

Reducing Respondents' Burden in the Czech Statistical Office from Respondents' Point of View

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Abstract

Respondents of statistical surveys are usually divided into two groups — institutions and households. Respondents of business and institutional statistics area should provide the Czech Statistical Office annually with approximately 1 100 000 statistical forms. Respondents from households should give interviews in about 350 000 cases. Respondents' willingness to cooperate depends significantly on their perceptions of responsibility towards state, as well as on common social and economic situation.

Since 2005 the Czech Statistical Office has strongly focused on the project called Redesign of Statistical Information System. Reducing respondents' burden is one of the main priorities of this project. We describe methodological and technological experience mainly from the field of data collection as well as current situation and next steps to be taken in the area of correspondence and remote data collection that prevails in business statistics.

Keywords

Statistics, respondents survey, administrative burden, respondents' burden, data collection technology

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INTRODUCTION

Since 2005 Czech Statistical Office has focused strongly on the project called Redesign of Statistical Information System. Reducing respondents' burden is one of the main priorities of this project. Each item of the statistical questionnaires was analysed separately during 2007 and 2008. Conclusions from this analysis lead into modified questionnaires for surveys in calendar year 2009. Corresponding application software with reduced number of variables was also implemented in 2009. Following the range of contents and scope of surveyed statistical variables the survey system SBS 2009 (Structural Business Statistics) and STS 2009 (Short Term Statistics) was implemented respecting also the principle of negative co-ordination of respondents' selection which brings reduction of respondent' burden per unit. The result of the CZSO priority task brought reduction of respondents' burden of the statistical surveys by 23 %. The statistical respondents' burden share is less than 1 % of the total administrative burden of enterprises.

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1 STATISTICAL PROCESSING

Statistical processing includes data collection, capture, editing, imputations, corrections and estimation procedures. The area of statistical processing in the CZSO is divided by prevailing processes and methods of data collection and respondents type into field survey departments and statistical processing departments. Field survey departments employ mainly personal interviews or contact with the respondent for the surveys in the households, price statistics and farm surveys. Statistical processing departments secure the data processing for businesses, governmental and non-profit institutions. The data is collected by the correspondence method when the paper (mail surveys) or electronic forms are used.

Methods of statistical processing

For processing of the input data the following modern methods currently applied by statistical institutions in Europe and all over the world are used to a different extent:

1. Electronic questionnaires with interactive controls (CAPI — Computer Assisted Personal Interviewing) which are used for personal and phone interviews with respondents (this applies to 65 % of standard household surveys and 100 % of consumer price surveys).
2. Electronic data collection takes place locally at respondent's place. Collected data sets are submitted to the CZSO for processing by e-mail or through data box (28 % cases of questionnaires for which the electronic data collection is available).
3. Optical character recognition (OCR) of paper questionnaires and reports makes 4 % of the total number of reports and questionnaires.

1.1 Surveys

In 2009 Czech households were addressed by standard survey types, i.e. Family accounts statistics, Labour Force Survey, Tourism Sample Survey, Information Technology Sample Survey and Survey on Income and Living Conditions (EU-SILC). In selected 62 000 dwellings 378 000 interviews were conducted with individual household members (in continual surveys also repeated interviews are included).

Businesses performing their activities in the Czech Republic were addressed by the CZSO in 2009 according to the Statistical Survey Programme that established the reporting duty 121 surveys compiled by the CZSO. The forms of those surveys cover the needs of inputs for individual statistics respondents. The forms differ not only in terms of their content in general, but they respect also the economic activity, financial sector and size of the respondent. For almost 95 000 of selected units the total of 822 000 questionnaires were processed including the questionnaires of monthly and quarterly periodicity.

1.2 Changes of statistical processing

In 2009 the Statistical Processing Section introduced an important change in the data processing and work organization with the aim to increase productivity, effectiveness and quality in statistical surveys processing. Staff number, number of departments as well as the number of managerial staff was reduced. Number of employees of individual departments was optimised in proportion to the volume of processed statistical surveys and to the number of employees managed by one supervisor. Statistical processing of field surveys was secured by creating the network of universal interviewers. In connection with the change of the respondents' reporting duty, the structure of statistical forms, technological environment of main and dislocated data centres and with the introduction of negative co-ordination in selection of samples and composition of reports from the aspect of surveyed statistical variables it was also necessary to change and debug new application software for input and central statistical processing. The Czech Statistical Office launched a new website www.vykazy.cz for respondents of statistical surveys to obtain all necessary information and reference for submitting of statistical questionnaires and electronic data

collection with the aim to simplify the respondent's search for information on statistical questionnaires, methodological, organizational and technical information. It also includes contacts to all processing units. In 2009 a feedback of this website was evaluated through the Respondents' survey.

