

# Background Quality Report: Defence Economics SME Statistics

## Section 1: Introduction

### 1.1 Overview of the statistical output

The Statistical Bulletin “MOD Contracting with Small and Medium-sized Enterprises: Direct Expenditure” presents figures on MOD contracting with Small and Medium-sized Enterprises (SMEs). It includes estimates of MOD direct expenditure with SMEs.

#### History

For several years MOD has assessed the extent of business contracted with SMEs, producing two separate sets of estimates:

- Expenditure through DBS Finance (the MOD’s primary bill paying authority) with SMEs.
- Number and value of new contracts placed with SMEs.

Since 2011 the Department has produced estimates of the number and value of new contracts placed with SMEs. At the time there were no suitable administrative data sources available to help identify whether a supplier was an SME. Instead MOD selected a random sample of suppliers, from those associated with the new contracts placed during the latest financial year, and assessed them against the EU definition of an SME.

The Government’s aspiration is that 25% of public expenditure with third parties should be placed with SMEs by 2015.

In 2009 the Cabinet Office directed the inclusion of DUNS numbers, maintained by Dun and Bradstreet (D&B)<sup>1</sup>, in Government finance systems. During 2011/12 MOD worked collaboratively with D&B to map all MOD suppliers who had received payment during the financial year. This resulted in a database of MOD suppliers, their corresponding DUNS number and an assessment of their SME status. Although not completely comprehensive, it did provide assessments of suppliers responsible for about 98% of MOD expenditure. This database was the basis for estimates of MOD expenditure with SMEs.

In July 2013, the suppliers recorded and assessed by D&B were reassessed and updated, providing the opportunity to adopt a similar approach for both sets of estimates (new contracts and expenditure).

July 2013 is the most recent full update of the D&B assessments dataset. In March 2014 there was a partial update of the dataset. D&B assessed all new contractors in the period April 2013 to September 2013 but no reassessment of suppliers was conducted.

This bulletin presents estimates of direct expenditure on all SME contracts for the years 2011/12, 2012/13 and 2013/14 using the methodology first presented in the October 2013 experimental bulletin.

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<sup>1</sup> D&B is a global source of business information and insight. The nine-digit D&B DUNS Number, assigned to each business location in their global database, is widely used as a tool for identifying, organising and consolidating information about businesses.

## Strengths and Weaknesses

A strength of these statistics are that they provide clarity on a key Cabinet Office led target, aimed at increasing cross-Government expenditure with SMEs. The data are presented clearly with commentary explaining the key reasons for changes.

A weakness of these statistics is the notable proportion of MOD suppliers which have not been assessed by D&B. It is not clear whether the suppliers which have not been assessed are more or less likely to be SMEs than those which have been assessed.

Currently, only MOD publishes SME estimates as Official Statistics. The accuracy and coverage of these statistics would benefit from cross-GSS quality assurance of the D&B assessments.

## Latest Publications

1. [Annual Statistical Series 1 Finance Bulletin 1.01a MOD Contracting with Small and Medium-sized Enterprises: Direct Expenditure](#), MOD, May 2014
2. [MOD Contracting with Small and Medium-sized Enterprises: New Contracts and Direct Expenditure](#), MOD, Oct 2013.
3. [The Path to Strong, Sustainable and Balanced Growth](#), HMT and BIS, Nov 2010, outlines the current Government's commitment to supporting SMEs.
4. [Making Government Business More Accessible to SMEs: 2 Years On](#), Cabinet Office, Aug 2013, presents the latest cross-Government estimates of expenditure with SMEs.

## 1.2 Producer Information

These statistics are produced by the Defence Expenditure Analysis branch within the Defence Economics Division of the Ministry of Defence (MOD). The responsible statistician for these statistics can be contacted by emailing [DefStrat-Econ-ESES-DEA-Hd@mod.uk](mailto:DefStrat-Econ-ESES-DEA-Hd@mod.uk).

Further details about how to contact Defence Economics and Defence Statistics can be found [here](#).

## 1.3 Summary of Method and Processes Used to Compile Outputs

We use the single source of contracts data – Purchase to Payment (PtP) – which is used by the MOD's primary bill paying authority. Contract information is collected on the Def Form 57 which is the statistical input form completed by commercial officers at the start of a contract. We have carried out investigations into the quality of contracts data and cleanse the fields most relevant to our analysis. We cross-check the total spend figures with the MOD bill paying authority and in certain cases with individual Project Teams as validation during production.

The SME status of UK based Government suppliers is determined by D&B, based on the EU definition of an SME. Suppliers are then mapped to MOD contracts data, using a fuzzy matching algorithm based on key descriptors of the supplier. MOD quality assure the SME status of suppliers: (i) where the SME status is different to existing records or (ii) where there is a large expenditure with the supplier. If MOD identify possible discrepancies these are sent

to D&B for review.

