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# Attrition in a Swedish Panel-study (YAPS)

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The Young Adult Panel Study  
Working Paper Series  
**YAPS WP 04/12**

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## **Attrition in a Swedish Panel-study (YAPS)**

## **Introduction**

Longitudinal surveys and panel data are important for examining changes over time (Zabel, 1998). However, a major problem in longitudinal surveys is non-response or attrition (Fitzgerald et al., 1998). Examining non-response is important to come up with a valid interpretation of the results from longitudinal studies (Deeg, 2002). Furthermore, non-response between studies can cause a large decrease in sample size. If this is not taken seriously it can result in a loss of statistical power or in severe biases (Hausman & Wise, 1979; Young et al., 2006). These biases can lead to a problem with internal or external validity (Barry, 2005; Miller & Wright, 1995; Ribisl et al., 1996). Internal validity is threatened if the respondents that dropped out influence the relation between the variables or groups (Cook and Campbell, 1979). External validity is threatened when the new sample without the drop-outs does not represent the original population (Cooks & Campbell, 1979). In this way, the results cannot be compared to the original sample population, causing an external validity bias (Miller & Hollist, 2007). For this study non-response is examined for the Swedish 'Young Adult Panel Study' (YAPS) in 1999, 2003 and 2009. For the latter 2009 survey the respondents could answer either an online questionnaire or a paper questionnaire. If they did not respond to both the online or paper questionnaire, a shorter phone follow up was held to include these respondents.

Non-response occurs in all phases in a survey. (i) Before the survey most research focuses on preventing non-response. Starting a survey with good research designs and methods, having rewards for the participants, lower the change of having high drop-out rates (De Leeuw et al., 2003). (ii) During the longitudinal survey research concentrates on specific personal characteristics and social demographic factors which increase or decrease the change of dropping out (Miller & Hollist, 2007, Olson, 2005). (iii) After the survey, detecting systematic patterns and correcting non-response problems with statistical models or analyses reduces the influence of non-response in the data (Eerola et al., 2005; Miller & Hollist, 2007).

This article focuses on the 'second phase' and 'third phase' of a survey with two main goals. First differences in personal characteristics and social demographic factors and the on dropping out will be examined. Secondly, it is interesting to examine the importance of the phone follow-up questionnaire. Previous research on follow-up telephone interviews already showed that younger, unemployed and people from lower socioeconomic groups were less likely to participate in these telephone surveys (Marcus and Telesky, 1983).

Examining these differences in dropping out and the use of these two data collection methods can be relevant for several reasons. First of all, if differences are found one can account for this in future data collection. One can adjust budgets for data collection methods according to

these dropping out discrepancies and the differences in the use of different data collection methods. If for example lower educated are more likely to drop out, researchers can take into account extra budget for keeping them in the data collection or recalculate the budget for collection methods that might keep the high risk groups in the survey. Secondly it can be an evaluation of the data collection methods for the YAPS study, especially the importance of the telephone survey can be examined for possible upcoming data collecting. However, the main reason for this study is to create awareness of possible biases in the analyses with the YAPS data. As stated before, drop-outs in longitudinal data collection can cause both internal and external validity which should be accounted for in analyzing the data and interpreting the results. Showing the possibility of structural differences with regard to several background characteristics of the respondents can help researchers to account better for this when working with the YAPS data.

Now the methods that are used in this article will be explained. After this the results of the statistical analyses will be shown. Finally a summation of all the results will be described.

## **Method**

In 1999 a first sample of 3,408 Swedish individuals from 1968, 1972 and 1976 were contacted to fill in postal questionnaires. A second sample for this data-wave consisted of 951 individuals who are born in Sweden in either 1972 or 1976. Also, one or both parents in this sample were born in either Poland or Turkey (second-generation sample). The overall response rate was 65 percent in the 1999 survey.<sup>1</sup> From the first sample 2,283 individuals and from the second sample 537 respondents participated in this survey. This makes a total of 2,820 individuals for the first 1999 wave.

The second survey was carried out in May-June in 2003. A new birth-cohort was added to the sample consisting of individuals born in 1980 with two Swedish-born parents. The response rate in this sample was 72 percent for the respondents with two-Swedish parents (2,469 individuals) and 67 percent for the respondents with one or two Polish or Turkish parents (347 individuals). This makes a total of 2,816 respondents for the 2003 survey.

The third survey was carried out in the spring of 2009. The respondents were sent login codes to answer the questionnaire online. They were also instructed that if they wanted to use postal questionnaires they would be sent paper questionnaires some weeks later. After this initial data collection round, the 1,021 responders who did not participate in either the web- or postal questionnaires, were re-contacted by phone to answer a shortened questionnaire. In this follow-up 707 individuals participated from which 191 were from the first data wave. Without the phone-

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<sup>1</sup> For a description of the attrition in 1999, please consult Appendix A: Attrition analyses 1999

follow up, the overall response rate was 56 percent (1,986 respondents). From this, 1385 respondents participated in all three surveys. The response rate including the 707 respondents from the phone follow-up the was 72 percent.

