

59

# Data Documentation

## Documentation of Sample Sizes and Panel Attrition in the German Socio Economic Panel (SOEP) (1984 until 2010)

IMPRESSUM

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## **Data Documentation 59**

Martin Kroh\*

### **Documentation of Sample Sizes and Panel Attrition in the German Socio Economic Panel (SOEP) (1984 until 2010)**

Berlin, August 2011

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## 1 Introduction

This data documentation is meant to provide SOEP users with a general overview of the longitudinal development of the survey over the past 27 years and the derivation of weights that compensate for selective panel attrition. In the first section, we report the number of household and personal interviews by cross-section. We do so for the entire SOEP sample as a whole, as well as for sub-samples A through I individually.

The SOEP study surveys not only the original sample from the first wave, but also households and persons that entered the survey at later points in time. They enter, for example, when SOEP households split (i.e., individuals move out and form their own households), when people move into SOEP households, and when an original sample member gives birth to a “new sample member”. For a detailed review of the SOEP inclusion rules for new sample units and their treatment within the weighting framework see Spiess et al. (2008) and Schonlau et al. (2011). The second section of the present paper on the longitudinal development of the SOEP reports descriptive figures of the participatory behavior of the original sample members and the entrance patterns of new sample members.

Households may leave the survey for several reasons. SOEP’s weighting strategy distinguishes between survey-related reasons and reasons unrelated to the survey (for a detailed description of the SOEP weighting strategy, see Rendtel 1995 and for a general overview, Haisken-DeNew & Frick 2001). We ignore panel attrition of the latter form due to respondents moving abroad or dying, since these cases technically represent an exit from the underlying population. The second section of this paper provides initial evidence on the risk of survey-related panel attrition in different groups of the original sample units (e.g., in different sub-samples, age, educational, and income groups).

The third section reports in more detail on the occurrence of unsuccessful follow-ups to household addresses by cross-section and sub-sample, and sub-sample-specific regression models of the probability of unsuccessful follow-ups in 2010 based on the characteristics of households measured in 2009. The fourth section does the same for the second form of survey-related attrition: refusals.

Based on the regression models of unsuccessful-follow ups and refusals, we derive predicted observation probabilities. The inverse of the product of these predicted probabilities gives the longitudinal weighting variables for the year 2010: BAHBLEIB and BAPBLEIB. Based on the inverse of the probability of observing households and persons in 2009, the staying probability in 2010, and additional post-stratification to meet benchmarks of known marginals of the underlying population in 2010, we derive the cross-sectional weights BAHHRF and BAPHRF. The final section of this paper documents some summary statistics of the development of the longitudinal and the cross-sectional weights by sub-sample and wave.

## **2 Developments in Sample Size**

With respect to developments in sample size, the following figures focus on (2.1) comparing the number of successful interviews by cross-section, (2.2) providing a longitudinal study of panel attrition in original sample members, (2.3) showing entrance of new sample members by birth / moving into SOEP households and their participation behavior, and (2.4) assessing the risk of survey-related attrition of original sample respondents by social characteristics.

Note that the sample sizes of the English public-use version of SOEP and the German DIW version differ by approximately 5 percent. Five percent of the original SOEP data was excluded in compliance with German data protection laws, which was accomplished technically by randomly selecting 5 percent of the original wave 1 households and dropping these and the persons living in them from the English public-use version. Hence the difference in sample sizes is not always exactly 5 percent. The sample sizes documented below refer to the original DIW database.

## 2.1 Development of the Number of Successful Interviews by Cross-Section

The following figures display the number of successful interviews considering different aspects:

- Figure 1** The Number of Successful Interviews with Persons by Subsamples A through I, Waves 1 to 27 (1984-2010)
- Figure 2** Comparison for Individuals and Households in Subsamples A and B, Waves 1 to 27 (1984 – 2010).
- Figure 3** Comparison for Individuals and Households in Subsample C, Waves 1 to 21, (1990–2010).
- Figure 4** Comparison for Individuals and Households in Subsample D, Waves 1 to 16, (1995–2010).
- Figure 5** Comparison for Individuals and Households in Subsample E, Waves 1 to 13, (1998–2010).
- Figure 6** Comparison for Individuals and Households in Subsample F, Waves 1 to 11, (2000–2010).
- Figure 7** Comparison for Individuals and Households in Subsample G, Waves 1 to 9, (2002-2010).
- Figure 8** Comparison for Individuals and Households in Subsample H, Waves 1 to 5, (2006-2010).

Figure 1: The Number of Successful Interviews with Persons by Subsamples A through I, Waves 1 to 27.

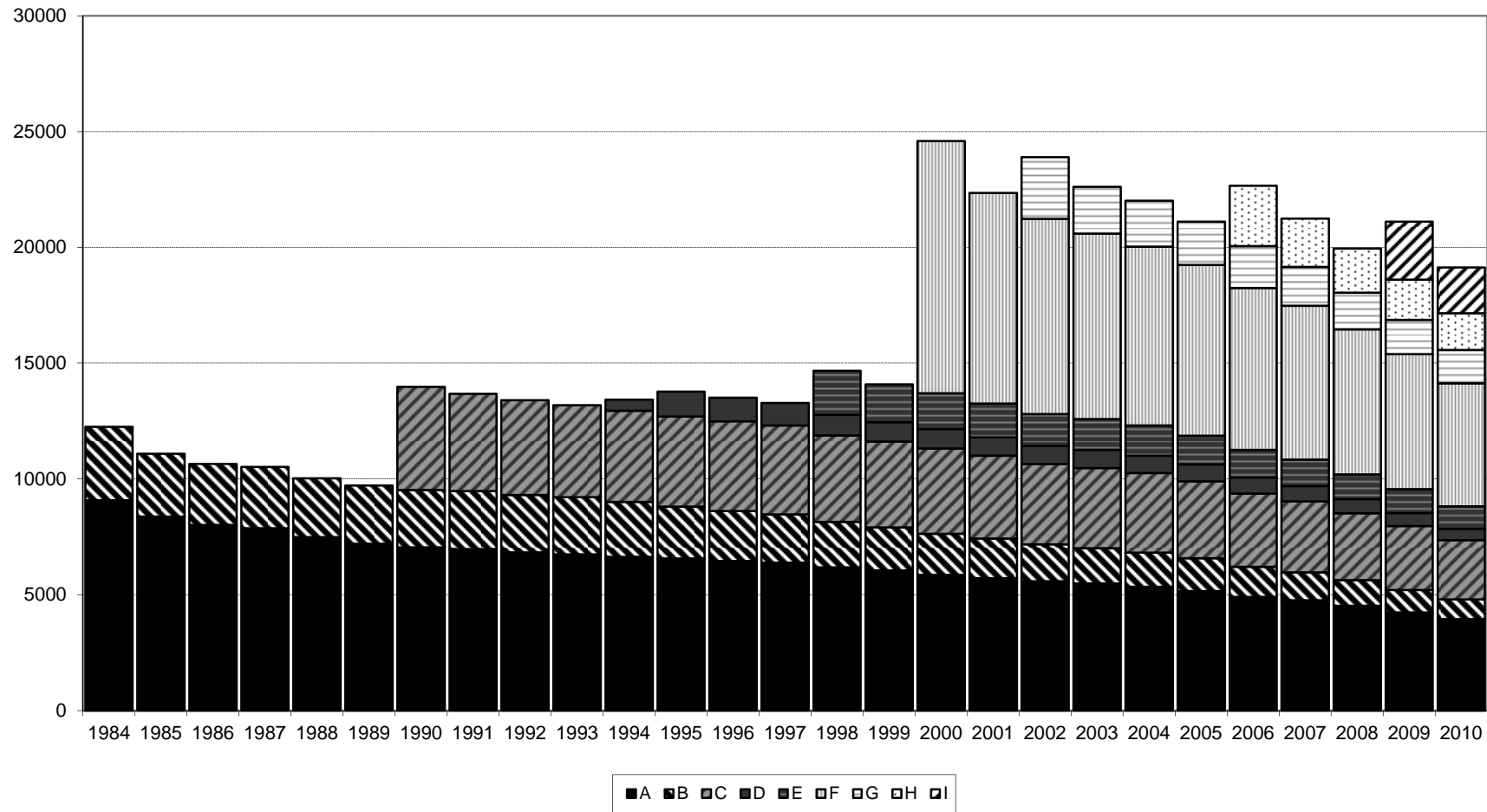
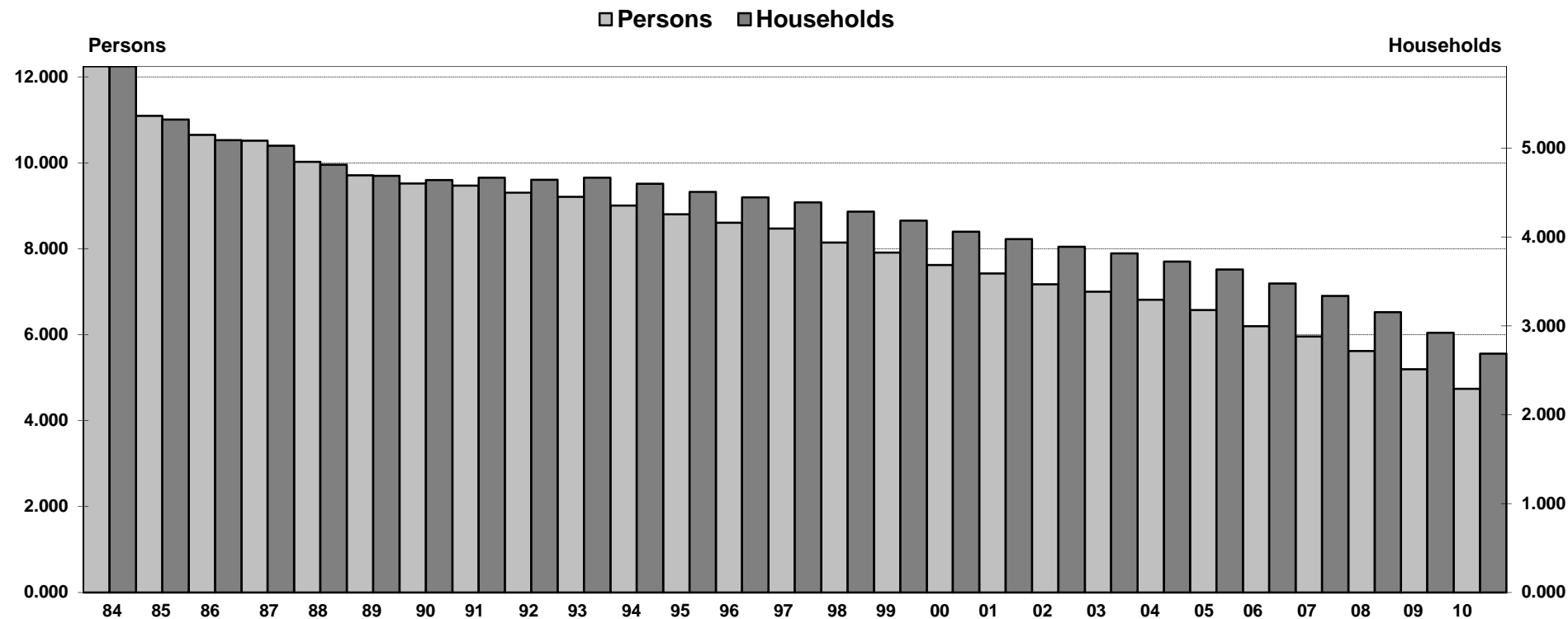


Figure 2: Comparison of Successful Interviews with Persons and Households (Subsamples A and B), Waves 1 to 27



| Year       | 1984   | 1985   | 1986   | 1987   | 1988   | 1989  | 1990  | 1991  | 1992  | 1993  | 1994  | 1995  | 1996  | 1997  | 1998  | 1999  | 2000  | 2001  | 2002  | 2003  | 2004  | 2005  | 2006  | 2007  | 2008  | 2009  | 2010  |
|------------|--------|--------|--------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Persons    | 12,245 | 11,090 | 10,646 | 10,516 | 10,023 | 9,710 | 9,519 | 9,467 | 9,305 | 9,206 | 9,001 | 8,798 | 8,606 | 8,467 | 8,145 | 7,909 | 7,623 | 7,424 | 7,175 | 6,999 | 6,809 | 6,572 | 6,198 | 5,957 | 5,619 | 5,197 | 4,739 |
| Households | 5,921  | 5,322  | 5,090  | 5,026  | 4,814  | 4,690 | 4,640 | 4,669 | 4,645 | 4,667 | 4,600 | 4,508 | 4,445 | 4,389 | 4,285 | 4,183 | 4,060 | 3,977 | 3,889 | 3,814 | 3,724 | 3,635 | 3,476 | 3,337 | 3,154 | 2,923 | 2,686 |

Figure 3: Comparison of Successful Interviews with Persons and Households (Subsample C), Waves 1 to 21.

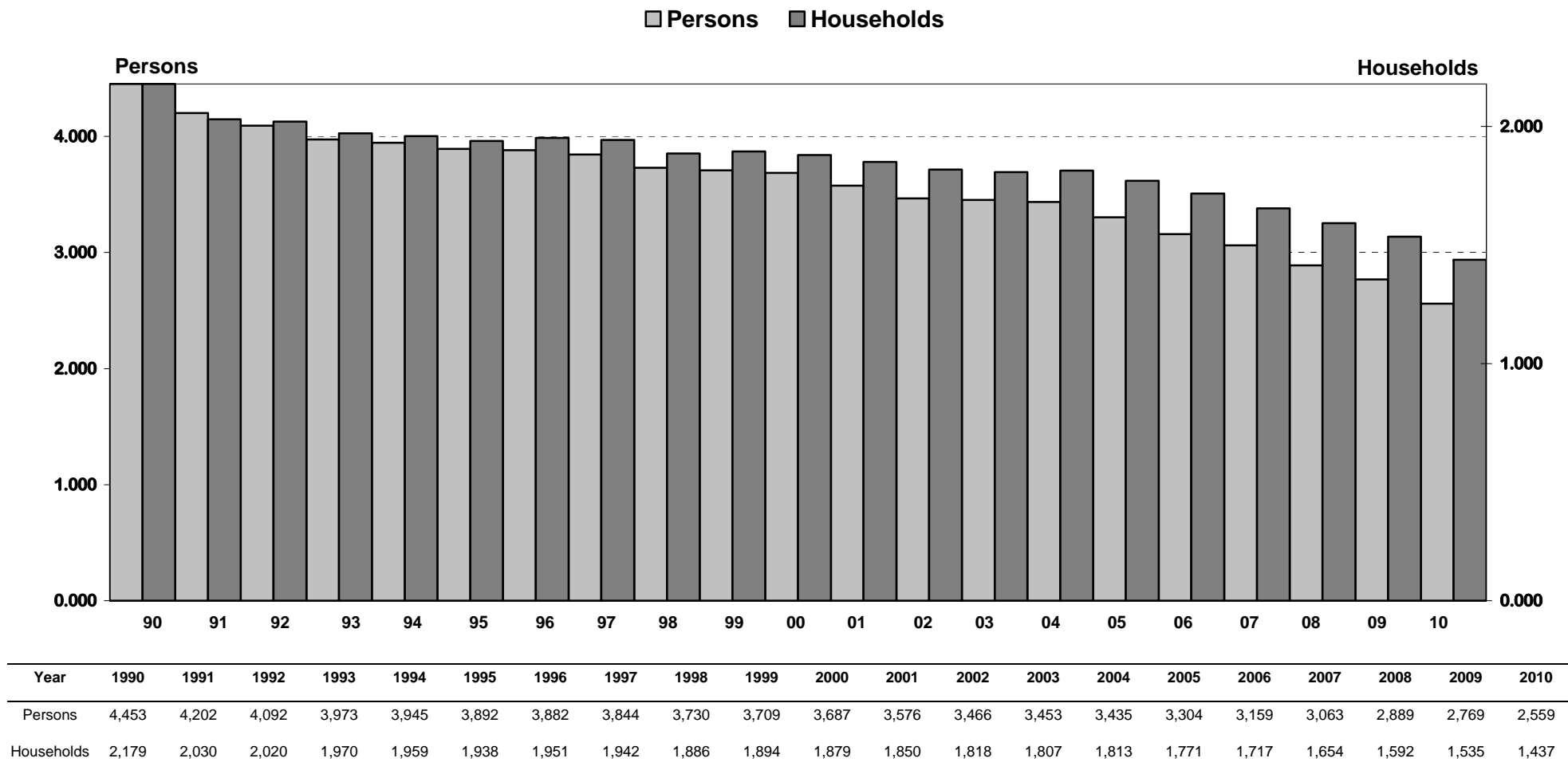


Figure 4: Comparison of Successful Interviews with Individuals and Households (Subsample D), Waves 1 to 16.

