



ICT Surveys database on Households

Quick documentation (updated 14/12/2022)

1. Update

Most information given in the initial document (v 11.12.2012) still applies. Some minor changes in the ICT survey databases occurred in 2016, when we migrated to corporate software. Some changes in the way footnotes are stored also occurred in 2021. Hence, corrections were necessary in this document. Therefore this documentation has been reviewed to fit the new database structure.

2. DATABASES

2.1.Databases – Files

There are 2 files, ENT.mdb, ENT2.mdb and HH.mdb, with the data from the ICT surveys on households. One file has data from 2002 to 2016, while the other has data from 2017 onwards. All are in Microsoft Access format and have the same structure, described below.

2.2.New database structure

As of 2011, as the comprehensive databases became bigger and bigger, we have moved to a new, compact structure.

We achieved this goal by removing the text fields from the main tables and replacing them by, small, numeric IDs. The old, text fields can be found in reference tables. For the interested in database design, that is called normalisation. The format of the tables is described in section 3 of this document.

That normalisation has the advantage that the database becomes much more compact, which is an advantage in terms of storage space, download time and response time. Also, we could reintroduce the indexes on the tables, which improved the response time even further.

The drawback is that the database is more difficult to use; each meaningful query needs now joining to 4 or 5 reference tables.

For that reason, we have pre-programmed a few queries, which basically reconstruct the tables in the old format. Those queries are described in section 4 of this document.

Additionally, the codes used in the comprehensive database are now the same as the codes used in Eurobase.

3. TABLES

3.1. "DataWithAggregates" table

The data from the surveys is stored in the table DataWithAggregates. The table has the following structure:

| Field | Explanation |
|------------|--|
| IdYear | That is the year the survey was carried on. |
| IdCountry | The ID of the declaring country. See list of codes in table Countries |
| IdVariable | The ID of the variable, see list of codes in table Variables |
| IdBrkDwn | The ID of the breakdown, see list of codes in table BrkDwns |
| IdUnit | The Id of the unit the value is expressed on. See list of codes in the Units table. |
| Value | The value, rounded to 4 decimals. |
| Flags | The flags attached to the value. Flags codes are defined below. |
| IdNote | The ID of the footnote attached to the value. The footnote is in the Notes table. A null IdNote means the value has no footnote attached to it. |

The flag codes used are defined as follows:

| Flag | Meaning |
|------|--|
| a | This value is an aggregate computed by Eurostat |
| b | This value has a break in series. It is not comparable to the same value, for the previous period. |
| c | This value is confidential. It is therefore not published and has not been used to compute the EXP aggregates. This flag is almost never used for households and individuals |
| u | This value is unreliable. It is therefore not published but has been used to compute the EXP aggregates. |

3.2. "NotesWithAggregates" table

On top of footnotes that apply to only one cell, there are footnotes that apply to a variable, to a breakdown or to a whole questionnaire. Those are in the "NotesWithAggregates" table. The table has the following structure:

| Field | Explanation |
|------------|---|
| IdYear | That is the year the survey was carried on. |
| IdCountry | The ID of the declaring country. See list of codes in table Countries |
| IdVariable | The ID of the variable the footnote applies to, see list of codes in table Variables . An asterisk (*) means the footnote applies to all variables. |
| IdBrkDwn | The ID of the breakdown the footnote applies to, see list of codes in table BrkDwns . An asterisk (*) means the footnote applies to all breakdowns. |
| IdNote | The ID of the footnote attached to the value. For the EXP aggregates, the footnote is a catenation of the original footnote, prefixed with the country code. For example, if a footnote applies to some German data, the corresponding EXP data will have the same footnote, prefixed with "DE:". |

3.3. "AggregContents" table

Eurostat computes EXP aggregated data, when at least 55% of the countries representing 60% of the population have reported data. That means the user must have a way to know with countries have been used to compute the EXP aggregates. That is the purpose of the "**AggregContents**" table. Its structure is as follows:

| Field | Explanation |
|------------|---|
| IdYear | That is the year the survey was carried on. |
| IdCountry | The declaring country. |
| IdVariable | The variable code. |
| IdBrkDwn | The breakdown code. |
| IdUnit | The unit code. |
| IdIncluded | The ID of a text, which is a list of the countries which have been used in the computation. That text can be found in the Included table. If the aggregate could not be computed because of insufficient data, then the percentage of the countries and of the population are indicated instead. |

3.4."BrkDwns" reference table

This table lists the breakdown codes used. The breakdown codes are now the Eurobase codes. They are no longer year dependent.

The table structure is as follows:

| Field | Explanation |
|------------------|--|
| IdBrkDwn | The breakdown ID. |
| ExpBrkDwn | The breakdown code. The Exp prefix has been added as a reminder that it is a Eurobase code. |
| BrkDwnGroup | The group name the breakdown belongs to. That information is given to allow the easy grouping of the breakdowns that relate together |
| ExpBrkDwnCaption | A descriptive text that explains what the breakdown is about. |

3.5."Countries" reference table.

This table lists the country codes used. The table structure is as follows:

| Field | Explanation |
|-------------------|---|
| IdCountry | The country ID. |
| ExpCountry | The country code. The code can refer to a single country or to a Eurostat computed aggregate. The Exp prefix has been added as a reminder that it is a Eurobase code. |
| ExpCountryCaption | A descriptive text that explains what the country code means. |

3.6."Included" reference table.

This table lists the country codes used. The table structure is as follows:

| Field | Explanation |
|------------|---|
| IdYear | The year the "Included" text refers to. |
| IdIncluded | The ID of the countries included text. |
| Included | The text which specifies which countries are included in a country aggregate. |

3.7."Notes" reference table

This table lists the footnotes used. The table structure is as follows:

| Field | Explanation |
|--------|--------------------------------------|
| IdYear | That is the year the note refers to. |
| IdNote | The ID of the footnote. |
| Note | The text of the footnote. |

3.8."Units" reference table.

