

# Introduction

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## 1.1 About this manual

This methodological manual aims to provide both practical and theoretical guidance to those involved in the production and use of data on business demography within the European Union and the OECD. It has been developed from the methodological guidelines used in the original EU business demography feasibility study and first harmonised data collection. The OECD initiated further development by subsequent efforts<sup>1</sup> that considered the comparability of business demography indicators across OECD countries and the needs of policy makers and analysts for relevant and comparable indicators that facilitated studies of entrepreneurship and economic growth, as well as many other policy domains. It therefore contains extensions to the original methodological guidelines based on the experiences gained during those exercises and subsequent collaboration with the OECD.

These guidelines have been discussed and agreed by the Eurostat Business Demography Working Group, the OECD's Entrepreneurship Indicators Steering Group and OECD's Structural Business Statistics Expert Group. Hence, they are jointly agreed upon and should be considered as recommendations for practices that enable the production of comparable statistics. This methodological manual is intended to be consistent with, and to complement methodological guidelines for other areas of business statistics, particularly those concerning statistical business registers and structural business statistics. As such, this manual forms part of the collection of methodological manuals relating to European statistics, which can be accessed at the Eurostat website (<http://ec.europa.eu/eurostat/ramon>, "Legislation and Methodology", "STATMANUALS", "Industry, Trade and Services"). It is, however, also intended that this manual can be read as a free-standing document.

The manual should be viewed as a living document. It is intended to act as a catalyst for the development not only of the indicators identified here but more generally as a tool that encourages countries to fully capitalise on data that they typically collect.

Most EU and OECD countries compile business registers, which until recently were seen first and foremost as a source for business survey sample frames. However, in recent years, business registers themselves have begun to be used to provide significant information on business demography. The manual is intended to maintain this momentum whilst all the while prioritising international comparability.

## 1.2 Aims and user needs

There are clearly growing demands for data on business demography from a wide range of users, both at European and OECD level. At the European level demands are for coherent and comparable data across the members of the European Statistical System (ESS). Key customers at this level are the economic policy makers within the European institutions, particularly DG "Enterprise and Industry" of the European Commission. The European Commission has assured its commitment to a policy that promotes entrepreneurship as an essential instrument for improving competitiveness and generating economic growth and job opportunities since its communication to the Council<sup>2</sup> on 'Promoting Entrepreneurship and Competitiveness'. Moreover, the 1999 Employment Guidelines adopted by the Council Resolution emphasise the development of entrepreneurship, given that the formation of new enterprises and the growth of small and medium-sized enterprises are essential for job creation.

The Council of Lisbon in the summer of 2000 set the strategic goal of transforming the European Union into 'the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion'. The Lisbon Strategy was relaunched in 2005 as the Growth and Jobs Strategy. Its main objectives are to ensure sustainable growth, and more and better jobs in the EU. These goals can be reached, among others, through the support of entrepreneurship and entrepreneurial dynamism, the presence of which can be revealed by the analysis of business demography statistics over time. As a consequence, there is high demand for comparable data on business demography for the purposes of monitoring and policy formulation. Customers at the national level also benefit from the development of harmonised methodologies and the exchange of good practices and experiences between countries.

<sup>1</sup> See OECD Statistics Working Papers STD/DOC(2006)/3 [http://www.oilis.oecd.org/oilis/2006doc.nsf/linkTo/std-doc\(2006\)3](http://www.oilis.oecd.org/oilis/2006doc.nsf/linkTo/std-doc(2006)3) and STD/DOC(2006)/4 [http://www.oilis.oecd.org/oilis/2006doc.nsf/linkTo/std-doc\(2006\)4](http://www.oilis.oecd.org/oilis/2006doc.nsf/linkTo/std-doc(2006)4).

<sup>2</sup> COM (1998)550 final.



The original EU methodological guidelines are based on regulations governing structural business statistics and business registers at the EU level and provide the basis for comparable business demography data for current and future European Union (EU) and European Free Trade Association (EFTA) Member States. In particular they aim to satisfy the expected requirements for Structural Indicators<sup>3</sup> regarding births, deaths and survival.

These indicators are based on all enterprises, those with employees and the self-employed. However, OECD studies have demonstrated that the comparability of indicators based on all enterprises in countries outside of the EU is limited. Indeed, in practice the thresholds for the inclusion of very small units also vary between EU Member States.

