Deutsches Institut für Wirtschaftsforschung



Data Documentation



Documentation of Sample Sizes and Panel Attrition in the German Socio Economic Panel (SOEP) (1984 until 2006)

Berlin, January 2008

IMPRESSUM

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Martin Spieß* Martin Kroh**

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- * DIW Berlin, Socio-Economic Panel Study. mspiess@diw.de
- ** DIW Berlin, Socio-Economic Panel Study. <u>mkroh@diw.de</u>

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| Figure 25: | Successful Re-Interviewing of All First-Wave Respondents by Income Quintiles. Kaplan-Meier Estimates of Survey-Related Attrition Ignoring Deaths and Moves Abroad |
| Figure 26: | Successful Re-Interviewing of All First-Wave Respondents by Education. Kaplan-Meier Estimates of Survey-Related Attrition Ignoring Deaths and Moves Abroad |

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 23 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 H 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". The SOEP-team currently prepares an additional DIW data documentation that outlines the rules for inclusion of new sample units and their treatment within the weighting framework. 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 2006 based on the characteristics of households measured in 2005. The fourth section does the same for the second form of survey-related attrition: refusals.

1

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 2006: WHBLEIB and WPBLEIB. Based on the inverse of the probability of observing households and persons in 2005, the staying probability in 2006, and additional post-stratification to meet benchmarks of known marginals of the underlying population in 2006, we derive the cross-sectional weights WHHRF and WPHRF. 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 H, Waves 1 to 23 |
| Figure 2 | Comparison for Individuals and Households in Subsamples A and B, |
| | Waves 1 to 23 (1984 – 2006). |
| Figure 3 | Comparison for Individuals and Households in Subsample C, |
| | Waves 1 to 17, (1990–2006). |
| Figure 4 | Comparison for Individuals and Households in Subsample D, |
| | Waves 1 to 12, (1995–2006). |
| Figure 5 | Comparison for Individuals and Households in Subsample E, |
| | Waves 1 to 9, (1998–2006). |
| Figure 6 | Comparison for Individuals and Households in Subsample F, |
| | Waves 1 to 7, (2000–2006). |
| Figure 7 | Comparison for Individuals and Households in Subsample G, |
| | Waves 1 to 5, (2002-2006). |

Figure 1: The Number of Successful Interviews with Persons by Subsamples A through H, Waves 1 to 23.





Figure 2: Comparison of Successful Interviews with Persons and Households (Subsamples A and B), Waves 1 to 23.

Figure 3: Comparison of Successful Interviews with Persons and Households (Subsample C), Waves 1 to 17.



□ Persons ■ Households





□ Persons ■ Households





ple F), Waves 1 to 7.



■ Persons ■ Households

Figure 6: Comparison of Successful Interviews with Individuals and Households (Subsam-

Figure 7: Comparison of Successful Interviews with Individuals and Households (Subsample G), Waves 1 to 5.



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 8: All First Wave Persons in Subsample A. Whereabouts up to Wave 23.
- Figure 9: All First Wave Persons in Subsample B. Whereabouts up to Wave 23.
- Figure 10: All First Wave Persons in Subsample C. Whereabouts up to Wave 17.
- Figure 11: All First Wave Persons in Subsample D. Whereabouts up to Wave 12.
- Figure 12: All First Wave Persons in Subsample E. Whereabouts up to Wave 9.
- Figure 13: All First Wave Persons in Subsample F. Whereabouts up to Wave 7.
- Figure 14: All First Wave Persons in Subsample G. Whereabouts up to Wave 5.





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Figure 9: All First Wave Persons (Gross Subsample B). Development up to Wave 23.

Figure 10: All First Wave Persons (Gross Subsample C). Development up to Wave 17.





Figure 11: All First Wave Persons (Gross Subsample D). Development up to Wave 12.







Figure 13: All First Wave Persons (Gross Subsample F). Development up to Wave 7.





