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Task Force on Improvement of Response Rates and Minimisation of Respondent Load

**Appendix: Summary of papers received on: Relationship between
response rates and data collection methods**

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European Commission / OECD Working Group on Business Tendency and Consumer Opinion Surveys:

Taskforce on “Improvement of Response Rates and Minimisation of Respondent Load”

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American Association for Public Opinion Research (2004) *Standard Definitions: Final Dispositions of Case Codes and Outcome Rates for Surveys. 3rd edition.* Lenexa, Kansas: AAPOR

A booklet with the aim of proposing a standardised set of final disposition codes to be used in all surveys. These codes (standardized measures) are to be used in the definition and calculation of various outcome rates such as response rates.

Only personal (household) surveys are considered, more specifically three kinds of them: Random-digit dial telephone interviews; in-person household surveys and mail surveys of specifically named persons.

The AAPOR Council stressed the importance for survey researchers to disclose all their methods and that there is no single number or measure that reflects total survey quality and all elements should be used to evaluate survey research.

Comparisons between different surveys are correctly performed only if all surveys use the same disposition codes, the same formulas for calculating RR and have similar survey designs.

American Association for Public Opinion Research (2004) *Standard Best practices for Survey and Public Opinion Research*

Synthetic notes, available on line, on the main principles (12) that are to be considered to increase quality when carrying out a survey. It is focused on household (personal) interviews. Firstly the general suggestion (of the Section on Survey Research Methods of the American Statistical Association) is reminded: “the quality of a survey is best judged not by its size, scope, or prominence, but by how much attention is given to (preventing, measuring, and) dealing with the many important problems that can arise at any point in the survey process conceptualization, organisation, sampling, questionnaire design, data collection, data processing, and analysis”.

Point are synthesised as follows:

1. Have specific goals for the survey;
2. Consider alternatives to using a survey to collect information;
3. Select samples that well represent the population to be studied;
4. Use design that balance costs with errors;
5. Take great care in matching question wording to the concepts being measured and the population studied;
6. Pre-test questionnaires and procedures to identify problems prior to the survey;
7. Train interviewers carefully on interviewing techniques and the subject matter of the survey;
8. Construct quality checks for each stage of the survey;
9. Maximize cooperation or response rates within the limits of ethical treatment of human subjects;
10. Use statistical analytic and reporting techniques appropriate to the data collected;
11. Carefully develop and fulfil pledges of confidentiality given to respondents;
12. Disclose all method of the survey to permit evaluation and replication.

Referring to point 9, of major interest the note stress the importance of: a) careful sample management (to avoid distortions in the results due to failing coverage in some parts); b) training of interviewers (they should be able to deal with respondents' problems, reluctance to cooperate, etc.); c) stimulation of survey cooperation (reminders, follow-up, etc.).

Arnould Marie-Laure, (2005), « Etude des réponses par internet de l'enquête de conjoncture dans le commerce de gros », INSEE, n.86/G122, avril 2005.

The paper analyses the on-line responses for the wholesale trade survey since the opening of the Web data collection mode.

The on-line is featured by a lower item non response in comparison to the mail mode.

Large firms use more internet data collection than smaller ones.

No bias has been noted since the opening of this new data collection mode. It is worth noticing that balances calculated for Web responding firms are higher than balances calculated for Mail responding ones, but this is explained by the fact that firms responding today by Web still previously, when they used the postal mode, had more favourable judgment.

Berté Samuel, (2005), “Etude de l’impact de l’attribution récente du statut d’enquête obligatoire à des enquêtes de conjoncture », INSEE, n.138/G120, Juin 2005

The paper focuses on the effects on Manufacturing and Services survey of recent introduction (since January 2004) of compulsion in all French BTS. For Investment see the other specific note (Ferrari, 2004)

Main findings are:

Compulsion improved the RR, both in Manufacturing and Services. Mainly the weighted RR showed a marked improvement as the new mandatory nature of BTS has shown to be effective in convincing large firms to participate (energy sector).

Compulsion also increased the participation over time . Compulsion brought more than one third of previously non responding firms to participate regularly.

