

Expected Versus Actual Response Burden on Irish Businesses

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Abstract

Currently the Central Statistics Office does not have a sample coordination system in place. Business surveys generally draw their samples independently, though there is some ad-hoc coordination. This paper looks at the distribution of response burden that arises from this situation. Some of this burden is by design, i.e. unavoidable due to the sampling schemes currently in place, even if the samples were coordinated. The impact of these sampling designs on certain sub-sections of the business population is examined. The expected average burden for enterprises in these categories is calculated. This is then compared to the measured actual burden imposed on the highest burdened micro and small enterprises. This gives an indication of the potential benefit of the introduction of a sample coordination system.

Keywords: response burden, business surveys, sample coordination.

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1 Introduction

The Central Statistics Office (CSO) sends out thousands of questionnaires each year to businesses selected to participate in surveys. Some of these businesses receive multiple survey forms. These forms are often seen by the respondents as an irritant that costs time and money and may appear to be of no benefit to them. To the CSO, the responses to these forms are vital to the quality of business statistics. There is therefore a trade-off between the increasing demand for quality business statistics and the resulting response burden that is placed on businesses.

Minimising the administrative burden placed on Irish business respondents is a corporate priority of the CSO (Central Statistics Office, 2012). Various methods have been used to advance this aim, including the increased use of administrative data to replace information previously collected using survey forms. The CSO's annual Response Burden Barometer release measures the total response burden imposed by the CSO on Irish business, and compares it year on year. The latest release indicates that the Response Burden Index decreased by 32.4% since its peak in 2008 (Central Statistics Office, 2014b).

However, this response burden is not spread equally across the business population. Typically, business surveys from National Statistical Institutes focus their data collection efforts on larger businesses. Due to the skewed nature of the business population, collecting accurate data for these companies is the main priority in ensuring high quality statistics. The majority of Irish businesses are small or medium enterprises, with only 481 or 0.26% of all enterprises in the private business economy being large, i.e. having more than 250 persons engaged. However, this small number of enterprises accounts for 32% of all persons engaged in these sectors, and has a huge impact on business statistics produced by the CSO (Central Statistics Office, 2014a). Due to their importance, and large variability in characteristics, these enterprises are typically sampled with certainty in CSO business surveys.

Over 90% of the total population of businesses in Ireland are micro enterprises, with less than 10 persons engaged. A further 5% fall into the small category, i.e. with 10 to 19 persons engaged (Central Statistics Office, 2014a). CSO business surveys typically sample a small percentage of these micro and small enterprises, and so the overall response burden imposed on such businesses is generally assumed to be minor.

But the response burden on these smaller businesses is not spread equally among them. Business surveys in the CSO currently have limited ad-hoc coordination methods to spread out response burden. This means that while survey sections are typically mindful of the response burden imposed by their own survey on small businesses, and take a variety of measures to alleviate this, they are not generally aware of the burden imposed on the same respondents by other CSO surveys. A sample coordination system cannot reduce the total response burden imposed on the business population, but it can provide methods to distribute this burden in a fairer and more transparent way.

Sample coordination can be either positive or negative. Negative coordination minimises the overlap between different samples, so that enterprises that have been selected for one survey are not sampled in a second, or are sampled with a lower probability than other units. This is used to spread response burden more equally, and prevent some enterprises being selected for both surveys due to random selection. Positive coordination is also possible using a sample coordination system. This means that where an enterprise has already been selected for one survey, it is also chosen to

participate in a second. This can be used to ensure adequate overlap between subsequent waves of a survey, or to allow for linking of survey response data from two different surveys at unit level. The introduction of a sample coordination system was a recommendation of the recent European Statistics Code of Practice (ESCOPE) Peer Review Report for Ireland (Potisepp, García Villar, & Vaicenavicius, 2015).

This paper presents a method for determining where excessive response burden on small businesses can be reduced by sample coordination. Section 2 describes how actual response burden was measured, while section 3 gives a high level overview of sampling schemes for CSO business surveys. Then in section 4, the sampling scheme data is used to calculate the average response burden expected for enterprises in certain sample subsets of the economy. This is done by applying the sampling fractions used by each business survey to the population of eligible enterprises. The total number of weighted surveys to be issued to enterprises in a subpopulation, divided by the number of enterprises in that subpopulation, gives the expected average burden, or burden by design. In each subset, this value is compared to the actual distribution of response burden. Where the sample designs resulted in a high level of expected burden, attempts to reduce excessive burden using a sample coordination system would be limited.

2 Current distribution of response burden

2.1 Overview

Over 30 business surveys are issued by the CSO to Irish businesses. This study focussed on the 21 surveys detailed in Table A.1 in the Appendix, which were current and for which suitable data was available. These include annual, quarterly and monthly surveys, as well as less frequently issued forms.

