



Refusal conversion in the Swiss Household Panel 1999-2015: An overview

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Marija Dangubic and Marieke Voorpostel

Contact: dangubicmarija@gmail.com

Introduction

Nowadays survey researchers are facing steadily declining response rates. Apparent nonresponse trends pose a threat to validity of the study and its conclusion. In order to increase response rates, researchers employ different measures such as sending reminders, offering prepaid incentives or prolonging the fieldwork efforts. Refusal conversion, the attempt to convince target persons to participate in the survey after initially refusing, is another common measure against nonresponse (Stoop, Billiet, Koch & Fitzgerald, 2010). It is based on the notion that refusal in many cases may be the result of a prior negative experience a respondent had with the study or the interviewer, rather than a “hard” refusal. Therefore, it is assumed that sending another, more experienced interviewer increases the likelihood that the respondent will participate after all.

In the literature both negative and positive effects of refusal conversion are highlighted. On the one hand, refusal conversion increases response rates, it can improve representativity of the surveyed sample (Calderwood, Plewis, Ketende & Mostava, 2016) and reduce non-response bias (Lynn & Clarke, 2002). On the other hand, refusal conversion can substantially increase the costs of an interview (Calderwood et al., 2016) and re-contacting refusing sample members can be discussed from an ethical point of view.

Most of the research on refusal conversion relies on cross-sectional studies (Stoop, 2005), while only few have studied refusal conversion in longitudinal studies (Laurie, Smith & Scott, 1999; Burton et al., 2006; Haring, Alte, Völzke, Sauer, Wallaschofski, John, Schmidt, 2009; Voorpostel, 2010; Lips, 2011; Calderwood et al., 2016). This is not surprising since studies that survey the same respondents over time have complex participation patterns that are difficult to study. Moreover, often decisions on refusal conversion are subjective, made by fieldwork managers, usually based on their estimation of how likely it is a sample member will be successfully converted, which does not provide methodologically stable ground to study the procedure.

The Swiss Household Panel (SHP) has practiced refusal conversion since the start of the study, although detailed documentation and para data on the procedure are only available since 2005. The aim of this report is to describe the refusal conversion procedure in the SHP over time and to provide a general assessment of its successfulness, taking into account data from twelve waves of the SHP (2005-2016).

The focus of this paper is on refusal conversion on the household level. Although there is also a refusal conversion procedure for individual household members in otherwise participating households who refuse to complete the individual questionnaire, the largest numbers are found on the household level.

After a brief description of the fieldwork we describe the general procedure of refusal conversion. We then describe wave by wave the decisions taken regarding which households were re-approached in the refusal conversion and assess the successfulness of refusal conversion in the SHP.

Brief description of the fieldwork

The fieldwork for the Swiss Household Panel takes place annually from the beginning of September until late February or early March. The specific phase of the refusal conversion starts later in the fieldwork period and lasts until the end (October-February).

The main mode of data collection is by Computer Assisted Telephone Interview (CATI). Initial contact is sought with the reference person, who completes the grid and household questionnaire. The grid questionnaire collects information on the composition of the household and some basic demographic characteristics of the household members (age, gender, education, occupation). The household questionnaire includes questions on accommodation, standard of living, the household's financial situation, the household and the family (Voorpostel, Tillmann, Lebert, Kuhn, Lipps, Ryser, Schmid, Antal, Monsch, & Wernli, 2016). If there are any household members below the age of 14 or not able to complete an individual questionnaire, the reference person completes a proxy questionnaire on their behalf. Finally, the reference person completes an individual questionnaire. Following the interview with the reference person, household members are contacted to complete an individual questionnaire.

With these different steps in the data collection, it is important to be aware that nonresponse can occur at every step: nonresponse to the grid, the household questionnaire and the individual questionnaire by the reference person, and to the individual questionnaires by the household members. So at the end of the fieldwork period we have households for which no data was collected at all, households where only a grid was completed, those who completed a grid and a household questionnaire, and those where at least one individual questionnaire (the reference person's) was completed as well, and finally those for which more than one, or all household members completed the questionnaire.

