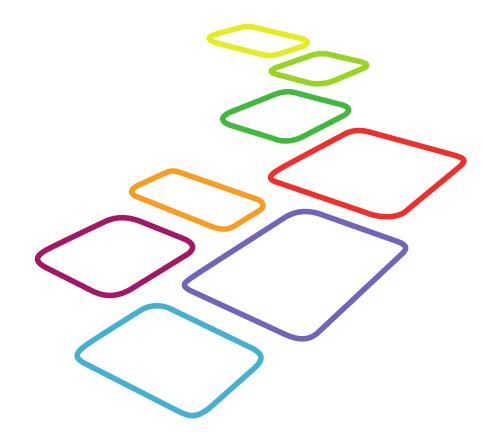


Starting Cohort 5: First-Year Students SUF-Version 3-0-0 Data Manual [Supplement]: Anonymisation Tobias Koberg

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Bamberg, 2013

Starting Cohort 5 of the National Educational Panel Study: Anonymisation procedures and statistical disclosure control

Technical Report

Tobias Koberg

National Educational Panel Study University of Bamberg

v 1.0 October 24, 2013

Preamble

This documentation gives an exhaustive explanation of all disclosure risk minimisation techniques applied before dissemination of the Starting Cohort 5 (Students). For a quick reference what is done to the datasets in detail and on which level you will find your desired information, please skip forward to appendix A, where all affected variables are listed.

Specifications

To ensure the best possible confidentiality protection of individuals and individual micro data, the National Educational Panel Study complies with strict international standards. Operationalise those, they have been abstracted to the following two criteria:

- 1. the disseminated data has been transferred to so called *de facto anonymous data*. Identifiable information is coarsened or cut off and kept securely to minimise the risk of statistical disclosure.
- 2. 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 realisation 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.

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 NEPS 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 anonymisation routines for a subtle differentiation of information. The three resulting levels of anonymisation define as follows:

• data provided *OnSite* is generally not further anonymised. However, even those data has been 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 at the NEPS 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 anonymisation 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. Same applies to Download.

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.

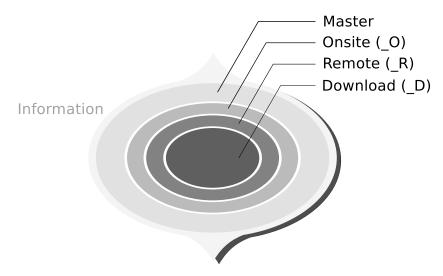


Figure 1: Onion-shaped model defining the different anonymisation levels

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

Technically, this model realizes in a single letter suffixed to dataset and variable names. All datasets available OnSite only are marked with an additional $_\mathbf{O}$, those available via RemoteNEPS with $_\mathbf{R}$ and Download files with $_\mathbf{D}$. The same procedure applies when it comes to variable differentiation. A variable which is only available OnSite has been suffixed with $_\mathbf{O}$. In RemoteNEPS-access or Download, this variable is still present but purged. If there is an alternate version (mainly with coarsened content) for RemoteNEPS (suffix $_\mathbf{R}$) or Download (suffix $_\mathbf{D}$), those can be used. As said before, these are already integrated in the OnSite version.

Conducted measures

Keeping the usability and the paradigm of information esteem in mind, only very few alterations are actually done to the dataset. These modifications always account for the fact that information may never be lost completely, but aggregated into coarse categories or variables. 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, roughly 125 variables are modified in some way – which is about seven percent of the whole dataset volume.

Please refer to appendix A for a complete overview of all variables which fell victim to anonymisation.

The following gives an explanatory overview of all measures conducted.

