CONFERENCE OF EUROPEAN STATISTICIANS

Workshop on Statistical Data Collection

10-12 October 2018, Geneva, Switzerland

Session 4

03 October 2018

Towards Response Burden Management across surveys

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Abstract

Statistics Netherlands (SN) monitors response burden annually per survey. The recent implementation of a new response burden measurement tool facilitated analyses of accumulated response burden across surveys at the business level. This paper describes some of the main results of these detailed analyses, including the identification of hotspots (i.e. disproportionally high burdened businesses). The paper also discusses how SN is using these analyses to facilitate further streamlining and fine tuning of our response burden management. Our goal is to optimize the noticeability of response burden management for the businesses.

Keywords: Business surveys, data collection, regulatory burden.

Towards Response Burden Management Across Surveys

Paper prepared for the 2018 UNECE Statistical Data Collection Workshop, 10-12 October 2018, Geneva, Switzerland.

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Summary: Statistics Netherlands (SN) monitors response burden annually per survey. The recent implementation of a new response burden measurement tool facilitated analyses of accumulated response burden across surveys at the business level. This paper describes some of the main results of these detailed analyses, including the identification of hotspots (i.e. disproportionally high burdened businesses). The paper also discusses how SN is using these analyses to facilitate further streamlining and fine tuning of our response burden management. Our goal is to optimize the noticeability of response burden management for the businesses.

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1. Introduction

Since the early 1990s Statistics Netherlands (SN) has actively worked on managing response burden in business surveys. The total actual response burden for mandatory statistics at SN is monitored annually per survey. This response burden is calculated both in minutes and euros, based on the number of returned questionnaires[2], the mean completion time per questionnaire in minutes and an average wage rate. As shown in figure 1, response burden has decreased by more than 70% during the period 1994–2016. The main reasons for this burden reduction were the increased use of administrative data, the use of advanced statistical methodology, the innovations in electronic data collection (e.g. facilitating upload of data in a standard record layout and the use of web scraping to collect price information) and the SN wide central coordination of all response burden related issues (Giesen et al. 2018).

Approaching a minimum level of response burden to the businesses, much additional reduction does not seem to be possible within the next years, taking into account the output requirements. While keeping monitoring the actual response burden, the focus for managing improvements in response burden will be on two main targets in order to improve the noticeability of response burden management for the businesses: improving the *perceived* burden (i.e. respondents' perception of their experience with the data request) and improving the *spread* of the burden. In order to improve the perceived burden, SN works continuously on improving data collection instruments and the

[1] The views expressed in this paper are those of the authors and do not necessarily reflect the policies of Statistics Netherlands.

[2] As of 2017, SN has extended the measurement of response burden with a measure based on the number of questionnaires sent out (including non-response), conforming to the Dutch government standard for measuring administrative burden (Sevat and Streefkerk 2018).

communication with businesses. This includes developing materials and (interactive) products that demonstrate the usefulness of statistics for the businesses themselves. This paper focuses on the second main target, managing response burden at the level of (groups of) businesses. This means changing from reduction projects for the burden per survey, to reduction projects targeted on individual businesses or groups of businesses.