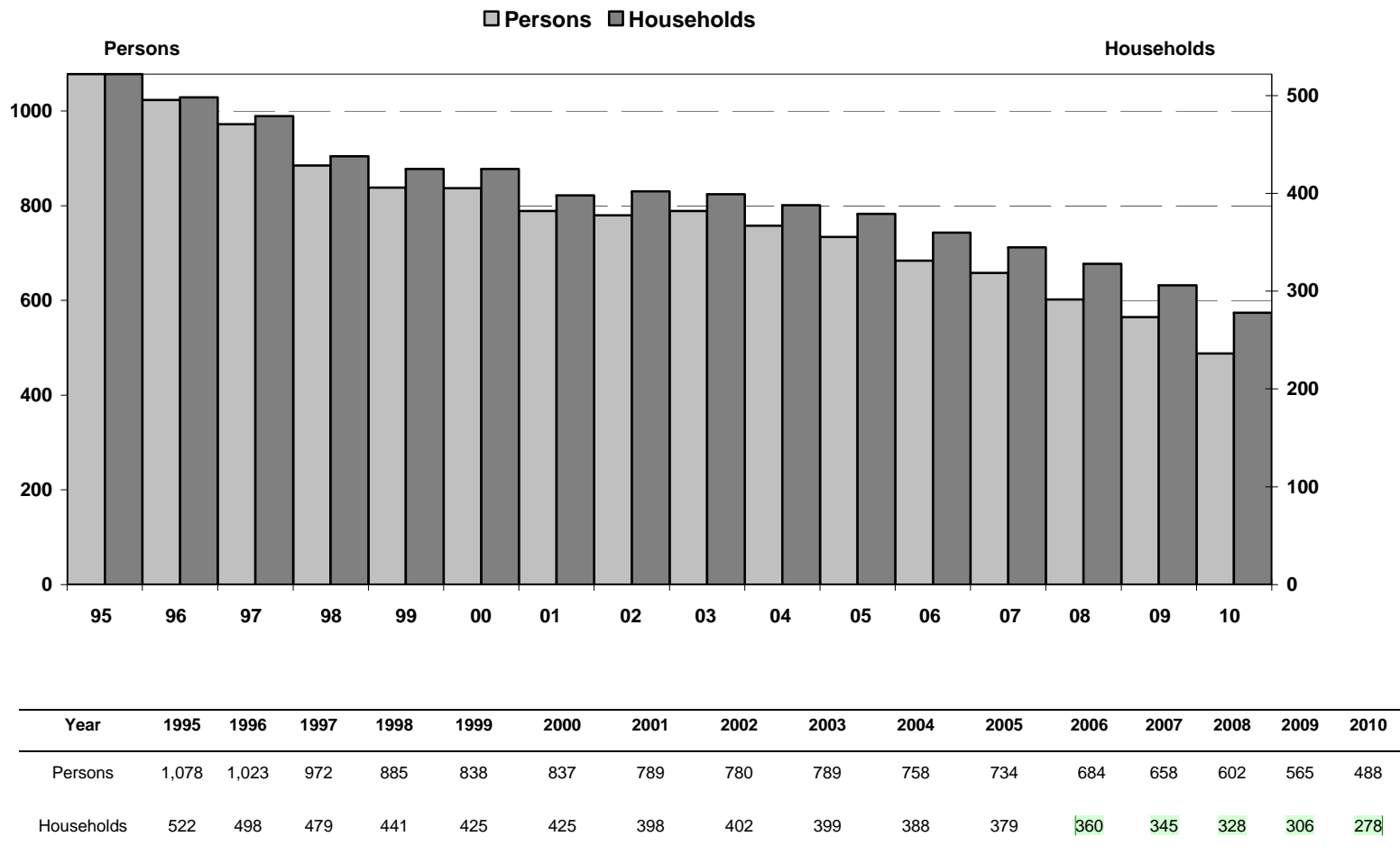
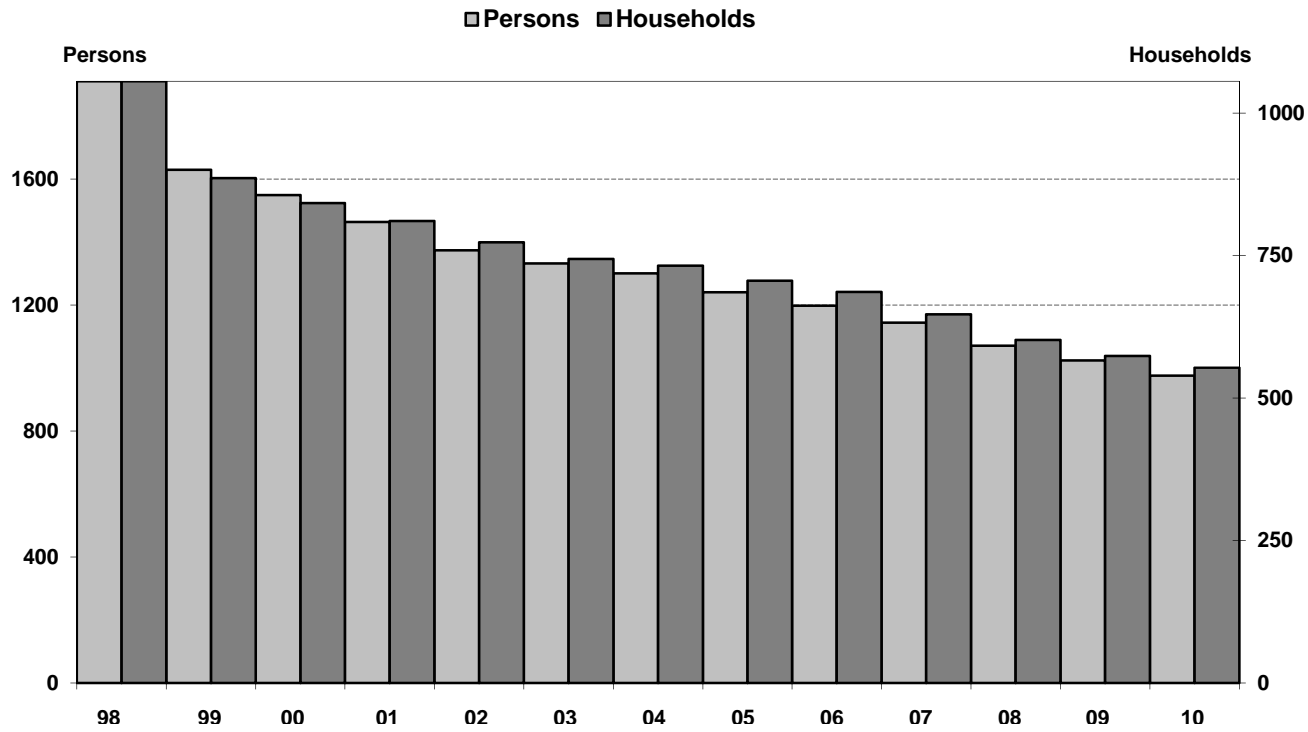


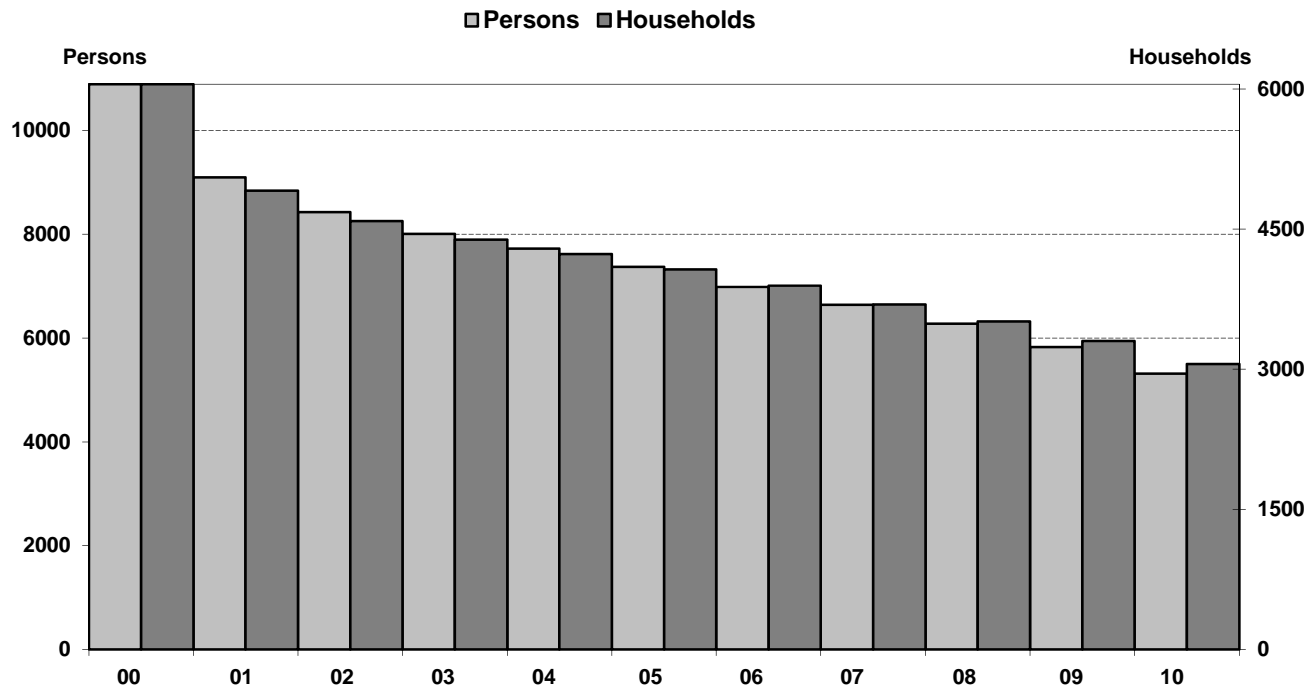
Figure 5: Comparison of successful interviews with individuals and households (Subsample E), Waves 1 to 13.



| Year       | 1998  | 1999  | 2000  | 2001  | 2002  | 2003  | 2004  | 2005  | 2006  | 2007  | 2008  | 2009  | 2010 |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| Persons    | 1,910 | 1,629 | 1,549 | 1,464 | 1,373 | 1,332 | 1,300 | 1,240 | 1,198 | 1,144 | 1,071 | 1,024 | 975  |
| Households | 1056  | 886   | 842   | 811   | 773   | 744   | 732   | 706   | 686   | 647   | 602   | 574   | 553  |

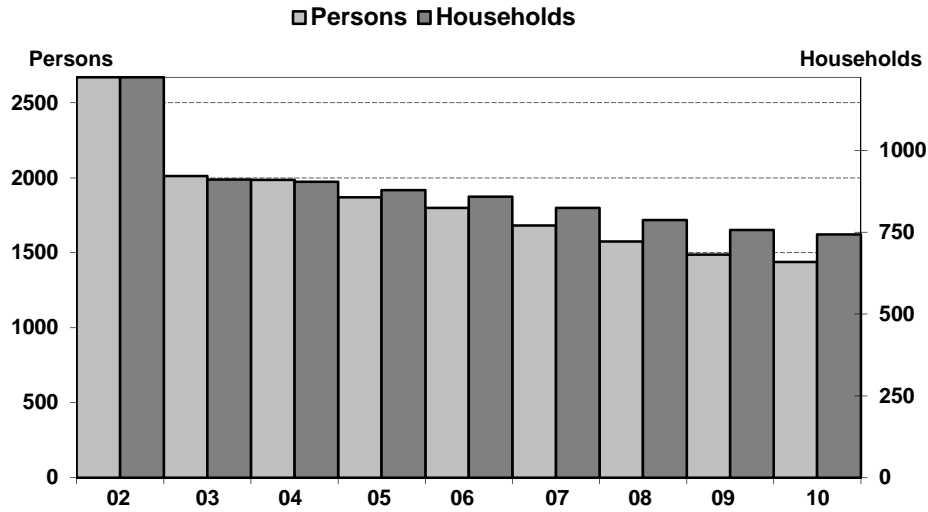


Figure 6: Comparison of Successful Interviews with Individuals and Households (Subsample F), Waves 1 to 11.



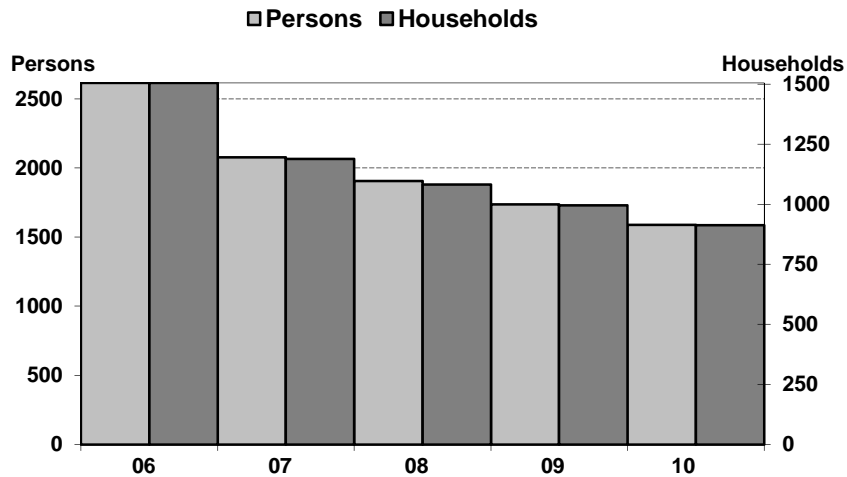
| Year       | 2000   | 2001  | 2002  | 2003  | 2004  | 2005  | 2006  | 2007  | 2008  | 2009  | 2010  |
|------------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Persons    | 1,0890 | 9,098 | 8,427 | 8,006 | 7,724 | 7,371 | 6,986 | 6640  | 6,274 | 5,824 | 5,316 |
| Households | 6,052  | 4,911 | 4,586 | 4,386 | 4,234 | 4,070 | 3,895 | 3,694 | 3,513 | 3,303 | 3,055 |

Figure 7: Comparison of Successful Interviews with Individuals and Households (Subsample G), Waves 1 to 9.



| Year       | 2002  | 2003  | 2004  | 2005  | 2006  | 2007  | 2008  | 2009  | 2010  |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Persons    | 2,671 | 2,013 | 1,986 | 1,870 | 1,798 | 1,682 | 1,574 | 1,487 | 1,438 |
| Households | 1,224 | 911   | 904   | 879   | 859   | 824   | 787   | 757   | 743   |

Figure 8: Comparison of Successful Interviews with Individuals and Households (Subsample H), Waves 1 to 5.



| Year       | 2006  | 2007  | 2008  | 2009  | 2010  |
|------------|-------|-------|-------|-------|-------|
| Persons    | 2,616 | 2,077 | 1,904 | 1,737 | 1,587 |
| Households | 1,506 | 1,188 | 1,082 | 996   | 913   |

## 2.2 Continuance and Exit: The First Wave Gross Samples and their Participatory Behavior

The following figures display the participation behavior of the first-wave respondents in the subsequent years distinguishing between continued participation, exits due to survey-unrelated attrition, and exits due to survey-related attrition.

**Figure 9:** All First Wave Persons in Subsample A. Whereabouts up to Wave 27.

**Figure 10:** All First Wave Persons in Subsample B. Whereabouts up to Wave 27.

**Figure 11:** All First Wave Persons in Subsample C. Whereabouts up to Wave 21.

**Figure 12:** All First Wave Persons in Subsample D. Whereabouts up to Wave 16.

**Figure 13:** All First Wave Persons in Subsample E. Whereabouts up to Wave 13.

**Figure 14:** All First Wave Persons in Subsample F. Whereabouts up to Wave 11.

**Figure 15:** All First Wave Persons in Subsample G. Whereabouts up to Wave 9.

**Figure 16:** All First Wave Persons in Subsample H. Whereabouts up to Wave 5.

Figure 9: All First-Wave Persons (Gross Subsample A). Development up to Wave 27.

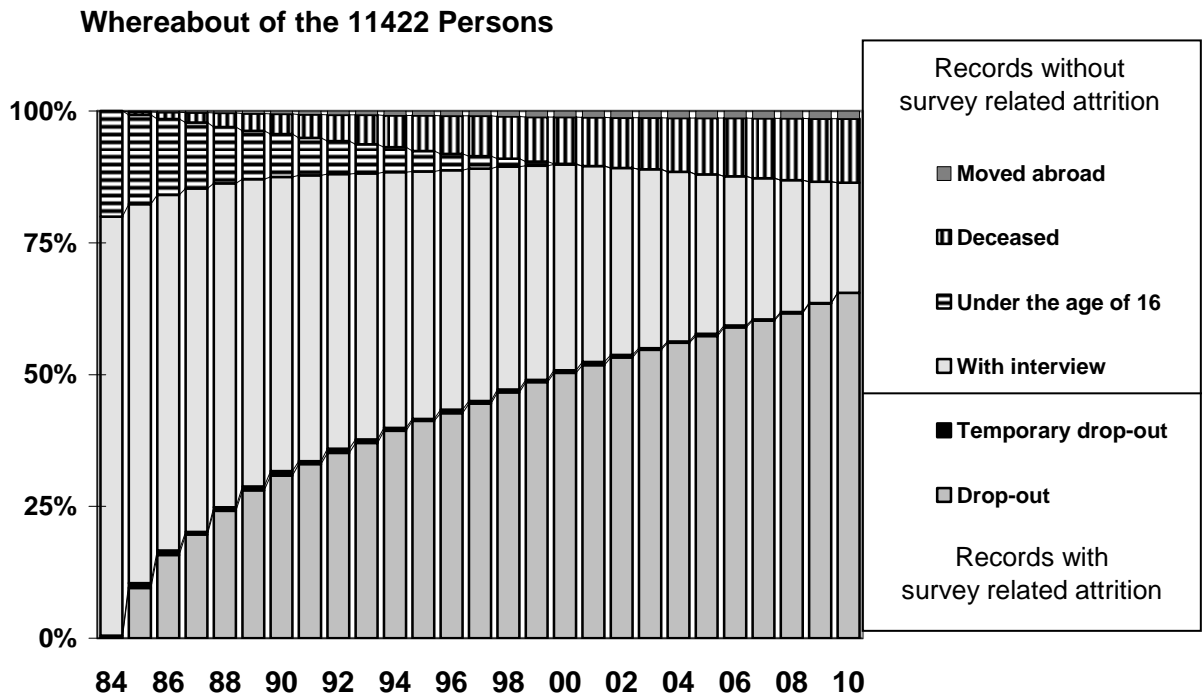


Figure 10: All First Wave Persons (Gross Subsample B). Development up to Wave 27.

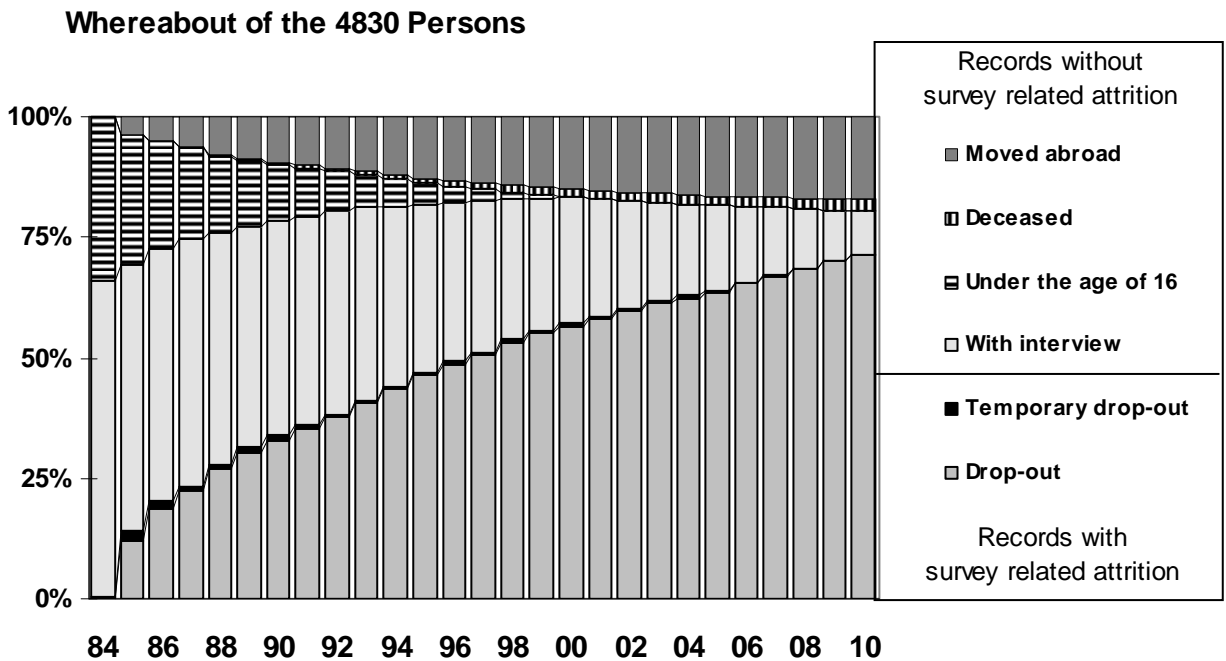


Figure 11: All First Wave Persons (Gross Subsample C). Development up to Wave 21.

