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**DEVELOPING A QUALITY STRATEGY FOR BUSINESS REGISTERS,
A U.K. PERSPECTIVE**

Working paper prepared by Office for National Statistics of United-Kingdom*

Summary

A report has recently been published concerning the results of a thorough review of the quality of the UK's statistical business register (the Inter-Departmental Business Register, or IDBR). This report confirms that the IDBR is of good quality. It contains 29 recommendations that will be used to develop the IDBR as a key element of the UK statistical infrastructure, delivering a service that meets increasing user demands, whilst minimising the burden on businesses.

This paper describes the conduct of the review, and focuses on the lessons learned from this exercise. The experiences in the UK are used to explore how this approach could be further developed into a quality assessment framework that can be applied to business registers in other countries.

Keywords: Business registers, quality, user needs, benchmarking.

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INTRODUCTION

1. The Inter-Departmental Business Register (IDBR), is a list of UK businesses maintained by the Office for National Statistics (ONS). It complies with European Union Regulation 2186/93 on harmonisation of business registers for statistical purposes¹. It is used for selecting samples for surveys of businesses, to produce analyses of business activity and to produce lists of businesses.

2. The IDBR was chosen as one of the first subjects for a rolling five year programme of reviews of key statistical outputs in the UK. The purpose of each review is to address the following questions:

- What are the users' needs of the output?
- Do the outputs meet users' needs and are they of adequate quality?

3. In addressing the latter point each review considers the various attributes of quality for example: relevance, accuracy, timeliness, accessibility and coherence. In particular it considers:

- Are the methodologies used appropriate and in line with best practice?
- Are the inputs required appropriate and fit for this set of purposes, and is the burden on data suppliers justified?
- Are there aspects of cost effectiveness that can be improved?
- Can the information available to users on quality be improved?

4. These reviews are generally targeted at specific statistical data series, but the IDBR was chosen at an early stage in the programme as it underpins most UK business statistics, therefore quality improvements will have considerable knock-on effects.

5. A key feature of these reviews is that they are public documents², produced independently of the statistical hierarchy. Completed reviews are sent to the National Statistician, and copied to the Statistics Commission and the Minister for information only.

CONDUCT OF THE REVIEW

6. The review process was overseen by a steering group consisting of IDBR users from a number of public and private bodies. A project board made up of ONS staff, and an external expert from Southampton University was set up to monitor and review the project as it developed. The review itself was conducted by a small project team bringing together experts from the ONS Methodology Group, and Business Registers Unit. The work was managed using PRINCE project control guidelines. The work of the review team commenced in June 2000, with the final review paper accepted by the National Statistician, and published on the Internet in April 2001. The cost in terms of resources for the project team was 180 person-days, but this does not include inputs from other colleagues and register users.

7. Early work on the project involved looking at what quality means in terms of business registers, and how it can be assessed. Quality has been defined in the ISO standard 9000:2000 as "The degree to which a set of inherent characteristics fulfils requirements". The review identified the following eight quality criteria for the quality of business registers, with the aim of developing indicators for each criterion as a way of monitoring the quality of the IDBR:

- coverage;
- accuracy of industrial classification, employment and turnover;
- consistency;
- currency of information;
- availability of contact information;
- accuracy of inputs and processes;
- level of service to customers; and
- customer satisfaction.

8. Three methods of assessing the quality of the outputs of statistical organisations have been identified, self evaluation, user surveys and peer reviews. The IDBR quality review followed the above ISO definition, and included elements of all three assessment methods, focussing mainly on the latter two.

User Needs Survey

9. User needs were explored through a consultation exercise involving a selection of users and potential users of the IDBR. Users were selected from within ONS, other government departments and the wider business, research and public community. Potential users were identified as those who had requested samples or analysis from the IDBR, but, for one reason or another, could not have their request met. Seventy-two questionnaires were sent to a range of users and potential users of register data. A total of thirty-nine responses were received. Follow-up conversations were held where more information was required.

