Schmollers Jahrbuch 133 (2013), 97 – 108
Duncker & Humblot, Berlin

# European Data Watch

This section offers descriptions as well as discussions of data sources that are of interest to social scientists engaged in empirical research or teaching courses that include empirical investigations performed by students. The purpose is to describe the information in the data source, to give examples of questions tackled with the data and to tell how to access the data for research and teaching. We focus on data from German speaking countries that allow international comparative research. While most of the data are at the micro level (individuals, households, or firms), more aggregate data and meta data (for regions, industries, or nations) are included as well. Suggestions for data sources to be described in future columns (or comments on past columns) should be send to: Joachim Wagner, Leuphana University of Lueneburg, Institute of Economics, Campus 4.210, 21332 Lueneburg, Germany, or e-mailed to ⟨wagner@leuphana.de⟩. Past "European Data Watch" articles can be downloaded free of charge from the homepage of the German Council for Social and Economic Data (RatSWD) at: http://www.ratswd.de.

## The German Ageing Survey (DEAS) – A Longitudinal and Time-Series Study of People in the Second Half of Life

By Heribert Engstler and Nicole Schmiade

### 1. Introduction

The German Ageing Survey (DEAS) is a nationwide representative cross-sectional and longitudinal survey programme of the German population aged over 40. It is organised by the German Centre of Gerontology (DZA – Deutsches Zentrum für Altersfragen) and funded by the Federal Ministry for Family Affairs, Senior Citizens, Women and Youth (BMFSFJ). The DEAS surveys aim to cover both the multifaceted processes of individual ageing as well as the diversity, social inequality and social change of age and ageing in Germany. The first DEAS survey wave took place in 1996, the second, third and

fourth waves followed in 2002, 2008 and 2011. The German Ageing Survey has a cohort-sequential longitudinal design, and a broad thematic spectrum, offers national representativity with a large number of cases and a long and ongoing observation period. It is hence a unique German database for interdisciplinary research on the living conditions and life courses as well as the subjective perceptions of ageing individuals in their second half of life. The comprehensive examination of people in mid- and older adulthood provides micro data for use both in social and behavioural scientific research and in reporting on social developments.

Established in 2010, the interface between the DEAS project and the scientific community is the FDZ-DEAS (Forschungsdatenzentrum Deutscher Alterssurvey). It has received accreditation as Research Data Center DEAS by the German Data Forum (RatSWD). The main tasks are to process the DEAS data into user-friendly Scientific Use Files (SUF), to document its contents and instruments, to make the data accessible to the research community, to support scholars using DEAS data and to do own research.

## 2. Design of the DEAS Survey Programme

### 2.1 Sampling

The German Ageing Survey (DEAS) has currently completed four survey waves. In each of the survey years of wave I (1996), II (2002) and III (2008), a nationally representative baseline sample was drawn and subsequently followed up. The method is register sampling of the population living in private households of specific birth cohorts (covering the ages of 40 to 85), disproportionally stratified according to age (40 – 54, 55 – 69, 70 – 85 years old), gender and geographical location (East / West).[1] In 2002, 2008 and 2011, all panel-willing participants of the previous DEAS-waves have been re-questionned.[2] A new refreshment baseline sample is scheduled to be drawn in 2014. Up to now, microdata of waves I, II and III is available for scientific research – the Scientific Use File DEAS 2011 is designated for release in summer 2013.

[1] In wave I the sampling was restricted to Germans, in wave II there were two separate samples, a stratified sample of Germans (B2002) and a random sample of foreigners (F2002), since wave III the stratified baseline sample includes all persons irrespective of nationality. Design weights are available to control for the stratified sample drawing. For more details see Engstler et al. (2010).

[2] The foreigner sample 2002 was not included into the longitudinal design.

