



**Economic and Social
Council**

Distr.
GENERAL

ECE/CES/2009/37
30 April 2009

ENGLISH ONLY

ECONOMIC COMMISSION FOR EUROPE

STATISTICAL COMMISSION

CONFERENCE OF EUROPEAN STATISTICIANS

Fifty-seventh plenary session
Geneva, 8-10 June 2009
Item 4 of the provisional agenda

SEMINAR ON STRATEGIC ISSUES IN BUSINESS STATISTICS

SESSION I: REDUCING RESPONDENT BURDEN

**REDUCTION OF RESPONDENT BURDEN THROUGH THE USE OF NEW
PRODUCTION TECHNIQUES**

Note by Statistics Lithuania

I. INTRODUCTION

1. The political interest in administrative burden in general and statistical response burden in particular has never been higher than at the present time. Statistics is one of the priority areas in the ambitious goal set by the European Commission of reducing the administrative burden on businesses by 25 % within five years. A proof of this commitment was the 94th Directors-General of the National Statistical Institutes (DGINS) Conference held in Vilnius last September which focused on statistical response burden.

2. Statistics Lithuania, like any other national statistical institute, is faced with the constant challenge of maintaining the balance between the continuous increase in users demand for statistical information and requirements to reduce the burden placed upon respondents, in particular those of the business sector. The main concern is to maintain and ensure quality of statistical information while trading off between meeting user needs and dealing with the reduction of the reporting burden on businesses. Lots of measures including different

GE.09-

organizational, technological and methodological instruments have been taken on board by Statistics Lithuania and continuously introduced.

3. The Strategy of Statistics Lithuania for 2008-2012 gives significant attention to the reduction of response burden. It is planned to reduce the costs of time spent by respondents to produce the required statistical data and filling in reports by 25 percent on average. The achievement of this goal will be facilitated by a wider use of administrative data sources, application of mathematical methods in statistical surveys, further improvement of electronic data collection, strengthening cooperation with respondents and observing their response burden.

4. Statistics Lithuania initiated many projects and measures aimed at the reduction of the response burden. However it is not one-off action and the work done and efforts taken during the recent years enabled to draw a conclusion and made everyone understand that it will never work if the efforts of different actors, such as statistical office and administrative authorities in the country, Eurostat, international organizations are not joined together. More active approach should also be directed towards cooperation with the decision makers. Success of efforts and measures will depend on all interested parties involved in balancing the response burden and users needs.

II. MEASURES INTRODUCED AT STATISTICS LITHUANIA TO ALLEVIATE THE RESPONSE BURDEN

5. The core goal of Statistics Lithuania is to collect the relevant and accurate statistical information by organizing and performing statistical surveys in a way that limits the burden on respondents to the extent unavoidable. To meet this, the activities are concentrated on the following main initiatives:

- (a) Discontinuation of statistical surveys;
- (b) Revising of statistical questionnaires;
- (c) Wider use of administrative data;
- (d) Optimizing the sampling procedure;
- (e) Promoting use of IT technologies;
- (f) Cooperation with respondents.

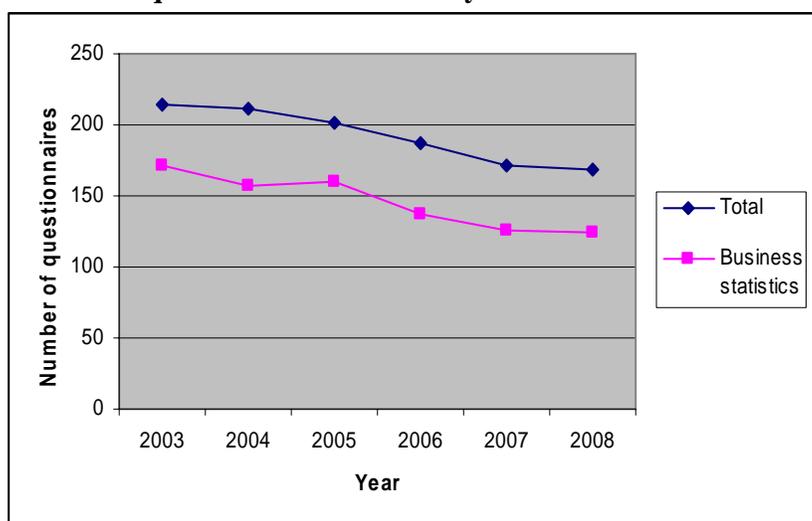
A. Discontinuation of statistical surveys