10. The main findings of this survey were that:

- on the whole, IDBR staff provided a great deal of good quality information, and were quick to respond to requests for analysis and other queries;
- some respondents would have liked faster responses to their requests;
- many users wanted more comprehensive documentation, containing less technical jargon, on the methods and practices of the IDBR; and
- the range of information available on the IDBR, particularly that relating to business structures, employment and turnover, was useful, although not always accurate. Respondents also thought that the facility to link with other sources was useful.

Comments were also made on specific aspects of quality, which are dealt with in the paragraphs below.

Coverage

11. Coverage of specific areas of activity, such as agriculture, and of very small units was raised as issues. The coverage of the IDBR coverage was generally found to be very good, representing around 99% of economic activity in the UK. Duplication (arising through the use of two main administrative sources for the IDBR) is a potential problem. Possible duplicates are excluded from the IDBR as a precautionary measure. Following extensive matching work, the level of potential duplication has been reduced, and the matching procedures have been improved.

Business structures

12. Users were generally happy with the business structures on the IDBR, and the flexibility of reporting structures within an enterprise was seen as a positive feature. Incorrect data at local unit level caused problems for some users, particularly out of date employment data.

Classifications

13. External users were generally happy with the quality of industrial classification in the IDBR, though some internal users were concerned about possible bias caused by selective updating of activity codes through feedback from different types of statistical surveys. This issue is considered in detail in Chapter 7 of the review report.

Speed and frequency of updates

14. The timing of updates and the length of lags between "real world" events and the relevant IDBR updates, were raised as issues, though users were divided on how to improve quality in these areas. The same was true regarding the frequency of updates, particularly regarding classifications.

Contact Details

15. Several users requested more comprehensive and up to date telephone contact details for businesses at the enterprise or reporting unit level, whilst others wanted improvements to local unit contact details.

Communication and Access

16. Lack of access to micro data was a concern of many external users, though this is usually due to legal restrictions or disclosure rules. Many users also commented on the IDBR user interface, suggesting a range of possible improvements.

Sampling

17. Users made a range of observations relating to how the IDBR selects samples. The points raised are covered in Chapter 12 of the review report, which also assesses the implementation of recommendations made by a previous review of the operation of the IDBR.

Benchmarking

18. A major part of the review was a consideration of international best practice, and an examination of work to improve the quality of business registers in various countries and various international fora.

Europe

19. The development of business registers within the European Union takes place within the framework of the 1993 Council Regulation (see Section 1 above), and the Business Registers Working Group which meets annually. A recent report to the Council of Ministers on the implementation of the Regulation³ shows that the IDBR meets the provisions of the Regulation in full, and therefore compares very favourably with business registers in other European countries in this respect. Table 1 below illustrates compliance with the Regulation using data from this report.

Table 1 Compliance with Main Aspects of the European Regulations

	Units		Coverage (NACE Rev. 1 Section)				All compulsory variables held for	
	legal unit differs from enterprise ?	local unit held ?	A, B (optional)	L (optional)	J	M	enterprise	local unit
Austria				N			N	N
Belgium		N						N
Denmark	N							
Finland	N						N	N
France							N	N
Germany	N		N		N	N	N	N
Greece	N		N	N			N	N
Ireland	N		N	N				
Italy	N		N	N			N	N
Luxembourg			N	N			N	N
Netherlands							N	N
Norway	N						N	N
Portugal	N						N	N
Spain			N	N				
Sweden							N	N
UK								

N = Not included in the register

Source: Statistical Program Committee Report on Register Quality

20. Eurostat is developing a range of other measures to assess various aspects of the quality of business registers, and have recently started to collect information, mostly relating to coverage, via their

annual register questionnaire. An exercise by Statistics Netherlands to assess user satisfaction with the Dutch business register has been studied, experiences and good practice from this exercise will feed into future work in the UK.