Also register data on educational level, vital events and different kinds of income were used to collect information on the individuals. Table 1 shows the number of respondents that participated in each round of the survey. As stated before there is an increase in respondents between 1999 and 2003 as a new cohort was included in the latter survey. Furthermore, some variables have an 'unknown' category. This category, with often small numbers, was not excluded because it is interesting to see how 'missing' values for some cases can influence dropping out in a survey.

The variables ethnic background, relationship and children were recoded due to very small sample-sizes in various categories. Gender role attitudes was measured by asking the respondents '*When married, one is more inclined to traditional gender roles*'. This variable was recoded to measure either egalitarian or non-egalitarian viewpoints from the respondents. Finally, for the level of education variable categories were different for the 2003 and 2009 surveys. Therefore this was recoded for better comparability between the possible dropout points.

**Table 1** Frequency table respondents included in each round

		1999	2003	2009 without phone follow up	2009, phone follow ups included
<b>Sex</b>	<i>Man</i>	1308	1228	871	1232
	<i>Woman</i>	1493	1588	1114	1457
<b>Relationship</b>	<i>Single</i>	1272	1058	458	607
	<i>Cohabiting</i>	1488	1751	1527	2075
	<i>Unknown</i>	41	7	0	7
<b>Cohort</b>	<i>1956</i>	737	595	445	592
	<i>1964</i>	967	736	546	750
	<i>1972</i>	1097	777	591	807
	<i>1980</i>		708	403	540
<b>Children</b>	<i>No</i>	2093	1795	787	1003
	<i>Yes</i>	708	1021	1198	1686
<b>Ethnic background</b>	<i>Swedish</i>	2273	2469	1745	2331
	<i>Polish</i>	321	214	161	230
	<i>Turkish</i>	207	133	79	128
<b>Educational</b>	<i>Less than</i>				

<b>level</b>	<i>secondary</i>	275	492	65	105
	<i>Secondary</i>	1709	926	775	1115
	<i>High</i>	805	1249	1144	1468
	<i>Unknown</i>	12	149	1	1
<b>Gender role attitudes</b>	<i>Traditional</i>	642	603	368	490
	<i>Egalitarian</i>	1935	2171	1576	2136
	<i>Unknown</i>	224	42	40	63
<b>Total number of respondents</b>		2801	2816	1985	2689

### Statistical analysis

Moving away from a mere descriptive analysis, to see if the differences are statistically significant, binominal logistic regression analyses were used. In the original 2003 and 2009 datasets the responders and non-responders were coded as respectively 1 and 0 and merged with the 1999 and 2003 datasets by respondent number.

### Results

To show dropout patterns according to personal characteristics and social demographic factors seven binominal logistic regression models were estimated. First, drop out percentages were calculated to descriptively show dropping out patterns between the 1999, 2003 and 2009 surveys. Accordingly, three logistic regression models were estimated to examine dropout patterns between 1999 to 2003 and 1999 and 2009 with and without controlling of participation in 2003. After this, percentages and logistic models were estimated to examine dropout patterns between 2003 and 2009 excluding the phoned respondents. Finally, logistic regression models were estimated with the phoned respondents included in the analyses between 1999, 2003 and 2009.

#### *Dropping out between 1999 and 2003, 2009*

Table 2 shows the percentages of dropping out between 1999 to 2003 and 2009. Between 1999 and 2003 around 20 to 30 percent of the respondents drop out for most factors with 25.4 percent on average. However, especially for the 'unknown' categories for the variables 'relationship, educational level and 'gender role attitudes' these numbers are higher.