These same studies demonstrated however, a high comparability of indicators based on the population of employer enterprises. As such the OECD, Eurostat and EU Member States have agreed that the collection of data on enterprises that have paid employment can significantly improve the comparability of birth and death rates among all OECD countries, and certainly for EU countries, and so are included in this manual. Better international comparability is not the only rationale for focussing on employer enterprises however, as there is recognition that this population of enterprises is distinctly different from the population of non-employer businesses to justify their inclusion on these grounds alone; certainly this is the view of the OECD's Entrepreneurship Indicators Project.

That being said the business demography indicators based on all enterprises including non-employers remain a central plank of EU business statistics.

The philosophy of the project to develop statistics on business demography has been to minimise the burden on enterprises and National Statistical Institutes and to use automation and existing tools as much as possible. The guidelines contained in this manual have been based on a pragmatic approach. This means that it should be possible to implement them in different countries with relatively little effort. With this aim in mind, the main source for demographic data should be the statistical business register. The advantages and constraints of this data source are explored further in Chapter 2.

## 1.3 Units and coverage

### *Statistical units*

A fundamental requirement in measuring business entries (creation) and exits (destruction) concerns the definition of a business itself. The notion varies considerably. Statistical offices will typically define businesses according to their activity within national boundaries, although businesses are also, and increasingly so, measured in a global, multinational sense. That is not to say however that the definitions used by national statistical offices are consistent across countries<sup>4</sup>. Many businesses (parents) own or control other businesses (subsidiaries) operating within the same economy. Depending on the degree of control and the nature of economic activity, some statistical offices will consolidate parents with subsidiaries, others will not.

The rules that govern what statistical offices do largely reflect institutional and administrative arrangements that exist in their country. Not surprisingly these differ across countries and so too, therefore, do the definitions used for businesses. It is important to put these differences into context however and to explain why they have arisen and continue.

International definitions of businesses do exist. For example the System of National Accounts, Eurostat (EC Regulation 696/93) and the International Standard Industrial Classification of all Economic Activities (ISIC) all provide definitions. Although these three systems do not entirely converge, three main types of statistical unit emerge: Enterprises, Establishments (or local kind of activity unit) and Enterprise Groups. Legal units are usually the building blocks used in defining businesses in all of these measures but legal units are not themselves comparable across countries since they reflect national administrative and legal requirements that will differ across countries.

All EU and OECD countries are able to produce structural business statistics on these bases (albeit with some differences in practice), often to meet the needs of international organisations, like the OECD, and often for their own needs for

<sup>3</sup> The indicators provide an instrument for monitoring and benchmarking which are vital elements of the Lisbon follow-up strategy.

<sup>4</sup> Work by Eurostat (Herczog, Aimée, Hans van Hooff and Ad Willeboordse (1998), "The Impact of Diverging Interpretations of the Enterprise Concept") for example, demonstrated that the operational definitions used for enterprises differed considerably for some firm configurations, across countries, both conceptually and, more commonly, in practice.



example in producing R&D statistics, which can only be practically produced at the Enterprise (and Enterprise Group) level, or the national accounts, which are typically based on establishment measures. However, the focus on business demography statistics by statistical offices is relatively new and, so, the business definitions used across countries differ.

Historically the main uses of business statistics have been firstly in providing inputs into the calculation of gross domestic product (GDP) and secondly to identify the contribution to economic activity of businesses. For statistical purposes, businesses have therefore been defined as reporting units in a way that facilitates the collection of statistics to meet these needs. Whether a reporting unit is a subsidiary or not is only relevant if the subsidiary is not able to provide the information required, such as turnover, production and profits. The size of the reporting unit must be chosen to optimise the provision of the required information. It is usually possible to aggregate the data from reporting units to give enterprise level data, although, for a few specific variables such as profits or overseas investment, the optimal reporting unit may sometimes correspond to a group of enterprises.

In collating business statistics as inputs into the national accounts for example, this approach works reasonably well, since in most cases it is able to provide the key economic aggregates needed at a detailed industry level. This is especially true where local kind of activity units form the reporting unit. In any case, in all countries most enterprises correspond to local kind of activity units. It is important for uses such as national accounts to record activities in sufficient detail to allocate them correctly to the chosen level of activity classification. This means that the business definition, in theory, only impacts on the distribution of value-added among industry groups; for total GDP the definition is of little theoretical relevance.