Rest of the World

21. Outside the European Union there are two main fora which have studied quality issues relating to business registers, the International Roundtable on Business Survey Frames and the biennial Work Sessions on Business Registers organised by the United Nations Economic Commission for Europe (UN/ECE). Papers relating to quality from recent meetings have been studied, end extracts from work by Statistics Canada and the Australian Bureau of Statistics on business profiling and business demographic quality measures are reproduced as examples of good practice in annexes to the review report.

KEY CONCLUSIONS OF THE REVIEW

22. The overall assessment of the review is that the IDBR is of good quality, though improvements are needed in some areas to ensure that the IDBR better meets the needs of all users. The review concluded that based on the limited range of quality measures currently available, the IDBR appears to be among the leading business registers in the world.

23. The review report set out twenty-nine detailed recommendations to maintain and improve the quality of the IDBR. These have been prioritised, and work has started to look at ways of implementing them, with the aim of finalising an implementation plan within three months. The highest priority recommendations are set out in Annex 1. In this respect, the publication of the review report is seen as just the start of the process to develop a quality strategy.

CONCLUSIONS REGARDING THE REVIEW PROCESS

24. The discipline of undergoing a structured review was a very useful experience for business register staff. Firm evidence of users needs, and clear recommendations for the directions of future work will help to focus efforts and ensure quality of outputs.

25. The main lessons learned from the review exercise are as follows:

- The structured project approach was vital to this review. The project management tool PRINCE was found to be suitable for this purpose. A particular benefit of this approach was the need to have a clear and fixed timetable.

- The use of project controls meant that the review report was completed on schedule, but the process of convening the project board and steering group, to provide their inputs and feedback, took longer than anticipated. This was mainly due to the limited availability of members of these groups, who were often senior managers in their particular organisations. With hindsight, more time should have been allowed for this stage of the review process.
- Finding independent experts to provide inputs to this type of review can be very difficult in practice due to the specialist nature of the subject.
- A project support function controlling documentation, timetables and other administrative aspects would have been a useful addition to the project team.
- The survey of users would have benefited from being more structured, and should have been piloted more, but this was constrained by the limited time available.

26. In general terms the approach adopted for this review should be easily applicable to business and other registers in a range of countries, and possibly to other elements of statistical infrastructures. The use of project management tools, and the combination of a user satisfaction survey and international benchmarking seem to be appropriate to a wide range of quality review exercises.

FURTHER WORK AND TRANSFER OF KNOW-HOW

27. The main area for future work highlighted by this review process is the need to develop better international quality standards and recommendations. This could be done in several ways:

- A re-write of the parts of the Eurostat Manual of Recommendations on Business Registers concerning quality, to update and expand the available guidelines.
- A continuation and expansion of the collection of register quality data in the annual Eurostat register survey.
- A re-look at the use of "ID cards" as discussed in recent UN/ECE work sessions, as a way of measuring register quality.

28. To facilitate this work, the Business Register Unit of the ONS is able to offer transfer of know-how in the following fields based on the experience gained in the conduct of the IDBR quality review:

- Management of register quality reviews
- The use of the PRINCE project management tool
- The conduct of register user surveys
- How to audit and measure the quality of register outputs

REFERENCES

(1) National Statistics Quality Review Series No.2 - Review of the Inter-Departmental Business Register. Office for National Statistics, 2001. ISBN 1 85774 438 1. Also available via the National Statistics Website - see http://www.statistics.gov.uk/nsbase/methods_quality/quality_review/commerce.asp

(2) A Quality Strategy for National Statistics. Office for National Statistics, 2001.

(3) Council Regulation (EEC) No 2186/93 of 22 July 1993 on Community co-ordination in drawing up business registers for statistical purposes (OJ No L 196, 5. 8. 1993, p. 1.) or see <http://forum.europa.eu.int/irc/dsis/bmethods/info/data/new/legislation/busreg.html>

(4) Implementation of Council Regulation (EEC) N°2186/93 of 22 July 1993 on Community co-ordination in drawing up business registers for statistical purposes - Report from the European Commission to the Council of Ministers. Eurostat, 1999.

