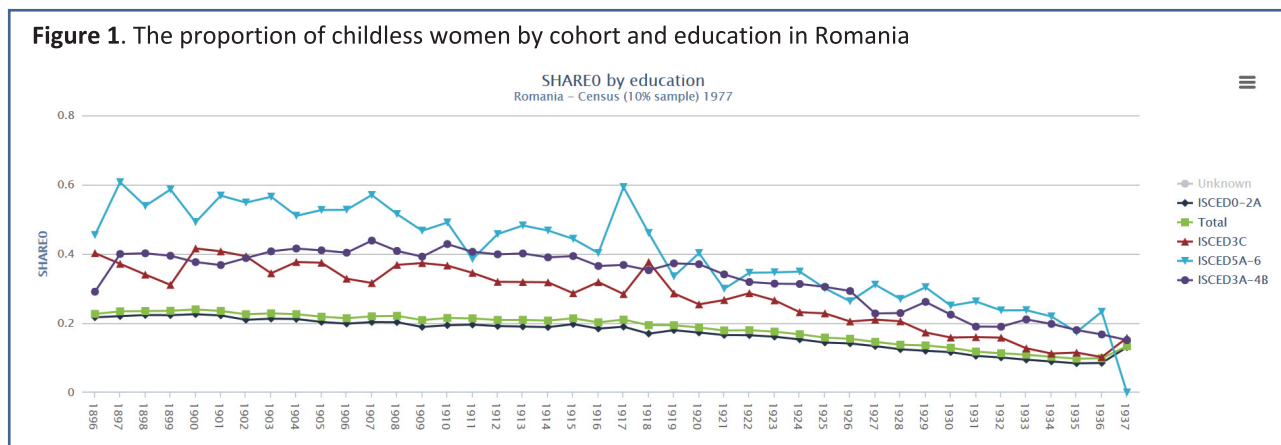
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European Research Council  
Established by the European Commission



**Figure 1.** The proportion of childless women by cohort and education in Romania



number of children) and (if available) country of birth, i.e. those born in the country vs. those born abroad.

Education is coded according to the International Standard Classification of Education 1997 (ISCED-97).

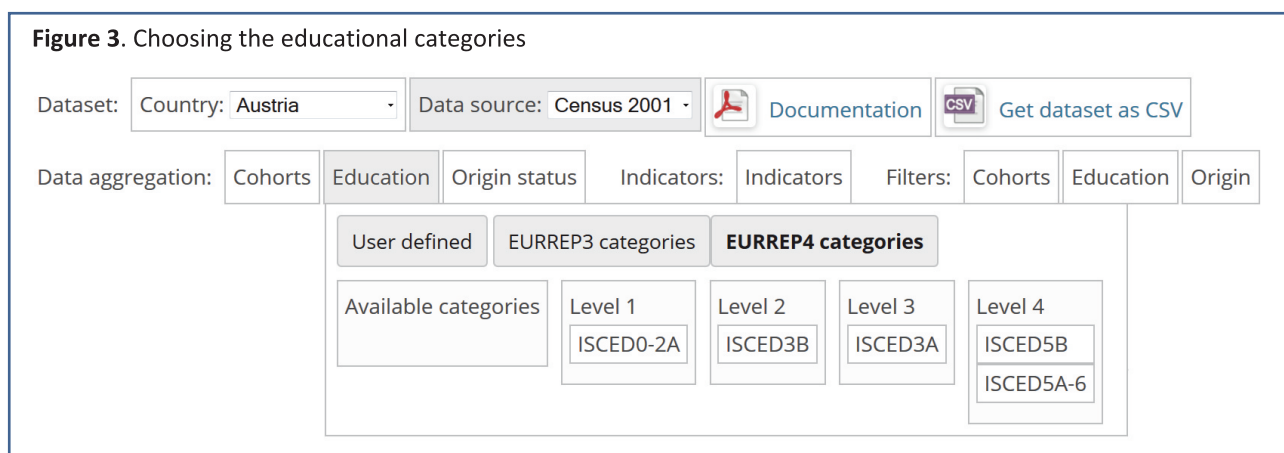
**How to use the CFE Database**

Figure 2 shows how the database looks like after choosing a country and data source, using an example of Austrian census from 2001. Users can choose the level of data aggregation with respect to cohort, education (Figure 3) and origin status. Education is defined as the highest level of education achieved and is grouped into three or four (EURREP 3 or EURREP 4, respectively) categories (as seen on Figure 3), but users can create their own groupings based on the ISCED-97 levels (by clicking the [User defined](#) button). The documentation file (opening when clicking the [Documentation](#) button

seen on the right-hand side on Figure 2) provides basic information on the country-specific schooling system, together with a table translating the original educational categories as given in the questionnaire into the ISCED-97 levels. The file also contains a brief description of the country-specific survey or census. The [origin status](#) button enables the user to view the data by country of birth (born in the country vs. abroad) or nationality, but it is not available for all countries.

