

Northern Ireland Manufacturing Sales and Exports Quality Report

Introduction

This report covers the Northern Ireland Manufacturing Sales and Exports Survey (MSES) statistical bulletin and provides information on the quality of the data used to produce the publication and the statistical time series. This will allow users to be informed about the quality of the information upon which they may be drawing conclusions and making decisions.

The report is based on the nine quality dimensions of the European Statistical System

http://epp.eurostat.ec.europa.eu/portal/page/portal/product_details/publication?p_product_code=KS-RA-08-015

From 1st April 2011, responsibility for the production of official statistics on the economy and labour market became the responsibility of Department of Finance and Personnel (DFP). Those powers previously exercised by the Department of Enterprise, Trade and Investment (DETI) under the Statistics of Trade and Employment (Northern Ireland) Order 1988 are now exercised by DFP from this date, as a result of the The Departments (Transfer of Functions) (No.2) Order (Northern Ireland) 2011. While DFP exercise the powers of the 1988 Order, in practice the operational responsibility for statistics production will reside with the Northern Ireland Statistics and Research Agency (NISRA), an Agency of DFP.

In the short-term the statistics will continue to be published on the DETI website.

Publication Name: Northern Ireland Manufacturing Sales and Exports Survey

Department Responsible: Department of Finance and Personnel

Release Date: Annually, in December

Web link to main publication: <http://www.detini.gov.uk/deti-stats-index/stats-surveys/stats-manufacturing-sales-exports.htm>

Quality report last updated: December 2011

Dimension	Assessment by the Author
Relevance	<p>The degree to which the statistical product meets user needs in both coverage and content.</p> <p>The Northern Ireland Manufacturing Sales and Exports Survey (MSES) provides information on the value of sales and exports generated by businesses classified within the manufacturing industry in Northern Ireland.</p> <p>There are a variety of users of the MSES data – government, economic analysts, academics and the general public. The MSES is</p>

	<p>produced annually but through our regular Economic and Labour Market Statistics Users meetings users have raised the need for a short-term exports measure. As a result we now collect information on exports in our quarterly Index of Production. The question was first asked for the April to June 2010 period. When we have sufficient data we will start publishing a quarterly exports index. More recently, users have requested an estimate of total exports from Northern Ireland that also covers those business sectors outside manufacturing. Further development of the Exporting NI Services report is planned to address this.</p> <p>Within government the MSES is used in policy formation, in response to Assembly Questions.</p>
<p>Accuracy</p>	<p>The proximity between an estimate and the unknown true value.</p> <p>The MSES is designed to provide estimates of the total sales and exports of all businesses in the manufacturing sector. Given the size of the manufacturing business population, the MSES sample is designed as a census of all manufacturing businesses with 5 or more employees. However, not all businesses respond to the survey.</p> <p>The accuracy of the results is affected by a range of issues. Some of these are related to the fact that the estimates are based on a sample rather than a census of all manufacturing businesses and that not all businesses respond to the survey. Some relate to the other processes involved in calculating the results.</p> <p>Coverage errors: The survey is designed to cover all businesses in the manufacturing sector and the sample is drawn from the Inter Departmental Business Register. http://www.detini.gov.uk/deti-stats-index/stats-surveys/stats-inter-dept-bus-register.htm. As the IDBR is a continuously updated register it is possible that misclassified businesses may be included in the sample and that newly established businesses may be missed through not yet being recorded in the IDBR.</p> <p>Non-sampling Error</p> <p>Non-sampling errors can be difficult to quantify accurately but can be caused by coverage, measurement, processing and non-response. Details of the impact of these as well as the methods employed to minimise their effects can be seen below.</p> <p>Non-response errors: Non-response errors occur when the response rate falls significantly below 100%. As the characteristics of respondents and non-respondents may differ, biases can be introduced into the results. As the response rate for the 2010 MSES survey was 79%, non-response error is not considered to have a large effect on the results. However, to reduce the influence of non-response error a scoring system is used to identify those companies whose results will have the largest effect on the overall results. DFP is currently in the process of developing the scoring system to adjust to the cross section of non-</p>

respondents. By viewing respondent's importance in terms of their contribution to their SIC 2 band's turnover as well as the contribution of the SIC 2 band to overall turnover, the score will adjust to prioritise companies within those SIC 2 bands where response rates are low. These large scoring companies are then prioritised when conducting telephone inquiries and during the quality assurance process.