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 15: | Entrants Who Were Born or Moved into SOEP Households and Their |
|------------|--|
| | Participation Behavior in Subsamples A and B |
| Figure 16: | Entrants Who Were Born or Moved into SOEP Households and Their |
| | Participation Behavior in Subsample C |
| Figure 17: | Entrants Who Were Born or Moved into SOEP Households and Their |
| | Participation Behavior in Subsample D |
| Figure 18: | Entrants Who Were Born or Moved into SOEP Households and Their |
| | Participation Behavior in Subsample E |
| Figure 19: | Entrants Who Were Born or Moved into SOEP Households and Their |
| | Participation Behavior in Subsample F |
| Figure 20: | Entrants Who Were Born or Moved into SOEP Households and Their |
| | Participation Behavior in Subsample G |



Figure 15: Entrants and their Participation Behavior (Subsamples A, B).

Figure 16: Entrants and their Participation Behavior (Subsample C).





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

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







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



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 21 and 22) and some basic socio-demographic characteristics measured in the year of sampling, such as age, occupation, income, and education (Figures 23 through 26). 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 21), 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 G (Figure 22), first-wave respondents from sample F have a somewhat lower probability of remaining in the survey than respondents from sample D.

Figure 21: Successful Re-Interviewing of First-Wave Respondents by Subsamples A, B, C.

- Figure 22: Successful Re-Interviewing of First-Wave Respondents by Subsamples D, E, F,
- Figure 23: Successful Re-Interviewing of All First-Wave Respondents by Age Categories.
- Figure 24: Successful Re-Interviewing of All First-Wave Respondents by Occupation.
- Figure 25: Successful Re-Interviewing of All First-Wave Respondents by Income Quintiles.
- Figure 26: Successful Re-Interviewing of All First-Wave Respondents by Education.





Figure 22: Successful Re-Interviewing of First-Wave Respondents by Subsamples D, E, F, G. Kaplan-Meier Estimates of Survey-Related Attrition Ignoring Deaths and Moves Abroad.







Figure 24: Successful Re-Interviewing of All First-Wave Respondents by Occupation. Kap-Ian-Meier Estimates of Survey-Related Attrition Ignoring Deaths and Moves Abroad.







Figure 26: Successful Re-Interviewing of All First-Wave Respondents by Education. Kap-Ian-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 Unsuccessful Follow-Ups

Table 1 displays the number of households of the previous waves that need to be recontacted and the relative frequency of unsuccessful follow-ups in subsamples A through G and waves 1985 through 2006. The drop-out 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.

| | A /B | | A/B C | | | D E | | E | F | | G | |
|------|------|-----|-------|-----|-----|-----|------|------|------|-----|------|-----|
| | n | % | n | % | n | % | n | % | n | % | n | % |
| 1985 | 6051 | 1.9 | | | | | | | | | | |
| 1986 | 5814 | 1.4 | | | | | | | | | | |
| 1987 | 5465 | 1.0 | | | | | | | | | | |
| 1988 | 5342 | 0.9 | | | | | | | | | | |
| 1989 | 5156 | 0.9 | | | | | | | | | | |
| 1990 | 5044 | 0.9 | | | | | | | | | | |
| 1991 | 5029 | 0.5 | 2246 | 1.5 | | | | | | | | |
| 1992 | 5006 | 0.4 | 2304 | 0.5 | | | | | | | | |
| 1993 | 5049 | 0.9 | 2227 | 0.9 | | | | | | | | |
| 1994 | 5008 | 0.8 | 2136 | 0.6 | | | | | | | | |
| 1995 | 4900 | 0.6 | 2113 | 0.4 | | | | | | | | |
| 1996 | 4817 | 0.4 | 2104 | 0.5 | 544 | 0.4 | | | | | | |
| 1997 | 4733 | 0.5 | 2091 | 0.5 | 542 | 0.7 | | | | | | |
| 1998 | 4695 | 0.6 | 2081 | 0.6 | 498 | 0.6 | | | | | | |
| 1999 | 4616 | 0.5 | 2041 | 0.3 | 529 | 0.9 | 1100 | 0.5 | | | | |
| 2000 | 4495 | 0.4 | 2028 | 0.4 | 467 | 0.2 | 968 | 0.8 | | | | |
| 2001 | 4371 | 0.5 | 2036 | 0.3 | 454 | 0.9 | 922 | 0.87 | 6172 | 1.0 | | |
| 2002 | 4290 | 0.4 | 2010 | 0.5 | 450 | 0.2 | 875 | 0.57 | 5451 | 0.5 | | |
| 2003 | 4170 | 0.4 | 1982 | 0.4 | 434 | 0.5 | 834 | 0.72 | 4965 | 0.3 | 1056 | 0.9 |
| 2004 | 4063 | 0.3 | 1962 | 0.4 | 436 | 0.2 | 797 | 0.25 | 4736 | 0.4 | 1010 | 0.3 |
| 2005 | 3999 | 0.3 | 1959 | 0.3 | 429 | 0.7 | 783 | 0.1 | 4577 | 0.3 | 1001 | 0.3 |
| 2006 | 3909 | 0.3 | 1941 | 0.6 | 425 | 1.2 | 775 | 0.9 | 4401 | 0.7 | 995 | 0.5 |