2.2 Current attempts to manage excessive response burden

Currently, the only central method of dealing with cases of known excessive response burden uses an indicator known as the “No survey issue” flag on the Business Register. This is a “yes”/“no” field that is maintained for each enterprise, defaulted to “no”. A change to the status of an enterprise is generally initiated by the respondent complaining about the level of burden. This is then investigated by the Business Register area, and where the burden is deemed excessive, and the surveys targeting the enterprise judge that their surveys can be conducted without it, the indicator is set to “yes”. This flag is included on the Business Register frame. When surveys draw their samples, they exclude enterprises where this indicator is set to “yes”. The process works to give a break to these enterprises, but does not have the ability to indicate how long the survey holiday period should be, and so is effectively set indefinitely. Also, the process is a reactive one, reacting to respondents who complain the loudest, while not giving equal breaks to others who don’t object.

2.3 Survey participation data used

To analyse the current situation for this study, a dataset with the participation history of each enterprise in each survey was used. This data is collected annually from business surveys by the Business Register section, and loaded to a table in the Business Register database. A record exists for every survey that an enterprise is selected for, regardless of whether the enterprise responds or not. The format of the data is shown in the sample in Table 2.1. However, in many cases, the last two columns are not filled in.

To identify other characteristics such as size class of each enterprise, the Business Register frames were used. A Business Register frame exists for each year since 2005, containing all enterprises that are active on administrative sources during the reference year. Annual frames are created from the Business Register by linking it to

tax data. The frames contain only enterprises that are active on administrative data during a calendar year, i.e. have employees or pay tax.

Before 2008, response burden data is missing for several surveys, and at the time of data extraction, it wasn't fully available for 2012. So the data for the years 2008-2011 was identified as the most reliable period covered, and the analysis of the distribution of response burden in this study is based on this time period. An extract was taken from the survey participation history table, covering the years 2008 to 2011. This data was joined onto the Business Register frame for the relevant year.

Table 2.1 Synthetic Example of Structure of Survey Participation Data

Enterprise Number	Survey Code	Survey Year	Survey Period Code	Minutes Taken	Response Code
EN11112222	ASI	2011	A	60	Returned completely filled out
EN22223333	QSC	2010	Q2	-	Returned with partial completion
EN33334444	QSC	2010	Q3	-	-
EN33334444	MSI	2013	M08	5	-
EN33334444	MSI	2013	M09	-	-
EN55556666	MII	2012	M01	-	-

2.4 Adjustments to survey participation data

2.41 Adjustments to CIP data

Some adjustments were made to the survey participation data for the Census of Industrial Production survey. This survey counts survey participation at both enterprise and local unit level, but for this study, burden is only measured at the enterprise level. Therefore the local unit information was excluded. The smaller enterprises that are the focus of this study are almost exclusively businesses with only one local unit. Thus the exclusion of data on surveys sent to secondary local units is not likely to impact the overall burden imposed on this class of businesses.

2.42 Adjustments to enterprises in enterprise groups

Some enterprises that appeared to be micro (under 10 persons engaged), small (10-19 persons engaged) or medium (20-50 persons engaged) based on Business Register employment and turnover, turned out on examination to be part of enterprise groups. This means that they have links to other enterprises or staff who can share the burden of responding. For example, a holding company may have a very small number of employees registered against it, but it could be the head of a large group and the main point of contact for the statistical office to inquire about all activity within that group. Some enterprises like this appear in the survey participation data as micro or small enterprises with very high burden, but these are not the intended focus of this study.

The main employment and turnover figures on the Business Register are taken from administrative records. However, other information on employment and turnover from survey sources is also loaded to the central register. This is not used to update the main employment and turnover figures, but as secondary information for staff investigating an enterprise, typically during a survey edit. To remove the enterprises that are not really micro or small from the survey participation data, data from these secondary sources was exported from the Business Register and joined with the

survey participation data. Where enterprises had large employment or turnover from survey sources, these were excluded from the micro, small and medium size classes.

2.5 Weighting of survey participation data

The response burden of a survey depends on several issues, including the length and complexity of the questionnaire. CSO business surveys vary considerably, from short one or two question monthly forms to more detailed structural business survey questionnaires. Most of these surveys contain a question asking respondents how many minutes it took them to fill in the form. Using this data, a weighted response burden value was calculated for each survey.

The median time that respondents reported it took them to fill in the questionnaire, over the four years 2008 – 2011, was calculated for each survey. Then these median times were grouped into 8 classes as shown in Table 2.2. Each survey was given a response burden weight according to this classification, and these weights were used with the survey participation history data to calculate a cumulative weighted response burden value for each sampling unit. Median times and response burden weights for each CSO business survey are given in Table A.1 in the Appendix.

