



seriss

SYNERGIES FOR EUROPE'S
RESEARCH INFRASTRUCTURES
IN THE SOCIAL SCIENCES

www.seriss.eu
[@SERISS_EU](https://twitter.com/SERISS_EU)

The use of sampling frames in European Studies: Our work in SERISS WP 2

Annette Scherpenzeel
SHARE-MEA



This project has received funding from the *European Union's Horizon 2020* research and innovation programme under grant agreement No 654221.



Representing the population: Five themes (tasks)

- 2.1 Mapping the use of population registers as sampling frames in Europe
- 2.2 Using administrative data to correct nonresponse bias
- 2.3 Weighting for complex survey designs
- 2.4 Handling item non-response
- 2.5 Including the institutional population in surveys of the European population





seriss

SYNERGIES FOR EUROPE'S
RESEARCH INFRASTRUCTURES
IN THE SOCIAL SCIENCES

www.seriss.eu
[@SERISS_EU](https://twitter.com/SERISS_EU)

The use of sampling frames



This project has received funding from the *European Union's Horizon 2020 research and innovation programme* under grant agreement No 654221.



Basis: Published overviews of population registers

CR: centralized register; LR: local registers; No: No registers available; - : not included

	Redfern, 1989	Eurostat, 1997	Krabina et al., 2005	Poulain and Herm, 2013
Austria	-	-	CR	CR
Belgium	CR	-	LR	CR
Bulgaria	-	LR	CR	CR
Croatia	-	CR	-	-
Cyprus	-	-	-	Local civil registers
Czech Republic	-	CR	CR	CR
Denmark	CR	-	CR	CR
Estonia	-	CR(regional level)	CR	CR
Finland	CR	-	CR	CR
France	CR*	No	No	No
Germany	LR (West)	-	LR	LR, CR in some regions, CR of foreigners
Greece	LR	No	No	Local civil register



Basis: Published overviews of population registers

- But: can these registers in practice be used for survey sampling?
 - Lack of publications
- Ask the sampling experts in the field: Country teams!
 - Electronic questionnaire
 - Sent by email to country teams of **ESS, EVS, GGP, SHARE**
 - Official invitation letter signed by director





The expert survey across countries and surveys

- Questions:
 - Type of sampling frame used, and sampling unit
 - Name and type of register used
 - Responsible authority
 - Accessibility
 - Auxiliary variables in register
 - Other sources of auxiliary variables
 - Problems



Questionnaire on National Registers

Thank you for agreeing to complete this short questionnaire about the availability and accessibility of national registers in the countries participating in the Survey of Health, Ageing and Retirement in Europe (SHARE).

We are mainly interested in your experience with using registers in your country for sampling purposes and your knowledge about additional information in these registers.

Please start by completing the information requested below then proceed to Question 1. Please answer all questions, unless there is an instruction to skip a question. A skip instruction will be phrased as: 'PLEASE GO TO Qx'.

Study: SHARE

Name of Organisation:

Country:

Name and job title of person completing this form:

Firstly, we would like to collect some information about the current sampling frame you use for SHARE.

1. What is your main sampling frame (the list that is used to select persons or addresses to interview)? *Please tick **one** answer only.*

- ☐ 1 Population or civil register (either central or local)
☐ 2 Electoral register, Health insurance register, or other register covering the population
☐ 3 Telephone register
☐ 4 Geographical listing/database (areas, buildings, PLEASE GO TO Q8

- ☐ maps, etc.)
☐ 5 Other (e.g. sampling frame unknown, random walk PLEASE GO TO Q8
procedure) – please specify:

2. Which wave(s) of SHARE do you refer to?

WRITE IN:

3. What is the official name / title of this register, under which it is generally known in your country?

WRITE IN NAME:

4. Which institute or organisation is the responsible authority controlling the access to the register? *Please write in English.*

WRITE IN NAME:

5. What is the sampling unit in this register? In other words, what is the level the information is stored on in this register?

- ☐ 1 Individual address (name + address)
☐ 2 Households/Dwellings (last name + address)
☐ 3 Building address (address without name)
☐ 4 Other – please specify:

The following questions are about the availability of *additional information* in registers. Please think about all the information that is available in the register you use for sampling on SHARE.