(5) International Standard ISO 9000:2000 Quality Management Systems - Fundamentals and Vocabulary. International Organization for Standardization, 2000.

NOTES

¹ Council Regulation (EEC) No 2186/93 of 22 July 1993 on Community co-ordination in drawing up business registers for statistical purposes (OJ No L 196, 5. 8. 1993, p. 1.) or see <http://forum.europa.eu.int/irc/dsis/bmethods/info/data/new/legislation/busreg.html>

² See http://www.statistics.gov.uk/nsbase/methods_quality/quality_review/commerce.asp

³ Report from the Commission to the Council - Implementation of Council Regulation (EEC) N°2186/93 of 22 July 1993 on Community co-ordination in drawing up business registers for statistical purposes - Eurostat, 1999.

ANNEX 1 - PRIORITY RECOMMENDATIONS

Recommendation 1 *ONS should publish regularly a wide range of measures of both the level of the IDBR's quality and the change in quality over time. The existing user satisfaction questionnaire should be improved to include a wider range of questions relating to the IDBR's quality and that of the service provided by the Business Registers Unit.*

Recommendation 2 *The development of the Comprehensive Business Directory should continue to be a priority within ONS, as a means of improving access to data from administrative sources, improving the quality of the IDBR through better matching of source data and of reducing the need to collect data directly from businesses.*

Recommendation 3 *Building on the existing relationships with HM Customs and Excise (HMCE), Inland Revenue (IR) and Companies House (CH), ONS should:*

- *seek to extend the range of data supplied by the administrative departments to include, from HMCE, company numbers and previous VAT registration details and, from all administrative sources, comprehensive contact information; and*
- *seek to improve the quality of industrial classification coming from administrative sources by using consistent data-collection and coding techniques, and by supporting those people who classify businesses.*

Recommendation 4 *Quality standards for industrial classification, legal status, company number and address should be agreed and documented by ONS and the administrative departments.*

Recommendation 5 *ONS should revise the Annual Register Inquiry sample design and selection so that it:*

- *completely enumerates enterprises with employment of 50 or more;*
- *includes a wider range of enterprises with conflicting auxiliary information;*
- *includes, every four years, enterprises with employment of 10 or more;*
- *includes enterprises with employment of less than 10 only to the extent that is necessary for adequate quality measurement; and*
- *can be used to update the IDBR in an unbiased way.*

Recommendation 7 *Questionnaire design for the Annual Register Inquiry should be given priority within ONS's proposed business-survey questionnaire design project. Among the particular topics that need to be addressed are omission of local units; delineation of business units; feedback of known industrial classification information; and efficient collection of business description information.*

Recommendation 9 *The Annual Register Inquiry, Business Profiling Team and the administrative sources should have highest priority for updating IDBR auxiliary information. In the case of industrial classification, this depends on improvements to the current level of quality of information from those sources. Other sources should be used by the Business Registers Unit to resolve uncertainty and ambiguity.*

Recommendation 12 *A business profiling strategy should be agreed based on two objective measures: the level of secondary activity; and the impact on survey estimates and analyses. A solution should be developed to bring profiling and ARI operations together for the largest businesses. A trigger mechanism should be established for sub-annual profiling of the most complex enterprises.*

Recommendation 23 *Additional documentation should be produced for users of the Register. Part of this documentation should take the form of a frequently asked questions document.*

Recommendation 26 *ONS should ensure that the impact on outputs is assessed for any proposed changes to the IDBR..*

Recommendation 27 *ONS's Register strategy group should take responsibility for overseeing the implementation of recommendations from projects relating to the improvement of the IDBR. The membership of the group should be reviewed and include a non-ONS member.*

Recommendation 29 *ONS should set aside resources to study further the impact of births and deaths of enterprises on statistical outputs.*
