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Entrepreneurship statistics

Guidelines on the use of statistical business registers for business demography and entrepreneurship statistics

Addendum

Results of the consultation on the Guidelines

Note by the secretariat

Summary

The present document summarises the comments by countries and organizations on the draft *Guidelines on the use of statistical business registers for business demography and entrepreneurship statistics*, resulting from the electronic consultation in March-April 2018 with all members of the Conference of European Statisticians.

A total of 42 replies were received in response to the request for comments on the Guidelines, from 40 countries and 2 international organizations. All replies supported the endorsement of the Guidelines. A number of comments and suggestions were received, which are reflected in this note and will be incorporated in the final version of the Guidelines.

In view of the high level of support by countries and organizations, it is proposed that the Conference of European Statisticians (CES) endorses the *Guidelines on the use of statistical business registers for business demography and entrepreneurship statistics*, subject to the amendments presented in this addendum.

I. Introduction

1. This document summarises the comments on the draft *Guidelines on the use of statistical business registers for business demography and entrepreneurship statistics*, resulting from the electronic consultation conducted in March-April 2018.

2. The Guidelines were developed by the Task Force on entrepreneurship statistics that was established by the Bureau of the Conference of European Statisticians (CES) in July 2016. The objective of the Task Force was to develop guidelines on how to use the statistical business register to produce business demography and entrepreneurship statistics. The guidelines should also provide practical advice on linking statistical business registers with other data sources for the production of business demography and entrepreneurship statistics.

3. In October 2017, the CES Bureau reviewed the draft Guidelines and requested the UNECE secretariat to send the document to all members of the CES for electronic consultation. The Task Force reviewed in April – May 2018 carefully all received comments from countries and organizations. The substantive comments are presented below, together with the responses by the Task Force on entrepreneurship statistics. The comments will be incorporated in the final version of the Guidelines prepared after the 2018 CES plenary session.

II. Summary of feedback

4. A total of 42 replies were received in response to the request for comments on the draft Handbook, from 40 countries and 2 international organizations. The following countries replied: Armenia, Australia, Austria, Belarus, Belgium, Canada, Croatia, Czechia, Denmark, Finland, France, Georgia, Germany, Hungary, Israel, Italy, Japan, Latvia, Lithuania, Malta, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Republic of Moldova, Romania, Russian Federation, Serbia, Slovenia, Spain, Sweden, Switzerland, the former Yugoslav Republic of Macedonia, Tajikistan, Turkey, Ukraine, United Kingdom and United States (Bureau of Labor Statistics). The following organizations replied: ILO and OECD.

5. Countries and organizations found that the Guidelines provide useful recommendations and practical guidance on developing and maintaining the statistical business register to support the production of business demography and entrepreneurship statistics. Most countries also indicated that they plan to use the Guidelines, for example to develop or improve business demography statistics or for training purposes.

6. All countries and organizations that replied to the survey found the Guidelines ready for approval by the CES, subject to incorporation of comments received during the consultation.

7. The specific comments received for the chapters of the Guidelines are presented in the Annex.

III. General comments

8. There were many favourable comments about the usefulness of the Guidelines and many countries commended the Task Force on the quality and usefulness of its work. A number of general comments are briefly presented below.

9.   Australia: The Guidelines are a thorough and useful addition to the Manuals available for statistical business register (SBR) compilation and use. The Guidelines provide some extensions that Australia could adopt, such as high growth enterprises, gazelles or family businesses.

10.   Austria: In general, the Guidelines provide a good supplement to the existing 2007 *Eurostat-OECD Manual on Business Demography Statistics*. The Guidelines are well structured and serve as a good basis for the production of business demography data, especially for those countries which have not yet produced such data.

11.   Belarus: The Guidelines will be useful for us and will answer many questions that are not addressed in the *Eurostat/OECD Manual on Business Demography Statistics*.

12.   Canada: The Guidelines are already proving very useful as we are proceeding with the development of a Longitudinal Business Database for Statistics Canada.

13.   France: These Guidelines are a good synthesis of key concepts and SBR requirements for business demography, and alternative approaches. They are useful for countries that are not OECD or EU members.