6. Which variables are available to measure **socio-demographic characteristics** of a sampling unit in the register that you use? *Choose all that apply.*





Invitation and participation of countries

	ESS	EVS	GGP	SHARE
Invited N	25	43	15	20
Completed N	21	33	10	19
Countries	AT, BE, CH, CZ, DE, EE, ES, FI, FR, GB, HU, IE, IL, IS, LT, NL, NO, PL, RU, SE, SL	BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GE, GR, HR, HU, IE, IS, IT, LT, LU, ME, MK, MT, NL, PL, PT, RO, RS, RU, SE, SK, UA	AT, CZ, DE, EE, FR, HU, IT, NL, NO, SE	AT, BE, CH, DK, DE, EE, ES, ES-gi, FR, GR, HR, IL, IT, LU, NL, PL, PT, SE, SI





Types of sampling frames used

	ESS	EVS	GGP	SHARE	Total
Popn register	14	8	7	13	41
Other register	0	4	0	5	9
Other method	7	20	3	1	31

- Population or (local) civil registers, electoral register, health insurance register and other register covering the population.
- No use of telephone register reported
- 31 x geographical listing, a random route procedure or other
- **Large documentation table across studies and countries**



country	Type of Register	Accessible for	Used in waves
---------	------------------	----------------	---------------

Austria	Population or civil register	Statistical office(s)	7 (2014)
	Population or civil register	Statistical office(s)	1 (2004), 2 (2012)
	Electoral register	Universities and affiliates, National Statistical Office	4 (2011)
	Centralized population register		

18	EVS			Other			4 (2008)
19	GGP						
20	SHARE	Registar osiguranika Hrvatskog	Croatian Health Insurance Fund	Electoral register, Health insurance	Individual address	Universities and affiliates, Statistical Office	6 (2015)
21	Poulain & Herm						
22	Cyprus	ESS					
23	EVS			Other			
24	GGP						
25	SHARE						
26	Poulain & Herm	Archeio Plithismou	Interior Ministry	Local Civil Registers			
27	Czech Republic	ESS	Registr scítacích obvodu a budc	Czech Statistical Office	Geographical listing/database	Building address	4 (2008), 5 (2010), 6
28	EVS				Geographical listing/database		5 (2017)
29	GGP	Census, Vital Statistics	Czech Statistical Office	Population or civil register	Individual address	Universities and affiliates, National Statistical Office	1 (2004), 2 (2008)
30	SHARE						
31	Poulain & Herm	Centrální registr obyvatelstva	Interior Ministry	Centralized population register			
32	Denmark	ESS					
33	EVS	CPR	The Civil Registration System	Population or civil register	Individual address	Universities and affiliates, National Statistical Office	5 (2017)
34	GGP						
35	SHARE	CPR	Statistic Denmark	Population or civil register	Households/dwellings	Universities and affiliates, National Statistical Office	1 (2004), 2 (2007), 3
36	Poulain & Herm	Det Centrale Personenregister	Interior affairs ministry	Population information system			
37	Estonia	ESS	Population register	Ministry of Internal affairs	Population or civil register	Individual address	2 (2004), 3 (2006), 4
38	EVS	Rahvastikuregister / in English "	Ministry of the Interior	Population or civil register	Individual address		5 (2017)
39	GGP			Other			