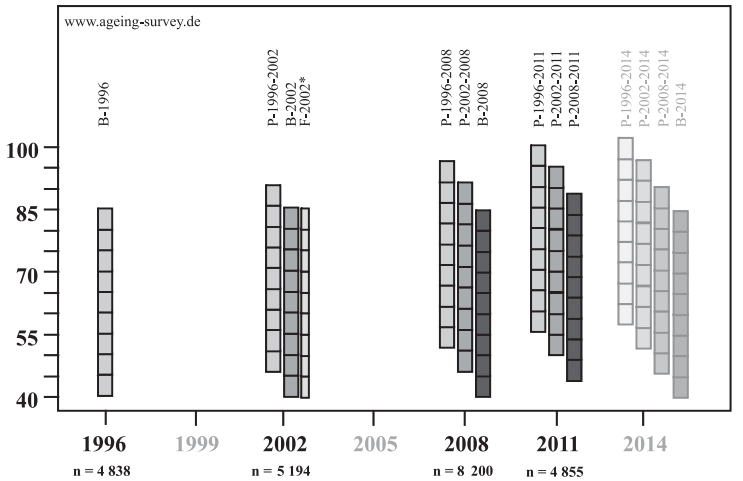


Figure 1: Age range of DEAS-samples by survey year

*Table 1*

**Sample sizes by survey year**

| Survey Year | Baseline Sample | Panel Sample by First Survey Year | | | Total |
|---|---|---|---|---|---|
| | | 1996 | 2002 | 2008 | |
| **1996** | 4838 (Germans) | – | – | – | 4838 |
| **2002** | 3084 (Germans)<br>586 (Foreigners)* | 1524 | – | – | 5194 |
| **2008** | 6205 (Germans incl. Foreigners) | 994 | 1001 | – | 8200 |
| **2011** | – | 1040 | 957 | 2858 | 4855 |

* foreigner sample not included into panel design

Due to high numbers of elderly participants, an opt-in version to enrol respondents into the panel sample[3] and long time lags between waves I, II and III, panel attrition between the first and second interview is high, according to expectation. By intensifying contact to participants and shifting to shorter survey intervals, we have been able to increase panel participation rates.

[3] Due to the German data protection law after the first interview respondents explicitly have to give permission to store their address in order to contact them again for panel interviews.

The time-series and longitudinal data of DEAS allow for several temporal perspectives of analysis. First, the baseline samples enable to describe and analyse the current situation as well as social changes over time. The panel data offer the opportunity to investigate intra-individual developments. Combining baseline and panel data results in cohort-sequential analyses, i.e. comparison between the individual development of two or more birth cohorts in a specific age segment. Thus, DEAS provides the opportunity to prospectively analyse changes of different aspects of ageing on a cohort level, e.g. the retirement process, health trajectories, network development etc.

### 2.2 Survey Methods: CAPI, Drop-off, Tests

In each wave, two complementary survey instruments gather respondents' information:[4]

- An oral, face-to-face interview usually takes place in the respondent's home. These personal interviews were conducted by trained interviewers with a standardised questionnaire. In the first two waves, this was done as "paper and pencil" interview (PAPI), since 2008 the surveys are organised as computer assisted personal interviewing (CAPI).[5]
- Secondly, respondents are also given a questionnaire to fill out. People unable to fill out the drop-off-questionnaire on their own had the opportunity of doing so with the help of the interviewer.
- In 2002, 2008 and 2011, a short written test of cognitive capability (Numbers-and-Symbols-Test, see Wechsler, 1955; Tewes, 1994; Hoyer et al., 2004) complemented the oral interview.
- In 2008 and 2011, a lung functioning test (maximum expiratory flow, see Nunn/Gregg, 1989) using a spirometer accompanied the oral interview. This instrument has been applied in order to indicate respondents' physical capacity.

In each wave, the field work has been carried out by the infas Institute for Applied Sciences, Bonn.

---

4 For complete instruments see Tesch-Römer et al. (2009) and Motel-Klingebiel et al. (2010).

5 Interview language was German. Non-Germans who did not understand German could use the opportunity to get translational help by family members or other persons present.

### 2.3 Contents

For reasons of comparability, many questions from the first survey in 1996 have been retained unaltered in the subsequent waves. In some topics, however, instruments have been modified and/or expanded, particularly in the sections concerning employment and transition to retirement, marital status and partners, intergenerational relationships, health and long-term care, need for care, and personal networks. Overall, respondents have been asked to provide information on the following topics:

- employment and retirement
- leisure activities and volunteer work
- partner, family and social network
- intergenerational relations and support
- health and health behaviour
- caring and need of care
- housing situation[6] and mobility
- economic situation and financial support
- subjective well-being and quality of life
- attitudes, norms, values and images of age and ageing
- sociodemographic basics.

