

NEPS

National Educational Panel Study

Research Data

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Anonymization Procedures

NEPS Starting Cohort 6— Adults

Adult Education and Lifelong Learning

Scientific Use File Version 12.1.0

LifBi

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EDUCATIONAL TRAJECTORIES

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1 Preamble

This documentation gives an exhaustive explanation of all disclosure risk minimization techniques applied before dissemination to the Scientific Use File (SUF) of Starting Cohort (SC) 6, version 12.1.0 (doi:10.5157/NEPS:SC6:12.1.0). For a quick reference to all variables and datafiles which are affected in detail and on which level you will find the full information, please skip forward to appendix section A.1. If you have inquiries or need further information not covered in this document please feel free to contact the research data center at fdz@lifbi.de. Please note the following general remarks:

- in all tables, the anonymization suffix (`_O`, `_R`, `_D`) was removed from the variable name to enhance readability and remove duplicates. To find a specific variable in the data file, add the corresponding suffix or use a wildcard.
- to ensure a data-consistent documentation, all tables in this document have been produced on basis of the SUF data. Variable labels in the data have been cut off at 80 characters, which inherits to this documentation.
- as additional documentation, a *Semantic Data Structure File* is available. This is the complete SUF where all cases have been removed. Feel free to use this as a first overview to the data in cases you do not have access to the real data (e.g. you are interested in data files which are available OnSite only). You are well advised to use this preparing your syntax *before* initiating your travel to our OnSite facility. You find it freely available on the documentation page to this SUF:

www.neps-data.de > Data Center > Data and Documentation > Starting Cohort Adults > Documentation

1.1 Specifications

To ensure the best possible confidentiality protection of individuals and individual micro data, the National Educational Panel Study complies with strict international standards. To achieve this, a *portfolio approach*, based on the ideas of Lane et al., 2008, has been established. This approach interlocks data security mechanism on five different levels, while the actual data modification (i.e. anonymization) is one of them. For further information, see the article by Koberg, 2016. Operationalizing this modification procedure, it can be abstracted to the following two criteria:

- the disseminated data was transferred to so called *de facto anonymous data*. Identifiable information is coarsened or cut off and kept securely to minimize the risk of statistical disclosure.

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- the use of data is strictly confidential and for statistical purposes only. The closed contract only grants access to members of the scientific community. This contract has a vast amount of legal stipulations, one of them being a large fine which applies for the realization of re-identification on purpose. Therefore, the disseminated data is highly protected by law and allows a more flexible range of available data.

To pick up the latter, the NEPS has made a huge effort regarding legal regulations to offer as much analysis power of data as possible. This *paradigm of information esteem* reveals the fact that conducted measures of statistical disclosure control are few. Also, if there really was a need for modification, only non-perturbative methods were used.

1.2 Onion-shaped model

The NEPS grants the user three different modes of data access: (1) *OnSite*, which stands for the opportunity to use the secured infrastructure made available at the LfBi in Bamberg, (2) *RemoteNEPS*, which is a progressive remote access technology providing a virtual desktop, and finally (3) *Download*, indicating the possibility to fetch data via a secure web portal.

These given access modes have been originated to allow anonymization routines for a subtle differentiation of information. The three resulting levels of anonymization define as follows:

- data provided OnSite is generally not further anonymized. However, even those data was rendered *de facto anonymous*, for no disclosure risk to persist. All information contained remains completely sane. Although users have to deal with limited possibilities of data access (i.e. supervised import and export of their results), they are free to work with all data available in a secure environment.
- access via RemoteNEPS is considered equivalent to OnSite, hence most of the data stays complete.
- as Download is assumed to be the most hazardous access mode¹, some more anonymization techniques are done to the dataset.

Obviously this approach results in three different versions of all involved datasets. To enable a consistent structure, these data files always contain the entire set of variables; it is their content which differs through the three levels.

As normally there is no need to resign aggregated variables in the higher levels (i.e. OnSite or RemoteNEPS), those are already defined as a surplus to the original variable in the OnSite-version. Stepping down to RemoteNEPS, the content of related variables too sensitive for this level is overwritten with an exclusive missing code – an operation which we define as *purging*. Note that system missing values are not affected, allowing the user to differ between value existence and nonexistence. This still is a valuable additional information. The same logic applies to the transition from RemoteNEPS to Download.

¹ 'hazardous' in terms of: the downloaded content is no longer under physical control of the LfBi

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While there is no explicit documentation to this fact, it should remain clear that this procedure accumulates, i.e. purged content under RemoteNEPS is therefore neither included in RemoteNEPS nor in Download.

This *onion-shaped model* provides both ease of (1) use of different sensitivity models (e.g. preparing an analysis using the Download dataset and conducting it afterwards using the OnSite-data) and (2) documentation, for the subject of documentation is the most sensitive level (OnSite), with RemoteNEPS and Download levels being a subset of these data.

The fourth layer *master* depicted below contains every material which is needed during data processing by the NEPS, but is not meant for the scientific community to be usable.

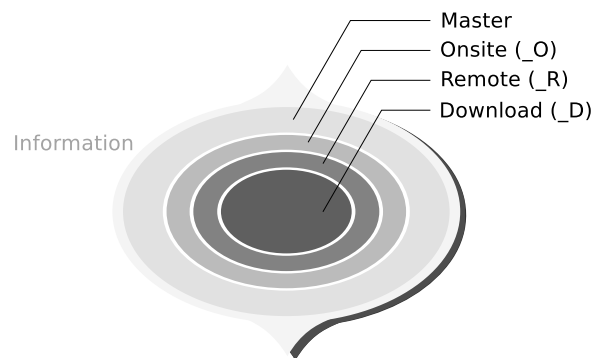


Figure 1: Onion-shaped model defining the different anonymization levels

Technically, this model realizes in a single letter suffixed to dataset and variable names. All datasets available OnSite only are marked with an additional **_O**, those available via RemoteNEPS with **_R** and Download files with **_D**. The same procedure applies when it comes to variable differentiation. A variable which is available unaltered OnSite only is suffixed with **_O**. In RemoteNEPS-access or Download, this variable is still present but purged. If there is an alternate version (e.g. with coarsened content) for RemoteNEPS (suffix **_R**) or Download (suffix **_D**), those can be used. As said before, these are already integrated in the OnSite version. See section 3 for some examples (especially for a practical explanation what is meant by *purging* here).

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Keeping the usability and the paradigm of information esteem in mind, only very few alterations are actually done to the dataset. Please note that all information is still available somewhere and that only RemoteNEPS and (mainly) the Download version are constraint in this matter. In fact, in this SUF, only 170 out of 3433 variables are modified in some way.

The following table gives an explanatory overview of all measures conducted. The remainder of this section gives a more detailed description of those topics.

Table 1: Availability of sensitive data

| Topic | OnSite | RemoteNEPS | Download |
|----------------------------|------------|------------|------------|
| String variables | anonymized | n/a | n/a |
| International ¹ | full data | full data | collapsed |
| Regional (National) | restricted | restricted | restricted |
| Institutional context | full data | anonymized | n/a |
| Macro indicators | accessible | n/a | n/a |
| Others | full data | full data | aggregated |

¹ international geographical information (e.g., nation states, national languages)

2.1 String variables

All variables containing actual text and whose type is therefore string are purged in the RemoteNEPS version. The information remains accessible OnSite. However, you should be aware that in the majority of cases, text entries have been recoded into derived variables (usually suffixed with `_g1`, `_g2`, etc.), which contain the information collected. Those variables are available in all three levels, only the actual text entry is available OnSite only. The text entries have been reviewed by staff to ensure that absolutely no reidentificational material is included. To indicate the availability of those variables OnSite only, the variable names have been suffixed with an additional `_0`.

Table 2: All string variables; those are only available onsite

| file | variable | label |
|---------|----------|------------------------------|
| pTarget | t272800 | Trade fair/congress: content |
| pTarget | t272801 | Specialist lecture: content |

(...)

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Table 2: (continued)

| file | variable | label |
|---------------|----------|--|
| pTarget | t272804 | Self-study program: content |
| pTarget | t272805 | Online learning: content |
| pTarget | t406001 | Other reason for migration Immigration status other |
| pTarget | t66507a | Goal orientation: Work/Health |
| pTarget | t731302 | other school-leaving qualification Mother |
| pTarget | t731304 | other vocational qualification Mother (open) |
| pTarget | t731305 | other educational institution Mother (open) |
| pTarget | t731307 | other higher education qualification Mother (open) |
| pTarget | t731309 | other institution awarding higher education degrees Mother (open) |
| pTarget | t731352 | other school-leaving qualification Father |
| pTarget | t731354 | other vocational qualification Father (open) |
| pTarget | t731355 | other educational institution Father (open) |
| pTarget | t731357 | other higher education qualification Father (open) |
| pTarget | t731359 | other institution awarding higher education degrees Father (open) |
| pTarget | th24539 | Text Selected occupation (Module 26bET-QS) |
| pTarget | th32217 | otherpartial retirement model |
| pTarget | th32343 | Other vocational qualification Partner (open) (LAT) |
| pTarget | th32344 | Other educational institution Partner (open) (LAT) |
| pTarget | th32345 | Other higher education qualification Partner (open) (LAT) |
| pTarget | th32347 | other institution awarding higher education degrees Partner (open) (LAT) |
| pTargetCORONA | th80002 | Content media - digital |
| pTargetCORONA | tm00040 | Childcare situation NEPS child - open |
| pTargetCORONA | tm00048 | Childcare situation - open |
| pTargetCORONA | tm00056 | Learning materials: open |
| pTargetCORONA | tm00071 | Changed learning opportunities during school closure - other, open |
| pTargetCORONA | tm00085 | Learning materials - open |
| pTargetCORONA | tm00097 | Changed learning opportunities during school closure - other, open |
| pTargetCORONA | tm00109 | Offered courses - other, open |
| pTargetCORONA | tm00115 | Learning materials, open |
| pTargetCORONA | tm00140 | Chances Future |
| spChild | ts33211 | Other employment status Child (open) |
| spChild | ts33213 | Other type of school Child |
| spChild | ts33215 | other school-leaving qualification Child |
| spChild | ts33217 | Other training Child |
| spChild | ts33219 | Other study institution Child |
| spChild | ts33221 | other vocational qualification Child (open) |
| spChild | ts33222 | Other educational institution Child (open) |
| spChild | ts33224 | Other higher education qualification Child (open) |
| spChild | ts33226 | Other institution awarding higher education degrees Child (open) |

(...)

