

**institut**  
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soziologie

# “Lifehistory data of the Gateway to Global Aging Data.”

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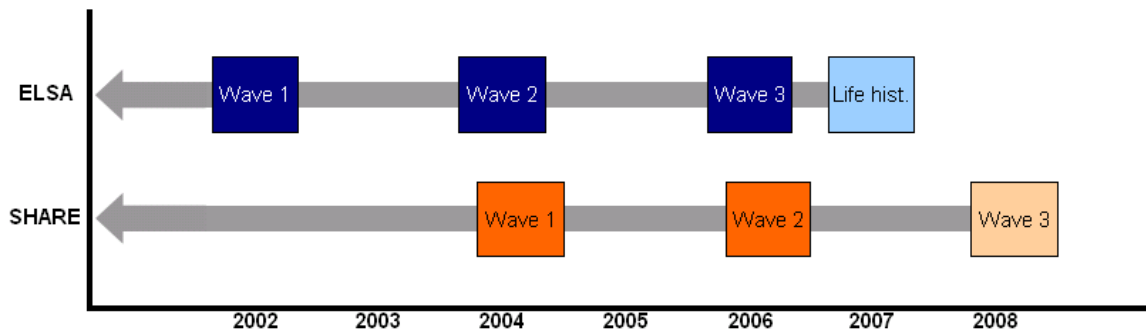
# Life-history data.

ELSA English Longitudinal Study of Ageing

- An increasing number of studies on ageing collects retrospective life-history data (e.g. **SHARE**, **ELSA**, HRS, KLoSA, CHARLS).
- Data is usually collected for different life domains (e.g. work, partner) and allows to describe entire histories.



Figure 1: Data constellation and time of retrospective data collection in ELSA & SHARE



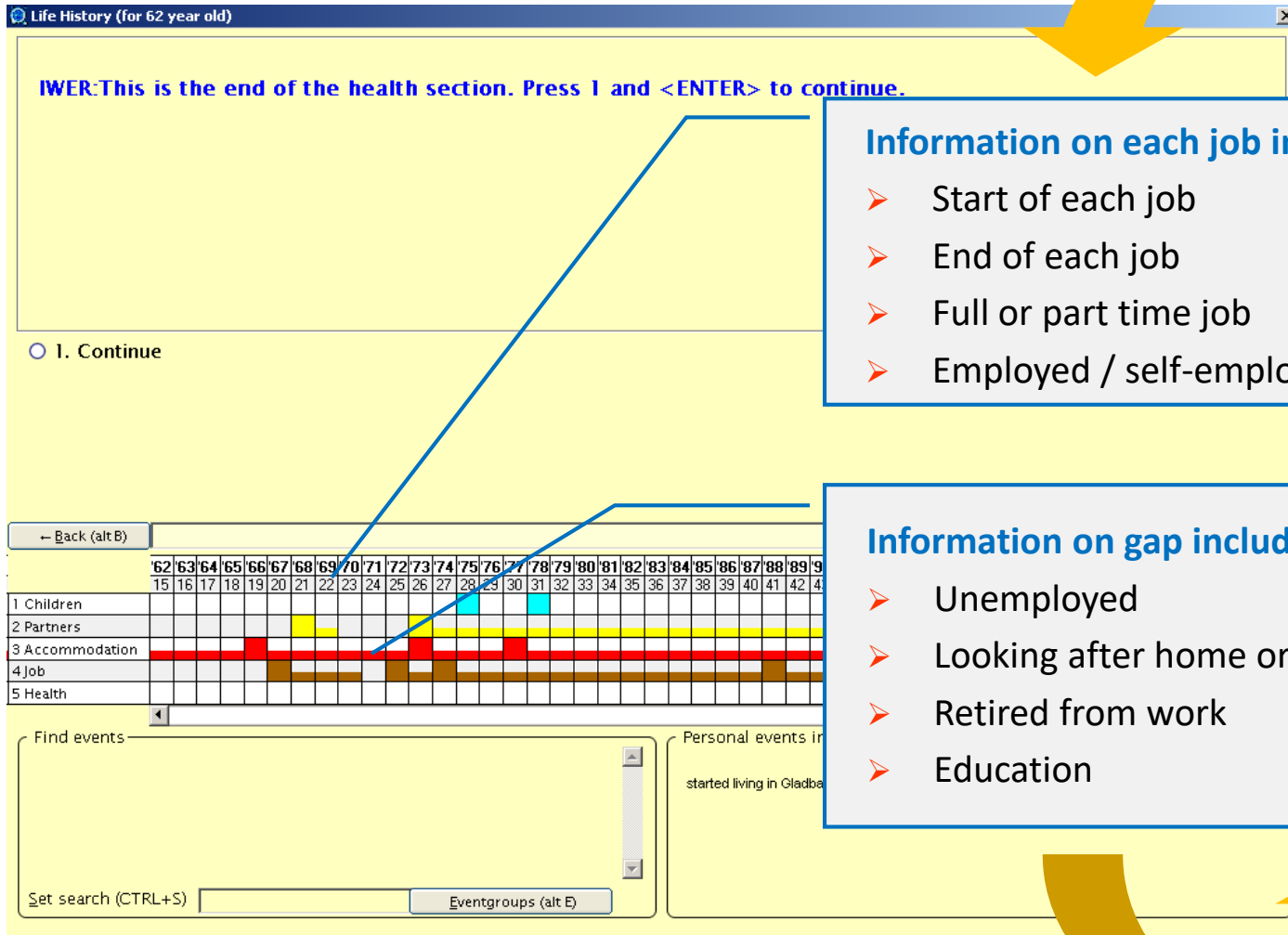
**SHARE**  
Survey of Health, Ageing  
and Retirement in Europe  
50+ in Europe