Table 2.2 Median Time Taken by Response Burden Weight

Median Time Taken	Response Burden Weight
5 minutes and under	1
Over 5, up to 10 minutes	2
Over 10, up to 15 minutes	3
Over 15, up to 20 minutes	4
Over 20, up to 30 minutes	6
Over 30, up to 60 minutes	12
Over 60, up to 120 minutes	24
Over 120, up to 420 minutes	84

3 Sampling practices for CSO business surveys

3.1 Sampling designs used in CSO business surveys

Most surveys issued by the CSO are determined by Eurostat regulations and guidelines. These have a large impact on the design of CSO business surveys. For example, the level of detail required in the dissemination of most business statistics is determined by Eurostat regulation. This detail is spelt out using classifications like NACE that have been developed as standard systems to be used across the EU.

While the use of common reporting standards has many advantages, principally the ability to compare statistics across different countries and regions, it also has certain disadvantages. EU countries vary considerably in the size of business population, as well as its distribution across economic sectors. An examination of burden across sectors shows that businesses in the manufacturing sector in Ireland are more highly burdened than those in other sectors (Delaney, 2015). An investigation of the sampling designs of the surveys targeting them shows that the main reason for this is the small number of businesses in each dissemination cell. If dissemination requirements for Irish business statistics were decided by the CSO, cells with a small number of units could be merged. This would allow for greater flexibility in sample design.

3.2 Overview of sampling designs by survey

Business surveys issued by NSIs typically use stratified random sampling (Smith, 2013). However, many CSO surveys use a cut-off census instead of a sample. A sample coordination system cannot change how burden is spread in these cases. Table A.2 in the Appendix lists the surveys included in this review, with the sampling frame used and the sampling design (census, cut-off census, stratified random sample, purposive sample, or fixed panel).

4 Expected versus actual response burden

4.1 Expected burden in the manufacturing sector

Table 4.1 shows which surveys target enterprises in the Manufacturing sector and what their sampling fractions are for micro and small enterprises. Not all surveys could be included in this analysis. The Intrastat survey has not been included because its sampling design cannot be modified without a change to European law (Delaney, 2015). WPI has also not been included due to unavailability of sampling fractions for this survey at present.

The manufacturing sector is the sector that contains the most highly burdened units in both the micro and small employment class sizes. The current possibilities for sample coordination are limited due to the nature of the CIP, Prodcom and MII sample designs.

Table 4.1 Sampling fractions in Manufacturing

Survey	0-2 persons engaged	3-9 persons engaged	10-19 persons engaged
CIP	0%	35% ¹	80% ¹
Prodcom	0%	100%	100%
EHECS	0%	2.3%	6%
MII	0%	0%	0%-100% ²
ECOM	0%	0%	2%
BEU	0%	0%	0%
CIS	0%	0%	0%-100% ³

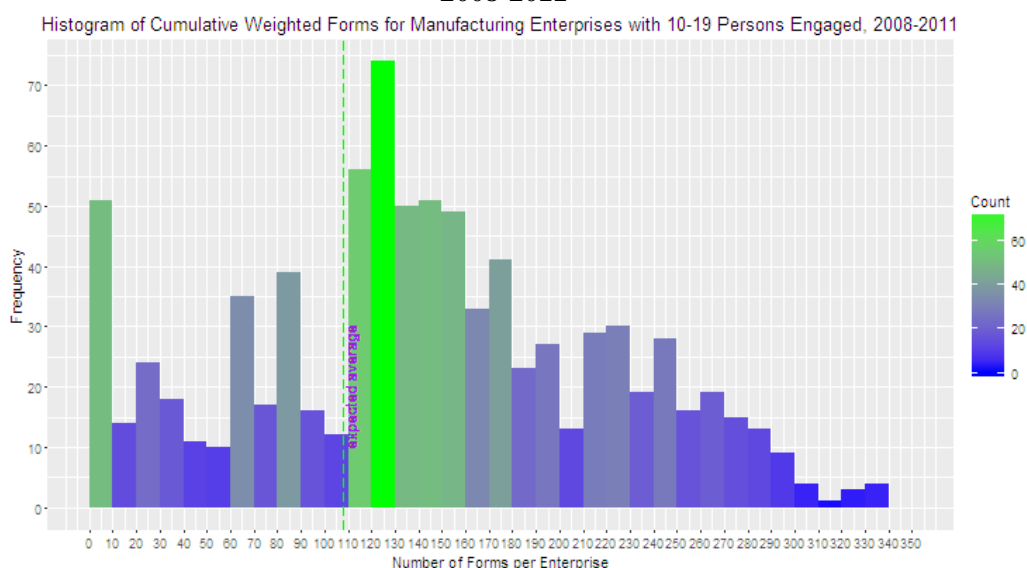
Notes:

- 1) The units selected for the sample are not selected at random, but are those for which data cannot be found on administrative records.
- 2) MII selects no units with less than 20 persons engaged, except for certain NACE codes, where all units with over 12 persons engaged are selected.
- 3) CIS selects different fractions by NACE division.
- 4) MII uses the CIP sampling frame from the base year as a sampling frame rather than the central Business Register. However, for the purposes of this analysis, the sampling fractions have been applied to the latest version of the central frame, in order to see the expected average response burden, based on the current sampling designs, if the common frame were used.