14.   Germany: The Guidelines are very comprehensive. They are ready to be used in daily work. Especially the given examples are very helpful. Chapters 2 and 3 give a very good overview on the topics.

15.   Hungary: The Guidelines enriched with good practical examples are highly appreciated in our office. They would support our current and future methodological and IT developments related to the business demography and entrepreneurship domains.

16.   Lithuania: The *Eurostat/OECD Manual on Business Demography Statistics* deals mostly with methodology for production of statistics on business demography. The *UNECE Guidelines on Statistical Business Registers* provide guidance on core issues of establishing and maintaining the SBR. The proposed Guidelines make a connection between those two, emphasizing the characteristics of SBR which are important for business demography and entrepreneurship statistics.

17.   Netherlands: The Guidelines provide some good answers to 'frequently asked questions' by methodologists, but there might be some topics which require more guidance.

18.   New Zealand: Stats NZ appreciates the effort of all those involved and wishes to express specific thanks to the staff from the UNECE.

19.   Poland: The Guidelines provide comprehensive information not only on ESS level. We appreciate that it takes into account EU requirements.

20.   Slovenia: It is important that Guidelines are based on legislation and Eurostat manuals. If there are inconsistencies we prepare data according to the legislation and Eurostat manuals. We would like to point out that it is not user-friendly if methodological guidance is provided in different documents.

21.   Spain: The Guidelines cover a wide frame of national practices and address the main business demography and entrepreneurship indicators.

22.   Switzerland: In general, we agree with the approach described in the document that corresponds to what we are implementing in business demography in Switzerland.

23.   Tajikistan: The Agency for Statistics of the Republic of Tajikistan plans to use the Guidelines to develop a national analogue of this guide.

24.   The Former Yugoslav Republic of Macedonia: The explanations and recommendations of the Guidelines will be useful in developing the SBR as the main source for producing business demography and entrepreneurship.

25.   ILO: The Guidelines are very useful in addition to the Manuals available for SBR compilation and use. The Guidelines will be a great addition and build on the information already available.

26.   OECD: The Guidelines represent an important tool for supporting the compilation of basic business demography and entrepreneurship statistics and the development of additional data based on the linking of different data sources.

IV. Proposal

27.   In the view of the support by countries and organizations, it is proposed that the Conference of European Statisticians endorses the *Guidelines on the use of statistical business registers for business demography and entrepreneurship statistics,* subject to the amendments presented in the Annex of this document*.*

Annex

A.   Comments on individual chapters of the Guidelines

1.   The Annex outlines the comments on the chapters of the Guidelines received from countries and organizations, together with a response from the Task Force that prepared the Guidelines. In addition, the Secretariat received detailed editorial corrections, comments and suggestions for clarifications which will be incorporated in the updated text of the Guidelines, and are not mentioned in this Annex.

1.   Chapter 1. Introduction

2.   Netherlands: The demography of a 'business population over time' should follow the conditions of the populations used to produce structural business statistics or FATS indicators. In this way, the developments in business demography statistics will be directly linked to the developments as described in the economic statistics.

3.   Russian Federation: With reference to Box 1.2, in addition to publishing business demography following a country specific method, Russian Federation also publish business demography compiled in accordance with the *Eurostat − OECD Manual on Business Demography Statistics* (Eurostat and OECD, 2007) with annual frequency.

4.   ILO: While not in conflict with the proposal for the 20th ICLS, ILO raised some issues concerning the definition of entrepreneurs and suggests a definition to be applied. ILO also highlights the distinction between ownership and control, which should be more clearly reflected in the Guidelines.

5.   Czechia, Spain, and Switzerland had additional minor comments for improvements that will be incorporated.

Response from the Task Force

6.   The advantages of consistency between various kinds of business statistics will be explained in more detail. The definition of entrepreneurs will be considered and validated, which also refers to the use of the term in other chapters.