2 RESPONDENTS' SURVEY IN 2004, 2006 AND 2009

Czech Statistical Office is using electronic questionnaires in business and institutional statistics for more than ten years. For their further enhancement it is essential to learn about capabilities and burdens on respondents' side to adjust used technology accordingly. The first Respondents' Survey was held in the third and fourth quarter of 2004. Next one was held in the first and second quarter of 2006 and the latest one in the second quarter of 2009. The first survey included 16 questions, the second one 11 and the third one 9. So number of questions was reduced. The CSO assumes to carry out such survey approximately once in three years or before or after key changes in the Statistical Informational System which might cause a significant impact on respondents. Considering the results of 2004 Survey Open Questions were included into Surveys in 2006 and 2009. These Open Questions enabled to provide written comment by the respondents.

2.1 Sample Size and Response

In 2009 the sample size was 5 000 respondents and the response made 23 % — the lowest from all three cycles. In 2004 were 10 965 respondents addressed and the response was nearly 48 %. In 2006 the sample size was 22 050 respondents and the response was rather low — only 30 %. An interesting fact to point out — The Open Question was filled in 43 % of received responses in 2009.

2.2 Data Collection Design

In 2004 the respondents were contacted in three ways. The first one was as an attachment to Short Term Statistics questionnaire (2 870 respondents), the second one was as a letter sent to a group of SBS respondents (4 000 recipients) and the third one was as an email sent to a group of SBS respondents as well (4 095 recipients).

In 2006 respondents were approached within annual statistical questionnaires (SBS) supported by a brief request for cooperation. The CSO aimed not to address respondents with any additional questionnaire. The results of survey were greatly influenced by the fact that those questionnaires were the most demanding as of their scope and requirements of completing.

In 2009 only a random subsample of SBS respondents was used.

It is an interesting comparison that in 2004 there were 52 % questionnaires submitted by internet and 48 % by mail and in 2006, but there were only 17 % questionnaires submitted by internet and 87 % by mail.

2.3 Respondent Survey Results

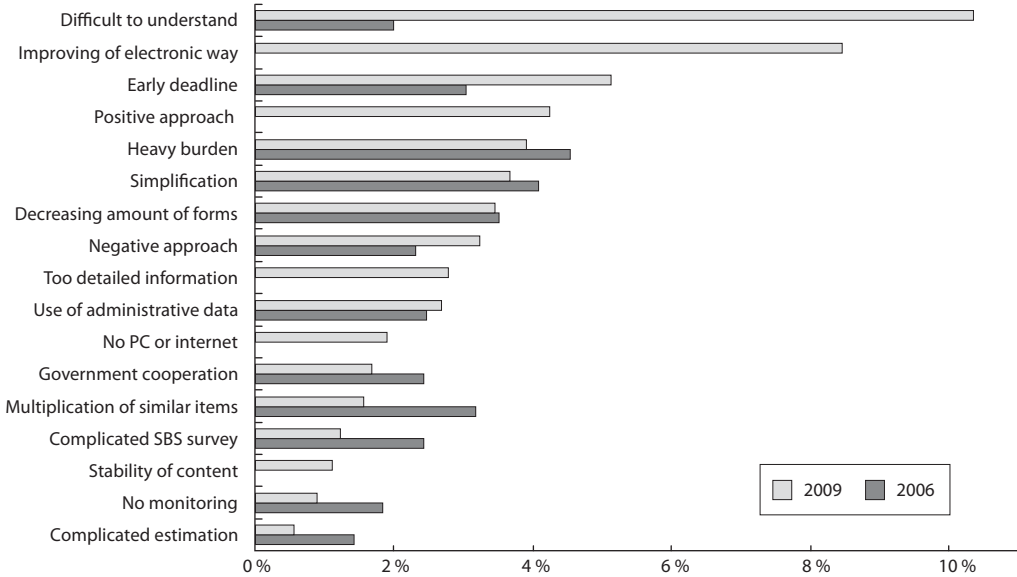
It was difficult to compare the results of Questionnaires despite the similarity of some questions. The main obstacle is the inconsistency of the groups of respondents. However, it was, after all, possible to compare some responses and evaluate the comments from Open Questions. In 2009 the response was the lowest, so the results of the questionnaire were the least representative, but considering the respondents' comments it brought the highest information value from the responded group.

