Bckground Quality Report: *UK Regular Armed Forces and MOD Civilians*

Introduction

This section provides the context for the quality report.

Overview

Defence Statistics (DS) publishes a large range of Armed Forces personnel statistics, the main purpose of which is to inform policy and decision making within the Department. Other uses of these statistics include measuring the performance of the Ministry of Defence against Government and Parliament targets, and also to inform general debate in Government, Parliament and the wider public.

This background quality report covers the Quarterly Location Statistics (QLS) which gives the global strength of UK Regular Forces and MOD Civilian personnel statistics by stationed location published on http://www.dasa.mod.uk/:

- UK Armed Forces & MOD Civilians :
    - Quarterly Location Statistics (QLS)[1]

The QLS at its current form was first published in July 2011. It shows the global strength of UK Regular Forces and MOD Civilians by stationed locations. Prior to July 2011, the Tri-Service Publication 10 (TSP10) was produced showing the global strength of UK Regular Forces only. The TSP-10 was first produced in July 1994 as a publication to show the strength of the UK Regular Forces by stationed locations covering only the UK. From April 2007, this was merged with TSP6 to show global strengths of the UK Regular Forces by stationed locations.

See the summary of the Consultation on Reformatting the Armed Forces Statistics[5] for further details.

Methodology and Production

QLS shows the strength of the UK Regular Forces and MOD Civilians by stationed locations as at the first day of each quarter (1st January, 1st April, 1st July and 1st October). Full time reserve service personnel, gurkhas & mobilised reservists are excluded from the data. These statistics are broken down into the following populations of interest:

Service (Naval Service, Army, and Royal Air Force) - officer and other ranks.

MOD Civilians – Core (Non Industrial and Industrial) and Trading Funds and the global locations of LEC personnel.

UK Regular Forces' Personnel statistics are derived from the Department's Joint Personnel Administration (JPA) system. Prior to the introduction of JPA in 2006/07, legacy single Service administration systems were used to produce the statistics. Extracts are taken from JPA each month and stored on a separate database to form a time series.

Data for core MOD civilians are derived from the MOD's Human Resources Management System (HRMS). Trading Funds data come from the validated personnel systems of the individual trading funds, and Royal Fleet Auxiliary data are sourced directly from their HR system 'Magellan'. Locally engaged civilians (LEC) data are provided by the main budgetary area of the MOD responsible for them.

The MOD Civilian strength figures are reported as Full Time Equivalents (FTE). This is preferable to headcount for civilian personnel as it enables fair comparison with Service figures, where working part-time does not occur, and provides a better indication of the person hours available and salary costs. FTE is calculated from the contractually agreed number of hours worked per week divided by the number of hours per week which constitute full-time for the grade and location (this varies according to whether Industrial or Non-Industrial grade, and whether on the London or National pay scale).

Basic data validation is conducted as part of the acceptance of the monthly extract prior to it being made available to the production team through ARES, a custom designed database for holding the time series of monthly UK Regular Forces and civilian extracts, but RFA data are not input onto the ARES database. Unusual variations are identified and investigated to identify explanations/reasons for the changes. The data goes through a series of automatic validation checks and edits to ensure the basic quality of the data. The data is then made available to DS's single Service manpower branches. They undertake a wide range of validation checks and implement specialist editing rules using their expert knowledge and experience as well as data obtained from other sources within the Department.

Once the data is confirmed as being accurate the database is queried to produce the range of tables published. These tables undergo several layers of scrutiny to ensure the outputs are accurate and consistent. The results are generally rounded to the nearest 10 to reflect the degree of confidence we have in the numbers and to ensure small numbers do not disclose information on individuals.

Contact details
Head of DS Tri-Service, is responsible for these statistics. Contact details are:

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We welcome feedback on this Background Quality Report or any of the statistics mentioned.

Relevance	*This section is about the degree to which the statistical product meets user needs in both coverage and content.*

	The principal customers for tri-Service personnel statistics are within the Chief of Defence Personnel (Personnel and Training) area of the Ministry of Defence. The statistics are used to inform and measure Service personnel strategy in areas such as pay & allowances, resettlement, and equality & diversity. They are also used to answer parliamentary questions and Freedom of Information requests. The QLS is used to inform various authorities including ONS about the strength of UK Regular Forces in the local authority areas.

	The coverage of these statistics is close to, if not equal to 100% of all UK Regular Armed Forces personnel and MOD Civilians. There are no known unmet user needs.
Accuracy and Reliability	*This section is about the differences between the estimates and the unknown true values.*
	All personnel in the Regular Armed Forces must be recorded on JPA in order for them to receive their pay. Therefore the overall strength figures are fairly accurate. However, more detailed breakdowns relying on the information recorded for each individual can be less accurate due to variable quality for the different fields.

The variation in quality is partly due to key information required for managing individuals being recorded and updated centrally, whereas other information is left to the individual to complete through a self-service tool.

The monthly datasets are passed through a range of automatic and manual validation and editing routines in order to make the key fields as accurate as possible, often drawing upon alternative data sources. A range of detailed breakdowns are produced and these are compared with previous month's outputs and discrepancies are examined. The detailed tables are used by the single Services to manage their personnel and inform policy and strategy. Regular feedback ensures DS staff are kept abreast of any changes or potential issues with the data and statistics, which is fed into the data validation and editing process. |
| **Timeliness and Punctuality** | *This section reports on the time gap between publication and the reference period (timeliness) and the gap between planned and actual publication dates (punctuality).* |
| | The editing and production process usually takes around a month at the single Service level. It then takes a further week or two to compile these data at a tri- Service level and publish as National Statistics.