Compulsion increased also the item response rate : for services between 4 and 21% (depending of different questions) and for manufacturing between 19 and 25%.

Since compulsion, the rate of “stable” reply option increased slightly, without notable effect, except for the question on orders (general and foreign) of the Manufacturing survey.

Dillman D.A., Phelps G., Tortora R., Swift K., Kohrell J., Berck J., (2001): “Response Rate and Measurement Differences in Mixed Mode Surveys Using Mail, Telephone, Interactive voice Response and the Internet”, Paper presented at 2001 AAPOR Annual Conference, Montreal, Quebec, Canada, May 17-20

The paper examines the potential for improving response rates by changing from one mode of data collection to another along with the consequences for measurement and non response errors in a households’ sample. As mail and phone modes are well known and consolidated methods, the paper mainly focuses on two new modes (Interactive Voice Responses -IVR and Web). Experiments were carried subdividing the sample in subsets giving to each of them a two steps treatment of different collection mode.

The use of mixed mode contemporaneously does not improve the RR (although some respondents changed their mode of response), while in contrast a sequential strategy does substantially improve the RR. However, implementing a second survey mode is costly.

Three aspects appear to contribute to the occurrence of mode differences:

1. Presence/absence of an interviewer;
Presence of an interviewer encourages respondent to give (more socially desirable) answers that put them into a favourable light as defined by the culture that the interviewer is assumed to represent. Respondents to interviewer are more likely to express agreement in response to questions, than are respondents to mail questionnaires (social acquiescence).
2. Use of aural/visual communication;
Primacy effect (choice of characteristic early in the list written, visual) vs. recency effect (choice of last categories when read by interviewer).
3. Whether control of the question stimulus is by interviewer or by respondent

Features of different response modes: Results of web mode are similar to those of mail mode, while IVR are more similar to telephone mode. Mail and web respondent will make greater use of unlabelled middle categories than will telephone respondents. IVR respondents (though more like telephone than mail or web respondents) will be intermediate in their use of extreme categories. Respondents to telephone interview surveys are more likely than respondent to mail survey to select an extreme response.

But the overall mode differences between mail (and Web) and telephone cannot be accounted for by recency hypothesis: more probably differences arises from the fact that

mail version has all responses choices visually presented to respondent while aural methods didn't.

Experimental results showed that response rates were increased substantially by switching to a second mode of data collection for those who haven't participate in a first time. The combination of mail and telephone (in two steps) perform similarly, 80-83% overall response, regardless of which method is used first and which comes second, thus confirming strongly the value of using one mode as a means of improving response to the other mode. Non responding households have significantly lower education. None of the modes appeared to be successful in obtaining responses commensurate with the lower education levels reported for the sample frame.

Mixed mode strategy can increase response rates substantially (particularly when RR to the first mode is very low), but may also introduce measurement differences issues that cannot be ignored. If surveys were conducted with the goal of measuring changes over time (if one's intent is to measure change), switching modes could have major consequences for measures of satisfaction (leads to different results).

The high RR to the mail questionnaire may be attributed to: shortness of the survey (18 questions); presentation is a visually attractive questionnaire; inclusion of a little monetary incentive (2\$); salience of the topic. However the success of the second mode in reducing non-response error (analysing demographic characteristics) appears to be small. Mode effects are also likely to vary by type of question. Demographic questions are not influenced, while opinions are, where respondents are less likely to have performed answers (as they have for age, education,...). Non respondents tend to be less educated, female, younger.

Suggestions for increasing RR:

Not clear the effects of the new method IVR ((interactive response voice).

In phone mode use of scales with only the end points labelled (unlabelled categories) would seem to decrease the likelihood of primacy and recency effects in comparison to mail respondents. Web questionnaires should be similar to mail ones (both have visual stimulus). Web should have similarity with mail, where the visual presence of labels on a paper questionnaire pull respondents even more strongly to the intermediate categories than do unlabelled categories.