**Table 2:** *Percentage of dropping out between waves*

	<b>1999-2003</b>	<b>1999-2009 without</b>	<b>1999-2009 with phoned</b>
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			<b>phoned respondents</b>	<b>respondents</b>
<b>Sex</b>	<i>Man</i>	30.7%	46,3%	24,8%
	<i>Woman</i>	20.8%	41,5%	22,9%
<b>Relationship</b>	<i>Single</i>	28.7%	43,5%	25,1%
	<i>Cohabiting</i>	22.0%	43,3%	22,1%
	<i>Unknown</i>	48.8%	68,3%	46,3%
<b>Cohort</b>	<i>1956</i>	19.7%	39,9%	20,1%
	<i>1964</i>	24.6%	43,8%	23,0%
	<i>1972</i>	30.0%	46,3%	27,1%
<b>Children</b>	<i>No</i>	25.8%	42,9%	23,8%
	<i>Yes</i>	24.2%	46,5%	23,9%
<b>Ethnic background</b>	<i>Swedish</i>	23.1%	41,2%	21,7%
	<i>Polish</i>	34,0%	49,8%	28,7%
	<i>Turkish</i>	38,2%	62,3%	39,1%
<b>Educational level</b>	<i>Less than secondary</i>	37,8%	60,7%	39,3%
	<i>Secondary</i>	25,5%	44,5%	23,9%
	<i>High</i>	20,6%	36,1%	17,9%
	<i>Unknown</i>	50,0%	58,3%	58,3%
<b>Gender role attitudes</b>	<i>Traditional</i>	29,3%	48,4%	26,6%
	<i>Egalitarian</i>	23,4%	42,1%	22,9%
	<i>Unknown</i>	32,1%	45,1%	23,2%
<b>Participation in 2003</b>	<i>Yes</i>	74,6 %	56,2%	76,2%
	<i>No</i>	25,4%	43,8%	23,8%
<b>Total number of respondents</b>		2801	2801	2801

There are higher percentages for lower educated respondents and respondents with one or two non-Swedish parents. When examining dropping out between 1999-2009 without taking the phoned respondents into account around 40 to 48 percent of the respondents dropped out on most of the factors. Again, the respondents from which the relationship, educational level or gender role attitudes was 'unknown' dropped slightly more than most of the other factors. Also the lower educated and respondents with one or two non-Swedish parents, especially Polish, dropped out with respectively 60.7 and 62.3 percent. In total, between 1999 and 2009 without the phoned respondents 43.2 percent of the respondents dropped out. Including the phoned respondents these

numbers are reduced to an average of 23.8 percent. From this table most respondents in different factors are equally reached by using the phoned questionnaire.

**Table 3:** Logistic regressions on likelihood to remain in the survey between the 1999-2003, 1999-2009 without and 1999-2009 with controlling for participation in 2003 waves without phoned respondents

		<b>1999-2003</b>	<b>1999-2009</b>	<b>1999-2009, control for participation in 2003</b>
<b>Sex</b>	Man	(reference)	(reference)	(reference)
	Woman	1.679***	1.248**	1.083
<b>Relationship</b>	Single	(reference)	(reference)	(reference)
	Cohabiting	1.269*	.959	.886
	Unknown	.517*	.391*	.438*
<b>Cohort</b>	1956	1.527 **	1.178	1.055
	1964	1.254*	1.068	1.002
	1972	(reference)	(reference)	(reference)
<b>Children</b>	No	(reference)	(reference)	(reference)
	Yes	.800	.844	.882
<b>Ethnic background</b>	Swedish	(reference)	(reference)	(reference)
	Polish	.652**	.732*	.814
	Turkish	.635**	.500***	.537***
<b>Educational level</b>	Less than secondary	(reference)	(reference)	(reference)
	Secondary	1.734***	1.784***	1.580**
	High	2.033***	2.369***	2.064***
	Unknown	.908	1.591	1.780
<b>Gender role attitudes</b>	Traditional	(reference)	(reference)	(reference)
	Egalitarian	1.252*	1.163	1.099
	Unknown	.860	1.071	1.136
<b>Participation in 2003</b>	Yes vs. no			5.063***
Log Likelihood		-3043.587	-3734.995	-3437.166
<b>Total number of respondents</b>		2801	2801	2801



Table 3 shows the odds that the respondents who participated in 1999 also participated in either 2003 or 2009. For the 2009 survey an analysis was performed without controlling for participating in 2003 and one without controlling for this. The phoned respondents were not taken into account in these analyses. Women had higher odds of having participated in the 2003 survey than men. They were also more likely to have participated in the 2009 survey. However, there was no effect for the 2009 survey when controlling for 2003 participation. Only between 1999 and 2003 respondents who were living together were more likely to have participated in the latter survey. However, in the 2009 survey there was no effect and there is a tendency that cohabiting respondents are less likely to have participated. Respondents from which their relationship status was not available were more likely to drop out when controlling for participation in 2003 than respondents living apart. When looking at participation between 1999 and 2009 without taking into account the participation in 2003, the odds are slightly lower.

Furthermore, older respondents were more likely to have participated in the next survey than younger respondents and respondents with a more egalitarian view on work and household division were statistically significant more likely to respond to the 2003 questionnaire. However, there was no effect found for the 2009 survey.

Respondents with one or two Polish or Turkish parents are more likely to dropout than the respondents with two Swedish-born parents. Especially the respondents with a Turkish background were much less likely to have participated in both the 2003 and 2009 survey than the respondents with two Swedish-born parents. Without controlling for 2003 the odds are slightly lower for the respondents with one or two Turkish parents and become statistically not significant for the respondents with a Polish background.