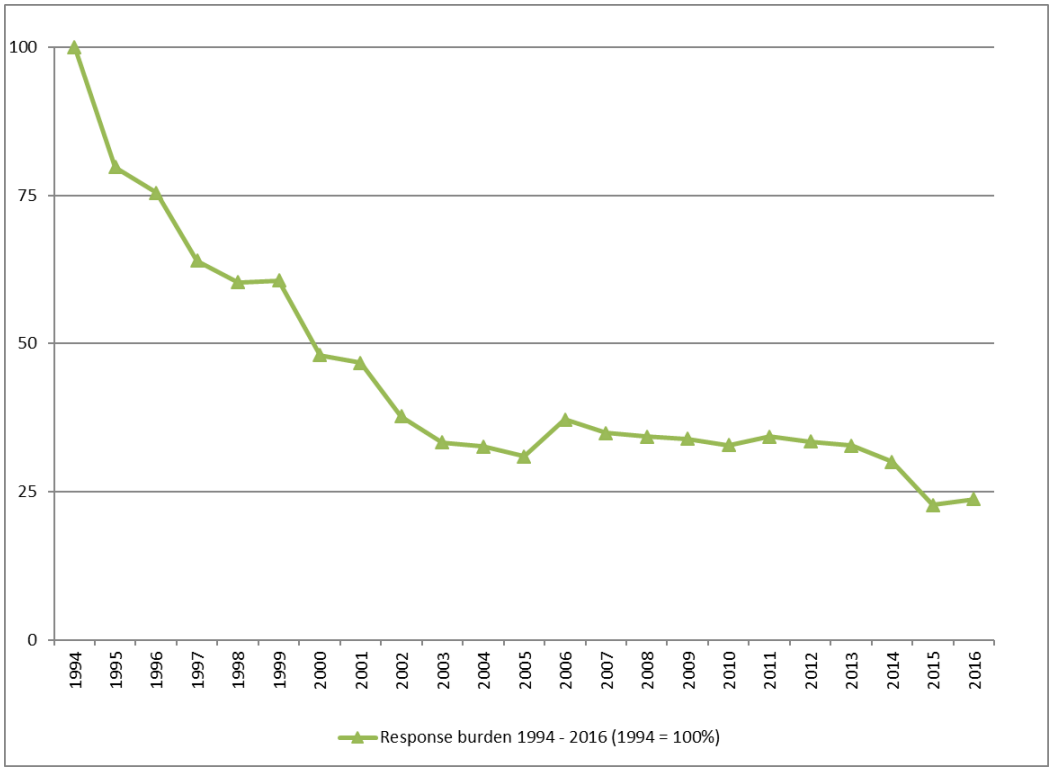

Figure 1: Decrease in response burden for Statistics Netherlands' business surveys (1994 = 100%)

To create a blueprint for further streamlining and fine tuning our future response burden management, we first needed a sound overview of the response burden of businesses across surveys. The recent implementation of a new response burden measurement system (RBMS) with more detailed characteristics/variables facilitated this analysis of response burden at the business level (Geurden-Slis et al. 2018). Section 2 of this paper provides an overview of the analysed data. Section 3 and 4 present the main results of the analyses. Section 5 summarizes the main conclusions. Based on these analyses SN is now fine tuning its future response burden management, this process is discussed in section 6.

2. Data and analyses

To understand the data and analyses described in this paper, we will first explain some of the main terminology used, see also figure 2.

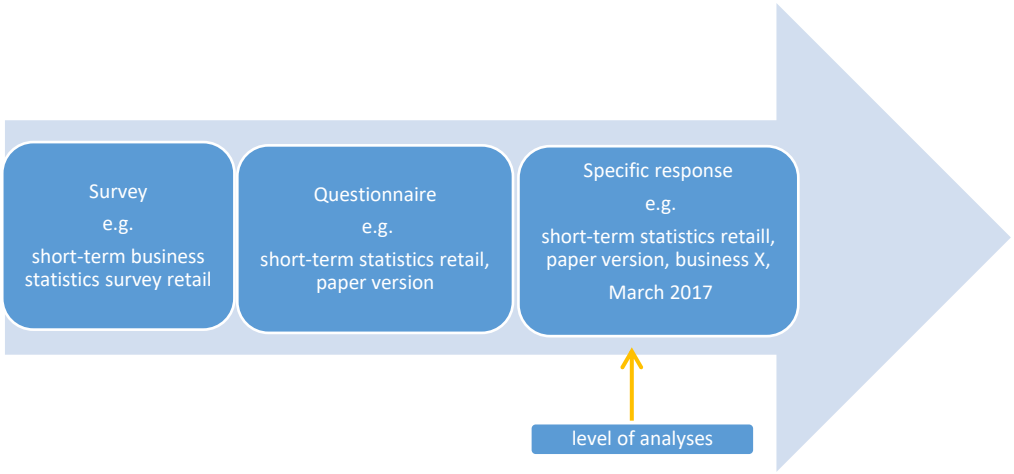

Figure 2: Terminology

- The analyses presented in this paper are based on 188 different *surveys*[3].
- For one survey, different types of *questionnaires* (or other data collection instruments) may be used, for example a paper and an electronic version of a questionnaire. The actual data collection instrument is the level at which average completion times are included in the RBMS, based on completion times as reported by respondents. For example, for our International Trade in Goods Survey different average completion times are used for responses received by an upload of data in a standard record layout and for responses received via a completed electronic questionnaire. Note that one survey may consist of one or more questionnaires annually, for example the short term statistics survey may consist of 12 monthly questionnaires.
- The *response* to one specific questionnaire by a specific business: e.g. 'Short-term Statistics Survey Retail Paper response on paper questionnaire for business X on March 2017'.

It must be noted that the data for the analyses presented in this paper only include *completed questionnaires received by SN.* This means non-response is not included in the analyses. Given the high response rates and the fact that most burden of course stems from completed questionnaires, having this overview of completed questionnaires is already a very interesting and valuable first step. In the near future we hope to expand our analyses in order to get an overview of all data requests sent to businesses at the individual businesses level. With data on non-response we will among others be able to replicate Swedish analyses (Lorenc et al. 2013) on the relationship between response burden and response behaviour.