Etter, Richard, (2002) “Do response rates and responses differ between Mail and Internet Answers in a Mixed Mode Survey?” , KOF , Zurich, presented at 26th Cirt Conference, Taipei, October

The paper deals with the addition (not substitution) of Internet collecting technique in addition to the usual mail mode in the BTS surveys. The comparisons of this mixed mode survey are presented, focusing on response rates (unit and item RR), as well as on the quality of the responses.

Offering a mixed mode data collection is costly. An additional mode could therefore be introduced only if advantages are expected, like improvement in RR, saving time in collecting data, lowering of costs. As Internet mode allows both, saving time and a reduction of costs (after the introductive phase), a limited reduction in the unit response rate will be offset by the other two advantages.

Main results are:

The firms are free to choose the Survey mode (mail/internet): this imply a different sample structure and some limits in analysis. 28% (with an upward trend) participated in 2001 by Internet. Confirm the literature: Internet surveys produce a lower response rate (unit non-responses).

in manufacturing 60.6% by internet; 67.9% by mail;
in construction 51.7% by internet; 74.5% by mail;
in retail trade 52.2% by internet; 59.3% by mail;
in hotel+catering 56.5% by internet; 61.6% by mail;
in architects+eng. 53.9% by internet; 77.1% by mail;

Need to improve the reminders.

But comparing the results of the two mode (mail and internet):

No significant difference also detailing by sectors, regions, size and export-oriented production. A reference (Kaiser, 2001) reported instead a lower response rate for small size firms and higher for software related firms.

No significant difference also referring to quality, as the selection of response category (reply options) does not significantly change, at least for total manufacturing, between the two modes.

Differences of the modes affect the item non-responses only marginally (very low for both, slightly higher for mail). Differences between sectors are however present, in both modes. They are mainly due to the harmonised questionnaire, because not all questions suit all firms (firm specific effect).

No significant differences also in the mean of balances of manufacturing (thirteen out of fifteen questions).

Analysis of means of balances (t-test) has led to no significant differences between the two mode surveys.

Ferrari Nicolas, (2004),« Bilan du caractère dorénavant obligatoire de l'enquête sur les investissements dans l'industrie », INSEE, n.167/G121, décembre 2004

The note deals with the Investments survey, but some information can be extended to other surveys.

Since January 2004 all INSEE BTS have become compulsory.

Regarding investments the paper presents some comparisons between previous answers (not compulsory) and the new ones (compulsory).

Main conclusion :

As aggregated results, the compulsion in replying does not change significantly the quality of answers.

The item response rate has increased, mainly the weighted one (more large firms).

The positive effect is more evident in the less covered strata

The unit response rate has little deteriorated, mainly in the new-entries (they are not experienced), for expectations (more difficult to answer).

Some large firms mainly in the Energy (to a lesser extent also in the motor vehicles) sector have joined the survey improving substantially the sectoral coverage.

No relevant difference within the other sectors

The quality of responses :

(measured specifically for each question, indications of low quality are to many unique replay option for destination of investment and miscalculation of percentages of the investment destination: summing differs from 100) has little increased (may be a temporary effect). Comparisons of “stationary” reply options for the investment trend has not led to significant differences. Not possible to quantify the accuracy for the quantitative answer (amount of investment) . Two criteria explained (Analysed at micro level).

Production capacity has improved, but it seemed to be a long term trend.

Kershoff, George(2005), “*Business Surveys in South Africa*”, Bureau of Economic Research, Stellenbosch University, South Africa, March

The paper present the surveys carried out in South Africa by BER: BTS (according to harmonised methodology), Consumer (Michigan meth.), PMI (ISM Institute), Financial and Services according (CBI), inflation expectations (quantitative on both Business and Consumers) according to New Zealand one. (also an yearly AIDS/Hiv survey).