### 2.4 Additional Data

As a supplement to the survey data, additional information is available that can be linked to the Scientific Use Files or that can be analysed at a particularly protected user workstation on location of the DZA. These macrodata contain information on the regional context (as, for instance, the unemployment rate, the average household income or population density) of each respondent on the district level (NUTS-3). Further, more detailed regional context information on the level of anonymous residential quarters are available for all 2008 respondents and for all panel-willing 2002 respondents. This allows for analysis of individual characteristics in the context of regional conditions. Based on the respondents' current or last professional occupation, information on average job demands in their particular occupation can be obtained. Job demands indexes are available in three separate scales: physical, psycho-social and overall demands at the workplace (see Kroll, 2011). These indexes are matched to respondents via the ISCO-code of professional occupation.

6 Partly based on interviewer information.

In order to facilitate longitudinal analyses, the additional data set SUF Meta is provided for external users. Apart from some time-invariant variables, it contains information on the participation history of each person that ever was a DEAS respondent, thus it makes it very easy to generate a balanced or unbalanced panel sample. Also included are variables on the reasons why panel-willing respondents could not take part in the subsequent survey wave. Apart from a range of methodological issues that can be tackled with these information, SUF Meta offers the opportunity for mortality analyses as date of death is available for those deceased.

## 3. Main Research Areas so far

Covering the DEAS waves 1996 – 2008, the analyses of the primary research teams focused on the diversity and social change of the living situations of the population in the second half of life (e.g. Kohli et al., 2000; Tesch-Römer et al., 2006; Motel-Klingebiel et al., 2010). Additionally there is a growing number of longitudinal analyses on ageing processes and life events which will be further expanded when panel data of the last survey wave 2011 is integrated and open to secondary analysis. So far, main topics of scientific publications based on DEAS data were economic conditions and transfers (e.g. Künemund et al., 2005; Motel-Klingebiel et al., 2008; Motel-Klingebiel et al., 2009; Engstler et al., 2011), work and retirement (e.g. Engstler, 2006; Scherger et al., 2012), age-related cognitions, activities and health (e.g. Wurm et al., 2007; Böhm et al., 2009; Wurm et al., 2010; Schöllgen et al., 2010; Schöllgen et al., 2012; Schüz et al., 2011), subjective well-being and loneliness (e.g. Westerhof et al., 2006; Wurm et al., 2008; Merz et al., 2010; Wiest et al., 2011; Tesch-Römer et al., 2012), family relations, grandparenthood and social networks (e.g. Hoff, 2007; Baykara-Krumme, 2008; Engstler et al., 2010; Mahne et al., 2012; Mahne et al., 2012; Huxhold et al., 2012), social participation and voluntary work (e.g. Künemund, 2006, 2009; Lengfeld et al., 2012). A list of publications reporting DEAS results is provided on the website of the Research Data Centre.

## 4. Data Access

Data from completed DEAS waves run through a process of editing and anonymisation before they are available for the scientific community free of charge. However, for reasons of data protection, signing a data distribution contract is required prior to obtaining the data. Usually, registered users receive access to the DEAS microdata via a protected download area. Access is permitted for the use of data in a scientific, non-profit context. Scholars working at a university or a research institution as well as students aiming at an aca-

demic graduation (Bachelor, Master, Ph.D.) may apply for usage. Further details as well as the application form can be obtained from our website (www.fdz-deas.de).

## 5. Documentation and DEAS Indicators online

For each DEAS survey year, a number of documentation objects are available online, and we are working on expanding our range of documentation in English.