Respondents very often expressed their wish not to be respondents any more. There are frequent requests to be excluded from the sample. In 2009 the comments were more constructive, with actual cases taken. Even some appraisal was received. Along with the development of information society the respondents did "grow-up". They understood that there was no sense just to oppose or generalize about everything (such responses as "good for nothing, useless, SW does not work, forms are stupid, etc.). Respondents showed increasing interest to share their both positive and negative experience. This should be consi-

dered a good result of such type of survey using Open Questions. This positive change in respondents' attitude was boosted by more focused questions and by growth of discussion forums on internet as well.

Comments were compiled to 17 groups, which are sorted in the Figure 1 by decreasing frequency.

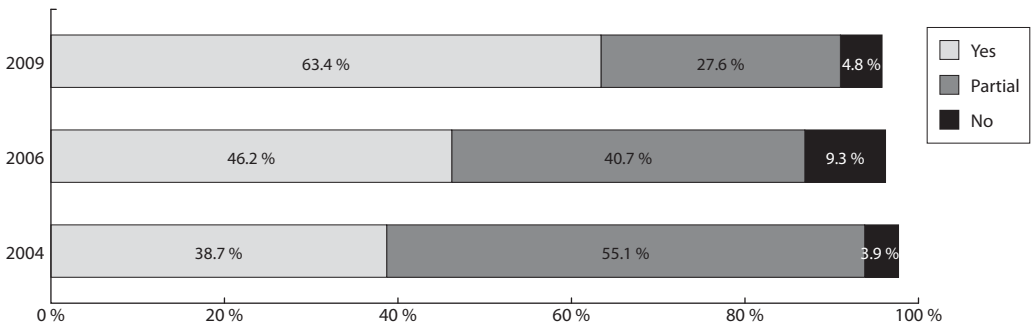
Figure 1 Respondents needs and expectations (survey results)



Source: Own construction

Detailed clarification is given to topics according to respondents' burden or where technological solution could be found.

Figure 2 Satisfaction with statistical forms



Source: Czech Statistical Office, own construction

2.3.1 Unintelligible, especially explanatory notes! In 2009 — 1st place, in 2006 — 10th place

Persons assigned to complete statistical forms are not specialized to fill forms. For some companies it is “expensive” as they have to pay additional fee to their outsourced accountants or tax advisors. The ex-

planatory note is perceived as unintelligible especially in case when persons assigned to complete it do not understand it, because it is not their standard work. Simply, respondents expect explanatory notes as a bridge between their knowledge or data sources and statistical needs.

2.3.2 Improve EPV. In 2009 — 2nd place, in 2006 — not applied

Results show that EPV (Electronic off-line forms for respondents) has a positive response and that it is widely discussed. Respondents found the main deficiency of EPV in necessity to install it to their own PC that is very often disabled either by their employer or their firewall. And subsequently to install each form. System of data checking seemed to be an “impregnable castle” and required a lot of effort to get through as respondents admitted.

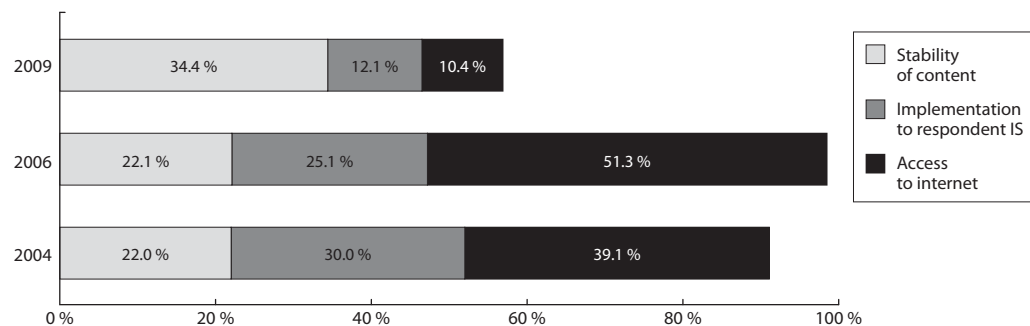
An interesting suggestion was to use previous year data to avoid repeatedly entering the same information.

