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Topic: Ethics and independence

**WHAT DO THE FUNDAMENTAL PRINCIPLES OF OFFICIAL STATISTICS IMPLY FOR THE
DISSEMINATION OF RESULTS FOR SPECIFIC POPULATION GROUPS?**

Submitted by UNECE¹

I. DOES LEGISLATION PROVIDE GUIDANCE?

1. In disseminating results of official statistics, National Statistical Offices (NSOs) and other producers of official statistics at national level are sometimes confronted with a delicate issue: what to do with results about special population groups, through whatever characteristics they may be defined, which, in the view of some users, might reinforce or create negative perceptions held about such groups? We may introduce here the term of *sensitive group-specific results*.² Is it the task of official statisticians to act preventively before such sensitive results are released, to take possible effects on perceptions into account in their decisions about what and how to disseminate, and ultimately to refrain from disseminating them at all?

2. An explicit answer to this question is unlikely to be found in national legislation, be they statistical or other. Statistical legislations are in most cases very strict with respect to banning disclosure, and use for any non-statistical purposes, of any data about individual persons or private households, and in most cases also about private economic actors. This includes also the so-called indirect disclosure, e.g. through aggregates composed of only two or three units. Some countries, in order to be on the safe side, even include a relatively high threshold for the minimum number of persons or households from which an aggregate to be released has to be composed. But we are not aware of any statistical legislation that prevents results about specific groups of persons, the characteristics of which are collected in the production process of official statistics, from being compiled and, if found free from the risk of indirect disclosure for identifiable persons or households, from being released.³

3. Data protection legislation, at least in Europe, defines certain characteristics of persons such health status, religious affiliation, criminal record etc. as particularly sensitive. The consequence is a higher level of protection for such data, or in other words, additional obstacles for government agencies to collect and process these data. However, official statistics (as well as research) as government functions not directed towards measures for or against individual persons are normally exempted from these additional requirements for processing sensitive data, provided it is exclusively for statistical purposes. In terms of protection of groups,

¹ Prepared by Heinrich Brünger, Director, UNECE Statistical Division (heinrich.bruengger@unece.org)

² There is another group of sensitive results of official statistics: results that influence markets, notably financial markets. Such results are regularly published by agencies of official statistics and accepted by all users as authoritative, even if some of these results are preliminary and will be superseded at a later moment by results on a more exhaustive basis.

³ Some statistical legislation prevents certain characteristics (e.g. race or ethnic origin) from being collected at the outset. This may be interpreted as a preventive measure against the release of results that might reinforce negative perceptions. On the other hand, such a ban also prevents the gaining of insights and the carrying out of evidence-based analysis of important differences that may subsist.

data protection laws provide some protection to associations as legal persons, but for groups merely defined through having common characteristics.

4. Lastly, some countries have legislation that bans and penalizes public derogative statements against certain groups, notably those defined by race, ethnicity or citizenship. Such statements have to have a deliberate derogatory character. Official statistics as provider of factual information cannot be the object of infringements against such legislation, if the considerations given below are fully respected.

II CRITERIA FOR RESULTS OF OFFICIAL STATISTICS

5. Whenever ethical issues around official statistics arise and do not find clear answers in national legislation, the consequence is that this issue should be assessed and *decided within the system of official statistics*, supposed to work under the *principle of professional independence*, through the mechanisms defined in the statistical legislation.⁴ Professional independence is one of the ten Fundamental Principles of Official Statistics adopted by the UN. For the UNECE region, these principles were not only adopted at the level of chief statisticians, but by the highest body of UNECE in 1992 composed of the Ambassadors of the UNECE member countries in Geneva.⁵

6. The principle of professional independence reads as follows (2nd principle): “To retain trust in official statistics, the statistical agencies need to decide according to strictly professional considerations, including scientific principles and professional ethics, on the methods and procedures for the collection, processing, storage and presentation of statistical data.”

7. What is crucial in the present context is the term “strictly professional considerations”, because this means that any considerations about whether certain users, including the media, might like or dislike new results, and comment on them from their point of view, cannot be taken as argument not to disseminate at all results that otherwise fulfil the criteria of official statistics. These criteria are as follows:

- a. Relevance
- b. Quality
- c. Use of professional standards (if possible internationally approved standards)
- d. Compliance with all other fundamental principles, notably impartiality

We will now take up these four conditions in turn to examine what they imply for the present context of sensitive group-specific results.