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Table 2: (continued)

| file | variable | label |
|-----------------|----------|---|
| spFurtherEdu1 | t272044 | Type of certificate |
| spFurtherEdu2 | t272044 | Type of certificate |
| spGap | ts29102 | other activity |
| spMilitary | ts21401 | other voluntary service (25108a) |
| spPartner | ts31213 | Other school-leaving qualification Partner |
| spPartner | ts31215 | Other vocational qualification Partner (open) |
| spPartner | ts31216 | Other educational institution Partner (open) |
| spPartner | ts31218 | Other higher education qualification Partner (open) |
| spPartner | ts31220 | Other institution awarding higher education degree Partner (open) |
| spSchool | t724806 | 1st Abitur subject, open |
| spSchool | t724807 | 2nd Abitur subject, open |
| spSchool | t724808 | 3rd Abitur subject, open |
| spSchool | t724809 | 4th Abitur subject, open |
| spSchool | t724810 | 5th Abitur subject, open |
| spSchool | ts11206 | Other type of school |
| spSchool | ts11212 | other school-leaving qualification |
| spSchool | ts11217 | other intended school-leaving qualification |
| spSchoolExtExam | ts11305 | Awarded other school-leaving qualification |
| spSchoolExtExam | ts11324 | 1st Abitur subject (awarded qualification), open |
| spSchoolExtExam | ts11325 | 2nd Abitur subject (awarded qualification), open |
| spSchoolExtExam | ts11326 | 3rd Abitur subject (awarded qualification), open |
| spSchoolExtExam | ts11327 | 4th Abitur subject (awarded qualification), open |
| spSchoolExtExam | ts11328 | 5th Abitur subject (awarded qualification), open |
| spVocExtExam | ts15305 | other external examination qualification |
| spVocTrain | ts15202 | other training |
| spVocTrain | ts15220 | other vocational qualification |
| spVocTrain | ts15222 | other vocational qualification (open) |
| spVolunteerWork | t262950 | Content Volunteering 1 |
| spVolunteerWork | t262951 | Content Volunteering 2 |

2.2 International: countries, languages, and nationalities

All information corresponding to international localization, nationality or languages is completely available only OnSite or via RemoteNEPS. Variables comprised in the Download SUF are aggregated into larger categories – mainly allocating continents and, in detail, states in Europe. For a complete recoding map of all countries/languages/nationalities, see appendix section A.2. This recoding rule was initially based on the methods used for the IAB ALWA study (Antoni et al., 2011) and the recommendations given by Müller et al., 1991. It has been updated and adjusted to better serve the data user’s needs. Please note that this aggregated version is generated not during the anonymization process, but as an additional derived variable. Therefore, you do not

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find a variable suffixed `_D`, but two derived variables (suffixed `_g1` and `_g2`), where only the first has an anonymization suffix (i.e. `_g1R`), indicating that the full information is available in RemoteNEPS only.

Table 3: All variables which are affected by country/language/nationality aggregation

| file | variable | label |
|-----------------|------------|---|
| pTarget | t32601a_g1 | Position generator: Country Nurse |
| pTarget | t32601b_g1 | Position generator: Country Engineer |
| pTarget | t32601c_g1 | Position generator: Country Warehouse/transport worker |
| pTarget | t32601d_g1 | Position generator: Country Social worker |
| pTarget | t32601e_g1 | Position generator: Country Salesperson |
| pTarget | t32601f_g1 | Position generator: Country Police officer |
| pTarget | t32601g_g1 | Position generator: Country Physician |
| pTarget | t32601h_g1 | Position generator: Country Banker |
| pTarget | t32601k_g1 | Position generator: Country Motor mechanic |
| pTarget | t32601l_g1 | Position generator: Country Legal practitioner |
| pTarget | t32601m_g1 | Position generator: Country Optician |
| pTarget | t32601n_g1 | Position generator: Country Translator |
| pTarget | t32601o_g1 | Position generator: Country Teacher at elementary school/Hauptschule/Realschule |
| pTarget | t405010_g1 | Country of place of birth |
| pTarget | t405070_g1 | Country of birth, mother |
| pTarget | t405100_g1 | Country of birth Father |
| pTarget | t405220_g1 | Country of birth mother's mother |
| pTarget | t405230_g1 | Country of birth mother's father |
| pTarget | t405240_g1 | Country of birth father's mother |
| pTarget | t405250_g1 | Country of birth father's father |
| pTarget | t407010_g1 | Country of birth Partner (LAT) |
| pTarget | t407070_g1 | Country of birth Mother Partner |
| pTarget | t407100_g1 | Country of birth Father Partner (LAT) |
| pTarget | t431010_g1 | Country of destination |
| pTarget | t751004_g1 | Country in which place of work is located (abroad) |
| pTarget | t751015_g1 | Country of second residence (abroad) |
| spEmp | ts23239_g1 | Country of workplace |
| spPartner | ts31205_g1 | Country of birth Partner |
| spPartner | ts31208_g1 | Country of birth, partner's father |
| spPartner | ts31210_g1 | Country of birth Mother Partner |
| spResidence | th21103_g1 | Country of place of residence |
| spSchool | ts1120s_g1 | Country of school |
| spSchoolExtExam | ts11301_g1 | Country of awarded school-leaving qualification |
| spVocExtExam | ts15303_g1 | Country of external examination |
| spVocTrain | ts1521s_g1 | Country of vocational training |
| pTarget | t412141_g1 | Interaction language - best friend (ISO 639.2) |
| pTarget | t412171_g1 | Language use - colleagues (ISO 639.2) |
| pTarget | t413000_g1 | 1st mother tongue (ISO 639.2) |
| pTarget | t413010_g1 | 2nd mother tongue (ISO 639.2) |

(...)

2 Conducted measures

Table 3: (continued)

| file | variable | label |
|---------|------------|--|
| pTarget | t413060_g1 | Language of origin (ISO 639.2) |
| pTarget | t413100_g1 | First language/language of origin Mother (ISO 639.2) |
| pTarget | t413120_g1 | First language/language of origin Father (ISO 639.2) |
| pTarget | t413501_g1 | Interaction language - household (ISO 639.2) |
| pTarget | t418001_g1 | Language Reading - profession (ISO 639.2) |
| pTarget | t418011_g1 | Language Reading - free time (ISO 639.2) |
| pTarget | t406100_g1 | other nationality |

2.3 Regional localization

For all variables which register a regional position – such as places of birth, work, school, or residence – the following variables have been generated (if possible):

- an indicator for West Germany and East Germany (including Berlin)
- the federal state for this location,
- the administrative region, and
- the administrative district,

the latter two only available in RemoteNEPS.

Regional localization more detailed is not directly available. If you have need to merge data using a regional key below the available level, please check out the corresponding website at:

→ www.neps-data.de > Data Center > Overview and Assistance > Regional Data

or contact the LIfBi RDC (fdz@lifbi.de), which may deal with this matter for you.

Table 4: All regional variables which are only available in RemoteNEPS or OnSite.

| file | variable | label |
|-------------|------------|--|
| pTarget | t700101_g3 | Municipality of birth (RS region) |
| pTarget | t700101_g4 | Municipality of birth (RS administrative district) |
| pTarget | t751001_g3 | Residential municipality (RS region) |
| pTarget | t751001_g4 | Residential municipality (RS administrative district) |
| pTarget | t751011_g3 | Municipality of secondary residence (RS region) |
| pTarget | t751011_g4 | Municipality of secondary residence (RS administrative district) |
| spEmp | ts23237_g3 | Location of workplace (RS region) |
| spEmp | ts23237_g4 | Location of workplace (RS administrative district) |
| spResidence | th21111_g3 | Place of residence (RS region) |

(...)

2 Conducted measures

Table 4: (continued)

| file | variable | label |
|-------------|------------|--|
| spResidence | th21111_g4 | Place of residence (RS administrative district) |
| spSchool | ts11202_g3 | Municipality of school (RS region) |
| spSchool | ts11202_g4 | Municipality of school (RS administrative district) |
| spVocTrain | ts15207_g3 | Municipality of training facility (RS region) |
| spVocTrain | ts15207_g4 | Municipality of training facility (RS administrative district) |

2.4 Macro indicators

Additional information including structural topography and macroeconomic measures was collected. You find those available OnSite only. The following data is available:

- Microm data, describing the surrounding of the targets residence
- RegiInfas (infas geodaten) data, describing the surrounding of the targets residence

2.5 Other variables

All other variables affected by anonymization and not classifiable in the previous groups are listed below. In the first table (table 5), you find all variables which were aggregated in the Download-SUF. An additional table below each entry displays the values of the variable, both as found in RemoteNEPS (if table column is empty, the variable is numeric and does not have a value label scheme) and in Download.

The second table (table 6) contains all variables which are not aggregated, but purged completely in the Download-version, that is, there is no aggregated version.