Although this paper focuses on refusal conversion, not all nonresponse is of course the result of refusal. Of all the households who are in a given wave still part of the target population (not deceased, institutionalized or left Switzerland), some households could not be located (change of address, invalid phone number), or contacted (no one picks up the phone). Table 1 shows, as an example, final response status and reasons for nonresponse to the grid questionnaire in 2005 by

assignment to the refusal conversion procedure on the household level in that year. Of the households that refused, this may be because no one is *able* to participate (for example due to health or language reasons), and because no one is *willing* to participate. This unwillingness varies from “soft” refusals, which includes reasons such as it is not a good time, or appointments are not kept, to “hard” refusals, where respondents explicitly state they no longer want to participate in the study.

Table 1: Response and reasons for nonresponse to the grid questionnaire in 2005 by assignment to the refusal conversion procedure on the household level

	Did not enter refusal conversion procedure	Entered refusal conversion procedure
Participated	4229	205
Refusal at contact	157	526
Does not answer	100	18
Tel. non-valid	50	2
Left for foreign country	4	0
Deceased	5	0
Not followed, address unknown	20	0
Hospital/Clinic	1	0
Old folk's home	1	0
Other situation	29	43
Total	4596	794

Ultimately, the decision which households to assign to the refusal conversion procedure is a subjective one. Softer refusals have a higher likelihood of being converted, but the distinction between soft and hard refusals is not always clear-cut. As a rule, the SHP no longer contacts households that have sent a written refusal or who call the Hotline to refuse further participation. Sometimes fieldwork managers decide not to re-approach households that are clearly annoyed by the survey request, as reported by the interviewers.

Description of the refusal conversion procedure

In the refusal conversion phase all the households and individuals that refused to participate in the current wave, as well as all the households and individuals from participating households that did not respond since at least one wave, are re-contacted for refusal conversion. The refusal conversion phase starts shortly after the main phase since refusals from the previous waves can be re-contacted early on. These households are re-contacted by a specially trained interviewer who tries to convince the reference person to have the household come back to the study. In cases where a refusal is

simply the result of an unpleasant interaction with an interviewer or an otherwise negative experience with the study, a new attempt to convince the respondent made by another interviewer has a high likelihood to successfully re-introduce a respondent into the panel. The competence of the interviewers involved in refusal conversion is extremely important for the procedure to pay off. For the fieldwork of the SHP, the interviewers with the lowest refusal rates at the first contact during the main fieldwork and the best interviewing performance are selected for the refusal conversion phase, for which they receive additional training. At the end of the refusal conversion phase, bonuses are awarded to those involved in the refusal conversion phase.

Year by year description of decisions regarding allocation to the refusal conversion procedure (2005-2015)

The criteria to assign households to the refusal conversion phase changed over time. Also the number of households in the procedure fluctuates over the course of the panel. Table 2 shows the number of households that were re-approached in the refusal conversion phase in every wave for the period of 2005 to 2015 for the three SHP samples separately (SHP_I that started in 1999, SHP_II that started in 2004 and SHP_III that started in 2013).

2005

All the households that were re-approached completed at least the grid questionnaire in the previous year. Most of them (91%) are current wave refusals that completed both grid and household questionnaire in 2004.

SHP_I

- households that completed both grid and household questionnaire in 2004 (W6) and refused to participate in 2005 (W7)
- households that completed only the grid questionnaire in 2004 (W6)

SHP_II

- households that completed both grid and household questionnaire in 2004 (W1) and refused to participate in 2005 (W2)
- households that completed only the grid questionnaire in 2004 (W1)

Table 2. Households that entered refusal conversion

Year	Households that entered the procedure	SHP_I (1999)	SHP_II (2004)	SHP_III (2013)
2005	794	306	488	
2006	1560	753	807	
2007	347	150	197	
2008	1202	458	744	
2009	1146	843	303	
2010	963	480	483	
2011	708	445	263	
2012	728	381	347	
2013	817	286	238	293
2014	1447	340	273	834
2015	927	271	350	306

2006

In this year, the procedure changed. All households that did not participate two years in a row were re-contacted. For instance, households that refused to participate in 2004, were not contacted again in 2005, but were re-contacted in 2006. Moreover, all re-approached households and individuals received a letter stating that they will be re-contacted and explaining the reason for doing so. Results for refusal conversion in 2006 were judged as more successful compared to the previous year, both for the first and for the second sample. As for the samples themselves, conversion was more successful for the first than for the second sample of the SHP.

