UNITED NATIONS

E

Economic and Social Council

Distr.
GENERAL

ECE/CES/GE.42/2007/8
05 April 2007

Original: ENGLISH

ECONOMIC COMMISSION FOR EUROPE   **STATISTICAL COMMISSION**

CONFERENCE OF EUROPEAN STATISTICIANS

Meeting of Experts on Business Registers

Tenth meeting
Geneva, 18-19 June 2007
Item 5 of the provisional agenda

DEVELOPMENT OF STATISTICAL OUTPUTS FROM BUSINESS REGISTERS

DEVELOPMENT OF OUTPUTS FROM THE BUSINESS REGISTER IN SUPPORT
OF REGIONAL POLICY

Submitted by United Kingdom

The meeting is organised jointly with the Commission of the European Communities (Eurostat) and the Organisation for Economic Co-operation and Development (OECD)

Summary

The present paper was prepared by the Office for National Statistics (ONS) of the United Kingdom on request from the CES Steering Group on Business Registers for presentation and discussion at the joint UNECE/Eurostat/OECD Meeting in Geneva, 18-19 June 2007. It informs about two projects undertaken by ONS with the aim to enhance business register in support of national and regional accounts and provide small area statistics under the government's Neighbourhood Statistics programme.

The paper provides the basis for an in-depth discussion on identifying various practices of developing statistical outputs from business registers and possibilities of enhancing statistical business registers as a basis for business statistics.

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I. INTRODUCTION

1.   The Office for National Statistics (ONS) has completed two projects at the end of March 2007 to develop outputs from its business register in support of regional policy.

2.   The aims of the projects were:

(a)   To enhance the business register to support enhanced national and regional accounts and to provide direct data feeds as necessary to support the further development of national and regional accounts and the network of ONS regional offices in response to the government's Review of Statistics for Economic Policymaking;

(b)   To provide small area outputs in supports of the government's Neighbourhood Statistics programme.

II. THE EXISTING BUSINESS REGISTER AND ITS OUTPUTS

3.   Detailed information about the Inter Departmental Business Register (IDBR) is available from several sources including the Quality Review carried out in 2001, and also on the National Statistics website: http://www.statistics.gov.uk/idbr/idbr

4.   To summarise its key features, the IDBR is a list of businesses throughout the United Kingdom which, since 1994, has been compiled and maintained by the ONS. The register provides a sampling frame for more than 150 regular surveys of businesses carried out by the ONS and by other government departments, and is also a key data source for statistical analyses of business activity.

5.   The register covers businesses in all parts of the economy, other than very small businesses (self-employed without employees, and low turnover) and some non-profit making organisations. With 2.1 million business enterprises listed it provides almost 99 per cent coverage of the United Kingdom economic activity; (the remainder is accounted for by 2.3 million very small businesses). As well as holding information at Enterprise level (generally the head office), it records local units or sites, for example a retail outlet or factory where the enterprise operates: these currently total 2.5 million. Some enterprises are also part of larger enterprise groups:

6.   The IDBR assembles a range of information for business units:

(a)   Name and Address;
(b)   Standard Industrial Classification;
(c)   Employment and employees (male and female/ full and part time);
(d)   Turnover (value of sales);
(e)   Legal status (company, sole proprietor, partnership, public corporation/nationalised body, local authority or non-profit body);
(f)   Enterprise group links and country of ownership;
(g)   Company number;
(h)   Birth and death dates for enterprises;
(i)   Survey selection and response history.

7.   The Register is based on inputs from four main sources, three of which are administrative. The primary ones are traders registered for Value Added Tax (VAT), and employers operating a Pay As You Earn (PAYE) scheme registered with HM Revenue and Customs (HMRC); use is also made of information about incorporated businesses registered at Companies House. These sources are supplemented by large-scale ONS surveys (sometimes known as inquiries). All are compulsory, so coverage is good. An additional source is Dun and Bradstreet, which undertakes detailed research to identify the structures of Groups, and provides this annually.