#### 1.4: Other Documentation

[Defence statistics pre-release access lists](#)

[Defence statistics: confidentiality policy](#)

[Defence statistics: revisions and corrections policy](#)

[Defence statistics: statement of administrative data sources](#)

## Section 2: Quality Dimensions

**2.1 Relevance:** The degree to which the statistical product and underlying data meet user needs for both coverage and content.

The MOD estimates of direct defence spending with SMEs are published by the Cabinet Office on an (approximately) annual basis as part of their “Making Government Business More Accessible to SMEs” series of reports. The latest was published in August 2013 ([see here](#)). This report presents MOD estimates alongside those of sixteen other Government Departments, measuring progress against the Governments aspiration that 25% of central government procurement expenditure flows to SMEs directly or through the supply chain, by 2015.

The MOD’s commercial teams utilise both estimates of direct spending with SMEs and estimates of new contracts placed with SMEs to monitor progress towards increasing MOD business with SMEs.

#### Unmet User Needs

Alongside estimates of direct expenditure with SMEs, the Cabinet Office also publishes estimates of indirect expenditure with SMEs, i.e. expenditure at lower levels of the supply chain. The Cabinet Office bases these estimates on returns from a survey of Government suppliers. The MOD does not have the administrative systems capable of providing information to support this exercise.

**2.2 Accuracy:** The closeness between an estimated result and the (unknown) true value, and the accuracy of the raw data.

#### Coverage of the Contracts Database

The contracts database covers a subset of MOD expenditure excluding pay and personnel costs; it provides information on those contractual bills paid directly by the MOD’s bill payments centre to defence suppliers. Defence Economics utilise the data to provide information and statistics about MOD expenditure. It is estimated that the data contained on the database covers around 85-90% of all payments made to defence suppliers<sup>2</sup>. It does not

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<sup>2</sup> The term ‘defence suppliers’ includes defence contractors, Defence Agencies and other Government Departments.

cover those payments which may have been made (a) on behalf of other government departments, (b) by the MOD's Trading Funds and Executive Non Departmental Public Bodies (which lie outside the MOD's accounting boundary), (c) locally by the Department, (d) through third parties such as prime contractors or other government departments and (e) in relation to collaborative projects where the payments are made through international procurement agencies or overseas governments.

Of the suppliers included within the contracts database, Defence Commercial identify a number of suppliers for contracts which could not have been placed with SMEs. These are generally with other Central Government Departments, local councils (where rates are being paid) or international organisations (such as the NATO Eurofighter and Tornado Management Agency). These suppliers are excluded from the analysis.

### **Coding of the Def Form 57 During Data Input**

Time and resources limit the manual checks which the bill payments centre are able to make on data sent in by Commercial Staffs prior to entry on the system. Indeed the payments centre staffs probably do not have the knowledge to amend data fields. They check and verify only that the mandatory fields are completed. They advise that a significant proportion of the forms that they receive contain errors or missing fields.

As far as we are aware, no automated system exists to check the accuracy of bill payments data entry. Analysis of the database suggests that the problem posed by typing errors is relatively small. The Commercial Officers tend to be quite prompt in sending in their Def Form 57 once a contract has been signed. Improvements have been made in this area with the majority of Def Form 57's now being input through an electronic system called ASPECT, which is helping to improve the accuracy of the data.

### **Completion of the Def Form 57**

It appears that most Commercial staff endeavour to complete the form as well as they can, though the entries provide them with no benefit. The process through which the data are collected appears to work reasonably well. The Commercial Officer who signed the contract is also required to sign the Def Form 57. However, in the majority of cases, the person signing the contract delegates the completion of the form to another member of the team. Some training may therefore be required for these staff, as the Commercial Officer who agreed the contract does not always check the entries on the Def Form 57 before signing it.

### **Coverage of the Dun & Bradstreet Database**

D&B maintain a database of UK companies and provide an assessment of the SME status of all companies which have received payment from a Government Department during the previous financial year. MOD work closely with D&B to map this database of companies to the MOD finance systems. However, some MOD suppliers have not been assessed or have not been mapped successfully to MOD finance systems. For 2012/13, 12% of new contracts were placed with suppliers with no SME assessment (this corresponds to 13% by value of new contracts). In 2011/12, 2012/13 and 2013/14 about 2%, 4% and 7% respectively of direct MOD expenditure was to suppliers who had never been assessed.

### **Revisions**

Corrections to the Finance Bulletin tables are signposted online and accompanied by notes

to the tables or a full Defence Statistics Bulletin. We follow the [Defence statistics: revisions and corrections policy](#).

