

## **Principal Findings and Recommendations**

### **Summary**

The Inter-Departmental Business Register (IDBR) is a list of UK businesses that is maintained by ONS. It is used for selecting samples for surveys of businesses, to produce analyses of business activity and to provide lists of businesses. It is based on inputs from three administrative sources: traders registered for Value Added Tax (VAT) purposes with HM Customs and Excise (HMCE); employers operating a Pay As You Earn (PAYE) scheme, registered with the Inland Revenue (IR); and incorporated businesses registered at Companies House (CH). The ONS Annual Register Inquiry (ARI) and other surveys are used to identify and maintain the business structures necessary to produce industry and small area statistics.

The purposes of the Review were to establish what users need from the IDBR and to evaluate whether the IDBR's outputs are fit for purpose, taking into account the various attributes of quality. In addressing the second purpose, we considered how we could improve the quality of the IDBR's processes and the information about the IDBR's quality that is available to users.

This report outlines:

- the results of our consultation with users;
- the reviews of the provision of data from administrative sources, the Annual Register Inquiry, the mechanism for updating statistical information on the IDBR, complex businesses, coverage, and quality assurance and measurement.

In addition, the report covers issues relating to the management of the IDBR and communication with users, and looks at the extent to which a recent review of some aspects of register operations has been implemented.

Our overall assessment of is that the IDBR is of good quality. Improvements are needed in some areas to ensure that the IDBR better meets the needs of all users. Based on the limited range of quality measures currently available, the IDBR appears to be among the leading business registers in the world.

The main strengths of the IDBR are:

- a committed staff, many with years of experience in register operations, supported by a dedicated training unit;
- that it is updated frequently from administrative sources;
- the existence of systems that regularly update the structures of large businesses;
- its excellent coverage, which is due to the use of two comprehensive administrative sources;

- the fact that there is, for each business, a wide range of statistical information available for use in sampling and estimation;
- the unit dedicated to ensuring that the structures of the largest, most complex businesses are correct; and
- that extensive work is undertaken to reduce the level of duplication arising from the use of multiple administrative sources.

We have identified a range of areas where changes, building on the strengths identified, can help meet customer needs better. These are grouped logically within the broad areas of the IDBR that we reviewed.

The recommendations are ranked according to the priority that should be attached to them. Those with priority 1 are very important to undertake and should be addressed in the short-term. Those with priority 2 are also important, and those with priority 3 are still important, but have a lower priority than the other recommendations.

## Quality Measurement

Quality measurement is important for two reasons. As well as enabling users to appreciate a product's quality, measurement of quality helps people responsible for managing the output to devote resources in the most cost-effective way to improve quality where required. Measures of both the level of quality and the change over time are important.

ONS has begun to develop measures of register quality. In Chapter 4, we suggest an expansion to the range of measures available to include indicators in the following areas:

- 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.

**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. (Priority: 1)*

## Administrative sources

The IDBR is based on a comprehensive range of data from the administrative sources. This is updated frequently – weekly in the case of information on VAT traders from HMCE. We identified data items that are collected by the administrative departments that could be used by ONS to make improvements to the quality of the IDBR (section 5.3). In addition,

standards for the quality of data should be agreed by ONS with the administrative departments (section 5.10).

We endorse the continued involvement of ONS in work on the Comprehensive Business Directory (section 5.2). This work could benefit the business community by reducing the level of reporting to government, and may also benefit National Statistics by improving consistency and quality through the development of standards and wider access to data. A major benefit to the IDBR will be consistent, high quality business descriptions leading to more accurate industrial classification.

**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. (Priority: 1)*

**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 (Priority: 1);*
- *seek to improve the method and frequency of transferring data from the administrative sources and seek more frequent transfer of data (Priority: 3);*
- *consider feeding back industrial classification data to the administrative departments within the scope of the prevailing legal framework (Priority: 2); 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. (Priority: 1)*

**Recommendation 4** *Quality standards for industrial classification, legal status, company number and address should be agreed and documented by ONS and the administrative departments. (Priority: 1)*

### **Annual Register Inquiry**

We reviewed the current practices used in the Annual Register Inquiry (ARI). The ARI contains many of the characteristics of the former Annual Employment Survey (AES), which it replaced in part. The ARI is now a tool for maintaining the IDBR, and has a different purpose from the AES. Its sole purpose is to update the structure of businesses on the IDBR, including the maintenance of auxiliary information – that is the employment, turnover and industrial classification information on the IDBR used to stratify survey samples, and to improve the precision of survey estimates. The recommendations made here reflect that change of emphasis and address the need to maximise the IDBR’s usefulness as a sampling frame, and as a tool for analysis and minimising respondent burden.

In particular, we found that the sample design and selection should be better focused on the requirements for updating the Register. Follow-up of non-response is particularly important for the ARI, and this needs to be more effective in order to ensure that up-to-date structural information is available (section 6.4.3). Previous work in ONS identified that some local units were being missed in responses to the AES questionnaire. Further development of the ARI questionnaire is needed to ensure complete coverage of local units on the IDBR (section 6.4.3.2). The electronic data-collection arrangements for a small number of the largest enterprises is a positive step, and there is potential for improved quality and reduced respondent burden by extending these arrangements – ultimately resulting in Internet-based data collection (section 6.4.3.1).