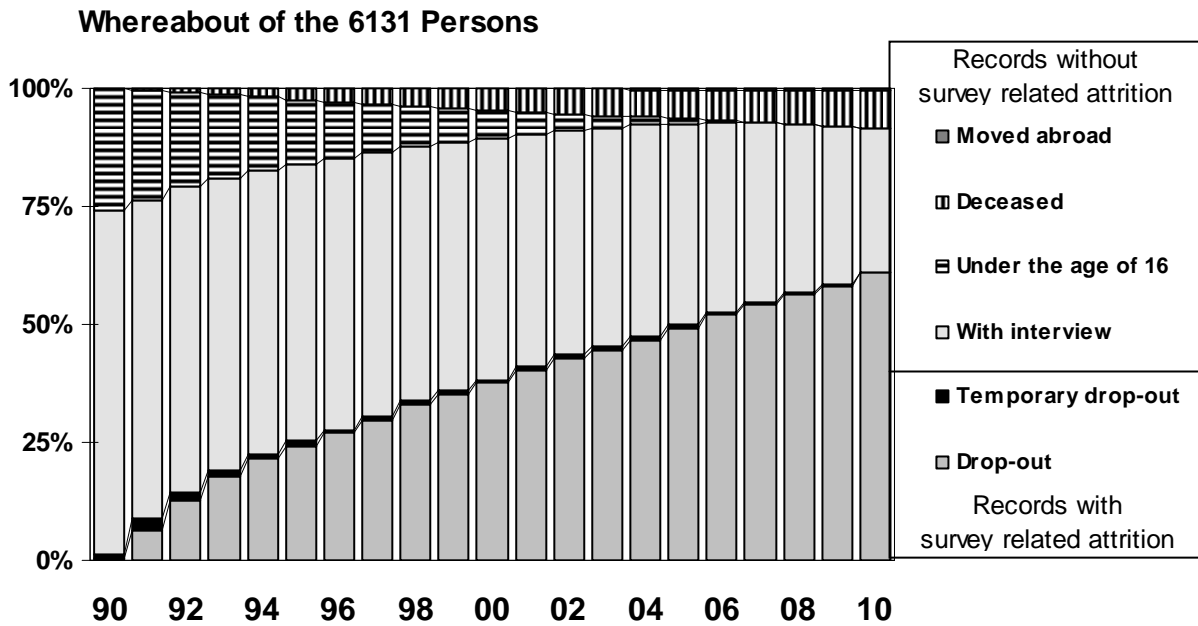


Figure 12: All First Wave Persons (Gross Subsample D). Development up to Wave 16.

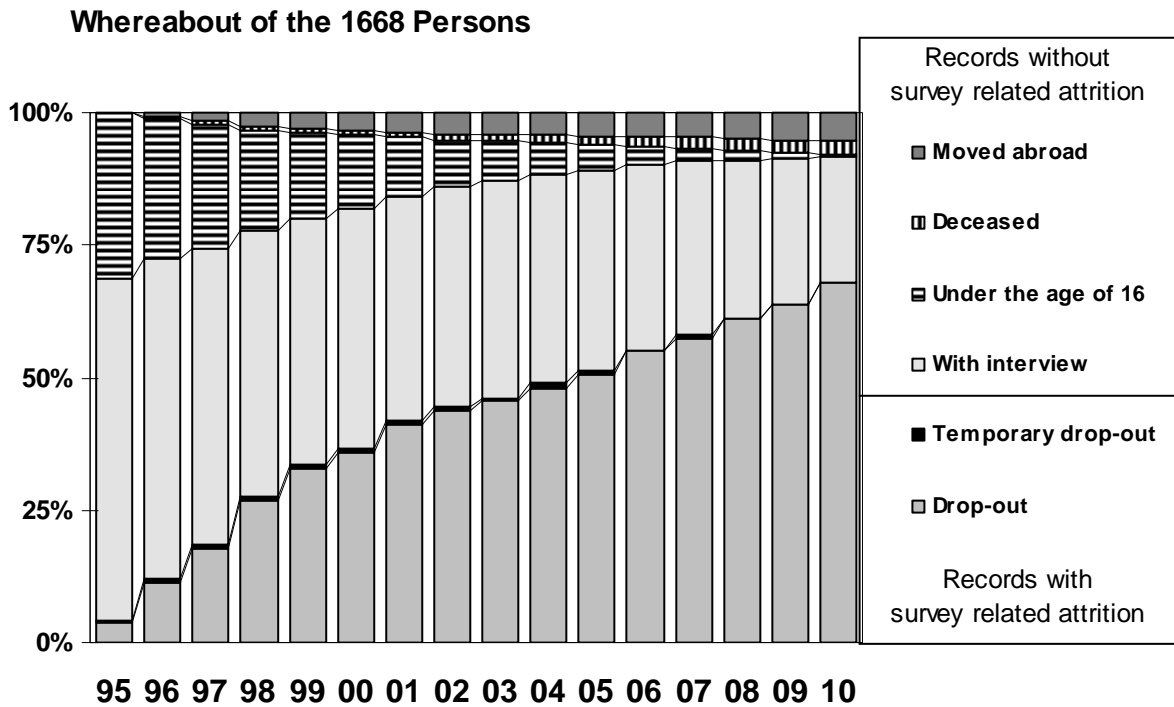


Figure 13: All First Wave Persons (Gross Subsample E). Development up to Wave 13.

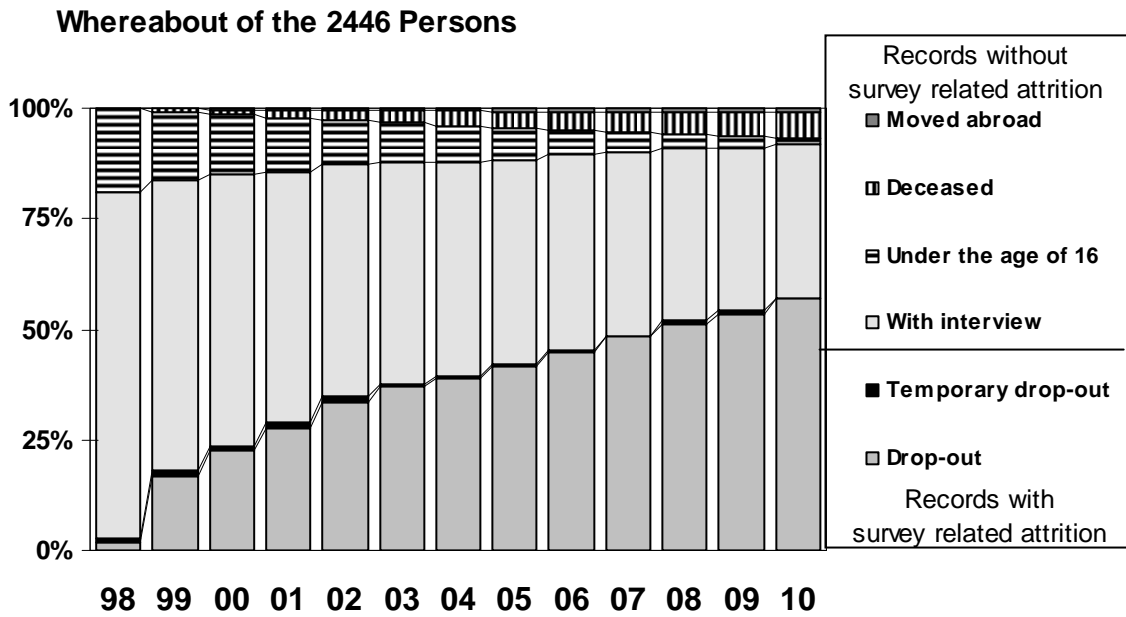


Figure 14: All First Wave Persons (Gross Subsample F). Development up to Wave 11.

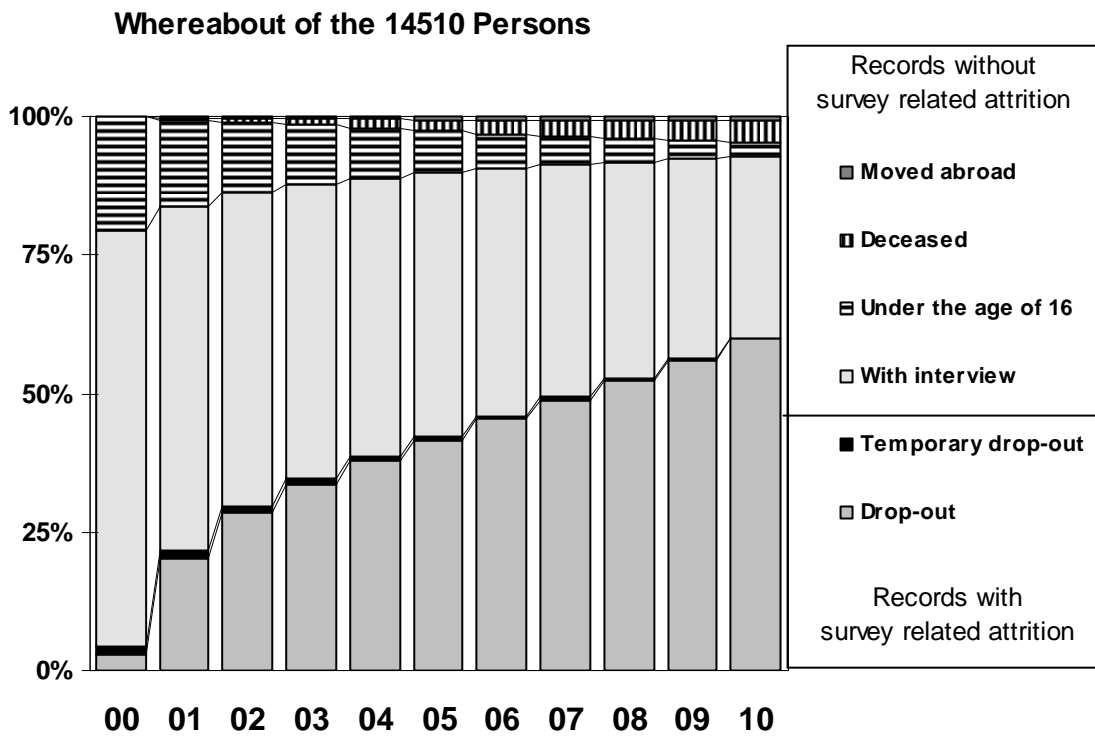


Figure 15: All First Wave Persons (Gross Subsample G). Development up to Wave 9.

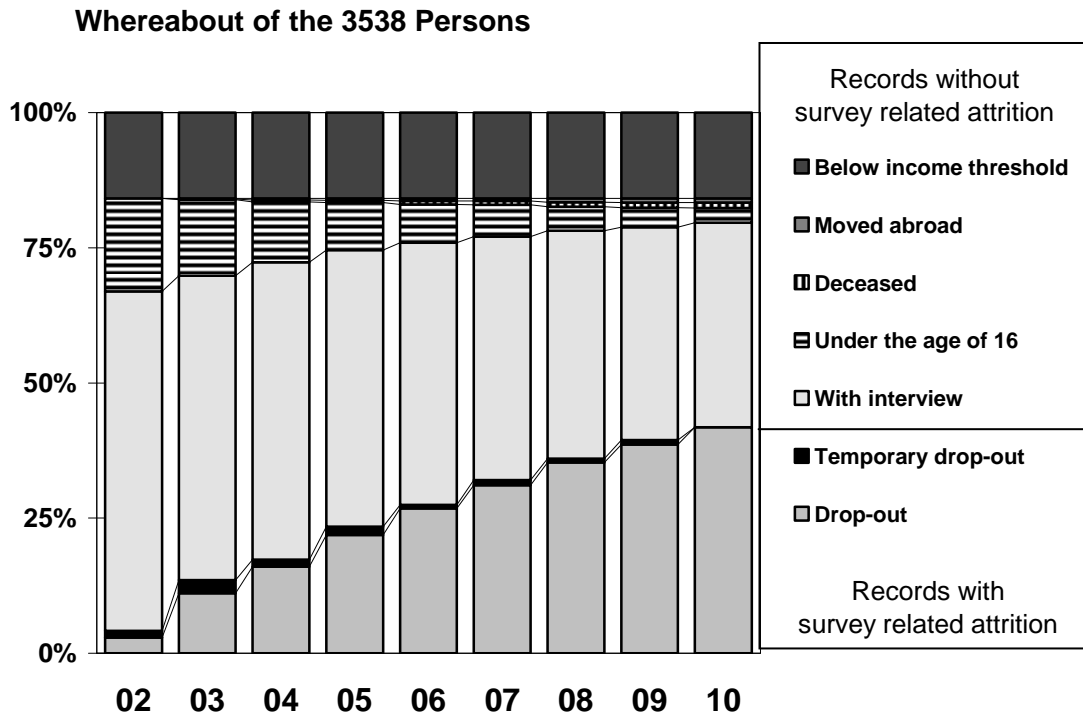
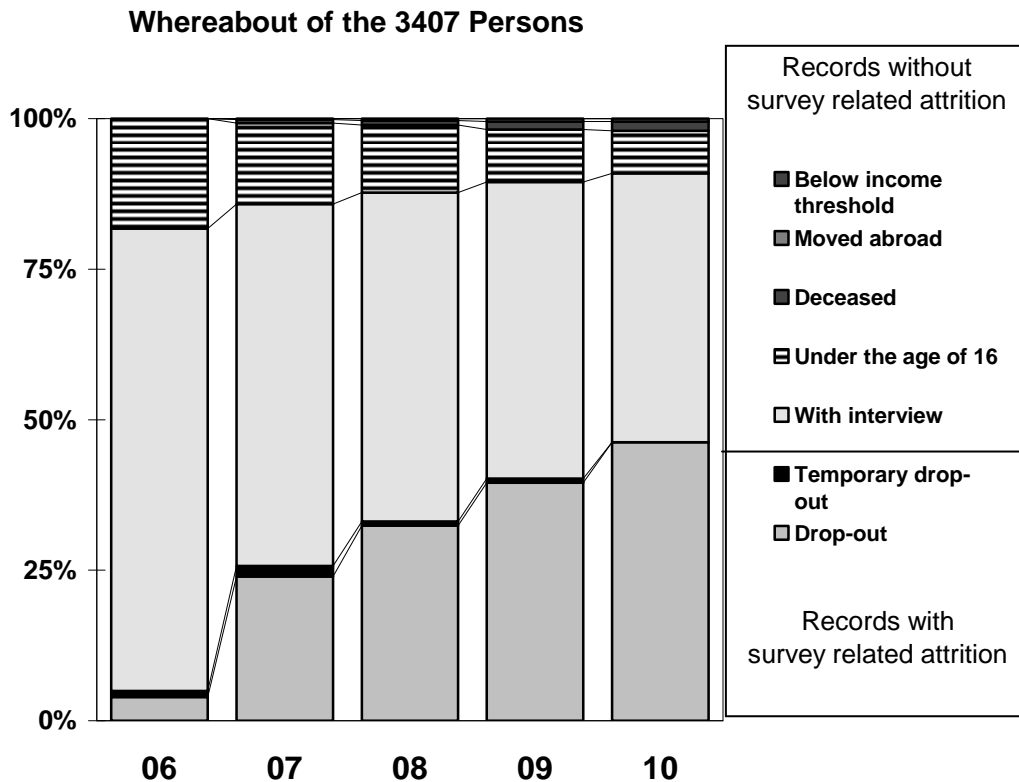


Figure 16: All First Wave Persons (Gross Subsample H). Development up to Wave 5.



### **2.3 New Entrants through Birth or Move into SOEP Households and Their Participation Behavior**

The following figures display the participation behavior of the non-original sample members and their entrance to the ongoing survey, distinguishing between continuation of participation, exits due to survey unrelated attrition, and exits due to survey-related attrition.

**Figure 17:** Entrants Who Were Born or Moved into SOEP Households and Their Participation Behavior in Subsample A

**Figure 18:** Entrants Who Were Born or Moved into SOEP Households and Their Participation Behavior in Subsample B

**Figure 19:** Entrants Who Were Born or Moved into SOEP Households and Their Participation Behavior in Subsample C

**Figure 20:** Entrants Who Were Born or Moved into SOEP Households and Their Participation Behavior in Subsample D

**Figure 21:** Entrants Who Were Born or Moved into SOEP Households and Their Participation Behavior in Subsample E

**Figure 22:** Entrants Who Were Born or Moved into SOEP Households and Their Participation Behavior in Subsample F

**Figure 23:** Entrants Who Were Born or Moved into SOEP Households and Their Participation Behavior in Subsample G

**Figure 24:** Entrants Who Were Born or Moved into SOEP Households and Their Participation Behavior in Subsample H



Figure 17: Entrants and their Participation Behavior (Subsample A).

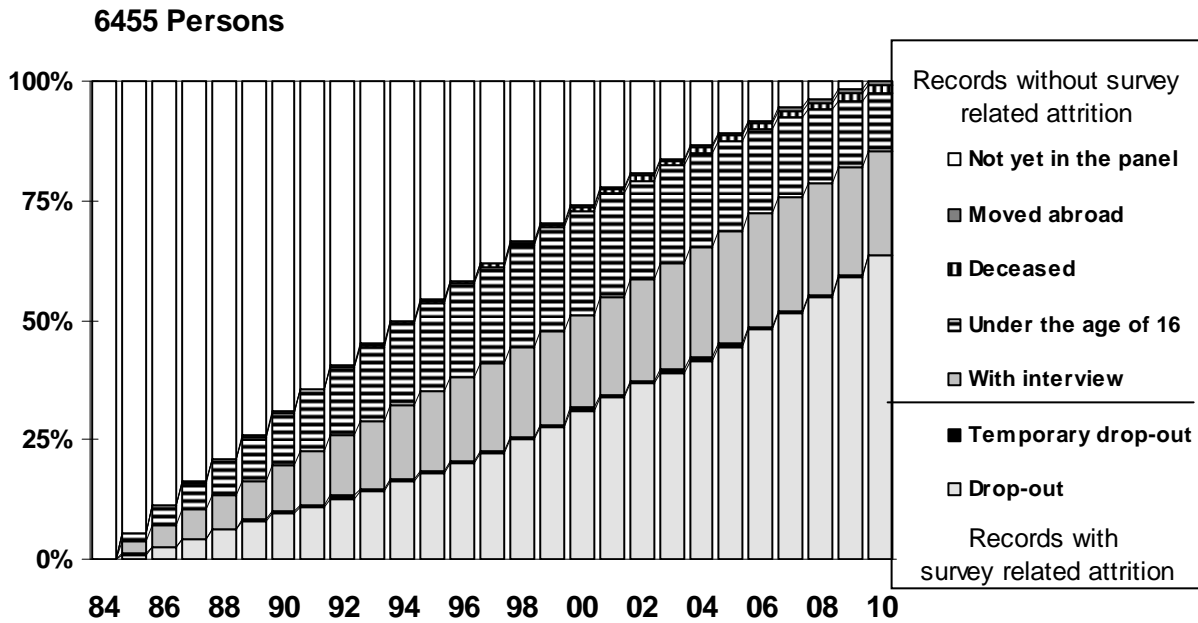


Figure 18: Entrants and their Participation Behavior (Subsample B).