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Table 5: Other variables which were aggregated in the Download-SUF (aggregation is also stated)

[file] variable: label

[pTarget] t731406: Number of mother's employees (categorized)

| RemoteNEPS | | Download |
|--------------------------|----|--------------------|
| 1 to less than 5 | 1 | 1 to less than 5 |
| 5 to less than 10 | 2 | 5 to less than 10 |
| 10 to less than 20 | 3 | 10 to less than 20 |
| 20 to less than 50 | 4 | 20 and more |
| 50 to less than 100 | 5 | |
| 100 to less than 200 | 6 | |
| 200 to less than 250 | 7 | |
| 250 to less than 500 | 8 | |
| 500 to less than 1,000 | 9 | |
| 1,000 to less than 2,000 | 10 | |
| 2,000 and more | 11 | |

[pTarget] t731406_ha: Number of mother's employees (harmonized, categorized)

| RemoteNEPS | | Download |
|--------------------------------|---|--------------------|
| Fewer than 5 persons | 1 | less than 5 |
| 5 to less than 10 persons | 2 | 5 to less than 10 |
| 10 to less than 20 persons | 3 | 10 to less than 20 |
| 20 to less than 100 persons | 4 | 20 and more |
| 100 to less than 200 persons | 5 | |
| 200 to less than 2.000 persons | 6 | |
| 2.000 persons and more | 7 | |

[pTarget] t731406_v1: Number of mother's employees (categorized)

| RemoteNEPS | | Download |
|--------------------------------|---|--------------------|
| Fewer than 5 persons | 1 | less than 5 |
| 5 to less than 10 persons | 2 | 5 to less than 10 |
| 10 to less than 20 persons | 3 | 10 to less than 20 |
| 20 to less than 100 persons | 4 | 20 and more |
| 100 to less than 200 persons | 5 | |
| 200 to less than 2.000 persons | 6 | |
| 2.000 persons and more | 7 | |

[pTarget] t731456: Number of father's employees (categorized)

| RemoteNEPS | | Download |
|--------------------------|----|--------------------|
| 1 to less than 5 | 1 | 1 to less than 5 |
| 5 to less than 10 | 2 | 5 to less than 10 |
| 10 to less than 20 | 3 | 10 to less than 20 |
| 20 to less than 50 | 4 | 20 and more |
| 50 to less than 100 | 5 | |
| 100 to less than 200 | 6 | |
| 200 to less than 250 | 7 | |
| 250 to less than 500 | 8 | |
| 500 to less than 1,000 | 9 | |
| 1,000 to less than 2,000 | 10 | |
| 2,000 and more | 11 | |

(...)

2 Conducted measures

Table 5: (continued)

[file] variable: label

[pTarget] t731456_ha: Number of father's employees (harmonized, categorized)

| RemoteNEPS | | Download |
|--------------------------|----|--------------------|
| 1 to less than 5 | 1 | less than 5 |
| 5 to less than 10 | 2 | 5 to less than 10 |
| 10 to less than 20 | 3 | 10 to less than 20 |
| 20 to less than 50 | 4 | 20 and more |
| 50 to less than 100 | 5 | |
| 100 to less than 200 | 6 | |
| 200 to less than 250 | 7 | |
| 250 to less than 500 | 8 | |
| 500 to less than 1,000 | 9 | |
| 1,000 to less than 2,000 | 10 | |
| 2,000 and more | 11 | |

[pTarget] t731456_v1: Number of father's employees (categorized)

| RemoteNEPS | | Download |
|--------------------------------|---|--------------------|
| Fewer than 5 persons | 1 | less than 5 |
| 5 to less than 10 persons | 2 | 5 to less than 10 |
| 10 to less than 20 persons | 3 | 10 to less than 20 |
| 20 to less than 100 persons | 4 | 20 and more |
| 100 to less than 200 persons | 5 | |
| 200 to less than 2.000 persons | 6 | |
| 2.000 persons and more | 7 | |

[pTarget] th32355: Number of employees Partner (LAT) (categorized)

| RemoteNEPS | | Download |
|----------------------------------|----|--------------------|
| 1 to less than 5 persons | 1 | 1 to less than 5 |
| 5 to less than 10 persons | 2 | 5 to less than 10 |
| 10 to less than 20 persons | 3 | 10 to less than 20 |
| 20 to less than 50 persons | 4 | 20 and more |
| 50 to less than 100 persons | 5 | |
| 100 to less than 200 persons | 6 | |
| 200 to less than 250 persons | 7 | |
| 250 to less than 500 persons | 8 | |
| 500 to less than 1,000 persons | 9 | |
| 1.000 to less than 2,000 persons | 10 | |
| 2.000 persons and more | 11 | |

(...)

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Table 5: (continued)

[file] variable: label

[spEmp] ts23210: Number of employees (categorized)

| RemoteNEPS | | Download |
|--------------------------|----|--------------------|
| less than 5 | 1 | 1 to less than 5 |
| 5 to less than 10 | 2 | 5 to less than 10 |
| 10 to less than 20 | 3 | 10 to less than 20 |
| 20 to less than 50 | 4 | 20 to less than 50 |
| 50 to less than 100 | 5 | 50 and more |
| 100 to less than 200 | 6 | |
| 200 to less than 250 | 7 | |
| 250 to less than 500 | 8 | |
| 500 to less than 1,000 | 9 | |
| 1,000 to less than 2,000 | 10 | |
| 2,000 and more | 11 | |

[spEmp] ts23210_ha: Number of employees (harmonized, categorized)

| RemoteNEPS | | Download |
|--------------------------------|---|--------------------|
| less than 5 persons | 1 | 1 to less than 5 |
| 5 to less than 10 persons | 2 | 5 to less than 10 |
| 10 to less than 20 persons | 3 | 10 to less than 20 |
| 20 to less than 100 persons | 4 | 20 and more |
| 100 to less than 200 persons | 5 | |
| 200 to less than 2.000 persons | 6 | |
| 2.000 persons and more | 7 | |

[spEmp] ts23210_v1: Number of employees (wave 1, categorized)

| RemoteNEPS | | Download |
|--------------------------------|---|--------------------|
| less than 5 persons | 1 | 1 to less than 5 |
| 5 to less than 10 persons | 2 | 5 to less than 10 |
| 10 to less than 20 persons | 3 | 10 to less than 20 |
| 20 to less than 100 persons | 4 | 20 and more |
| 100 to less than 200 persons | 5 | |
| 200 to less than 2.000 persons | 6 | |
| 2.000 persons and more | 7 | |

[spPartner] ts31229: Number of employees Partner (categorized)

| RemoteNEPS | | Download |
|----------------------------------|----|--------------------|
| 1 to less than 5 persons | 1 | less than 5 |
| 5 to less than 10 persons | 2 | 5 to less than 10 |
| 10 to less than 20 persons | 3 | 10 to less than 20 |
| 20 to less than 50 persons | 4 | 20 to less than 50 |
| 50 to less than 100 persons | 5 | 50 and more |
| 100 to less than 200 persons | 6 | |
| 200 to less than 250 persons | 7 | |
| 250 to less than 500 persons | 8 | |
| 500 to less than 1,000 persons | 9 | |
| 1.000 to less than 2,000 persons | 10 | |
| 2.000 persons and more | 11 | |

2 Conducted measures

Table 6: Other variables which were purged in the Download-SUF

| file | variable | label |
|------------------|------------|---|
| FurtherEducation | tx28202 | Course content |
| pTarget | t435030_g1 | "Religion & religiousness: other religious community" |
| pTargetCORONA | tm00002 | Impact: Coronavirus infection - myself |
| pTargetCORONA | tm00003 | Impact: Coronavirus infection - household |
| pTargetCORONA | tm00004 | Impact: Coronavirus infection - relative |
| pTargetCORONA | tm00005 | Impact: Coronavirus infection - friend/acquaintance |
| pTargetCORONA | tm00006 | Impact: Coronavirus infection - colleague |
| pTargetCORONA | tm00008 | Impact: Quarantine - myself |
| pTargetCORONA | tm00009 | Impact: Quarantine - household |
| pTargetCORONA | tm00010 | Impact: Quarantine - relative |
| pTargetCORONA | tm00011 | Impact: Quarantine - friend/acquaintance |
| pTargetCORONA | tm00012 | Impact: Quarantine - colleague |
| spCourses | t272011_w1 | Course content |
| spCourses | t272011_w2 | Course content |
| spCourses | t272011_w3 | Course content |
| spCourses | t272011_w4 | Course content |
| spCourses | t272011_w5 | Course content |
| spFurtherEdu1 | t272000 | Content other course |

3 Examples

The following examples compare variables from some selected topics. On the left side, you see these variables as they can be found in the RemoteNEPS-SUF (i.e., this is the variant of the variable which contains the full information). On the right side, you find the same variables, but from the Download-version of the SUF, that is, the aggregated or purged variant of the variable. This illustrates the anonymization applied.

3 Examples

3.1 Number of employees

The first example is a variable collected during the interview of Starting Cohort 6 (Adults). The question further investigates the occupational periphery of employers, while here, this employer is the mother of the respondent. On the left, you see the complete information as found in the RemoteNEPS-SUF. This variable is collected using seven classes, where the last four are sparsely filled (variable `t731406_R`, table on the lower left). Because of this, those four codes have been recoded into one category (*»20 and more«*) and a new variable is generated (`t731406_D`, upper left). In the Download-SUF, you find this aggregated variable unaltered (upper right). The variable `t731406_R` rich in content was purged, though. You see that all meaningful codes have been recoded to *»-53 Anonymized«*. Note that the missing code *»-54 Missing by design«* is transported to the Download-SUF unmodified, so you already can derive the actual *statistical power* of this variable.