SHP_I

- households that completed both grid and household questionnaire in 2005 (W7) and refused in 2006 (W8)
- households that completed grid and HH questionnaire for the last time in 2004 (W6) i.e. non-respondents in 2005 (W7), both because of refusal or non-contact
- households that completed only grid for the last time in 2004 (W6)
- households that completed grid and HH questionnaire for the last time in 2003 (W5), i.e. non-respondents in 2004 (W4), both because of refusal or non-contact
- newly-formed households (split-offs from original households)

SHP_II

- households that completed both grid and household questionnaire in 2005 (W7) and refused in 2006 (W3)
- households that completed only grid for the last time in 2005 (W2)
- nonrespondents (refusals at contact, not-followed, tel. non-valid, other situation) in 2005 (W2)
- households that completed only grid in 2004 (W1)
- newly-formed households (split-offs from original households)

2007

Given previous year's successfulness of approaching households that participated for the last time in 2003 (W5), in 2007 the decision was made for the SHP_I to go even further and approach the households that participated for the last time in 2000 (W2), 2001 (W3) and 2002 (W4). Also, households that did not participate neither in 2006 (W8) nor in 2005 (W7) were allocated to the refusal conversion phase.

2008

In 2008, households were grouped in different subsamples to be approached in the refusal conversion phase based on participation outcomes in previous waves.

SHP_I:

1. only grid completed in 2008 and addresses that were re-approached in 2006 (that participated for the last time in 2003)
2. nonrespondents in W9 that completed at least the household questionnaire and one individual questionnaire in W8;
3. nonrespondents in W9 that completed only the grid questionnaire in W8
4. nonrespondents in both W9 and W8;
5. households that did not belong to the ones re-approached in 2006 (that participated for the last time in 2003), that participated in W7 but did not in W8 and that completed the grid questionnaire in W9;
6. households that were re-approached in 2006 (that participated for the last time in 2003), that participated in W8 and that completed only the grid questionnaire in W9;
7. newly-formed households (split-offs from original households).

SHP_II

For the second sample, addresses were classified in similar groups:

1. households that completed only the grid questionnaire in both W3 and W4;
2. households that completed the household questionnaire and one individual questionnaire in W3 but were nonrespondents in 2004;
3. households that completed grid questionnaire and were nonrespondents in 2004;
4. nonresponding households in W2, W3 and W4;
5. households that completed the household questionnaire and one individual questionnaire in W2, that did not respond in W3 and completed only the grid questionnaire in W4.
6. newly-formed households (split-offs from original households).

2009

The procedure in 2009 was similar to the one in 2008, only with fewer subgroups.

SHP_I

For the SHP_I the following groups were created:

1. households that completed the grid and the household questionnaire in W10;
2. households that completed only the grid questionnaire in W10;
3. nonresponding households in W8 that were re-approached in 2006 (that participated for the last time in 2003);
4. households that participated for the last time in W2, W3 or W4 and that were not abandoned due to a written refusal.
5. newly-formed households (split-offs from original households)

SHP_II

As for SHP_II, the following households were approached:

1. households that completed the grid and the household questionnaire in W5;
2. households that completed only the grid questionnaire in W5;

3. non-responding households in both W4 and W3 that completed at least the household questionnaire and one individual questionnaire in W2.
4. newly-formed households (split-offs from original households)

2010 -2015

In 2010, upon having recuperated all the households that were lost over the years as much as possible, a new system for approaching households in the refusal conversion phase started and is still being implemented. It entails approaching the following households:

- households that completed the grid and the household questionnaire in the previous year (refusal occurring in the current wave)
- households that completed only the grid questionnaire in the previous year (and refused to complete the household questionnaire in the previous year)
- blocked addresses in the previous year (see below)
- newly-formed households (split-offs from original households)

Since 2008, all the households that refused at contact and did not complete even the grid questionnaire were blocked for the following year and were reproached after two years. More precisely, households that were complete non-respondents in a certain wave, not completing any of the questionnaires during wave t (for example in 2008), were not re-contacted in the following wave $t+1$ (for example, in 2009): for this wave they were blocked. These households were allocated to the refusal conversion phase in wave $t+2$ (2010 in our example).

Successfulness of refusal conversion in the SHP

The number of households that enter the refusal conversion phase varies over the years. The number of households that will be re-approached depends on several factors: the total number of refusing households, the number of refusing households that send a written and the number of refusals assessed by the fieldwork manager as “hard” refusals judged by comments from the interviewers. Table 3 shows the number of approached households in each year, together with the number of households that completed the grid or household questionnaire and the number of reference persons that completed the individual questionnaire as well. Successfulness of the procedure can be expressed as the number of households that completed questionnaires (either the grid questionnaire, the grid and household questionnaire, or the grid, the household and at least on individual questionnaire) as a percentage of the total number of households in the procedure.

Table 3. Households that entered refusal conversion

Year	Households that entered the procedure	Households that completed the Grid Questionnaire	Households that also Completed the Household Questionnaire	Households in which the Reference person also completed the individual questionnaire
2005	794	205 (25.8%)	159 (20.0%)	125 (15.7%)
2006	1560	545 (34.9%)	508 (32.6%)	457 (29.3%)
2007	347	79 (22.8%)	65 (18.7%)	58 (16.7%)
2008	1202	659 (54.8%)	542 (45.1%)	473 (39.4%)
2009	1146	703 (61.3%)	575 (50.2%)	511 (44.6%)
2010	963	492 (51.1%)	408 (42.4%)	356 (37.0%)
2011	708	336 (47.5%)	281 (39.7%)	235 (33.2%)
2012	728	330 (45.3%)	265 (36.4%)	211 (29.0%)
2013	817*	561 (68.7%)*	502 (61.4%)*	153 (18.7%)*
2014	1447	718 (49.6%)	642 (44.4%)	541 (37.4%)
2015	927	404 (43.6%)	353(38.1%)	267 (28.8%)

Note : years 2005 to 2012 concern SHP_I and SHP_II. Years 2013 and 2015 concern SHP_I, SHP_II and SHP_III.

**the number does not include response to the biographical questionnaire that was issued in 2013.*

Of the households that were re-approached for refusal conversion, between 23% and 69% completed the grid questionnaire; 19% to 61% completed also the household questionnaire, while 17% to 45% also completed at least one individual questionnaire. Table A1 in the Appendix shows participation rates, measured as completion of the household questionnaire, in the years following conversion. Once converted, between 60% and 81% of the households participate also in the following wave. Almost 50% of the households that were converted in 2005 are still participating 10 years afterwards. However, this participation is not always without additional efforts, as we will discuss later.

Table 4 shows the number of individuals in households that were successfully converted and their participation rates.

Table 4. Individuals in converted households

Year	Number of persons in converted households that completed grid	Number of persons that completed individual questionnaires	Number of persons included in proxy questionnaires	Number of persons mentioned in grid only
2005	558	166 (29.8%)	61 (10.9%)	331 (59.3%)
2006	1306	617 (47.2%)	215 (16.5%)	474 (36.3%)
2007	199	79 (39.7%)	27 (13.6%)	93 (46.7%)

2008	1509	664 (44.0%)	189 (12.5%)	656 (43.5%)
2009	1709	744 (43.5%)	249 (14.6%)	716 (41.9%)
2010	1214	509 (41.9%)	182 (15.0%)	523 (43.1%)
2011	841	336 (40.0%)	118 (14.0%)	286 (56.6%)
2012	774	295 (38.1%)	93 (12.0%)	386 (49.9%)
2013	996	196 (19.7%)	72 (7.2%)	728 (73.1%)
2014	1679	717 (42.7%)	278 (16.6%)	684 (40.7%)
2015	917	336 (36.6%)	126 (13.7%)	455 (49.6%)

The table above shows us that converting households brings in multiple household members, in addition to the reference persons. Almost half of the individual members of the converted households either completed the individual questionnaire or were included with a proxy questionnaire.