Applying the sampling fractions from Table 4.1 to the enterprises in the 10-19 size class from the 2013 Business Register Final Frame, with the survey weights as discussed in section 2, results in an average burden of 27 weighted forms per year per enterprise. Over the four year time period studied in section 2, this works out as 108 weighted forms. This is equivalent to slightly more than one CIP form, or 12 MII forms over the year. Figure 4.1 shows the actual distribution of burden for these enterprises over the years 2008 – 2011. Of these enterprises, 157 received more than

200 weighted forms over this time period, with 61 receiving more than 250 such forms.

Fig 4.1 Number of Forms by Enterprise, Manufacturing Sector, 10-19 Size Class, 2008-2011



Certain NACE classes with smaller numbers of units are selected with a higher sampling fraction than others in this sector. See for example the sampling fractions relevant for NACE C1310 in Table 4.2. A higher level of burden will be imposed on these enterprises due to their rarity. The actual distribution of burden over the four years is provided in Figure 4.2.

Table 4.2 Sampling fractions in NACE C1310 Preparation and spinning of textile fibres

Survey	0-2 persons engaged	3-9 persons engaged	10-11 persons engaged	12-19 persons engaged
CIP	0%	35% ¹	80% ¹	80% ¹
Prodcom	0%	100%	100%	100%
EHECS	0%	2.3%	6%	6%
MII	0%	0%	0%	100%
ECOM	0%	0%	0%	2%
BEU	0%	0%	0%	0%
CIS	0%	0%	0%	100%

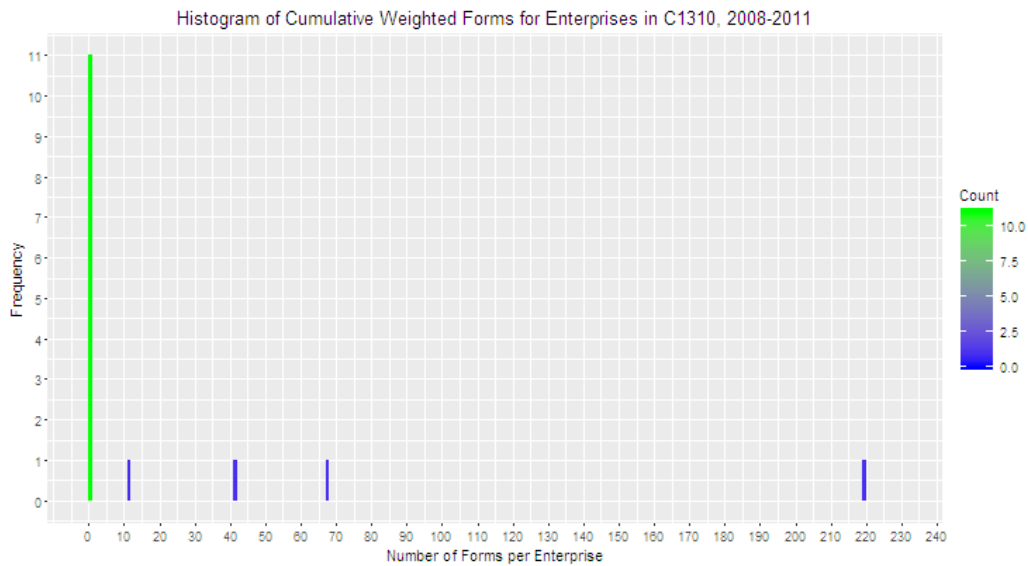
Notes:

1) See note 1 under Table 4.1.

While the Manufacturing sector appears as the area where micro and small enterprises are most likely to be highly burdened, the sample design of the surveys that target this sector mean that sample coordination by itself cannot be used to reduce the burden on these enterprises. With the existing designs, all enterprises in sectors B, C, D and E with more than 3 persons engaged will receive an annual Prodcom survey form, and many will also receive an annual CIP form unless data has been found for them on administrative sources. They may also be randomly selected by EHECS for participation in the sample. While EHECS operates a stratified random sample, meaning that it is theoretically possible to exclude units with the highest

burden, it is not possible to exclude all industrial units from EHECS because it needs to remain representative of the whole business economy.