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

n = Number of households to be recontacted

% = Percentage of households without contact

3.2 Predicting the Probability of Successful vs. Unsuccessful Follow-Ups in the Year 2006

Based on the household and interview characteristics measured in 2005, we aim at predicting the probability of re-contacting a household relative to unsuccessful follow-up in 2006. 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 2005 are due to space restrictions not reported in the present data documentation, but can be obtained from previous attrition documentations.

| Variable | Label | Value |
|-----------------------|---|-------|
| New HH | New split off household with new address | 0/1 |
| Moved HH | Change in address of an existing household | 0/1 |
| (Moved HH)*(SingleHH) | Interaction term between respective variables | 0/1 |
| Single HH | Single person household | 0/1 |
| 3+ Person HH | Household with more than three individuals | 0/1 |
| Non-Germ. Nationality | At least one HH-member with Non-Germ. nationality | 0/1 |
| Large Building | Neighborhood with large buildings | 0/1 |
| Rural | Rural neighborhood | 0/1 |
| Urban | Urban area (+ 100,000 inhabitants) | 0/1 |

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3 Panel Attrition Due to Unsuccessful Follow-Ups

Table 3: Estimates of Logit Models of the Probability of Re-Contacting a Household (Relative to Unsuccessful Follow-Up) in 2006.

| | Sample A | Sample B | Sample C | Sample D | Sample E | Sample F | Sample G |
|------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Intercept | -3.59 (0.44) *** | -4.83 (0.62) *** | -3.14 (0.34) *** | -2.50 (0.63) *** | -2.65 (0.46) *** | -0.77 (0.36) ** | -3.85 (0.48) *** |
| New HH | -1.98 (0.44) *** | -1.76 (0.62) *** | -2.25 (0.55) *** | -1.73 (0.66) *** | -2.03 (0.59) *** | -2.83 (0.35) *** | -1.72 (0.48) *** |
| Moved HH | | | -1.94 (0.55) *** | -1.33 (0.64) ** | -2.03 (0.59) *** | -1.99 (0.25) *** | |
| Single HH | | | | -1.57 (0.59) *** | | -1.23 (0.31) *** | |
| (Moved HH)*(Single HH) | -1.75 (0.50) *** | | | | | | |
| 3+ Person HH | | | | | | -0.87 (0.30) *** | |
| Non-German Nationality | | | | | | -1.14 (0.29) *** | |
| Large Building | | | | | | -0.51 (0.25) ** | -1.12 (0.49) ** |
| Urban | | | -0.71 (0.33) ** | | | | |
| Rural | | | | | -0.91 (0.44) ** | | |

| Likelihood Ratio (Pr > Chisq) | **** | **** | 0.43 | 0.22 | 0.65 | 0.53 | 0.89 | |
|-------------------------------|------|------|------|------|------|------|------|--|
|-------------------------------|------|------|------|------|------|------|------|--|

Note. *** p < 0.01; ** p < 0.05; * p < 0.10; standard errors in parentheses. **** The specified and the saturated models are the same.