6. Discontinuation of a questionnaire-based survey without violation of user's interests is very complicated. Mainly it can be embodied only by replacing the survey data with other available information or administrative data. The possibilities were found to cancel some annual surveys in the domains covered by short-term statistics, despite the fact that annual and short-term statistics differ both in terms of coverage and the level of detail. For instance, an annual survey on earnings was complicated and time-consuming for respondents, but very important for

both internal and external users. A methodological solution was found to calculate annual indicators based on short-term statistics and information from administrative data sources. As a result approximately 40 000 enterprises have been released from the obligation to fill in an annual questionnaire on earnings. Useful experience allowed starting an analysis of possibilities to introduce administrative sources in other surveys.

7. More effective use of information already available from the other statistical surveys also was a measure which formed the grounds for decreasing the number of statistical questionnaires. For instance, starting from 2005 investment of enterprises is estimated using the annual data of financial accountancy combined with the data of quarterly survey on investment. It resulted in the exemption of 25 000 enterprises from filling in the annual questionnaire on investment.

Figure 1
Number of questionnaires sent out by the statistical office



B. Revising of statistical questionnaires

8. Development of a well designed questionnaire is vital for every questionnaire-based statistical survey. On the one hand a questionnaire has to be a tool for efficient collection of the required data with a minimum number of errors. On the other hand the limitation of respondent burden has to be taken into account. All these requirements make questionnaire design a complex task.

9. Annually, Statistics Lithuania conducts the revision of statistical questionnaires which are aimed at simplifications and improvements. Relevance of the surveys is evaluated, not relevant and recurrent indicators are identified. Such revisions have been conducted within each statistical domain.

10. In order to simplify statistical reporting, a description of procedures for testing statistical forms/questionnaires was approved in 2007. A working group established for questionnaire testing aims at scrutinizing all existing questionnaires (given that a systematic test did not yet take place or it is evident that some questions need improvement) as well as

new questionnaires. Local experts, testing the questionnaires, search for possibilities to present statistical indicators and explanations in a more comprehensive and clear way, to discontinue using irrelevant indicators and to use the data of available statistical surveys and administrative sources more efficiently. In many cases respondents are involved and contribute to the improvement of statistical questionnaires.

C. Wider use of administrative data

11. The biggest reserve for the reduction of the burden on respondents is definitely the use of administrative data sources. In order to achieve wider applicability of administrative data for statistical purposes, in 2007, Statistics Lithuania initiated the creation of an Inter-Institutional Commission which would coordinate activities related to use of administrative data sources and their exchange between institutions and, in case of necessity, provide the Government with relevant proposals. The Commission was established by the Government Resolution. The Commission is comprised of 11 members, representing ministries and other public authorities. The commission is headed by Statistics Lithuania. This Government Resolution binds governmental institutions and other public authorities to harmonize legal acts related to changing the respondents' obligation to provide data to these institutions or introduction of new analogous obligations with the Commission.

12. Although the register-based statistics has many advantages (low non-response rate, data collection has a cost-saving effect, two administrations involved give a positive effect on the data quality), disadvantages have to be mentioned as well and proper account has to be taken of these. First of all, the process is very much dependent on the institutions managing administrative data and calls for a great need to coordinate inter-institutional activities. The possibility to use administrative data sources does not solve the problem itself. It is generally not a good idea to produce statistics directly from the received administrative data because the latter are collected for other purposes, therefore, is it often necessary to carry out some processing to meet the statistical needs. Statistical methodological work encompasses different elements, like data editing, handling of missing objects and missing values, creating derived variables and others.