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2.   Chapter 2. Definitions and key concepts of business demography statistics

7.   Austria: (a) In international data collection, only "business demography" (including self-employed businesses) and "employer business demography" statistics are produced, not "economic business demography" as stated in para. 2.14; (b) concerning para. 2.65, the fact that made investments can be used as criteria for an enterprise birth is new in comparison to the Eurostat-OECD Manual. If investments are used for the delineation of births, there would be an inconsistency with the active population, for which investments are not used; (c) With the Framework Regulation Integrating Business Statistics (FRIBS) there will be only one variable for "number of persons employed/employees" in active enterprises. Therefore, the same method should be applied for economic statistics and business demography statistics.

8.   Lithuania: It would be useful to clarify the continuity rules for enterprises that include more than one legal unit; what kinds of changes indicate the demographic event?

For example, if the controlling legal unit leaves the group and becomes a single unit? Or, if all subsidiaries change, will it still be the same unit? Many different cases are possible and a clear continuity algorithm should be available.

9. New Zealand: Concerning section 2.4.4 Size classes: The three lowest employment size classes currently used by New Zealand (0, 1–5 and 6–9) are almost similar to those used by the EU. We too can relate to this special focus on smaller enterprises in terms of understanding longitudinal dynamics of enterprise births that usually have just a few employees or even no employees at the start. Still, it was noted with interest that the highest size class adopted by the EU is 10+ employees. Our experience has been that, from a structural statistics point-of-view, there is considerable and growing user demand for more granular split of the 10+ employee size class, at times even at the higher end of 500+ and 1,000+ employees.

10. Portugal: It should be noted that in many countries, the 'enterprise' is (still) identified by the legal unit. Data at the level of local unit or establishment is often not available in many countries and/or there may be a lack of a unique identifier for local units/establishment, which increase the difficulties in performing longitudinal analysis.

11. Australia, Austria, Belarus, Czechia, Germany, Netherlands, Spain, United Kingdom and ILO had additional minor comments for corrections and improvements that will be incorporated.

Response from the Task Force

12. The coverage of business demography data in international data collections will be corrected. The criteria of "investments" is included in the operational rules of statistical units. Explanation of continuity rules for enterprises with more than one legal unit will be improved. The recommended size classes are those that are currently used in international data collections. Any further sub-divisions of size bands are of course possible if there is additional national user demand.

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3. Chapter 3. SBR functionality required to support the production of business demography statistics

13. Austria: The recommendations in this chapter are useful in order to integrate the longitudinal aspect into the SBR.

14. Croatia: The provided methods for establishing longitudinal data on units are very useful. It would be helpful with additional country examples, concrete examples or additional concrete explanations. For instance, in relation to para. 3.18 and in similar places, which provides the theoretical/general cases, where it would be helpful with additional practical explanations or examples.

15. France: This chapter is the most interesting. a) In figure 3.1, it is not clear that the frozen frames are extracted from the SBR, and the journal tables are updated by the SBR. All the tables are parts of the SBR; b) In section 3.2.1, the title should be "Live SBR" and not "Live BR"; c) In section 3.2.4, the order of the methods presented is the opposite of the order in which they are developed after; d) There are probably other methods to track units through time, even if they could be considered as combination or derivative of the options listed. Our current method is different, for instance. The daily update of demographic events (from administrative business register events) allows to define an easier process to get demographic longitudinal information.

16. Netherlands: The aim of business demography is to describe the developments between different frozen frames in time, as recommended in chapter 3. However, there are

different approaches for countries to use frozen frames. There may be different version of the (completely) frozen frame, which has been corrected for errors or demographic events, like births, deaths, mergers, takeover, etc. Using different versions of the frame will have different consequences for the statistics produced, and may cause extra complexity to produce indicators or require revision of already published indicators.

17.   New Zealand: Concerning section 3.2.1 Live BR, snapshots, and journal tables, para. 3.30 points out that all the information required to create a full and complete longitudinal image of statistical units may not be available in the SBR through its components, i.e. the live register, snapshots and journal tables. Interestingly though, the current Stats NZ SBR follows a very "longitudinal-friendly" data structure that essentially eliminates the need to produce and maintain ongoing snapshots or journal tables separately from the "live" register itself. It's no longer essential for us to create and freeze snapshots to get a complete longitudinal image of a given statistical unit. The live business register itself allows us to go back in time and create snapshots accurately and at will. These snapshots are not prone to the usual limitations attributed to a combination of journal tables and frozen snapshots (para. 3.29).