Processing errors:

Processing errors happen when mistakes occur in the implementation of the administrative and statistical methods used to produce the survey. With the introduction in 2012 of a new Integrated Business Survey System (IBSS) all survey forms are now scanned, and electronic versions automatically populated, rather than manually input. This reduces the incidence of data entry error. Errors that occur as a consequence of the form incorrectly scanning will be identified during the validation process and a check can be made to see if this is a data input error or the provision of incorrect data. Processing errors are considered to have a negligible impact on the results.

Measurement errors:

A business may provide incorrect data to the sales and exports questions – for example providing the exact amount in £s rather than in £,000s. Validation checks are applied to the raw data and individual returns that are significantly out of step with previous values are queried with the data suppliers, and may be amended depending on the result of the check. Where a company has also provided information to another Northern Ireland survey, for example the Annual Business Inquiry (ABI) or the Index of Production, the information can be compared to this survey. This information is used to understand and explain movements in the data. This has been considered to have a negligible impact on the results.

In addition, with the intention of improving the questionnaire, DFP recently conducted a user and respondent review of the MSES. Information provided by MSES respondents will feed into any future questionnaire developments helping to improve the survey's clarity and thereby reduce the likelihood of respondent error.

Calendar year results:

MSES results are published for calendar years. However, in order to reduce the burden on respondents, businesses have the option to return data for their business year end, covering any 12 month period up to and including the end of the financial year that follows the calendar year. It is possible that, particularly if the economy is undergoing a period of rapid change such as during a recession, the different reporting periods could introduce some bias. The ONS is currently conducting an analysis of this effect and the results will be published on the UK Annual Business Survey web-pages.

<http://www.ons.gov.uk/ons/rel/abs/annual-business-survey/index.html>

Provision of revised data:

Revisions to data occur for a number of reasons: late returned questionnaires, incorrect estimates or revised data. The MSES revisions policy is published on the MSES section of the website.

	<p>http://www.detini.gov.uk/deti-stats-index/stats-surveys/stats-manufacturing-sales-exports.htm</p> <p>Significant revisions to recent data are highlighted in the report to bring them to the attention of users.</p>
<p>Timeliness and Punctuality</p>	<p>Timeliness refers to the time gap between publication and the reference period. Punctuality refers to the gap between planned and actual publication dates.</p> <p>The Economic and Labour Market Statistics (ELMS) publications schedule is available on the DETI website and provides twelve months advance notice of releases. http://www.detini.gov.uk/publication_schedule_10-18.pdf</p> <p>The MSES is published in December each year, some eight months after the end of the financial year reporting period. Every effort is made to meet the publication deadline and the MSES has always been published on schedule. In the unlikely event of a change to the pre-announced release schedule, public attention would be drawn to the change and the reasons for the change explained fully at the same time, as set out in the Code of Practice for Official Statistics.</p>
<p>Accessibility and Clarity</p>	<p>Accessibility is the ease with which users are able to access the data, also reflecting the format in which the data are available and the availability of supporting information. Clarity refers to the quality and sufficiency of the metadata, illustrations and accompanying advice.</p> <p>The MSES statistical bulletin contains tables, graphs and text and conform to the standards set out in the Code of Practice for Official Statistics. The publication contains a 'Background Notes' section which provides information on the scope of the survey, details of the data collection process, validation process and methodology.</p> <p>The MSES statistical bulletin is available on the DETI website and free to download at 09:30 on the day of publication</p> <p>The ELMS Helpline can be contacted either by phone (028 9052 9475) or by email (statistics@dfpni.gov.uk)</p> <p>Enquiries from the media are directed through the DETI Press Office.</p> <p>NISRA operates a policy whereby publications are available on request in alternative formats such as Braille, large print and minority ethnic languages.</p>
<p>Coherence and Comparability</p>	<p>Coherence is the degree to which data that are derived from different sources or methods, but refer to the same topic, are similar. Comparability is the degree to which data can be</p>

compared over time and domain.

The MSES is available on a comparable basis from 1999/2000 to 2008/09. However, due to the changes implemented when the survey moved from using UK Standard Industrial Classification 2003 (SIC03) to SIC07 there is now a discontinuity in the MSES time series. Any key discontinuities will be highlighted within the statistical bulletin.