Auxiliary variables available in sampling frames

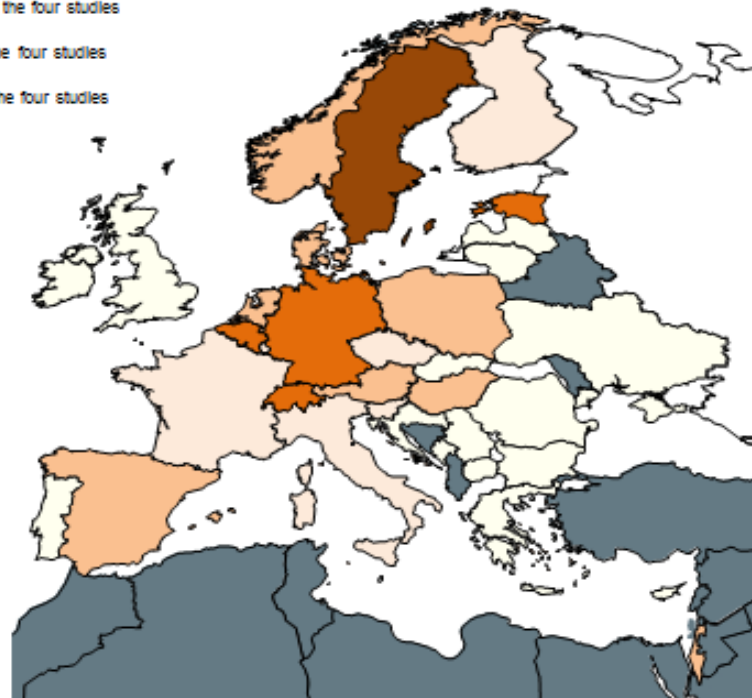
- Socio-demographic characteristics
- Household characteristics
- Neighbourhood characteristics
- Second documentation table across studies and countries



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	Sheet 1: Availability														
2															
3	Country	Study	Register		Age		Gender		Ethnicity		Country of birth		Education		Disability
4	AT	ESS													No
5	AT	GGP	Zentrales Meldereg		Yes		Yes		No		Yes		No		No
6	AT	SHARE													No
7	BE	ESS	Zentrales Meldereg		Yes		Yes		No		Yes		No		No
8	BE	EVS													No
9	BE	SHARE	Data Door		No		No		No		No		No		No
10	CH	ESS													No
11	CH	EVS	Rijksregister/Regist		Yes		Yes		No		Yes		No		No
12	CH	SHARE													No
13	CZ	GGP	Rijksregister		Yes		Yes		No		Yes		No		No
14	DE	ESS													No
15	DE	EVS	Registre National /		Yes		Yes		No		Yes		No		No
16	DE	SHARE													No
17	DK	EVS	SRPH - Stichprobe		Yes		Yes		No		Yes		No		Yes
18	DK	SHARE													Yes
19	EE	ESS	SRPH - Stichprobe		Yes		Yes		No		No		No		No
20	EE	EVS													Yes
21	EE	SHARE	SRPH - Stichprobe		Yes		Yes		No		Yes		No		No
22	ES	ESS													No
23	ES	SHARE													No
24	ES-Girona	SHARE	Padró municipal d'	Yes	Yes	No	Yes	No	No	No	No	No	No	No	No
25	FI	ESS	Population databas	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	No	No	No
26	FR	SHARE	Echantillon-maitre	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	No	No
27	GE	EVS	Voter's list	Yes	No	No	No	No	No	No	No	No	No	No	No
28	HR	SHARE	Registar osiguranik	Yes	Yes	No	No	No	No	No	No	No	No	No	No
29	HU	ESS	Népeségnyilvánta	Yes	Yes	No	Yes	No	No	No	No	No	No	No	No
30	HU	GGP	Népeségnyilvánta	Yes	Yes	No	Yes	No	No	No	No	Yes	No	No	No
31	IL	ESS		Yes	Yes	No	Yes	No	No	No	No	No	No	No	No
32	IL	SHARE	population registry	Yes	Yes	No	Yes	No	No	No	No	No	No	No	No
33	IS	ESS	Þjóðskrá. National	Yes	Yes	No	Yes	No	No	No	No	Yes	No	No	No
34	IS	EVS	Þjóðskrá / National	Yes	Yes	No	Yes	No	No	No	No	Yes	No	No	No
35	IT	EVS	Register of electora	Yes	Yes	No	No	No	No	No	No	No	No	No	No
36	IT	GGP	Anagrafe	Yes	Yes	No	No	No	No	No	No	No	No	No	No
37	IT	SHARE	Registri elettorali se	Yes	Yes	No	No	No	No	No	No	No	No	No	No
38	LU	EVS	Social security reg	No	No	No	No	No	No	No	No	No	No	No	No
39	LU	SHARE	Social Security Rel	Yes	Yes	No	Yes	No	No	No	No	No	No	No	No








- popn register used in all four studies
- popn register used in three of the four studies
- popn register used in two of the four studies
- popn register used in one of the four studies
- no popn register used at all

