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## **Research Report**

SOEP-Core v37 - PPATHL: Person-related metadataset

SOEP Survey Papers, No. 1187

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SOEP-Core v37 – PPATHL: Person-Related Meta-Dataset

**SOEP Group** 



Running since 1984, the German Socio-Economic Panel (SOEP) is a wide-ranging representative longitudinal study of private households, located at the German Institute for Economic Research, DIW Berlin.

The aim of the SOEP Survey Papers Series is to thoroughly document the survey's data collection and data processing. The SOEP Survey Papers is comprised of the following series:

Series A – Survey Instruments (Erhebungsinstrumente)

Series B – Survey Reports (Methodenberichte)

Series C – Data Documentation (Datendokumentationen)

Series D - Variable Descriptions and Coding

Series E - SOEPmonitors

Series F - SOEP Newsletters

Series G - General Issues and Teaching Materials

The SOEP Survey Papers are available at http://www.diw.de/soepsurveypapers

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# SOEP-Core v37 – PPATHL: Person-Related Meta-Dataset

**SOEP Group** 

2022

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## 1 General Information

The path datasets should be the building block of any analysis. Path Files indicate the total population at the household and individual level (over time) and provide all IDs necessary to access further files at different levels (Krause/Glass/Reher 2019a,b). Path-Files are delivered in three data formats – in long-format [H|P-PATHL] (as the most comprehensive version including weighting variables), in wide-format [H|P-PFAD] (the traditional version), and in a short-version [H|P-PATH] as a reduced population file (indicating the total of population of households and individuals) Household Level [HID|SYEAR] {Navigation File: H-PATH-L (long-format) Individual Level [PID|SYEAR] {Navigation File: P-PATH-L (long-format)} Household Level [HID] {Population File: H-PATH} Individual Level [PID] {Population File: P-PATH} Household Level [HID (HHNRAKT)] {Path File: HPFAD (wide-format)} Individual Level [PID (PERSNR)] {Path File: PPFAD (wide-format)}. The constituting SOEP population considers three levels – cases, households, and individuals. Due to the SOEP sampling and survey process, these levels follow an implicit hierarchy. All samples refer to primary source households – indicated by the household id at the time when the survey starts – the (fixed) Case ID [CID]. New Households may emerge from these original households during the longitudinal survey process by split-offs of family members - all (current) households are therefore indicated by a (variable) Household ID [HID]. IDs for individuals living in the households are derived from the households, where they were living when they were surveyed for the first time – the (fixed) Personal ID [PID]. It is recommendet to use the (almost) time-independent (demographic) information like sample membership, sex, year and country of origin are adjusted on a wave-by-wave basis in the framework of demographic testing.

# 2 Primary Key, Foreign Keys and Sample Information

## pid - Never Changing Person ID

A person can be uniquely identified with variable PID. Together with SYEAR primary key in this file.

syear - Survey Year

1984		16252
1985		16737
1986		15868
1987		14974
1988		14596
1989		14000
1990		19666
1991		19713
1992		19552
1993		19240
1994		19469
1995		19947
1996		19527
1997		19064
1998		21175
	(7 rows omitted)	218991
2006		32747

2007	30962
2008	29005
2009	31642
2010	45977
2011	50329
2012	50120
2013	55611
2014	51684
2015	50277
2016	57287
2017	64554
2018	62491
2019	62829
2020	63063

Together with PID primary key in this file.

# hid - Current Wave HH Number

The household the person belongs to in the corresponding year (SYEAR). *For more information, contact:* Peter Krause (Tel. 030-89789-690)

# psample - Sample Member

1	A 1984 Initial Sample (West)	280277
2	B 1984 Migration (until 1983, West)	95664
3	C 1990 Initial Sample (East)	131925
4	D 1994/5 Migration (1984-1994, West)	26218
5	E 1998 Refreshment	27037
6	F 2000 Refreshment	173349
7	G 2002 High Income	37494
8	H 2006 Refreshment	30747
9	I 2009 Innovation Sample	7130
10	J 2011 Refreshment	50781
11	K 2012 Refreshment	23496
12	L1 2010 Birth Cohort (2007-2010)	64720
13	L2 2010 Family Type (Low-Income, Single-Parent, Large Families)	68558
14	L3 2011 Family Type (Single-Parent, Large Families)	27846
15	M1 2013 Migration (1995-2011)	49012
	(4 rows omitted)	85700
20	N 2017 Refreshment (PIAAC-L)	22395
21	O 2018 Social City	5747
22	P 2019 Top-Shareholder	10453
23	Q 2019 Lesbian-Gay-Bisexual (LGB) persons	1651
24	M6 2020 Refugee	3177
25	M7 2020 Migration	1993
26	M8 2020 Migration Professionals	1979
-1	No Answer	0
-2	Does not apply	0
-3	Answer improbable	0
•		J

-4	Inadmissible multiple response	0
-5	Not included in this version of the questionnaire	0
-6	Version of questionnaire with modified filtering	0
-7	Only available in less restricted edition	0
-8	Question this year not part of Survey program	0

The sample membership never changes.

For more information, contact: Peter Krause (Tel. 030-89789-690)

# cid - Original Houshold Number, Case ID

Case Id - Household Source Identifier. The fixed household source id points to the first SOEP ancestor household for this person. The person does not necessarily need to have ever lived in a household with this number. This is relevant for sampling information and calculating the weights.

# rv\_id - ID SUF pension insurance

-1	No Answer	0
-2	Does not apply	1073148
-3	Answer improbable	0
-4	Inadmissible multiple response	0
-5	Not included in this version of the questionnaire	0
-6	Version of questionnaire with modified filtering	0
-7	Only available in less restricted edition	0
-8	Question this year not part of Survey program	0

# 3 Survey History

## eintritt - Year First Contacted, Netto=10-99

1984		254540
1985		6336
1986		7697
1987		7180
1988		7140
1989		7516
1990		108042
1991		9416
1992		8506
1993		8159
1994		17746
1995		17496
1996		7571
1997		6761
1998		30507
	(7 rows omitted)	233472
2006		33582
2007		5194

2008	4315
2009	10975
2010	126141
2011	78055
2012	27495
2013	51155
2014	5904
2015	17450
2016	50244
2017	45530
2018	10504
2019	14490
2020	8230

The year a person joined the SOEP.

For more information, contact: Peter Krause (Tel. 030-89789-690)

erstbefr - Year First Surveyed, Netto=10-99

1984		190452
1985		7866
1986		8503
1987		7763
1988		6780
1989		7411
1990		80431
1991		8891
1992		8438
1993		8276
1994		14878
1995		15139
1996		8446
1997		8236
1998		26079
	(8 rows omitted)	240258
2007		9361
2008		7172
2009		11161
2010		63026
2011		54645
2012		25637
2013		36924
2014		10444
2015		16535
2016		26950
2017		33556
2018		12678
2019		13292
2020		9678
-2		248443

The year of a person's first interview.

For more information, contact: Peter Krause (Tel. 030-89789-690)

austritt - Year Of Last Contact, Netto=10-99

1985		2607
1986		3906
1987		3068
1988		4819
1989		5029
1990		3524
1991		4369
1992		5143
1993		6738
1994		7955
1995		8242
1996		8674
1997		8088
1998		10553
1999		11483
	(6 rows omitted)	89398
2006		24635
2007		24423
2008		25232
2009		38173
2010		38504
2011		42877
2012		31640
2013		26776
		36776
2014		34442
2015		34442 41694
2015 2016		34442 41694 45308
2015 2016 2017		34442 41694 45308 42208
2015 2016 2017 2018		34442 41694 45308 42208 51702
2015 2016 2017		34442 41694 45308 42208

The last year of a person's SOEP appearance.