An electronic reminder about forthcoming deadline of form submission would be very welcomed in current electronic world.

An eager wish is make EPV similar to Excel sheets. The main disadvantages of EPV were found in slow and poorly structured browsing, impossibility of dividing form into several spreadsheets or tables to get them filled by co-workers and compiling them back into form. There was also found a lack of possibility to create own checking mechanism as well as copying already filled in information. The system of data checking is perceived as useless — only checking if the pages were browsed and totals calculated accurately.

Direct access to EPV on CSO website without required installation would be welcomed. One of the variant is to stop current EPV and replace it by PDF forms for off-line providing of statistical data and by web forms for on-line data entry and editing.

Figure 3 Opportunity to enhance electronic way



Source: Czech Statistical Office, own construction

2.3.3 Unsuitable deadlines. In 2009 — 3rd place, in 2006 — 5th place

These comments are given mainly in relation to the short term statistics (monthly a quarterly forms), because the respondents deadlines for providing statistical office with statistical forms are given earlier than VAT deadline, respondents prefer to use accounting figures to estimates when filling in statistical forms.

2.3.4 Heavy burden. In 2009 — 5th place, in 2006 — 1st place

This is a remarkable progress. Respondents noticed that some forms were “thinner” and they appreciated it. Despite of all effort it was not possible to simplify everything and at the same time. But it was a good start. Alas it is still true that completing of forms takes more than one working day of the accountant. So

for some companies it is “expensive” as they have to pay additional fee to their outsourced accountants or tax advisors. The form is perceived as a burden especially in case when person assigned to complete it does not understand it (incorrect assignment within the company). But the unintelligible explanatory notes should be taken in consideration as well. One of the important respondents’ opinion was preference of number or volume of statistical forms. Preference of more questionnaires with fewer items decreased from 23.1 % in 2004 to 15.6 % in 2006. Preference of fewer questionnaires with more items slightly increased from 23.7 % in 2004 to 25.9 % in 2006.

2.3.5 To use the data from balance sheets and from profit and loss statements.

In 2009 — 10th place, in 2006 — 6th place

This is a wishful thinking of those who remember from previous times that the CSO was able to collect automatically a lot of required data directly from balance sheets and profit and loss statements Or to get data from Tax offices. Currently data is collected from both these sources but in a very limited volume.

2.3.6 No access to PC and / or internet. In 2009 — 11th place, in 2006 — not applied

10 % of respondents who submitted their questionnaire in 2009 on paper had no PC and / or internet access. Many respondents had both PC and internet access available but did not use them because they had not tried to explore EPV. Overall the paper questionnaires are considered more user friendly comparing to EPV.

2.3.7 Cooperation within state authorities. In 2009 — 12th place, in 2006 — 8th place

This response remains on the same place. Respondents require CSO to cooperate with other institutions within state authorities. This includes Social Insurance Office, Health Insurance companies, Tax offices, ministries, municipalities etc. Different authorities require very often the same or very similar data but to be filled into different questionnaires. This is found to be a redundant work.

2.3.8 Duplicities. In 2009 — 13th place, in 2006 — 4th place

Reducing of duplicities in statistical forms was one of the targets of the survey content analyse in 2007 and 2008. As the results of respondent survey show this goal was achieved successfully.

2.3.9 Laborious completing of annual forms. In 2009 — 14th place, in 2006 — 7th place

The main hurdle is still found in the size of form together with poor structuring and lack of continuity. No particular form is mentioned most likely due to fact that in 2009 this questionnaire was sent separately while in 2006 it was attached to P5-01.

For EPV the main disadvantage was found in slow and poorly arranged browsing, as well as missing feature to copy same data to other part of form.