- In the Survey Instruments, questionnaires resp. CAPI-templates in their original version are documented – for 2002, 2008 and 2011 in an English translation as well.
- The Short Descriptions (Kurzbeschreibungen) of the Scientific Use Files give detailed information on the sampling procedure, the classification scheme of the variable names and explanations for the user-friendly generated and constructed variables. The Short Descriptions are currently available in German only.
- Registered users may receive the SPSS-Syntax used to generate the constructed variables.
- In order to facilitate longitudinal and time-series analyses, the FDZ-DEAS offers a Variable Correspondence List (with English and German variable labels) for all DEAS waves. With this chart, it becomes obvious which information has been surveyed in which year and how the respective variables are named.
- In the Codebooks we compile every variable of each survey year with their individual categories (including missing values), labels and overall frequencies.
- The sampling procedure, the conducting of the survey and the data gathering for all DEAS waves up to now have been executed by the infas Institut für angewandte Sozialwissenschaft (Bonn). For the survey years 2002 and later, the Methodological Reports (German only) are available.
- For the supplemental data (regional context information, job demands), documentation is also provided (currently in German only).

For those who want to explore the contents of the German Ageing Survey and would like to have a quick first glance on the frequency distributions of pivotal variables, we highly recommend a visit to our Online-Indicators System GeroStat (www.gerostat.de). It contains about 80 indicators from eight topics of the DEAS survey programme, reported in self-administered tables. Indicators can be differentiated by year, age group, gender and region (East/West

Germany). For the majority of variables, a time-series analysis of base samples across several survey years is possible.

## 6. Outlook

Since 2008 the period between follow-up surveys has been three years. New baseline samples are drawn every six years. The next wave of the German Ageing Survey will take place in 2014 and will gather information of about 4000 expected panel respondents aged 46 to 100 and older. The new baseline sample will comprise approximately 6000 respondents, drawn from the 40 to 85 year old population living in private households. This will allow to expand the analysis of social change and to extend the opportunities for analysing extended individual life spans on a cohort level.

As it has been so far, micro data of this survey will be made available free of charge to the scientific community as soon as the DEAS project team has finished and delivered its report to the Federal Ministry for Family Affairs, Senior Citizens, Women and Youth (BMFSFJ). We schedule the provision of the 2014 survey data to spring 2016.

Additionally, the German Centre of Gerontology (DZA) now designs and administers the next wave of the German Survey on Volunteering (FWS). The FWS is a survey programme with representative surveys on volunteer work, honorary office and civic engagement of the German population aged 14 and older. The FWS provides a substantial database for the description of volunteering in Germany and allows to report in detail on participation among population groups and across regions. It is the basic instrument for social accounting on volunteering in Germany. Up to now the survey, which is funded by the BMFSFJ, has been conducted in 1999, 2004 and 2009. The data collection for the next wave is planned for 2014. In spring 2013 we will start to offer scientific use files and documentations of the first three FWS waves.

## References

*Baykara-Krumme*, H. (2008): Reliable Bonds? A Comparative Perspective of Intergenerational Support Patterns among Migrant Families in Germany, in: C. Saraceno (Hrsg.): Families, Ageing and Social Policy. Intergenerational Solidarity in European Welfare States, Cheltenham / Northhampton, 285 – 312.

*Böhm*, K. / *Tesch-Römer*, C. / *Ziese*, T. (Hrsg.) (2009): Gesundheit und Krankheit im Alter. Beiträge zur Gesundheitsberichterstattung des Bundes, Berlin.

*Engstler*, H. (2006): Erwerbsbeteiligung in der zweiten Lebenshälfte und der Übergang in den Ruhestand, in: C. Tesch-Römer / H. Engstler / S. Wurm (Hrsg.): Altwerden in

Deutschland. Sozialer Wandel und individuelle Entwicklung in der zweiten Lebenshälfte. Wiesbaden, 85 – 154.

*Engstler*, H. / *Huxhold*, O. (2010): Beeinflusst die Beziehung älterer Menschen zu ihren erwachsenen Kindern die räumliche Nähe zwischen den Generationen? Wechselbeziehungen zwischen Wohnentfernung, Kontakthäufigkeit und Beziehungsenge im Längsschnitt. In: A. Ette / K. Ruckdeschel / R. Unger (Hrsg.): Potenziale intergenerationaler Beziehungen: Chancen und Herausforderungen für die Gestaltung des demografischen Wandels, Würzburg, 175 – 197.

*Engstler*, H. / *Motel-Klingebiel*, A. (2010): Datengrundlagen und Methoden des Deutschen Alterssurveys (DEAS), in: A. Motel-Klingebiel / S. Wurm / C. Tesch-Römer (Hrsg.): Altern im Wandel. Befunde des Deutschen Alterssurveys (DEAS), Stuttgart, 34 – 60.