18.   ILO: The shortcomings of register-based data in countries with a large informal sector should be mentioned explicitly. Although these guidelines may be intended mainly for the developed world, developing countries will inevitably see them as the gold standard and try to use them.

19.   Spain: The content of this chapter is not easy to understand. The concepts of "statistical unit" and "longitudinal unit" and the management of their respective identifiers could need additional explanations within a clearer scheme.

20.   Austria, Belarus, Denmark and Spain had additional comments for minor corrections and clarifications that will be incorporated.

Response from the Task Force

21.   The Task Force will add practical explanations or example(s), incorporate the comments and suggested improvements, and clarify the issue(s) highlighted during the consultation.

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4.   Chapter 4. Linking the SBR with data from other sources

22.   Austria: (a) The structure of this chapter is confusing; (b) The relevance of micro data linking (MDL) is not clear in the context of this chapter or the Guidelines as a whole. The content should be more elaborated; (c) Figure 4.1 should be better explained or dropped. Instead it would be better to just refer to the SBR Guidelines; (d) Box 4.2, first paragraph: business demography is a distinct dataset from structural business statistics, but with FRIBS, one single variable for the population of active enterprises and their employment is planned; (e) Why is the definition of family businesses placed in para. 4.4.1? We would rather expect it in chapter 2; (f) In section 4.4.2 it is unclear what the expression "Time spent as entrepreneur" means. Is it the working time (measured in hours)? Is the word "entrepreneurship" right? The LFS just gathers information about self-employment and employment.

23.   Belarus: More explanations should be provided about "Mass imputation" and "Repeated weighting" for missing data, which are mentioned in section 4.6.

24.   Denmark: It is not clear if the definition of the entrepreneur as a statistical unit accepts double counting of entrepreneurs who starts more than one enterprise.

25.   Lithuania: Very useful and interesting examples of different data matching methods and their interpretation.

26.   Portugal: With reference to para. 4.22 Portugal provided the thresholds used for the identification of exporting companies in a Portuguese statistical study.

27.   Spain: The content of this chapter is quite comprehensive and easy to follow. The examples provided are interesting and relevant to the subjects treated. When dealing with "Data from surveys – limitations and solutions for MDL", a more detailed explanation of "Repeated weighting" method could be needed.

28.   ILO: (a) It would be useful to review the concept of entrepreneur (section 4.4.1) before jumping into an operational definition; (b) The current process of reviewing ICSE-93 should be mentioned here. Not sure what the publication schedule for these guidelines is but it seems likely that the 20th ICLS resolution will be adopted before publication. Reference could be made to the current draft which includes a definition of entrepreneurs; (c) Para 4.33 is consistent with the approach taken in the draft 20th ICLS resolution, but does not capture the element of innovation noted in the conceptual definition in the introduction. Ownership and control is also used in the 20th ICLS. It would be useful to mention that it correctly results in exclusion of 'dependent self-employed' (dependent contractors, GIG economy workers), contributing family workers and members of cooperatives who own but don't control the cooperative as they do not have a decisive vote. Possible inconsistencies with the definition in Box 1.1 should be clarified; (d) One objective of these guidelines should be to improve the identification of owner-managers in all statistical sources including administrative registers and establishment surveys. They should be considered a separate sub-group so that users of statistical information can select the specific group in which they are interested. Para. 4.34 and 4.35 are consistent with the proposals for the 20th ICLS except that ILO would not assert that they are dependent. Their economic risk is mitigated due to limitations of liability; e) In Table 4.1, "Time Spent as entrepreneur" is not clear; f) Section 4.2: Only if a specific question is asked – many other highly relevant characteristics are available in LFSs: demographic characteristics of the person, occupation, hours worked, earnings.

