

PARTICIPATION IN TELEPHONE PRE-RECRUITED WEB SURVEYS

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INTRODUCTION¹

Recently, the research on the methodology of Web surveys is often oriented toward testing the validity of Web surveys. One of the aspects of this validity concerns the participation in Web surveys. Namely, errors of non-observation (non-coverage, sampling, non-response) are one of the commonly mentioned critics of Web surveys. This paper approaches this problem by studying the participation in a Web survey by observing the process of missing data at each stage of the survey process. The participants' characteristics are taken as predictors of the missing data process.

PREVIOUS RESEARCH

It is already possible to find some studies concentrated on the participation in several stages of the Web survey process in literature (WebSM, 1999-2002). For example, Vehovar et al. (2002) showed that the intensity of computer and Internet usage (and gender and education as related to them) were the most important predictors of cooperation during all stages in a Web survey with email invitations. Deutschmann and Faulbaum (2001) were oriented toward participation at the telephone pre-recruitment stage for a one-time Web survey. They found that while familiarity with the Internet, especially past experience with participation in Web surveys has a positive effect on the readiness to reveal the email address for participation, the concern regarding data confidentiality has a negative influence. In addition, they determined that men were more likely to participate in a survey than women. Krotki (2001) concentrated on non-response and coverage bias in a telephone pre-recruited panel of an entire population (using WebTV surveys). The coverage bias occurred because their panel under represented the elderly, was skewed towards the upper end of the socio-economic scale, and under represented some racial minorities. In addition, non-response at the later stages depended on age, race, sex, ethnicity, income, education, computer usage, access to the Internet, as well as metro status. Wiebe et al. (2001) also concentrated on a telephone pre-recruited panel of the entire population, although they reported on non-response for a particular Web survey from that panel. They found that non-respondents were older, less educated, with lower household

income and less likely to be married, however, they found no difference in race.

The impact of the participants' characteristics on the survey participation is not direct, but rather indirect. Participation in a survey is actually based on the combined influence of interacting factors (Groves and Couper, 1998). Therefore the presented empirical studies, which only compared the characteristics of participants and non-participants using bivariate analysis are rather limited. Below, we present a study where a multivariate analysis of several of the above mentioned as well as additional factors is done.

PARTICIPATION PROCESS IN A TELEPHONE PRE-RECRUITED WEB SURVEY

In recent years, increased attention has been paid to separating the contact and co-operation stages of the response process (Groves and Couper, 1998). Nevertheless, only rarely has the total complex process of survey participation been taken into account (e.g., Laiho and Lynn, 1999). For Web surveys, the deep involvement of ICT in most stages of the survey process allows to study the participation through different stages in greater detail (Jeavons, 1999). In general, we can observe this process in three stages: sampling, contact, and co-operation (including questionnaire retrieval and completion) (Biffignandi and Pratesi, 2000; Vehovar et al., 2002). For specific types of Web surveys these three stages consist of additional distinct stages (Lozar Manfreda, 2001). In the Web survey presented in this paper, i.e. a Web survey for which participants were pre-recruited by a telephone survey of households using a probability sampling method, the following stages are present:

- 1st stage: Internet usage.* Contacted telephone respondents may or may not be Internet users. Only Internet users are included in the second stage of the survey process.
- 2nd stage: Email usage.* Internet users may or may not use email. Only those who use email are included in the third stage of the survey process.
- 3rd stage: Giving email address.* Email users may or may not reveal their email addresses. Those revealing email addresses are included in the following stage of the survey process.
- 4th stage: Email invitation.* Email invitations to the Web questionnaire are sent. Some email messages may be returned as undeliverable (non-existent or the server rejects the message), others successfully absorbed by the network (showing that the email was correct). Only those whose email address is absorbed by the network are included in the following stage.
- 5th stage: Access to the introductory Web questionnaire page.* Recipients of the email invitation may decide to access the introductory page of the Web questionnaire. Those who access the first page proceed to the following stage of the survey process.
- 6th stage: Clicking 'Start the questionnaire'.* After reading the introductory page, participants may decide to look at the questionnaire and eventually begin to complete it.
- 7th stage: Completion of the questionnaire.* Those who begin to answer the questionnaire may complete only part of it and then quit (drop-

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outs or partial respondents), or may answer the whole questionnaire (complete respondents)².