*Engstler*, H. / *Wolf*, T. / *Motel-Klingebiel*, A. (2011): Einkommenssituation und -entwicklung Verwitweter in Deutschland, Vierteljahrshefte zur Wirtschaftsforschung 80 (4), 77 – 102.

*Hoff*, A. (2007): Patterns of intergenerational support in grandparent-grandchild and parent-child relationships in Germany, Ageing and Society 27 (5), 643 – 665.

*Huxhold*, O. / *Fiori*, K. L. / *Windsor*, T. D. (2012): The dynamic interplay of social network characteristics, subjective well-being and health: The costs and benefits of of socio-emotional selectivity, Psychology and Aging (online first).

*Kohli*, M. / *Künemund*, H. (Hrsg.) (2000): Die zweite Lebenshälfte – Gesellschaftliche Lage und Partizipation im Spiegel des Alters-Survey, Opladen.

*Kroll*, L. E. (2011): Konstruktion und Validierung eines allgemeinen Index für die Arbeitsbelastung in beruflichen Tätigkeiten anhand von ISCO-88 und KldB-92 (Construction and Validation of a General Index for Job Demands in Occupations Based on ISCO-88 and KldB-92), Methoden-Daten-Analysen 5 (1), 63 – 90.

*Künemund*, H. (2006): Partizipation und Engagement älterer Menschen. In: Deutsches Zentrum für Altersfragen (Hrsg.): Gesellschaftliches und familiäres Engagement älterer Menschen als Potenzial, Berlin, 283 – 431.

*Künemund*, H. (2009): Bildung und Produktivität im Alter. Ergebnisse der Alterssurveys. In: A. Dehmel / H.-H. Kremer / N. Schaper / P. Sloane (Hrsg.): Bildungsperspektiven in alternden Gesellschaften. Frankfurt am Main [u. a.], 107 – 124.

*Künemund*, H. / *Motel-Klingebiel*, A. / *Kohli*, M. (2005): Do Intergenerational Transfers From Elderly Parents Increase Social Inequality Among Their Middle-Aged Children? Evidence from the German Aging Survey, The Journals of Gerontology Series B: Psychological Sciences and Social Sciences 60 (1), 30 – 36.

*Lengfeld*, H. / *Ordemann*, J. (2012): Der lange Schatten des Berufs: Zum Einfluss der sozialen Schichtung auf ehrenamtliches Engagement im Ruhestand, Hamburg, Universität Hamburg (Hamburg Reports on Contemporary Societies No. 4 / 2012).

*Mahne*, K. / *Huxhold*, O. (2012): Social contact between grandparents and older grandchildren: a three-generation perspective. In: S. Arber / V. Timonen (Hrsg.): Contemporary Grandparenting. Bristol, UK, University of Bristol, 225 – 246.

*Mahne*, K. / *Motel-Klingebiel*, A. (2012): The importance of the grandparent role – A class specific phenomenon? Evidence from Germany, Advances in Life Course Research 17 (3), 145 – 155.

*Merz*, E.-M. / *Huxhold*, O. (2010): Wellbeing depends on social relationship characteristics: comparing different types and providers of support to older adults, Ageing and Society 30 (5), 843 – 857.

*Motel-Klingebiel*, A. / *Engstler*, H. (2008): Einkommensdynamiken beim Übergang in den Ruhestand, in: H. Künemund / K. R. Schroeter (Hrsg.): Soziale Ungleichheiten und kulturelle Unterschiede in Lebenslauf und Alter – Fakten, Prognosen, Visionen. Wiesbaden, 141 – 159.

*Motel-Klingebiel*, A. / *Mahne*, K. (2009): Intergenerationale Verteilungsströme: Sozialer Wandel und individuelle Dynamiken in der zweiten Lebenshälfte in Deutschland, in: Deutsche Rentenversicherung Bund (Hrsg.): Die Lebenslagen Älterer: Empirische Befunde und zukünftige Gestaltungsmöglichkeiten. Berlin, 23 – 31.