- countries and languages All information corresponding to (international) localisation, nationality or languages is only available en full *OnSite* or via *RemoteNEPS*. Variables comprised in the *Download* Scientific Use File (SUF) are aggregated into larger categories mainly allocating continents and, in detail, states in Europe. For a full list, see appendix B and C.
- field/course of studies To prevent an institution from being disclosed by its individual offer of field and course of studies, these informations are available only as the most aggregated value (i.e. first digit of ISCED-97) in the *Download* version. Full characterisation of these values is available from *RemoteNEPS* onwards.
- **open ended strings** All string variables containing actual text are purged in the *RemoteNEPS* version. The information remains accessible *OnSite*. However, all text entries have been reviewed by staff to ensure that absolutely no re-identificational material is included.
- regional Information Regional information is not available for NEPS data which has been surveyed in institutional context. This regards places of birth as well as work, school or residence. Only an indicator for west germany and east germany (including Berlin) is available. Please be aware that we still do offer macro indicators *OnSite* (see below).
- **number of employees** Considering self-employed persons, information about the number of salaried employees has been censored to prevent effortless identification of

large entrepreneurs. Therefore, related variables are top-coded at 20 employees. Again, this information is still present via RemoteNEPS and OnSite.

macro indicators Additional information including structural topography and macroeconomic measures has been made available only OnSite(Microm data).

Topic	OnSite	RemoteNEPS	Download
$- International^1$	full data	full data	collapsed
String variables	anonymised	n/a	n/a
Regional (National)	East/West	East/West	East/West
Institutional context 2	full data	n/a	n/a
Course & field of study	full data	full data	collapsed
Number of employees	full data	full data	top coded
Macro indicators	accessible	n/a	n/a

 $^{^{1}}$ international geographical information (e.g., nation states, national languages) 3 national localisation is coarsened to west/east germany

Table 1: Availability of sensitive data

For enquiries or further information not covered in this document please feel free to contact userservice.neps@uni-bamberg.de.