For more information, contact: Peter Krause (Tel. 030-89789-690)

**letztbef** – Year Of Last Survey, Netto=10-99

1984	3434
1985	3169
1986	3045
1987	4404
1988	4128
1989	4072
1990	4541

1991		5354
1992		5909
1993		7161
1994		7286
1995		7118
1996		8178
1997		10415
1998		11011
	(8 rows omitted)	130180
2007		23770
2008		25681
2009		27697
2010		30273
2011		38955
2012		28413
2013		32353
2014		32378
2015		34606
2016		36467
2017		42450
2018		45376
2019		48220
2020		312862
-2		248443

The year of a person's most recent interview. *For more information, contact:* Peter Krause (Tel. 030-89789-690)

# **netto** – Current survey status

10	Interviewee With Succesful Interview (_P)	593240
12	Individual Questionnaire And Person Biography	99066
13	Individual Questionnaire And Youth Biography	318
14	Individual Questionnaire And Other Questionnaires	32
15	Individual Questionnaire And Experiments, Test	43317
16	Individual Questionnaire, First Time Surveyed, Age 17	5946
17	Youth Biography First Time Surveyed, Age 17	7053
18	Individual Questionnaire And Child under age 17	8
19	Individual Questionnaire Without Household Interview	859
20	Children in Succesfully Interviewed Households (_Kind)	209567
21	Children With Mother-Child Questionnaire_I, Age 0-1	7254
22	Children With Mother-Child Questionnaire_II, Age 2-3	7583
23	Children With Mother-Child Questionnaire_III, Age 5-6	7416
24	Children age 7-8, with parental questionnaire	6822
25	Children age 9-10, with parental questionnaire	7176
	(29 rows omitted)	222076
91	Moved abroad	2790
92	Moved abroad (abroad)	177
93	Moved abroad (exit)	65
94	Person Gap with advices	424

97	advice to dead person (exit)	981
98	advice to dead person (_VP)	396
99	Has Died	4759
-1	No Answer	0
-2	Does not apply	0
-3	Answer improbable	24
-4	Inadmissible multiple response	0
-5	Not included in this version of the questionnaire	0
-6	Version of questionnaire with modified filtering	0
-7	Only available in less restricted edition	0
-8	Question this year not part of Survey program	0

This variable indicates available information and files for the entire SOEP individuals. Netto-codes 10-19 (and 29) define the respondents population of PGEN, the codes 20-28 indicate children, 30-39 unit-non-responses in partially realized households, and the codes 90-99 describe permanent (or temporary) dropouts. Further differentiations point to the survey instruments (questionnaires). The Codes 10-39 describe the population in realized (and partially realized households).

For more information, contact: Peter Krause (Tel. 030-89789-690)

nett1 - Current survey status (old 1 digit)

0	Person Gap PBR_EXIT	13852
1	Successful Interview _P, _JUGEND	749221
2	Below Survey Age _KIND	255642
3	Did Not Participate _PBRUTTO	193898
4	Missing This Wave _PLUECKE	11405
5	Interviewee Without Household Interview	866
-1	No Answer	0
-2	Does not apply	2402
-3	Answer improbable	63
-4	Inadmissible multiple response	0
-5	Not included in this version of the questionnaire	0
-6	Version of questionnaire with modified filtering	0
-7	Only available in less restricted edition	0
-8	Question this year not part of Survey program	0

Short version of NETTO-variable

For more information, contact: Peter Krause (Tel. 030-89789-690)

casemat - Case-Match, combined panel households

0	CASE With HH Details	136
20605		2
20613		5
27367		14
27430		7
250996		3
272906		6

277908		1
283924		9
291102		7
292338		14
292621		7
344095		12
700495		3
701564		13
	(3 rows omitted)	5
3001732		1
3014079		2
3094650		8
3416240		1
3499749		5
3635481		9
3920330		6
-1	No Answer	0
-2	Does not apply	1227073
-3	Answer improbable	0
-4	Inadmissible multiple response	0
-5	Not included in this version of the questionnaire	0
-6	Version of questionnaire with modified filtering	0
-7	Only available in less restricted edition	0
-8	Question this year not part of Survey program	0

It is possible that Individuals from different original households (CID) move together in one common household. Then people with identical values for (HID) in one wave may have different values for CID. Only for those persons moving together CASEMAT contains the HID of the other household members. This information is not relevant when linking person and household data based on the current household number HID.

For more information, contact: Peter Krause (Tel. 030-89789-690)

piyear - Jahr des Interviews (Interview Year)

1984		16252
1985		16361
1986		15548
1987		14633
1988		14254
1989		13689
1990		19427
1991		19414
1992		19147
1993		18833
1994		19101
1995		19486
1996		19108
1997		18785
1998		20689
	(9 rows omitted)	278900

2008	28453
2009	29655
2010	45151
2011	50254
2012	49401
2013	54819
2014	50734
2015	49465
2016	56395
2017	58307
2018	64115
2019	64604
2020	59421
2021	4549
-2	18399

Interview Year (indicates personal interviews realized also outside of standard SYEAR)

# 4 Basic Demographic Information

# sex - Gender

1	Male	605558
2	Female	621651
-1	No Answer	127
-2	Does not apply	0
-3	Answer improbable	13
-4	Inadmissible multiple response	0
-5	Not included in this version of the questionnaire	0
-6	Version of questionnaire with modified filtering	0
-7	Only available in less restricted edition	0
-8	Question this year not part of Survey program	0

Respondent's (last) sex, plausibility longitudinally validated. *For more information, contact:* Peter Krause (Tel. 030-89789-690)

# gebjahr - Birth Year, 4-digit

1882	2
1888	4
1892	19
1893	8
1894	13
1895	22
1896	65
1897	58
1898	54
1899	156
1900	176

1901		162
1902		304
1903		201
1904		363
	(103 rows omitted)	1142461
2008		13411
2009		11706
2010		11939
2011		7200
2012		6470
2013		6000
2014		5127
2015		4578
2016		4028
2017		3030
2018		1844
2019		1033
2020		334
2021		3
-1		6578

Respondent's year of birth, plausibility longitudinally validated. *For more information, contact:* Peter Krause (Tel. 030-89789-690)

# gebmonat - Month Of Birth

1	January	107068
2	February	86477
3	March	93685
4	April	84785
5	May	88287
6	June	82615
7	July	90020
8	August	86475
9	September	87571
10	October	84030
11	November	76273
12	December	79669
-1	No Answer	73278
-2	Does not apply	1250
-3	Answer improbable	13
-4	Inadmissible multiple response	0
-5	Not included in this version of the questionnaire	105853
-6	Version of questionnaire with modified filtering	0
-7	Only available in less restricted edition	0
-8	Question this year not part of Survey program	0

The month of birth of a respondent is created with information from net and gross datasets (i.a. information from questionnaires header or household protocol). For about 96% of the respondents, there was no discrepancy between this information. In 3.3% of the respondents, the mode of the month of birth is used when there is differing information. For the

rest, the most plausible/newest information was used (for less than 1%). For about 20% of respondents there was no information about the month of birth at all, but for about 1000 persons it was possible to use indirect information, such as the move-in date of a newborn child.

For more information, contact: Andreas Franken (Tel. 030-89789-331)

todjahr - Year Died, 4 Digits

1984		14
1985		153
1986		298
1987		404
1988		527
1989		636
1990		592
1991		865
1992		923
1993		1156
1994		1085
1995		1663
1996		1585
1997		1486
1998		1682
	(9 rows omitted)	24792
2008		4259
2009		2765
2010		าดาเ
		2825
2011		2513
2012		2513 2289
2012 2013		2513 2289 3258
2012 2013 2014		2513 2289 3258 2919
2012 2013 2014 2015		2513 2289 3258 2919 2775
2012 2013 2014 2015 2016		2513 2289 3258 2919 2775 3570
2012 2013 2014 2015 2016 2017		2513 2289 3258 2919 2775 3570 3424
2012 2013 2014 2015 2016 2017 2018		2513 2289 3258 2919 2775 3570 3424 3432
2012 2013 2014 2015 2016 2017 2018 2019		2513 2289 3258 2919 2775 3570 3424 3432 2502
2012 2013 2014 2015 2016 2017 2018 2019 2020		2513 2289 3258 2919 2775 3570 3424 3432 2502 6897
2012 2013 2014 2015 2016 2017 2018 2019		2513 2289 3258 2919 2775 3570 3424 3432 2502

The variable TODJAHR contains the four-digit year of death for persons whose death could be firmly established or a missing value code:

- (-2): persons, for whom it is unknown whether they are deceased (that is, both persons still living up to that wave, and persons whose exact whereabouts is unknown and have dropped out of SOEP)
- (-1): persons, for whom the fact of death is known, but the year of death is unknown.

todinfo - Year Died, Information Source

From Annual Survey (pbr_exit)	61393
survey about died person (\$v)	4380
survey about parents (\$lela)	15
Infratest drop-out study 1992	17
Infratest drop-out study 2001	4044
Infratest drop-out study 2007	33
Infratest drop-out study 2008/9	8173
Modul Family changes [P]	3234
No Answer	357
Does not apply	1145703
Answer improbable	0
Inadmissible multiple response	0
Not included in this version of the questionnaire	0
Version of questionnaire with modified filtering	0
Only available in less restricted edition	0
Question this year not part of Survey program	0
	survey about died person (\$v) survey about parents (\$lela) Infratest drop-out study 1992 Infratest drop-out study 2001 Infratest drop-out study 2007 Infratest drop-out study 2008/9 Modul Family changes [P] No Answer Does not apply Answer improbable Inadmissible multiple response Not included in this version of the questionnaire Version of questionnaire with modified filtering Only available in less restricted edition

For all persons who have been identified as deceased over the course of SOEP, the variable TODINFO gives the source of this information.

53 persons were identified as deceased in the Infratest Field Organization Study (Follow-up study of drop-outs between 1984 and 1992) carried out from April – June 1992.

In the framework of the Infratest Field Organization Study (follow-up study of drop-outs) of 2001, a total of over 700 persons were identified as deceased. Among them were several with multiple entries for year of death, that is, persons who were already identified as deceased in the standard wave-to-wave follow-up procedure (stored in the file PBR\_EXIT) or in the Infratest Field Organization Study of 1992. A generally very high level of correspondence was found between the information given in the standard follow-up procedure and the point of death established ex-post in the Infratest Field Organization Studies. For ten persons, the year of dropping out of SOEP was used to impute the missing year of death. In the third of those follow-up studies which has been conducted in 2007, another 21 individuals were identified as deceased between 2001 and 2005. For 18 of those persons a valid year of death could be investigated, for the remaining three observations for which the exact year of death is unknown, TODJAHR has been set to the standard missing code "-1".

When the data from the Infratest Field Organization Study contradicted the data from PBR\_EXIT, the data from the Field Organization Study was used.

#### birthregion - Birth place: German Federal Land

Schleswig-Holstein	10294
Hamburg	6921
Lower Saxony	35819
Bremen	3215
North Rhine-Westphalia	75248
Hesse	23420
Rhineland-Palatinate	17999
Baden-Wuerttemberg	41539
Bavaria	54377
Saarland	3923
Berlin	15252
Brandenburg	17960
	Hamburg Lower Saxony Bremen North Rhine-Westphalia Hesse Rhineland-Palatinate Baden-Wuerttemberg Bavaria Saarland Berlin

13	Mecklenburg-West Pomerania	11684
14	Saxony	36715
15	Saxony-Anhalt	21334
16	Thuringia	19403
-1	No Answer	103809
-2	Does not apply	697126
-3	Answer improbable	0
-4	Inadmissible multiple response	0
-5	Not included in this version of the questionnaire	31311
-6	Version of questionnaire with modified filtering	0
-7	Only available in less restricted edition	0
-8	Question this year not part of Survey program	0

BITHREGION contains information about the German Federal State ("Bundesland") a person was born. In 2012 the SOEP asked all current respondents about the place of birth: "Where were you born? If there are other towns or cities with the same name, or if the town is very small, please state the nearest city. Please write the name of the town in the left blank and any additional information in the right blank. For example, write 'Düsseldorf', 'Frankfurt an der Oder', or 'Frankfurt am Main' in the left blank, and in the case of 'Roßdorf bei Schmalkalden', write 'Roßdorf' in the left blank and 'bei Schmalkalden' in the right blank. Since then this question has been part of the biography questionnaire and a variable BIRTH-REGION is povided in dataset PPATH, which has to be updated each year for new respondents. The answers is given in clear text and coded by Kantar at the level of municipalities for german cities or villages (including the geocodes for the city center). For places outside Germany, Kantar provides only the geocodes, if possible. However, the reponses could not all be assigned to a unique municipality, therefore multiple municipality codes are provided by Kantar (up to 19 in 2012). For the variable birthregion in ppfad only those answers are used, where a unique assignment of a German Federal State ("Bundesland"), based on the possible municipality codes, was possible. For persons born in a SOEP household (the household was responding in this year) the code of the respective Federal State of this year is used. For more information, contact: Jan Goebel (Tel. +49 30-89789-377)

# birthregion\_ew - Birth place: German Federal Land (East-West Version)

21	West-Germany	263737
22	East-Germany	119502
-1	No Answer	0
-2	Does not apply	844110
-3	Answer improbable	0
-4	Inadmissible multiple response	0
-5	Not included in this version of the questionnaire	0
-6	Version of questionnaire with modified filtering	0
-7	Only available in less restricted edition	0
-8	Question this year not part of Survey program	0

BIRTHREGION\_EW contains information about whether a person is born in eastern or western part of Germany. East Germany contains federal states of: - Mecklenburg-West Pomerania - Brandenburg - Saxony - Saxony-Anhalt

<sup>-</sup> Thuringia - Berlin (East & West Berlin)

West Germany contains the federal states of: - Schleswig-Holstein - Hamburg - Lower Saxony - Bremen

- North Rhine-Westpalatinate - Baden-Wuerttemberg - Bavaria - Saarland *For more information, contact*: Marvin Petrenz (Tel.: +49 30 89789 463)

## **germborn** – Born in Germany

1	born in Germany or immigr.<1950	994873
2	not born in Germany	232476
-1	No Answer	0
-2	Does not apply	0
-3	Answer improbable	0
-4	Inadmissible multiple response	0
-5	Not included in this version of the questionnaire	0
-6	Version of questionnaire with modified filtering	0
-7	Only available in less restricted edition	0
-8	Question this year not part of Survey program	0

The SOEP data comprises a sizeable number of immigrants to Germany and their descendants. Several user-friendly variables identify these groups (GERMBORN, CORIGIN, IMMI-YEAR, MIGBACK) and thus give information on the migration background of all persons who have ever been a part of a SOEP household (i.e., the population from PPFAD, PPATH or PPATHL). In detail, GERMBORN and CORIGIN give information on the country of birth, with the exception of persons who immigrated to Germany before 1950 who are considered to have been born in Germany (the Federal Republic of Germany was founded in 1949). IM-MIYEAR specifies the last year of immigration to the Federal Republic of Germany for all persons considered not born in Germany, and MIGBACK is useful to identify immigrant descendants by combining information on respondents and their (grand-)parents. In addition, GERMBORNINFO, CORIGININFO, IMMIYEARINFO and MIGINFO indicate the quality of information given in GERMBORN, CORIGIN, IMMIYEAR and MIGBACK, respectively. All SOEP samples include immigrants to Germany and their descendants. The shares vary, however, across samples depending on the target population covered. Naturally, samples covering the entire residential population in Germany (Sample A, E, F, G, H, I, J, K, L1, L2, L3 and N) or specific groups such as persons from the former GDR (Sample C) contain a smaller number of immigrants and their descendants than the samples of foreigners and migrants (Sample B, D, M1, M2, M3, M4 and M5) or the sample of households in urban areas (Sample O).

Information for GERMBORN, CORIGIN, IMMIYEAR and MIGBACK and the respective INFO variables is collected primarily from the individual questionnaires (dataset PL) or the variations of the "biography / life history" questionnaires (integrated biographical data files and life-course information in dataset (BIOL) and from the additional youth questionnaire for 16-17-year-olds, in use since 2000 (dataset JUGENDL). In addition, information from the electronic household protocol for M1 (2013) and the retrospective survey (2012) of early childhood in the context of war (dataset BCBFK) was used (both datasets are not included in the standard data distribution).