[3] This is 91 percent of all responses included in the new RBMS. 9 percent of the responses had to be excluded due to data-linking issues.

3. Results – burden across surveys

Number of surveys businesses respond to

Table 1 shows for all businesses that have responded to one or more SN surveys in 2016, to how many surveys they responded. In total, 121.830 businesses responded to one or more SN surveys in 2016. This is only 8 percent of all the businesses in the Netherlands. This means that the large majority of all businesses in the Netherlands (92 percent) does not complete any surveys for SN. This is mainly because they are not part of the samples.

For those businesses that are responding to SN surveys, 69 percent of the responding businesses responded to only one survey.

Table 1: Number of surveys businesses respond to 2016 (all businesses that responded to at least one survey)

Number of surveys	Number of businesses	Percentage of all responding businesses
1	83.503	69%
2	14.914	12%
3	8.032	7%
4	5.337	4%
5	3.248	3%
6	2.097	2%
7	1.415	1%
8	1.048	1%
9	702	1%
10	533	0%
11	362	0%
12	252	%
13	182	0%
14	111	0%
15	62	0%
16	28	0%
17	4	0%
Total	121.830	100%

88%

12%

Table 1 also shows that 88 percent of the businesses responded to a maximum of three surveys a year, leaving 12 percent of the businesses being included in four or more surveys. This last group of businesses consists of small, medium and large businesses. The background characteristics of these 12 percent of businesses will be subject to further analysis.

Number of returned questionnaires

As described before, one survey may consist of 1 or more questionnaires. Typically, surveys are conducted annually (1 questionnaire), quarterly (4 questionnaires) or monthly (12 questionnaires). Table 2 describes how many questionnaires businesses completed in 2016. The results show that 49 percent of the responding businesses responded to one questionnaire. Thirteen percent of all responding businesses submitted more than twelve questionnaires in a year.

Table 2: Number of returned questionnaires 2016 (all businesses that responded to at least one survey)

Questionnaires per business per year	number	percentage	
1	59.730	49%	
2	9.746	8%	
3	7.533	6%	
4	10.651	9%	
5	5.323	4%	
6	3.362	3%	
7	2.027	2%	
8	1.271	1%	40%
9	1.094	1%	
10	1.251	1%	
11	2.038	2%	
12	3.672	3%	
13	1.919	2%	
14-20	6.773	6%	
21-30	3.090	3%	
31-50	1.934	2%	
51-70	373	0%	
71 and more	43	0%	
Total	121.830	100%	

Time spent on completing questionnaires

Next, we look at the total time spent per business on completing questionnaires. Of all the responding businesses, 65 percent spend less than two hours per year on completing questionnaires for SN (table 3).

Table 3: Total annual time spent completing questionnaires 2016 (all businesses that responded to at least one survey)

Time spent	Number of businesses	Cumulative percentages	Costs in Euro's	
	2016	2016	minimum	maximum
10 minutes or less	4.714	5%	-	€ 6,06
11 to 15 minutes	18.484	23%	€ 6,67	€ 9,09
16 to 60 minutes (1 hour)	7.056	30%	€ 9,70	€ 36,36
61 to 120 minutes (2 hours)	35.175	65%	€ 36,97	€ 72,72
121 to 600 minutes (10 hours)	28.095	93%	€ 73,33	€ 363,60
601 to 2.400 minutes (1 week)	5.223	98%	€ 364,21	€ 1.454,40
2.400 to 10.000 minutes (1	1.739	100%	€ 1.455,01	€ 6.060,00
More than 10.001 minutes	7	100%	€ 6.060,61	-
Total	100.493[4]			

[4] These numbers are lower than in the previous tables. This is because records with missing values for completion times have been deleted from the file.

Response burden by size class

Figure 3 shows how response burden is distributed over size classes (based on the number of employees). These analyses are similar to those conducted on Canadian data by Seens (2010). As could be expected based on our sample strategies, on average the highest burden is experienced by the largest businesses. However, detailed analyses of burden hotspots (see also section 4) show that we also find some smaller businesses in these hotspots.