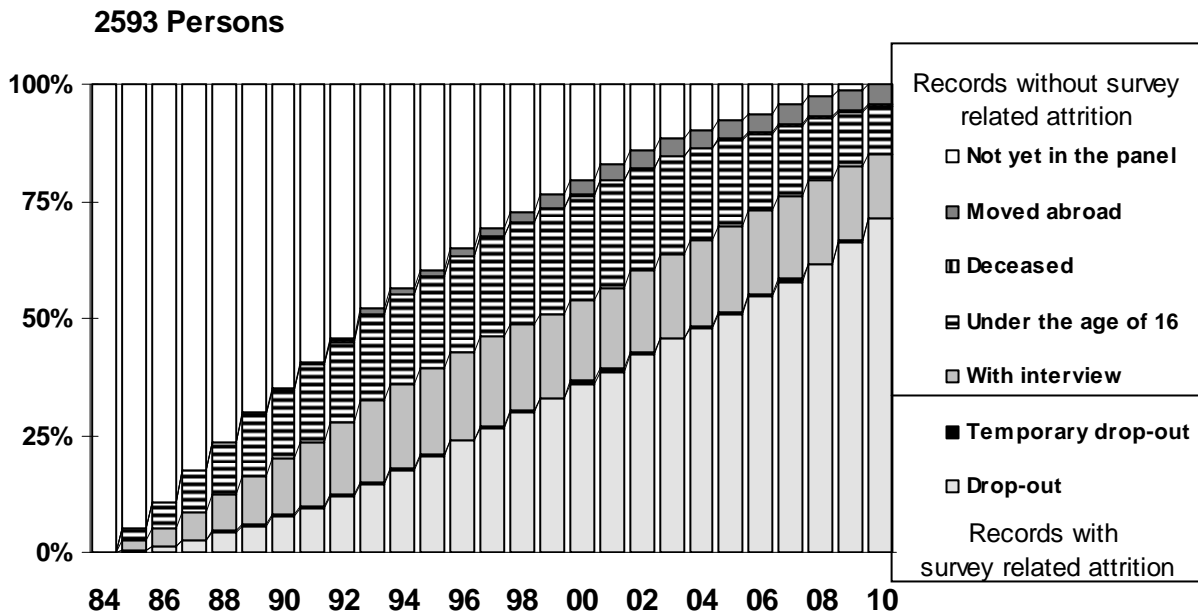


Figure 19: Entrants and their Participation Behavior (Subsample C).

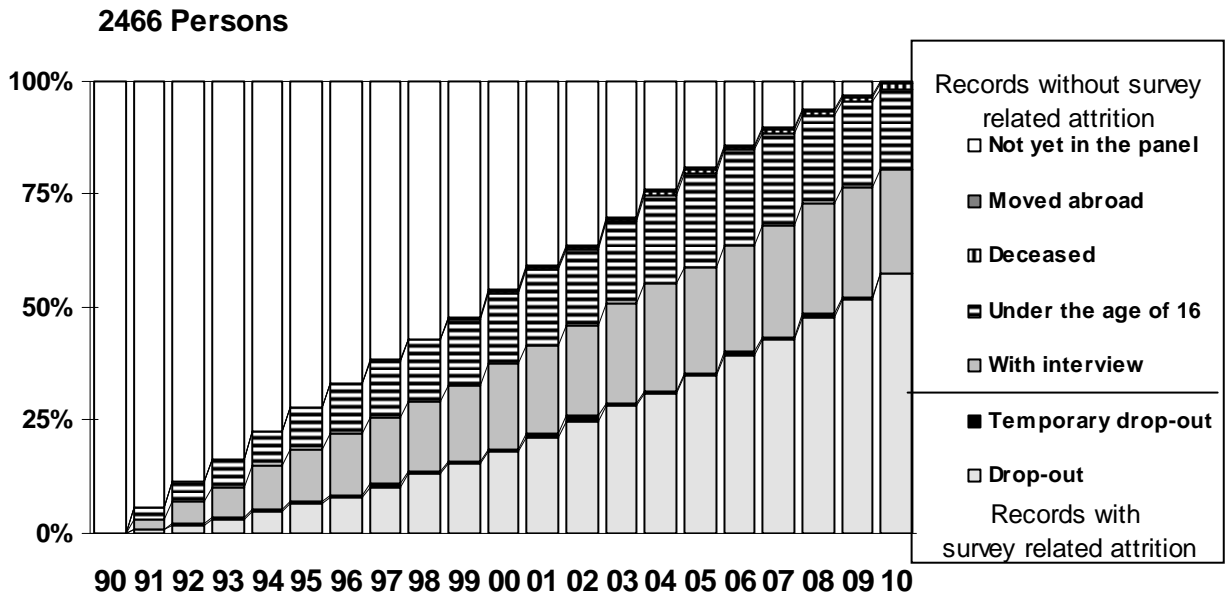


Figure 20: Entrants and their Participation Behavior (Subsample D).

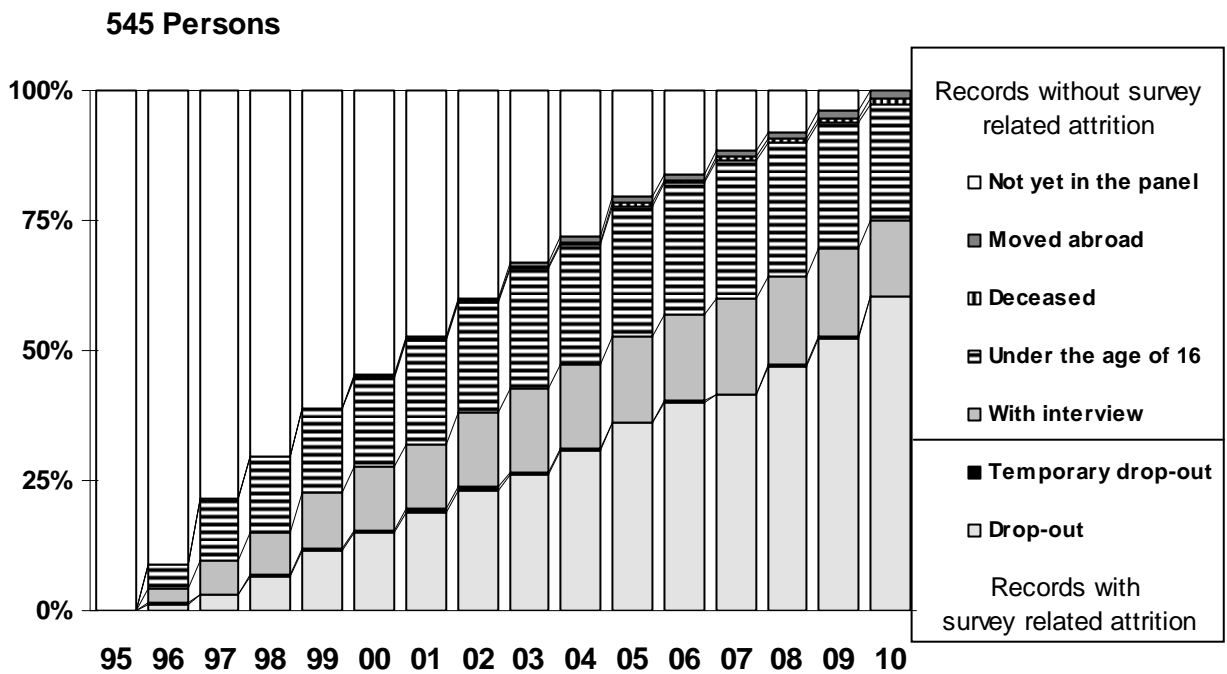


Figure 21: Entrants and their Participation Behavior (Subsample E).

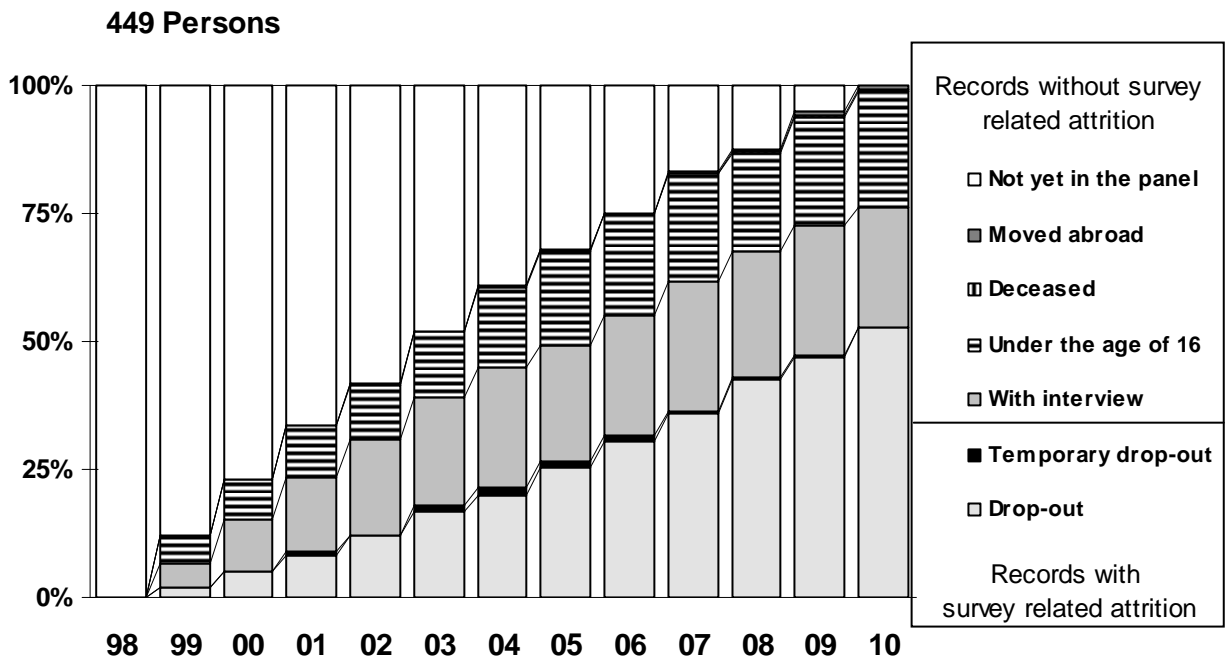


Figure 22: Entrants and their Participation Behavior (Subsample F).

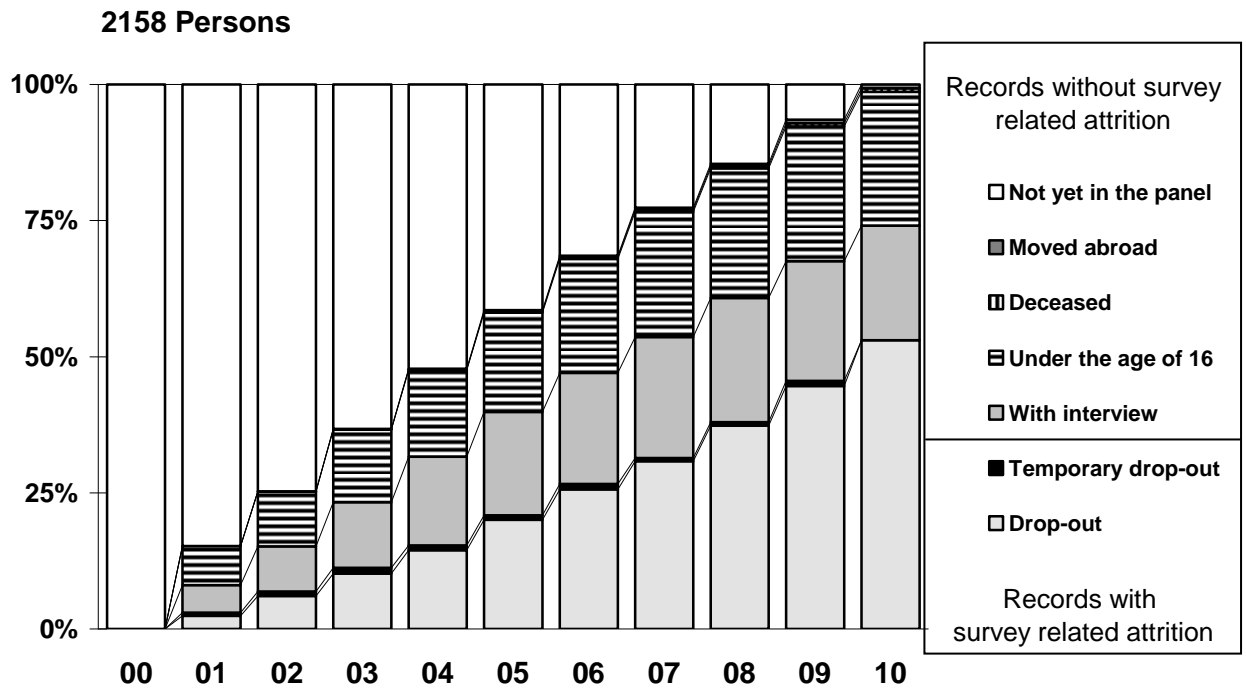


Figure 23: Entrants and their Participation Behavior (Subsample G).

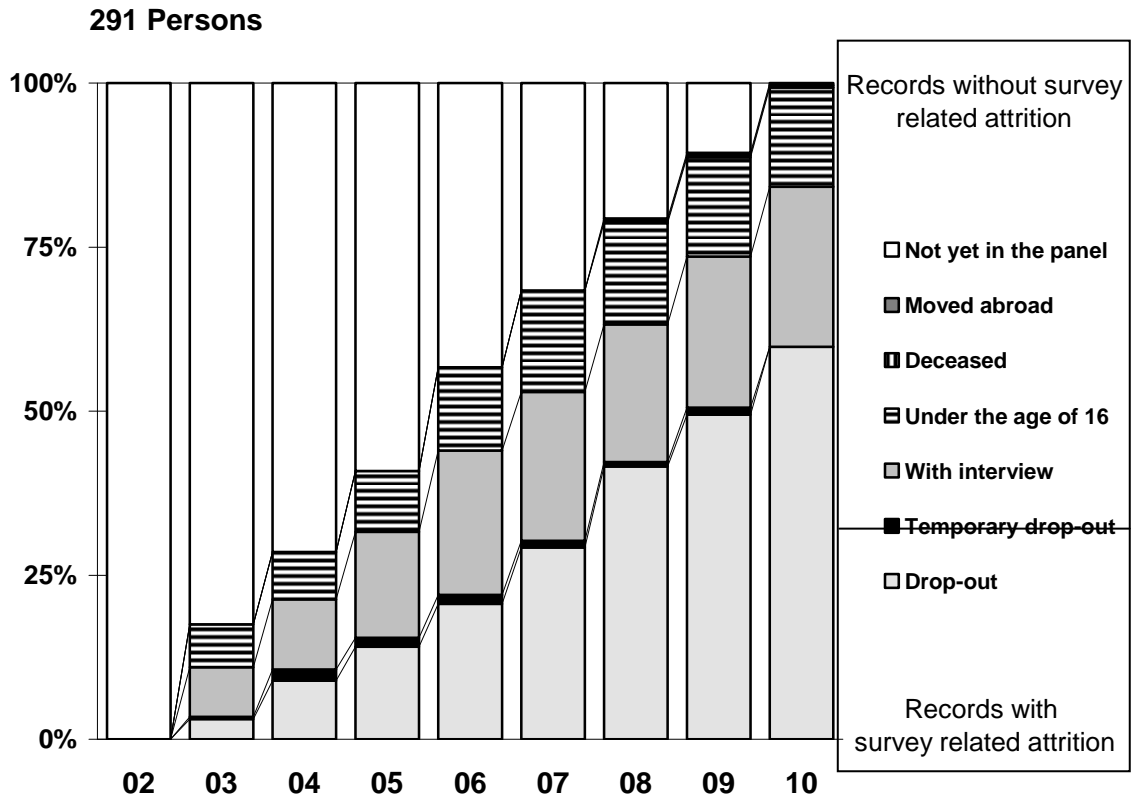
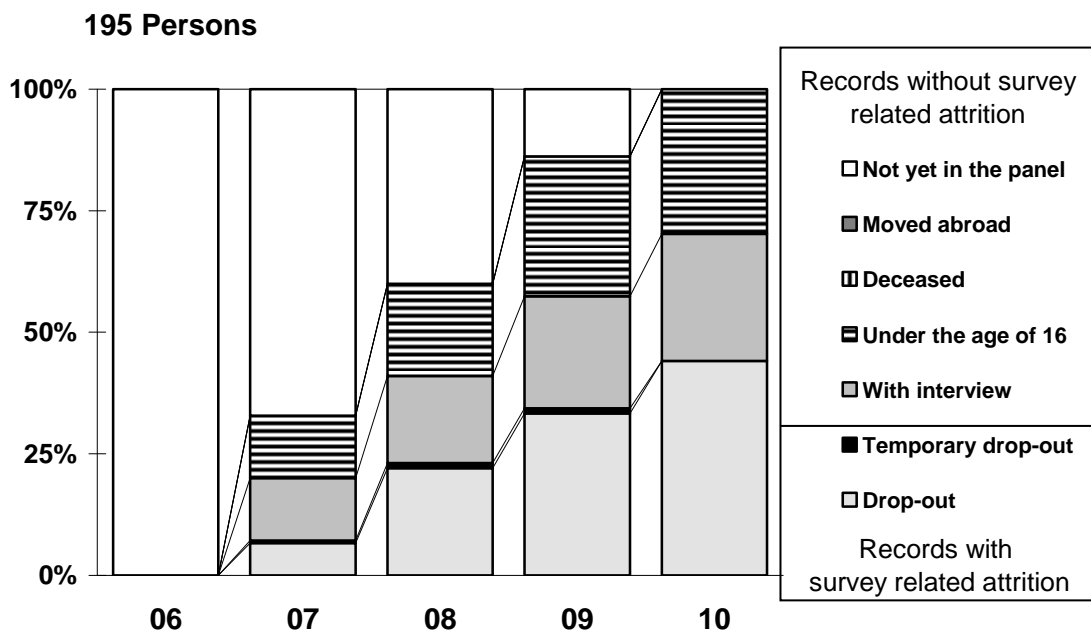


Figure 24: Entrants and their Participation Behavior (Subsample H).



## 2.4 The Risk of Survey-Related Panel Attrition

The following figures display Kaplan-Meier estimates of the risk of survey related attrition (unsuccessful follow-up and refusal) of the net sample of first-wave respondents thereby ignoring survey unrelated exits (moves abroad and deaths). These figures stratify the drop-out risk in different groups of the sample defined by respondents' sample membership (Figures 25, 26, and 27) and some basic socio-demographic characteristics measured in the year of sampling, such as age, occupation, income, and education (Figures 28 through 31). These unweighted figures show in general only moderate differences in the risk of survey related attrition between groups of the sample. Among the older samples A through C (Figure 24), for instance, first-wave respondents from sample B have a somewhat lower probability of remaining in the survey than respondents from sample A and C. In the more recent samples D through H (Figure 25), first-wave respondents from sample H have a somewhat lower probability of remaining in the survey than respondents from sample F. The latter in turn, have a lower probability of remaining in the survey than respondents from sample G.