# Life-history data in SHARE & ELSA.

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- Five "histories":
    - (1) **Children**: date of birth, adopted children, etc...
    - (2) **Partnership**: Marriages, cohabitation, etc...
    - (3) **Accommodation**: Moves, locations, ownership, etc...
    - (4) **Employment**: job details, gaps (see example)
    - (5) **Health**: occurrence and timing of periods of illness, etc...
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# Example: job histories in SHARE.



## Information on each job includes:

- Start of each job
- End of each job
- Full or part time job
- Employed / self-employed

## Information on gap includes:

- Unemployed
- Looking after home or family
- Retired from work
- Education

# Data structure.

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- In the original data of SHARE and ELSA, the collected information is stored in a wide spell-data format (one variable for the state and variables for the timing).
  - This data structure is rather complex and not intuitive.
  - The Gateway will supply sequence data that is **harmonized across SHARE and ELSA for all five life domains**: fertility, partnership, accommodation, employment, and health.
  - Data is organized in a **state sequence format** with an annual state-variable for each age of the respondent.
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# Complete job histories.

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- By combining the spell-information on jobs and gaps we can describe whole **employment sequences**, for example, the employment situation from age 20 till 70 (workstate\*) in terms of eight possible states.

```
W Employed full-time
w Employed part-time
S Self-employed
U Unemployed
H Home/family work
R Retired
E Full-time education
O Other
```

# Complete job histories.

list works\* in 7

workstate20 Employed full-time	workstate21 Employed full-time	workstate22 Employed full-time	workstate23 Employed full-time	workstate24 Employed full-time					
workstate25 Employed full-time	workstate26 Home/family work	workstate27 Home/family work	workstate28 Home/family work	workstate29 Home/family work	workstate30 Home/family work				
workstate31 Home/family work	workstate32 Home/family work	workstate33 Home/family work	workstate34 Home/family work	workstate35 Home/family work	workstate36 Home/family work				
workstate37 Home/family work	workstate38 Employed full-time	workstate39 Employed full-time	workstate40 Employed full-time	workstate41 Employed full-time					
workstate42 Employed full-time	workstate43 Employed full-time	workstate44 Employed full-time	workstate45 Employed full-time	workstate46 Employed full-time					
workstate47 Employed full-time	workstate48 Employed full-time	workstate49 Employed full-time	workstate50 Employed full-time	workstate51 Employed full-time					
workstate52 Employed full-time	workstate53 Employed full-time	works~54 Retired	works~55 Retired	works~56 Retired	works~57 Retired	works~58 Retired	works~59 Retired	works~60 Retired	
works~61 Retired	works~62 Retired	works~63 Retired	works~64 Retired	works~65 Retired	works~66 Retired	works~67 Retired	works~68 Retired	works~69 Retired	works~70 Retired