GERMBORN specifies whether a person was born in Germany or in another country. Persons who immigrated to Germany before 1950 are considered as being born in Germany (the Federal Republic of Germany was founded in 1949; see also IMMIYEAR). To code GERMBORN, all relevant information (see Table 1: Information used for GERMBORN, CORIGIN, IMMIYEAR and MIGBACK) available on persons who have ever been a part of a SOEP

household (i.e., the population from PPFAD, PPATH or PPATHL) was combined. The vast majority of persons who have ever been part of a SOEP household gave consistent information on their country of birth and GERMBORN was coded accordingly to the respondents' answers. For part of the population, no direct information on the person's country of birth was available. For both, persons for whom "(2) inconsistent information" or "(3) no information" (GERMBORNINFO) was available, additional indicators were used to code the GERMBORN values. In this process, information on a respondent's citizenship and their parents' migration biography were used. We coded the values on GERMBORN in the following order (with descending priority):

- 1. First, mothers' immigration history and their place of residence at the time of the respondents' birth were taken into account to determine the respondents' probable country of birth. For instance, when a respondent was born after or in the year of their mother's immigration to Germany, the respondent is considered to have been born in Germany. For the coding of a few cases, more detailed information on respondents' month of birth and mother's immigration month was available and used. When a mother's immigration year was missing, the father's immigration history was used to code a respondent's country of birth.
- 2. In the next step, GERMBORN was coded for the remaining "(2) inconsistent information" cases. Respondents' information on their country of birth, their citizenship, and parental information was taken into account to identify a respondents' country of birth. The mode was calculated for inconsistent information on respondents' and parental country of birth. In case of varying modes, higher values were given a preference when coding, to be more sensible to foreign countries of birth. For instance, a respondent who reported being born in Germany more often than being born abroad (country of birth), who had German citizenship (citizenship), and whose parents reported more often to be born in Germany than being born abroad (parental information) was considered to have been born in Germany.
- 3. In a last step, GERMBORN was coded for the remaining "(3) no information" cases. Respondents' citizenship and parental information was used to approximate their most likely country of birth. By definition, information on their country of birth was missing. The mode of parents' country of birth and citizenship was used for the coding of GERMBORN, too. For instance, respondents with German citizenship whose parents reported more often to be born in Germany than being born abroad were coded as being born in Germany.

Table 1: Information used for GERMBORN, CORIGIN, IMMIYEAR and MIGBACK

Information used	Dataset (long format)
Main indicators	
Born in Germany (yes/no)	BIOL / PL / JUGENDL / Electronic household protocol M1 / BCBFK
Country of birth	BIOL / PL / JUGENDL / PBRUTTO / BCBFK
Year of immigration to Germany	BIOL / PL / MIGSPELL / REFUGSPELL / JUGENDL / Electronic household protocol M1 / BCBFK
East German, Ethnic German or migrated before 1949	

Information used	Dataset (long format)
Immigration group (Emigrant of German descent from Eastern Europe, German who lived abroad, EU citizen, asylum seeker, other)	BIOIMMIG
Area of origin (GDR, FRG, former German territory, Europe, other)	BIOL / PL / PBRUTTO
Displaced person between 1945 and 1950	BIOL / BCBFK
(yes/no) Citizenship and legal status	
Citizenship	BIOL / KIDLONG / PBRUTTO / INFRATEST INFORMATION
German citizenship (yes/no)	BIOL / PL / JUGENDL
Current citizenship	BIOL / PL / JUGENDL
Previous citizenship	BIOL / PL / JUGENDL
Dual citizenship	BIOL / PL / JUGENDL / PBRUTTO
Citizenship: former GDR	PL
Residency permit in Germany	BIOL / JUGENDL
Place of residence before 1989	PPATHL
When first move from country of birth	BIOL
Moved to Germany or to other country	BIOL
(destination country)	BIOL
Moved back to country of origin or elsewhere at least once (yes/no)	BIOL
Moved back to Germany again/moved when?	BIOL
Month of immigration to Germany	BIOL
Travel time to Germany	BIOL
Family information	2.02
Respondent: Date of birth	PPATHL
Mother/father pointer	BIOBIRTH / BIOPAREN / PBRUTTO
Mother/father: German citizenship (yes/no)	BIOL / JUGENDL
Mother/father: German citizenship (ethnic	BIOL / JUGENDL
German, naturalized, since birth, no)	
Mother/father: born in Germany (yes/no)	BIOL / JUGENDL
Mother/father: country of birth	BIOL / JUGENDL
Mother/father: year of immigration	BIOL
Mother/father: current citizenship	BIOL / JUGENDL
Maternal/paternal grandmother/grandfather	BIOBIRTH / BIOPAREN / PBRUTTO
pointer	
Sample	
Relationship to head of household	PBRUTTO
Member of household (in HH at least two years,	PBRUTTO
moved from abroad, etc.)	LIDDUTTO / LII
Subsample Identifier (German HH head, Turkish	HBRUTTO / HL
Moved to Germany (Yes/No) (as reported by the anchor person)	Electronic household protocol M1 2013
- · · · · · · · · · · · · · · · · · · ·	Electronic household protocol M1 2013

Source: v35

For more information, contact: Selin Kara (Tel. +49 30-89789-345)

# germborninfo - Germborn: Quality of information

1	consistent information	952686
2	inconsistent information	34083
3	no answer	240580
-1	No Answer	0
-2	Does not apply	0
-3	Answer improbable	0
-4	Inadmissible multiple response	0
-5	Not included in this version of the questionnaire	0
-6	Version of questionnaire with modified filtering	0
-7	Only available in less restricted edition	0
-8	Question this year not part of Survey program	0

GERMBORNINFO indicates the quality of information given in GERMBORN. As in previous years, all relevant information available on persons who have ever been a part of a SOEP household (i.e., the population from PPFAD, PPATH or PPATHL) was combined into a working dataset and compared to code GERMBORN. When information in this working dataset consistently indicated that a person was born either in Germany or abroad, GERMBORNINFO was coded with a (1) for "consistent information". Over the course of the SOEP survey, some individuals may have stated on one occasion that they were born in Germany and on another that they were born abroad; such information was considered as inconsistent information (value (2) on GERMBORNINFO). The GERMBORNINFO value "(3) no information" refers to persons who lived in a SOEP household but had not completed an individual, life history, or youth questionnaire up to the present date or they had given an interview but did not answer the question on their country of birth (item non-response). For more information, contact: Selin Kara (Tel. +49 30-89789-345)

#### corigin - Country Born In

C = 11174 = 1111 :	004073
	994873
Turkey	28913
Ex-Yugoslavia	4521
Greece	8588
Italy	12559
Spain	5279
Ex-GDR (only as country of origin)	0
Austria	2209
France	1301
Benelux	81
Denmark	243
Great Britain	760
Sweden	237
Norway	64
Finland	145
(166 rows omitted)	161539
Djibouti	7
Qatar	5
Kosovo	155
	Greece Italy Spain Ex-GDR (only as country of origin) Austria France Benelux Denmark Great Britain Sweden Norway Finland (166 rows omitted) Djibouti Qatar

222	Eastern Europe	3218
333	Other Unspecified Foreign Country	0
444	EU-Member State (unspecif.)	0
999	ethnic minority	2
-1	No Answer	2650
-2	Does not apply	0
-3	Answer improbable	0
-4	Inadmissible multiple response	0
-5	Not included in this version of the questionnaire	0
-6	Version of questionnaire with modified filtering	0
-7	Only available in less restricted edition	0
-8	Question this year not part of Survey program	0
-4 -5 -6 -7	Inadmissible multiple response  Not included in this version of the questionnaire  Version of questionnaire with modified filtering  Only available in less restricted edition	

For persons who, according to GERMBORN, were not born in Germany, the variables CO-RIGIN and IMMIYEAR designate the country of origin and the year of immigration to Germany, respectively. Respondents who were born in Germany were assigned the code (1) (see GERMBORN). Persons who were not born in Germany were assigned another country of birth than Germany depending on the information given in the wave-specific individual questionnaires (dataset PL) or the variations of the "biography / life history" questionnaires (dataset BIOL) and from the additional questionnaire for 16-17-year-olds in use since 2000 (dataset JUGENDL). In addition, information from PBRUTTO (Person-Related Gross File), the electronic household protocol for M1 or the retrospective survey of early childhood in the context of war and the post-war period (dataset BCBFK) was used. To code CORIGIN, all relevant information (see Table 1) available on persons who have ever been a part of a SOEP household (i.e., the population from PPFAD, PPATH or PPATHL) was compiled into a working dataset.