8.   In general terms, business databases can be used to provide two different types of information. The first are lists of individual records, typically including the name and address of identifiable organisations. These can be used as sampling frames and, in the commercial world, for direct marketing; there is also scope for longitudinal analysis. The second are aggregate statistics for areas, from national level through regions and local authorities, down to wards or, increasingly, statistical output areas. These enable the comparison of areas, and also the measurement of trends over time. Such statistics are not intended to disclose information about individual companies, and are often modified using disclosure control techniques in order to ensure that this is so.

9.   Output from the IDBR falls into four categories. The first two are confidential, being available only to ONS and some other parts of government for specific purposes: bespoke lists, and bespoke tables (without any adjustment to prevent disclosure). The samples currently being drawn by the Business Register Unit are of both enterprises and local units, in roughly equal numbers.

10.   Tables of aggregate statistics for public release are modified (using rounding, and sometimes suppression) in order to prevent disclosure, and take two forms: bespoke tables, and standard published tables. The latter include:

(a)   The United Kingdom Business: Activity, Size and Location: The reports for 1995 to 2006 are available free on the National Statistics website. There are tables for both Enterprises, and also Local Units. Several of the tables break the United Kingdom into Government Office Regions, and to Unitary Authority level;

(b)   The Department of Trade and Industry's Small Business Service produces two National Statistics Bulletins annually: "Small and Medium Enterprise Statistics (SME)" and "Business Start-ups and Closures: VAT registrations and De-registrations", which both include regional breakdowns.

III.   THE RECOMMENDATIONS FROM THE ALLSOPP REVIEW

11.   The terms of reference for the Review of Statistics for Economic Policymaking by Christopher Allsopp were extremely wide: to consider the informational requirements for monetary and wider economic policymaking; with a more specific remit to assess:

(a)   The demand for and provision of regional information; and

(b)   Whether the changing structure of the T economy is being adequately reflected in the "nature, frequency and timeliness of official economic statistics".

12.   This resulted in two reports, the first of which concentrated on the informational requirements for regional economic policy. It found these to be considerable and justified by the devolution of increasingly large parts of economic policy to the countries and regions of the United Kingdom and stated that there should be no economic policy responsibility without statistical provision.

13.   The final report is available at www.hm-treasury.gov.uk/allsopp

14.   The relevant recommendations are:

"Regional and local bodies will still have particular needs that are best met through ad hoc data collection. Regional autonomy is important, but balanced against this are significant advantages of having data that are compiled on a consistent basis and that are comparable across regions. We therefore recommend that: wherever possible, business surveys should use a common sample frame, usually the IDBR; Regional Observatories can play an important role here, including sharing of best practice; but this may be further facilitated by the ONS and GSS acting as a source of advice and best practice for data collected by regional bodies; and the ONS and others should consider an intermediate "kitemark" for surveys which have been undertaken in accordance with ONS advice and compiled according to agreed standards and procedures, but are outside of ONS responsibility." (Recommendation 28)

"We recommend in particular that the Government should as a matter of priority develop mechanisms whereby the ONS and the statistical services in the devolved administrations could have greater access to the information collected by the two Revenue Departments. On the other hand, the ONS should investigate how information on the IDBR could be made more widely available, subject to appropriate safeguards on confidentiality and use only for statistical purposes. Either of these may require changes to existing legislation, or indeed new legislation." (Recommendation 41)

"As envisaged in the ONS' modernisation programme, the Inter-Departmental Business Register (IDBR), Annual Register Inquiry (ARI) and associated methodological techniques should be extended in order to play a more sophisticated central role in inputs and outputs of the business survey process to meet national and regional demands. The developments might involve widening the coverage of the IDBR, extension of the ARI, extended integration with other surveys, as well as development of new estimation and apportionment techniques. Developments should also support the more extensive range of analytical techniques and surveys undertaken across government, particularly telephone surveys." (Recommendation 50)

IV.   THE PROJECTS – IMPLEMENTING THE ALLSOPP REVIEW

15.   The IDBR is a key element of all ONS business surveys in that it provides a framework from which their samples are drawn. It is also increasingly used as a source for statistical data in its own right. There are a number of users across government, including the devolved administrations in Scotland, Wales and Northern Ireland. This project aimed to improve the quality of local unit data on the IDBR to support a wider range of regional outputs, to investigate potential new register sources, and to explore the possibilities for improved local and regional input to the quality of the register.