29.   OECD: This chapter deals with a very important issue, which is the development of new business demography and entrepreneurship statistics via linking SBR with other data. A few points that could be improved: (a) The scope of the data linking presented is quite comprehensive, and includes also areas, such as "R&D and innovation data", or "group status, size class and foreign ownership", where the relevance of the linking for producing business demography and entrepreneurship statistics could not appear obvious to unexperienced users of the Guidelines. It would be useful to provide examples of the types of statistics resulting from the linking, clarifying whether the demographic dimension is included and how they can contribute to the analysis and understanding of entrepreneurship; (b) The presentation of the linking of the SBR with data on trade is not linear, there are repetitions that make the content of 4.3.1 and 4.3.2 somewhat unclear; (c) There are several typos in this chapter and it is recommended to reread it carefully before finalising it.

Response from the Task Force

30.   The context of this chapter on linking will be made clearer and the structure of the chapter improved. More focus will be given to the concept of entrepreneurs with special consideration of the ongoing work of the ILO on the revision of the status in employment classification.

5. Chapter 5. Non-SBR based approaches to the production of business demography statistics

31.   Portugal: The use of the term "enterprise" in paragraphs 5.30 and 5.43 should be in line with the definition of the term, which should be used carefully.

32.   ILO: It would be useful to know the method used for identification of establishments and whether unregistered informal sector establishments are included.

Response from the Task Force

33.   Paragraphs 5.30 and 5.43 are part of a text on practice in South Korea. For identification of informal sector establishments reference will be made to the SBR Guidelines.

6. Chapter 6. Examples of business demography and related entrepreneurship indicators

34.   For chapter 6 there were only minor editorial comments or comments for clarification by Austria, Czechia and Denmark, which will be incorporated.

7. Chapter 7. Topics for further work and research

35.   The comments listed below include the replies for question 3 of the survey: Do you find that the list of topics for future work (in Chapter 7) is complete, and the replies to the specific question on Chapter 7: Topics for further work and research. The majority of countries see the list of topics for future work as complete. However, many countries suggested additional issues to be included on the list, which are provided below.

36.   Australia: The list in the Manual is comprehensive. Some further ideas include: using the SBR to compile data on different business arrangements, such as family businesses, home based businesses, Indigenous businesses; uses of longitudinal data as an input to policy analysis. This has the potential to be a powerful tool.

37.   Hungary: The list of topics for future work is complete. The linking of databases to achieve additional characteristics is especially supported due to the low cost, the possibility to reduce response burden and as it opens for producing additional statistics to users.

38.   Israel: A suggestion as a topic for future work/discussion is: EG (Enterprise Groups) – In a globalization era, it is important to find ways of tracking relevant and/or potential units by using "Profiling" methods and/or "Business Register Survey", manage the units and maintain them in a SBR.

39.   Lithuania: Administrative data are usually available for legal units. But linked into the group (according to the definition of statistical unit) they can have different value and quality, because the independent enterprise (legal unit) can behave differently from that belonging to an international enterprise group. Some characteristics can depend on information about the whole enterprise group not only about the single legal unit. Statistical and administrative data linking in case of enterprise groups is an interesting issue requiring research and analysis. It could be a topic for further work and research.

40.   Mexico: It would be useful to emphasize the need for more work on the characteristics of businesses for providing more input for Global Value Chain (GVC) analysis in the context of economic globalisation.

41.   Netherlands: Additional issues would include: (a) The opportunity to draw samples from business demography populations and collect extra information to describe new topics, like the surveys of 'Factors of Business Success' or 'Access to Finance'; (b) 'Data mining' technics to derive extra characteristics, e.g. for franchising; (c) 'Global' business demography statistics, e.g. by adding the country of the global decision centre (GDC) from the FATS-statistics; (d) Regional business demography statistics based on local units (Section 2.1.4), which requires delineation of employment (turnover) and events on the level of the local unit; (e) guidelines on quarterly business demography statistics (Section 2.1.5); (f) Business demography statistics of sub-groups, e.g. family businesses.