Educational level have a strong effect on remaining in the survey. Between the first two surveys both middle and high educated respondents were less likely to drop out than lower educated respondents. High educated respondents were even more than 2 times more likely to have participated in 2003 and in the 2009 survey with and without controlling for participation in 2003. Also, table 3 shows that respondents who participated in 1999 also participated in 2003 are 5 times more likely to also have participated in 2009.

### ***Dropping out between 2003 and 2009***

Table 4 shows the logistic regression estimation on attrition between 2003 and 2009 without taking the phoned respondents into the analyses. In 2003 a new cohort from 1980 was added to the analyses and these respondents were included in the analyses.

**Table 4:** Logistic regressions on likelihood to remain in the survey between waves 2003-2009

		<b>2003-2009</b>
<b>Sex</b>	Man	(reference)
	Woman	1.210*
<b>Relationship</b>	Single	(reference)
	Cohabiting	.877
	Unknown	.298
<b>Cohort</b>	1956	1.262
	1964	1.166
	1972	(reference)
	1980	.620***
<b>Children</b>	No	(reference)
	Yes	.794*
<b>Ethnic background</b>		(reference)
	Swedish	
	Polish	.698*
	Turkish	.626*
<b>Educational level</b>	Less than secondary	(reference)
	Secondary	1.265
	High	1.776***
	Unknown	1.058
<b>Gender role attitudes</b>		(reference)
	Traditional	
	Egalitarian	1.098
	Unknown	.500*
<b>Log Likelihood</b>		- 3591.806
<b>Total number of respondents</b>		2816

Women have statistically significant higher odds of participating in 2009 compared to men. No differences were found between the 1956, 1964 and 1972 cohorts that were also included in the 1999 survey. However, respondents from the 1980 cohort were much more likely to drop out between the 2003 and 2009 survey than the 1972 cohort. Here, respondents with children were less likely to have participated in the 2009 survey than respondents without children. The respondents who were living together with a partner had higher odds of participating in 2003. Respondents with children had statistically significant lower odds of participating in the last 2009 survey. Both the respondents with a Polish or Turkish background were more likely to drop out of the survey than the respondents with Swedish parents. When looking at the educational level of the

respondents it is shown that only respondents with a higher education were statistically significant more likely to have participated than lower educated respondents. However, there is tendency that respondents with only secondary education are also somewhat more likely to have participated in the 2009 survey.

Finally, there were no differences in dropping out for the gender role attitudes. Only the respondents from which these attitudes were unknown were less likely to have participated in the 2009 survey than the respondents with the more traditional view.

***Dropping out between 1999, 2003 and 2009 including phoned respondents***

As shown in table 2, the response rate for the main study in 2003 was low. Therefore, an telephone follow up in which a shortened questionnaire was used to include some of these non-responders in 2009 who did participate in the 1999 survey. In table 5 below three logistic regression analyses were performed to examine the dropping out from the survey including the phoned respondents.

**Table 5** Three logistic regression models; 1999-2009 without control for 2003, 1999-2009 with control for 2003, and 2003-2009 including phoned respondents

		1999-2009	1999-2009, control for participation in 2003	2003-2009
<b>Sex</b>	Man	(reference)	(reference)	(reference)
	Woman	1.115	.955	.940
<b>Relationship</b>	Single	(reference)	(reference)	(reference)
	Cohabiting	1.106	1.031	1.224
	Unknown	.431*	.499	.468
<b>Cohort</b>	1956	1.186	1.043	1.019
	1964	1.151	1.076	1.159
	1972	(reference)	(reference)	(reference)
	1980			.641**
<b>Children</b>	No	(reference)	(reference)	(reference)
	Yes	.941	1.016	1.034
<b>Ethnic background</b>	Swedish	(reference)	(reference)	(reference)
	Polish	.754*	.852	.720
	Turkish	.554***	.606**	.640*
<b>Educational level</b>	Less than secondary	(reference)	(reference)	(reference)
	Secondary	1.975***	1.761***	1.403*

	High	2.676***	2.337***	2.061***
	Unknown	.714	.709	1.044
<b>Gender role attitudes</b>	Traditional	<i>(reference)</i>	<i>(reference)</i>	<i>(reference)</i>
	Egalitarian	1.126	1.057	.991
	Unknown	1.174	1.257	.341**
<b>Participation in 2003</b>	Yes vs. no		4.319***	
<b>Log Likelihood</b>		-3075.016	-2817.144	-2574.954.
<b>Total number of respondents</b>		2801	2801	2816

As expected, the effect were less strong for all of the factors when the phoned respondents are included. No effects are found for differences between men and women and having cohabiting or not. Only the respondents from which relationship status was unknown in 1999 were less likely to have participated in 2009 without controlling for participation in 2003. The 1980 cohort was more likely to have dropped out between the 2003 and 2009 survey than the 1972 cohort. Furthermore, no differences were found for having children or not. There seems to be a tendency, however, that respondents with children are more included when using the telephone survey.