CORIGININFO indicates whether "(1) consistent", "(2) inconsistent" or "(3) no information" was available on a respondent's country of birth. When information in this working dataset consistently indicated a specific country of origin, CORIGININFO was coded "(1) consistent information" and the respective country of origin was mentioned in CORIGIN. The SOEP team also considered information as "(1) consistent" in the following two additional cases (with descending priority):

- 1. When state transformations (e.g., their founding or dissolution) may have led to respondents reporting different countries of birth over the course of the SOEP survey, information was considered consistent. For instance, respondents may have stated the Union of Soviet Socialist Republics (USSR) as their country of birth in 1987 but stated Russia in a later questionnaire. Other examples refer to the dissolution of the Socialist Federal Republic of Yugoslavia in 1992 and their temporary and contemporary successor states, such as "(119) Croatia", "(120) Bosnia and Herzegovina", "(121) Macedonia", "(122) Slovenia", "(165) Serbia", "(168) Montenegro". In such cases, CORIGIN was coded with the most contemporary successor state mentioned by a respondent or third party. This may also include regions or ethnic groups that respondents mentioned, such as "(140) Kosovo-Albanian" or "(149) Kurdistan".
- 2. When a respondent or third party mentioned a rather unspecific region of birth such as "(12) Benelux", "(222) Eastern European" or "(999) Ethnic minority" and at another time mentioned a more specific country of origin or citizenship within this region, information was considered consistent. The more specific country of origin was used in CORIGIN.

The vast majority of the foreign-born population (see GERMBORN) who have ever been a part of a SOEP household (i.e., the population from PPFAD, PPATH or PPATHL) gave

consistent information on their country of birth (see CORIGININFO). For around a third of the foreign-born population, no direct or inconsistent information on the person's country of birth was available. For those respondents who were not born in Germany and whose country of birth could not be determined (CORIGININFO value (2) and (3)), additional indicators were used to code their country of origin (CORIGIN). The generation process was conducted in the following order (with descending priority):

- 1. The respondents' country of birth which occurred most frequently, in other words the mode, was used.
- 2. Respondents' country of citizenship was used as their country of birth if both were not German. The citizenship variable was constructed on the basis of all information given on first, second, and previous citizenships as well as naturalizations, and includes the countries of citizenship a respondent reported. Since citizenship information is collected annually for all persons who lived in a SOEP household, it is based on much more detailed information than the "(2) inconsistent information" collected for the country of origin. Respondents whose information on country of origin is "(2) inconsistent" answered on average three questions on their country of origin (from 2 to 5 answers).
- 3. Mothers' country of birth and citizenship were considered to be the respondents' most probable place of birth if the respondent was born before the mother immigrated to Germany (see also GERMBORN coding). If information on mothers' country of birth, mothers' citizenship and the respondents' citizenship was missing, fathers' country of birth and fathers' citizenship were used to code CORIGIN. Grandparents' country of birth and grandparents' citizenship were additionally used if information on mothers' and fathers' country of birth and citizenship were missing.
- 4. For the few cases without citizenship, (grand-)parental information and any information on their country of origin (CORIGININFO value (3)), respondents' legal status was used when it indicated that a person moved to Germany from an "Eastern European" country, resulting in the coding of a few cases to "(222) Eastern European" on CORIGIN.

If the country of birth was still missing after this procedure, CORIGIN was coded "(-1) don't know". CORIGIN includes a few more missing values than GERMBORN due to cases in which it was not possible to determine a country of birth other than Germany. To provide the highest level of transparency possible, we include a variable for the quality of information used to create the country of birth variable: CORIGININFO.

For more information, contact: Selin Kara (Tel. +49 30-89789-345)

#### corigininfo - Corigin: Quality of information

1	consistent information	175356
ı د		
2	inconsistent information	4282
3	no answer	52838
4	filter germborn	994873
-1	No Answer	0
-2	Does not apply	0
-3	Answer improbable	0
-4	Inadmissible multiple response	0
-5	Not included in this version of the questionnaire	0
-6	Version of questionnaire with modified filtering	0
-7	Only available in less restricted edition	0

0

#### -8 Question this year not part of Survey program

CORIGININFO indicates the quality of information given in CORIGIN. As in previous years, all relevant information available on persons who have ever been a part of a SOEP household (i.e., the population from PPFAD, PPATH or PPATHL) was compiled into a working dataset and compared to code CORIGIN. CORIGININFO indicates whether "(1) consistent", "(2) inconsistent" or "(3) no information" was available on a respondent's country of birth after these comparisons. CORIGININFO is thus an indicator for the quality of information given in CORIGIN. The filtering of CORIGIN via GERMBORN was taken into account by implementing a separate category, "(4) Filter GERMBORN" on CORIGININFO for the persons who were considered being born in Germany on GERMBORN.

For more information, contact: Selin Kara (Tel. +49 30-89789-345)

immiyear - Year Moved to Germany

1950		322
1951		351
1952		141
1953		190
1954		228
1955		132
1956		353
1957		468
1958		616
1959		594
1960		991
1961		1177
1962		1452
1963		1346
1964		2104
	(43 rows omitted)	119340
2008		1627
2009		2112
2010		2283
2011		2710
2012		3254
2013		6421
2014		11251
2015		35911
2016		9781
2017		2236
2018		1266
2019		794
2020		80
-1 -2		22945
-2		994873

IMMIYEAR contains information on the year of immigration to Germany for all persons who have ever been a part of a SOEP household (i.e., the population from PPFAD, PPATH or PPATHL) and who were not born in Germany (see GERMBORN). The information on

this variable was collected from the wave-specific individual questionnaires (dataset PL) or the variations of the "biography / life history" questionnaires (dataset BIOL) and from the additional questionnaire for 16-17-year-olds in use since 2000 (dataset JUGENDL). Since sample M (starting in 2013), information on all of a respondent's stays in Germany has been collected (up to 15 moves between countries, see MIGSPELL and REFUGSPELL in the SOEP Survey Paper Series). For all cases in which a respondent had more than one stay in Germany, IMMIYEAR contains the respondent's last year of immigration to Germany. In addition, information from the electronic household protocol for M1 or the retrospective survey of early childhood in the context of war and the post-war period (dataset BCBFK) was used (both datasets are not included in the standard data distribution).

When information in this working dataset consistently indicated a specific year of immigration, IMMIYEARINFO was coded "(1) consistent information" and the respective year of immigration was stated in IMMIYEAR. The vast majority of the persons who have ever been a part of a SOEP household (i.e., the population from PPFAD, PPATH or PPATHL) gave consistent information on their year of immigration. For another part of the dataset no direct information on the person's year of immigration was available. "(3) No information" either refers to persons who lived in a SOEP household but did not complete an individual, life history, or youth questionnaire up to now or to respondents who were interviewed but did not answer the questions on their year of immigration. Over the course of the SOEP survey, only very few cases gave "(2) inconsistent information" with regard to their year of immigration. For these cases, their latest year of immigration was used in IMMIYEAR. The respondent's year of birth was used as their year of immigration if they mentioned a year of immigration that was before their year of birth.

For those respondents who were not born in Germany and whose year of immigration could not be determined (IMMIYEARINFO value (3)), additional indicators were used to minimize the portion of missing values. These indicators were used in the following order (with descending priority):

- 1. When a respondent entered the SOEP for the first time because they had just moved into the household from abroad (see PZUG from PBRUTTO), the household entry year was considered to be the same as the immigration year.
- 2. Mother's year of immigration was used as a proxy for the respondent when the respondent was born before the mother immigrated to Germany. If a mother's year of immigration was missing, the father's year of immigration was used to code IMMI-YEAR. If a mother's and father's year of immigration were missing, the maternal and paternal grandparents' year of immigration were used respectively.

