

Pannenberg, Markus

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Documentation of sample sizes and panel attrition in the German socio economic panel (GSOEP) : 1984 until 1998

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DIW Diskussionspapiere Discussion Papers

Discussion Paper No. 196

**Documentation of Sample Sizes
and Panel Attrition in the
German Socio Economic Panel (GSOEP)
(1984 until 1998)**

by

Markus Pannenberg*

Berlin, January 2000

Deutsches Institut für Wirtschaftsforschung, Berlin
Königin-Luise-Str. 5, 14195 Berlin
Phone: +49-30-89789- 0
Fax: +49-30-89789- 200
Internet: <http://www.diw-berlin.de>

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1 Development of sample sizes

General comment: The sample sizes of the English public use version of the GSOEP and the German DIW version differ by approximately five percent. The exclusion of 5 percent of the original data from the GSOEP was necessary to fulfill the requirements of the German data protection laws. Technically, this was done by dropping randomly 5 percent of the original wave 1 households. All persons and households which stem from these root households are excluded 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 data base.

With respect to the development of sample sizes our focus is on:

- Comparison of the number of successful interviews by cross-section.
- Longitudinal development of panel attrition.
- Entrants by birth or move-ins and their participation behavior.

1.1 Development of the number of successful interviews by cross-section

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

Figure 1 Comparison for individuals and households (subsamples A and B), waves 1 (1984) to 15 (1998).

Figure 2 Comparison between subsamples A and B on the individual level, waves 1 (1984) to 15 (1998).

Figure 3 Comparison for individuals and households (subsample C), waves 1 to 9.

Figure 4 Comparison between the subsamples A, B and C on the individual level, waves 1 to 9.

Figure 5 Comparison for individuals and households in Subsample D, waves 1 to 4.

Figure 1: Comparison of successful interviews with persons and households (subsample A and B), waves 1 to 15.

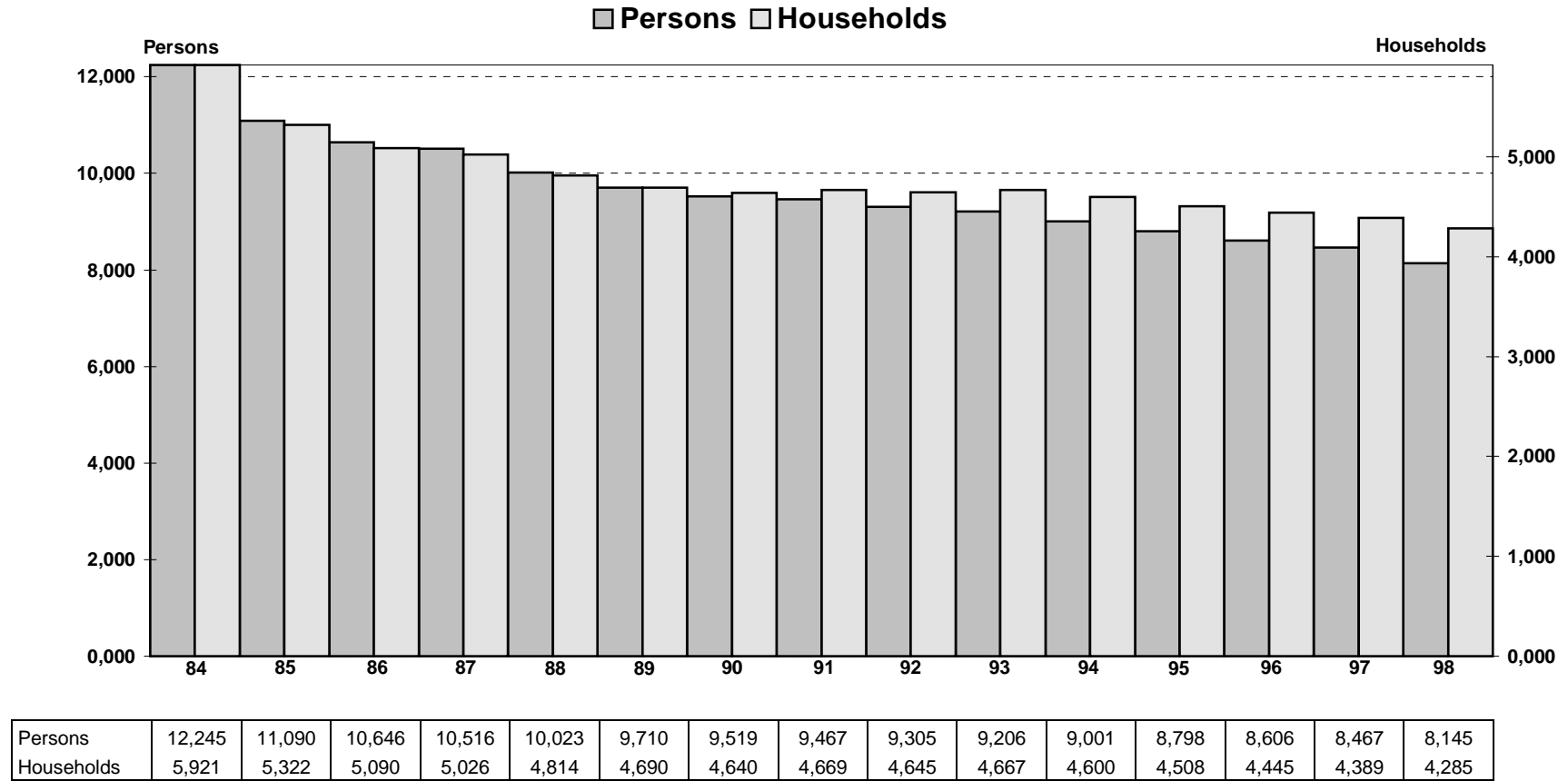


Figure 2: Comparison of successful interviews between subsamples A and B (individual level), waves 1 to 15.

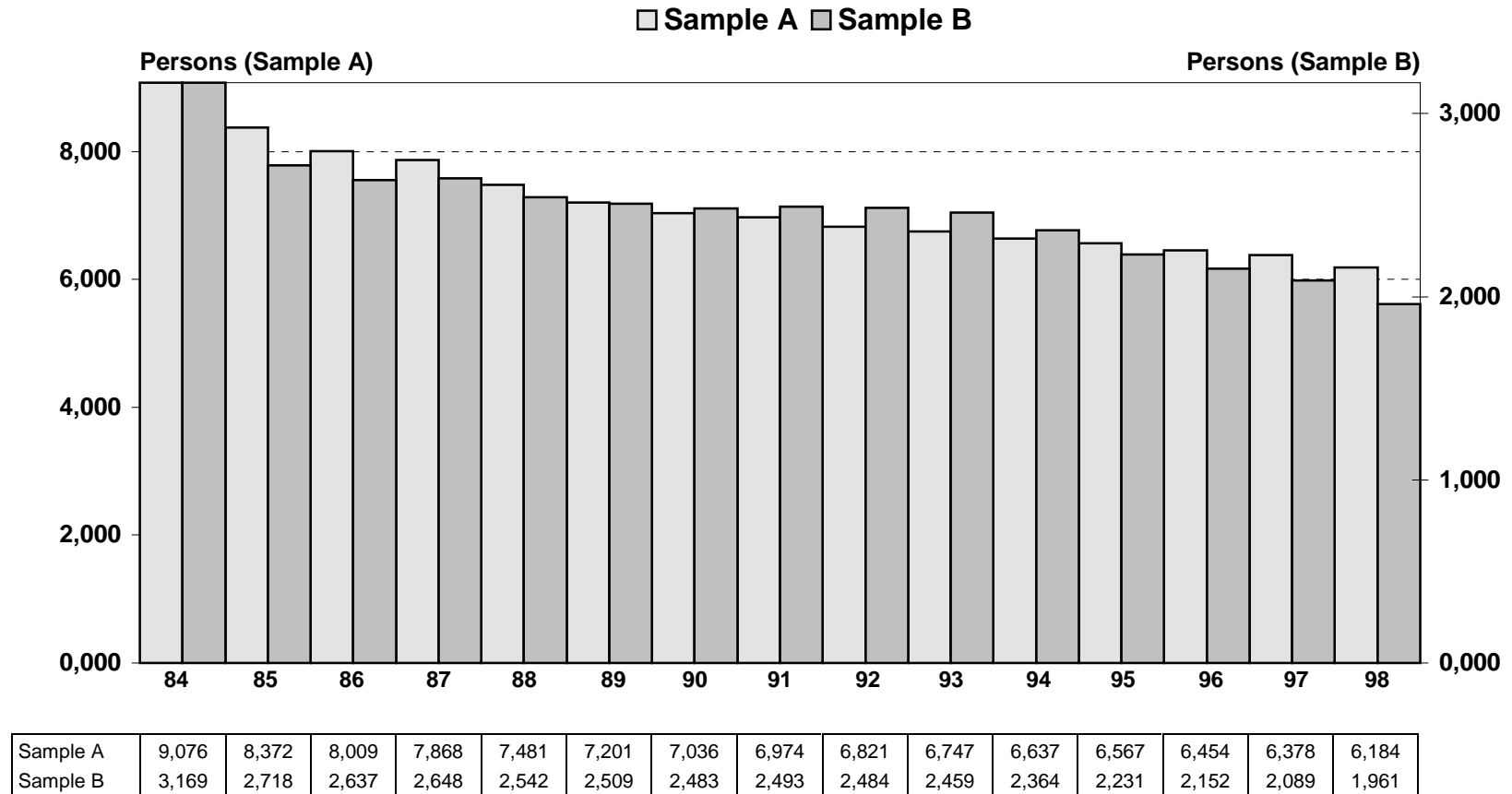
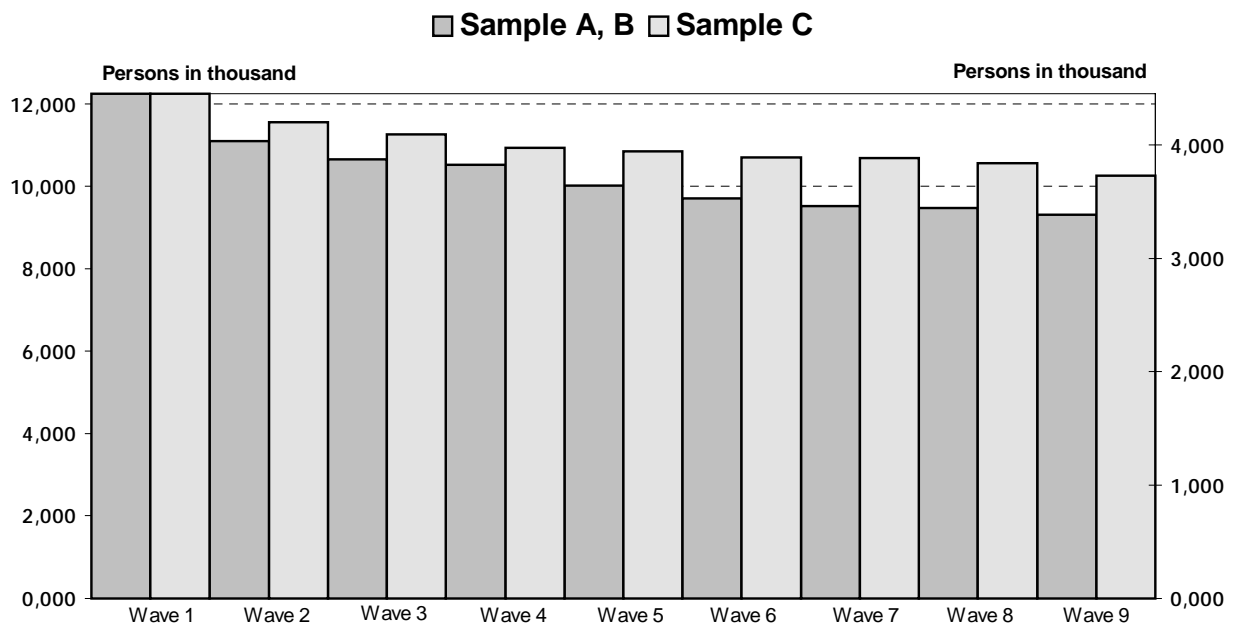


Figure 3: Comparison of successful interviews with persons and households (subsample C), waves 1 to 9.