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 Refusals

Table 4 displays the drop-out rates due to refusal by sub-sample and wave. 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.

| | ļ | 4 | I | В | C |) | | D | I | E | I | F | (| G |
|--------|-----------|-----------|----------|-------|-------|-------|-----|-------|-------|-------|-------|-------|-------|-------|
| | n | % | n | % | n | % | n | % | n | % | n | % | n | % |
| 1985 | 4,611 | 10.19 | 1,326 | 10.94 | | | | | | | | | | |
| 1986 | 4,442 | 10.81 | 1,290 | 12.56 | | | | | | | | | | |
| 1987 | 4,194 | 6.77 | 1,204 | 7.31 | | | | | | | | | | |
| 1988 | 4,105 | 8.82 | 1,180 | 9.24 | | | | | | | | | | |
| 1989 | 3,949 | 7.65 | 1,146 | 8.99 | | | | | | | | | | |
| 1990 | 3,871 | 6.69 | 1,111 | 7.47 | | | | | | | | | | |
| 1991 | 3,842 | 5.96 | 1,143 | 7.61 | 2,213 | 8.27 | | | | | | | | |
| 1992 | 3,833 | 6.47 | 1,144 | 7.34 | 2,290 | 11.79 | | | | | | | | |
| 1993 | 3,838 | 6.12 | 1,156 | 7.96 | 2,208 | 10.78 | | | | | | | | |
| 1994 | 3,821 | 6.39 | 1,139 | 10.18 | 2,122 | 7.68 | | | | | | | | |
| 1995 | 3,766 | 6.37 | 1,097 | 10.48 | 2,101 | 7.76 | 634 | 17.67 | | | | | | |
| 1996 | 3,734 | 6.67 | 1,061 | 9.52 | 2,092 | 6.74 | 542 | 8.12 | | | | | | |
| 1997 | 3,674 | 5.88 | 1,029 | 9.52 | 2,076 | 6.45 | 537 | 10.80 | | | | | | |
| 1998 | 3,645 | 7.08 | 1,013 | 11.35 | 2,066 | 8.71 | 523 | 15.68 | | | | | | |
| 1999 | 3,616 | 8.05 | 969 | 11.46 | 2,030 | 6.70 | 495 | 14.14 | 1,084 | 18.27 | | | | |
| 2000 | 3,535 | 8.35 | 929 | 11.73 | 2,018 | 6.89 | 466 | 8.80 | 959 | 12.20 | | | | |
| 2001 | 3,448 | 8.12 | 899 | 10.01 | 2,028 | 8.78 | 450 | 11.56 | 913 | 11.17 | 6,109 | 19.61 | | |
| 2002 | 3,396 | 8.04 | 869 | 11.85 | 1,996 | 8.92 | 449 | 10.47 | 868 | 10.94 | 5,420 | 15.39 | | |
| 2003 | 3,318 | 7.41 | 837 | 11.35 | 1,974 | 8.46 | 432 | 7.64 | 828 | 10.14 | 4,951 | 11.41 | 1,047 | 12.99 |
| 2004 | 3,253 | 7.47 | 800 | 10.75 | 1,955 | 7.26 | 435 | 10.80 | 795 | 7.92 | 4,719 | 10.26 | 1,007 | 10.23 |
| 2005 | 3,214 | 8.62 | 774 | 9.82 | 1,954 | 9.37 | 426 | 11.03 | 782 | 9.72 | 4,564 | 10.82 | 998 | 11.92 |
| 2006 | 3,130 | 9.87 | 767 | 14.60 | 1,930 | 11.04 | 420 | 14.29 | 768 | 10.68 | 4,370 | 10.87 | 990 | 13.23 |
| n = Nu | mber of r | econtacte | d househ | olds | | | | | | | | | | |

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

% = Percentage of households that refuse to participate

4.2 Predicting the Probability of Re-Interviewing versus Refusal in the Year 2006

Based on the household and interview characteristics measured in 2005, we aim at predicting the probability of agreement vs. refusal to participate in the survey by the households that were re-contacted in 2006. The individual attributes refer in most 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).

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 2005 are not reported in the present data documentation due to space restrictions, but can be obtained from previous attrition reports.

