

STESEG request for 'Country Contributions' to the STES timeliness framework:

UK Response for the indicator 'Turnover for other service industries'

Please find below the description of the processes (including improvements that have been made) that the Office for National Statistics (ONS) currently use to produce timely turnover estimates for the 'other services industries'.

As far as possible these processes have been applied to the broad statistical functions within the STES timeliness framework.

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The survey used to collect turnover data for the service industries

Turnover data for the service sector is collected via ONS' Monthly Inquiry into the Distribution and Services Sector (MIDSS). MIDSS is a statutory inquiry i.e. it is required by law that the forms are completed and returned. MIDSS covers around 40% of the Service Sector.

Sampling Frame

ONS' Interdepartmental Business Register (IDBR) is used as the sampling frame. The register is primarily updated using administrative data sources; the register is updated on a quarterly basis with:

- turnover data (sourced from Valued Added Tax (VAT) returns) from Her Majesty's Customs and Excise
- employment data (sourced from the Pay As You Earn scheme) from the Inland Revenue

The register is also updated using information from ONS surveys.

Questionnaire Design

The inquiry form only asks for turnover data (most forms ask for turnover excluding VAT) on a monthly basis; employment data are also requested in the last month of each quarter. Most companies are able to supply these data.

To improve efficiency in data collection, all forms are designed so that returned data can be captured via optical character reading (OCR).

Businesses are involved (e.g. feedback is sought and forms are piloted) when there are any changes made to the design of the forms.

Sample Design and Selection

A stratified random sample (number of employees is the stratification variable) of 28,500 businesses out of around 921,000 registered businesses is taken. The sample is designed using optimal allocation methods ('Neyman').

Businesses with 100 or more employees are permanently selected (for a few industries this is increased to 250 or more employees). To minimise the burden on smaller businesses, sampled businesses are selected for approximately 27 months; businesses with 9 or less employees are selected for 15 months only.

Reference Periods & Due dates

The inquiry forms are sent out around a week before the end of the reference period so the companies have the forms ready to complete at the end of the period; the deadline for completion is 7 working days after the reference period. Although the form requests data for a calendar month, estimates based on businesses monthly reporting periods (if they do not equate to a calendar month) are accepted to help minimise the burden on businesses.

Data Collection and Validation

Efficient types of data collection methods using technology

A range of collection methods are used to help make it easier for businesses to provide data e.g. postal, telephone, TDE, touchstone and fax. If exact data are not available within the required timeframe, estimates (from those who have a good working knowledge of the business) are accepted.

A range of technology has been implemented to improve the efficiency of data capture e.g. all MIDSS data have the capability of being captured via OCR.

Respondent relationships/Organisational arrangements for input data processing

The data collection teams have been re-structured to deal with a number of surveys across particular industry sectors. This increases the team's knowledge of the industry and also helps facilitate an understanding of ONS needs to the contributors e.g. it is easier to build a rapport with individual businesses as 'they' tend to 'deal' with the same person when they communicate with the ONS. This initiative has helped improve response rates and to obtain briefing on the data.

Interactive technologies have been introduced to help reduce costs and improve quality e.g. the data collection system updates every night the IDBR to recognise that a form has been returned; this reduces the risk of sending reminders to businesses who have already returned an inquiry form. There is also an automatic congruency validation check (for businesses with 250+ employees) between the short-term and annual inquiries.

Follow up of non-respondents

A management information system is used to help target resources on non-respondents e.g. on those businesses who can potentially have the most impact on the survey estimates. A list of responders considered to be key to the survey results is then agreed with customers of the data; priority is then given to obtaining a response for these businesses.

An enforcement strategy set by employment size has been introduced for non-responding businesses. This includes a stronger message (than on the 'normal' reminder letters) being sent to all non-responding businesses with 1,000+ employment (there is currently consideration being given to reducing this limit to 500+ employment). This initiative has led to improved response rates for the 'larger' companies.

Efficient data validation methods

Selective editing has been implemented for MIDSS; this means only suspect data that would have a significant impact on the survey estimates is queried. On average 12% of forms are 'cleared' through selective editing. This has helped reduced the number of times a business needs to be re-contacted. These and other validation parameters are agreed between data supplier and customers.

Data collected via TDE are repeated back to the businesses to help minimise errors and to reduce the need to re-contact the business.

Estimation

Data in the sampled stratum are grossed at the stratum level by ratio estimation based on the returned turnover/employment and register population for that stratum.

Estimates for non-respondents are calculated at the stratum level also. Data are imputed using a matched pairs method; the imputation ratio is calculated using data received for the current and previous period and an average for each strata is calculated.

Dissemination

MIDSS results are published around a quarter after the reference period. The data published are current price non-seasonally adjusted; the data are disseminated via the 'web' and 'hard copy' (i.e. paper).

Evaluation

The 'top' 200 companies in the MIDSS sample undergo a congruence exercise with ONS' Annual Business Inquiry (this inquiry collects balance sheet information from businesses). Significant differences are investigated and data are corrected if it is found that data errors have been returned.

The Experimental Index of Services (IoS)

MIDSS is the most significant data source (40%) used in ONS' experimental IoS. The turnover data are delivered to IoS after 20 working days; the target response rate for these data are 80% (in terms of the number of returned forms). The turnover data are deflated by a range of price indices and seasonally adjusted and are combined with other data sources (e.g. direct volume measures) to produce a chained volume seasonally adjusted index of the service sector.

The IoS was launched in December 2000 and was initially published thirteen and a half weeks after the reference period; the IoS is now published after eight weeks. Speeding up publication has mainly been achieved due to:

- the production procedures becoming more established e.g. increased automation between the quality assurance tools and the production system itself
- improved efficiency in quality assuring the data through the development of improved analytical tools e.g. the automation of graphing large datasets and tools that make it quicker and easier to identify the components that are driving the growth and/or revision to published data; this helps target quality assurance resources.