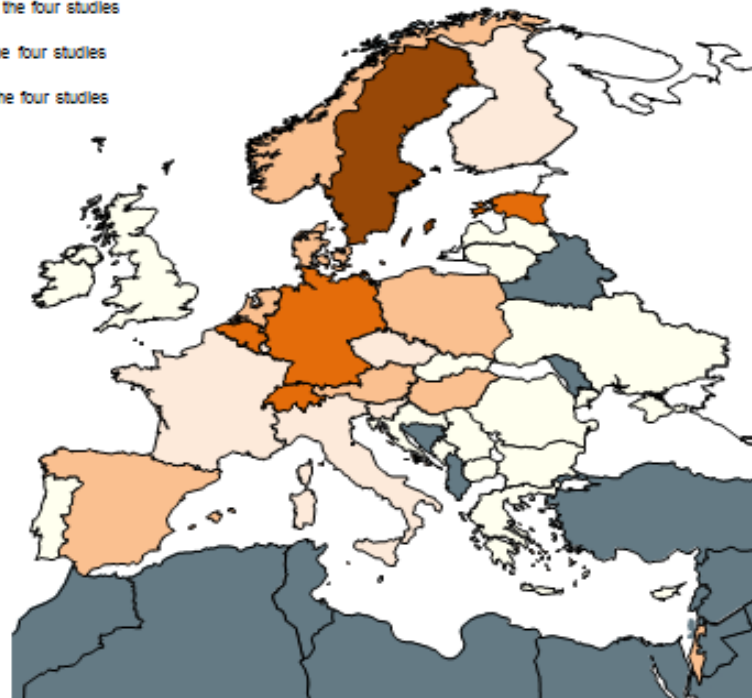


Which country teams use a population register?

All four studies in Sweden. In Belgium, Denmark, Hungary, Iceland, Israel, Norway, Slovenia, Spain-Girona, and Switzerland: all of those that participated



-  - popn register used in all four studies
-  - popn register used in three of the four studies
-  - popn register used in two of the four studies
-  - popn register used in one of the four studies
-  - no popn register used at all



Study teams can profit from each other's experience here

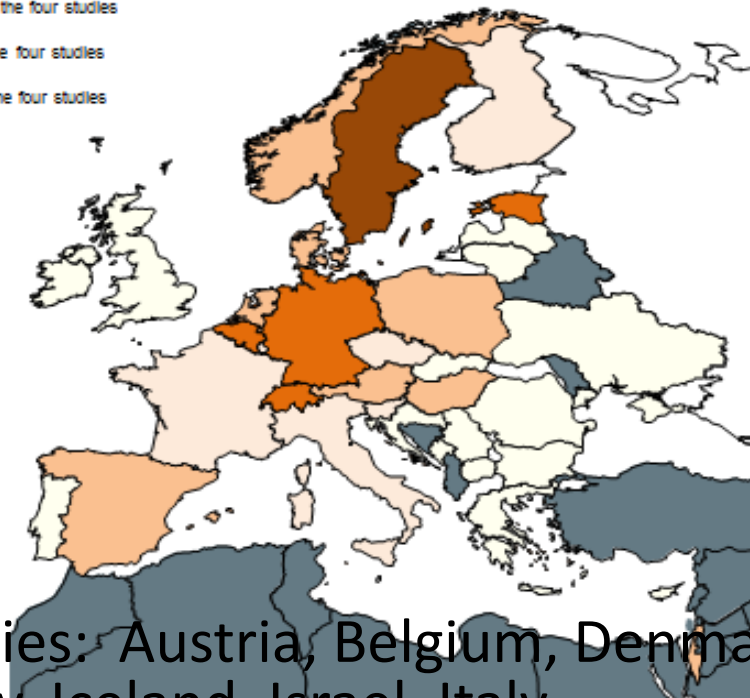
Mixed frame use: Austria, Estonia, Germany, Netherlands, Spain, Czech Republic, Finland, France, Italy, Luxembourg, and Poland