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

| Variable | Label | Value |
|------------------------|---|-------|
| First-Wave-HH | Household of the First Wave Sampling | 0/1 |
| Old HH | Household already observed in t –1, same address | 0/1 |
| New-HH | New split off household with new address | 0/1 |
| Face-to-Face | Face-to-face interview in t – 1 | 0/1 |
| CAPI | Random CAPI-Sample (vs. PAPI) in Sample E | 0/1 |
| Experiment | Participated in behavioral experiment (sample F only) | 0/1 |
| Change in Interviewer | Change in Interviewer between last and current wave | 0/1 |
| Non-Regular Interview | No regular personal interview (e.g. interrupted) | 0/1 |
| Pace of Interview | Length of interview under 15 minutes | 0/1 |
| SOEP-Experience | Number of successful interviews | 1/22 |
| Respondent Cooper. | Low interviewer rating of respondents' cooperation | 0/1 |
| Email Disclosed | Email address known | 0/1 |
| Phone Disclosed | Telephone number known | 0/1 |
| Gender | Female Gender of head of household | 0/1 |
| 2 Person HH | Two individuals living in HH | 0/1 |
| 4+ Person HH | More than 3 individuals living in household | 0/1 |
| Non-German HH | Head of household has non-German nationality | 0/1 |
| Age 35-64 | Head of household was between 35 and 64 in t – 1 | 0/1 |
| Age 25-34 | Head of household was between 25 and 34 in t – 1 | 0/1 |
| (Age 25-34) * (Old HH) | Interaction term between respective variables | 0/1 |
| Unmarried | Head of household unmarried | 0/1 |
| Separation | Separation of couple | 0/1 |

| (Separation)*(Old HH) | Interaction term between respective variables | 0/1 |
|-----------------------|---|------|
| Rural | Rural neighborhood | 0/1 |
| Care | Household member in need of care | 0/1 |
| Savings | Household without savings and insurances | 0/1 |
| Tertiary Education | Head of Household with college or university degree | 0/1 |
| No Vocational Educ. | No vocational education degree of head of hh | 0/1 |
| Unemployed | Head of household registered unemployed in t – 1 | 0/1 |
| Irregular Employment | Military service, maternity leave of head of hh | 0/1 |
| Job Worries | Very concerned about own job security | 0/1 |
| Extraversion | Compound scale: extraversion of head of hh (big-5) | 1/20 |
| Neuroticism | Compound scale: neuroticism of head of hh (big-5) | 1/20 |
| Reciprocity | Compound scale: positive reciprocity of head of hh | 1/20 |
| Dissatisfaction | Dissatisfied with life in general (head of hh) | 0/1 |

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4 Panel Attrition Due to Refusals

Table 6a: Estimates of Logit Models of the Probability of Re-Interviewing a Household (Relative to Refusal) in 2006.

| | Sample A | Sample B | Sample C | Sample D | Sample E | Sample F | Sample G |
|-----------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Intercept | 1.06 (0.07) *** | 0.34 (0.24) | 1.63 (0.20) *** | 3.87 (0.76) *** | -0.42 (0.28) | 0.98 (0.11) *** | -0.17 (0.36) |
| First Wave HH | 0.25 (0.06) *** | | | | | | |
| New HH | -0.70 (0.16) *** | | -0.90 (0.15) *** | | | -0.70 (0.13) *** | |
| Face-to-Face | | | | -2.62 (0.75) *** | | | |
| CAPI | | | | | 0.30 (0.13) ** | | 0.28 (0.13) ** |
| Experiment | | | | | | 0.14 (0.06) ** | |
| Change in Interviewer | -0.75 (0.08) *** | -0.62 (0.18) *** | -0.89 (0.13) *** | | -0.62 (0.20) *** | -0.86 (0.07) *** | -0.64 (0.15) *** |
| Non-Regular Interview | -0.28 (0.07) *** | -0.59 (0.14) *** | -0.55 (0.09) *** | -2.73 (0.71) *** | | -0.91 (0.07) *** | -0.80 (0.18) *** |
| Pace of Interview | 0.14 (0.62) ** | | -0.22 (0.09) ** | | | -0.12 (0.05) ** | |
| SOEP Experience | | 0.03 (0.01) *** | | | | | |
| Low Cooperation | -0.31 (0.08) *** | -0.49 (0.13) *** | -0.46 (0.09) *** | -1.09 (0.24) *** | -0.57 (0.16) *** | -0.27 (0.07) *** | -0.42 (0.14) *** |
| Email Disclosed | 0.15 (0.07) ** | | | | | | |
| Phone Disclosed | | | | | 1.37 (0.22) *** | 0.27 (0.10) *** | 0.89 (0.32) *** |
| Gender | | | | | | | 0.32 (0.13) ** |
| 2 Person HH | | | | | | | 0.29 (0.11) ** |
| 4+ Person HH | | | | | | -0.15 (0.07) ** | |
| Non-German HH | | | | | -0.95 (0.30) *** | | |
| Age 25-34 | 0.26 (0.09) *** | | | | | | |
| Age 35-64 | | | | | | 0.22 (0.06) *** | |
| (Age 25-34)*(Old-HH) | | 0.43 (0.18) ** | | | | | |