Sectoral and territorial breakdown for Manufacturing ,Trade, Services is available; the frequency is quarterly (PMI monthly); the data collection method is mail. The main advantage of this method is the low costs as plenty of low cost/skilled personnel are available. Web-collection seems to be not so advisable: even direct costs would strongly decrease, there is scarcity of skilled personnel. Further there is no reasonable assumption that the high present response rate will increase or at least remain constant. (Also financial sectors prefer mail)

Response rate of about 40% on average of all surveys . It is considered high according to: There is no possibility of reference to universe (no reliable registers are available)

Steady (constant) over the time. For manufacturing, trade and construction plenty of questionnaires are sent with the aim to receive back a satisfactory number of responses. For financial services few questionnaires to nearly all the few firm existing (like a Census survey).

“Follow up routines” does not properly exist, attention on correlation between historic results and official data (but it is not so clear if they actually fit)

Aim in maintaining the same respondent over the time (panel)

Factors influencing (lowering) the response rates:

Retirement/moving of the contact person (failing to inform BER)

Discontinuity/merging of the company

Unsatisfactory business conditions

Length and (high) frequency of the questionnaire do not clearly affect the response rate.

Flattening of the management structure in large companies (now the intermediate position which used to fill the questionnaire has reduced, while top management has no time).

Higher response rate for firms operating nationally compared to those that have local focus (may be because they find the results more useful and are more motivated in participating ; recent developments in 2004 however do not support this generalisation).

High costs of new recruitments (new firms) only 10% (in manufacturing) 6% (retail) 4% (construction) join the survey.

Measures for maintaining the response rate

Drop firms that are non responding during the previous two years.

Recruitment of new firms sending them a letter (explaining the aim of survey and assuring privacy), brochure of Institute and sending summary results.

Offering different choices of answering (Web).

Latvian Statistical Institute (LSI), (2005), “*Relationship between response rates and data collection methods in Latvia*”, Technical note, Brief note, prepared for the taskforce, explaining the data collection in Latvia.

Questionnaires are sent by mail, they are however mainly returned (65-93%) by fax. 1-2% respond by e-mail. Phone in used for supporting new firms in joining the survey.

The RR in the first wave (without reminders) ranges from 60-65% (retail trade and services), 65-70% (Industry) to 75-79% for constructions. Reminders, including questionnaires, are sent by fax; the final RR stabilises, on average, from 69% to 93% (depending on sectors). No relevant differences in RR depending on firms' size.

RR have improved according to:

Inclusion of BTS in the official statistical State Program;

Cooperation with the Central Statistical Bureau for data collection;

Care in preparing the questionnaire: LSI logo, reference to the EU Harmonised Program, guarantees of confidentiality of individual data,

lack of bureaucracy in the reception of data;

sending of summary results of previous period.

Laubscher, Pieter (2005) “ Business Survey in South Africa: testing the ground for Internet- based Surveys keeping the impact on Response Rates in mind”, paper prepared for the Joint EC-OECD/COS Taskforce on “Improvement of Response Rates and Minimisation of Respondent Load, **Bureau of Economic Research (BER)**, Stellenbosch University, South Africa, May

The paper firstly offers an overview of the BTS currently carried out in South Africa, enlarging and complementing that proposed by Kershoff (2005), reminding that up to now the data are mainly collected by mail (about 90%) and to a lesser extent by fax and e-mail.

The core of the paper is represented by the findings of a recent “special” survey conducted with the aim to investigate the potentials of Internet as mode for conducting surveys.

The main results are the followings: even about 80% of firms states to have an Internet connection, only 28% (on average) are interested in this mode of data collection.

Results are higher for large firms, and for “quantity surveyors” (part of building sector) and manufacturing. Small firms and retail seem less favourable.

Two main reasons are discussed: the dial-up connection (about half of the firms have this kind of connection instead of the LAN), which has many drawbacks and the so called “habit persistence”, that is the desire of maintaining the old consolidated method of communication (mail).

Internet collection mode should therefore be implemented in the future, but only gradually and maintaining a mixed mode of data collection.

Linn, Peter and Sala, Emanuela (August 2004) “The Contact and Response Process in Business Surveys: Lessons from a Multimode survey of Employers in the UK” *Working Paper of the Institute for Social and Economic Research*, paper 2004-12 . Colchester: University of Essex

The paper deals with a multimode business survey, in particular analysing the nature and number of contacts made with sample business and their outcomes.