**Figure 25:** Successful Re-Interviewing of First-Wave Respondents by Subsamples A, B, C.

**Figure 26:** Successful Re-Interviewing of First-Wave Respondents by Subsamples D, E, F.

**Figure 27:** Successful Re-Interviewing of First-Wave Respondents by Subsamples G, H, I.

**Figure 28:** Successful Re-Interviewing of All First-Wave Respondents by Age Categories.

**Figure 29:** Successful Re-Interviewing of All First-Wave Respondents by Occupation.

**Figure 30:** Successful Re-Interviewing of All First-Wave Respondents by Income Quintiles.

**Figure 31:** Successful Re-Interviewing of All First-Wave Respondents by Education.

Figure 25: Successful Re-Interviewing of First-Wave Respondents by Subsamples A, B, C. Kaplan-Meier Estimates of Survey-Related Attrition Ignoring Deaths and Moves Abroad.

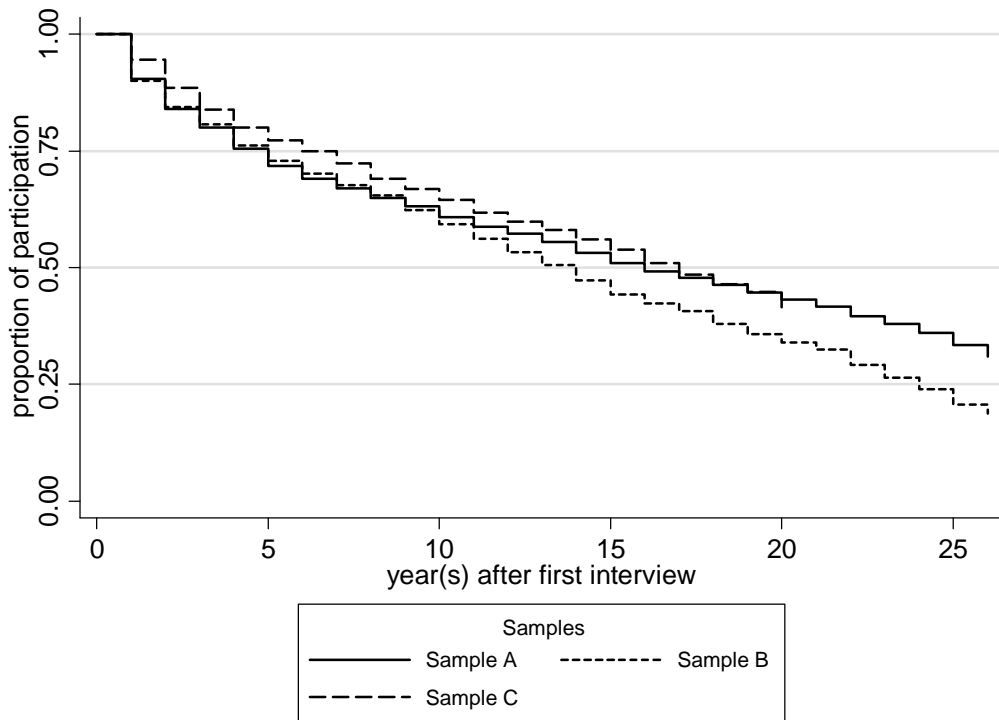


Figure 26: Successful Re-Interviewing of First-Wave Respondents by Subsamples D, E, F. Kaplan-Meier Estimates of Survey-Related Attrition Ignoring Deaths and Moves Abroad.

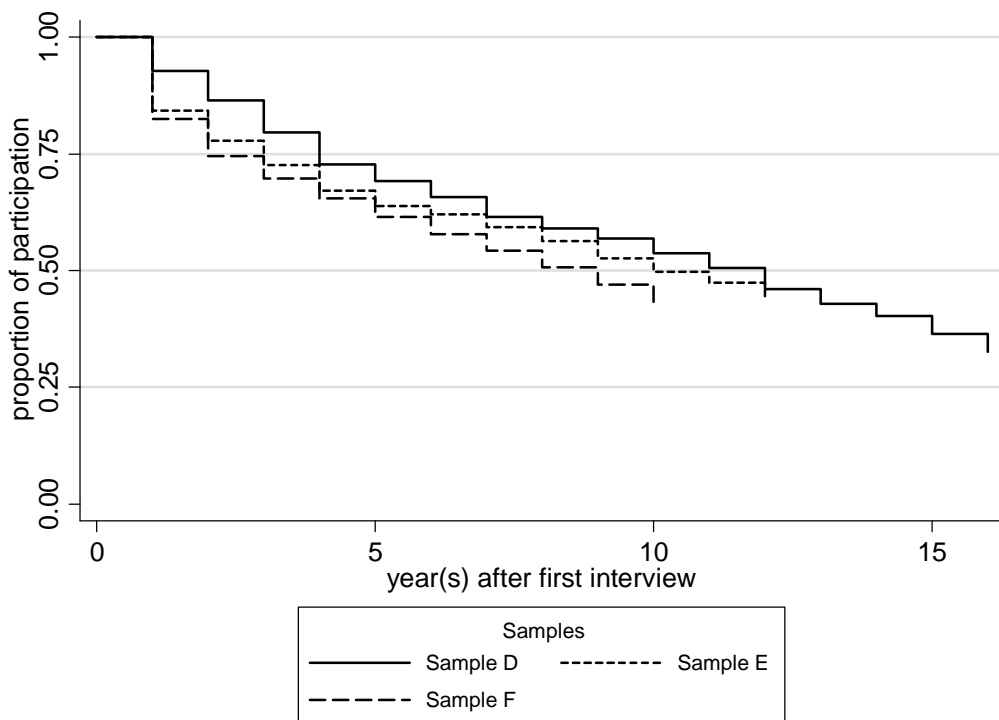


Figure 27: **Successful Re-Interviewing of First-Wave Respondents by Subsamples G, H, I. Kaplan-Meier Estimates of Survey-Related Attrition Ignoring Deaths and Moves Abroad.**

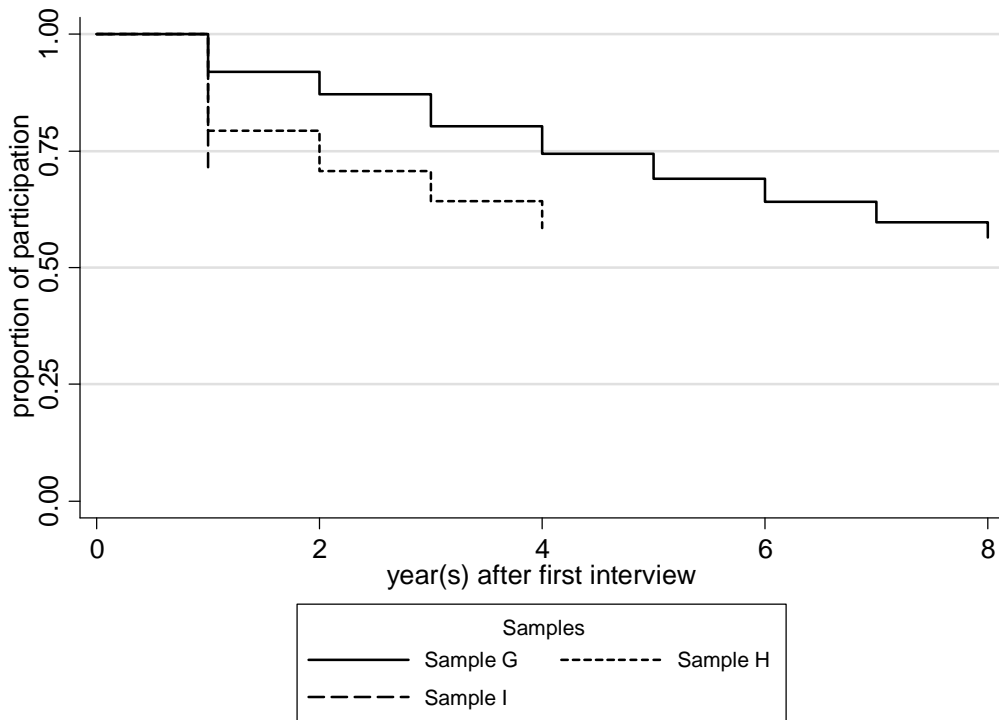


Figure 28: **Successful Re-Interviewing of All First-Wave Respondents by Age Categories. Kaplan-Meier Estimates of Survey-Related Attrition Ignoring Deaths and Moves Abroad.**

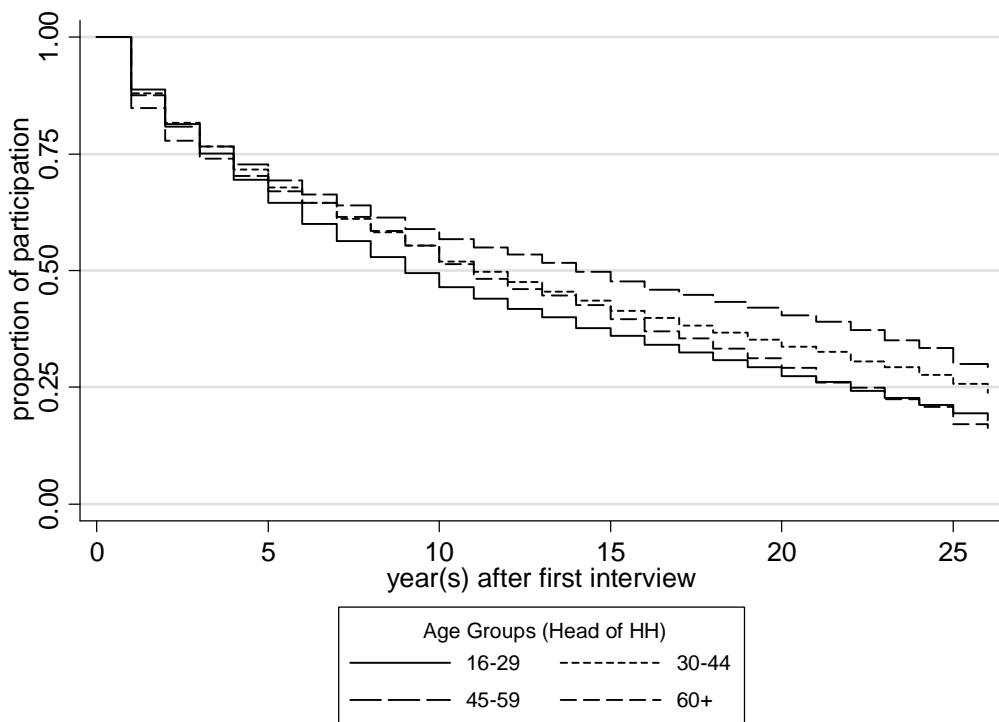


Figure 29: **Successful Re-Interviewing of All First-Wave Respondents by Occupation. Kaplan-Meier Estimates of Survey-Related Attrition Ignoring Deaths and Moves Abroad.**

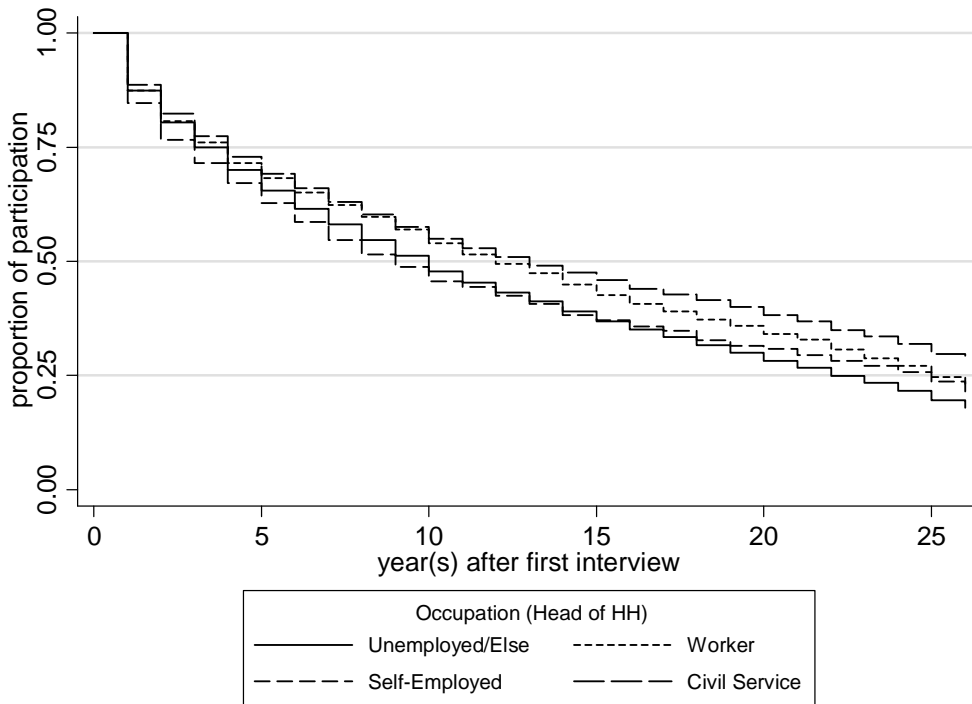


Figure 30: **Successful Re-Interviewing of All First-Wave Respondents by Income Quintiles. Kaplan-Meier Estimates of Survey-Related Attrition Ignoring Deaths and Moves Abroad.**

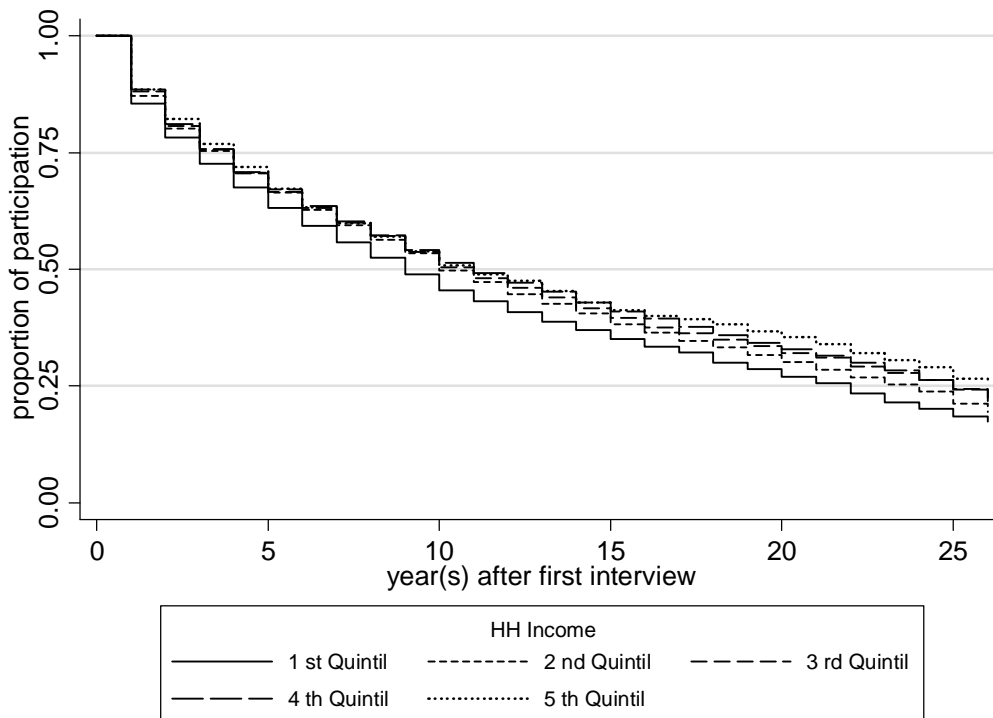
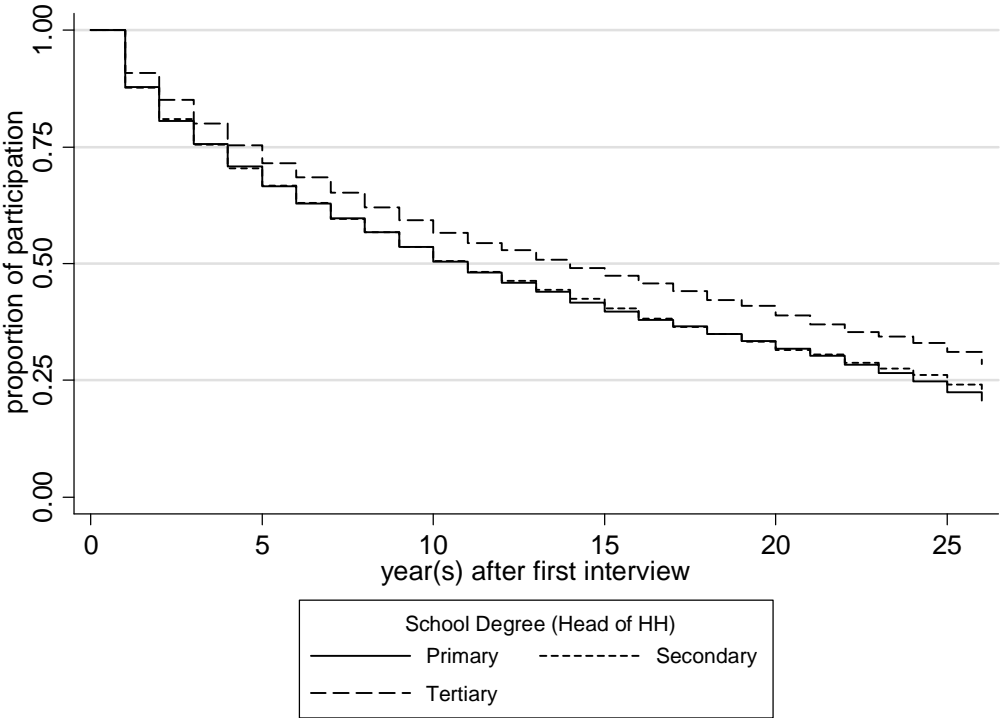




Figure 31: **Successful Re-Interviewing of All First-Wave Respondents by Education. Kaplan-Meier Estimates of Survey-Related Attrition Ignoring Deaths and Moves Abroad.**



### **3 Panel Attrition Due to Unsuccessful Follow-Ups**

In each panel wave, the first step in successful re-interviewing is the relocation of the households of the preceding wave. The fieldwork organization of the SOEP, TNS Infratest Sozialforschung, identifies whether (a) a household still lives at the old address, (b) an entire household has moved or all household members have died, (c) all household members have left the sampling area, and (d) all household members have returned to an existing panel household.

#### **3.1 The Frequency of Successful Follow-Ups**

Table 1 displays the number of households of the previous waves that need to be re-contacted and the relative frequency of successful follow-ups in subsamples A through I and waves 1985 through 2010. The re-contact rates refer to all households of the previous wave that still exist in the sampling area plus split-off households. A contact is regarded as successful if the interviewer documented a completed interview or refusal in the address protocol. Moreover, if former household members returned to an existing panel household, this is classified as a successful follow-up.