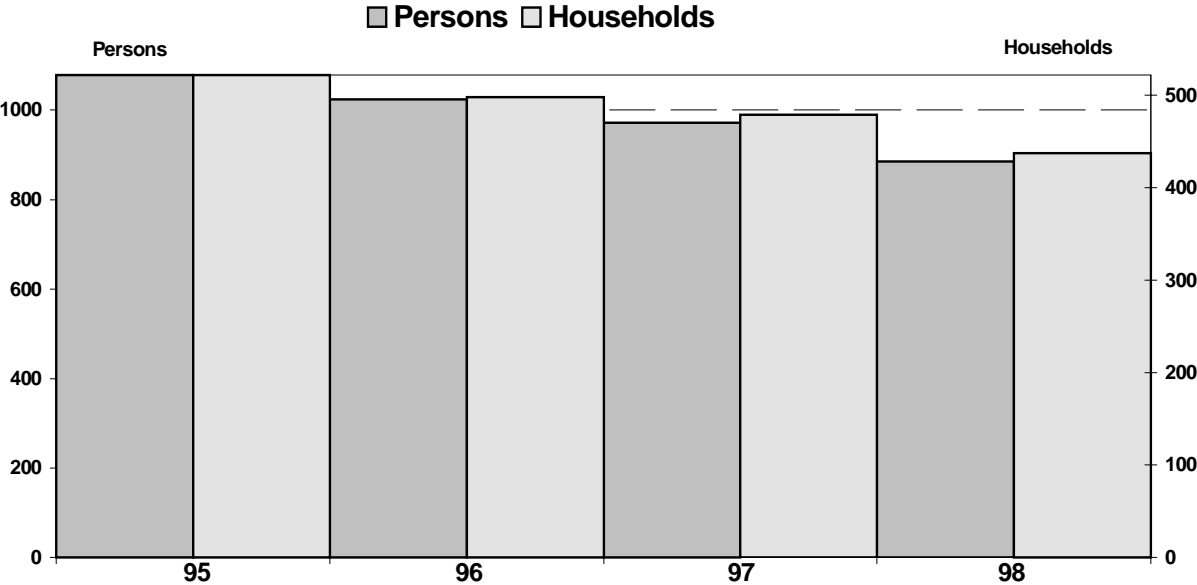
Persons	4,453	4,202	4,092	3,973	3,945	3,892	3,882	3,844	3,730
Households	2,179	2,030	2,020	1,970	1,959	1,938	1,951	1,942	1,886

Figure 4: Comparison of successful interviews between subsamples A and B vs. subsample C (individuals), waves 1 to 9.



Sample A, B	12,245	11,090	10,646	10,516	10,023	9,710	9,519	9,467	9,305
Sample C	4,453	4,202	4,092	3,973	3,945	3,892	3,882	3,844	3,730

Figure 5: **Comparison of successful interviews with individuals and households (subsample D), waves 1 to 4.**



Persons	1078	1023	972	885
Households	522	498	473	438

Due to the individual regional mobility the power of the initial subsample indicator to predict the actual sampling region vanishes in course of time.

Table 1a displays the actual sampling region of the GSOEP households since 1990 for subsample A, B and C.

Table 1b shows the same information for the immigrant sample since 1995.

Table 1c displays current sample regions for subsample E in 1998.

Table 1a: Development of sample sizes (sample A, B, C) by sampling region and institutional status 1990 to 1998. n = Number of successful interviews, N = Estimated population total in thousands. Population margins for the number of households and individuals living in private households by sampling region are taken from the German microcensus. Because of the different definitorial concepts the figures for the institutional population are not comparable to the microcensus.

Table 1a:

Survey year		Sampling region							
		West				East			
		Sample A+B		Sample C		Sample C		Sample A+B	
		1*	2*	1*	2*	1*	2*	1*	2*
Households									
1990	n	4592	48	-	-	2158	21	-	-
	N	28176	417	-	-	6769	90	-	-
1991	n	4620	49	22	-	1988	20	-	-
	N	28467	408	116	-	6672	109	-	-
1992	n	4598	46	58	3	1946	13	1	-
	N	28755	387	268	19	6654	72	3	-
1993	n	4609	53	78	5	1878	9	5	-
	N	29103	436	393	29	6687	50	46	-
1994	n	4545	47	93	5	1850	11	8	-
	N	29454	430	453	24	6680	77	108	-
1995	n	4451	45	111	3	1814	10	12	-
	N	28193	451	536	10	6619	84	166	-
1996	n	4383	48	118	3	1820	10	14	-
	N	28493	549	578	8	6623	75	167	-
1997	n	4316	54	128	3	1797	14	19	-
	N	28728	605	573	8	6553	140	270	-
1998	n	4212	51	125	3	1742	16	22	-
	N	23038	446	498	6	5302	122	236	-

Table 1a: continued

Survey year		Sampling region							
		West				East			
		Sample A+B		Sample C		Sample C		Sample A+B	
		1*	2*	1*	2*	1*	2*	1*	2*
Persons (including children)									
1990	n	12151	59	-	-	6014	30	-	-
	N	62380	472	-	-	16313	120	-	-
1991	n	12100	61	44	-	5617	26	-	-
	N	62974	456	233	-	15811	129	-	-
1992	n	11884	58	133	3	5331	18	2	-
	N	63440	434	562	12	15617	85	5	-
1993	n	11726	63	182	5	5078	11	7	-
	N	63939	465	833	24	15492	55	51	-
1994	n	11468	55	225	5	4938	13	11	-
	N	64358	437	1043	17	15341	82	160	-
1995	n	11194	54	277	3	4769	12	23	-
	N	59775	481	1199	10	15063	80	295	-
1996	n	10952	55	291	3	4670	12	29	-
	N	60179	594	1268	7	14925	80	333	-
1997	n	10742	61	311	3	4526	21	32	-
	N	60744	654	1229	8	14833	158	397	-
1998	n	10314	63	291	3	4349	24	41	-
	N	48730	529	1050	7	11697	143	430	-
1*: Private households									
2*: Institutionalized population									

Table 1b: **Development of sample sizes by sampling region and institutional status 1995 to 1998 for Sample D.** n = Number of successful interviews with weighting factor greater than zero (**hrf > 0). N = estimated population total in thousands.

Survey year		Sampling region							
		West				East			
		Standard Weights		D-specific Weights		Standard Weights		D-specific Weights	
		1*	2*	1*	2*	1*	2*	1*	2*
Households									
1995	n	307	13	362	14	2	-	2	-
	N	1416	88	1875	96	9	-	9	-
1996	n	291	7	347	8	4	-	4	-
	N	1400	55	1931	63	20	-	22	-
1997	n	278	4	327	4	4	-	5	-
	N	1315	27	1908	27	25	-	32	-
1998	n	253	4	295	4	2	-	3	-
	N	973	25	1884	31	10	-	25	-

Table 1b: continued

Survey year		Sampling region							
		West				East			
		Standard Weights		D-specific Weights		Standard Weights		D-specific Weights	
		1*	2*	1*	2*	1*	2*	1*	2*
Persons (including children)									
1995	n	977	30	1139	32	6	-	6	-
	N	4434	194	5773	211	27	-	27	-
1996	n	908	12	1068	14	9	-	9	-
	N	4260	97	5724	114	43	-	49	-
1997	n	857	11	1006	11	6	-	9	-
	N	3983	83	5689	83	34	-	53	-
1998	n	759	9	884	9	4	-	7	-
	N	2964	62	5422	78	15	-	55	-
1*: Private households									
2*: Institutionalized population									

Table 1c: **Sample sizes (sample E) by sampling region and institutional status in 1998.**

N = Number of successful interviews, N = Estimated population total in thousands.

Survey year		Sampling region			
		West		East	
		1*	2*	1*	2*
Households					
1998	n	872	1	194	-
	N	6127	67	1387	-
Persons (including children)					
1998	n	2030	3	437	-
	N	13186	20	3036	-
1*: Private households					
2*: Institutionalized population					

Considering the estimated population for sample A and B since 1995 (West) at a household and a personal level, we have to take into account that beginning with wave 12 (1995), the A and B weights are reduced to reflect the fact that immigrants are contained now in sample D (see Rendtel/Pannenberg/Daschke 1997 for details). In addition since 1998 the estimates for samples A, B, C and D are reduced due to the incorporation of the sample E.

1.2 Longitudinal development of losses due to panel attrition

The following figures display the development of the number of losses due to panel attrition considering different aspects:

Figure 6: All first wave persons of subsamples A and B. Whereabout until wave 15.

Figure 7: All first wave persons of subsample A. Whereabout until wave 15.

Figure 8: All first wave persons of subsample B. Whereabout until wave 15.

Figure 9: All first wave persons of subsample C. Whereabout until wave 9.

Figure 10: All first wave persons of subsample D. Whereabout until wave 4.

Figure 11: Comparison of all first wave persons between subsamples A, B and C. Whereabout until wave 9.

Figure 12: Comparison of all first wave persons between subsamples A, B, C and D. Whereabout until wave 4.

The figures in the center display the percentage of records that are without survey related attrition until the corresponding wave. These percentages may be taken as a mark for panel stability.

Figure 6: **All first wave persons (subsample A+B). Development until wave 15.**

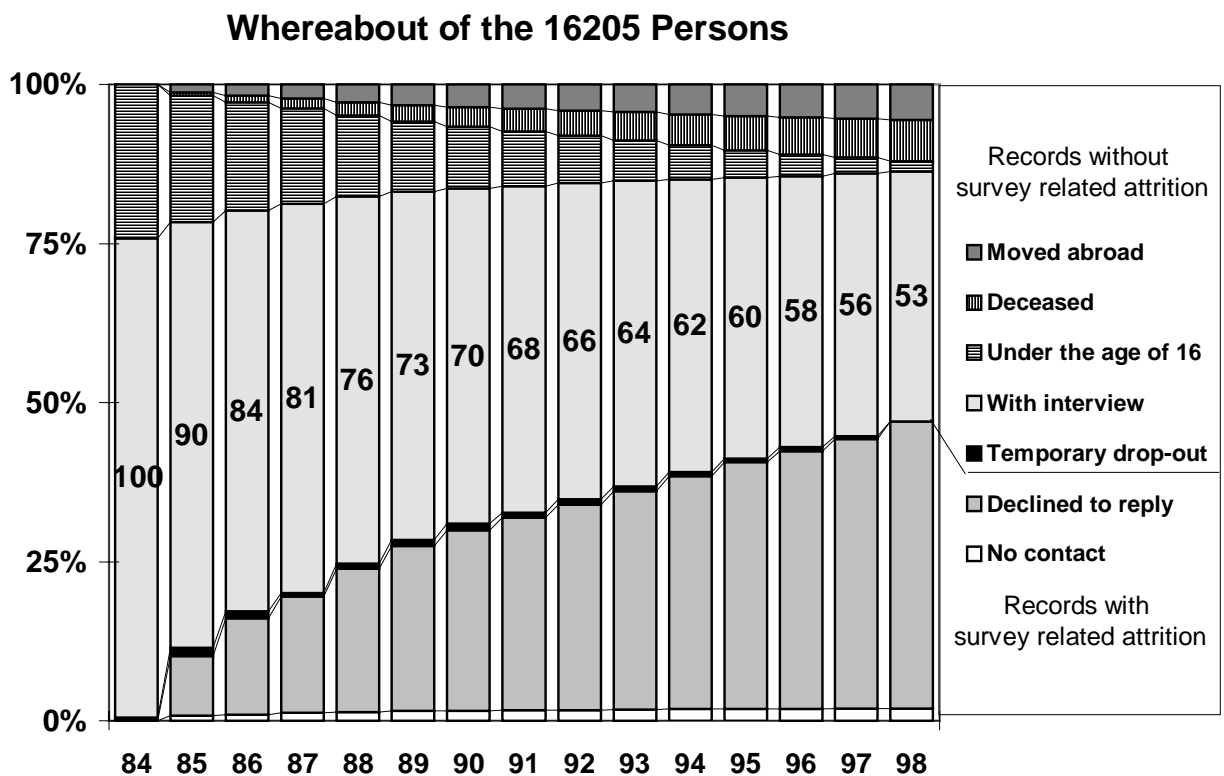


Figure 7: All first wave persons (subsample A). Development until wave 15.