16.   As a result of this project, the ONS will have a much improved framework for producing regional estimates of economic variables, and a working system of data exchange and validation with regional bodies. Business benefits are therefore in terms of improved quality, developing support for Regional Customers and in assessing new data sources and improving coverage.

17.   The main quality improvements relating to existing data sources are:

(a)   Extended coverage of the Business Register Survey, an annual survey that updates local unit information;

(b)   Introduction of better matching tools to allow more use of existing data sources (company and PAYE employer registrations);

(c)   Assessing the value of adding company registrations that are too small to be registered for VAT or as employers.

18.   Support for the regions related to determining their requirements, developing analysis and reviewing the legal framework.

19.   Assessing new data sources focussed on those that could be matched to existing sources. These fall into three categories:

(a)   Regulatory where legal gateways exist;
(b)   Regulatory where a legal gateway would be required;
(c)   Private sector sources.

20.   The Value Office Agency (VOA) is regulatory source that is available and that could identify local units and provide floor-space as an additional indicator of size. However, the VOA source held only property addresses and multi-occupancy meant that matching at the local unit level was not possible.

21.   We also explored the use of Yell data, a private sector source, as a means of identifying new local units and of improving the extent and quality of telephone numbers for existing businesses. However, access to individual Yell records was costly and matching rates were not high. As a result, we have not pursued the use of either as a comprehensive source of additional register data but we have found that even partially matched data has benefits for users.

22.   Both VOA and Yell also have the potential to provide analysis as the small are level than can be used in conjunction with the direct outputs from the IDBR to increase our knowledge of

the economic situation. We have already explored these possibilities using the Yell data for two parts of England (Bristol/ Bath and Blackpool).

23.   The Corporation Tax system potentially provides a rich sources of financial information but for which there is no access currently and which is available only after a delay of around two years. By providing business register data to the HMRC, for which there is a legal gateway, they have been able to produce statistical analysis of corporation tax records that relate to the outputs from the ONS business register.

V.   THE PROJECTS – DEVELOPING NEIGHBOURHOOD STATISTICS

24.   Since the early 1970's the United Kingdom has produced annual publications from its business register. The first publications covered only the larger local units classified to the manufacturing industries but with the introduction of a register based on VAT administrative data in the mid 1980's the analysis extended to tables at the enterprise level for the whole economy. A further change was possible in the mid 1990's , when the separate business registers for financial and employment statistics merged to form the IDBR. This permitted the publication of data by employment, industry and geographic area at the local unit level for the whole economy.

25.   Government concern about the lack of information supporting policy for local areas led to the creation of the Neighbourhood Statistics System (NeSS) programme. While this focussed on outputs from the population census and measures of social deprivation, the need for enterprise statistics at the detailed local level was also recognised. The United Kingdom used a sample approach to collection of business data, which supports at best regional statistics. It is only the business register that provides the potential for more detailed analysis.

26.   The government's work deprivation policy aims: "To generate and sustain employment in local areas; to create opportunities for small businesses; and link to a range of Government targets including to increase the overall employment rate, reduce the persistent gap in growth rates and build an enterprise society in which small firms thrive.".

27.   Recognising the need for resources to develop these enterprise statistics, the NeSS programme funded developments that led from 2004 onwards several further changes to both the presentation and range of data; notably the introduction of census derived geographies for England and Wales in 2005.

28.   Traditionally sub-national analysis had used the government office region (GOR) as the main level for publication. For the business register, it has been possible to produce analysis below that level based on the electoral ward. These vary greatly in size, from fewer than 100 residents to more than 30,000, and are subject to regular boundary changes. It was therefore decided to develop a range of areas that would be of consistent size and whose boundaries would not change built from groups of the Output Areas (OAs) used for the 2001 Census, and known as Super Output Areas (SOAs). To support a range of potential requirements it was decided to create three layers of SOA: Lower Layer (minimum population 1000), Middle Layer (minimum population 5000) and Upper Layer (minimum size 25,000).

29.   For enterprise statistics, the middle layer was chosen for publication. It provides smaller areas than those previously used, while minimising the problems of disclosure. However, there remains a demand for outputs based on the administrative geographies and this resulted in extensions also to the outputs at the local authority district level.