Non-observation of targeted units (i.e., dropping-out of the survey process) - either because of sampling, non-coverage or non-response - can occur at any of these stages. This can be contributed to social-technological environment, survey design and characteristics of the participants (Lozar Manfreda, 2001; Vehovar et al., 2002). The study described below allows us to study the characteristics of the participants and their influence on the participation in Web surveys.

DATA DESCRIPTION

Participants in this study were pre-recruited by two telephone surveys from a probability sample of Slovene households over a period of three weeks in June and July 2001. The first survey was a survey on the use of ICT among the general population (10 to 75 years). The 'last birthday' method was used for the selection of respondents within an individual household. Respondents who claimed to be Internet users were asked to reveal their email address for the purpose of a Web survey. Confidentiality was assured as well as the promise that the email address would be used only once. From responding Internet users, 140 email addresses were collected. We named this sample the 'probability sample', since Internet users were selected using a probability-sampling method.

For the second survey screening a probability sample of Slovenian households was performed. The interviewer asked to talk to the person within the household who is the most frequent Internet user. This person was then asked for his/her email address as well as some additional questions in order to collect background information. As in the above case, the confidentiality and the promise of using the address only once was assured. In this way 208 email addresses were collected. We named this sample the 'screened sample', since probability sampling was used only to select households; however convenient sampling was used to select respondents within an individual household. This resulted in the presence of more intensive Internet users in the screened sample.

Altogether, 348 email addresses were collected from responding Internet users in the telephone surveys. When we analyzed the participation in the stages before sending out email invitations, we used only the probability sample. The screened sample is added to the probability sample for the stages from sending out email invitations to questionnaire completion. As will later be demonstrated, from that point on the differences in response for the two samples were minimal; therefore we analyzed them as one group.

Few days after the completion of the telephone surveys, 348 email invitations to the Web survey were sent. In the email message, participants were given the URL address of the Web questionnaire, which included their identification number. Two follow-up email messages were sent to non-respondents.

² There are other possible behavioral patterns during the questionnaire completion that can be applied to studies of individuals (Bosnjak et al., 2001) or to establishment surveys (Biffignandi and Pratesi, 2002). However, the software used in our case allows us to study only complete and partial respondents.

The Web questionnaire was implemented within the RIS – Research on Internet in Slovenia project (www.ris.org), conducted at the University of Ljubljana. It consisted of one compulsory module with basic questions regarding Internet usage and 13 optional modules from different areas. 113 responses (32 partial and 81 complete) were obtained before the first follow-up, 25 (8 partial and 17 complete) before the second follow-up, and 40 (11 partial and 29 complete) after the second follow-up, resulting in a total of 178 responses (51 partial and 127 complete).

RESPONSE FLOW

In this particular telephone pre-recruited Web survey aimed at the general population of Internet users seven stages of the survey process (as described above) can be identified. The response for each stage is presented in Table 1.

The response rate for the pre-recruitment telephone survey among the general population (the probability sample) was 46% (% of responses among household telephone numbers). 33% of telephone respondents claimed to use the Internet. Most of the Internet users also used email (85% of responding Internet users); however only half of them (55%) revealed their email addresses. The *pre-recruitment co-operation rate* (percentage of participants revealing their email address for research purposes among all email users contacted in the telephone survey) is therefore 55%. Most of those who did not reveal their email address, explicitly refused to do that (73%); others claimed not to know it (14%) or not to have their own email address (13%).

16% of the sent email messages with the invitation to the Web survey were returned as undeliverable from the probability and 15% from the screened sample (*failure rates* - percentage of undelivered invitations among all invitations sent - of 16% and 15%). 84% of email messages from the probability and 85% from the screened sample were therefore absorbed by the network (*absorption rates* – percentage of absorbed or delivered invitations among all invitations sent - of 84% and 85%).