Main conclusion are that respectable RR and response quality can be achieved but this requires considerable effort and a flexible approach to contact and response, allowing the preference and requirements of respondent (employing organisation) to dictate the methods used by the survey organisation.

The survey was designed as a multi mode survey, with a postal stage followed by a telephone follow up of non respondents, with a view to maximising response rate for minimum cost.

“The main suggestion for organizations without governmental mandatory authority are therefore to send business survey to named individuals and to use telephone follow-up methods to encourage response or obtain the needed data (Paxon et al. “Improving response to business mail surveys” in Cox, B. et al. (ed.s), Business survey methods, John Wiley and Sons, New York)

The employers survey collected about 62% (of responses comprising refusals) in the first phase (postal, with two reminders) and another 10% after phone calls.

The telephone turned out to be a useful means to get in touch with employers, and perhaps also to persuade them to cooperate, but it was less useful as a mode for data collection. (one third completed the questionnaire by phone, 40% by post after the phone call, 25% by fax, upon specific request of the interviewed).

It has been necessary to make more contacts attempts (on average 7.8) to each sample member, mainly by phone.

It has been found no evidence that employers who are more difficult to contact are more or less reluctant than others to co-operate once contacted. This is encouraging evidence that can be used to motivate interviewers who may be sceptical of the merits of continuing to make contact attempts with sample members after many attempts have already been made.

Way of communication (contact) chosen directly by the interviewed: 43% of the employers asked the questionnaire to be faxed (almost half of them more than once).

No evidence of an association between the way questionnaire was sent (mail/fax) and co-operation rate, nor that a specific request to fax or post the questionnaire is a good indicator of willingness to complete it.

For phone calls, the lunch break and afternoon appear to have been the most productive times for completing interviews.

High rate of contacts (about 72%), with respect to households surveys (about 42%). The contact propensity seems to increase with the number of calls made to an employer (decreasing role of gatekeepers: receptionist, secretaries), compared to a typical decrease in the propensity with increasing number of calls made to a household.

Progression of the contact and response process over calls (from gatekeeper to target respondent in an appropriate time).

Interviewers should be successful at avoiding the acceptance/refusal from persons other than the target respondent.

Questionnaires rather complex with different sections can be completed by different subjects (about 1/3).

Item non responses are higher for quantitative data (pay) referring to some months previously. The balance between response burden and business goals determines the response decision.

Costs

Although the proportional marginal cost of including the telephone stage looks large (a three fold increase in the unit cost: 21.38 vs 5.56 Euro) the absolute marginal cost is relatively small in the context of the entire survey cost (just over 3000 out of a total survey cost of at least 25,000 Euro) including staff costs. A only telephonic survey would have increased significantly costs.

The unit costs for each stage of the survey are similar if the cost of the telephone interviewers is ignored.

Conclusions:

Particular focus on how to maximise co-operation rates for future business surveys.

RR in postal step rather low (51%) increased to 72% after telephone step. As the postal stage greatly reduces the overall costs of the survey, the two stage mixed mode approach used was efficient.

Process of making contact and obtaining cooperation by phone was shown to be rather long and complex. In postal mode may be the same, but hidden from researcher (may be one of the reasons of low RR).

Considerable effort and flexible approach to the telephone stage were required:

make contact with the organisation;

overcome gate keepers;

make contacts with respondents;

persuade them to co-operate;

encourage and allow them to retrieve information that may be held by other persons within the organisation.

Training of the interviewer (detailed knowledge of the project) was essential in order to answer the gatekeeper questions and to overcome the first obstacles. They should be thoroughly versed in the design and objectives of the survey - perhaps more thoroughly than would typically be necessary for a household survey, as business survey respondent represent a particularly informed study population.

Business survey respondent should be allowed to dictate the method used for communication (unexpected high demand of fax transmission).

The researcher should be prepared to offer a range of modes of communication, which may usefully include web, automated telephone methods, electronic data interchange or other electronic data collection modes.

“...minimising non-response and measurement error in business survey requires advance planning and creative data collection approaches” (Cox and Chinnappa (1995, p.10).