*Motel-Klingebiel*, A. / *Wurm*, S. / *Engstler*, H. / *Huxhold*, O. / *Jürgens*, O. / *Mahne*, K. / *Schöllgen*, I. / *Wiest*, M. / *Tesch-Römer*, C. (2010): German Aging Survey (DEAS): The Second Half of Life. Research Instruments of the Third Wave. Berlin, Deutsches Zentrum für Altersfragen (DZA Diskussionspapiere Nr. 52).

*Motel-Klingebiel*, A. / *Wurm*, S. / *Tesch-Römer*, C. (Hrsg.) (2010): Altern im Wandel. Befunde des Deutschen Alterssurveys (DEAS), Stuttgart.

*Nunn*, A. J. / *Gregg*, I. (1989): New regression equations for predicting peak expiratory flow in adults, BMJ 298 (6680), 1068 – 1070.

*Scherger*, S. / *Lux*, T. / *Hagemann*, S. / *Hokema*, A. (2012): Between privilege and burden. Work past retirement age in Germany and the UK, Bremen, Zentrum für Sozialpolitik.

*Schöllgen*, I. / *Huxhold*, O. / *Schmiedek*, F. (2012): Emotions and physical health in the second half of life: Interindividual Differences in Age-Related Trajectories and Dynamic Associations According to Socioeconomic Status, Psychology and Aging 27 (2), 338 – 352.

*Schöllgen*, I. / *Huxhold*, O. / *Tesch-Römer*, C. (2010): Socioeconomic status and health in the second half of life: findings from the German Ageing Survey, European Journal of Ageing 7 (1), 17 – 28.

*Schüz*, B. / *Wurm*, S. / *Schöllgen*, I. / *Tesch-Römer*, C. (2011): What do people include when they self-rate their health? Differential associations according to health status in community-dwelling older adults, Quality of Life Research 20 (10), 1573 – 1580.

*Tesch-Römer*, C. / *Engstler*, H. / *Wurm*, S. (Hrsg.) (2006): Altwerden in Deutschland. Sozialer Wandel und individuelle Entwicklung in der zweiten Lebenshälfte, Wiesbaden.

*Tesch-Römer*, C. / *Wiest*, M. / *Wurm*, S. / *Huxhold*, O. (2012): Einsamkeittrends in der zweiten Lebenshälfte: Befunde aus dem Deutschen Alterssurvey (DEAS), Zeitschrift für Gerontologie und Geriatrie (online first).

*Tesch-Römer*, C. / *Wurm*, S. / *Hoff*, A. / *Engstler*, H. (2009): The Second Wave of the German Ageing Survey (DEAS) – Research Instruments. Berlin, Deutsches Zentrum für Altersfragen.

*Tewes*, U. (1994): HAWIE-R: Hamburg-Wechsler-Intelligenztest für Erwachsene, Revision 1991. Handbuch und Testanweisung. Bern u. a.

*Wechsler*, D. (1955): *Manual* for the Wechsler Adult Intelligence Scale. New York.

*Westerhof*, G. J. / *Thissen*, T. / *Dittmann-Kohli*, F. / *Stevens*, N. L. (2006): What is the problem? A Taxonomy of Life Problems and their Relation to Subjective Well-Being in Middle and Late Adulthood, Social Indicators Research 79 (1), 97 – 115.

*Wiest*, M. / *Schüz*, B. / *Webster*, N. / *Wurm*, S. (2011): Subjective well-being and mortality revisited: Cognitive and emotional well-being independently predict mortality, Health Psychology 30 (6), 728 – 735.

*Wurm*, S. / *Tesch-Römer*, C. / *Tomasik*, M. J. (2007): Longitudinal Findings on Aging-related cognitions, control beliefs and health in later life, Journals of Gerontology: Psychological Sciences 62B (3), 156 – 164.

*Wurm*, S. / *Tomasik*, M. J. / *Tesch-Römer*, C. (2008): Serious health events and their impact on changes in subjective health and life satisfaction: The role of age and a positive view on ageing, European Journal of Ageing 5 (2), 117 – 127.

*Wurm*, S. / *Tomasik*, M. J. / *Tesch-Römer*, C. (2010): On the importance of a positive view on aging for physical exercise among middle-aged and older adults: Cross-sectional and longitudinal findings, Psychology and Health 25 (1), 25 – 42.