If the year of immigration was still missing after this procedure, IMMIYEAR was coded "(-1) don't know". IMMIYEAR includes more missing values than GERMBORN and CORIGIN due to cases in which it was not possible to determine a respondent's year of immigration. However, users should be aware that the wording of questions on the year of immigration vary rather drastically over the course of the SOEP survey (see Table 2). To provide the highest level of transparency possible, we include a variable for the quality of information used to create the year of immigration variable: IMMIYEARINFO.

Table 2: Variations of the SOEP questions regarding respondents' year of immigration (main indicators for IMMIYEAR and IMMIYEARINFO)

Category	Question	Dataset(long format)	Sample	Years
Respondent		·	·	
information				
First	What year did you move to the Federal Republic of Germany (including West Berlin) for the first time?	PL	В	1984-1990 1992-1993
First	In which year did you move to Germany for the first time?	PL	В	1991
Unspecific	Since when have you lived in the area of today's FRG or West Berlin? If after 1949, since when?	PL	Α	1990
Unspecific	Since when have you lived in the area of the former FRG or West Berlin? If after 1949, since when?	PL	Α	1991-1993
Unspecific	Since when have you lived in the area of the former GDR or East Berlin? If after 1949, since when?	PL	С	1992-1993
Unspecific	What year did you move to the Federal Republic of Germany (including West Berlin) for the first time?	BIOL	B, D	1994
Unspecific	When did you move to the Federal Republic of Germany?	BIOL	B, D	1995

Category	Question	Dataset(long format)	Sample	Years
Unspecific	Since when have you lived in the area of the former FRG or West Berlin? If after 1949, since when?	BIOL	A	1994-1995
Unspecific	When did you move to the Federal Republic of Germany?	BIOL	A-L3	1996-2012
Unspecific	When did you move to Germany?	BIOL	A-H, J-L2	2013
Last	When did you move to Germany? If you have moved to Germany several times during your life, please refer to your most recent move to Germany.	BIOL	A-H, J-L3, N-O	2014-2018
First	First of all we would like to know when you first moved away from your country of birth?	BIOL	M1-M2	2013-2018
First	Which country did you move to?	BIOL	M1-M2	2013-2018
First & Last	When did you move to Germany?	BIOL	M1-M2	2013-2018
First	First of all we would like to know when you first moved away from your country of birth?	BIOL	M3-M5	2016-2018
First	Was Germany the first country you moved to, or was it another country?	BIOL	M3-M5	2016-2018

_		Dataset(long		
Category	Question	format)	Sample	Years
First & Last	Did you move away from Germany again after that?	BIOL	M3-M5	2016-2018
First & Last	When did you move to Germany in this case?	BIOL	M3-M5	2016-2018
Unspecific	When did you arrive in Germany?	BIOL	M3-M5	2016-2018
Unspecific	When did you move to the Federal Republic of Germany?	JUGENDL	A-H, J-O	2000-2018
Unspecific	When did you move to Germany?	BCBFK	A-J	2012
Third party				
information				
Unspecific	Member of household: Moved into household from abroad.	PBRUTTO	all samples of SOEP	1985-2018
Unspecific	Did <first name&gt; move to Germany? (reported by the anchor respondent)</first 	ELECTR. HH. PROTOCOL	M1	2013
Unspecific	When did your father move to Germany?	BIOL	M1-M5	2013-2018

Source: v35

For more information, contact: Selin Kara (Tel. +49 30-89789-345)

# immiyearinfo – Immiyear: Quality of information

1	consistent information	173821
2	inconsistent information	1116
3	no answer	57539
4	filter germborn	994873
-1	No Answer	0
-2	Does not apply	0
-3	Answer improbable	0
-4	Inadmissible multiple response	0

-5	Not included in this version of the questionnaire	0
-6	Version of questionnaire with modified filtering	0
-7	Only available in less restricted edition	0
-8	Question this year not part of Survey program	0

IMMIYEARINFO indicates the quality of information given in IMMIYEAR. As in previous years, all relevant information available on persons who have ever been a part of a SOEP household (i.e., the population from PPFAD, PPATH or PPATHL) was compiled into a working dataset and compared to code IMMIYEAR. IMMIYEARINFO indicates whether "(1) consistent", "(2) inconsistent" or "(3) no information" was available on a respondent's country of birth after these comparisons. IMMIYEARINFO is thus an indicator for the quality of information given in IMMIYEAR. The filtering of IMMIYEAR via GERMBORN was taken into account by implementing a separate category "(4) Filter GERMBORN" on IMMIYEARINFO for individuals who were considered to have been born in Germany on GERMBORN (for more information, see GERMBORN). When information in this working dataset consistently indicated a specific year of immigration, IMMIYEARINFO was coded "(1) consistent information" and the respective year of immigration was stated in IMMIYEAR.

For more information, contact: Selin Kara (Tel. +49 30-89789-345)

# migback - Migration background

1	no migration background	870561
2	direct migration background	232476
3	indirect migration background	124312
4	migration background, not differentiable	0
-1	No Answer	0
-2	Does not apply	0
-3	Answer improbable	0
-4	Inadmissible multiple response	0
-5	Not included in this version of the questionnaire	0
-6	Version of questionnaire with modified filtering	0
-7	Only available in less restricted edition	0
-8	Question this year not part of Survey program	0

MIGBACK contains information on respondents' migration background for all persons who have ever been a part of a SOEP household (i.e., the population from PPFAD, PPATH or PPATHL). In comparison to GERMBORN, the variable MIGBACK is useful to identify immigrants' descendants by combining information on respondents' country of birth (see GERMBORN) and (grand-)parental information such as their country of birth and their citizenship. The information for this variable comes predominantly from PPATH (GERMBORN), auxiliary citizenship variables (for more information, see Table 1 under sub-heading "citizenship and legal status" and sub-heading "family information"), and the relevant biographical data sets (dataset BIOIMMIG). The variables were also updated using information from the wave-specific individual questionnaires (dataset PL), the variations of the "biography / life history" questionnaires (dataset BIOL), and the additional questionnaire for 16-17-year-olds in use since 2000 (dataset JUGENDL).

Respondents were assigned to the MIGBACK categories based on country of birth (see GERM-BORN): Being born in another country than Germany indicates, by definition, a direct migration background (2), while respondents born in Germany may have either no (1) or an indirect (3) migration background. Respondents whose parents had no migration background

were assigned the code "(1) no migration background", while respondents whose father or mother had a migration background were assigned the code "(3) indirect migration background".

Grandparental information were additionally used if information on mothers' and fathers' migration background were missing. Please note that any updates in related variables may also lead to an update of the MIGBACK variable. For instance, a respondent who never stated his or her citizenship but later states having a foreign citizenship will be classified as having a migration background of some form. This retrospective perspective may lead to updates of the migration background variable with every new wave.

In a few cases, "(1) no (grand-)parental information" (see MIGINFO) was available but we were nonetheless able to identify respondents with an "(2) indirect migration background" (see MIGBACK). In these cases, respondents were born in Germany but further variables (for more information, see Table 1 under sub-heading "citizenship and legal status" and sub-heading "East German, Ethnic German, or migrated before 1949") suggested that there was a migration background (e.g., ethnic Germans). MIGBACK may slightly underestimate the number of persons having an "(3) indirect migration background", since some of the respondents born in Germany with missing (grand-)parental information and for whom no further indicators were available may be the descendants of immigrants.

For more information, contact: Selin Kara (Tel. +49 30-89789-345)

miginfo - Migback: Quality of information

1	No (grand-)parental information	355179
2	At least 1 (grand-)parental information available	872170
-1	No Answer	0
-2	Does not apply	0
-3	Answer improbable	0
-4	Inadmissible multiple response	0
-5	Not included in this version of the questionnaire	0
-6	Version of questionnaire with modified filtering	0
-7	Only available in less restricted edition	0
-8	Question this year not part of Survey program	0

MIGINFO indicates the quality of information given in MIGBACK. MIGINFO provides information about the usage of (grand-)parents' migration histories in the SOEP. Overall, MIGINFO can take on two different codes: "(1) No (grand-)parental information" or "(2) At least 1 (grand-)parental information available". The (grand-)parental information refers to any information on the migration background of the respondents' mother, father or grandparents. This includes information on the country of birth (for more information, see Table 1 under sub-heading "family information") and auxiliary citizenship variables (for more information, see Table 1 under sub-heading "citizenship and legal status" and sub-heading "family information").