30.   The SOA were developed from information relating to the resident population of an area. However, the distribution of businesses does not necessarily follow the same geographic pattern. The best example is the City of London. This is an area with few residents but very large numbers of businesses, with those working in the City commuting for other geographic areas. As a result, the middle layer of SOA does not provide sufficient granularity for many analyses. Consideration has been given to the creation of a parallel series of Business Output Areas that reflect better the distribution of business activity but work has yet to be completed on this concept.

31.   Six tables were published in 2004 and a further 19 tables appeared in 2005. Some of these relate to the GOR and the traditional local authority (LA) boundaries. For publication purposes, it is possible to release analysis at the Local Authority District (LAD) or equivalent Unitary Authority (UA) level. The SOA tables all relate to the Middle Layer.

32.   Tables are also available on request to specific users at a lower aggregation of geographies.

Table Number	Table Description	Geography Level
I31	Counts of VAT based Local Units by Broad Industry Group	SOA - GOR
I32	Counts of VAT based Local Units by Employment Size Band	SOA - GOR
I33	Counts of VAT based Local Units by Public/Private Status, Single/Multi Site	SOA - GOR
I34	Counts of VAT based Local Units Totals Only - Urban/Rural	SOA - GOR
I35	Counts of VAT based Local Units by Employment Size Band - Urban	LA - GOR
I36	Counts of VAT based Local Units by Employment Size Band - Rural	LA - GOR
I37	Counts of VAT based Local Units by Broad Industry Group – Urban	LA - GOR
I38	Counts of VAT based Local Units by Broad Industry Group – Rural	LA - GOR
I39	Counts of VAT based Local Units by Urban/Rural Classifications	GOR
I40	Counts of VAT based Enterprises by Broad Industry Group	SOA - GOR
I41	Counts of VAT based Enterprises by Employment Size Band	SOA - GOR
I42	Counts of VAT based Enterprises by Public/Private Status, Single/Multi Site	SOA - GOR
I43	Counts of VAT based Enterprises Totals Only - Urban/Rural	SOA - GOR
I44	Counts of VAT based Enterprises by Employment Size Band - Urban	LA - GOR
I45	Counts of VAT based Enterprises by Employment Size Band - Rural	LA - GOR
I46	Counts of VAT based Enterprises by Broad Industry Group – Urban	LA - GOR
I47	Counts of VAT based Enterprises by Broad Industry Group - Rural	LA - GOR
I48	Counts of VAT based Enterprises by Urban/Rural Classifications	GOR
I49	Counts of VAT based Enterprises by Age of Business	SOA - GOR

33.   In addition to the data provided to NeSS, 40 reference tables are available through the United Kingdom Business: Activity, Size and Location publication which support the NeSS data. These tables built upon the 23 previously produced in 2004.

Local Unit	Enterprise	Title
A1.1	B1.1	District, County and UA within Region and Country by Broad Industry Group
A1.2	B1.2	District, County and UA within Region and Country by Employment Size Band
	B1.3	District, County and UA within Region and Country by Turnover Size Band
	B1.4	District, County and UA within Region and Country by Age of Business
A2.1	B2.1	SIC Division by GOR by Employment Size Band
	B2.2	SIC Division by GOR by Turnover Size Band
A3.1	B3.1	SIC Class by Employment Size Band
	B3.2	SIC Class by Turnover Size Band
	B3.3	SIC Class by Age of Business
A3.4	B3.4	SIC Class by GOR
A4.1	B4.1	SIC Division by Employment Size Band
	B4.2	SIC Division by Turnover Size Band
	B5.1	Broad Industry Group by Turnover Size Band
	B5.2a	Broad Industry Group by Turnover Size Band for Sole Proprietors
	B5.2b	Broad Industry Group by Turnover Size Band for Partnerships
	B5.2c	Broad Industry Group by Turnover Size Band for Companies and Public Corporations
	B5.2d	Broad Industry Group by Turnover Size Band for General Government and Non-Profit Making Bodies
A5.3	B5.3	Broad Industry Group by Employment Size Band
A5.4a	B5.4a	Broad Industry Group by Employment Size Band for Sole Proprietors
A5.4b	B5.4b	Broad Industry Group by Employment Size Band for Partnerships
A5.4c	B5.4c	Broad Industry Group by Employment Size Band for Companies and Public Corporations
A5.4d	B5.4d	Broad Industry Group by Employment Size Band for General Government and Non-Profit Making Bodies
A6.1	B6.1	Parliamentary Constituency by Broad Industry Group
A6.2	B6.2	Parliamentary Constituency by Employment Size Band
	B6.3	Parliamentary Constituency by Turnover Size Band
	B7.1	VAT Trade Classification by Year
	B7.2	Broad Industry Group by Year