Relevance

8. The principle of relevance (“official statistics that meet the test of practical utility”) is certainly met if results of official statistics address issues that are debated in the media. The argument that sensitive group-specific results of official statistics are “too political” to be published is counterproductive, because if results are only published provided they have no potential political impact, then the criterion of relevance is unlikely to be met by the whole system of official statistics. An issue of intense political debate always fulfils the criterion of relevance of official statistics.

Quality

9. Quality as such is not mentioned explicitly in the Fundamental Principles; it is implied in the use of professional standards. Other codes for official statistics, such as the EU Code of Practice, are more explicit in

⁴ Statistical legislation provide in many countries for advisory committees, which may be used for discussing such issues. Statistical agencies are free to consult with whoever they want. In terms of final decision, however, professional independence implies that the chief statistician or head of the NSO is responsible for such decisions throughout the national system

⁵ UNECE Decision C (47), 15 April 1992

this respect. Quality issues may well be a determining factor in deciding whether sensitive group-specific results can be released or not: the number of observations for a small group (or small area) may not be high enough to fulfil the quality requirements, notably when the basic data source is from sample surveys. Another source of bias in household surveys may come from the different degrees of coverage of certain groups in the sampling frame (e.g. recent immigrants), or from the field operation (e.g. through the requirement that interviews take place in the national language only). In these cases, results should not be released to anybody outside the statistical system.

10. However, the quality criterion has nothing to do with the effect a statistical result may have on possible perceptions of users, but it is based on the inherent data quality and notably the accuracy and robustness of the result. In other words, quality considerations are applicable to all group-specific results, whether sensitive or not. Results for small groups that are likely to be affected should therefore undergo an additional quality check, over and above the normal procedures applicable in a statistical system for main aggregates.

Use of professional standards

11. The most important principle to apply for sensitive group-specific results is a careful use of good practices and standards. In most cases, group-specific results have a numerator and a denominator; a simple comparison of absolute numbers, without correcting at least for the size of the different groups (or of the specific group and the total population), cannot be interpreted. Assuming that the quality aspects for the statistics used as numerator have been checked and found fit for use, the choice of the denominator is very critical for sensitive group-specific results. Simple solutions, like per capita indicators, may be inadequate or even misleading. This may be best illustrated by an example:

12. The number of persons arrested (or charged, or convicted) is a key information about the topical issue of security, crime and the judicial system in the wide sense. Its decomposition by certain characteristics such as sex and age, but also by citizenship or ethnic group, is a statistical result that gets a lot of media attention and is commented widely. Let us look closer at the simple solution of number of such persons per capita. In many countries, this indicator will reveal clear differences between nationals and foreigners. Does a higher indicator of this type necessarily show a higher degree of criminal behaviour for the latter group?

13. The first pitfall is a mismatch in coverage between numerator and denominator: the denominator only refers to the resident population, whereas the numerator contains both residents and non-residents, with most non-residents being foreigners. If non-residents are excluded from the numerator, the difference is likely to shrink. The correct denominator for non-residents who are arrested would be the number of non-residents visiting a country (tourists plus visitors).

14. Furthermore, the frequency of arrests (charges, convictions) is highly skewed by sex and age, showing the highest frequency for young adult males. If the structure of the resident population between resident foreigners and resident nationals differs markedly, this factor may explain another part of the difference in the crude crime rates. It is good professional practice to adjust such indicators for structural difference between groups if they matter as in this case. Selecting the best indicators for group comparisons from the professional points of view, and supplementing these indicators with quantitative analysis about the factors that explain the gap, mark the essential difference between crude and professional reporting of such differences.⁶

⁶ These considerations apply in principle also to other comparisons, not only those between groups within a country. For comparisons over time, structural effects may matter when long periods are considered. For regional differences, the same considerations as for group comparisons apply, and the selection of indicators, and especially denominators, and the need for adjusting for structural differences, are fully applicable. International comparisons may also gain from such analysis, but there are two additional problems involved here: first, availability for break-downs to correct for structural effects, or the availability of more suitable denominators, may be insufficient, and secondly, institutional differences may play a more important role, especially for the numerator, than the differences in population structures for the denominator.

15. As a summary, the principle of adherence to professional standards in the context of sensitive group-specific results is more than the simple taking over recommended international standards for indicators at the national level; it implies the use of professional standards for analyzing discrepancies, i.e. for methods rather than for the formulation of indicators. The exact definition of the best suitable indicators has to be fine-tuned for inter-group comparisons to the different structures and exposure rates if they differ substantially. Such analysis has to precede not only the dissemination of results, but the definition of the results and planning of the whole processing phase. It may also imply combination with other data sources about the same phenomenon.