Respondents with one or two Turkish parents are much more likely to drop out in all of the models compared to the respondents with Swedish parents. The respondents with a Polish background were more likely to have dropped out between the 1999 and 2009 survey without controlling for 2003 participation. The other models show no statistically significant effect.

The strongest effects are for the educational level of the respondents. Secondary and higher educated respondents are much more likely to participate in future surveys than lower educated respondents. The effect is slightly lower for secondary respondents between 2003 and 2009, however, it is still rather strong. Also the effect for higher educated respondents decreases over time, however, this effect remains very strong also between the 2003 and 2009 survey. There was no effect for the respondent(s) from which the educational level was 'unknown'. When examining gender role attitudes, there were no statistically significant differences. However, only between 2003 and 2009 the respondents from which the gender role attitude was 'unknown' are much more likely to have dropped out. Finally, respondents who participated in 1999 and also in 2003 were 4.319 times more likely to have participated in the 2009 study than respondents that did not participate in 2003.

## **Conclusion and Discussion**

This article used logistics regression analyses two main goals. The first goal is to show if social demographic factors are related to dropping out in a Swedish panel study. The second goal was to examine the importance of the phone follow-up questionnaire. These shorter telephone surveys were performed to include non-responders in the 2009 survey. Several factors influenced the dropping out in this study.

When examining dropping out in the Young Adult Panel Study (YAPS), middle and high educated respondents were much more likely to have participated in both the 2003 and 2009 survey than lower educated respondents. This was the most constant factor in the analysis. Even though there was no effect between 2003 and 2009 for middle educated respondents, overall middle and high educated respondents were much more likely to have participated in both the surveys compared to low educated respondents. Even though Chatfield and colleagues (2005) stated there was no educational effect, this finding is consistent with other studies on dropping-out (Augustsson et al., 1994; Barton, et al., 1980; Eaton, et al., 1992; Graaf et al., 2000; Shahar et al., 1996; Young et al., 2006). Even after the telephone survey differences between lower, secondary and higher educated respondents remained. It might therefore be important in future data collection to account for these educational differences in thinking of the survey design (Miller & Hollist, 2007, Olson, 2005). Altogether, it is important that in follow-up studies when analyzing the data one should account for detecting these patterns and if necessary correcting non-response problems for respondents with a different educational level.

The respondents with one or two Polish or Turkish parents were also more likely to drop out than the respondents with Swedish parent. Even though, somewhat less constant than the factor educational level, both in the 2003 and in the 2009 survey the respondents with a Polish or Turkish background were less likely to respond. This is in line with previous studies in which respondents with a different ethnic background were also more likely to drop out if the survey continued (Lillard & Panis, 1998). Even though no effect was found, there is a tendency that these respondents are more likely to participate in the shorter telephone survey. It shows that the telephone surveys are likely to reduce validity threats. In this way, it might be important for these respondents to be concentrate on the survey design and data collection method (De Leeuw et al., 2003). Tracking these respondents and calling them for a short telephone survey when not responding to the paper questionnaire might therefore be important.

Respondents with children were more likely to have dropped out in the 2009 survey than those with children. However, no effect was found in the 2003 survey. This is contrary to the finding that respondents with children were more likely to have participated in the telephone

survey. This shows the importance of the telephone survey. Even though the gap between respondents with and without children remains, without the telephone survey the gap would even be bigger. In this way, the telephone survey here reduced the differences between parents with and without children and thereby the selection effect. Respondents living together with a partner were slightly more likely to have participated in the 2003 study than those living alone, as well as respondents with a more egalitarian view on gender roles within a household. For both factors no differences were found for the 2009 survey.

Older respondents were more likely to participate in the 2003 study. No age differences between responders and non-responders were found for participating in the 2009 studies or participating in all the studies. The differences in dropping out with age are interesting because of the small variety in age for the respondents. Finding results for more similar respondents increases the importance of the effects found. The variety in age is small and still significant differences were found, showing the importance of age in studies on attrition. On the other hand, the narrow focus on young adults makes the results difficult to generalize to broader groups. Furthermore, there were no dropout differences when also examining the respondents who participated in the phone follow-up. This implies that the phone follow-up can be useful for including younger respondents even in this small variety of age between the respondents.

Men were, especially between 1999 and 2003 more likely to drop out than women. However, after including all the phoned respondents there were no differences between men and women. There even seems to be a tendency that after including these respondents men were even less likely to drop out than women.

Finally we should note that the respondents from which information was 'unknown' were often much more likely to drop out. Even though the effects are sometimes biased by having few respondents in these categories there seems to be a tendency that they drop out often. This implies that having full-information on respondents is an important factor in analyzing these factors. Even though having full-information on all questions unlikely, concentrating on the respondents with missing information could reduce the chance of them dropping out.