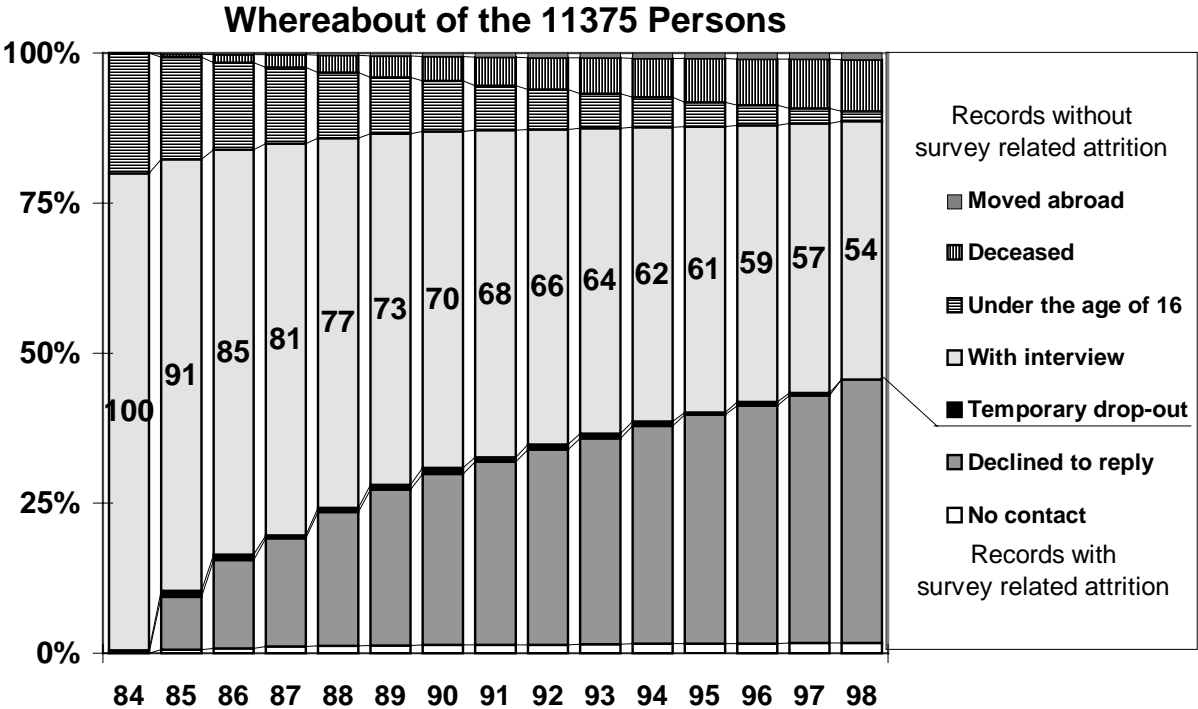


Figure 8: All first wave persons (subsample B). Development until wave 15.

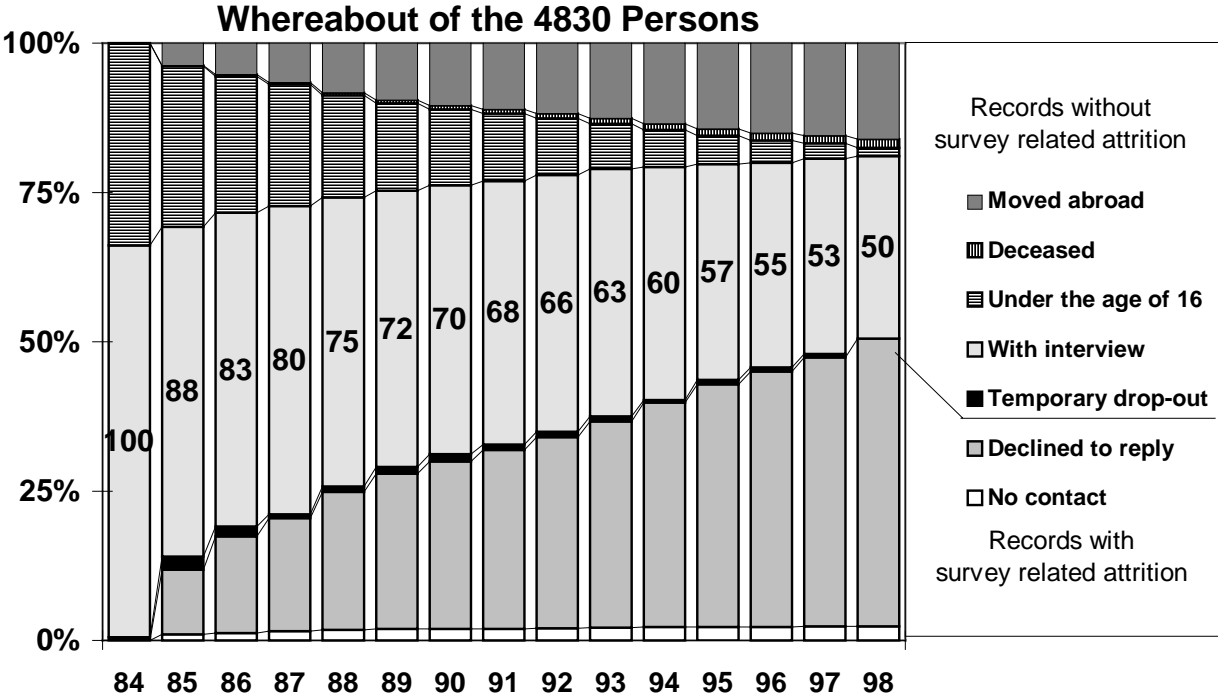


Figure 9: All first wave persons of the subsample C. Development until wave 9.

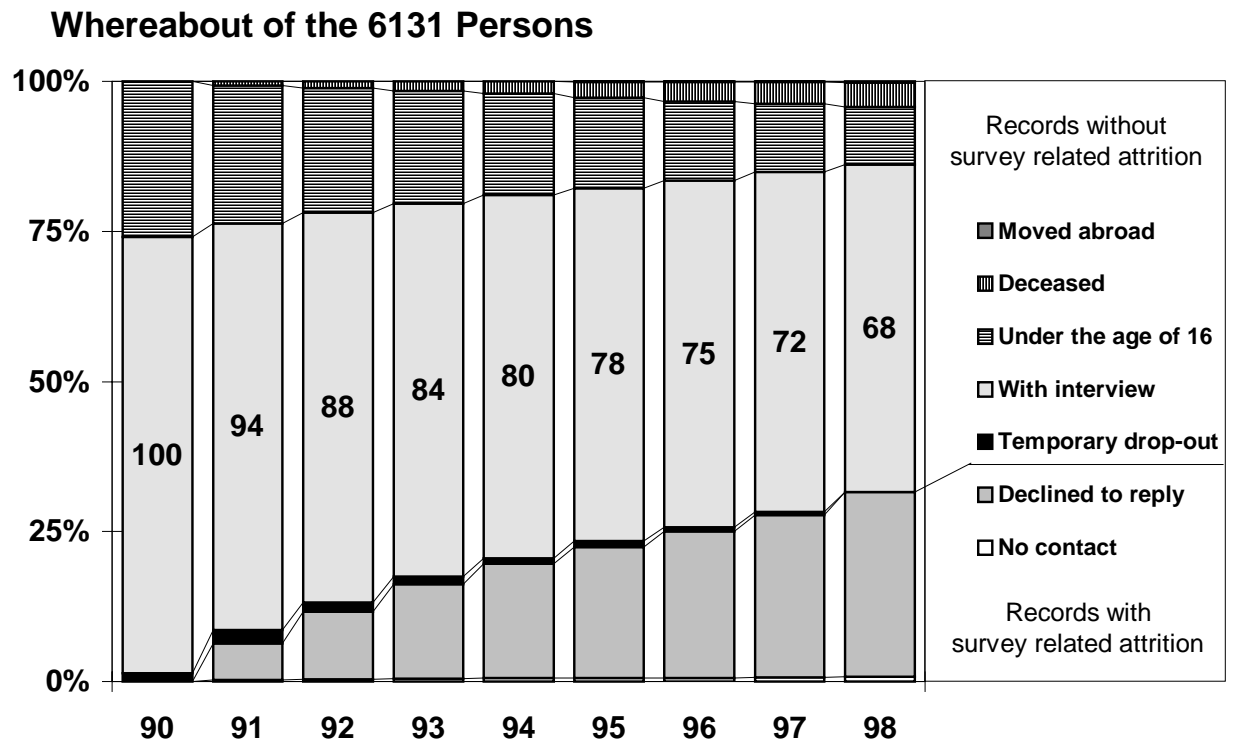


Figure 10: All first wave persons of the subsample D. Development until wave 4.

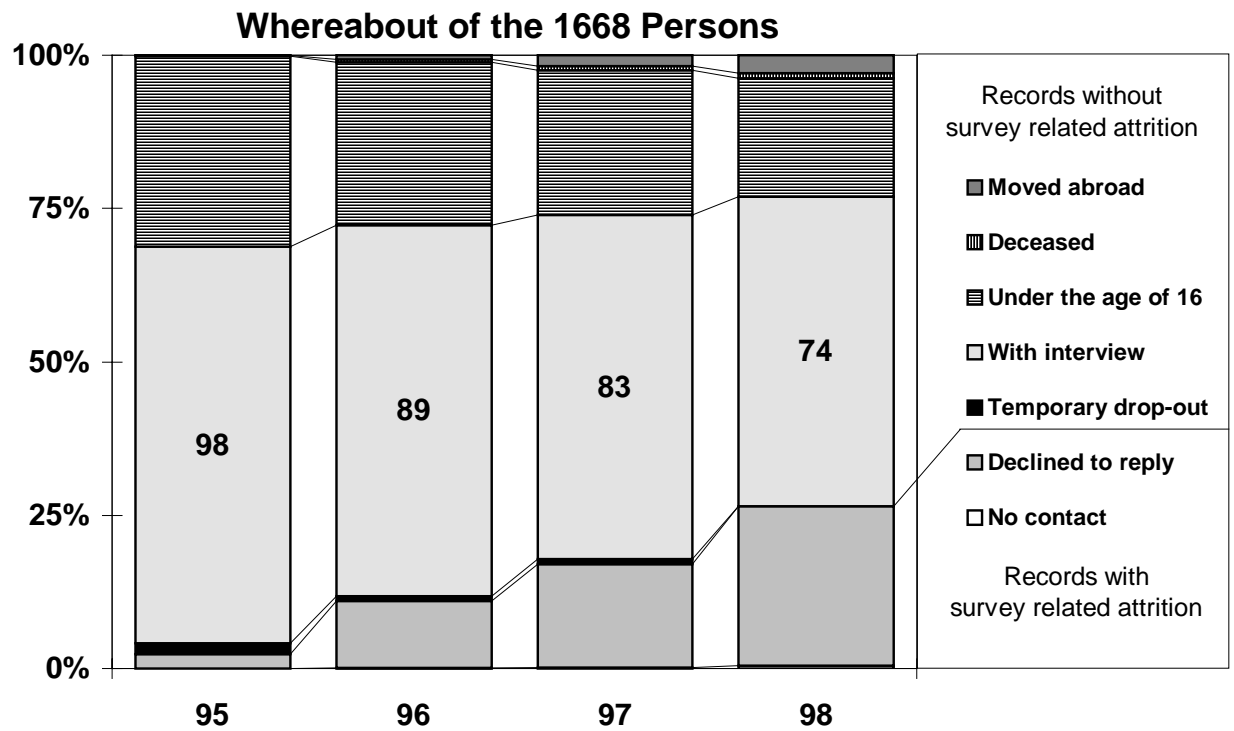


Figure 11: All first wave persons (A, B, C). Comparison of the development until wave 9.