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

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4 Panel Attrition Due to Refusals

Table 6b: Estimates of Logit Model for the Probability of a Drop-Out of a Household Due to Refusal in 2006.

| | Sample A | Sample B | Sample C | Sample D | Sample E | Sample F | Sample G |
|-------------------------------|------------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|
| Unmarried | -0.19 (0.08) ** | | | | | 0.15 (0.07) ** | |
| Separation | -0.55 (0.18) *** | -0.59 (0.27) ** | | | -0.77 (0.24) *** | | |
| (Separation)*(Old-HH) | | | -1.54 (0.43) *** | | | | |
| Rural | | | | | | | -0.27 (0.10) *** |
| Care | -0.41 (0.15) *** | | | | | | |
| Savings | | | | | | | -0.51 (0.26) ** |
| Tertiary Education | | | 0.17 (0.08) ** | | | | |
| No Vocational Education | -0.15 (0.07) ** | | | | | | |
| Unemployed | | | -0.43 (0.19) ** | | | | |
| Irregular Employment | -0.14 (0.59) ** | 0.40 (0.14) *** | -0.40 (0.19) ** | | | | |
| Job worries | | | | | | -0.12 (0.06) ** | |
| Extraversion | 0.02 (0.01) ** | | -0.02 (0.01) ** | | | | |
| Neuroticism | | | | | | | -0.04 (0.01) *** |
| Reciprocity | | | 0.03 (0.01) ** | | | | |
| Dissatisfaction | | | | -0.72 (0.29) ** | | | |
| Likelihood Ratio (Pr > Chisq) | < 0.0001 | < 0.0001 | < 0.0001 | < 0.0001 | < 0.0001 | < 0.0001 | < 0.0001 |

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 2006 based on characteristics measured in 2005, WHBLEIB, lends itself as a longitudinal weighting variable correcting for selective attrition between waves 2005 and 2006. Table 7 reports some sub-sample specific descriptive statistics of the longitudinal weights in each wave.

The product of the cross-sectional weight in 2005, VHHRF, and the longitudinal weight in 2006, WHBLEIB, provide the raw data for the cross-sectional weight in 2006. In a final step, reported in DIW data documentation 22 by Pischner (2007), the post-stratification of the cross-sectional weights corrects them to meet benchmarks of known marginals of the underlying population in 2006. Table 8 reports sub-sample-specific descriptive statistics of the derived cross-sectional weighting variable WHHRF and in comparison all previous cross-sectional weights AHHRF through VHHRF.