67% of absorbed units from the probability and 76% of absorbed units from the screened sample also accessed the Web questionnaire. The *click-through rates*, i.e., percentage of those who accessed the Web questionnaire among all sent invitations, are of course somewhat lower, 56% and 65%, respectively. 94% of those who accessed the Web questionnaire from the probability and 96% from the screened sample also clicked 'Start the survey' in order to see at least the first page with the survey questions. For the probability sample, 18% of those who accessed the Web questionnaire did not answer a single question, 24% responded to at least one question but did not reach the final part of the questionnaire, and 58% arrived to the end of the questionnaire. For the screened sample these percentages are 15%, 24%, and 61%, respectively. *Drop-out rates* (percentage of respondents only partially completing the questionnaire among all respondents) are therefore 30% and 28%. *Complete rates* (percentage of complete respondents among all respondents) are 70% and 72%.

Overall completion rates measured as the percentage of complete and partial respondents among all sent invitations are therefore 46% and 55%. *Full completion rates*, referring to complete respondents only, are 32% and 39%. If we assume that all absorbed units are also contacted units, then *overall co-*

operation rates are 55% and 64%, and full co-operation rates 38% and 46%.

Taking into account also the pre-recruitment stage, the final response rate is rather low: 21% of all contacted Internet users

		Probability sample	% among responding Internet users	Screened sample
Telephone survey	General population	Sampled household telephone numbers	1963	
		Respondents	903	
	Internet users	Internet users	300	100%
		Email users	256	85%
Web survey	Web survey participants	Giving "usable" email address	140	47%
		Absorbed email messages	117	39%
		Accessing Web questionnaire	78	26%
		Click "Start"	73	24%
	Complete respondents	Answering at least one survey question	64	21%
		Completing questionnaire	45	15%

Table 1. Response for different stages of the telephone pre-recruited RIS Web survey

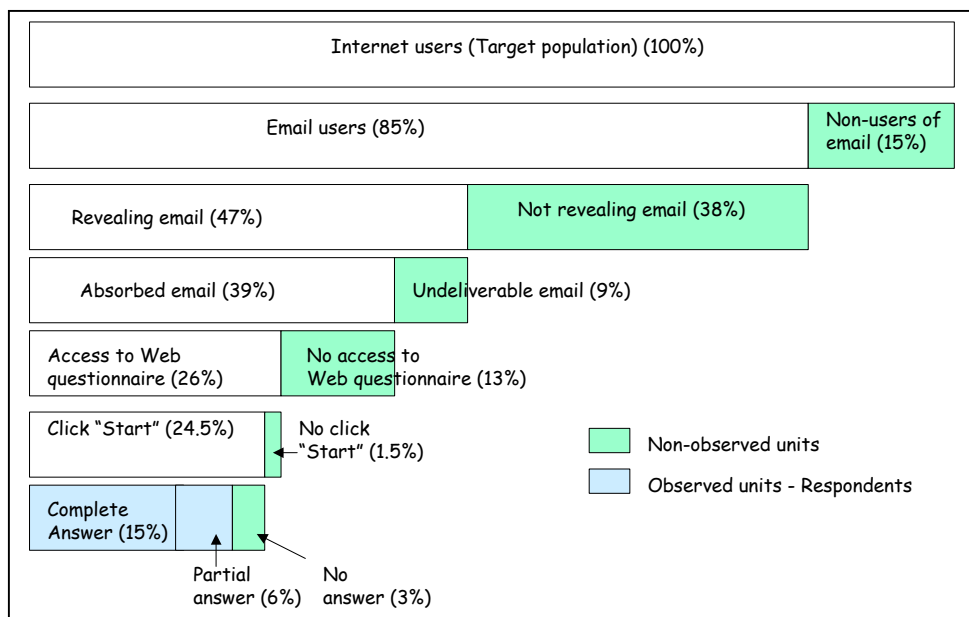


Figure 2. Groups of participants and non-participants in the RIS survey (% among all Internet users from the telephone survey on the presented probability sample)

the Internet (home, work, school/faculty), type of Internet connection.