Other relevant principles

16. Concerning the criterion d above, the compliance with the other fundamental principles, the notion of *impartiality* is key in sensitive group comparisons. In presenting their results, official statisticians use as far as possible internationally agreed terminology that is part of statistical standards. However, such a terminology may not always exist as a statistical standard, and in this case, there is a certain risk for official statisticians to be pushed towards the use of a terminology promoted by those who are strong advocates for a certain cause. As an example, the use of the term "discrimination" as part of an indicator of official statistics is not in line with the notion of impartiality; such an interpretation has to be left to a user. Together with professional independence, impartiality requires that the functions of official statistics and policy advocacy are strictly separated, and that official statisticians, in their dissemination activities, refrain strictly from policy-prescriptive comments. On the other hand, this principle should not be interpreted as a ban on all forms of analysis, especially retrospective analysis, by agencies of official statistics; for non-expert users, it is even necessary that official statisticians offer partial explanations that can be substantiated by facts, notably for sensitive group-specific comparisons.

17. Another consequence of impartiality is that *results of official statistics be released simultaneously*. In the IMF SDDS and GDDS, as well as in the EU Code of Practice, this is made explicit. In the context of sensitive group-specific results, this may look inconvenient at first sight, since it prevents statistical agencies from granting selective access to specified users only for such results. However, simultaneity of release and universality of access are such cornerstones of professional ethics that they have to be upheld in all circumstances, even for sensitive group-specific results.

18. Lastly, the 4th fundamental principle "The Statistical Agencies are entitled to *comment on erroneous interpretation and misuse of statistics*" offers an ex-post safeguard to extreme cases of user abuse of statistics released by the system of official statistics. This principle is often forgotten or gets low consideration, because it is formulated as entitlement rather than obligation. However, it is clearly preferable to have a pro-active release policy, based on professionalism, quality, universality and simultaneity, which is strictly the same in all areas of official statistics, including those with sensitive group-specific results, together with a defined policy for reacting to erroneous interpretation and misuse, rather than a policy that bans all sensitive group-specific results from public release altogether because of fear of intentional misinterpretation by media or specific users.

Statistical services

19. The release of results of official statistics is the most visible form of dissemination. They imply a *triple seal of authoritativeness from official statistics*: that the data used are of good quality; that the concepts used for the results, and the methods for compiling them, are based on recognised standards of official statistics that were developed and are applied without political interference; and that the production and dissemination process fully conforms to all fundamental principles of official statistics, including notably relevance and impartiality. However, there is another form of dissemination, which for simplicity we will call *statistical services*: this is the production of *tailor-made results* from existing unit-level data according to the specification of one specific user, or the provision of micro-level data without identifiers to authorized users for their own compilations. In this statistical services mode, the second of the three aspects of authoritativeness mentioned above cannot be maintained; the recognized statistical standards are replaced by the user's own

specific requirements. In addition, users are of course free to disseminate, under their own responsibility, and after having checked for disclosure risks, any results created through such types of services.

20. In this mode, there is no way for statistical agencies other than the ex-post reaction based on the 4th principle to prevent any sensitive group-specific result from being compiled, disseminated and commented. Because this mode exists as an important pillar of the client-orientation of statistical systems, a policy for the release of statistical results that would shy away from highly topical group-sensitive results is counterproductive, because it would invite third parties to fill the gap through results obtained through statistical services, which are likely to diverge from each other (because driven by specifications of individual users), and in which professional ethics is more than often compromised by considerations of policy advocacy. In a world where dissemination of results is made easier and easier, statistical results with the full three dimensions of authoritativeness of official statistics are necessary as a benchmark, especially for highly topical issues that are in the middle of political debates.

Summary

21. National statistical systems should not refrain from producing and disseminating sensitive group-specific results for the simple fear of being questioned or criticized; it is part of the responsibility of official statistics to provide facts about relevant issues. The production and dissemination of sensitive group-specific results is perfectly compatible with the mandate of official statistics, provided that the quality of the data used is sufficient; that the indicators chosen are based on professional considerations; and that a thorough analysis of the results accompany the release, with strict observance of the separation between statistics and policy advocacy. In addition, a clear policy of reacting to erroneous interpretation and misuse by users should be developed and followed by statistical agencies.