The needs of business demography statistics are however somewhat different. Because their main purpose is to provide information relating to the number of new businesses (entries), failures (exits) and growth, the definition of a business is of crucial importance since it impacts directly on entry, exit and growth rates. Indeed, as demonstrated below, the definition results in a trade-off between exit and entry figures and growth.

### *Selecting the Statistical Unit for Businesses*

Consider an enterprise that initially comprises a single local kind of activity unit or establishment that then expands by creating another local kind of activity unit of the same size as the original unit but with effective operational control remaining at the enterprise level.

If businesses are defined as local kind of activity units this expansion results in an entry but no growth in the original business (establishment). If, on the other hand, businesses are defined as enterprises, no entries would have occurred but the original business unit would have doubled in size. Which of the approaches is better for policy purposes is not immediately obvious, since that depends on the policy focus. But a further expansion of the example can help to illustrate some consequences of each approach.

Consider now the outcome if the original enterprise grew by expanding its operations at the same (original) site. In this case, whether businesses are defined at the enterprise or local activity level, the result is the same; no births and 100% growth. Defining businesses as local kind of activity units or establishments therefore can result in an asymmetric treatment of growth dependent on location; which renders this approach inappropriate for policy makers interested in business demography statistics that paint a picture of the whole economy, as the results should be invariant, at least within economic borders, to where businesses choose to grow. Establishment based data can play a role in practice, since policy makers interested in investigating regional (state, county, local area) differences will not of course be able to use business demography data based solely at the national level.<sup>5</sup> However even in these circumstances it is preferable to use the enterprise definition, albeit, where enterprises are defined on the basis of the economic borders of the regions; and, in practice, the smaller the region the more likely that enterprises and establishments align.

One could say that many enterprises are also part of larger enterprise groups in much the same way that establishments form part of enterprises and, so, enterprise based measures have the same shortcomings. But the argument can be stretched too far, resulting in a definition that links back to ultimate owners. For example one entrepreneur might own many heterogeneous enterprise groups that own in turn a number of heterogeneous enterprises. But the rationale cannot be based on ultimate ownership as the ultimate owners for most companies and certainly listed corporations are shareholders.

<sup>5</sup> In its current guise the manual's primary concern is of course comparability at the national level. It is hoped that future versions will provide concepts and guidelines for local business demography statistics.



What matters most is the level at which decisions are made, such as those that affect expansion and innovation, and where operational control resides. Policy makers are interested in understanding what makes a successful business. The factors and business characteristics that determine this are inextricably linked to operational control.

Measures based on enterprises come closest to these criteria, as the degree of innovation, decision making etc within a business is likely to be closely related to the organisational and management structures that exist at the enterprise level. Research and development, product design and product advertising for example will usually be developed centrally within an enterprise with establishments benefiting from spill-overs; indeed, even innovative ideas generated at the establishment level are likely to permeate throughout the enterprise as upward spill-overs.

That said it is important to put the differences between establishment and enterprise based indicators into context. The vast majority of enterprises have only one establishment; and this is especially the case for small and medium enterprises (SMEs), where there is considerable policy interest. Large new business are typically opened by a larger enterprise group, whether that be foreign or domestically owned and, so, statistics that compare levels of small business entries are likely to be comparable across countries even if the business definitions differ.

Estimates of total business entries and exits are less comparable if different business definitions are used across countries but this can be at least partly mitigated where rates are concerned. Typically, entry (and exit) rates are calculated as the ratio of entries (exits) to the total business population active in the year in question. Comparisons of entries and exits across countries based on different business definitions can be made more comparable when rates are compared, because biases work in the same direction in both the numerator and the denominator – for example establishment entries will be higher than enterprise entries but so too will be the population of establishments compared to the population of enterprises.