| RemoteNEPS | | Download | |
|---|-------|---|-------|
| SC6_pTarget_R_5-1-0.dta (NEPS SUF, SC6 5.1.0 (remote); doi:10.5157/NEPS:SC6:5.1.0) | | SC6_pTarget_D_5-1-0.dta (NEPS SUF, SC6 5.1.0 (download); doi:10.5157/NEPS:SC6:5.1.0) | |
| t731406_D -- Number of mother's employees (categorized) | | t731406_D -- Number of mother's employees (categorized) | |
| | Freq. | | Freq. |
| Valid | | Valid | |
| -98 Don't know | 7 | -98 Don't know | 7 |
| -97 Refused | 1 | -97 Refused | 1 |
| -54 Missing by design | 36700 | -54 Missing by design | 36700 |
| 0 none | 423 | 0 none | 423 |
| 1 1 to 4 | 330 | 1 1 to 4 | 330 |
| 2 5 to 9 | 64 | 2 5 to 9 | 64 |
| 3 10 to 19 | 22 | 3 10 to 19 | 22 |
| 4 20 and more | 28 | 4 20 and more | 28 |
| Total | 37575 | Total | 37575 |
| Missing . | 15982 | Missing . | 15982 |
| Total | 53557 | Total | 53557 |
| t731406_R -- Number of mother's employees | | t731406_R -- Number of mother's employees | |
| | Freq. | | Freq. |
| Valid | | Valid | |
| -98 Don't know | 7 | -54 Missing by design | 36700 |
| -97 Refused | 1 | -53 Anonymized | 875 |
| -54 Missing by design | 36700 | Total | 37575 |
| 0 None | 423 | Missing . | 15982 |
| 1 1 to 4 | 330 | Total | 53557 |
| 2 5 to 9 | 64 | | |
| 3 10 to 19 | 22 | | |
| 4 20 to 49 | 21 | | |
| 5 50 to 99 | 3 | | |
| 6 100 to 199 | 3 | | |
| 7 200 to 249 | 1 | | |
| Total | 37575 | | |
| Missing . | 15982 | | |
| Total | 53557 | | |

3 Examples

3.2 Countries (aggregated list)

To illustrate the anonymization of countries, first have a look at this variable from Starting Cohort 6 (Adults). The information (*»respondent's country of birth«*) was surveyed during the interview. The collected information was recoded during data processing to different derived variables. The first of those is variable `t405010_g1R`, which contains the complete list of countries (lower left, output is shortened to enhance readability). Also, a second variable `t405010_g2` was generated, using a more coarse list. This is helpful if some information was collected, but it is too inaccurate to identify the country (e.g., if someone states he was born in North America, you do not know if he meant U.S. or Canada). This second variable is transported to the Download-SUF unaltered (upper right), which means it in some way represents the anonymized version. The first variable `t405010_g1R` with the full information is purged in the Download-SUF.

| RemoteNEPS | | Download | |
|---|-------|---|-------|
| SC6_pTarget_R_5-1-0.dta (NEPS SUF, SC6 5.1.0 (remote); doi:10.5157/NEPS:SC6:5.1.0) | | SC6_pTarget_D_5-1-0.dta (NEPS SUF, SC6 5.1.0 (download); doi:10.5157/NEPS:SC6:5.1.0) | |
| t405010_g2 -- Country of birthplace (categorized) | | t405010_g2 -- Country of birthplace (categorized) | |
| ----- | | ----- | |
| | Freq. | | Freq. |
| ----- | | ----- | |
| Valid | | Valid | |
| -97 Refused | 2 | -97 Refused | 2 |
| -54 Missing by design | 36417 | -54 Missing by design | 36417 |
| -20 Foreign, but not codeable | 5 | -20 Foreign, but not codeable | 5 |
| 1 Germany | 15388 | 1 Germany | 15388 |
| 2 Italy | 52 | 2 Italy | 52 |
| 3 Poland | 244 | 3 Poland | 244 |
| 4 Romania | 98 | 4 Romania | 98 |
| 5 Turkey | 182 | 5 Turkey | 182 |
| 6 Former Yugoslavia | 113 | 6 Former Yugoslavia | 113 |
| 7 Former Soviet Union | 522 | 7 Former Soviet Union | 522 |
| 8 Central and South America, Caribbean | 42 | 8 Central and South America, Caribbean | 42 |
| 9 Northern and Western Europe | 154 | 9 Northern and Western Europe | 154 |
| 10 North America | 33 | 10 North America | 33 |
| 12 Other Middle East and North Africa | 73 | 12 Other Middle East and North Africa | 73 |
| 13 Other Africa | 30 | 13 Other Africa | 30 |
| 14 Other Asia | 74 | 14 Other Asia | 74 |
| 15 Other Central and Eastern Europe | 84 | 15 Other Central and Eastern Europe | 84 |
| 16 Other Southern Europe | 44 | 16 Other Southern Europe | 44 |
| Total | 53557 | Total | 53557 |
| ----- | | ----- | |
| t405010_g1R -- Country of place of birth | | t405010_g1R -- Country of place of birth | |
| ----- | | ----- | |
| | Freq. | | Freq. |
| ----- | | ----- | |
| Valid | | Valid | |
| -97 Refused | 2 | -54 Missing by design | 36417 |
| -54 Missing by design | 36417 | -53 Anonymized | 17140 |
| -20 Foreign, but not codeable | 5 | Total | 53557 |
| 0 germany | 15388 | ----- | |
| 120 yugoslavia | 30 | | |
| 121 albania | 4 | | |
| 122 bosnia and herzegovina | 22 | | |
| 124 belgium | 5 | | |
| : | : | | |
| 477 uzbekistan | 6 | | |
| 479 china | 7 | | |
| 482 malaysia | 2 | | |
| 499 other asia | 1 | | |
| Total | 53557 | | |
| ----- | | | |

3.3 Countries (binary variable)

In school cohorts, an aggregation of countries is coarsened to the binary information German/Non-German. To illustrate this, have a look at variables from Starting Cohort 2 (Kindergarten). The information («*country of birth target child*») was surveyed during the interview using a two-step procedure: first, the respondent is asked if the child was born in Germany or abroad (variable p406000, top left). This variable is not subject to anonymization and therefore does not have a suffix and is equally existent in both SUF-versions. If the child was born abroad, a second question regarding the specific country followed (variable p406010_g1R, lower left, output is reduced to enhance readability). This second question is purged in the Download-SUF (lower right). There is no need to generate an additional anonymized version of this second question, as the information is already present in the first shown variable (p406000).

| RemoteNEPS | Download |
|---|--|
| <pre>SC2_pParent_R_3-0-0.dta (NEPS SUF, SC2 3.0.0 (remote); doi:10.5157/NEPS:SC2:3.0.0) p406000 -- Target child born in Germany? ----- ----- Valid -98 Don't know 1 1 Yes 7658 2 No 173 Total 7832 Missing . 3545 Total 11377 ----- ----- p406010_g1R -- Country of birth target child ----- ----- Valid -98 Don't know 1 -20 Abroad, but not codeable 1 0 germany 7658 124 belgium 2 125 bulgaria 5 : : 475 syrian arab republic 2 476 thailand 2 479 china 4 536 new zealand 1 Total 7832 Missing . 3545 Total 11377 ----- -----</pre> | <pre>SC2_pParent_D_3-0-0.dta (NEPS SUF, SC2 3.0.0 (download); doi:10.5157/NEPS:SC2:3.0.0) p406000 -- Target child born in Germany? ----- ----- Valid -98 Don't know 1 1 Yes 7658 2 No 173 Total 7832 Missing . 3545 Total 11377 ----- ----- p406010_g1R -- Country of birth target child ----- ----- Valid -53 Anonymized 7832 Missing . 3545 Total 11377 ----- -----</pre> |

3 Examples

3.4 Federal states

Regional locations are usually recoded to different derived variables (see section 2.3). In this example, we focus on the region of the school in Starting Cohort 3 (5th graders). The first derived variable is a binary variable for Western and Eastern Germany (tx80109_g1), present in both SUF-versions (upper left and upper right). The second variable tx80109_g2R, containing the federal states, is only complete in the RemoteNEPS-SUF (lower left), and is purged in the Download-SUF (lower right).

| RemoteNEPS | | Download | |
|---|--|---|---------------------------------------|
| SC3_CohortProfile_R_3-1-0.dta (NEPS SUF, SC3 3.1.0 (remote); doi:10.5157/NEPS:SC3:3.1.0) | | SC3_CohortProfile_D_3-1-0.dta (NEPS SUF, SC3 3.1.0 (download); doi:10.5157/NEPS:SC3:3.1.0) | |
| tx80109_g1 -- Sample: Federal state school (west/east) | | tx80109_g1 -- Sample: Federal state school (west/east) | |
| | Freq. | | Freq. |
| Valid | -55 Not determinable 458 | Valid | -55 Not determinable 458 |
| | 1 Western Germany 16299 | | 1 Western Germany 16299 |
| | 2 Eastern Germany incl. Berlin 3784 | | 2 Eastern Germany incl. Berlin 3784 |
| | Total 20541 | | Total 20541 |
| tx80109_g2R -- Sample: Federal state school | | tx80109_g2R -- Sample: Federal state school | |
| | Freq. | | Freq. |
| Valid | -55 Not determinable 458 | Valid | -53 Anonymized 20541 |
| | 1 Schleswig-Holstein 784 | | |
| | 2 Hamburg 377 | | |
| | 3 Lower Saxony 2209 | | |
| | 4 Bremen 158 | | |
| | 5 North Rhine-Westphalia 4398 | | |
| | 6 Hesse 1308 | | |
| | 7 Rhineland-Palatinate 971 | | |
| | 8 Baden-Wuerttemberg 3265 | | |
| | 9 Bavaria 2677 | | |
| | 10 Saarland 152 | | |
| | 11 Berlin (Complete) 404 | | |
| | 12 Brandenburg 1143 | | |
| | 13 Mecklenburg-Western Pomerania 619 | | |
| | 14 Saxony 617 | | |
| | 15 Saxony-Anhalt 401 | | |
| | 16 Thuringia 600 | | |
| | Total 20541 | | |

3 Examples

3.5 Class size

Sometimes, variables are collected numerical. In the example below, the number of students in class was surveyed from the educator in Starting Cohort 2 (Kindergarten) without any further regulations. Thus, the resulting variable e227400_g1R (lower left) does not have a coding scheme. This variable is aggregated to the variable e227400_g1D containing six different class-sizes (upper left). You find this aggregated version in both SUF-versions, the full numerical variable is purged in the Download-SUF, though (lower right).