Table 7a: Summary Statistics of the Derived Longitudinal Weights at the Household Level for Subsamples A through D (Percentiles of \$HBLEIB up to Wave 23).

| | bhbleib | chbleib | dhbleib | ehbleib | fhbleib | ghbleib | hhbleib | ihbleib | jhbleib | khbleib | Ihbleib | mhbleib | nhbleib | ohbleib | phbleib | qhbleib | rhbleib | shbleib | thbleib | uhbleib | vhbleib | whbleib |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| sample A | | | | | | | | | | | | | | | | | | | | | | |
| 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 |
| 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 |
| p90 | 1.22 | 1.26 | 1.13 | 1.19 | 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 |
| Ν | 4141 | 3962 | 3910 | 3731 | 3647 | 3612 | 3613 | 3584 | 3603 | 3577 | 3526 | 3485 | 3458 | 3387 | 3325 | 3240 | 3168 | 3123 | 3072 | 3010 | 2937 | 2821 |
| sample B | | | | | | | | | | | | | | | | | | | | | | |
| 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 |
| 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 |
| 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 |
| Ν | 1181 | 1128 | 1116 | 1069 | 1043 | 1028 | 1056 | 1060 | 1064 | 1023 | 982 | 960 | 931 | 898 | 858 | 820 | 809 | 766 | 742 | 714 | 698 | 655 |
| sample C | | | | | | | | | | | | | | | | | | | | | | |
| 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 |
| 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 |
| 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 |
| Ν | | | | | | | 2030 | 2020 | 1970 | 1959 | 1938 | 1951 | 1942 | 1886 | 1894 | 1879 | 1850 | 1818 | 1807 | 1813 | 1771 | 1717 |
| sample D | | | | | | | | | | | | | | | | | | | | | | |
| p10 | | | | | | | | | | | | 1 | 1.05 | 1.08 | 1.05 | 1.02 | 1.03 | 1 | 1.01 | 1 | 1 | 1.03 |
| p50 | | | | | | | | | | | | 1.08 | 1.09 | 1.08 | 1.05 | 1.02 | 1.03 | 1.02 | 1.01 | 1.01 | 1.02 | 1.04 |
| p90 | | | | | | | | | | | | 1.14 | 1.09 | 1.35 | 1.27 | 1.1 | 1.17 | 1.21 | 1.09 | 1.25 | 1.34 | 1.44 |
| Ν | | | | | | | | | | | | 395 | 336 | 302 | 296 | 293 | 273 | 285 | 290 | 277 | 273 | 261 |

Table 7b: Summary Statistics of the Derived Longitudinal Weights at the Household Level for Subsamples E through G (Percentiles of \$HBLEIB up to Wave 23).

| | bhbleib | chbleib | dhbleib | ehbleib | fhbleib | ghbleib | hhbleib | ihbleib | jhbleib | khbleib | Ihbleib | mhbleib | nhbleib | ohbleib | phbleib | qhbleib | rhbleib | shbleib | thbleib | uhbleib | vhbleib | whbleib |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| sample E | | | | | | | | | | | | | | | | | | | | | | |
| p10 | | | | | | | | | | | | | | | 1 | 1.03 | 1.01 | 1.01 | 1.04 | 1 | 1.01 | 1 |
| p50 | | | | | | | | | | | | | | | 1.23 | 1.07 | 1.05 | 1.02 | 1.04 | 1.01 | 1.03 | 1.03 |
| p90 | | | | | | | | | | | | | | | 1.47 | 1.21 | 1.25 | 1.2 | 1.15 | 1.08 | 1.18 | 1.21 |
| Ν | | | | | | | | | | | | | | | 886 | 838 | 811 | 773 | 744 | 732 | 706 | 686 |
| sample F | | | | | | | | | | | | | | | | | | | | | | |
| p10 | | | | | | | | | | | | | | | | | 1.08 | 1.03 | 1.02 | 1.02 | 1.01 | 1.01 |
| p50 | | | | | | | | | | | | | | | | | 1.14 | 1.05 | 1.04 | 1.03 | 1.03 | 1.03 |
| p90 | | | | | | | | | | | | | | | | | 1.59 | 1.46 | 1.24 | 1.19 | 1.17 | 1.29 |
| Ν | | | | | | | | | | | | | | | | | 4911 | 4586 | 4386 | 4235 | 4070 | 3895 |
| sample G | | | | | | | | | | | | | | | | | | | | | | |
| p10 | | | | | | | | | | | | | | | | | | | 1.06 | 1.02 | 1.03 | 1 |
| p50 | | | | | | | | | | | | | | | | | | | 1.1 | 1.03 | 1.06 | 1.04 |
| p90 | | | | | | | | | | | | | | | | | | | 1.17 | 1.25 | 1.25 | 1.31 |
| Ν | | | | | | | | | | | | | | | | | | | 911 | 904 | 879 | 859 |