A Anonymisation sheet

	data file	variable	label	On-site	RemoteNEPS	SUF-Download
Countries & Languages	pTargetCATI	t751004 g1	Land des Wohnorts (im Ausland)	I		purged
	pTargetCATI	t405010_g1	Land des Geburtsorts			purged
	pTargetCATI pTargetCATI	t406100_g1 t414000_g1	andere Nationalität erste Muttersprache (ISO 639.2)			purged purged
	pTargetCATI	t414002_g1	zweite Muttersprache (ISO 639.2)			purged
	pTargetCATI pTargetCATI	t41406x_g1 t405070_g1	Hilfsvariable: Herkunftssprache (ISO 639.2) Geburtsland Mutter			purged purged
	pTargetCATI	t405081_g1	Wohnland Mutter			purged
	pTargetCATI pTargetCATI	t414100_g1 t405100_g1	Mutter: Erstsprache/Muttersprache (ISO 639.2) Geburtsland Vater			purged purged
	pTargetCATI	t405111_g1	Wohnland Vater			purged
	pTargetCATI pTargetCATI	t414120_g1 t405220_g1	Vater: Erstsprache/Muttersprache (ISO 639.2) Geburtsland der Mutter der Mutter			purged purged
	pTargetCATI pTargetCATI	t405230_g1 t405240_g1	Geburtsland der Mutter des Vaters Geburtsland des Vaters der Mutter			purged purged
	pTargetCATI	t405250_g1	Geburtsland des Vaters des Vaters			purged
	pTargetCATI pTargetCATI	t418001_g1 t418021_g1	Ausländische Sprache Lesen Beruf Ausländische Sprache Lesen Studium			purged purged
	pTargetCATI	t418011_g1	Ausländische Sprache Lesen Freizeit			purged
	spEmp spPartner	ts23239_g1 t407021_g1	Land der Arbeitsstätte Wohnort Partner			purged purged
	spPartner	ts31205_g1	Geburtsland Partner			purged
	spPartner spPartner	ts31208_g1 ts31210_g1	Geburtsland Vater Partner Geburtsland Mutter Partner			purged purged
	spSchool spVocTrain	ts1120s_g1 ts1521s_g1	Land der Schule Land der Ausbildung			purged purged
	spVocTrain	tg24196_g1	Land Auslandsaufenthalt			purged
	spVocTrain xTargetCAWI	tg24198_g1 tg51510	Land Auslandsaufenthalt Land der neuen Hochschule			purged purged
	xTargetCAWI	t42800x_g1	Auswahl Herkunftsland (destatis)			purged
eld/course of studies						
ela/course of studies	pTargetCATI	tg04001_g1	Studienbereich Fach 1 WS 2010 (destatis)			purged
	pTargetCATI	tg04001_g2	Studienbereichsgliederung Sample Fach 1 WS 2010 (destatis)			purged
	pTargetCATI pTargetCATI	tg04001_g4 tg04001_g5	ISCED-97 Fach 1 WS 2010 (3-Steller) ISCED-97 Fach 1 WS 2010 (2-Steller)			purged purged
	pTargetCATI pTargetCATI	tg04004_g1 tg04004_g2	Studienbereich Fach 2 WS 2010 (destatis) Studienbereichsgliederung Sample Fach 2 WS 2010 (destatis)			purged
	pTargetCATI	tg04004_g4	ISCED-97 Fach 2 WS 2010 (3-Steller)			purged purged
	pTargetCATI pTargetCATI	tg04004_g5 tg04007_g1	ISCED-97 Fach 2 WS 2010 (2-Steller) Studienbereich Fach 3 WS 2010 (destatis WS 2012)			purged purged
	pTargetCATI	tg04007_g2	Studienbereichsgliederung Sample Fach 2 WS 2010 (destatis)			purged
	pTargetCATI pTargetCATI	tg04007_g4 tg04007_g5	ISCED-97 Fach 3 WS 2010 (3-Steller) ISCED-97 Fach 3 WS 2010 (2-Steller)			purged purged