13. In any case, Statistics Lithuania considers the highest priority to find a solution to reduce the response burden and, at the same time, to obtain relevant information. Currently 110 administrative data sources from different institutions and organizations are used. Most of the data are received in an aggregated form (from 71 sources). Data are taken directly from the State Tax Inspectorate (STI), State Social Insurance Fund Board (SSIFB) and other institutions' databases. 30% of statistical indicators are produced using administrative data sources. Data from administrative sources are used:

- (a) For the estimation of non-response;
- (b) As auxiliary information for the calculation of estimates;
- (c) As additional information for the preparation of sample plans;
- (d) For updating the Statistical Business Register;

- (e) For the production of flash estimates.

1. Use of administrative data in Structural Business Statistics

14. Structural Business Statistics (SBS) are compiled annually by combining data obtained through direct inquiries with the data from annual financial reports provided to the State Enterprise Centre of Registers. Direct data collection involves only 6% of all enterprises (mainly the largest ones). For legal persons of unlimited liability (individual enterprises), profit declarations collected by the STI are used. The SBS data for natural persons carrying out economic activities (more than 50% of the total number of entities) are produced using the annual income declarations that are also received from the STI. Preliminary SBS data are produced only on the basis of data collected through statistical questionnaire. The rest are estimated using weights of the missing enterprises (turnover) from the Statistical Business Register. Preliminary results are available after 8 months of the reference year. The final SBS data are the census data, for which instead of estimations the data from administrative sources are added to the data received from statistical questionnaires. Statistics Lithuania receives all administrative data at the individual level. A single identification number of enterprises allows combining different data sources. Different imputation methods play a central role for correcting deficiencies in the administrative records so as to make them suitable for statistical use. Final SBS data are available after 18 months of the reference year.

15. Advantages of using administrative data in SBS are reduced response burden on small enterprises, full coverage of active enterprises, including the small ones, possibility to make all kinds of aggregations (by activity, ownership, size class, regions), better quality of the survey results, updating of the Statistical Business Register.

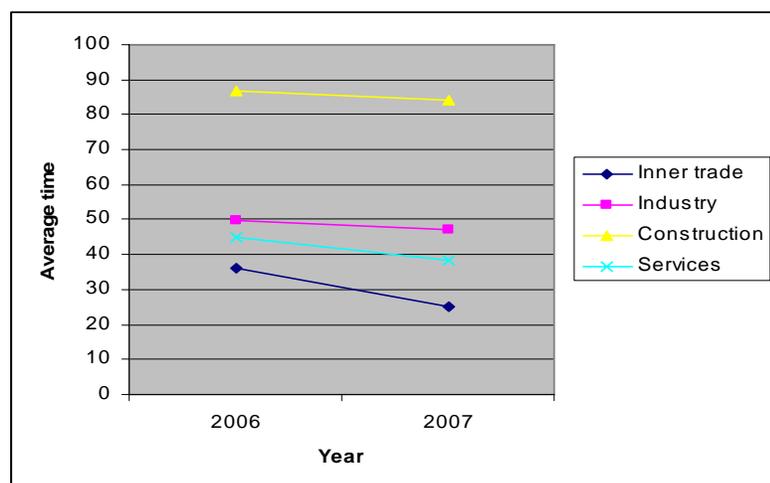
2. Use of administrative data in short-term statistics

16. Introduction of administrative data from Social Insurance Data Fund (SIDF) for estimation of labor indicators in short term statistics (wages and salaries and number of employees) was a follow up of a comprehensive comparative analysis of labor indicators received from statistical surveys and relevant indicators available in SIDF database. The exercise resulted in a decision that labor indicators of short-term statistics can be based on administrative sources.

17. The positive outcome of the action was that since 2007 more than 16000 of enterprises have been receiving shortened questionnaires.

18. The results of response burden measurement survey demonstrate the burden lowering effect of the action. Decrease in average time (in minutes) needed to prepare the data and fill in the statistical questionnaire was in all fields of short-term statistics.