**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. (Priority 1)*

**Recommendation 6** *In the Annual Register Inquiry*

- *The response rate should be improved by following up non-response more effectively. The response rate for the largest enterprises should be 100 per cent. (Priority: 2)*
- *The general procedures used by ONS to ensure compliance with the Statistics of Trade Act 1947 should be rigorously applied to the Annual Register Inquiry. (Priority: 2)*

**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. (Priority: 1)*

**Recommendation 8** *ONS should continue to extend the present electronic data-collection arrangements for the Annual Register Inquiry. (Priority: 2)*

## **Updating Industrial Classification on the IDBR**

The demands of a wide range of users have resulted in a mechanism for updating industrial classification on the IDBR that, while ensuring a limited range of reporting units have a more up-to-date and, possibly, more accurate classification, is biased as a whole and leads to inconsistency. Our review found that the overall quality of industrial classifications can be improved by reducing the range of sources used to update those variables. Improvements to the quality of codes from both the ARI and the administrative sources will enable those

sources to provide high quality industrial classification information for the IDBR. Less reliance would be placed on the other sources, which would be used only where the ARI or the administrative sources do not give enough information to allow the accurate coding of individual reporting units (section 7.6).

ONS uses an electronic coding tool, called the Precision Data Coder, to provide better quality coding of business descriptions. Rules governing its use need to be strengthened to ensure its universal use and continued development. In addition, other products should be evaluated to ensure that ONS is using the best available tool (section 7.7).

**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. (Priority: 1)*

**Recommendation 10** *The agreed electronic tool should be used to aid classifying business descriptions. All staff members should feed back information on deficiencies to those controlling the system to improve the quality of the coding tool. The use of expertise from outside ONS (for example, industry groups) should be considered as a way of improving coding quality. ONS should review the Precision Data Coder alongside other similar products to ensure that the most effective tool for the job is used. (Priority: 2)*

**Recommendation 11** *The rules for updating the industrial classification and employment variables, set up to maintain stability of sample membership for short-period inquiries, should be reviewed to see if they could better accommodate register maintenance requirements and should be applied rigorously. (Priority: 3)*

## **Complex Businesses**

The most complex enterprises contribute to the economy to an extent that is disproportionate to the number of such businesses. Therefore, it is important to ensure that the structures of these businesses and associated auxiliary information are up to date and correct. ONS has identified this priority and established a unit that is responsible for maintaining the structure (business profiling) of such businesses. In order that the profiling work is as effective as possible, the range of enterprises included and a programme of both desk work and visits need to be agreed (section 8.2).

Communication should be improved between the Business Profiling Team and those responsible for running surveys to ensure that updates to business structures are reported in advance. Opportunities to co-ordinate the collection of data relating to business structures should be pursued with other government departments, within the requirements for maintaining data confidentiality (section 8.2.5).

**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. (Priority: 1)*

**Recommendation 13** *The Business Profiling Team (BPT) should initially establish the correct structures of the businesses at the desk. For complex businesses, an agreed programme of profiling visits should be put in place, and this should be made available to survey managers in advance. The BPT should ensure that data collection and survey results managers are informed, in advance, of its updates to business structures on the IDBR. (Priority: 3)*

**Recommendation 14** *To reduce the burden on business and improve coherence across National Statistics, ONS should explore with other government departments opportunities, within the requirements for maintaining data confidentiality, to co-ordinate the collection of data relating to the structure of complex enterprises. (Priority: 3)*

For some surveys, non-standard arrangements have been set up to facilitate the reporting of business data (section 8.3). The maintenance of reporting structures relevant to only a single survey places undue pressure on the resources of the Business Registers Unit (BRU). It may also result in lower quality outputs through the possible omission and duplication of economic activity. We recommend improvements in this area.

**Recommendation 15** *A detailed review of the requirements for survey-specific reporting arrangements should be carried out with the aim of standardising reporting arrangements for all surveys. Where non-standard arrangements are necessary, the procedures for managing them should be simplified. (Priority: 2)*

## **Coverage**

Through the use of two main administrative sources, the IDBR has coverage estimated at around 99 per cent of economic activity. There is a well-used method of measuring the extent of the undercoverage (section 9.2.1), although work needs to be extended to improve the precision and industrial detail of the estimates.

**Recommendation 16** *ONS should work with the Department of Trade and Industry to improve the method of estimating the undercoverage that arises from businesses not required to register with HM Customs and Excise and Inland Revenue. (Priority: 3)*

Duplication (arising through the dual sourcing of the IDBR) may cause problems. Much work is undertaken to link records from the two main administrative sources (section 9.3). This has resulted in the linking of many records, and improvements to matching software. At present,

business records that are thought to be duplicates are removed from survey populations (section 9.3.2). The bias introduced by this treatment should be measured, and procedures changed as appropriate.