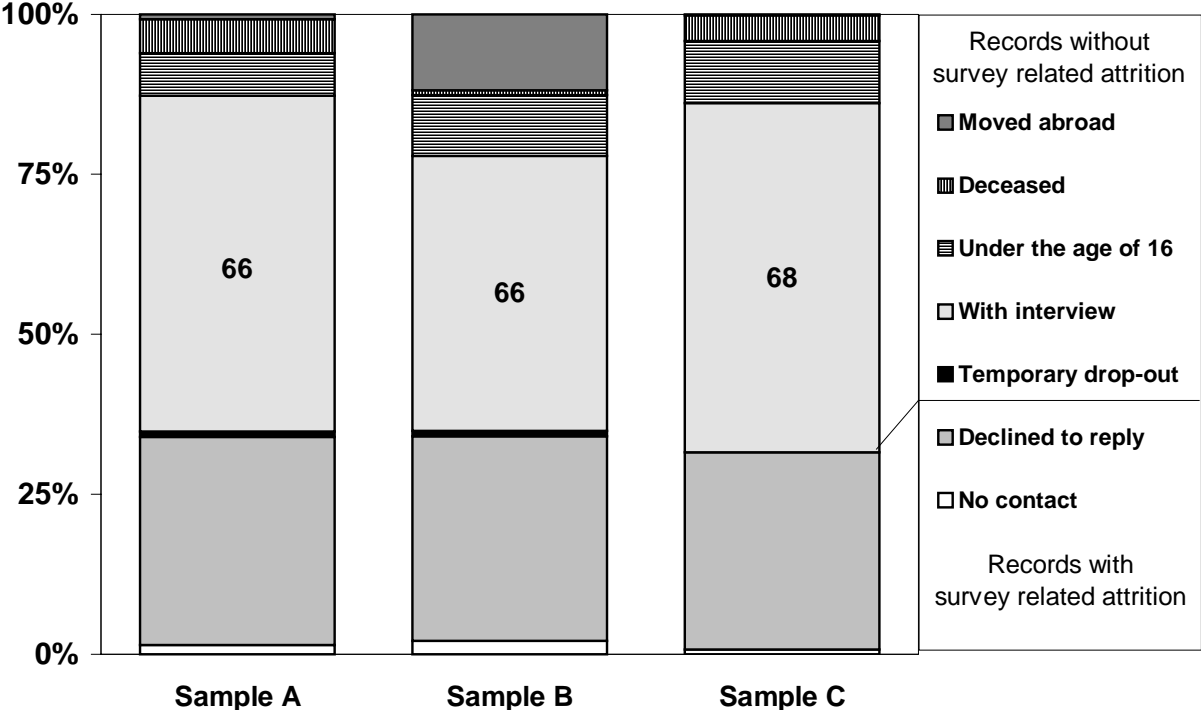
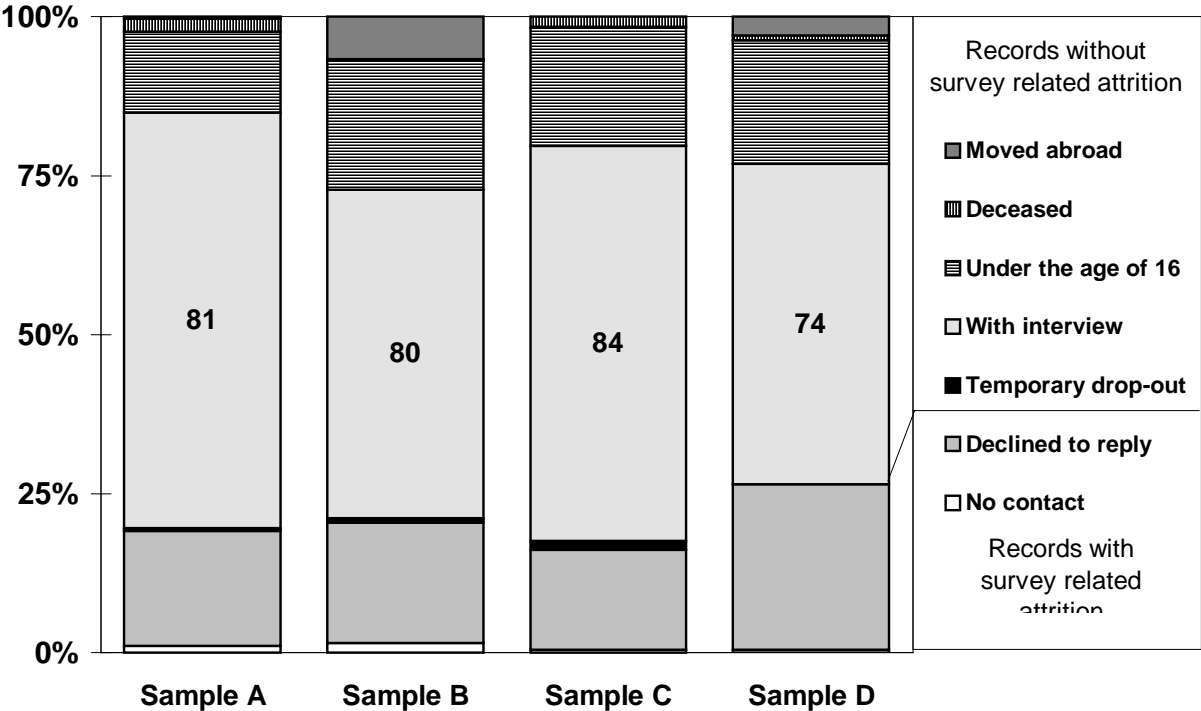
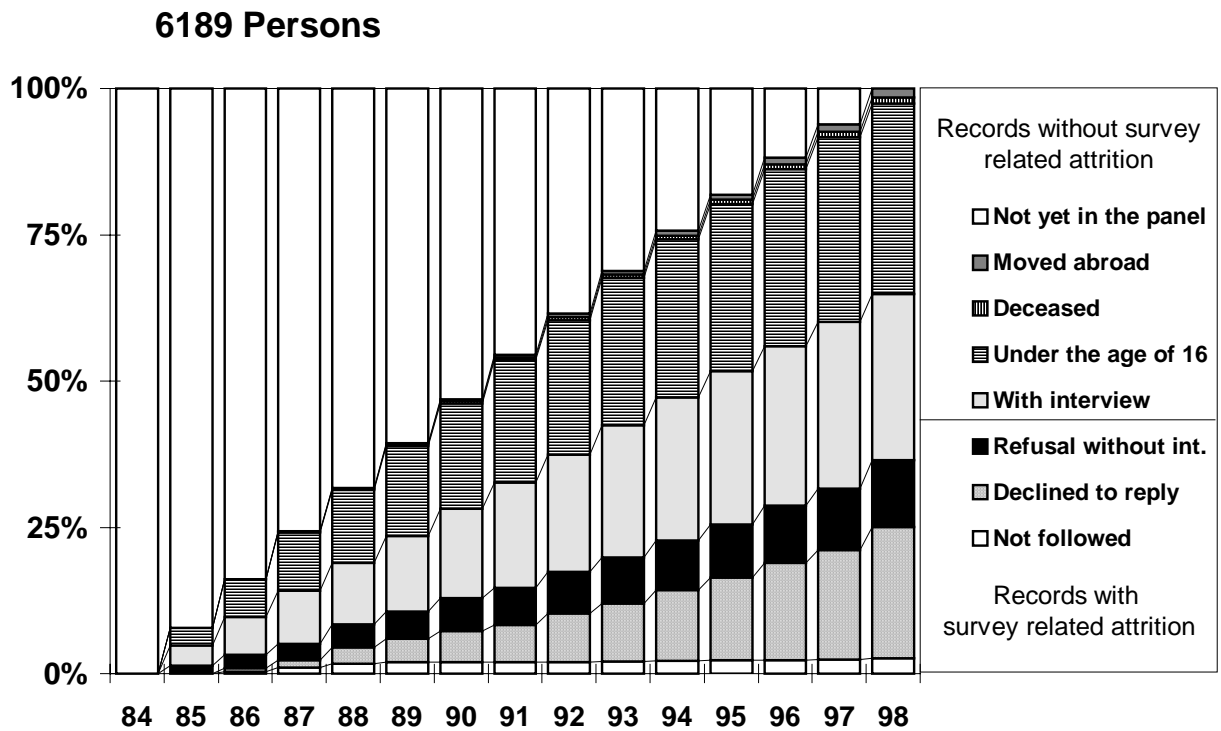


Figure 12: All first wave persons (A, B, C, D). Comparison of the development until wave 4.



1.3 Entrants by birth or move-ins and their participation behavior

Figure 13: Entrants by birth or move-in and their participation behavior (subsamples A, B).



2 Losses due to unsuccessful follow-up

In each panel wave it is necessary to re-contact the households of the proceeding wave. Therefore we have to check whether:

- the household still lives at the old address,
- the entire household has moved,
- all household members deceased,
- all household members left the sampling area,
- all household members returned into an existing panel household.

2.1 Drop-out rates by mobility behavior

Table 2 to 4 display the success of the field work with respect to the recontacting of households for Sample A, B, C and D. 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 to be successfully established if the interviewer recorded an interview or a refusal in the address protocol. Also the detection that the household members returned into an existing panel household is taken as a successful follow-up.

Table 2: **Drop-out rates due to unsuccessful follow-up in the GSOEP subsamples A and B.**

N = Number of households to be recontacted; % = percentage of households without contact.

Wave	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Total													
N	6051	5814	5465	5342	5156	5044	5029	5006	5049	5008	4900	4817	4733	4695
%	1.9	1.4	1.0	0.9	0.9	0.9	0.5	0.4	0.9	0.8	0.6	0.4	0.5	0.6
	Households without move													
N	5413	5039	4808	4683	4545	4472	4448	4447	4395	4359	4292	4178	4153	4022
%	0.8	0.4	0.1	0.1	0.2	0.0	0.04	0.0	0.02	0.1	0.07	0.02	0.05	0.0
	Moved multi-person households													
N	298	307	272	274	228	186	197	195	231	239	264	301	249	281
%	7.4	3.6	4.0	5.5	0.5	1.6	0.5	0.5	0.9	0.0	1.9	1.7	0.8	1.1
	Moved single-person households													
N	119	180	142	143	126	122	94	90	105	146	127	120	121	157
%	21.0	14.4	7.7	5.6	4.7	5.7	1.1	0.0	7.6	6.2	0.8	0.0	0.8	3.2
	Split-off households													
N	221	295	242	242	246	263	290	273	317	264	217	218	210	235
%	11.7	8.4	10.4	7.4	11.8	12.9	7.6	7.3	10.7	9.9	9.2	6.9	8.6	8.5

Table 3: **Drop-out rates due to unsuccessful follow-up in the GSOEP subsample C.**

N = Number of households to be recontacted;

% = percentage of households without contact.

Wave	2	3	4	5	6	7	8	9
Total								
N	2246	2304	2227	2136	2113	2104	2091	2081
%	1.5	0.5	0.9	0.6	0.4	0.5	0.5	0.6
Households without move								
N	2062	2043	2021	1904	1862	1796	1771	1732
%	0.0	0.05	0.05	0.0	0.1	0.0	0.1	0.0
Moved multi-person households								
N	81	106	82	92	119	142	153	175
%	11.1	0.0	3.7	2.2	0.0	1.4	0.0	0.6
Moved single-person households								
N	21	43	14	39	30	45	60	64
%	14.3	9.3	0.0	2.6	3.3	4.4	1.7	1.6
Split-off households								
N	82	112	110	104	102	121	107	110
%	25.6	6.3	13.6	8.6	6.9	5.8	8.4	10.0

Table 4: **Drop-out rates due to unsuccessful follow-up in the GSOEP subsample D.**

N = Number of households to be recontacted;

% = percentage of households without contact.

Characteristic	Wave 2		Wave 3		Wave 4	
	N	%	N	%	N	%
Total	544	0.4	542	0.7	529	0.9
Households without move	431	0.0	424	0.0	409	0.0
Moved multi- person households	74	0.0	65	0.0	65	3.1
Moved single- person households	16	6.3	16	6.3	18	5.6
Split-off households	23	4.4	37	8.1	37	5.4

2.2 Definition of the covariates for a Logit analysis

The estimation of the probability that a household is lost by unsuccessful follow-up is done by using a Logit model with the following characteristics:

Characteristic	Abbreviation	Code	Values
Moved	MOVE	1	household, not moved
		2	Moved multi-person household
		3	Moved single-person household
		4	Split-off household
Large City	LARGE	0	Else
		1	More than 500 thousand inhabitants
Household size	SIZE	1	Single-person household
		2	2 person household
		3	3 person household
		4	4 or more persons household
Single-person household	SINGLE	0	Else
		1	Single-person household
Typ of house	TYP	1	Single house or rural area
		2	Multi storey house
		3	Else
Split-off household	SPLIT	1	Moved multi-person household
		2	Moved single-person household
		3	Split-off household

2.3 Estimated coefficients of the Logit model

The covariates defined in the previous section were employed in a multiple Logit analysis. The model estimates the probability $P_c = (\text{contact} = \text{no})$. For the computation of the GSOEP weighting schemes only model specifications with all covariates being significant were used. The specification

$$\text{is: } \ln \frac{P_{c,i}}{1 - P_{c,i}} = \text{const} + X'_i \beta$$

Thus, positive coefficients indicate an increased drop-out rate compared to the sample average.

Table 5 uses a simple symbolic notation for the models and their estimated coefficients. Here "+" means the addition of a main effect, an "*" indicates an interaction term. Variable 1 (Variable 2 = c) symbolizes a conditional main effect which is linked to cases where variable 2 = c. The estimated coefficients are displayed under the model equation. The notation uses the convention: variable (value 1: coefficient 1/value 2: coefficient 2/...).