Figure 2

Average time needed to fill in the questionnaires (in minutes)**D. Optimizing the sampling procedure**

19. For statistics based on sample surveys the samples are continuously reviewed to examine whether the selection of sampling units can be made more efficient. Especially it concerns the small enterprises. It is common practice that big enterprises participate in many surveys due to their importance. The samples are drawn from small ones. In Lithuania's case, small enterprises are statistically significant since they make a major share of all enterprises.

Table 1

Share of enterprises of different size in all enterprises

No.	Size of an enterprise	Share in the total number of enterprises
1.	Up to 5 employees	≈ 52%
2.	Up to 10 employees	≈ 73%
3.	Up to 20 employees	≈ 85%
4.	Up to 50 employees	≈ 94%
5.	Up to 100 employees	≈ 97%
6.	Up to 250 employees	≈ 99%

20. In some of the activities (e.g. services sector) they account for the absolute majority. It means they have to be surveyed as well. In short-term statistical surveys, one fourth of enterprises are rotated. Thus, theoretically, every concrete respondent should participate in the same survey for 4 years. Unfortunately, in many economic activities the number accounts for few tenths or only a few enterprises. In such cases, rotation is not possible, and the same units, even if they are small, are obliged to provide information for the statistical office for many years in a row.

21. At Statistics Lithuania, samples for all surveys are drawn simultaneously at the end of the year using the latest information available in the Statistical Business Register. The

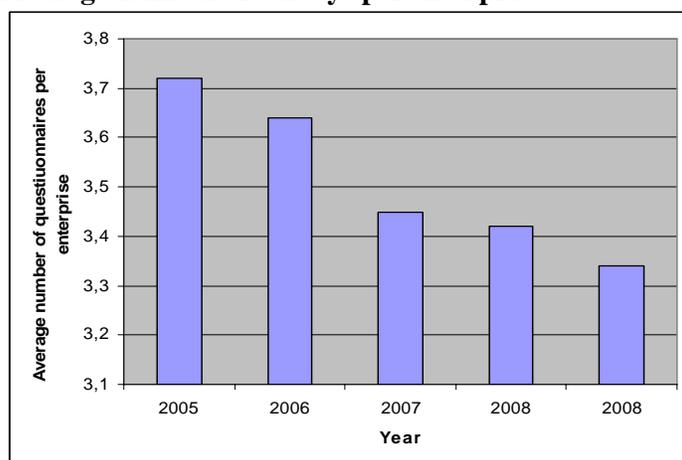
negative sample coordination is carried out where it is possible in order to distribute more evenly the response burden among respondents. After completing the sample selection procedure, a list of sampled enterprises is compiled. This clearly identifies how many surveys fall per enterprise. All cases where small enterprises happened to be included into more than 3 sample surveys are separately analyzed, and in case a possibility exists they are replaced or simply excluded from the survey.

22. In addition to that, if the share of income of the smallest enterprises (0-4 employees) makes less than 5 percent of the income of the whole activity, these enterprises are excluded from questionnaire based surveys. Administrative data are used to estimate their indicators.

23. All these actions resulted in decrease of the average number of surveys per enterprise.

Figure 3

Average number of surveys per enterprise



E. Promoting the use of information technologies

24. Certain technological solutions are one of the priorities in the field of reduction of statistical reporting. First of all, it concerns introduction of electronic questionnaires. During 2002 the first electronic statistical reports were prepared and tested with the 50 sampled enterprises. Besides, the system for respondents' registration together with the instructions and order for submitting statistical reports electronically was prepared.

25. Beginning with 2003, the system started to function in real conditions gradually introducing new statistical reports in an electronic form. Vigorous changes in information technologies stimulated virtual reorganization of this system in 2006, thus resorting to the ABBY eFormFiller software for filling in statistical forms. The software had been used for filling in tax declarations, thus it was already familiar to respondents.

26. The system of electronic data collection is being constantly developed and extended. A practical and convenient possibility was opened up in a specialized website *e-formos.stat.gov.lt* to find prepared electronic forms, schedule for their submission and give

information on data transfer via the internet. In particular cases, respondents are provided with the partially filled in forms.