	pTargetCATI	tg12001_g1	Wunschfach 1 (destatis)			purged
	pTargetCATI xTargetCAWI	tg12002_g1 tg51311_g1	Wunschfach 2 (destatis) Studienbereich Fach 1 (destatis)			purged purged
	xTargetCAWI	tg51311_g3	ISCED-97 Fach 1 (3-Steller)			purged
	xTargetCAWI xTargetCAWI	tg51311_g4 tg51321_g1	ISCED-97 Fach 1 (2-Steller) Studienbereich Fach 2 (destatis)			purged purged
	xTargetCAWI	tg51321_g3	ISCED-97 Fach 2 (3-Steller)			purged
	xTargetCAWI xTargetCAWI	tg51321_g4 tg51331_g1	ISCED-97 Fach 2 (2-Steller) Studienbereich Fach 3 (destatis)			purged purged
	xTargetCAWI	tg51331_g3	ISCED-97 Fach 3 (3-Steller)			purged
	xTargetCAWI xTargetCAWI	tg51331_g4 t242400	ISCED-97 Fach 3 (2-Steller) Hilfsvariable: Bezugsfach für Lernumweltfragen			purged purged
	spVocTrain	tg24160_g1	Studienbereich Fach 1 (destatis)			purged
	spVocTrain spVocTrain	tg24160_g3 tg24160_g4	ISCED-97 Fach 1 (3-Steller) ISCED-97 Fach 1 (2-Steller)			purged purged
	spVocTrain	tg24163_g1	Studienbereich Fach 2 (destatis)			purged
	spVocTrain spVocTrain	tg24163_g3 tg24163_g4	ISCED-97 Fach 2 (3-Steller) ISCED-97 Fach 2 (2-Steller)			purged purged
	spVocTrain	tg24166_g1	Studienbereich Fach 3 (destatis)			purged
	spVocTrain spVocTrain	tg24166_g3 tg24166_g4	ISCED-97 Fach 3 (3-Steller) ISCED-97 Fach 3 (2-Steller)			purged purged
tring variables (Note: a	Il string variables have been		eidentificational material and anonymised where necessary)			
g variables (Hold, di	pTargetCATI	tg13002	Alternative zum Studium konkret		purged	
	pTargetCATI pTargetCATI	t731302 t731304	anderer Schulabschluss Mutter anderer Ausbildungsabschluss Mutter (offen)		purged	
	pTargetCATI	t731307	Anderer Hochschulabschluss Mutter (offen)		purged purged	
	pTargetCATI pTargetCATI	t731352 t731354	anderer Schulabschluss Vater anderer Ausbildungsabschluss Vater (offen)		purged purged	
	pTargetCATI	t731357	Anderer Hochschulabschluss Vater (offen)		purged	
	pTargetCATI pTargetCATI	t272800 t272801	Inhalt Kongress Inhalt Fachvortrag		purged purged	
	pTargetCATI	t272804	Inhalt Selbstlernprogramm		purged	
	spChild spChild	ts33211 ts33213	Anderer Erwerbsstatus Kind (offene Angabe) andere Schulform Kind		purged purged	
	spChild	ts33215	anderer Schulabschluss Kind andere Aushildung Kind		purged	
	spChild spChild	ts33217 ts33221	andere Ausbildung Kind anderer Ausbildungsabschluss Kind (offen)		purged purged	
	spChild	ts33224	Anderer Hochschulabschluss Kind (offen)		purged	
	spCourses spCourses	t272011_w1 t272011_w2	Kursinhalt Kursinhalt		purged purged	
	spCourses	t272011_w3	Kursinhalt		purged	
	spEmp spFurtherEdu1	tg2608c t272000	sonstige Art der studentischen Erwerbstätigkeit Kursinhalt anderer Kurs		purged purged	
	spFurtherEdu2	t272044 ts29102	Art Zertifikat sonstine Aktivität		purged purged	