The estimated drop out rates due to unsuccessful follow-up may be easily calculated from table 5. For example: In wave 2, subsample A, we find for a multiple-person household, that moved (MOVE=2) from a large city (LARGE=1) the logit value $-2.87+0.24+ 0.11=-2.52$. Thus we have

$$\text{Pr}(\text{contact} = \text{no}) = \frac{e^{-2.52}}{1 + e^{-2.52}} = 0.074.$$

Table 5: **The estimates of a Logit model for the probability of a drop-out due to unsuccessful follow-up in the GSOEP. Representation of coefficients: variable (value 1: coefficient 1/value 2: coefficient 2/...).**

Subsample A (West-Germans)	
Wave	Model and coefficients
2	Model = CONST + LARGE + MOVE CONST (-2.87), LARGE (0: -0.24/1: 0.24) MOVE (1: -2.52 / 2: 0.11 / 3: 1.53 / 4: 0.84)
3	Model = CONST + LARGE + MOVE CONST (-3.62), LARGE (0: -0.36 / 1: 0.36), MOVE (1: -1.79 / 2: -0.49 / 3: 1.48 / 4: 0.80)
4	Model = CONST + MOVE CONST (-3.42), MOVE (1: -3.01 / 2: 0.78 / 3: 0.98 / 4: 1.25)
5	Model = CONST + MOVE + SINGLE (MOVE) CONST (-3.76), MOVE (1: -3.09 / 2,3: 1.34 / 4: 1.75) SINGLE (MOVE = 1) (0: -1.35 / 1: 1.35) SINGLE (MOVE = 2,3) 0: -0.28 / 1: 0.28) SINGLE (MOVE = 4) (0: -0.63 / 1: 0.63)
6	Model = CONST + MOVE + SINGLE (MOVE) CONST (-3.48), MOVE (1: -2.33 / 2,3: 0.64 / 4: 1.69) SINGLE (MOVE = 1) (0: -0.75 / 1: 0.75) SINGLE (MOVE =2,3) (0: -0.76 / 1: 0.76) SINGLE (MOVE= 4) (0: -0.26 / 1: 0.26)
7*	Model = CONST + LARGE + SPLIT CONST (-2.97), LARGE (0: -0.39 / 1: 0.39), SPLIT (1: -1.10 / 2: -0.07 / 3: 1.17)
8	Model = CONST + MOVE CONST (-5.03) MOVE 1: -2.79 / 2: -0.24 / 3: 0.50 / 4: 2.53)
9	Pr (contact = no) = 0 if MOVE = 1,2,3 / =0.06 if MOVE =4
10	Model = CONST + LARGE + MOVE CONST (-4.44), LARGE (0: -0.44 / 1: 0.44), MOVE (1: -3.65 / 2: 0.10 / 3: 1.12 / 4: 2.42)
11	Model = CONST + SINGLE + MOVE CONST (-6.01), SINGLE (0: -1.06 / 1: 1.06) MOVE (1: -0.99 / 2: -5.13 / 3: 1.84 / 4: 4.28)

Table 5: continued (1)

12	Model = CONST + SINGLE + MOVE CONST (-4.61), SINGLE (0: -0.72 / 1: 0.72) MOVE (1: -2.68 / 2: 0.78 / 3: -0.83 / 4: 2.73)
13	Model = CONST + MOVE CONST (-6.89) MOVE (1: -1.21 / 2: 2.30 / 3: -5.31 / 4: 4.22)
14	Model = CONST + MOVE + SINGLE CONST (-6.95) SINGLE (0: -0.73 / 1: 0.73) MOVE (1: -9.09 / 2: 2.56 / 3: 1.62 / 4: 4.91)
15	Model = CONST + MOVE + SINGLE CONST (-3.97) MOVE (1,2,3: -2.15 / 4: 2.15) SINGLE (0: -0.76 / 1: 0.76)
* In wave 7 all households that did not move were successfully re-contacted. The drop-out analysis therefore based only on households that moved.	
Subsample B (Foreigners)	
2	Model = CONST + LARGE + MOVE + SIZE CONST (-2.28), LARGE (0: -0.50 / 1: 0.50), MOVE (1: -1.66 / 2: 0.69 / 3: -0.07 / 4: 1.04) SIZE (1: 1.23 / 2: 0.26 / 3: -0.82 / 4: -0.67)
3	Model = CONST + LARGE + MOVE CONST (-2.65), LARGE (0: -0.72 / 1: 0.72), MOVE (1: -3.06 / 2: 0.16 / 3: 1.64 / 4: 1.26)
4	CONST (-3.34), MOVE (1: -3.60 / 2: -0.46 / 3: 2.19 / 4: 1.87)
5	like Subsample A
6	like Subsample A
7*	Model = CONST + LARGE + SPLIT + TYPE CONST (-2.93), LARGE (0: 0.64 / 1: -0.64), SPLIT (1: -1.65 / 2: 0.58 / 3: 1.07), TYPE (1: -0.73 / 2: 1.32 / 3: -0.59)
8	like Subsample A
9	Pr (contact = no) = 0 if MOVE = 1,2,3 / = 0.10 if MOVE = 4

Table 5: continued (2)

10	Model = CONST + LARGE + MOVE CONST (-7.98), LARGE (0: -0.81 / 1: 0.81), MOVE (1: -7.63 / 2: -4.69 / 3: 6.50 / 4: 5.82)
11	Model = CONST + SINGLE + MOVE CONST (-5.39), SINGLE (0: -1.5 / 1: 1.54), MOVE (1: -1.19 / 2: -4.26 / 3: 2.07 / 4: 3.39)
12	Model = CONST + MOVE CONST (-5.34), MOVE (1: -1.52 / 2: 2.21 / 3: -3.86 / 4: 3.17)
13	Model = CONST + MOVE CONST (-8.32), MOVE (1: -7.08 / 2: 4.83 / 3: -3.61 / 4: 5.86)
14	Model = CONST + MOVE CONST (-5.69), MOVE (1: -0.40 / 2: 1.32 / 3: -4.51 / 4: 3.59)
15	Model = CONST + MOVE CONST (-4.72), MOVE (1,2,3: -2.14 / 4: 2.14)
* In wave 7 all households that did not move were successfully re-contacted. The drop-out analysis therefore based only on households that moved.	
Subsample C (East-Germans)	
Wave	Model and coefficients
2	Pr(contact=no) = MOVE (1: 0.0 / 2: 0.11 / 3: 0.14 / 4: 0.25)
3	Pr(contact=no) = MOVE (1,2: 0.0 / 3: 0.09 / 4: 0.07)
4	Pr(contact=no) = MOVE (1: 0.0 / 2: 0.04 / 3: 0.0 / 4: 0.14)
5	Pr(contact=no) = MOVE (1: 0.0 / 2: 0.02 / 3: 0.03 / 4: 0.09)
6	Pr(contact=no) = MOVE (1: 0.0 / 2: 0.0 / 3: 0.03 / 4: 0.07)
7	Pr(contact=no) = MOVE (1: 0.0 / 2: 0.01 / 3: 0.04 / 4: 0.06)
8	Pr(contact=no) = MOVE (1: 0.0 / 2: 0.0 / 3: 0.02 / 4: 0.08)
9	Model = CONST + MOVE + SIZE
	CONST (-4.80)
	MOVE (1,2,3: -2.55 / 4: 2.55)
	SIZE (1,2: -0,96 / 3,4: 0.96)
Subsample D	
Wave	Model and coefficients*
2	Pr(contact=no) = MOVE (1: 0.0 / 2: 0.0 / 3: 0.07 / 4: 0.05)
3	Pr(contact=no) = MOVE (1: 0.0 / 2: 0.0 / 3: 0.08 / 4: 0.08)
4	Pr(contact=no) = MOVE (1: 0.0 / 2: 0.04 / 3: 0.08 / 4: 0.04)
* excluding households with *hhrfd < 0.	

3 Losses due to refusals

3.1 Drop-out rates by different household characteristics

The subsequent tables display the drop-out rates due to refusal by different household characteristics. In general the characteristics refer to their status at the previous interview. However, the survey related characteristics refer to the actual sampling wave.

The person related characteristics refer to the head of the household in the previous wave. However, for split-off households the person related characteristics refer to the person that moved from the panel household (in case of several persons that moved from a panel household: the person first mentioned in the address protocol).

For households which were successfully re-contacted two alternative outcomes were considered:

- an interview is achieved at the household level.
- the household interview was not achieved.

No differences were made between various reasons for the refusal like explicit denial or refusal because of lack of time, bad health conditions, etc..

Table 6: **Participation behavior of re-contacted households by socio demographic characteristics of the head of the household.**

N = Number of eligible households. % = Percentage of households without interview (SOEP Sample A, B).

		Wave													
		2	3	4	5	6	7	8	9	10	11	12	13	14	15
All households	N	5937	5732	5398	5285	5095	4982	4985	4977	4994	4960	4863	4795	4703	4658
	%	10.4	11.2	6.9	8.9	7.9	6.9	6.3	6.7	6.6	7.3	7.3	7.3	10.2	11.1
Drop-out in pervious wave	N	-	259	197	154	169	154	183	145	164	146	150	153	132	137
	%	-	59.5	52.8	71.6	57.4	49.3	48.1	62.1	50.6	54.1	60.7	68.6	52.3	60.6
		Households with participation in previous wave													
All	N	5937	5473	5201	5131	4926	4828	4802	4832	4830	4814	4713	4642	4571	4521
	%	10.4	8.9	5.1	7.0	6.2	5.5	4.7	5.0	5.1	5.8	5.6	5.3	9.0	9.6
		Sample													
A West-Germans	N	4611	4275	4058	3993	3834	3755	3716	3724	3718	3713	3661	3630	3579	3554
	%	10.2	8.7	5.2	7.1	6.2	5.3	4.6	4.9	5.1	5.3	5.0	5.0	8.5	9.2
B Foreigners	N	1326	1198	1143	1138	1092	1073	1086	1108	1112	1101	1052	1011	992	967
	%	10.9	9.6	5.0	6.9	6.4	6.1	5.3	5.5	6.2	7.7	7.6	6.7	10.5	11.2
		Gender													
Male	N	4664	4226	3951	3840	3624	3486	3413	3372	3340	3286	3173	3061	2982	2918
	%	9.8	8.3	4.7	6.7	6.2	5.0	4.2	4.9	4.5	5.5	5.1	5.0	7.2	8.8
Female	N	1273	1247	1250	1291	1303	1342	1389	1460	1490	1528	1540	1581	1589	1603
	%	12.2	11.0	6.5	7.9	6.5	6.9	6.1	5.3	6.3	6.6	6.6	5.8	12.6	11.2

Table 6: continued (1)

		Wave													
		2	3	4	5	6	7	8	9	10	11	12	13	14	15
		Households with participation in previous wave													
		Age													
75 +	N	448	394	374	386	381	380	371	367	353	340	344	335	351	366
	%	18.3	13.7	6.7	6.5	6.8	5.0	3.0	5.2	6.2	5.0	9.8	6.0	5.1	7.7
65-74	N	562	513	487	480	465	462	477	503	527	550	554	547	539	522
	%	10.1	9.4	2.9	5.4	6.0	3.0	2.9	3.2	2.9	4.2	3.4	2.7	4.8	5.4
55-64	N	947	860	809	803	798	783	782	811	821	832	857	849	804	788
	%	9.8	8.7	4.2	4.7	5.9	5.5	3.8	3.4	3.4	4.7	3.6	6.0	8.6	9.6
35-54	N	2621	2401	2272	2226	2112	2017	1970	1899	1851	1797	1675	1624	1612	1637
	%	9.2	7.8	4.3	6.3	6.1	4.9	4.7	4.1	3.6	5.8	5.3	4.1	9.6	10.8
25-34	N	1116	1034	976	963	904	926	957	983	1020	1077	1107	1115	1117	1073
	%	8.9	8.0	6.1	9.9	6.1	7.7	6.1	6.2	7.7	6.3	6.1	6.7	10.9	10.2
16-24	N	243	271	283	273	266	260	245	269	258	218	176	172	148	135
	%	17.3	15.1	13.4	13.2	9.0	8.1	8.9	14.8	13.2	13.3	13.6	9.9	12.8	12.6
		Marital status													
Married, living together	N	3893	3600	3366	3301	3144	3029	3015	3008	2990	2949	2869	2820	2716	2686
	%	9.6	8.0	4.4	6.2	6.2	4.6	3.4	4.9	4.3	5.2	4.6	4.8	8.0	9.3
Married, living separate	N	104	157	119	97	120	110	96	102	102	106	106	86	106	98
	%	7.7	12.1	5.9	13.4	6.7	8.2	12.5	6.9	8.8	9.4	6.6	5.8	6.6	11.2
Single	N	836	811	802	783	764	764	782	797	824	846	837	845	861	859
	%	12.6	9.6	9.4	11.5	6.8	8.6	9.1	9.7	8.3	7.9	7.7	7.6	12.1	10.8
Divorced	N	349	345	328	347	327	351	356	369	353	364	380	378	381	387
	%	10.3	10.4	4.6	6.3	7.0	7.1	4.8	4.9	3.4	6.0	7.9	5.0	12.6	11.1
Widowed	N	671	560	533	542	534	532	518	515	523	514	500	492	491	472
	%	12.6	11.9	3.9	5.1	4.7	4.5	4.4	3.9	4.8	4.9	6.0	4.5	6.7	7.0