- Characteristics of *Internet usage*: frequency of use; the year of beginning Internet use; purposes of Internet use.
- *Problems with Internet*: slow downloading, spam, data security, costs.
- *Attitudes towards surveys*: agreement with the statements "Surveys are useful for the society in general", "Email solicitation to Internet surveys is appropriate", previous participation in Web surveys.

For the first two stages only data from the probability sample are available. For all the other stages, data from the probability and the screened sample are merged.

The comparison of a particular category of participants across the stages offers us an insight into the involvement of that category in the Web survey process. These bivariate comparisons actually suggested that different characteristics

in the telephone survey participated also in the Web survey. If we include non-response for the telephone survey (46% response rate), the final response rate is only 10% (or even 7% if only complete respondents are taken into account).

Such a high level of missing data requires additional analysis of influencing factors, as performed in the following sections.

Figure 1 presents the final output categories (groups of participants and non-participants) of this particular survey process. Only the data from the probability sample are presented here. As has already been shown, the drop-out rate from this process is significant. Non-observation occurs especially at the pre-

recruitment stage when email users are asked to reveal their email addresses. Later, non-response quite often occurs at the questionnaire retrieval stage, when units with absorbed email are supposed to access the Web questionnaire.

MODELING PARTICIPATION

The data collected with the telephone survey at the pre-recruitment stage of the Web survey allows the study of participants' characteristics at different stages of the Web survey process. The following variables were collected:

- A set of standard *social demographic* variables (gender, education, age) plus frequency of computer magazine reading and fluency in English.
- *Technical equipments*: Web enabled email software, place from where they access the

of participants influenced participation at different stages. They also suggested that there were some interactions between the characteristics and that it is actually these interactions and not individual characteristics that influence participation. Therefore, multivariate analyses of the participants' characteristics were performed.

In these analyses we modeled the outcome rates for all individual stages of the Web survey process. We defined the stages in such a way that two output categories were present at each stage. We then used the binary logistic regression analysis. The outcome at each stage was coded as 1 for participation and 0 for non-participation. Participation actually represents a successful outcome, resulting in moving the unit to the next stage. Non-participation means unsuccessful output, i.e. the drop-out of the unit from the survey process at that stage. A binary

logistic regression model was fitted for each of the stages and the best predictor variables were sought. In deciding on the best-fitted model, we relied upon the Hosmer and Lemeshow goodness-of-fit test, the Model chi-square test, and the percentage of explained variance (Nagelkerke pseudo R^2). The significance of individual independent variables was tested using the Wald statistics. The odds for the outcome category of interest were obtained from the exponential value of the B coefficient (Exp(B)) (SPSS inc., 1999: 7-14). The best-fitted binary logistic regression models for each stage are presented in Appendix 1.

Email use

The stage of the Web survey process when Internet users interviewed in the telephone pre-recruitment survey are asked if they use email is modeled here. Non-participation at this stage refers to coverage error: those Internet users who do not use email are not covered in the prepared frame. At this stage, email users are coded as 1 – they successfully pass to the following stage of the process. Email non-users are coded as 0 - they represent units who drop out of the process at this stage. After running the binary logistic regression, the following significant influences on email usage could be observed: the odds of using email were increased by education, frequency of Internet usage in general and usage for fun and business, while odds were lower for those who said that costs limited their Internet usage.

Revealing email address

The next stage (still occurring during telephone pre-recruitment) refers to the stage when email users are asked to reveal their email address. Non-response error is of concern here. Only email users are taken into account at this stage. The outcome values at this stage are 1 for those who reveal their email address and in this way successfully pass to the next stage, and 0 for those who do not reveal it and therefore drop out of the process. It turned out that the following variables significantly influenced the willingness of email users to reveal their email address: the odds of revealing email were larger for younger, more educated, accessing the Internet from home, more frequently using the Internet and agreeing more with the statement that email invitations to Internet surveys were appropriate.