Historic and planned publication dates can be found on the Publication Release Dates section[9] of the DS webpage and on the UK National Statistics Publication Hub[10]. |

	The publication dates were reviewed in 2010 following improvements in the timeliness of edited data and production processes. There have been no delays to release dates since the introduction of the Joint Personnel Administration system in 2006-07.
Accessibility and Clarity	*This section reports on: the ease with which users are able to access the data, the format in which the data are available, and the availability of supporting information (accessibility); and the quality and sufficiency of the metadata, illustrations and accompanying advice (clarity).*
	Tri-Service personnel reports are published on www.dasa.mod.uk and are available as web pages or pdfs. They can be found under the "National Statistics Publication" section or by searching for "personnel" on the DS webpage. They can also be accessed via the UK National Statistics Publication Hub[10] or through an internet search engine such as Google. Copies of the reports are also placed in the House of Commons library. Maps showing the distribution of UK Regular Forces and MOD Civilians by region are produced using the specialist mapping software ArcGIS.
Coherence and Comparability	*This section examines: the degree to which data that are derived from different sources or methods, but refer to the same topic, are similar (coherence); and the degree to which data can be compared over time and domain (comparability).*
	The DS statistics on UK Armed Forces are the definitive personnel statistics in the MOD. There are no other publically available regular publications on the numbers of UK Armed Forces with which to ensure coherence. Within the MOD direct queries of the Joint Personnel Administration system will produce slightly different numbers due to timing and quality issues. The UK Armed Forces personnel statistics are not always directly comparable with other countries statistics due to definitional differences of what constitutes an Armed Force. In some countries, particularly in Europe, part of the domestic police force is included in the Armed Forces. Similarly, there are not always direct equivalents to the Naval Service, Army, and RAF in other countries.

	Annual editions of UKDS dating back to 1992, plus historic Tri-Service publications dating back to 2002, are available on the [Defence Statistics website].
Trade-offs between Output Quality Components	*This section reports the extent to which different aspects of quality are balanced against each other.*
	The main trade-off is between timeliness and quality. To ensure statistics are timely the editing and validation process is restricted to around two weeks and a significant amount of automatic editing is utilised. Spending more time investigating every suspect individual personnel record could marginally improve quality at a detailed trade/rank level but is unlikely to impact the aggregated statistics published.
Assessment of User Needs and Perceptions	*The section reports the processes for finding out about users and uses, and their views on the statistical products.*

	DS (Tri-Service) frequently meets with customers within the Department to discuss data, results, interpretation and any changes to requirements. They also seek feedback from a wider range of internal and external customers.
	
	There was a formal consultation of both internal and external users in April 2009 over the proposal to replace the former Tri-Service publications 10 with the QLS and related issues. See [Consultation on Reformatting the Armed Forces Statistics][5] in the reports section of the DS webpage for details. There was also a formal consultation for internal and external users on [DS Annual Manpower Publications][6] between November 2010 and March 2011. Following these consultations DS received no negative feedback from external bodies regarding changes to the publications.
	
	Users are also encouraged to provide feedback on DS statistics through an automatic pop-up form on the DS website and through the annual consultation meetings. See the [Minutes from DS's latest Official Statistics Consultation meeting][11].
	
	We have made our own assessment of what these statistics could be used for using the categorisation in the UKSA paper *The Use Made of Statistics.* We believe the statistics could be used as follows:-
	
	     i. Informing the general public's choices:
	          e. about the performance of government and public bodies
	
	     ii. Government decision making about policies, and associated decisions about related programs and projects:
	          b. policy monitoring

	The underlying data also allow for:
	ii. Government decision making about policies, and associated decisions about related programs and projects: a. policy making vii. Facilitating academic research.

Performance, Cost and Respondent Burden	*This section is about the effectiveness, efficiency and economy of the statistical output.*
	DS has four branches dedicated to producing information relating to manpower and providing analysis and advice. However, the majority of time is spent on adding value through analysing, forecasting and answering ad hoc enquiries rather than producing the National Statistics. A number of other DS branches (there are 15 in total) provide support to the manpower branches. There is very little respondent burden as the majority of the data is automatically obtained from administrative systems. However, this is supplemented with small amounts of data as well as input from other areas within the MOD.

Confidentiality, Transparency and Security	*This section is about the procedures and policy used to ensure sound confidentiality, security and transparent practices.*
	Security All staff involved in the statistical production process have signed the Data Protection Act; all MOD, Civil Service and data protection regulations are adhered to. The data is stored, accessed and analysed using the MOD's restricted network and IT systems, and access to raw data is password protected. **Confidentiality** All published outputs are counts of individuals in particular groupings. The outputs are rounded according to DS's rounding policy, which reflects the degree of accuracy of the outputs and prevents disclosure of information on individuals. **Transparency** The QLS provide commentary on the key features of the outputs and identify any issues or caveats to the data. This quality report provides further information on the method, production process and quality of the output.

References

	Reference	Website Location
1	Quarterly Location Statistics / TSP-10	http://www.dasa.mod.uk/index.php/publications/personnel/combined/quarterly-location-statistics

Last Update: February 2014