	spGap spPartner	ts31213	anderer Schulabschluss Partner		purged	
	spPartner spPartner	ts31215 ts31218	anderer Ausbildungsabschluss Partner (offen) Anderer Hochschulabschluss Partner (offen)		purged purged	
	spSchool	ts11206	andere Schulform		purged	
	spSchool spSchool	ts11212 ts11217	anderer Schulabschluss anderer angestrebter Schulabschluss		purged purged	
	spSchool	t724806	1. Abiturfach, offen		purged	
	spSchool spSchool	t724807 t724808	Abiturfach, offen Abiturfach, offen		purged purged	
	spSchool	t724809	4. Abiturfach, offen		purged	
	spSchool spSchool	t724810 t724902	Abiturfach, offen beruflicher Schwerpunkt, offen		purged purged	
	spVocTrain	ts15220	sonstiger Ausbildungsabschluss		purged	
	spVocTrain spVocTrain	ts15222 tg24202	sonstiger Ausbildungsabschluss Lehramtsabschluss genau		purged purged	
	xTargetCAWI	tg5110s	akt. Tätigkeit: Sonstiges, offen		purged	
	xTargetCAWI xTargetCAWI	tg5120s tg5141s	Studienorganisation Semester/Trimester, offen sonstiger angestrebter Abschluss nach Wechsel, offen		purged purged	
	xTargetCAWI	tg51420	angestrebter Lehramtsabschluss		purged	
	xTargetCAWI xTargetCAWI	t29151s t24100s	sonstige Informationsquellen, offen Sonstiges Beratungsangebot Hochschule, offen		purged purged	
	xTargetCAWI	t242401	Hilfsvariable: Bezugsfach für Lernumweltfragen, offen		purged	
	xTargetCAWI xTargetCAWI	t531029 t531009	Sonstige Finanzquelle Studiengebühren Erhebungsintervall Sonstiges, offen		purged purged	
	xTargetCAWI	t435030	sonstige Religionsgemeinschaft		purged	
	xTargetCAWI xTargetCAWI	t406711 t406731	anderer Bildungsabschluss Mutter SU anderer Bildungsabschluss Mutter Türkei		purged purged	
	xTargetCAWI	t406811	anderer Bildungsabschluss Vater SU		purged	
	xTargetCAWI	t406831	anderer Bildungsabschluss Vater Türkei	I	purged	
eographical region	nTargetCAT!	1700404 -4	Cabutenamainda (DS Waet/Det)	logethunet come		
	pTargetCATI pTargetCATI	t700101_g1 t751001_g1	Geburtsgemeinde (RS West/Ost) Wohngemeinde (RS West/Ost)	east/west germany east/west germany		
	spEmp spSchool	ts23237_g1 ts11202_g1	Ort der Arbeitsstätte (RS West/Ost) Gemeinde der Schule (RS West/Ost)	east/west germany		
		10112UZ_Y1	Gemeindename des Erwerb der HZB (RS West/Ost)	east/west germany east/west germany		
	spSchool	tg2232b_g1				
	spSchool spVocTrain	ts15207_g1	Gemeinde der Ausbildungsstätte (RS West/Ost)	east/west germany		
ther	spSchool spVocTrain	ts15207_g1		easowest germany		
iher	spSchool spVocTrain pTargetCATI	ts15207_g1 t731406	Anzahl Beschäftigter der Mutter	easowest germany		aggregation
her	spSchool spVocTrain	ts15207_g1		easuwest germany		aggregation aggregation aggregation
cher ata files	spSchool spVocTrain pTargetCATI pTargetCATI	ts15207_g1 t731406 t731456	Anzahl Beschäftigter der Mutter Anzahl Beschäftigter des Vaters	leasuwest germany		aggregation