Absorption of email address

The next stage is sending out email invitations. Those whose email address is absorbed by the network, successfully pass to the following stage (value 1). Those whose email invitation is returned undeliverable, drop out of the process at this stage (value 0). Reasons for undeliverable email are unfortunately not known in this case. Emails could be undeliverable on account of temporary network problems in the domain of the email address, or because of the incompetence of interviewers in correctly writing down the revealed email addresses. In addition, survey participants

themselves could also reveal wrong email address, whether by purpose or mistakenly owing to not exactly knowing their email address. At this stage we can merely speculate as regards these reasons. The only available predicting variables are the characteristics of respondents as measured during the telephone pre-recruitment. These are probably not the only reasons for undeliverable emails, as evident from the best-fitted model that explains only 20% of the variance. Nevertheless, the odds of an email invitation being absorbed by the network were larger for those email users revealing their email address who were younger, had university education, mainly accessed the Internet from home, and used Web enabled email software. On the other hand, the odds were lower for more frequent Internet users and for those who thought that surveys were useful for society.

Access to Web questionnaire

If we assume that units whose email address were absorbed by the network are also the contacted units, then the next stage refers to the access to the Web questionnaire among the contacted units. Those who access the questionnaire are coded as 1 and successfully pass to the next stage. Those who never access the questionnaire are coded as 0 and represent drop-outs from the survey process.

Despite the low percentage of explained variance in the regression model also in this case, several variables significantly influenced access to the Web questionnaire once the participants received email invitations. The odds for accessing the questionnaire were larger for those with higher education, using a Web enabled browser, having unlimited access to the Internet (local network or leased line) and more often using the Internet for fun. Technical equipment also played an important role at this stage. Those who could simply click the URL address of the questionnaire in the email invitation in order to be automatically transferred to the questionnaire within the Web browser were more likely to access the Web questionnaire. Similarly, those who mainly used unlimited access to the Internet were more likely to access the questionnaire. Access to the questionnaire was less likely for those who reported that Internet costs limited their usage, suggesting that actual costs are not irrelevant for respondents in Web surveys.

Reaching the final part of Web questionnaire

Our study does not allow to model the likelihood of clicking 'Start the survey' after the Web questionnaire is accessed nor to model those who at least partially answer the questionnaire due to the small number of these participants. The drop-outs at these two stages were small and therefore special modeling was not even necessary. However, it is necessary in order to explain who reached the final part of the questionnaire among those who started answering since the drop-out rate at this stage was significant (29%).

Here, the output value is coded as 1 for those who come to the final part of the questionnaire and 0 for those who prematurely abandon it. It turned out that among those who started to answer the Web questionnaire, those who were older and most often used the Internet for business were also more likely to complete the questionnaire. On the other hand, those who more frequently used the Internet, also previously participated in Internet surveys and agreed more with the statement that survey research was useful for society were less likely to get to the final part of the questionnaire. Perhaps these participants who had more experience were actually disappointed by the questionnaire (whether by its content, length or design), and therefore were more likely to abandon it prematurely.

OVERVIEW AND DISCUSSION

In this paper the stages of the survey process, outcome categories and factors influencing participation were described with an empirical example of a special type of Web surveys, i.e., a telephone pre-recruited Web survey aimed at the general population of Internet users. We showed that several distinct stages can be defined and several outcome rates calculated. In this particular Web survey, non-observation occurred especially during the pre-recruitment telephone survey and at the Web questionnaire retrieval. Reasons for (non)participation were sought by modeling the outcome at individual stages using binary logistic regression models. Although the predictive values of the models were rather limited, they revealed several important influences on analyzed outcomes. Unfortunately, the described research design allowed us to study only the respondents' characteristics as the predictors of participation. Different research designs (for example, including experiments on survey design, or international participants) would be appropriate for studying also the impact of survey design characteristics or social and technological environment.