A limitation of this study is that there were no baseline characteristics of the non-responders to the 1999 questionnaire. Here the response rate was the lowest with 65 percent. This study shows that it is likely non-response decreases over time. Together with this the telephone surveys were also important in reducing the non-response rate. This especially was the case for co-residing respondents, men and respondents with children. Tracking down and contacting drop-outs from the beginning of the survey therefore important in reducing the non-response rate and enhancing the validity of results.

These results imply that in future data collection it is important to account for educational, gender and ethnic differences. Additional follow-up to the original data collection are not able to include all respondents, however, an increasing focus on these groups can improve the ability to reduce attrition. In line with this, when setting up new data waves or data collections, keeping in mind the importance and account for budgetary reasons for additional telephone follow up studies can be important. Future research might focus on the reasons why these respondents drop out. It might be interesting to see why men, lower educated and nonnative respondents are more likely to drop out than women, higher educated respondents and native respondents.

The study shows that there are different factors that increase the risk of dropping out. The highest risk groups were low-educated respondents and especially men. Younger respondents as well as respondents from ethnic minority groups are also more at risk of dropping out. The telephone surveys were important to reduce the negative effects of attrition and reduce the non-response rate.

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## Appendix A: Attrition analyses 1999

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### Translation for terms in Appendix A:

10-årsklasser – *10 year groups*

5-årsklasser – *5 year groups*

Antal – *Frequency*

Bortfall – *Attrition*

Bortfallsanalys – *Attrition analysis*

Civilstånd – *Civil status*

Frånskild person – *Divorcee*

Gift – *Married*

Hela urvalet – *Total sample*

Ingen – *None*

Inkomst – *Income*

Kvinnor – *Women*

Medborgarskap – *Citizenship*

Män – *Men*

Ogift person – *Unmarried individual*

Samtliga – *Total*

Svarande – *Respondents*

Svenskt – *Swedish*

Urval – *Sample*

Ålder – *Age*

BORTFALLANALYS

Familj och arbetsliv. Urval A. Svarande 99-08-26										
Ålder	Män		Kvinnor		Män + Kvinnor		Män	Kvinnor	Totalt	
	Antal	%	Antal	%	Antal	%	%	%	%	
<b>5-årsklasser</b>										
20 - 24	22	371	34.51	404	33.69	775	34.08	47.87	52.13	100
25 - 29	26	345	32.09	417	34.78	762	33.51	45.28	54.72	100
30 - 34	30	359	33.4	378	31.53	737	32.41	48.71	51.29	100
Samtliga		1075	100	1199	100	2274	100	47.27	52.73	100
<b>10-årsklasser</b>										
20 - 29		716	66.6	821	68.47	1537	67.59	46.58	53.42	100
30 - 39		359	33.4	378	31.53	737	32.41	48.71	51.29	100
Samtliga		1075	100	1199	100	2274	100	47.27	52.73	100
<b>Civilstånd</b>										
Ogift person		945	87.91	978	81.57	1923	84.56	49.14	50.86	100
Gift		119	11.07	196	16.35	315	13.85	37.78	62.22	100
Frånskild person		11	1.02	25	2.09	36	1.58	30.56	69.44	100
Samtliga		1075	100	1199	100	2274	100	47.27	52.73	100
<b>Medborgarskap</b>										
Svenskt		1075	100	1199	100	2274	100	47.27	52.73	100
Samtliga		1075	100	1199	100	2274	100	47.27	52.73	100
<b>Inkomst</b>										
Ingen		33	3.07	32	2.67	65	2.86	50.77	49.23	100
1 - 84 999		432	40.19	480	40.03	912	40.11	47.37	52.63	100
85 000 - 159 999		180	16.74	467	38.95	647	28.45	27.82	72.18	100
160 000 - 234 999		316	29.4	197	16.43	513	22.56	61.6	38.4	100
235 000 - 309 999		99	9.21	20	1.67	119	5.23	83.19	16.81	100
310 000 -		15	1.4	3	0.25	18	0.79	83.33	16.67	100
Samtliga		1075	100	1199	100	2274	100	47.27	52.73	100