Fig 4.2 Number of Forms by Enterprise in NACE C1310, 2008-2011



While MII does not target micro enterprises, and only samples small enterprises in certain NACE classes, its use of the CIP employment from the base year means that some enterprises that were over the 20 persons engaged threshold at that time are now in either the micro or small categories. The MII index calculation methodology was changed in 2014. While the old index method required the MII sample to remain fixed between rebases, the new index calculation allows units to be rotated in or out of the sample at any time. This could be used to allow units that have fallen under the 20 persons engaged threshold per the latest employment figures to be excluded from further participation.

Other surveys impose a lower level of burden on highly burdened enterprises in this sector, but their design allows them to take burden imposed by other surveys into account when selecting their sample. This is the case for the E-Commerce, Business Energy Use and Innovation in Irish Enterprises surveys. However, if all manufacturing enterprises were excluded from these surveys, the impact of this change on the representativeness of the sample would need to be considered. Most variables that are measured by business surveys are impacted by the economic activity of the business, so if excluding enterprises based on their higher burden resulted in no manufacturing enterprises being selected in the samples, then results based on grossing up the data collected for the samples will be biased. However, a lower sampling fraction for highly burdened sectors could be used, once the grossing mechanism was adjusted to compensate for this unequal sample distribution.

4.2 Expected burden in the construction sector

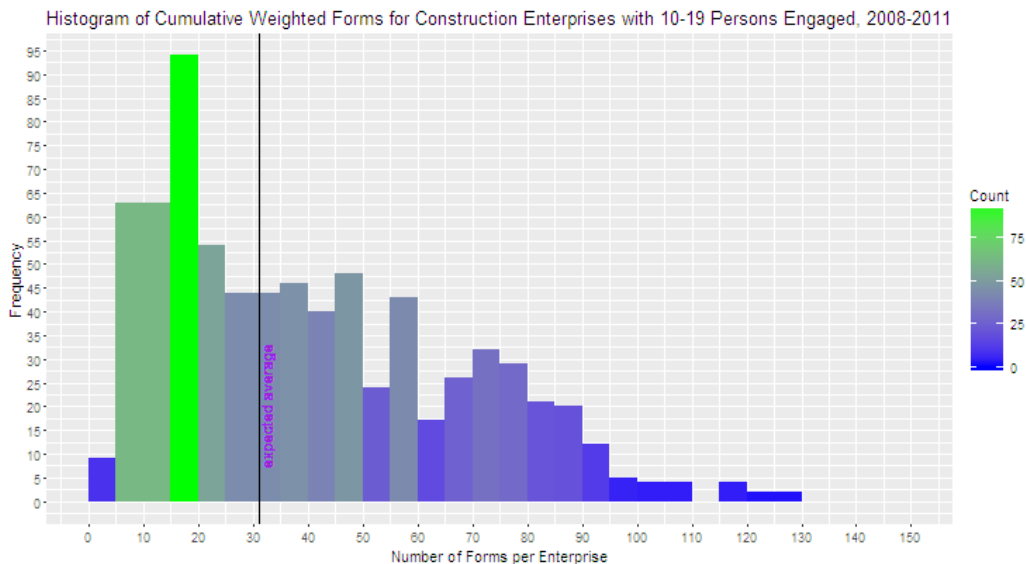
Table 4.3 lists the sampling fractions used by surveys targeting the Construction sector. Applying the sampling fractions from this table to construction enterprises with between 10 and 19 persons engaged on the 2013 Business Register Final Frame, with the survey weights as discussed in section 2.5, results in an average burden of 7.63 weighted forms per year per enterprise. This is equivalent to slightly more than one Building and Construction Inquiry form, or nearly 4 QSC forms over the year. Over the four year time period studied in section 2, this works out as 31 weighted forms. Figure 4.3 shows the actual distribution of burden for these enterprises over

the years 2008 – 2011. Of these enterprises, 12 received more than 100 weighted forms over this time period.