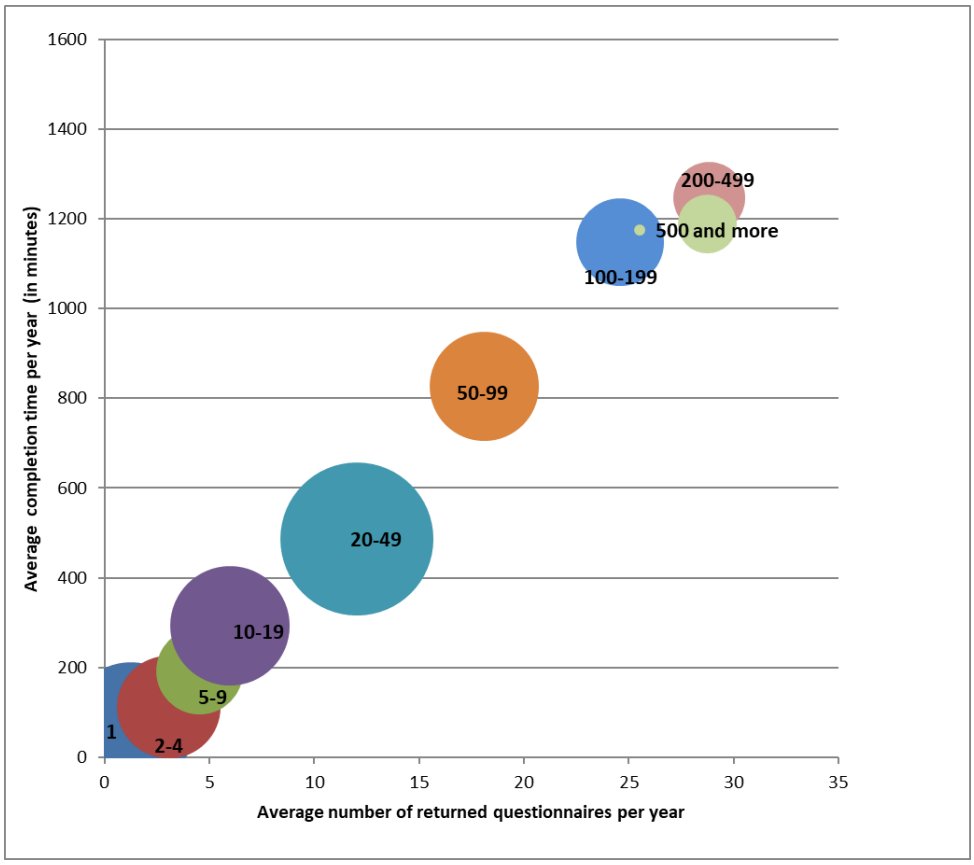

Figure 3: Response burden by size class (number of employees)

Response burden by sector and size class group

Figure 4 shows the average number of responses per year and the average completion time per sector and size class group[5] (following similar analyses done on Canadian data by Seens 2013). The figure shows that we find the highest number of questionnaires and the highest average completion time in medium and large manufacturing businesses.

[5] Based on number of employees: small = less than 50, medium = 50-249, large = 250 and more.