$$\frac{2274}{2274 + 1135} =$$

$$= \frac{2274}{3409} = 66.7\%$$

$$\begin{array}{r} 1075 \\ 707 \\ \hline 1782 \end{array} \text{ män}$$

$$1782 + 1627 = 3409$$

nettourval

$$\begin{array}{r} 1199 \\ 428 \\ \hline 1627 \end{array} \text{ kv}$$

## BORTFALLANALYS

Bortfall urval A										
Ålder	Män		Kvinnor		Män + Kvinnor		Män	Kvinnor	Totalt	
	Antal	%	Antal	%	Antal	%	%	%	%	
<b>5-årsklasser</b>										
20 - 24	222	31.4	133	31.07	355	31.28	62.54	37.46	100	
25 - 29	235	33.24	140	32.71	375	33.04	62.67	37.33	100	
30 - 34	250	35.36	155	36.21	405	35.68	61.73	38.27	100	
Samtliga	707	100	428	100	1135	100	62.29	37.71	100	
<b>10-årsklasser</b>										
20 - 29	457	64.64	273	63.79	730	64.32	62.6	37.4	100	
30 - 39	250	35.36	155	36.21	405	35.68	61.73	38.27	100	
Samtliga	707	100	428	100	1135	100	62.29	37.71	100	
<b>Civilstånd</b>										
Ogift person	656	92.79	344	80.37	1000	88.11	65.6	34.4	100	
Gift	46	6.51	67	15.65	113	9.96	40.71	59.29	100	
Frånskild person	5	0.71	17	3.97	22	1.94	22.73	77.27	100	
Samtliga	707	100	428	100	1135	100	62.29	37.71	100	
<b>Medborgarskap</b>										
Svenskt	707	100	428	100	1135	100	62.29	37.71	100	
Samtliga	707	100	428	100	1135	100	62.29	37.71	100	
<b>Inkomst</b>										
Ingen	31	4.38	15	3.5	46	4.05	67.39	32.61	100	
1 - 84 999	216	30.55	176	41.12	392	34.54	55.1	44.9	100	
85 000 -159 999	154	21.78	157	36.68	311	27.4	49.52	50.48	100	
160 000 -234 999	231	32.67	71	16.59	302	26.61	76.49	23.51	100	
235 000 -309 999	61	8.63	6	1.4	67	5.9	91.04	8.96	100	
310 000 -	14	1.98	3	0.7	17	1.5	82.35	17.65	100	
Samtliga	707	100	428	100	1135	100	62.29	37.71	100	

## BORTFALLANALYS

Hela urvalet urval A										
	Män		Kvinnor		Män + Kvinnor		Män	Kvinnor	Totalt	
Ålder	Antal	%	Antal	%	Antal	%	%	%	%	
<b>5-årsklasser</b>										
20 - 24	600	33.37	550	33.29	1150	33.33	52.17	47.83	100	
25 - 29	583	32.42	567	34.32	1150	33.33	50.7	49.3	100	
30 - 34	615	34.2	535	32.38	1150	33.33	53.48	46.52	100	
Samtliga	1798	100	1652	100	3450	100	52.12	47.88	100	
<b>10-årsklasser</b>										
20 - 29	1183	65.8	1117	67.62	2300	66.67	51.43	48.57	100	
30 - 39	615	34.2	535	32.38	1150	33.33	53.48	46.52	100	
Samtliga	1798	100	1652	100	3450	100	52.12	47.88	100	
<b>Civilstånd</b>										
Ogift person	1615	89.82	1347	81.54	2962	85.86	54.52	45.48	100	
Gift	167	9.29	263	15.92	430	12.46	38.84	61.16	100	
Frånskild person	16	0.89	42	2.54	58	1.68	27.59	72.41	100	
Samtliga	1798	100	1652	100	3450	100	52.12	47.88	100	
<b>Medborgarskap</b>										
Svenskt	1795	99.83	1647	99.7	3442	99.77	52.15	47.85	100	
Utländskt	3	0.17	5	0.3	8	0.23	37.5	62.5	100	
Samtliga	1798	100	1652	100	3450	100	52.12	47.88	100	
<b>Inkomst</b>										
Ingen	71	3.95	54	3.27	125	3.62	56.8	43.2	100	
1 - 84 999	655	36.43	671	40.62	1326	38.43	49.4	50.6	100	
85 000 - 159 999	334	18.58	626	37.89	960	27.83	34.79	65.21	100	
160 000 - 234 999	548	30.48	269	16.28	817	23.68	67.07	32.93	100	
235 000 - 309 999	161	8.95	26	1.57	187	5.42	86.1	13.9	100	
310 000 -	29	1.61	6	0.36	35	1.01	82.86	17.14	100	
Samtliga	1798	100	1652	100	3450	100	52.12	47.88	100	