Table 4.3 Sampling fractions in Construction

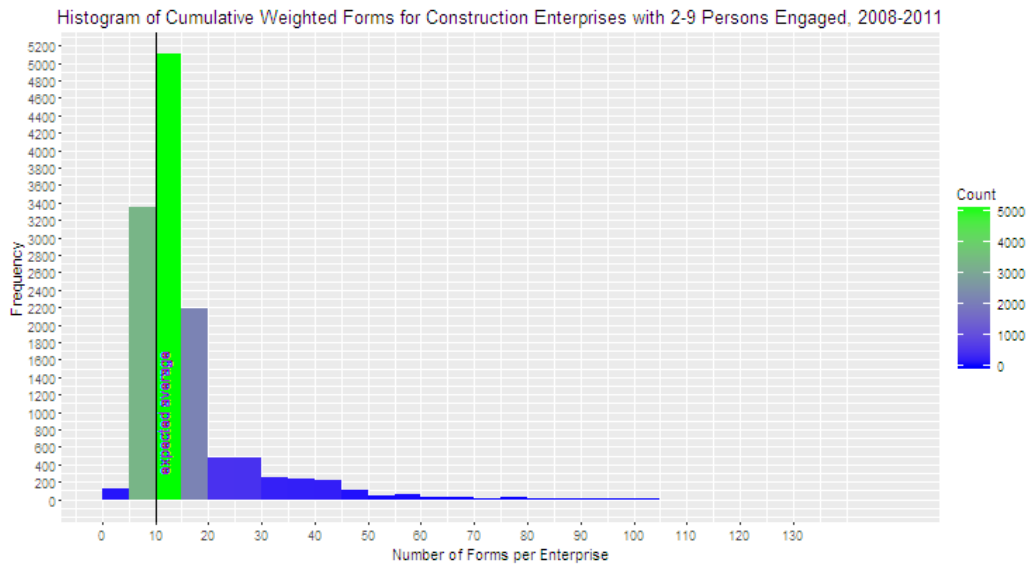
Survey	0 persons engaged	1 person engaged	2 persons engaged	3-4 persons engaged	5-9 persons engaged	10-19 persons engaged
QSC	0%	5%	5%	5%	18%	18%
EHECS	0%	0%	0%	2%	2%	6%
BLD	0%	0%	38%	38%	43%	100%
ECOM	0%	0%	0%	0%	0%	1%
BEU	0%	0%	0%	0%	0%	25%
CIS	0%	0%	0%	0%	0%	0%

Fig 4.3 Number of Forms by Enterprise, Construction Sector, 10-19 Size Class, 2008-2011



Applying the sampling fractions to smaller construction enterprises with between 2 and 9 persons engaged, results in an average expected burden of 2.5 weighted forms per enterprise. While this is a small number of forms compared to the burden imposed on other businesses, some enterprises, especially those at the lower end of this size class, may still find the burden excessive. The actual distribution of burden for these enterprises over the years 2008 – 2011 is provided in Figure 4.4.

Fig 4.4 Number of Forms by Enterprise, Construction Sector, 2-9 Size Class, 2008-2011



4.3 Expected burden in the services sector

Sampling schemes targeting the services sector vary considerably between different parts of this sector, so two particular areas have been chosen below for analysis. These are the Food and Beverage division (I56) and the Advertising and Market Research division (M73).

The Food and Beverage division I56 includes restaurants, bars, event catering etc. This division is surveyed by ASI, EHECS and MSI, with E-Commerce, Business Energy Use and the Innovation in Irish Enterprises surveys targeting larger enterprises within the division. The sampling fractions for this division are provided in Table 4.4 for surveys that stratify by employment. The MSI stratifies using turnover, and its sampling fractions are provided in Table 4.5.

Table 4.4 Sampling fractions in NACE I56 Food and Beverage serving activities

Survey	0-1 persons engaged	2 persons engaged	3-4 persons engaged	5-9 persons engaged	10-19 persons engaged
ASI	0%	12.5%	12.5%	12.5%	33%
EHECS	0%	0%	2%	2%	5%
ECOM	0%	0%	0%	0%	2%
BEU	0%	0%	0%	0%	0%
CIS	0%	0%	0%	0%	0%

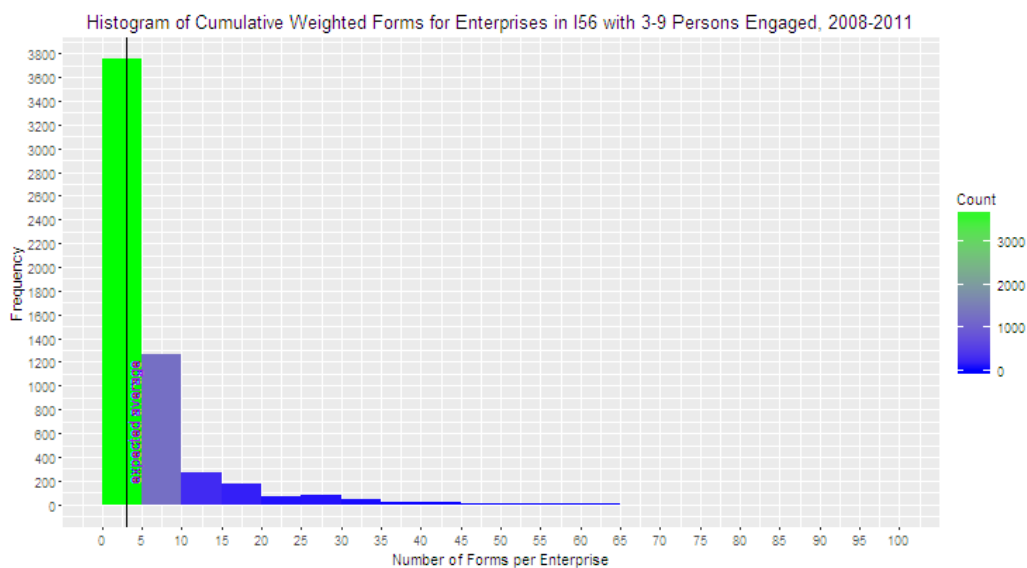
Table 4.5 MSI Sampling fractions in NACE I56 Food and Beverage serving activities