B Country aggregation

	afghanistan	\mapsto		Other Asia
	albania	\mapsto		Other Southern Europe
[221]	algeria	\mapsto	[12]	Other Middle East and North Africa
[123]	andorra	\mapsto	[16]	Other Southern Europe
[223]	angola	\mapsto	[13]	Other Africa
[320]	antigua and barbuda	\mapsto	[8]	Central and South America, Caribbean
[323]	argentina	\mapsto	[8]	Central and South America, Caribbean
	armenia	\mapsto	į 7į	Former Soviet Union
[523]	australia	\mapsto		Oceania/Polynesia
	australian dependent territories in australia, oceania, antarctica	\mapsto		Oceania/Polynesia
	austria	\mapsto	[9]	Northern and Western Europe
	azerbaijan	\mapsto	[7]	Former Soviet Union
	bahamas	\mapsto	[8]	Central and South America, Caribbean
	bahrain	\mapsto		Other Middle East and North Africa
	bangladesh	\mapsto		Other Asia
	barbados	\mapsto		Central and South America, Caribbean
	belarus	\mapsto		Former Soviet Union
	belgium	\mapsto	[9]	Northern and Western Europe
	belize	\mapsto	[8]	Central and South America, Caribbean
	benin	\mapsto		Other Africa
[426]	bhutan	\mapsto	[14]	Other Asia
[326]	bolivia, plurinational state of	\mapsto	[8]	Central and South America, Caribbean
[122]	bosnia and herzegovina	\mapsto	[6]	Former Yugoslavia
[227]	botswana	\mapsto	[13]	Other Africa
[327]	brazil	\mapsto	[8]	Central and South America, Caribbean
[295]	british dependent territories in africa	\mapsto	[9]	Northern and Western Europe
	british dependent territories in america	\mapsto	[6]	Northern and Western Europe
	british dependent territories in asia	\mapsto	[9]	
	british dependent territories in australia, oceania, antarctica	\mapsto		Northern and Western Europe
	british dependent territories in europe	\mapsto		Northern and Western Europe
	brunei darussalam	. ,		Other Asia
	bulgaria			
		\mapsto		Other Central and Eastern Europe
	burkina faso	\mapsto		Other Africa
	burundi	\mapsto		Other Africa
	cambodia	\mapsto		Other Asia
	cameroon	\mapsto		Other Africa
	canada	\mapsto		North America
[242]	cape verde	\mapsto	[13]	Other Africa
[289]	central african republic	\mapsto	[13]	Other Africa
[284]	chad	\mapsto	[13]	Other Africa
[332]	chile	\mapsto	[8]	Central and South America, Caribbean
[479]	china	\mapsto	[14]	Other Asia
[349]	colombia	\mapsto	[8]	Central and South America, Caribbean
	comoros	\mapsto		Other Africa
	congo	\mapsto		Other Africa
	congo, the democratic republic of the	\mapsto		Other Africa
	cook islands	→		Oceania/Polynesia
	costa rica	. ,		Central and South America, Caribbean
	croatia	\mapsto		Former Yugoslavia
	cuba	\mapsto		Central and South America, Caribbean
	cyprus	\mapsto		Other Southern Europe
	czech republic	\mapsto		Other Central and Eastern Europe
	czechoslovakia	\mapsto		Other Central and Eastern Europe
	côte d'Ivoire	\mapsto		Other Africa
	danish dependent territories in america	\mapsto		Northern and Western Europe
	danish dependent territories in europe	\mapsto	[9]	Northern and Western Europe
	denmark	\mapsto		Northern and Western Europe
	djibouti	\mapsto		Other Africa
	dominica	\mapsto		Central and South America, Caribbean
	dominican republic	\mapsto	[8]	Central and South America, Caribbean
[392]	dutch dependent territories in america	\mapsto	[9]	Northern and Western Europe
[336]	ecuador	\mapsto	[8]	Central and South America, Caribbean
[287]	egypt	\mapsto	[12]	Other Middle East and North Africa
	el salvador	\mapsto	[8]	Central and South America, Caribbean
	equatorial guinea	\mapsto		Other Africa
	eritrea	\mapsto		Other Africa
	estonia	\mapsto		
	ethiopia	\mapsto		Other Africa
[526]		\mapsto		Oceania/Polynesia
				Northern and Western Europe
	finland france	\mapsto		Northern and Western Europe Northern and Western Europe
	french dependent territories in africa	\mapsto		Northern and Western Europe
	french dependent territories in america	\mapsto	[9]	Northern and Western Europe
	french dependent territories in australia, oceania, antarctica	\mapsto	[9]	Northern and Western Europe
	gabon	\mapsto		Other Africa
	gambia	\mapsto		Other Africa
	georgia	\mapsto		Former Soviet Union
	germany	\mapsto		Germany
[238]	ghana	\mapsto		Other Africa
[134]	greece	\mapsto		Other Southern Europe
[340]	grenada	\mapsto	[8]	Central and South America, Caribbean
	guatemala	\mapsto		Central and South America, Caribbean