| RemoteNEPS | Download | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|----------|-------|------------------------------|----|-----------------------|------|------------|---|------------|----|------------|-----|------------|-----|------------|-----|------------|---|-------|------|--|-------|------------------------------|----|-----------------------|------|---|---|----|---|----|---|----|---|----|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|----|----|----|----|----|----|----|----|----|---|----|---|----|---|-------|------|--|--|-------|------------------------------|----|-----------------------|------|------------|---|------------|----|------------|-----|------------|-----|------------|-----|------------|---|-------|------|--|-------|-----------------------------|------|----------------|-----|-------|------|
| <pre>SC2_pEducator_R_3-0-0.dta (NEPS SUF, SC2 3.0.0 (remote); doi:10.5157/NEPS:SC2:3.0.0) e227400_g1D -- Class: number of students, total (coarsed) -----</pre> <table border="1"> <thead> <tr> <th></th> <th style="text-align: right;">Freq.</th> </tr> </thead> <tbody> <tr> <td>Valid -90 Unspecific missing</td> <td style="text-align: right;">10</td> </tr> <tr> <td>-54 Missing by design</td> <td style="text-align: right;">1803</td> </tr> <tr> <td>1 Below 10</td> <td style="text-align: right;">3</td> </tr> <tr> <td>2 10 to 14</td> <td style="text-align: right;">26</td> </tr> <tr> <td>3 15 to 19</td> <td style="text-align: right;">203</td> </tr> <tr> <td>4 20 to 24</td> <td style="text-align: right;">450</td> </tr> <tr> <td>5 25 to 29</td> <td style="text-align: right;">169</td> </tr> <tr> <td>6 30 to 34</td> <td style="text-align: right;">4</td> </tr> <tr> <td>Total</td> <td style="text-align: right;">2668</td> </tr> </tbody> </table> <pre>----- e227400_g1R -- Class: number of students total -----</pre> <table border="1"> <thead> <tr> <th></th> <th style="text-align: right;">Freq.</th> </tr> </thead> <tbody> <tr> <td>Valid -90 Unspecific missing</td> <td style="text-align: right;">10</td> </tr> <tr> <td>-54 Missing by design</td> <td style="text-align: right;">1803</td> </tr> <tr> <td>8</td> <td style="text-align: right;">3</td> </tr> <tr> <td>10</td> <td style="text-align: right;">1</td> </tr> <tr> <td>11</td> <td style="text-align: right;">1</td> </tr> <tr> <td>12</td> <td style="text-align: right;">4</td> </tr> <tr> <td>13</td> <td style="text-align: right;">8</td> </tr> <tr> <td>14</td> <td style="text-align: right;">12</td> </tr> <tr> <td>15</td> <td style="text-align: right;">21</td> </tr> <tr> <td>16</td> <td style="text-align: right;">22</td> </tr> <tr> <td>17</td> <td style="text-align: right;">34</td> </tr> <tr> <td>18</td> <td style="text-align: right;">58</td> </tr> <tr> <td>19</td> <td style="text-align: right;">68</td> </tr> <tr> <td>20</td> <td style="text-align: right;">75</td> </tr> <tr> <td>21</td> <td style="text-align: right;">89</td> </tr> <tr> <td>22</td> <td style="text-align: right;">98</td> </tr> <tr> <td>23</td> <td style="text-align: right;">88</td> </tr> <tr> <td>24</td> <td style="text-align: right;">100</td> </tr> <tr> <td>25</td> <td style="text-align: right;">83</td> </tr> <tr> <td>26</td> <td style="text-align: right;">39</td> </tr> <tr> <td>27</td> <td style="text-align: right;">27</td> </tr> <tr> <td>28</td> <td style="text-align: right;">14</td> </tr> <tr> <td>29</td> <td style="text-align: right;">6</td> </tr> <tr> <td>30</td> <td style="text-align: right;">3</td> </tr> <tr> <td>31</td> <td style="text-align: right;">1</td> </tr> <tr> <td>Total</td> <td style="text-align: right;">2668</td> </tr> </tbody> </table> | | Freq. | Valid -90 Unspecific missing | 10 | -54 Missing by design | 1803 | 1 Below 10 | 3 | 2 10 to 14 | 26 | 3 15 to 19 | 203 | 4 20 to 24 | 450 | 5 25 to 29 | 169 | 6 30 to 34 | 4 | Total | 2668 | | Freq. | Valid -90 Unspecific missing | 10 | -54 Missing by design | 1803 | 8 | 3 | 10 | 1 | 11 | 1 | 12 | 4 | 13 | 8 | 14 | 12 | 15 | 21 | 16 | 22 | 17 | 34 | 18 | 58 | 19 | 68 | 20 | 75 | 21 | 89 | 22 | 98 | 23 | 88 | 24 | 100 | 25 | 83 | 26 | 39 | 27 | 27 | 28 | 14 | 29 | 6 | 30 | 3 | 31 | 1 | Total | 2668 | <pre>SC2_pEducator_D_3-0-0.dta (NEPS SUF, SC2 3.0.0 (download); doi:10.5157/NEPS:SC2:3.0.0) e227400_g1D -- Class: number of students, total (coarsed) -----</pre> <table border="1"> <thead> <tr> <th></th> <th style="text-align: right;">Freq.</th> </tr> </thead> <tbody> <tr> <td>Valid -90 Unspecific missing</td> <td style="text-align: right;">10</td> </tr> <tr> <td>-54 Missing by design</td> <td style="text-align: right;">1803</td> </tr> <tr> <td>1 Below 10</td> <td style="text-align: right;">3</td> </tr> <tr> <td>2 10 to 14</td> <td style="text-align: right;">26</td> </tr> <tr> <td>3 15 to 19</td> <td style="text-align: right;">203</td> </tr> <tr> <td>4 20 to 24</td> <td style="text-align: right;">450</td> </tr> <tr> <td>5 25 to 29</td> <td style="text-align: right;">169</td> </tr> <tr> <td>6 30 to 34</td> <td style="text-align: right;">4</td> </tr> <tr> <td>Total</td> <td style="text-align: right;">2668</td> </tr> </tbody> </table> <pre>----- e227400_g1R -- Class: number of students total -----</pre> <table border="1"> <thead> <tr> <th></th> <th style="text-align: right;">Freq.</th> </tr> </thead> <tbody> <tr> <td>Valid -54 Missing by design</td> <td style="text-align: right;">1803</td> </tr> <tr> <td>-53 Anonymized</td> <td style="text-align: right;">865</td> </tr> <tr> <td>Total</td> <td style="text-align: right;">2668</td> </tr> </tbody> </table> | | Freq. | Valid -90 Unspecific missing | 10 | -54 Missing by design | 1803 | 1 Below 10 | 3 | 2 10 to 14 | 26 | 3 15 to 19 | 203 | 4 20 to 24 | 450 | 5 25 to 29 | 169 | 6 30 to 34 | 4 | Total | 2668 | | Freq. | Valid -54 Missing by design | 1803 | -53 Anonymized | 865 | Total | 2668 |
| | Freq. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Valid -90 Unspecific missing | 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -54 Missing by design | 1803 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 Below 10 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 10 to 14 | 26 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 15 to 19 | 203 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 20 to 24 | 450 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 25 to 29 | 169 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 30 to 34 | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total | 2668 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Freq. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Valid -90 Unspecific missing | 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -54 Missing by design | 1803 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 | 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | 21 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | 22 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 | 34 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 | 58 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | 68 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | 75 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 21 | 89 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 22 | 98 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 23 | 88 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24 | 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | 83 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 26 | 39 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 27 | 27 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 28 | 14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 29 | 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 30 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 31 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total | 2668 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Freq. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Valid -90 Unspecific missing | 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -54 Missing by design | 1803 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 Below 10 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 10 to 14 | 26 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 15 to 19 | 203 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 20 to 24 | 450 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 25 to 29 | 169 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 30 to 34 | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total | 2668 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Freq. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Valid -54 Missing by design | 1803 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -53 Anonymized | 865 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total | 2668 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

A Appendix

A.1 Complete overview

The following table lists all variables which are affected by anonymization methods. For all variables, full information is available OnSite, although for many of them, you already find this complete information in the RemoteNEPS-version. Only for those variables marked with an asterisk, the full information is only present OnSite. For most of the variables, an aggregated or generated version is available, which still transports some information to the Download-version. Please see the previous chapters for more information.

Table 7: Complete overview of all restricted variables

| file | variable | label (*only available OnSite) |
|-------------|------------|---|
| pTarget | t32601a_g1 | Position generator: Country Nurse |
| pTarget | t32601b_g1 | Position generator: Country Engineer |
| pTarget | t32601c_g1 | Position generator: Country Warehouse/transport worker |
| pTarget | t32601d_g1 | Position generator: Country Social worker |
| pTarget | t32601e_g1 | Position generator: Country Salesperson |
| pTarget | t32601f_g1 | Position generator: Country Police officer |
| pTarget | t32601g_g1 | Position generator: Country Physician |
| pTarget | t32601h_g1 | Position generator: Country Banker |
| pTarget | t32601k_g1 | Position generator: Country Motor mechanic |
| pTarget | t32601l_g1 | Position generator: Country Legal practitioner |
| pTarget | t32601m_g1 | Position generator: Country Optician |
| pTarget | t32601n_g1 | Position generator: Country Translator |
| pTarget | t32601o_g1 | Position generator: Country Teacher at elementary school/Hauptschule/Realschule |
| pTarget | t405010_g1 | Country of place of birth |
| pTarget | t405070_g1 | Country of birth, mother |
| pTarget | t405100_g1 | Country of birth Father |
| pTarget | t405220_g1 | Country of birth mother's mother |
| pTarget | t405230_g1 | Country of birth mother's father |
| pTarget | t405240_g1 | Country of birth father's mother |
| pTarget | t405250_g1 | Country of birth father's father |
| pTarget | t407010_g1 | Country of birth Partner (LAT) |
| pTarget | t407070_g1 | Country of birth Mother Partner |
| pTarget | t407100_g1 | Country of birth Father Partner (LAT) |
| pTarget | t431010_g1 | Country of destination |
| pTarget | t751004_g1 | Country in which place of work is located (abroad) |
| pTarget | t751015_g1 | Country of second residence (abroad) |
| spEmp | ts23239_g1 | Country of workplace |
| spPartner | ts31205_g1 | Country of birth Partner |
| spPartner | ts31208_g1 | Country of birth, partner's father |
| spPartner | ts31210_g1 | Country of birth Mother Partner |
| spResidence | th21103_g1 | Country of place of residence |
| spSchool | ts1120s_g1 | Country of school |

(...)