Please note that the MIGINFO coding from 2015 (v32) is further differentiated between the availability of direct and proxy information on respondents. We changed the MIGINFO coding due to the introduction of the GERMBORNINFO variable in 2016 (v33). The quality of information given in MIGBACK can thus only be assessed by combining the GERMBORNINFO and MIGINFO variables. MIGBACK information is considered to be highly reliable in cases coded (2) "At least 1 (grand-)parental information available" on MIGINFO and (1) "Consistent information" on GERMBORNINFO (around half of the PPATH cases). In contrast, the quality of information given on MIGBACK is considered relatively uncertain in

cases where parental information ((1) "No (grand-)parental information" on MIGINFO) and respondents' information was missing ((3) "No information" on GERMBORNINFO)). For more information, contact: Selin Kara (Tel. +49 30-89789-345)

# arefback - Refugee Experience

1	without evidence of refugee experience	1119442
2	with evidence of direct refugee experience	77221
3	with evidence of indirect refugee experience	15094
-1	No Answer	15592
-2	Does not apply	0
-3	Answer improbable	0
-4	Inadmissible multiple response	0
-5	Not included in this version of the questionnaire	0
-6	Version of questionnaire with modified filtering	0
-7	Only available in less restricted edition	0
-8	Question this year not part of Survey program	0

The variable indicates asylum seekers and refugees – like for MIGBACK it is differentiated according to direct and indirect (later born children) background. (more detailed information on generation and usage can be found in Krause/Glass 2019).

For more information, contact: Peter Krause (Tel. 030-89789-690)

#### **arefinfo** – arefback: Source of Information

0	without evidence of refugee experience	1119442
1	residence permit status (current)[current year]	15231
2	residence permit status (current)[past years]	19043
3	residence permit status (bioimmig)	9580
4	Refugees Samples [M.] target person	3603
5	Refugees Samples [M.] direct refugee experience	25914
6	Partner information	558
7	children[MUM], direct refugee experience	1985
8	children[P-MUM], direct refugee experience	487
9	children[HV], direct refugee experience	628
10	children[geby<=immy+5] indirect refugee experience	5295
11	children[geby<=immy+10] indirect refugee experience	1952
12	children[geby<=immy+10] indirect refugee experience	3415
13	Refugees Samples [M.] indirect refugee experience	4432
14	HH Head info [household entrance year]	110
15	GER with direct refugee experience [biimgrp]	82
-1	No Answer	15592
-2	Does not apply	0
-3	Answer improbable	0
-4	Inadmissible multiple response	0
-5	Not included in this version of the questionnaire	0
-6	Version of questionnaire with modified filtering	0
-7	Only available in less restricted edition	0
-8	Question this year not part of Survey program	0

The variable indicates further differentiations for asylum seekers and refugees [15 categories] – (more detailed information on generation and usage can be found in Krause/Glass 2019). *For more information, contact:* Peter Krause (Tel. 030-89789-690)

#### loc1989 - Where did you live in 1989?

1	East Germany (DDR) incl. East Berlin	199374
2	West Germany (FRG) incl. West Berlin	577483
3	Abroad (Ausland)	84365
-1	No Answer	54391
-2	Does not apply	311736
-3	Answer improbable	0
-4	Inadmissible multiple response	0
-5	Not included in this version of the questionnaire	0
-6	Version of questionnaire with modified filtering	0
-7	Only available in less restricted edition	0
-8	Question this year not part of Survey program	0

The variable LOC1989 in the meta-file PPFAD / PPATH provides information about a person's residence prior to German reunification, distinguishing among "(1) German Democratic Republic [GDR]", "(2) Federal Republic of Germany [FRG] (including West Berlin)", and "(3) abroad". Respondents born after 1989 (GEBJAHR in PPATH) were coded as "(-2) does not apply" on LOC1989. This information has been generated for all individuals who were ever a member of a SOEP household (i.e., the population from PPFAD, PPATH or PPATHL). LOC1989 combines information from two main sources: In 2003, the individual questionnaire included information on the place of residence before German reunification (dataset TP). Since 2004, this question has been included in the biography questionnaires (dataset BIOL). Along with these sources, the following indicators were used to code the variable LOC1989 (with descending priority):

- 1. HID in PPATHL: Place of residence in the former FRG before German reunification
- 2. IMMIYEAR in PPATH: Respondents who first immigrated to Germany after 1989 were coded as living "(3) abroad" in 1989
- 3. IMMIYEAR, CORIGIN in PPATH: Respondents from countries holding agreements on labor recruitment with the FRG who immigrated to Germany before 1990 were assumed to have been living in the "(2) Federal Republic of Germany [FRG] (including West Berlin)" in 1989
- 4. IMMIYEAR, CORIGIN in PPATH: Respondents from countries holding agreements on labor recruitment with the GDR who immigrated to Germany before 1990 were assumed to have been living in the "(1) German Democratic Republic [GDR]" in 1989
- 5. PSAMPLE in PPATH: Respondent's sample affiliation in 1990, differentiating between members of the former West samples (A, B) and the former East sample (C)
- 6. SAMPREG in PPATHL & BRMOVEIN and SYEAR in BIORESID: Respondents who moved into their current dwelling in the former FRG or GDR before 1989
- 7. SAMPREG in PPATHL: Respondent living in the West or East sample region in 1990

The vast majority of information given in LOC1989 is based on information from these sources. For the remaining respondents, indirect information is derived from the following proxies to code their place of residence in 1989:

1. PZUG in PBRUTTO: New entrants to the SOEP who previously lived in East Germany or abroad

- 2. BSSCHEND and BSSCHWO in BIOSOC: Place and year of the last school attended
- 3. PGRUPPE in PBRUTTO: Place of birth that was asked in 1995
- 4. PL: Country of origin GDR
- 5. PNAT\_V2 in PBRUTTO: Citizens of (former) GDR
- 6. PL: Place of residence in 1984
- 7. BIOPAREN and PPATH: Parental residence in 1989 for individuals younger than 18 in 1989

For more information, contact: Selin Kara (Tel. +49 30-89789-345)

locinfo - Loc1989: Source / Quality of information

0	Respondent born after 1989	296476
1	Direct information	839257
2	Indirect information	15403
-1	No Answer	53493
-2	Does not apply	22720
-3	Answer improbable	0
-4	Inadmissible multiple response	0
-5	Not included in this version of the questionnaire	0
-6	Version of questionnaire with modified filtering	0
-7	Only available in less restricted edition	0
-8	Question this year not part of Survey program	0

The variable LOCINFO indicates the quality of information given in LOC1989, differentiating between direct and indirect information. LOCINFO provides information about the use of proxy information in the process of generating LOC1989 due to missing values in respondents' and their parents' residence in 1989 in the SOEP. Overall, LOCINFO can take on three different codes: either "(1) direct" or "(2) indirect information" is available on respondents or they were "(0) born after 1989".

For more information, contact: Selin Kara (Tel. +49 30-89789-345)

sampreg - Current sample region (Berlin, West-East)

,	Mark Comments	002210
l	West-Germany	982310
2	East-Germany	242386
-1	No Answer	0
-2	Does not apply	2653
-3	Answer improbable	0
-4	Inadmissible multiple response	0
-5	Not included in this version of the questionnaire	0
-6	Version of questionnaire with modified filtering	0
-7	Only available in less restricted edition	0
-8	Question this year not part of Survey program	0

Place of residence in East- or West-Germany with regard to borders of 1990 in corresponding year (SYEAR). (For Berlin East-West-assignements are approximated by zip-codes)

## pop – Sample Membership

1	Private HH, German HH-Head	872284
2	Private HH, Foreign HH-Head	182920
3	Institutional. HH, Collective accommodation, German HH-Head	3399
4	Institutional. HH, Collective accommodation, Foreign HH-Head	10581
5	Not Compl. Private HH, German HH-Head	107878
6	Not Compl. Private HH, Foreign HH-Head	37722
7	Not Compl. Institutional. HH, Collective accommodation, German HH-Head	720
8	Not Compl. Institutional. HH, Collective accommodation, Foreign HH-Head	1046
-1	No Answer	0
-2	Does not apply	10799
-3	Answer improbable	0
-4	Inadmissible multiple response	0
-5	Not included in this version of the questionnaire	0
-6	Version of questionnaire with modified filtering	0
-7	Only available in less restricted edition	0
-8	Question this year not part of Survey program	0

POP was derived from WUM2 in HBRUTTO as well as PNAT\_V\* and STELL\_V\* (nationality and relationship to head of household in PBRUTTO). Missing values were imputed based on the person's history. Thus, the only admissible missing value is –2, meaning not applicable. This variable is therefore particularly important, as it enters into the determination of cross-sectional weights. The variable corresponds with HPOP in HPATHL. See also the description of NETTO.