ogs brukto

Familj och arbetsliv. Urval B. Hela urvalet. 99-08-26										
Ålder	Män		Kvinnor		Män + Kvinnor		Män	Kvinnor	Totalt	
	Antal	%	Antal	%	Antal	%	%	%	%	%
<b>5-årsklasser</b>										
20 - 24	308	59.23	292	60.83	600	60	51.33	48.67	100	
25 - 29	212	40.77	188	39.17	400	40	53	47	100	
Samtliga	520	100	480	100	1000	100	52	48	100	
<b>10-årsklasser</b>										
20 - 29	520	100	480	100	1000	100	52	48	100	
Samtliga	520	100	480	100	1000	100	52	48	100	
<b>Civilstånd</b>										
Ogift person	455	87.5	367	76.46	822	82.2	55.35	44.65	100	
Gift	60	11.54	91	18.96	151	15.1	39.74	60.26	100	
Frånskild person	5	0.96	20	4.17	25	2.5	20	80	100	
Anka/änkling	.	.	2	0.42	2	0.2	.	100	100	
Samtliga	520	100	480	100	1000	100	52	48	100	
<b>Medborgarskap</b>										
Svenskt	519	99.81	479	99.79	998	99.8	52	48	100	
Utländskt	1	0.19	1	0.21	2	0.2	50	50	100	
Samtliga	520	100	480	100	1000	100	52	48	100	
<b>Inkomst</b>										
Ingen	67	12.88	55	11.46	122	12.2	54.92	45.08	100	
1 - 84 999	286	55	280	58.33	566	56.6	50.53	49.47	100	
85 000 -159 999	93	17.88	115	23.96	208	20.8	44.71	55.29	100	
160 000 -234 999	60	11.54	30	6.25	90	9	66.67	33.33	100	
235 000 -309 999	14	2.69	.	.	14	1.4	100	.	100	
Samtliga	520	100	480	100	1000	100	52	48	100	

## BORTFALLANALYS

Urval B. Svarande										
	Män		Kvinnor		Män + Kvinnor		Män	Kvinnor	Totalt	
Alder	Antal	%	Antal	%	Antal	%	%	%	%	
<b>5-årsklasser</b>										
20 - 24	136	57.38	184	63.67	320	60.84	42.5	57.5	100	
25 - 29	101	42.62	105	36.33	206	39.16	49.03	50.97	100	
Samtliga	237	100	289	100	526	100	45.06	54.94	100	
<b>10-årsklasser</b>										
20 - 29	237	100	289	100	526	100	45.06	54.94	100	
Samtliga	237	100	289	100	526	100	45.06	54.94	100	
<b>Civilstånd</b>										
Ogift person	210	88.61	223	77.16	433	82.32	48.5	51.5	100	
Gift	24	10.13	54	18.69	78	14.83	30.77	69.23	100	
Frånskild person	3	1.27	12	4.15	15	2.85	20	80	100	
Samtliga	237	100	289	100	526	100	45.06	54.94	100	
<b>Medborgarskap</b>										
Svenskt	237	100	289	100	526	100	45.06	54.94	100	
Samtliga	237	100	289	100	526	100	45.06	54.94	100	
<b>Inkomst</b>										
Ingen	20	8.44	29	10.03	49	9.32	40.82	59.18	100	
1 - 84 999	130	54.85	155	53.63	285	54.18	45.61	54.39	100	
85 000 -159 999	46	19.41	81	28.03	127	24.14	36.22	63.78	100	
160 000 -234 999	33	13.92	24	8.3	57	10.84	57.89	42.11	100	
235 000 -309 999	8	3.38	.	.	8	1.52	100	.	100	
Samtliga	237	100	289	100	526	100	45.06	54.94	100	

## BORTFALLANALYS

Urval B. Bortfall									
	Män		Kvinnor		Män + Kvinnor		Män	Kvinnor	Totalt
Alder	Antal	%	Antal	%	Antal	%	%	%	%
<b>5-årsklasser</b>									
20 - 24	162	60.9	93	58.49	255	60	63.53	36.47	100
25 - 29	104	39.1	66	41.51	170	40	61.18	38.82	100
Samtliga	266	100	159	100	425	100	62.59	37.41	100
<b>10-årsklasser</b>									
20 - 29	266	100	159	100	425	100	62.59	37.41	100
Samtliga	266	100	159	100	425	100	62.59	37.41	100
<b>Civilstånd</b>									
Ogift person	228	85.71	114	71.7	342	80.47	66.67	33.33	100
Gift	36	13.53	35	22.01	71	16.71	50.7	49.3	100
Frånskild person	2	0.75	8	5.03	10	2.35	20	80	100
Änka/änkling	.	.	2	1.26	2	0.47	.	100	100
Samtliga	266	100	159	100	425	100	62.59	37.41	100
<b>Medborgarskap</b>									
Svenskt	266	100	159	100	425	100	62.59	37.41	100
Samtliga	266	100	159	100	425	100	62.59	37.41	100
<b>Inkomst</b>									
Ingen	44	16.54	15	9.43	59	13.88	74.58	25.42	100
1 - 84 999	143	53.76	105	66.04	248	58.35	57.66	42.34	100
85 000 -159 999	46	17.29	34	21.38	80	18.82	57.5	42.5	100
160 000 -234 999	27	10.15	5	3.14	32	7.53	84.38	15.63	100
235 000 -309 999	6	2.26	.	.	6	1.41	100	.	100
Samtliga	266	100	159	100	425	100	62.59	37.41	100