Table 7: (continued)

| file | variable | label (*only available OnSite) | |
|-----------------|------------|--|---|
| spSchoolExtExam | ts11301_g1 | Country of awarded school-leaving qualification | |
| spVocExtExam | ts15303_g1 | Country of external examination | |
| spVocTrain | ts1521s_g1 | Country of vocational training | |
| pTarget | t412141_g1 | Interaction language - best friend (ISO 639.2) | |
| pTarget | t412171_g1 | Language use - colleagues (ISO 639.2) | |
| pTarget | t413000_g1 | 1st mother tongue (ISO 639.2) | |
| pTarget | t413010_g1 | 2nd mother tongue (ISO 639.2) | |
| pTarget | t413060_g1 | Language of origin (ISO 639.2) | |
| pTarget | t413100_g1 | First language/language of origin Mother (ISO 639.2) | |
| pTarget | t413120_g1 | First language/language of origin Father (ISO 639.2) | |
| pTarget | t413501_g1 | Interaction language - household (ISO 639.2) | |
| pTarget | t418001_g1 | Language Reading - profession (ISO 639.2) | |
| pTarget | t418011_g1 | Language Reading - free time (ISO 639.2) | |
| pTarget | t406100_g1 | other nationality | |
| pTarget | t272800 | Trade fair/congress: content | * |
| pTarget | t272801 | Specialist lecture: content | * |
| pTarget | t272804 | Self-study program: content | * |
| pTarget | t272805 | Online learning: content | * |
| pTarget | t406001 | Other reason for migration Immigration status other | * |
| pTarget | t66507a | Goal orientation: Work/Health | * |
| pTarget | t731302 | other school-leaving qualification Mother | * |
| pTarget | t731304 | other vocational qualification Mother (open) | * |
| pTarget | t731305 | other educational institution Mother (open) | * |
| pTarget | t731307 | other higher education qualification Mother (open) | * |
| pTarget | t731309 | other institution awarding higher education degrees Mother (open) | * |
| pTarget | t731352 | other school-leaving qualification Father | * |
| pTarget | t731354 | other vocational qualification Father (open) | * |
| pTarget | t731355 | other educational institution Father (open) | * |
| pTarget | t731357 | other higher education qualification Father (open) | * |
| pTarget | t731359 | other institution awarding higher education degrees Father (open) | * |
| pTarget | th24539 | Text Selected occupation (Module 26bET-QS) | * |
| pTarget | th32217 | otherpartial retirement model | * |
| pTarget | th32343 | Other vocational qualification Partner (open) (LAT) | * |
| pTarget | th32344 | Other educational institution Partner (open) (LAT) | * |
| pTarget | th32345 | Other higher education qualification Partner (open) (LAT) | * |
| pTarget | th32347 | other institution awarding higher education degrees Partner (open) (LAT) | * |
| pTargetCORONA | th80002 | Content media - digital | * |
| pTargetCORONA | tm00040 | Childcare situation NEPS child - open | * |
| pTargetCORONA | tm00048 | Childcare situation - open | * |
| pTargetCORONA | tm00056 | Learning materials: open | * |
| pTargetCORONA | tm00071 | Changed learning opportunities during school closure - other, open | * |
| pTargetCORONA | tm00085 | Learning materials - open | * |
| pTargetCORONA | tm00097 | Changed learning opportunities during school closure - other, open | * |
| pTargetCORONA | tm00109 | Offered courses - other, open | * |

(...)

Table 7: (continued)

| file | variable | label (*only available OnSite) | |
|-----------------|------------|---|---|
| pTargetCORONA | tm00115 | Learning materials, open | * |
| pTargetCORONA | tm00140 | Chances Future | * |
| spChild | ts33211 | Other employment status Child (open) | * |
| spChild | ts33213 | Other type of school Child | * |
| spChild | ts33215 | other school-leaving qualification Child | * |
| spChild | ts33217 | Other training Child | * |
| spChild | ts33219 | Other study institution Child | * |
| spChild | ts33221 | other vocational qualification Child (open) | * |
| spChild | ts33222 | Other educational institution Child (open) | * |
| spChild | ts33224 | Other higher education qualification Child (open) | * |
| spChild | ts33226 | Other institution awarding higher education degrees Child (open) | * |
| spFurtherEdu1 | t272044 | Type of certificate | * |
| spFurtherEdu2 | t272044 | Type of certificate | * |
| spGap | ts29102 | other activity | * |
| spMilitary | ts21401 | other voluntary service (25108a) | * |
| spPartner | ts31213 | Other school-leaving qualification Partner | * |
| spPartner | ts31215 | Other vocational qualification Partner (open) | * |
| spPartner | ts31216 | Other educational institution Partner (open) | * |
| spPartner | ts31218 | Other higher education qualification Partner (open) | * |
| spPartner | ts31220 | Other institution awarding higher education degree Partner (open) | * |
| spSchool | t724806 | 1st Abitur subject, open | * |
| spSchool | t724807 | 2nd Abitur subject, open | * |
| spSchool | t724808 | 3rd Abitur subject, open | * |
| spSchool | t724809 | 4th Abitur subject, open | * |
| spSchool | t724810 | 5th Abitur subject, open | * |
| spSchool | ts11206 | Other type of school | * |
| spSchool | ts11212 | other school-leaving qualification | * |
| spSchool | ts11217 | other intended school-leaving qualification | * |
| spSchoolExtExam | ts11305 | Awarded other school-leaving qualification | * |
| spSchoolExtExam | ts11324 | 1st Abitur subject (awarded qualification), open | * |
| spSchoolExtExam | ts11325 | 2nd Abitur subject (awarded qualification), open | * |
| spSchoolExtExam | ts11326 | 3rd Abitur subject (awarded qualification), open | * |
| spSchoolExtExam | ts11327 | 4th Abitur subject (awarded qualification), open | * |
| spSchoolExtExam | ts11328 | 5th Abitur subject (awarded qualification), open | * |
| spVocExtExam | ts15305 | other external examination qualification | * |
| spVocTrain | ts15202 | other training | * |
| spVocTrain | ts15220 | other vocational qualification | * |
| spVocTrain | ts15222 | other vocational qualification (open) | * |
| spVolunteerWork | t262950 | Content Volunteering 1 | * |
| spVolunteerWork | t262951 | Content Volunteering 2 | * |
| pTarget | t700101_g3 | Municipality of birth (RS region) | |
| pTarget | t700101_g4 | Municipality of birth (RS administrative district) | |
| pTarget | t751001_g3 | Residential municipality (RS region) | |
| pTarget | t751001_g4 | Residential municipality (RS administrative district) | |
| pTarget | t751011_g3 | Municipality of secondary residence (RS region) | |
| pTarget | t751011_g4 | Municipality of secondary residence (RS administrative district) | |

(...)

Table 7: (continued)

| file | variable | label (*only available OnSite) |
|-------------------|------------|--|
| spEmp | ts23237_g3 | Location of workplace (RS region) |
| spEmp | ts23237_g4 | Location of workplace (RS administrative district) |
| spResidence | th21111_g3 | Place of residence (RS region) |
| spResidence | th21111_g4 | Place of residence (RS administrative district) |
| spSchool | ts11202_g3 | Municipality of school (RS region) |
| spSchool | ts11202_g4 | Municipality of school (RS administrative district) |
| spVocTrain | ts15207_g3 | Municipality of training facility (RS region) |
| spVocTrain | ts15207_g4 | Municipality of training facility (RS administrative district) |
| pTarget | t731406 | Number of mother's employees |
| pTarget | t731406_ha | Number of mother's employees (harmonized) |
| pTarget | t731406_v1 | Number of mother's employees |
| pTarget | t731456 | Number of father's employees |
| pTarget | t731456_ha | Number of father's employees (harmonized) |
| pTarget | t731456_v1 | Number of father's employees |
| pTarget | th32355 | Number of employees Partner (LAT) |
| spEmp | ts23210 | Number of employees |
| spEmp | ts23210_ha | Number of employees (harmonized) |
| spEmp | ts23210_v1 | Number of employees (wave 1) |
| spPartner | ts31229 | Number of employees Partner |
| FurtherEducation | tx28202 | Course content |
| pTarget | t435030_g1 | "Religion & religiousness: other religious community" |
| pTargetCORONA | tm00002 | Impact: Coronavirus infection - myself |
| pTargetCORONA | tm00003 | Impact: Coronavirus infection - household |
| pTargetCORONA | tm00004 | Impact: Coronavirus infection - relative |
| pTargetCORONA | tm00005 | Impact: Coronavirus infection - friend/acquaintance |
| pTargetCORONA | tm00006 | Impact: Coronavirus infection - colleague |
| pTargetCORONA | tm00008 | Impact: Quarantine - myself |
| pTargetCORONA | tm00009 | Impact: Quarantine - household |
| pTargetCORONA | tm00010 | Impact: Quarantine - relative |
| pTargetCORONA | tm00011 | Impact: Quarantine - friend/acquaintance |
| pTargetCORONA | tm00012 | Impact: Quarantine - colleague |
| spCourses | t272011_w1 | Course content |
| spCourses | t272011_w2 | Course content |
| spCourses | t272011_w3 | Course content |
| spCourses | t272011_w4 | Course content |
| spCourses | t272011_w5 | Course content |
| spFurtherEdu1 | t272000 | Content other course |
| pTargetMicrom | | * |
| pTargetRegioInfas | | * |

A.2 Recoding of countries/languages/nationalities

The following tables summarize the complete recoding procedure of countries and languages/-nationalities. Each category of the aggregated version (bold) is followed by all entries which have been subsumed to it. All entries are sorted according to their numeric code.