The mode effects that relate to households surveys are often likely to be less important for business surveys, where the data tend to be more factual in nature and therefore likely to be less susceptible to the kind of measurements error that can vary between modes.

Documents (permission forms) to overcome confidentiality problems.

Fax systems to communicate with interviewed.

Further analysis of non responses in postal mode and of the process of data collection inside firm is advisable.

Lozar Katja and Vehovar, Vasja (2003?), “*Survey Design Features Influencing Response Rates in Web Survey*”, Faculty of Social Sciences, University of Ljubljana, Slovenia

The paper deals with RR in Web Surveys. It focus on the not-unique definition of RR and on the limited information on RR at individual stages of the survey in which they may occur and the limited description of survey design characteristics that can influence the RR.

The University of Ljubljana has a site (www.websm.org) where relevant information for Web methodology is collected. The paper is based on a Web survey using this site.

In general, Web surveys with general invitations obtain lower outcomes rates (refuse to participate) than those with individual invitations. (74% vs 55% never accessed the web questionnaire). Once accessed, almost all (for both general invited and individual) answered the questionnaire and 83 and 80% did it completely.

The paper describes the rates of participation in all the different stages of the survey design.

In the co-operation at the pre-recruitment stage about 50-60% of contacted units were willing to provide contact information (but in other studies the rate is lower 36%). The rate at this stage may be influenced by the training of interviewer, survey topic, research sponsor, social and technological environment.

Failure rate (percentage of undeliverable invitations among all invitations): higher for e-mail than for postal (on average 6%). Problems in typing correctly the e-mail addresses, showing the quality of the frame. Correlation between the technical experience of the research organization and the failure rate.

Click-through rate (% of accessing the web questionnaire among all invited). On average 48% , higher (75%) for telephone pre-recruited sample, lower (18%) for general invitation. Pre-notice affects positively the rate as well as the subject (in this case marketing survey).

Overall completion rate (% of partial or complete respondent among all sent invitation or exposed to invitation) on average is of 42% (for telephone pre-recruited sample 63-67%). It seems to be positively correlated with individual invitation, survey topic (salience) and length of questionnaire.

Full completion rate (% of complete respondent among all sent invitation or exposed to invitation) on average is of 39%. Differences between overall and full completion rates range from 2 to 8%.

Drop- out rates (partial respondents only, item non responses) on average 16%. Reasons are: length of the questionnaire, loss of interest, getting annoyed. Less important are types of questions (difficult, sensitive) and technical difficulties.

Also are correlated with the drop-out rate:

the target population; presence of open ended (difficult) questions; incentives; survey design (panel has a higher drop-out rate than one-time survey)

Petroni, Rita, Sigman, Richard, Willimack Diane (Census Bureau) Cohen, Steve, Tucker Clyde (Bureau of Labor Statistics), (2004), “Response Rates and Nonresponse in Establishmen Surveys - BLS and Census Bureau”, paper presented at FESAC (Federal Economic Statistic Advisory Committee) on December,1

The paper is an update and extension of the IGEN Group (Interagency Group on Establishment Non response) papers of 1998 -2000 (IGEN98).

It provides a literature review on firms surveys non response, analyses the response measurements of BLS and Census Bureau, the method to encourage response and presents a discussion of non response reduction research of the two agencies.

Literature:

(Christianson and Tortora, 1995): Decline in the half of establishments surveys RR over the decade 1985-1995 . Steady or increasing RR were attributed to increased effort and resources devoted to non-response follow-up, automation, improved pre-notification, reductions in the amount of data collected and other changes to data collection procedures.

Hidiroglou et al. (1993) offer a “conceptual framework for the definition of response and non response that is suitable for both business and social surveys”. They recognize several characteristic unique to business that impact non response in establishments surveys.

Tomaskovic-Devey et al.(1994) reported that several characteristics of businesses not relevant in household surveys affected survey participation. For example some types of establishments were more likely than others to respond (e.g. manufacturing versus retail trade), larger establishments and those in industries with high profits were less likely to respond.