27. For the time being, electronic questionnaires are just another reporting instrument in addition to the usual paper forms. The respondents are free to choose which technique is most acceptable for them.

28. A survey on respondents, potential providers of statistical data using e-forms, was conducted. It was targeted at the assessment of advantages and shortcomings of the system in use as well as detecting the reasons why the system had not been used. Based on the survey results, more efforts were directed towards further development and advancement of the system and promotion of transmission of data by electronic means.

29. Despite the active advertising campaign targeted to speed up the change over from usual to electronic reporting, it took years before a significant percentage of enterprises took the plunge.

30. Currently, 55 percent of all statistical questionnaires are provided for respondents to be filled in electronically. In 2008 more than 44 % of all respondents preferred the electronic data reporting.

31. Electronic data reporting contributes to the increase of the quality of the collected raw data because the software can immediately apply certain validation checks and because a potential error source – data entry – is avoided. Moreover, it leads to time savings of the production of statistical results.

32. On the other hand, two different modes of reporting have to be set up and maintained in parallel. Beyond that, development and maintenance of questionnaire software are time consuming and expensive. The fact that statistical surveys are not static has to be kept in mind too. It means that every modification of the statistical inquiry necessitates an adaptation of the program's source code by an IT specialist. Therefore, the skilled IT team has to be available at statistical office.

33. The crucial fact is that electronic data reporting saves the time respondents need to fill in the statistical questionnaires. It is evident from the results of the Response burden measurement survey. Those respondents who in 2008 switched from paper to electronic questionnaires pointed out the remarkable economy of time. Especially it is noticeable in such complex surveys like Labor survey, or Enterprise survey in Structural Business statistics.

Table 2
Time needed to fill in statistical questionnaires

Statistical survey	Average time needed to fill in questionnaire (in minutes)		Economy of time in percent
	Year 2007 (paper questionnaire)	Year 2008 (el. questionnaire)	
Foreign investments	52	41	21
Structural business statistics (Quarterly)	220	168	24
Structural business statistics (Yearly)	560	356	36
Inner trade survey	42	30	29
Job vacancy survey	51	32	37
Labor survey	192	105	45

III. COOPERATION WITH RESPONDENTS

34. Each year respondents are informed about the legal basis of official statistics, participation of enterprises in statistical surveys, statistical data submission deadlines and Statistics Lithuania services and novelties. Envisaging improvement of the feedback with respondents, statistical information on the place of enterprises in business environment, aggregated activity results and their changes is prepared annually and submitted to interested companies. This service has been gaining more popularity among respondents. Feedback and cooperation with respondents enhance their goodwill to participate in the statistical surveys

IV. CONCLUSIONS

35. Statistics Lithuania initiated many projects and measures to reduce the burden on respondents; there are many areas in which activities are in progress. After years of intensive efforts and complex measures some of the concrete results can be enjoyed. Inventory of statistical questionnaires, use of administrative data sources, rotation of the samples, implementation of electronic forms and developed relations with respondents resulted in decrease of statistical response burden indicator. On average, the time one respondent spent filling in all statistical questionnaires per year decreased from 13.3 hours in 2006 to 12.2 hours in 2008.

36. It is important to estimate the response burden in figures, as it gives a good insight into the problems involved in reporting data. Monitoring of the response burden shows our progress and guides in the identification of initiatives to reduce it.

37. In a number of areas the statistical response burden was reduced through harmonizing surveys and minimizing the samples. However, there is a limit as to how far the response burden could be reduced before an impact on the quality of the produced data would be felt.

38. Notwithstanding the efforts of Statistics Lithuania, we consider that more efficient and effective work should be done on European level by introducing new European approach, European samples, etc. The process could be speeded up only if all the countries as well as Eurostat commit to this challenging new task.

39. Another aspect which needs to be further developed is a proper analysis of the users new needs in order to avoid a situation which is recently very often heard like “nice to have and nice to know”. Again this leads not only to such actions like cost/benefit/effectiveness analysis but requires much better cooperation with users, policy makers as well as initiators of statistical legislation.

* * * * *