Table 8: Complete recoding map of all countries

| country | |
|---------|---|
| -23 | parent not known |
| -21 | Germany and foreign country, not codeable |
| -20 | Foreign country, but not codeable [9005] Kurdish areas, [9991] German-speaking country abroad, [9992] English-speaking country abroad, [9993] Spanish-speaking country abroad |
| 1 | Germany [0] Germany |
| 2 | Italy [137] Italy |
| 3 | Poland [152] Poland |
| 4 | Romania [154] Romania |
| 5 | Turkey [163] Turkey |
| 6 | Former Yugoslavia [120] Yugoslavia, [122] Bosnia and Herzegovina, [130] Croatia, [131] Slovenia, [132] Serbia and Montenegro, [138] Yugoslavia, Federal Republic of, [140] Montenegro, [144] Macedonia, [150] Kosovo, [170] Serbia |
| 7 | Former Soviet Union [127] Estonia, [139] Latvia, [142] Lithuania, [146] Moldova, Republic of, [159] Soviet Union, [160] Russian Federation, [166] Ukraine, [169] Belarus, [422] Armenia, [425] Azerbaijan, [430] Georgia, [444] Kazakhstan, [450] Kyrgyzstan, [470] Tajikistan, [471] Turkmenistan, [477] Uzbekistan |
| 8 | Central and South America, Caribbean [320] Antigua and Barbuda, [322] Barbados, [323] Argentina, [324] Bahamas, [326] Bolivia, Plurinational State of, [327] Brazil, [328] Guyana, [330] Belize, [332] Chile, [333] Dominica, [334] Costa Rica, [335] Dominican Republic, [336] Ecuador, [337] El Salvador, [340] Grenada, [345] Guatemala, [346] Haiti, [347] Honduras, [349] Colombia, [351] Cuba, [353] Mexico, [354] Nicaragua, [355] Jamaica, [357] Panama, [359] Paraguay, [361] Peru, [364] Suriname, [365] Uruguay, [366] Saint Lucia, [367] Venezuela, Bolivarian Republic of, [369] Saint Vincent and the Grenadines, [370] Saint Kitts and Nevis, [371] Trinidad and Tobago |
| 9 | Northern and Western Europe [124] Belgium, [126] Denmark, [128] Finland, [129] France, [135] Ireland, [136] Iceland, [141] Liechtenstein, [143] Luxembourg, [147] Monaco, [148] Netherlands, [149] Norway, [151] Austria, [157] Sweden, [158] Switzerland, [168] United Kingdom, [193] Norwegian dependent territories in Europe, [195] British dependent territories in Europe, [196] Danish dependent territories in Europe, [295] British dependent territories in Africa, [298] French dependent territories in Africa, [392] Dutch dependent territories in America, [395] British dependent territories in America, [396] Danish dependent territories in America, [398] French dependent territories in America, [495] British dependent territories in Asia, [593] Norwegian dependent territories in Australia, Oceania, Antarctica, [595] British dependent territories in Australia, Oceania, Antarctica, [598] French dependent territories in Australia, Oceania, Antarctica |
| 10 | North America |

(...)

Table 8: (continued)

| country | |
|---------|--|
| | [348] Canada, [368] United States, [391] US dependent territories in America, [591] US dependent territories in Australia, Oceania, Antarctica |
| 11 | Oceania/Polynesia [523] Australia, [524] Solomon Islands, [526] Fiji, [527] Cook Islands, [530] Kiribati, [531] Nauru, [532] Vanuatu, [533] Niue, [536] New Zealand, [537] Palau, [538] Papua New Guinea, [540] Tuvalu, [541] Tonga, [543] Samoa, [544] Marshall Islands, [545] Micronesia, Federated States of, [590] New Zealand's dependent territories in Australia, Oceania, Antarctica, [594] Australian dependent territories in Australia, Oceania, Antarctica |
| 12 | Other Middle East and North Africa [221] Algeria, [248] Libya, [252] Morocco, [285] Tunisia, [287] Egypt, [421] Yemen, [424] Bahrain, [438] Iraq, [439] Iran, Islamic Republic of, [441] Israel, [445] Jordan, [447] Qatar, [448] Kuwait, [451] Lebanon, [456] Oman, [469] United Arab Emirates, [472] Saudi Arabia, [475] Syrian Arab Republic, [499] other Asia |
| 13 | Other Africa [223] Angola, [224] Eritrea, [225] Ethiopia, [226] Lesotho, [227] Botswana, [229] Benin, [230] Djibouti, [231] Côte d'Ivoire, [232] Nigeria, [233] Zimbabwe, [236] Gabon, [237] Gambia, [238] Ghana, [239] Mauritania, [242] Cape Verde, [243] Kenya, [244] Comoros, [245] Congo, [246] Congo, the Democratic Republic of the, [247] Liberia, [249] Madagascar, [251] Mali, [253] Mauritius, [254] Mozambique, [255] Niger, [256] Malawi, [257] Zambia, [258] Burkina Faso, [259] Guinea-Bissau, [261] Guinea, [262] Cameroon, [263] South Africa, [265] Rwanda, [267] Namibia, [268] Sao Tome and Principe, [269] Senegal, [271] Seychelles, [272] Sierra Leone, [273] Somalia, [274] Equatorial Guinea, [276] Sudan, [281] Swaziland, [282] Tanzania, United Republic of, [283] Togo, [284] Chad, [286] Uganda, [289] Central African Republic, [291] Burundi |
| 14 | Other Asia [423] Afghanistan, [426] Bhutan, [427] Myanmar, [429] Brunei Darussalam, [431] Sri Lanka, [432] Vietnam, [434] Korea, Democratic People's Republic of, [436] India, [437] Indonesia, [442] Japan, [446] Cambodia, [449] Lao People's Democratic Republic of, [454] Maldives, [457] Mongolia, [458] Nepal, [460] Bangladesh, [461] Pakistan, [462] Philippines, [465] Taiwan, Province of China, [467] Korea, Republic of, [474] Singapore, [476] Thailand, [479] China, [482] Malaysia, [483] Timor-Leste, Democratic Republic of |
| 15 | Other Central and Eastern Europe [125] Bulgaria, [155] Slovakia, [162] Czechoslovakia, [164] Czech Republic, [165] Hungary |
| 16 | Other Southern Europe [121] Albania, [123] Andorra, [134] Greece, [145] Malta, [153] Portugal, [156] San Marino, [161] Spain, [167] Holy See (Vatican City State), [181] Cyprus, [297] Spanish dependent territories in Africa |
| 17 | Other [996] unknown foreign countries |

Table 9: Complete recoding map of all languages/nationalities

| language/nationality | |
|----------------------|--|
| 1 | Arabic [1011801] Arabic |
| 2 | Bosnian [1021519] Bosnian |
| 3 | Bulgarian [1022112] Bulgarian |
| 4 | German [1070518] German, [1140419] Low German; Low Saxon; German, Low; Saxon, Low |
| 5 | English [1051407] English |
| 6 | French [1061805] French |
| 7 | Greek [1071803] Greek, Ancient (to 1453), [1071805] Greek, Modern (1453-) |
| 8 | Italian [1092001] Italian |
| 9 | Croatian [1081822] Croatian |
| 10 | Kurdish [1112118] Kurdish |
| 11 | Polish [1161512] Polish |
| 12 | Portuguese [1161518] Portuguese |
| 13 | Russian [1182119] Russian |
| 14 | Romanian [1182113] Romanian; Moldavian; Moldovan |
| 15 | Serbian [1191816] Serbian |
| 16 | Spanish [1191601] Spanish; Castilian |
| 17 | Turkish [1202118] Turkish |
| 18 | Vietnamese [1220905] Vietnamese |
| 19 | Asian languages [1010305] Achinese, [1011111] Akkadian, [1011803] Official Aramaic (700-300 BCE); Imperial Aramaic (700-300 BCE), [1011913] Assamese, [1012205] Avestan, [1012301] Awadhi, [1020112] Baluchi, [1020114] Balinese, [1020514] Bengali, [1020815] Bhojpuri, [1020908] Bihari languages, [1020911] Bikol, [1021801] Braj, [1022011] Batak languages, [1022101] Buriat, [1022107] Buginese, [1022118] Burmese |

(...)

Table 9: (continued)