# sexor - Sexual Orientation

0	probably heterosexual	783356
1	probably bi/homosexual	11822
2	insufficient information	432171
-1	No Answer	0
-2	Does not apply	0
-3	Answer improbable	0
-4	Inadmissible multiple response	0
-5	Not included in this version of the questionnaire	0
-6	Version of questionnaire with modified filtering	0
-7	Only available in less restricted edition	0
-8	Question this year not part of Survey program	0

The variable SEXOR combines information on the sexual orientation of respondents from various sources in the SOEP. In 2016 (wave BG), (1) a direct question about sexual orientation was introduced (self-rep). Questions on marital status in the SOEP distinguish between same-sex civil unions and different-sex marriages. This distinction has been introduced in the household questionnaire since waves 2002 (wave S), in the person questionnaire since 2011 (wave BB), and in the biographical questionnaire since 2012 (wave BC). Starting with these years respectively, we use information of (2) the head of household on marital status of all household members (civil-hh), information on the marital status (3) reported by individuals in the person questionnaire (civil-p), as well as reported (4) in the partnership biography (civil-bio). Finally, the SOEP team provides pointers to the partner of each person

in the SOEP households since 1984 (see pgpartnr in pgen documentation or parid in ppathl documentation). Combining information on the gender of both partners cohabitating in the SOEP household provides (5) the final source of information on the sexual orientation of adults in the SOEP (pointer).

Self-reports on sexual orientation surveyed in 2016 distinguish between the response options heterosexual, bisexual, and homosexual. It is however impossible to clearly identify bisexual respondents from data on same-sex and different-sex partnerships even in longitudinal studies like the SOEP. This is because some bisexual respondents may be observed at periods of no-cohabitation, only same-sex, and only different-sex partnerships. Without any observed change in the partner's gender, we are unable to identify respondents as bisexual. Our approach to this problem is as follows: first, we do not seek to distinguish between homoand bisexuals in the generated SEXOR variable. That is, we code individuals with (at least) one observation of a same-sex partnership as homo/bisexual. We code individuals with information from at least two years (arbitrary threshold) on only different-sex relationships as heterosexual. Since bisexuals in stable/multiple different-sex partnerships are misclassified as heterosexuals instead of homo/bisexuals, we add the label "probably" to our generated variable to indicate that this information is potentially erroneous. In the case of no information on partnerships or only one year of information on different-sex partnerships we consider this insufficient to make any inferences on sexual orientation in these individuals on the basis of their observed partnerships.

Finally, the sexor variable integrates both the self-reported as well as the partnership-obtained information on sexual orientation.

#### sexorinfo - Sexual Orientation: Source of information

0	insufficient information	432171
1	pointer	131414
2	civil-self	1126
3	pointer, civil-self	609
4	civil-hh	14453
5	pointer, civil-hh	173651
6	civil-self, civil-hh	139
7	pointer, civil-self, civil-hh	83625
8	BIO	569
9	pointer, bio	91
10	civil-self, bio	83
11	pointer, civil-self, bio	23
12	civil-hh, bio	477
13	pointer, civil-hh, bio	219
14	civil-self, civil-hh, bio	0
	(10 rows omitted)	379892
25	pointer, bio, self-rep	365
26	civil-self, bio, self-rep	257
27	pointer, civil-self, bio, self-rep	57
28	civil-hh, bio, self-rep	8
29	pointer, civil-hh, bio, self-rep	63
30	civil-self, civil-hh, bio, self-rep	0
31	pointer, civ-self, civ-hh, bio, self-r.	8057
-1	No Answer	0
-2	Does not apply	0

-3	Answer improbable	0
-4	Inadmissible multiple response	0
-5	Not included in this version of the questionnaire	0
-6	Version of questionnaire with modified filtering	0
-7	Only available in less restricted edition	0
-8	Question this year not part of Survey program	0

This integer variable indicates which sources of information coincide with the value of SEX-OR for the respective respondent. Its digits in binary representation are to be interpreted as binary flags, according to the following scheme: 1=Pointer, 2=Marital status, 4=Relation to head of household, 8=Biography, 16=Self-reported. If SEXORINFO has the value 5=1x1+0x2+1x4, this means that partnership pointers and relationship to head of household variables indicate the sexual orientation which is coded in SEXOR. Similarly, a value of 16 indicates that the inference was drawn from the direct question about sexual orientation. The variable is labeled accordingly.

# parid - Partner Person Number

Partner indicators have the purpose of defining couples in SOEP households and thus to make possible analyses on the dyadic level. Persons without spouse and (cohabitating) partner receive a missing code "-2" (=does not apply). Also, the variable PARTNER is coded 0, 3, 4, 5 in these cases. In couples, partner is the value of the unchanging person ID number (=PID) of the partner. The assignment of the partner ID within households is based on four sources of information: A question in the person-file, that asks (unmarried) respondents to identify their partner in the household (bhppnr in 2017) (plk0001 in pl), the household matrix reported by the head of household at the beginning of the interview (bhstell in 2017) (stell\_v1 stell\_v2 stell\_h in pbrutto), the partnership biography in the lifehistory calendar reported by new respondents (see also, biomars), and self-reports on marital status and life events, such as marriage, move in with partner, separation, etc. In unclear cases, due to temporal non-response for instance, we also consider longitudinal information from previous and prospective waves. Moreover, PARID is self-consistent between two individuals. For analyses of partner relationships, this information can be used to link all persons with their respective partners, and all information on both partners can also be stored in a common dataset.

# partner - Status Of Partnership

0	No partner	601551
1	Spouse, registered partner	532590
2	Partner	82406
3	Probably spouse, registered partner	1370
4	Probably partner	2091
5	not clear	4899
-1	No Answer	0
-2	Does not apply	2442
-3	Answer improbable	0
-4	Inadmissible multiple response	0
-5	Not included in this version of the questionnaire	0
-6	Version of questionnaire with modified filtering	0
-7	Only available in less restricted edition	0
-8	Question this year not part of Survey program	0

The variable PARTNER generated in the context of the partner identifier (PARID) to describe whether a person in a SOEP household has a partner in that household, and if so, the type of relationship existing between the partners. Relationships with persons outside the SOEP household are not covered by this variable. Code 0 is assigned to all single persons living in households and those with partners outside the household. Codes 1 to 4 describe relationships. To assign Codes 1 and 2, the partnership has to be definable from the perspective of both partners unanimously. If conflicting information exists between partners, the codes 3 or 4 are assigned. If it is unclear whether an individual has no partner or whether she forms a couple with one other household member, we assign the code 5. Registered partnerships (civil unions) for same-sex couples were introduced in Germany in 2001. Though, registered partnerships are legally not equal to marriage, they are listed in the same category.

# 5 Weighting

pbleib - Inverse Staying Probability

inverse probability weights

phrf - Weighting factor

standard individual weights

phrf0 – Weighting factor for new samples (wave 1 of new sample)

individual weights for first wave of new samples

phrf1 – Weighting factor without new samples (wave 1)

individual weights without first wave of new samples

#### prgroup - Random Groups

- 0 164 1 151635
- 1 151635 2 151845
- 2 1518453 155083
- 4 148456
- 5 154369
- 6 157355
- 7 154787
- 8 153655