Table 6: continued (2)

		Wave													
		2	3	4	5	6	7	8	9	10	11	12	13	14	15
		Households with participation in previous wave													
		School degree													
Without exam	N	493	445	411	407	376	373	380	379	380	379	367	345	332	339
	%	10.9	11.0	6.3	8.8	6.7	5.6	5.8	5.5	5.0	6.3	8.7	7.0	7.5	9.7
Lower secondary school	N	2952	2669	2493	2488	2405	2340	2314	2296	2272	2240	2190	2168	2104	2072
	%	11.8	9.8	4.7	6.2	6.3	5.2	4.6	4.6	4.8	5.6	4.6	5.3	8.5	10.2
Intermed. secondary school	N	852	849	818	805	798	780	784	812	835	846	856	867	867	875
	%	6.8	8.8	5.6	8.3	8.0	6.3	4.9	4.7	4.4	5.7	6.3	5.3	9.0	8.8
Technical school	N	223	205	205	201	183	180	184	188	199	212	212	204	212	210
	%	9.4	6.8	6.3	9.5	5.5	5.6	7.6	4.8	5.0	7.1	5.7	2.9	8.5	7.6
Upper secondary school	N	601	588	582	569	542	552	533	557	564	580	572	582	598	598
	%	7.5	6.0	5.5	7.6	4.2	7.4	5.1	7.0	6.2	5.5	5.1	4.5	10.0	10.0
		Occupational status													
Not gainfully employed	N	1527	1325	1290	1302	1276	1329	1339	1279	1314	1320	1349	1303	1333	1324
	%	13.9	10.1	5.5	6.9	6.4	5.2	4.3	4.9	4.4	4.5	6.2	4.8	7.6	8.2
Jobless	N	206	297	260	258	265	193	199	215	197	239	285	292	288	323
	%	9.7	10.7	7.7	8.5	4.9	2.6	6.0	6.5	6.6	8.4	4.9	5.1	10.0	10.5
High status	N	585	578	522	530	519	511	496	518	531	557	524	535	534	490
	%	7.9	6.2	4.4	7.7	7.1	8.4	5.9	5.6	4.7	6.3	4.4	4.5	7.9	10.6
Middle status	N	2248	2202	2053	1982	1911	1803	1857	1932	1989	1855	1878	1853	1830	1787
	%	8.8	8.1	5.3	6.6	6.2	5.1	4.7	5.1	5.5	5.7	5.2	5.5	9.9	10.4
Low status	N	1364	1071	1076	1059	954	992	911	888	799	843	677	659	586	597
	%	11.2	10.0	4.3	7.4	6.2	5.9	4.6	4.3	5.0	7.2	6.7	6.4	9.6	9.4

Table 7: **Participation behavior of re-contacted households by survey related characteristics.**
N = Number of eligible households. % = Percentage of households without interview (SOEP A, B).

		Wave													
		2	3	4	5	6	7	8	9	10	11	12	13	14	15
		Households with participation in previous wave													
		Type of household													
Household, not moved	N	5372	4810	4646	4567	4421	4353	4313	4379	4285	4242	4182	4050	4049	3992
	%	9.6	8.0	4.2	5.8	5.6	4.6	3.6	3.9	4.0	5.8	4.7	5.3	7.9	8.8
Household which moved	N	370	425	373	370	322	277	274	275	309	362	367	410	355	408
	%	11.6	12.7	10.7	14.1	9.0	7.6	9.9	9.5	8.4	7.7	8.7	9.8	14.4	11.8
Split-off household	N	195	238	182	194	183	198	215	208	235	204	164	181	167	190
	%	29.2	21.4	17.6	23.7	16.9	23.2	21.4	22.1	20.4	17.2	22.0	18.2	23.4	23.2
		Change of interviewer													
Yes	N	2041	1203	816	715	826	742	717	751	340	385	199	169	225	272
	%	14.9	17.5	12.5	19.0	12.9	14.4	10.7	12.1	8.2	8.6	9.6	18.6	12.4	14.3
No	N	3896	4265	4385	4416	4100	4086	4085	4081	3879	3824	3888	3886	3579	3455
	%	7.9	6.5	3.8	5.1	4.9	3.9	3.7	3.7	3.3	3.4	3.2	3.7	5.8	6.4
Special cases	N									611	605	626	587	767	794
	%									14.6	19.3	19.0	14.0	22.6	21.9
		Number of interviews with the head													
Complete	N	-	5419	5018	4826	4600	4384	4225	4060	3856	3693	3520	3344	3208	3071
from first wave	%	-	8.7	4.7	5.9	5.6	4.4	3.6	3.3	3.4	3.9	4.1	3.7	6.6	7.5
1 interview missing	N	-	-	161	246	253	294	346	389	399	416	412	409	413	422
	%	-	-	16.7	23.1	14.6	13.9	13.8	10.8	10.3	11.1	10.4	8.6	14.3	17.1
2 interviews missing	N	-	-	-	46	43	73	93	127	163	173	174	175	173	172
	%	-	-	-	43.5	16.2	23.2	12.9	18.9	14.7	17.3	8.6	9.7	10.4	14.0
3 interviews missing	N	-	-	-	-	24	49	63	104	137	164	168	170	156	155
	%	-	-	-	-	12.5	14.3	9.5	10.6	8.0	8.5	9.5	10.6	12.8	14.2

Table 7: continued

		Wave													
		2	3	4	5	6	7	8	9	10	11	12	13	14	15
		Households with participation in previous wave													
		New entrant living in the household													
Yes	N	257	243	218	211	209	220	198	210	197	197	168	182	180	161
	%	9.0	11.1	6.4	6.6	4.8	6.4	6.6	2.4	3.6	4.0	3.0	3.3	1.7	6.2
No	N	5680	5230	4983	4920	4717	4608	4604	4622	4633	4616	4545	4460	4391	4360
	%	10.4	8.8	5.1	7.1	6.3	5.5	4.7	5.1	5.2	5.9	5.7	5.4	9.3	9.8
		A respondent person left the household													
Yes	N								209	243	201	168	193	175	184
	%								7.2	6.3	5.0	1.2	4.2	12.6	6.5
		Household without telephone													
Yes	N									248	253	-	220	226	-
	%									9.7	7.9	-	7.7	8.0	-
		Households with a separation of a couple													
All	N								94	116	103	83	109	109	121
	%								24.5	20.7	9.7	19.3	13.8	24.8	20.7
Old household	N								47	60	52	43	61	58	62
	%								14.6	16.7	7.7	4.7	11.5	25.9	11.3
Split-off household	N								47	56	51	40	48	51	59
	%								34.8	25.0	11.7	35.0	16.7	23.5	30.5
		Subjective characteristics													
		General life satisfaction													
More or less dissatisfied (≤ 4)	N									302	380	393	382	355	433
	%									7.3	7.6	6.9	5.8	13.2	9.7
More or less satisfied (≥ 5)	N									4528	4434	4320	4260	4216	4088
	%									4.9	5.7	5.5	5.2	8.6	9.6

Table 8: Participation of re-contacted households by household income and the number of different assets.
N = Number of eligible households. % = Percentage of households without (SOEP A, B).

		Wave													
		2	3	4	5	6	7	8	9	10	11	12	13	14	15
		Households with participation in previous wave													
		Household income not reported													
	N	335	310	272	237	210	203	197	226	193	220	199	266	271	214
	%	17.9	18.4	12.9	16.9	11.4	15.2	12.7	10.6	7.8	15.0	12.6	10.5	18.8	15.0
		Household income in DM													
≤ 1000	N	456	368	293	270	241	213	182	165	157	151	137	102	95	70
	%	13.8	10.1	5.5	9.3	7.1	6.1	6.6	8.5	7.0	6.6	8.8	11.8	9.5	7.1
1000-2000	N	1816	1521	1383	1243	1140	995	870	802	721	665	651	564	565	534
	%	11.2	9.7	5.3	6.6	6.2	4.8	5.1	4.5	5.0	7.2	6.5	5.0	8.1	7.9
2000-3000	N	1713	1572	1469	1404	1354	1329	1260	1202	1129	1063	1040	1023	951	918
	%	8.3	7.6	4.2	6.5	6.6	4.6	4.0	5.1	4.4	4.9	5.3	5.8	8.7	8.5
3000-4000	N	992	996	1008	1087	1060	1073	1069	1085	1103	1039	1045	998	933	985
	%	9.6	6.4	4.3	6.1	5.0	4.7	3.7	4.4	5.4	4.9	5.7	3.8	8.3	8.1
≥ 4000	N	625	706	776	890	921	1015	1224	1352	1527	1676	1641	1689	1756	1800
	%	8.2	8.9	5.0	6.4	5.9	6.2	4.7	4.4	4.8	5.2	4.3	4.7	8.1	11.0

Table 8: continued

		Wave													
		2	3	4	5	6	7	8	9	10	11	12	13	14	15
		Households with participation in previous wave													
		Number of different assets in the household													
0	N	823	769	743	735	578	661	573	604	567	563	541	592	581	610
	%	12.5	12.3	6.9	11.3	8.3	8.8	6.6	9.9	6.5	10.7	7.8	8.8	13.1	11.8
1	N	1714	1561	1468	1429	1431	1262	1256	1191	1140	1197	1149	1068	1051	1001
	%	13.2	10.4	5.1	6.8	6.7	5.5	4.4	4.5	5.3	5.7	6.0	5.3	8.6	9.0
2	N	1709	1549	1427	1449	1444	1310	1350	1367	1412	1277	1278	1260	1212	1183
	%	8.3	8.2	5.6	5.8	5.9	5.2	5.0	4.1	5.5	5.6	5.8	5.5	8.1	11.0
3	N	1224	1161	1134	1122	1107	1152	1201	1180	1210	1250	1180	1236	1223	1221
	%	8.7	6.7	3.9	5.9	5.7	4.1	3.7	4.2	4.3	4.1	4.4	4.0	8.6	8.1
4	N	403	388	374	343	326	377	375	447	451	476	489	446	459	459
	%	7.7	5.9	3.7	7.0	4.6	5.3	4.5	4.5	3.8	5.9	3.5	3.6	7.6	8.1
5	N	64	45	55	53	40	66	47	43	50	51	52	40	45	47
	%	9.4	6.7	9.1	11.3	2.5	7.5	14.9	4.7	0.0	3.9	11.5	5.0	11.1	14.9
		Drawing of social aid payments													
Yes	N								133	133	135	143	148	151	120
	%								6.8	8.3	6.7	8.4	5.4	14.6	11.7

Table 9: **Comparison of drop-out rates between Subsamples A/B, Subsample C and Subsample D until wave 4.** % = Percentage of households without interview.

Characteristic	Wave 2			Wave 3			Wave 4		
	A, B %	C %	D %	A, B %	C %	D %	A, B %	C %	D %
All re-contacted households	10.4	8.3	D	11.2	11.8	10.0	6.9	10.8	13.5
Households with participation in previous wave									
Age of the head of household									
75+	18.3	18.1	0.0	13.7	11.3	0.0	6.7	11.7	10.0
65-74	10.1	8.0	0.0	9.4	7.3	4.6	2.9	6.0	5.3
55-64	9.8	7.0	7.0	8.7	7.0	10.0	4.2	5.4	10.8
35-54	9.2	6.3	7.8	7.8	6.8	11.9	4.3	6.6	13.5
25-34	8.9	9.2	7.7	8.0	9.4	6.5	6.1	7.8	11.3
-25	17.3	13.4	5.3	15.1	23.4	16.7	13.4	13.1	28.1
Gender of the head of the household									
Male	9.8	7.6	7.3	8.3	8.9	8.8	4.7	8.1	12.3
Female	12.2	8.9	6.3	11.0	8.3	13.5	6.5	6.4	16.8
Occupational status of the head									
Not gainfully employed	13.9	10.8	8.7	10.1	8.2	9.5	5.5	7.3	18.3
Jobless	9.7	14.3	10.9	10.7	9.4	9.8	7.7	8.3	12.1
Highest status	7.9	5.5	2.9	6.2	5.8	14.7	4.4	6.0	20.8
Lowest status	11.2	9.4	7.7	10.0	9.5	8.6	4.3	8.6	14.4
Else	8.8	7.8	5.3	8.1	9.2	10.1	5.3	6.8	9.3
Highest school degree									
Upper secondary school	7.5	7.1	6.7	6.0	7.6	10.7	5.5	7.3	14.3
Intermediate secondary school	6.8	7.0	-	8.8	8.6	7.0	5.6	7.7	12.1
Lower secondary school	11.8	9.9	3.0	9.8	8.8	7.0	4.7	6.4	15.2
Without exam	10.9	-	12.0	11.0	-	5.3	6.3	-	16.7
Net household income									
Not reported	17.9	9.4	21.7	18.4	17.5	7.1	12.9	20.0	0.0
A, B, D <1000	13.8	14.3	0.0	10.1	8.7	0.0	5.5	7.8	22.2
C <800	11.2	8.7	8.8	9.7	8.8	10.4	5.3	8.6	13.0
1000-2000	8.3	8.1	7.8	7.6	9.8	12.5	4.2	8.0	16.1
2000-3000	9.6	6.2	5.8	6.4	7.5	10.5	4.3	6.9	11.8
3000-4000	8.2	6.5	4.2	8.9	8.1	8.3	5.0	6.0	13.6
>4000									
Type of household									
Old household not moved	9.6	7.7	4.3	8.0	7.3	9.5	4.2	6.5	10.8
Old household moved	11.6	8.9	9.8	12.7	16.6	5.6	10.7	13.2	17.9
Split-off household	29.2	24.6	18.2	21.4	23.8	27.3	17.6	18.6	36.4
Interviewer has changed									
Yes	14.9	8.4	10.7	17.5	11.6	11.1	12.5	11.4	14.3
No	7.9	5.5	3.7	6.5	7.4	9.3	3.8	5.5	11.7
Special cases	-	13.6	14.0	-	36.4	17.9	-	26.2	23.4