| language/nationality | |
|--|--|
| <p>, [1030502] Cebuano, [1030807] Chagatai, [1030809] Chinese, [1030811] Chuukese, [1031303] Chamic languages, [1040125] Land Dayak languages, [1040922] Divehi; Dhivehi; Maldivian, [1041509] Dogri, [1042615] Dzongkha, [1051224] Elamite, [1060912] Filipino; Pilipino, [1070125] Gayo, [1071514] Gondi, [1072110] Gujarati, [1080502] Hebrew, [1080912] Hiligaynon, [1080913] Himachali languages; Western Pahari languages, [1080914] Hindi, [1080920] Hittite, [1081314] Hmong; Mong, [1090201] Iban, [1091215] Iloko, [1091404] Indonesian, [1100122] Javanese, [1101614] Japanese, [1101618] Judeo-Persian, [1101802] Judeo-Arabic, [1110101] Kara-Kalpak, [1110103] Kachin; Jingpho, [1110114] Kannada, [1110118] Karen languages, [1110119] Kashmiri, [1110123] Kawi, [1110126] Kazakh, [1110801] Khasi, [1110813] Central Khmer, [1110815] Khotanese; Sakan, [1110918] Kirghiz; Kyrgyz, [1111511] Konkani, [1111518] Korean, [1111821] Kurukh, [1112113] Kumyk, [1120108] Lahnda, [1120115] Lao, [1120526] Lezghian, [1122119] Lushai, [1130104] Madurese, [1130107] Magahi, [1130109] Maithili, [1130111] Makasar, [1130112] Malayalam, [1130118] Marathi, [1130125] Malay, [1130418] Mandarin, [1130914] Minangkabau, [1131403] Manchu, [1131409] Manipuri, [1131415] Manobo languages, [1131514] Mongolian, [1132114] Munda languages, [1132318] Marwari, [1140516] Nepali, [1140523] Nepal Bhasa; Newari, [1140901] Nias, [1151809] Oriya, [1151919] Ossetian; Ossetic, [1152001] Turkish, Ottoman (1500-1928), [1160107] Pangasinan, [1160113] Pampanga; Kapampangan, [1160114] Panjabi; Punjabi, [1160515] Persian, Old (ca.600-400 B.C.), [1160518] Persian, [1160814] Phoenician, [1161209] Pali, [1161514] Pohnpeian, [1161801] Prakrit languages, [1162119] Pushto; Pashto, [1180110] Rajasthani, [1190108] Yakut, [1190113] Samaritan Aramaic, [1190114] Sanskrit, [1190119] Sasak, [1190120] Santali, [1190512] Selkup, [1190814] Shan, [1190914] Sinhala; Sinhalese, [1191404] Sindhi, [1191507] Sogdian, [1192114] Sundanese, [1192124] Sumerian, [1192503] Classical Syriac, [1200113] Tamil, [1200120] Tatar, [1200512] Telugu, [1200520] Tetum, [1200711] Tajik, [1200712] Tagalog, [1200801] Thai, [1200902] Tibetan, [1202111] Turkmen, [1202522] Tuvinian, [1210701] Ugaritic, [1210907] Uighur; Uyghur, [1211804] Urdu, [1212602] Uzbek, [1230118] Waray, [1250116] Yapese, [1260801] Zhuang; Chuang</p> | |
| 20 | <p>African languages [1010118] Afar, [1010308] Acoli, [1010401] Adangme, [1010608] Afrihili, [1010618] Afrikaans, [1011101] Akan, [1011308] Amharic, [1020104] Banda languages, [1020109] Bamileke languages, [1020113] Bambara, [1020119] Basa, [1020510] Beja; Bedawiyet, [1020513] Bemba, [1020518] Berber languages, [1020914] Bini; Edo, [1021420] Bantu (Other), [1031516] Coptic, [1040914] Dinka, [1042101] Duala, [1042521] Dyula, [1050609] Efik, [1050725] Egyptian (Ancient), [1051101] Ekajuk, [1052305] Ewe, [1052315] Ewondo, [1060114] Fang, [1060120] Fanti, [1061514] Fon, [1062112] Fulah, [1070101] Ga, [1070201] Gbaya, [1070526] Geez, [1071802] Grebo, [1080121] Hausa, [1080518] Herero, [1090215] Igbo, [1091015] Ijo languages, [1091405] Indo-European languages, [1110102] Kabyle, [1110113] Kamba, [1110121] Kanuri, [1110911] Kikuyu; Gikuyu, [1110914] Kinyarwanda, [1111302] Kimbundu, [1111514] Kongo, [1111605] Kpelle, [1111815] Kru languages, [1112101] Kuanyama; Kwanyama, [1120113] Lamba, [1120914] Lingala, [1121512] Mongo, [1121526] Lozi, [1122101] Luba-Lulua, [1122102] Luba-Katanga, [1122107] Ganda, [1122114] Lunda, [1122115] Luo (Kenya and Tanzania), [1130114] Mandingo, [1130119] Masai, [1130514] Mende, [1131207] Malagasy, [1131519] Mossi, [1140212] Ndebele, South; South Ndebele, [1140405] Ndebele, North; North Ndebele, [1140415] Ndonga, [1141915] Pedi; Sepedi; Northern Sotho, [1142501] Chichewa; Chewa; Nyanja, [1142513] Nyamwezi, [1142514] Nyankole, [1142515] Nyoro, [1142609] Nzima, [1151813] Oromo, [1182114] Rundi, [1190104] Sandawe, [1190107] Sango, [1190904] Sidamo, [1191201] Slavic languages, [1191401] Shona, [1191411] Soninke, [1191513] Somali, [1191514] Songhai languages, [1191520] Sotho, Southern, [1191818] Serer, [1191923] Swati, [1192111] Sukuma, [1192119] Susu, [1192301] Swahili, [1200513] Timne, [1200907] Tigre, [1200918] Tigrinya, [1200922] Tiv, [1201308] Tamashek, [1201507] Tonga (Nyasa), [1201914] Tswana, [1201915] Tsonga, [1202113] Tumbuka, [1202309] Twi, [1211302] Umbundu, [1220109] Vai, [1220514] Venda, [1230112] Walamo, [1231512] Wolof, [1240815] Xhosa, [1250115] Yao, [1251518] Yoruba, [1260514] Zenaga, [1261404] Zande languages, [1262112] Zulu</p> |
| | (...) |

Table 9: (continued)

| | language/nationality |
|----|--|
| 21 | <p>Other languages</p> <p>[1010211] Abkhazian, [1011202] Albanian, [1011205] Aleut, [1011207] Algonquian languages, [1011407] English, Old (ca.450-1100), [1011601] Apache languages, [1011807] Aragonese, [1011813] Armenian, [1011814] Mapudungun; Mapuche, [1011816] Arapaho, [1011823] Arawak, [1012008] Athapascan languages, [1012119] Australian languages, [1012201] Avaric, [1012513] Aymara, [1012605] Azerbaijani, [1020111] Bashkir, [1020117] Basque, [1020512] Belarusian, [1020919] Bislama, [1021201] Siksika, [1021805] Breton, [1030104] Caddo, [1030118] Galibi Carib, [1030120] Catalan; Valencian, [1030121] Caucasian languages, [1030801] Chamorro, [1030802] Chibcha, [1030805] Chechen, [1030813] Mari, [1030814] Chinook jargon, [1030815] Choctaw, [1030816] Chipewyan; Dene Suline, [1030818] Cherokee, [1030821] Church Slavonic; Old Slavonic; Church Slavonic; Old Bulgarian; Old Church Slavonic, [1030822] Chuvash, [1030825] Cheyenne, [1031518] Cornish, [1031519] Corsican, [1031605] Creoles and pidgins, English based, [1031805] Cree, [1031816] Creoles and pidgins, [1032605] Czech, [1040111] Dakota, [1040114] Danish, [1040512] Delaware, [1040718] Dogrib, [1042113] Dutch, Middle (ca.1050-1350), [1042120] Dutch; Flemish, [1051413] English, Middle (1100-1500), [1051615] Esperanto, [1051920] Estonian, [1060115] Faroese, [1060910] Fijian, [1060914] Finnish, [1061813] French, Middle (ca.1400-1600), [1061815] French, Old (842-ca.1400), [1061825] Western Frisian, [1062118] Friulian, [1070515] Georgian, [1070912] Gilbertese, [1071201] Gaelic; Scottish Gaelic, [1071205] Irish, [1071207] Galician, [1071222] Manx, [1071308] German, Middle High (ca.1050-1500), [1071508] German, Old High (ca.750-1050), [1071518] Gorontalo, [1071520] Gothic, [1071814] Guarani, [1072309] Gwich'in, [1080109] Haida, [1080120] Haitian; Haitian Creole, [1080123] Hawaiian, [1081315] Hiri Motu, [1082114] Hungarian, [1082116] Hupa, [1090305] Icelandic, [1090415] Ido, [1091121] Inuktitut, [1091205] Interlingue; Occidental, [1091401] Interlingua (International Auxiliary Language Association), [1091611] Inupiaq, [1091815] Iroquoian languages, [1110112] Kalaallisut; Greenlandic, [1111513] Komi, [1111519] Kosraean, [1112120] Kutenai, [1120104] Ladino, [1120120] Latin, [1120122] Latvian, [1120913] Limburgan; Limburger; Limburgish, [1120920] Lithuanian, [1122026] Luxembourgish; Letzeburgesch, [1122109] Luiseno, [1130103] Macedonian, [1130108] Marshallese, [1130115] Maori, [1130701] Irish, Middle (900-1200), [1130903] Mi'apok; kmaq; Micmac, [1131220] Maltese, [1131508] Mohawk, [1132119] Creek, [1132514] Mayan languages, [1140108] Nahuatl languages, [1140121] Nauru, [1140122] Navajo; Navaho, [1140903] Niger-Kordofanian languages, [1140921] Niuean, [1141415] Norwegian Nynorsk; Nynorsk, Norwegian, [1141502] Bokmål, Norwegian; Norwegian Bokmål, [1141514] Norse, Old, [1141518] Norwegian, [1150309] Occitan (post 1500); Provençal, [1151009] Ojibwa, [1151901] Osage, [1152015] Otomian languages, [1160112] Pahlavi, [1160116] Papiamentu, [1160121] Palauan, [1161815] Provençal, Old (to 1500), [1172105] Quechua, [1180116] Rapanui, [1180118] Rarotongan; Cook Islands Maori, [1181508] Romansh, [1181513] Romany, [1190112] Salishan languages, [1190315] Scots, [1190701] Irish, Old (to 900), [1190915] Siouan languages, [1191215] Slovak, [1191222] Slovenian, [1191305] Northern Sami, [1191309] Sami languages, [1191315] Samoan, [1191804] Sardinian, [1192305] Swedish, [1200108] Tahitian, [1200518] Tereno, [1201112] Tokelau, [1201209] Tlingit, [1201514] Tonga (Tonga Islands), [1201609] Tok Pisin, [1201909] Tsimshian, [1202120] Altaic languages, [1202212] Tuvalu, [1211118] Ukrainian, [1221512] Volapük, [1221520] Votic, [1230111] Wakashan languages, [1230119] Washo, [1230512] Welsh, [1230514] Sorbian languages, [1231214] Walloon, [1250904] Yiddish, [1251611] Yupik languages, [1260116] Zapotec, [1262114] Zuni, [1262601] Zaza; Dimili; Dimli; Kirdki; Kirmanjki; Zazaki</p> |

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