[261]	guinea	\mapsto		Other Africa
	guinea-bissau	\mapsto		Other Africa
	guyana	\mapsto		Central and South America, Caribbean
	haiti	\mapsto		Central and South America, Caribbean
	holy see (vatican city state)	\mapsto		Other Southern Europe
	honduras	\mapsto		Central and South America, Caribbean
	hungary	\mapsto		Other Central and Eastern Europe
	iceland	\mapsto		Northern and Western Europe
	india	\mapsto		Other Asia Other Asia
	indonesia iran, islamic republic of	\mapsto		Other Middle East and North Africa
	iraq	\mapsto		Other Middle East and North Africa
	ireland	. <i>,</i>		Northern and Western Europe
	israel	. <i>,</i>		Other Middle East and North Africa
	italy	\mapsto		Italy
	jamaica	\mapsto		Central and South America, Caribbean
	japan	\mapsto		Other Asia
	jordan	\mapsto	[12]	Other Middle East and North Africa
[444]	kazakhstan	\mapsto	[7]	Former Soviet Union
[243]	kenya	\mapsto	[13]	Other Africa
[530]	kiribati	\mapsto		Oceania/Polynesia
	korea, democratic people's republic of	\mapsto		Other Asia
	korea, republic of	\mapsto		Other Asia
	kuwait	\mapsto		Other Middle East and North Africa
	kyrgyzstan	\mapsto		Former Soviet Union
	lao people's democratic republic	\mapsto		Other Asia
	latvia	\mapsto		Former Soviet Union
	lebanon	\mapsto		Other Middle East and North Africa Other Africa
	lesotho liberia	\mapsto	F - 1	Other Africa Other Africa
	libya	\mapsto		Other Middle East and North Africa
	liechtenstein	\mapsto		Northern and Western Europe
	lithuania	\mapsto		Former Soviet Union
	luxembourg	. <i>,</i>		Northern and Western Europe
	macedonia	\mapsto		Former Yugoslavia
	madagascar	\mapsto		Other Africa
	malawi	\mapsto		Other Africa
	malaysia	\mapsto		Other Asia
[454]	maldives	\mapsto		Other Asia
[251]	mali	\mapsto	[13]	Other Africa
[145]	malta	\mapsto	[16]	Other Southern Europe
[544]	marshall islands	\mapsto	[11]	Oceania/Polynesia
[239]	mauritania	\mapsto	[13]	Other Africa
[253]	mauritius	\mapsto	[13]	Other Africa
	mexico	\mapsto		Central and South America, Caribbean
	micronesia, federated states of	\mapsto		Oceania/Polynesia
	moldova, republic of	\mapsto		Former Soviet Union
	monaco	\mapsto		Northern and Western Europe
	mongolia	\mapsto		Other Asia
	montenegro	\mapsto		Former Yugoslavia
	morocco	\mapsto		Other Middle East and North Africa
	mozambique	\mapsto		Other Africa
	myanmar	\mapsto		Other Asia
	namibia	\mapsto		Other Africa
	nauru nepal	\mapsto		Oceania/Polynesia Other Asia
	netherlands	\mapsto		Northern and Western Europe
	new zealand	\mapsto		Oceania/Polynesia
	new zealand dependent territories in australia, oceania, antarctica	\mapsto		Oceania/Polynesia
	nicaragua	\mapsto		Central and South America, Caribbean
	niger	\mapsto		Other Africa
	nigeria	\mapsto		Other Africa
	niue	\mapsto	[11]	Oceania/Polynesia
	norway	\mapsto		Northern and Western Europe
[593]	norwegian dependent territories in australia, oceania, antarctica	\mapsto	[9]	Northern and Western Europe
	norwegian dependent territories in europe	\mapsto		Northern and Western Europe
[456]		\mapsto		Other Middle East and North Africa
[499]		\mapsto		Other Middle East and North Africa
	pakistan	\mapsto		Other Asia
	palau	\mapsto		Oceania/Polynesia
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	papua new guinea	\mapsto		Oceania/Polynesia
	paraguay	\mapsto		Central and South America, Caribbean
	peru	\mapsto		Central and South America, Caribbean
	philippines	\mapsto		Other Asia Poland
	poland portugal	\mapsto		Other Southern Europe
	qatar	\mapsto		Other Middle East and North Africa
	romania	\mapsto		Romania
	russian federation	\mapsto		Former Soviet Union
	rwanda	\mapsto		Other Africa
	saint kitts and nevis	\mapsto		Central and South America, Caribbean
F 1	saint lucia	\mapsto		Central and South America, Caribbean
	saint vincent and the grenadines	. <i>,</i>		Central and South America, Caribbean
	samoa	\mapsto		Oceania/Polynesia
	san marino	\mapsto		Other Southern Europe
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	saudi arabia	\mapsto	[12]	
				Other Africa
	senegal	\mapsto		
	serbia	\mapsto		Former Yugoslavia
	serbia and montenegro	\mapsto		Former Yugoslavia
	seychelles	\mapsto		Other Africa
	sierra leone	\mapsto	F - 1	Other Africa
	singapore	\mapsto	L J	Other Asia
	slovakia	\mapsto		Other Central and Eastern Europe
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	sudan	\mapsto	L J	Other Africa
	suriname	. ,		Central and South America, Caribbean
	swaziland	\mapsto		Other Africa
	sweden	\mapsto		Northern and Western Europe
	switzerland	→		Northern and Western Europe
	syrian arab republic	\mapsto	L J	Other Middle East and North Africa
	taiwan, province of china	\mapsto		Other Asia
	tajikistan	\mapsto		Former Soviet Union
	tanzania, united republic of	\mapsto		Other Africa
	thailand	\mapsto		Other Asia
	timor-leste	\mapsto		Other Asia
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	ukraine	\mapsto		Former Soviet Union
	united arab emirates	\mapsto		Other Middle East and North Africa
	united kingdom	\mapsto		Northern and Western Europe
	united states	→		North America
	unknown foreign country	. ,		Other
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	uruguay US dependent territories in america	→		Central and South America, Caribbean North America
		\mapsto		
	US dependent territories in australia, oceania, antarctica	\mapsto		North America
	uzbekistan	\mapsto		Former Soviet Union
	vanuatu	\mapsto		Oceania/Polynesia
	venezuela, bolivarian republic of	\mapsto	[8]	
	viet nam	\mapsto	L J	Other Asia
	yemen	\mapsto		Other Middle East and North Africa
	yugoslavia	\mapsto		Former Yugoslavia
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[233]	zimbabwe	\mapsto	[13]	Other Africa

C Language aggregation

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Chamic languages
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French, Old (842-ca.1400)
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