Although the presented study is limited to the participation process only in a probability-based Web survey with telephone pre-recruitment of participants, we believe that the results can be applicable also to Web surveys of self-selected and opt-in panels of users, and to all other Web surveys using email invitations.

APPENDIX 1

Binary logistic regression model for email use

Variables in the Equation

	B	S.E.	Wald	df	Sig.	Exp(B)	95,0% C.I. for EXP(B)	
							Lower	Upper
^a Education			9,783	2	,008			
Secondary school (1)	1,147	,541	4,504	1	,034	3,149	1,092	9,085
University (2)	2,470	,794	9,669	1	,002	11,817	2,492	56,042
Frequency of Internet usage	,908	,244	13,809	1	,000	2,480	1,536	4,003
'Costs limit my Internet use'	-,377	,151	6,200	1	,013	,686	,510	,923
Use of Internet for fun	,804	,294	7,474	1	,006	2,235	1,256	3,979
Use of Internet for business	,568	,276	4,224	1	,040	1,765	1,027	3,035
Constant	-3,844	1,087	12,502	1	,000	,021		

a. Variable(s) entered on step 1: X3_1, U04_1, U03D, U11A, U11B.

REFERENCES

- Biffignandi S. and Pratesi M. (2000): "Modelling firm response and contact probabilities in Web Surveys". Proceedings from the International Conference on Establishment Surveys, Buffalo, June 2000.
- Biffignandi S. and Pratesi M. (2002), "Modelling the respondent's profile in a Web survey on firms in Italy". Metodoloski zvezki, 18.
- Bosnjak, M. et al. (2001): "Participation in Web surveys - A typology". ZUMA Nachrichten 48, pp. 7-17.
- Deutschmann, M. and Faulbaum, F. (2001): "The recruitment of online samples by CATI-screening: Problems of non-response". In: A. Westlake et al. (Eds.): The challenge of the Internet. London: ASC.
- Groves, R.M. and Couper, M.P. (1998): Nonresponse in household interview surveys. New York: Wiley.
- Jeavons, A. (1999): "Ethology and the Web. Observing respondent behaviour in Web surveys". Proceedings of the ESOMAR Worldwide Internet Conference Net Effects. London, February 1999, pp. 201-213.
- Krotki, K.P. (2001): "Web-based surveys for a nationally representative sample". Paper presented at JSM 2001, Atlanta, August 2001.
- Laiho, J. and Lynn, P. (1999): "Separating out the stages of the survey participation process". Paper presented at AAPOR Annual Conference, Portland, May 2000.
- Lozar Manfreda, K. (2001): Web survey errors. Doctoral dissertation. Ljubljana: University of Ljubljana.
- SPSS Inc. (1999): "Advanced topics: Regression (SPSS 9.0)". Tutorial of the SPSS 9.0 software package. Chicago: SPSS Inc.
- Vehovar, V. et al. (2002): "Nonresponse in Web surveys". In: R.M. Groves et al. (Eds.): Survey nonresponse. New York: Wiley, pp. 229-242.
- WebSM (1999-2002): Web Survey Methodology Web site. Faculty of Social Sciences, University of Ljubljana. www.websm.org (10/08/2002).
- Wiebe, E.F. et al. (2001): "Evaluating nonresponse in a Web-enabled survey on health and aging". Paper presented at AAPOR Annual Conference, Montreal, May 2001.