Table 5 presents the contribution refusal conversion makes to the sample size, measuring participation as grid questionnaire completion and as household questionnaire completion. Refusal conversion accounts for an increase in the sample size between 1.5% (in 2007) and 15% (in 2009) when participation is measured as completion of the household questionnaire. The sample size increases between 1.8 % (2007) and 18% (2009) when participation is measured as completing the grid questionnaire.

Table 5. The effects of refusal conversion on the SHP sample size: household level

Year	Household level: grid			Household level: HH questionnaire		
	Sample size before conversion	Number of converted refusals	Sample size after conversion (% increase)	Sample size before conversion	Number of converted refusals	Sample size after conversion (% increase)
2005	4229	205	4434(4.8%)	4097	159	4256 (3.9%)
2006	3789	545	4334(14.4%)	3713	508	4221 (13.7%)
2007	4362	79	4441(1.8%)	4246	65	4311 (1.5%)
2008	3797	659	4456(17.4%)	3722	542	4264 (14.6%)
2009	3889	703	4592(18.1%)	3831	575	4406 (15.0%)
2010	4182	492	4674(11.8%)	4134	408	4542 (9.9%)
2011	4280	336	4616(7.9%)	4214	281	4495 (6.7%)
2012	4263	330	4593(7.7%)	4196	265	4461 (6.3%)
2013	7971	561	8532(7.0%)	7855	502	8357 (6.4%)
2014	6799	718	7517(10.6%)	6717	642	7359 (9.6%)
2015	6484	404	6888(6.2%)	6434	353	6787 (5.5%)

Once converted, it does not mean that household will participate in the following waves without further fieldwork effort. So far 6177 households were contacted in the refusal conversion phase. Table 6 shows the number of times these households were in the refusal conversion phase regardless of the outcome of the conversion attempt. Although more than a half of the households approached in the refusal conversion phase were approached only once, some households needed additional efforts repeatedly over the years. For example, 50 households were injected in refusal conversion phase seven times.

Table 6. Number of times households were in refusal conversion phase

Number of times households included in refusal conversion phase	Frequency (%)
1	3556 (57.6%)
2	1152 (18.7%)
3	691 (11.2%)
4	389 (6.3%)
5	222 (3.6%)
6	109 (1.8%)
7	50 (0.8%)
8	8 (0.1%)

Conclusion

Refusal conversion, as a measure against declining response rates, has been practiced since the start of the SHP and documented since 2005. In total, more than six thousand households were re-approached in the last eleven years leading to an increase in the sample size of 2% to 18%. Between 2005 and 2009 decisions on whom to approach in refusal conversion phase of the fieldwork changed from one year to another. In 2010, a new systematic approach was established and has been followed ever since. This current approach includes in the refusal conversion households that refused in the ongoing wave, households that completed only the grid in the previous year and households that were blocked in the previous year upon not completing any questionnaire two years before. A new-established system means that any information from households that refused at contact in one wave is not available for two waves in a row. In the SHP, in rare cases, households that were not successfully contacted in previous waves are re-approached in the refusal conversion phase, as are split-off households.

In the SHP the conversion rate is between 23% and 68% for the grid questionnaire; and between 19% and 61% for the household questionnaire. Between 16% and 45% of the reference persons also

complete the individual questionnaire. Moreover, upon conversion on the household level, the information on individual level is collected from around half of the household members of the converted household. The fact that 60% to 80% of converted households participate in the wave following conversion makes refusal conversion in the SHP also longitudinally successful.