WWWWWHHHHHHHHHHHHWWWWWWWWWWWWWWRRRRRRRRRRRRRRRRRR

# Example: job histories in ELSA and SHARE.

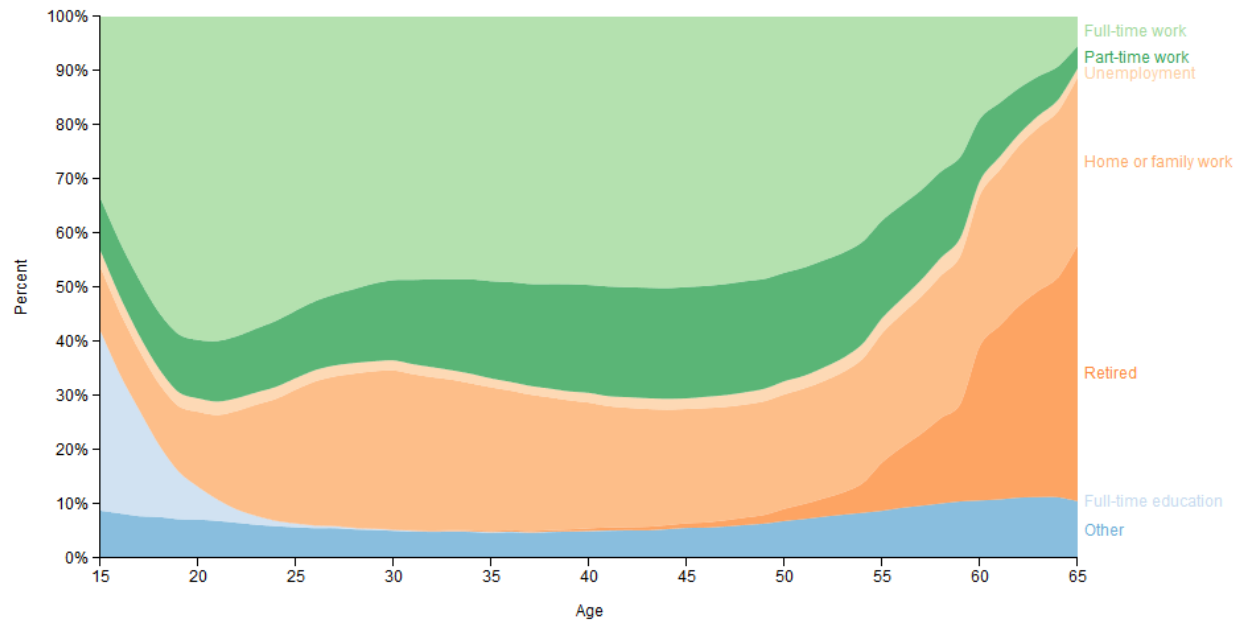
- This results in an individual sequence for each individual.

	seqstr	gender
1.	WWRRRRRRRRRRRRRRRRRRRR	Female
2.	WWRRRRRRRRRRRR	Male
3.	WWRRRRRRRRRR	Male
4.	UUWWWWUUUWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWRRRRRRRRRRRRRR	Female
5.	EEEEWWRRRRRRRRRRRR	Male
6.	WWRRRRRRRRRRRRRR	Male
7.	WWWWWWHH	Female
8.	WWWWWWHH	Female
9.	WWRRRRRRRRRRRR	Male
10.	WWHHHHHHHHHHHSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSRRRRRRRRRRRR	Female
...	WWOOOOOOOOOOOOO	Female
32001.	WWRRRRRRRRRRRRRR	Male
32002.	WWRRRRRRRRRRRRRR	Male
...	WWWWSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSRRRRRRRRRRRRRRRRRRRR	Female
...	EEEEEEEEWWRRRRRRRRRRRR	Female





## Employment histories (Chronogram):



Choose another category:

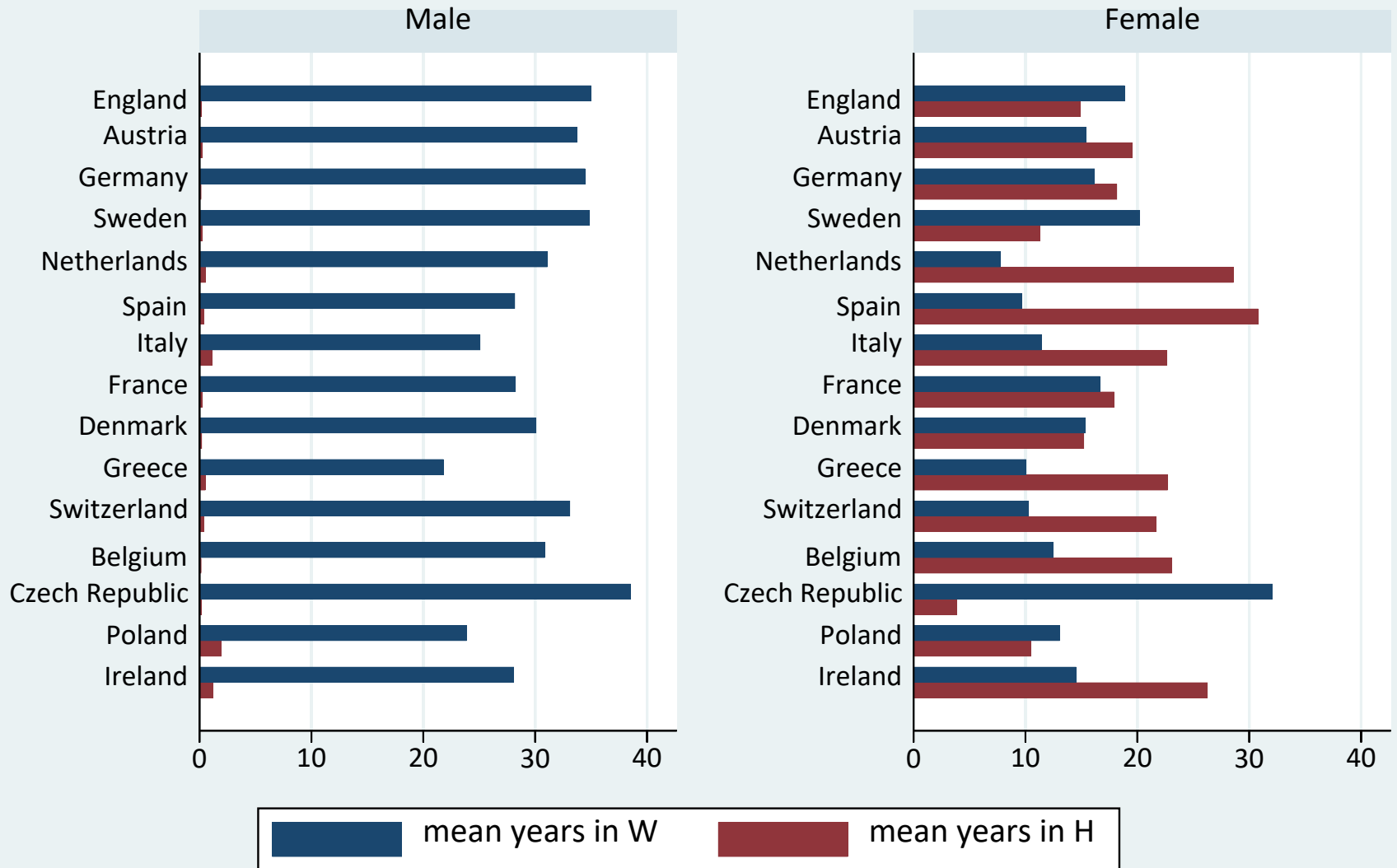
Note. Country abbreviations: Sweden SE; Denmark DK; Germany DE; Netherlands NL; Belgium BE; France FR; Switzerland CH; Austria AT; Italy IT; Spain ES; Greece GR; Czech Republic CZ; Poland PL; England EN

# Example: Summary measures.

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Years in...	Male or female		
	Male	Female	Total
-----+-----			
Employed full-time	30.67	15.17	23.28
Employed part-time	0.54	3.50	1.95
Self-employed	7.73	4.42	6.15
Unemployed	0.59	0.72	0.65
Home/family work	0.43	18.85	9.22
Retired	7.77	5.42	6.65
Full-time education	0.40	0.20	0.30
Other	2.87	2.72	2.80
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# Example: Summary measures.



Graphs by Male or female

# Examples: Summary measures.

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- (1) Average time spent in each state:** calculated as years or percentage of observation period.
  - (2) Number of episodes:** total number of episodes (How often was the respondent in different states, or in one specific state?)
  - (3) Mode state:** state in which respondent spent most of the time during the observation period.
  - (4) Measure of complexity:** How complex or diverse is the single sequence (within-diversity)?
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# Harmonized Life-history data

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- Five "histories" (from 20 to 70):

- |                           |   |
|---------------------------|---|
| <b>(1) Children:</b>      | childnstate* / caren* / youngn*<br>total plus children-age specific |
| <b>(2) Partnership:</b>   | partnerstate*   |
| <b>(3) Accommodation:</b> | residstate*   |
| <b>(4) Employment:</b>    | workstate*  |
| <b>(5) Health:</b>        | healthstate*  |
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# Summary.

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- Life history data enable an in-depth study of life courses, but provided data (spell format) are not easy to handle.
  - The Gateway provides harmonized data in a **state sequence format** for five life domains.
  - Sequence data allow to apply techniques specifically designed to investigate whole sequences (sequence analyses) and to derive numerous summary measures.
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