For those businesses within Manufacturing which fall within the sample for both the MSES and Northern Ireland Annual Business Inquiry a single survey form is issued, thus ensuring congruence of results for those companies.

The Northern Ireland Index of Production (IOP) is based on turnover from the production industries, including manufacturing.

- The IOP results refer to a particular quarter (e.g. Quarter 1 covers the period January to March). The MSES results are presented on a financial year basis (April 2010 to March 2011). However, where a business can only provide their information on a different financial year (e.g. January to December) this is accepted. Some large businesses with a significant impact on total sales make returns on a non-standard basis.
- The IOP results are presented on a constant basis whereas some MSES results are presented on a current prices basis.
- The IOP manufacturing index weights its components (e.g. Food, beverages and tobacco, Chemical and pharmaceutical products) according to Regional Accounts Gross Value Added (GVA) shares, as per best practice. MSES manufacturing results are based on the sum of turnover totals from each of its components. The turnover shares differ from the GVA shares.

The combination of these issues will lead to some differences in the results from the MSES and the IOP Manufacturing Index. In real terms the Manufacturing Index element of the IOP indicated an increase in output of 3.7% from 2009/10 to 2010/11. This compared to an estimated decrease of 1.1% in real terms in Total Sales in 2010/11 over the year from the MSES.

The Scottish Government produces estimates of Scotland's exports through data collected via Scotland's Global Connections Survey <http://www.scotland.gov.uk/Publications/2010/12/GCS2009>

Trade statistics for the UK (and its regions) are available from the Her Majesty's Revenue and Customs website at <https://www.uktradeinfo.com/index.cfm?task=TradeData&hasFlashPlayer=true>

These are compiled on a different basis from the MSES and are therefore not comparable. They are based on VAT returns from VAT-registered businesses and classified by commodity codes, rather than the SIC code of the business.

Trade-offs between Output Quality Components	<p>Trade-offs are the extent to which different aspects of quality are balanced against each other.</p> <p>The main users want the figures to be available as soon as possible after the period to which they refer. Estimates are published as soon as validation is finished and quality assurance is completed. As a result, revisions are an inevitable consequence of the trade-off between timeliness and accuracy.</p>
Assessment of User Needs and Perceptions	<p>The processes for finding out about users and uses, and their views on the statistical products.</p> <p>ELMS, NISRA has a programme of regular, scheduled Economy and Labour Market Statistics Users meetings. (The last meeting was 11 November 2011). The next meeting will take place in 2012. These meetings allow users to give feedback on their needs and perceptions of the MSES.</p> <p>From attendance at the statistics users meetings it is clear that users are primarily government officials, academics and economic analysts. It is likely that members of the general public access our data via the website.</p> <p>The MSES Quinquennial review was completed in June 2012 and is available at http://www.detini.gov.uk/mses_quinquennial_review_web_version.pdf. This included a voluntary survey of users which provided additional information on future areas for development. Additionally NISRA runs an annual NISRA-wide customer satisfaction survey which incorporates ELM statistics.</p>
Performance, Cost and Respondent Burden	<p>The effectiveness, efficiency and economy of the statistical output.</p> <p>The process of producing the MSES is carried out in-house and costs approximately £70,000 per year to run. This is mostly staff costs but also includes the printing and postage of the survey forms. The estimated respondent burden for 2009 was £34,019. Full details on respondent burden for all formerly DETI surveys can be found at http://www.detini.gov.uk/deti_2008_report_to_ministers-2.pdf. Updated compliance costs will become available in November 2012.</p> <p>The Quinquennial review also included a survey of businesses in the MSES sample to identify any problems with the data collection element of the survey from the contributors' point of view; the aim being to improve the process to reduce respondent burden.</p>
Confidentiality Transparency and Security	<p>The procedures and policy used to ensure sound confidentiality, security and transparent practices.</p> <p>The data are held on a network that is accredited to the security level of the data and is accessible only to staff involved in the production process. During the publication process all hard copies of interim</p>

results are locked away or shredded.

The data are collected under the Statistics of Trade and Employment (Northern Ireland) Order 1988.

<http://www.statutelaw.gov.uk/legResults.aspx?LegType=All%20Legislation&PageNumber=2&Year=1988&NavFrom=2&activeTextDocId=1014071>

This requires the Department to ensure the confidentiality of the data. Staff are trained and reminded of the protocols for ensuring the data remain confidential. This covers physical security, IT security and data disclosure issues.