Table 8: Summary Statistics of the Derived Cross-Sectional Weights at the Household Level (Percentiles of \$HHRF up to Wave 23).

| | ahhrf | bhhrf | chhrf | dhhrf | ehhrf | fhhrf | ghhrf | hhhrf | ihhrf | jhhrf | khhrf | lhhrf | mhhrf | nhhrf |
|-----|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| р5 | 256.92 | 301.98 | 314.52 | 352.65 | 340.69 | 369.13 | 560.49 | 644.36 | 643.87 | 627.38 | 680.89 | 643.6 | 641.49 | 675.41 |
| p10 | 456.65 | 547.79 | 562.38 | 593.65 | 590.76 | 638.58 | 1035.65 | 1133.21 | 1149.45 | 1132.3 | 1178.01 | 1140.78 | 1128.31 | 1139.27 |
| p25 | 1914.36 | 2207.28 | 2257.76 | 2281.86 | 2395.92 | 2488.34 | 2142.07 | 2204.61 | 2214.14 | 2204.54 | 2196.46 | 2170.56 | 2131.24 | 2092.16 |
| p50 | 4101.62 | 4495.88 | 4611.355 | 4595.165 | 4790.225 | 4964.75 | 3745.41 | 3840.76 | 3838.29 | 3916.1 | 3939.19 | 3757.75 | 3713.38 | 3751.58 |
| p75 | 6161.5 | 6970.95 | 7366.56 | 7551.34 | 7987.74 | 8258.3 | 6756.27 | 6988.9 | 6969.49 | 7083.42 | 7161.04 | 6812.035 | 6774.8 | 6850.03 |
| p90 | 8555.59 | 9765.73 | 10743.81 | 11108.66 | 11987.33 | 12339.7 | 10772.53 | 11122.55 | 11251.41 | 11604.53 | 11944.66 | 11539.68 | 11856.92 | 12281.5 |
| p95 | 10460.91 | 11978.65 | 13379.31 | 13838.91 | 14916.38 | 15915.27 | 14312.25 | 14935.49 | 15312.78 | 15631.78 | 16415.94 | 16348.84 | 17119.6 | 17904.04 |
| N | 5921 | 5322 | 5090 | 5026 | 4814 | 4690 | 6819 | 6699 | 6665 | 6637 | 6559 | 6768 | 6698 | 6617 |

| | ohhrf | phhrf | qhhrf | rhhrf | shhrf | thhrf | uhhrf | vhhrf | whhrf |
|-----|----------|----------|---------|---------|----------|----------|----------|----------|----------|
| р5 | 673.22 | 682.64 | 562.28 | 528.14 | 528.75 | 521.24 | 503.21 | 494.59 | 476.17 |
| p10 | 1088.45 | 1075.05 | 850.92 | 816.11 | 817.73 | 796.23 | 772.23 | 759.78 | 717.67 |
| p25 | 1994.82 | 1941.39 | 1521.5 | 1530.61 | 1513.97 | 1466.98 | 1417.62 | 1424.14 | 1367.87 |
| p50 | 3825.75 | 3756.5 | 2380.28 | 2592.01 | 2586.585 | 2575.96 | 2531.555 | 2512.6 | 2470.74 |
| p75 | 6150.22 | 6451.12 | 3526.25 | 4044.05 | 4205.83 | 4305.96 | 4351.4 | 4445.37 | 3990.04 |
| p90 | 9905.59 | 10700.84 | 5280.91 | 6183.89 | 6747.815 | 7093.06 | 7490.3 | 7921.29 | 6736.14 |
| p95 | 14422.31 | 15628.84 | 7229.52 | 8401.11 | 9542.31 | 10295.62 | 11062.27 | 11885.03 | 10499.36 |
| N | 7486 | 7215 | 13078 | 11783 | 11310 | 10999 | 10740 | 10416 | 11505 |

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