3.2 Definition of the covariates for a Logit analysis

The characteristics used in the tabulations of the preceding section were employed as covariates in a multiple Logit analysis of the refusal rate. However, we use only model specifications where all included covariates are significantly different from zero. The definition of the covariates is given in the list below:

Characteristic	Abbreviation	Code	Values
Age of the head of household	ALTHV	1	Older than 75 years
		2	65-74 years
		3	55-64 years
		4	35-54 years
		5	25-34 years
		6	Younger than 25 years
Gender of the head	SEX	0	Male
		1	Female
Typ of the household	HTYP	1	Old household without move
		2	Old household moved
		3	Split-off household
Change of interviewer	INTW	0	No change
		1	Change since previous wave
		2	Not regular interviewer number
Number of interviews	BETREUUNG		Number of interviews with the interviewer of the present wave
Starting from the beginning	BEGINN	0	Else
		1	Heads participation since wave 1
Person moving out	AUSZUG	0	Else
		1	A respondent left the household since the previous wave
Separation of a couple	PAAR	0	Else
		1	The head or the spouse (cohabitor) of the previous wave left the household
Interaction of household type and separation of the couple	TYP	0	HTyp = 1,2 and Paar = 1
		1	HTyp = 1 and Paar = 0
		2	HTyp = 2 and Paar = 0
		3	HTyp = 3 and Paar = 0
		4	HTyp = 3 and Paar = 1
East-Berlin	OSTB	0	Else
		1	household is located in East-Berlin

List: continued (1)

Characteristic	Abbreviation	Code	Values
Marital status	FAMSTD	1	Married living together
		2	Married living separately
		3	Single
		4	Divoreed
		5	Widowed
Household income East, quantiles	INCE**	0	No
		1	Yes
Jobless	ALOS	0	Else
		1	Head is jobless
Loss of job (subjective notion)	VERLUST	0	Else
		1	Loss expected or probable
Occupational status of the head	STATUSH	0	Else
		1	High status
Social aid	SOZH	0	Else
		1	Household is recipient of social aid payments
Household income West-Germany	EINKW	1	Income not reported
		2	≤ 2000 DM
		3	2000 - 4000 DM
		4	≥ 4000 DM
Household income (East-Germany)	EINKO	1	Income not reported
		2	≤ 800 DM
		3	800-1200 DM
		4	1200-1800 DM
		5	1800-2500 DM
		6	≥ 2500 DM
Household income not reported	KAEINK	0	Else
		1	Income not reported
Balance of assets not reported	KAVB	0	Else
		1	Balance not reported in wave 5
Number of different kinds of assets in the households	ANZAHL	1	Number = 0
		2	Number = 5 (Maximum)
		3	Else
No assets reported	ANZO	0	Else
		1	Number of reported assets = 0
Firm assets	BETRIEB	0	Else
		1	Household owns firm assets
Savings reported as one kind of assets	SPAR	0	No
		1	Yes
Household migrated from East to West Germany	OSTWEST	0	No
		1	Yes

List: continued (2)

Characteristic	Abbreviation	Code	Values
Member of D-Subsamples	MIGRANT	1	Subsample D1
		2	Subsample D2
Telephone	TELEPHON	0	No
		1	Yes
Subtenant	UNTMETE	0	No
		1	Yes
Apprenticeship	APPRENT	0	No
		1	Yes
Change of interview type	INTWTYPE	0	No
		1	Yes
Satisfaction with life	NSAT	0	No
		1	Yes
Infirmity	INFIRM	0	No
		1	Yes

3.3 Estimated coefficients of the Logit model

The covariates defined above were used in a multiple Logit analysis. The model estimates the probability $P_R = P(\text{Response} = \text{no})$. For the computation of the GSOEP weighting schemes only model specifications with all covariates being significant were used. The specification is:

$$\ln \frac{P_{R,i}}{1 - P_{R,i}} = \text{const} + X'_i \beta$$

Thus, positive coefficients indicate an increased drop-out rate compared to the sample average.

Table 10 uses a simple symbolic notation for models and their coefficients. Here "+" means the addition of a main effect and "*" indicates an interaction term. Variable 1 (Variable 2 = c) symbolizes a conditional main effect which is linked to cases where variable 2 = c. The estimated coefficients are displayed under the model equation. The notation uses the convention: variable (value 1: coefficient 1/value 2: coefficient 2).

The estimated drop-out rates due to refusals may be easily calculated from the coefficients displayed in table 10. For example: In wave 2, subsample A, we find for a household with no change of the interviewer (INTW = 0) and age of the head between 35 and 74 years (ALTHV = 2,3,4) and the reported household income below 2000 DM (EINKW = 2), which did not move (HTYP = 1) the logit value $-1.53 - 0.25 + 0.03 - 0.68 + 0.12 = -2.31$. Thus we have

$$\Pr(\text{Response}=\text{no}) = \frac{e^{-2.31}}{1 + e^{-2.31}} = 0.09.$$

Table 10: **The estimates of a Logit model for the probability of a drop-out due to refusal in the GSOEP. Representation of coefficients: variable (value 1: coefficient 1/value 2: coefficient 2/...).**

Subsample A (West-Germans)	
Wave	Model and coefficients
2	Model = CONST + INTW + ALTHV + HTYP + EINKW CONST (-1.53), INTW (0: -0.25 / 1: 0.25), ALTHV (1: 0.66 / 2,3,4: 0.03 / 5: -0.39 / 6: -0.30), HTYP (1: -0.68 / 2: -0.19 / 3: 0.87), EINKW (1: 0.61 / 2: 0.12 / 3: -0.35 / 4: -0.38)
3	Model = CONST + INTW + ALTHV + INTW * ALTHV + HTYP + ALOS + KAEINK CONST (-1.22), INTW (0: -0.39 / 1: 0.39), ALTHV * (INTW =0) (1: -0.13 / 2: -0.11 / 3,4: -0.39 / 5: 0.26 / 6: 0.37), ALTHV * (INTW =1) (1: 0.13 / 2: 0.11 / 3,4: 0.39 / 5: -0.26 / 6: -0.37), ALTHV (1: 0.59 / 2: 0.16 / 3,4: -0.06 / 5: -0.53 / 6: -0.16) HTYP (1: -0.52 / 2: 0.10 / 3: 0.42), ALOS (0: -0.21 / 1: 0.21), KAEINK (0: -0.39 / 1: 0.39)
4	Model = CONST + ALTHV + INTW (ALTHV) + HTYP + KAEINK CONST (-1.83), INTW (ALTHV = 1) (0: -0.44 / 1: 0.44), INTW (ALTHV =2) (0: -0.74 / 1: 0.74), INTW (ALTHV =3,4) (0: -0.59 / 1: 0.59), INTW (ALTHV =5) (0: -0.41 / 1: 0.41), INTW (ALTHV =6) (0: -0.32 / 1: 0.32), ALTHV (1: 0.21 / 2: -0.38 / 3,4: -0.24 / 5: 0.06 / 6: 0.35), HTYP (1: -0.46 / 2: 0.28 / 3: 0.18), KAEINK (0: -0.39 / 1: 0.39)
5	Model = CONST + BETREUUNG + ALTHV (INTW =1) + HTYP + KAEINK + ANZO CONST (-1.60), BETREUUNG (1: 1.15 / 2: 0.41 / 3: 0.18 / 4: -0.71 / 5: -1.03), ALTHV (INTW = 1) (1,2: 0.52 / 3,4,5: -0.11 / 6: -0.40), HTYP (1: -0.49 / 2: 0.11 / 3: 0.38), KAEINK (0: -0.45 / 1: 0.45), ANZO (0: -0.38 / 1: 0.38)
6	Model = CONST + BETREUUNG + ALTHV (INTW = 1) + HTYP + KAEINK + KAVB + BETRIEB CONST (-2.44), BETREUUNG (1: 0.75 / 2: 0.58 / 3: 0.21 / 4: -0.59 / 5: -0.43 / 6: -0.52), ALTHV (INTW = 1) (1,2: 0.26 / 3,4,5: 0.05 / 6: -0.31), HTYP (1: -0.32 / 2: -0.04 / 3: 0.37), KAEINK (0: -0.26 / 1: 0.26), BETRIEB (0: 0.41 / 1: -0.41)

Table 10: continued (1)

Subsample A (West-Germans)	
Wave	Model and coefficients
7	<p>Model = CONST + HTYP + INTW (HTYP) + KAEINK + STATUSH</p> <p>CONST (-1.34), INTW (HTYP = 1) (0: -0.75 / 1: 0.75), INTW (HTYP = 2) (0: -0.56 / 1: 0.56), INTW (HTYP = 3) (0: -0.12 / 1: 0.12), HTYP (1: -0.66 / 2: -0.24 / 3: 0.90), KAEINK (0: -0.58 / 1: 0.58) STATUSH (0: -0.30 / 1: 0.30)</p>
8	<p>Model = CONST + INTW + HTYP + KAEINK + ANZAHL</p> <p>CONST (-1.15), INTW (=: -0.55 / 1: 0.55), HTYP (1: -0.83 / 2: -0.14 / 3: 0.97), KAEINK (0: -0.57 / 1: 0.57), ANZAHL (1: -0.08 / 2: 0.70 / 3: -0.62)</p>
9	<p>Model = CONST + INTW (BEGINN) + BEGINN (ALTHV) + HTYP + AUSZUG (HTYP=1) + KAEINK + ANZO + SEX</p> <p>CONST (-1.31), INTW (BEGINN = 0) (0: -0.17 / 1: 0.17), INTW (BEGINN = 1) (0: -0.68 / 1: 0.68), BEGINN (ALTHV = 1) (0: -0.09 / 1: 0.09), BEGINN (ALTHV = 2) (0: 0.70 / 1: -0.70), BEGINN (ALTHV = 3) (0: 1.20 / 1: -1.20), BEGINN (ALTHV = 4) (0: 0.49 / 1: -0.49), BEGINN (ALTHV = 5) (0: 0.48 / 1: -0.48), BEGINN (ALTHV = 6) (0: 0.10 / 1: -0.10), HTYP (1: -0.53 / 2: 0.07 / 3: 0.46), AUSZUG (HTYP=1) (0: -0.47 / 1: 0.47), KAEINK (0: -0.25 / 1: 0.25), ANZO (0: -0.29 / 1: 0.29), SEX (0: 0.15 / 1: -0.15)</p>
10	<p>Model = CONST + HTYP + BEGINN (HTYP) + INTW (HTYP) + PAAR (HTYP=1) + ALTHV (HTYP=1)</p> <p>CONST (-1.89), HTYP (1: -0.12 / 2: -0.39 / 3: 0.51), INTW (HTYP=1) (0: -0.95 / 1: 0.08 / 2: 0.88), INTW (HTYP=2) (0: -0.24 / 1: -0.06 / 2: 0.30), INTW (HTYP=3) (0: 0.16 / 1: -0.47 / 2: 0.31), BEGINN (HTYP=1) (0: 0.43 / 1: -0.43), BEGINN (HTYP=2) (0: 0.21 / 1: -0.21), BEGINN (HTYP=3) (0: -0.07 / 1: 0.07), PAAR (HTYP=1) (0: -0.58 / 1: 0.58), ALTHV (HTYP=1) (1: 0.41 / 2: -0.26 / 3: -0.08 / 4: -0.50 / 5: 0.01 / 6: 0.42)</p>

Table 10: continued (2)