2.3.10 Keep the structure of form unchanged. In 2009 — 15th place, in 2006 — not applied.

Frequent changes in structure of form disable to use work aids developed by respondents for previous versions. Especially conscientious respondents create mostly in Excel supporting work aids to make sure that the form is filled in correctly. It was pointed out that very often when the form is “enhanced or improved” some explanatory note disappear. The frequent changes in used terms are considered unfavourable because they do not reflect accounting terminology. The preference of electronic and paper questionnaires had evolved as follows:

- Preference of paper questionnaires doubled from 30.9 % in 2004 to 62.0 % in 2006.
- Preference of electronic questionnaire slightly decreased from 42.7 % in 2004 to 35.9 % in 2006.

CONCLUSION

Simple, intelligible and user-friendly statistical questionnaires make the core of the statistical data quality. From the technological point of view the respondents' burden could be reduced mainly through easily accessible electronic statistical questionnaires with simple manageability and readily available technical and methodological support provided by the statistical office. Considering the progress of information society it is essential to develop instantly respondents' input channels for data collection of statistical information as an electronic form or an interface. There are also specific groups of respondents which prefer traditional paper form to electronic way of data collection. From the respondents' point of view their burden could be reduced or not increased mainly through using administrative sources and stability of structure, content and periodicity of statistical requirements, which are transformed to statistical forms with appropriate deadlines.

References

- CZSO. *Annual report 2007* [online]. Prague: Czech Statistical Office, 2008. [cit. 17.11.2010] <[http://www.czso.cz/eng/redakce.nsf/i/annual_report_2007/\\$File/ar2007.pdf](http://www.czso.cz/eng/redakce.nsf/i/annual_report_2007/$File/ar2007.pdf)>.
- CZSO. *Annual report 2008* [online]. Prague: Czech Statistical Office, 2009. [cit. 17.11.2010] <[http://www.czso.cz/eng/redakce.nsf/i/annual_report_2008/\\$File/ar2008.pdf](http://www.czso.cz/eng/redakce.nsf/i/annual_report_2008/$File/ar2008.pdf)>.
- CZSO. *Annual report 2009* [online]. Prague: Czech Statistical Office, 2010. [cit. 17.11.2010] <[http://www.czso.cz/eng/redakce.nsf/i/annual_report_2009/\\$File/ar2009.pdf](http://www.czso.cz/eng/redakce.nsf/i/annual_report_2009/$File/ar2009.pdf)>.
- CZSO. *Anketa pro respondenty statistických zjišťování — 2004* (Poll for respondents of the statistical surveys — 2004) [online]. Prague: Czech Statistical Office, 2004. [cit. 17.11.2010] <[http://www.czso.cz/csu/redakce.nsf/i/anketa_respondentu_2004/\\$File/Anketa_resp_2004.pdf](http://www.czso.cz/csu/redakce.nsf/i/anketa_respondentu_2004/$File/Anketa_resp_2004.pdf)>.
- CZSO. *Anketa respondentů 2006* (Respondents Poll 2006) [online]. Prague: Czech Statistical Office, 2006. [cit. 17.11.2010] <[http://www.czso.cz/csu/redakce.nsf/i/anketa_respondentu_2006/\\$File/Anketa_resp_2006.pdf](http://www.czso.cz/csu/redakce.nsf/i/anketa_respondentu_2006/$File/Anketa_resp_2006.pdf)>.
- CZSO. *Informace o výsledcích Anket respondentů 2009* (Information about the results of the respondents Polls 2009) [online]. Prague: Czech Statistical Office, 2009. [cit. 17.11.2010] <[http://www.czso.cz/csu/redakce.nsf/i/anketa_respondentu_2009/\\$File/Anketa_resp_2009.pdf](http://www.czso.cz/csu/redakce.nsf/i/anketa_respondentu_2009/$File/Anketa_resp_2009.pdf)>.
- CZSO. *Porovnání Anket respondentů z let 2004 a 2006* (Comparison of the respondents Polls 2004 and 2006) [online]. Prague: Czech Statistical Office, 2006. [cit. 17.11.2010] <http://www.czso.cz/csu/klasifik.nsf/i/anketa_respondentu_2006_vysledky>.
- MAKALOUŠ I. and KONEČNÝ F. Globální architektura statistického informačního systému ČSÚ (Global architecture of the statistical information system of the Czech Statistical Office). *Statistika*, 2008, 2, pp. 89–109.