- popn register used in all four studies
- popn register used in three of the four studies
- popn register used in two of the four studies
- popn register used in one of the four studies
- no popn register used at all

possibility to jointly build
and share sampling frames
here

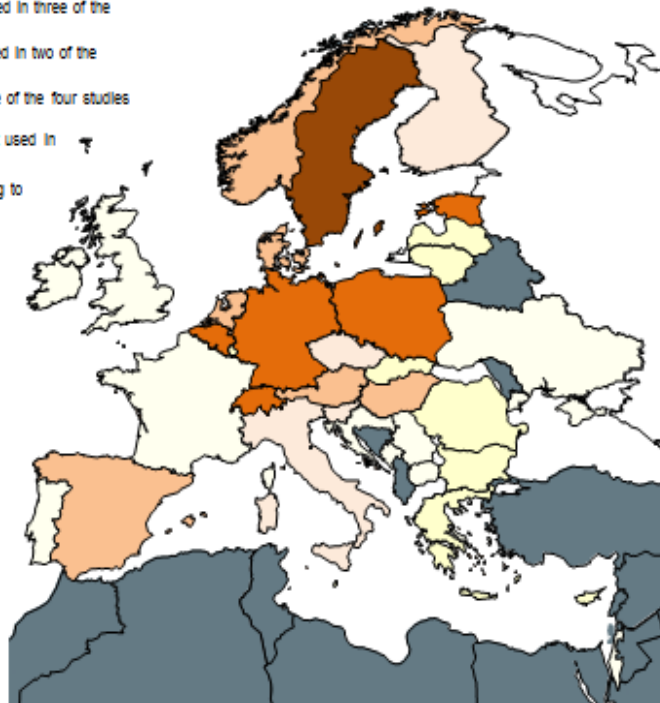


Same register in two or more studies: Austria, Belgium, Denmark, Estonia, France, Germany, Hungary, Iceland, Israel, Italy, Luxembourg, the Netherlands, Norway, Poland, Spain, Sweden and Switzerland.





- Poulain and Herm register used in all four studies
- Poulain and Herm register used in three of the four studies
- Poulain and Herm register used in two of the four studies
- Poulain and Herm used in one of the four studies
- Poulain and Herm register not used in any study
- No register available according to Poulain and Herm



Joint effort to improve
accessibility here?

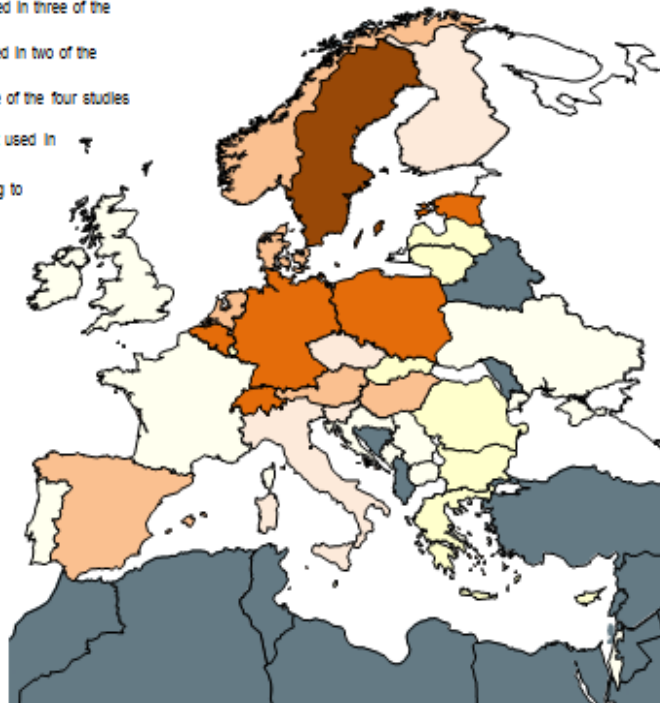
In 10 countries not used! Bulgaria, Cyprus, Czech Republic, Greece, Latvia, Lithuania, Luxembourg, Malta, Romania and Slovakia





Which countries have no published register

- Poulain and Herm register used in all four studies
- Poulain and Herm register used in three of the four studies
- Poulain and Herm register used in two of the four studies
- Poulain and Herm used in one of the four studies
- Poulain and Herm register not used in any study
- No register available according to Poulain and Herm