Paxson, Dillman and Tarnai(1995) found that mandatory reporting and telephone follow-ups in establishment surveys did produce high response rates.

(Point 2) The paper points out that in BTS the weighted RR may be more indicative than the un-weighted one. In establishment surveys, a small number of large establishments may account for a major proportion of the population total.

Also this paper outlines the not unique definition of RR. (Return rate vs imputation rate)

There is not a clear trend in response rates for establishment surveys and survey type and design features seem to have more prominent roles in determining response rates than survey period.

(point 2): Attempts to reduce the biasing effects of remaining non-response in establishment surveys by employing post-survey weighting adjustments (post-stratification, raking: these techniques increase the weights of respondents so that they represent the non-respondents) or applying non-weighting adjustments (imputation of a value for non-respondent from other respondent records).

Standardisation of RR even advisable might not be as feasible in establishment surveys as in household surveys.

Census Bureau conducts his surveys primarily by mail with telephone follow up. Their surveys are mandatory and therefore obtain high RR.

BLS use interviewer in the initiation process.

The paper present a detailed review of methods to encourage responses strictly correlated with a mixed mode of data collection.

Sheehan, Kim, (2001), “E-mail Survey Response Rates: A review” School of Journalism and Communication - University of Oregon JCMC 6 (2) January

A complete review of e-mail surveys conducted in the US is presented since the beginning (1986). In the last nineties the RR appears decreasing.

A significant correlation of the RR with the year the survey was carried emerges, thus not so meaningful.

A comparison with postal survey is presented.

E-mail surveys have demonstrated superiority over postal ones in terms of response speed (7.6 days for e-mail vs 11.8 days) and cost efficiency (e-mail surveys cost about from % to 20% of a mail survey).

E-mail can higher the response quality: People tend to provide longer open-ended responses to e-mail than to other type of surveys and the responses tend to be more candid than responses to mail or phone surveys.

Difficulty of obtaining a correct (unbiased) sample frame for e-mail.

Regarding RR e-mail has not consistently outperformed postal mail.

Variables which influences the RR in e-mail surveys are: survey length (mixed results, negative for business oriented studies), pre-notification (even conflicting results, positive and recommended) , follow-ups contacts (increase of 8 up to 48% in the RR) and survey topic salience (strong positive correlation with RR for postal, e-mail and Internet surveys) .

US population is over-surveyed. Problems bounds to unsolicited respondents contacts and to the information overload for people. RR to e-mail surveys seems likely to decrease (in the future).

Suggestion for increasing RR:

Investigating how to solicit potential respondents (e.g. like university affiliation, or by phone) contacts).

Study some kind of compensation. The possibility of receiving a large award is more likely to increase response rates. Further research is required in this field.

But all in all "no other method of collecting survey data ...offers so much potential for so little cost".

The future may not lie in the WWW alone. A study (2000) reports that using multiple modes of survey delivery (postal Internet e-mail) delivered high response rates to a randomly selected sample (of science writers) in presence of a high level of salience.

Stangl, Anna, (2004), "Mode effects on Data Quality. Benefits and Drawback of a Mixed mode Survey", IFO, Muenchen, paper presented at Cirt Conference, Warsaw, September

The paper deals with the WES (IFO World Economic Survey), worldwide survey directed to managers where mail, internet and e-mail techniques are used.

Comparisons are carried out between the different techniques (widely explained).

Conclusions:

The survey mode affects respondents' comprehension of the information and influences responses among an economic elite audience.

In the on-line mode the occurrence of inconsistent answers coincides with higher unit non-responses and lower item non-responses (usually regarded as a quality indicator). May be due to higher inaccuracy and lower perception of responsibility due to the internet environment.

In paper and pencil (mail mode) the chance to notice a mistake is greater.

The paper reports widely on the recent findings in literature.

Changing the layout (between different modes) and the order of questions affects the responses.

The length of questionnaire has a negative influence on the response rate. Risk of loss of context in Internet questionnaire (use of simple and fast questionnaire design is recommended). The general advice is to use an easily recognizable copy of the paper form.