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### 3 Panel Attrition Due to Unsuccessful Follow-Ups

**Table 1: The Frequency of Households to be Re-Contacted and the Relative Proportion of Successful Follow-Ups by Subsample and Year.**

| Year | A    |      | B    |      | C    |      | D   |      | E    |      | F    |      | G    |      | H    |      | I    |      |
|------|------|------|------|------|------|------|-----|------|------|------|------|------|------|------|------|------|------|------|
|      | n    | %    | n    | %    | n    | %    | n   | %    | n    | %    | n    | %    | n    | %    | n    | %    | n    | %    |
| 1985 | 4681 | 98.5 | 1370 | 96.9 |      |      |     |      |      |      |      |      |      |      |      |      |      |      |
| 1986 | 4486 | 99.0 | 1325 | 97.4 |      |      |     |      |      |      |      |      |      |      |      |      |      |      |
| 1987 | 4232 | 99.1 | 1220 | 98.7 |      |      |     |      |      |      |      |      |      |      |      |      |      |      |
| 1988 | 4140 | 99.2 | 1191 | 99.1 |      |      |     |      |      |      |      |      |      |      |      |      |      |      |
| 1989 | 3984 | 99.1 | 1157 | 99.1 |      |      |     |      |      |      |      |      |      |      |      |      |      |      |
| 1990 | 3902 | 99.2 | 1124 | 98.9 |      |      |     |      |      |      |      |      |      |      |      |      |      |      |
| 1991 | 3860 | 99.5 | 1151 | 99.3 | 2246 | 98.5 |     |      |      |      |      |      |      |      |      |      |      |      |
| 1992 | 3845 | 99.7 | 1153 | 99.2 | 2304 | 99.5 |     |      |      |      |      |      |      |      |      |      |      |      |
| 1993 | 3867 | 99.3 | 1172 | 98.7 | 2227 | 99.1 |     |      |      |      |      |      |      |      |      |      |      |      |
| 1994 | 3849 | 99.3 | 1150 | 99.1 | 2136 | 99.4 |     |      |      |      |      |      |      |      |      |      |      |      |
| 1995 | 3784 | 99.5 | 1108 | 99.0 | 2113 | 99.6 |     |      |      |      |      |      |      |      |      |      |      |      |
| 1996 | 3747 | 99.7 | 1069 | 99.3 | 2104 | 99.5 | 544 | 99.6 |      |      |      |      |      |      |      |      |      |      |
| 1997 | 3688 | 99.6 | 1038 | 99.1 | 2091 | 99.5 | 542 | 99.3 |      |      |      |      |      |      |      |      |      |      |
| 1998 | 3667 | 99.4 | 1019 | 99.4 | 2081 | 99.4 | 498 | 99.4 |      |      |      |      |      |      |      |      |      |      |
| 1999 | 3631 | 99.6 | 975  | 99.4 | 2041 | 99.7 | 529 | 99.1 | 1100 | 99.5 |      |      |      |      |      |      |      |      |
| 2000 | 3549 | 99.6 | 934  | 99.5 | 2028 | 99.6 | 467 | 99.8 | 968  | 99.2 |      |      |      |      |      |      |      |      |
| 2001 | 3463 | 99.6 | 904  | 99.5 | 2036 | 99.7 | 454 | 99.1 | 922  | 99.1 | 6172 | 99.0 |      |      |      |      |      |      |
| 2002 | 3406 | 99.7 | 877  | 99.1 | 2010 | 99.5 | 450 | 99.8 | 875  | 99.4 | 5451 | 99.5 |      |      |      |      |      |      |
| 2003 | 3330 | 99.6 | 840  | 99.6 | 1982 | 99.6 | 434 | 99.5 | 834  | 99.3 | 4965 | 99.7 | 1056 | 99.1 |      |      |      |      |
| 2004 | 3260 | 99.8 | 803  | 99.6 | 1962 | 99.6 | 436 | 99.8 | 797  | 99.7 | 4736 | 99.6 | 1010 | 99.7 |      |      |      |      |
| 2005 | 3220 | 99.8 | 779  | 99.4 | 1959 | 99.7 | 429 | 99.3 | 783  | 99.1 | 4577 | 99.7 | 1001 | 99.7 |      |      |      |      |
| 2006 | 3138 | 99.7 | 770  | 99.6 | 1941 | 99.4 | 425 | 98.8 | 775  | 99.1 | 4401 | 99.3 | 995  | 99.5 |      |      |      |      |
| 2007 | 3000 | 99.7 | 725  | 99.5 | 1834 | 99.9 | 387 | 99.5 | 727  | 99.7 | 4157 | 99.5 | 933  | 99.3 | 1530 | 99.5 |      |      |
| 2008 | 2856 | 99.7 | 676  | 99.2 | 1767 | 99.5 | 372 | 99.4 | 680  | 99.7 | 3962 | 99.4 | 904  | 99.6 | 1326 | 99.6 |      |      |
| 2009 | 2730 | 99.7 | 620  | 99.3 | 1695 | 99.8 | 351 | 99.7 | 636  | 100  | 3760 | 99.6 | 870  | 99.5 | 1145 | 99.7 |      |      |
| 2010 | 2570 | 99.8 | 548  | 99.4 | 1627 | 100  | 334 | 99.7 | 605  | 99.8 | 3538 | 99.5 | 826  | 99.8 | 1059 | 99.5 | 1737 | 98.3 |

n = Number of households to be recontacted

% = Percentage of households with successful recontact

### 3.2 Predicting the Probability of Successful vs. Unsuccessful Follow-Ups in the Year 2010

Based on the household and interview characteristics measured in 2009, we aim at predicting the probability of re-contacting a household relative to unsuccessful follow-up in 2010. Among a very large number of regressors that we tested in preliminary analyses, we identified a smaller number of variables that exert a robust effect on the probability of successful follow-ups ( $p < 0.05$ ). Table 2 describes the regressors and Table 3 reports the subsample-specific estimates of logit models of the probability of re-contacting a household relative to unsuccessful follow-up.

Note that the estimates of regression models of the previous waves 1985 through 2009 are due to space restrictions not reported in the present data documentation, but can be obtained from previous attrition documentations.

Table 2: Definition of the Regressors of the Logit Model of Unsuccessful Follow-Ups.

| Variable                         | Label   | Value |
|----------------------------------|---|-------|
| <b>Interview Characteristics</b> |   |       |
| Freshmen                         | Head of HH's Number of Interviews below Three | 0/1   |
| Phone Disclosed                  | Telephone Number Known                        | 0/1   |
| Change in Interviewer            | Change in Interviewer between Last Waves      | 0/1   |
| Onomastic Sampling               | Onomastic Sampling (0=Germans, 1=Migrants)    | 0/1   |
| Temp. Related HH                 | Related HH Temporary Drop-Out                 | 0/1   |
| Interviewer Related HH           | Same Interviewer in Related HH                | 0/1   |
| <b>Demographics and Health</b>   |   |       |
| Age below 25                     | Head of HH Younger than 25 Years              | 0/1   |
| Age 25-34                        | Head of HH between 25 and 34 Years            | 0/1   |
| Age 35-44                        | Head of HH between 35 and 44 Years            | 0/1   |
| Single HH                        | One Person Living in HH                       | 0/1   |
| Couple previous Year             | Couple in HH in Previous Year                 | 0/1   |

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### 3 Panel Attrition Due to Unsuccessful Follow-Ups

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|                   |                             |     |
|-------------------|-----------------------------|-----|
| Separation Couple | Separation Unmarried Couple | 0/1 |
|-------------------|-----------------------------|-----|

#### **Financial Situation, Real Estate and Insurance**

|                      |                                  |     |
|----------------------|----------------------------------|-----|
| Income not Specified | No Specification of Income of HH | 0/1 |
|----------------------|----------------------------------|-----|

|           |   |     |
|-----------|---|-----|
| Income 75 | HH in Third Quartile of Income Distribution | 0/1 |
|-----------|---|-----|

|          |  |     |
|----------|--|-----|
| Benefits | Unemployment Benefit or Social Benefit | 0/1 |
|----------|--|-----|

#### **Work and Education**

|                  |   |     |
|------------------|---|-----|
| Non/ Semiskilled | Head of HH has Non- or Semiskilled Occupation | 0/1 |
|------------------|---|-----|

|                 |  |     |
|-----------------|--|-----|
| Likely Job Loss | Probability of Loss of Job of Head of HH higher than 50% | 0/1 |
|-----------------|--|-----|

#### **Personality Traits and Well-Being**

|                        |  |     |
|------------------------|--|-----|
| Low Political Interest | Head of HH has Very Low or No Political Interest | 0/1 |
|------------------------|--|-----|

|                   |  |     |
|-------------------|--|-----|
| Low Agreeableness | Low Agreeableness (Big Five) of Head of HH | 0/1 |
|-------------------|--|-----|

|                       |  |     |
|-----------------------|--|-----|
| Low Conscientiousness | Low Conscientiousness (Big Five) of Head of HH | 0/1 |
|-----------------------|--|-----|

|              |                            |     |
|--------------|----------------------------|-----|
| Low Optimism | Low Optimism of Head of HH | 0/1 |
|--------------|----------------------------|-----|

#### **Building, Area and Region**

|             |  |     |
|-------------|--|-----|
| Single Area | HH Located in Area with Mostly Single HHs (Microm) | 0/1 |
|-------------|--|-----|

|                      |  |     |
|----------------------|--|-----|
| Apartment Block Area | HH Located in Area with Mostly Apartment Blocks (Microm) | 0/1 |
|----------------------|--|-----|

|                      |  |     |
|----------------------|--|-----|
| Low Purchasing Power | HH in Area with Low of Purchasing-Power (Microm) | 0/1 |
|----------------------|--|-----|

|                       |   |     |
|-----------------------|---|-----|
| High Purchasing Power | HH in Area with High of Purchasing-Power (Microm) | 0/1 |
|-----------------------|---|-----|

|                        |                                      |     |
|------------------------|--------------------------------------|-----|
| North Rhine-Westphalia | HH Located in North Rhine-Westphalia | 0/1 |
|------------------------|--------------------------------------|-----|

|                     |                           |     |
|---------------------|---------------------------|-----|
| East, Previous Wave | HH in East Germany in t-1 | 0/1 |
|---------------------|---------------------------|-----|

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3 Panel Attrition Due to Unsuccessful Follow-Ups

Table 3a: Estimates of Logit Models of the Probability of Re-Contacting a Household (Relative to Unsuccessful Follow-Up) in 2010.

|  | Sample A        | Sample B         | Sample C | Sample D | Sample E | Sample F         | Sample G | Sample H        | Sample I         |
|--|-----------------|------------------|----------|----------|----------|------------------|----------|-----------------|------------------|
| Intercept  | 2.13 (0.35) *** | 2.01 (0.25) ***  |          |          |          | 4.29 (0.65) ***  |          | 2.31 (0.30) *** | 2.59 (0.37) ***  |
| <b><u>Interview Characteristics</u></b>                      |                 |                  |          |          |          |                  |          |                 |                  |
| Freshmen   |                 | -0.93 (0.47) **  |          |          |          |                  |          |                 |                  |
| Phone Disclosed  | 0.66 (0.26) **  |                  |          |          |          |                  |          |                 |                  |
| Change in Interv.  |                 |                  |          |          |          |                  |          | -0.64 (0.28) ** |                  |
| Onomastic Sampling   |                 |                  |          |          |          |                  |          |                 | -0.72 (0.21) *** |
| Temp. Related HH   |                 |                  |          |          |          | -0.73 (0.30) **  |          |                 |                  |
| Interv. Related HH   |                 |                  |          |          |          |                  |          | -0.71 (0.28) ** |                  |
| <b><u>Demographics and Health</u></b>                        |                 |                  |          |          |          |                  |          |                 |                  |
| Age below 25   | -0.75 (0.35) ** | -1.03 (0.37) *** |          |          |          | -1.09 (0.37) *** |          |                 | -0.73 (0.25) *** |
| Age 25-34  |                 |                  |          |          |          | -0.96 (0.36) *** |          |                 |                  |
| Age 35-44  |                 |                  |          |          |          | -0.90 (0.38) **  |          |                 |                  |
| Single HH  |                 |                  |          |          |          | -1.07 (0.28) *** |          |                 | -0.79 (0.22) *** |
| Couple previous Year   |                 |                  |          |          |          | -0.54 (0.22) **  |          |                 |                  |
| Separation Couple  | -0.94 (0.39) ** |                  |          |          |          |                  |          |                 |                  |
| <b><u>Financial Situation, Real Estate and Insurance</u></b> |                 |                  |          |          |          |                  |          |                 |                  |
| Income not Specified   | -0.8 (0.33) *** |                  |          |          |          |                  |          |                 | 0.78 (0.19) ***  |
| Income 75  |                 |                  |          |          |          | -0.46 (0.23) **  |          |                 |                  |
| Benefits   |                 |                  |          |          |          | -0.67 (0.26) *** |          | -0.68 (0.27) ** |                  |

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3 Panel Attrition Due to Unsuccessful Follow-Ups

Table 3b: Estimates of Logit Models of the Probability of Re-Contacting a Household (Relative to Unsuccessful Follow-Up) in 2010.

|   | Sample A       | Sample B | Sample C | Sample D | Sample E | Sample F        | Sample G | Sample H | Sample I        |
|---|----------------|----------|----------|----------|----------|-----------------|----------|----------|-----------------|
| <b><u>Work and Education</u></b>                |                |          |          |          |          |                 |          |          |                 |
| Non/ Semiskilled                                |                |          |          |          |          |                 |          |          | -0.65 (0.26)**  |
| Likely Job Loss                                 |                |          |          |          |          |                 |          |          | -0.45 (0.22)**  |
| <b><u>Personality Traits and Well-Being</u></b> |                |          |          |          |          |                 |          |          |                 |
| Low Political Interest                          |                |          |          |          |          |                 |          |          | -0.38 (0.19)**  |
| Low Agreeableness                               | -0.67 (0.32)** |          |          |          |          |                 |          |          |                 |
| Low Conscient.                                  |                |          |          |          |          |                 |          |          | -0.53 (0.20)*** |
| Low Optimism                                    |                |          |          |          |          |                 |          |          | 0.61 (0.28)**   |
| <b><u>Building, Area and Region</u></b>         |                |          |          |          |          |                 |          |          |                 |
| Single Area                                     |                |          |          |          |          |                 |          |          | -0.52 (0.21)**  |
| Apartm. Block Area                              |                |          |          |          |          |                 |          |          | -0.43 (0.22)**  |
| Low Purch. Power                                |                |          |          |          |          | -0.67 (0.24)*** |          |          | 0.77 (0.36)**   |
| High Purch. Power                               |                |          |          |          |          | -0.65 (0.30)**  |          |          | 0.77 (0.36)**   |
| N.Rhine-Westphalia                              |                |          |          |          |          | -0.65 (0.23)*** |          |          |                 |
| East, Previous Wave                             |                |          |          |          |          |                 |          |          | -0.56 (0.23)**  |
| <i>Likel. Ratio (Pr &gt; 0.45</i>               |                | ****     | ****     | ****     |          | ****            | ****     | ****     |                 |

Note. \*\*\* p < 0.01; \*\* p < 0.05; \* p < 0.10; standard errors in parentheses.

## **4 Panel Attrition Due to Refusals**

In each panel wave, the second step in successful re-interviewing after relocating households from the preceding wave is to obtain each household's confirmation of willingness to participate in the survey. We define successful re-interviewing relative only to survey-related panel attrition, such as refusals, and ignore survey-unrelated attrition, such as deaths, and moves abroad, to generate the longitudinal weights.

### **4.1 The Frequency of Participation**

Table 4 displays the participation rates due to refusal by sub-sample and wave. In reverse one can derive the corresponding drop-out rates. Note that we did not distinguish between various types of refusals such as unconditional refusals, refusals due to lack of time, or health problems, etc.



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4 Panel Attrition Due to Refusals

**Table 4: The Frequency of Re-Contacted Households and the Relative Proportion of Participation by Subsample and Year.**

| Year | A    |      | B    |       | C    |      | D   |      | E    |      | F    |      | G    |      | H    |      | I    |      |
|------|------|------|------|-------|------|------|-----|------|------|------|------|------|------|------|------|------|------|------|
|      | n    | %    | n    | %     | n    | %    | n   | %    | n    | %    | n    | %    | n    | %    | n    | %    | n    | %    |
| 1985 | 4611 | 89.8 | 1326 | 89.1  |      |      |     |      |      |      |      |      |      |      |      |      |      |      |
| 1986 | 4442 | 89.2 | 1290 | 87.4  |      |      |     |      |      |      |      |      |      |      |      |      |      |      |
| 1987 | 4194 | 93.2 | 1204 | 92.7  |      |      |     |      |      |      |      |      |      |      |      |      |      |      |
| 1988 | 4105 | 91.1 | 1180 | 90.8  |      |      |     |      |      |      |      |      |      |      |      |      |      |      |
| 1989 | 3949 | 92.4 | 1146 | 91.0  |      |      |     |      |      |      |      |      |      |      |      |      |      |      |
| 1990 | 3871 | 93.3 | 1111 | 92.5  |      |      |     |      |      |      |      |      |      |      |      |      |      |      |
| 1991 | 3842 | 94.0 | 1143 | 92.4  | 2213 | 91.7 |     |      |      |      |      |      |      |      |      |      |      |      |
| 1992 | 3833 | 93.5 | 1144 | 92.7  | 2290 | 88.2 |     |      |      |      |      |      |      |      |      |      |      |      |
| 1993 | 3838 | 93.9 | 1156 | 92.0  | 2208 | 89.2 |     |      |      |      |      |      |      |      |      |      |      |      |
| 1994 | 3821 | 93.6 | 1139 | 89.8  | 2122 | 92.3 |     |      |      |      |      |      |      |      |      |      |      |      |
| 1995 | 3766 | 93.6 | 1097 | 89.5  | 2101 | 92.2 | 634 | 82.3 |      |      |      |      |      |      |      |      |      |      |
| 1996 | 3734 | 93.3 | 1061 | 90.5  | 2092 | 93.3 | 542 | 91.9 |      |      |      |      |      |      |      |      |      |      |
| 1997 | 3674 | 94.1 | 1029 | 90.5  | 2076 | 93.6 | 537 | 89.2 |      |      |      |      |      |      |      |      |      |      |
| 1998 | 3645 | 92.9 | 1013 | 88.6  | 2066 | 91.3 | 523 | 84.3 |      |      |      |      |      |      |      |      |      |      |
| 1999 | 3616 | 92.0 | 969  | 88.5  | 2030 | 93.3 | 495 | 85.9 | 1084 | 81.7 |      |      |      |      |      |      |      |      |
| 2000 | 3535 | 91.7 | 929  | 88.3  | 2018 | 93.1 | 466 | 91.2 | 959  | 87.8 |      |      |      |      |      |      |      |      |
| 2001 | 3448 | 91.9 | 899  | 90.0  | 2028 | 91.2 | 450 | 88.4 | 913  | 88.8 | 6109 | 80.4 |      |      |      |      |      |      |
| 2002 | 3396 | 92.0 | 869  | 88.1  | 1996 | 91.1 | 449 | 89.5 | 868  | 89.1 | 5420 | 84.6 |      |      |      |      |      |      |
| 2003 | 3318 | 92.6 | 837  | 88.6  | 1974 | 91.5 | 432 | 92.4 | 828  | 89.9 | 4951 | 88.6 | 1047 | 87.0 |      |      |      |      |
| 2004 | 3253 | 92.5 | 800  | 89.25 | 1955 | 92.7 | 435 | 89.2 | 795  | 92.1 | 4719 | 89.7 | 1007 | 89.8 |      |      |      |      |
| 2005 | 3214 | 91.4 | 774  | 90.2  | 1954 | 90.6 | 426 | 89.0 | 782  | 90.3 | 4564 | 89.2 | 998  | 88.1 |      |      |      |      |
| 2006 | 3130 | 90.1 | 767  | 85.4  | 1930 | 89.0 | 420 | 85.7 | 768  | 89.3 | 4370 | 89.1 | 990  | 86.8 |      |      |      |      |
| 2007 | 2992 | 91.0 | 721  | 85.2  | 1832 | 90.3 | 385 | 89.6 | 725  | 89.2 | 4138 | 89.3 | 926  | 89.0 | 1523 | 78.0 |      |      |
| 2008 | 2850 | 90.7 | 671  | 84.9  | 1759 | 90.5 | 370 | 88.6 | 678  | 88.8 | 3939 | 89.2 | 901  | 87.3 | 1321 | 81.9 |      |      |
| 2009 | 2723 | 89.0 | 616  | 81.2  | 1693 | 90.7 | 350 | 87.4 | 636  | 90.3 | 3746 | 88.2 | 866  | 87.4 | 1142 | 87.2 |      |      |
| 2010 | 2565 | 87.5 | 545  | 80.9  | 1627 | 88.3 | 333 | 83.5 | 604  | 91.6 | 3523 | 86.7 | 825  | 90.1 | 1054 | 86.6 | 1708 | 71.3 |

n = Number of re-contacted households

% = Percentage of households that participated

## 4.2 Predicting the Probability of Re-Interviewing versus Refusal in the Year 2010

Based on the household and interview characteristics measured in 2009, and some regional information measured in 2010, we aim at predicting the probability of agreement vs. refusal to participate in the survey by the households that were re-contacted in 2010. The individual attributes refer in many cases to the head of the household in the previous wave, but for split-off households the attributes refer to the person who moved out of the panel household (in the case of several persons, the first person mentioned in the address protocol). In many other cases, personal information are aggregated within the households, for instance, rare events, such as acute medical conditions.