Bibliography

Burton, J.; Laurie, H. & Lynn, P. (2006). The long-term effectiveness of refusal conversion procedures on longitudinal surveys. *Journal of the Royal Statistical Society Series A*, 169(3), 459-478

Calderwood, L.; Plewis, I.; Ketende, S. & Mostafa, T. (2016). Evaluating the immediate and longer term impact of a refusal conversion strategy in a large scale longitudinal study. *Survey Research Methods*, 10(3), 225-236

Haring, R.; Alte, D.; Völzke, H., Sauer, S., Wallaschofski, H., John, U. & Schmidt, C.O. (2009). Extended Recruitment Efforts Minimize Attrition But Not Necessarily Bias. *Journal of Clinical Epidemiology*, 62(3), 252-260

Laurie, H; Smith, R. & Scott, L. (1999). Strategies for Reducing Nonresponse in a Longitudinal Panel Survey. *Journal of Official Statistics*, 15(2), 269-282

Lipps, O. (2011). Refusal Conversion in telephone panels: Is it worth it? (Swiss Household Panel, Working Paper 3_11). Lausanne, FORS

Lynn, P. & Clarke, P. (2002). Separating Refusal Bias and Non-Contact Bias: Evidence from UK National Surveys. *Journal of the Royal Statistical Society Series D (The Statistician)*, 51(3), 319-333.

Stoop, I. (2005) *The Hunt for the Last Respondent*. Nonresponse in Sample Surveys, Social and Cultural Planning Office of the Netherlands, The Hague

Stoop, I.; Billiet, J.; Koch, A. & Fitzgerald, R. (2010). *Improving Survey Response Lessons Learned from the European Social Survey*. Chichester, John Wiley & Sons. Ltd

Voorpostel, M. (2010). Attrition Patterns in the Swiss Household Panel by Demographic Characteristics and Social Involvement. *Swiss Journal of Sociology*, 36(2), 359-377.

Voorpostel, M., Tillmann, R., Lebert, F., Kuhn, U., Lipps, O., Ryser, V.A., Schmid, F., Antal, E., Monsch, G.A. & Wernli, B. (2016). Swiss Household Panel User Guide, Wave 17. Lausanne, FORS

Appendix

Table A1. Outcome at subsequent waves for successful conversion on household level

Conversion Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
N attempts	794	1560	347	1202	1146	963	708	728	817	1447	927
N converted (%)	159 (20.0%)	508 (32.6%)	65 (18.7%)	542 (45.1%)	575 (50.2%)	408 (42.4%)	281 (39.7%)	265 (36.40%)	502 (68.7%)	642 (44.4%)	353 (38.1%)
Subsequent wave participation											
2006	105 (66.0%)										
2007	97 (61.0%)	346 (68.1%)									
2008	94 (59.1%)	335 (65.9%)	39 (60.0%)								
2009	92 (57.9%)	294 (57.9%)	38 (58.5%)	400 (73.8%)							
2010	101 (63.5%)	302 (59.5%)	44 (67.7%)	357 (65.9%)	464 (80.7%)						
2011	97 (61.0%)	298 (58.7%)	43 (66.2%)	344 (63.5%)	398 (69.2%)	306 (75.0%)					
2012	92 (57.9%)	286 (56.3%)	38 (58.5%)	325 (60.0%)	384 (66.8%)	262 (64.2%)	210 (74.7%)				
2013	87 (54.7%)	267 (52.6%)	36 (55.4%)	308 (56.8%)	340 (59.1%)	242 (59.3%)	181 (64.4%)	179 (67.6%)			
2014	83 (52.2%)	248 (48.8%)	38 (58.5%)	269 (49.6%)	310 (53.9%)	211 (51.7%)	156 (55.5%)	141 (53.1%)	313 (62.4%)		
2015	79 (49.7%)	248 (48.8%)	38 (58.5%)	258 (45.8%)	300 (52.2%)	197 (50.5%)	145 (51.6%)	135 (50.9%)	255 (50.1%)	469 (73.1%)	