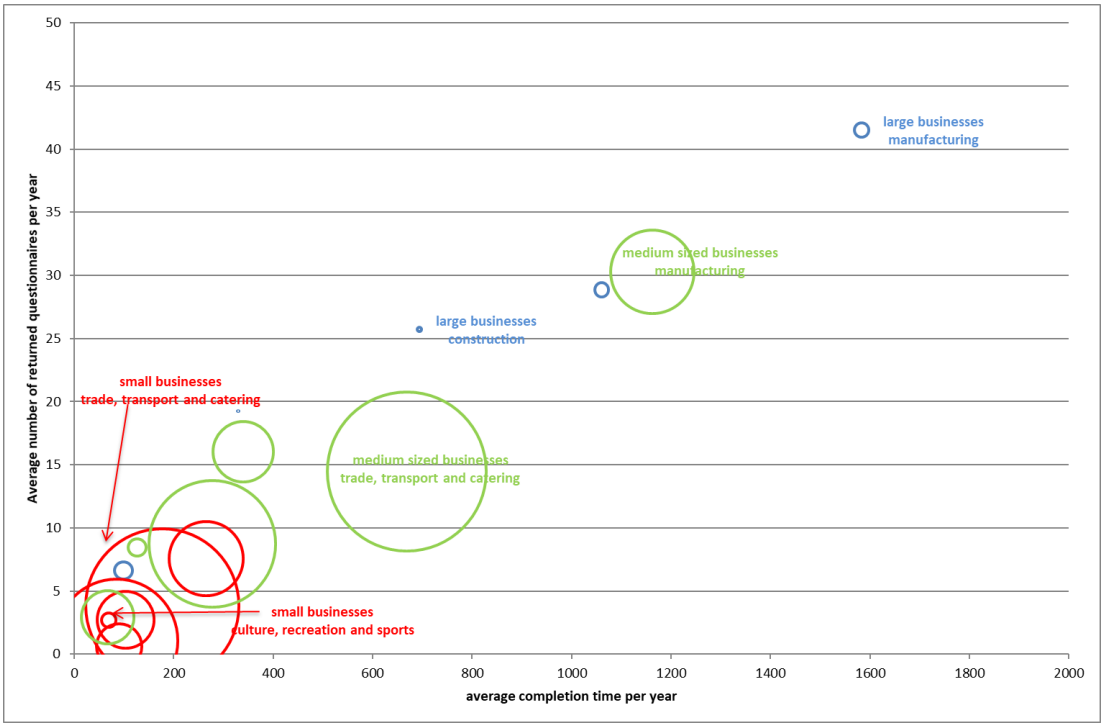

Figure 4: Response burden by sector and size class group

4 Hotspots

The analyses presented in the previous section, resulted in the identification of hotspots (i.e., disproportionally high burdened businesses). There are various ways to define burden hotspots. Different criteria for defining hotspots we discussed include the number of surveys, the number of questionnaires, the time spent on completing the questionnaires and the time spent relative to the number of employees and/or turnover. No matter which view we take on hotspots, these are always a relatively small group of businesses. However, that will be of little consolation to the businesses concerned.

As a start for our further analyses of the burden hotspots, we started zooming in at background characteristics of the 100 businesses with the highest total completion times. To our surprise this top 100 included 37 small businesses (businesses with less than 50 employees). We also started to explore the 350 businesses with the highest amounts of returned questionnaires in a year. This list included 13 small businesses. These exercises showed that although there is some overlap in the identified businesses, there are also different businesses in the hotspots, depending on the definition used.

The background characteristics of the businesses that have been identified as hotspots will be subject to further analysis. A first insight of this further analysis is that the majority of the small and medium businesses in hotspots are not traditional SMEs, but are businesses that are related (for example in fiscal and/or legal constructions) to very complex business structures, which are subject of intense relations management (Vennix 2012).

5 Conclusions

The overall conclusion from our analyses of response burden at the business level is twofold. On the one hand, it seems that response burden is non-existent or only small for most businesses. Of all businesses in the Netherlands 92 percent do not spend any time on SN surveys. Of the 8 percent of businesses in the Netherlands that responded to one or more SN surveys in 2016, 69 percent responded to only one survey (see table 1). Also, 49 percent of the responding businesses responded to only one questionnaire (see table 2). Of all the responding businesses, 65 percent spend less than two hours per year on completing questionnaires for SN (see table 3).

On the other hand, there are clearly hotspots of disproportionally high burdened businesses. One percent of the responding businesses was included in ten or more surveys (see table 1). Also four percent of all responding businesses submitted more than twenty questionnaires in a year (see table 2). Almost 2 percent spend more than forty hours per year completing questionnaires for SN (see table 3). Mainly the sectors manufacturing and also trade, transport and catering are sectors with a relatively high response burden. Furthermore, we found to our surprise that some of the businesses in these hotspots seem to be small and medium sized businesses.

The disproportionally high burdened businesses are a relatively small group of businesses. However, that will be of little consolation for the businesses involved. Especially businesses with a relative high burden as compared to the number of employees and/or turnover are a reason for concern. In the near future these hotspots will be subject to further analysis to determine which (groups of) businesses are overburdened and what we can do to reduce the number of data requests they receive and/or how we can better assist them in complying with these data requests.

6 Using new insights for new policies

The results of these analyses at the business level facilitate further streamlining and fine tuning of our response burden management policies. As a first step towards new policies, we recently organized a group discussion about the response burden hotspots with a broad group of experts within SN: methodologists, content matter experts from statistical departments, and experts from the data collection division.

First of all, this discussion has improved awareness of the issue of accumulated response burden for specific businesses. Furthermore, the discussions have led to several ideas for policies to improve the response burden for businesses in the hotspots. This will be explored and elaborated further, for example by exploring whether response burden management can be optimized bottom up, using insights in the complexity and statistical importance per business combined with some extra analyses on the hotspots.

We will also start exploring possibilities for more tailored and extra communication focused on small and medium sized businesses that are identified as hotspots (similar to our relation management to our large businesses with complex structures) and improving the “what’s in it for me” value for these businesses.

We expect that these and other activities in the near future will help to further streamline and fine tune our response burden management policies. This should result in noticeable effects for the small group of businesses with a disproportional high response burden.

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