Browsers incompatibility negatively affects the Internet mode.

Strategy for reducing measurement errors (OECD 2003): eliminate/reduce possible causes acting in advance / during the survey design stage and to pilot test questionnaires before starting the survey.

Further: attract respondents' attention by prevention methods (instructions to respondent, to pay attention to wording) and control methods (interactive consistency controls with some drawbacks: frustration, de-responsibilisation of respondent);

Suggestion for Internet questionnaire design: for qualitative answer the question wordings and layout scales are particularly important. A visual solution, distinct from the paper form, may be more promising in the Internet mode with regard to the questionnaire reliability. For

quantitative questions aim in reducing response burden (e.g. the answers given in the previous survey as a reminder).

On-line mode enhances the commitment to the survey because it offers additional opportunities for communication with participants and improves the organiser's corporate image.

Drawback of a mixed mode survey: presence of measurements errors deriving from mode effects

**Statistical Office of the Slovak Republic, (2005), “*Problems of the recoverability of Business Tendency Survey in Industry, Construction, Retail trade and Services*”
Technical note**

The note presents a synthetic but complete view of the BTS in Slovakia.

Surveys are carried out on a voluntary basis, this fact sometimes contribute to lower RR mainly in small firms due to statistical burden.

Surveys are carried out in a mixed mode, that is firms are free to choose the answer mode they prefer (post, fax, PC fax, e-mail). Telephone is mainly used for new contacts.

Low RR are bound to: size (small) of firms (mainly in retail trade and services); firms which are branch of larger firms with headquarters abroad (also in Retail trade); unfavourable firm's economic situation, sample updates (with the related problems of joining new firms).

Firms are given the incentive of a monthly publication of results detailed by branches.

Solicitations are often required to get the questionnaires back on time.

In Industry 69% prefer electronic communication, 45% in Construction; 25 % in Retail and 64% in Services.

RR (final, comprising reminding) range from nearly 90% (in Construction) to about to 60% (in Services) with falls up nearly to 20 percentage points in the first months after samples updates (in Retail Trade).

Wilkinson, R. Keith, Jucius Hines, Catherine (1993?), “*Data Collection Methods in the STPDS Surveys: Improving Response Rates in Mixed Mode Surveys*” (Census Bureau(?))

The paper presents three personnel longitudinal surveys (mail) carried out within the Scientific and Personnel Data System (STPDS) by NSF.

Considering 1986 as starting point with about 50% of non-responses the paper presents all the actions adopted for improving the RR.

From comparisons with similar surveys first suggestions comprised: better content or appearance of contact material, incentive to improve motivation, multiple mailing, intensified phone follow up of mail non-respondents (with a corresponding increase in costs).

The strategy adopted has been to incorporate all successful attempts in the following survey panels, as well as to include tests of the costs and effectiveness of improving data collection methods. Also experiments have been carried out with personalization and (non)monetary incentives in mailing packages.

A preliminary important condition resulted to be the use of updated frame for addresses and phone number (provided in this case by a private society). About the half of the phone non-responses corresponded to telephone number that could not be located.

Personal visit follow-ups maintain extremely high response rates but also increase data collection costs dramatically.

To reduce non-response rate the following measures have shown positive effects applied in pre-test:

Personalization of mailing materials (8% higher RR)

Compressed mailing schedule (about 5 days between pre-notification, mailing package and remainder in one of the survey analysed). The compressed schedule reduces the probability that a mailing package will be forgotten or discarded before is answered.

Incentives (informational brochure reporting previous survey results), monetary. Results indicate that incentives have a significant impact on early mail return rates.

Mailing package appearance (creative use of spacing, lettering and colour to make the questionnaire as easy as possible for respondent to follow, reducing as far as possible features introduced solely for the convenience of processing, removing sponsorship bias from contact materials).

Questionnaire length showed an inverse relation with RR, but not so dramatic.

Follow up: contacting by phone all mail non-respondents (with development of a CATI questionnaire) showed positive effects.

Improving longitudinal RR: to be tested using mail contacts between survey waves to maintain up-to-date addresses.