No known population register (central nor local): (France), Ireland, Macedonia, Portugal, UK. Not considered: Georgia, Montenegro, Serbia Republic, Ukraine, Russian Federation

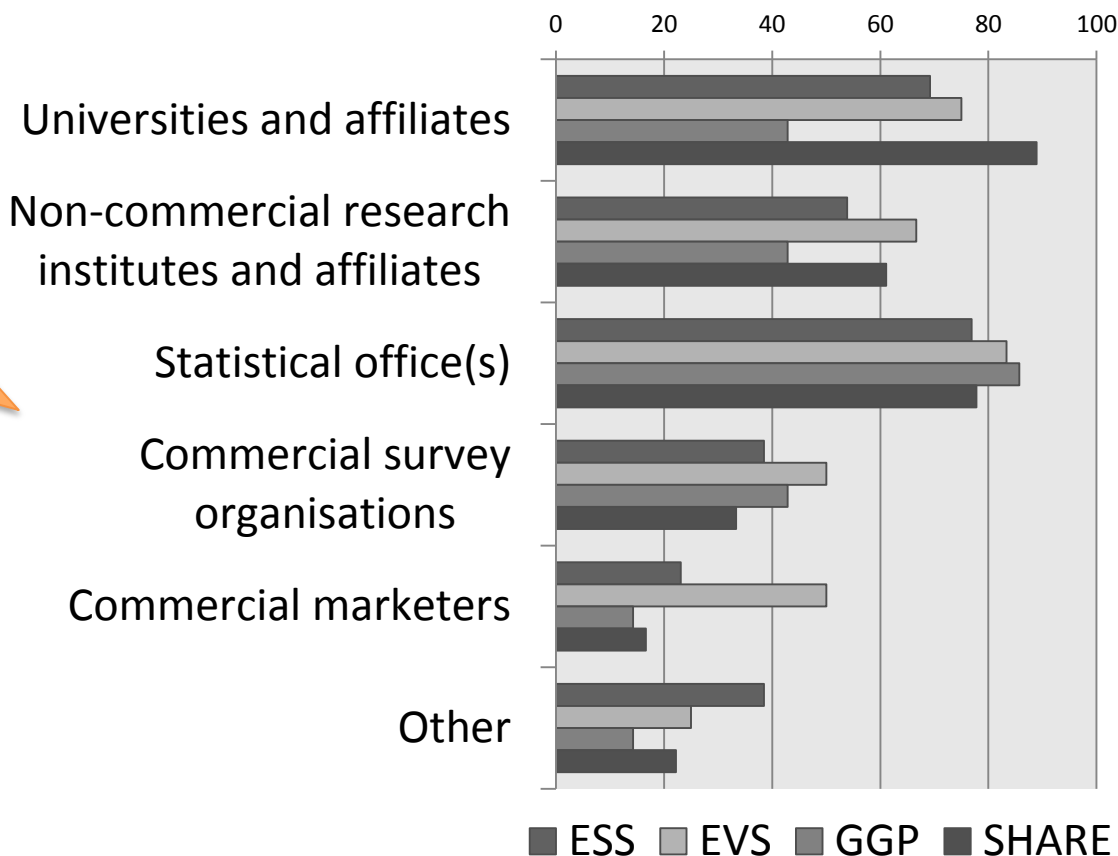




Who has access to the used registers?

Stimulate sampling by university teams instead of by agencies?

Affiliations reported to have access (in %)



Sample Size: ESS=13, EVS=12, GGP=7, SHARE=18





Discussion: Synergy and improvements in sampling

- Study teams in one country can profit from each other's experience if one uses a register and the other not
- Jointly build and share sampling frames where we all use the same register
- Sampling by university teams instead of by agencies
- Is register based sampling the ideal?
- Joint effort to improve the quality of alternative sampling in countries having no register





seriss

SYNERGIES FOR EUROPE'S
RESEARCH INFRASTRUCTURES
IN THE SOCIAL SCIENCES

www.seriss.eu
[@SERISS_EU](https://twitter.com/SERISS_EU)

The use of sampling frames in European Studies: Our work in SERISS WP 2

Annette Scherpenzeel
SHARE-MEA



This project has received funding from the *European Union's Horizon 2020 research and innovation programme* under grant agreement No 654221.