Survey	500 – 1,000 (Euro Thousand)	1,000 – 5,000 (Euro Thousand)	5,000 – 20,000 (Euro Thousand)
MSI	1%	3%	21%

The RSI survey also targets this division, but the sampling burden imposed by it is not included in these figures as the sampling strata and fractions for these surveys were not available. This survey currently uses a fixed panel, but work is underway to set it up as a rotating random stratified sample.

Applying the sampling fractions from Table 4.4 and Table 4.5 to units in the 3 - 9 persons engaged size class on the 2013 Business Register Final Frame, with the survey weights as discussed in section 2.5, results in an average burden of 0.83 weighted forms per year per enterprise. Over the four year time period studied in section 2, this works out as 3 weighted forms. It can be seen that the average burden for enterprises in this sector is much lower than in the Manufacturing sector, in particular for micro enterprises. The actual distribution of burden for these enterprises over the years 2008 – 2011 is provided in Figure 4.5.

Fig 4.5 Number of Forms by Enterprise in I56, 3-9 Size Class, 2008-2011



The Advertising and Market Research division is surveyed by ASI, EHECS and MSI, with E-Commerce, Business Energy Use and the Innovation in Irish Enterprises surveys targeting larger enterprises within the division. The sampling fractions for surveys stratifying by employment are provided in Table 4.6. The MSI sampling fractions by turnover strata are provided in Table 4.7.

Table 4.6 Division M73 – Advertising and Market Research

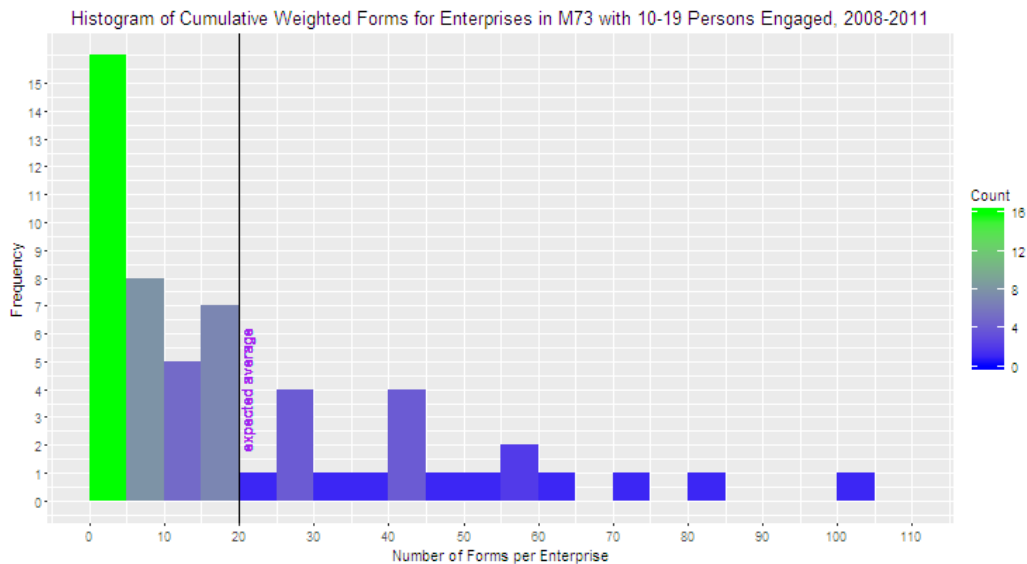
Survey	0-1 persons engaged	2 persons engaged	3-4 persons engaged	5-9 persons engaged	10-19 persons engaged
ASI	0%	12.5%	12.5%	12.5%	33%
EHECS	0%	0%	2%	2%	5%
ECOM	0%	0%	0%	0%	3%
BEU	0%	0%	0%	0%	10%
CIS	0%	0%	0%	0%	57%

Table 4.7 Division M73 – Advertising and Market Research

Survey	500 – 1,000 (Euro Thousand)	1,000 – 5,000 (Euro Thousand)	5,000 – 20,000 (Euro Thousand)
MSI	9%	7%	20%

Applying the sampling fractions from Table 4.6 and Table 4.7 to units in the 10 - 19 persons engaged size class on the 2013 Business Register Final Frame, with the survey weights as discussed in section 2.5, results in an average burden of 5.02 weighted forms per year per enterprise. Over the four year time period studied in section 2, this works out as 20 weighted forms. The actual distribution of burden for these enterprises over the four years can be seen in Figure 4.6.