As in the case of predicting successful follow-ups, we use only model specifications where all included regressors are significantly different from zero. The definition of the regressors is given in Table 5. Table 6 reports the subsample-specific estimates of logit models of the probability of participating relative to refusal. Note that the estimates of regression models of the previous waves 1985 through 2009 are not reported in the present data documentation due to space restrictions, but can be obtained from previous attrition reports.

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## 4 Panel Attrition Due to Refusals

Table 5: **Definition of the Regressors of the Logit Model of Refusal.**

| <b>Variable</b>                  | <b>Label</b>                                  | <b>Value</b> |
|----------------------------------|---|--------------|
| <b>Interview Characteristics</b> |   |              |
| Freshmen                         | Head of HH's Number of Interviews below Three | 0/1          |
| Original Sample Member           | Head of HH is Original Sample Member          | 0/1          |
| Moving Out                       | Person Moving out of HH in Previous Year      | 0/1          |
| HH Move                          | Existing HH with New Address                  | 0/1          |
| New HH                           | New Split-off HH with New Address             | 0/1          |
| Partial Unit Nonresponse         | Person(s) in HH did not Participate           | 0/1          |
| Temporary Drop-Out               | Temporary Drop-Out of HH in Previous Year     | 0/1          |
| Email Disclosed                  | Email Address Known                           | 0/1          |
| Phone Disclosed                  | Telephone Number Known                        | 0/1          |
| Change in Interviewer            | Change in Interviewer Between Last Waves      | 0/1          |
| Short Interview                  | Interview Duration 1- 15 Minutes              | 0/1          |
| CAPI                             | Computer Assisted Personal Interview          | 0/1          |
| SAQ                              | Self-Administered Questionnaire               | 0/1          |
| Change in Interview Mode         | Change in Interview Mode Between Last Waves   | 0/1          |
| Mother-Child-Questionnaire       | HH has Completed Mother-Child-Questionnaire   | 0/1          |
| Temp. Related HH                 | Related HH Temporary Drop-Out                 | 0/1          |
| Refusal Related HH               | Related HH Refusal                            | 0/1          |
| Interviewer Related HH           | Same Interviewer in Related HH                | 0/1          |
| <b>Demographics and Health</b>   |   |              |
| Age 55 - 64                      | Head of HH Age 55- 64                         | 0/1          |
| Age 75+                          | Head of HH Age 75 and Above                   | 0/1          |
| Single HH                        | One Person Living in HH                       | 0/1          |
| Couple                           | Unmarried Couple Previous Year                | 0/1          |
| Divorced                         | Head of HH Divorced                           | 0/1          |
| Widowed                          | Head of HH Widowed                            | 0/1          |
| High Blood Pressure              | Head of HH Suffering from High Blood Pressure | 0/1          |

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### 4 Panel Attrition Due to Refusals

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|   |  |     |
|---|--|-----|
| Migraine  | Head of HH Suffering from Migraine                       | 0/1 |
| Cancer  | Head of HH Suffering from Cancer                         | 0/1 |
| Hospital Stay Prev. Year                                | Head of HH staying in hospital in previous year          | 0/1 |
| Birth in HH   | Baby was Born In HH                                      | 0/1 |
| Death in HH   | Someone Deceased In HH                                   | 0/1 |
| <b>Financial Situation, Real Estate,. and Insurance</b> |  |     |
| Subtenant   | Subtenant of Dwelling                                    | 0/1 |
| Owner   | Owner of Dwelling  | 0/1 |
| Insurances  | More than 4 Insurances                                   | 0/1 |
| Income 25   | HH in First Quartile of Income Distribution              | 0/1 |
| Income 75   | HH in Third Quartile of Income Distribution              | 0/1 |
| Income 100  | HH in Fourth Quartile of Income Distribution             | 0/1 |
| <b>Work and Education</b>                               |  |     |
| Commuting   | At Least one Member of HH is Commuting                   | 0/1 |
| Unemployed  | Head of HH is Unemployed                                 | 0/1 |
| Irregular Employment                                    | Head of HH Irregularly Employed                          | 0/1 |
| Non/ Semiskilled  | Head of HH has non- or semiskilled occupation            | 0/1 |
| White-Collar Worker                                     | Head of HH is White-Collar Worker                        | 0/1 |
| Other Employee  | Head of HH is Other Employee                             | 0/1 |
| Management  | Head of HH is Manager                                    | 0/1 |
| Unemployed in HH  | At least one Person in HH is Unemployed                  | 0/1 |
| Not Employed in HH                                      | At least one Person in HH is Not Employed                | 0/1 |
| Tertiary Education                                      | Head of HH with Tertiary Education                       | 0/1 |
| Likely Job Loss   | Probability of Loss of Job of Head of HH higher than 50% | 0/1 |
| <b>Personality Traits and Well-Being</b>                |  |     |
| Low Happiness   | Head of HH has Low Level of Happiness                    | 0/1 |
| High Happiness  | Head of HH has High Level of Happiness                   | 0/1 |
| Low Optimism  | Low Optimism of Head of HH                               | 0/1 |
| Low Agreeableness                                       | Low Agreeableness (Big Five) of Head of HH               | 0/1 |

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### 4 Panel Attrition Due to Refusals

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|                        |  |     |
|------------------------|--|-----|
| High Agreeableness     | High Agreeableness (Big Five) of Head of HH      | 0/1 |
| High Openness          | Low Openness (Big Five) of Head of HH            | 0/1 |
| High Neuroticism       | High Neuroticism (Big Five) of Head of HH        | 0/1 |
| Low Risk Aversion      | Head of HH Willing to Take Risks                 | 0/1 |
| Worry about Job        | Head of HH worried about Job Security            | 0/1 |
| Low Political Interest | Head of HH Has very Low or No Political Interest | 0/1 |

### **Building, Area, and Region**

|                          |  |     |
|--------------------------|--|-----|
| Internet Area            | HH Located in Area of High Internet Affinity (Microm)        | 0/1 |
| Hedonistic-Materialistic | HH Located in Hedonistic-Materialistic Area (Microm)         | 0/1 |
| Traditional              | HH Located in Traditional Area (Microm)                      | 0/1 |
| Multi-Story Building     | HH Located in Building with 9 or More Flats                  | 0/1 |
| Single Family House Area | HH located in Area with Mostly Single Family Houses (Microm) | 0/1 |
| Apartment Block Area     | HH Located in Area with mostly Apartment Blocks (Microm)     | 0/1 |
| Family Area              | HH Located in Area with mostly Families (Microm)             | 0/1 |
| High Purchasing Power    | HH in Area with High of Purchasing-Power (Microm)            | 0/1 |
| North Rhine-Westphalia   | HH Located in North Rhine Westphalia                         | 0/1 |
| Meckl. West-Pomerania    | HH Located in Mecklenburg West-Pomerania                     | 0/1 |
| Baden- Württemberg       | HH Located in Baden- Württemberg                             | 0/1 |
| Berlin/Brandenburg       | HH Located in Berlin/ Brandenburg                            | 0/1 |
| Saxony-Anhalt            | HH Located in Saxony-Anhalt                                  | 0/1 |
| Bavaria                  | HH Located in Bavaria  | 0/1 |
| East                     | HH in East Germany   | 0/1 |
| East, Previous Wave      | HH in East Germany in t-1                                    | 0/1 |

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4 Panel Attrition Due to Refusals

**Table 6a: Estimates of Logit Models for the Probability of Re-Interviewing a Household (Relative to Refusal) in 2010.**

|   | Sample A        | Sample B        | Sample C        | Sample D         | Sample E        | Sample F        | Sample G         | Sample H        | Sample I        |
|---|-----------------|-----------------|-----------------|------------------|-----------------|-----------------|------------------|-----------------|-----------------|
| <b>Intercept</b>                        | 0.26 (0.13)**   | 1.26 (0.13)***  | 0.74 (0.16)***  | 0.04 (0.33) n.s. | 1.23 (0.08)***  | 0.17 (0.13)     | 0.29 (0.34) n.s. | -0.37 (0.26)    | -0.26 (0.13)**  |
| <b><i>Interview Characteristics</i></b> |                 |                 |                 |                  |                 |                 |                  |                 |                 |
| <b>Freshmen</b>                         |                 |                 | -0.79 (0.34)**  |                  |                 |                 |                  |                 |                 |
| <b>Original Sample Member</b>           |                 | 0.50 (0.15)***  | 0.18 (0.08)**   |                  |                 | 0.36 (0.06)***  |                  |                 |                 |
| <b>Moving Out</b>                       |                 |                 |                 |                  |                 |                 | 1.22 (0.50)**    |                 |                 |
| <b>HH Move</b>                          | -0.28 (0.11)**  |                 |                 |                  |                 |                 |                  |                 |                 |
| <b>New HH</b>                           |                 |                 |                 | -1.59 (0.52)***  |                 |                 |                  |                 |                 |
| <b>Partial Unit Nonresponse</b>         | -0.32 (0.09)*** |                 | -0.40 (0.13)*** |                  |                 | -0.39 (0.08)*** |                  | -0.41 (0.15)*** | -0.34 (0.09)*** |
| <b>Temporary Drop-Out</b>               |                 | -1.22 (0.40)*** |                 |                  | -1.08 (0.33)*** |                 |                  |                 |                 |
| <b>Email Disclosed</b>                  | 0.15 (0.07)**   |                 |                 |                  |                 | 0.15 (0.06)**   |                  | □               | 0.38 (0.10)***  |
| <b>Phone Disclosed</b>                  | 0.44 (0.10)***  |                 | 0.78 (0.12)***  | 1.21 (0.33)***   |                 | 0.73 (0.10)***  | 0.90 (0.27)***   | 0.79 (0.22)***  | 0.64 (0.11)***  |
| <b>Change in Interviewer</b>            | -1.03 (0.08)*** | -1.12 (0.18)*** | -0.94 (0.09)*** | -1.24 (0.26)***  | -0.74 (0.14)*** | -1.16 (0.07)*** | -0.95 (0.16)***  | -1.16 (0.12)*** | -0.70 (0.11)*** |
| <b>Short Interview</b>                  | 0.17 (0.06)***  |                 |                 |                  |                 |                 | 0.39 (0.15)**    |                 |                 |
| <b>CAPI</b>                             | 0.25 (0.08)***  |                 |                 |                  |                 |                 |                  |                 |                 |
| <b>SAQ</b>                              |                 |                 | 0.45 (0.10)***  |                  |                 |                 |                  | -0.57 (0.17)*** |                 |
| <b>Change in Interview Mode</b>         |                 | -0.41 (0.20)**  |                 | -1.50 (0.35)***  |                 | -0.33 (0.08)*** | -0.50 (0.21)**   |                 |                 |
| <b>Mother-Child-Questionn.</b>          |                 |                 |                 |                  |                 |                 |                  | 0.69 (0.33)**   |                 |
| <b>Temp. Related HH</b>                 |                 |                 | -0.63 (0.18)*** |                  |                 | -0.67 (0.16)*** |                  |                 |                 |
| <b>Refusal Related HH</b>               |                 |                 | -0.60 (0.15)*** |                  | -0.76 (0.38)**  |                 |                  |                 |                 |
| <b>Interviewer Related HH</b>           | 0.13 (0.06)**   |                 |                 | 0.70 (0.29)**    |                 | 0.20 (0.07)***  |                  |                 |                 |

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4 Panel Attrition Due to Refusals

Table 6b: Estimates of Logit Models for the Probability of Re-Interviewing a Household (Relative to Refusal) in 2010.

|   | Sample A        | Sample B        | Sample C        | Sample D       | Sample E | Sample F        | Sample G        | Sample H       | Sample I       |
|---|-----------------|-----------------|-----------------|----------------|----------|-----------------|-----------------|----------------|----------------|
| <b><i>Demographics and Health</i></b>                         |                 |                 |                 |                |          |                 |                 |                |                |
| Age 55- 64  |                 |                 |                 |                |          | 0.16 (0.08)**   |                 |                |                |
| Age 75+   |                 | -0.63 (0.28)**  |                 |                |          |                 |                 |                |                |
| Single HH   | -0.16 (0.07)*** | -0.50 (0.16)*** | -0.42 (0.11)*** |                |          | -0.33 (0.08)*** | -0.59 (0.20)*** |                | -0.19 (0.09)** |
| Couple  |                 |                 | -0.24 (0.11)**  |                |          | -0.42 (0.07)*** | -0.76 (0.20)*** |                |                |
| Divorced  | 0.20 (0.09)**   |                 |                 | 1.07 (0.41)*** |          |                 |                 |                |                |
| Widowed   |                 |                 |                 |                |          |                 | 1.18 (0.59)**   |                | 0.25 (0.11)**  |
| High Blood Pressure   | 0.14 (0.07)**   |                 |                 |                |          | 0.12 (0.06)**   |                 |                |                |
| Migraine  | 0.26 (0.12)**   |                 |                 |                |          |                 |                 |                |                |
| Cancer  |                 |                 |                 |                |          |                 | -0.46 (0.21)**  |                |                |
| Hospital Stay   |                 |                 |                 |                |          |                 |                 |                | -0.26 (0.10)** |
| Birth in HH   |                 |                 |                 |                |          |                 | -1.49 (0.63)**  | -1.00 (0.40)** |                |
| Death in HH   |                 |                 | 0.98 (0.40)**   |                |          |                 |                 |                |                |
| <b><i>Financial Situation, Real Estate, and Insurance</i></b> |                 |                 |                 |                |          |                 |                 |                |                |
| Subtenant   |                 |                 | -0.40 (0.18)**  |                |          |                 |                 |                |                |
| Owner   |                 |                 | -0.18 (0.08)**  |                |          | 0.21 (0.06)***  |                 |                |                |
| Insurances  |                 |                 |                 | 1.92 (0.67)*** |          |                 |                 |                |                |
| Income 25   |                 |                 |                 |                |          |                 |                 |                | 0.19 (0.09)**  |
| Income 75   |                 | -0.30 (0.15)**  |                 |                |          |                 |                 |                |                |
| Income 100  |                 |                 |                 | -0.68 (0.34)** |          |                 |                 |                |                |

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Table 6c: **Estimates of Logit Models for the Probability of Re-Interviewing a Household (Relative to Refusal) in 2010.**

|   | Sample A       | Sample B       | Sample C | Sample D        | Sample E | Sample F       | Sample G       | Sample H        | Sample I       |
|---|----------------|----------------|----------|-----------------|----------|----------------|----------------|-----------------|----------------|
| <b><u>Work and Education</u></b>                |                |                |          |                 |          |                |                |                 |                |
| Commuting                                       |                |                |          |                 |          |                |                | 0.31 (0.14)**   |                |
| Unemployed                                      |                |                |          |                 |          |                |                | 0.76 (0.34)**   |                |
| Irregular Employment                            |                |                |          |                 |          |                |                | 0.70 (0.19)***  |                |
| Non/ Semiskilled                                |                |                |          | -1.21 (0.35)*** |          |                |                |                 |                |
| White-Collar Worker                             | 0.22 (0.07)*** |                |          | -0.58 (0.27)**  |          |                |                |                 |                |
| Other Employee                                  |                |                |          |                 |          |                | 0.55 (0.19)*** | 0.57 (0.17)***  |                |
| Management                                      |                |                |          |                 |          |                | 0.69 (0.17)*** | 0.43 (0.17)**   |                |
| Unemployed in HH                                |                | -0.41 (0.17)** |          |                 |          |                |                | -0.76 (0.28)*** |                |
| Not Employed in HH                              | 0.25 (0.07)*** |                |          |                 |          |                | 0.79 (0.17)*** | 0.50 (0.14)***  |                |
| Tertiary Education                              |                |                |          | 1.95 (0.56)***  |          |                |                |                 |                |
| Likely Job Loss                                 |                |                |          | 0.64 (0.27)**   |          |                |                |                 |                |
| <b><u>Personality Traits and Well-Being</u></b> |                |                |          |                 |          |                |                |                 |                |
| Low Happiness                                   |                |                |          | -0.66 (0.27)**  |          |                |                |                 |                |
| High Happiness                                  |                |                |          |                 |          |                | 0.30 (0.13)**  | 0.26 (0.11)**   |                |
| Low Optimism                                    |                |                |          |                 |          |                |                |                 | 0.18 (0.08)**  |
| Low Agreeableness                               |                |                |          |                 |          | 0.15 (0.06)**  |                |                 |                |
| High Agreeableness                              |                |                |          |                 |          |                |                |                 | -0.15 (0.07)** |
| High Openness                                   |                |                |          |                 |          | 0.17 (0.06)*** |                |                 | 0.15 (0.07)**  |
| High Neuroticism                                |                |                |          |                 |          |                |                | 0.23 (0.11)**   |                |
| Low Risk Aversion                               |                |                |          |                 |          | -0.12 (0.06)** |                |                 |                |
| Worry about Job                                 |                |                |          |                 |          |                |                |                 | -0.19 (0.08)** |
| Low Political Interest                          | 0.18 (0.06)*** |                |          |                 |          |                |                |                 |                |