Although the Enterprise definition for businesses is to be preferred to other concepts it should be recognised that there are limits to international comparability. When an enterprise with headquarters in one EU country for example sets up a new production unit in another country a new enterprise is recognised. However, when an enterprise with its headquarters in one US state sets up a new production unit in another US state this will generally be recorded as the creation of a new establishment. This means that estimates of the size and number of enterprises between two economic blocs will differ, even if exactly the same national concepts are applied. All other things being equal, comparisons will show that enterprises in the nation state, although fewer, are larger and grow more in periods of expansion (and contract more during recessions) than enterprises in an equivalently sized economic-bloc of nation states. Birth and death rates are however quite similar. A 2003 US study<sup>6</sup> compared enterprise births in the US, on a national and state basis, and showed that churn (birth+death) rates were very similar<sup>7</sup>. They also showed that the average size of new establishments entering a state market for the first time was, on average, larger than the average size of a new enterprise, reflecting the fact that expanding enterprises do so with a tried and trusted business recipe and so less risk of subsequent failure.

This is not to say that business demography statistics, using enterprises as the business unit, cannot be compared across unevenly sized economies. The point is that one cannot look at the statistics in isolation and care is needed in drawing conclusions, particularly those that are likely to impact on policy. In fact, comparisons of domestically owned entries and exits are not impaired by variations in economic size.

### *Recommended Business Definition*

In summary therefore this manual recommends that the statistical unit to be used for business demography data collections is the enterprise. At the European level, this unit is defined as follows in the statistical units Regulation (Council Regulation (EEC) No 696/93 of 15 March 1993 on the statistical units for the observation and analysis of the production system in the Community), and is consistent with definitions uses in the 1993 System of National Accounts and International Standard of Industrial Classifications:

*“The enterprise is the smallest combination of legal units that is an organisational unit producing goods or services, which benefits from a certain degree of autonomy in decision-making, especially for the allocation of its current resources. An enterprise carries out one or more activities at one or more locations. An enterprise may be a sole legal unit.”*

<sup>6</sup> Jarmin Ron, Javier Miranda and Kristin Sandusky (2003), “Alternative Measures of Business Entry and Exit”, paper presented at the OECD Workshop on Improving statistics on SMEs and Entrepreneurship, 2003: COM/STD/NAES/DSTI/EAS(2003)12.

<sup>7</sup> Although a comparison of turnover rates of establishments versus enterprises revealed that turnover rates in establishments were approximately 11% lower than enterprise turnover rates.



It is recognised that this unit may not yet be available in statistical business registers in all countries. The general understanding within this manual is that in the absence of data at the enterprise level, demographic data can be produced starting from legal units, or other statistical units. However, it is recommended that countries aim to introduce the enterprise concept into their statistical business registers at the earliest opportunity.

That is not to say however that indicators based on other definitions of businesses units are not useful. Establishments in North America, for example, are sufficiently similar to local units in Europe to consider the possibility of a site-level start-up indicator. Ideally this would have two components, new sites due to births, and new sites created by existing enterprises. Both are of interest for studying employment dynamics and the impact of entrepreneurship at the regional and local levels, but it is perhaps too early to consider including these in this manual at this stage given the additional complications, particularly in the context of international comparability, inherent in them.

### *Coverage of economic activities and legal forms*

The economic activities for which business demography indicators are produced are the ISIC Rev. 4 sections B to N excluding group 64.2 (management activities of holding companies), and potentially sections P to S. Thus activities relating to production, construction, distributive trades and services are covered, but agriculture, public administration, non-market activities of households, and extra-territorial agencies are not. This is mainly due to the current coverage of statistical business registers in most OECD and EU countries.

At present indicators include market oriented legal forms (e.g. limited liability companies, sole proprietors, partnerships, and public corporations) but exclude units in the central and local government sectors. This is partly because the definition of the enterprise is not yet sufficiently developed for these sectors and partly because the births and deaths of enterprises in these sectors are typically determined by very different factors than those that govern births and deaths in the market sector.

## 1.4 Legal Basis

For EU countries, the collection of basic data on business demography was foreseen in the structural business statistics Regulation (Council Regulation (EC, EURATOM) No 58/97 of 20 December 1996 concerning structural business statistics). Basic variables such as counts of enterprise births and deaths have already been defined in Commission Regulation (EC) No 2700/98 of 17 December 1998 concerning the definitions of characteristics for structural business statistics.

Annex IX of the recast Parliament and Council Regulation on Structural Business Statistics provides the legal framework for the harmonised data collection at EU level. This methodological manual itself has no direct legal basis, and therefore should be seen as advisory. It does, however, seek to interpret and explain current and possible future legal requirements in EU countries and to give recommendations for practices that will make possible the establishment of harmonised statistics across the OECD and EU.