Fig 4.6 Number of Forms by Enterprise in M73, 10-19 Size Class, 2008-2011



5 Conclusion

The implementation of a full sample coordination system is a long term goal for business statistics in the CSO. This would include all business surveys integrated into a central system, using standardised applications for sampling and other processes, with a fair, transparent and predictable system for spreading response burden out among small enterprises. It would also improve consistency across business statistics due to the common use of registers and stratification variables.

However, this paper shows that a sample coordination system will have a limited ability to reduce respondent burden on highly burdened small enterprises in certain subsets of the business population. This is because a significant level of the burden imposed on these enterprises is a necessary result of the sampling designs of the surveys targeting them. In particular, small manufacturing enterprises will continue to have a high level of respondent burden even if the burden is spread more fairly.

In the U.K., the Osmotherly Guarantee (Osmotherly, Graham, & Pepper, 1996) sets limits on the total response burden that a micro business is subject to. It may not be possible to implement a system like this in Ireland given the smaller number of Irish businesses compared to the UK business population. The main reason in many cases for taking a large sample is to be able to provide estimates for small domains. As discussed in section 3.1, the data dissemination requirements of many CSO surveys are set by Eurostat, and require detailed figures for sub-populations which may contain only a small number of respondents in a small economy like Ireland. However, instead of excessive sample sizes, small area estimation can provide an alternative (Burgard, Zimmermann, & Ralf, 2007).

This paper provides methods for assessing where a sample coordination system can alleviate excessive response burden on small businesses, and where a review of sample designs is necessary. The results presented indicate that a combination of sample design reviews plus the implementation of a sample coordination system will be required to tackle the problem of excessive response burden on small Irish businesses.

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Appendix

Table A.1 CSO Business Surveys with Weights

Survey Code	Survey Name	Median Minutes	Minutes Group	Weight
ASI	Annual Services	25	20-30	6
CIP	Census of Industrial Production	120	60-120	24
BLD	Building and Construction Inquiry	30	20-30	6
PROD	Prodcom	15	10-15	3
MII	Monthly Industrial Index	10	5-10	2
RSI	Retail Sales		5 and under	1
EHECS	Earnings, Hours and Employment Costs Survey	20	15-20	4
QSC	Quarterly Survey of Construction	10	5-10	2
ECOM	E-Commerce Enterprise Survey	15	10-15	3
BERD	Business Expenditure on Research and Development	5	Under 5	1
CIS	Innovation in Enterprises in Ireland	20	15-20	4
SPPI	Services Producer Prices Index	5	5 and under	1
WPI	Wholesale Prices Index	3	5 and under	1
IPI	Import Prices Index	2	5 and under	1
Intra	Intrastat			1
Extra	Extrastat			1
RF	Road Freight Transport	20	15-20	4
QAI	Quarterly Assets Inquiry	5	5 and under	1
MSI	Monthly Services (Turnover) Inquiry			1
QAII	Quarterly Accounts Inquiry to Industry	10	5-10	2
BEU	Business Energy Use Survey	20	15-20	4

Table A.2 Sampling Designs by Survey

Survey Code	Survey Name	Sampling Frame	Sample Design
ASI	Annual Services	Business Register	Stratified random sample
CIP	Census of Industrial Production	Business Register	Purposive sample with random selection
BLD	Building and Construction Inquiry	Business Register	Stratified random sample
PROD	Prodcom	Business Register	Cut-off census
MII	Monthly Industrial Index	CIP 2010	Cut-off census
RSI	Retail Sales	Fixed panel	Fixed panel
EHECS	Earnings, Hours and Employment Costs Survey	STS register	Stratified random sample
QSC	Quarterly Survey of Construction	STS register	Stratified random sample
ECOM	E-Commerce Enterprise Survey	Business Register	Stratified random sample
BERD	Business Expenditure on Research and Development	Own frame	Census
CIS	Innovation in Enterprises in Ireland	Business Register	Stratified random sample
SPPI	Services Producer Prices Index	Fixed panel	Fixed panel
WPI	Wholesale Prices Index	CIP 2010	Cut-off census
IPI	Import Prices Index	VAT register	Cut-off census
Intra	Intrastat	VAT register	Cut-off census
Extra	Extrastat	Administrative data	Administrative data
RF	Road Freight Transport	Register of goods vehicles	Stratified random sample
QAI	Quarterly Assets Inquiry	Business Register	Cut-off census plus stratified random sample
MSI	Monthly Services (Turnover) Inquiry	Business Register	Stratified random sample
QAII	Quarterly Accounts Inquiry to Industry	Business Register	Cut-off census
BEU	Business Energy Use Survey	Business Register	Stratified random sample