**2.3 Timeliness and Punctuality:** Timeliness refers to the lapse of time between publication and the period to which the data refer. Punctuality refers to the time lag between the actual and planned dates of publication.

The previous bulletin was released in October 2013, seven months after the end of the financial year. This reflected the experimental nature of the statistics at the time, and the associated need for validation and analysis.

Refinements in the validation and analysis process together with a more timely delivery of an update to the D&B dataset (April instead of July) has reduced production time and enabled delivery of the latest bulletin less than 2 months after the end of the financial year.

**2.4 Accessibility and Clarity:** Accessibility is the ease with which users are able to access the data output, also reflecting the format(s) in which the output is available and the availability of supporting information. Clarity refers to the quality and sufficiency of the metadata, illustrations and accompanying advice.

Defence Economics have published this data in a statistical bulletin, which is freely available on the Defence Statistics website. The data can be downloaded in several formats (e.g. Excel and PDF), is accompanied by commentary to provide supporting information, and includes links to related publications.

These statistics are accompanied by an explanation of some key terminology within the text or a link or footnote where relevant. If you have feedback on these statistics relating to accessibility and clarity please [contact us](#).

**2.5 Coherence and Comparability:** Coherence is the degree to which data that are derived from different sources or methods, but which refer to the same phenomenon, are similar. Comparability refers to the degree to which data can be compared over time and domain.

The estimates published in the statistical bulletin for 2012/13 and 2013/14 are all based on a consistent methodology. However, D&B update their assessments annually.

To date D&B have produced two full updates, one in early 2012 (representing the 2011/12 position) and one in July 2013 (representing the 2012/13 position). The early 2012 extract is the basis for the 2010/11 and 2011/12 estimates presented in the October 2013 experimental bulletin (there was not a specific 2010/11 extract produced), and the July 2013 extract is the basis for the 2012/13 estimates.

D&B have produced a partial update in April 2014, including new suppliers contracted during the first 6 months of financial year 2013/14. This April 2014 update is the basis for the 2013/14 estimates.

**2.6 Trade-offs between Output Quality Components:** Output quality components are not mutually exclusive in the sense that there are relationships between the factors that contribute to them. There are cases where the factors contributing to improvements with respect to one component lead to deterioration with respect to another.

Timeliness versus accuracy is the most notable trade-off for these SME statistics. The

estimates are based on the data as recorded on the DBS Finance database and the SME assessments provided by the contractor D&B. Defence Economics and Defence Commercial quality assure both datasets, but given that the MOD places many thousand new contracts (over 3,000 in 2012/13), quality assurance is focussed on contracts with high value or high expenditure.

**2.7 Assessment of User Needs and Perceptions:** Users are provided with products and services that meet their needs. The articulated and non-articulated needs, demands and expectations of external and internal users should guide the department.

Users are encouraged to provide feedback on this statistical bulletin and can request to be informed about updates to statistics and consulted if we're thinking of making changes by emailing [defstrat-stat-enquiries-mailbox@mod.uk](mailto:defstrat-stat-enquiries-mailbox@mod.uk). Users are also informed of the latest changes to these statistics through the [Defence Statistics area of the .GOV.UK website](#) and via the [UKSA publication hub](#).

More informally, we monitor the requests for information that we receive from within the MOD and from outside, and respond accordingly.

Our current assumptions about the users and uses of these statistics are contained in [Section 2.1 - Relevance](#). If you use these statistics in another way please [contact us](#).

**2.8 Performance, Cost and Respondent Burden:** Resources must be effectively used. The desired outcome must be produced cost effectively. Respondent burden should be proportional to the needs of users and not excessive for respondents.

In producing these statistics, our main sources of data have been MOD administrative data and bespoke data generated by D&B for use by multiple government departments. Some quality assurance of the D&B data is provided by MOD.

**2.9 Confidentiality, Transparency and Security:** The privacy of data providers (e.g. administrations, enterprises and others), the confidentiality of the information they provide and its use only for statistical purposes must be absolutely guaranteed. The department must produce and disseminate statistics respecting scientific independence and in an objective, professional and transparent manner in which all users are treated equitably.

In producing these statistics, we adhere to the [Defence Statistics confidentiality policy](#). A disclosure policy for commercial data has been agreed recently and a process now exists for deciding on the release of data that is consistent with the Transparency Agenda and the existing rules relating to the answering of Freedom of Information requests.

We adhere to the principles and protocols laid out in the Code of Practice for Official Statistics and comply with pre-release access arrangements. The [Defence statistics pre-release access lists](#) are available on the .GOV.UK website.

We maintain good links with policy colleagues to ensure that these statistics are understood and prevent misuse. The Statistical Bulletin "MOD Contracting with Small and Medium-sized Enterprises: Direct Expenditure" contains commentary explaining these statistics.