Chi-square 70,108 p<0.0005
 Nagelkerke R Square 0,412
 Hosmer and Lemeshow Test: Chi-square 5,777, p=0,672
 % of correctly predicted values: 88%
 (96% for correctly predicted email use)

Binary logistic regression model for revealing email address

Variables in the Equation

	B	S.E.	Wald	df	Sig.	Exp(B)	95,0% C.I. for EXP(B)	
							Lower	Upper
^a Age	-,051	,015	11,735	1	,001	,950	,923	,978
Access to Internet from home	,642	,333	3,706	1	,054	1,900	,988	3,652
Frequency of Internet usage	,575	,149	14,832	1	,000	1,777	1,326	2,382
'Sending email invitations to Internet surveys is OK'	,265	,121	4,804	1	,028	1,304	1,028	1,653
University education	,827	,347	5,688	1	,017	2,287	1,159	4,513
Constant	-1,727	,812	4,525	1	,033	,178		

Chi-square 38,928 p<0.0005
 Nagelkerke R Square 0,212
 Hosmer and Lemeshow Test: Chi-square 10,383, p=0,239
 % of correctly predicted values: 69%
 (78% for correctly predicted revealing email address)

a. Variable(s) entered on step 1: STAROST, U08_2, U04_1, U03F, X3_2.

Binary logistic regression model for absorption of email

Variables in the Equation

	B	S.E.	Wald	df	Sig.	Exp(B)	95,0% C.I. for EXP(B)	
							Lower	Upper
^a Age	-,036	,018	3,992	1	,046	,964	,930	,999
Access to Internet from home	,696	,397	3,071	1	,080	2,006	,921	4,368
Frequency of Internet usage	-,422	,215	3,854	1	,050	,655	,430	,999
University education	,954	,434	4,832	1	,028	2,597	1,109	6,079
Web enabled email software	1,278	,372	11,783	1	,001	3,589	1,730	7,444
'Surveys are useful for society'	-,455	,206	4,879	1	,027	,635	,424	,950
Constant	5,150	1,322	15,173	1	,000	172,478		

Chi-square 35,529 p<0.0005
 Nagelkerke R Square 0,202
 Hosmer and Lemeshow Test: Chi-square 3,169, p=0,923
 % of correctly predicted values: 86%
 (98% for correctly predicted revealing email address)

a. Variable(s) entered on step 1: STAROST, U08_2, U04_1, X3_2, R08_1, U03G.

Binary logistic regression model for access to introductory page

Variables in the Equation

	B	S.E.	Wald	df	Sig.	Exp(B)
^a Web enabled email browser	1,075	,320	11,294	1	,001	2,930
Education			6,495	2	,039	
Secondary school	1,127	,458	6,061	1	,014	3,087
University	1,209	,545	4,918	1	,027	3,350
Use of Internet for fun	,402	,220	3,331	1	,068	1,494
Unlimited access (cable, leased line)	,814	,421	3,739	1	,053	2,257
'Internet costs limit my use'	-,084	,110	,583	1	,445	,920
Constant	-1,464	,906	2,613	1	,106	,231

Chi-square 31,792 p<0.0005
 Nagelkerke R Square 0,185
 Hosmer and Lemeshow Test: Chi-square 8,542, p=0,382
 % of correctly predicted values: 75%
 (95% for correctly predicted access to introductory page)

a. Variable(s) entered on step 1: R08_1, X3_1, U11A, U08A_2, U03D.

Binary logistic regression model for reaching end of questionnaire

Variables in the Equation

	B	S.E.	Wald	df	Sig.	Exp(B)	95,0% C.I. for EXP(B)	
							Lower	Upper
^a Age	,062	,033	3,384	1	,066	1,063	,996	1,136
Frequency of Internet usage	-,887	,345	6,611	1	,010	,412	,209	,810
Previously participated in Internet surveys	-1,161	,516	5,056	1	,025	,313	,114	,862
'survey research is useful for society'	-,653	,304	4,616	1	,032	,521	,287	,944
Use of Internet for business	,985	,333	8,744	1	,003	2,679	1,394	5,148
Constant	4,110	1,809	5,164	1	,023	60,926		

Chi-square 31,979 p<0.0005
 Nagelkerke R Square 0,359
 Hosmer and Lemeshow Test: Chi-square 1,783, p=0,987
 % of correctly predicted values: 80%
 (90% for correctly predicted reach of the final part)

a. Variable(s) entered on step 1: STAROST, U04_1, ANK4, U03G, U11B.