Once the user has decided on the aggregation level, she or he can choose indicators they would like to display (Figure 4) and apply filters with respect to cohort, education and, if available, sex and origin (see Figure 2). The data table (as seen on Figure 2) dynamically adjusts to users' choices, i.e. all the changes they make to aggregation, indicators or filters are immediately seen in the table, which can be down-

**Figure 2.** The CFE Database



**INPUT data**  
 i.e. the absolute number of women (and men, when available) by

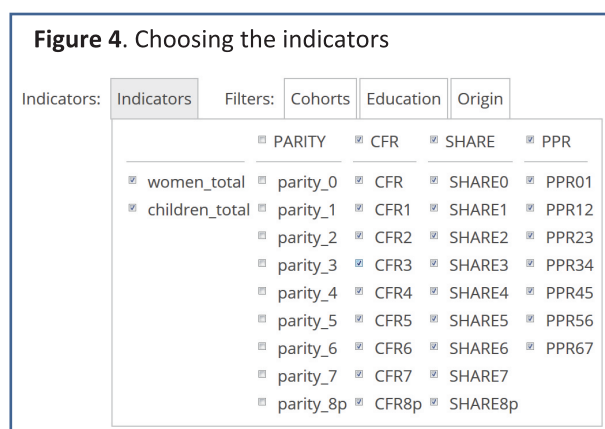
- » birth cohort
- » level of education (including those with unknown education)
- » number of children ever born (including those with unknown number of children)
- » (if available) country of birth (i.e. born abroad vs. born in the country) or nationality

**Table 1.** Countries and surveys in the database

Country	Census or survey
Austria	Census 1981, 1991, 2001
Croatia	Census 2001
Czech Republic	Census 1980, 1991, 2001
Hungary	Census (5% sample) 1970, 1980, 1990, 2001
Poland	Fertility Survey 2002
Romania	Census (10% sample) 1977, 1992, 2002
Slovakia	Census 1991, 2001
Slovenia	Census (10% sample) 2002
South Korea	Census 1970, 1975, 1980, 1985, 1990, 2000, 2005
Spain	Census (5% sample) 1980, 1991
Switzerland	Census 2000

loaded as a CSV file by clicking the [Get filtered table as CSV](#) button. The user can also download the full dataset in its original form without any additional aggregation or filters by clicking the [Get dataset as CSV](#) button.

Finally, it is also possible to draw and download graphs using the customised data table. When clicking on [Charts](#), the user will be asked to choose the data series (the total number of women, parity, CFR, share of women with a certain number of children or PPR) and their categorisation, i.e. whether they should be displayed by subindicators (e.g. CFR0, CFR1, CFR2 etc.), by education or, if available, by sex or origin (as seen on Figure 5a). When clicking [Display chart](#), a new tab will open with an interactive line graph of one's choice (as on Figure 5b). The user can hide and unhide the curves by clicking on them in the legend box; she or he can also read the numerical value for a birth cohort when putting the cursor on the curve. If the user clicks on the icon in the upper right corner (see Figure 5b), a window will appear which enables her or him to print the graph and download it in one of the given formats (PNG, JPEG, PDF or SVG as seen on Figure 5c).



More information about the database can be found in the [ABOUT](#) section; more details about the methodology (and about the way the indicators have been computed), are available in the [METHODS](#) section.

**For each country and census (or survey), you can**

- » aggregate the data by cohort, education and, if available, the origin status and sex
- » choose indicators of your interest (e.g. CFR, PPR)
- » filter out cohorts, educational groups (and, if available, origin status and sex)
- » generate and download (as a csv-file) a self-defined table with indicators of your interest
- » generate graphs and view them online (interactive graphs), download them in various formats or print them directly
- » make your own computations by downloading the original input dataset

**Figure 5a. Generating a graph**

Charts

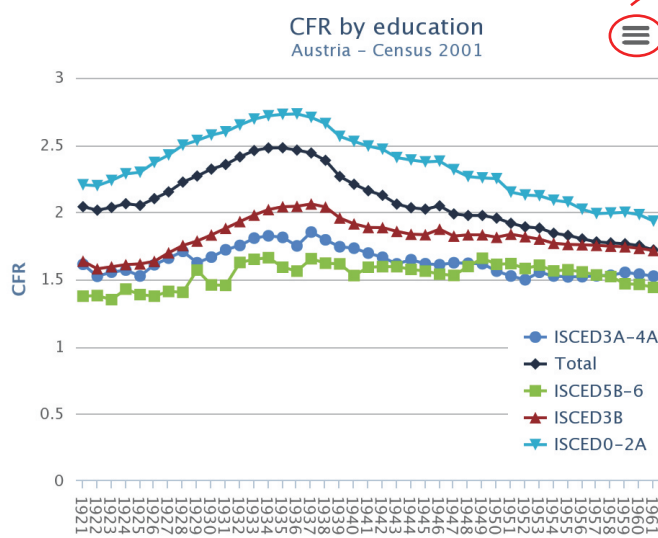
Data series:  Women total  Parity  CFR  SHARE  PPR

By:  subindicators  education  sex  origin

Subindicator:

- CFR
- CFR1
- CFR2
- CFR3
- CFR4
- CFR5
- CFR6
- CFR7
- CFR8p

**Figure 5b. A generated graph**



**Figure 5c. Choosing the export format**

[www.eurrep.org](http://www.eurrep.org)

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The CFE Database is an ongoing project, which is continuously expanding. If you want to keep up-to-date and be informed whenever new data are added, you can subscribe to an RSS feed (to be found in the [HOME](#) section).

**OUR RECENT PUBLICATIONS**

Sobotka, Tomáš and Éva Beaujouan. 2014. "Two is best? The persistence of a two-child family ideal in Europe", *Population and Development Review* 40(3): 391-419. [open access]

Brzozowska, Zuzanna. 2014. "Fertility and education in Poland during state socialism", *Demographic Research* 31(12). [open access]

Beaujouan, Éva. 2014. "Counting how many children people want: The influence of question filters and pre-codes", *Demográfia, English edition* 2013 56(5). [open access]

**SUGGESTED CITATION**

When using the database, please cite the full name of the database (Cohort Fertility and Education Database, CFE Database) and refer to:

Zeman, K., Z. Brzozowska, T. Sobotka, É. Beaujouan, A. Matysiak. 2014. Cohort Fertility and Education Database. Methods Protocol. Available at [www.cfe-database.org](http://www.cfe-database.org) (accessed on [date]).