**Recommendation 17** *ONS should measure any bias that may arise because of the treatment of potential duplicate businesses, and revise the treatment of reporting units in surveys as appropriate. (Priority: 2)*

### **Online Processes and Validating ONS Input Data**

Overall, the level of quality assurance of clerical processes is high. Supervisors check much of their staff's work, particularly that of new members. In addition, an independent audit is carried out every two months to establish whether procedures are correct and have been followed properly (section 10.2). This audit also results in changes to procedural guidelines. The audit is generally good and we make observations in this report that will ensure the audit process is as effective as possible.

Data from administrative sources are routinely vetted to ensure that erroneous data are not added to the IDBR. However, data from ONS sources are not checked by those responsible for updating the IDBR, and may not be appropriate for updating the Register without further validation (section 10.3).

**Recommendation 18** *The audit of online amendments should be more timely and frequent. The sample size of the audit should be reviewed and the audit should be focused on those amendments that can have material impact on the quality of the IDBR. Recommendations should be developed and agreed in partnership between the audit team and work areas. (Priority: 2)*

**Recommendation 19** *Business Registers Unit should extend the range of validation checks on inputs to ensure that statistical data present on the IDBR are of adequate quality. (Priority: 3)*

### **Management and Communication**

Overall, provision has been made to ensure that members of staff receive the training appropriate to the job (section 11.2). The Business Registers Unit (BRU) has created its own training unit that supports this. Members of staff should be encouraged to work in a variety of areas of business statistics to ensure a breadth, as well as a depth, of expertise. This could be considered as part of the development of a recruitment strategy for Register staff. Managers are supported by a wide and increasing range of management information (section 11.4). This can be improved by its being more focused on the impact of quality. A monthly report is produced, which presents analyses of the distribution of businesses and identifies the effect of recent updates on the IDBR. Further development of this will increase its usefulness to recipients.

Documentation is good for those responsible for maintaining the IDBR, but needs to be made more comprehensive for Register users (section 11.3). We also identified that, although training is provided for regular users, occasional users weren't usually well-versed in the principles of maintaining a business register.

Communication needs to be improved between BRU and Northern Ireland's Department of Enterprise, Trade and Investment, which is responsible for maintaining NI businesses on the IDBR. In addition, the potential for overcoming the present legal restrictions in place between the two departments should be explored.

Three committees share responsibility for some aspects of the IDBR's management. Notably, no single ONS or National Statistics group has taken responsibility for ensuring that recommendations arising from past methodological studies were evaluated and implemented (section 11.6). There is a risk that lack of clarity regarding these groups' responsibilities could adversely affect the quality of the IDBR. In addition to ensuring the implementation of recommendations, an impact assessment is needed for proposed changes to the IDBR.

**Recommendation 20** *Business Registers Unit (BRU) should develop a specific recruitment policy and training programme that reflects its specialist function. This policy should include arrangements to make sure that members of staff are encouraged to move within BRU and across Prices and Business Group to ensure a breadth, as well as a depth, of expertise. (Priority: 2)*

**Recommendation 21** *The Business Registers Unit should improve electronic communication with the Department of Enterprise, Trade and Investment Northern Ireland to ensure consistent practice is adopted in the two departments. This should include consideration of how present legal constraints can be overcome in future. (Priority: 2)*

**Recommendation 22** *ONS should strengthen staff training with regard to the principles of maintaining and using a business register. The use of the Data Analyst and Statistical Analyst schemes for this purpose is endorsed. (Priority: 3)*

**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. (Priority: 1)*

**Recommendation 24** *The existing quarterly and monthly management reports should be focused on measuring the impact on quality of changes to the Register. Business Registers Unit should continue to develop its monthly report of changes to the size and structure of the Register in consultation with users. (Priority: 2)*

**Recommendation 25** *An improved online interface should be developed to make it easier for authorised users to access and update the Register. (Priority: 2)*

**Recommendation 26** *ONS should ensure that the impact on outputs is assessed for any proposed changes to the IDBR. (Priority: 1)*

**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. (Priority: 1)*

### **Review of the Implementation of Recommendations from a Previous Study**

In 1996, Phil Kokic and Ken Brewer, then of the University of Southampton, were commissioned to review certain aspects of IDBR's operation (Chapter 12). As part of this review we evaluated the extent to which recommendations of that study had been implemented.

The Kokic/Brewer report identifies a range of topics relating to sample design that ONS is proposing to take forward in a separate project. In addition, there are two recommendations relating directly to the IDBR that should be addressed along with the rest of the recommendations in this review.

**Recommendation 28** *ONS should change sample selection procedures to ensure stability of sample membership for businesses newly included in samples. (Priority: 2)*

**Recommendation 29** *ONS should set aside resources to study further the impact of births and deaths of enterprises on statistical outputs. (Priority: 1)*

### **Conclusion**

The report contains 29 recommendations that will develop the IDBR as a key element of the ONS infrastructure, delivering a service that responds to increasing user demands, while minimising the burden on business. This will be achieved by working more closely with the administrative departments, improved use of technology and taking account of the best practices of other statistical offices. By implementing these changes, the IDBR will continue to deliver a high quality service to its users.