Subsample A (West-Germans)	
Wave	Model and Coefficients
11	Model = CONST + HTYP + BEGINN + INTW + KAEINK + TELEPHON (INTW=1) CONST (-1.68) HTYP (1: -0.39 / 2: -0.09 / 3: 0.48) BEGINN (0: 0.27 / 1: -0.27) INTW (0: -0.63 / 1: -0.10 / 2: 0.73) KAEINK (0: -0.35 / 1: 0.35) TELEPHON (INTW=1) (0: 0.49 / 1: -0.49)
12	Model = CONST + HTYP + INTW + ALTHV (HTYP = 1) CONST (-1.92) HTYP (1: -0.36 / 2: -0.52 / 3: 0.88) INTW (0: -1.10 / 1: 0.03 / 2: 1.07) ALTHV (HTYP =1) (1: 0.57 / 2,3,4,5,6: -0.57)
13	Model = CONST + HTYP + INTW + BEGINN + ALTHV + KAEINK + PAAR (HTYP = 1) CONST (-1.42) HTYP (1: -0.39) / 2: -0.23 / 3: 0.62) INTW: (0: -0.75 / 1: 0.25 / 2: 0.5) BEGINN (0: 0.35 / 1: -0.35) ALTHV (1: 0.61 / 2: -0.29 / 3: 0.42 / 4: -0.20 / 5: -0.15 / 6: -0.39) KAEINK (0: -0.26 / 1: 0.26) PAAR (HTYP = 1) (0: -0.64 / 1: 0.64)
14	Model = CONST + HTYP + INTW + KAEINK + SEX + ALTHV + PAAR (HTYP = 1) + INTWTYPE + INFIRM + NSAT CONST (-0.48) HTYP (1: -0.54 / 2: -0.03 / 3: 0.57) INTW (0: -0.60 / 1: -0.10 / 2: 0.70) KAEINK (0: -0.29 / 1: 0.29) SEX (0: -0.26 / 1: 0.26) ALTHV (1,2: -0.29 / 3,4,5,6: 0.29) PAAR (HTYP = 1) (0: -0.45 / 1: 0.45) INTWTYPE (0: -0.25 / 1: 0.25) INFIRM (0: -0.36 / 1: 0.36) NSAT (0: -0.23 / 1: 0.23)
15	Model = CONST + HTYP + INTW + SEX + ALTHV CONST (-1.80) HTYP (1: -0.41 / 2: -0.34 / 3: 0.75) INTW (0: -0.68 / 1: 0.02 / 2: 0.66) SEX (0: -0.19 / 1: 0.19) ALTHV (1,2,5,6: -0.24 / 3,4: 0.24)

Table 10: continued (3)

Subsample B (Foreigners)	
Wave	Model and coefficients
2	Model = CONST + INTW + HTYP CONST (-1.96), INTW (0: -0.55 / 1: 0.55) HTYP (1: -0.03 / 2: -0.58 / 3: 0.62)
3	Model = CONST + SEX + HTYP CONST (-1.60), SEX (0: -0.31 / 1: 0.31), HTYP (1,2: -0.46 / 3: 0.46)
4	Model = CONST + INTW (ALTHV) + HTYP + EINKW CONST (-1.69), INTW (ALTHV =1,2,3) (0: -0.47 / 1: 0.47), INTW (ALTHV =4) (0: -0.73 / 1: 0.73), INTW (ALTHV =5) (0: -0.60 / 1: 0.60), INTW (ALTHV =6) (0: -0.26 / 1: 0.26), HTYP (1: -0.34 / 2: 0.46 / 3: -0.12), EINKW (1: 0.75 / 2: 0.10 / 3: -0.85)
5	Model = CONST + BETREUUNG + HTYP + KAEINK CONST (-1.87), BETREUUNG (1: 1.26 / 2: 0.14 / 3: -0.21 / 4: -0.70 / 5: -0.50), HTYP (1: -0.47 / 2: 0.89 / 3: -0.42), KAEINK (0: -0.43 / 1: 0.43)
6	Model = CONST + BETREUUNG + HTYP + KAEINK CONST (-1.89), BETREUUNG (1: 0.83 / 2: 0.37 / 3: -0.31 / 4: -0.55 / 5: 0.04 / 6: -0.37), HTYP (1: -0.41 / 2: 0.22 / 3: 0.19), KAEINK (0: -0.54 / 1: 0.54)
7	Model = CONST + HTYP + INTW (HTYP) + KAEINK CONST (-1.50), INTW (HTYP=1) (0: -0.55 / 1: 0.55), INTW (HTYP=2) (0: -0.98 / 1: 0.98), INTW (HTYP=3) (0: -1.06 / 1: 1.06), HTYP (1: -0.50 / 2: -0.88 / 3: 1.38), KAEINK (0: -0.66 / 1: 0.66)
8	Model = CONST + INTW + HTYP CONST (-2.05), INTW (0: -0.48 / 1: 0.48), HTYP (1: -0.85 / 2: 0.22 / 3: 0.63)

Table 10: continued (4)

Wave	Subsample B (Foreigners)
9	<p>Model = CONST + INTW + BEGINN + TYP + ALTHV + KAEINK + ANZO + SOZH</p> <p>CONST (-1.79), INTW (0: -0.50 / 1: 0.50), BEGINN (0: 0.39 / 1: -0.39), TYP (0: 0.16 / 1: -0.59 / 2: -1.90 / 3: -0.03 / 4: 2.36), ALTHV 1,2,3: 0.28 / 4: -0.10 / 5: -0.65 / 6: 0.47), KAEINK (0: -0.66 / 1: 0.66), ANZO (0: -0.53 / 1: 0.53), SOZH (0: 0.73 / 1: -0.73)</p>
10	<p>Model = CONST + HTYP + PAAR + ALTHV + INTW (ALTHV)</p> <p>CONST (-1.58) HTYP (1: -0.44 / 2: -0.11 / 3: 0.55), PAAR (0: -0.63 / 1: 0.63), ALTHV (1,2,3: -0.79 / 4: -0.04 / 5: 0.77 / 6: 0.06), INTW (ALTHV = 4) (0: -1.11 / 1: -0.10 / 2: 1.21), INTW (ALTHV = 5) (0: -0.79 / 1: -0.22 / 2: 1.01)</p>
11	<p>Model = CONST + BEGINN + HTYP + INTW + ANZO + FAMSTD</p> <p>CONST (-1.43), INTW (0: -0.69 / 1: 0.01 / 2: 0.70), BEGINN (=: 0.33 / 1: -0.33), HTYP (1,2: -0.48 / 3: 0.48), ANZO (0: -0.31 / 1: 0.31), FAMSTD (1: 0.25 / 2,3,4,5: -0.25)</p>
12	<p>Model = CONST + HTYP + INTW + PAAR + ALTHV</p> <p>CONST (-0.88) HTYP (1: -0.97 / 2: 0.36 / 3: 0.61) INTW (0: -0.67 / 1: -0.45 / 2: 1.12) PAAR (0: -0.84 / 1: 0.84) ALTHV (1,2,3: -0.35 / 4,5,6: 0.35)</p>
13	<p>Model = CONST + HTYP + INTW</p> <p>CONST (-1.73) HTYP (1: -0.66 / 2: 0.12 / 3: 0.54) INTW (0: -0.82 / 1: -0.02 / 2: 0.84).</p>
14	<p>Model = CONST + INTW + PAAR + ALTHV + SEX + SOZH + UNTMIETE + BEGINN</p> <p>CONST (0.14) INTW (0: -0.94 / 1: 0.21 / 2: 0.73) PAAR (0: -0.86 / 1: 0.86) ALTHV (1,2,5,6: -0.30 / 3,4: 0.30) SEX (0: -0.25 / 1: 0.25) SOZH (0: -0.57 / 1: 0.57) UNTMIETE (0: -0.46 / 1: 0.46) BEGINN (0: 0.38 / 1: -0.38)</p>
15	<p>Model = CONST + HTYP + INTW + APPRENT</p> <p>CONST (-1.3) HTYP (1: -0.40 / 2: -0.09 / 3: 0.49) INTW (0: -0.85 / 1: -0.04 / 2: 0.89) APPRENT (0: -0.27 / 1: 0.27)</p>

Table 10: continued (5)

Subsample C (East-Germans)	
Wave	Model and coefficients
2	Model = CONST + HTYP + INTW + ALTHV + EINKO + VERLUST + OSTB CONST (-0.91), INTW (0: -0.47 / 1: -0.04 / 2: 0.51), ALTHV (1: 0.41 / 2.,3,4,5,6: -0.41), HTYP (1,2: -0.84 / 3: 0.84), EINKO (1: 0.24 / 2. 0.44 / 3: 0.12 / 4: 0.00 / 5: -0.37 / 6: -0.44), VERLUST (0: -0.17 / 1: 0.17), OSTB (0: -0.29 / 1: 0.29)
3	Model = CONST + HTYP + INTW (HTYP) + ALTHV + SPAR CONST (-1.36), HTYP (1: -0.39 / 2: 0.08 / 3: 0.31), INTW (HTYP=1) (0: -0.28 / 1,2: 0.28), INTW (HTYP=2) (0: 0.42 / 1,2: -0.42), INTW (HTYP=3) (0: -0.36 / 1,2: 0.36), ALTHV (1: 0.02 / 2,3,4: -0.38 / 5. -0.20 / 6: 0.56), SPAR (0: 0.35 / 1: -0.35)
4	Model = CONST + HTYP + INTW + ALTHV + KAEINK + FAMSTD CONST (0: -0.62), HTYP (1: -0.47 / 2: 0.25 / 3: 0.22), INTW (0: -0.78 / 1: -0.04 / 2: 0.82), ALTHV (1: 0.47 / 2,3,4,5,6. -0.47), KAEINK (0: -0.54 / 1: 0.54), FAMSTD (1: -0.12 / 2: 1.13 / 3: 0.24 / 4: -0.73 / 5: -0.51),
5	Model = CONST + HTYP + INTW + KAEINK + VANZAHL + VERLUST CONST (-0.82), HTYP (1: -0.45 / 2: -0.32 / 3: 0.77), INTW (0: -0.67 / 1: -0.18 / 2: 0.84), KAEINK (0: -0.49 / 1: 0.49), VANZAHL (-0.32), VERLUST (=: -0.20 / 1: 0.20)
6	Model = CONST + HTYP + KAEINK + INTW (OSTWEST = 0) + BEGINN (OSTWEST = 0) CONST (-1.33); HTYP (1: -0.65 / 2: -0.32 / 3: 0.97); KAEINK (0: -0.66 / 1: 0.66); INTW (OSTWEST = 0) (0: -0.46 / 1: -0.31 / 2: 0.77); BEGINN (OSTWEST = 0) (0: 0.31 / 1: -0.31)

Table 10: continued (6)

Subsample C (East-Germans)	
7	Modell = CONST + HTYP + INTW + ALTHV + PAAR + EINKO CONST (-2.12) HTYP (1: -0.39 / 2: -0.35 / 3: 0.74) INTW (0: -0.68 / 1: 0.19 / 2: 0.49) ALTHV (1,2: 0.12 / 3: -1.25 / 4,5: 0.33 / 6: 0.8) PAAR (0: -0.42 / 1: 0.42) EINKO (1,2,3,4,5: 0.32 / 6: -0.32)
8	Modell = CONST + INTW + HTYP + SEX + BEGINN + INCE75 CONST (-1.74) INTW (0: -0.54 / 1: 0.20 / 2: 0.34) HTYP (1: -0.44 / 2: -0.31 / 3: 0.75) SEX (0: -0.18 / 1: 0.18) BEGINN (0: 0.24 / 1: -0.24) INCE75 (0: -0.2 / 1: 0.2)
9	Modell = CONST + HTYP + INTW + FAMSTDT CONST (-1.55) HTYP (1: -0.62 / 2: 0.37 / 3: 0.25) INTW (0: -0.86 / 1: 0.17 / 2: 0.69) FAMSTD (1: -0.19 / 2,3,4,5: 0.19)
Subsample D	
Wave	Model and coefficients
2	Model = CONST + HTYP (MIGRANT = 1) + ALTHV (MIGRANT = 2) + KAEINK CONST (-1.08) HTYP (MIGRANT = 1) (0: -1.41 / 1,2: 1.41) ALTHV (MIGRANT = 2) (1,2,3: -0.93 / 4,5,6: 0.93) KAEINK ((0: -0.72 / 1: 0.72)
3	Model = CONST + HTYP CONST (-2.02) HTYP (1: -0.23 / 2: -0.81 / 3: 1.04)
4	Model = CONST + HTYP + INTWTYPE CONST (-0.88) HTYP (1: -0.68 / 1: -0.22 / 2: 0.9) INTWTYPE (0: -0.71 / 1: 0.71)

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