This table lists the unit codes used. The unit codes are now the Eurobase codes. They are no longer year dependent. The table structure is as follows:

| Field | Explanation |
|----------------|--|
| IdUnit | The ID of the unit. |
| ExpUnit | The unit code. The Exp prefix has been added as a reminder that it is a Eurobase code. |
| ExpUnitCaption | A descriptive text that explains what the unit code means. |

3.9."Variables" reference table

This table lists the variable codes used. The variable codes are now the Eurobase codes. They are no longer year dependent. The table structure is as follows:

| Field | Explanation |
|--------------------|--|
| IdVariable | The ID of the variable. |
| ExpVariable | The variable code. The Exp prefix has been added as a reminder that it is a Eurobase code. |
| ExpVariableCaption | A descriptive text that explains what the variable is about. |

3.10. "Recent Updates" reference table.

This table lists when the database was last updated. The table structure is as follows:

| Field | Explanation |
|-------------|---|
| Year | That is the year the survey was carried on. |
| IdCountry | The ID declaring country. The details of the country can be found in the Countries table. |
| LastUpdated | When Eurostat last updated the data for that reference year and declaring country. |

4. QUERIES

4.1. "View DataWithAggregates" query

This view is identical to the DataWithAggregates table, but the IDs have been replaced by the codes from the respective reference tables. The view has the following structure:

| Field | Explanation |
|-------------|--|
| IdYear | That is the year the survey was carried on. |
| ExpCountry | The declaring country. See list of codes in table Countries . The Exp prefix has been added as a reminder that it is a Eurobase code. |
| ExpVariable | The variable, see list of codes in table Variables . The Exp prefix has been added as a reminder that it is a Eurobase code. |
| ExpBrkDwn | The breakdown, see list of codes in table BrkDwns . The Exp prefix has been added as a reminder that it is a Eurobase code. |
| ExpUnit | The unit the value is expressed on. See list of codes in the Units table. . The Exp prefix has been added as a reminder that it is a Eurobase code. |
| Value | The value, rounded to 4 decimals. |
| Flags | The flags attached to the value. Flags codes are defined below. |
| Note | The footnote attached to the value. |

The flags code used are defined as follows:

| Flag | Meaning |
|------|--|
| a | This value is an aggregate computed by Eurostat |
| b | This value has a break in series. It is not comparable to the same value, for the previous period. |
| c | This value is confidential. It is therefore not published and has not been used to compute the EXP aggregates. |
| u | This value is unreliable. It is therefore not published but has been used to compute the EXP aggregates. |

4.2."View NotesWithAggregates" query

On top of footnotes that apply to only one cell, there are footnotes that apply to a variable, to a breakdown or to a whole questionnaire. This view is identical to the NotesWithAggregates table, but the IDs have been replaced by the codes from the respective reference tables. The view has the following structure:

| Field | Explanation |
|-------------|---|
| IdYear | That is the year the survey was carried on. |
| ExpCountry | The declaring country. See list of codes in table Countries . The Exp prefix has been added as a reminder that it is a Eurobase code. |
| ExpVariable | The variable the footnote applies to, see list of codes in table Variables . An asterisk (*) means the footnote applies to all variables. The Exp prefix has been added as a reminder that it is a Eurobase code. |
| ExpBrkDwn | The breakdown the footnote applies to, see list of codes in table BrkDwns . An asterisk (*) means the footnote applies to all breakdowns. The Exp prefix has been added as a reminder that it is a Eurobase code. |
| Note | The text of the footnote. For the EXP aggregates, the footnote is a catenation of the original footnote, prefixed with the country code. For example, if a footnote applies to some German data, the corresponding EXP data will have the same footnote, prefixed with "DE:". |

4.3."View AggregContents" query

Eurostat computes EXP aggregated data, when at least 55% of the countries representing 60% of the population have reported data. That means the user

must have a way to know with countries have been used to compute the EXP aggregates. That is the purpose of the "View AggregContents" query. This view is identical to the AggregContents table, but the IDs have been replaced by the codes from the respective reference tables. Its structure is as follows:

| Field | Explanation |
|-------------|---|
| IdYear | That is the year the survey was carried on. |
| ExpCountry | The declaring country. The Exp prefix has been added as a reminder that it is a Eurobase code. |
| ExpVariable | The variable code. The Exp prefix has been added as a reminder that it is a Eurobase code. |
| ExpBrkDwn | The breakdown code. The Exp prefix has been added as a reminder that it is a Eurobase code. |
| ExpUnit | The unit code. The Exp prefix has been added as a reminder that it is a Eurobase code. |
| Included | The list of the countries which have been used in the computation. If the aggregate could not be computed because of insufficient data, then the percentage of the countries and of the population are indicated instead. |

4.4. "View RecentUpdates" query.

This view lists when the database was last updated. It is identical to the RecentUpdates table, but the country IDs have been replaced by the codes from the Countries table. The view structure is as follows:

| Field | Explanation |
|-------------|--|
| IdYear | That is the year the survey was carried on. |
| ExpCountry | The declaring country. The Exp prefix has been added as a reminder that it is a Eurobase code. |
| LastUpdated | When Eurostat last updated the data for that reference year and declaring country. |

5. ADDITIONAL QUERIES

Additional queries can easily be built to accommodate specific needs. They are included for your convenience.

We provide, as example, two kind of queries:

- Queries that reproduce the data from parts of the questionnaire,
- The Eurobase queries.