34.   Enhancements to the United Kingdom Business publication for 2005 included:

(a)   The introduction of a range of tables at both enterprise and local unit level that detail the distribution of units by Parliamentary Constituency;

(b)   Expansion of the range of legal status tables to include the distribution of local unit (site) data by legal status. The introduction of a Business Nugget which guides the user through the 'statistical story' behind the data;

(c)   Provision of interactive data tools which allow users to manipulate and visualise the data:

(i)   Interactive United Kingdom Business Chart which charts the change in count of units by broad industry group from 1995 - 2005, allowing users to interactively choose which broad industry groups are displayed;

(ii)   Interactive United Kingdom Business Map which links the broad industry group figures for each district area in the United Kingdom to an interactive map of the United Kingdom. By selecting an industry group the count of units within district areas is represented as a proportionally sized coloured circle. By selecting individual district areas you can also display the count of units for all industry groups in that area.

35.   Entrepreneurship data too could be a key indicator of the success of neighbourhood renewal initiatives. It shows the extent to which economic regeneration encourages new businesses, and other factors that are likely to encourage people to start their own businesses.

36.   The project aimed to identify sources on entrepreneurship and the informal economy and to provide a scoping study into the actual and potential sources of data and the suitability of such data for Neighbourhood Statistics purposes.

37.   Definitions of entrepreneurship and the informal economy have been reviewed as well as the varying measurement methods that have been previously employed, along with current data sources and are presented in the report, which is available at: http://www.neighbourhood.statistics.gov.uk/dissemination/

VI.   THE LEGAL FRAMEWORK – LIMITATIONS TO USE

38.   The data held on the IDBR are based mainly on administrative inputs but supplemented by statistical surveys. Both impose limitations on use with legal penalties for disclosure of confidential data.

39.   The Neighbourhood Statistics website is available to all and therefore holds only non-disclosive data. The techniques used for personal and household data are not generally directly applicable to business data. The main outputs have been in the form of statistical tables, produced using the SuperCross program. It is only now that disclosure techniques are being introduced. For the outputs developed to date, we have therefore resorted to rounding of cell counts.

40.   Access to data on a restricted basis is also available to specific users, mainly government bodies. NOMIS (National On-line Manpower Information System) provides a route for researchers in central and local government to access disclosive outputs and we are exploring the possibilities offered by this system. The ONS has also developed a Virtual Data Laboratory (VDL) that provides access to data in a strictly controlled environment for approved researchers.

41.   In implementing the recommendations of the Allsopp Review, we need to provide access to the regional network that the ONS has introduced on 1 April 2007. The regional network comprises two ONS staff members located in each of the English regions (GOR) (see map in Annex). These share offices with the Regional Development Agency staff, who currently are not permitted to access business register data. In addition to England, access is provided to the Scottish Executive, the Welsh Assembly Government and departments in Northern Ireland.

42.   Access to outputs can be achieved in part through existing legislation but to meet all of the valid needs of customers will require changes. The government has produced a Parliamentary Bill to create an independent national statistical office that will replace the ONS from April 2008. Within the draft Bill consideration is given to the use of statutory instruments.

ANNEX
(English only)

United Kingdom: Government Office Regions, as at 3 August 1998

Orkney Islands

Shetland Islands

Government Office Regions

Government Office Regions apply to England only. Scotland, Northern Ireland and Wales are not Government Office Regions, but are often used as equivalents for the purpose of representing statistics that cover all of the UK.

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Scotland

Northern Ireland

North East

North West

Yorkshire and The Humber

East Midlands

West Midlands

Wales

East of England

London

South East

South West

STATISTICS

**Produced by ONS Geography
GIS & Mapping Unit, 2003**