42.   Portugal: Agrees with the suggested topics, and proposes additional topics to be included: (a) Concerning the framework of business demography statistics (paragraph 7.7) in addition to the threshold imposed on employers for business demography a threshold for the whole population should be applied to improve comparability and avoid overestimation of business demography indicators; (b) Establish practical and harmonized definitions for starts ups, scale ups and family businesses; (c) The commonly used definitions of unicorns, cockroaches, zombies etc. are based on the concept of the legal unit, while the enterprise is a statistical concept. It would be interesting to explore these definitions based on the enterprise definition.

43.   Romania: This chapter can be improved by adding information on linking of data between trade statistics and business demography.

44.   Russian Federation: In future, more attention should be paid to the development of various approaches to linking microdata about enterprises from the SBR with microdata about entrepreneurs from other sources of information, including population sample surveys, in order to expand the analytical capabilities of business demography statistics and produce business statistics without increasing the burden on respondents.

45.   Slovenia: While it is possible to link databases, much data will be confidential since the population in Slovenia is not large.

46.   Spain: Two topics could be added: treatment and continuity rules of enterprises consisting of more than one legal unit, and enterprise groups' demography.

47.   Turkey: It would be useful with guidance on revision of business demography indicators because of the availability of new data sources or changes in methods or coverage. The Guidelines do not suggest how to treat discrepancies in birth/death/survival rates because of such changes. For example, if 20% of the population of active enterprises in a reference year is excluded because of use of turnover threshold from newly available data, the death rate will be affected too much.

48.   ILO: Some suggestions for possible further work and research include: uses of longitudinal data as an input to policy analysis and formulation; use of the SBR to compile data on different business arrangements, such as family businesses, and home-based businesses.

49.   OECD: A topic that should be considered, which is missing from the proposed list, concerns methods to improve the timeliness of business demography statistics, and/or to produce timely indicators for business creations. Eurostat and the OECD have explored solutions using different approaches that could help orienting future work in this area.

Response from the Task Force

50.   The suggested topics for further work and research on the use of SBRs for producing business demography and entrepreneurship statistics will be incorporated in chapter 7 of the Guidelines.

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8. Glossary

51. Czechia, Portugal and Spain suggested including the definitions of the following terms: churn rate of businesses (mentioned in paragraph 6.3), longitudinal identifier, longitudinal data and longitudinal unit. It was also noted that the definition of establishment should be linked to the definition of Local Kind of Activity Unit.

52. ILO: The Glossary is comprehensive. One comment would relate to Activity [Business Demography] – Some countries use other year ends due to local reporting requirements. Where the calendar year cannot be met, this should be noted clearly for transparency. We should have the options available for different reporting.

53. There were minor editorial comments or comments for clarification by Australia, Austria and Belarus.

Response from the Task Force

54. The proposed terms will be incorporated in the Glossary.

9. Annexes

55. There were no comments to the three annexes of the Guidelines.

10. Additional comments:

56. Many countries, including Belarus, Canada, Germany, Hungary, Switzerland and Tajikistan, thanked the Task Force for its work and appreciated the usefulness of the Guidelines.

57. Austria: The document is well structured but there is a need to link parts better. Cross-references are missing throughout the document. Furthermore, it would maybe useful to elaborate a list of FAQs as an annex to the document.

58. Czechia: It seems strange that the Guidelines do not mention business registrations and bankruptcies that are part of the EUROSTAT-OECD Business demography and SBR. In addition, we recommend mentioning confidentiality and legal issues connected with business demography and the SBR.

59. Finland: It could be beneficial, for international comparisons to summarize different countries' approaches to longitudinal SBRs/business demography statistics. This would need a reference period, as SBR is developed, and therefore publishing this information elsewhere may be the best option. The purpose of this information would be to help countries seek assistance from countries which are in similar situations.

Response from the Task Forces

60. The Glossary includes definitions, explanations and references to sources, which replaces a list of FAQ. Issues related to business registrations, bankruptcies and confidentiality will be clarified in the Guidelines

61. A summary of countries' approaches to longitudinal SBRs and business demography is an interesting issue for possible future work; however, it is not in the scope of the current guidelines.