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Table 6d: **Estimates of Logit Models for the Probability of Re-Interviewing a Household (Relative to Refusal) in 2010.**

|   | Sample A       | Sample B        | Sample C        | Sample D | Sample E        | Sample F        | Sample G       | Sample H       | Sample I       |
|---|----------------|-----------------|-----------------|----------|-----------------|-----------------|----------------|----------------|----------------|
| <b><u>Building, Area and Region</u></b> |                |                 |                 |          |                 |                 |                |                |                |
| Internet Area                           |                |                 |                 |          | 0.41 (0.17)**   |                 |                |                |                |
| Hedonistic-Material.                    |                |                 |                 |          |                 |                 |                | -0.28 (0.12)** |                |
| Traditional                             | -0.13 (0.06)** |                 |                 |          |                 |                 |                |                |                |
| Multi-Story Building                    | -0.24 (0.09)** |                 |                 |          |                 |                 |                |                |                |
| Single-Fam. House A.                    |                |                 |                 |          |                 |                 |                |                | 0.29 (0.08)*** |
| Apartment Block Area                    |                |                 |                 |          |                 |                 |                | 0.41 (0.16)**  |                |
| Family Area                             |                |                 |                 |          |                 |                 |                | -0.25 (0.11)** | -0.20 (0.09)** |
| High Purch. Power                       |                |                 | 0.90 (0.36)**   |          | -0.51 (0.19)*** |                 |                |                |                |
| N. Rhine- Westphalia                    |                |                 | -0.80 (0.28)*** |          |                 |                 |                |                |                |
| Meckl. West-Pome.                       | -1.52 (0.74)** |                 |                 |          |                 |                 |                |                |                |
| Baden- Württemberg                      |                | -0.40 (0.15)*** |                 |          |                 |                 |                |                |                |
| Berlin/Brandenburg                      |                | -1.34 (0.60)**  |                 |          |                 |                 |                |                | -0.33 (0.14)** |
| Saxony-Anhalt                           |                |                 |                 |          |                 | -0.33 (0.12)*** |                |                |                |
| Bavaria                                 |                | -0.40 (0.18)**  | -0.57 (0.25)**  |          |                 |                 |                |                |                |
| Hesse                                   |                |                 |                 |          |                 | 0.22 (0.11)**   |                |                |                |
| East                                    |                |                 |                 |          |                 |                 |                |                | 0.30 (0.10)*** |
| East, Previous Wave                     |                |                 |                 |          |                 | 0.31 (0.08)***  | 0.51 (0.17)*** | 0.29 (0.13)**  |                |
| <i>Likel. Ratio (Pr &gt; Chisq)</i>     | ****           | ****            | ****            | ****     | ****            | ****            | ****           | ****           | ****           |

Note. \*\*\* p < 0.01; \*\* p < 0.05; \* p < 0.10; standard errors in parentheses.

## **5 Summary Statistics of the Derived Longitudinal and Cross-Sectional Weights**

Based on the regression models of successful vs. unsuccessful recontacts and agreements vs. refusals to participate, we derive two sets of predicted probabilities, the product of which is the household's "staying probability". The inverse of this probability of staying in the SOEP in 2010 based on characteristics measured in 2009, BAHBLEIB, lends itself as a longitudinal weighting variable correcting for selective attrition between waves 2009 and 2010. Table 7 reports some sub-sample specific descriptive statistics of the longitudinal weights in each wave.

The product of the cross-sectional weight in 2009, ZHHRF, and the longitudinal weight in 2010, BAHBLEIB, provide the raw data for the cross-sectional weight in 2010. In a final step, the post-stratification of the cross-sectional weights corrects them to meet benchmarks of known marginals of the underlying population in 2010. These are at the household level states (Bundesländer), size of the community, household size, and house ownership. At the person level, SOEP weights are also adjusted to the marginal distributions of age, gender, and nationality (Non/German). Table 8 reports sub-sample-specific descriptive statistics of the derived cross-sectional weighting variable BAHHRF and in comparison all previous cross-sectional weights AHHRF through ZHHRF.

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**5 Summary Statistics of the Derived Longitudinal and Cross-Sectional Weights**

**Table 7a: Summary Statistics of the Derived Longitudinal Weights at the Household Level for Subsamples A through D (Percentiles of \$HBLEIB up to Wave 27).**

|                 | bhbleib | chbleib | dhbleib | ehbleib | fhbleib | ghbleib | hhbleib | ihbleib | jhbleib | khbleib | lhbleib | mhbleib | nhbleib | ohbleib | phbleib | qhbleib | rhbleib | shbleib | thbleib | uhbleib | vhbleib | whbleib | xhbleib | yhbleib | zhbleib | bahbleib |      |
|-----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|------|
| <u>sample A</u> |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |          |      |
| p10             | 1.06    | 1.04    | 1.03    | 1.02    | 1.03    | 1.02    | 1.02    | 1.01    | 1.01    | 1.02    | 1.01    | 1.01    | 1.01    | 1.02    | 1.02    | 1.02    | 1.02    | 1.01    | 1.01    | 1.01    | 1.02    | 1.01    | 1.01    | 1.02    | 1.02    | 1.02     | 1.01 |
| p50             | 1.1     | 1.07    | 1.03    | 1.04    | 1.04    | 1.02    | 1.02    | 1.02    | 1.01    | 1.02    | 1.01    | 1.03    | 1.02    | 1.03    | 1.02    | 1.02    | 1.02    | 1.02    | 1.03    | 1.01    | 1.02    | 1.04    | 1.03    | 1.05    | 1.05    | 1.06     |      |
| p90             | 1.22    | 1.26    | 1.13    | 1.2     | 1.16    | 1.11    | 1.09    | 1.11    | 1.16    | 1.15    | 1.16    | 1.12    | 1.13    | 1.14    | 1.2     | 1.15    | 1.18    | 1.21    | 1.14    | 1.12    | 1.16    | 1.22    | 1.14    | 1.13    | 1.25    | 1.38     |      |
| N               | 4141    | 3962    | 3910    | 3743    | 3647    | 3612    | 3613    | 3585    | 3603    | 3577    | 3526    | 3485    | 3458    | 3387    | 3325    | 3240    | 3168    | 3123    | 3072    | 3010    | 2937    | 2821    | 2723    | 2584    | 2423    | 2245     |      |
| <u>sample B</u> |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |          |      |
| p10             | 1.09    | 1.1     | 1.03    | 1.03    | 1.03    | 1.04    | 1.03    | 1.01    | 1.02    | 1.03    | 1.02    | 1.04    | 1.02    | 1.04    | 1.04    | 1.03    | 1.02    | 1.04    | 1.01    | 1.04    | 1.05    | 1.01    | 1.03    | 1.01    | 1.01    | 1.01     |      |
| p50             | 1.1     | 1.1     | 1.03    | 1.04    | 1.04    | 1.04    | 1.03    | 1.03    | 1.03    | 1.05    | 1.05    | 1.04    | 1.04    | 1.07    | 1.04    | 1.03    | 1.02    | 1.04    | 1.03    | 1.04    | 1.05    | 1.05    | 1.07    | 1.07    | 1.05    | 1.1      |      |
| p90             | 1.26    | 1.29    | 1.14    | 1.22    | 1.14    | 1.12    | 1.16    | 1.16    | 1.22    | 1.22    | 1.29    | 1.21    | 1.29    | 1.23    | 1.22    | 1.18    | 1.23    | 1.37    | 1.31    | 1.13    | 1.17    | 1.33    | 1.24    | 1.25    | 1.6     | 1.47     |      |
| N               | 1181    | 1128    | 1116    | 1071    | 1043    | 1028    | 1056    | 1060    | 1064    | 1023    | 982     | 960     | 931     | 898     | 858     | 820     | 809     | 766     | 742     | 714     | 698     | 655     | 614     | 570     | 500     | 441      |      |
| <u>sample C</u> |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |          |      |
| p10             |         |         |         |         |         |         | 1.03    | 1.06    | 1.03    | 1.02    | 1.03    | 1.01    | 1.02    | 1.02    | 1.01    | 1.01    | 1.02    | 1.01    | 1.01    | 1       | 1       | 1.01    | 1       | 1.01    | 1       | 1.01     |      |
| p50             |         |         |         |         |         |         | 1.06    | 1.06    | 1.04    | 1.04    | 1.03    | 1.02    | 1.04    | 1.02    | 1.03    | 1.03    | 1.02    | 1.02    | 1.03    | 1.01    | 1.02    | 1.04    | 1.03    | 1.03    | 1.03    | 1.04     |      |
| p90             |         |         |         |         |         |         | 1.18    | 1.22    | 1.17    | 1.12    | 1.11    | 1.15    | 1.12    | 1.2     | 1.1     | 1.13    | 1.16    | 1.21    | 1.14    | 1.12    | 1.15    | 1.24    | 1.16    | 1.18    | 1.21    | 1.32     |      |
| N               |         |         |         |         |         |         | 2030    | 2020    | 1970    | 1959    | 1938    | 1951    | 1942    | 1886    | 1894    | 1879    | 1850    | 1818    | 1807    | 1813    | 1771    | 1717    | 1654    | 1592    | 1535    | 1437     |      |
| <u>sample D</u> |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |          |      |
| p10             |         |         |         |         |         |         |         |         |         |         |         | 1       | 1.05    | 1.08    | 1.05    | 1.02    | 1.03    | 1       | 1.01    | 1       | 1       | 1.03    | 1.01    | 1.02    | 1       | 1        |      |
| p50             |         |         |         |         |         |         |         |         |         |         |         | 1.08    | 1.09    | 1.08    | 1.05    | 1.02    | 1.03    | 1.02    | 1.01    | 1.01    | 1.02    | 1.04    | 1.04    | 1.07    | 1.02    | 1.01     |      |
| p90             |         |         |         |         |         |         |         |         |         |         |         | 1.16    | 1.09    | 1.35    | 1.27    | 1.1     | 1.18    | 1.21    | 1.09    | 1.25    | 1.34    | 1.44    | 1.12    | 1.22    | 1.16    | 1.43     |      |
| N               |         |         |         |         |         |         |         |         |         |         |         | 396     | 340     | 308     | 300     | 302     | 286     | 289     | 290     | 277     | 273     | 261     | 248     | 231     | 220     | 278      |      |

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5 Summary Statistics of the Derived Longitudinal and Cross-Sectional Weights

**Table 7b: Summary Statistics of the Derived Longitudinal Weights at the Household Level for Subsamples E through I (Percentiles of \$HBLEIB up to Wave 27).**

|                 | bhbleib | chbleib | dhbleib | ehbleib | fhbleib | ghbleib | hhbleib | ihbleib | jhbleib | khbleib | lhbleib | mhbleib | nhbleib | ohbleib | phbleib | qhbleib | rhbleib | shbleib | thbleib | uhbleib | vhbleib | whbleib | xhbleib | yhbleib | zhbleib | bahbleib |  |
|-----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|--|
| <u>sample E</u> |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |          |  |
| p10             |         |         |         |         |         |         |         |         |         |         |         |         |         |         | 1       | 1.03    | 1.01    | 1.01    | 1.04    | 1       | 1.01    | 1       | 1.01    | 1       | 1       | 1.01     |  |
| p50             |         |         |         |         |         |         |         |         |         |         |         |         |         |         | 1.23    | 1.07    | 1.05    | 1.02    | 1.04    | 1.01    | 1.03    | 1.03    | 1.01    | 1.01    | 1.04    | 1.04     |  |
| p90             |         |         |         |         |         |         |         |         |         |         |         |         |         |         | 1.47    | 1.21    | 1.25    | 1.2     | 1.15    | 1.08    | 1.18    | 1.21    | 1.16    | 1.19    | 1.17    | 1.25     |  |
| N               |         |         |         |         |         |         |         |         |         |         |         |         |         |         | 886     | 838     | 811     | 773     | 744     | 732     | 706     | 686     | 647     | 602     | 574     | 553      |  |
| <u>sample F</u> |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |          |  |
| p10             |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         | 1.08    | 1.03    | 1.02    | 1.02    | 1.01    | 1.01    | 1.02    | 1.01    | 1.02    | 1.01     |  |
| p50             |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         | 1.14    | 1.05    | 1.04    | 1.03    | 1.03    | 1.03    | 1.03    | 1.03    | 1.04    | 1.05     |  |
| p90             |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         | 1.59    | 1.46    | 1.24    | 1.19    | 1.17    | 1.29    | 1.15    | 1.14    | 1.34    | 1.4      |  |
| N               |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         | 4911    | 4586    | 4386    | 4235    | 4070    | 3895    | 3694    | 3513    | 3303    | 3055     |  |
| <u>sample G</u> |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |          |  |
| p10             |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         | 1.06    | 1.02    | 1.03    | 1       | 1.02    | 1.01    | 1.02    | 1        |  |
| p50             |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         | 1.1     | 1.03    | 1.06    | 1.04    | 1.05    | 1.03    | 1.04    | 1.01     |  |
| p90             |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         | 1.17    | 1.25    | 1.25    | 1.31    | 1.17    | 1.18    | 1.36    | 1.24     |  |
| N               |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         | 911     | 904     | 879     | 859     | 824     | 787     | 757     | 743      |  |
| <u>sample H</u> |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |          |  |
| p10             |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         | 1.04    | 1.01    | 1.01    | 1.01     |  |
| p50             |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         | 1.16    | 1.03    | 1.03    | 1.04     |  |
| p90             |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         | 1.46    | 1.18    | 1.22    | 1.37     |  |
| N               |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         | 1188    | 1082    | 996     | 913      |  |

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5 Summary Statistics of the Derived Longitudinal and Cross-Sectional Weights

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**Table 7c: Summary Statistics of the Derived Longitudinal Weights at the Household Level for Subsamples E through I (Percentiles of \$HBLEIB up to Wave 27).**

|               | bhbleib | chbleib | dhbleib | ehbleib | fhbleib | ghbleib | hhbleib | ihbleib | jhbleib | khbleib | lhbleib | mhbleib | nhbleib | ohbleib | phbleib | qhbleib | rhbleib | shbleib | thbleib | uhbleib | vhbleib | whbleib | xhbleib | yhbleib | zhbleib | bahbleib |     |      |
|---------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|-----|------|
| <u>sample</u> |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |          |     |      |
| p10           |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |          | 1.1 |      |
| p50           |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |          |     | 1.29 |
| p90           |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |          |     | 1.78 |
| N             |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |          |     | 1083 |

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5 Summary Statistics of the Derived Longitudinal and Cross-Sectional Weights

**Table 8: Summary Statistics of the Derived Cross-Sectional Weights at the Household Level (Percentiles of \$HHRF up to Wave 27).**

|            | <b>ahhrf</b> | <b>bhhrf</b> | <b>chhrf</b> | <b>dhhrf</b> | <b>ehhrf</b> | <b>fhhrf</b> | <b>ghhrf</b> | <b>hhhrf</b> | <b>ihhrf</b> | <b>jhhrf</b> | <b>khhrf</b> | <b>lhhrf</b> | <b>mhhrf</b> | <b>nhhrf</b> |
|------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| <b>p5</b>  | 434          | 496          | 542          | 548          | 534          | 552          | 698          | 679          | 668          | 685          | 706          | 713          | 741          | 753          |
| <b>p10</b> | 601          | 682          | 758          | 796          | 805          | 824          | 1072         | 1050         | 1038         | 1057         | 1102         | 1134         | 1182         | 1216         |
| <b>p25</b> | 3777         | 3887         | 3602         | 3536         | 3550         | 3607         | 2217         | 2342         | 2332         | 2404         | 2405         | 2318         | 2333         | 2342         |
| <b>p50</b> | 4721         | 5082         | 5302         | 5406         | 5637         | 5857         | 4604         | 4698         | 4648         | 4679         | 4674         | 4376         | 4364         | 4331         |
| <b>p75</b> | 5661         | 6413         | 6826         | 7036         | 7545         | 7876         | 7048         | 7168         | 7154         | 7248         | 7282         | 7004         | 7043         | 7068         |
| <b>p90</b> | 7123         | 8458         | 9243         | 9592         | 10369        | 10855        | 9954         | 10268        | 10510        | 10760        | 11211        | 11082        | 11360        | 11873        |
| <b>p95</b> | 8308         | 12397        | 11125        | 11433        | 12537        | 13278        | 12364        | 12983        | 13647        | 13989        | 14604        | 14797        | 15283        | 15892        |
| <b>N</b>   | 5921         | 5322         | 5090         | 5026         | 4814         | 4690         | 6819         | 6699         | 6665         | 6637         | 6559         | 6768         | 6699         | 6621         |

|            | <b>ohhrf</b> | <b>phhrf</b> | <b>qhhrf</b> | <b>rhhrf</b> | <b>shhrf</b> | <b>thhrf</b> | <b>uhhrf</b> | <b>vhhrf</b> | <b>whhrf</b> | <b>xhhrf</b> | <b>yhhrf</b> | <b>zhhrf</b> | <b>bahhrf</b> |
|------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|
| <b>p5</b>  | 1067         | 1047         | 833          | 797          | 519          | 522          | 506          | 509          | 473          | 461          | 465          | 470          | 497           |
| <b>p10</b> | 1403         | 1390         | 1132         | 1084         | 692          | 704          | 693          | 699          | 671          | 672          | 669          | 674          | 702           |
| <b>p25</b> | 2350         | 2329         | 1763         | 1761         | 1275         | 1283         | 1252         | 1273         | 1285         | 1270         | 1294         | 1327         | 1399          |
| <b>p50</b> | 3985         | 4015         | 2529         | 2743         | 2563         | 2570         | 2535         | 2541         | 2408         | 2472         | 2541         | 2607         | 2779          |
| <b>p75</b> | 6237         | 6514         | 3562         | 4123         | 4160         | 4293         | 4390         | 4495         | 4111         | 4432         | 4714         | 4991         | 5438          |
| <b>p90</b> | 9843         | 10761        | 5129         | 6051         | 6388         | 6703         | 7127         | 7445         | 6923         | 7590         | 8422         | 9319         | 10264         |
| <b>p95</b> | 13051        | 14094        | 6431         | 7832         | 8229         | 9013         | 9874         | 10758        | 9711         | 10675        | 11593        | 12461        | 13502         |
| <b>N</b>   | 7492         | 7220         | 13082        | 11796        | 12320        | 11909        | 11644        | 11294        | 12361        | 11552        | 10921        | 10270        | 9551          |

## 6 References

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